Anexa 1

SPECFICATIE TEHNICA

Model: Definiu XR/f ST (Cod Produs: S3926VA);
Producător: Sedecal pentru GE Healthcare Țara: Spania

Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificarea tehnică deplină propusă de către autoritatea ofertantă
Sistem radiografic digital	**Sistem radiografic digital**
Descriere Sistem radiografic pentru uz general(oase, flurografie a pulmonilor etc) este utilizat pentru efectuarea procedurilor de rutina cu raze x pentru diagnostic	Descriere Sistem radiografic pentru uz general(oase, flurografie a pulmonilor etc) este utilizat pentru efectuarea procedurilor de rutina cu raze x pentru diagnostic **Definium XR/f ST-Product Datasheet - S3926VA**
Parametri	Parametri
Modul radiologic	Modul radiologic **DA** Definium XR/f ST-Product Datasheet
Digital Detector	Digital Detector **DA** Definium XR/f ST-Product Datasheet
Tip masă: Tip Piedestal cu elevator	Tip masă: Tip Piedestal cu elevator - **DA** Definium XR/f ST-Product Datasheet
Motorizata	Motorizata **DA**
Wireless detector	Wireless detector **DA**
Suport electric	Suport electric **DA**
Mișcarea mesei Longitudinală, cm ≥ 90 cm	Mișcarea mesei Longitudinală, cm - 90 cm **DA** Definium XR/f ST-Product Datasheet PG.4/13 Longitudinal travel 90 cm (±45cm)
Laterală, cm ≥ 20 cm	Laterală, cm - **23 cm** Definium XR/f ST-Product Datasheet PG.4/13 Transverse tabletop travel 23 cm (±11.5 cm)
Caracteristici:	Caracteristici:
Densitatea mesei ≤ 1 mm Al	Densitatea mesei ≤ 1 mm **DA** Al Definium XR/f ST-Product Datasheet PG.4/13 Tabletop Al. equivalence < 1 mm Al. at 100 kVp
Dimensiunea minim 225 cm x 80 cm	Dimensiunea - 220 cm x 82,5 cm **DA** Definium XR/f ST-Product Datasheet PG.4/13 Tabletop dimensions **220 cm x 82,5 cm**
Înălțimea de la podea intre valorile 60-80 cm	Înălțimea de la podea **77 cm** Definium XR/f ST-Product Datasheet PG.4/13 Height from floor**.**
Miscarea mesei motorizat	Miscarea mesei motorizat **DA**
Controlul mesei este prin intermediu comutatorul de picioare	Controlul mesei este prin intermediu comutatorul de picioare **DA** Definium XR/f ST-Product Datasheet PG.4/13 Table lock controls Full-length foot switch along table base.
Frina/ sistem de blocare tip electromagnetic	Frina/ sistem de blocare tip electromagnetic **DA** Definium XR/f ST-Product Datasheet PG.4/13 Table locks Electromagnetic brakes
Incarcarea (alimentarea cu curent electric) automata odata ce este inclus in spatiul pentur detector.	Incarcarea (alimentarea cu curent electric) automata odata ce este inclus in spatiul pentur detector. **DA** Definium XR/f ST - Product Datasheet - Fixed Table -Auto-charging system- PG.4/13
Miscarea automata a detectorului impreuna cu tubul.	Miscarea automata a detectorului impreuna cu tubul. **DA** - Product Datasheet - Options -Mechanical tracking with table docking.
Greutatea maximă a pacientului, kg ≥ 300 kg	

	Greutatea maximă a pacientului, kg - 300 kg **DA** Definium XR/f ST-Product Datasheet PG.4/13 Tabletop weight limit 300 kg
Spatiu pentru detector cm ≥ 40x40	Spatiu pentru detector cm - 43x43 **DA** Definium XR/f ST-Product Datasheet PG.4/13 Detector bucky Sizes 35x43 cm (14x17 in.) or 43x43 cm (17x17 in.) either orientation – este prezent maxim 43x43 cm (17x17 inch)
Sistemul BUCKY a mesei Tip control motorizat , va urma automat suportul tubului	Sistemul BUCKY a mesei **DA**
Brat Orizontal motorizat da	Tip control motorizat , va urma automat suportul tubului **DA**
	Brat Orizontal manul controlabila - **DA** Definium XR/f ST - Product Datasheet -Floor Mounted Tube Stand -Manual movement, with fully counter balanced horizontal tube arm- PG.3/13
Mișcarea logitudionala a tubului ≥ 200 cm	Mișcarea logitudionala a tubului 164 cm **DA** Definium XR/f ST-Product Datasheet PG.3/13 Floor Mounted Tube Stand Longitudinal tube travel 164 cm
Mișcarea verticala a tubului ≥ 150 cm	Mișcarea verticala a tubului ≥ 155 cm**DA** Definium XR/f ST-Product Datasheet PG.3/13 Vertical tube travel 155 cm
Punctul focal de la podea minim de la 40 cm (sau mai mic de 40 cm) pina la 190 (± 2cm)	Punctul focal de la podea minim de la 40 cm (sau mai mic de 40 cm) pina la 195 cm **DA** Definium XR/f ST - Product Datasheet -Focal spot-to-floor distance -Variable from 40 to 195 cm - PG.3/13 – se incadreaza intre valorile 40-195 cm
Rotia tubului X-ray, total ≥ 200 ° (+ 100 °, 0 °, - 100 °)	Rotia tubului X-ray, total - 180 ° (+ 90 °, 0 °, - 90 °) **DA** Definium XR/f ST-Product Datasheet PG.3/13 Tube stand column rotation ± 180° (detents at +90°, 0°, -90°)
Miscarea transversala a tubului, total ≥ 200 mm Comenzile consolei brațului cu tuburide sa fie prezent minimi miscarile – Logitudional, transversal, vertical, angular si blocare sub ungh.	Miscarea transversala a tubului, total - 150 mm Comenzile consolei brațului cu tuburide sa fie prezent minimi miscarile – Logitudional, transversal, vertical, angular si blocare sub ungh. **DA** Definium XR/f ST - Product Datasheet -Tube arm console controls -Longitudinal, transverse, vertical, angular and rotational lock control buttons- PG.3/13.
Control prin intermediul unui ecranTouchScreen Montat pe capul tubului cu raze X, cu capacitatea de a afisa imaginea dobândită. Posibilitatea de a selecta parametrii și procedurile.	**Control prin intermediul butoanelor. Definium XR/f ST - Product Datasheet -Tube arm console controls - Longitudinal, transverse, vertical, angular and rotational lock control buttons- PG.3/13**
Sistem de blocare electromagnetic BUCKY vertical Motorizat cu WI-Fi detector Spatiu pentru detector cm ≥ 40x40	Sistem de blocare electromagnetic **DA** BUCKY vertical Motorizat cu WI-Fi detector **DA** Spatiu pentru detector cm - 43X43 Definium XR/f ST - Product Datasheet - Wall Stand-Detector bucky sizes 35x43 cm (14x17 in.) or 43x43 cm (17x17 in.) either orientation pg.6/13 maxim este pentru 43x43 cm (17x17 inch
Sistem de blocare electromagnetic	Sistem de blocare electromagnetic **DA** Definium XR/f ST - Product Datasheet - Locks Electromagnetic brakes pg.6/13
Deplasarea verticala, cm ≥ 150 cm (de la 30-180 cm)	Deplasarea verticala, cm ≥ 150 cm (de la 30-180 cm) Definium XR/f ST - Product Datasheet - Vertical bucky

Incarcarea (alimentarea cu curent electric) automata odata ce este inclus in spatiul pentru detector. Frine electromagnetice	travel 155 cm (from 35 to 190 cm) pg.6/13 - Are valoare de **155** cm (de la 35 la 190 cm) Incarcarea (alimentarea cu curent electric) automata odata ce este inclus in spatiul pentru detector. **DA** Frine electromagnetice **DA Definium XR/f ST - Product Datasheet -Wall Stand -Locks-Electromagnetic brakes - PG.6/13 - Frine electromagnetice**
Posibilitatea de incarcare a dectorului in timpul fluxului de lucru. Detector wireless- 2 bucati: Mărimea detector, cm ≥ 40x40	Posibilitatea de incarcare a dectorului in timpul fluxului de lucru. **DA** Detector wireless- 2 bucati: **DA** Mărimea detector, cm - 43x43 **DA** **AeroDR 1717HD**
Configurare detector: Rezoluția matricei, pixeli minim 2500x2500 Caracteristicele detectorului Distanța dintre pixel ≤150µm Tip de transmiteer prin Wi-fi Tipul max de vizualizare dupa expunere ≤ 6 sec Bloc / Sistem de incarcare separat fara cablu de interconectare in fiecare unitate Bucky Scintilator / materialul de decție CsI Acumulator intern inclus tip Lithium Ion pentru fiecare unitate Tipul de lucru in autonomie (de la acumulator) ≥ 150 de expuneri Incarcarea acumultorului completa in maxim 15 minute. Greutatea admisibila pe toata suprafata este de minim 150 kg Conectarea- Fără fir , Wi-fi Generator de raze X Caracteristici Puterea ≥ 60 kw Intervalul in Kv minim 40-150 Kv cu control in pasi de 1Kv	Configurare detector: Rezoluția matricei, pixeli **3488×4256** Caracteristicele detectorului Distanța dintre pixel - 100µ /200 µ este selcetabil Tip de transmiteer prin Wi-fi **DA** Tipul max de vizualizare dupa expunere ≤ 6 sec **DA** Bloc / Sistem de incarcare separat fara cablu de interconectare in fiecare unitate Bucky **DA** Scintilator / materialul de decție CsI **DA** Acumulator intern inclus tip Lithium Ion pentru fiecare unitate **DA** Tipul de lucru in autonomie (de la acumulator) 251 de expuneri **DA** Incarcarea acumultorului completa in - 15 minute. **DA** Greutatea admisibila pe toata suprafata este de -180kg **DA**
Intensitate curentului minim in intervalul 10-750 mA, cu control in pasi, sa se prezinte numarul de pasi. Timpul de expunere in intrevalul minim 0.001-10 sec Intervalul mAs minim 0.1mAs-500mAs Alimentarea de intrare – 380/480 VAC – 3 faze Sistem de autodiagnostica. Tubul de raze X Dimensiunea spotului focal, mm 0.6 si 1.2 Voltajul anodic minim 150 kVp Tipul tubului Anod Rotativ Controlul razelor X a tubului montat Spot focal mic ≤ 40 kW Spot focal mare ≥100 kW Capacitatea anodului de stocare a căldurii ≥ 400 KHU Colimator Tip obligatoriu automat Puterea ≥ 200 lx	Conectarea- Fără fir , Wi-fi **DA** Generator de raze X **DA** Caracteristici Puterea - 60 kw **DA maxima 80 Kw** Intervalul in Kv minim 40-150 Kv cu control in pasi de 1Kv **DA** Intensitate curentului in intervalul 10-650 mA, cu control in pasi, sa se prezinte numarul de pasi. **DA** Timpul de expunere in intrevalul minim 0.001-10 sec **DA** Intervalul mAs minim 0.1mAs-500mAs **DA** Alimentarea de intrare – 380/480 VAC – 3 faze **DA** Sistem de autodiagnostica. **DA** Tubul de raze X Dimensiunea spotului focal, mm 0.6 si 1.2 **DA** Voltajul anodic minim 150 kVp **DA** Tipul tubului Anod Rotativ **DA** Controlul razelor X a tubului montat **DA** Spot focal - 40 kW **DA** Spot focal - 102 kW **DA** Capacitatea anodului de stocare a căldurii - 400 KHU **DA** Colimator

Anexa 1

Fitre Motorizate	Tip obligatoriu automat **DA**
Indicator de centrare laser	Puterea - **160 lx DA**
Suspensia tubului	Fitre Motorizate **NU**
Control razelor x a tubului montat	Indicator de centrare laser **NU**
Calculator	Suspensia tubului **DA**
Procesor minm I5 la 3,0 MHz	Control razelor x a tubului montat **DA**
Memorie RAM minim 8 GB	Calculator
HDD minim 1 TB	Procesor minm I5 la 3,0 MHz **DA**
Sistem de operare minim Win 10 PRO	Memorie RAM minim 8 GB **DA**
Placa de retea Standartul RJ-45 minim 2 porturi	HDD minim 1 TB **DA**
Display tip LCD Multi-Touch	Sistem de operare minim Win 10 PRO **DA**
Rezoluția minim 1920x1080	Placa de retea Standartul RJ-45 minim 2 porturi **DA**
Diagonala ≥ 23 inch cu conexiune Wi-Fi	Display tip LCD Multi-Touch **DA**
Soft de achizitie	Rezoluția minim 1920x1080 **DA**
Implimentarea unei baze de pacienti (nume, prenume, anul de nastere sex etc)	Diagonala ≥ 23 inch cu conexiune Wi-Fi **DA**
Comunicarea cu date tip DICOM	Soft de achizitie **DA**
Protocoale de lucru preinstalate - sa se indice denumirea protocoalelor de catre ofertant disponibile	Implimentarea unei baze de pacienti (nume, prenume, anul de nastere sex etc) **DA**
Posibilitatea de cautarea in baza de date dupa parametri ca ID, Nume, Prenume etc.	Comunicarea cu date tip DICOM **DA**
Instrumente de prelucrare a imaginilor: zoom, contrast, inversare, rotire.	Protocoale de lucru preinstalate - sa se indice denumirea protocoalelor de catre ofertant disponibile **DA**
Posibilitate de modificare a protocoalelor de lucru	Posibilitatea de cautarea in baza de date dupa parametri ca ID, Nume, Prenume etc. **DA**
Modul de iradiere/ Scanare	Instrumente de prelucrare a imaginilor: zoom, contrast, inversare, rotire. **DA**
Manual	Posibilitate de modificare a protocoalelor de lucru **DA**
Automat	Modul de iradiere/ Scanare **DA**
Automatizare in prelucarea imaginei	Manual **DA**
Modul de radiografie STITCHING (cu software inclus).	Automat **DA**
Trolieu cu roti si rigla radiopaca pentru modul.	Automatizare in prelucarea imaginei **DA**
Posibilitatea de conectare	Modul de radiografie STITCHING (cu software inclus). **DA**
minim 1 Printere DICOM	Trolieu cu roti si rigla radiopaca pentru modul. **DA**
minim 2 Statii DICOM	Posibilitatea de conectare
UPS Conform caracteristicilor electrice a calculatorulu	minim 1 Printere DICOM **DA**
Accesorii	minim 2 Statii DICOM **DA**
DAP metru integrad cu citire DICOM	UPS Conform caracteristicilor electrice a calculatorulu
Curea elastica pentru compresia pacientilor instabili	Accesorii **DA**
Minere pentru pacienti prezente la masa.	DAP metru integrad cu citire DICOM **DA**
Tablou electric	Curea elastica pentru compresia pacientilor instabili **DA**
Set de protectie a personalului medical si pacientii:	Minere pentru pacienti prezente la masa. **DA**
Guler adult – 1 buc	Tablou electric **DA**
Fusta – 1 buc	Set de protectie a personalului medical si pacientii:
	Guler adult – 1 buc **DA**
	Fusta – 1 buc **DA**

Traducere din limba engleză

Sigla SEDECAL

DECLARAȚIE DE CONFORMITATE CE PENTRU MARCARE CE

(CONFORM PREVEDERILOR DIRECTIVEI DISPOZITIVELOR MEDICALE 93/42/CEE MODIFICATĂ PRIN 2007/47/CE – DECRETUL REGAL SPANIOL 1591/2009)

Subscrisa

SEDECAL, Sociedad Española de Electromedicina y Calidad, S.A.,

C/Pelaya, Polígono Industrial Río de Janeiro, 28110 Algete (Madrid), Spania

Declarăm pe proprie răspundere că Produsele sunt clasificate Clasa IIb aplicând Regula 10 a Anexei IX a Directivei:

Sistem radiografic PROTEUS XR/f:

PROTEUS XR/f compus din:

Suport tub MULTIRAD: MULT-FMTS
Masă MULTIRAD: MULT-FWFTTD
Suport de perete MILLENNIUM: MILL-WBS

Sunt conforme cu Cerințele Esențiale care le sunt aplicabile (Anexa I).

Această conformitate se bazează pe următoarele elemente:

- Informațiile cuprinse în **"Dosarul Tehnic 093"** al Produsului la care se referă această declarație.
- Certificat CE: aprobarea sistemului complet de asigurare a calității (Anexa II cu excluderea secțiunii 4) emis de către **Organul Notificat nr. 1639**, SGS Belgia NV, Nr. certificat ES19/85990.
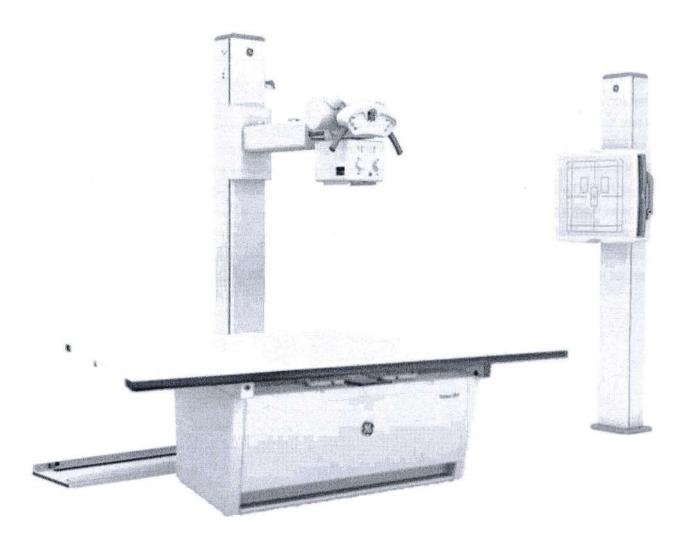
Data: 28/01/2021

(semnătură indescifrabilă)
Maria Luisa Gómez de Agüero Gómez
Director Calitate și Reglementare
(ștampila SEDECAL)

Definium XR/f ST

Definium XR/f ST este o configuraţie comercială a Proteus XR/f ST

Fişă de date a produsului

Cuprins

Suport tub montat pe perete

Model	Mișcare manuală, cu braț tub orizontal echilibrat complet
Cursă longitudinală tub	164 cm
Cursă verticală tub	155 cm
Distanță de la pata focală la podea	Variabilă de la 40 la 195 cm
Rotație tub raze X	± 150° (opritoare la +90°, 0°, -90°)
Rotație coloană suport tub	± 180° (opritoare la +90°, 0°, -90°)
Blocaje	Frâne electromagnetice
Comenzi consolă braț tub	Butoane de comandă pentru blocare longitudinală, transversală, verticală, angulară și rotațională

Masă fixă

Dimensiuni blat masă	220 cm x 82,5 cm
Înălțime de la podea	77 cm
Compoziție blat masă	Structură laminată (conform standardului EN 438)
Distanță de la blatul mesei la film	8,0 cm ± 0,4 cm
Echivalență Al. blat masă	< 1 mm Al. la 100 kVp
Limită de greutate blat masă	300 kg
Mișcare blat masă	Manuală, blat plutitor în 4 direcții
Cursă longitudinală	90 cm (±45cm)
Cursă transversală blat masă	23 cm (±11,5 cm)
Blocaje masă	Frâne electromagnetice
Comenzi blocare masă	Comutator de picior pe toată lungimea de-a lungul bazei mesei
Cursă casetă	58,3 cm Total de la centru la centru
Acoperire radiografică	180 cm (suprafața radiotransparentă a blatului mesei este de 198x68cm)
Grilă*	40 linii/cm – raport liniar 10:1 focalizată la 100 cm
Dimensiuni cazetă detector	35x43 cm (14x17 in.) sau 43x43 cm (17x17 in.) fiecare orientare
Sistem de autoîncărcare	Da
Detector rotațional ușor	Da

*Vezi grilele opționale disponibile

Colimator

Tip colimator	Manual (colimator raze X multistrat, câmp pătrat, 6 perechi de obturatoare căptușite cu plumb)
Lampă câmp	24 Vdc
Cronometru iluminare	30 sec.
Luminozitate medie	160 lx.
Lumină de aliniere	LED
Filtrare inerentă	2.0 mm aluminiu (EN 60601-1-3)
Măsurare SID	Riletă retractabilă
DAP exterioară opțională	DAP exterioară cu șine pentru o modernizare a colimatorului manual. Contor doză suprafață VacuDAP 2004 interfazat cu generatorul, cablu 15m.

Definium XR/f ST este o configurație comercială a Proteus XR/f ST

Suport perete

Tip standard	Casetă fără înclinare
Cursă verticală casetă	155 cm (de la 35 la 190 cm)
Mişcare verticală	Manuală, complet contrabalansată
Centrul filmului la podea	35 cm
Distanţă de la suprafaţă la detector	40 mm
Mărimi casetă detector	35x43 cm (14x17 in.) sau 43x43 cm (17x17 in.) fiecare orientare
Sistem de autoîncărcare	Da
Detector rotaţional uşor	Da
Grilă*	40 linii/cm – raport liniar 12:1 focalizată la la 180 cm
Echivalenţă Al.	< 0,85 mm la 100 kVp
Blocaje	Frâne electromagnetice
Încărcare detector	Încărcare stânga sau dreapta
Greutate	145 kg

*Vezi grilele opţionale disponibile
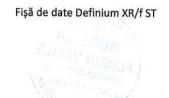
Generator

kW maxim 50 kW putere	50 kW	65 kW	80 kW
Energie intrare monofazică 220/240 VAC	trifazică 380/480 VAC		trifazică 380/480 VAC
Gamă kVp 40 - 125 Kvp (pași de 1kVp)	40 - 150 Kvp Precizie: ±(3% + 1 kVp)	40 - 150 Kvp PRecizie: ±(3% + 1 kVp)	
10 - 650 mA (19 pași, scara Renard) **Gamă mA**	10 - 650 mA (19 pași, scara Renard)	10 - 650 mA (19 pași, scara Renard)	10 la 800mA (20 pași, scara Renard)
10, 12.5, 16, 20, 25, 32, 40, 50, 64, 80, 100, 125, 160, 200, 250, 320, 400, 500, 650, 800 (în funcție de modelul de generator) Precizie: ±(4% + 1 mA)			
640 mA @ 78 kVp 500 mA @ 100 kVp **Produs putere (0,1s)** 400 mA @ 125 kVp	640 mA @ 78 kVp 500 mA @ 100 kVp 400 mA @ 125 kVp 320 mA @ 150 kVp	630 mA @ 100 kVp 630 mA @ 103 kVp 500 mA @ 125 kVp 500 mA @ 130 kVp 400 mA @ 150 kVp	800 mA @ 100 kVp 640 mA @ 125 kVp 500 mA @ 150 kVp

Interval de timp expunere	0,001 - 10 secunde Precizie: ± (2% + 0,1 ms)
Gamă mAs	0,1 mAs - 500 mAs PRecizie: ± (10% + 0,2 mAs)
Ondulări înaltă tensiune (tipic)	<1kVp @ 100 kVp
Programare anatomică	534 de vizualizări anatomice
Comp. automată linie	± 10%

Comandă rotor 1 tub viteză mică sau mare (opțional)

Comandat de microprocesor

Sistem de autodiagnostic

Monitorizarea unităților de căldură rămase ale tubului cu raze X pentru protecția tubului la supraîncărcare

Comutator de mână raze Z pregătire/expunere

AEC

Tub raze X

Model	E7254FX
	Tub raze X Toshiba 122 150 kVp pete focale duble 0,6 și 1,2 mm 400KHU LS/HS 40/102 Kw (180Hz)
HSS-1T	Starter de mare vikteză (3,000/9,000 r.p.m.) pentru un tub cu raze X
Putere maximă kW	50 KW/ 65 KW/ 80 KW
Tip tub	Anod rotativ (HS)
Tensiune anod	150 kVp
Starter viteză	(3,000 / 9,000) r.p.m.
Pete focale	0,6 – 1,2 mm
Unghi țintă	12°

Puteri nominale

Pată focală mică	40 kW
Pată focală mare	102 kW
Capacitate de stocare a căldurii anod	400 KHU

Grile

Grilă 103 linii (40 linii/cm), 10 :1, Focalizată la 1 m

Grilă 103 linii, 10 :1, Focalizată la 1,5 m

Grilă 103 linii 12:1, Focalizată la 1,8 m

Opțiuni

Bandă compresie pentru masă

Mâner pentru masă

Suport detector lateral deplasabil pe blatul mesei

Suport detector lateral cu roți

Urmărire mecanică cu andocare la masă

Masă mobilă pentru configurație numai cu suport perete

DAP exterior

Detector fără fir Konica Minolta

	AeroDR 1417XE	AeroDR 1417LT	AeroDR 1417HD AeroDR 1717HD
Denumire produs			
Tehnologie de detectare	Indirectă-Conversie	Indirectă-Conversie	Indirectă-Conversie
Scintilator	CsI – tip înaltă calitate	CsI – tip standard	CsI – tip înaltă calitate
Dimensiuni (mm) (lățime x adâncime X înălțime)	383. x 460,27 x 15,9	383. x 460,27 x 15,9	384x460x15mm
greutate	2,6 kg / 5,7 Lbs (inclusiv celula de energie)	2,5 kg / 5,5 Lbs. ((inclusiv celula de energie)	2,6 kg / 5,7 Lbs (inclusiv celula de energie)
WLAN standard	IEEE 802.11a, 5 GHz IEEE 802.11n, 5 GHz/2.4GHz	IEEE 802.11a, 5 GHz IEEE 802.11n, 5 GHz/2.4GHz	IEEE 802.11a, 5 GHz IEEE 802.11n, 5 GHz/2.4GHz
DQE	la 1 mR, RQA5 65% (@ 0 ciclu/mm) 51% (@ 1 ciclu/mm)	la 1 mR, RQA5 42% (@ 0 ciclu /mm) 35% (@ 1 ciclu /mm)	la 1 mR, RQA5 72% (@ 0 ciclu /mm) 56% (@ 1 ciclu /mm)
MTF	Peste 0,53 la 1ciclu/mm	Peste 0,53 la 1ciclu/mm	Peste 0,53 la 1ciclu/mm
Pixel spacing	175p	175p	100p/200p are selectable
Suprafață imagine (mm)	348,95 x 425,25 (1994x2430 Pixeli)	348,95 x 425,25 (1994x2430 Pixeli)	348,8x425,6
Mărime pixeli imagine (pixcels)	1.994 x 2.430	1.994 x 2.430	3488x4256(100p) 1744x2128 (200p)
Timp de previzualizare	Mai puțin de 2 secunde	Mai puțin de 2 secunde	Mai puțin de 3 sec (100p) Mai puțin de 2 sec (200p)
Timp ciclu **(Legătură expunere cu raze X)**	(CS-7) Aprox. 4 secunde (cu fir) Aprox. 6 secunde (fără fir)	(CS-7) Aprox. 4 secunde (cu fir) Aprox. 6 secunde (fără fir)	(CS-7) Aprox. 4 secunde (cu fir) Aprox. 6 secunde (fără fir)
Funcție AED	Da	Da	Da
Tehnologie baterie	Condensator litiu ion	Condensator litiu ion	Condensator litiu ion
Timp de viață baterie	Aceeași durată ca și tabloul	Aceeași durată ca și tabloul	Aceeași durată ca și tabloul
Timp de reîncărcare a bateriei de la gol la plin	În 0,5 ore cu încărcător AeroDR, încărcător AeroDR 2, cablu I/F AeroDR	În 0,20 ore (13 minute) cu stație de andocare AeroDR II sau cablu I/F AeroDR	În 0,5 ore cu încărcător AeroDR, încărcător AeroDR 2, cablu I/F AeroDR 3

Denumire produs	AeroDR 1417XE	AeroDR 1417LT	AeroDR 1417HD AeroDR 1717HD
Performanță baterie (legătură expunere cu raze X)	Până la 300 expuneri și 8,2 ore	Până la 150 expuneri și 4,1 ore*	Până la 251 expuneri și 6,9 ore (100p) Până la 309 expuneri și 8,6 ore (200p)
Performanță baterie (AED)	Până la 250 expuneri și 6,8 ore (General raze X)	Până la 125 expuneri și 3,4 ore (General raze X)	Până la 167 expuneri și 4,6 ore (100p) Până la 198 expuneri și 5,4 ore (200p)
Funcție de memorie în interiorul tabloului	Da – numai backup	Da – numai backup	Da – numai backup
Durată baterie	Aprox. 20 de ore în mod standby	Aprox. 16 ore în mod standby	Aprox. 13 ore în mod standby
Rezistență la apă	IPX6	IPX6	IPX6
Rezistență la impact cădere	A trecut testul de cădere de la 1m.	A trecut testul de cădere de la 1m .	A trecut testul de cădere de la 1,2m . (MIL-STD 810G)
Senzor digital de șoc	Da	Da	Da
Rezistență la sarcină max.	150 kg @ diametru 40 mm / 300kg @ întreaga suprafață	150 kg @ diametru 40 mm / 300kg @ întreaga suprafață	180 kg @ diametru 40 mm / 400kg @ întreaga suprafață

Hardware stație universală comandă CS-7

- Procesor Intel Core i5-2520 vPro, 3.2GHz, CD/DVD RW,
- 8GB RAM (USCAN)/ 4GB RAM
- Windows 10
- 320 GB HDD
- Conexiune rețea Intel PRO/1000 GT
- Monitor multitactil 23" LCD – unghi de vizualizare 178 de grade
- Rezoluție nativă 1920 x 1080

Caracteristici software stație universală comandă CS-7:

- Platformă de operare CS-7 S/W
- Algoritmi avansați de procesare a imaginii REALISM™
- Procesare egalizare, frecvență și gradare
- Anexe studiu
- Adnotare liberă a textului
- Multistudiu
- Mascare automată
- Filtru listă studiu
- Căutare istoric
- Zoom imagine
- Suprimare grilă
- Elemente de permitere a conformării HIPAA (urmă de audit, Auto log-out)
- DICOM store (x2 conexiuni)
- DICOM modality worklist
- Mapare cod procedură
- Combinare/mutare studiu CS-7
- Analiză departamentală date CS-7
- Software tub/plasă CS-7
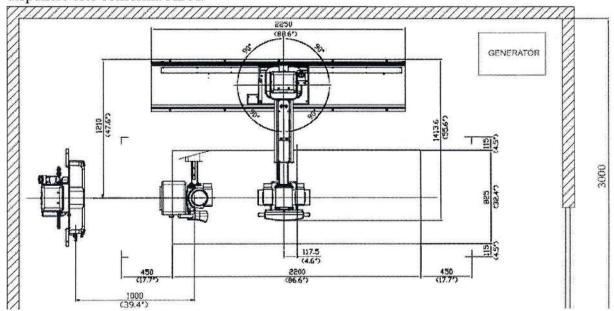
Opțiunile disponibile cuprind:

- Stocare media
- Grilă inteligentă
- DICOM print (x2 conexiuni)
- Control acces LDAP (numai S.U.A.)
- Licență coasere
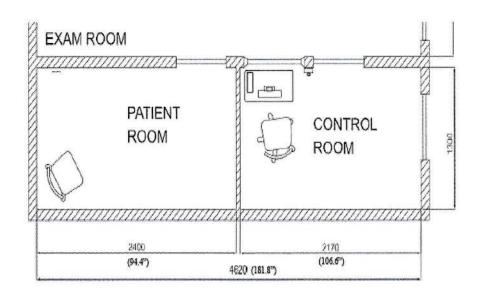- Detectare mișcare/plămân
- Instruire aplicații

Dispunere tipică a camerei

DISPUNERE COMPET FUNCȚIONALĂ:

NOTĂ: Dispunerea prevede un duct de 3,5" la suprafața peretelui între suportul de perete și generator. Cablul tubului cu raze X va coborâ dintr-o cutie de pe plafon. Această dispunere este conformă ADA.

Conformare cu standardele

Sistemul digital de imagistică radiografică Definium XR/f este proiectat pentru a corespunde standardelor de performanță aplicabile pentru echipamente de diagnostic cu raze X enunțate de către U.S. Department of Health and Human Services conform Legii controlului radiațiilor pentru sănătate și securitate. În plus, sistemul se conformează cerințelor UL, IEC.

Garanție

Se va aplica garanția societății publicată în vigoare la data expedierii. Se rezervă dreptul de a face schimbări.

Despre GE Healthcare

GE Healthcare oferă tehnologii și servicii medicale de transformare pentru a satisface cererea de acces sporit, calitate îmbunătățită și asistență medicală mai accesibilă în întreaga lume. GE (NYSE: GE) lucrează la lucruri care contează - oameni grozavi și tehnologii care fac față unor provocări grele. De la imagistica medicală, software și IT, monitorizarea și diagnosticarea pacienților până la descoperirea medicamentelor, tehnologiile de producție biofarmaceutică și soluțiile de îmbunătățire a performanței, GE Healthcare ajută profesioniștii medicali să ofere o îngrijire medicală excelentă pacienților lor.

GE Healthcare
Chalfont St. Giles, Buckinghamshire, UK
GE Healthcare, Europe
Centrala Buc, France +33 800 90 87 19

GE Healthcare, Middle East and Africa
Istanbul, Turcia +90 212 36 62 900

GE Healthcare, North America
Milwaukee, SUA +1 866 281 7545

GE Healthcare, Latin America
Sao Paulo, Brazilia +55 800 122 345

GE Healthcare, Asia Pacific
Tokyo, Japonia +81 42 585 5111

GE Healthcare, ASEAN
Singapore +65 6291 8528

GE Healthcare, China
Beijing, China +86 800 810 8188

GE Healthcare, India
Bangalore, India +91 800 209 9003

Manufacturer Declaration

Date: 7 February 2022

To whom it may concern,

We, **GE Medical Systems, Société en Commandite Simple**, a company duly existing under the laws of France and having a registered seat at 283 rue de la Minière, 78530 Buc, France in its capacity as European Headquarters of GE Healthcare and European MDR Authorized Representative of GE Healthcare Legal Manufacturers hereby certify that products listed below are also known by the marketing names listed in the table. This X-ray systems are indeed products in forward production.

Technical name	Marketing name
Proteus XR/f	Definium XR/f
Optima XR646HD	Definium 646 HD
Discovery XR656HD	Definium 656 HD
Brivo 575	Definium 575
XR6000	Definium XR6000
Optima XR240amx	AMX 240
Discovery RF180	Precision 180

On behalf and for GE Medical Systems SCS

Jennifer Thery – EMEA Contract Specialist
Authorized Signatory

Date of signature: February 7, 2022

GE MEDICAL SYSTEMS
Société en Commandite Simple
283, rue de la Minière
78530 BUC - FRANCE
RCS Versailles B 315 013 359
Tél. +33.(0)1.30.70.40.40

Traducere din limba engleză

Certificat ES03/60071

Sistemul de management al

**SOCIEDAD ESPANOLA DE
ELECTROMEDICINA Y CALIDAD, S.A.
(SEDECAL)**

Pol. Ind. Rio de Janeiro, C/Pelaya, 9-13, 28110 Algete (Madrid)
a fost evaluat și certificat ca îndeplinind cerințele

ISO 9001:2015

pentru următoarele activități:

**Proiectarea, fabricarea, comercializarea și asistența tehnică asigurată clienților pentru utilizarea medicală și veterinară a: generatoarelor de raze X, sistemelor de raze X (staționare, mobile, portabile și monobloc), starterelor de tub cu raze X, dispozitivelor de poziționare radiologică și generatoarelor de ozon.
Proiectarea și fabricarea pe bază de subcontractare a sistemelor și componentelor cu raze X.
Proiectarea și fabricarea modulelor electronice, mecanice și electromecanice pentru aplicațiile industriale.**
la următoarele locații:
Sediu principal și fabrică: Pol. Ind. Rio de Janeiro, C/Pelaya, 9-13, 28110 Algete (Madrid)

Prezentul certificat este valabil de la 19 iulie 2021 până la 19 iulie 2024.
Ediția 6. Companie certificată din ianuarie 1997.
Certificată de SGS de la data de 6 aprilie 2018.

Autorizat de:
(semnătură indescifrabilă)
Management Certificări

SGS International Certification Services Iberica, S.A.U.
Madrid, Spania

(*Sigla: SGS*)

Certificat ES19/85998

Sistemul de management al

SOCIEDAD ESPANOLA DE ELECTROMEDICINA Y CALIDAD, S.A. (SEDECAL)

Pol. Ind. Rio de Janeiro, C/Pelaya, 9-13, 28110 Algete (Madrid), Spania
a fost evaluat și certificat ca îndeplinind cerințele

ISO 13485:2016
EN ISO 13485:2016

pentru următoarele activități:

Proiectarea, fabricarea, comercializarea și asistența tehnică asigurată clienților pentru generatoarele de raze X, sistemele de raze X (staționare, mobile, portabile și monobloc), starterelor de tub cu raze X, dispozitivelor de poziționare radiologică și generatoarelor de ozon.

Prezentul certificat este valabil de la data de 20 iulie 2021 până la 19 iulie 2024 și rămâne valabil cu condiția unor verificări cu rezultate satisfăcătoare.
Ediția 3. Certificată din 28 ianuarie 1997.
Verificare certificare înainte de data de 19 iulie 2024.

Autorizat de:
(*semnătură indescifrabilă*)
Pieter Weterings
SGS Belgium NV
SGS House, Antwerp, Belgia

SGS Belgium 13485-2 0308

Număr acreditare
005-QMS
EN ISO/IEC 17021-1:2015

Traducere din limba engleză

Certificat CE sistem complet de asigurare a calității: Certificat ES19/85990

Sistemul de management al

Sociedad Española de Electromedicina y Calidad, S.A. (SEDECAL)

Poligono Industrial Rio de Janeiro
C/ Pelaya, 9-13
28110 Algete, Madrid, Spania

a fost evaluat și certificat ca fiind corespunzător cerințelor

Directivei 93/42/CEE privind dispozitivele medicale, Anexa II (cu excluderea Secțiunii 4)

pentru următoarele produse
domeniul înregistrării apare pe paginile următoare ale acestui certificat

Acest certificat este valabil de la 30/06/2019 până la 19/07/2023 și va rămâne valabil condiționat de auditările de supraveghere satisfăcătoare.
Ediția 1. Certificat din 20/05/1997 și certificat pentru prima oară de către SGS Belgium la 30/06/2019.
Auditarea de recertificare trebuie să se desfășoare înainte de 19/07/2021.

Aceasta este o certificare multilocație.
Detaliile privind locațiile suplimentare sunt prezentate în paginile următoare.

Certificarea se bazează pe rapoarte numerotate ES/MAD 133585.

Autorizat de către

(semnătură indescifrabilă)
Pieter Weterings
Director de Certificare

SGS Belgium NV, Organ Notificat 1639

Domeniu detaliat

Generator raze X SHF:
SHF-1010, SHF-1015, SHF-1020, SHF-1025, SHF-1030, SHF-1035,
SHF-1610, SHF-1615, SHF-1620, SHF-1625, SHF-1630, SHF-1635,
SHF-210, SHF-215, SHF-220, SHF-225, SHF-230, SHF-235,
SHF-310, SHF-315, SHF-320, SHF-325, SHF-330, SHF-335,
SHF-410, SHF-415, SHF-420, SHF-425, SHF-430, SHF-435,
SHF-510, SHF-515, SHF-520, SHF-525, SHF-530, SHF-535,
SHF-610, SHF-615, SHF-620, SHF-625, SHF-630, SHF-635, SHF-835,
SHF-1610 PSU, SHF-1615 PSU,
SHF-210 PSU, SHF-215 PSU,
SHF-310 PSU, SHF-315 PSU,
SHF-410 PSU, SHF-415 PSU, SHF-510 PSU, SHF-515 PSU,

1

SHF-1610-C, SHF-1615-C,
SHF-210-C, SHF-215-C,
SHF-310-C, SHF-315-C,
SHF-410-C, SHF-415-C,
SHF-510-C, SHF-515-C,
SHF-0510-M, SHF-0530-M, SHF-1010-M, SHF-1030-M,
SHF-0510-MPSTA, SHF-100-MPSTA.

Generator raze X SHFR:
SHFR100, SHFR200, SHFR300, SHFR400, SHFR500, SHFR600, SHFR800.

Generator raze X HERCULES:
HERCULES-32, HERCULES-40, HERCULES-50, HERCULES-65, HERCULES-80.

Unitate raze X mobilă cu baterie EASY MOVE:
SM-20HF-Batt, SM-32HF-Batt, SM-40HF-Batt, SM-50HF-Batt
SM-20HF-B-D-C, SM-32HF-B-D-C, SM-40HF-B-D-C, SM-50HF-B-D-C
SM-20HF-B-D-V, SM-32HF-B-D-V, SM-40HF-B-D-V, SM-50HF-B-D-V
SM-20HF-B-D-T, SM-32HF-B-D-T, SM-40HF-B-D-T, SM-50HF-B-D-T
SM-20HF-B-D-TEZ, SM-32HF-B-D-TEZ, SM-40HF-B-D-TEZ, SM-50HF-B-D-TEZ
SM-20HF-B-D-S, SM-32HF-B-D-S, SM-40HF-B-D-S, SM-50HF-B-D-S
SM-20HF-B-D-FDX, SM-32HF-B-D-FDX, SM-40HF-B-D-FDX, SM-50HF-B-D-FDX
SM-20HF-B-D-FDXW, SM-32HF-B-D-FDXW, SM-40HF-B-D-FDXW, SM-50HF-B-D-FDXW
SM-20HF-B-D-KM (AeroDR X30), SM-32HF-B-D- KM (AeroDR X30), SM-40HF-B-D- KM (AeroDR X30),
SM-50HF-B-D- KM (AeroDR X30)

Unitate raze X mobilă cu condensator MOBIXRAY:
SMR-16, SMR-20, SMR-32

Unitate raze X portabilă SPL:
SPL-HF-2.0, SPL-HF-4.0, SPL-HF-8.0

Unitate raze X portabilă DRAGON X:
SPSL-HF-4.0, SPSL-HF-8.0
SPSL-HF-4.0-APR, SPSL-HF-8.0-APR
SPSLW4, SPSLW8, SPSL4HC, SPSL8HC

Sistem radiografic SEDECAL X:
SEDECAL X BRS (BRX)
SEDECAL X URS
SEDECAL X PLUS LP
SEDECAL X PLUS LP PLUS

Sistem radiografic MILLENNIUM:

MILLENNIUM (Proteus XR/i), format din:
Suport tub MILLENNIUM: MILL-FMTS
Suport tub AD MILLENNIUM: MILL-FMTSAD
Masă cu înălţime fixă MILLENNIUM: MILL-FWFTT-B
Masă cu ridicare MILLENNIUM: MILL-EL-B
Suport perete MILLENNIUM: MILL-WBS
Tomografie MILLENNIUM: MILL-TOMO

Alimentare energie: BRAKE BOX

MILLENNIUM PLUS AT, format din:
Suport tub MILLENNIUM PLUS AT: MILL-FMTSAT-PLUS
Masă cu ridicare MILLENNIUM PLUS AT: MILL-ELAT-PLUS
Suport perete MILLENNIUM PLUS AT: MILL-WBSAT-PLUS
Suport perete cu înclinare manuală: TWBS-TILT
Tomografie MILLENNIUM PLUS: MILL-TOMO-PLUS

MILLENNIUM PLUS TPC, format din:
Suport tub MILLENNIUM PLUS TPC: MILL-FMTSTPC-PLUS
Masă cu ridicare MILLENNIUM PLUS TPC: MILL-ELTPC-PLUS
Suport perete MILLENNIUM PLUS TPC: MILL-WBSTPC-PLUS
Suport perete cu înclinare manuală: TWBS-TILT
Tomografie MILLENNIUM PLUS: MILL-TOMO-PLUS

Sistem radiografic PROTEUS XR/f:

PROTEUS XR/f ET, format din:
Suport tub MILLENNIUM: MILL-FMST
Suport tub AD MILLENNIUM: MILL-FMTSAD
Masă cu înălțime fixă MILLENNIUM: MILL-FWFTT-B
Masă cu ridicare MILLENNIUM: MILL-EL-B
Suport perete MILLENNIUM: MILL-WBS
Tomografie MILLENNIUM: MILL-TOMO
Alimentare energie: BRAKE BOX

PROTEUS XR/f AT, format din:
Suport tub MILLENNIUM PLUS AT: MILL-FMTSAT-PLUS
Masă cu ridicare MILLENNIUM PLUS AT: MILL-ELAT-PLUS
Suport perete MILLENNIUM PLUS AT: MILL-WBSAT-PLUS
Suport perete cu înclinare manuală: TWBS-TILT
Tomografie MILLENNIUM PLUS: MILL-TOMO-PLUS

PROTEUS XR/f ST, format din:
Suport tub MULTIRAD: MULT-FMS
Masă MULTIRAD: MULT-FWFTT
Suport perete MULTIRAD: MULT-WBS
Alimentare energie: BRAKE BOX

Sistem radiografic MULTIRAD:

MULTIRAD (Proteus XR/e), format din:
Suport tub MULTIRAD: MULT-FMS
Masă MULTIRAD: MULT-FWFTT
Suport perete MULTIRAD: MULT-WBS
Alimentare energie: BRAKE BOX

MULTIRAD NET, format din:
Suport tub MULTIRAD: MULT-FMS
Masă cu ridicare NET 4000: NET 4000-ST
Suport perete MULTIRAD: MULT-WBS

Suport perete MILLENNIUM: MILL-WBS
Alimentare energie: BRAKE BOX

Sistem radiografic NOVA:

NOVA FA format din:
Suspensie plafon NOVA: NOVA FA
Masă cu ridicare NET 4000: NET 4000-AU
Masă cu ridicare mobilă: FLEXI-DT
Suport perete NBS 2100: NBS 2100-AU

NOVA AT format din:
Suspensie plafon NOVA: NOVA AT
Masă cu ridicare NET 4000: NET 4000-AT
Masă cu ridicare mobilă: FLEXI-DT
Suport perete NBS 2100: NBS 2100-AT
Suport perete cu înclinare manuală: TWBS-TILT

NOVA ST format din:
Suspensie plafon NOVA: NOVA ST
Masă cu ridicare NET 4000: NET 4000-ST
Masă cu ridicare mobilă: FLEXI-DT
Suport perete NBS 2100: NBS 2100-ST
Suport perete cu înclinare manuală: TWBS-TILT

Sistem radiografic CHALLENGE X:

CHALLENGEX AP format din:
Suspensie plafon CHALLENGE X: CHAP
Masă cu ridicare NET400: NET400AP
Masă cu ridicare NET500: NET500AP
Suport perete CHALLENGE X: CHWSAP
Consolă generator raze X: STH

Consolă generator raze X:
CTSC

Software comandă unitate radiografică:
SedewareControl1

Locații suplimentare

Poligono Industrial Rio de Janeiro
C/ Rafael Pillado Mourelle, 6 Nave C-5
28110 Algete, Madrid, Spania

Poligono Industrial Rio de Janeiro
C/ Navas, 3
28110 Algete, Madrid, Spania

GE Healthcare

Declarația fabricantului

Data: 7 februarie 2022

Către cei interesați

Subscrisa **GE Medical Systems Société en Commandite Simple**, o societate comercială existând legal conform legilor Franței și având sediul social în 283 rue de la Minière, 78530 Buc, Franța, în calitatea sa de Sediu Central European al GE Healthcare și Reprezentant European Autorizat MDR al Fabricanților Legali GE Healthcare, prin prezenta certificăm că produsele enumerate mai jos sunt de asemenea cunoscute după denumirile de comercializare prezentate în tabel. Aceste sisteme cu raze X sunt într-adevăr produse în producție avansată.

Denumire tehnică	Denumire de comercializare
Proteus XR/f	Definium XR/f
Optima XR646HD	Definium 646 HD
Discovery XR656HD	Definium 656 HD
Brivo 575	Definium 575
XR6000	Definium XR6000
Optima XR240amx	AMX 240
Discovery RF180	Precision 180

Din partea și pentru GE Medical Systems SCS,

(ștampila GE MEDICAL SYSTEMS)

(semnat): Jennifer Thery

Jennifer Thery – EMEA Contract Specialist
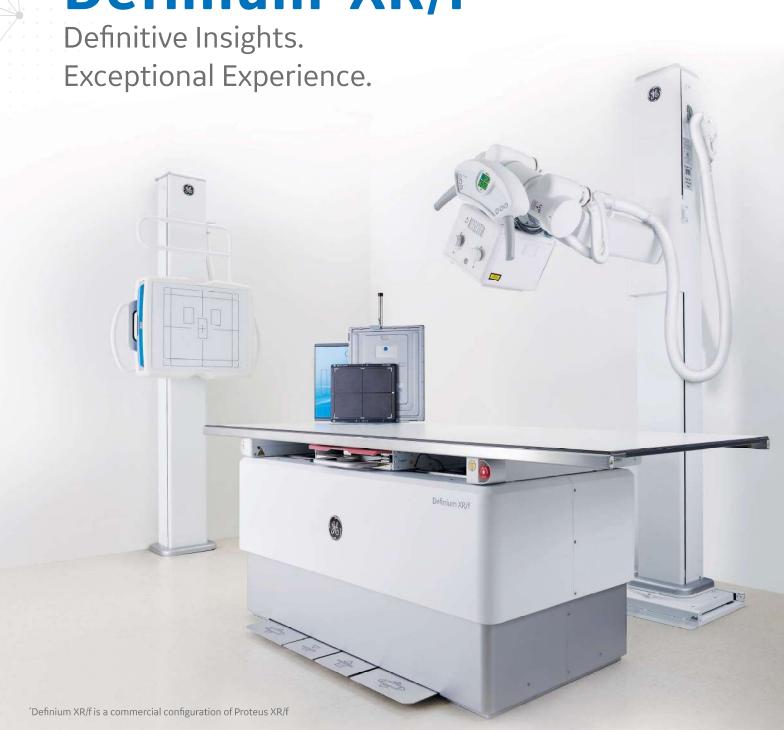
Semnatar Autorizat

Data semnării: 7 februarie 2022

1

Definium* XR/f

Definitive Insights.
Exceptional Experience.

*Definium XR/f is a commercial configuration of Proteus XR/f

A **single x-ray room** to **meet** your **clinical needs**

Delivering consistent images in fast, easy and comfortable exams is the goal of every radiology department. However, with increasing cost pressures and high patient volumes, finding a system that can efficiently handle your patient load and fit into your existing space without added construction costs can be a challenge.

Introducing Definium XR/f, GE Healthcare's versatile and robust digital system designed to help you perform a variety of head-to-toe, dose-efficient radiographic exams on patients of all sizes, ages and degrees of mobility. In addition, the system is compact and floor-mounted, so it doesn't require infrastructure reinforcements. That means not only can Definium XR/f meet your clinical needs, it can accommodate your infrastructure as well.

Move to **digital x-ray** with this **intuitive**, efficient **system**

Imagine a system that lets technologists familiar with analog or digital x-ray systems walk right up and get to work. That's the Definium XR/f. It is so intuitive and easy to use, it helps streamline the transition to digital x-ray. Plus, the system is ergonomic and flexible, making positioning patients nearly effortless.

Definium XR/f is remarkably easy to use

- Complete exams quickly with a 1-second image preview. See fully processed images within 6 seconds.

- Minimize charging with detectors that can last an entire shift on a full charge. (Up to 300 exposures).

- Reduce drops that cause detector damage with convenient charging in the wall stand and table bucky.

- Speed workflow with a collimator light that's automatically activated by footpedals or brakes.

- Increase exam efficiency with intuitive tube head controls and tube console buttons. Button functions adjust to follow tube head placement, so the tube head moves in the direction the arrows are pointing.

- Send single images to PACS, without the need to close the exam, so images can begin to be interpreted by the physician, during trauma situations. This results in both efficient workflow and speedy patient care.

- Get simple and consistent alignment every time with horizontal table bucky tracking option.

- Boost productivity with touchscreen monitor and user interface that allows techs to complete work at the workstation with or without a mouse/keyboard.

High-quality,
low-dose **images**,
patient after patient.

The robust AeroDR cesium iodide wireless flat-panel detectors make it easy for Definium XR/f to optimize dose and deliver exceptional images. These detectors are lightweight (HD 14"x17" detector weighs 5.7 pounds/2.6kg) so they're easy to manipulate for optimum positioning.

And because dose is most patients' number one x-ray concern, Definium XR/f helps you ease patient anxiety and increase your experience ratings by delivering outstanding diagnostic confidence at a very low dose (72% DQE) with uncompromising image quality.

Definium XR/f is designed for high-quality, low-dose images

- Increase diagnostic confidence with high resolution (100 micron) images.

- Acquire dose-efficient high-quality images with AeroDR HD detectors with 72% DQE.

- Detector sizes available in 10"x12"; 14"x17" and 17"x17".

- Flexibility in detector choices allows you to get the optimal balance between dose efficiency and image quality for your needs.

Deliver an exceptional patient experience

First impressions mean a great deal, and when patients first set eyes on the Definium XR/f, it's modern, inviting design can help put their exam anxieties at ease.

And the benefits keep on building. When the patient sees how effortlessly the technologist can move the system to accommodate positioning (no matter the patient's size or mobility), and the speed and efficiency of the exam, it can boost patient perception and confidence in the entire process.

- Accommodate patients of all sizes with a an easy-on/ easy-off, fully-flat bariatric table that can support up to 770 pounds/350 kg.

- Ease patient loading for all patients (even those in wheel chairs) with a table that goes as low as 19inches/49 cm. The same table elevates as high as 35 inches/90cm, offering great flexibility for extremity exams.

- Increase patient confidence with the system's modern ergonomic design that provides easy patient access plus an integrated look for the facility.

- Elevate patient safety when you eliminate the need for step stools with a wallstand that can go to floor-level.

- Speed up exam time with telescopic tube arm that reaches across the table.

- Give technologists more flexibility for on and off table exams with a wide horizontal travel range.

The **flexibility to fit right in** and the **reliability** to **keep performing**

Your investment in Definium XR/f will serve you well now and into the future. From the start, installation is made easy with this free-standing, compact system. Not only does the modern-looking system provide an integrated look for your facility, but it has flexible power requirements that can help you avoid making expensive power compatability alterations.

Definium XR/f also comes backed by a local GE service team with a proven record of prompt response, accurate service diagnosis and fast, definitive repairs — so you can expect high-uptime and uninterrupted patient care to drive profitability.

Additional benefits that add value to the system are heightened digital security for your technology and data and the ability to use GE's X-Ray Quality Application (XQA), built on GE's Edison Platform, to reduce reject rates, increase productivity and to monitor your enitre fleet — even across different sites.

And of course, in no time, your radiographers and technologists will become experts with this easy-to-use, intuitive system. GE provides numerous clinical and applications training options, on site and online, to fit your needs and schedule and to ease your entire team's transition to a new system.

Confidently image *any* patient who comes through the door with Definium XR/f.

ANGLE

SID

UP

CS-7

Operation Manual for User Tool

DIRECT DIGITIZER
CS-7

Version 1.36

$C \in 0197$

Contents

Introduction

Introduction

This operation manual for user tool provides instructions on the basic functions for operation of this device. Those operating this device for the first time should read this manual beforehand.

Also, store this manual close to this device after reading it through, so it can be used as a guide to allow optimum operating conditions.

For United States of America and Canada, this device is not intended to use for Mammography.

* If the pages of the operation manual for user tool are smudged and illegible, replace it with a new one. (There is a fee for this service.)

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Windows 10 is an abbreviation for Microsoft Windows 10 IoT Enterprise.

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Option/license

For certain functions of this device, separate options and licenses are needed. For details regarding options and licenses, contact Konica Minolta service representatives.

Term description

The meanings of terms used in this operation manual are as follows:

Terms	Description
AeroDR SYSTEM	• Collective term indicating DR Detector, AeroDR Interface Unit, AeroDR Interface Unit2, AeroDR Generator Interface Unit, AeroDR Generator Interface Unit2, Generator Interface Unit 3, AeroDR Battery Charger, AeroDR Battery Charger2, AeroDR Access Point, etc. • Collective term indicating AeroDR SYSTEM, AeroDR SYSTEM 2 and SKR3000.
DR Detector	Collective term indicating AeroDR 1417HQ, AeroDR 1417S, AeroDR 1717HQ, AeroDR 1012HQ, AeroDR 2 1417HQ, AeroDR 2 1417S AeroDR 3 1417HD, AeroDR 3 1717HD and AeroDR 3 1012HQ.
AeroDR Interface Unit	Supplies power to the AeroDR Generator Interface Unit, AeroDR Generator Interface Unit2 and access point, and supplies power to and charges the battery of the DR Detector when wired cables are used. It also has a hub function.
AeroDR Interface Unit2	• Supplies power to the access point, and supplies power to and charges the battery of the DR Detector when wired cables are used. It also has a hub function. • Relays signals between the X-ray device, the DR Detector, and the CS-7.
AeroDR Generator Interface Unit	Relays signals between the X-ray device, the DR Detector, and this device.
AeroDR Generator Interface Unit2	Relays signals between the X-ray device, the DR Detector, and this device.
Generator Interface Unit 3	Relays signals between the X-ray device, the DR Detector, and this device.
AeroDR Battery Charger	Charges the DR Detector. It also has the registration function for the DR Detector.
AeroDR Battery Charger2	Charges the DR Detector. It also has the registration function for the DR Detector.
Access point	Collective term indicating AeroDR Access Point and a general-purpose access point.
I/F Cable	Use with the DR detector wired connection. It also includes the DR detector charging and registration functions.
AeroDR UF Cable	• In the case of capturing images with the wall stand and table, register the DR detector direction. • For One Shot stitching exposure, the wall stand wired connection is used.
AeroDR Portable RF Unit	Receives an image data from the DR Detector and transfers it to this device. Also, this unit interfaces with the portable X-ray device.
AeroDR Portable RF Unit2	• Interfaces with the mobile X-ray device. • Charges or registers the DR Detector when using the AeroDR Battery Charging KIT and the I/F Cable.

Terms	Description
AeroDR Portable UF Unit	Receives an image data from the DR Detector and transfers it to this device.
AeroDR Stitching System	Used when performing stitching exposures using the DR Detector.
Calibration	Processing for calibrating the characteristics of the DR Detector for each pixel.
CR	An acronym for computed radiography.
DR	An acronym for digital radiography.
JM	An acronym for job manager.
REGIUS	Collective term indicating the REGIUS series (Excluding "REGIUS SIGMA" and "REGIUS SIGMA2"). When indicated individually, they are shown as "REGIUS 110", "REGIUS 110HQ", "REGIUS 210", "REGIUS 190", and "REGIUS 170".
REGIUS SIGMA/SIGMA2	Used as the collective terms for "REGIUS SIGMA" and "REGIUS SIGMA2".
CR cassette	Used as the collective terms for the cassettes in the REGIUS series and REGIUS SIGMA/SIGMA2.
RIS	Abbreviation for Radiology Information System. A system to manage reservation and result of examinations and treatment that use radiology equipment.
Host	A server to save image information.
X-ray device	An X-ray exposure device constructed of an X-ray generator device, an operation panel, and so on.
HS processing	Image processing to reduce noise. Used to reduce the noise while maintaining the definition of an image.
RS processing	Image processing to reduce noise. The RS processing is applied as the E/F processing method if REALISM is selected.
RT processing	This image processing automatically optimizes REALISM parameters in accordance with the subject and inserts the entire image into the viewable area.
F processing	Image processing for adjusting the sharpness of an image. Used to maintain the sharpness of each image depending on the exposure body part.
E processing	Image processing for compressing the dynamic range. Depending on the body part, used to provide a suitable diagnostic image even with high contrast images.
IG	An acronym for Intelligent-Grid. This is a function that corrects scattered X-ray radiation.
Exposure body part	This is the exposure body part, such as head, neck, and chest.
Exam. Tag	A button that has registered exposed body parts, size, direction, etc. It is positioned on the body part selection screen.
Exposure condition	Indicates conditions relating to exposure in general such as exposure device, exposure method, exposure setting, and positioning.
Exposure setting	Indicates the tube voltage, X-ray tube current, exposure time, etc. displayed on the console of the X-ray device.
Wired cable	Collective term indicating I/F Cable and AeroDR UF Cable.
Aero Sync	This is a mode in which exposure is performed without being synchronized with the X-ray device.
Aero Storage	This function enables images to be taken with the DR Detector without needing to be connected to this device.
Aero Link	This function creates a direct wireless connection with this device via the wireless communication functionality built into the DR Detector.
Serial exposure	An exposure method to capture multiple frame images serially taken by the pulse irradiation from an X-ray generator device.
Edge Server	This device serves as a relay server to coordinate with the AeroRemote service.

Structure of pages

Example of page structure

(1) — **1.1 ● User tool operation flow**

1.1.1 Displaying the setting tool screen

Perform the following procedure to display the setting tool screen.

(2) — **1 Press [System] on the initial screen.**

• The system monitor screen is displayed.

2 Press [Utility] on the system monitor screen.

(3) —

• The password screen is displayed.

3 Input the password and press [OK].

• The user tool screen is displayed.

(4) —

HINT
• Depending on the current settings, the password screen may not be displayed.

4 Press [Setting].

• The CS-7 setting tool screen is displayed.

IMPORTANT ———— (5)
• Before editing information with the user tool, back up the current setting values using the backup function of the user tool.

Reference ———— (6)
• For the CS-7 setting tool screen, refer to "0.0.0 CS-7 setting tool screen".

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Number	Item	Description	Icon
(1)	Item heading	Describes the titles of described content.	-
(2)	Operation procedure	The operating procedure is described in sequential numerical steps.	-
(3)	Screen display	Shows a screen on which operations are performed.	-
(4)	Hint	Describes important information.	HINT
(5)	Important items	Describes important items for operation. Be sure to read them.	IMPORTANT
(6)	Reference	Describes reference items. Refer to these as necessary.	Reference
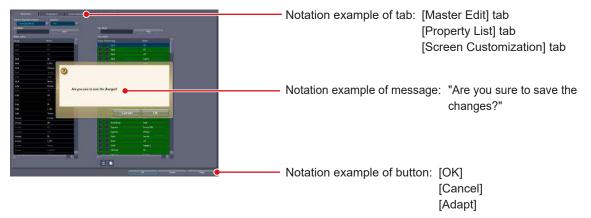
Screen display

Note that explanatory screens may be omitted from this manual when not needed.

Characters and icons displayed on the screen

Characters and icons displayed on the screen are shown with [ ]. Messages displayed on such as the confirmation screen are shown with " ". The "…" that may be at the end of characters or messages are omitted.

Notation example of tab: [Master Edit] tab
                             [Property List] tab
                             [Screen Customization] tab

Notation example of message: "Are you sure to save the changes?"

Notation example of button: [OK]
                            [Cancel]
                            [Adapt]

Notation of operation methods

This manual describes main operation methods as follows.

Notation	Description
Press	Operation to touch the screen or click with a mouse to operate operation targets such as buttons.
Select	Operation to select from several options such as from a pull-down menu or tabs.
Input	Operation to enter any string using a keyboard or the input panel displayed on the screen.
Drag	Operation to move an operation target while touching or clicking it.
Drop	Operation to release the operation target being dragged by quitting touching it or releasing the button being clicked.
Drag using both buttons	Operation to move an operation target by touching it with two fingers or while clicking the right- and left-hand mouse buttons simultaneously.

Chapter **1**

Overview of the User Tool

This chapter describes the overview of the user tool.

1.1 Overview of the user tool

1.1.1 User tool

The user tool is the utility for customizing various information in this device to suit the environment in which you use this device.

You can specify the names of operators and exposure rooms and other information, and set the exposure body parts and the image processing conditions.

Because the user tool manages important information that may affect the processing of this device, the use is restricted by password. Due to this limitation, you may not be able to display some items on the screen or use some buttons.

> **IMPORTANT** ··
>
> • Before editing information with the user tool, back up the current setting values using the backup function of the user tool.
>   Should any problem occur in operating this device and/or the reader after editing, the previous settings can be recalled.
> • Some buttons and item names are not displayed on each screen when some options or licenses are not selected.
> ··

1.1.2 Before using the user tool

Mouse operation is recommended because use of the user tool requires operations including double-clicking and dragging items displayed on the screen.
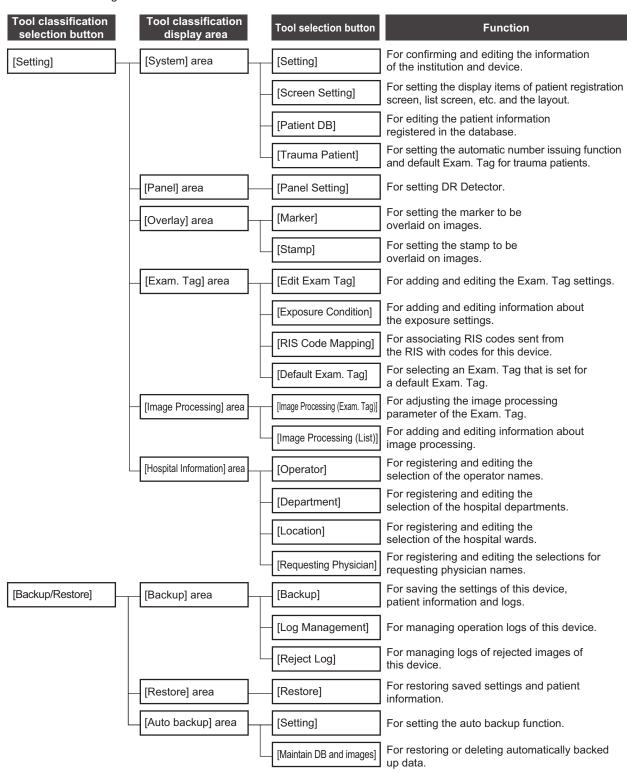
Also, the keyboard included with this device is sometimes used, such as when entering the names.
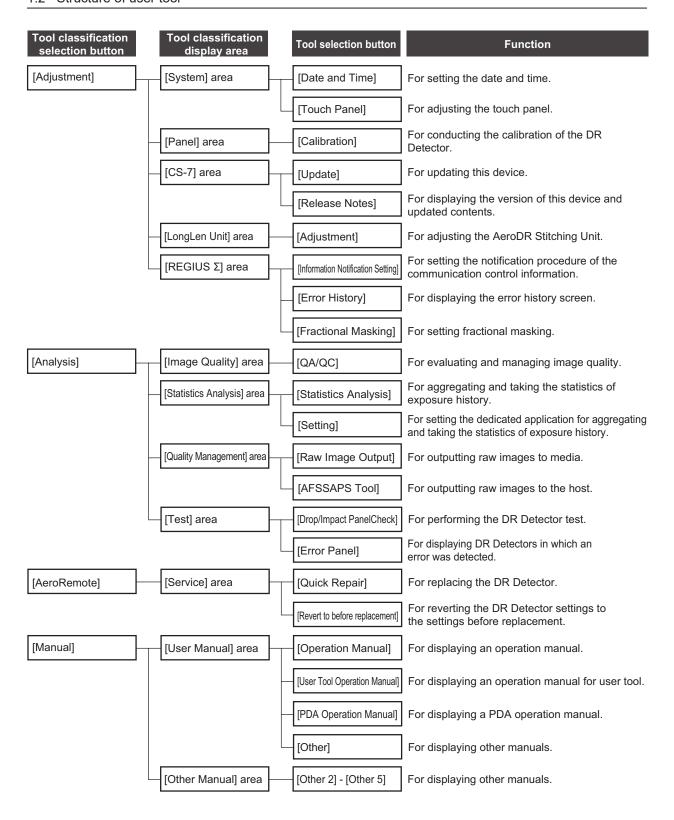
> ⚠ **CAUTION**
>
> **If you changed the setting of this device using the user tool, a pop-up window may be shown to prompt you to restart this device. Follow the instructions to restart this device. The modified setting will not take effect until this device is restarted.**

1.2 Structure of user tool

Tools and their categories are selected from the user tool screen.

Tool classification selection button	Tool classification display area	Tool selection button	Function
[Setting]	[System] area	[Setting]	For confirming and editing the information of the institution and device.
		[Screen Setting]	For setting the display items of patient registration screen, list screen, etc. and the layout.
		[Patient DB]	For editing the patient information registered in the database.
		[Trauma Patient]	For setting the automatic number issuing function and default Exam. Tag for trauma patients.
	[Panel] area	[Panel Setting]	For setting DR Detector.
	[Overlay] area	[Marker]	For setting the marker to be overlaid on images.
		[Stamp]	For setting the stamp to be overlaid on images.
	[Exam. Tag] area	[Edit Exam Tag]	For adding and editing the Exam. Tag settings.
		[Exposure Condition]	For adding and editing information about the exposure settings.
		[RIS Code Mapping]	For associating RIS codes sent from the RIS with codes for this device.
		[Default Exam. Tag]	For selecting an Exam. Tag that is set for a default Exam. Tag.
	[Image Processing] area	[Image Processing (Exam. Tag)]	For adjusting the image processing parameter of the Exam. Tag.
		[Image Processing (List)]	For adding and editing information about image processing.
	[Hospital Information] area	[Operator]	For registering and editing the selection of the operator names.
		[Department]	For registering and editing the selection of the hospital departments.
		[Location]	For registering and editing the selection of the hospital wards.
		[Requesting Physician]	For registering and editing the selections for requesting physician names.
[Backup/Restore]	[Backup] area	[Backup]	For saving the settings of this device, patient information and logs.
		[Log Management]	For managing operation logs of this device.
		[Reject Log]	For managing logs of rejected images of this device.
	[Restore] area	[Restore]	For restoring saved settings and patient information.
	[Auto backup] area	[Setting]	For setting the auto backup function.
		[Maintain DB and images]	For restoring or deleting automatically backed up data.

1.2 Structure of user tool

Tool classification selection button	Tool classification display area	Tool selection button	Function
[Adjustment]	[System] area	[Date and Time]	For setting the date and time.
		[Touch Panel]	For adjusting the touch panel.
	[Panel] area	[Calibration]	For conducting the calibration of the DR Detector.
	[CS-7] area	[Update]	For updating this device.
		[Release Notes]	For displaying the version of this device and updated contents.
	[LongLen Unit] area	[Adjustment]	For adjusting the AeroDR Stitching Unit.
	[REGIUS Σ] area	[Information Notification Setting]	For setting the notification procedure of the communication control information.
		[Error History]	For displaying the error history screen.
		[Fractional Masking]	For setting fractional masking.
[Analysis]	[Image Quality] area	[QA/QC]	For evaluating and managing image quality.
	[Statistics Analysis] area	[Statistics Analysis]	For aggregating and taking the statistics of exposure history.
		[Setting]	For setting the dedicated application for aggregating and taking the statistics of exposure history.
	[Quality Management] area	[Raw Image Output]	For outputting raw images to media.
		[AFSSAPS Tool]	For outputting raw images to the host.
	[Test] area	[Drop/Impact PanelCheck]	For performing the DR Detector test.
		[Error Panel]	For displaying DR Detectors in which an error was detected.
[AeroRemote]	[Service] area	[Quick Repair]	For replacing the DR Detector.
		[Revert to before replacement]	For reverting the DR Detector settings to the settings before replacement.
[Manual]	[User Manual] area	[Operation Manual]	For displaying an operation manual.
		[User Tool Operation Manual]	For displaying an operation manual for user tool.
		[PDA Operation Manual]	For displaying a PDA operation manual.
		[Other]	For displaying other manuals.
	[Other Manual] area	[Other 2] - [Other 5]	For displaying other manuals.

1.3　Screen connections

The following describes the connection between various screens and how they transition. For details, see the corresponding page in the manual for each screen.

● Initial screen

Patient registration screen

List screen

The initial screen to be displayed will be either the patient registration screen or the list screen.

Press [System].

Press [Close].

● System monitor screen

This is the screen to confirm the status of this device and the devices connected to it. It is also where you can confirm the replacement period of regular replacement parts.

Meaning of the arrows

→ : Screen transition operation

▶ : Operation that returns to the previous screen

Press [Utility].

● Password screen

This is the screen to input the password when the user tool starts up.

Press [Close].

Input the password and press [OK].

● User tool screen　　The user tools screen changes display by button selection.

When [Setting] is selected

Tools for setting of this device start up from this screen.

When [Backup/Restore] is selected

Tools for data backup and restore start up from this screen.

When [Adjustment] is selected

Tools for adjustments of this device start up from this screen.

When [Analysis] is selected

Tools for analysis of this device start up from this screen.

When [AeroRemote] is selected

The quick repair tool start up from this screen.

When [Manual] is selected

Tools for displaying the manual start up from this screen.

Press each tool selection button.

● Each tool screen

Perform various settings.

17

1.4 Overview of the user tool screen

1.4.1 Structure of the user tool screen

On the user tool screen, there are buttons to select tools and their categories.
Select tools or their categories according to the purpose.

Number	Name	Function
(1)	Tool classification selection button	For selecting the user tool function you want to use. Switches the tool classification display.
(2)	Tool classification display area	Switches the button display for each tool classification.
(3)	Tool selection button	Starts the tool.
(4)	[Close]	Exits from the user tool, and returns to the system monitor screen.

1.4.2   Switching of the tool classification display

The display switches depending on the selected tool classification.

● **User tool screen**
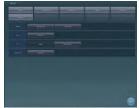
The user tools screen changes display by button selection.

When [Setting] is selected

Tools for setting of this device start up from this screen.

When [Backup/Restore] is selected

Tools for data backup and restore start up from this screen.

When [Adjustment] is selected

Tools for adjustments of this device start up from this screen.

When [Analysis] is selected

Tools for analysis of this device start up from this screen.

When [AeroRemote] is selected

The quick repair tool start up from this screen.

When [Manual] is selected
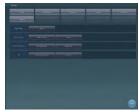
Tools for displaying the manual start up from this screen.

● **Tool classification display when [Setting] is selected**
When [Setting] is pressed, tool selection buttons are displayed for the setting of this device.

Number	Name	Function
(1)	[System] area	For setting the operation or display of the system.
(2)	[Panel] area	For setting the DR Detector.
(3)	[Overlay] area	For setting the marker and stamp overlay items to be overlaid on images.
(4)	[Exam. Tag] area	For editing the Exam. Tags and the RIS code mapping.
(5)	[Image Processing] area	For setting information relating to image processing in Exam.Tags.
(6)	[Hospital Information] area	For setting the selection menu screens to be displayed with the operator name selection screen and filter condition screen. [Operator], [Department], [Location] and [Requesting Physician] can be set.

● **Tool classification display when [Backup/Restore] is selected**
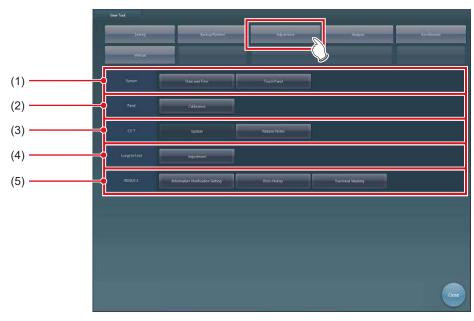
When [Backup/Restore] is pressed, tool selection buttons are displayed for data backup and restore.

Number	Name	Function
(1)	[Backup] area	Saves the settings and data.
(2)	[Restore] area	Restores the saved settings and data.
(3)	[Auto backup] area	For configuring automatic data backup settings and restoring automatically backed-up data.

● **Tool classification display when [Adjustment] is selected**

When [Adjustment] is pressed, tool selection buttons are displayed for the adjustment of this device.

Number	Name	Function
(1)	[System] area	For adjusting the date and touch panel.
(2)	[Panel] area	Starts the calibration tool.
(3)	[CS-7] area	For updating the system version.
(4)	[LongLen Unit] area	For adjusting the AeroDR Stitching Unit.
(5)	[REGIUS Σ] area	For setting the REGIUS SIGMA/SIGMA2.

● **Tool classification display when [Analysis] is selected**

When [Analysis] is pressed, tool selection buttons are displayed for the analysis of this device.

Number	Name	Function
(1)	[Image Quality] area	Starts the dedicated application for evaluating and managing image quality.
(2)	[Statistics Analysis] area	Starts and sets the dedicated application for aggregating and taking the statistics of exposure history.
(3)	[Quality Management] area	Outputs unprocessed raw images or the test pattern in DICOM file format.
(4)	[Test] area	Performs the DR Detector test.
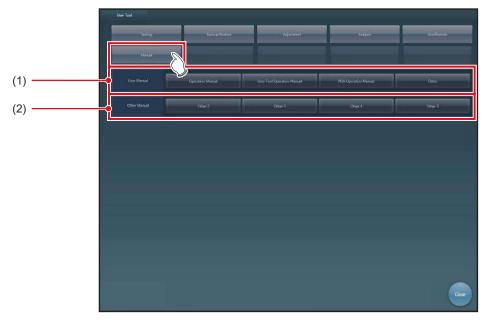
● **Tool classification display when [AeroRemote] is selected**

When [AeroRemote] is pressed, tool selection buttons are displayed for AeroRemote.

Number	Name	Function
(1)	[Service] area	Replaces the DR Detector by using the quick repair tool. For details of the quick repair tool, see the "User Tool Operation Manual for [AeroRemote]-[Service] Area".

● **Tool classification display when [Manual] is selected**

When [Manual] is pressed, tool selection buttons are displayed for manuals.

Number	Name	Functions
(1)	[User Manual] area	Displays "CS-7 Operation Manual", "CS-7 Operation Manual for User Tool", "PDA Operation Manual" and other manuals.
(2)	[Other Manual] area	For displaying other manuals 2 through 5.

✐ HINT
- [Manual], [User Manual] area, and [Other manual] area is not displayed if none of the manuals has been registered.

1.5　Function list of each tool screen

Describes the functions of each tool screen.
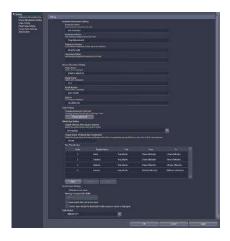
1.5.1　List of tool screens when [Setting] is selected

The tool screens displayed when [Setting] is selected are listed below.

[System] area

● CS-7 setting tool screen
This tool is for confirming and editing the information of the institution and device.
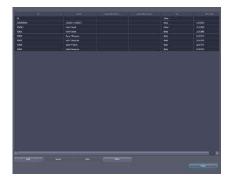
● Screen setting tool screen
This tool is to set display items and layout of the patient registration screen, list screen and so forth.

● Patient database tool screen
This tool is for editing the patient information registered in the database.

● Trauma patient setting screen
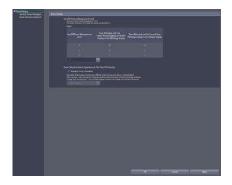
For setting the automatic number issuing function and default Exam. Tag for trauma patients.

[Panel] area

● Panel setting tool screen
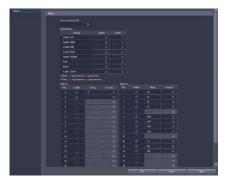
This tool is for setting the energy saving mode of the DR Detector.

[Overlay] area
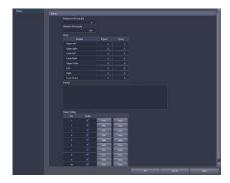
● Marker setting tool screen

This tool is for setting the marker to be overlaid on images.

● Stamp setting tool screen

This tool is for setting the stamp to be overlaid on images.

Chapter 1

[Exam. Tag] area
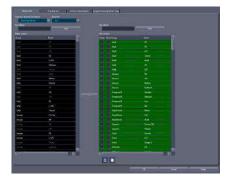
● Exam. Tag edit tool screen
This tool is for adding and editing the settings of the Exam. Tags.
The following 3 screens switch with tabs.

[Master Edit] screen
This tool is for adding Exam. Tags, that have been prepared in advance, to the system.

[Property List] screen
This tool is for editing the setting contents (property) of the Exam. Tags.

[Screen Customization] screen
This tool is for editing the placement of the Exam. Tag of the body part selection screen.
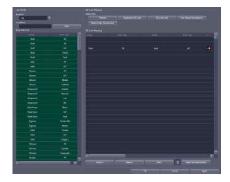
● [Image Processing (Exam. Tag)] screen
This tool is for adjusting the image processing parameters of the Exam. Tag.
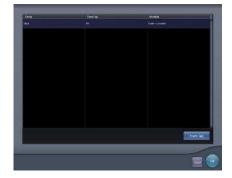
● RIS code mapping tool screen
This tool is for associating RIS codes from the RIS with codes for this device.

● Default Exam. Tag setting tool screen
For selecting an Exam. Tag that is set for a default Exam. Tag.

[Hospital Information] area

● Operator tool screen

This tool is for registering and editing the selection of the name of the operator.

● Department tool screen

This tool is for registering and editing the selection of the hospital departments.

● Location (Ward) tool screen

This tool is for registering and editing the selection of the hospital wards.

● Requesting physician registration tool screen

This tool is for registering and editing the selection of the requesting physicians.

1.5.2 List of tool screens when [Backup/Restore] is selected

The tool screens displayed when [Backup/Restore] is selected are listed below.

[Backup] area

● Backup tool screen

This tool is for saving the settings of this device, patient information and logs.

[Restore] area

● Restoring tool screen

This tool is for restoring saved settings and patient information.

[Auto backup] area

● Setting screen

This screen is for enabling/disabling the auto backup function and setting the storage drive for backup data.

● **Usage data maintenance screen**

This screen is for restoring or deleting automatically backed up data.
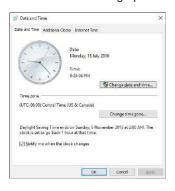
1.5.3 List of tool screens when [Adjustment] is selected

The tool screens displayed when [Adjustment] is selected are listed below.

[System] area

● **[Date and Time] screen**

This tool is for setting up the date and time.

● **Touch panel adjustment screen**

This tool is for adjusting the touch panel.

[Panel] area

● **Calibration tool screen**

This tool is for performing DR Detector calibration.

[CS-7] area

This tool is for updating this device and displaying the version of this device and updated contents.

> **IMPORTANT** ·····································
> • This function can be used only when this device has been contracted for remote maintenance.
> • This function is currently being adjusted.
> ···

[LongLen Unit] area
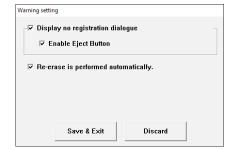
● **AeroDR Stitching Unit adjusting tool screen**

This tool is for adjusting the AeroDR Stitching Unit.

[REGIUS Σ] area
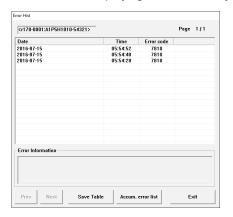
● **Communication control information notification setting screen**

This tool is for setting the notification procedure of the communication control information.
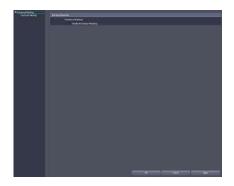
● Error history screen

This tool is for displaying the error history.

● Fractional masking tool screen

When the masking area includes the end part of the image targeted for reading (along the entire contour, etc.), this screen allows fine adjustment to be made by moving the masking position to the inside of the image.

1.5.4   List of tool screens when [Analysis] is selected

The tool screens displayed when [Analysis] is selected are listed below.

[Image Quality] area

This tool is for evaluating and managing image quality.
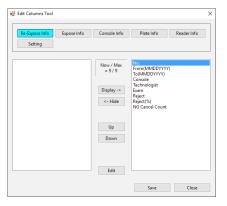
[Statistics Analysis] area

This tool is for aggregating and taking the statistics of exposure history.

● Edit Columns Tool screen

This tool is for setting the dedicated application for aggregating and taking the statistics of exposure history.

[Quality Management] area

This tool is for outputting unprocessed raw images or the test pattern in DICOM file format.
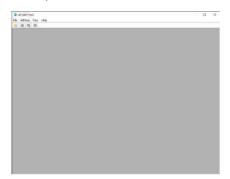
● [Raw Image Output] screen

This tool is for outputting raw images to the file.

● **[AFSSAPSTool] screen**

This tool is for outputting raw images to the host. In addition, outputs the test pattern in DICOM file format to the printer and host.

[Test] area

This tool is for performing the DR Detector test.

● **Drop/impact panel check tool screen**

This tool is for performing the DR Detector test.

● **Error panel list screen**

This tool is for displaying DR Detectors in which an error was detected by the drop/impact panel check tool.

1.5.5   List of tools screens when [AeroRemote] is selected

The tool screens displayed when [AeroRemote] is selected are listed below.

[Service] area

● **Quick repair tool screen**

This tool is for replacing a DR Detector.

● **Revert to before replacement tool screen**

This tool is for reverting the setting information of the replaced DR Detector to the status before replacement.

Chapter **2**

Starting and Exiting from the User Tool

This chapter describes how to start and exit from the user tool.

2.1 Startup and shutdown of the user tool

2.1.1 Startup of the user tool

The user tool is started from the patient registration screen or the list screen.

1 Press [System] on the patient registration screen or the list screen.

Patient registration screen
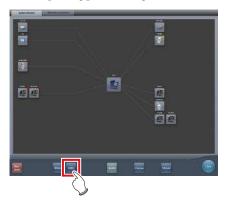
List screen

• The system monitor screen is displayed.
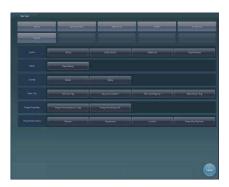
2 Press [Utility] on the system monitor screen.

• The password screen is displayed.

3 Input the password and press [ok].

• The user tool screen is displayed.
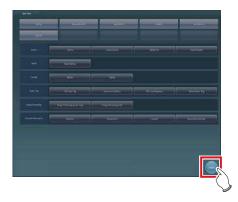
> 💡 **HINT** •
>
> • Depending on the current settings, the password screen may not be displayed.
>
> •

2.1.2   Shutdown of the user tool
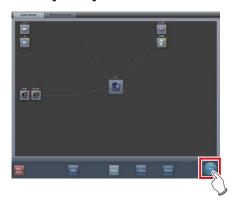
The user tool is exited from the user tool screen.

1 **Press [Close].**

- The system monitor screen is displayed.

2 **Press [Close].**

- The patient registration screen or the list screen is displayed.

Chapter **3**

Tools When [Setting] Is Selected [System] Area

This chapter describes the tools in the [System] area
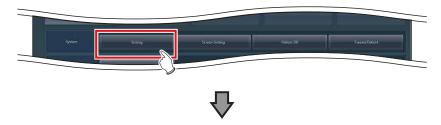
displayed when [Setting] is selected.
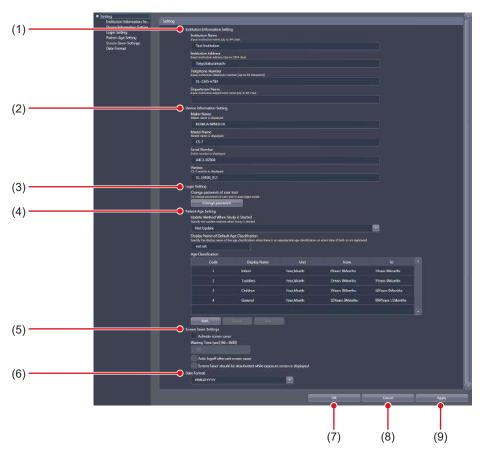
3.1 [Setting]

This tool is for confirming and editing the information of the institution and device.

3.1.1 CS-7 setting tool screen

When [Setting] of the [System] area is pressed, the CS-7 setting tool screen is displayed.

Number	Name	Function
(1)	[Institution Information Setting]	For confirming and inputting the institution information.
(2)	[Device Information Setting]	For confirming and inputting the device information.
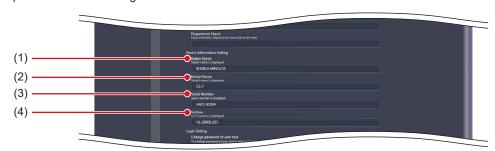
Number	Name	Function
(3)	[Login Setting]	Used to change the password of the user tool in Auto Login Mode.
(4)	[Patient Age Setting]	Used to set and edit the patient age information display.
(5)	[Screen Saver Settings]	For setting the screen saver.
(6)	[Date Format]	Sets the display format of date.
(7)	[OK]	Saves the settings and closes the screen.
(8)	[Cancel]	Closes the screen without saving the settings.
(9)	[Apply]	Saves the settings with the screen displayed.

● **[Institution Information Setting]**
This is part of the CS-7 setting tool screen.

Number	Name	Function
(1)	[Institution Name]	The institution name, institution address, telephone number and department name registered at the time of purchase are displayed. You can input up to 64 characters for [Institution Name], up to 1,024 characters for [Institution Address] and up to 64 characters for [Department Name].
(2)	[Institution Address]	
(3)	[Telephone Number]	
(4)	[Department Name]	

● **[Device Information Setting]**
This is part of the CS-7 setting tool screen.
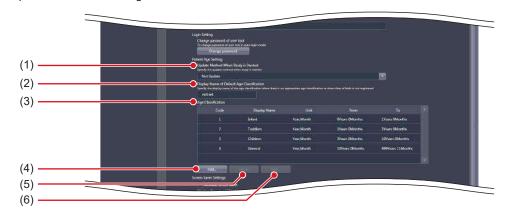
Number	Name	Function
(1)	[Maker Name]	Displays the name of the manufacturer.
(2)	[Model Name]	Displays the model name of this device.
(3)	[Serial Number]	Displays the serial number of the software.
(4)	[Version]	Displays the current version of the application for this device.

Chapter 3

● **[Login Setting]**

This is part of the CS-7 setting tool screen.

Number	Name	Function
(1)	[Change password of user tool]	Used to change the user tool password in automatic login mode.
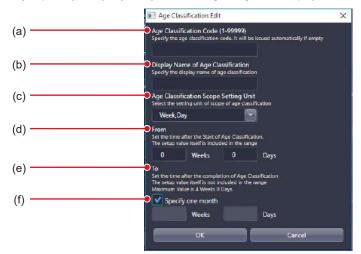
● **[Patient Age Setting]**

This is part of the CS-7 setting tool screen.

Number	Name	Function
(1)	[Update Method When Study is Started]	Select the method for updating the patient age when the study starts.
(2)	[Display Name of Default Age Classfication]	When the applicable age category does not exist or the birth date is not registered, enter the display name of the age category.
(3)	[Age Classification]	Indicates the age category.
(4)	[Add...]	Used to add the age category data. Select this to display the age classification edit screen.
(5)	[Delete]	Deletes the selected age category data.
(6)	[Edit...]	Used to edit the selected age category data. Select this to display the age classification edit screen.

HINT ••

• If you press [Add...] or [Edit...], the following dialog box is displayed.

Number	Name	Function
(a)	[Age Classification Code]	Sets the age classification code. If not filled in, a number will be automatically issued.
(b)	[Display Name of Age Classification]	Enter the name that indicates the age category.
(c)	[Age Classification Scope Setting Unit]	Select the unit that is used to set the age category range.
(d)	[From]	Enter the time that has elapsed from the birth at the start of the study that is shown in the age category. It includes the set value itself.
(e)	[To]	Enter the time that has elapsed from the birth at the end of the study that is shown in the age category. It does not include the set value itself. When [Week, Day] is selected in [Age Classification Scope Setting Unit], the maximum value is "4 Weeks 0 Days".
(f)	[Specify one month]	Selects a month for the age category range setting unit. Displayed only when [Week, Day] is selected in [Age Classification Scope Setting Unit].

••

● **[Screen Saver Settings]**
This is part of the CS-7 setting tool screen.

Number	Name	Function
(1)	[Activate screen saver]	Select when using a screen saver.
(2)	[Waiting Time [sec] (60-3600)]	For entering the time until the screen saver starts. The setting value should be between 60 and 3,600 seconds inclusive.
(3)	[Auto logoff after exit screen saver]	Displays the login screen after returning from the screen saver.
(4)	[Screen Saver should be deactivated while exposure screen is displayed]	The screen saver is deactivated while the exposure screen is displayed.

IMPORTANT ••

• If you will use a PDA, do not set [Auto logoff after exit screen saver] to [ON].

• If you will use a PDA on a device operating in the basic connection configuration, do not set [Activate screen saver] to [ON].

••

● **[Date Format]**

This is part of the CS-7 setting tool screen.
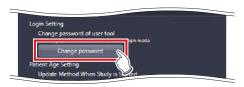
Number	Name	Function
(1)	[Date Format]	Used to select the date and time format.

● **[Date Format]**

This is part of the CS-7 setting tool screen.
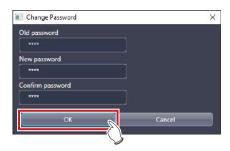
3.1.2 Operation of the [Login Setting] screen

The procedure for changing the user tool password is as follows.

● **Changing the user tool password**

1   Press [Change password].
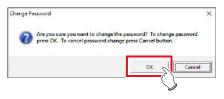
• The password change dialog is displayed.

2   Enter the current password and a new password in the password change dialog, then press [OK].

• A confirmation screen is displayed.

3   Press [OK].

• The password is changed and the display returns to the CS-7 setting tool screen.
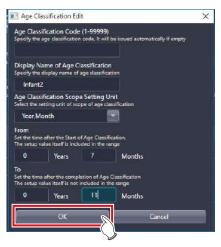
3.1.3 Operating the [Patient Age Setting] screen

The following describes the patient age editing procedure.

● **Addition of an age category**

1   Press [Add...].

• The age category editing screen is displayed.

2   Enter the desired age category and press [OK].

• The data is added and the display returns to the CS-7 setting tool screen.

Chapter 3
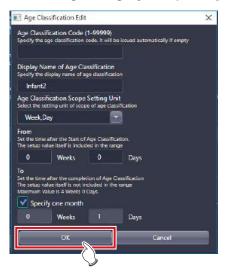
● **Edit of age category**

1 **Select the data you want to edit from [Age Classification] and [Edit...].**

- The age category editing dialog is displayed.

2 **Edit the age category and press [OK].**

- The data is edited and the display returns to the CS-7 setting tool screen.
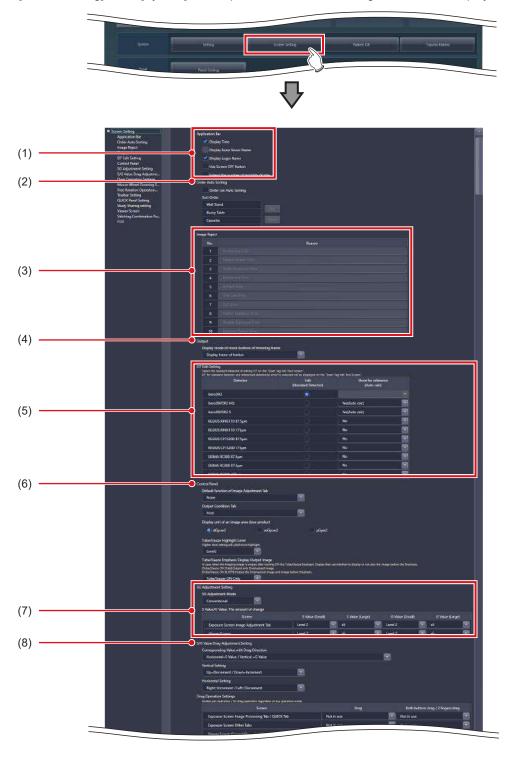
> 🔧 **HINT** ································
> - If an overlap occurs among the periods set for the items on the age classification edit screen, an error message is displayed.
> - You can edit only one age category at a time. [Edit...] cannot be selected if two or more data are selected in [Age Classification].
> ·······································

3.2 [Screen Setting]

This tool is for setting display items and layout of the patient registration screen, list screen and so forth.
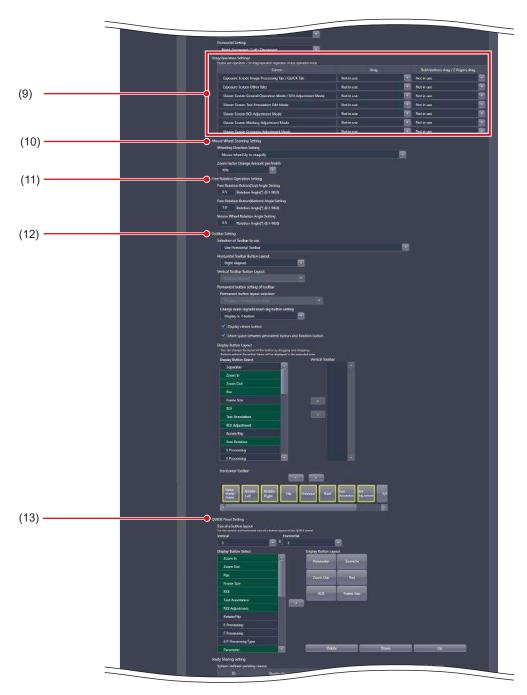
3.2.1 Screen setting tool screen

When [Screen Setting] of the [System] area is pressed, the screen setting tool screen is displayed.
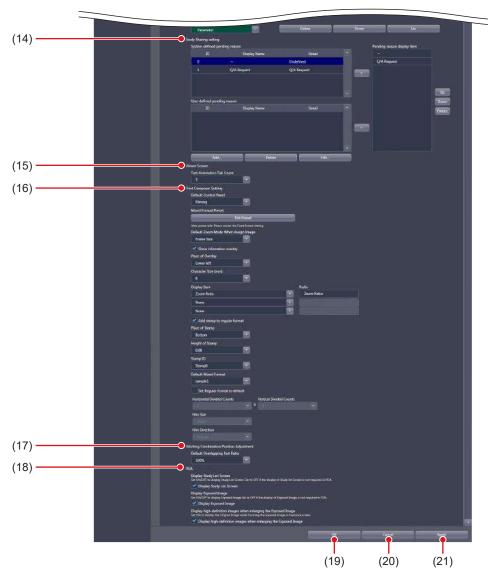
Number	Name	Function
(1)	[Application Bar]	For setting the display contents of the application bar.
(2)	[Order Auto Sorting]	For setting automatic sort of Exam. Tags and exposure screens.
(3)	[Image Reject]	For setting reject reasons. Up to 10 reasons can be set. When making this function enabled, contact Konica Minolta technical representatives.
(4)	[Output]	For selecting the display setting of the output trimming frame.
(5)	[EIT Edit Setting]	Used to edit the EIT value with the Exam. tag edit tool.
(6)	[Control Panel]	For selecting the setting of the [Image Proc] tab and [Output] tab, the highlight level of the highlight function for the tube/gauze, or the setting of the image to be output.
(7)	[SG Adjustment Setting]	Set the sync mode to be used when adjusting S and G values as well as the variation caused when you press the button. HINT • The degree of change of each level when the button is pressed are as follows. | Level	S value (Density when S value = 200 and G value = 2/S value change ratio)	G value | |---|---|---| | 1 | Density about 0.005/about 1% | About 1% | | 2 | Density about 0.01/about 2% | About 2% | | 3 | Density about 0.02/about 10% | About 3% | | 4 | Density about 0.05/about 20% | About 5% | | 5 | Density about 0.1/about 50% | About 10% |
(8)	[S/G Value Drag Adjustment Setting]	Set the direction of drag that is used to change the S value and the G value.

Number	Name	Function
(9)	[Drag Operation Settings]	Set the operation when you drag the S value and the G value on the exposure screen/viewer screen using a single mouse button or both right- and left-hand mouse buttons.
(10)	[Mouse Wheel Zooming Setting]	Specify how the zoom in/out are to be executed when the mouse wheel is rotated.
(11)	[Free Rotation Operation Setting]	Configure the amount of angle change applied via button operation of the free rotation dialog and mouse wheel operation when using the free rotation function.
(12)	[Toolbar Setting]	Set the layout of the tool bar on the exposure screen and the types of buttons to be displayed in the tool bar.
(13)	[QUICK Panel Setting]	For setting the button arrangement in the custom area for the [QUICK] tab.

Chapter 3

Number	Name	Function
(14)	[Study Sharing setting]	For checking and editing the pending reason for examination sharing.
(15)	[Viewer Screen]	For selecting the number of annotation tabs.
(16)	[Print Composer Setting]	Specify the settings that are enabled by default when the print composer is used.
(17)	[Stitching Combination Position Adjustment]	When combining stitching images, select the displayed transmittance of the overlapped portion that is enabled by default.
(18)	[PDA]	Specify the settings related to screen display of the PDA.
(19)	[OK]	Saves the settings and closes the screen setting tool screen.
(20)	[Cancel]	Closes the screen setting tool screen without saving the settings.
(21)	[Apply]	Saves the settings with the screen setting tool screen displayed.

● [Application Bar]

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Display Time]	Displays the time on the application bar.
(2)	[Display Exam Room Name]	Displays the exposure room name on the application bar.
(3)	[Display Login Name]	Displays the login name on the application bar.
(4)	[Use Screen OFF Button]	Displays the screen off icon on the application bar and enables the screen off function.
(5)	[Extend the number of modality display]	Displays up to a maximum of 13 modalities on the application bar.
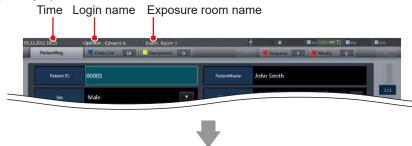
> **IMPORTANT**
> • If you will use a PDA on a device operating in the basic connection configuration, do not set [Use Screen OFF Button] to [ON].

The setting of [Application Bar] is reflected in the application bar of the patient registration screen, list screen, body part selection screen, exposure screen, and viewer screen. Here, the patient registration screen is described as an example.

Patient registration screen

Application bar

(Example) When all are selected

Time   Login name   Exposure room name
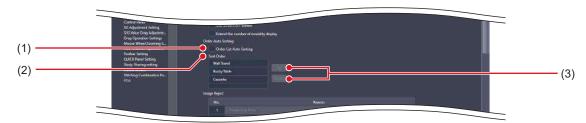
(Example) When all selections are released

Chapter 3

● [Order Auto Sorting]

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Order List Auto Sorting]	After the selection, sort the Exam. Tags and exposed images according to the condition.
(2)	[Sort Order]	Displays the orders of Exam. Tags and exposure screens.
(3)	[Up]/[Down]	For setting the orders of Exam. Tags and exposure screens.

The setting of [Order Auto Sorting] is reflected in the Exam. Tag display area of the body part selection screen and the work area of the exposure screen.

Body part selection screen

Exam. Tag display area

(Example) When [Wall Stand], [Bucky Table] and [AeroDR Detector] are set in sequence

Exam. Tags are registered in the order of wall stand, table, and DR Detector.

Exposure screen
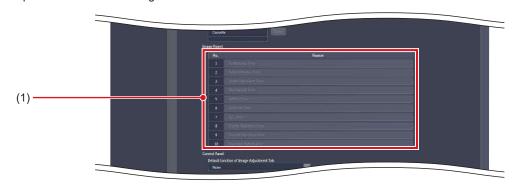
Work area

(Example) When [Wall Stand], [Bucky Table] and [AeroDR Detector] are set in sequence

Exposure images are displayed in the order of wall stand, table, and DR Detector.

● [Image Reject]

This is part of the screen setting tool screen.

(1)

Number	Name	Function
(1)	Reject reason list	For setting reject reasons. Up to 10 reasons can be set. When enabling these functions, contact Konica Minolta technical representatives.

The setting of the reject reason list is reflected in the reject reason display of the exposure screen.

Exposure screen

Press [ ]

Exposure screen

Reject reason display

● **[Output]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	Display mode of move buttons of trimming frame	For setting whether to display a frame around the trimming frame move button when performing trimming during HOST output or printer output. [Display frame of button]: Displays the frame around the trimming frame move button. [Hide frame of button]: Does not display the frame around the trimming frame move button.

The settings of the trimming frame move button are reflected when trimming is executed from the [Output] tab of the exposure screen.

Exposure screen

Trimming frame move button

(Example) When [Display frame of button] is selected in [Display mode of move buttons of trimming frame]

Trimming frame move button is displayed.

Exposure screen
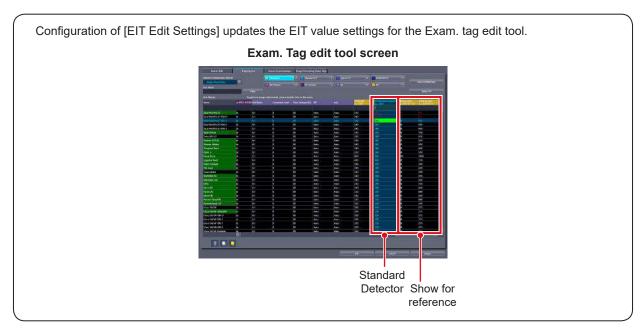
(Example) When [Hide frame of button] is selected in [Display mode of move buttons of trimming frame]

Trimming frame move button is hidden.

● [EIT Edit Setting]

This is part of the screen setting tool screen.
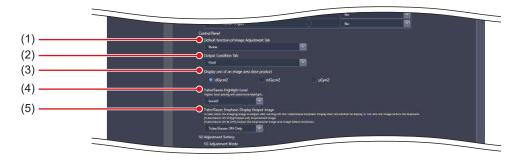
Number	Name	Function
(1)	Detector List	Used to select the DR Detector or CR cassette functioning as the reference when editing the EIT value with the Exam. Tag edit tool and to select the DR Detector or CR cassette that displays the EIT reference value in the Exam. Tag edit tool. [Show for reference] options include [Yes (auto calc)] and [No].

Configuration of [EIT Edit Settings] updates the EIT value settings for the Exam. tag edit tool.

Exam. Tag edit tool screen

Standard Detector   Show for reference

● **[Control Panel]**

This is part of the screen setting tool screen.
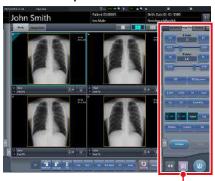
Number	Name	Function
(1)	[Default function of Image Adjustment Tab]	For selecting the image adjustment function that is enabled by default when the [Image Adjustment] tab is selected.
(2)	[Output Condition Tab]	For selecting the output condition that is enabled by default when the [Output Condition] tab is selected.
(3)	[Display unit of an image area dose product]	For selecting the display unit of an image area dose product.
(4)	[Tube/Gauze Highlight Level]	Sets the level to highlight tube/gauze.
(5)	[Tube/Gauze Emphasis Display Output Image]	When outputting a tube/gauze highlighted image, specify whether or not to output the previous image. [Tube/Gauze ON Only]: Output only emphasized images. [Tube/Gauze ON & OFF]: Output emphasized images and images before emphasis. 📝 **HINT** • The SOP Instance UID of image before emphasis is different from the one of emphasized image. Each RIS Image Number is the same.

The setting of [Control Panel] is reflected in the control panel of the exposure screen.

Exposure screen

Control panel

(Example) When [Disabled] is selected with [Default Function of Image Adjustment Tab]

Nothing is displayed.

Exposure screen

(Example) When [ROI] is selected with the [Default function of Image Adjustment Tab]

[ROI] is selected by default.

● [SG Adjustment Setting]

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[SG Adjustment Mode]	Set the sync mode used when adjusting S and G values.
(2)	[S Value/G Value, The amount of change]	Specify the degree of change when pressing the S value and G value adjusting button on each screen. Specify it in the range of [Level 1] to [Level 5] in [S Value (Small)] and [G Value (Small)]. [Level 5] causes the biggest degree of change. And specify the degree of change when pressing the large S/G values shifter button. Specify it in the range of [x2] to [x20] in [S Value (Large)] and [G Value (Large)]. If you select [x20] and press the large S/G values shifter button, the degree of change is 20 times that of [S Value (Small)] or [G Value (Small)].

The [S Value/G Value, The amount of change] setting is reflected in the speed of the exposure screen slider, when [Image Adjustment] tab is selected, and in the speed of the viewer screen slider.

Exposure screen

Slider

Viewer screen

Slider

🔖 **HINT** ••

• If you select [Conventional] in [SG Adjustment Mode], adjustment of G values causes a change in S value. If you select [Density/Contrast], adjustment of G values does not cause a change in S value. The default setting is [Conventional].

••

● **[S/G Value Drag Adjustment Setting]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Corresponding Value with Drag Direction]	Select the direction in which the S value and G value are changed on each screen.
(2)	[Vertical Setting]	Select the increment and decrement when you drag the S value and G value vertically.
(3)	[Horizontal Setting]	Select the increment and decrement when you drag the S value and G value horizontally.

● **[Drag Operation Settings]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Exposure Screen Image Processing Tab / QUICK Tab]	Select the operation when you drag the S value and G value on each screen using a single mouse button or both buttons.
(2)	[Exposure Screen Other Tabs]	
(3)	[Viewer Screen General Operation Mode / EFH Adjustment Mode]	
(4)	[Viewer Screen Text Annotation Edit Mode]	
(5)	[Viewer Screen ROI Adjustment Mode]	
(6)	[Viewer Screen Masking Adjustment Mode]	
(7)	[Viewer Screen Cropping Adjustment Mode]	

● **[Mouse Wheel Zooming Setting]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Wheeling Direction Setting]	Specify how the zoom in/out are to be executed when the mouse wheel is rotated.
(2)	[Zoom Factor Change Amount per Notch]	Specify the degree of change per notch in the range of [5%] to [50%].

● [Free Rotation Operation Setting]

This is part of the screen setting tool screen.
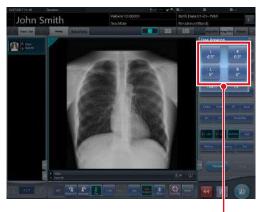
Number	Name	Function
(1)	[Free Rotation Button(Top) Angle Setting]	Sets the angle of rotation in 0.1° increments applied when the upper buttons on the free rotation dialog are pressed. Input between 0.1° and 90°.
(2)	[Free Rotation Button(Bottom) Angle Setting]	Sets the angle of rotation in 0.1° increments applied when the lower buttons on the free rotation dialog are pressed. Input between 0.1° and 90°.
(3)	[Mouse Wheel Rotation Angle Setting]	Sets the angle of rotation in 0.1° increments applied per notch when the mouse wheel is rotated while using the free rotation function. Input between 0.1° and 90°.

Configuration of [Free Rotation Operation Settings] updates the angle of rotation used when the free rotation function is selected on the Viewer screen and updates the display of buttons on the [Free Rotation] dialog.

Exposure screen

[Free Rotation] dialog

IMPORTANT
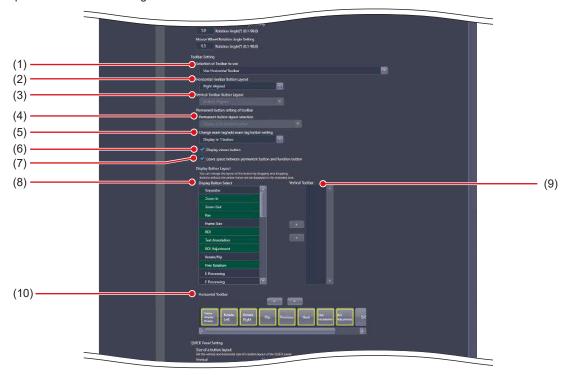
• Entering a value outside of the setting range causes an error, and the system rejects the entered value.

Chapter 3

● **[Toolbar Setting]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Selection of Toolbar to use]	Set the layout of the tool bar to be displayed on the exposure screen. Select [Use Horizontal Toolbar], [Use Vertical Toolbar], or [Use both Horizontal and Vertical Toolbar].
(2)	[Horizontal Toolbar Button Layout]	Set the layout of the buttons in the tool bar when the horizontal tool bar is used. Select [Right Aligned] or [Left Aligned].
(3)	[Vertical Toolbar Button Layout]	Set the layout of the buttons in the tool bar when the vertical tool bar is used. Select [Top Aligned] or [Bottom Aligned].
(4)	[Permanent button layout selection]	Set to use the horizontal or vertical tool bar for the buttons that always appear in the tool bar.
(5)	[Change exam tag/add exam tag button setting]	Set to display the change exam tag/add exam tag button as one button or two buttons.
(6)	[Display viewer button]	The [Viewer] button is always displayed in the tool bar when selected.
(7)	[Leave space between permanent button and function button]	One or more spaces are inserted between the permanent buttons and other buttons when selected.
(8)	[Display Button Select]	Select the buttons to be displayed in the tool bar. The selected item is highlighted in green.
(9)	[Vertical Toolbar]	Set the button layout in the vertical tool bar. You can use drag & drop to move a button within the tool bar, or to move a button between the vertical and horizontal tool bars. Pressing [>] places the item selected in [Display Button Select] in the vertical tool bar. Pressing [<] cancels the placing of the selected item.
(10)	[Horizontal Toolbar]	Set the button layout in the horizontal tool bar. Pressing [V] places the item selected in [Display Button Select] in the horizontal tool bar. Pressing [Λ] cancels the placing of the selected item. You can use drag & drop to move a button within the tool bar, or to move a button between the vertical and horizontal tool bars.

The [Toolbar Setting] setting is reflected in the tool bar layout on the exposure screen, and the button layout within the tool bar.

Exposure screen

Horizontal tool bar

Exposure screen

Vertical tool bar

If some of the buttons cannot be displayed, is displayed. Pressing expands the tool bar area and displays all buttons.

For horizontal tool bar

For vertical tool bar
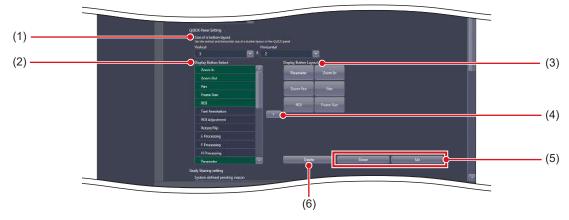
Chapter 3

📝 **IMPORTANT** ··

• Among the items that can be selected in [Display Button Select], the items common to [Toolbar Setting] and [QUICK Panel Setting] can only be selected in either [Toolbar Setting] or [QUICK Panel Setting]. If an item is selected as a button to be displayed in one setting, it cannot be selected in the other.

··

HINT ···

- The [Exam. Tag] buttons can be switched by holding down this button while either one of the buttons is displayed. The [Left Rotate]/[Right Rotate] buttons can be switched in the same manner.
- If the setting is changed to use either the horizontal or vertical tool bar after both the horizontal and vertical tool bars are used, the buttons displayed in the unused tool bar are moved to the remaining tool bar. Such buttons are displayed at the end of the buttons set in the remaining tool bar.
- Although most of the items displayed in [Display Button Select] are common with [QUICK Panel Setting], the following items are only displayed in [Toolbar Setting].

Name	Function
Separator	Inserts a space between functional buttons in the tool bar. Continuous setting is possible. Buttons can be inserted into up to 50 positions each on the vertical and horizontal tool bars.
QUICK	Displays the custom tab.
Flip	Flips the image.
Right Rotate	Turns the image to the right.
Left Rotate	Turns the image to the left.
ALL Reset	Resets rotation/flip and various image adjustments, and restores the system to the status in which the image was displayed.
Viewer	Displays the viewer screen.
< Prev.	Displays the previous image.
Next >	Displays the next image.
Status display	Displays the current rotation status by the angle value.

···

● [QUICK Panel Setting]

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Size of a button layout]	For setting a number of buttons to be arranged in the custom area at [QUICK] tab selection.
(2)	[Display Button Select]	Displays the buttons which can be arranged in the custom area at [QUICK] tab selection. The background of the characters for a function located to the button turns green.
(3)	[Display Button Layout]	Displays the buttons which are to be displayed in the custom area at [QUICK] tab selection.
(4)	[>]	Copies the buttons selected using [Display Button Select] to [Display Button Layout].
(5)	[Down]/[Up]	For setting the order of the buttons to be displayed.
(6)	[Delete]	Deletes the selected button.

The [QUICK Panel Setting] setting is reflected in the button layout of the custom area at [QUICK] tab selection.

Exposure screen

Custom area
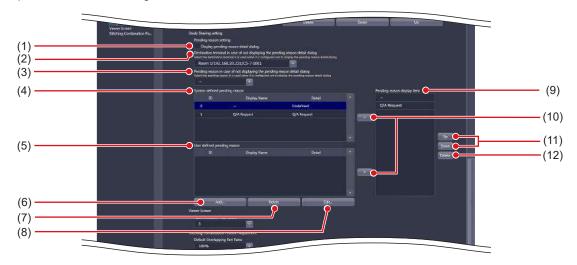
🗒 **IMPORTANT** ∙∙∙

• Among the items that can be selected in [Display Button Select], the items common to [Toolbar Setting] and [QUICK Panel Setting] can only be selected in either [Toolbar Setting] or [QUICK Panel Setting]. If an item is selected as a button to be displayed in one setting, it cannot be selected in the other.

∙∙

✎ **HINT** ∙∙

• Selecting [Display Button Select] can select the shortcut to the control panel.

∙∙
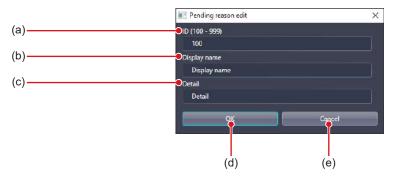
● **[Study Sharing setting]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Display pending reason detail dialog]	Displays the pending reason detail dialog.
(2)	[Destination terminal in case of not displaying the pending reason detail dialog]	For selecting the destination terminal when the system has been set to hide the pending reason detail dialog.
(3)	[Pending reason in case of not displaying the pending reason detail dialog]	For selecting the pending reason when the system has been set to hide the pending reason detail dialog.
(4)	[System defined pending reason]	The pending reason registered as a default. ([Display Name] and [Detail] cannot be edited or deleted.)
(5)	[User defined pending reason]	Displays a pending reason that an user has added.
(6)	[Add…]	For adding a pending reason. Select this to display the pending reason edit dialog.
(7)	[Delete]	Deletes the selected pending reason.
(8)	[Edit…]	For editing the selected pending reason. Select this to display the pending reason edit dialog.
(9)	[Pending reason display item]	Displays the pending reason to be displayed in the list screen and exposure screen.
(10)	[>]	Copies the pending reason selected from [System defined pending reason] or [User defined pending reason] to [Pending reason display item].
(11)	[Up]/[Down]	For setting the order of pending reason to be displayed.
(12)	[Delete]	Deletes the selected pending reason.

✎ **HINT** •••

• If you press [Add...] or [Edit...], the following dialog box is displayed.
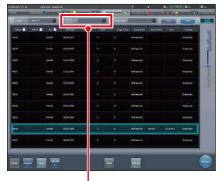
Number	Name	Function
(a)	[ID]	For entering the pending reason ID. You can only enter the ID when you press [Add...] and the patient information editing screen is displayed. You cannot enter the ID if you press [Edit...]. You can enter from 100 to 999.
(b)	[Display name]	For entering the pending reason name.
(c)	[Detail]	For entering a description of the pending reason.
(d)	[OK]	Saves the settings and closes the screen.
(e)	[Cancel]	Closes the screen without saving the settings.

••

The [Study Sharing setting] settings are reflected in the list screen, when [Study Sharing] is selected, and in the pending reason detail dialog of the exposure screen.

List screen

Pending reason

Exposure screen

Pending reason

● [Viewer Screen]

This is part of the screen setting tool screen.

(1)

Number	Name	Function
(1)	**[Text Annotation Tab Count]**	For selecting the number of annotation tabs.

The setting of [Text Annotation Tab Count] is reflected in the number of annotation tabs of the viewer screen.

Viewer screen

Viewer screen

Annotation tab

(Example) When [01] is selected with [Text Annotation Tab Count]

The annotation tab is not displayed.

(Example) When [05] is selected with [Text Annotation Tab Count]

The annotation tab is set to 5.

● [Print Composer Setting]

This is part of the screen setting tool screen.
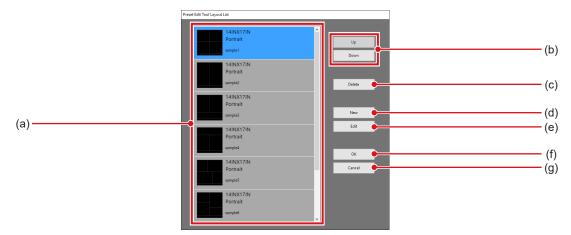
Number	Name	Function
(1)	[Default Control Panel]	Set the control panel that is displayed by default.
(2)	[Edit Preset]	Select this to display the Preset Edit Tool Layout List screen.
(3)	[Default Zoom Mode When Assign Image]	Set the size of the exposed image when allocating it to the image box.
(4)	[Show information overlay]	Selecting this to overlay information such as study time/date and accession number on the Print Composer screen.
(5)	[Place of Overlay]	Set the overlay position of the magnification/reduction ratio.
(6)	[Character Size (mm)]	Set the font size of the magnification ratio overlay.
(7)	[Display Item]/[Prefix]	Set the caption label. Set [Display Item] and then input [Prefix].
(8)	[Add stamp to regular format]	Selecting this allocates the stamp when the standard format is applied.
(9)	[Place of Stamp]	Set the stamp position.
(10)	[Height of Stamp]	Set the stamp height.
(11)	[Stamp ID]	Set the stamp to be allocated.
(12)	[Default Mixed Format]	Set the non-standard format that is applied by default.
(13)	[Set Regular format to default]	Selecting this can apply the standard format by default. Selecting this disables [Default Mixed Format].
(14)	[Horizontal Divided Counts]/[Vertical Divided Counts]	Set the division number of the standard format.
(15)	[Film Size]	Set the film size of the standard format.
(16)	[Film Direction]	Set the film direction of the standard format.

📝 **IMPORTANT** ....

• [Show zoom ratio] and [Place of Overlay] are reflected in every image box of the print composer.

....
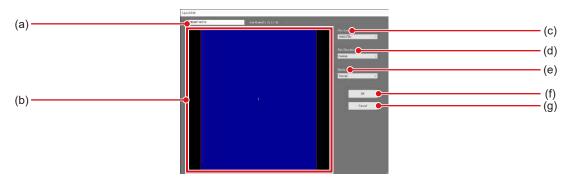
✎ HINT ••

• Press [Edit Preset] to display the Preset Edit Tool Layout List screen.

Number	Name	Function
(a)	Preset list	The added preset is displayed.
(b)	[Up]/[Down]	Set the sequence of the presets you want to display.
(c)	[Delete]	Deletes the selected preset.
(d)	[New]	Adds a preset. Select this to display the Layout Edit screen.
(e)	[Edit]	Edit the selected preset. Select this to display the Layout Edit screen.
(f)	[OK]	Save the settings and close the Preset Edit Tool Layout List screen.
(g)	[Cancel]	Closes the Preset Edit Tool Layout List screen without saving the settings.

• Layout Edit screen is displayed if you press [New] or [Edit] on the Preset Edit Tool Layout List screen.

Number	Name	Function
(a)	Layout name	Enter the name of the preset. Use up to 16 characters.
(b)	Layout editing area	Set the film layout.
(c)	[Film Size]	Set the film size.
(d)	[Film Direction]	Set the film direction.
(e)	[Stamp]	Set the stamp.
(f)	[OK]	Closes the Layout Edit screen after reflecting your editing work in the Preset Edit Tool Layout List screen.
(g)	[Cancel]	Closes the Layout Edit screen without reflecting your editing work in the Preset Edit Tool Layout List screen.

•••

● **[Stitching Combination Position Adjustment]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Default Overlapping Part Ratio]	When combining stitching images, select the displayed transmittance of the overlapped portion that is enabled by default.

● **[PDA]**

This is part of the screen setting tool screen.

Number	Name	Function
(1)	[Display Study List Screen]	The study list screen is displayed on the PDA when selected.
(2)	[Display Exposed Image]	The exposed image is displayed on the exposure screen of the PDA when selected.
(3)	[Display high-definition images when enlarging the Exposed Image]	The detailed image is displayed on the enlarged exposure screen of the PDA when selected. ⚠ **IMPORTANT** • When a high-resolution monitor is connected, a detailed image cannot be displayed even if this setting is enabled.

3.2.2 Operating the Pending Reason Edit screen

The following describes how to edit pending reasons.

● **Adding a pending reason**

1 **Press [Add...].**

- The pending reason edit screen will be displayed.

2 **Enter the pending reason you want to add and press [OK].**

- The data is added and you are returned to the screen setting tool screen.

● **Editing pending reason**

1 **Select the data you want to edit from [User defined pending reason], and press [Edit...].**

- The pending reason edit screen will be displayed.

2 **Edit the pending reason and press [OK].**

- The data is edited and you are returned to the screen setting tool screen.

🖎 **HINT**

- You can only edit pending reasons one at a time. If you select multiple data in [User defined pending reason], you will not be able to select [Edit...].
- You cannot edit the Patient ID in the pending reason edit screen.

3.2.3 Operating the Preset Edit Tool

The following describes the procedure for editing the output format that is registered as the preset format.
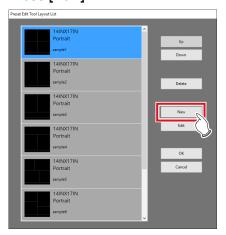
● **Addition of preset**

1 Press [Edit Preset].
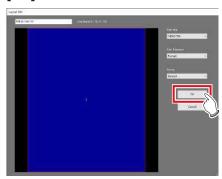
- The Preset Edit Tool Layout List screen is displayed.

2 Press [New].

- The Layout Edit screen is displayed.
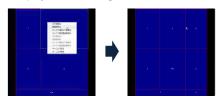
3 Set the preset you want to add and press [OK].

- The preset is added and the display returns to the preset edit tool screen.

HINT
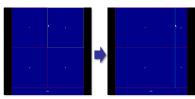
- Right-click the mouse in the layout editing area to add or delete the layout split line. Right-clicking the mouse displays the following menu commands.
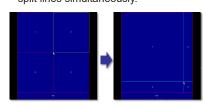
Menu commands	Function
Add Horizontal Line	Adds a horizontal line to the entire film surface to split the existing split lines and image boxes.
Add Vertical Line	Adds a vertical line to the entire film surface to split the existing split lines and image boxes.
Add Selected Horizontal Line	Adds a horizontal line to the selected box area to split the image boxes.
Add Selected Vertical Line	Adds a vertical line to the selected box area to split the image boxes.
Delete Horizontal Line	Deletes the horizontal line to combine the currently split image boxes.
Delete Vertical Line	Deletes the vertical line to combine the currently split image boxes.
Delete Horizontal Line Only Selected Area	Deletes the horizontal line in the selected box area to combine the currently split image boxes.
Delete Vertical Line Only Selected Area	Deletes the vertical line in the selected box area to combine the currently split image boxes.
Set Nametag Box	Sets the selected box area in the name tag box. Only one area can be set in the name tag box.
Unset Nametag Box	Cancels the name tag setting in the selected box area.
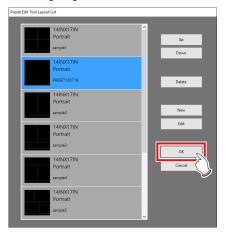
- When moving the split line, drag it. Moving the split line changes the shape of the image boxes, and box numbers are newly assigned again.

- Dragging the intersection of split lines can move two split lines simultaneously.

Chapter 3

4 Press [OK].

- A confirmation screen is displayed.

5 Press [Yes].

- The settings are saved, and the display returns to the screen setting tool screen.
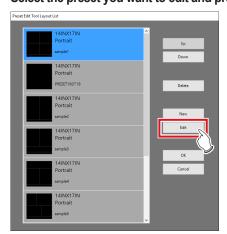
● **Editing a preset**

1 Press [Edit Preset].

- The Preset Edit Tool Layout List screen is displayed.
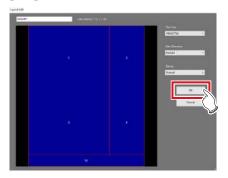
2 Select the preset you want to edit and press [Edit].
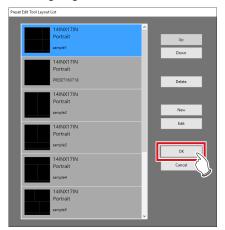
- The Layout Edit screen is displayed.

3 Change the preset settings and press [OK].
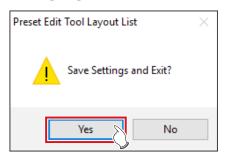
- The preset is changed and the display returns to the Preset Edit Tool Layout List screen.

4 Press [OK].

- A confirmation screen is displayed.

5 Press [Yes].

- The settings are saved, and the display returns to the screen setting tool screen.
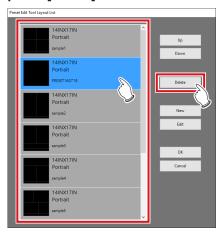
● Deleting a preset

1 Press [Edit Preset].

- The Preset Edit Tool Layout List screen is displayed.
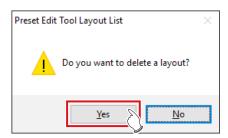
2 Select the preset you want to delete and press [Delete].
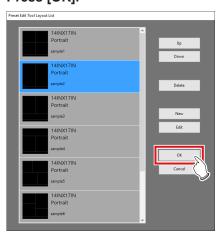
- A deletion confirmation screen is displayed.

3 Press [Yes].

- The preset is deleted.
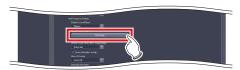
4 Press [OK].
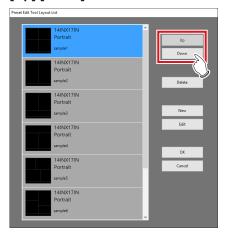
- The settings are saved, and the display returns to the screen setting tool screen.

● Rearranging the presets

1 Press [Edit Preset].

- The Preset Edit Tool Layout List screen is displayed.
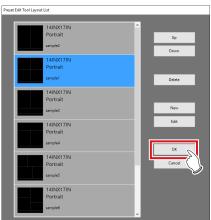
2 Select the presets whose display sequence you want to change, and press [Up]/[Down].

- The alignment sequence of the presets is changed.

3 Press [OK].
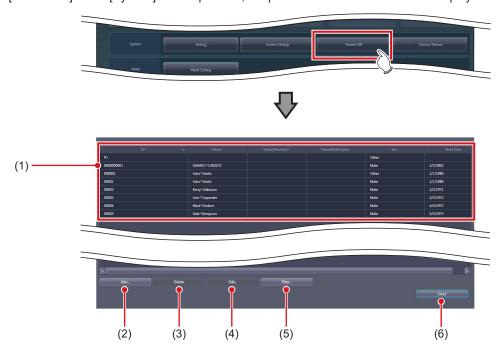
- The settings are saved, and the display returns to the screen setting tool screen.

3.3 [Patient DB]

The patient information such as patient name, gender, date of birth, etc., that were registered in the database at the time of examination can be edited (modified or deleted). Also, it is possible to register new patient information. Registered patient information can be used for the automatic search during the examination registration.

3.3.1 Patient database tool screen
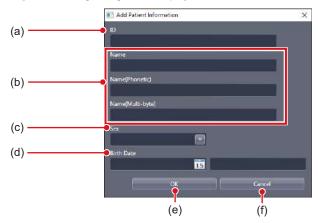
When [Patient DB] of the [System] area is pressed, the patient database tool screen is displayed.

Number	Name	Function
(1)	Patient information display area	Displays patient ID, name, sex, and date of birth. The patient's name is displayed in Roman characters, half-width katakana, and kanji. Set to hide/unhide the half-width katakana and kanji during installation.
(2)	[Add…]	For adding the patient information. Select this to display the patient information editing screen.
(3)	[Delete]	Deletes the selected patient information.
(4)	[Edit…]	For editing the selected patient information. Select this to display the patient information editing screen.
(5)	[Filter…]	Extracts the data displayed in the patient information display area. Select this to display the filter condition input screen.
(6)	[Close]	Closes the screen.
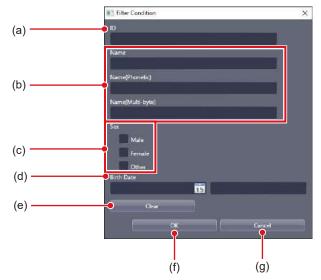
💡 **HINT** ••

• If you press [Add...] or [Edit...], the following dialog box is displayed.

Number	Name	Function
(a)	[ID]	For inputting the patient ID. Input is possible only when the patient information editing screen is displayed by pressing [Add...]. Input is not possible when [Edit...] is pressed.
(b)	[Name]	For inputting the name of patient.
(c)	[Sex]	For selecting the gender of the patient from [Male], [Female] and [Other]. [Other] is used when no gender difference is necessary or the gender of the patient is unknown.
(d)	[Birth Date]	For inputting the birth date of the patient.
(e)	[OK]	Saves the input or selected data and closes the patient information editing screen.
(f)	[Cancel]	Closes the patient information editing screen without saving the input or selected data.

• When [Filter...] is pressed, the following dialog box is displayed.
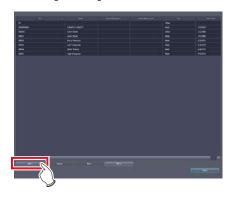
Number	Name	Function
(a)	[ID]	For inputting the patient ID.
(b)	[Name]	For inputting the name of patient.
(c)	[Sex]	For selecting the gender of the patient from [Male], [Female] and [Other]. You can select 2 or more items at a time. [Other] is used when no gender difference is necessary or the gender of the patient is unknown.
(d)	[Birth Date]	For inputting the birth date of the patient.
(e)	[Clear]	Deletes the input and selected conditions.
(f)	[OK]	Extracts patient information with the input and selected conditions and closes the filter condition input screen.
(g)	[Cancel]	Cancels the input and selected conditions and closes the filter condition input screen.

•••

3.3.2   Operation of the patient database tool

Editing methods for patient information are as follows.

● **Addition of patient information**

1   Press [Add…].

  • The patient information editing screen is displayed.

2   Input the patient information you want to add and press [OK].

  • A confirmation screen is displayed.

3   Press [OK].
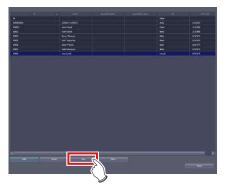
  • The data is added, and the display returns to the patient database tool screen.

● **Editing patient information**

1   Select the data you want to edit from the patient information display area, and press [Edit…].

  • The patient information editing screen is displayed.

2   Edit the patient information, and press [OK].

  • A confirmation screen is displayed.

3   Press [OK].

  • The data is edited and the display returns to the patient database tool screen.

📋 **IMPORTANT** ••••••••••••••••••••••••••••••••
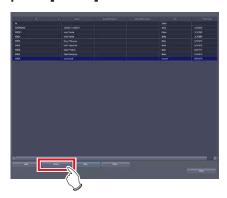
  • Even when you edit the patient information recorded in the patient database, the exposure history is not edited.
••

🔦 **HINT** ••••••••••••••••••••••••••••••••••••••

  • You can only edit patient information one by one. When several pieces of data in the patient information display area are selected, you cannot select [Edit...].
  • You cannot edit the patient ID using the patient information editing screen.
••

● **Deletion of patient information**

1 Select the data you want to delete from the patient information display area, and press [Delete].

- The deletion confirmation screen is displayed.

2 Press [OK].

- A confirmation screen is displayed.

3 Press [OK].

- The data is deleted and the display returns to the patient database tool screen.

✎ **HINT** ••••••••••••••••••••••••••••••••••

- The patient information used for the examination cannot be deleted. An error message is displayed when [Delete] is pressed.
- To select a number of adjacent pieces of patient information, select the first and last pieces of patient information while holding down the Shift key.
- To select a number of pieces of patient information which are not adjacent, select each of the desired pieces of patient information while holding down the Ctrl key. Selection is canceled by selecting the selected patient information again.
- To cancel all selection, select other patient information without pressing the Shift key or the Ctrl key.

••

● **Extraction of patient information**

1 Press [Filter…].

- The filter condition input screen is displayed.

2 Input conditions you want to use, and press [OK].

- The display returns to the patient database tool screen, and the extracted data with the input conditions is displayed.

✎ **HINT** ••••••••••••••••••••••••••••••••••
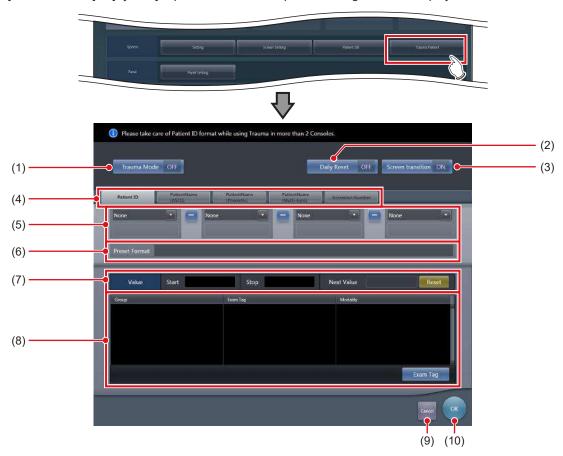
- To display all patient information, press [OK] without inputting anything. The extraction conditions are canceled.

••

3.4 [Trauma Patient]

This tool is for setting the automatic number issuing function and default Exam. Tag for the trauma patient.

3.4.1 Trauma patient setting screen

When [Trauma Patient] in [System] is pressed, the trauma patient setting screen is displayed.

Number	Name	Function
(1)	[Trauma Mode]	Hide or unhide the [trauma] button on the initial screen.
(2)	[Daily Reset]	Turns the daily reset function [ON] or [OFF]. If set to [ON], the serial number set on the automatic number issuing function is reset when the date is changed, and the value is returned to the starting number.
(3)	[Screen transition]	Turn the automatic screen transition function [ON] or [OFF]. If set to [ON], the display is switched to the Body part selection screen as soon as the number is automatically issued using the [Trauma Mode] button.
(4)	Target item tab	Select the target item of the automatically issued number by choosing the corresponding tab.
(5)	Component selection menu	Select the components of the issued number from the menu.
(6)	[Preset Format]	Displays an example of the number when issued according to the specified automatic issue format. [Next Value] is indicated as the value of the serial number.
(7)	[Value]	Set the starting and ending values of a serial number. If you press [Reset], [Next Value] is returned to the starting value.
(8)	Default Exam. Tag display area	Displays groups, names, and modalities of the set default Exam. Tag. When [Exam. Tag] is pressed, the default Exam. Tag selection screen is displayed, from which you can select a default Exam. Tag.
(9)	[Cancel]	Closes the screen without saving the modifications made on this screen.
(10)	[OK]	Closes the screen after saving the modifications conducted on this screen.

3.4.2 Operation of the trauma patient setting screen

The trauma patient settings procedure is as follows.

● **Operation of automatic number issue**

1 **Select the item for automatic number issuing by choosing the corresponding tab.**

📷 **IMPORTANT** •

• [Patient ID] is a mandatory setting item.
• When you use the trauma patient setting on two more of the devices, ensure that no overlapping occurs among the set items.

• •

2 **From the menu, select the items to comprise the number.**

• An example of the automatically issued number is displayed in [Preset Format].
• Using the corresponding tabs, set the configuration items for each of the items you require.

📷 **IMPORTANT** •

• Serial numbers can be between 3 and 5 digits long, but when setting multiple serial numbers for [Patient ID] or [Accession Number], select serial numbers with the same number of digits.
• Be careful since, when neither serial numbers nor the time is set for [Patient ID], the same Patient ID will be issued each time.

• •

✏️ **HINT** •

• The components that can be selected from the menu are as shown below.
  – Western Calendar(yyyymmdd)
  – Western Calendar(mmddyyyy)
  – Western Calendar(ddmmyyyy)
  – Western Calendar(yymmdd)
  – Western Calendar(mmddyy)
  – Western Calendar(ddmmyy)
  – Time(hhmmss)
  – Arbitrary Character String
  – 5 Digit Serial Number
  – 4 Digit Serial Number
  – 3 Digit Serial Number
  – Serial Number (only [Accession Number] can be selected)
• When [Arbitrary character string] is selected, the input field is displayed.

• When delimiting one component from another, press [−] placed between the menus.

• •

Chapter 3

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3 Set the starting and ending values using [Value].

- Enter the beginning value for the serial number in [Start], and enter the ending value for the serial number in [Stop].

📝 **HINT** ·································

- After the ending value is issued, the next number is returned to the starting value.
- The number to be issued next time is displayed in [Next Value]. If you want to return to the starting value, press [Reset].

·······································

4 Turn [Daily Reset] and [Screen transition] [ON] or [OFF], as necessary.

5 Press [OK].

- The settings are saved and the display returns to the user tool screen.

● Registration of the Default Exam. Tags
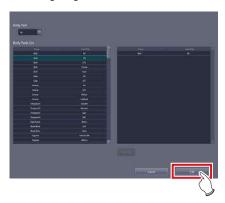
1 Press [Exam Tag].

- The default Exam. Tag selection screen is displayed.

2 Drag and drop an Exam. Tag that is to be registered as the default Exam. Tag from [Body Parts List] to the default Exam. Tag area.

📋 **IMPORTANT** ·································

- The alignment sequence of the keys in the default Exam. Tags area is the exposure sequence. You can modify their alignment sequence using drag and drop operations.

·······································

3 **Press [OK].**
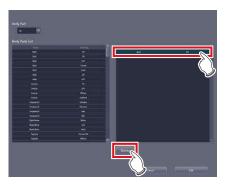
- The default Exam. Tag is added and the display returns to the trauma patient setting screen.

● **Deletion of default Exam. Tags**

1 **Press [Exam Tag].**

- The default Exam. Tag selection screen is displayed.

2 **Select an Exam. Tag you want to delete from the default Exam. Tags area and press [Delete].**

- The default Exam. Tag is deleted.

Chapter **4**

Tools When [Setting] Is Selected [Panel] Area

This chapter describes the tools in the [Panel] area
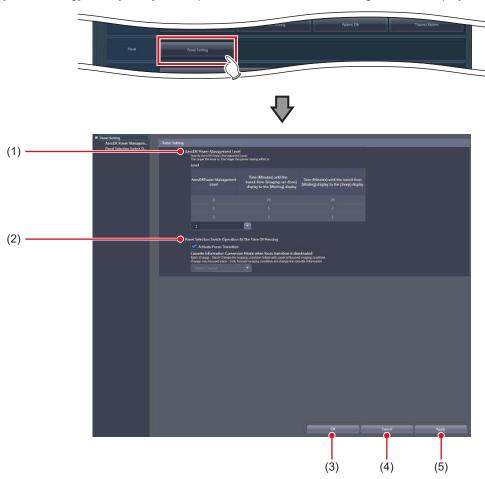
displayed when [Setting] is selected.

4.1 [Panel Setting]

This tool is for setting the DR Detector.

4.1.1 Panel setting tool screen

When [Panel Setting] of the [Panel] area is pressed, the DR Detector setting screen is displayed.

Number	Name	Function
(1)	[AeroDR Power Management Level]	Set the energy saving mode level of the DR Detector.
(2)	[Panel Selection Switch Operation At The Time Of Pressing]	Set the function that moves the focus to the Exam. Tag when the selection switch of the DR Detector is pressed.
(3)	[OK]	Saves the settings and closes the screen.
(4)	[Cancel]	Closes the screen without saving the settings.
(5)	[Apply]	Saves the settings with the screen displayed.

> **IMPORTANT**
> - If the AeroDR power management level setting values are increased, it may take some time to return to the "Ready" state from "Waiting" or "Sleep".
> - When using the checkup mode, the AeroDR power management level is locked at the settings for checkup mode.
> - DR Detector selecting switch does not work under the Exam. tags of wall stand or table position by the AeroDR UF cable setting.
> - The selection switch of the DR Detector does not operate when the dialogs for Reacquisition of Images, Image Exchange, Image Copy, Complete, Suspend, etc. are displayed.

● **[AeroDR Power Management Level]**

This is part of the panel setting tool screen.

Number	Name	Function
(1)	[Level]	Select the energy saving mode level of the DR Detector. Basic connection: select from [0], [1] or [2]. Aero Sync connection ([AeroSync Button] is on): select from [0], [1], [2], [3], [4] or [5]. Aero Sync connection ([AeroSync Button] is off): select from [0], [1], or [2].

⌨ **HINT** ••

- Depending on the [AeroDR Power Management Level] setting, the time before the DR Detector switches to its power-saving state changes as follows. When Aero Sync is connected, setting of AeroDR Power Management Level changes with the setting of [AeroSync Button] of [System Monitor] tab on the system monitor screen.

Basic connection

AeroDR Power Management Level	Time (Minutes) until the transit from [Imaging can done] display to the [Waiting] display	Time (Minutes) until the transit from [Waiting] display to the [Sleep] display	Power-saving effect
0	10	20	Small ⟍ Large
1	5	2	
2	1	1	

Aero Sync connection (When [AeroSync Button] is turned off)

AeroDR Power Management Level	Time (Minutes) until the transit from [Exposure Permission Waiting] display to the [Waiting] display	Time (Minutes) until the transit from [Waiting] display to the [Sleep] display	Time (Minutes) until the transit from [Imaging can done] display to the [Waiting] display	Power-saving effect
0	10	20	10	Small ⟍ Large
1	5	2	10	
2	1	1	10	

Aero Sync connection (When [AeroSync Button] is turned on)

AeroDR Power Management Level	Time (Minutes) until the transit from [Exposure Permission Waiting] display to the [Waiting] display	Time (Minutes) until the transit from [Waiting][*1] display to the [Sleep] display	Time (Minutes) until the transit from [Imaging can done] display to the [Exposure Permission Waiting][*2] display	Power-saving effect
0	10	20	2	Small ⟍ Large
1	5	2	2	
2	1	1	2	
3	-	20	2	
4	-	5	2	
5	-	1	2	

*1 If you select 3 to 5 for the AeroDR power management level, "Waiting" or "Waiting to start shooting" is displayed.

*2 If you select 3 to 5 for the AeroDR power management level, the "Exposure Permission Waiting" display is replaced with "Waiting".

••

● **[Panel Selection Switch Operation At The Time Of Pressing]**

This is part of the panel setting tool screen.

Number	Name	Function
(1)	[Activate Focus Transition]	Select this option to move the focus to the Exam. Tags that are associated with the DR Detector for which the selection switch is pressed. Selecting this disables [Cassette Information Conversion Mode when focus transition is deactivated].
(2)	[Cassette Information Conversion Mode when focus transition is deactivated]	Select [Batch Change] or [Change only focused place] for the device change mode of the DR Detector under Exam. Tags when the selection switch of the DR Detector is pressed while the focus transition is disabled.

🖎 **HINT** ･･･

- If [Activate Focus Transition] is selected, the focus moves to the Exam. Tags that are associated with the DR Detector for which the selection switch is pressed.
- If the DR Detector for which the selection switch is pressed is not associated with Exam. Tags, the DR Detector for which the currently focused Exam. Tags are set and the DR Detector for which the Exam. Tags associated with that DR Detector are set change to the one for which the selection switch is pressed.

･･･

Chapter 4

# Chapter 5

Tools When [Setting] Is Selected [Overlay] Area
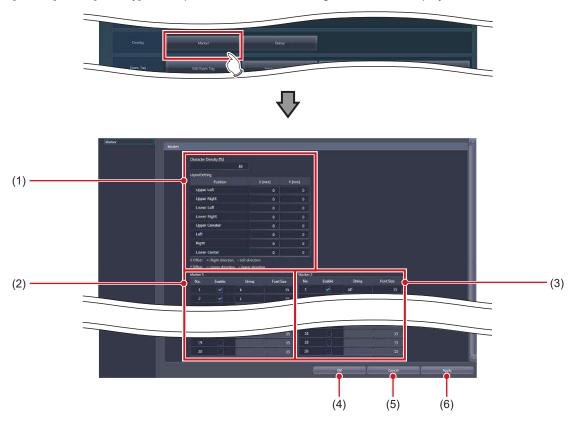
This chapter describes the tools in the [Overlay] area
displayed when [Setting] is selected.

5.1 [Marker]

This tool is for setting the marker to be overlaid on images.

5.1.1 Marker setting tool screen

When [Marker] of the [Overlay] area is pressed, the marker setting tool screen is displayed.

Number	Name	Function
(1)	Marker setting	You can set the marker density and position of each marker display area.
(2)	[Marker 1]	For setting the contents of marker 1.
(3)	[Marker 2]	For setting the contents of marker 2.
(4)	[OK]	Saves the settings and closes the screen.
(5)	[Cancel]	Closes the screen without saving the settings.
(6)	[Apply]	Saves the settings with the screen displayed.

● Marker setting

This is part of the marker setting tool screen.
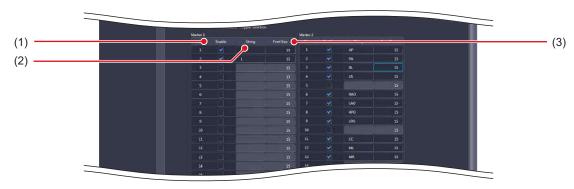
Number	Name	Function
(1)	[Character Density [%]]	For specifying the character density (%). When outputting characters in black, input "100". When outputting characters in white, input "0".
(2)	[Position]	For setting the position of each marker display area.
(3)	[X [mm]]	For finely adjusting the horizontal position of the marker display area. Inputting a positive value shifts the area to the right while inputting a negative value shifts the area to the left.
(4)	[Y [mm]]	For finely adjusting the vertical position of the marker display area. Inputting a positive value shifts the area downward while inputting a negative value shifts the area upward.

● [Marker 1]/[Marker 2]

This is part of the marker setting tool screen.
This describes how to configure the setting, using [Marker 1] as an example.

Number	Name	Function
(1)	[Enable]	Enables the marker character string. You can select only the enabled character string from the control panel of the exposure screen.
(2)	[String]	For inputting the marker character string. You can input up to 8 single-byte characters (4 double-byte characters).
(3)	[Font Size]	For inputting the marker character size. Set a numerical value in the range of 10-20.

HINT

• A maximum of 20 items can be set for each [Marker 1] and [Marker 2].

5.1.2 Operation of the marker setting tool

The setting method for markers is as follows.

● Setting a marker character string

1 **Select [Enable] for the marker you want to set using [Marker 1] or [Marker 2].**

• The [String] and [Font Size] textboxes become editable.

2 **Input the character string and character size.**

3 **When finishing the settings, press [OK].**
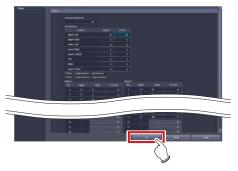
• The settings are saved and the display returns to the user tool screen.

● Setting the overlay position

1 **Input the distance (mm) you want to shift the marker in [X [mm]] or [Y [mm]].**
• Inputting a positive value in [X [mm]] shifts the marker to the right while inputting a negative value shifts the marker to the left.
• Inputting a positive value in [Y [mm]] shifts the marker downward while inputting a negative value shifts the marker upward.

2 **When finishing the settings, press [OK].**
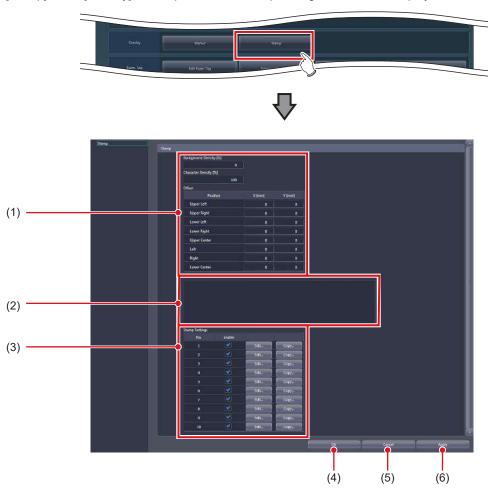
• The settings are saved and the display returns to the user tool screen.

5.2 [Stamp]

This tool is for setting the stamp to be overlaid on the image.

5.2.1 Stamp setting tool screen
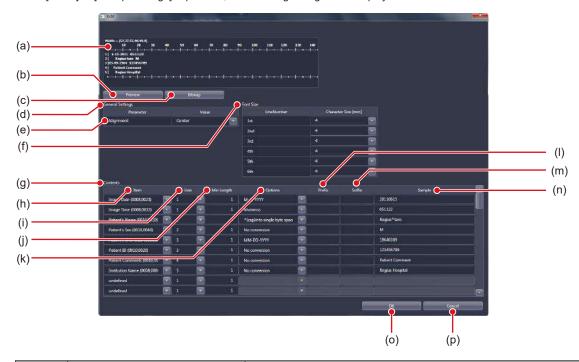
When [Stamp] of the [Overlay] area is pressed, the stamp setting tool screen is displayed.

Number	Name	Function
(1)	Stamp setting	You can set the stamp density and position of each stamp display area.
(2)	[Preview]	Displays the text of the stamp you set.
(3)	[Stamp Settings]	For editing the stamp format. When you press [Edit...], the stamp editing screen is displayed. When you press [Copy...], the stamp copy screen is displayed and the contents are copied to the stamp of another number.
(4)	[OK]	Saves the settings and closes the screen.
(5)	[Cancel]	Closes the screen without saving the settings.
(6)	[Apply]	Saves the settings with the screen displayed.

> **HINT** ･･･
>
> • When [Edit...] of [Stamp Settings] is pressed, the following dialog box is displayed.

| Number	Name	Function
(a)	Sample display panel	Displays the text of the stamp being edited.
(b)	[Preview]	Updates the display according to the contents you set.
(c)	[Bitmap]	Displays another screen for a sample image of the stamp you set.
(d)	[General Settings]	For setting the basic layout of the stamp.
(e)	[Alignment]	For selecting the alignment of the stamp characters and name display. • [Left]: Characters are printed aligned left. • [Center]: Characters are printed aligned center according to the number of characters. • [Right]: Characters are printed aligned right.
(f)	[Font Size]	For setting the character size of the stamp.
(g)	[Contents]	For setting the detailed items for the stamp.
(h)	[Item]	For selecting an item to print in the stamp from the list.
(i)	[Line]	For selecting the line at which the item (or fixed text) selected in [Item] is to be printed.
(j)	[Min Length]	For inputting the minimum number of characters for the character string represented by the item name. Half-width spaces is added to the top of the character string to align the line when the character string does not fulfill the minimum number of characters.
(k)	[Options]	For selecting the display format of the item from the list. Formats in the list differ according to the [Item] setting.
(l)	[Prefix]	For inputting the specific character string to attach before the character string represented by the item name.
(m)	[Suffix]	For inputting the specific character string to attach after the character string represented by the item name.
(n)	[Sample]	Displays the character string displayed on the sample image.
(o)	[OK]	Saves the settings and closes the screen.
(p)	[Cancel]	Closes the screen without saving the settings.

• Rows to which no item is set are hidden while other rows are aligned to top and displayed. To display empty rows, select [Fixed String] on [Item], and add a setting in which [Prefix] and [Suffix] are not entered.

･･

● **Stamp setting**

This is part of the stamp setting tool screen.
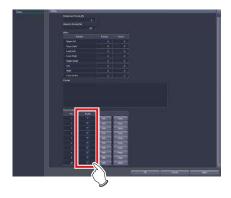
Number	Name	Function
(1)	[Background Density [%]]	For specifying the background density (%). When outputting background in black, input "100". When outputting background in white, input "0".
(2)	[Character Density [%]]	For specifying the character density (%). When outputting characters in black, input "100". When outputting characters in white, input "0".
(3)	[Position]	For setting the position of each stamp display area.
(4)	[X [mm]]	For making fine adjustments to the left-right position of the stamp display area. Entering a positive number causes a shift to the right and entering a negative number causes a shift to the left.
(5)	[Y [mm]]	For making fine adjustments to the up-down position of the stamp display area. Entering a positive number causes a shift downwards and entering a negative number causes a shift upwards.

Chapter 5
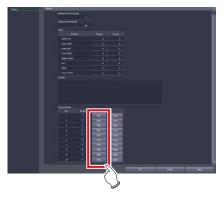
5.2.2 Operation of the stamp setting tool

The setting method for stamps is as follows.

● **Setting items for the stamp**

1 Select [Enable] of the stamp you want to edit in [Stamp Settings].

- [Edit...] becomes active.

2 Press [Edit...] of the stamp you want to edit.

- The stamp editing screen is displayed.

3 To edit the character alignment method, select the character alignment method from [Alignment].
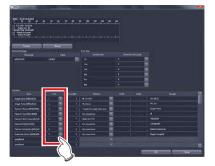
4 To set the character size of the stamp, select a value from [Font Size].

5 To add a new item to the stamp, select an [undefined] item from [Item].

6 To set the line at which the stamp is to be printed, select from [Line].

7 To align the width of the character string, input a value in [Min Length].

8 **Select the display format of the items from [Options].**

9 **To add specific characters before or after the item name, input the characters in [Prefix] or [Suffix].**
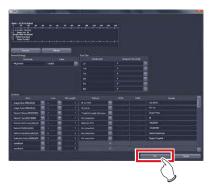
10 **Press [Preview] and confirm the text of the stamp to be set.**
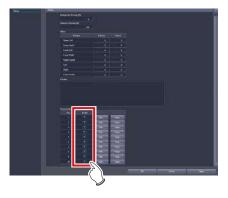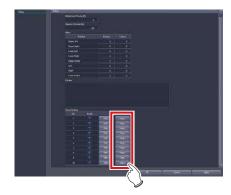
⌨ **HINT** •
- You can confirm the set stamp bitmap image on a separate screen by pressing [Bitmap].
• •

11 **When finishing the settings, press [OK].**

- The settings are saved and the display returns to the user tool screen.

● **Copying of the stamp setting**

1 **In [Stamp Settings], select [Enable] of the stamp that is the copy source.**

- [Copy...] becomes active.

2 **Press [Copy...] on the source stamp.**

- The stamp copy screen is displayed.

Chapter 5

3 **Select the destination stamp.**

4 **Press [OK].**

Chapter **6**

Tools When [Setting] Is Selected [Exam. Tag] Area

This chapter describes the tools in the [Exam. Tag] area

displayed when [Setting] is selected.
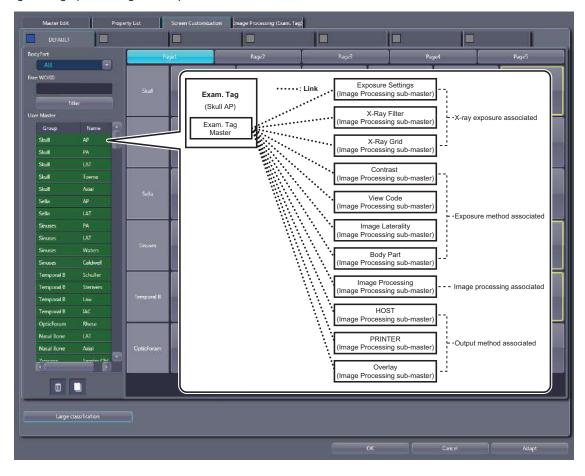
6.1 Exam. Tag summary

Exam. Tag is a key that defines the necessary conditions of the exposure by body part.
More than 1,000 Exam. Tags available for immediate use are registered in this device.

6.1.1 About Exam. Tags

● **Exam. Tag configuration**

Exam. Tags are made up of 1 master and 11 types of sub-masters. These include a variety of conditions from image reading to image processing and output.
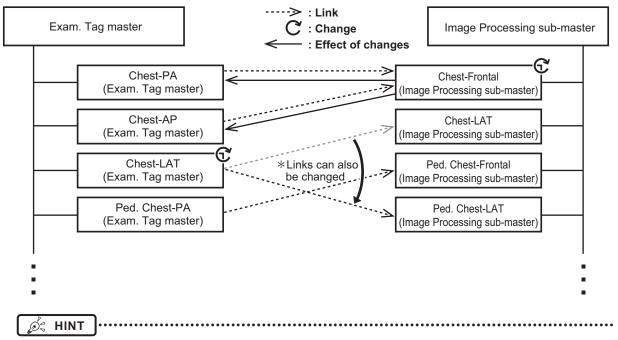
⤷ **HINT** ···

• You cannot create a completely new Exam. Tag or sub-master. To make a new Exam. Tag, copy and edit an existing Exam. Tag master or sub-master with similar conditions.

···

● Modifying Exam. Tag masters/sub-masters

You can freely modify links from Exam. Tag masters to sub-masters.
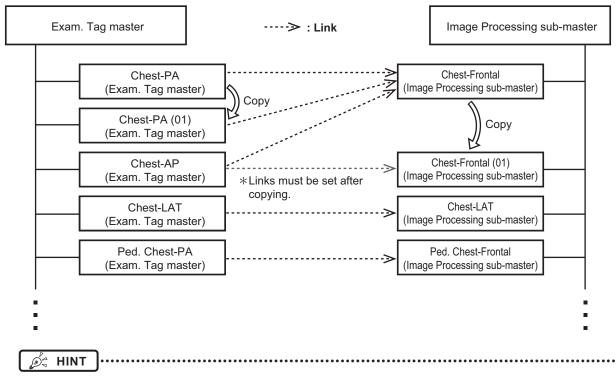
1 sub-master can be linked to several Exam. Tag masters.

> **HINT**
>
> • The content of each Exam. Tag master and sub-master is saved to a separate file.
>
> • When you want to modify image collection conditions, modify Exam. Tag master files. The settings of the linked sub-master are not changed when Exam. Tag master settings are changed.
>
> • When you want to modify other types of information, modify related sub-master files. Changes to sub-master settings cause changes to the Exam. Tag master linked to the sub-master. When there are links from several Exam. Tag masters, they can all be changed at once.

Chapter 6

● **Copying Exam. Tag masters/sub-masters**
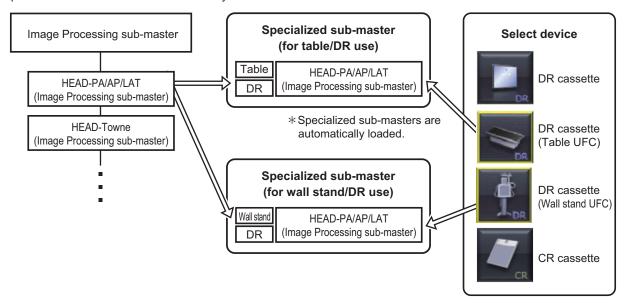
You can freely copy and create new files for Exam. Tag masters/sub-masters.

Copying files does not require creating Exam. Tags.

Exam. Tag master	----> : Link	Image Processing sub-master

Chest-PA
(Exam. Tag master)

Copy

Chest-PA (01)
(Exam. Tag master)

Chest-AP
(Exam. Tag master)

＊Links must be set after copying.

Chest-LAT
(Exam. Tag master)

Ped. Chest-PA
(Exam. Tag master)

Chest-Frontal
(Image Processing sub-master)

Copy

Chest-Frontal (01)
(Image Processing sub-master)

Chest-LAT
(Image Processing sub-master)

Ped. Chest-Frontal
(Image Processing sub-master)

🖉 **HINT** ●●●

- When a copy is made of an Exam. Tag master, all settings including links to sub-masters are transferred. You can freely change the link settings and other setting values after a copy is made.
- All settings are transferred when sub-masters are copied, but the link from the Exam. Tag master is not transferred. Please set the link from the Exam. Tag master after copying. You can also freely change setting values after copying.

●●
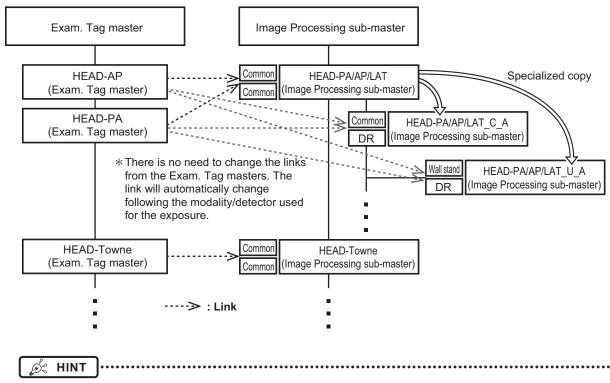
● Specialized copies of sub-masters

You can create sub-masters with specific modality/detector conditions. This is known as specialization of sub-masters. Specialized sub-masters are automatically selected and loaded when the device is selected.

```
Image Processing sub-master

HEAD-PA/AP/LAT                    Specialized sub-master           Select device
(Image Processing sub-master)    (for table/DR use)

HEAD-Towne                       Table   HEAD-PA/AP/LAT            DR cassette
(Image Processing sub-master)    DR      (Image Processing sub-master)
                                                                  DR cassette
                                 ＊Specialized sub-masters are    (Table UFC)
                                   automatically loaded.
                                                                  DR cassette
                                 Specialized sub-master           (Wall stand UFC)
                                 (for wall stand/DR use)
                                                                  CR cassette
                                 Wall stand  HEAD-PA/AP/LAT
                                 DR          (Image Processing sub-master)
```

You can create specialized sub-masters by performing a specialized copy.
A sub-master can be specialized by performing specialized copying of a base sub-master (common/common).

```
Exam. Tag master              Image Processing sub-master

HEAD-AP          Common        HEAD-PA/AP/LAT                    Specialized copy
(Exam. Tag master) Common      (Image Processing sub-master)

HEAD-PA                        Common   HEAD-PA/AP/LAT_C_A
(Exam. Tag master)             DR       (Image Processing sub-master)

＊There is no need to change the links
  from the Exam. Tag masters. The       Wall stand   HEAD-PA/AP/LAT_U_A
  link will automatically change        DR           (Image Processing sub-master)
  following the modality/detector used
  for the exposure.

HEAD-Towne       Common        HEAD-Towne
(Exam. Tag master) Common      (Image Processing sub-master)

- - - - ▷ : Link
```

<div>

┌─────────────────┐
│ 🖎 HINT
└─────────────────┘

- You can create specific modality/detector settings by specializing sub-masters.
- You can create device-dependent Exam. Tags without increasing Exam. Tag masters.
- If a specialized copy is performed, all setting values will be transferred. You can freely change the setting values after a specialized copy.
- There is no need to change the links from the Exam. Tag masters. The link will automatically change following the modality/detector used for the exposure.
- Sub-masters set up as defaults can be used for all modalities/detectors.

</div>

Chapter 6

● Selecting Exam. Tags

Exam. Tags can be selected on the body part selection screen or the RIS.

Body part selection screen

Exposure screen

Exam. Tag

Select the body part on the body part selection screen. (Select the Exam. Tag.)

**Perform exposure on the exposure screen.
(Exposure is performed according to Exam. Tag settings.)**

🖋 HINT

• Exam. Tag masters can be selected on the body part selection screen/RIS. Linked sub-masters are automatically loaded.

● **Precautions when creating exam. tags for manual stitching and automatic stitching performed by the DR Detector**

Note the following precautions when creating or editing exam. tags for manual stitching and automatic stitching performed by the DR Detector.

> ⌷ **IMPORTANT** ···
>
> • When the Exam. Tag for the composite image (after stitching) is not registered in the User Master, the Exam. Tag for the first image from the top before stitching will be used as the Exam. Tag for the composite image.
> • The Exam. Tags for the composite image are the special ones, do not use them as the Exam. Tag in the normal examination.
>
> ··

• There are two Exam. Tags available for stitching. One is for pre-composite images (upper/middle/lower for 3-image composites, and middle/lower for 2-image composites) and the other is for composite images. Each key is associated with the other by serial number.
• Exam. Tags for the composite image will be automatically assigned to the stitched image.
• Since there are two different Exam. Tags, one is for images before stitching and the other for image after stitching (composite image), Print Format, Overlay Info, etc. may be separately set for images before stitching and after stitching (composite).
• The Exam. Tags for images before stitching and after stitching can be identified by the serial number.
• The third digit from the right is assigned to each image as follows. The other digits are common to all.
> 0: Images after stitching (composite image)
> 1: Upper image before stitching (not used when two images to be stitched)
> 2: Middle image before stitching
> 3: Lower image before stitching

Please note that "Group" name and "Exp. Condition" are common to them in general.
• Always handle the two types of Exam. Tags for stitching, Exam. Tags for images before stitching and after stitching by the set. (when copying, editing or deleting, etc.)
• It is useful to create one Exam. Tag for upper/middle/lower images (middle/lower for two in composite) before stitching.

Example of Exam. Tags for stitching

Application	Serial No.	Group	Exp. Cond.
Composite	101012820043100000	Spine	AP
Bef. Stitch-UP	101012820043100100	Spine	AP-UP
Bef. Stitch-MID	101012820043100200	Spine	AP-MID
Bef. Stitch-LO	101012820043100300	Spine	AP-LO

• Image processing of the composite image (after stitching) will be carried out using the image processing parameters set to the middle image (lower image for two in composite), and not the image processing parameters set to the Exam. Tags for composite image.

Therefore, when the adjustment on the composite image is required using the User Tool, change the image processing parameters for the middle image (lower image for two in composite) to reflect such change upon the composite image.

Chapter 6

● **Precautions when creating exam. tags for One Shot stitching performed by the DR detector**
Note the following precautions when creating or editing the exam. tags for One Shot stitching exposure.

⬚ **IMPORTANT** ••
  • Do not use the Exam. Tag that is for the images after combining as a normal Exam. Tag as it is a special Exam. Tag.
••

• Select the One Shot stitching Exam. Tag that has been set by each part individually when using the One Shot stitching exposure.
• Following methods show how to add a new One Shot Exam. Tag.
  – Copy one of the One Shot stitching Exam. Tags that has similarity to the new Exam. Tag from the maker master of the [Property List] screen and edit the contents.
  – Copy one of the One Shot stitching Exam. Tags that has similarity to the new Exam. Tag from the [Property List] screen and edit the contents.
• To delete the One Shot stitching Exam. Tags, select the tags to be deleted or the related tags in the setting parameter/edit field of the [Property List] screen, and drag/drop it to the trash box.

6.1.2 Master/sub-master

The types, major settings, and classification method of the master/sub-master are as follows.

Master

● Exam. Tag master

Contains information related to Exam. Tags and information on the link to each sub-master.

Major settings	Image rotation/inversion, exposure size, modality used, detector used, links to various types of sub-masters, etc.
Classification method	Masters are classified based on the exposure body part, direction, procedure, etc. (The one selected from the screen is a master.)

Item Name	Description
Priority Detector	Set the priority to be applied when you select a detector.
Priority Modality	Set the priority to be applied when you select a modality.
DR Cassette Size	Set the size of the DR Detector to be used.
Warning Message	Set whether or not to display warning messages for pneumoconiosis processing.
Automatic Reading	Select [OFF], [Position], or [Size/Pos.] to configure the setting for automatic detection of image reading size, direction, and position. If [OFF] is selected, the values set for [Size], [Direction], and [Position] are used for the reading size, direction, and position. If [Position] is selected, the value set for [Size] is used as the reading size setting and [Direction] is used as the reading direction setting. The reading position is automatically detected. If [Size/Pos.] is selected, the reading size, direction, and position are automatically detected.
Size	Set the image reading size. The value set for this item is used when [Automatic Reading] is set to [OFF] or [Position].
Direction	Set the image reading direction. The value set for this item is used when [Automatic Reading] is set to [OFF] or [Position].
Position	Set the image reading position. The value set for this item is used when [Automatic Reading] is set to [OFF].
Maximum Exposure Time	Set the maximum exposure time.
Maximum Exposure Time (AeroDR3)	Set the maximum exposure time of the AeroDR 3 1417 HD, AeroDR 3 1717HD and AeroDR 3 1012HQ to be used.
Read Resolution DR	Set the image reading resolution to exposure using the DR detector.
Read Resolution CR	Set the image reading resolution to exposure using the CR cassette.
Sensitivity	Set the reading sensitivity to be applied when REGIUS is used.
Rotation	Set the angle by which the image is rotated.
Flip	Set this item to flip the image horizontally.
X-Ray CH	Set the CH number of the X-ray device to be coordinated with the exposure setting.
Patient Orientation (Column)	Set the patient orientation for columns of the image.
Patient Orientation (Row)	Set the patient orientation for rows of the image.
Body Size	Set the body size exposure setting to be coordinated with the exposure setting.
Exposure Condition	Set the exposure setting sub-master to be coordinated with the exposure setting.
Image Laterality	Set the image laterality sub-master.
View Code	Set the view code sub-master.
Body Part	Set the body part sub-master.
Contrast	Set the contrast sub-master.
X-Ray Grid	Set the X-ray grid sub-master.

Chapter 6

Item Name	Description
X-Ray Filter	Set the X-ray filter sub-master.
Output Device	Set the HOST and printer used for automatic output.
HOST Output	Set the HOST output sub-master.
Reference image output	Set this item to output images using EMRs (image coordination).
HOST Overlay	Set the overlay output sub-master used for HOST output.
PRINTER	Set the printer output sub-master.
PRINTER Overlay	Set the overlay output sub-master used for printer output.
Resolution	Set whether to turn the resolution converting ON or OFF used for HOST output.
Image Processing	Set the image processing sub-master.
E Processing	Set whether to turn the E image processing ON or OFF.
F Processing	Set whether to turn the F image processing ON or OFF.
E/F Processing Type	Select [Standard], [Hybrid], or [REALISM] to set the type of E and F image processing.
HS Processing	Set whether to turn the HS image processing ON or OFF.
RE-T Processing	Enables/disables RE-T image processing.
RE-T Processing Reflection	Enables/disables application of RE-T image processing. RE-T processing results are updated with RE processing parameters when enabled.
RE-T Processing Mode	RE processing parameters when enabled.Sets the RE-T image processing mode.
Combined Output Pagination	This item sets exposure conditions for stitching images. When outputting a stitching image to the printer, set the number of sheets of film into which the image is divided.
Lung Lack Detection	Set whether to turn the lung lack detection processing ON or OFF.
Motion Blur Detection	Set whether to turn the motion blur detection processing ON or OFF.
IG	Set whether to execute the scattered radiation correction process under image processing.
IG Reflection	Set the default state of the [IG] button when starting exposure. When [ON], scattered radiation correction processing is applied.
Exposure Mode	This setting is used to distinguish between single exposure Exam. tags and serial exposure Exam. tags.
SERIAL Exp. fps	Displays the serial exposure frame rate. [Do not Apply] appears when using single exposure.
SERIAL Exp. Max Acquisition Time	Sets the maximum recording time for serial exposure. Enter a value between 1 and 20 seconds. [Do not Apply] appears when using single exposure.
SERIAL Exp. Max Number of Frames	Displays the maximum number of frames in a set of serial exposure images. The maximum number of frames is automatically calculated based on the configuration of the [SERIAL Exp. fps] and [SERIAL Exp. Max Number of Frames] settings.

📂 IMPORTANT ....

- The maximum exposure time is not displayed when the setting value is set to less than 0.8 seconds, or when the Aero Sync connection is used.
- If the maximum exposure time is increased, it may take some time to return to the "Ready" state from "Sleep".
- In some cases, the maximum exposure time may be fixed by the X-ray device. For more details, contact Konica Minolta technical representatives.
- When making the resolution converting enabled, contact Konica Minolta technical representatives.
- If you want to use HS processing instead of RS processing, contact Konica Minolta technical representatives.
- Appears when the Exposure Mode, SERIAL Exp. fps, SERIAL Exp. Max Acquisition Time, and the SERIAL Exp. Max Number of Frames are enabled by the serial exposure function.

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✎ HINT ....

- If AeroDR 1717HQ is automatically selected, select [17" x 17"] from [DR Cassette Size]. DR Detector type can be manually selected on the exposure screen.

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Sub-master

● Exposure Setting sub-master
Contains information related to X-ray exposure settings for each body type.

Major settings	Anatomical code, tube selection, tube voltage, tube current, exposure time, AEC, distance between radiation source detection devices, etc.
Classification method	Exposure Condition sub-master is defined for each body part. (Head, chest, etc., are defined by default. You can customize these items for each institution environment.)

Item Name	Description
APR Code	Set this item to use anatomical codes. If no codes are used, [FFFF] will be output. The system of anatomical codes differs depending on the manufacturer.
Tube	Set the X-ray tube to be used.
Exposure Mode	Sets the exposure mode used for exposure.
Workstation	Set the operative method (workstation) to be used.
Pediatric ON	Set this item to [ON] to configure settings for pediatric body sizes.
Pediatric Setting Mode	Select [mA ms] or [mAs] to specify the setting mode for tube voltage, tube current, exposure time, and exposure for pediatric body sizes. When [mA ms] is selected, the setting mode is set to Manual: 3-point (tube voltage, tube current, and exposure time). When [mAs] is selected, the setting mode is set to Auto: 2-point (tube voltage and exposure).
Pediatric kV	Set the tube voltage for pediatric body sizes.
Pediatric kA	Set the tube current for pediatric body sizes.
Pediatric mS	Set the exposure time for pediatric body sizes.
Pediatric mAs	Set the exposure for pediatric body sizes.
Pediatric Focal Size	Set the focal size for pediatric body sizes.
Pediatric AEC	Set the AEC for pediatric body sizes.
Pediatric Sensitivity	Set the AEC sensitivity for pediatric body sizes.
Pediatric Density	Set the AEC density for pediatric body sizes.
Pediatric Film Screen	Set the film screen for pediatric body sizes.
Pediatric X-Ray Filter	Set the X-ray filter for pediatric body sizes.
Pediatric SID[mm]	Set the SID for pediatric body sizes.
Small ON	Set this item to [ON] to configure settings for small body sizes.
Small Setting Mode	Select [mA ms] or [mAs] to specify the setting mode for tube voltage, tube current, exposure time, and exposure for small body sizes. When [mA ms] is selected, the setting mode is set to Manual: 3-point (tube voltage, tube current, and exposure time). When [mAs] is selected, the setting mode is set to Auto: 2-point (tube voltage and exposure).
Small kV	Set the tube voltage for small body sizes.
Small kA	Set the tube current for small body sizes.
Small mS	Set the exposure time for small body sizes.
Small mAs	Set the exposure for small body sizes.
Small Focal Size	Set the focal size for small body sizes.
Small AEC	Set the AEC for small body sizes.
Small Sensitivity	Set the AEC sensitivity for small body sizes.
Small Density	Set the AEC density for small body sizes.
Small Film Screen	Set the film screen for small body sizes.
Small X-Ray Filter	Set the X-ray filter for small body sizes.
Small SID[mm]	Set the SID for small body sizes.

Chapter 6

Item Name	Description
Medium ON	Set this item to [ON] to configure settings for medium body sizes.
Medium Setting Mode	Select [mA ms] or [mAs] to specify the setting mode for tube voltage, tube current, exposure time, and exposure for medium body sizes. When [mA ms] is selected, the setting mode is set to Manual: 3-point (tube voltage, tube current, and exposure time). When [mAs] is selected, the setting mode is set to Auto: 2-point (tube voltage and exposure).
Medium kV	Set the tube voltage for medium body sizes.
Medium kA	Set the tube current for medium body sizes.
Medium mS	Set the exposure time for medium body sizes.
Medium mAs	Set the exposure for medium body sizes.
Medium Focal Size	Set the focal size for medium body sizes.
Medium AEC	Set the AEC for medium body sizes.
Medium Sensitivity	Set the AEC sensitivity for medium body sizes.
Medium Density	Set the AEC density for medium body sizes.
Medium Film Screen	Set the film screen for medium body sizes.
Medium X-Ray Filter	Set the X-ray filter for medium body sizes.
Medium SID[mm]	Set the SID for medium body sizes.
Large ON	Set this item to [ON] to configure settings for large body sizes.
Large Setting Mode	Select [mA ms] or [mAs] to specify the setting mode for tube voltage, tube current, exposure time, and exposure for large body sizes. When [mA ms] is selected, the setting mode is set to Manual: 3-point (tube voltage, tube current, and exposure time). When [mAs] is selected, the setting mode is set to Auto: 2-point (tube voltage and exposure).
Large kV	Set the tube voltage for large body sizes.
Large kA	Set the tube current for large body sizes.
Large mS	Set the exposure time for large body sizes.
Large mAs	Set the exposure for large body sizes.
Large Focal Size	Set the focal size for large body sizes.
Large AEC	Set the AEC for large body sizes.
Large Sensitivity	Set the AEC sensitivity for large body sizes.
Large Density	Set the AEC density for large body sizes.
Large Film Screen	Set the film screen for large body sizes.
Large X-Ray Filter	Set the X-ray filter for large body sizes.
Large SID[mm]	Set the SID for large body sizes.

● Contrast sub-master

Contains information related to contrast medium agents.

Major settings	Contrast medium, bolus route, duct, capacity, component, component density, etc.
Classification method	Contrast sub-master is defined for each contrast medium type. (The default is defined mainly according to DICOM standards.)

Item Name	Description
Agent	Set the agent.
Route	Set the route.
Volume [ml]	Set the volume.
Total Dose [ml]	Set the total dose.
Flow Rate [ml/s]	Set the flow rate.
Flow Duration	Set the flow duration.
Material	Set the material.
Material Concentration [mg/s]	Set the material concentration.

● X-Ray Filter sub-master

Contains information related to X-ray filter materials.

Major settings	X-ray filter type, material, thickness, etc.
Classification method	The X-Ray Filter sub-master is defined for each X-ray filter type. (The default is defined mainly according to DICOM standards.)

Item Name	Description
Type	Set the type.
Material	Set the material.
Minimum Thickness [mm]	Set the minimum thickness.
Maximum Thickness [mm]	Set the maximum thickness.

● X-Ray Grid sub-master

Contains information related to X-ray grid materials.

Major settings	X-ray grid materials, thickness, pitch, aspect ratio, grid focal distance, etc.
Classification method	The X-Ray Grid sub-master is defined for each X-ray grid type. (The default is defined mainly according to DICOM standards.)

Item Name	Description
Type	Set the type.
Absorbing Material	Set the absorbing material.
Spacing Material	Set the spacing material.
Thickness [mm]	Set the thickness of the absorbing material.
Pitch [mm]	Set the pitch of the absorbing material.
Aspect Ratio(X)	Set the horizontal component of the aspect ratio of the absorbing material.
Aspect Ratio(Y)	Set the vertical component of the aspect ratio of the absorbing material.
Period [ms]	Set the cycle time when you have set the type to [RECIPROCATING].
Focal Distance [mm]	Set the focal distance when you have set the type to [FOCUSED].

Chapter 6

● View Code sub-master

Contains information related to image direction. Can only be selected.

Major settings	Exposure direction (visual field code, visual field code modifier), etc.
Classification method	View Code sub-master is defined for each exposure direction. (The default is defined mainly according to DICOM standards.)

Item Name	Description
View Code	Set the view code.
View Modifier Code	Set the view modifier code.

● Image Laterality sub-master

Contains information related to image laterality.

Major settings	Laterality (left and right), etc.
Classification method	Image Laterality sub-master is defined for each laterality. (The default is defined mainly according to DICOM standards.)

Item Name	Description
Image Laterality	Set the image laterality.

● Body Part sub-master

Contains information related to body part.

Major settings	Anatomical area, etc.
Classification method	Body Part sub-master is defined for each anatomical area. (The default is defined mainly according to DICOM standards.)

Item Name	Description
Body Part Examined	Set the body part to be examined.
Anatomic Region	Set the region of anatomic interest.

● Image Processing sub-master

Contains information related to image processing.

Major settings	Parameters such as exposure field recognition, body part recognition, gradation processing, and frequency processing.
Classification method	Image Processing sub-master is defined for each body part.

Item Name	Description
Basic LUT	Set the LUT for automatic gradation processing.
DL	Set the density on the low-density side for automatic gradation processing. For [DL], [DH], and [Fix G Value], two of the three items must be set (excluding some special image processing conditions).
DH	Set the density on the high-density side for automatic gradation processing. For [DL], [DH], and [Fix G Value], two of the three items must be set (excluding some special image processing conditions).
Fix G Value	Set the fixed gradient for automatic gradation processing. For [DL], [DH], and [Fix G Value], two of the three items must be set (excluding some special image processing conditions).
E Processing Mask Size	Set the mask size for standard-type E processing. The larger the mask size, the lower the frequency range to which the spatial frequency domain to be corrected is restricted, changing the density of large structural objects in the image. Conversely, when the mask parameter value is small, the influence of correction extends to relatively high frequency ranges, changing the density of small structural objects.
E Processing Low Density	Set the highlight level on the low-density side for standard-type E processing.
E Processing High Density	Set the highlight level on the high-density side for standard-type E processing.
F Processing Mask Size	Set the mask size for standard-type F processing. The larger the mask size, the lower the frequency range to be emphasized to the greatest degree, changing the contrast of large structural objects. Conversely, when the mask parameter value is small, high frequency ranges are emphasized to the greatest degree, changing the contrast of small structural objects.
F Processing Low Density	Set the highlight level on the low-density side for standard-type F processing.
F Processing High Density	Set the highlight level on the high-density side for standard-type F processing.
HE Processing Enhance Type	Select [HE-STANDARD1] or [HE-STANDARD2] to set the enhancement type for hybrid-type E processing. [HE-STANDARD1] places importance on edges in low-density regions. This setting is effective when you want to have a clear view of small structural objects such as bone trabeculae. Typical applicable body parts are anywhere other than the front and lateral aspects of the chest. [HE-STANDARD2] places importance on graininess in low-density regions. Selecting this setting inhibits degradation of graininess in regions such as those under the diaphragm. Typical applicable body parts are the front and lateral aspects of the chest.
HE Processing Low Density	Set the highlight level on the low-density side for hybrid-type E processing.
HE Processing High Density	Set the highlight level on the high-density side for hybrid-type E processing.
HF Processing Enhance Type	Select from [HF-STANDARD1] to [HF-STANDARD6] to set the enhancement type for hybrid-type F processing. [HF-STANDARD1] and [HF-STANDARD2] are effective settings for body parts where you want to highlight organs or soft tissues and enhance contrast on the entire image. Typical applicable body parts include the abdomen and pelvis. [HF-STANDARD3] and [HF-STANDARD4] are effective settings for body parts where you want to highlight large bone tissues such as vertebral bodies or highlight bone trabeculae along with their soft areas. These settings provide relatively versatile frequency characteristics. Typical applicable body parts include vertebral bodies (spine), hip joints, thighbones, and lower leg bones. [HF-STANDARD5] and [HF-STANDARD6] are effective settings for body parts where you want to highlight bone trabeculae, blood vessels, and other small structural objects and details. Typical applicable parts are bones in body extremities, the cervical spine (bone trabeculae), the chest (blood vessels), head, and breasts.
HF Processing Low Density	Set the highlight level on the low-density side for hybrid-type F processing.
HF Processing High Density	Set the highlight level on the high-density side for hybrid-type F processing.
HS Processing HS LEV	Set the level of HS processing.
HS Processing DOSE ID	Set the dose ID type of HS processing.
HS Processing DENS ID	Set the dens ID type of HS processing.

Chapter 6

Item Name	Description
RE Processing Enhance Type	Select [RE-A] through [RE-C] to set the enhancement type of E processing when the processing method is REALISM. [RE-A] places importance on the contrast of relatively large structures such as vertebra with this type to compress only the low-frequency bands. [RE-B] places importance on the view of fine structures such as bone trabeculae with this type to compress low- to mid-frequency bands. [RE-C] is enabled if you do not want too much contrast with this type to compress low- to high-frequency bands.
RE Processing Low Density	Set the highlight level on the low-density side for REALISM-type E processing.
RE-T Processing Low Density Lower Limit	Sets the lower limit value used for automatic adjustment of [RE Processing Low Density] in RE-T processing.
RE-T Processing Low Density Upper Limit	Sets the upper limit value used for automatic adjustment of [RE Processing Low Density] in RE-T processing.
RE Processing High Density	Set the highlight level on the high-density side for REALISM-type E processing.
RE-T Processing High Density Lower Limit	Sets the lower limit value used for automatic adjustment of [RE Processing High Density] in RE-T processing.
RE-T Processing High Density Upper Limit	Sets the upper limit value used for automatic adjustment of [RE Processing High Density] in RE-T processing.
RF Processing Enhance Type	Select [RF-A] through [RF-BF] to set the enhancement type of F processing when the processing method is REALISM. [RF-A] and [RF-B] are enabled for areas that you want contrast in the overall image by enhancing organs and soft tissue. [RF-C] and [RF-D] are enabled for areas that you want to enhance large skeletal tissue such as vertebra or enhance trabeculae as well as soft areas. [RF-E] and [RF-F] are enabled for areas that you want to enhance fine areas to medium size structures such as the edges of small structures and bones like trabeculae or blood vessels. [RF-G] is enabled for areas that you want to enhance fine areas such as trabeculae. [RF-H] enhances primarily high-frequency components that only exist in high-resolution images (100 um / 87.5 um). This is enabled if you want to enhance only infinitesimal structures of high-resolution images. [RF-AA] is effective in body parts in which you want to apply contrast to the entire image by restricting noise in the low dose parts (parts in which body thickness is high) in the image while enhancing the skeletal tissue and soft tissue. [RF-BD] is effective in body parts in which you want to apply contrast to the entire image by enhancing large skeletal tissue such as vertebra and enhance areas with bone trabecular while restricting noise in low dose parts (parts in which body thickness is high). [RF-BF] is effective in body parts in which you want to apply contrast to the entire image by enhancing small structures such as bone trabecular and blood vessels or structures having fine parts, such as the edges of bony septum, while restricting noise in other parts.
RF Processing Low Density	Set the highlight level on the low-density side for REALISM-type F processing.
RF Processing High Density	Set the highlight level on the high-density side for REALISM-type F processing.
RS Processing RS LEV	Set the level of RS processing.
EIT(Initial)	Displays the EIT initial value. The initial EIT value cannot be edited.
EIT(Standard Detector)	Sets the EIT value for the DR Detector and CR cassette in use.
EIT(Auto calc)	Displays the value calculated from the initial EIT value and the value set with the standard detector EIT setting. The automatically calculated EIT cannot be edited.
Scattered Radiation Correction Processing Grid Ratio	Set the grid ratio.
Scattered Radiation Correction Processing Correction Level	Set the correction level.
Scattered Radiation Correction Processing Tube Voltage	Set the tube voltage. Specify the value closest to the assumed exposure conditions.
Scattered Radiation Correction Processing SID	Set SID (cm). Specify the value closest to the assumed exposure conditions. Set "Auto" to run in automatic estimation mode.
Scattered Radiation Correction Processing mAs	Set the mAs value (mAs). Specify the value closest to the assumed exposure conditions. Set "Auto" to run in automatic estimation mode.
One Shot Stitching SID	Set the SID (cm) for One Shot stitching exposure.

● HOST sub-master

Contains information related to host output.

Major settings	Output size, output direction, existence of blackening process outside the exposure field, etc.
Classification method	HOST sub-master is defined for each output size/direction.

Item Name	Description
Output Mode	Select [Fixed Size] or [Reading Size] to set the output mode.
Size	Set the output image size to be used when [Fixed Size] is selected for the output mode.
Orientation	Select [Portrait], [Landscape], or [Linking] to set the orientation of the output image. When [Linking] is selected, the orientation changes in accordance with the image reading direction.
Trimming Position	Set the trimming position of images for which the output mode is set to [Fixed Size] and whose output size is smaller than the reading size.
Output Position	Set the output position of images for which the output mode is set to [Fixed Size] and whose output size is larger than the reading size.
Masking	Select whether to turn the masking processing ON or OFF.
Chest Wall Black Masking	Select whether to turn the chest wall black masking processing ON or OFF.
Background	Select the background color.

● PRINTER sub-master

Contains information related to printer output.

Major settings	Output size, output direction, format, existence of blackening process outside the exposure field, etc.
Classification method	PRINTER sub-master is defined for each output size/output direction/format.

Item Name	Description
Number of Copies	Set the number of sheets of film to be output.
Output Mode	Select [Fixed Size] or [Reading Size] to set the output mode.
Size (Fixed)	Set the film size used when [Fixed Size] is selected for the output mode.
Size (8"×10" Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 8"×10".
Size (10"×12" Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 10"×12".
Size (11"×14" Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 11"×14".
Size (14"×14" Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 14"×14".
Size (14"×17" Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 14"×17".
Size (24×30cm Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 24×30cm.
Size (18×24cm Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 18×24cm.
Size (17"×17" Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 17"×17".
Size (15×30cm Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 15×30cm.
Size (18×24cm - Mammo Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 18×24cm - Mammo.
Size (24×30cm - Mammo Reading)	Set the output film size used when [Reading Size] is selected for the output mode and the reading size is 24×30cm - Mammo.

Chapter 6

Item Name	Description
Orientation	Select [Portrait], [Landscape], or [Linking] to set the orientation of the output image. When [Linking] is selected, the orientation changes in accordance with the image reading direction.
Format	Set the frame layout of film output.
Presentation Size Mode	Select [True Size] or [Scale to Fit] to set whether to enlarge or reduce the image to the output size. When [True Size] is selected, the image is output in its actual size. When [Scale to Fit] is selected, the image is enlarged or reduced before it is output so that it fits the output size.
Trimming Position	Set the trimming position of images for which the output mode is set to [Fixed Size] and whose output size is smaller than the reading size.
Output Position	Set the output position of images for which the output mode is set to [Fixed Size] and whose output size is larger than the reading size.
Masking	Select whether to turn the masking processing ON or OFF.
Chest Wall Black Masking	Select whether to turn the chest wall black masking processing ON or OFF.
Background	Select the background color.

● Overlay sub-master

Contains information related to overlay.

Major settings	Parameters such as marker type/positioning and stamp type/positioning.
Classification method	Default is not defined. (The institution environment needs to be customized when implementing X-ray information coordination.)

Item Name	Description
Stamp	Select the type of stamp to be overlaid. To change the definition of the stamp, use the Stamp menu in the user tool.
Stamp Position	Select the overlay position of the stamp.
Marker 1	Select the type of Marker 1 to be overlaid. To change the definition of the marker, use the Marker menu in the user tool.
Marker 1 Position	Select the overlay position of Marker 1.
Marker 2	Select the type of Marker 2 to be overlaid. To change the definition of the marker, use the Marker menu in the user tool.
Marker 2 Position	Select the overlay position of Marker 2.
Scale	Select the type of scale and grid to be overlaid.

6.1.3 [Easy Edit Mode] and [Detail Edit Mode]

The Exam. Tag edit tool has two edit modes: [Easy Edit Mode] and [Detail Edit Mode].
[Easy Edit Mode] and [Detail Edit Mode] cannot be used in combination. The recommended setting is [Easy Edit Mode].
For details on switching edit modes, contact Konica Minolta technical representatives.
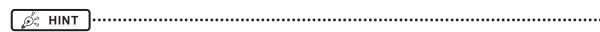
● Easy Edit mode

This is an edit mode that only displays sub-masters that you need to edit.
The setting items related to output and overlay should be set in Exam. Tag Master.
You can use the exposure condition edit tool screen for editing individual Exam. Tags.

> **IMPORTANT** ··
> • The sub-masters for [X-Ray Filter], [X-Ray Grid], [Contrast], [View Code], [Image Laterality], and [Body Part] are not displayed to be edited. If you want to display those sub-masters to edit them, contact Konica Minolta technical representatives.
> • When the number of master and sub-master settings to be edited is large, operations in [Easy Edit Mode] may be slow.
> • When the number of settings is large, a message is displayed. Delete unused settings.

> **HINT** ··
> • The sub-master setting items for [HOST], [PRINTER], and [Overlay] are displayed as setting items for Exam Tag masters rather than as those for sub-masters.
> • The sub-masters for [Image Processing] and [Exposure Condition] are displayed as items to be edited.

● Detail Edit mode

This is an edit mode that displays almost all sub-masters for editing.
The setting items related to output and overlay should be set in corresponding sub-masters.
You cannot use the exposure condition edit tool screen for editing individual Exam. Tags.

> **IMPORTANT** ··
> • The sub-master setting items for [View Code] are not displayed as items to be edited.
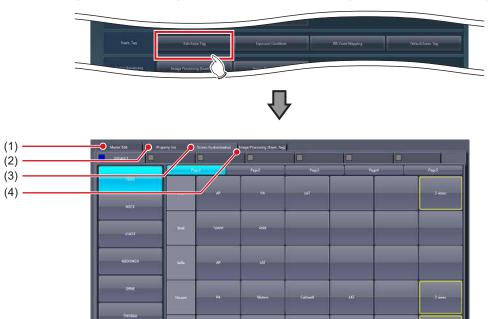
> **HINT** ··
> • The sub-masters for [Image Processing], [Exposure Condition], [X-Ray Filter], [X-Ray Grid], [Contrast], [Image Laterality], [Body Part], [HOST], [PRINTER], and [Overlay] are displayed as sub-masters to be edited.

Chapter 6

6.2　[Edit Exam Tag]

This tool is for adding and editing the settings of the Exam. Tags.

6.2.1　Exam. Tag edit tool screen

When [Edit Exam Tag] of the [Exam. Tag] area is pressed, the Exam. Tag edit tool screen is displayed.

Number	Name	Function
(1)	[Master Edit] tab	Displays the screen to add the preset Exam. Tags to the system.
(2)	[Property List] tab	Displays the screen to edit the setting contents (property) of the Exam. Tags.
(3)	[Screen Customization] tab	Displays the screen to edit the positioning of the Exam. Tag on the body part selection screen.
(4)	[Image Processing (Exam. Tag)] tab	Displays the screen to process images of Exam. Tag.
(5)	[OK]	Saves the settings and closes the screen.
(6)	[Cancel]	Closes the screen without saving the settings.
(7)	[Adapt]	Saves the settings with the screen displayed.

6.2.2 [Master Edit] screen

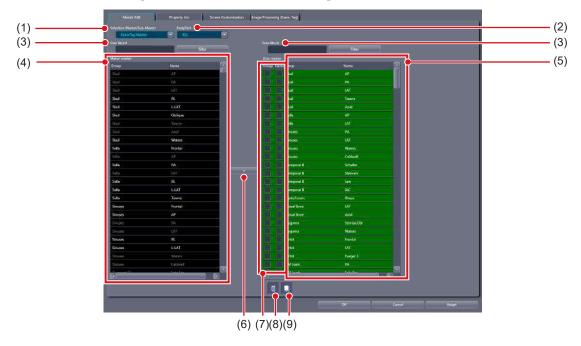This is the screen that is displayed when the [Master Edit] tab is selected on the Exam. Tag edit tool screen.
Add the Exam. Tags prepared in advance as the maker master to the system as the user master.

🖎 **HINT** ••

- The default configuration of the master/sub-master is registered as the maker master.
- When using this device, copy the necessary Exam. Tags from the maker master and use the created user master.
- The user master can be used for copying and customizing settings when necessary. You can also easily return it to its initial value.
- The maker master cannot be modified.

••

● **If master is selected in [Selection Master/Sub-Master]**
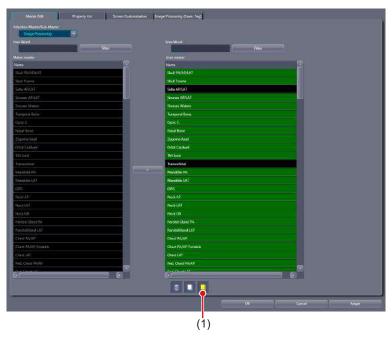

Number	Name	Function
(1)	[Selection Master/Sub-Master]	For selecting the exposure condition/related condition to edit from exposure conditions or the related conditions that exposure condition refers to.
(2)	[BodyPart]	For narrowing down body parts to be displayed in [Maker master]/[User master]. You can use this item only when the Exam. Tag master is selected.
(3)	[Free Word]/[Filter]	For narrowing down exposure conditions/related conditions to be displayed in [Maker master]/[User master].
(4)	[Maker master]	Displays a list of maker presets according to exposure conditions/related conditions selected in [Selection Master/Sub-Master]. Select the conditions to add to [User master]. • Conditions not copied to [User master] are displayed with white characters. • Conditions copied to [User master] are displayed with gray characters. 〚🖶 IMPORTANT〛 • You cannot register the same conditions of [Maker master] to [User master]. • You cannot change the condition name in [Maker master].
(5)	[User master]	Displays a list of conditions added to the system. • Background of the characters for the Exam. Tag master that is positioned to the body part selection screen and the sub-master linked to the Exam. Tag master is displayed in green. • Copied master and sub-master are displayed with orange characters. • In [Easy Edit Mode], double-click the name of the Exam. Tag master you want to edit to display the exposure condition edit tool screen.

Chapter 6

Number	Name	Function
(6)	[>]	Copies the selected condition in [Maker master] to [User master].
(7)	Text Color Display Setting	Select this option to display the Exam. Tag group names and Exam. Tag names in colored characters that are displayed in the order list of the exposure screen and the Exam.Tags display area of the body part selection screen. To display the Exam. Tag group names in colored characters, select [Group], and to display the Exam. Tag names in colored characters, select [Name]. The default character color is yellow. If you want to change the character color, contact Konica Minolta technical representatives.
(8)	Trash	You can delete the conditions displayed in [User master] by dragging and dropping the conditions from [User master] here. 📋 **IMPORTANT** • The Exam. Tag master and sub-master (the Exam. Tag user master that is positioned to the body part selection screen and the sub-master linked to the master) with the background of the characters displayed in green cannot be deleted. If you try to delete, a message saying that the condition is registered to the Exam. Tag is displayed and the deletion is canceled. To delete, it is necessary to change the back ground of the characters to black by canceling the position to the body part selection screen and releasing the link to the master.
(9)	Copy	You can copy the conditions displayed in [User master] by dragging and dropping the conditions in [User master] here. • The masters and sub-masters that have been registered by copying will be displayed with orange characters.

📋 **IMPORTANT** •••

• Depending on the exposure body part setting created and edited in [User master], even same exposure body parts may differ in Exam. Tag. Before exposure, be sure to confirm the exposure body part and the exposure condition.

•••

● **If sub-master is selected in [Selection Master/Sub-Master]**

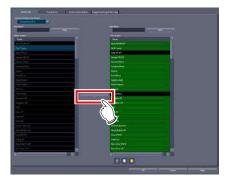| Number	Name	Function
(1)	Specialized Copy	During sub-master selection, if the condition displayed in [User master] is dragged and dropped here, specific modality/detector exclusive Exam. Tags can be created. ✏️ **HINT** • Device dependent Exam. Tags can be created without increasing the Exam. Tag master.

6.2.3 Operation of the [Master Edit] screen

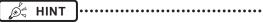The editing method for user master is as follows.

● **Registration of the [User master]**

1 **Select the condition you want to register to [User master] from exposure conditions/ related conditions displayed in [Maker master].**
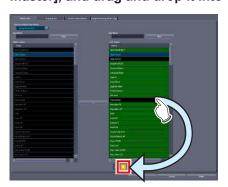
2 **Press [>].**

- The condition selected in [Maker master] is copied to [User master].
- You can also copy conditions by dragging and dropping the condition selected in [Maker master] directly into [User master].

> ✎ **HINT** ••••••••••••••••••••••••••••••
> - You can narrow down the display items in [Maker master] by inputting the keyword in [Free Word] and pressing [Filter]. It is convenient when you select exposure conditions/related conditions.
> •••••••••••••••••••••••••••••••••••••••

● **Copying of the exposure condition**

1 **Select the exposure condition/related condition you want to copy in the [User master], and drag and drop it into Copy.**

- The exposure conditions that have been registered by copying will be displayed with orange characters.

> 📋 **IMPORTANT** •••••••••••••••••••••••••
> - When a copy is made of an Exam. Tag master, all settings including links to sub-masters are transferred. You can freely change the link settings and other setting values after a copy is made.
> - All settings are transferred when sub-masters are copied, but the link from the Exam. Tag master is not transferred. Please set the link from the Exam. Tag master after copying. You can also freely change setting values after copying.
> •••••••••••••••••••••••••••••••••••••••

● **Specialized copying of sub-master**

1 **Select the exposure condition/related condition you want to make a specialized copy of in the [User master], and drag and drop it into Specialized copy.**

- The condition selection screen is displayed.

Chapter 6

2 **Select the modality and detector and press [OK].**

> ⏏ **IMPORTANT** ··································
>
> • If a specialized copy is performed, all setting values will be transferred. You can freely change the setting values after a specialized copy.
> • There is no need to change the links from the Exam. Tag masters. The link will automatically change following the modality/detector used for the exposure.
>
> ··································

● **Deleting the exposure condition**

1 **Select exposure condition/related condition you want to delete in the [User master], and drag and drop it into Trash.**
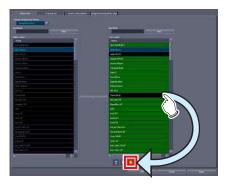

• Once you drop it to Trash, the deletion confirmation screen is displayed.

> ⏏ **IMPORTANT** ··································
>
> • The Exam. Tag master and sub-master (the Exam. Tag user master that is positioned to the body part selection screen and the sub-master linked to the master) with the background of the characters displayed in green cannot be deleted. If you try to delete, a message saying that the condition is registered to the Exam. Tag is displayed and the deletion is canceled. To delete, it is necessary to change the back ground of the characters to black by canceling the position to the body part selection screen and releasing the link to the master.
>
> ··································

● **Editing the name of the exposure condition**

2 **Right click the name or group name of the exposure condition/related condition which you want to edit in the [User master].**

• The right-clicked cell is highlighted and becomes editable.

6.2.4 [Property List] screen

This is the screen that is displayed when the [Property List] tab is selected on the Exam. Tag edit tool screen.
Edit the setting contents (properties) of Exam. Tags.

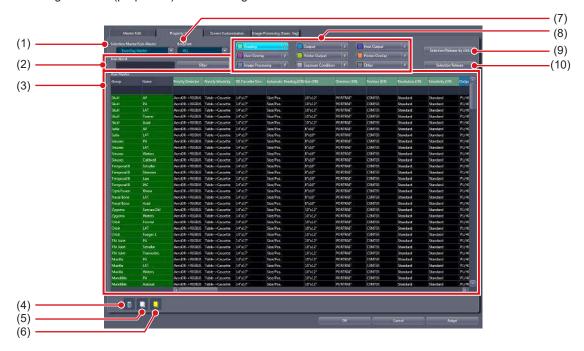| Number	Name	Function
(1)	[Selection Master/Sub-Master]	For selecting the exposure condition/related condition to edit the setting contents (property).
(2)	[Free Word]/[Filter]	For narrowing down exposure conditions/related conditions to be displayed in setting parameter/edit field.
(3)	Setting parameter/edit field	Displays the list of setting contents (property) of each exposure condition/related condition. You can edit contents by specifying the condition and property. In [Easy Edit Mode], double-click a condition displayed in the setting parameter/edit field to display the exposure condition edit tool screen.
(4)	Trash	You can delete the conditions displayed in the setting parameter/edit field by dragging and dropping the conditions here. **IMPORTANT** • The Exam. Tag master and sub-master (the Exam. Tag user master that is positioned to the body part selection screen and the sub-master linked to the master) with the background of the characters displayed in green cannot be deleted. If you try to delete, a message saying that the condition is registered to the Exam. Tag is displayed and the deletion is canceled. To delete, it is necessary to change the back ground of the characters to black by canceling the position to the body part selection screen and releasing the link to the master.
(5)	Copy	You can copy the conditions displayed in the setting parameter/edit field by dragging and dropping the conditions here. • The masters and sub-masters that have been registered by copying will be displayed with orange characters.
(6)	Specialized Copy	You can create specific modalities/detector exclusive conditions by dragging and dropping the conditions displayed in the setting parameter/edit field here. **HINT** • Device dependent Exam. Tags can be created without increasing the Exam. Tag master.

Chapter 6

Number	Name	Function
(7)	[BodyPart]	For narrowing down the setting contents (properties) to be edited. You can use this item only when the Exam. Tag master is selected.
(8)	Group buttons	Displays buttons for a group of setting items. When a button for each group is pressed, the setting items for that group are displayed in the setting parameter/edit field. **✐ HINT** • Turn [OFF] the right-most pin of the group button to cancel the display of the group. Click to toggle the pin [ON] or [OFF]. • If operations are slow on the [Property List] screen, lowering the number of groups normally displayed fixes performance.
(9)	Data selection mode	Select [Use Ctrl/Shift key] or [Selection/Release by click] for the data selection mode that is used in the setting parameter/edit field. The selection mode changes each time the button is pressed. • [Use Ctrl/Shift key] operation – Click: Selects only the data you clicked. Deselects other selected data. – Ctrl key + Click: Selects multiple pieces of data individually. It toggles between selection and deselection each time they are pressed. – Shift key + Click: Selects multiple pieces of data in succession. • [Selection/Release by click] operation – Click: Selects only the data you clicked. Deselects other selected data. – Ctrl key + Click: Selects multiple pieces of data individually. It toggles between selection and deselection each time they are pressed. – Shift key + Click: Selects multiple pieces of data in succession.
(10)	[Selection Release]/[Select All]	When [Use Ctrl/Shift key] is selected for the data selection mode, [Select All] is displayed. When [Selection/Release by click] is selected for the data selection mode, [Selection Release] is displayed. • [Select All]: Selects all of the exposure conditions/related conditions displayed in the setting parameter/edit field. • [Selection Release]: Releases selection of exposure condition/related condition displayed in the setting parameter/edit field.

6.2.5 Operation of the [Property List] screen

The editing method for properties is as follows.

● **Editing the properties**

1 Select the exposure conditions whose properties you want to edit (1) and the item name (2).
   • Multiple exposure conditions can be selected.

2 Double-click on items which have nothing displayed in the column under their name.

(Example) The list box display

(Example) The sub-master selection dialog display

   • When the link item to the sub-master is clicked, the sub-master selection dialog will be displayed.

3 Select the value or the sub-master.
   • Some of the selection of the setting value are done by entering characters.
   • Selection of the sub-master is done by double clicking.

4 Press [Adapt].

   • The setting value or the link to sub-master will be set.

📋 **IMPORTANT** ••••••••••••••••••••••••••••••••
   • When the setting value of the sub-master that is linked from multiple Exam. Tag masters is changed, all settings of the related Exam. Tag masters will be changed as well.
     When you want to change only a specific Exam. Tag master setting, copy the shared sub-master, set a new link, and change the setting value.
   • Changing the setting value of the Exam. Tag master will not affect the setting of the linked sub-master.
••

✐ **HINT** ••••••••••••••••••••••••••••••••••••••
   • The changed contents of the setting are displayed with red characters while the contents are being saved.
••

Chapter 6

● **Copying of the exposure condition**

1 Select the exposure condition/related condition you want to copy in the setting parameter/edit field, and drag and drop it into Copy.

• The exposure conditions that have been registered by copying will be displayed with orange characters.

☐ **IMPORTANT** ••••••••••••••••••••••••••••••••

• When a copy is made of an Exam. Tag master, all settings including links to sub-masters are transferred. You can freely change the link settings and other setting values after a copy is made.
• All settings are transferred when sub-masters are copied, but the link from the Exam. Tag master is not transferred. Please set the link from the Exam. Tag master after copying. You can also freely change setting values after copying.

••

● **Specialized copying of sub-master**

1 Select the exposure condition/related condition you want to make a specialized copy in the setting parameter/edit field, and drag and drop it into Specialized copy.

• The condition selection screen is displayed.

2 Select the modality and detector and press [OK].

☐ **IMPORTANT** ••••••••••••••••••••••••••••••••

• If a specialized copy is performed, all setting values will be transferred. You can freely change the setting values after a specialized copy.
• There is no need to change the links from the Exam. Tag masters. The link will automatically change following the modality/detector used for the exposure.

••

● **Deleting the exposure condition**

1 **Select exposure condition/related condition you want to delete in the setting parameter/edit field, and drag and drop it into Trash.**

- Once you drop it to Trash, the deletion confirmation screen is displayed.

> 📋 **IMPORTANT** ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯
>
> - The Exam. Tag master and sub-master (the Exam. Tag user master that is positioned to the body part selection screen and the sub-master linked to the master) with the background of the characters displayed in green cannot be deleted. If you try to delete, a message saying that the condition is registered to the Exam. Tag is displayed and the deletion is canceled. To delete, it is necessary to change the back ground of the characters to black by canceling the position to the body part selection screen and releasing the link to the master.
>
> ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯

● **Editing the name of the exposure condition**

1 **Right click the name or group name of the exposure condition/related condition which you want to change in the setting parameter/edit field.**

- The right-clicked cell is highlighted and becomes editable.

Chapter 6

6.2.6 X-ray exposure setting screen

This is the screen that is displayed when you select [Exposure Condition] under [Selection Master/Sub-Master] and double click the names displayed.

| Number	Name	Function
(1)	Common setting	For setting the exposure setting configuration method (exposure code APR/exposure dose), the tube selection to be used, the operative procedure (workstation) and the cooperate view rotation OFF/ON. Exposure mode (single / serial) is also displayed. **⟮ IMPORTANT ⟯** • Enabling [CooperateViewRotation] prioritizes angle settings on the X-ray device.
(2)	Enabled	Activates the exposure setting by the physique of the patient.
(3)	Exposure dose	You can set the irradiation mode, X-ray tube voltage, X-ray tube current, irradiation time, irradiation dosage, and focus size.
(4)	AEC	Displays the AEC related information. Sets the AEC OFF/ON, detection field, sensitivity, density, and film screen.
(5)	X-ray	For setting the X-ray filter.
(6)	SID	For setting the SID (Source to Image Distance).
(7)	[OK]	Saves the settings and closes the screen.
(8)	[Cancel]	Closes the screen without saving the settings.
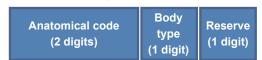
To use an anatomical code, select [APRCode], then enter the code.

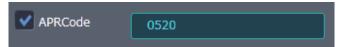The system of the anatomical code varies depending on the manufacturer.

TOSHIBA

– Anatomical code system

Anatomical code (2 digits)	Body type (1 digit)	Reserve (1 digit)

– Body type code

0	Fat
1	
2	Standard
3	Slim
4	Child

– Ex.: When the anatomical code is 05 and the body type is "Standard"
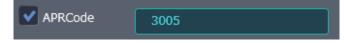
SHIMAZU

– Anatomical code system

Step (1 digit)	Program number (3 digits)

– Ex.: When step 3 is selected in the 5th program
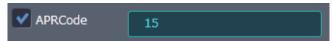

HITACHI

– Anatomical code system

Anatomical code (2 digits)

– Ex.: When the first digit (program page button number) is 1 and the second digit (program button number) is 5

Chapter 6

6.2.7 Image adjustment tool screen

This is the screen that is displayed by following the steps described below.
- Select [Image Processing] from [Selection Master/Sub-Master] on the [Property List] screen and double-click the name of the image processing sub-master you want to adjust.
- Double-click the desired exposure condition/related condition on the [SetKey Setting] screen of the [Image Processing (Exam. Tag)] screen.

Targeting the selected Image Processing sub-master, you can perform image processing parameter adjustments while referring to the image.

Number	Name	Function
(1)	Image display area	Image processed by the adjusted parameter is displayed. It is possible to display up to 4 images in the screen. Image processing adjustment results are reflected in real-time.
(2)	Exam. Tag display area	The Exam. Tag master that links the Image Processing sub-master to be edited is displayed. It is possible to confirm the targeted Exam. Tag master in a list, and on/off of the H/R/E/F/HS process and setting of the E/F processing method can be made for each Exam. Tag master.
(3)	Image adjustment area	Switch between the 4 tabs, namely, [Summary], [Detail], [LUT], and [HS] depending on the editing purpose. • [Summary]: This will adjust the density or intensity. • [Detail]: This will directly adjust the process parameter value. • [LUT]: Modifies LUT of gradation processing. • [HS/RS]: Performs HS/RS processing adjustments.
(4)	[Add Images for Adjustment]	Displays the Add Images for Adjustment screen.

> 🖋 **HINT** ••
> • If you add images on the Add Images for Adjustment screen, [Additional Images] is added to the Exam. Tag display area.
> ••
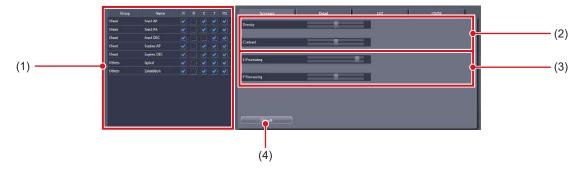
Image adjustment area

This is part of the image adjustment tool screen.

● **Simple adjustment screen**

This is the screen that is displayed when the [Summary] tab in the image adjustment area is selected.

You can perform gradation processing, dynamic range compression processing and frequency processing adjustments.

Number	Name	Function
(1)	Processing on/off	On/off of the H/R/E/F/HS process and the E/F process method for each Exam. Tag are set by the check box.
(2)	Gradation processing	For adjusting the gradation processing parameters in terms of density and contrast. The adjusted results are internally converted to gradation processing parameters. You can verify this in the [Detail] tab.
(3)	Frequency processing	For adjusting dynamic range compression processing (E processing) and frequency emphasis processing (F processing) parameters in terms of strength. The adjusted results are internally converted to E/F processing parameters. You can verify this in the [Detail] tab.
(4)	[Default]	For discarding all adjustment results and going back to the state initial value.

● **Detailed adjustment screen**

This is the screen that is displayed when the [Detail] tab in the image adjustment area is selected.

Adjustments for gradation processing, dynamic range compression processing, and frequency processing can be performed.
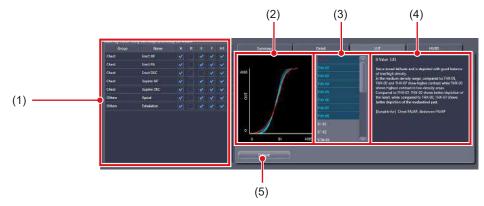

Number	Name	Function
(1)	Processing on/off	On/off of the H/R/E/F/HS process and the E/F process method for each Exam. Tag are set by the check box.
(2)	Gradation processing	Adjust with the density L, density H, and fixed gradient. For LUT changes, perform them in the [LUT] tab.
(3)	E/F processing	Set the E/F processing method (REALISM/Hybrid/Standard) from the pull-down menu. For REALISM or Hybrid, adjust with [Enhance Type], [Low-Density], and [High-Density]. For Standard, adjust with [MaskType], [Low-Density], and [High-Density].
(4)	[Default]	For discarding all adjustment results and going back to the state initial value.

127

● **LUT modification screen**

This is the screen that is displayed when the [LUT] tab in the image adjustment area is selected.

Select LUT of gradation processing.

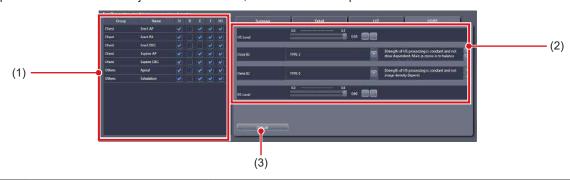You can choose the LUT to be applied while referring to the LUT form and LUT description.

Number	Name	Function
(1)	Processing on/off	On/off of the H/R/E/F/HS process and the E/F process method for each Exam. Tag are set by the check box.
(2)	LUT form preview	The selected LUT group is displayed in a graph. You can confirm the LUT form. **HINT** • LUTs of the same group will all be displayed, and the LUT currently selected will be shown in red.
(3)	LUT list	Usable LUTs are displayed in a list. Select the LUT to be applied from the list. **HINT** • The form and description of the selected LUT is displayed in the LUT form preview/LUT description field.
(4)	LUT description field	The description of the selected LUT is displayed. The G value, characteristic, and suitable part are displayed.
(5)	[Default]	For discarding all adjustment results and going back to the state initial value.

● **HS/RS processing adjustment screen**

This is the screen that is displayed when the [HS/RS] tab in the image adjustment area is selected.

Perform HS/RS processing (granular control processing) adjustments.
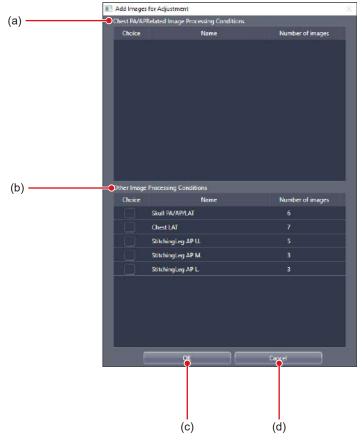
It is possible to make value adjustments. However, there is no screen preview.

Number	Name	Function
(1)	Processing on/off	On/off of the H/R/E/F/HS process and the E/F process method for each Exam. Tag are set by the check box.
(2)	HS/RS processing	For performing adjustments to the HS parameter in terms of [HS Level], [Dose ID], [Dens ID], and [RS Level]. **HINT** • Take note that there is no screen preview when adjusting the value.
(3)	[Default]	For discarding all adjustment results and going back to the state initial value.

✏️ **HINT** ••

- This is the screen displayed when [Add Images for Adjustment] is pressed on the image processing tool screen. Select the image to be added to the image display area.
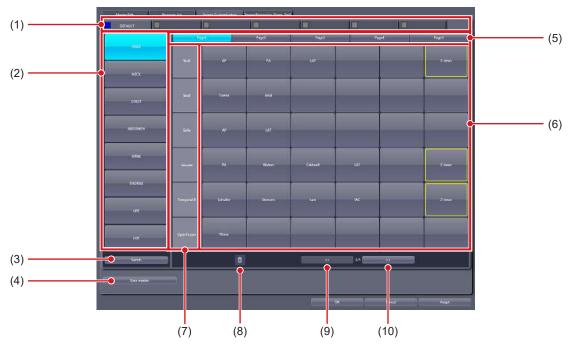
Number	Name	Function
(a)	Related Image Processing Conditions	Displays the images related to the image-adjustment processing sub-master. Select the image to be added to the image display area.
(b)	Other Image Processing Conditions	Displays the images that are not related to the image-adjustment processing sub-master. Select the image to be added to the image display area.
(c)	[OK]	Closes the screen after setting the selected image.
(d)	[Cancel]	Closes the screen without setting the selected image.

••
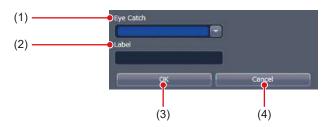
6.2.8 [Screen Customization] screen

This is the screen displayed when the [Screen Customization] tab is selected on the Exam. Tag edit tool screen. Edits placement of Exam. Tag of the body part selection screen.

| Number	Name	Function
(1)	Tabs	For classifying Exam. Tag. This is used for setting and selection of the tab. According to the Exam. Tag license installed in this device, the number of the tabs that can be set changes.
(2)	Body part display area	2 pages can contain 16 registrations of body parts. The exposure body parts are registered in pages and divided into 6 groups, and 30 groups can be registered in 5 pages. You can edit the name of the exposure body part by right clicking the name.
(3)	[Switch]	Switches the pages of the exposure body parts.
(4)	[User master]	Displays the Exam. Tag user master list.
(5)	Page switching button	Switches the pages of Exam. Tag display.
(6)	Exam. Tag display area	Displays Exam. Tag. Drag and drop an exposure condition here from the Exam. Tag user master list, and register Exam. Tag to the body part selection screen. Displays the set key editing screen by clicking.
(7)	Group	For classifying the displayed items in the exposure body part display area. 6 pieces of Exam. Tag can be registered to 1 group. You can change the name of the group by right clicking the name.
(8)	Trash	Drag and drop Exam. Tag here and remove Exam. Tag from the body part selection screen.
(9)	[«]	Displays Exam. Tag in the previous page.
(10)	[»]	Displays Exam. Tag in the next page.

● Tab editing screen
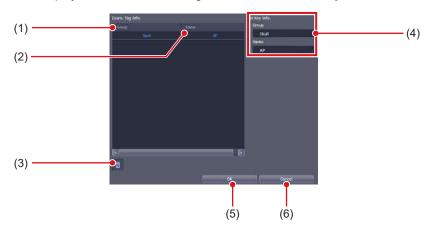
This is the screen that is displayed when the color portion of a tab is pressed on the [Screen Customization] screen.

Number	Name	Function
(1)	[Eye Catch]	For selecting the eye-catch color.
(2)	[Label]	For inputting the tab name. ⌨ **HINT** • [OK] cannot be pressed unless characters are entered in the [Label].
(3)	[OK]	Saves the settings and closes the screen.
(4)	[Cancel]	Closes the screen without saving the settings.

● Set key editing screen

This is the screen that is displayed when the Exam. Tag is double-clicked on the [Screen Customization] screen.
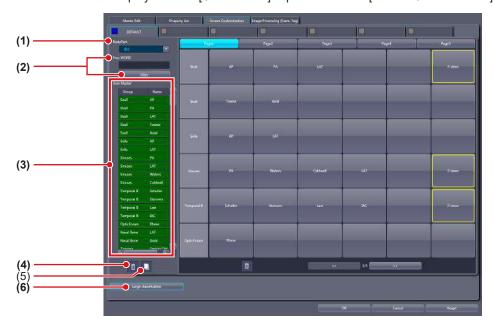
Number	Name	Function
(1)	[Group]	Displays the exposure conditions group name.
(2)	[Name]	Displays the name of the exposure condition.
(3)	Trash	The exposure conditions registered under Exam. Tag will be deleted.
(4)	[Set Key Info.]	Displays Exam. Tag information.
(5)	[OK]	Saves the settings and closes the screen.
(6)	[Cancel]	Closes the screen without saving the settings.

⌨ **HINT** ···

• In [Easy Edit Mode], double-click an exposure condition to display the exposure condition edit tool screen.
• The Exam. Tag name is cleared by deleting all the exposure condition and pressing [OK].

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Chapter 6

● **Exam. Tag user master list**
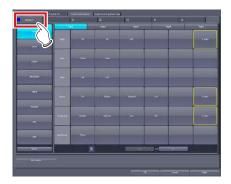This is the screen that is displayed when [User master] is pressed on the [Screen Customization] screen.

| Number	Name	Function
(1)	[BodyPart]	For narrowing down body parts to be displayed in [User Master].
(2)	[Free WORD]/[Filter]	Narrows down the exposure conditions/related conditions to be displayed in the [User Master].
(3)	[User Master]	Displays the exposure conditions/related conditions. Background of the characters for the exposure conditions/related conditions registered under Exam. Tag is displayed in green. When you right-click a condition displayed in [User master], you can edit its name. In [Easy Edit Mode], double-click a condition displayed in [User Master] to display the exposure condition edit tool screen.
(4)	Trash	You can delete the conditions displayed in [User master] by dragging and dropping the conditions from [User master] here. 【📄 IMPORTANT】 • The Exam. Tag master with the background of the characters displayed in green and the Exam. Tag user master that is placed on the body part selection screen cannot be deleted. If you try to delete, a message saying that the condition is registered to the Exam. Tag is displayed and the deletion is canceled. To delete, it is necessary to cancel positioning to the body part selection screen and change the back ground of the characters to black.
(5)	Copy	You can copy the conditions displayed in [User master] by dragging and dropping the conditions in [User master] here. • The masters and sub-masters that have been registered by copying will be displayed with orange characters.
(6)	[Large classification]	Switches to Large classification.
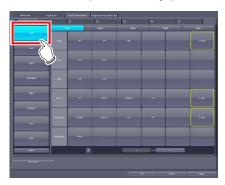
6.2.9 Operation of the [Screen Customization] screen

The editing method of the body part selection screen is as follows.

● **Addition of the Exam. Tag**

1 **Select a tab to which you want to add the Exam. Tag.**
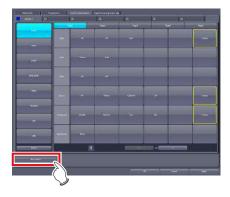
2 **Select the exposure body part to be added.**
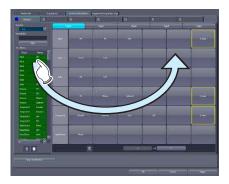
3 **Press [«] or [»] to display a page to which you want to add the Exam. Tag.**

4 **Press [User master].**

• The Exam. Tag user master list is displayed.

5 **Select an exposure condition you want to add in the [User Master] and drag and drop it into the Exam. Tag display area.**

• The name of the condition dragged and dropped from the [User Master] is displayed in the Exam. Tag.
• If you drag and drop the name of the condition into an Exam. Tag where no group name is registered, the group name containing the condition is also displayed automatically.

📝 **HINT** ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯

• You can add a condition to the Exam. Tag where another condition is already registered.

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Chapter 6

● Moving items

1   Select an item you want to move and drag and drop it into the desired position.

Moving the Exam. Tag

Moving the groups

● Deletion of items

1   Select an item you want to delete, and drag and drop it into Trash.

• Once you drop it to Trash, the deletion confirmation screen is displayed.

2   Press [Yes].
• The selected item is deleted.

● Confirmation of the Exam. Tag contents
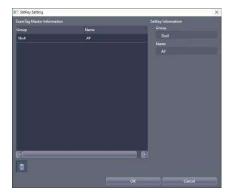
1   Double-click the registered Exam. Tag.

• The set key editing screen is displayed.

● **Copying of the exposure condition**

1 **Select the exposure condition/related condition you want to copy in the [User Master], and drag and drop it into Copy.**

- The exposure conditions that have been registered by copying will be displayed with orange characters.

📝 **IMPORTANT** ·······························

- When a copy is made of an Exam. Tag master, all settings including links to sub-masters are transferred. You can freely change the link settings and other setting values after a copy is made.

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● **Deleting the exposure condition**

1 **Select exposure condition/related condition you want to delete in the [User Master], and drag and drop it into Trash.**

- Once you drop it to Trash, the deletion confirmation screen is displayed.

📝 **IMPORTANT** ·······························

- The Exam. Tag master (the Exam. Tag user master that is positioned to the body part selection screen) with the background of the characters displayed in green cannot be deleted. If you try to delete, a message saying that the condition is registered to the Exam. Tag is displayed and the deletion is canceled. To delete, it is necessary to change the back ground of the characters to black by canceling the position to the body part selection screen and releasing the link to the master.

··

● **Editing the name of the exposure condition**

1 **Right click the name or group name of the exposure condition/related condition which you want to change in the [User master].**
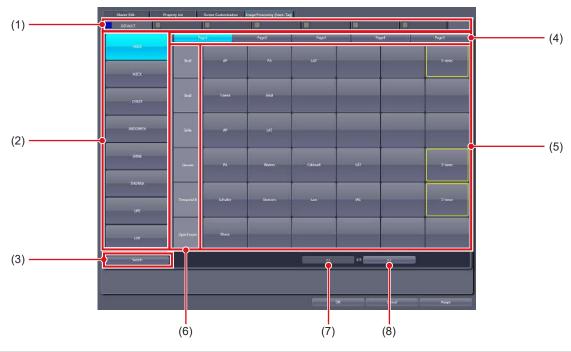

- The right-clicked cell is highlighted and becomes editable.

Chapter 6

135

6.2.10   Image Processing (Exam. Tag) screen

This is the screen displayed when the [Image Processing (Exam. Tag)] tab is selected on the Exam. Tag edit tool screen.
Selecting an Exam. Tag displays the image adjustment tool screen enabling you to adjust image processing parameters.
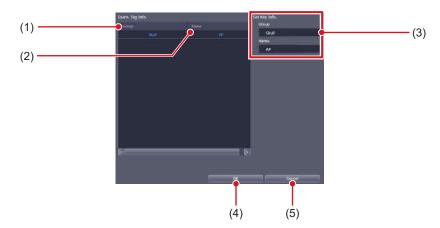
Number	Name	Function
(1)	Tabs	Displays the tabs set on the Screen Customization screen.
(2)	Body part display area	Displays the body parts set on the Screen Customization screen.
(3)	[Switch]	Switches the pages of the exposure body parts.
(4)	Page switching button	Switches the pages of Exam. Tag display.
(5)	Exam. Tag display area	Displays the Exam. Tag that has been set on the Screen Customization screen. If the Exam. Tag has only one exposure condition, double-click it to display the image adjustment tool screen. If the Exam. Tag has multiple exposure conditions, the SetKey Setting screen is displayed. Double-clicking an exposure condition displays the image adjustment tool screen.
(6)	Group	Displays groups set on the Screen Customization screen.
(7)	[«]	Displays Exam. Tag in the previous page.
(8)	[»]	Displays Exam. Tag in the next page.

● Set key setting screen

This is the screen that is displayed when the Exam. Tag is double-clicked on the [Screen Customization] screen.

Number	Name	Function
(1)	[Group]	Displays the exposure conditions group name.
(2)	[Name]	Displays the name of the exposure condition.
(3)	[Set Key Info.]	Displays Exam. Tag information.
(4)	[OK]	Saves the settings and closes the screen.
(5)	[Cancel]	Closes the screen without saving the settings.

✐ HINT
• In [Easy Edit Mode], double-click an exposure condition to display the image adjustment tool screen.

6.2.11 Exposure condition edit tool screen

This is the screen that is displayed by following the steps described below.

- Select [ExamTag Master] from [Selection Master/Sub-Master] on the [Property List] screen and double-click the name of the desired Exam. Tag master.
- Double-click the name of the desired Exam. Tag master on [SetKey Setting] screen of the [Screen Customization] screen.
- Double-click the name of the desired Exam. Tag master in [User Master] on the [Master Edit] screen.

You can edit the selected Exam. tag master. This screen is only available in [Easy Edit Mode].
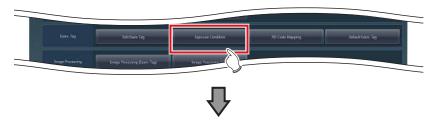
Number	Name	Function
(1)	[Acquisition]	Used to edit setting items related to reading conditions.
(2)	[Image Processing]	Used to edit setting items related to image processing.
(3)	Image Proc Edit button	Displays the image adjustment tool screen for editing the selected Image Processing sub-master.
(4)	[Exposure Condition]	Used to edit setting items related to exposure settings.
(5)	Edit exposure settings	Displays the X-ray exposure setting screen that is used to edit the selected exposure setting sub-master.
(6)	[Output]	For setting an output device.
(7)	[HOST] tab	Select this to display the setting items for host overlay and output conditions.
(8)	[PRINTER] tab	Select this to display the setting items for printer overlay and output conditions.
(9)	[Overlay]	Used to edit setting items related to overlay.
(10)	Overlay Preview	An overlay preview is displayed.
(11)	[Output Condition]	Used to edit setting items related to output conditions.

6.3 [Exposure Condition]

This tool is for adding and editing information about the exposure settings.

6.3.1 Exam. Tag edit tool screen

When [Exposure Condition] of the [Exam. Tag] area is pressed, the Exam. Tag edit tool screen is displayed while the [Property List] tab is selected at the same time.
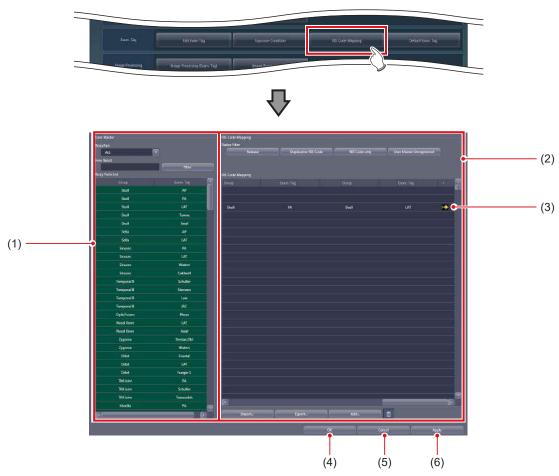
Number	Name	Function
(1)	[Selection Master/Sub-Master]	The screen is displayed with [Exposure Condition] being turned on.

6.4 [RIS Code Mapping]

This tool is for associating RIS codes from the RIS with codes for this device.
Correspondence for 1 or more Exam. Tags can be attached to 1 RIS code.

6.4.1 RIS code mapping tool screen

When [RIS Code Mapping] of the [Exam. Tag] area is pressed, the RIS code mapping tool screen is displayed.
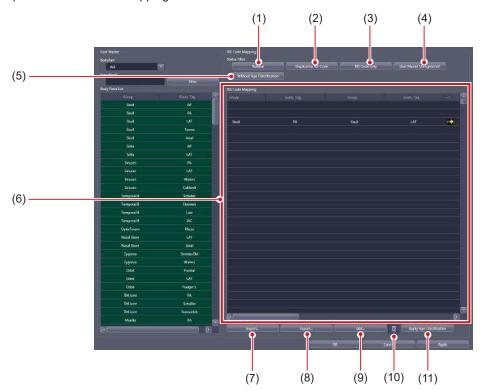
Number	Name	Function
(1)	[User Master]	Displays the Exam. Tag of this device.
(2)	[RIS Code Mapping]	An RIS code and the Exam. Tag associated with to that RIS code is displayed in records (lines).
(3)	Arrow mark	This is displayed when there are 5 or more Exam. Tags corresponding to the RIS code. Double-clicking those records (lines) will display the RIS code details screen and you can check the fifth Exam. Tag onwards.
(4)	[OK]	Saves the edited contents for the RIS code mapping and closes the screen.
(5)	[Cancel]	Finishes editing the RIS code mapping without saving the contents.
(6)	[Apply]	Saves the edited contents for the RIS code mapping.

● **[User Master]**

This is part of the RIS code mapping tool screen.

Number	Name	Function
(1)	[BodyPart]	For narrowing down the body parts to be displayed in [Body Parts List].
(2)	[Free Word]/[Filter]	When [Filter] is pressed after inputting characters in [Free Word], Exam. Tags are narrowed down. Records (lines) of which [Group] and [Exam. Tag] include the input characters are displayed. To release narrow down, delete the characters of [Free Word] and press [Filter].
(3)	[Body Parts List]	Display the Exam. Tag of this device.

● **[RIS Code Mapping]**

This is part of the RIS code mapping tool screen.

Number	Name	Function
(1)	[Release]	Releases narrow down and displays all RIS codes.
(2)	[Duplicative RIS Code]	Duplicated RIS codes are displayed.
(3)	[RIS Code only]	RIS codes without corresponding Exam. Tags are displayed.
(4)	[User Master Unregistered]	RIS codes not registered in [User Master] are displayed.
(5)	[Without Age Classification]	Displays RIS code that does not correspond to the age classifications.

Number	Name	Function
(6)	[RIS Code Mapping]	RIS code mapping is displayed. • [Coding Scheme Designator]: Coding scheme designator of RIS code • [RIS Code]: RIS code • [Age Classification]: Age classification • [Remarks]: Comments for coding scheme designator/RIS code • [Priority]: Priority of RIS codes. • [Group]: Group name of Exam. Tag • [Exam. Tag]: Name of Exam. Tag When double-clicked, the RIS code details screen is displayed.
(7)	[Import...]	Files are imported to [RIS Code Mapping]. There are two import methods, replace and add. Replace discards the current [RIS Code Mapping], and imports new settings. Add adds only records not existing in the current [RIS Code Mapping].
(8)	[Export...]	Writes [RIS Code Mapping]. There are 2 write methods, for import by another unit of this device, and to confirm correspondence.
(9)	[Add...]	Adds records to the [RIS Code Mapping].
(10)	Trash	Deletes the selected record from the [RIS Code Mapping]. ⚹ **HINT** • The record can be deleted from [RIS Code Mapping] by pressing the Delete key.
(11)	[Apply Age Classification]	Associates RIS code with the age classification.

📥 **IMPORTANT** •••

• [Age Classification] of [RIS Code Mapping] is displayed only when [Add the age Classification code in RIS Code] is selected in [Age Classification code addition mode setting for in RIS Code] of the service tool [Patient Age Setting].

•••

⚹ **HINT** ••

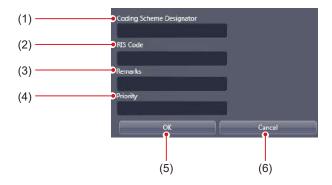• These are the 2 conditions where the RIS code is converted to Exam. Tag. When neither is satisfied, an "Undefined" Exam. Tag is displayed.

– The correspondences between RIS code and Exam. Tag are defined in the RIS code mapping.

– The Exam. Tag defined in the RIS code mapping is registered in [User Master].

•••

● New RIS code creation screen

This is the screen that is displayed when [Add...] is pressed on [RIS Code Mapping] of the RIS code mapping tool screen.

Makes correspondence between a new RIS code and Exam. Tag.
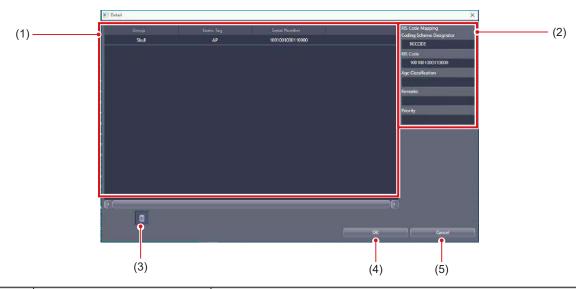
Number	Name	Function
(1)	[Coding Scheme Designator]	For inputting the coding scheme designator of the RIS code.
(2)	[RIS Code]	For inputting the RIS code.
(3)	[Remarks]	For inputting the description of the RIS code.
(4)	[Priority]	When multiple RIS codes with the same content are registered, association of the RIS code with the largest number for this setting and the Exam. Tag is enabled.
(5)	[OK]	Saves the input of a new RIS code, and closes the new RIS code creation screen.
(6)	[Cancel]	Does not save the input of a new RIS code, and closes the new RIS code creation screen.

● RIS code details screen

This is the screen that is displayed when RIS code is double-clicked on [RIS Code Mapping] of the RIS code mapping tool screen.

The RIS code information and correspondence of Exam. Tag can be edited.

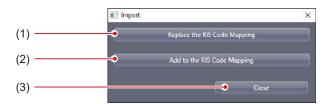| Number	Name	Function
(1)	Exam. Tag area	Displays Exam. Tag information. • [Group]: Group name of Exam. Tag • [Exam. Tag]: Name of Exam. Tag
(2)	RIS Code area	Displays RIS code information. • [Coding Scheme Designator]: Coding scheme designator of RIS code • [RIS Code]: RIS code • [Age Classification]: Age classification • [Remarks]: Comments for coding scheme designator/RIS code • [Priority]: Priority of the association of the RIS code and the Exam. Tag
(3)	Trash	Deletes mistaken correspondence from the Exam. Tag area. Drop Exam. Tag in the trash can. 🖎 **HINT** • The record can be deleted from Exam. Tag area by pressing the Delete key.
(4)	[OK]	Saves editing, and closes the RIS code details screen.
(5)	[Cancel]	Does not save editing, and closes the RIS code details screen.

IMPORTANT

• [Age Classification] in the RIS code area is displayed only when [Add the age Classification code in RIS Code] is selected in [Age Classification code addition mode setting for in RIS Code] of the service tool [Patient Age Setting].

● Import screen

This is the screen that is displayed when [Import...] is pressed on the RIS code mapping tool screen.
Imports files written from another unit of this device or RIS.

Number	Name	Function
(1)	[Replace the RIS Code Mapping]	Discards the current [RIS Code Mapping], imports new settings, and closes the import screen.
(2)	[Add to the RIS Code Mapping]	Adds the only record not existing in the current [RIS Code Mapping], and closes the import screen.
(3)	[Close]	Closes the import screen without importing.

> **⚡ IMPORTANT** ....
>
> • Import file format is as follows.
>   – The items should be listed in the order of "Coding Scheme Designator" "RIS Code" "Remarks" "Priority" "Exam. Tag Serial Number 1" and so on.
>   – Commas (,) or tabs are delimiters of items. The one to be used is set at the time of the file selection.
>   – Any item can be omitted, but commas (,) or tabs are required.
>
> ....

● Export screen

This is the screen that is displayed when [Export...] is pressed on the RIS code mapping tool screen.
Writes files for import to another unit of this device or for confirmation of correspondence.
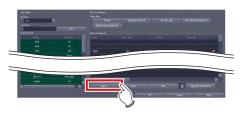
Number	Name	Function
(1)	[Export the import data for the other CS-7 consoles]	Writes a file for another unit of this device, and closes the export screen.
(2)	[Export for the verification data of RIS Code Mapping]	Writes a file to confirm the correspondence of RIS code and Exam. Tag, and closes the export screen. It is checked with external software such as text editors.
(3)	[Close]	Closes the export screen without writing.

6.4.2 Operation of the RIS code mapping tool

The editing method for RIS code mapping is as follows.

● **Import of the RIS code mapping**

1 Press [Import...].

- The import screen is displayed.

2 Press the import method.

- The file selection screen is displayed.

3 Select the file and press [Open].
- The file is imported.
- Because the file contains only RIS code information, all RIS codes are displayed with blue letters. (The "RIS Code only" status)
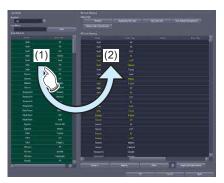
> ✎ **HINT** ·····························
>
> - If [Add to the RIS Code Mapping] in Step 2 was pressed, only records not currently existing in the RIS code will be added.
>
> ·····································

● **RIS Code Mapping editing**
The acquired RIS Code Mapping can be edited any time.
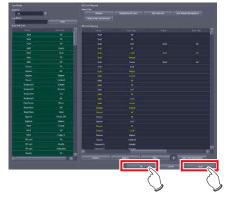
1 Drag and drop the exposure body part in the [User Master] to a line of the RIS code to associate the body parts with the code.

- If properly associated, RIS code texts change from blue to white.

2 Repeat step 1 to associate the exposure body parts with all RIS codes.

3 Press [OK] or [Apply].

- The associations of the RIS codes and the exposure body parts are saved.

IMPORTANT ••••••••••••••••••••••••••••••

- RIS codes exported from the RIS should be edited in a file format that can be imported into this device in advance.
- Break characters cannot be used in [Coding Scheme Designator], [RIS Code], and [Remarks].
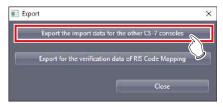- A semicolon (;) cannot be used at the beginning of the text in [Coding Scheme Designator].

••

HINT ••••••••••••••••••••••••••••••

- [Coding Scheme Designator] or [RIS Code] may not be used depending on the operation. In this case, you can not input any texts in unused input columns.
- A comma (,) or a tab is set as a break character with this device. The one to be used is set at the time of the file selection.
- The created RIS code is added to the bottom line of the list.

••

● **Export of the RIS Code Mapping (for another unit of this device)**

1 Press [Export...].

- The export screen is displayed.

2 Press [Export the import data for the other CS-7 consoles].
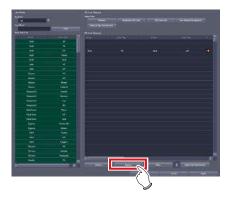
- A confirmation screen is displayed.
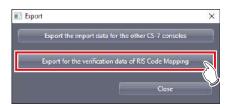
3 Press [Yes].

- The file is exported.

● **Export of the RIS Code Mapping (for verification)**

1 Press [Export...].

- The export screen is displayed.

2 Press [Export for the verification data of RIS Code Mapping].
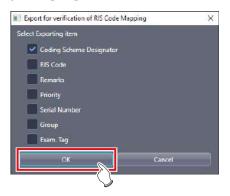
- A confirmation screen is displayed.

3 Press [Yes].

- The export item selection screen is displayed.

Chapter 6

4 Select an item you want to export, and press [OK].
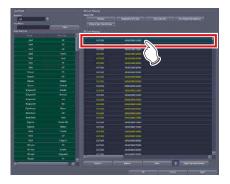
- File save screen is displayed.

5 Confirm the save destination and the file name then press [Save].
- The file is exported.
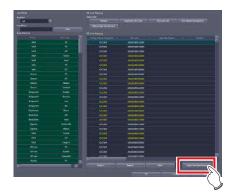
● **Association with age classifications**
The method for associating RIS code with age classification is as follows.

1 Select the RIS codes from [RIS Code Mapping] that correspond to the respective age classifications.

2 Press [Apply Age Classification].

- The selected RIS codes are associated with the age classifications.

3 Associate RIS codes with the body parts to be exposed, if necessary.

4 Press [OK] or [Apply].

6.4.3 Operation of the RIS code details screen

The editing method for RIS code is as follows.

● **Moving an item**

1 **Select an item you want to move, and drag and drop it into the desired position.**

● **Deleting an item**

1 **Select an item you want to delete, and press the Delete key or drag and drop it into Trash.**

┌─── ✐ **HINT** ───┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄
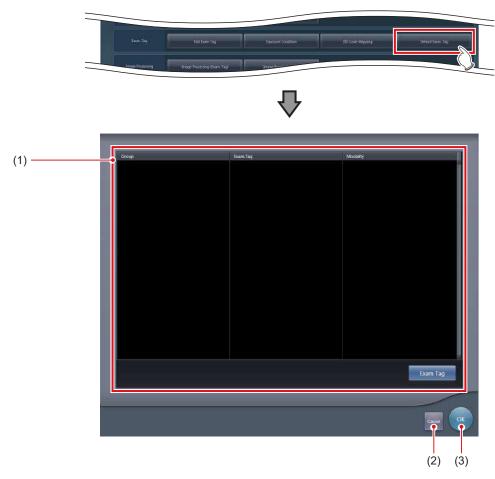
• It is also possible to select and delete multiple exposure body parts at one time.

┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄

Chapter 6

6.5 [Default Exam. Tag]

This tool is for assigning an Exam. Tag (default Exam. Tag) that is automatically specified without selecting an Exam. Tag on the body part selection screen at the time the study starts.

6.5.1 Default Exam. Tag setting tool screen

When [Default Exam. Tag] in [Exam. Tag] area is pressed, the default Exam. Tag setting tool screen is displayed.

Number	Name	Functions
(1)	Default Exam. Tag display area	Displays groups, names, and modalities of the set default Exam. Tags. When [Exam Tag] is pressed, the default Exam. Tag selection screen is displayed, from which you can select a default Exam. Tag.
(2)	[Cancel]	Closes the screen without saving the settings.
(3)	[OK]	Saves the settings and closes the screen.

● **Default Exam. Tag selection screen**
This screen is displayed when you press [Exam Tag] on the default Exam. Tag setting tool screen.
Select a default Exam. Tag from the list of Exam. Tags.
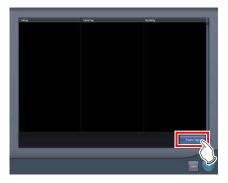
Number	Name	Functions
(1)	[Body Part]	Narrows down the Exam. Tags to be displayed in [Body Parts List].
(2)	[Body Parts List]	Displays the list of the Exam. Tags that are available for setting.
(3)	[Delete]	Deletes the selected default Exam. Tag from the default Exam. Tags area.
(4)	[Cancel]	Closes the screen without saving the settings.
(5)	Default Exam. Tag area	Displays the default Exam. Tags to be set. You can register the tags by dragging and dropping the Exam. Tags from [Body Parts List]. Up to 128 shots of default Exam. Tags can be registered. You can modify the alignment sequence of the registered default Exam. Tags using drag and drop operations.
(6)	[OK]	Saves the settings and closes the screen.

Chapter 6

6.5.2 Operating the default Exam. Tag setting tool

The setting method for default Exam. Tags is as follows.

● **Registration of the Default Exam. Tags**

1 **Press [Exam Tag].**

• The default Exam. Tag selection screen is displayed.

2 **Drag and drop an Exam. Tag that is to be registered as the default Exam. Tag from [Body Parts List] to the default Exam. Tag area.**
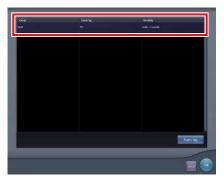
> 📋 **IMPORTANT** ·································
>
> • The alignment sequence of the Exam. Tags in the default Exam. Tags area is the exposure sequence. You can modify their alignment sequence using drag and drop operations.
> • Up to 10 serial exposure Exam. Tags can be registered.
> ·····································

3 **Press [OK].**

• The default Exam. Tag is added and the display returns to the default Exam. Tag setting tool screen.

● **Deletion of default Exam. Tags**

1 Press [Exam Tag].

• The default Exam. Tag selection screen is displayed.

2 Select an Exam. Tag you want to delete from the default Exam. Tags area and press [Delete].

• The default Exam. Tag is deleted.

Chapter 6

Chapter **7**

Tools When [Setting] Is Selected [Image Processing] Area
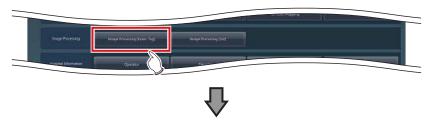
This chapter describes the tools in the [Image Processing] area
displayed when [Setting] is selected.

7.1 [Image Processing (Exam. Tag)]

For adjusting the image processing parameter of the Exam.Tag.

7.1.1 Exam. Tag edit tool screen

When [Image Processing (Exam. Tag)] of the [Image Processing] area is pressed, the Exam. Tag edit tool screen is displayed.
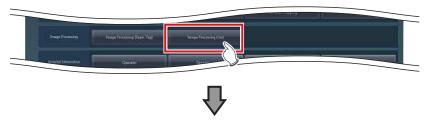
📖 **Reference** ....
- For the screen, refer to "6.2.10 Image Processing (Exam. Tag) screen".
....
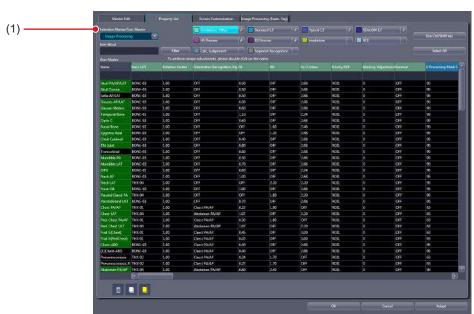
7.2 [Image Processing (List)]

This tool is for adding and editing image-processing information.

7.2.1 Exam. Tag edit tool screen

When [Image Processing (List)] of the [Image Processing] area is pressed, the Exam. Tag edit tool screen is displayed while the [Property List] tab is selected at the same time.

Number	Name	Function
(1)	[Selection Master/Sub-Master]	Displayed with [Image Processing] being turned on.

Chapter 8

Tools When [Setting] Is Selected [Hospital Information] Area
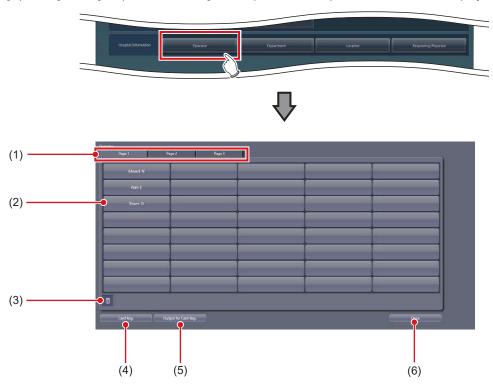
This chapter describes the tools in the [Hospital Information] area

displayed when [Setting] is selected.

8.1 [Operator]

This tool is for registering and editing the selection of the name of the operator.

8.1.1 Operator tool screen
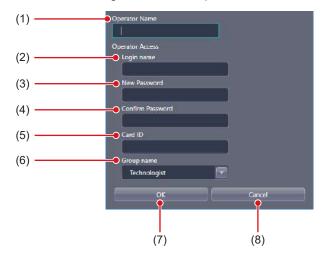
When [Operator] of the [Hospital Information] area is pressed, the operator tool screen is displayed.

Number	Name	Function
(1)	Page switching tab	Switches the pages of the selection list.
(2)	Selection	Displays the operator name editing screen by double-clicking the selection to be registered or edited.
(3)	Trash	Deletes unnecessary selection.
(4)	[Card Reg.]	Reads a CSV file containing IC card registration information for login, and registers it.
(5)	[Output for Card Reg.]	Outputs a CSV file for setting IC card registration information for login.
(6)	[Close]	Closes the operator tool screen.

● **Operator name editing screen**

Double-click the selections under the operator tool screen to display.
Used for editing operator names and login accounts and passwords.

Number	Name	Function
(1)	[Operator Name]	For inputting the operator name.
(2)	[Login name]	For setting the login name. Defines the login account to be input on the login screen when automatic login is disabled.
(3)	[New Password]	For setting the password. Defines the password to be input on the login screen when automatic login is disabled.
(4)	[Confirm Password]	For reentering the password for confirmation during password setting.
(5)	[Card ID]	For entering the card ID of the IC card to use for log in. It is not necessary to enter this field if an IC card is not used for log in.
(6)	[Group name]	For setting the group for the operator to be registered.
(7)	[OK]	Saves the edited content and closes the screen.
(8)	[Cancel]	Cancels the edited content and closes the screen.

🖉 **HINT** ･･･

- [Login name], [New Password], [Confirm Password], and [Group name] are displayed only when the automatic login mode is disabled (login control mode).
- [Card ID] is displayed when the automatic login mode is disabled (login control mode) and the IC card reading function is enabled.

･･･

Chapter 8

161

8.1.2 Registering the IC card
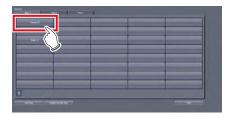
The following section describes the procedure to register the IC card for a registered operator to log in with.

> **HINT** ·································
> • To register a log in IC card for a new operator who is to be registered, set up the operator's account and password in the operator name editing screen first, and then follow the procedure in "To register an operator at a time" below.
> ·································

● **To register an operator at a time**

> **HINT** ·································
> • If the IC card reader is already set up, the card ID of the IC card is automatically entered in [Card ID] by passing the IC card over the IC card reader.
> ·································

1 Double-click a desired option in the operator tool screen.
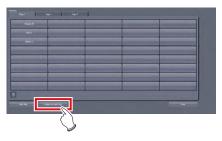
• The operator name editing screen is displayed.

2 Enter the card ID of the IC card in [Card ID].

3 Press [OK].

● **To register multiple card IDs at once**

1 Press [Output for Card Reg.] in the operator tool screen.

• A screen to save the file is displayed.

2 Select the directory to save the CSV file and press [Save].
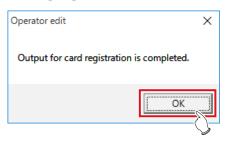
• A message indicating that the CSV file output successfully completed.

IMPORTANT ••••••••••••••••••••••••••••
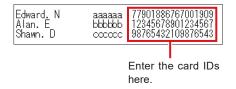
• For the storage directory of the CSV file, specify an external media, such as a removable memory, and enter the card IDs other than this device.

•••

3 **Press [OK].**
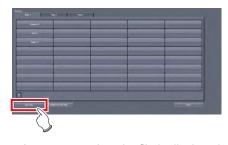
4 **Open the output CSV file using an editor tool, including Windows Notepad and Microsoft Excel.**

5 **In the 4th column, enter the card IDs and save the file.**

Enter the card IDs here.

IMPORTANT ••••••••••••••••••••••••••••

• Do not delete the tab characters as they serve as separators.

•••

6 **Press [Card Reg.] in the operator tool screen.**
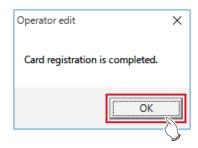
• A screen to select the file is displayed.
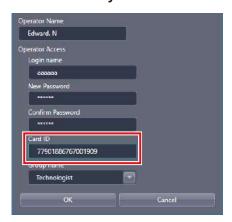
7 **Select the CSV file edited in step 5, and press [Open].**

• A message indicating that card ID registration successfully completed.

8 **Press [OK].**
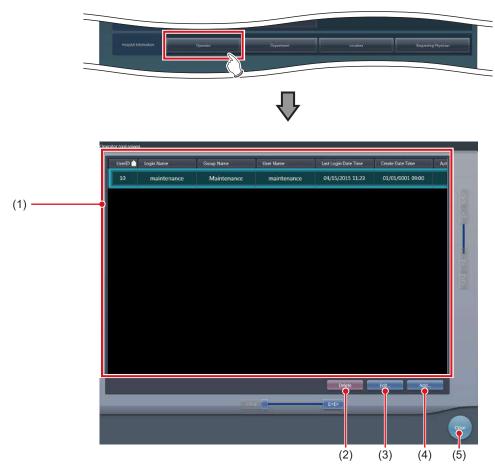
9 **Display the operator name editing screen of the operator whose card ID was registered, and confirm that the card ID is registered correctly.**

Chapter 8

163

8.1.3 Operator registration tool screen (with the domain controller)

When using the domain controller, press [Operator] in the [Hospital Information] area to display the following operator registration tool screen.

Number	Name	Function
(1)	Operator name list	The list of registered operator names is displayed.
(2)	[Delete]	Press this button to delete a registered operator.
(3)	[Edit...]	Press this button to change the registered operator information.
(4)	[Add...]	Press this button to register a new operator.
(5)	[Close]	Closes the operator registration tool screen.

● **Operator information registration tool**
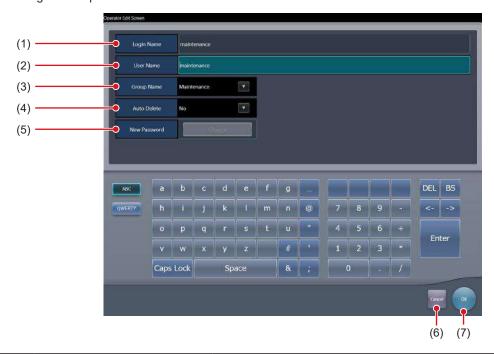
This screen is displayed when [Add] is pressed in the operator registration tool screen.

Register the new operator information.

Number	Name	Function
(1)	[Login Name]	Enter the login name.
(2)	[User Name]	Enter the operator name.
(3)	[New Password]	Enter the password.
(4)	[Confirm Password]	Re-enter the password to confirm it.
(5)	[Group Name]	Set the authorization level of the operator to be registered.
(6)	[Auto Delete]	Set whether to include in the target of the auto delete.
(7)	[Cancel]	Cancels the input and closes the screen.
(8)	[OK]	Saves the entered content and closes the screen.

Chapter 8

● **Operator information edit tool**
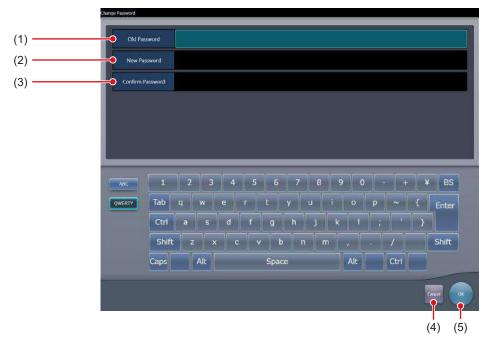
This screen is displayed when [Edit] is pressed in the operator registration tool screen.

Edit the registered operator information.

Number	Name	Function
(1)	[Login Name]	The login name is displayed. Cannot be changed.
(2)	[User Name]	Edit the operator name.
(3)	[Group Name]	Set the authorization level of the operator to be registered.
(4)	[Auto Delete]	Set whether to include in the target of the auto delete.
(5)	[New Password]	To change the password, press [Change].
(6)	[Cancel]	Cancels the edit and closes the screen.
(7)	[OK]	Saves the edited content and closes the screen.

● **Password change screen**

This screen is displayed when [Change] is pressed on the operator information edit screen.

Change the password.

Number	Name	Function
(1)	[Old Password]	Enter the old password.
(2)	[New Password]	Enter the new password.
(3)	[Confirm Password]	Re-enter the new password to confirm it.
(4)	[Cancel]	Cancels the change of password and closes the screen.
(5)	[OK]	Saves the changed content and closes the screen.

Chapter 8
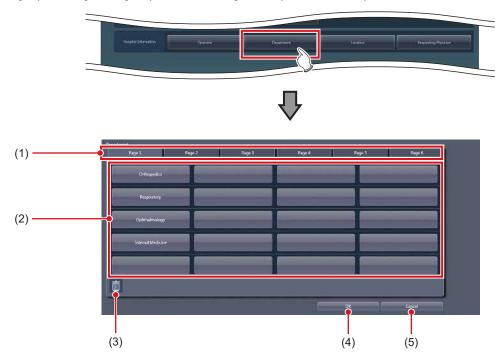
8.2 [Department]/[Location]

This tool is for registering and editing options for hospital departments and hospital wards.
This section describes the procedure with [Department] as an example.

8.2.1 Department tool screen
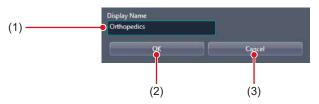
When [Department] of the [Hospital Information] area is pressed, the department tool screen is displayed.

Number	Name	Function
(1)	Page switching tab	Switches the pages of the selection list.
(2)	Selection	Displays the selection editing screen by double-clicking the selection to be registered or edited.
(3)	Trash	Deletes unnecessary selection.
(4)	[OK]	Saves the edited selection and closes the screen.
(5)	[Cancel]	Cancels the edited selection and closes the screen.

● **Selection editing screen**
This is the screen that is displayed when a selection is double-clicked on the department tool screen.
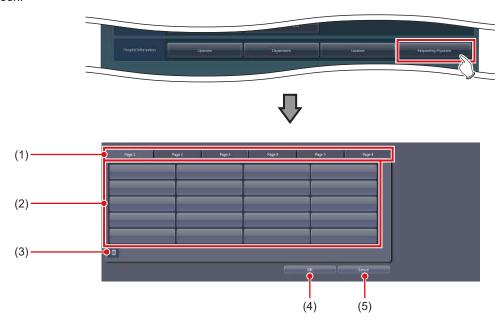
Number	Name	Function
(1)	[Display Name]	For inputting the selection.
(2)	[OK]	Saves the input selection and closes the selection editing screen.
(3)	[Cancel]	Cancels the input selection and closes the selection editing screen.

8.3 [Requesting Physician]

This tool is for registering and editing the options for requesting physicians.
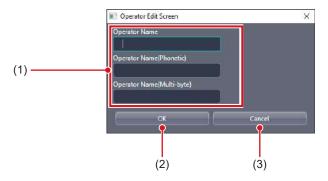
8.3.1 Requesting physician registration tool screen

Press [Requesting Physician] in [Hospital Information] area to display the requesting physician registration tool screen.

Number	Name	Function
(1)	Page switching tab	Switches the pages of the selection list.
(2)	Selection	Double-click the selection you want to register and edit to display the requesting physician name edit screen.
(3)	Trash	Deletes unnecessary selection.
(4)	[OK]	Saves the edited selection and closes the screen.
(5)	[Cancel]	Cancels the edited selection and closes the screen.

● Physician edit screen

This screen is displayed when you double-click your choice on the requesting physician registration tool screen.

Number	Name	Function
(1)	[Requesting Physician's Name]	Enter the requesting Physician's name.
(2)	[OK]	Closes the screen after saving your entry.
(3)	[Cancel]	Closes the screen after canceling your entry.

📋 **IMPORTANT** ···

• The [Requesting Physician's Name] field requires an entry.

··

Chapter 9

Tools When [Backup/Restore] Is Selected [Backup] Area
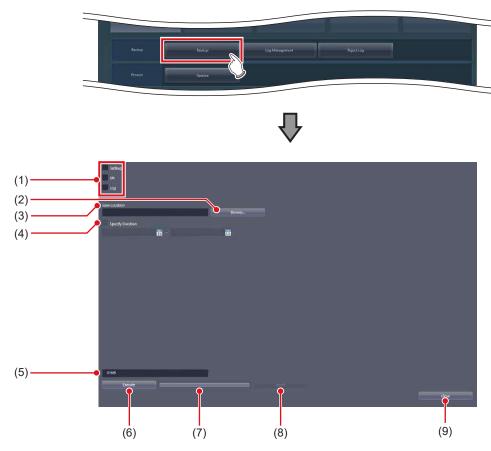
This chapter describes the tools in the [Backup] area
displayed when [Backup/Restore] is selected.

9.1   [Backup]

This tool is for saving the settings of this device, patient information and logs.

9.1.1   Backup tool screen

When [Backup] of the [Backup] area is pressed, the backup tool screen is displayed.

Number	Name	Function
(1)	[Setting]/[DB]/[Log]	For selecting the items to be backed up. You can select from this device's settings, patient information and logs. You can select more than one option at once.
(2)	[Browse]	For selecting the save destination path.
(3)	[Save Location]	Displays the specified destination path.
(4)	[Specify Duration]	Narrows down the items to be backed up with the examination date.
(5)	Output data size	Displays the size of data to be backed up.
(6)	[Execute]	Starts the backup.
(7)	Progress bar	Displays the progress of the backup.
(8)	[Abort]	Aborts backup. **⚠ IMPORTANT** • To restart the backup process, press [Execute] to start again from the beginning.
(9)	[Close]	Exits the backup tool.

⚠ IMPORTANT ··
• The Remote Desktop Relation settings cannot be restored using other units of this device.
··

9.1.2 Backup tool operation

The save method for setting data of this device, patient information and logs is as follows.
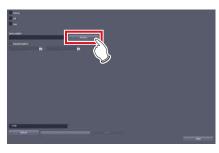
● Backup

1 Select from [Setting], [DB], and [Log].
- To save the setting data of this device, select [Setting].
- To save the patient information, select [DB].
- To save the operation log, select [Log].
- You can select more than 1 option at once.
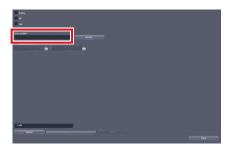
2 Press [Browse...] and select the save destination path.
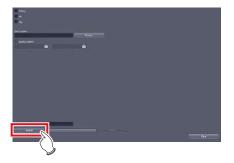
- The selected destination path will be displayed under [Save Location].

3 Press [Execute].

- Backup starts.

> 📇 **IMPORTANT** ·································
>
> - The size of the files to be backed up may become large. Before starting the backup, confirm the size of the media where the files are saved.
> ···
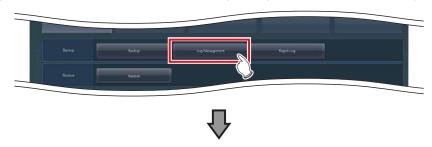
> 💡 **HINT** ·································
>
> - The backup target can be narrowed down by examination date under [Specify Duration].
> ···
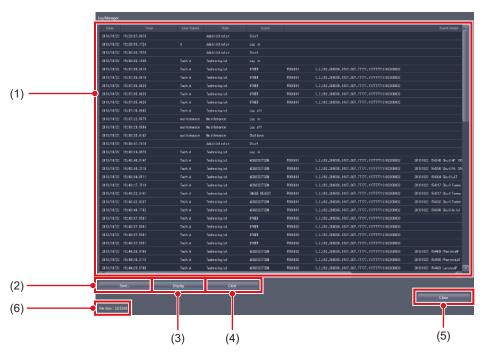
9.2 [Log Management]

This tool is for displaying, saving or deleting operation logs of this device.

9.2.1 Log management tool screen

When [Log Management] in [Backup] area is pressed, the log management tool screen is displayed.
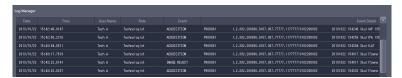
Number	Name	Functions
(1)	Log list display area	This is an area used to display operation log contents.
(2)	[Save...]	Saves the operation log to the specified save destination.
(3)	[Display]	Displays the operation log in the log list display area. **⚠ IMPORTANT** • The operation log is not displayed in the log list display area when the log management tool screen is started. Press [Display] to display the operation log.
(4)	[Clear]	Deletes the operation log.
(5)	[Close]	Exits from the log management tool.
(6)	Log file size	Displays the size of the log file in this device.

⚡ **HINT** ••

- In the login management mode, only operators with administrator privileges can open the log management tool screen.
- The log list display area shows the operation log with the following contents.

- Date

  Displays the date the operation took place in "yyyy/mm/dd" format.
- Time

  Displays the time the operation took place in "hh/mm/ss" format.
- User Name

  Displays the name of the operator who performed the operation.
- Role

  Displays the access privileges for the operator who performed the operation.
- Event

  Displays the types of operation that took place in the following item names.

Item Name	Operation
Start	Starts this device.
Shutdown	Press [Shut down] to shut down this device.
Log in	Log in to this device via manual login.
Log off	Log off from this device by pressing [Logoff].
ScreenSaver	Starts a screen saver.
ACQUISITION	Performs exposure on the exposure screen.
IMAGE REJECT	Rejects an exposed image on the exposure screen.
IMAGE REJECT CANCEL	Cancels reject image.
POSTTEXP TRIM	Changes cropping by specifying two positions on the viewer screen.
PROCESSING	Changes the S/G value on the viewer screen.
OVERLAY	Changes the overlay in the Overlay tab on the exposure screen.
FORMAT	Changes the print format with the Output tab on the exposure screen.
OUTPUT FINISH Hn	Output to the host.
OUTPUT FINISH Pn	Output to the printer.
RE-OUTPUT Hn	Re-output to the host.
RE-OUTPUT Pn	Re-output to the printer.
EDIT	Views examination history on the list screen.
MODIFY	Modifies supplemental information on an exposed image.
OTHER	Select a body part on the body part selection screen and press [OK].
OUTPUT MEDIA	Output to media.
IMAGE CHANGE	Changes images.
DELETE OUTPUT QUE Hn	Select one host output queue on the system monitor screen and press [Delete].
DELETE OUTPUT QUE Pn	Select one printer output queue on the system monitor screen and press [Delete].
PATIENT DB MODIFY	Modifies the patient information on an exposed image (completed examination) from the list screen.
INFO MODIFY	Modifies the patient information on an unexposed image (unexposed study) from the list screen.
IMAGE COPY	Performs image copying to check a log of operations.
DELETE STUDY	Press [🔲] with an unexposed image remaining in the study, and press [OK] in the confirmation dialog.
ACQUISITION	Log in with Superuser privileges and perform exposure on the exposure screen.
OTHER	Log in with Technologist privileges, select a body part on the body part selection screen, and press [OK].

- Event Detail
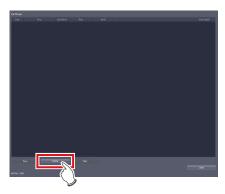
  The details of the operations that took place are displayed.

••

Chapter 9
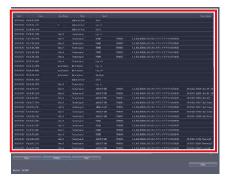
9.2.2 Operating the log management tool

The method for displaying, saving or deleting a log of operations of this device is as follows.

1 Press [Display].

- Operation logs are displayed in the log list display area.

2 Press [Save...].

- The save dialog is displayed.

3 Specify a desired save destination and a file name, and press [Save].

- A confirmation message is displayed asking you to confirm that you want to save operation logs.

4 Press [Yes].
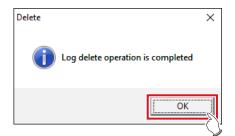
- Saving of operation logs starts.
- Once the operation logs have been saved, a message is displayed asking you to confirm that you want to delete the operation logs.

5 If you want to delete the operation logs, press [Yes].

- Once the operation logs have been deleted, a message confirming the deletion is displayed.

6 Press [OK].
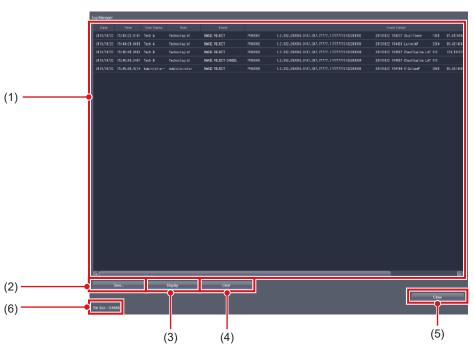
9.3 [Reject Log]

This tool is for displaying, saving or deleting logs of rejected images of this device.

9.3.1 Reject log tool screen

When [Reject Log] in [Backup] area is pressed, the reject log tool screen is displayed.
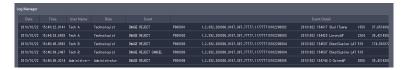
Number	Name	Functions
(1)	Log list display area	This is an area used to display the contents of logs of rejected images.
(2)	[Save...]	Saves logs of rejected images to the specified save destination.
(3)	[Display]	Displays logs of rejected images in the log list display area. **IMPORTANT** • Logs of rejected images are not displayed in the log list display area when the reject log tool screen is started. Press [Display] to display logs of rejected images.
(4)	[Clear]	Deletes a log of rejected images.
(5)	[Close]	Exits from the reject log tool.
(6)	Log file size	Displays the size of the log file in this device.

9.3 [Reject Log]

- In the login management mode, only operators with administrator privileges can open the reject log tool screen.
- The log list display area shows logs of rejected images with the following contents.

  – Date

Displays the date at which images were rejected in "yyyy/mm/dd" format.

  – Time

Displays the time at which images were rejected in "hh:mm:ss" format.

  – User Name

Displays the name of the operator who rejected the images.

  – Role

Displays the access privileges for the operator who rejected the images.

  – Event

Displays the types of operation that took place in the following item names.

Item Name	Operation
IMAGE REJECT	Rejects an exposed image on the exposure screen.
IMAGE REJECT CANCEL	Cancels reject image.

  – Event Detail
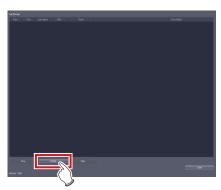
The details of the rejected images are displayed.
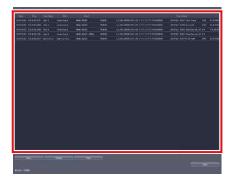
9.3.2 Operating the reject log tool

The method for displaying, saving or deleting logs of rejected images of this device is as follows.
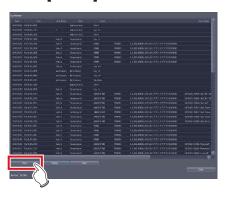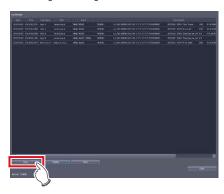
1 Press [Display].

- Logs of rejected images are displayed in the log list display area.

2 Press [Save...].

- The save dialog is displayed.

3 Specify a desired save destination and a file name, and press [Save].

- A confirmation message is displayed asking you to confirm that you want to save logs of rejected images.

4 Press [Yes].
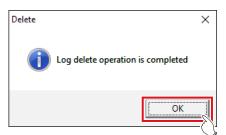
- Saving of logs of rejected images starts.
- Once the logs of rejected images have been saved, a message is displayed asking you to confirm that you want to delete the logs of rejected images.

5 If you want to delete the logs of the rejected images, press [Yes].

- Once the logs of rejected images have been deleted, a message confirming the deletion is displayed.

6 Press [OK].

Chapter 9

Chapter **10**

Tools When [Backup/Restore] Is Selected

[Restore] Area

This chapter describes the tools in the [Restore] area

displayed when [Backup/Restore] is selected.

10.1 [Restore]

This tool is for restoring backup setting data and patient information mentioned in Chapter 9.

📷 **IMPORTANT** ••
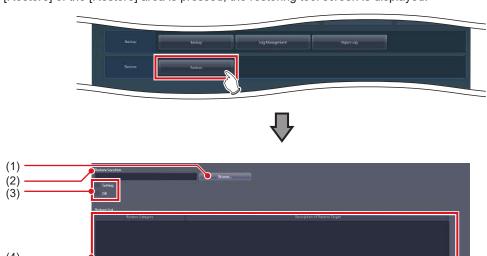
- Backup data cannot be restored on a different version of this device.
- The settings file needs to be restored as well to restore images that scattered radiation correction processing was performed.
- Restart this device immediately after performing a restore.

•••
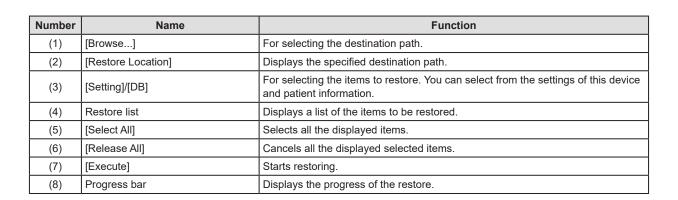
10.1.1 Restoring tool screen

When [Restore] of the [Restore] area is pressed, the restoring tool screen is displayed.

Number	Name	Function
(1)	[Browse...]	For selecting the destination path.
(2)	[Restore Location]	Displays the specified destination path.
(3)	[Setting]/[DB]	For selecting the items to restore. You can select from the settings of this device and patient information.
(4)	Restore list	Displays a list of the items to be restored.
(5)	[Select All]	Selects all the displayed items.
(6)	[Release All]	Cancels all the displayed selected items.
(7)	[Execute]	Starts restoring.
(8)	Progress bar	Displays the progress of the restore.

Number	Name	Function
(9)	[Abort]	Aborts restore. **IMPORTANT** • To restart the restore process, press [Execute] to start again from the beginning.
(10)	[Close]	Exits from the restoring tool.
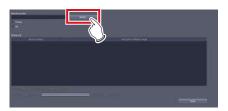
IMPORTANT
• When you have selected [Setting], selected [RIS code mapping] on the list, then restored an RIS code table having different break characters, restart the device, start up the RIS code mapping tool, then press [OK] to save the RIS code table again. The RIS code table is converted depending on the break character setting at the time of saving.

Chapter 10

10.1.2　Restoring tool operation

The restore method for setting data of this device and patient information is as follows.

● **Restoring**

1　**Press [Browse...], and select the save destination path for the restored data.**

- The selected destination path will be displayed under [Restore Location].

2　**Select [Setting] or [DB].**
- To restore the setting data of this device, select [Setting].
- To restore saved patient information, select [DB].

- If you have selected [Setting], the saved data will be displayed in the restore list.

3　**If you select [Setting] in step 1, then saved data can be selected from the restore list.**

4　**Press [Execute].**

Chapter **11**

Tools When [Backup/Restore] Is Selected

[Auto backup] Area

This chapter describes the tools in the [Auto backup] area

displayed when [Backup/Restore] is selected.

11.1 Precautions for the use of the auto backup function

The auto backup automatically backs up the examination information and image data when this device is operated through the portable X-ray device. This function is used to send the examination information and image data obtained that day to another unit of this device (hereinafter referred to as the recovery unit) and output the data to the HOST/Printer.

11.1.1 Prior confirmation items

IMPORTANT ·····································

- The license for the auto backup function is required for both this device and the recovery unit.
- Before connecting a removable memory to this device, perform virus scan to check whether or not the removable memory is infected with a virus.
- The auto backup and restoration are not intended to completely restore patient information, examination information or image data. Only image data of the current day has been saved although all items are displayed in the study and history lists. After restoring images, check them again and output them to the HOST/Printer.
- Konica Minolta does not offer any guarantee as to the use or the result of use of the auto backup or restore.
- Konica Minolta. is not responsible for any claims made for damage or loss of backup data or restored data.
- Backup files are not created in the following cases.
  – When no removable memory is connected to the preset drive
  – When the removable memory cannot be recognized or accessed by this device
  – When the removable memory has no space available
  – When this device is connected to the RIS/HOST via a network
  – You failed to copy a file
- Be aware of the following when you use the auto backup.
  – If this device gets damaged, images are not backed up as to the examination being executed.
  – Studies are not backed up when this device is connected to the RIS/HOST via a network. While making a round of visit in a hospital ward, disconnect this device from the network to the RIS/HOST/Printer, turn off the output to the RIS/HOST/Printer, and only reserve the output. After finishing the round of visit, connect this device to the network to the RIS/HOST/Printer, turn on the output to the RIS/HOST/Printer, and send the reserved output.
  – Do not include this device in an examination sharing group.
·····································

11.1.2 Matters related to removable memory

IMPORTANT ·····································

- Handle removable memory with great care. If you damage or lose removable memory, the backup data cannot be restored.
- We recommend using removable memory having an encryption function from the viewpoint of protection of personal information.
- Some type of removable memory having an encryption function restricts access to the data if you mistake the password several times in series. You should fully understand the instruction manual for the removable memory before using it.
- For the recommended removable memory and the purchase, contact Konica Minolta technical representatives.
- For details on basic operations for a removable memory unit, refer to its operating instructions. Failure to follow directions given in the operating instructions may result in data not being backed up.
·····································

HINT ·····································

- When you connect removable memory having an encryption function, enable access to the removable memory by entering the password or in some other way.
- For details of the procedure for connecting removable memory, see the instruction manual for the removable memory.
- When you use the recommended removable memory (4 GB), it can store approx. 250 images.
·····································

11.1.3   Matters related to service

⌐₵⌐ **IMPORTANT** •••••••••••••••••••••••••••••••••••
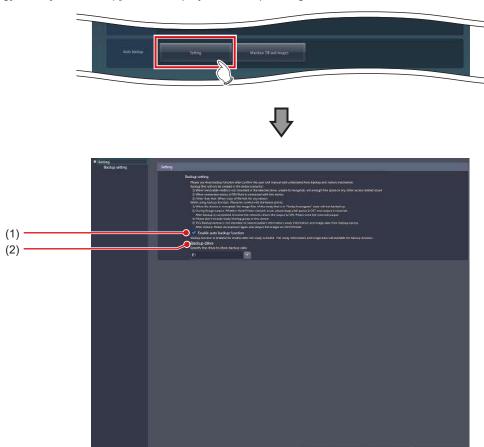
- To use the auto backup function, the write limitation for external storage drives must be canceled. If you cannot write the data, ask the service engineer to modify the setting.
- Some type of removable memory requires access to the task tray to start up the tool. To display the task tray on this device, ask the service engineer to modify the setting.

•••

Chapter 11

11.2 [Setting]

This screen is for enabling/disabling the auto backup function and selecting the storage drive for backup data.

11.2.1 Auto backup setting tool screen

Press [Setting] in the [Auto backup] area to display the backup setting tool screen.

Number	Name	Function
(1)	[Enable auto backup function]	Check the check box of either Enabled or Disabled for the auto backup function.
(2)	[Backup drive]	Select the drive for storing backup data.

11.2.2 Auto backup setting

The procedure for setting the auto backup function is as follows.

1 Connect removable memory to this device.

2 Start up the user tool.

3 Press [Backup/Restore].

• The Backup/Restore screen is displayed.

4 Press [Setting].

• The auto backup setting tool screen is displayed.
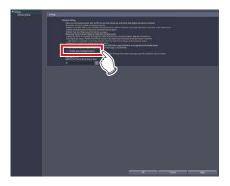
> 🔎 **HINT** ••••••••••••••••••••••••••••
>
> • In login control mode, the auto backup tool setting screen can be opened only by operators with the administrator's authority.
>
> ••

5 Select [Enable auto backup function].
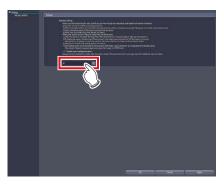
• The precautions for usage are displayed.

6 Press [Yes].
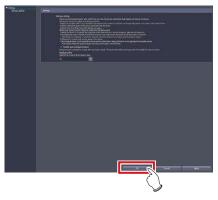
7 Select the drive to which removable memory is connected in the [Backup drive].

> 🔎 **HINT** ••••••••••••••••••••••••••••
>
> • You can select the drives that have been recognized at the time when starting up the auto backup setting tool screen as the output destination drive.
>
> ••

Chapter 11

8 **Press [OK].**

- The settings are stored.

11.3　Executing auto backup

11.3.1　Executing auto backup

Examination information and image data are automatically backed up when terminating or suspending examination.

1　**Connect removable memory to this device.**

2　**Confirm that network connection with RIS, HOST, and Printer is disabled.**

> ✎ **HINT** ·································
>
> • You can check whether network connection is disabled on the system monitor screen.
> ···

3　**Start examination.**

> ✎ **HINT** ·································
>
> • If the backup data of the previous day and before remains in the removable memory at the time when starting examination, a confirmation screen is displayed saying "Image data taken until yesterday have been backed up into the removable memory. In order to create free space for backup, old data other than today's data need to be removed. Are you sure you want to remove old data?" Confirm that the backup data is not necessary and press [OK].
>
>
>
> • When you have to start examination immediately, select [Cancel] and start examination. The same confirmation screen appears again when starting the next examination.
> ···

4　**Perform exposure.**

5　**Terminate or suspend the examination.**

• The examination information and image data of the finished or suspended examination are automatically backed up.
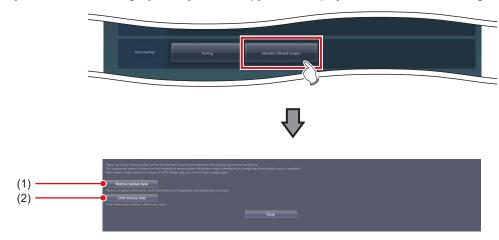
> ⎙ **IMPORTANT** ·································
>
> • Do not remove the removable memory while auto backup is executed.
> • If the auto backup did not succeed, a message is displayed saying "Failed to back up the <target file>." Select the examination not backed up and press [Browse], then [🔲] on the [Completed] tab on the list screen. (If you have suspended examination, start the examination again, then suspend the examination.)
> ···

11.4 [Maintain DB and images]

You can restore/delete the database and image data stored in removable memory and this device.

11.4.1 Maintain DB and images screen

Press [Maintain DB and images] in the [Auto backup] area to display the Maintain DB and images screen.
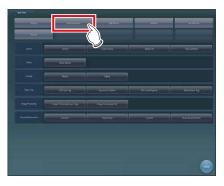
Number	Name	Function
(1)	[Restore backup data]	Replaces the patient information, examination information, and image data with the designated backup data.
(2)	[Clear backup data]	Deletes the backup data in the designated folder.

11.4.2 Restoration of the backup data

In cases where this device gets out of order, connect the removable memory that contains backup data to the recovery unit and restore the data.

1 Connect the removable memory to the recovery unit.
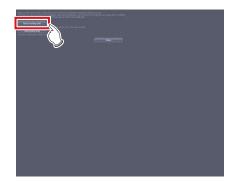
2 Start up the user tool.

3 Press [Backup/Restore].

- The Backup/Restore screen is displayed.

4 Press [Maintain DB and images].

- The usage data maintenance screen is displayed.
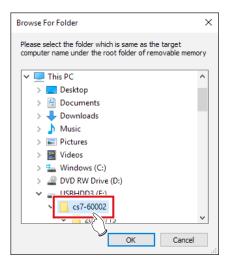
⟡ **HINT** ••••••••••••••••••••••••••••
- In login control mode, the auto backup usage data maintenance screen can be opened only by operators with the administrator's authority.
••••••••••••••••••••••••••••••••••••

5 Press [Restore backup data].

6 Select the folder of the computer name in the drive to which the removable memory is connected.

- The precautions for usage are displayed.

⟡ **HINT** ••••••••••••••••••••••••••••
- You can select the drives that have been recognized at the time when starting up the tool.
- The computer name is that of the device from which backup data is acquired.
••••••••••••••••••••••••••••••••••••

7 Press [Yes].

- A message is displayed to confirm whether you are sure to delete the examination information and image data from the recovery unit.

8 **Press [Yes].**

- Restoration starts.
- Once restoration is finished, a message prompting you to restart this device is displayed.
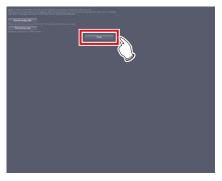
9 **Press [OK].**

📷 **IMPORTANT** ••••••••••••••••••••••••••••••
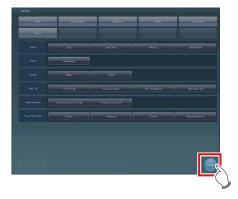
- If the restoration did not succeed for examination information or image data, the message "An error occurred while restoring the backup data. Check the backup data and retry restoration." is displayed. Retry restoration from step 1.

••

10 **Press [Close].**
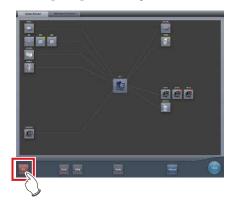
- The user tool screen is displayed.

11 **Press [Close].**

- The system monitor screen is displayed.

12 **Press [End] on the system monitor.**

13 **Press [OK].**

- The recovery unit is powered off.

14 **Turn on the power of the recovery unit.**

- A message is displayed saying "The backup data was successfully restored.".

📷 **IMPORTANT** ••••••••••••••••••••••••••••••
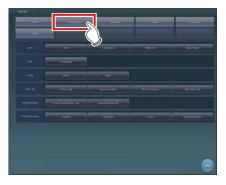
- If the restoration did not succeed for examination information or image data, a message is displayed saying "An error occurred while restoring the backup data. Check the backup data and retry restoration." Retry restoration from step 1.

••

194

11.4.3 Deletion of the backup data

You can remove the backup data from the removable memory using the user tool.

1 **Connect the removable memory to be deleted to the recovery unit.**

2 **Start up the user tool.**

3 **Press [Backup/Restore].**

- The Backup/Restore screen is displayed.

4 **Press [Maintain DB and images].**

- The usage data maintenance screen is displayed.
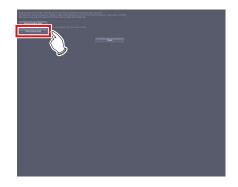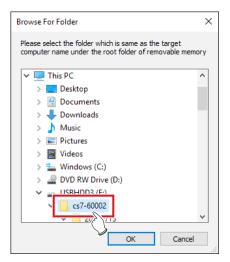
> 🖎 **HINT** ••••••••••••••••••••••••••••••
> - In login control mode, the auto backup usage data maintenance screen can be opened only by operators with the administrator's authority.
> ••

5 **Press [Clear backup data].**

6 **Select the folder of the computer name in the drive to which the removable memory is connected.**

- A message is displayed to confirm whether you are sure to delete the backup data.

> 🖎 **HINT** ••••••••••••••••••••••••••••••
> - You can select the drives that have been recognized at the time when starting up the tool.
> - The computer name is that of the device from which backup data is acquired.
> ••

7 **Press [Yes].**

- Deletion is performed.

Chapter 11

8 **When a message is displayed to inform the completion of deletion, press [OK].**

> ⚓ **IMPORTANT** ··································
>
> • If the deletion of the backup data did not succeed, the message "An error occurred while deleting the backup data. Check the backup data and retry deletion." is displayed. Retry deletion from step 1.
>
> ··

9 **Press [Close] to close the Maintain DB and images screen.**

Chapter 12

Tools When [Adjustment]
Is Selected
[System] Area
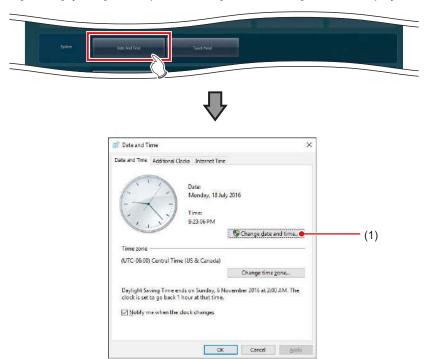
This chapter describes the tools in the [System] area

displayed when [Adjustment] is selected.

12.1 [Date And Time]

This tool is for setting up the date and time.

12.1.1 [Date and Time] screen

When [Date And Time] of the [System] area is pressed, the [Date and Time] screen is displayed.

Number	Name	Function
(1)	[Change date and time...]	For setting the date and time of this device.

12.1.2 Date and time setting

The setting method for date and time is as follows.
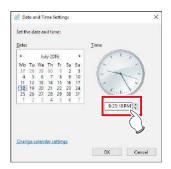
1 **Press [Change date and time...].**
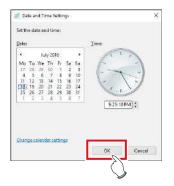
2 **Set the date and time.**

• Press [▲] and [▼], or directly input numbers for the time.

3 **Press [OK].**

[IMPORTANT] •••••••••••••••••••••••••••••••••••
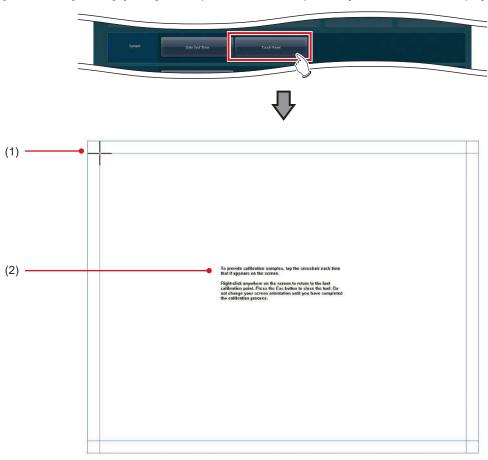
• Do not use [Change time zone].

•••

Chapter 12

12.2 [Touch Panel]

This tool is for adjusting the touch panel.

12.2.1 Touch panel adjustment screen

When [Touch Panel] of the [System] area is pressed, the touch panel adjustment screen is displayed.
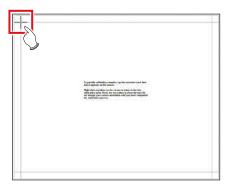
Number	Name	Function
(1)	Cross	Follow the instructions and tap.
(2)	Instructions	Instructions for touch panel adjustment.
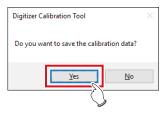
12.2.2 Adjustment of the touch panel

The adjustment method for the touch panel is as follows.

1 **Follow the on-screen instructions, and tap the cross.**

2 **Press [Yes].**

Chapter **13**

Tools When [Adjustment]
Is Selected
[Panel] Area

This chapter describes the tools in the [Panel] area

displayed when [Adjustment] is selected.

13.1 [Calibration]

This tool is for performing calibration of the DR Detector.

📇 **IMPORTANT** ···

- It is necessary to perform calibration periodically to compensate for chronological change or change in the exposure environment.
- Fully charge the DR Detector before performing calibration.

··

✐ **HINT** ···
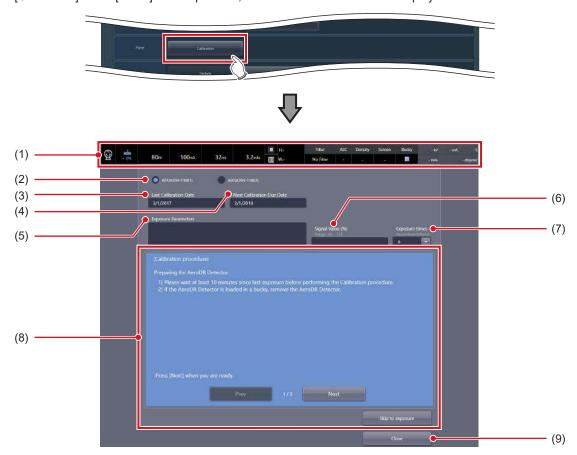
- The messages on the following list are displayed as the expiration date for calibration approaches.

Timing of display	Message
7 days before the calibration interval expires	Calibration of [DR Detector name] will expire in ** more day(s).
3 days, 2 days, 1 day and the current day before the calibration interval expires	Calibration of [DR Detector name] will expire in ** more day(s). Please perform calibration. Do it now? - If choose later: Press the arrow buttons at the bottom of the screen. And Press the calibration button in the toolbar that appears. - Registered all AeroDR panels must be calibrated.
After the calibration interval has expired	Calibration of [DR Detector name] have expired. Please perform calibration. Do it now? - If choose later: Press the arrow buttons at the bottom of the screen. And Press the calibration button in the toolbar that appears. - Registered all AeroDR panels must be calibrated.

"** days" in the messages indicates either number of days described in the "Timing of display" column.

··

13.1.1 Calibration tool screen
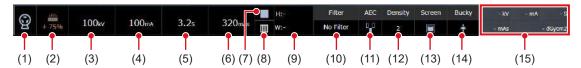
When [Calibration] of the [Panel] area is pressed, the calibration tool screen is displayed.

Number	Name	Function
(1)	Application bar	Displays the radiation conditions during exposure.
(2)	Panel selection button	The connected DR Detectors are displayed. Select the DR Detector on which to perform calibration. **✎ HINT** • The displayed text color indicates the amount of time remaining until the next calibration due date. White: The [Next Calibration Due Date] is 8 or more days away. Yellow: The [Next Calibration Due Date] is between 4 and 7 days away. Red: The [Next Calibration Due Date] is 3 or fewer days away.
(3)	[Last Calibration Date]	The date when the last calibration was carried out is displayed.
(4)	[Next Calibration Due Date]	The date when the next calibration is scheduled to be carried out is displayed. **✎ HINT** • Depending on the settings, this may not be displayed.
(5)	[Exposure Parameters]	Enter the X-ray exposure setting.
(6)	[Signal Value]	The signal value (%) is displayed when an exposure is executed.
(7)	[Exposure times]	Select frequency of exposure from 8, 16 and 32. (Default setting: 8)
(8)	Operation explanation area	Explanations about operations are displayed. Pressing the [Prev] button restores the previous explanation screen. Pressing the [Next] button displays the next page of the explanation screen. Pressing the [Skip to exposure] button displays the screen in which an exposure can be executed.
(9)	[Close]	Closes the calibration tool.

● Detailed description of the application bar

The application bar below is displayed while the calibration tool screen is displayed. Displays the radiation conditions during exposure in the application bar.

Number	Name	Function
(1)	Icon during X-ray exposure	Displays this icon during X-ray exposure
(2)	X-ray bulb temperature display icon	Displays the temperature of the X-ray bulb. The temperature is displayed from 0% to 100%.
(3)	Tube voltage (kV)	Displays the value of the tube voltage.
(4)	Tube current (mA)	Displays the value of the tube current.
(5)	Irradiation time	Displays the irradiation time.
(6)	Amount of radiation	Displays the amount of radiation.
(7)	Focus size	Displays the focus size according to the radiation conditions. ▢ : Displayed if large focal size is selected. ▪ : Displayed if small focal size is selected.
(8)	Grid	Displays the loading status of the grid.
(9)	Collimator	Displays the size of the collimator.
(10)	Filter	Displays the filter value.
(11)	AEC	Displays the AEC filter value.
(12)	Density	Displays the AEC density.
(13)	Screen	Displays the AEC screen value.
(14)	Buckey	Displays information about the currently selected Bucky.
(15)	Radiation results display	Displays the radiation results.

📝 **IMPORTANT** ••

• The grid icon and the collimator value may not be displayed depending on the configuration of the X-ray device.

••

✎ **HINT** ••

• The mark during X-ray exposure changes display according to the exposure condition of the X-ray device. The display meaning is as follows.
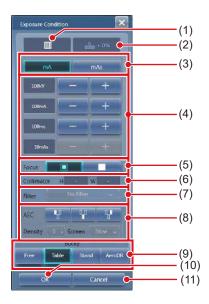
Exposure status	Status			
	When Normal	During exposure (after the exposure switch is pressed)	During exposure (exposure)	Without acquisition, when disconnected, or when abnormal
Icon				
Icon color	Gray	Green	Yellow	Gray

• X-ray bulb temperature display icon changes display according to the bulb temperature. The display meaning is as follows.

Bulb temperature	Status				
	0 to 25%	26 to 50%	52 to 75%	76 to 100%	Without acquisition, when disconnected, or when abnormal
Icon	+ 10%	+ 45%	+ 75%	+ 90%	?
Icon color	Blue	Yellow	Orange	Red	Gray

••

● Exposure Condition dialog

This is the screen when editing radiation conditions. The screen is displayed by pressing the application bar in the calibration tool screen.

Number	Name	Function
(1)	Grid	Displays the loading status of the grid.
(2)	X-ray bulb temperature display icon	Displays the bulb heat. The temperature is displayed from 0% to 100%.
(3)	Parameter switch button	For switching to mA mode or mAs mode. The radiation condition display switches as follows according to the mode. mA mode　　　　mAs mode　　　When the AEC detection field is selected.
(4)	Radiation conditions display	Displays information about the tube voltage (kV), tube current (ms), and the amount of exposure (mAs). The value can be changed by pressing [-] or [+]. However, only [kV] and [mA] can be changed regardless of the settings of the parameter if the detection field is selected in [AEC].
(5)	[Focus]	For setting the focal size. Select either the small focal size or large focal size. [　■　] stands for the small focal size and [　■　] [b] stands for the large focal size.
(6)	[Collimator]	Displays the size of the collimator.
(7)	[Filter]	For setting an additional filter. Select [No Filter], [1mmAl+0.2mmCu], [0.5mmAl+0.1mmCu], or [1mmAl+0.5mmCu].
(8)	[AEC]	For setting the auto exposure (AEC) conditions. • Detection field: Select a combination from three point of fields. • Density: Select a value between "-3" to "3". • Screen: Select the screen value of the AEC condition.
(9)	[Buckey]	For selecting the Bucky to use.
(10)	[OK]	Closes the screen after saving the changes.
(11)	[Cancel]	Closes the screen without saving the changes.

⚠ **IMPORTANT** ··

• The display of the radiation conditions dialog box may differ according to the manufacturer of the X-ray device.

··

13.1.2 Operating the calibration tool

Acquire an unexposed image and multiple exposed images for the calibration.

The following describes the DR Detector calibration procedure.

1 Select the DR Detector to be calibrated.

> 💡 **HINT** ••••••••••••••••••••••••••••••••
>
> • DR Detectors displayed with red letters are in need of calibration (they have passed the calibration deadline).
•••

2 Prepare the DR Detector according to the on-screen messages, and press [Next].

• The following message is displayed on the screen. After finishing preparations according to the messages, press [Next].

Preparing for DR Detector

1) Performing the calibration no less than 10 minutes after making an exposure.

2) If the DR Detector is loaded on the stand, remove the DR Detector.

> 💡 **HINT** ••••••••••••••••••••••••••••••••
>
> • When all of preparations steps 2 to 4 are completed, press [Skip to exposure] to display the Procedure 5 screen.
•••

3 Prepare the X-ray tube according to the on-screen messages, and press [Next].
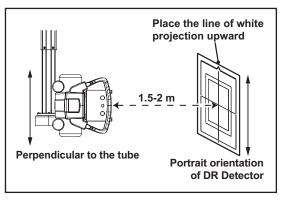
• The following message is displayed on the screen. After finishing preparations according to the messages, press [Next].

Preparing for Tube

1) Set the distance (SID) between Tube and DR Detector referring to the above [Exposure Parameters].

   If SID is not listed in [Exposure Parameters] use 1.5m or closer to 2.0m if possible.

2) Set collimator to cover the entire DR Detector.

3) Ensure that the exposure field covers the entire DR Detector.

> 📋 **IMPORTANT** ••••••••••••••••••••••••••••
>
> • Expose after matching the vertical direction of the tube to the vertical direction of the DR Detector. The protruding portion of the white line of the DR Detector goes on top.

•••

4 **Prepare the exposure conditions according to the on-screen messages, and press [Next].**

- The following message is displayed on the screen. After finishing preparations according to the messages, press [Next].
  Preparing for exposure parameters
  1) Adjust the exposure parameters Tube voltage, Tube current and Exposure time (or mAs) with referring to the above [Exposure Parameters]
  (If there is no value in the [Exposure Parameters], refer to following chart to adjust the parameter.)

Exposure conditions for calibration

AeroDR 3 1417HD/AeroDR 3 1717HD/
AeroDR 3 1012HQ

	Additional filter	Tube voltage [kV]	Tube current [mA]	Exposure time [s]	mAs
When SID is 2 m	None	80	100	0.028	2.8
When SID is 1.5 m				0.016	1.6

AeroDR 1417HQ/AeroDR 1717HQ/AeroDR 1012HQ/
AeroDR 2 1417HQ

	Additional filter	Tube voltage [kV]	Tube current [mA]	Exposure time [s]	mAs
When SID is 2 m	None	80	100	0.018	1.8
When SID is 1.5 m				0.010	1.0

AeroDR 1417S/AeroDR 2 1417S

	Additional filter	Tube voltage [kV]	Tube current [mA]	Exposure time [s]	mAs
When SID is 2 m	None	80	100	0.028	2.8
When SID is 1.5 m				0.016	1.6

IMPORTANT ·································

- An additional filter is not used.
- Appropriate condition is different for respective X-ray devices.
- When SID is different, change mAs according to the distance inverse square law.
  (Example) When SID is 1.8 m, mAs value is
  $3.2 \times (1.8/2.0)^2 = 2.6$ mAs.
- It is not an abnormal signal value if the value reaches 70% or so under the recommended exposure conditions when using the AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ.

··

- The message "Please wait..." is displayed.

- When the DR Detector has been prepared, the message "X-rays, please" is displayed.

Chapter 13

5 Irradiate X-ray.

- Perform X-ray exposure when the message "X-rays, please" is displayed.
- The message "Remaining exposure times : n" indicating the remaining number of exposures is displayed on the screen. When the exposure setting is appropriate, the following exposure sequentially reduces the remaining number of times by one. After the exposure, the message "Please wait…" is displayed. When the DR Detector has been prepared, the message "X-rays, please" is displayed.
- When the conditions are not met, a warning message is displayed. Try exposure again after checking the exposure settings, looking for obstacles (eg. grid, marker), and confirming the size of the exposure field.

6 Repeat to perform X-ray exposure.

- The calibration is completed when you have repeated the specified number of X-ray exposures.
- Depending on the situation, you may be requested to repeat the exposure more than the specified number of times. Follow the screen message to complete the calibration.
- If the conditions are not ideal or a foreign object such as a grid or marker is exposed, a warning message is displayed. In such a case, repeat the calibration again.

> 💡 **HINT** ·····························
>
> - The displayed signal value is almost in proportion to the actual amount of X-rays contacting the DR Detector. For example, when the signal value is "8,000", setting the mAs value to 0.75 times (6,000/8,000) can meet the optimal exposure settings.
>
> ·····································

7 Enter the conditions that are used for the calibration to [Exposure Parameters].

- Enter the tube voltage, tube current, exposure time, exposure distance, and remarks.

- The calibration is completed.

> 💡 **HINT** ·····························
>
> - After the calibration is completed, you can enter your comments about this calibration in [Exposure Parameters] if necessary.
> - Such comments, which will be saved up to the time of the next calibration, may be useful when you carry out the next calibration.
>
> ·····································

Chapter 14

Tools When [Adjustment]
Is Selected
[CS-7] Area

This chapter describes the tools in the [CS-7] area

displayed when [Adjustment] is selected.

14.1 [Update]/[Release Notes]

This tool is for updating this device and displaying the version of this device and updated contents.

Name	Function
[Update]	Updates this device. When an update is available the button will become active, and once the update is finished the button will become inactive until a new update is available.
[Release Notes]	You can refer to the version of this device and the history of the version update.

📄 **IMPORTANT** ··

- This function can be used only when this device has contracted for remote maintenance.
- This function is currently being adjusted.

··

Chapter 15

Tools When [Adjustment] Is Selected [LongLen Unit] Area
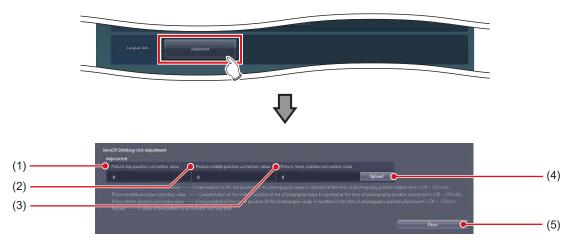
This chapter describes the tools in the [LongLen Unit] area displayed when [Adjustment] is selected.

15.1 [Adjustment]

This tool is for adjusting the AeroDR Stitching Unit.

15.1.1 AeroDR Stitching Unit adjusting tool screen

When [Adjustment] of the [LongLen Unit] area is pressed, the AeroDR Stitching Unit adjusting tool screen is displayed.

Number	Name	Function
(1)	[Picture top position correction value]	For entering the picture top position correction value.
(2)	[Picture middle position correction value]	For entering the picture center position correction value.
(3)	[Picture lower position correction value]	For entering the picture lower position correction value.
(4)	[Upload]	Uploads the settings onto the AeroDR Stitching Unit.
(5)	[Close]	Closes the screen.

15.1.2 Operation of the AeroDR Stitching Unit adjusting tool

The adjustment method for the AeroDR Stitching Unit is as follows.

● **Correcting the exposure position**

Measure the gap between the irradiating light range and the shot image and enter this gap as a correction value for the exposure position.

⌨ IMPORTANT ·······························

- If the gap between the irradiating light range and the shot image is too large, correct the exposure position. In other cases, do not perform the operation.
- There are three correction values for the exposure position you can enter: "Picture top position correction value", "Picture center position correction value" and "Picture lower position correction value".

···

● **Flow chart for correcting exposure position**

Measuring the picture top position correction value

Initialize the correction value for the exposure position with this device.

⬇

Prepare for measurement using this device.

⬇

Prepare for measurement using the AeroDR Stitching System.
For further information, see "AeroDR Stitching System Operation Manual".

⬇

Measure the gap between the captured image and irradiated light using the AeroDR Stitching System.
For further information, see "AeroDR Stitching System Operation Manual".

⬇

Measuring the picture center position correction value

Prepare for measurement using this device.

⬇

Prepare for measurement using the AeroDR Stitching System.
For further information, see "AeroDR Stitching System Operation Manual".

⬇

Measure the gap between the captured image and irradiated light using the AeroDR Stitching System.
For further information, see "AeroDR Stitching System Operation Manual".

⬇

Measuring the picture lower position correction value

Initialize the correction value for the exposure position with this device.

⬇

Prepare for measurement using this device.

⬇

Prepare for measurement using the AeroDR Stitching System.
For further information, see "AeroDR Stitching System Operation Manual".

⬇

Measure the gap between the captured image and irradiated light using the AeroDR Stitching System.
For further information, see "AeroDR Stitching System Operation Manual".

⬇

Setting the correction value

Set the correction value with this device.

⬇

Confirming the correction value

Confirm the preset correction value.
For further information, see "AeroDR Stitching System Operation Manual".

Chapter 15

● **Initializing the correction value for the exposure position**

Before measuring and entering the correction value for the exposure position, initialize the correction value. Perform the following steps in advance.

- Turn on the AeroDR Stitching System.
- Detect the height of the AeroDR Stitching Unit.

1 Set the next item of [Adjustment].

When correcting the picture top position correction value / picture middle position correction value

Item	Description
[Picture top position correction value]	0
[Picture middle position correction value]	0
[Picture lower position correction value]	50

When correcting picture lower position correction value

Item	Description
[Picture top position correction value]	-50
[Picture middle position correction value]	0
[Picture lower position correction value]	0

📝 **IMPORTANT** ·································

- Do not change any setting other than the value above. It may lead to incorrect detection of the irradiation field.

·····································
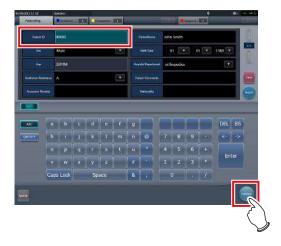
2 Press [Upload].

● **Measurement preparation (this device)**

Use the following procedure to prepare the measurement in this device.

1 Enter an ID in the [Patient ID] column on the patient registration screen and press the [Perform].

2 Press [SPECIAL] on the body part selection screen.

✏️ **HINT** ·································

- If page 1/2 appears, press the selector button to display page 2/2.

·····································

3 Select the desired Exam. Tags.

- When measuring the picture top position correction value or picture lower position correction value, select [AP Middle] and then [Ap Lower] in the [Tot.Spine] line.
- When measuring the picture center position correction value, select [Ap Lower] in the [Tot. Spine] line.

4 Press the [Perform].

- The exposure screen is displayed.

5 Confirm that "Please detect radiation field" appears on the exposure screen.

● **Measuring the gap between the exposed image and irradiating light**

Take an image and measure the gap between the exposed image and irradiating light.

1 Confirm that "Ready" appears on the exposure screen.

2 Press the exposure switch of the X-ray device. (First image is taken.)

- For measuring the picture center position correction value, go to Step 4.

3 After taking the first image, confirm that "Ready" appears on the exposure screen and press the exposure switch of the X-ray device. (Second image is taken.)
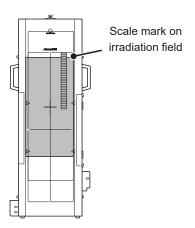
4 **Press [AP Middle] on the exposure screen and press the [Viewer] button.**

5 **Check the upper edge scale mark on the exposed image.**

- When measuring the picture top position correction value, compare the scale mark on the irradiation field and that on the exposed image and record the difference as "Picture top position correction value".

Scale mark on exposed image

Scale mark on irradiation field
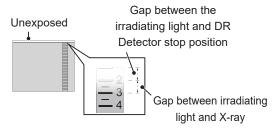
📷 **IMPORTANT** •••••••••••••••••••••••••••••••••
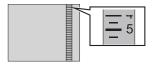
- When the X-ray area is narrower than the irradiating light range:
  When the image is taken from a scale mark of 13mm, the correction value becomes -7mm because the exposure area of the DR Detector is corrected according to the irradiating light.

Unexposed

Gap between the irradiating light and DR Detector stop position

Gap between irradiating light and X-ray

- When the setup error is a negative value:
  When the image is taken from a scale mark of 40mm, the correction value becomes 20mm because the exposure area of the DR Detector is corrected according to the irradiating light.

••

- When measuring the picture center position correction value, compare the scale mark on the irradiation field and that on the exposed image and record the difference as "Picture center position correction value".
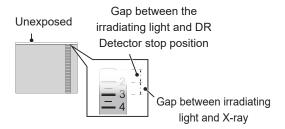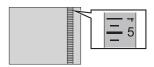
Scale mark on exposed image

Scale mark on irradiation field

📝 **IMPORTANT** ••••••••••••••••••••••••••••••

- When the X-ray scale is narrower than the irradiating light:
  When the image is taken from a scale mark of 13mm, the correction value becomes -7mm because the exposure area of the DR Detector is corrected according to the irradiating light.

Unexposed

Gap between the irradiating light and DR Detector stop position

Gap between irradiating light and X-ray

- When the setup error is a negative value:
  When the image is taken from a scale mark of 40mm, the correction value becomes 20mm because the exposure area of the DR Detector is corrected according to the irradiating light.

••

- When measuring the picture lower position correction value, compare the scale mark on the irradiation field and that on the exposed image and record the difference as "Picture lower position correction value".
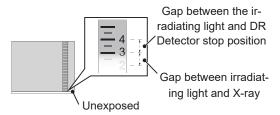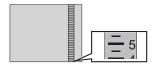
Scale mark on exposed image

Scale mark on irradiation field

📝 **IMPORTANT** ••••••••••••••••••••••••••••••

- When the X-ray scale is narrower than the irradiating light:
  When the image is taken from a scale mark of 13mm, the correction value becomes -7mm because the exposure area of the DR Detector is corrected according to the irradiating light.

Gap between the irradiating light and DR Detector stop position

Gap between irradiating light and X-ray

Unexposed

- When the setup error is a negative value:
  When the image is taken from a scale mark of 39mm, the correction value becomes -19mm because the exposure area of the DR Detector is corrected according to the irradiating light.

••

6 **Press [🔵].**

● **Setting the correction values**
Set the measured gaps as correction values.

1   **Set the picture top position correction value, picture center position correction value and picture lower position correction value measured on the AeroDR Stitching Unit Adjustment screen of the CS-7.**

2   **Press [Upload].**

- The settings are uploaded onto the AeroDR Stitching Unit.

Chapter 16

Tools When [Adjustment] Is Selected [REGIUS Σ] Area
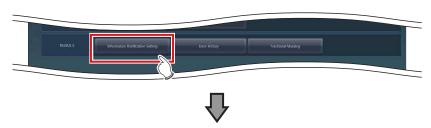
This chapter describes the tools displayed in [REGIUS Σ] area

when you select [Adjustment].
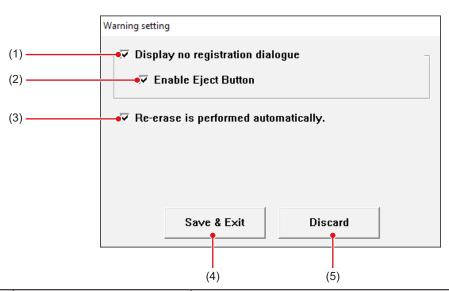
16.1 [Information Notification Setting]

Set the notification procedure of the communication control information.

16.1.1 Communication control information notification setting screen

Press [Information Notification Setting] in [REGIUS Σ] area to display the communication control information notification setting screen.

Number	Name	Function
(1)	[Display no registration dialogue]	Select it to display the "without examination registration" dialog when you have loaded the cassette to REGIUS SIGMA/SIGMA2. The default setting is [ON].
(2)	[Enable Eject Button]	Select it to display the eject button to enable the cassette to be taken out in the dialog when displaying the "without examination registration" dialog. (When the eject button is displayed, you can take out the cassette without using the lever on the top door.) The default setting is [ON].
(3)	[Re-erase is performed automatically.]	Select it to turn on the second-time deletion processing of images when a single processing operation is not sufficient for the images exposed with high-dose X-rays. When [ON] is selected, the second deletion is automatically executed. When [OFF] is selected, a message is displayed. Select to either perform the second deletion or eject the cassette. The default setting is [ON].
(4)	[Save & Exit]	Saves and closes the communication control information notification setting screen.
(5)	[Discard]	Closes the communication control information notification setting screen and saves the setting.

⚠ IMPORTANT ···

- Restart the device after changing [Warning setting] screen settings. The modified settings will not take effect until the device is restarted.

···
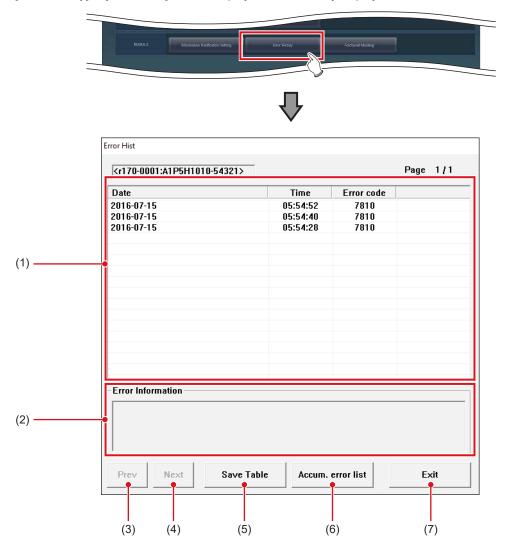
16.2 [Error History]

Display the error history.

16.2.1 Error history display screen
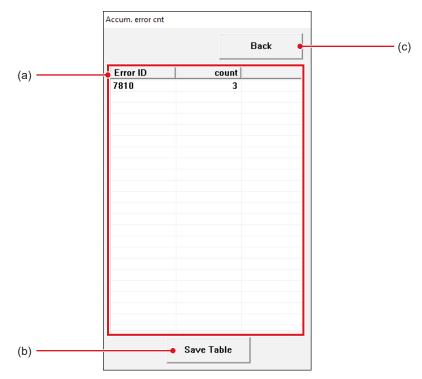
Press [Error History] in [REGIUS Σ] area to display the error history display screen.

Number	Name	Function
(1)	Error list	Displays the error history in descending order of the time of occurrence.
(2)	[Error Information]	Displays information of the errors selected in the error history list display field.
(3)	[Prev]	They are displayed when the error history cannot be fully displayed in a single page. Use either one to switch the page.
(4)	[Next]	
(5)	[Save Table]	Outputs the error history to a text format (.txt) file.
(6)	[Accum. error list]	Displays the number of incidents per error code. Select it to display the cumulative error list screen.
(7)	[Exit]	Closes the error history screen.

> **HINT** ··

- If you press [Accum. error list], the following dialog box is displayed.
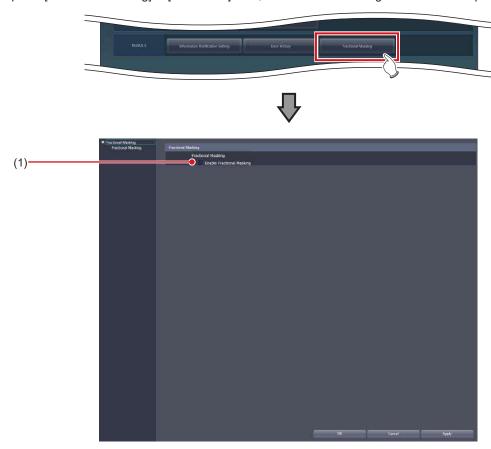
Number	Name	Function
(a)	Error list	Displays the error history in descending order of the time of occurrence.
(b)	[Save Table]	Outputs the cumulative error information to a text format (.txt) file.
(c)	[Back]	Closes the cumulative error information screen.

···

16.3 [Fractional Masking]

When the masking area includes the end part of the image targeted for reading (along the entire contour, etc.), this screen allows fine adjustment to be made by moving the masking position to the inside of the image.

16.3.1 Fractional masking tool screen

If you press [Fractional Masking] in [REGIUS Σ] area, the fractional masking tool screen is displayed.

Number	Name	Function
(1)	[Enable Fractional Masking]	Select this when using the fractional masking function. The default setting is [OFF].

Chapter 17

Tools When [Analysis] Is Selected [Image Quality] Area

This chapter describes the tools in the [Image Quality] area displayed when [Analysis] is selected.

17.1 [QA/QC]

This tool is for evaluating and managing image quality.

Name	Function
[QA/QC]	Starts the dedicated application for evaluating and managing image quality.

Chapter **18**

Tools When [Analysis]
Is Selected
[Statistics Analysis] Area

This chapter describes the tools in the [Statistics Analysis] area

displayed when [Analysis] is selected.

18.1 [Statistics Analysis]

This tool is for aggregating and taking the statistics of exposure history.
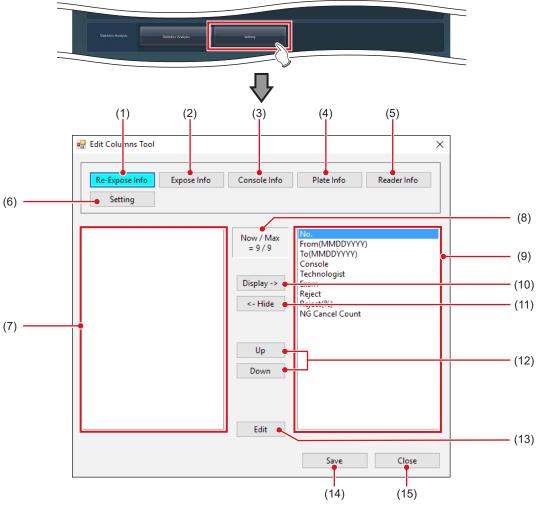
Name	Function
[Statistics Analysis]	Starts the dedicated application for aggregating and taking the statistics of exposure history.

18.2 [Setting]

Set the dedicated application for aggregating and taking the statistics of exposure history.
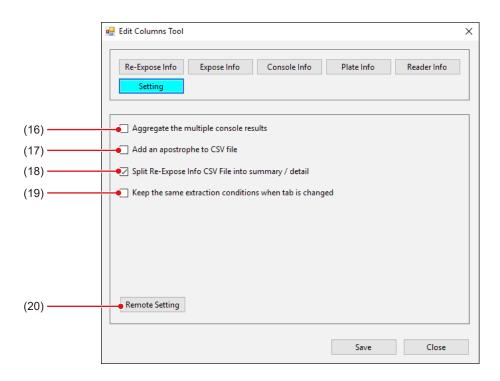
18.2.1 Edit Columns Tool screen

Pressing [Setting] in the [Statistics Analysis] area displays the Edit Columns Tool screen.

Number	Name	Functions
(1)	[Re-Expose Info]	Displays a screen for editing re-exposure information.
(2)	[Expose Info]	Displays a screen for editing exposure information.
(3)	[Console Info]	Displays a screen for editing console information.
(4)	[Plate Info]	Displays a screen for editing plate information.
(5)	[Reader Info]	Displays a screen for editing reader information.
(6)	[Setting]	Displays a screen for aggregating console, adding apostrophes, dividing a re-exposure information file, and sharing search conditions.
(7)	Hidden item display area	This is an area used to display items that are to be hidden in the columns.
(8)	[Now / Max]	Displays the number of items that are displayed and the maximum number of items you can see.
(9)	Display item display area	This is an area used to display items that are to be displayed in the columns.

Number	Name	Functions
(10)	[Display ->]	Displays the selected items.
(11)	[<- Hide]	Hides the selected items.
(12)	[Up]/[Down]	Sets the order in which the selected items are listed.
(13)	[Edit]	Edits the selected items. Select this to display the Edit Column Name screen.
(14)	[Save]	Saves the settings.
(15)	[Close]	Closes the screen.

Number	Name	Functions
(16)	[Aggregate the multiple console results]	Select this to display acquired statistics regardless of the consoles.
(17)	[Add an apostrophe to CSV file]	Select this to add an apostrophe (') to the beginning of each item during CSV file output.
(18)	[Split Re-expose Info CSV File into summary / detail]	Select this to split a CSV file containing re-exposure information into two files: one containing re-exposure information, and the other containing details of rejected images.
(19)	[Keep the same extraction conditions when tab is changed]	Select this to reflect the search conditions for the acquired information modified with the Statistics Tool to the search conditions for other acquired information. This item is restored to its initial state when the Statistics Tool is restarted.
(20)	[Remote Setting]	Press this to select this device to aggregate and take the statistics of exposure history. Press to display the Edit Remote Setting screen.

✍ **HINT** ••
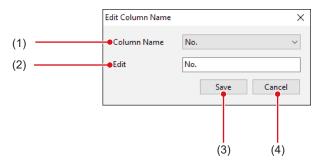
- [Aggregate the multiple console results] is enabled for the statistics information that is acquired by pressing [Re-Expose Info], [Plate Info], or [Reader Info] on the Statistics Analysis Tool screen.
- If you select [Aggregate the multiple console results], [Console] on the Statistics Analysis Tool screen is hidden.

••

● **Edit Column Name screen**

Screen displayed when [Edit] is pressed on the Edit Columns Tool screen.

The screen is also displayed when an item is double-clicked.
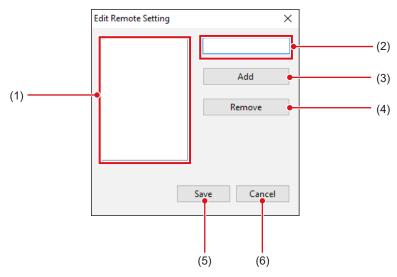
The following is a description using the screen when [Re-Expose Info] is selected as an example.

Number	Name	Function
(1)	[Column Name]	For selecting the item to be edited.
(2)	[Edit]	For inputting the item name.
(3)	[Save]	Saves the settings.
(4)	[Cancel]	Closes the screen.

● **Edit Remote Setting screen**

Screen displayed when [Setting] is selected and [Remote Setting] is pressed on the Edit Columns Tool screen.
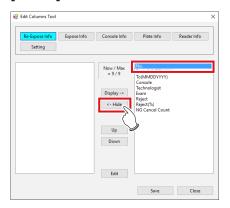
Number	Name	Function
(1)	IP address display area	Displays IP address of this device to aggregate and take the statistics of exposure history.
(2)	IP address input area	Area for inputting IP address of this device to aggregate and take the statistics of exposure history.
(3)	[Add]	Adds IP address input in the IP address input area to the IP address display area.
(4)	[Remove]	Deletes IP address selected in the IP address display area.
(5)	[Save]	Saves the settings.
(6)	[Cancel]	Closes the screen.

18.2.2 Edit Columns Tool operation

The column editing method is as follows.
The following is a description using the screen when [Re-Expose Info] is selected as an example.

● **To hide an item in the column**

1 Select the item to be hidden and press [<-Hide].
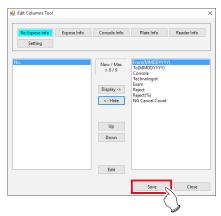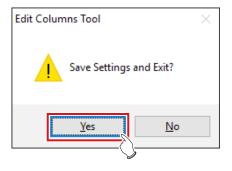
• The item is then added.

2 Press [Save].

• A confirmation screen is displayed.

3 Press [Yes].

4 Press [OK].
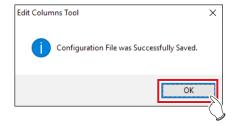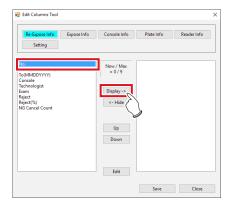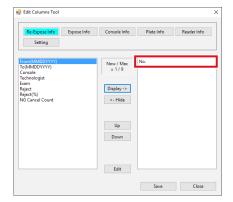
• The setting is saved.

● **To show an item in the column**
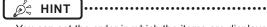
1 **Select the item to be displayed and press [Display->].**

• The item is added.

📣 **HINT** ······································
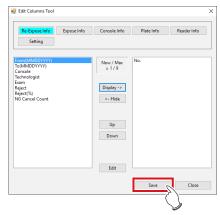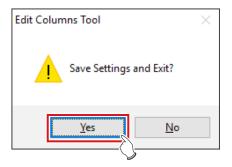
• You can set the order in which the items are displayed in columns using [Up] or [Down].

···

2 **Press [Save].**

• A confirmation screen is displayed.

3 **Press [Yes].**

4 **Press [OK].**
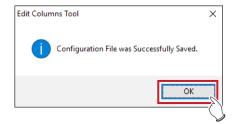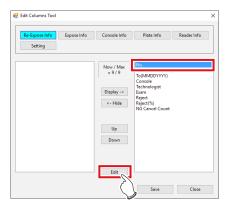
• The setting is saved.

● **Item name editing**

1 **Select the item and press [Edit].**

- The Edit Column Name screen is displayed.

2 **Select the item to be edited from [Column Name].**
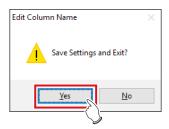
3 **Input a new name in [Edit] and press [Save].**

- A confirmation screen is displayed.
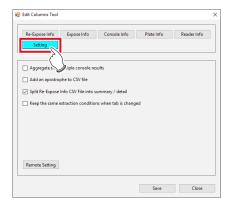
4 **Press [Yes].**
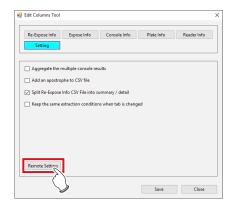
- The setting is then saved and the display returns to the Edit Column Name screen.

● **To select this device**
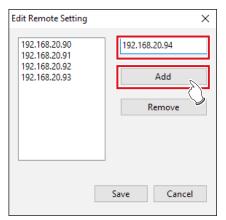
1 **Press [Setting].**
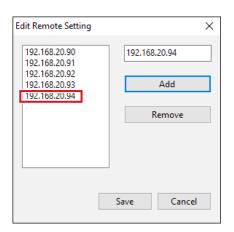
2 **Press [Remote Setting].**

- The Edit Remote Setting screen is displayed.

3 **Input the IP address of this device to be selected and press [Add].**
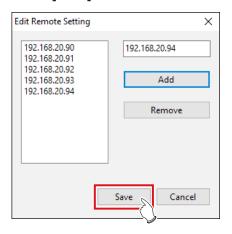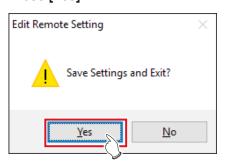
- The IP address is added.

4 Press [Save].
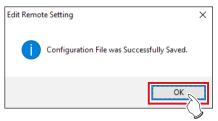
- A confirmation screen is displayed.

5 Press [Yes].

6 Press [OK].

- The setting is saved and the display returns to the Edit Columns Tool screen.

HINT

- When deselecting this device, select the IP address and press [Remove] and [Save] in that order.

Chapter 18

Chapter 19

Tools When [Analysis]
Is Selected
[Quality Management] Area
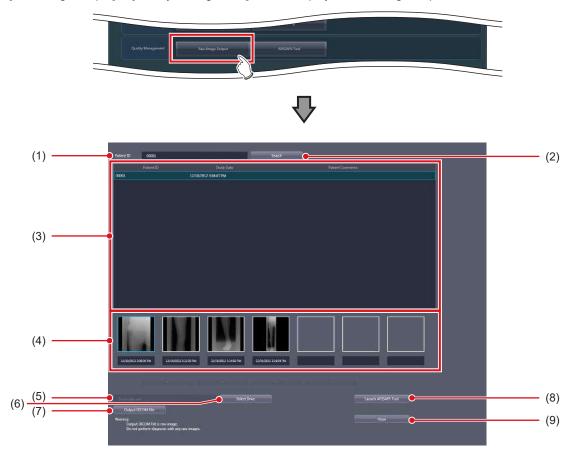
This chapter describes the tools in the [Quality Management] area
displayed when [Analysis] is selected.

19.1 [Raw Image Output]

This tool is for outputting unprocessed raw images to media.

19.1.1 Raw image output screen

Press [Raw Image Output] in [Quality Management] area to display the raw image output screen.

Number	Name	Function
(1)	[Patient ID]	Enter the patient ID to be searched.
(2)	[Search]	Select this to display the study list.
(3)	Study List	Select the study to be conducted on the output image.
(4)	Image List	Select the image you want to output.
(5)	Destination Setting	Displays the output destination.
(6)	[Select Drive]	Select this to display the output destination setting dialog.
(7)	[Output DICOM File]	Select this to output unprocessed raw images.
(8)	[Launch AFSSAPS Tool]	Starts the AFSSAPS tool.
(9)	[Close]	Pressing this ends the raw image output screen.

☐ **IMPORTANT** ••
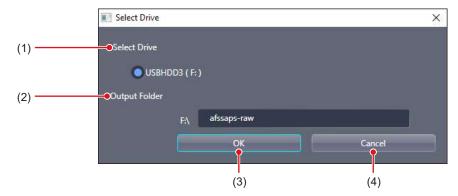
- DICOM file that is output through the raw image output contains unprocessed images. Do not use unprocessed images for the study.
- The serial exposure image cannot be DICOM output.
- If the same examination contains both serial exposure images and non-serial exposure images, only the non-serial exposure images will appear in the image list.

•••

● Output destination setting dialog

This dialog box is displayed when you press [Select Drive] on the raw image output screen.

Number	Name	Function
(1)	[Select Drive]	Select the backup drive.
(2)	[Output Folder]	Set the output folder.
(3)	[OK]	Press this to save the settings and return the display to the raw image output screen.
(4)	[Cancel]	Pressing this returns the display to the raw image output screen without saving the settings.
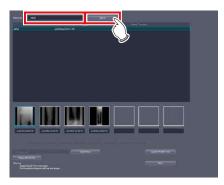
☐ **IMPORTANT** ••

- Optical discs and internal hard disks are not displayed in [Select Drive]. Only external memory, such as USB memory and external hard disks, is displayed.

•••

Chapter 19
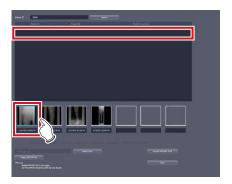
19.1.2 Operating the raw image output screen

The following describes the procedure to generate output of unprocessed raw images.

1 Enter the patient ID and press [Search].
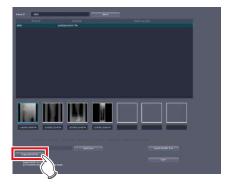
2 Select the study and image to be output in this order.

⚠️ **IMPORTANT** ·································
- You can output only one image at a time.
···

3 Check the output destination and press [Output DICOM File].

- The raw image is output.
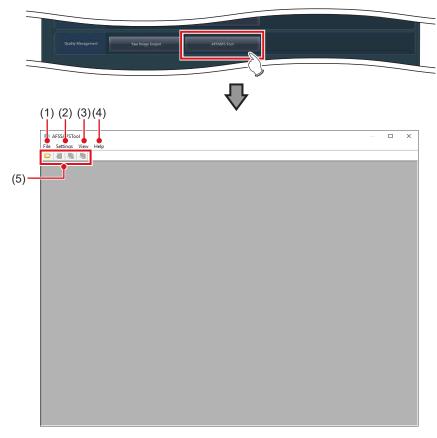
🔆 **HINT** ··································
- When changing the output destination, press [Select Drive].
- The following is the name of the raw image file output to external memory.
  – Patient ID_Internal Order Number .dcm
- If a file with the same name exists, it is overwritten with the new file.
- When you want to deliver the output raw image to host, press [Launch AFSSAPS Tool].
- For the AFSSAPS tool, refer to "19.2 [AFSSAPS Tool]".
···

19.2 [AFSSAPS Tool]

Outputs raw images to the host. It also outputs the test pattern in DICOM file format to the host and the printer.

19.2.1 [AFSSAPSTool] screen

If you press [AFSSAPS Tool] in the [Quality Management] area, the [AFSSAPSTool] screen is displayed.
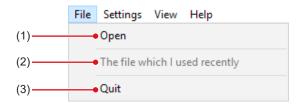
Number	Name	Function
(1)	[File]	Reads the file.
(2)	[Settings]	Sets the host output and printer output.
(3)	[View]	Displays the file list.
(4)	[Help]	Displays the AFSSAPS tool version.
(5)	Tool bar area	[Open]: Opens the file. [Attribute Information]: Displays the file list. [Storage]: Generates output to the host. [Print]: Generates output to the printer.

HINT

- You can also display the [AFSSAPSTool] screen by pressing [Launch AFSSAPS Tool] on the raw image output screen.

Chapter 19

[File] menu

Number	Name	Function
(1)	[Open]	Opens the DICOM image file.
(2)	[The file which I used recently]	Opens the last used file.
(3)	[Quit]	Ends the AFSSAPS tool.
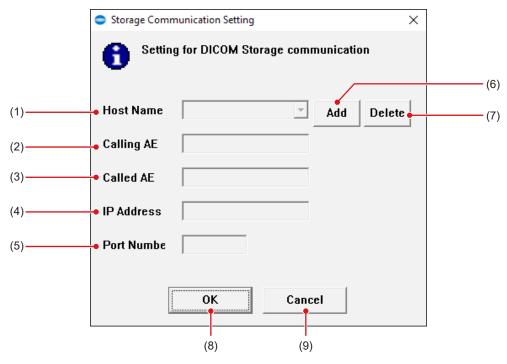
[Settings] menu

Number	Name	Function
(1)	[Storage Communication Setting]	Displays the [Storage Communication Setting] screen.
(2)	[Print Communication Setting]	Displays the [Print Communication Setting] screen.

● [Storage Communication Setting] screen
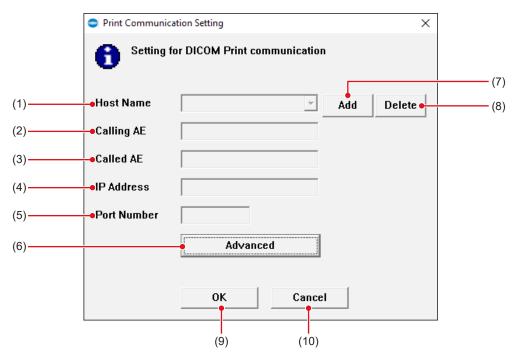
This screen is displayed when you select [Storage Communication Setting] from the [Settings] menu on the [AFSSAPS Tool] screen.

Number	Name	Function
(1)	[Host Name]	Select the output destination of Storage.
(2)	[Calling AE]	Enter the AE title of this device.
(3)	[Called AE]	Enter the AE title of the currently selected output destination of Storage.
(4)	[IP Address]	Enter the IP address of the currently selected output destination of Storage.
(5)	[Port Number]	Enter the port number of the currently selected output destination of Storage.
(6)	[Add]	Adds an output destination of Storage.
(7)	[Delete]	Deletes a currently selected output destination of Storage.
(8)	[OK]	Closes the dialog after saving the changes.
(9)	[Cancel]	Closes the dialog without saving the changes.

Chapter 19

● **[Print Communication Setting] screen**
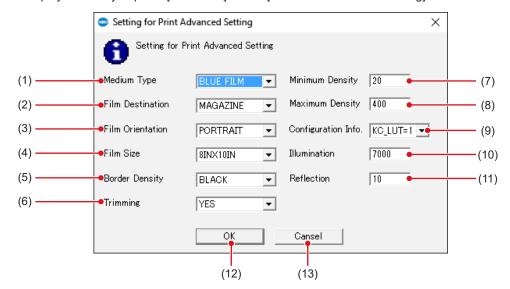
This screen is displayed when you select [Print Communication Setting] from the [Settings] menu on the [AFSSAPS Tool] screen.

Number	Name	Function
(1)	[Host Name]	Select the output destination of Print.
(2)	[Calling AE]	Enter the AE title of this device.
(3)	[Called AE]	Enter the AE title of the currently selected output destination of Print.
(4)	[IP Address]	Enter the IP address of the currently selected output destination of Print.
(5)	[Port Number]	Enter the port number of the currently selected output destination of Print.
(6)	[Advanced]	Displays the [Setting for Print Advanced Setting] screen.
(7)	[Add]	Adds an output destination of Print.
(8)	[Delete]	Deletes a currently selected output destination of Print.
(9)	[OK]	Closes the dialog after saving the changes.
(10)	[Cancel]	Closes the dialog without saving the changes.

● **[Setting for Print Advanced Setting] screen**
This screen is displayed when you press [Advanced] on the [Print Communication Setting] screen.

Number	Name	Function
(1)	[Medium Type]	Select the film type.
(2)	[Film Destination]	Select the output destination of the film.
(3)	[Film Orientation]	Select the film direction.
(4)	[Film Size]	Select the film size.
(5)	[Border Density]	Select the border density.
(6)	[Trimming]	Select whether trimming is conducted or not.
(7)	[Minimum Density]	Select the minimum density of the film.
(8)	[Maximum Density]	Select the maximum density of the film.
(9)	[Configuration Info.]	Select the printer configuration information.
(10)	[Illumination]	Select brightness of the light box.
(11)	[Reflection]	Selects the reflected surrounding light.
(12)	[OK]	Closes the dialog after saving the detailed setup.
(13)	[Cancel]	Closes the dialog without saving the changes.
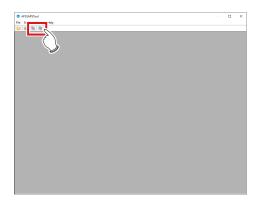
19.2.2 Operating the [AFSSAPSTool] screen

The following describes the procedure to generate output of raw images to the host.

● **Output of raw images to the host.**

1 Open the raw image file.
   • Raw images are displayed.

> 🖎 **HINT** ....
>
> • When you output the test pattern, specify the folder containing the designated file.
> ....

2 Press [Storage] or [Print] in the tool bar area.

3 Check the output destination and press [OK].

Chapter 20

Tools When [Analysis] Is Selected [Test] Area
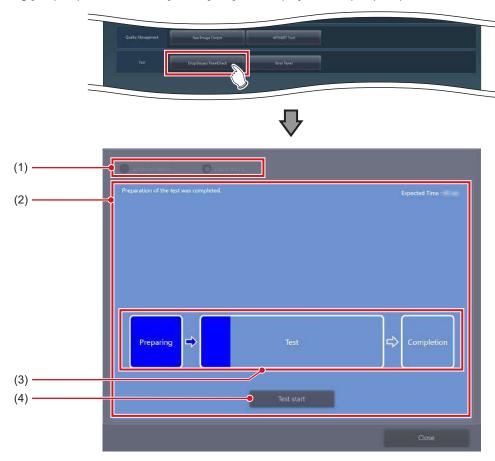
This chapter describes the tools in the [Test] area displayed when [Analysis] is selected.

20.1 [Drop/Impact PanelCheck]

This tool is for performing the DR Detector test.

20.1.1 Drop/impact panel check tool screen

Pressing [Drop/Impact PanelCheck] in the [Test] area displays the drop/impact panel check tool screen.

Number	Name	Function
(1)	DR Detector display	Select the DR Detector assigned to this device.
(2)	Message display area	Displays the status and test time of the DR Detector.
(3)	Test status indicator icon	Indicates the status of the test process. The blue bar in the icon extends as the test progresses. If the test fails, the icon is displayed in red.
(4)	[Test start]	Starts testing.

┌─────────────┐
│ 📷 **IMPORTANT** │ ••
└─────────────┘

- Fully charge the DR Detector before testing the DR Detector.
- If untransferred images remain in the DR Detector, acquire those images before starting the test. The untransferred images in the DR Detector will be deleted when the test starts.
- Do not test the DR Detector while it is connected to the following devices.
    – I/F Cable of the AeroDR Portable RF Unit2
    – I/F Cable of the AeroDR Battery Charging Unit
    – AeroDR Portable UF Detector Charger Kit

••

┌─────────────┐
│ ✍ **HINT** │ ••
└─────────────┘
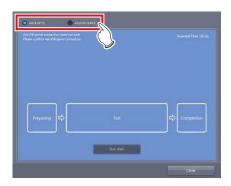
- When performing the test through a wireless connection, the test may last longer than the displayed estimated time period depending on the communication status.
- If an error occurs during the test preparation and the display is transferred to the list screen, the "[DR Detector name] requires refresh operation to be used for next study." message may be displayed. If this message is displayed, perform the operation under "Deletion of untransferred images in the DR Detector" described in the "CS-7 Operation Manual".

••

20.1.2   Operating the drop/ impact panel check tool screen

The following describes how to operate the drop/impact panel check tool screen.
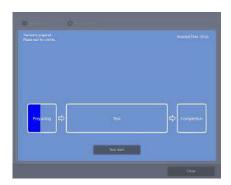
1   Select the DR Detector to be tested.
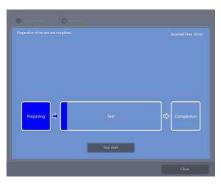
- The status of the DR Detector is displayed in the message display area.

2   When the DR Detector becomes ready for the test, press [Test start].
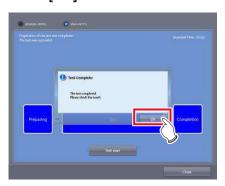
- When the tool becomes ready to execute test, testing starts.
- The dark blue bar in the icon extends as the test progresses. If the test fails, the icon is displayed in red.
- When all the test processes are completed, a confirmation screen is displayed.

3   Press [OK].
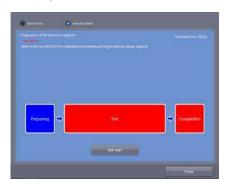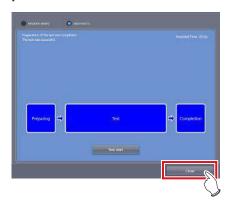
- The test results are displayed in the message display area.

- If the test fails, the icon and message are displayed in red, and a corrective action is displayed in the message display area. Carry out the corrective action that is displayed.

•••

4 **Press [Close] to close the drop/impact panel check tool screen.**
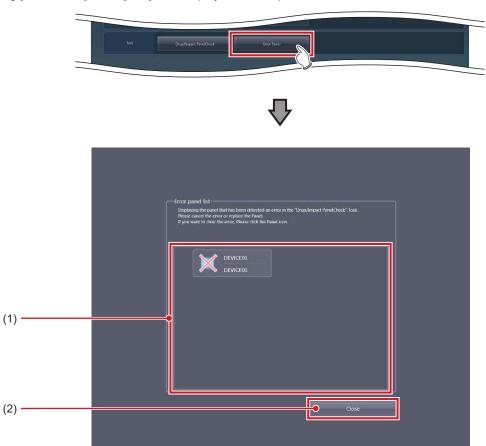
20.2 [Error Panel]

This tool displays DR Detectors in which an error was detected by the drop/impact panel check tool and removes the errors.

20.2.1 Error panel list screen

Pressing [Error Panel] in the [Test] area displays the error panel list screen.
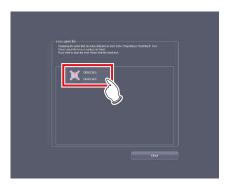
Number	Name	Function
(1)	Error panel list	This tool is for displaying DR Detectors in which an error was detected by the drop/impact panel check tool.
(2)	[Close]	Closes the Error panel list screen.

20.2.2 Operating the error Detector list screen

The procedure for removing DR Detector errors is as follows.

1 **Select the DR Detector that contains the error to be removed.**

- A confirmation screen is displayed.

2 **Press [OK].**

- The error of the DR Detector is removed.

Chapter 20
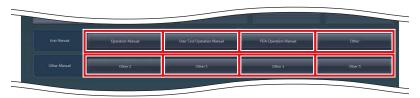
Chapter 21

Tools When [Manual] Is Selected [User Manual]/ [Other Manual] Area

This chapter describes the tools in [User Manual]/

[Other Manual] area displayed when [Manual] is selected.

21.1 [Operation Manual], [User Tool Operation Manual], [PDA Operation Manual], [Other] to [Other 5]

When individual buttons in [User Manual] and [Other Manual] area are pressed, relevant manuals are displayed.

Name	Functions
[Operation Manual]	Displays "CS-7 Operation Manual".
[User Tool Operation Manual]	Displays "CS-7 Operation Manual for User Tool".
[PDA Operation Manual]	Displays "PDA Operation Manual".
[Other]	
[Other 2]	
[Other 3]	Displays other manuals.
[Other 4]	
[Other 5]	

📝 **IMPORTANT** ··

• Displays as many buttons as there are registered manuals. Displays up to eight buttons.

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KONICA MINOLTA

CS-7

Operation Manual

DIRECT DIGITIZER
CS-7

Version 1.36

$C \in 0197$

EN 24

Contents

Contents

Contents

Introduction

Introduction

The CS-7 is a software program for installation on a PC. It performs image processing of X-ray images received from an AeroDR SYSTEM or REGIUS system.
The CS-7 adds patient data received from RIS etc. and sends diagnosis images to PACS etc. Furthermore, the CS-7 can send requests for exposure conditions to the X-ray device and receive irradiation results.

This operation manual describes instructions on the basic functions for operation of this device. Those operating this device for the first time should read this manual beforehand.
Also, store this manual close to this device after reading it through, so it can be used as a guide to allow optimum operating conditions.

* **If the pages of the operation manual are smudged and illegible, replace it with a new one. (There is a fee for this service.)**

⟦📷 IMPORTANT⟧ ••

- For United States of America, this device is not intended to use for Mammography.
- One Shot stitching exposure function can only be used in some countries.
  - This function cannot be used in the United States or Canada.
  - This function cannot be used in the EU, EFTA member countries, Switzerland or Turkey.
- In this manual, "this device" refers to a collective term indicating CS-7 software and PC with the software installed.

••

Summary of usability specifications (for IEC/EN 62366)

(1) Medical purposes
- Provision of disease and injury diagnostic images.

(2) Patient groups
- No patient population exists who uses or is in contact with the device.
- Patient population for the X-ray images read is not specified.

(3) Parts of body or organizations to which the device is mounted or that interact with the device
- No appropriate points. (Device does not come in contact with the patient.)

(4) Operating principle
- This device CS-7 is a software program for installation and use in commercially available PCs. Commercially available PCs consist of a PC main body and an LCD monitor. This device receives X-ray image information from the reader device (REGIUS series, DR Detector) and connects it with patient information, which will be output after processing into diagnosable images by an operator.

(5) Significant physical characteristics
- Refer to "12.1 Specifications".

(6) Significant performance characteristics
- Refer to "12.1 Specifications".

(7) User of this device
- No special training is required to use this device. The intended users of this device are as follows.
  - A professional in good health with specialist knowledge/qualifications who has fully understood the content of this document. (Such as a doctor or radiological technologist)
  - A user who can understand the display language used by this device.

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(6) Konica Minolta, Inc. is not responsible for any claims made for malfunction or damage caused by not observing the precautions and operation methods described in the operation manual.

(7) Konica Minolta, Inc. is not responsible for any claims made for malfunction or damage caused by the environment that is not suitable for the installation requirements such as power source and installation environment described in the Installation Requirement or operation manual.

(8) Konica Minolta, Inc. is not responsible for any claims for malfunction or damage caused by acts of nature such as fires, earthquakes, floods, or lightning strikes.

(9) Konica Minolta, Inc. is not responsible for any claims for malfunction or damage caused by using this device for any purpose other than that specified for this device.

(10) Diagnostic and treatment action is performed under the responsibility of the physician(s). Konica Minolta, Inc. is not responsible for any diagnostic/treatment conditions or diagnostic/treatment results.

(11) Konica Minolta, Inc. is unable to assume any liability relating to the following events arising due to systems infected by computer viruses, worms and other malicious software potentially harmful to computers (hereunder referred to as "malwares"):

- The erasure, corruption, or unwanted disclosure of data stored within this device, including personal and sensitive patient information.

- Malfunction of the device or accidents occurring as a result of the malfunction of the device.

- Infection of other products upon connection with the device, or damages arising therefrom.

(12) Whenever you use this service, you are required to take some security or safety measures for the following items related to the service:
Please understand that Konica Minolta, Inc. is unable to assume liability for certain events, such as malfunctions or incidents of information leakage resulting from such events.

- Client and network equipment managed by our facility

- The network and ISP in our facility used for connection with this service

- Your equipment to be connected to the same network as that of this service

(13) When this device is used, various user and patient data stored within the device and external storage devices must be adequately managed under the full responsibility of the user. Konica Minolta, Inc. is unable to assume any liability relating to damages arising due to leakage of various data at the time of disposal.

(14) Please understand that Konica Minolta, Inc. is unable to assume any liability for any troubles that result from any change in the operating system or application software which is not described in this notice.

(15) This service is provided under the assumption that individually owned devices (BYOD) are not being used. Please understand that we cannot take responsibility for the use of individually owned devices and any information leakage or the like that may result from such use.

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Microsoft and Windows are registered trademarks or trademarks of U.S. Microsoft Corporation in the U.S. and other countries.

Windows 7 is an abbreviation for Microsoft Windows 7 operating system Professional Edition.

Windows 10 is an abbreviation for Microsoft Windows 10 IoT Enterprise.

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Option/license

For certain functions of this device, separate options and licenses are needed. For details regarding options and licenses, contact Konica Minolta service representatives.

Term description

The meanings of terms used in this operation manual are as follows:

Terms	Description
AeroDR SYSTEM	• Collective term indicating DR Detector, AeroDR Interface Unit, AeroDR Interface Unit2, AeroDR Generator Interface Unit, AeroDR Generator Interface Unit2, Generator Interface Unit 3, AeroDR Battery Charger, AeroDR Battery Charger2, AeroDR Access Point, etc. • Collective term indicating AeroDR SYSTEM, AeroDR SYSTEM 2 and SKR3000.
DR Detector	Collective term indicating AeroDR 1417HQ, AeroDR 1417S, AeroDR 1717HQ, AeroDR 1012HQ, AeroDR 2 1417HQ, AeroDR 2 1417S AeroDR 3 1417HD, AeroDR 3 1717HD and AeroDR 3 1012HQ.
AeroDR Interface Unit	Supplies power to the AeroDR Generator Interface Unit, AeroDR Generator Interface Unit2 and access point, and supplies power to and charges the battery of the DR Detector when wired cables are used. It also has a hub function.
AeroDR Interface Unit2	• Supplies power to the access point, and supplies power to and charges the battery of the DR Detector when wired cables are used. It also has a hub function. • Relays signals between the X-ray device, the DR Detector, and the CS-7.
AeroDR Generator Interface Unit	Relays signals between the X-ray device, the DR Detector, and this device.
AeroDR Generator Interface Unit2	Relays signals between the X-ray device, the DR Detector, and this device.
Generator Interface Unit 3	Relays signals between the X-ray device, the DR Detector, and this device.
AeroDR Battery Charger	Charges the DR Detector. It also has the registration function for the DR Detector.
AeroDR Battery Charger2	Charges the DR Detector. It also has the registration function for the DR Detector.
Access point	Collective term indicating AeroDR Access Point and a general-purpose access point.
I/F Cable	Use with the DR detector wired connection. It also includes the DR detector charging and registration functions.
AeroDR UF Cable	• In the case of capturing images with the wall stand and table, register the DR detector direction. • For One Shot stitching exposure, the wall stand wired connection is used.
AeroDR Portable RF Unit	Receives an image data from the DR Detector and transfers it to this device. Also, this unit interfaces with the portable X-ray device.
AeroDR Portable RF Unit2	• Interfaces with the mobile X-ray device. • Charges or registers the DR Detector when using the AeroDR Battery Charging KIT and AeroDR I/F Cable2.
AeroDR Portable UF Unit	Receives an image data from the DR Detector and transfers it to this device.

Terms	Description
AeroDR Stitching System	Used when performing stitching exposures using the DR Detector.
Calibration	Processing for calibrating the characteristics of the DR Detector for each pixel.
CR	An acronym for computed radiography.
DR	An acronym for digital radiography.
JM	An acronym for job manager.
REGIUS	Collective term indicating the REGIUS series (Excluding "REGIUS SIGMA" and "REGIUS SIGMA2"). When indicated individually, they are shown as "REGIUS 110", "REGIUS 110HQ", "REGIUS 210", "REGIUS 190", and "REGIUS 170".
REGIUS SIGMA/SIGMA2	Used as the collective terms for "REGIUS SIGMA" and "REGIUS SIGMA2".
CR cassette	Used as the collective terms for the cassettes in the REGIUS series and REGIUS SIGMA/SIGMA2.
RIS	Abbreviation for Radiology Information System. A system to manage reservation and result of examinations and treatment that use radiology equipment.
Host	A server to save image information.
X-ray device	An X-ray exposure device constructed of an X-ray generator device, an operation panel, and so on.
HS processing	Image processing to reduce noise. Used to reduce the noise while maintaining the definition of an image.
RS processing	Image processing to reduce noise. The RS processing is applied as the E/F processing method if REALISM is selected.
RT processing	This image processing automatically optimizes REALISM parameters in accordance with the subject and inserts the entire image into the viewable area.
F processing	Image processing for adjusting the sharpness of an image. Used to maintain the sharpness of each image depending on the exposure body part.
E processing	Image processing for compressing the dynamic range. Depending on the body part, used to provide a suitable diagnostic image even with high contrast images.
IG	An acronym for Intelligent-Grid. This is a function that corrects scattered X-ray radiation.
Exposure body part	This is the exposure body part, such as head, neck, and chest.
Exam. Tag	A button that has registered exposed body parts, size, direction, etc. It is positioned on the body part selection screen.
Exposure condition	Indicates conditions relating to exposure in general such as exposure device, exposure method, exposure setting, and positioning.
Exposure setting	Indicates the tube voltage, X-ray tube current, exposure time, etc. displayed on the console of the X-ray device.
Wired cable	Collective term indicating I/F Cable and AeroDR UF Cable.
Aero Sync	This is a mode in which exposure is performed without being synchronized with the X-ray device.
Stitching holder	Collective term indicating the holder used for One Shot stitching exposure. The holder can load two or three DR Detectors.

Terms	Description
Upper, Middle, Lower	The positions of slots containing the stitching holder DR Detectors are labeled as upper, middle, and lower. The triangle mark is on top. Upper Middle Lower
Aero Storage	This function enables images to be taken with the DR Detector without needing to be connected to this device.
Aero Link	This function creates a direct wireless connection with this device via the wireless communication functionality built into the DR Detector.
Serial exposure	An exposure method to capture multiple frame images serially taken by the pulse irradiation from an X-ray generator device.
Edge Server	This device serves as a relay server to coordinate with the AeroRemote service.

Structure of pages

Example of page structure

(1) **1.1 ● Operation Flow**

1.1.1   Displaying the exposure screen

Perform the following procedure when to display the exposure screen.

(2)
1   Turn on the power for X-ray devices, etc. connected to this device.

2   Press the power switch on this device.

(3)

- Startup messages are displayed sequentially.
- Internal system initialization is performed while the system startup screen is displayed.
- Upon completion of initialization, the initial screen (list screen) is displayed.

(4)
IMPORTANT ....
- When sharing a REGIUS among several units of this device, start the unit with the JM installed first; after confirming startup of this unit, start the other units.
....

(5)
HINT ....
- The software version is displayed on the system startup screen. Initialization will be completed a few minutes after turning on the power.
- A progress bar is displayed on the system startup screen, indicating the status of the system initialization process.
....

3   Select the examination target.

- The examination is selected.

4   Press [Perform].

- The exposure screen is displayed.

00

Number	Item	Description	Icon
(1)	Item heading	Describes the titles of described content.	-
(2)	Operation procedure	The operating procedure is described in sequential numerical steps.	-
(3)	Screen display	Shows a screen on which operations are performed.	-
(4)	Important items	Describes important items for operation. Be sure to read them.	IMPORTANT
(5)	Hint	Describes important information.	HINT
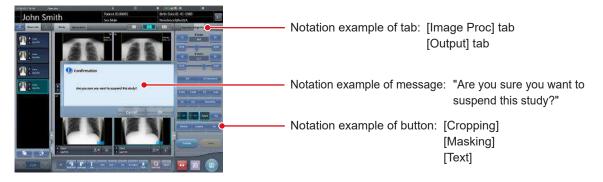
Screen display

Note that explanatory screens may be omitted from this manual when not needed.

Characters and icons displayed on the screen

Characters and icons displayed on the screen are shown with [ ]. Messages displayed on such as the confirmation screen are shown with " ".

Notation example of tab: [Image Proc] tab
                       [Output] tab
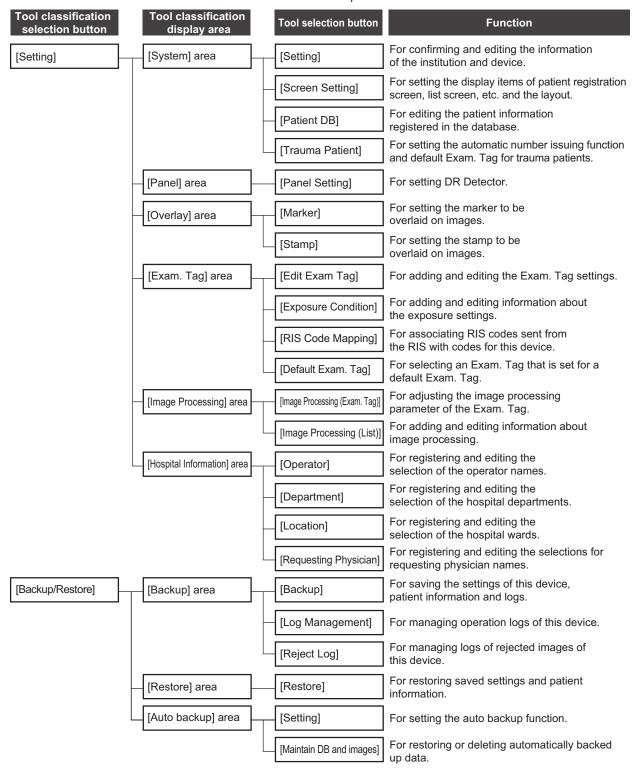
Notation example of message: "Are you sure you want to suspend this study?"

Notation example of button: [Cropping]
                        [Masking]
                        [Text]

Notation of operation methods

This manual describes main operation methods as follows.

Notation	Description
Press	Operation to touch the screen or click with a mouse to operate operation targets such as buttons.
Select	Operation to select from several options such as from a pull-down menu or tabs.
Input	Operation to enter any string using a keyboard or the input panel displayed on the screen.
Drag	Operation to move an operation target while touching or clicking it.
Drop	Operation to release the operation target being dragged by quitting touching it or releasing the button being clicked.

Items to be set with the user tool

Items to be set with user tool are shown in the following diagram.
More information about the user tool is described in the "CS-7 Operation Manual for User Tool".

Tool classification selection button	Tool classification display area	Tool selection button	Function
[Setting]	[System] area	[Setting]	For confirming and editing the information of the institution and device.
		[Screen Setting]	For setting the display items of patient registration screen, list screen, etc. and the layout.
		[Patient DB]	For editing the patient information registered in the database.
		[Trauma Patient]	For setting the automatic number issuing function and default Exam. Tag for trauma patients.
	[Panel] area	[Panel Setting]	For setting DR Detector.
	[Overlay] area	[Marker]	For setting the marker to be overlaid on images.
		[Stamp]	For setting the stamp to be overlaid on images.
	[Exam. Tag] area	[Edit Exam Tag]	For adding and editing the Exam. Tag settings.
		[Exposure Condition]	For adding and editing information about the exposure settings.
		[RIS Code Mapping]	For associating RIS codes sent from the RIS with codes for this device.
		[Default Exam. Tag]	For selecting an Exam. Tag that is set for a default Exam. Tag.
	[Image Processing] area	[Image Processing (Exam. Tag)]	For adjusting the image processing parameter of the Exam. Tag.
		[Image Processing (List)]	For adding and editing information about image processing.
	[Hospital Information] area	[Operator]	For registering and editing the selection of the operator names.
		[Department]	For registering and editing the selection of the hospital departments.
		[Location]	For registering and editing the selection of the hospital wards.
		[Requesting Physician]	For registering and editing the selections for requesting physician names.
[Backup/Restore]	[Backup] area	[Backup]	For saving the settings of this device, patient information and logs.
		[Log Management]	For managing operation logs of this device.
		[Reject Log]	For managing logs of rejected images of this device.
	[Restore] area	[Restore]	For restoring saved settings and patient information.
	[Auto backup] area	[Setting]	For setting the auto backup function.
		[Maintain DB and images]	For restoring or deleting automatically backed up data.

Tool classification selection button	Tool classification display area	Tool selection button	Function
[Adjustment]	[System] area	[Date and Time]	For setting the date and time.
		[Touch Panel]	For adjusting the touch panel.
	[Panel] area	[Calibration]	For conducting the calibration of the DR Detector.
	[CS-7] area	[Update]	For updating this device.
		[Release Notes]	For displaying the version of this device and updated contents.
	[LongLen Unit] area	[Adjustment]	For adjusting the AeroDR Stitching Unit.
	[REGIUS Σ] area	[Information Notification Setting]	For setting the notification procedure of the communication control information.
		[Error History]	For displaying the error history screen.
		[Fractional Masking]	For setting fractional masking.
[Analysis]	[Image Quality] area	[QA/QC]	For evaluating and managing image quality.
	[Statistics Analysis] area	[Statistics Analysis]	For aggregating and taking the statistics of exposure history.
		[Setting]	For setting the dedicated application for aggregating and taking the statistics of exposure history.
	[Quality Management] area	[Raw Image Output]	For outputting raw images to media.
		[AFSSAPS Tool]	For outputting raw images to the host.
	[Test] area	[Drop/Impact PanelCheck]	For performing the DR Detector test.
		[Error Panel]	For displaying DR Detectors in which an error was detected.
[AeroRemote]	[Service] area	[Quick Repair]	For replacing the DR Detector.
		[Revert to before replacement]	For reverting the DR Detector settings to the settings before replacement.
[Manual]	[User Manual] area	[Operation Manual]	For displaying an operation manual.
		[User Tool Operation Manual]	For displaying an operation manual for user tool.
		[PDA Operation Manual]	For displaying a PDA operation manual.
		[Other]	For displaying other manuals.
	[Other Manual] area	[Other 2] - [Other 5]	For displaying other manuals.

Chapter **1**

Safety Precautions & Warnings

This chapter describes precautions and warnings

to ensure safe use of this device.

1.1 Symbols relating to safety

1.1.1 Safety alert symbol

This is the "safety alert symbol". This symbol alerts you to matters and/or operations potentially hazardous to yourself and other people. Read these messages and follow the instructions carefully.

1.1.2 Warning notice (signal words)

Signal words indicate a degree of potential hazards in the use of the product.

Signal words include the following three types, which are used according to risk of damage caused by danger and the severity of damage:

⚠ DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to indicate a hazardous situation where only physical damage is likely to occur.

1.1.3 Description of graphic symbols

Indicates the off position for the main power switch of this device.

Indicates the on position for the main power switch of this device.

Indicates the power on or standby position.

Indicates that the AC power is being used.

Indicates that hazardous voltage is being used, and caution is required.

It means conformity with the Medical Devices Directive 93/42/EEC.
0197 is Notified Body number.
CE 0197 EC Directive 93/42/EEC does not cover animal use. So, the notified body whose identification number is 0197 is not responsible for animal use.

1.2 Safety precautions

Read all safety precautions thoroughly before using this device.
Be sure to observe the safety precautions described in this section.

1.2.1 Precautions before usage

⚠ **WARNING**

- EMC Statement - CS-7 is designed to provide reasonable protection against harmful interference in a typical medical installation. The personal computer of CS-7 generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If CS-7 does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the operator is encouraged to try to correct the interference by one or more of the following measures:
  – Reorient or relocate the receiving device.
  – Increase the separation between the equipment.
  – Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
  – Consult the manufacturer or field service technician for help.

⚠ **CAUTION**

- If the pages of the operation manual are smudged and illegible, replace it with a new one. (There is a fee for this service.)
- Use this device outside of the patient environment.
- This device conforms with the METI guidelines to reduce harmonic emissions caused by electrical and electronic equipment for household and general use.
- The operators (hospitals and clinics) hold responsibility for the usage and maintenance of this device. Do not use this device unless you are a physician or certified person under law.
- Before using this device, confirm that this device is operating normally.
- When a problem occurs with this device, turn the power off, attach an appropriate sign, such as "malfunction", on this device, and contact Konica Minolta technical representatives.

⚠ **CAUTION**

- This device is not explosion-proof, so do not use any flammable or explosive gas near this device.
- For the basic operation of the personal computer, display monitor, and optional parts for this device, refer to their operation manuals.
- Please follow the rules and regulations of your relevant authorities in the disposal of this product, accessories, options, consumables, media and their packing materials.

This symbol means: Do not dispose of this product together with your household waste!

Please refer to the information of your local community or contact our dealers regarding the proper handling of end-of-life electric and electronic equipments.

Recycling of this product will help to conserve natural resources and prevent potential negative consequences for the environment and human health caused by inappropriate waste handling.

1.2.2 Precautions for usage

⚠ **WARNING**

- Check the following additional information for images and patients and use in operation and treatment.
  – The input patient information is correct.
  – The input patient information has the intended result.
  – When patient information is acquired from other devices, it is the patient in question.
  – The patient being examined matches the patient information shown on the display monitor.
  – When sending the image to the output device or media, the patient information is correct.
  – Before treatment, the image on the output device or on the media matches the patient information.
  – The result is correct when image replacement and supplemental information edit (image laterality/patient orientation) is performed in the exposure screen.
- Image processing functions must be used by qualified persons with specialized knowledge of image diagnosis equipment and image processing. In addition, sufficiently confirm the results of image processing.

 WARNING

- Do not perform diagnosis with the images displayed on this device.
- Risk of misidentification of patients may occur if modifications to patient information for examinations or examination information acquired from a higher system such as a Radiology Information System (RIS) are made. When the information is modified, notify the system administrator of the modification without delay, and in addition, make sure that the patient information and/or examination information are correctly modified on output devices such as PACS to which this device sent the image information and examination information.
- When using AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ and a CR casette, be sure to check the resolution displayed in the reading conditions when exposure.
- Konica Minolta will not be liable for the loss of important data such as patient information arising from the introduction of this system. Important data require separate assurance of security, backup, etc.
- When lightning is likely to occur, stop work and unplug the power plug from the wall outlet. When it thunders before unplugging the power plug do not touch the device, including any of the cables. Doing so may cause a fire or electric shock.
- If there is any smoke, odor, or abnormal sound, it may cause a fire if use is continued, so immediately turn the power switch off, unplug the power plug from the wall outlet, and contact Konica Minolta technical representatives.
- Take the following precautions when using this device and software.
  - Konica Minolta or a contractor designated by Konica Minolta will install the software of this device.
  - Do not disassemble or modify this device.
  - Do not connect any devices that were not purchased from Konica Minolta.
  - Do not install software purchased from other companies.
  - Do not uninstall software that has already been installed.
  - Take precautions to prevent infection from computer viruses.
  - Do not change the setting for the OS (operating system), or delete folders or files.
  - Do not operate Windows Explorer unless specified.
  - Do not use the DVD drive for other purposes.
  - Confirm that the hard disk access lamp is out before removing disks.
  - Do not turn the power switch off or pull out the power cable while the system is operating.

 WARNING

- Take note of the following to reduce the risk of fire, electric shock, or electrical leakage:
  - Always use the specified cables such as a power cable.
  - Use wall outlet with the correct rating as a power source.
  - Connect the power plug to the wall outlet properly without any slack.
  - Use a power source with a ground wire.
  - If you do not plan to use this device for an extended period of time, unplug the power plug.
  - The supplied power cable is dedicated for this device, so do not use it elsewhere.
  - Avoid exposure to liquids such as water.
  - Make sure that foreign material, such as pieces of metal or wires, does not get inside.
  - Do not handle the power plug with wet hands.
  - Do not let dirt or dust adhere to the power plug.
  - Do not use extension cables.
  - Do not place many loads on a single electrical outlet.
  - Do not damage the power cable. Also, do not use damaged cables.
  - Do not block the ventilating openings.

CAUTION

• Take the following precautions when performing exposure using this device.
  – Check whether or not the patient needs extra care before performing exposure.
  – Check the patient information before performing exposure.
• Turn the power off after finishing the work to maintain stable operation. If the power to the system is kept on continuously for 24 hours out of necessity, turn the power off and on once a week.
• To use functions that share image data, integrate the pending reason and other settings for this device.
• Use with suitable settings for image processing parameters. To use functions that share image data, set the same values for the image processing parameters of this device.
• Do not use devices that emit electromagnetic waves such as mobile phones, PHS, or pocket pagers near this device.
• Do not use continuously for extended periods of time. If you need to use the device continuously for extended periods, take a 10 to 15 minute break every hour to give your eyes and hands a break.
• Take note of the reception status for radios and TVs near this device, since interference may occur in them when this device is in use.
• Check the touch positions on the touch panel when starting this device, turning on the display monitor, or unplugging and plugging in the USB cable, etc. When the touch position and the cursor position are out of sync, or the cursor does not move even when touched, leave it for about two minutes, or check the USB cable connections and restart this device and the display monitor.
• Be sure to check the image orientation of images received from medical imaging devices (CR, DR, etc.).
• Shut down this device after confirming that the hard disk access lamp is out. Also, when turning on again, do so after 10 seconds have elapsed.
• Data cannot be reacquired if the power to the CR cassette reader is turned off after a transfer error occurs.

1.2.3   Precautions for installing, moving, and storing

WARNING

• Take the following precautions when moving this device.
  – Do not subject to shock or vibration.
  – Do not start moving until the power is turned off, and operation has stopped completely.
  – Do not move with the power cable or any other cable connected.

CAUTION

• Because connections of the X-ray device can only be made by Konica Minolta or its designated contractors, contact Konica Minolta or its designated contractors.
• Contact Konica Minolta or dealers specified by Konica Minolta to install or move this device.
• Take note of the following when installing or storing this device.
  – Do not install or store in a location where it may be adversely affected by atmospheric pressure, temperature, humidity, ventilation, sunlight, dust, salt-air, or air containing sulfur.
  – Do not install or store in a location where it is not stable, ventilation is insufficient, the difference in light-dark is great, electromagnetic waves are generated, or where subjected to vibration or shock.
  – Do not install or store in a location where chemical agents are used or stored.
  – Do not lay this device on its back, upside down or directly on the floor.
  – Do not connect or disconnect the interface cable while the power cable is connected.
  – Do not use an interface cable other than the specified one.
  – Do not damage the interface cable. Also, do not use damaged interface cables.
  – Do not leave packing materials around.
  – Do not subject this device to strong shocks or vibration by dropping it, etc.

Chapter 1

1.2.4 Precautions regarding care and maintenance of this device

⚠ **WARNING**

- Do not remove the lithium batteries.
- Turn the power off and remove the power plug from the wall outlet.

⚠ **CAUTION**

- Perform the maintenance and inspection periodically. Also, contact Konica Minolta technical representatives for cleaning of the inside.
- Immediately after turning the power off, be careful of hot components inside this device.
- Install the power cable, interface cable, etc. securely.
- Do not rub or strike this device with hard objects as it will cause damage.

1.2.5 Precautions regarding CD/DVD use

⚠ **WARNING**

- The optical head of the CD/DVD device discharges a laser, so take care not to look in the object lens of the optical head.

⚠ **CAUTION**

- Take the following precautions to prevent reading errors etc.
  - Do not subject to impact.
  - Do not touch disk surfaces.
  - Place in cases when storing.
  - Do not place in locations with a lot of dust.
  - Do not place in locations with high temperature and high humidity.
  - Do not place in direct sunlight.
- Attach labels to CD/DVD surfaces and cases so that the recorded content can be identified.
- The types of media supported by this device are CD-R and DVD-R only. Also, please note that it is possible that when saving on media other than the following, writing errors or reading errors may occur. Please be forewarned.
  - TDK Co. CD-R 1-48 speed supported <for data>
  - Mitsubishi Kagaku Media Co. CD-R 1-48 speed supported <for data>
  - Mitsubishi Kagaku Media Co. DVD-R 1-16 speed supported <for data>
- If dust adheres to the object lens of the optical head in the CD/DVD drive, it is possible that writing errors and reading errors may occur. In such case, remove the dust with a commercial DVD lens cleaner.

Chapter 1

1.2.6 Precautions regarding display monitor use

⚠ WARNING

- If the LCD monitor shows the same image for extended periods of time, it will burn onto the screen.

⚠ CAUTION

- Use with screen brightness and contrast at a suitable level. Also, do not turn brightness up too high when using in a dark room.
- The backlight for the LCD monitor will deteriorate over time and will gradually grow darker. Check that the display monitor is at a suitable level of brightness before using this device.
- View more than 80 cm from the display monitor.
- Use in a bright room is recommended due to eye fatigue being cumulative when used in a dark room.
- When small dots of light and dark appear on the image in the LCD monitor, check whether it is a defect in the LCD monitor or the image information before using.
- The 23 inch high field of vision LCD multi-touch monitor cannot be operated while the user is wearing gloves.
- If you use Windows 10, do not swipe the touch screen from the edge to the center. Otherwise, Windows settings screen will appear, and forcible shutdown of this system or unintentional altering of its settings may occur.

1.2.7 Notice relating to information security

⚠ WARNING

- Systems that have sustained cyber attacks, such as an attack via networks, wireless interception or website browsing, or that are infected by computer viruses through external storage devices, which are potentially harmful to computers (hereunder referred to as "malware") may result in the erasure, corruption, or unwanted disclosure of data stored within this device, including personal and sensitive patient information. Infections by malware may also result in malfunction of the device, as well as causing the infection to spread to other products.
- This device may only be used in combination with software confirmed to be safe and compatible, and installed according to predetermined installation procedures.
- The application of the latest security updates to the Operating System on a periodic basis, as well as providing for anti-virus software and updating virus definition files on a regular basis, are considered effective in preventing cyber attacks and the infection of the system by malware.
- Please take appropriate measures in accordance with the application notices for security patches and the procedural manual. Please refer to a Konica Minolta service representative for details.
- To prevent cyber attacks, including the infection of the device by malware, take note of the following:
  - Do not connect the device to any equipment not certified for connection to the device.
  - Do not install any software that we have not approved for use.
  - Do not uninstall software that has already been installed.
  - Do not delete the OS (operating system) or any files and folders associated with the OS.
  - Always confirm external storage media to be free of malware prior to use.
  - Use the device in a safe network environment incorporating adequate security measures for the prevention of malware infection.
  - Refrain from any hazardous activity leading to potential vulnerability against malware infection.
- Before you change the settings of any operating system or application software that are not described in this notice, please check with the Konica Minolta service representative.
- Take precautions not to allow others to see the device screen displaying sensitive patient information. Privacy protection display filters should not be used as such filters may adversely affect the appearance of displayed images.

> ⚠ **WARNING**
>
> - Take precautions not to allow others to operate the device.
> - Be sure to implement the following cyber-security measures:
>   - Provide for an adequate level of information security measures within the facility using this device, and other facilities connected to the facility via networks.
>   - Isolate the device from the connected network immediately upon infection by malware, concurrently prohibiting the use of the infected device.
>   - Upon infection of the device by malware, or the potential infection thereof, promptly contact Konica Minolta service representative.
> - Please set a password that consists of several characters, and include at least one special character. In addition, when specifying the management policy for your IDs and passwords, you should consider recent trends in information security measures.

1.2.8   Precautions for each function

> ⚠ **WARNING**
>
> **Precautions on stitching combination processing**
> - The areas of focus for diagnosis should not overlap at combine positions.
> - For the stitching exposure images, make sure that the combined parts are combined in the correct positions.
> - If there is gap between the combined images, manually adjust the image position of the combined parts using the viewer screen (for stitching combination position adjustment). It is also recommended that you arrange a measure in the combined image part during exposure to confirm the combined parts easier.
> - In stitching exposure, when plates overlap and are arranged so that there is no image loss in each plate's boundaries, there might be a slight gap in the marker position because of a minute difference in magnification. After taking this into account, confirm the combination position through the marker.

> ⚠ **WARNING**
>
> **Precautions for One Shot stitching exposure**
> - One Shot stitching exposure outputs the combined picture by correcting the images' overlapping part captured by DR panel. Depending on the capturing conditions, lateral stripes or decrease in contrast might occur in a correction area, or decrease in contrast might also occur if a structure horizontally long overlaps with the correction area. Make sure the correction area and the parts in an examination are not overlapping.
> - Make sure to observe the number of DR panels that are loaded in the stitching holder through the exposure screen before conducting the exposure.
>
> **Precautions for image measurements**
> - Sometimes the exposure orientation causes accidental errors with regard to the actual length of the subject. Use while taking into account any error between image and measured results.
>
> **Precautions when running HS/RS processing**
> - The noise is reduced by HS/RS processing, and you can expect signals that are unclear due to noise to become clearer, but signals that do not exist will not be visible.
> - When reviewing whether to reduce dosage by means of HS/RS processing, consider lowering the signal component by means of reducing dosage and always check whether images are suitable for diagnosis.
> - Applying the HS processing may result in unnatural images. Make sure to perform image verification to confirm if the application of this processing is suitable for diagnosis.

⚠ WARNING

Precautions when applying scattered radiation correction (IG) processing

- It is expected that scattered radiation correction processing will remove scattered radiation components and thus enhance subject contrast; however, it does not ensure that the same image quality as that which is generated when a grid is used will be obtained.
- Applying scattered radiation correction processing will not have any effect if the desired image is not contained in the original signals.
- Applying the scattered radiation correction processing may result in unnatural images. In particular, applying this processing to images for which grids were used may increase the contrast too sharply. Make sure to perform image verification to confirm if the application of this processing is suitable for diagnosis.
- Preset a tube voltage value that is close to the actual exposure conditions as the image processing parameter of the Exam. Tag.
- The S value after scattered radiation correction is calculated for the image whose scattered radiation was corrected. Therefore, it is larger than the S value of the image before scattered radiation correction.

Precautions on magnetic card reader

- Check that patient information read from a magnetic card is consistent with the information written in the magnetic card.
- Do not connect multiple magnetic card readers to a single device. It may cause malfunctions.
- Do not change the settings of the dip switch on the bottom of the magnetic card reader.

Precautions on bar code reader

- The reading window discharges a laser, so take care not to look in the laser or point the laser toward the eye. In addition, perform periodic inspection of the reading window.
- Laser is discharged during disassembly. Do not disassemble.

Precautions on blackening process for areas outside the exposure field

- In the blackening process for areas outside the exposure field, if the distance between the edge of the X-ray exposure field and the edge of the cassette is 3 cm or less, the masking function may fail to recognize the masking field. When using a collimator, set the edge of the X-ray exposure field to be sufficiently distant from the edge of the cassette. In addition, use preview on the [Output] tab or [Overlay] tab to check that the masking area is appropriately set before the image is output, and modify the masking area on the viewer screen if needed.

⚠ CAUTION

Notes on the chest wall blackening process

- Recognition of unexposed areas on the breast may be lost in the chest wall blackening process. Use preview on the [Output] tab or [Overlay] tab to check that the chest wall blackening area is not in the diagnosis area before the image is output, and set the chest wall blackening process to OFF on the viewer screen if needed.

Precautions on mammogram

- For United States of America, this device is not intended to use for Mammography.
- Use upon confirming that missing regions in images on the reception area and exposure field exceeding the reception area are within the allowable range. Also, make sure that additional information such as stamps do not overlap with the breast area in images.
- Confirm that additional information such as markers and stamps is not superimposed on the breast area.
- When displaying two mammograms on two frames, fine-tune and check the horizontal positions of the images.

Precautions for the use of the highlight function for the tube/gauze

- If the tube/gauze is difficult to identify on the image, adjust the highlight level. When the tube/gauze is highlighted too much, lower the highlight level.

Precautions when merging study images

- When studies are merged, their patient and study information are updated.

Precautions on the lung lack/motion blur detection function

- In images showing lesions, foreign substances, etc., lung lack or motion blur may be detected even when none exist.

Precautions on multi-study function

- Be careful since, in order for patient information to be determined automatically from the four information variables (patient ID, name, date of birth, and sex), a patient will not be treated as the same patient if the four variables differ.

⚠ **CAUTION**

Precautions for Web/Remote Desktop Linkup
- Do not use the Web/Remote Desktop Linkup for the following purposes:
  - Diagnosis of illnesses, prevention of illness, monitoring, treatment, or pain relief.
  - Diagnosis of injuries or physical disabilities, monitoring, treatment, pain relief, or corrective procedures.
  - Physiological or anatomical examinations, substitutions or corrections.
  - Control of conception.
  - Diagnosis, treatment, alleviation, or prevention of human or animal illness, abnormal physical conditions, or diagnostic signs of such illnesses or conditions.
  - Healing, modification, or adjustment of human or animal physical functions or anatomy.
  - Diagnosis of pregnancy.
  - Care for humans or animals during pregnancy, while delivering, or after birth, including for natal care and non-medicinal birth control.

Precautions on the login control mode
- Be careful of password management.

Precautions on REGIUS plates
- Frequency and duration of use of the REGIUS plates[*] are automatically monitored when they are scanned by the reader. The replacement schedule may not be properly managed if the plate is not used for an extended period of time. Therefore, use of the REGIUS plates as evenly as possible is recommended. (* Photostimulable phosphor plate for Konica Minolta computed radiography)

Precautions on high precision monitors
- Since a high precision monitor has a different aspect ratio from that of the exposure and viewer screens, when you enlarge, reduce, or move an image on the exposure or viewer screens, an image of a different area may be displayed on such a monitor.
- High precision mammographies are not displayed.

Precautions on the AeroDR Stitching Unit
- Always ensure the exposure ready LED (blue) of the AeroDR Stitching Unit is lit before performing an exposure. Additionally, do not press the first stage of the exposure switch until the exposure ready LED (blue) is lit.

⚠ **CAUTION**

Precautions on a stitching cassette
- There are small differences in magnification of images made with REGIUS plates which are adjacent within a stitching cassette. For this reason, overlapping parts of images made with REGIUS plates which are adjacent do not completely match. (When the exposure distance is 1.5 m, misalignment in the horizontal direction will be approximately 0.5 mm at maximum.)

Precautions on the grid
- For grid during exposure, use 34-60 lp/cm. When exposing with a grid other than specified, sometimes moire cannot be eliminated.
  - * For the DR Detector, the grid to be used is specified. Refer to the AeroDR Operation Manual for details.
- The grid removal process reduces the response of the frequency components that make up the grid image. The principle of this process is that the grid image uses a specific range of spatial frequencies. Therefore, part of the signal components of images other than the grid image may also be reduced if these images have signal components near the frequency range of the grid image. When you have performed exposure using a grid, check whether the images obtained by removing the grid are suitable for diagnosis.

Precautions when changing the exposure device
- When changing the device (for example, a wall stand reader to a table reader), different exposure conditions may have been set for the same body part depending on the settings of the body part that is created or edited by the user master. Therefore, carefully check both the body part and its exposure conditions before starting the examination.

Precautions when the image is used on a device other than the one used for output
- When using the image on another device for the purpose of measurement etc., check the consistency between the devices before use. In particular, care must be taken when decreasing the image size because some correction may be applied to the image depending on the reduction ratio.

Precautions on changing the reading area
- If annotation has been set for the image, changing the reading area will disable the annotation setting. Set annotation again.

⚠ CAUTION

Precautions when sending exposure setting

- When sending exposure setting to an external X-ray device, check the exposure conditions on the X-ray device. Be especially careful of X-ray exposure settings when performing an exposure on a small child.

Precautions when delivering an image from this device to other devices

- Confirm that additional information such as set annotation is correct.

Precautions for exposure with the DR Detector

- Before exposure, confirm on the screen of this device that the DR Detector is registered in the exposure room. Also, perform exposure after confirming that the DR Detector to be used for exposure has been selected.
- Do not leave the DR Detector in the vicinity of a heating device such as a heated carpet etc.

Precaution on exposure dose

- After exposure, S values are displayed in the image display areas of this device. Check that the S values indicate the appropriate dosage for exposed images.

Precautions when performing exposure in Aero Sync mode

- Confirm that the device is ready for exposure through its display before performing exposure.
- Confirm that a confirmation is sounded from the device after the start of exposure.
- Do not let the DR Detector vibrate or receive shock until the preview image is displayed.
- Confirm that the DR Detector's battery level is full before performing exposure.
- Use within the range of the pre-checked exposure conditions.
- Be aware that the exposure procedure must be changed in some cases when the settings are changed for the Aero Sync button or initial detection level. Be sure to press the Aero Sync button after changing the Aero Sync button setting from OFF to ON.
- If the Aero Sync button or initial detection level has not been set appropriately, a malfunction may occur due to the DR Detector being subjected to impact. Make sure values are changed appropriately.

Precautions on Aero Storage mode

- The exposure conditions Aero Storage Mode (resolution, sensitivity, maximum exposure time) behave according to fixed values set in advance. For details about the setting values, contact Konica Minolta technical representatives.

⚠ CAUTION

Precautions on the PDA

- Do not perform diagnosis with images displayed on the PDA.
- When a message "CS-7 is being manipulated." is displayed, be sure to check the image displayed on the CS-7.

Chapter 2

Product Overview

This chapter describes the overview of this device.

2.1 Overview of this device

This section describes the functions and system configuration example.
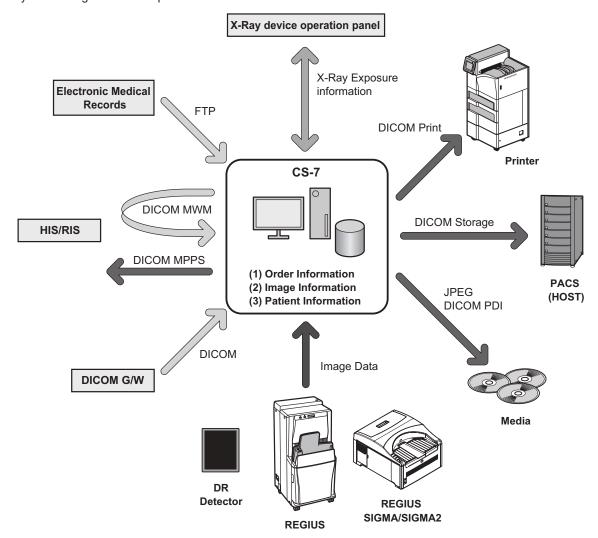
2.1.1 Functions

This device is a DIRECT DIGITIZER used with an image diagnosis device, medical imaging device and image storage device connected via the network.
This device digitally processes patient images collected by the medical imaging device to provide image and patient information.

2.1.2 System configuration example

The system configuration example is as shown below.

✐ **HINT** ···

• This device is intended to be connected to DR Detector or to REGIUS, REGIUS SIGMA/SIGMA2 as an input device, and to printer or PACS as an output device.

• For details on how to use DR Detector and REGIUS, REGIUS SIGMA/SIGMA2, refer to their respective operation manuals.

• 7 DR Detectors can be connected to this device.

• 15 REGIUS series can be connected to this device.

• Only a single REGIUS SIGMA/SIGMA2 unit can be connected to this device.

• A REGIUS series unit and a REGIUS SIGMA/SIGMA2 unit cannot be connected to this device at the same time.

···

Chapter 2
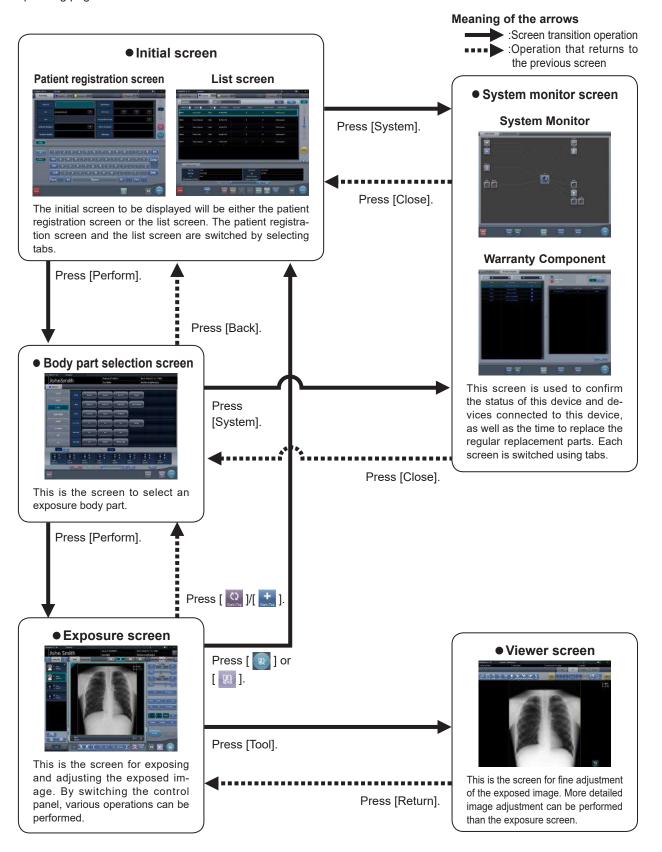
Chapter **3**

Description of Each Screen

This chapter describes the screen structure of this device,

and the function of each button on the screen, etc.

3.1 Screen connections

The following describes the connection between various screens and how they transition. For details, see the corresponding page in the manual for each screen.

Meaning of the arrows

➤ :Screen transition operation

▪▪▪➤ :Operation that returns to the previous screen

● **Initial screen**

Patient registration screen **List screen**

The initial screen to be displayed will be either the patient registration screen or the list screen. The patient registration screen and the list screen are switched by selecting tabs.

Press [System].

Press [Close].

● **System monitor screen**

System Monitor

Warranty Component

This screen is used to confirm the status of this device and devices connected to this device, as well as the time to replace the regular replacement parts. Each screen is switched using tabs.

Press [Perform].

Press [Back].

● **Body part selection screen**

This is the screen to select an exposure body part.

Press [System].

Press [Close].

Press [Perform].

Press [ ]/[ ].

● **Exposure screen**

This is the screen for exposing and adjusting the exposed image. By switching the control panel, various operations can be performed.

Press [ ] or [ ].

Press [Tool].

● **Viewer screen**

This is the screen for fine adjustment of the exposed image. More detailed image adjustment can be performed than the exposure screen.

Press [Return].

3.2 Patient registration screen

3.2.1 Structure of patient registration screen

This is the screen for inputting the patient information. The patient registration screen is displayed when the [PatientReg.] tab is selected from the main tabs.

Number	Name	Functions
(1)	Application bar	Date and time, operator name, exposure room name, icons of devices connected to this device are displayed. When the [🖥] icon is displayed in the leftmost position of the application bar, pressing the date and time display area hides the screen.
(2)	Sorting tab	There are 2 types of tab, the main tab and the sub tab. [PatientReg.] tab, [OrderList] tab and [Completed] tab are displayed in the main tab. In setting, one more sub tab can be added. When all tabs cannot be displayed within the screen, tab scroll buttons [◁ ▷] are displayed.
(3)	Input item area	This is the area to input patient information. Some items require input with the input panel (keyboard).
(4)	Display/hide button (Input panel)	Displays or hides the input panel display.

(5)	Tool bar area	[System]: The system monitor screen is displayed.
		Web/Remote Desktop Linkup:
		    The screen of the HOST or RIS linked to the Web/Remote Desktop is displayed.
		[Perform]: Runs the examination of the selected patient.
		[Mammo Print ON] and [Mammo Print OFF]:
		    This either enables mammogram printing (normal print mode) or enables the print composer.
		    Setting this to [ON] enables mammogram printing of the exposure screen (normal print mode). Setting this to [OFF] enables the print composer. The device switches between [ON] and [OFF] every time the button is pressed.

Number	Name	Functions
(6)	Scroll button	Pressing [ ] displays the next patient information, and pressing [ ] displays the previous patient information.
(7)	Clear button	The input patient information disappears.
(8)	Search button	Search begins with the input patient information.
(9)	trauma button	Automatically issues a number in emergency case in order to start the examination. This is displayed when the automatic emergency number issuing function is turned on with the user tool.

IMPORTANT ••

- Creating too many tabs makes it difficult to find the target tab and lowers the operability. Do not add more tabs than necessary.

••

HINT ••

- Display of the [System] icon changes according to the device status and other conditions. The meanings of the icons to be displayed are listed below.

System	The icon turns red when an error occurs in this device or in devices connected to it.	**System**	The icon turns yellow when it is time to replace the regular replacement parts.

- The name you have registered during installation is displayed as the name of the [Web Linkup] or [Remote Desktop Linkup] button.

••

3.2.2 Details of application bar

The date and time, operator name, exposure room name, icons of devices connected to this device, and so on are displayed in the application bar.

Date and time/operator name
display area

Device information
display area

Date and time/operator name display area

The current date and time is displayed in the date and time display area, and the operator name is displayed in the operator name display area.

When the [▣] icon is displayed on the left side of the date and time display area, press the date and time display area to hide it.

Date and time display area   Operator name display area

Device information display area

The device information display area of the application bar displays the device icons as well as the states (battery level and signal strength) of the DR Detectors registered in this device.

Signal strength

Battery level

Device icon

When an image display area has focus, a frame is displayed around the device information that corresponds to the image display area.

Frame indicating focus

● **Device icon display**

Icon	Device name
	Wall stand reader
	Table reader
	DR Detector
	AeroDR Stitching Unit

● **DR Detector battery level display**

Status	Battery level Low					High
Not being charged						
Charging						
Color of icon	Red		Yellow	Green		

● DR Detector signal strength display

Out of range	Wireless condition			Wired connection
	Bad		Good	

> **IMPORTANT** ··
>
> • We recommend that DR Detector be used when the radio signal strength display reads at least 2 bars.
>
> ··

> **HINT** ··
>
> • When there is a problem with connection or when the power is turned off, the device icon is displayed in gray.
> • When the image could not be received after exposure due to communication error, etc., the device icon is displayed with a yellow border.
> • The following device icon is displayed for DR Detectors in which an error was detected by the drop/impact panel check tool.
>
>
>
> ··
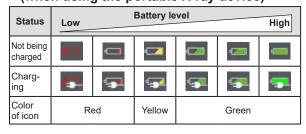
Device information display area when using the portable X-ray device

When this device is operated with the portable X-ray device, the network connection status, etc. are displayed on the application bar.

Signal strength
Network name
Battery level
Device icon

● Battery level display of this device (when using the portable X-ray device)

Status	Battery level					
	Low					High
Not being charged						
Charging						
Color of icon	Red		Yellow		Green	

● Signal status display of this device (when using the portable X-ray device)

	Out of range	Wireless condition		
		Bad		Good
Icon				
Color of icon	—	Red	Yellow	Green
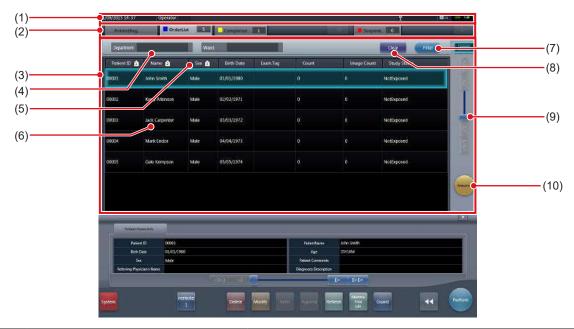
> **IMPORTANT** ··
>
> • We recommend that DR Detector be used when the radio signal strength display reads at least 2 bars.
> • If the battery charge drops to 5% or less, the system may enter a sleep state. If the battery icon turns red or the message that the battery level is low appears, please charge this device. If this device cannot be charged right away, shut down this device.
>
> ··

> **HINT** ··
>
> • The network name displayed when operating this device with the portable X-ray device is set during installation.
>
> ··

3.3 List screen

This is the screen where a list of examinations is displayed. When tabs other than the [PatientReg.] tab are selected on the sorting tab, the screen is always the list screen.

Number	Name	Functions
(1)	Application bar	Date and time, operator name, exposure room name, icons of devices connected to this device are displayed.
(2)	Sorting tab	There are 2 types of tab, the main tab and the sub tab. [PatientReg.] tab, [OrderList] tab and [Completed] tab are displayed in the main tab. In setting, one more sub tab can be added. When all tabs cannot be displayed within the screen, tab scroll buttons [◁ ▷] are displayed.
(3)	List display area	Examinations registered on each sorting tab are displayed.
(4)	Filter items	Keyword input column for refined display for the patient displayed in the tab.
(5)	Display item	Item names of examination information. Press [⬆ ⬇] displaying the item names, and lists can be sorted with the item names. [⬆] means ascending order and [⬇] means descending order. Combinations of up to 3 items can be specified for sorting. Items to display can be modified. For more details, contact Konica Minolta technical representatives.
(6)	Examination	Examinations registered with the tab are displayed. Focus is displayed in selected examinations.
(7)	Filter button	Refined display with input keywords for filtered items.
(8)	Clear button	The input keyword for filtered items disappears.
(9)	Scroll bar/scroll buttons	Drag the scroll bar to scroll a list up and down. Pressing [⬆ ⬇] scrolls the screen by line, and pressing [⬆ ⬇] scrolls by page.
(10)	trauma button	Automatically issues a number in emergency case in order to start the examination. This is displayed when the automatic emergency number issuing function is turned on with the user tool.

📝 **IMPORTANT** ••

• Creating too many tabs makes it difficult to find the target tab and lowers the operability. Do not add more tabs than necessary.

••

Number	Name	Functions
(11)	Display/hide button (Examination information display area)	Displays or hides the examination information display area.
(12)	Patient/Exam.Info tab	The tab is displayed when the examination information display area is displayed.
(13)	Examination information display area	The details of the examination are displayed.
(14)	Scroll bar/scroll buttons	Drag the scroll bar to scroll a list left and right. Pressing [◁ ▷] scrolls the screen by frame, and pressing [◁◁ ▷▷] scrolls by page.
(15)	Tool bar area	The operation button is displayed for a focused examination. [System]: The system monitor screen is displayed. Web/Remote Desktop Linkup: The screen of the HOST or RIS linked to the Web/Remote Desktop is displayed. [Delete]: Deletes the selected examination. [Modify]: Displays the information modification screen for the selected examination. [Refer]: Displays the examination history of the selected examination. [Append]: Adds the Exam. Tags to the completed examinations. [Refresh]: When connected to a higher system, refreshes lists. [Guard]: Disables deletion of the selected examination. Press again and protection is canceled. [Merge]: Combines the selected studies and moves images. [Perform]: Performs the selected examination. [Mammo Print ON] and [Mammo Print OFF]: This either enables mammogram printing (normal print mode) or enables the print composer. Setting this to [ON] enables mammogram printing of the exposure screen (normal print mode). Setting this to [OFF] enables the print composer. The device switches between [ON] and [OFF] every time the button is pressed.

> **HINT** ••
> - The name you have registered during installation is displayed as the name of the [Web Linkup] or [Remote Desktop Linkup] button.
> - At institutions higher systems and order collaboration is performed while collaboration for the termination of examinations is not performed with the higher system, the order that terminated an examination may be displayed again when [Refresh] is pressed. Please terminate the target examination on the higher system side when the order is displayed again.

- If output status is set for the displayed items, the list screen displays output device icons. The display of the output device icon changes depending on the device status as shown below:

Image output

Output	Not output/ Waiting to output	Output in process	Output failed

Storage Commitment output

Storage Commitment completed	Not output/ Waiting to output	Storage Commitment requesting	Storage Commitment failed

PRINT output

Output	Not output/ Waiting to output	Output in process	Output failed

Media output

Output	Not output/ Waiting to output

3.4 Body part selection screen

This is the screen to select the body part.

Number	Name	Functions
(1)	Application bar	Date and time, operator name, exposure room name, icons of devices connected to this device are displayed.
(2)	Patient information display area	Patient name, patient ID, date of birth, sex, etc. are displayed. The emergency mark is displayed for emergency patients, and the medical warning mark is displayed for pregnant patients or other patients who need extra care during X-ray exposure.
(3)	Favorite tab	When the set tab is selected, body part is displayed in the body part display area linked to the selected tab.
(4)	Body part display area	The exposure body part is displayed. With a maximum of 2 pages, each page can display up to 8 buttons at the same time.
(5)	Switching button (Body part display area)	Switches the pages of the body part display area. Maximum is 2 pages.
(6)	Exam. Tag display area	Exam. Tag for the selected body part is displayed.
(7)	Exam. Tag	This is the button to determine exposure conditions for the body part.
(8)	Switching button (Exam. Tag display area)	When there are multiple pages for the Exam. Tag display area, move pages by pressing [◁◁] or [▷▷].

Number	Name	Functions
(9)	Exam. Tags display area	Press the Exam. Tag to display the added Exam. Tags.
(10)	Exam. Tags	Exam. Tags and device icon are displayed. ↻ : Displayed when the Exam. Tags are changed on the exposure screen. + : Displayed when the Exam. Tags are added on the exposure screen.
(11)	Delete button	Deletes the selected Exam. Tags (focused Exam. Tags).
(12)	Scroll bar/scroll buttons	Drag the scroll bar to scroll the Exam. Tags display area left and right. Pressing [◁ ▷] scrolls the exposure body part list by frame, and pressing [◁◁ ▷▷] scrolls pages.
(13)	Append and move buttons	Moves the focus to the added Exam. Tag.
(14)	Tool bar area	During registration in the Exam. Tags display area, operation buttons are displayed for the focused examination. [System]: The system monitor screen is displayed. [Schedule]: Reserves the selected Exam. Tags (focused Exam. Tags). Pressing [Schedule] reserves the examination and displays the list screen. [Back]: Displays the list screen without reserving the examination. [Perform]: The exposure screen is displayed.
(15)	Tool bar area	Displayed when the exposure screen transitions to the Body Part Selection screen. [OK]: Displays the exposure screen. [Cancel]: Returns the display to the previous screen.

✎ **HINT** ••
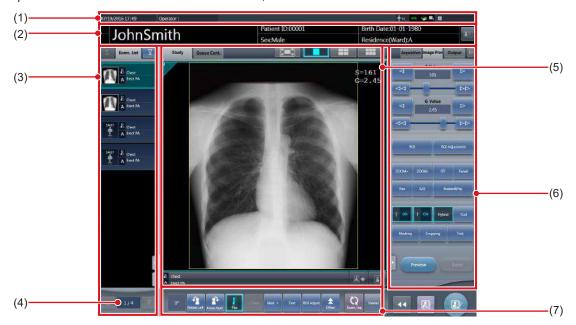
• When exposed, the exposed image thumbnails and Exam. Tags are displayed in the Exam. Tags display area.

• [Schedule] is not displayed in the tool bar area when the body part selection screen is displayed from the exposure screen.

• When moving the focus to the added Exam. Tag, press the move-to-add button, [➡□].
••

3.5　Exposure screen

This is the screen to perform exposure.

3.5.1　Structure of the exposure screen

The exposure screen consists of several areas. Here, each area is described.

Number	Name	Functions
(1)	Application bar	Date and time, operator name, exposure room name, icons of devices connected to this device are displayed.
(2)	Patient information display area	Patient name, patient ID, date of birth, sex, etc. are displayed. The emergency mark is displayed for emergency patients, and the medical warning mark is displayed for pregnant patients or other patients who need extra care during X-ray exposure. [🔲]: 　The patient information editing screen is displayed ([🔲] is not displayed when exposing with the multi-study).
(3)	Study display area	The order list or body part selection is displayed. The displayed details can be switched using tabs. Pressing [△ ▽] can move the display on an order by order basis. Pressing [⊼] moves the display to the starting order while pressing [⊻] displays the last order.
(4)	Currently selected order No./Number of orders	Displays the currently specified order of studies and the total number of studies.
(5)	Work area	Displays exposure conditions and exposed images, etc. The displayed details can be switched with tabs.
(6)	Control panel	Used when performing some operation on the image display area that has focus. The operation panel switches automatically depending on the content in the image display area that has focus, and it can also be switched by selecting tabs.
(7)	Tool bar	Displays various functions, and a shortcut to the control panel, etc.

(8)
(9)
(10)
(11)
(12)

Number	Name	Functions
(8)	Function button	[Rotate Left]: Turns the image to the left. **HINT** • The image is rotated by 90 degree to the left from the 360 degree position. [Rotate Right]: Turns the image to the right. **HINT** • The image is rotated by 90 degree to the right from the 0 degree position. [Flip]: Flips the image. When the image is flipped, the icon is in the selected state. [< Prev.]: Displays the previous image. [Next >]: Displays the next image. [Text]: The viewer screen is displayed. You can add an annotation. [ROI Adjust]: The viewer screen is displayed. You can change the ROI area.
(9)	Status display	Displays the current rotation status by the angle value.
(10)	Extended area display button	Function buttons more than the maximum number of function buttons that can be placed are stored. The stored function buttons pop up when the extended area display button is pressed. The following function buttons are set by default. [S/G Drag]: Switches to the operation mode used to adjust the S/G value. Pressing it again cancels the operation mode for adjustment. You can adjust the S and G values by dragging the image while the operation mode for adjustment is turned on. [Invert]: Inverts the black and white colors of the image.
(11)	Exam. Tag button	Changes or adds the Exam.Tag. The Exam. Tag buttons can be switched by pressing and holding this button. : Changes the Exam. Tag. : Adds the Exam. Tag.
(12)	Viewer button	The viewer screen is displayed.

HINT ••

• The patient information display area can be small-sized by setting. Emergency and medical warning marks are not displayed in the small-sized area.
• The Reject Image button may be displayed on the tool bar depending on the setting.
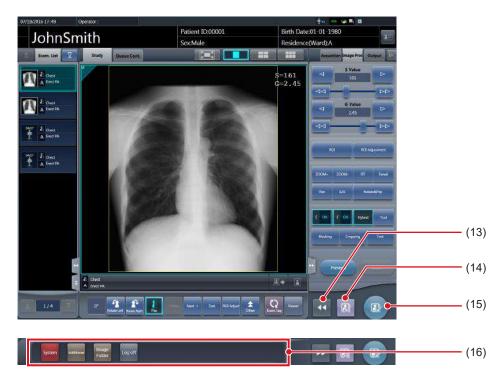
• The Free Rotation button may be displayed on the tool bar depending on the setting.

• The tool bar may also be displayed vertically on the right of the work area.
• Both of the Exam.Tag buttons may be displayed simultaneously depending on the setting.
• For the [Rotate Left] and [Rotate Right] buttons, you can configure the setting to switch whether to display both the buttons or display either one. If either one is displayed, hold down the button to switch to the other button.
• The types and locations of function buttons can be configured using the user tool.
• The tool bar can also be displayed on the side of the work area. For more details, contact Konica Minolta technical representatives.

••

Chapter 3
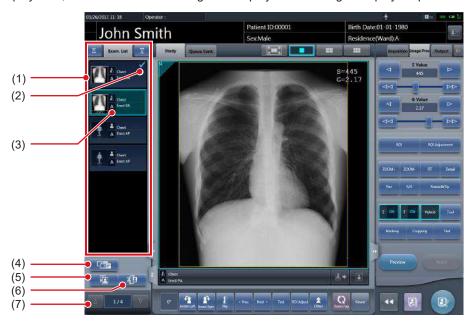
Number	Name	Functions
(13)	Display/hide button	Switches whether to display or hide the tool bar displayed at the bottom of the screen.
(14)	Pause button	Pauses the examination that has focus.
(15)	Examination completion button	Completes the examination and returns to the list screen.
(16)	Tool bar	[System]: The system monitor screen is displayed. [Additional]: Supplemental information edit screen is displayed. [ImageFolder]: [Image Folder] tab is displayed. [Log off]: Logs off. Will appear only in login mode.

3.5.2   Examination display area
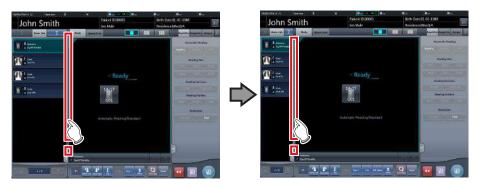
In the display area, order lists and Exam. Tags are displayed. Switching of displays is performed by selecting tabs.

Number	Name	Functions
(1)	Examination list	Displays reserved Exam. Tags.
(2)	Output mark	Check marks are displayed in the output image.
(3)	Exam. Tags	For Exam. Tags, exposure body part, exposure method and flip/rotate status are displayed.
(4)	Condition copy button	Copies the selected Exam. Tags.
(5)	Image copy button	Copies the selected image.
(6)	Image exchange button	Replaces the selected image.
(7)	Switching button (Exam. Tags)	Scrolls through the displayed Exam. Tags.
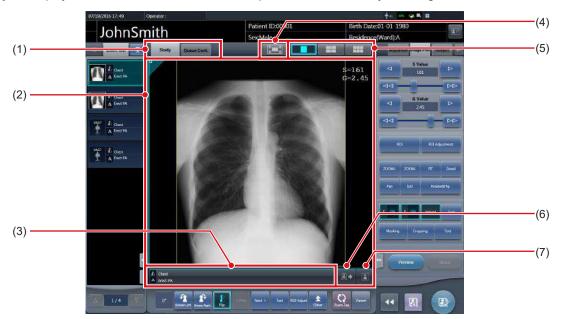
> ✐ **HINT** ....
>
> • You can change the width of the examination display area by dragging it. For more details, contact Konica Minolta technical representatives.
>
>
>
> • The Exam. Tag group names and Exam. Tag names can be displayed in colored characters. More information is described in the "CS-7 Operation Manual for User Tool".
>
> ....

3.5.3   Work area

In the work area, examination content (Exam. Tags and exposed images) and previews when sent to the host are displayed. Display of the examination content and the previews is switched by selecting tabs.

Number	Name	Functions
(1)	Study/Queue Cont. tab	Switches the display between the study content and the output preview.
(2)	Image display area	Displays exposed images after exposure, or exposure setting before exposure. When the [Queue Cont.] tab is selected, previews at the time of output are displayed.
(3)	Exam. Tags display area	Displays flip mark, output format, and Exam. Tags, etc. The meaning of the icons are listed below. 👤 : Not flipped 👤 : Flipped A : A format AB : AB format
(4)	Full-Screen button	Displays captured images on the full screen.
(5)	Screen display format switching button	Changes screen display format.
(6)	Output button	Outputs exposed images to the preset output destination. After output, the icon changes to [→👤].
(7)	Reject button	Sets an exposed image as rejected. After setting the image rejected, the icon changes to [✕].

✍ **HINT** ••

• The resolution of the exposure image can be displayed in the image display area by specifying the settings. For more details, contact Konica Minolta technical representatives.

••

HINT ••

- In the output preview, images are displayed in the order of transmission.

- In the output preview, rejected images are not displayed.
- The screen display format has a single-image format and a multiple-image format to display multiple screens in alignment. Single-image format is suitable for checking details of the image. Multiple-image format is suitable for comparing multiple images.

1×1 display screen	**2×2 display screen**	**3×2 display screen**

- The Reject button may also be displayed on the tool bar depending on the setting.
- If the 23 inch high field of vision LCD multi-touch monitor is used, the image display area is expanded to display a large view.
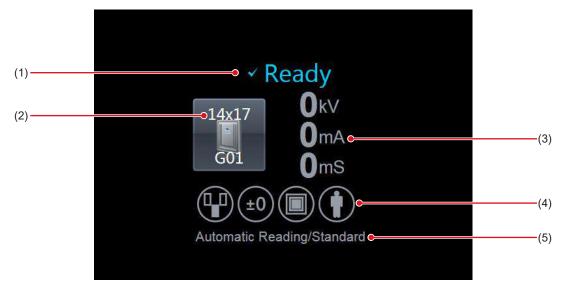
- The host output size and printer output size can be displayed in the image display area depending on the setting.

- If the image is trimmed, the actual output size is displayed in the host output size and printer output size.

••

3.5.4 Work area (not during exposure)

For work areas when unexposed, the type of exposure device, status, irradiation information, exposure conditions, etc. are displayed.

Number	Name	Functions
(1)	Status	Status of the DR Detector is displayed. This is not displayed when exposing with the CR cassette.
(2)	Device icon	The exposure device icon and the size of the DR Detector is displayed.
(3)	Exposure information	The exposure information during the exposure is displayed.
(4)	Exposure condition icon	Exposure condition is displayed as an icon.
(5)	Reading conditions	Reading conditions such as reading size, reading direction and resolution are displayed. When set to automatic reading, [Automatic Reading] is displayed.

📷 **IMPORTANT** ••

• When using AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ and a CR casette, be sure to check the resolution displayed in the reading conditions when exposure.

••

 HINT ··

- The design of the device icon varies depending on the type of a DR Detector used.

 AeroDR 3 1417HD   AeroDR 3 1717HD   AeroDR 3 1012HQ

 AeroDR 1417HQ
AeroDR 1417S
AeroDR 2 1417HQ
AeroDR 2 1417S   AeroDR 1717HQ   AeroDR 1012HQ

- Display of the device icon changes according to the device status. The meanings of the status to be displayed are listed below.

 Exposure is enabled.   The DR Detector is not registered or the DR Detector is loaded in the wall stand and table.
This icon is also displayed when the DR Detector is turned off.   Error occurs while communicating, or system is not immediately available.

- The device icon color can be changed for each DR Detector depending the settings.
  The available color types are as follows:

Blue   Orange   Light Blue   Pink

Each DR Detector retains the color setting information. If the same color is specified for multiple DR Detectors, the following icon is displayed to indicate the duplication.

For information regarding details on the color setting, contact Konica Minolta technical representatives.

- Displayed contents of the exposure setting and exposure condition icon are different depending on the manufacturer and model of the connected X-ray device.
- The maximum exposure time can be displayed on the right side of the reading conditions, depending on the settings. For more details, contact Konica Minolta technical representatives.
- The host output size and printer output size can be displayed in the image display area depending on the setting. If the image size is undetermined, [Unspecified] is displayed for the size.

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3.5.5　Types of control panels

On the control panel, adjustment items for exposure and a screen to adjust exposed images are displayed. Control panels basically switch automatically according to the operation objective and circumstances, but sometimes you need to switch them manually. The types of control panels are as follows.

Exp.Info: Exposure conditions

Image Proc: Image processing

Acquisition

AeroSync

QUICK

Exp.Info: Irradiation results

Output (For host)

Output (For printer)

Overlay (For host)

Overlay (For printer)

✎ **HINT** ••••••••••••••••••••••••••••••

• Up to three tabs are displayed on the control panels. If a desired tab is not displayed, press [◁ ▷] displayed on the tab and scroll it until the desired one is displayed.

• Hold down [◁ ▷] displayed on the tab for one second or longer to display the drop-down list of tabs. If you select a tab name from the list, the selected tab is displayed.

• You can fix the display of the desired tab.

••

3.5.6 Control panel (Exp.Info: Exposure conditions)

This is the control panel to perform setting of the X-ray device irradiation information (exposure conditions).
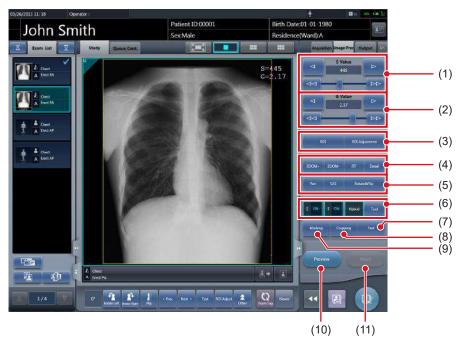
Number	Name	Functions
(1)	X-ray tube device temperature	Displays the temperature of X-ray tube.
(2)	Mode	Can switch between 2 point mode and 3 point mode. According to the switching, the display of "mA", "mS", and "mAs" changes.
(3)	kV, mA, mS, mAs setting button	Set the value of "kV", "mA", "mS", and "mAs" with [+] and [-] buttons.
(4)	PATIENT SIZE	Set the body type of patient.
(5)	FOCUS	Adjusts the size of focus area.
(6)	AEC button	Switches the mode of automatic exposure.
(7)	DENSITY button	Adjust the dosage of radiation by pressing [+] and [-] buttons or moving the slider.
(8)	Filter selection button	Select from the menu. The selection range varies according to the type.
(9)	SID display	Displays focal point - detector distance (cm).
(10)	Collimator Height/Width adjustment results	Displays the results of adjusting the height and width of collimator.

> **✎ HINT** ....
>
> • Items and content displayed by control panels vary according to the device type and the maker of connected X-ray devices.
> • The connected X-ray device exposure conditions will be displayed for every exposure conditions set key. The displayed exposure conditions can be altered before exposure.
> • X-ray exposure conditions can also be set from the operation panel of a connected X-ray device.
>
> ....

3.5.7   Control panel (Image Proc: Image processing)

This is the control panel to adjust images after exposure. Basic image adjustments such as change of S/G value, etc. can be made.

Number	Name	Functions
(1)	S Value slider/button	Adjusts the S value. Pressing [◁ ▷] increases or decreases the S value step by step. Pressing [◁◁ ▷▷] increases or decreases the S value in multiples of the preset value. The S value can also be adjusted by dragging the slider.
(2)	G Value slider/button	Adjusts the G value. Pressing [◁ ▷] increases or decreases the G value step by step. Pressing [◁◁ ▷▷] increases or decreases the G value in multiples of the preset value. The G value can also be adjusted by dragging the slider.
(3)	ROI/ROI Adjustment buttons	Press [ROI] and ROI is displayed. Press again and it is released. Press [ROI Adjustment] and the viewer screen is displayed.

(4)	ZOOM+/ZOOM-/FIT/Detail buttons	Changes the display method of the image that has focus.
		[ZOOM+]:
		  Switches to the zoom-in mode. Pressing it again cancels the zoom-in mode.
		  Pressing the image in the zoom-in mode enlarges the display 1 step at a time.
		[ZOOM-]:
		  Switches to the zoom-out mode. Pressing it again cancels the zoom-out mode.
		  Pressing the image in the zoom-out mode reduces the display 1 step at a time.
		[FIT]:
		  Displays the enlarged (or reduced) image to fit in the frame size (size of the image display area).
		[Detail]:
		  The viewer screen is displayed and the exposed image is displayed zoomed in.

Number	Name	Functions
(5)	Pan/S/G/Rotate&Flip buttons	They change screen display format. [Pan]: Switches to the pan mode. Press it again to cancel the pan mode. You can move a desired image by dragging it while the pan mode is turned on. [S/G]: Switches to the operation mode used to adjust the S/G value. Pressing it again cancels the operation mode for adjustment. You can adjust the S and G values by dragging the image while the operation mode for adjustment is turned on. [Rotate&Flip]: Press this button to display the screen to rotate and flip an image.
(6)	E process/F process/Hybrid/Tool buttons	Performs the process when pressed.
(7)	Text button	The viewer screen is displayed. Place the annotation.
(8)	Cropping button	The viewer screen is displayed, so set the effective image area manually.
(9)	Masking button	The viewer screen is displayed, so set the masking area manually.
(10)	Preview button	Displays a preview image in which the set output conditions are reflected.
(11)	Reset button	Returns to the state when image was displayed.

3.5.8   Control panel (Acquisition)

This is the control panel to perform setting of automatic read and reading conditions.

Number	Name	Functions
(1)	Automatic Reading button	Change the automatic read settings of the DR Detector. [Size/Pos.]: The reading size, reading direction, and reading position are automatically set. [Position]: The reading position is automatically set. Select the reading size/direction using the Reading Size button/Reading Direction button. [OFF]: Turns the automatic reading settings off. Select the reading size/direction/position using the Reading Size button/Reading Direction button/Reading Position button.
(2)	Reading Size button	Specify the reading size.
(3)	Reading Direction button	Specify the reading orientation (portrait/landscape).
(4)	Reading Position button	Specify the reading position.
(5)	Resolution button	Specify the reading resolution when using the AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ and a CR casette.
(6)	Maximum Exposure Time button	Change the maximum exposure time. [Maximum Exposure Time]: displays the current maximum exposure time. [Default]: sets the value set to the Exam. Tag. [Longer]: sets the time that is one stage longer than the value set to the Exam. Tag.

IMPORTANT ••

- In the case of CR cassettes, "Standard" (175µm) or "High" (87.5µm) can be selected. The resolution in the case of Exam. Tag for mammograms is however 87.5µm for "Standard" and 43.75µm for "High".
- In the case of AeroDR 1417HQ, AeroDR 1417S, AeroDR 1717HQ, AeroDR 1012HQ, AeroDR 2 1417HQ, or AeroDR 2 1417S, the resolution is set to "Standard" (175µm). It is not possible to select the resolution.
- In the case of AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ, "Standard" (200µm) or "High" (100µm) can be selected.
  When "High" (100 µm) is selected, the image size is approximately 3 times that of the 175 µm DR Detector. Confirm the operating environment before selecting this option.
- In some cases the maximum exposure time is fixed by the X-ray device and is not displayed. For more details, contact Konica Minolta technical representatives.
- The maximum exposure time of the One Shot stitching exposure using the maximum exposure time button differs from that of normal exposure.

•••

HINT •••

- You can display Maximum Exposure Time button by setting it using the service tool. For more details, contact Konica Minolta technical representatives.
- After performing an exposure, the reading conditions set when the exposure was performed are displayed in white, bold characters.

Before   After

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3.5.9   Control panel (Aero Sync)

When exposing via Aero Sync mode, use this control panel to perform various operations and configure various settings.
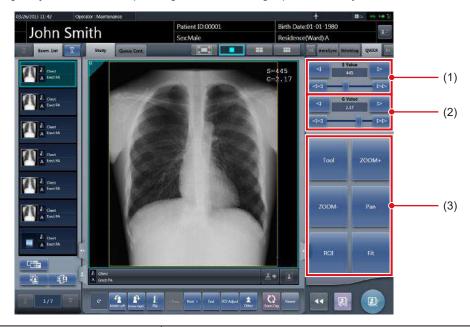
Number	Name	Functions
(1)	X-ray detection level switching area	Select the X-ray detection level during exposure. This may not be displayed depending on the type of DR Detector used.
(2)	Message/Button area	Messages and buttons are displayed in this area depending on the operation status. **When the [AeroSync Button] is set to ON on the system monitor screen** **Exposure permission waiting screen** The device is waiting for permission for exposure. The screen changes to the ready-to-expose screen if you press [AeroSync]. **Ready-to-expose screen** The screen is locked as it is ready to be captured. To cancel exposure, press [Cancel], then the screen returns to the exposure permission waiting screen. **When the [AeroSync Button] is set to OFF on the system monitor screen** **Ready-to-expose screen** The screen is locked as it is ready to be captured. To suspend exposure, press [Pause], then the screen returns to the exposure permission waiting screen. **Exposure resumption waiting screen** The device is waiting for exposure to be resumed. The screen changes to the ready-to-expose screen if you press [Restart].

📝 **IMPORTANT** ....

• The X-ray detection level switching area may not be displayed depending on the type of DR Detector used.

....

3.5.10   Control panel (QUICK)

This control panel can customize the button types and their layouts according to the function used. This control panel is mainly used for image adjustments when operating this device using a portable X-ray device.
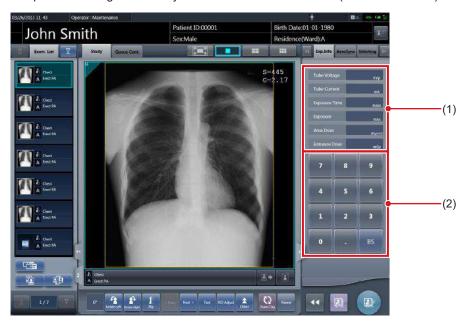
Number	Name	Functions
(1)	S Value slider/button	Adjusts the S value. Pressing [◁ ▷] increases or decreases the S value step by step. Pressing [◁◁ ▷▷] increases or decreases the S value in multiples of the preset value. The S value can also be adjusted by dragging the slider.
(2)	G Value slider/button	Adjusts the G value. Pressing [◁ ▷] increases or decreases the G value step by step. Pressing [◁◁ ▷▷] increases or decreases the G value in multiples of the preset value. The G value can also be adjusted by dragging the slider.
(3)	Custom area	Select a button from among [ZOOM+], [ZOOM-], [Pan], [Fit], [ROI], [Text], [ROI Adjustment], [Rotate&Flip], [Free Rotation], [E Process], [F Process], [H Process], [Tool], [Masking], [Cropping], [Contrast Invert], [Tube/Gauze], [S/G Value], [Preview], [Detection display], [IG] and [Grid] displayed depending on the setting to display each function. The button types and layout can be customized according to which functions you use. [Contrast Invert]: Reverses black and white on the output image.

> **✎ HINT** ••
> - Contrast invert is a function for checking the image on the screen. It has no effect on the output.
> - The S Value slider/button and G Value slider/button are always displayed.
> - In the custom area, you can display the shortcut to the control panel.
> - [Grid] button can be used only when display the serial exposure image.
> ••

3.5.11 Control panel (Exp.Info: Irradiation results)

This is the control panel to perform setting of the X-ray device irradiation information (irradiation results).
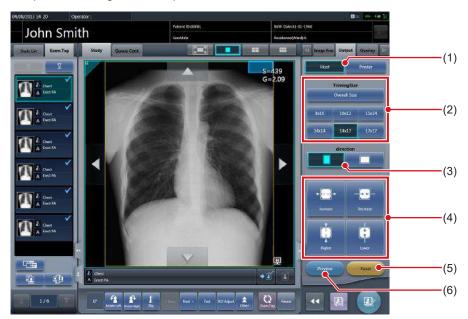
Number	Name	Functions
(1)	Irradiation result value	Displays irradiation result value.
(2)	Numerical keypad	Numerical keypad for inputting result values.

🖉 **HINT** ....

• If irradiation results could not be acquired from the X-ray device, the values are not displayed.

• Use this control panel when resetting of irradiation results is necessary after exposure.

....

3.5.12   Control panel (Output - for host)
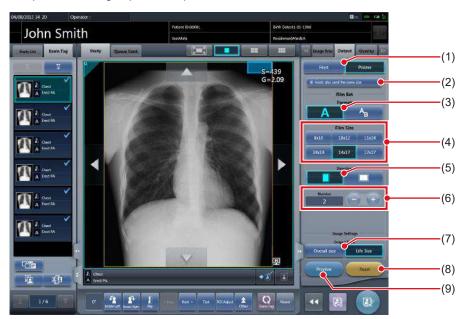
This is the control panel to perform setting of host output conditions.

Number	Name	Functions
(1)	Host/Printer switch button	Switches output conditions for host and for printer.
(2)	TrimmingSize button	Select the trimming size.
(3)	direction button	Switches the orientation between portrait and landscape when trimming.
(4)	Size adjustment button	Adjusts size of trimming frame. Each time you press each button for the width and height, the size of the trimming frame changes.
(5)	Reset button	Returns to the state when image was displayed. Only trimming size is reset.
(6)	Preview button	Displays a preview image in which the set output conditions are reflected.

3.5.13 Control panel (Output - for printer)

This is the control panel to perform setting of printer output conditions.
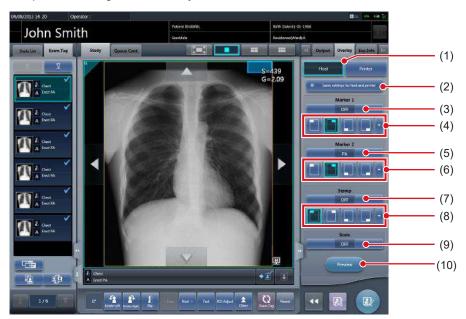
Number	Name	Functions
(1)	Host/Printer switch button	Switches output conditions for host and for printer.
(2)	Hosts also send the same size	Press this button when sending the same output conditions set for printer for host.
(3)	Format button	Select the format for output. Select from A format and AB format.
(4)	Film Size button	Select the film size.
(5)	Direction button	Switches the orientation between portrait and landscape when outputting.
(6)	Number	Set the number of output with [+] and [-]. It can be set in the range from 1 to 9.
(7)	Output Type button	Select the output type.
(8)	Reset button	Returns to the state when image was displayed. Film Size and number of sheets are reset.
(9)	Preview button	Displays a preview image in which the set output conditions are reflected.

> **HINT** ....
>
> • If [Reset] is pressed while pressing [Hosts also send the same size], the image (trimming size) to be sent by the host is also reset.
>
> ....

3.5.14   Control panel (Overlay - for host)
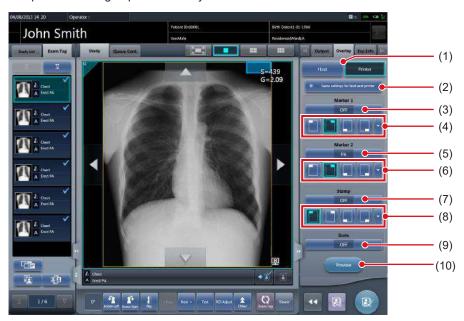
This is the control panel to perform setting of host overlay.

Number	Name	Functions
(1)	Host/Printer switch button	Switches overlay for host and for printer.
(2)	Same settings for host and printer	Press this button when sending the same overlay conditions set for host to printer. Not displayed when the printer is not registered as the output device.
(3)	Marker 1 selection button	Set the marker to display.
(4)	Marker 1 position button	Set the position of the marker to display.
(5)	Marker 2 selection button	Set the marker to display.
(6)	Marker 2 position button	Set the position of the marker to display.
(7)	Stamp selection button	Set the stamp to display.
(8)	Stamp position button	Set the position of the stamp to display.
(9)	Scale selection button	Select type of scale or grid.
(10)	Preview button	Displays a preview image in which the set overlay content is reflected.

3.5.15   Control panel (Overlay - for printer)
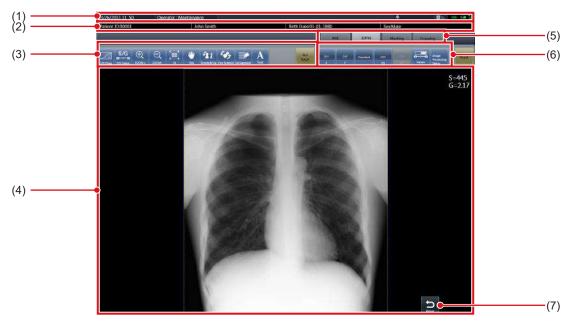
This is the control panel to perform setting of printer overlay.

Number	Name	Functions
(1)	Host/Printer switch button	Switches overlay for host and for printer.
(2)	Same settings for host and printer	Press this button when sending the same overlay conditions set for printer to host. Not displayed when the host is not registered as the output device.
(3)	Marker 1 selection button	Set the marker to display.
(4)	Marker 1 position button	Set the position of the marker to display.
(5)	Marker 2 selection button	Set the marker to display.
(6)	Marker 2 position button	Set the position of the marker to display.
(7)	Stamp selection button	Set the stamp to display.
(8)	Stamp position button	Set the position of the stamp to display.
(9)	Scale selection button	Select type of scale or grid.
(10)	Preview button	Displays a preview image in which the set overlay content is reflected.

3.6 Viewer screen

This is the screen to perform image adjustment. More detailed image adjustment can be performed than the image adjustment on the exposure screen.

Number	Name	Functions
(1)	Application bar	Date and time, operator name, exposure room name, icons of devices connected to this device are displayed.
(2)	Patient information display area	Patient name, patient ID, date of birth, and sex, etc. are displayed.

(3)	Tool bar (a)	[S/G Drag]: Adjust the S and G values by dragging the image.
		[S/G Value]: Adjusts S value and G value.
		[ZOOM+]:
		  Switches to the zoom-in mode. Pressing it again cancels the zoom-in mode. Pressing the image in the zoom-in mode enlarges the image 1 step at a time.
		[ZOOM-]:
		  Switches to the zoom-out mode. Pressing it again cancels the zoom-out mode. Pressing the image in the zoom-out mode reduces the image 1 step at a time.
		[Fit]:
		  Displays the enlarged (or reduced) image to fit in the frame size (size of the image display area).
		[Pan]: Moves the image.
		[Rotate&Flip]: Rotates/flips the image.
		[Free Rotation]: The [Free Rotation] screen appears enabling the image to be rotated freely.
		[Grid Suppression]: Performs grid removal.
		[Text]: Annotation is added/edited.
		[ALL Reset]:
		  Resets all operations and restores the system to the status in which the image was displayed.

(4)	Image display area	Images to adjust are displayed.
(5)	Tool bar tab	Switches various adjustment functions.
(6)	Tool bar (b)	Tools related to the selected tool bar tab are displayed.
(7)	Return button	Returns to the previous screen.

HINT ···

- The Return button may be displayed within the tool bar (a) depending on the setting. For more details, contact Konica Minolta technical representatives.

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Chapter 3
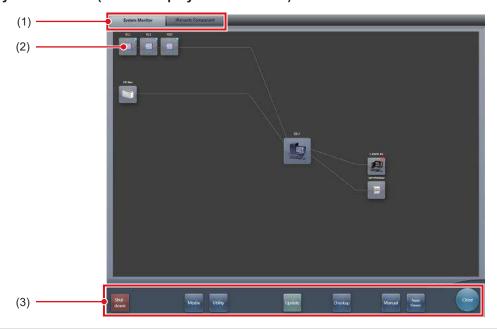
3.7 System monitor screen

3.7.1 System Monitor
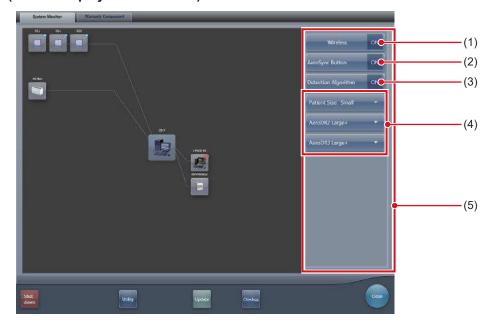
This is the screen to confirm status of this device and machinery connected to this device. The button display area is shown or hidden depending on the setting.

● **System Monitor (Button display area is hidden)**

Number	Name	Functions
(1)	Function switching tab	Switches between the [System Monitor] and [Warranty Component] tabs.
(2)	Devices connected to this device	Displays icons of device, etc. connected to this device.
(3)	System menu	Starts a utility or shuts down the system. This is displayed regardless of tabs being selected. [Shut down]: Shuts down this device. [Media]: The media output screen is displayed. [Utility]: 　Starts utilities. This button is not displayed if the user authorization of 　the logged-in operator is "Technologist". [Update]: Refreshes information. [Checkup]: Displays the checkup setting screen. [Manual]: 　The "CS-7 Operation Manual" is displayed. This button is not displayed 　if the manual file is not deployed. [TeamViewer]: Displays the TeamViewer startup button. [Close]: 　Exits the system monitor screen, and the previous screen is displayed.
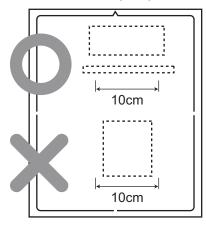
● **System monitor (Button display area is shown)**

Number	Name	Functions
(1)	Wireless button	Switches the wireless communication of the DR Detector between allowed and prohibited. Wireless ON : This is displayed when the wireless communications allowed. Wireless OFF : This is displayed when the wireless communication is prohibited.
(2)	AeroSync button	Displayed only in Aero Sync mode. Sets whether or not the AeroSync button is to be operated when starting examination or exposure. Turn this on when [Large] is selected.
(3)	Detection Algorithm button	Displayed only in Aero Sync mode. Turn it on when enabling detection selection processing.
(4)	Initial detection level	Sets the X-ray detection level at the time of starting examination or exposure. The buttons shown differ depending on the type of DR Detector used.
(5)	Button display area	This area displays the wireless button, Aero Sync button, detection algorithm button, and initial detection level.

Chapter 3

⬚ IMPORTANT ••

- Switch the wireless communications function from off to on while the DR Detector is in the wired connection condition.
- If the AeroSync button, or initial detection level is set inappropriately, malfunction may be caused by a shock to the DR Detector. Make sure values are changed appropriately.
- Be aware that the procedure for exposure must be changed in some cases when the settings are changed for the AeroSync button, or initial detection level. Be sure to press the AeroSync button after changing the button setting from OFF to ON.
- If the setting for the initial detection level is changed while an examination is in progress, the setting is not applied until the examination is complete.
- The detection selection processing is a function that reduces malfunctions caused by impacts applied to the DR Detector. When enabling detection selection processing, an area 10 cm or longer in length in the crosswise direction of the DR Detector must be irradiated by X-rays. You can enable detection selection processing when the above condition is met.

- The settings for the initial detection level and detection algorithm may not need to be configured depending on the type of DR Detector used.

•••

HINT

- Perform shutdown of this device on this screen.
- The display of the device icon changes as follows depending on device status.

AeroDR

| Normal | Normal | Not connected | Save images in DR Detector |

REGIUS 170/190/210

| Normal | Processing | Power off or in standby mode | Error |

REGIUS 110/110HQ

| Normal | Processing | Power off or in standby mode | Error |

REGIUS SIGMA/SIGMA2

| Normal | Processing | Power off or not connected | Error |

- When the AeroDR UF cable and I/F cable for which device information settings have been configured are connected to the DR Detector, the DR Detector icons change to the icons for this device configured.

- During manual display, the following manual display dialog is displayed. This dialog can be moved to any desired position.

- The wireless button, AeroSync button, detection algorithm button, and initial detection level can be shown or hidden depending on the setting. For more details, contact Konica Minolta technical representatives.

3.7.2   Warranty Component

This is the screen to check type and status of regular replacement parts when the time for replacement comes.

Number	Name	Functions
(1)	Function switching tab	Switches between the [System Monitor] and [Warranty Component] tabs.
(2)	Display selection menu	Selects the type of replacement unit or replacement unit status.
(3)	Replacement unit list	Displays the reader name, replacement unit, and status.
(4)	ON/OFF switching button (Replacement Notice)	Switches the replacement notification function on/off.
(5)	Unit usage status display	Displays the usage status and replacement estimation of the replacement unit chosen from the list.
(6)	Edit button	Used by service engineers to edit the information about the replacement unit. This button is not displayed in the login mode.
(7)	System menu	Starts a utility or shuts down the system. This is displayed regardless of tabs being selected. [Media]: The media output screen is displayed. [Utility]: Starts utilities. This button is not displayed if the user authorization of the logged-in operator is "Technologist". [Update]: Refreshes information. [Checkup]: Displays the checkup setting screen. [Manual]: The "CS-7 Operation Manual" is displayed. This button is not displayed if the manual file is not deployed. [TeamViewer]: Displays the TeamViewer startup button. [Close]: Exits the system monitor screen, and the previous screen is displayed.

Chapter **4**

General Operations
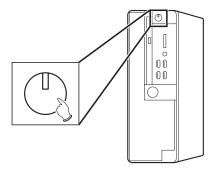
This chapter describes general operation methods of this device.

4.1 Startup and shutdown

4.1.1 Startup of this device

Perform the following procedure when starting up this device.

1 **Turn on the power for X-ray devices, etc. connected to this device.**

2 **Turn on the power of the monitor.**

3 **Press the power switch on this device.**

- Startup messages are displayed sequentially.
- Internal system initialization is performed while the system startup screen is displayed.
- Upon completion of initialization, the initial screen (patient registration screen or list screen) is displayed, and this device is ready for operation.

Patient registration screen
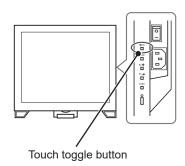
List screen

📋 **IMPORTANT** ·································

- When sharing a REGIUS among several units of this device, start the unit with the JM installed first; after confirming startup of this unit, start the other units.
- The touch panel may not respond if the monitor is turned on after this device has completed the startup. If the touch panel does not respond, turn on the monitor again.
- The 17" monitor has a touch toggle button at the top of the operation buttons at the next to the monitor frame. If this button is pressed by mistake and the touch operation is disabled, press the button again to enable the touch panel function.
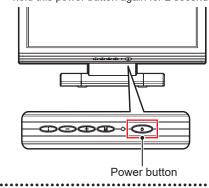
Touch toggle button

··································

HINT ••••••••••••••••••••••••••••••••

- The software version is displayed on the system startup screen. Initialization will be completed a few minutes after turning on the power.
- A progress bar is displayed on the system startup screen, indicating the status of the system initialization process.

- During startup processing, if startup could not be completed for any reason, an error message will be displayed, and the system will transition to shutdown processing.
- The patient registration screen will be displayed by default. For the second startup and thereafter, the screen displayed at the last shutdown will be displayed.
- In cases where a device like REGIUS is connected to this device and the power is linked, when the power for this device is turned on, the power for connected devices is also turned on.
- The position of the power switch varies according to the personal computer you are using. Refer to the product operation manual for details.
- To turn off the power to the 19 inch high field of vision LCD multi-touch monitor, press and hold the power button on the right side of the front panel for 2 seconds. To turn on the power to the monitor, press and hold this power button again for 2 seconds.

Power button

••

4.1.2 Shutdown of this device
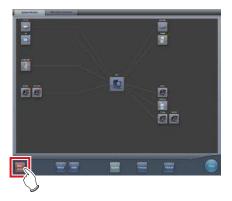
Perform the following procedure from the initial screen when shutting down this device.

1 Press [System].

- The system monitor screen is displayed.
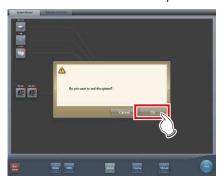
2 Press [Shut down] on the system monitor screen.

- A confirmation screen is displayed.

3 Press [OK].
- To cancel the system shutdown, press [Cancel], and then press [Close] on the system monitor screen. Shutdown operation will be aborted and the screen will return to the previous screen.

Chapter 4

- The shutdown screen will be displayed, and shutdown processing of this device will be carried out. After a short time, the power will be automatically turned off.

4 **Turn off the power for X-ray devices, etc. connected to this device.**

📝 IMPORTANT •••••••••••••••••••••••••••••••••

- When turning the power of this device off, always follow the above procedure. Do not turn off the power with the power switch. Doing so may result in data loss or damage to the system software.
- When sharing a REGIUS among several units of this device, shut down all units connected to the JM before turning off the power of the unit with the JM installed.
- When shutdown coordination is set on this device and the DR Detector, the DR Detector is not turned off automatically if the AeroDR Interface Unit, AeroDR Interface Unit2, AeroDR Portable RF Unit, AeroDR Portable RF Unit2, AeroDR Portable UF Unit, and small-size access point are turned off before this device is turned off.

•••

✏️ HINT •••••••••••••••••••••••••••••••••

- In cases where a device like REGIUS is connected to this device and the power is linked, when the power for this device is turned off, the power for connected devices is also turned off, or it shifts to sleep status.
- If this device has been continuously operated for one week without being turned off, a message prompting for this device restart is displayed. Restart this device by following the message.

•••

4.1.3 Link to connected devices

Startup and shutdown of devices connected to this device can be linked.
Devices that can be linked, and processing details are as follows.

● **Connected devices and link details**

Connected devices	Details to link
DR Detector	The DR Detector stops, linked to the shutdown processing of this device.
REGIUS 110, REGIUS 110 HQ, REGIUS 170, REGIUS 190, REGIUS 210	Each device recovers from sleep or transitions to sleep, linked to the startup/shutdown processing of this device.

4.2 Login control

4.2.1 Login screen

It is possible to set a login screen that requires input of user name and password when starting operations of this device, or when resuming operations after returning from screen saver.

Login screen


```
   HINT   ·······································
```
- When the automatic login function is used, you are automatically logged in when this device starts up and the initial screen can be displayed.
- If LDAP login authentication has been enabled, the domain input field is displayed on the login screen.


```
·············································
```

4.2.2 Login

When using login mode, log in with the following procedure.

1 **Input user ID and password, then press [Login].**

- The initial screen is displayed.

```
   HINT   ·······································
```
- Depending on settings, users can log in to this device by waving their IC cards over the IC card reader. Refer to "CS-7 Operation Manual for User Tool" for more information.

```
·············································
```

4.2.3   Logoff

Logoff is performed when switching users and so forth. Press [◀◀] to display the tool bar that is displayed at the bottom of the screen, then follow the procedure described below to log off.

1   Press [Logoff].

• Logging off.
• After logoff, the login screen is displayed.

> 🔅 **HINT** ....
> • [Logoff] cannot be pressed until an image is acquired from a reader device and the actual image is displayed.
> • When [Logoff] is pressed during an examination, a message stating that the examination is paused is displayed. Press [OK] on the confirmation screen to log off, pausing the examination.
> ....

4.2.4   Switch of operators

When 2 or more operator names are registered, their names can be switched. Operator names can be switched only when the automatic login function is enabled.

1   Press [Operator] in the application bar.

• The operator name selection screen is displayed.

2   Press the operator name to switch to it.

• The operator names are switched.

> 🔅 **HINT** ....
> • When using certain settings, the login user name and the operator name can be synchronized.
> ....

4.2.5 Access right of operators

Available functions are limited depending on authorization level of the operator. Operation details for each authorization are as follows.

✓: Can be operated

Authorization Target screen and operation	Administrator	Super user	Technologist
System monitor screen • Display or hide [Media] on the system menu.	✓	✓	✓
System monitor screen • Display or hide [Shut down] on the system menu.	✓	✓	✓
System monitor screen • Hide [Utility] on the system menu.	✓	✓	
User tool screen • Enable "user management function" and "user log management" as user tools.	✓		

> **IMPORTANT** ••
>
> • When logged in with the automatic login function, authorization becomes "Administrator".
> ••

4.2.6 Operation history

Operation history of operators is recorded. The following contents will be recorded.

Recorded contents	
Date when an event occurred	Access right of the operator logged in when the event occurred
Time when the event occurred	Event that occurred
User name logged in when the event occurred	Details of the event
Operator name logged in when the event occurred	-
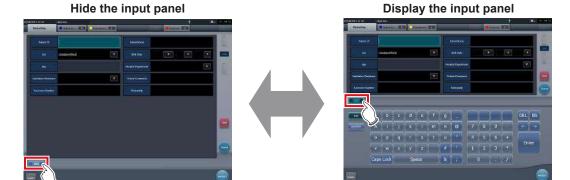
> **HINT** ••
>
> • Operation history is available only for an operator with "Administrator" authorization.
> • Refer, save, and delete can be performed with "user tool".
> ••

Chapter 4

4.3 Input panel display

There are 2 types of input panel displayed on the screen, and you can input characters by pressing buttons. You can input alphanumeric characters.

● **Display the input panel**
Press the button for switching the input panel display.

Hide the input panel	**Display the input panel**
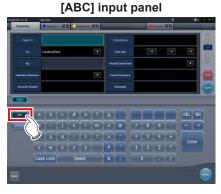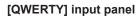
The display switches every time the button for switching the input panel display is pressed.

● **Input alphanumeric**
Press [ABC] or [QWERTY].

[ABC] input panel	**[QWERTY] input panel**

Letters are displayed in alphabetical order, or in the order on a keyboard.

4.4　Registration of the DR Detector

The DR Detector will be automatically registered when it is inserted into an AeroDR Battery Charger/AeroDR Battery Charger2 or connected to an Wired cable.

1　Insert the DR Detector into the AeroDR Battery Charger/AeroDR Battery Charger2. Alternatively, connect the DR Detector to an Wired cable.

- The DR Detector is registered.

2　Check registration of the DR Detector in the icon display of the application bar.

- When registered normally, the DR Detector icon is displayed in the application bar.
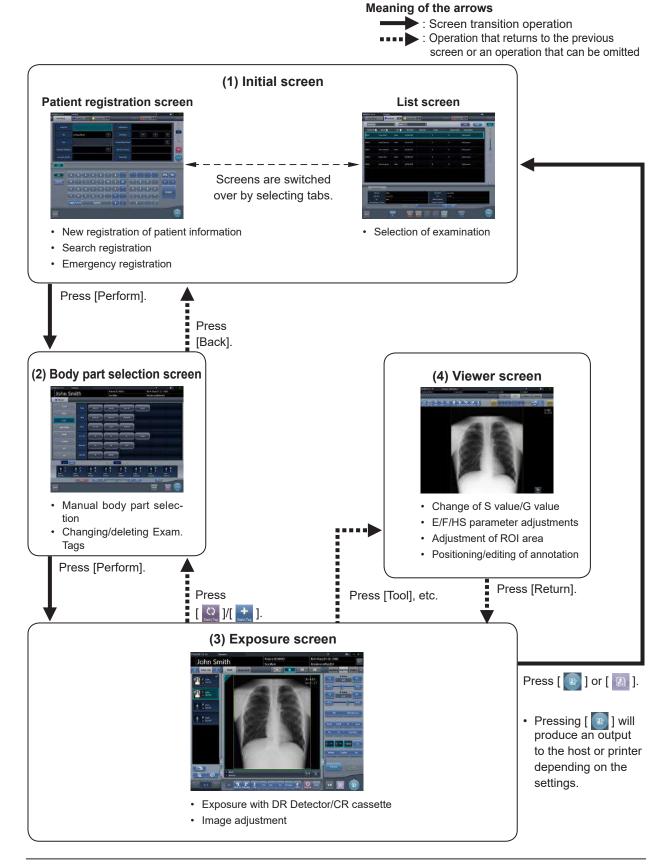
Chapter 5

Sequence of Examination

This chapter describes the operation steps

for examination procedures performed with this device.

5.1 Screen transition of examinations
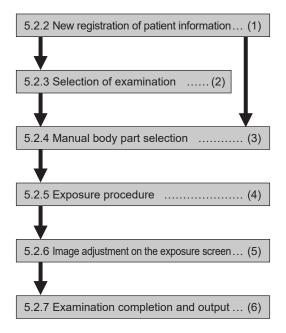
The following describes the screen transition from examination registration to examination end and the typical operations performed in each screen.

Meaning of the arrows

→ : Screen transition operation

▪▪▪▶ : Operation that returns to the previous screen or an operation that can be omitted

(1) Initial screen

Patient registration screen

← → Screens are switched over by selecting tabs.

List screen

- New registration of patient information
- Search registration
- Emergency registration

- Selection of examination

Press [Perform].

Press [Back].

(2) Body part selection screen

- Manual body part selection
- Changing/deleting Exam. Tags

Press [Perform].

Press [🔄]/[➕].

(4) Viewer screen

- Change of S value/G value
- E/F/HS parameter adjustments
- Adjustment of ROI area
- Positioning/editing of annotation

Press [Tool], etc.

Press [Return].

(3) Exposure screen

- Exposure with DR Detector/CR cassette
- Image adjustment

Press [🖥] or [🖨].

- Pressing [🖥] will produce an output to the host or printer depending on the settings.

5.2 Exposure procedure with DR Detector (Basic connection)

5.2.1 Exposure procedure flow

The following describes the basic flow of exposure procedure using the DR Detector. See each item for detailed procedures.

```
5.2.2 New registration of patient information … (1)
                    │
                    ▼
5.2.3 Selection of examination     …… (2)
                    │
                    ▼
5.2.4 Manual body part selection   ………… (3)
                    │
                    ▼
5.2.5 Exposure procedure    ………………… (4)
                    │
                    ▼
5.2.6 Image adjustment on the exposure screen … (5)
                    │
                    ▼
5.2.7 Examination completion and output … (6)
```

Number	Task
(1)	Perform a new patient registration in the patient registration screen.
(2)	Select the examination target in the list screen.
(3)	Set the exposure body part and exposure condition.
(4)	Press the exposure switch.
(5)	Adjust the exposed images after exposure. Change the S value/G value, move the ROI area, etc.
(6)	When all exposures are finished, the examination is completed. Image is simultaneously and automatically output upon examination completion. (depending on the settings)

5.2.2   New registration of patient information

New registration of patient information is performed with the patient registration screen. Select the [PatientReg.] tab on the initial screen to display the patient registration screen.

1   Press the column for the patient ID.

2   Press the input panel, and input the patient ID.

3   Press [Enter].

4   Input patient name, sex and date of birth.

- After each inputting item, press [Enter].
- If you press [Enter], the cursor will move to the next item.

> **HINT**
> - If the length of an entry exceeds the dimensions of the display pane of the item or if the entry spreads across multiple lines, the long-sentence comment pop-up button [...] is displayed.

5   Press [Perform].

- Registration is performed in the patient database of this device, and the exposure screen or the body part selection screen is displayed.

> **HINT**
> - Because input of "Sex", "Pregnancy" are displayed with selection buttons instead of the input panel, press the selection buttons.
> - When entering "Institution Residence", "Hospital Department" and "Requesting Physician", select the names from the pull-down menu or selection button, or input them directly with the keyboard.
>
>
>
> - With the input item as a search key, search the patient database for this device, or a higher system.
> - When there is a patient ID that matches, name, sex and age are displayed.
>   When there is no patient ID that matches, the cursor moves to the following input field.

5.2.3 Selection of examination

When the examination is registered, it can be selected on the list screen. Select a tab other than the [PatientReg.] tab on the initial screen to display the list screen.

1 Select the examination target.

- Focus is set on the examination.

2 Press [Perform].

- The exposure screen or the body part selection screen is displayed.

> 💡 **HINT** ··································
>
> - Before selecting the examination, press [Refresh], check if the list is the newest version available and then select the examination.
> - The exposure screen or the body part selection screen can be displayed by double-clicking the examination target.
> - If Patient ID is read by a barcode reader, examination target can be selected. You can also transition to the exposure screen at the same time the barcode is read, depending on the setting.
>
> ··

5.2.4 Manual body part selection

When making advanced settings of exposure body part and Exam. Tags for each exposure, select body part manually with the following procedure.

1 Select the tab.

- Linking to the selected tab, the exposure body part available with the tab are displayed automatically.

2 Select the exposure body part.

- The Exam. Tags corresponding to the selected exposure body part will be displayed.

3 Select an Exam. Tag.

- The selected Exam. Tag is added to the Exam. Tags display area. By repeating from step 1, Exam. Tags can be added.

4   When finished selecting/adding the Exam. Tags, press [Perform].

- The exposure screen is displayed.

> **☀ HINT** ∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙
>
> - When only reserving an examination, after adding the Exam. Tag, press [Schedule]. After reservation is performed, the initial screen is displayed.
> - Returning to the initial screen by pressing [Schedule] does not set study date and time of image supplemental information automatically.
> - It is also possible to register multiple exposure methods in 1 Exam. Tag. Register these methods when installing.
> - If you have set to register the Exam. Tags automatically, the body part selection screen is not displayed. The display transitions to the exposure screen.
>
> ∙∙

5.2.5   Exposure procedure

The exposure procedure is as follows:
This section shows an example case of exposing several body parts under the following conditions.

Exposure device
- Wall stand × 1
- DR Detector × 1
  * Assume that the wall stand uses the AeroDR UF Cable, and the DR Detector is inserted into the AeroDR Battery Charger.

Exposure conditions and order of exposure
(1) CHEST - Chest Erect - AP
(2) SPINE - L-Spine - AP
(3) HEAD - Skull - PA

The exposure sequence and the positions in which exposure images are displayed are as shown below.

* The exposure sequence (1) - (3) is displayed for ease of explanation, and is not displayed on the actual screen.

> **🗐 IMPORTANT** ∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙
>
> - Always check the patient information and exposure conditions before exposure.
> - The DR Detector is precision equipment, and therefore impact or vibration during radiography or image transfer may affect the image quality. Be careful when handling the DR Detector during and just after radiography.
> - If an image is displayed when an exposure is not performed, this may be a detection error due to noises, etc. Perform rejected image (deletion of images) and repeat exposure.
> - If you have performed an exposure when "Ready" was not displayed, repeat an exposure after approximately one minute.

• In the event of a communication error and depending on the timing at which the error has occurred, images may not be displayed and the DR Detector may not contain any images that have not been transferred (the same status as that observed when no exposures have been carried out). If this is the case, suspend the study and display the exposure screen from the list screen. This operation may successfully recover the images.

• •

1   Remove the DR Detector from the AeroDR Battery Charger.

• In (1), "Panel not detected" is displayed until the DR Detector is inserted into the wall stand.

2   Insert the DR Detector into the wall stand.

• Until the DR Detector is inserted into the wall stand and exposure becomes ready, "Preparing" is displayed in image display area (1).

• When the DR Detector inserted into the wall stand is ready to start exposure, "Ready" is displayed.

3   Take the 1st image.
• Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch

• The exposed image is displayed in image display area (1), and the focus moves to (2).

Chapter 5
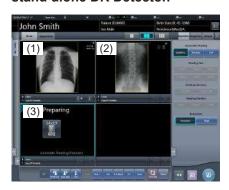
4 Take the 2nd image.

- Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch
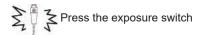
- The exposed image is displayed in image display area (2), and the focus moves to (3). At this stage, because the DR Detector is inserted in the wall stand, exposure of (3) is not possible.

5 Remove the DR Detector from the wall stand, and prepare for exposure with a stand-alone DR Detector.

- When the DR Detector is removed from the wall stand, "Preparing" is displayed in image display area (3).
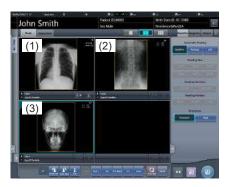
6 Take 3rd image.

- Press the exposure switch after "Ready" is displayed in image display area (3).
- Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch

- The exposed image is displayed in image display area (3). The focus remains on image display area (3).

⚠ **IMPORTANT** ·······························

- When linked with the X-ray device, because the selected exposure conditions at the time of X-ray exposure are linked to the irradiation results, always check the exposure conditions before X-ray exposure.
- Depending on the type of X-ray device, several seconds may elapse before notification of the irradiation results. For this type of model, take care because sometimes irradiation results are not reflected correctly if the exposure conditions are changed immediately after X-ray irradiation.
- When the exposure time is changed on the X-ray equipment after exposure preparation has been performed on the X-ray equipment, the maximum storage time may not change in the console display, depending on the type of X-ray equipment. When the exposure time is changed on the X-ray equipment after exposure preparation has been performed on the X-ray equipment, perform the exposure preparation process again.

···

HINT

• Linking to the insertion/removal of the DR Detector into/from the wall stand, the icons inside the application bar change as follows.

When the DR Detector is inserted into the wall stand

When the DR Detector is removed from the AeroDR Battery Charger

• Movement of focus for the image display area is linked to the state of insertion/removal of the DR Detector into/from the wall stand.
• When interlock switch is released after receiving the exposure timing from an X-ray apparatus, the DR Detector is enabled to allow an operator to press the exposure switch of the X-ray apparatus. A warning sounds when the interlock cannot be released (cannot press the exposure switch).
• X-ray exposure information is acquired automatically when linked to the X-ray device.
• The exposure field is automatically recognized, and displayed on the screen as the effective image area. If automatic recognition of the exposure field has failed, set it manually by pressing [Cropping] in the [Image Proc] tab.
• The exposure field automatic recognition function can be set for each body part, and the fixed effective image area can be selected.
• Configure irradiation fields of at least 5x5 cm for the following areas.
Infant hip/Front view of lumbar/Side view of lumbar/Radial position of lumbar/Front view of head/Towne view of the head/Turkey saddle/Cheekbone axis/Temporomandibular joint/Front view of jawbone/Side view of jawbone/Front view of the child chest/Side view of the child chest/Progress observation of child chest/Front view of infant chest/Side view of infant chest and abdomen/Progress observation of infant chest and abdomen/Newborn chest/Newborn skeleton/Front view of cervix/Side view of cervix/Radial position of cervix/Cervix opening/Ribs/Side view of sternum/Radial position of sternum/Clavicle/Shoulder joint/Scapula/Sternoclavicular joint/Hips/Limbs (excluding radial position of heel bone)
Configure settings for other areas so that at least one edge of the irradiation field is at least 15 cm.
If these conditions are not satisfied, irradiation fields sometimes cannot be detected, which would require reimaging.

5.2.6   Image adjustment on the exposure screen

Performs adjustment of exposed images. Basic image adjustments such as S value/G value, position of ROI area, etc. can be made on the exposure screen.

● **Change of S value/G value**

Change of S value/G value is performed with the following procedure.

1   Select the image for image adjustment.

• The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2   Adjust the image.

• Pressing [ ] increases or decreases the value step by step.

IMPORTANT

• Calculate the EI value (Exposure Index: Index to indicate the exposure dose to detector specified in IEC62494-1) based on Reference signal value in the grayscale processing and then overlay-display the difference DI (Deviation Index) between the value and predefined target TI (Target Exposure Index). And, it is also output to DICOM tag at the time of output to host.

HINT ••••••••••••••••••••••••••••••••

- The S value and G value are automatically adjusted to the appropriate values at the time of exposure. Adjust them manually as required.
- Change of S value/G value can also be performed on the viewer screen. After selection of the image for image adjustment, press the image once more to switch to the viewer screen. When more advanced image adjustment is required, perform image adjustment on the viewer screen where larger images are displayed.
- Dragging the control panel slider or pressing [◁◁ ▷▷] increases or decreases the S value/G value in multiples of the preset value. In addition, when you press the [S/G] button on the control panel, the S value/G value can be adjusted by dragging the image.
- Use the user tool to set the drag operation to increase or decrease the S/G values and specify the degree of change that can be obtained from [◁◁ ▷▷]. You can also select the setting so that the S/G values can be adjusted by simply dragging the image or dragging it using both mouse buttons without pressing the [S/G] button.

••

● **Change of parameters**

Change of the parameters is performed with the following procedure.

1   Select an image whose parameters you want to change.

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2   Press [E] or [F] you want to change.

- Images that were automatically altered by the E process or F process are displayed.
- When [E] or [F] is pressed again, the original images are displayed.

IMPORTANT ••••••••••••••••••••••••••••••

- In the case of a pneumoconiosis examination, a warning message is displayed when parameters are changed.

••

HINT ••••••••••••••••••••••••••••••••••••

- The parameter options available on the exposure screen are only ON and OFF. Perform detailed adjustments on the viewer screen.

••

● **Change of ROI area position**

Change of ROI area position is performed with the following procedure.

1   **Select an image whose ROI area you want to change.**

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2   **Press [ROI].**

- The ROI area is displayed.

3   **Move the ROI area.**

- When any part of the image is clicked, the ROI area moves to the center of the clicked part.
- The following operations will cancel the ROI mode.
    – Pressing [ROI] again
    – Pressing another button

┌──────────────┐
│ 🗔 **IMPORTANT** │ ·································
└──────────────┘

- When ROI area movement is performed after changing S value/G value, the changed S value/G value is reset, and the S/G value becomes optimized after ROI area movement.
- The ROI area rotates in accordance with the angle of rotation used when performing free rotation.

···

┌──────────┐
│ 💡 **HINT** │ ·································
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- Perform detailed position change of ROI area on the viewer screen.

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● **Zooming in and out**

Zoom in/out of exposed images is performed with the following procedure.

1   **Select an image to zoom in/out.**

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

Chapter 5

2 **Press [ZOOM+] or [ZOOM-].**

3 **Press any part of the image.**

- Zooming in/out is displayed, centering on the clicked part.
- Every time you press a part of the image, the image is gradually zoomed in/out.
- If you focus on another image or perform any other operations, the image will return to its original size.

IMPORTANT ••••••••••••••••••••••••••••••••

- Effects of resizing are not reflected at the time of output.

••

HINT ••••••••••••••••••••••••••••••••

- When a multi-touch monitor is used, zoom in/out can be performed with the following operations. In this case [ZOOM+] or [ZOOM-] do not need to be pressed.

Zoom in
Simultaneously press 2 points with the thumb and index finger and spread the 2 points (spread the fingertips) to zoom in on the image.

Zoom out
Simultaneously press 2 points with the thumb and index finger and move to close the 2 points (close the fingertips) to zoom out on the image.

- You can also zoom in or out from/to an image by rotating the mouse wheel up and down on the focused image.
- Use the user tool to set the amount of change associated with rotating the mouse wheel.

••

5.2.7 Examination completion and output

When all exposures are finished, end the examination and perform output.

1 Press [🔳].

- When the examination is finished, exposed images are batch output to a preset output destination.

- The display returns to the initial screen.

📇 **IMPORTANT** ••••••••••••••••••••••••••••••••

- Always check the X-ray irradiation results before finishing the examination.
- When the examination ends and no exposure images exist, the examination itself is deleted. At this time, a confirmation screen is displayed on whether to delete the examination.

→ Press [OK] to delete the examination itself.
→ Press [Cancel] to return to the previous screen.
* A message "Study without captured images cannot be completed." may be displayed depending on the settings. In such cases, press the [Pause] button or [Termination] button. Either of the two buttons is displayed depending on the settings.

••

🖋 **HINT** •••••••••••••••••••••••••••••••••••

- If there is an unexposed image, a confirmation screen is displayed.

→ Press [OK] to complete the examination by deleting data for the unexposed portion and display the initial screen.
→ Press [Cancel] to return to the previous screen.
- When outputting to a host, the output destination can be switched between the predetermined host and a backup host. Furthermore, when the output conditions are different for each backup destination, recalculation of output size is performed.
- Exposure dose information may also be output during the host output process, depending on settings. For more details, contact Konica Minolta technical representatives.
- Depending on the setting at the time of installation, on the edge of the output film (the output image when output to a host) a mark is added showing whether the image is flipped or not.

  🔲 : Flipped
  🔲 : Not flipped
- If the AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ is used to perform an exposure with a reading resolution of 100μm, the resolution can be converted to 175μm and output, depending on the settings during setup.

••

Chapter 5

5.3　Exposure with DR Detector (Aero Sync mode)

⚟ **IMPORTANT** ••

- With Aero Sync mode exposure, X-rays with default intensity that reached the DR Detector are detected, and image acquisition is started. Select any one of the following X-ray detection levels during exposure according to the model or conditions of the DR Detector to be used.
  - Small
    Used for general imaging such as that of the chest and limb bones.
  - Med
    This is effective for imaging of the abdomen or lumbar front of patients with thick bodies as well as in the case where the direct X-ray region does not enter the DR Detector due to the narrowed exposure field. Be careful not to subject the DR Detector to strong shocks during exposure.
  - Large
    This is more effective than the medium detectionlevel for imaging of the abdomen or lumbar front of patients with thick bodies as well as in the case where the direct X-ray region does not enter the DR Detector due to the narrowed exposure field. Request that the patient stands still for as long as possible during exposure.
  - Extra Large
    Exposures can be performed at a level higher than [Large]. This is effective for imaging of the abdomen or lumbar front of patients with thick bodies as well as in the case where the direct X-ray region does not enter the DR Detector due to the narrowed exposure field. Be careful not to subject the DR Detector to strong shocks during exposure.
- [Extra Large] is displayed when using either the AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ, AeroDR 2 1417HQ or AeroDR 2 1417S.
- The control panel display [AeroSync] and items that can be selected differ depending on the type of DR Detector.

AeroDR 1417HQ/	AeroDR 2 1417HQ/	AeroDR 3 1417HD/
AeroDR 1717HQ/	AeroDR 2 1417S:	AeroDR 3 1717HD/
AeroDR 1012HQ:		AeroDR 3 1012HQ:
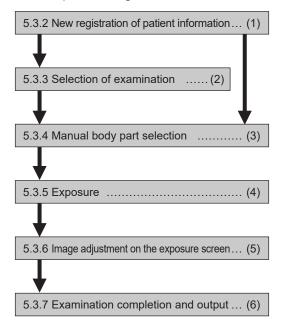
- If there are any radioactive substances remaining in the patient's body after nuclear medicine testing or some other reason, the AeroDR 2 1417HQ and the AeroDR 2 1417S may recognize that X-rays were emitted and start image transfer. When the image is transferred, change the X-ray sensitive setting of the image processing controller to "Large" before performing exposure. If you change the X-ray sensitivity to "Large", make sure that all of the following conditions are met before performing exposure. If you perform exposure under other conditions, you may not be able to get an image.
  - On the DR Detector, set up an area (2 cm x 2 cm or larger) on which the X-rays are emitted directly.
  - Emit the X-rays onto the entire DR Detector.
  - Emit the X-rays by using a tube current of 140 mA or higher or a tube voltage of 90 kV or higher.
- If there are any radioactive substances remaining in the patient's body after nuclear medicine testing or some other reason, the AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ may recognize that X-rays were emitted and start image transfer. When the image is transferred, change the X-ray sensitive setting of the image processing controller to "Large" or "Med" before performing exposure.
  If you change the X-ray sensitivity to "Large", make sure that all of the following conditions are met before performing exposure. If you perform exposure under other conditions, you may not be able to get an image.
  - Emit the X-rays onto the entire DR Detector.
  - Emit the X-rays by using a tube current of 140 mA or higher or a tube voltage of 90 kV or higher.
- Once the X-ray detection level is selected, it is kept until an examination is completed if it is not changed. If you want to return it to the initial detection level for each exposure, contact Konica Minolta technical representatives.

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5.3.1 Exposure flow

The following describes the basic flow of exposure using the DR Detector. See each item for detailed procedures.

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┌─────────────────────────────────────────────────┐
│ 5.3.2 New registration of patient information … (1) │
└─────────────────────────────────────────────────┘
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┌─────────────────────────────────────────────────┐
│ 5.3.3 Selection of examination    …… (2)         │
└─────────────────────────────────────────────────┘
                      │                    │
                      ▼                    ▼
┌─────────────────────────────────────────────────┐
│ 5.3.4 Manual body part selection   ………… (3)     │
└─────────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────────┐
│ 5.3.5 Exposure  ………………………………… (4)            │
└─────────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────────┐
│ 5.3.6 Image adjustment on the exposure screen… (5) │
└─────────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────────┐
│ 5.3.7 Examination completion and output … (6)    │
└─────────────────────────────────────────────────┘
```

Number	Task
(1)	Perform a new patient registration in the patient registration screen.
(2)	Select the examination target in the list screen.
(3)	Set the exposure body part and exposure condition.
(4)	Perform exposure.
(5)	Adjust the exposed images after exposure. Change the S value/G value, move the ROI area, etc.
(6)	When all exposures are finished, the examination is completed. Image is simultaneously and automatically output upon examination completion. (depending on the settings)

Chapter 5

5.3.2   New registration of patient information

New registration of patient information is performed with the patient registration screen. Select the [PatientReg.] tab on the initial screen to display the patient registration screen.

1   Press the column for the patient ID.

2   Press the input panel, and input the patient ID.

3   Press [Enter].

4   Input patient name, sex and date of birth.
- After each inputting item, press [Enter].
- If you press [Enter], the cursor will move to the next item.

> 💡 **HINT** ································
> - If the length of an entry exceeds the dimensions of the display pane of the item or if the entry spreads across multiple lines, the long-sentence comment pop-up button [...] is displayed.
> ··

5   Press [Perform].

- Registration is performed in the patient database of this device, and the exposure screen or the body part selection screen is displayed.

> 💡 **HINT** ································
> - Because input of "Sex", "Pregnancy" are displayed with selection buttons instead of the input panel, press the selection buttons.
> - When entering "Institution Residence", "Hospital Department" and "Requesting Physician", select the names from the pull-down menu or selection button, or input them directly with the keyboard.
>
>
>
> - With the input item as a search key, search the patient database for this device, or a higher system.
> - When there is a patient ID that matches, name, sex and age are displayed.
>   When there is no patient ID that matches, the cursor moves to the following input field.
> ··

5.3.3 Selection of examination

When the examination is registered, it can be selected on the list screen. Select a tab other than the [PatientReg.] tab on the initial screen to display the list screen.

1 Select the examination target.

- Focus is set on the examination.

2 Press [Perform].

- The exposure screen or the body part selection screen is displayed.

> **HINT** ································
> - Before selecting the examination, press [Refresh], check if the list is the newest version available and then select the examination.
> - The exposure screen or the body part selection screen can be displayed by double-clicking the examination target.
> - If Patient ID is read by a barcode reader, examination target can be selected. You can also transition to the exposure screen at the same time the barcode is read, depending on the setting.
> ···

5.3.4 Manual body part selection

When making advanced settings of exposure body part and exposure method for each exposure, select body part manually with the following procedure.

1 Select the tab.

- Linking to the selected tab, the exposure body part available with the tab are displayed automatically.

2 Select the exposure body part.

- The Exam. Tags corresponding to the selected exposure body part will be displayed.

3 Select an Exam. Tag.

Chapter 5

- The selected Exam. Tag is added to the Exam. Tags display area. By repeating from step 1, Exam. Tags can be added.

4   When finished selecting/adding the Exam. Tags, press [Perform].

- The exposure screen is displayed.

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│ ✎ **HINT** │ ••••••••••••••••••••••••••••••••••
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- When only reserving an examination, after adding the Exam. Tag, press [Schedule]. After reservation is performed, the initial screen is displayed.
- Returning to the initial screen by pressing [Schedule] does not set study date and time of image supplemental information automatically.
- It is also possible to register multiple exposure methods in 1 Exam. Tag. Register these methods when installing.
- If you have set to register the Exam. Tags automatically, the body part selection screen is not displayed. The display transitions to the exposure screen.

••

5.3.5   Exposure

The exposure procedure in Aero Sync mode is as follows.
Prepare for exposure using Aero Sync mode according to the following procedure. The procedure varies depending on the setting of the [AeroSync Button] on the system monitor screen.

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│ 🗂 **IMPORTANT** │ ••••••••••••••••••••••••••••••••
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- Always check the patient information and exposure conditions before exposure.
- Available X-ray detection level varies depending on the DR Detector model.
- In the event of a communication error and depending on the timing at which the error has occurred, images may not be displayed and the DR Detector may not contain any images that have not been transferred (the same status as that observed when no exposures have been carried out). If this is the case, suspend the study and display the exposure screen from the list screen. This operation may successfully recover the images.

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│ ✎ **HINT** │ ••••••••••••••••••••••••••••••••••
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- The procedure is explained with the use of the Aero-DR 3 1417HD as an example.

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● **When the [AeroSync Button] is OFF**

1   Prepare the DR Detector.

- When the DR Detector is ready to start exposure, "Ready" is displayed.
- A message "Ready" is displayed in the message/button area, then the screen is locked.
- To change the X-ray detection level, press [Pause] to enable modification. After changing the detection level, press [Restart], then the message "Ready" is displayed.
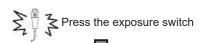
••••••••••••••••••••••••••••••••

- A malfunction may be caused by a shock to the DR Detector. In such cases, set [AeroSync Button] to ON on the system monitor screen.
- To prevent incorrect operations, always check that "Ready" is displayed.
- Conditions for changing the detection level vary depending on the X-ray device being used. If a survey has been carried out when the system was installed, follow the survey results.

••

HINT ••••••••••••••••••••••••••••••

- The X-ray detection level can be set when making an exposure. Refer to "5.3 Exposure with DR Detector (Aero Sync mode)" for information on the X-ray detection levels that can be set.
- When importing examination information from the higher system and when exposure body part information is not imported, select the exposure body part. When pressing [Perform] on the body part selection screen, the exposure screen is displayed.
- When you move the focus in the image display area on the exposure resumption waiting screen to capture an image of another body part, not the ready-to-expose screen but the exposure resumption waiting screen is displayed.

••

2   Perform exposure.
- Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch

- As soon as the exposed image is transferred, the image is displayed in the image display area.

IMPORTANT ••••••••••••••••••••••••••••••••

- When the "Ready" is displayed, immediately perform exposure.
- Do not let the DR Detector vibrate or receive shock until the exposed image is displayed.
- If image acquisition started without performing exposure, this may result in incorrect detection due to noise, etc. Perform rejecting (image deletion) and repeat exposure.
- If image acquisition does not start after exposure, the voltage may not be enough. Check the exposure conditions and repeat exposure.
- When exposure is done while "Ready" is not displayed, have an interval of 1 minute or more before repeating exposure.
- Exposing images before "Ready" appears on-screen can cause images not to be exposed properly.

••

● **When the [AeroSync Button] is ON**

1   Prepare the DR Detector.

- A message "Waiting for permission" is displayed in the image display area.

HINT ••••••••••••••••••••••••••••••

- If the information about the body part is not imported while importing examination information from the higher system, select the body part to be imaged. Then press [Perform] on the body part selection screen to display the exposure screen.
- When the AeroDR power management level is set to [3], [4] or [5], "Waiting to start shooting" is displayed instead of "Waiting for permission".

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Chapter 5

2 After positioning the patient, check the X-ray detection level, then press [AeroSync].

- If the control panel does not switch to [AeroSync], press the [AeroSync] tab.
- Change the X-ray detection level as needed.
- After checking the X-ray detection level, press [AeroSync].

- A message "Ready" is displayed in the message/button area. The screen is locked.
- The screen is locked. To return to the previous screen to change the position of the patient, etc., press [Cancel].

📄 **IMPORTANT** •••••••••••••••••••••••••••••••

- To prevent incorrect operations, always press [AeroSync] and check that "Ready" is displayed.
- Conditions for changing the detection level vary depending on the X-ray device being used. If a survey has been carried out when the system was installed, follow the survey results.
- When the AeroDR power management level is set to [3], [4] or [5], it may take some time until the exposure becomes ready after you have pressed [Aero Sync]. In this case, [Standby] button instead of [Cancel] button is displayed in the message/button area.
- After pressing [AeroSync], do not touch the wired connector of the DR Detector until the image transfer process completes.
•••

🔦 **HINT** ••••••••••••••••••••••••••••••••••

- The X-ray detection level can be set when making an exposure. Refer to "5.3 Exposure with DR Detector (Aero Sync mode)" for information on the X-ray detection levels that can be set.
•••

3 Perform exposure.

- Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch

- As soon as the exposed image is transferred, the image is displayed in the image display area.

📄 **IMPORTANT** •••••••••••••••••••••••••••••••

- When the "Ready" is displayed, immediately perform exposure.
- Do not let the DR Detector vibrate or receive shock until the exposed image is displayed.
- If image acquisition started without performing exposure, this may result in incorrect detection due to noise, etc. Perform rejecting (image deletion) and repeat exposure.
- If image acquisition does not start after exposure, the voltage may not be enough. Check the exposure conditions and repeat exposure.
- When exposure is done while "Ready" is not displayed, have an interval of 1 minute or more before repeating exposure.
- When linked with the X-ray device, because the selected exposure conditions at the time of X-ray exposure are linked to the irradiation results, always check the exposure conditions before X-ray exposure.
- Depending on the type of X-ray device, several seconds may elapse before notification of the irradiation results. For this type of model, take care because sometimes irradiation results are not reflected correctly if the exposure conditions are changed immediately after X-ray irradiation.
- Exposing images before "Ready" appears on-screen can cause images not to be exposed properly.
•••

5.3.6 Image adjustment on the exposure screen

Performs adjustment of exposed images. Basic image adjustments such as S value/G value, position of ROI area, etc. can be made on the exposure screen.

● **Change of S value/G value**

Change of S value/G value is performed with the following procedure.

1 **Select the image for image adjustment.**

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2 **Adjust the image.**

- Pressing [ ] increases or decreases the value step by step.

🔦 **HINT** ·····································

- The S value and G value are automatically adjusted to the appropriate values at the time of exposure. Adjust them manually as required.
- Change of S value/G value can also be performed on the viewer screen. After selection of the image for image adjustment, press the image once more to switch to the viewer screen. When more advanced image adjustment is required, perform image adjustment on the viewer screen where larger images are displayed.
- Dragging the control panel slider or pressing [ ] increases or decreases the S value/G value in multiples of the preset value. In addition, when you press the [S/G] button on the control panel, the S value/G value can be adjusted by dragging the image.
- Use the user tool to set the drag operation to increase or decrease the S/G values and specify the degree of change that can be obtained from [ ]. You can also select the setting so that the S/G values can be adjusted by simply dragging the image or dragging it using both mouse buttons without pressing the [S/G] button.

··

● **Change of parameters**

Change of the parameters is performed with the following procedure.

1 **Select an image whose parameters you want to change.**

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2 **Press [E] or [F] you want to change.**

Chapter 5

- Images that were automatically altered by the E process or F process are displayed.
- When [E] or [F] is pressed again, the original images are displayed.

📋 **IMPORTANT** ·································

- In the case of a pneumoconiosis examination, a warning message is displayed when parameters are changed.

···

🔍 **HINT** ·································

- The parameter options available on the exposure screen are only ON and OFF. Perform detailed adjustments on the viewer screen.

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● **Change of ROI area position**
Change of ROI area position is performed with the following procedure.

1   Select an image whose ROI area you want to change.

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2   Press [ROI].

- The ROI area is displayed.

3   Move the ROI area.

- When any part of the image is clicked, the ROI area moves to the center of the clicked part.
- The following operations will cancel the ROI mode.
  – Pressing [ROI] again
  – Pressing another button

📋 **IMPORTANT** ·································

- When ROI area movement is performed after changing S value/G value, the changed S value/G value is reset, and the S/G value becomes optimized after ROI area movement.
- The ROI area rotates in accordance with the angle of rotation used when performing free rotation.

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HINT ••••••••••••••••••••••••••••••••
- Perform detailed position change of ROI area on the viewer screen.
••

● Zooming in and out
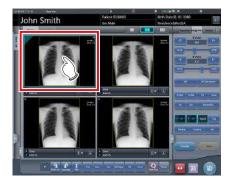Zoom in/out of exposed images is performed with the following procedure.

1 Select an image to zoom in/out.

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2 Press [ZOOM+] or [ZOOM-].

3 Press any part of the image.

- Zooming in/out is displayed, centering on the clicked part.
- Every time you press a part of the image, the image is gradually zoomed in/out.
- If you focus on another image or perform any other operations, the image will return to its original size.

IMPORTANT ••••••••••••••••••••••••••••••••
- Effects of resizing are not reflected at the time of output.
••

HINT ••••••••••••••••••••••••••••••••
- When a multi-touch monitor is used, zoom in/out can be performed with the following operations. In this case [ZOOM+] or [ZOOM-] do not need to be pressed.

Zoom in
Simultaneously press 2 points with the thumb and index finger and spread the 2 points (spread the fingertips) to zoom in on the image.

Zoom out
Simultaneously press 2 points with the thumb and index finger and move to close the 2 points (close the fingertips) to zoom out on the image.

- You can also zoom in or out from/to an image by rotating the mouse wheel up and down on the focused image.
- Use the user tool to set the amount of change associated with rotating the mouse wheel.
••

5.3.7   Examination completion and output

When all exposures are finished, end the examination and perform output.

1   **Press [🖾].**

- When the examination is finished, exposed images are batch output to a preset output destination.

- The display returns to the initial screen.

⌨ IMPORTANT ••••••••••••••••••••••••••••••••••

- Always check the X-ray irradiation results before finishing the examination.
- When the examination ends and no exposure images exist, the examination itself is deleted. At this time, a confirmation screen is displayed on whether to delete the examination.

→ Press [OK] to delete the examination itself.
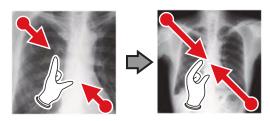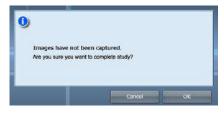→ Press [Cancel] to return to the previous screen.
* A message "Study without captured images cannot be completed." may be displayed depending on the settings. In such cases, press the [Pause] button or [Termination] button. Either of the two buttons is displayed depending on the settings.

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🖋 HINT ••••••••••••••••••••••••••••••••••••

- If there is an unexposed image, a confirmation screen is displayed.

→ Press [OK] to complete the examination by deleting data for the unexposed portion and display the initial screen.
→ Press [Cancel] to return to the previous screen.
- When outputting to a host, the output destination can be switched between the predetermined host and a backup host. Furthermore, when the output conditions are different for each backup destination, recalculation of output size is performed.
- Exposure dose information may also be output during the host output process, depending on settings. For more details, contact Konica Minolta technical representatives.
- Depending on the setting at the time of installation, on the edge of the output film (the output image when output to a host) a mark is added showing whether the image is flipped or not.
  🔲 : Flipped
  🔲 : Not flipped
- If the AeroDR 3 1417HD, AeroDR 3 1717HD, AeroDR 3 1012HQ is used to perform an exposure with a reading resolution of 100μm, the resolution can be converted to 175μm and output, depending on the settings during setup.

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5.4 Exposure with CR cassette

5.4.1 Exposure flow

The following describes the flow of basic exposure using CR cassette. See each item for detailed procedures.

5.4.2 New registration of patient information … (1)

5.4.3 Selection of examination ……(2)

5.4.4 Manual body part selection ………… (3)

5.4.5 Exposure ……………………………… (4)

● Exposure with bar code registration …… (5)　　　● Exposure with specified reading sequence ……(6)

5.4.6 Image adjustment of the exposure screen … (7)

5.4.7 Examination completion and output … (8)

Number	Task
(1)	Perform a new patient registration in the patient registration screen.
(2)	Select the examination target in the list screen.
(3)	Perform exposure with the CR cassette.
(4)	Set the exposure body part and exposure condition.
(5)	Perform exposure with bar code registration. Perform bar code registration on the exposure screen.
(6)	Perform exposure with a specified reading sequence. Specify the reading sequence on the exposure screen.
(7)	After exposure and reading the CR cassette with REGIUS or REGIUS SIGMA/SIGMA2, adjust the exposed image. Change the S value/G value, move the ROI area, etc.
(8)	When all exposures are finished, the examination is completed. Image is simultaneously and automatically output upon examination completion. (depending on the settings)

5.4.2 New registration of patient information

New registration of patient information is performed with the patient registration screen. Select the [PatientReg.] tab on the initial screen to display the patient registration screen.

1 Press the column for the patient ID.

2 Press the input panel, and input the patient ID.

3 Press [Enter].

4 Input patient name, sex and date of birth.
 • After each inputting item, press [Enter].
 • If you press [Enter], the cursor will move to the next item.

> 💡 **HINT** •••••••••••••••••••••••••••••••••••
> • If the length of an entry exceeds the dimensions of the display pane of the item or if the entry spreads across multiple lines, the long-sentence comment pop-up button [...] is displayed.
> ••

5 Press [Perform].

 • Registration is performed in the patient database of this device, and the exposure screen or the body part selection screen is displayed.

> 💡 **HINT** •••••••••••••••••••••••••••••••••••
> • Because input of "Sex", "Pregnancy" are displayed with selection buttons instead of the input panel, press the selection buttons.
> • When entering "Institution Residence", "Hospital Department" and "Requesting Physician", select the names from the pull-down menu or selection button, or input them directly with the keyboard.
>
>
>
> • With the input item as a search key, search the patient database for this device, or a higher system.
> • When there is a patient ID that matches, name, sex and age are displayed.
> When there is no patient ID that matches, the cursor moves to the following input field.
> ••

5.4.3 Selection of examination

When the examination is registered, it can be selected on the list screen. Select a tab other than the [PatientReg.] tab on the initial screen to display the list screen.

1 Select the examination target.

- Focus is set on the examination.

2 Press [Perform].

- The exposure screen or the body part selection screen is displayed.

💡 HINT

- Before selecting the examination, press [Refresh], check if the list is the newest version available and then select the examination.
- The exposure screen or the body part selection screen can be displayed by double-clicking the examination target.
- If Patient ID is read by a barcode reader, examination target can be selected. You can also transition to the exposure screen at the same time the barcode is read, depending on the setting.

5.4.4 Manual body part selection

When making advanced settings of exposure body part and exposure method for each exposure, select body part manually with the following procedure.

1 Select the tab.

- Linking to the selected tab, the exposure body part available with the tab are displayed automatically.

2 Select the exposure body part.

- The Exam. Tags corresponding to the selected exposure body part will be displayed.

3 Select an Exam. Tag.

Chapter 5

- The selected Exam. Tag is added to the Exam. Tags display area. By repeating from step 1, Exam. Tags can be added.

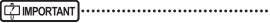**4   When finished selecting/adding the Exam. Tags, press [Perform].**

- The exposure screen is displayed.

> **HINT** ···································
> - When only reserving an examination, after adding the Exam. Tag, press [Schedule]. After reservation is performed, the initial screen is displayed.
> - Returning to the initial screen by pressing [Schedule] does not set study date and time of image supplemental information automatically.
> - It is also possible to register multiple exposure methods in 1 Exam. Tag. Register these methods when installing.
> - If you have set to register the Exam. Tags automatically, the body part selection screen is not displayed. The display transitions to the exposure screen.
> ···································

5.4.5   Exposure

For exposure when CR cassettes are used, there are 2 types, bar code registration and specified reading sequence.

> **IMPORTANT** ···························
> - Always check the patient information and exposure conditions before exposure.
> ···································

> **HINT** ···································
> - Registration of the CR cassette is performed on the exposure screen with any of the exposure methods.
> ···································

● **Exposure with bar code registration**
When CR cassettes are managed with bar codes, perform exposure with the following procedure.

> **IMPORTANT** ···························
> - Exposure with bar code registration is not available when using a REGIUS SIGMA/SIGMA2 CR cassette.
> ···································

1   Place focus on image display area that the CR cassette is to be registered.
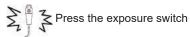
2 Read the bar code of the CR cassette with a bar code reader.

- The read bar code number is displayed in the Exam. Tags display area, and focus moves to the next Exam. Tag. This completes the preparations for reading by REGIUS.

3 Perform exposure using the registered CR cassette.
- Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch

4 Read CR cassette.

- The image read from the registered CR cassette will be displayed.
- When exposing several body parts, repeat from step 1.

📋 **IMPORTANT** ••••••••••••••••••••••••••••••••••

- For bar code registration, the optional bar code reader is required.
- The bar code reader is a CDRH class II laser product. Operate it with caution on the following points.
  – Do not look into the front reading window. There is a danger that the laser will damage the eyes.
  – Do not discharge the laser in the direction of people's eyes. There is a danger that the laser will damage the eyes.
- Sometimes the bar code cannot be read correctly when the laser strikes it perpendicularly. If it cannot be read correctly, tilt the bar code reader slightly and read again.

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💡 **HINT** •••••••••••••••••••••••••••••••

- X-ray exposure information is acquired automatically when linked to the X-ray device.
- When reading from the bar code of the CR cassette that does not match the exposure conditions, a confirmation screen is displayed which says, "This cassette is for general exposure. Check the Exam. Tag." Press [OK], and register the correct CR cassette.
- CR cassettes with the same bar code cannot be registered consecutively. When there are several exposures with CR cassettes with the same bar code, re-register after reading the image with the REGIUS for each exposure.
- By continually carrying out steps 1 and 2, the CR cassettes can be continually registered.
- Exposure with bar code registration is suitable when this device is connected with multiple REGIUS series devices.
- The exposure field is automatically recognized, and displayed on the screen as the effective image area. If automatic recognition of the exposure field has failed, set it manually by pressing [Cropping] in the [Image Proc] tab.
- The exposure field automatic recognition function can be set for each body part, and the fixed effective image area can be selected.
- Configure irradiation fields of at least 5x5 cm for the following areas.
  Infant hip/(C) Infant hip/Front view of lumbar/Side view of lumbar/Radial position of lumbar/Front view of head/Towne view of the head/Turkey saddle/Cheekbone axis/Temporomandibular joint/Front view of jawbone/Side view of jawbone/Front view of the child chest/Side view of the child chest/Progress observation of child chest/Front view of infant chest/Infant chest and abdomen/(C) Side view of infant chest and abdomen/Progress observation of infant chest and abdomen/Newborn chest/(C) Newborn chest/Newborn skeleton/(C) Newborn skeleton/Front view of cervix/Side view of cervix/Radial position of cervix/Cervix opening/Ribs/Side view of sternum/Radial position of sternum/Clavicle/Shoulder joint/Scapula/Sternoclavicular joint/Hips/Limbs (excluding radial position of heel bone)
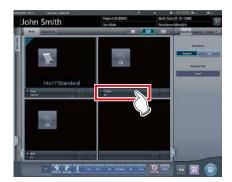 Configure settings for other areas so that at least one edge of the irradiation field is at least 15 cm.
  If these conditions are not satisfied, irradiation fields sometimes cannot be detected, which would require reimaging.

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Chapter 5

● **Exposure with specified reading sequence**

When exposing with the specified reading sequence, perform exposure with the following procedure.

1 **In the sequence to perform exposure, the reading sequence is specified by pressing the Exam. Tags display area in sequence.**

• The first exposure is registered.

• The second exposure is registered.
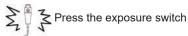
• The third exposure is registered.

2 **Perform exposure for the first image.**

• Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch

3 **Read CR cassette.**

• When the first image is displayed, the "First" marker disappears, what was "Second" up to that point changes its marker to "First", and what was "Third" up to that point changes its marker to "Second". (The numbers will move up in turn.)
• By continually carrying out steps 2 through 3, the remaining exposures are performed and CR cassettes are read.

• When all the exposures are finished and CR cassettes are read, the numbers will disappear.

HINT

- X-ray exposure information is acquired automatically when linked to the X-ray device.
- The reading sequence can also be specified with the order list. With the reading sequence, press Exam. Tags in order.

- When pressing Exam. Tags for examinations whose reading sequence has been specified, the reading sequence specification is canceled. When several reading sequences are being specified, the reading sequence after the deleted examination is moved up.
- Exposure with specified reading sequence is suitable when this device is connected with 1 REGIUS.
- When REGIUS SIGMA/SIGMA2 is connected, the following dialog window appears during the image reading process.

5.4.6 Image adjustment on the exposure screen

Performs adjustment of exposed images. Basic image adjustments such as S value/G value, position of ROI area, etc. can be made on the exposure screen.

● **Change of S value/G value**

Change of S value/G value is performed with the following procedure.

1 Select the image for image adjustment.

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.
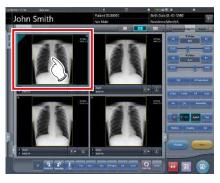
2 Adjust the image.

- Pressing [▢ ▢] increases or decreases the value step by step.

••••••••••••••••••••••••••••••

- The S value and G value are automatically adjusted to the appropriate values at the time of exposure. Adjust them manually as required.
- Change of S value/G value can also be performed on the viewer screen. After selection of the image for image adjustment, press the image once more to switch to the viewer screen. When more advanced image adjustment is required, perform image adjustment on the viewer screen where larger images are displayed.
- Dragging the control panel slider or pressing [◁◁ ▷▷] increases or decreases the S value/G value in multiples of the preset value. In addition, when you press the [S/G] button on the control panel, the S value/G value can be adjusted by dragging the image.
- Use the user tool to set the drag operation to increase or decrease the S/G values and specify the degree of change that can be obtained from [◁◁ ▷▷]. You can also select the setting so that the S/G values can be adjusted by simply dragging the image or dragging it using both mouse buttons without pressing the [S/G] button.

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● Change of parameters

Change of the parameters is performed with the following procedure.

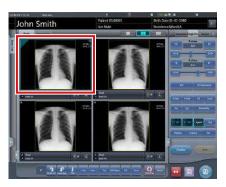## 1   Select an image whose parameters you want to change.

- The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

2   Press [E] or [F] you want to change.

- Images that were automatically altered by the E process or F process are displayed.
- When [E] or [F] is pressed again, the original images are displayed.

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- In the case of a pneumoconiosis examination, a warning message is displayed when parameters are changed.

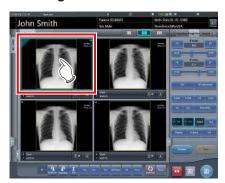••

••••••••••••••••••••••••••••••••

- The parameter options available on the exposure screen are only ON and OFF. Perform detailed adjustments on the viewer screen.

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● **Change of ROI area position**

Change of ROI area position is performed with the following procedure.

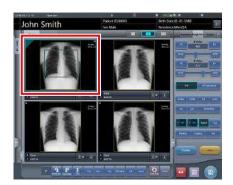**1** **Select an image whose ROI area you want to change.**

• The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.
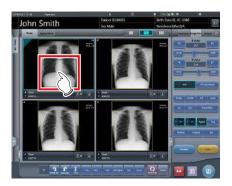
2 **Press [ROI].**

• The ROI area is displayed.

3 **Move the ROI area.**

• When any part of the image is clicked, the ROI area moves to the center of the clicked part.
• The following operations will cancel the ROI mode.
  – Pressing [ROI] again
  – Pressing another button

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│ �度 **IMPORTANT** │ ·································
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• When ROI area movement is performed after changing S value/G value, the changed S value/G value is reset, and the S/G value becomes optimized after ROI area movement.
• The ROI area rotates in accordance with the angle of rotation used when performing free rotation.

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│ 🔦 **HINT** │ ·································
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• Perform detailed position change of ROI area on the viewer screen.

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● **Zooming in and out**

Zoom in/out of exposed images is performed with the following procedure.

1 **Select an image to zoom in/out.**

• The control panel automatically switches to the [Image Proc] tab. If it does not switch, select the [Image Proc] tab manually.

Chapter 5

2 **Press [ZOOM+] or [ZOOM-].**

3 **Press any part of the image.**

- Zooming in/out is displayed, centering on the clicked part.
- Every time you press a part of the image, the image is gradually zoomed in/out.
- If you focus on another image or perform any other operations, the image will return to its original size.

📋 **IMPORTANT** ··································

- Effects of resizing are not reflected at the time of output.
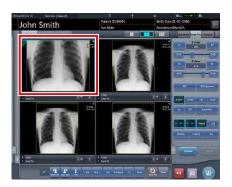
··································

🔦 **HINT** ··································

- When a multi-touch monitor is used, zoom in/out can be performed with the following operations. In this case [ZOOM+] or [ZOOM-] do not need to be pressed.

Zoom in
Simultaneously press 2 points with the thumb and index finger and spread the 2 points (spread the fingertips) to zoom in on the image.

Zoom out
Simultaneously press 2 points with the thumb and index finger and move to close the 2 points (close the fingertips) to zoom out on the image.

- You can also zoom in or out from/to an image by rotating the mouse wheel up and down on the focused image.
- Use the user tool to set the amount of change associated with rotating the mouse wheel.

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5.4.7 Examination completion and output

When all exposures are finished, end the examination and perform output.

1 Press [🖼].

- When the examination is finished, exposed images are batch output to a preset output destination.
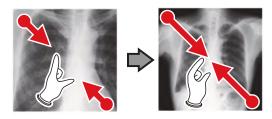

- The display returns to the initial screen.

⬜ **IMPORTANT** •••••••••••••••••••••••••••••••••

- Always check the X-ray irradiation results before finishing the examination.
- When the examination ends and no exposure images exist, the examination itself is deleted. At this time, a confirmation screen is displayed on whether to delete the examination.

→ Press [OK] to delete the examination itself.

→ Press [Cancel] to return to the previous screen.

* A message "Study without captured images cannot be completed." may be displayed depending on the settings. In such cases, press the [Pause] button or [Termination] button. Either of the two buttons is displayed depending on the settings.

•••

✎ **HINT** •••••••••••••••••••••••••••••••••

- If there is an unexposed image, a confirmation screen is displayed.

→ Press [OK] to complete the examination by deleting data for the unexposed portion and display the initial screen.

→ Press [Cancel] to return to the previous screen.

- When outputting to a host, the output destination can be switched between the predetermined host and a backup host. Furthermore, when the output conditions are different for each backup destination, recalculation of output size is performed.
- Exposure dose information may also be output during the host output process, depending on settings. For more details, contact Konica Minolta technical representatives.
- Depending on the setting at the time of installation, on the edge of the output film (the output image when output to a host) a mark is added showing whether the image is flipped or not.

🔲 : Flipped

🔲 : Not flipped

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Chapter 5

119

Chapter 6

Functions of each screen

This chapter describes the functions of each screen of this device.

6.1 Functions of the patient registration screen

6.1.1 Search registration

You can search for patient information in the patient database of this device or a higher system and then register it.

1 Input patient name, ID, etc.

• Search results are displayed.

2 Press [Perform].

• Registration is performed in the patient database of this device, and the exposure screen or the body part selection screen is displayed.

📋 **IMPORTANT** ••••••••••••••••••••••••••••••••

• Items that can be searched are "Patient ID" and "Patient Name".
• When searched with "Patient ID", only completely matching patient IDs can be searched, and when searched with "Patient Name", partially matching names can also be searched.
• Search will be performed when the cursor moves from items that can be searched, or [Search] is pressed.
• A search is performed once for each patient data input. When running the search again, do so after clearing the patient data being input by pressing [Clear].

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🖍 **HINT** ••••••••••••••••••••••••••••••••••••

• Reading patient information by barcode reader after focusing on the patient ID enables you to display the information for that patient. You can also transition to the exposure screen at the same time the barcode is read, depending on the setting.
• When there are multiple search results, a list of examination results is displayed. Select the target search from the list and press [OK] to register the examination. Press [Patient Search] to display the search result of the selected examination. Pressing [Cancel] returns to the previous screen.

• When searching a higher system, examination results can also be acquired, depending on the settings selected.
• When examination data is acquired, the corresponding examination is displayed.

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6.1.2 Emergency registration

When patient details are unknown at the time of an emergency, the examination can be performed after performing patient registration with emergency registration.

1 Press the field for the patient ID.

2 Input an arbitrary ID.

3 Press [Enter].

• Registration as an emergency patient is performed in the patient database of this device, and the exposure screen or the body part selection screen is displayed.

📷 **IMPORTANT** ·····································

• When a patient is registered as an emergency patient, a mark indicating emergency patient is displayed in the patient information display area.

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💡 **HINT** ·····································

• The ID input in step 2 is set during installation.

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6.2 Functions of the list screen

6.2.1 Display of details of examination

The details of examinations can be displayed on the list screen.

1 **Select the examination to display its details.**

2 **Press [ ].**

- The details of the examination are displayed on the examination information display area.

6.2.2 Display of examination history

The history of finished examinations can be displayed.

1 **Select the [Completed] tab.**

- A list of finished examinations is displayed.

2 **Select an examination to display its history.**

3 **Press [Refer].**

- The images for the examination history are displayed.

📝 **HINT** ••••••••••••••••••••••••••••••••

- The examination history screen can also be displayed by double-clicking an examination which refers to a history.
- Images of the displayed examination can be re-adjusted and output again.

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6.2.3 Display of examinations with refined search

Conditions can be refined for examinations displayed on the list screen.

● **Screen structure**
This is the screen for refined display of the examination.

Number	Name	Functions
(1)	Filter conditions input column	Inputs/displays filter conditions. Use the input panel/selection buttons/keyboard to input the conditions.
(2)	Input panel/Selection buttons	Selects filter conditions. You can select multiple conditions.
(3)	Clear button	Clears the input filter conditions.
(4)	Filter button	Performs filtering with the input filter conditions.
(5)	Blank button	Filters the examinations for which the conditions are not input when filter conditions are selected.
(6)	Selection cancellation button	Cancels all the selection buttons. This button is displayed only when selection buttons are displayed.

📝 **HINT** ••••••••••••••••••••••••••••••••

- The keyboard may be displayed as shown below.

• You can perform filtering by examination date using the study list, examination history, pending, media, examination sharing, or reason for pending tab. If filtering is performed, the following calendar appears.

• Only the study list tab displays filtering condition [Exposure Date] as [Study Date].

●**Procedure for refined display**

1   Select the tab to display the refined search.

2   Input a keyword under refinement.

• Press [Clear] if you have input the wrong keyword, or to search with another keyword.

3   Press [Filter].

• Only narrowed down examinations are displayed as the search result.

$\overset{\cdot}{\diamond}$ **HINT** •

• When an accession number or patient ID is read from a bar code, the focus will automatically move to the corresponding examination information.

6.2.4   Modification of examination information

After registration of an examination, the examination information can be modified.

1   Select an examination to modify.

2   Press [Modify].

• The patient information is displayed.

3   Select the item to be modified and input the necessary information.

• After selecting the item to be modified, input the necessary information.
• If you press [Enter], the cursor will move to the next item.
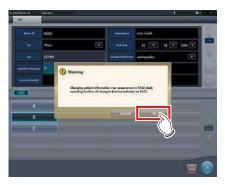

4   Press [OK].

• A confirmation screen is displayed.

5   Press [OK].

• Press [Cancel] to return to the previous screen.

• The modified content is reflected, and display returns to the list screen.

Chapter 6

6.2.5 Deletion of examinations

When registered incorrectly, the examination information can be deleted after the examination is registered.

1 Select an examination to delete.

2 Press [Delete].

• A confirmation screen is displayed.

3 Press [OK].
• Press [Cancel] to return to the previous screen.

• The examination is deleted.

> **HINT** ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯
>
> • Deletion of examination is possible only when there is no exposure.

6.2.6 Addition of Exam. Tags to completed examinations

Exam. Tags can be added to completed examinations.

1 Select the [Completed] tab.

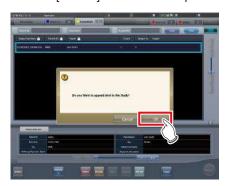**2 Select the examination to which to add Exam. Tags.**

3 Press [Append].

• A confirmation screen is displayed.

4   **Press [OK].**

• Press [Cancel] to return to the previous screen.

• The Body Part Selection screen is displayed.

5   **Set the Exam. Tags.**

• The Exam. Tag is added. ⊞ is displayed for the added Exam. Tag.

6   **Press [OK].**
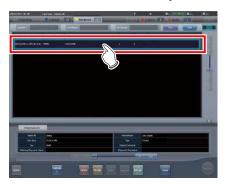
• The exposure screen is displayed.

6.2.7   Protection of examinations

As hard disk space decreases, examinations are automatically deleted beginning with the oldest one. Examinations can be protected so that they are not automatically deleted.

1   **Select an examination to protect.**

2   **Press [Guard].**

• For protected examinations, "G" is displayed for the [Guard] items on the list screen.

 HINT

• Pressing [Guard] again while selecting a protected examination will cancel protection.

6.3 Functions of the body part selection screen

6.3.1 Change of Exam. Tags

When the body part is selected manually, Exam. Tags can be changed.

1 Select the Exam. Tag to change.

2 Press the Exam. Tag to be changed.

- The Exam. Tag is changed.

> **HINT** ·································
> - ↻ is indicated to the changed Exam. Tags.
···

6.3.2 Deletion of Exam. Tags

When the body part is selected manually, Exam. Tags can be deleted.

1 Select the Exam. Tag to delete.

2 Press [Delete].

- The Exam. Tag is deleted.

> **HINT** ·································
> - The Exam. Tags of exposed images cannot be deleted.
···

6.3.3   Change of order of Exam. Tags

When body part selection is performed manually, the order of Exam. Tags can be changed.

1   **Drag and drop the Exam.Tags.**

- A white line is displayed at the position where the order can be changed.

- The order of Exam. Tags is changed.

6.4　Functions of the exposure screen

6.4.1　Modification and addition of Exam. Tags

You can change or add an Exam. Tag during exposure.

● **Switching between Exam. Tag buttons**

1　**Hold down [🔄] or [➕] for one second or longer.**

- Both [Exam.Tag] buttons are displayed in the pop-up window.

2　**Press [🔄] or [➕].**

> 💡 **HINT** ·····································
> - The selected [Exam.Tag] button will be displayed again in your next operation.
> ···

● **Modifying the Exam. Tag**

1　**Select the Exam.Tag to change the target body part and press [🔄].**

- The body part selection screen is displayed, and the selected Exam. Tag is focused.

2　**Change the Exam. Tag.**

Chapter 6

- The Exam. Tag is changed. 🔄 is displayed for the changed Exam. Tag.

3 Press [OK].

- The Exam.Tag on the exposure screen is changed.

● **Adding the Exam. Tag**

1 Press [➕].

- The Body Part Selection screen is displayed.

2 Set the Exam. Tags.

- The Exam. Tag is added. ➕ is displayed for the added Exam. Tag.
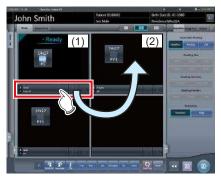
3   **Press [OK].**

• The Exam.Tag is added to the exposure screen.

6.4.2   Change of order of exposures

During exposure, the order of exposures can be changed.

*   Numbers (1), (2) displayed on the screen are shown for ease of explanation, and not displayed on the actual screen.

1   **Drag the Exam.Tags display area whose order of exposure you want to change, and drop it into the image display area at a desired location.**

• Order of exposure is changed.

📝 **IMPORTANT** ·································

• Changing the order of exposures may change the order in which examination information is output to RIS.

·····································

Chapter 6

6.4.3   Copy of Exam. Tags

During exposure, the Exam. Tags can be copied.

📑 **IMPORTANT** ·······································
- After image stitching, the stitch Exam. Tag cannot be copied.
- The auto stitch Exam. Tag copy allows copying of each group.
··

1   **Select the Exam. Tags you want to copy from the order list.**

2   **Press [🖼].**

- A confirmation screen is displayed.

🔦 **HINT** ·······································
- A confirmation message is displayed depending on your settings.
- The [🖼] button is displayed if it has been set with the service tool. If the [🖼] button is not displayed, contact Konica Minolta technical representatives.
··

3   **Press [OK].**

- The Exam. Tags are copied.

6.4.4 Reject (deletion of images)

After exposure, unwanted images can be rejected (deleted).

The following procedure explains assuming that 2 images have been exposed.

* Numbers (1), (A), (2) displayed on the screen are shown for ease of explanation, and not displayed on the actual screen.

1 Select the image to delete.
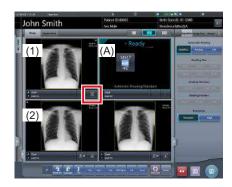

2 Press [🖹].

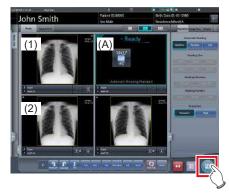• "Expose again?" is displayed.

3 Press [OK] or [Cancel].

• Pressing [OK] copies Exam.Tags (1) to frame (A), enabling you to perform reject and repeat exposure. Further, frame (2) moves to the bottom left. When an Exam. Tag is copied, bad images retain the following settings.
    – Acquisition (Automatic reading, reading size, reading orientation, reading position, resolution)
    – Rotation and flip
• Pressing [Cancel] only performs reject.
• In each case, image (1) is the target of reject, and display [🖹] is changed to [✖].

4 Press [🔲].

• The image in (1) is deleted.

Chapter 6

- Standard reject method is explained in the previous steps.
- It is possible to immediately delete the rejected image or save the images that are reject target. These are setup at installation.

···

HINT ··································

- When the CR cassette is registered with the bar code, the bar code information will also be deleted when an image is lost. Perform bar code registration again.
- Function to save or delete rejected images is set at installation.
- When the Reject Image button is displayed on the tool bar, the reject image mark is indicated.

- [📋] and [✖] replace each other depending on the focused image.

···

6.4.5 Cancellation of reject (deletion of images)

Even when reject is performed, until the examination is ended, reject can be cancelled.

1 Press [✖] for the rejected image.

- A confirmation screen is displayed.

2 Press [OK].

- Press [Cancel] to return to the previous screen.

- [✖] changes to [📋].

IMPORTANT ·······························

- Perform cancellation of reject before the examination is completed. Be careful because reject cannot be cancelled after the examination is completed.
- Examination information may not be received when output to RIS after cancellation of reject the image and moving the order of exposures corresponding to the rejected image to the end.
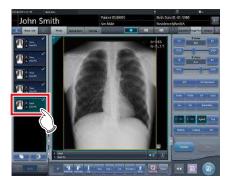
···

HINT ··································

- The function to cancel reject is set during installation.

···

6.4.6 Copying an image

You can copy exposed images (orders) using the following procedure.

📋 **IMPORTANT** ∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙

- You cannot copy the following images.
  - The image of an order that has not been exposed
  - The image of an order that was not successfully acquired from the reading device
  - Images created by stitching exposure
  - A copied image
  - A rejected image
- When 128 orders are displayed in the order list, you cannot copy images.
- The image information transmitted to a higher system will not include the information of a copied image.
- Images cannot be copied when they are being referred to by the examination history.
- Copied images cannot be registered in the statistics/summary database.

∙∙

1 Select the image you want to copy from the order list.

2 Press [🗐].

- The confirmation screen is displayed.

💡 **HINT** ∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙

- You can display [🗐] by setting it using the service tool. When [🗐] is not displayed, contact Konica Minolta technical representatives.
- You cannot press [🗐] while the image is being read.

∙∙

3 Press [OK].

- The image is copied.

💡 **HINT** ∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙∙

- A mark is displayed for a copied image in the order list and the image display area indicating it is a copy.

∙∙

Chapter 6

6.4.7   Replacing an image

You can replace an exposed image (order) with other images.

● **Screen structure**

This is the screen used for selecting the image to be replaced.

Number	Name	Functions
(1)	First page button	Moves the display to the first list of images to be replaced.
(2)	Previous button	Moves the display to the previous list of images to be replaced.
(3)	Image to be replaced	Displays the order image to be replaced.
(4)	Next button	Moves the display to the next list of images to be replaced.
(5)	Last page button	Moves the display to the final list of images to be replaced.
(6)	Cancel button	Closes the screen.

● **Image exchange procedure**

⚠ **IMPORTANT** ·····································

- An image cannot be replaced while the following operations are taking place.
  - Exposure
  - Acquisition of an image from the reading device
- Replacement with the following images is not available.
  - The image of an order that was not successfully acquired from the reading device
  - An image of the order that is waiting for image retransmission
  - Images created by stitching exposure
  - A rejected image
  - A copied image
  - An image exposed as a mammogram and an image exposed as anything other than a mammogram (an image exposed as mammogram can be used to replace another image exposed as a mammogram)
  - An image exposed with a CR cassette and an image exposed with a DR Detector.
  - An image exposed as a serial exposure and an image exposed as anything other than a serial exposure (an image exposed as serial exposure can be exchanged between sets)

·····································

1   Select the replacing image from the order list.

2   Press [▣].

- The image exchange screen is displayed.

• Select a replacing image from the exposed order images.

··

✎ HINT ···

• You can display [ ] by setting it using the service tool. When [ ] is not displayed, contact Konica Minolta technical representatives.

··

✎ HINT ···

• If you select an order that has not been exposed as the image to be replaced, this replacement process is identical to the one used to move the image to a destination.

··

3 **Select an order image to be replaced.**

• A confirmation screen is displayed.

4 **Press [OK].**

• The images are replaced with each other.

Chapter 6

6.4.8   Change of exposure devices

During exposure, the exposure device can be changed.
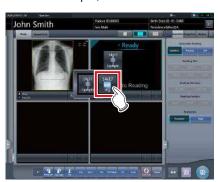
1   Press the device icon of the frame where you want to change the exposure device.
   • The wall stand is registered in this example.

   • Device icons registered in this device are displayed.

2   Select a device icon to change.
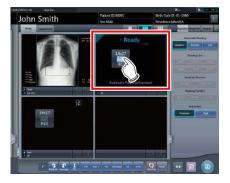   • In this example, the DR Detector is selected.

   • The exposure device is changed.

6.4.9   Switching from the DR Detector to the CR cassette

When exposing with a DR Detector, it is possible to switch to exposure with CR cassette.

1   Move focus to the unexposed image display area to be exposed by the DR Detector.
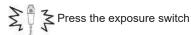
2   Read bar code of the CR cassette.

   • The bar code number is displayed in the Exam. Tags display area.

3   Perform exposure using the registered CR cassette.
   • Configure the X-ray device settings and check the exposure setting before making an exposure.
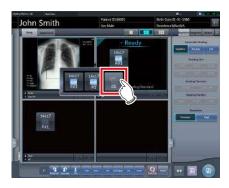
 Press the exposure switch

4 The image is read with the REGIUS or REGIUS SIGMA/SIGMA2.

• The exposed image is displayed.

> **✍ HINT** ･････････････････････････････

• The device can also be switched to CR cassette by pressing the device icon in the unexposed image display area.
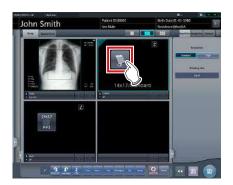

･･

6.4.10 Switching from the CR cassette to the DR Detector

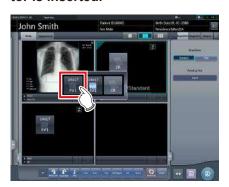When exposing with a CR cassette, it is possible to switch to exposure with a DR Detector.

1 Move focus to the unexposed image display area to be exposed by the CR cassette.
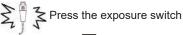

2 Press the device icon.

• Device icons registered in this device are displayed.

3 Select the device in which the DR Detector is inserted.

4   Perform exposure.

- Configure the X-ray device settings and check the exposure setting before making an exposure.

 Press the exposure switch

- The exposed image is displayed.

6.4.11   Switching of DR Detectors

When exposing with a DR Detector, it is possible to switch to exposure with another DR Detector.
The following procedure describes an example of exposure under the following conditions.
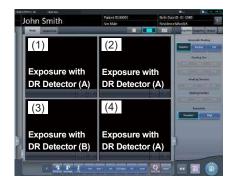
Exposure device

The devices to be used for exposure are as follows.

- DR Detector (A) × 1
- DR Detector (B) × 1
- DR Detector (C) × 1

Exposure sequence

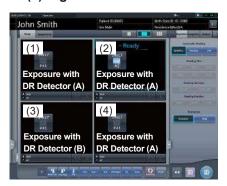The relationship between the exposure sequence and the DR Detector to be used is as follows.

*   The exposure sequence ((1) – (4)) and DR Detector (A)(B)(C) are displayed for ease of explanation, and are not displayed on the actual screen.
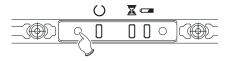
Circumstances

Performing exposure with DR Detector (C) that had been planned to be performed with DR Detector (A).

1   Set focus on any of the image areas (1), (2) or (4) registered with DR Detector (A).
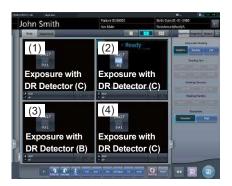
2   Press the selection switch for DR Detector (C).
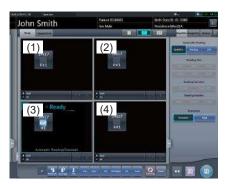

- DR Detector (A) used in exposure of (1), (2) and (4) switches to DR Detector (C).

 HINT ··

- The device can also be switched to a different DR Detector by pressing the device icon in the unexposed image display area.

- In Step 2, when the selection switch for DR Detector (B) is pressed, the cursor moves to frame (3) to expose with DR Detector (B).

··

6.4.12   Status of devices

The device status can be displayed in the image display area where no exposed image is displayed.

1   Set focus on unexposed image display area.

- Status of devices is displayed.

● **Meaning of the device status**

When using a DR Detector

Display	Description
Entry...	Registering. This is displayed while the DR Detector is being registered in this device through roaming.
Preparing	Waiting for switch to response mode and reset to finish.
Connecting...	Connecting.
Processing...	Processing. This is displayed when images are being read.
Starting	Status after turning on the DR Detector until exposure is ready.
Waiting	Waiting. Selecting the frame in which "Waiting" is displayed shifts the mode to "Ready".
Sleep Mode	The DR Detector is sleeping. Selecting the frame in which "Sleep Mode" is displayed shifts the mode to "Ready".

Chapter 6

Display	Description
Ready	Exposure is ready.
Error	Error is occurring.
Panel not detected	Status where exposure conditions for examination are not set yet, and no DR Detector is inserted in either wall stand and table.
Please check panel	For reasons such as no DR Detector is inserted in the wall stand and table, or power is off, exposure is not possible with the DR Detector.
Charging...	This is displayed when the DR Detector is being charged due to a low battery level.
Please Charge	This is displayed when the DR Detector's battery level is low but the DR Detector is not being charged.
Reading…	Images are being read. ✎ HINT • This is displayed when performing exposure in Aero Sync mode.
Waiting for permission	Waiting for exposure permission. Pressing [AeroSync] shifts the mode to "Ready". ✎ HINT • This is displayed when performing exposure in Aero Sync mode.
Waiting to start shooting	Waiting to start shooting. Pressing [AeroSync] shifts the mode to "Ready". This is displayed when the AeroDR power management level is set to [3], [4] or [5]. ✎ HINT • This is displayed when performing exposure in Aero Sync mode.
Stitching System is not connected	This is displayed when this device is not connected to the AeroDR Stitching Unit. Check the connection.
Please do the height detection	This is displayed when the height of the AeroDR Stitching Unit is not detected. Perform height detection.
Please detect radiation field	This is displayed when the irradiation field of the AeroDR Stitching Unit is not detected. Perform irradiation field detection.
Exposed	This is displayed when the number of stitching exposures is less than the scheduled number.

When using a CR cassette

Display	Description
Waiting for preparation	Status where cassettes cannot be loaded. This is displayed when CR cassettes cannot be read continuously.

📝 IMPORTANT ·································

• Serial exposure can be performed with the console for serial exposure. If select the Exam. Tag for serial exposure on other than the console for serial exposure, the device status will be "Error".

·································

✎ HINT ·································

• With the REGIUS, REGIUS SIGMA/SIGMA2, items determined by the inserted CR cassette, "Reading Size", "Reading Direction", and "Reading Position" are not displayed.
• The following are displayed in the image display area where no exposure has been performed.
  – Device icon
  – Exposure conditions (resolution, size, direction, position)
• A confirmation screen is displayed when the image processing related to "Pneumoconiosis" is changed.
• If the device remains in the "Preparing" status, select an image frame to change to the "Ready" status.

·································

6.4.13   Edit of image supplemental information

After exposure, image supplemental information can be edited.

1 **Select images to edit their supplemental information.**

2 **Press [Additional].**

• The image supplemental information editing screen is displayed.

3 **Edit the image supplemental information.**

4 **Press [OK].**

- The supplemental information is added and the exposure screen is displayed.

> 📷 **IMPORTANT** ·································
>
> - Input the patient orientation in the form of Row orientation / Line orientation.
> - For the values available for the Row orientation and Line orientation, refer to the options of the Patient orientation (Row) and Patient orientation (Line) on the Exam. Tag edit tool screen.
> - To display the Patient orientation (Row) and Patient orientation (Line), select the property edit tab on the Exam. Tag edit tool screen, and select the Exam. Tag master for the master/sub master selection.
> - For the details of the Patient orientation (Row) and Patient orientation (Line), refer to the DICOM Standard.
>
> ···

6.4.14 Edit of patient information

Patient information can be modified.

1 **Select the patient whose patient information is to be modified on the list screen, and press [Perform] or [Modify].**

- When [Modify] is pressed
  → Go to step 3

- The exposure screen is displayed.

2 **Press [🖼].**

- The patient information editing screen is displayed.

3 **Edit the patient information.**