10

Presets

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Digitally signed by Grabazei Alexandru
Date: 2024.07.05 11:46:44 EEST
Reason: MoldSign Signature
Location: Moldova

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Digitally signed by Grabazei Alexandru
Date: 2024.05.30 11:48:30 EEST
Reason: MoldSign Signature
Location: Moldova

10.1 Overview

Presets are functions that make the system easy to use with the default settings. In the default settings, the system includes basic settings ([System Preset]), parameter settings dependent on probes ([Application]), and parameter settings not dependent on probes ([Region]). Applications can be added, removed, exported, or imported.
NOTE: Regarding preset data which is not saved by [Save], changes will not be exported. Please save them by selecting [Save] on the changed preset screen.
Presets are composed as follows:

SystemPreset	Sets common system parameters
Application	Parameter settings dependent on the probe
Region	Parameter settings independent of the probe
Measurement	Measurement settings[*1]
Filing	Parameter settings related to image output and playback
Input Device	Function assignment for switches and menus
Dictionary	Settings for user and system dictionaries
ColorMap	Color map menu choice settings

*1.

For details, see the separate manual "Measurements 1".

10.2 System presets

System presets set common system parameters.

Procedure

1. Press the [Probe/Preset] key.
2. Select [Preset Setup] on the touch panel.
3. Select [SystemPreset].
4. Select a category.

SystemPreset categories

Classification	Description
General	Basic system parameters
Monitor/Panel	Adjusts the brightness levels of the monitor, operation panel, and the touch panel.
Trackball	Trackball sensitivity setting
Filing	Parameters related to image output
Network Setting	System network settings.
DICOM	DICOM-related settings
Stress Echo	Stress echo protocol settings[*1]
Shear Wave Meas.	Shear Wave Measurement-related settings[*2]

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Classification	Description
RVS	RVS-related settings*3

*1.

See "Stress Echo" in the separate manual "Advanced Operations 1".

*2.

See "Shear Wave Measurement" in the separate manual "Advanced Operations 2".

*3.

See "Real-time Virtual Sonography" in the separate manual "Advanced Operations 2".

5. Select a tab.
6. Edit the parameters.
   To return parameters to their factory default settings:
   Select [Initialize]. This changes the parameters in the displayed classifications to the factory default settings.
7. Select [Save] to save settings.
8. Select [Close] to return to the scanning screen.
   If the following message is displayed: "Save changes to preset data?"
   Select [Yes] to save changes.
   Select [No] to close the preset screen without saving changes.

10.2.1 General

(1) Common 1 tab

(a) Date/Time

Parameters	Options	Description
Setting		Displays a dialog box where you can set the Windows date and time. The set date and time are reflected in the system.
Date Format	YY/MM/DD MMM.DD,YY MM.DD,'YY DD-MMM-YY DD-MM-'YY	Sets the system date display format. MMM displays the first three letters of the month in English characters. MM indicates the month numerically.

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(b) Shut down

Parameters	Options	Description
Power Button Behavior	Selectable	Selects [Shutdown] or [Hibernation] when the power is turned off.
	Shutdown	Completely shuts down the system when the power is turned off.
	Hibernation	Puts the system into hibernation when the power is turned off. The system can be started faster than when [Shutdown] is selected.
Power Off Waiting Time (s)	0 to 60	Sets the wait time from the time the [Power] key is pressed, until the power-shutoff processing begins.

(c) Screen Saver

Parameters	Options	Description
Screen Saver Display	On, Off	Configures whether to use the screen saver.
Screen Saver	All Season Fireworks Fallen Leaves Snow Ribbon Hospital Name	Configures which screen saver to use. NOTE: Hospital Name will be displayed only when it is input in English.

(d) Timer Freeze

Parameters	Options	Description
Timer Freeze	On, Off	Sets whether to enable the timed freeze function. In addition, Off does not activate the screen saver.
Timer Freeze: Time	1 to 20	Sets the time until Timer Freeze or the screen saver is activated.

(e) ID Setting

Parameters	Options	Description
Unit (Height)	cm, m, feet/inch	Set the units for height.
Unit (Weight)	kg, pound	Set the units for weight.
Gender	(BLANK), Male, Female, Other	Sets the gender.
Autocomplete Setting	On, Off	Sets whether to display the patient ID or name that begins with the first and second numbers or letters of the corresponding patient when entered.

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Parameters	Options	Description
BSA Equation	Du Bois, Boyd, Shintani	Sets the formula to use for calculating body surface area on the ID screen. The formulas for calculating BSA are as follows. • Du Bois $BSA = 0.007184 \times H^{0.725} \times W^{0.425}$ • Boyd $BSA = 0.0003207 \times H^{0.3} \times W^{(0.7285-0.0188 \times \log W)}$ • Shintani $BSA = 0.007358 \times H^{0.725} \times W^{0.425}$
GA/EDC Calculation	LMP, BBT, EGA, EDC, GA	Sets the method for calculating the gestational age and expected date of confinement on the ID screen.
Menstrual Data	LMP, BBT	Sets the method for entering the menstrual date on the ID screen.

(f) Display

Parameters	Options	Description
Parameter Display	On, Off	Sets the automatic display of the image display area (frequency (B), display range, B gain value, and dynamic range value).
5SW Graphic Type	A, B, C	Sets the color of the text in the trackball function information area and the color of the frames.
Info Display Position	Lower, Upper	Sets the automatic display of the image display area position (frequency (B), display range, B gain value, and dynamic range value).
Grid Type	A, B, C, D	Sets the grid type for Brachytherapy.
MI, TI Display when Frozen	On, Off	Sets the MI and TI display to be used when an image is frozen.
Graphic Color	A, B, C, D, E, User	Sets the graphic and font colors. Set the colors registered in [Graphic Editor] under the menu for [User].
Frequency Information	Transmit, Receive	Sets the frequency information in Tissue Harmonic Mode to Transmit or Receive.

(g) Range Zoom Encoder

Parameters	Options	Description
Reverse Depth Control	On	Turning the [PAN ZOOM/DEPTH] rotary encoder to the right reduces the displayed image. Turning it to the left enlarges the displayed image.
	Off	Turning the [PAN ZOOM/DEPTH] rotary encoder to the right enlarges the displayed image. Turning it to the left reduces the displayed image.

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(2) Common 2 tab

(a) Trackball

Parameters	Options	Description
Reverse ROI Control	On	Rolling the trackball to the right expands the ROI laterally, while rolling it to the left shrinks it. Rolling it upwards shrinks it vertically, while rolling it downwards expands it.
	Off	Rolling the trackball to the right expands the ROI laterally, while rolling it to the left shrinks it. Rolling it upwards expands it vertically, while rolling it downwards shrinks it.
Automatic Reversal in PAN Zoom after HI Zoom	On, Off	Sets whether to invert the direction in which the trackball is to be rotated in PAN Zoom mode when the zoom mode is changed from HI Zoom to PAN Zoom.
HI Zoom Cycle Control	On, Off	Sets whether to enable the function that magnifies the target area by pressing the [HI Zoom] key when HI Zoom ROI is displayed.

(b) Significant Figure

Parameters	Options	Description
ABDOM	Standard Extended Setting1 Setting2 (Common parameters)	Set the number of digits to display for measurement results for each region. [Standard]: Depends on the scale. [Extended]: Displays as "***.** mm, **.***cm". [Setting 1]: Displays as "**.*mm, **.**cm". [Setting 2]: Displays as "***mm, **.*cm".
OBST		
GYN		
CARDIO		
VASCULAR		
SMALL PARTS		
UROLOGY		
OTHER		

(3) Hospital Info. tab

Parameters	Options	Description
Hospital Name		Enter the hospital name. Enter no more than 40 characters. The name input here is displayed on the scanning screen.
Local Machine: Department		Enter the department name within the hospital. Enter no more than 64 characters.
Local Machine: Address		Enter the address of the hospital. Enter no more than 128 characters.

10.2.2 Monitor/Panel

Sets the monitor, control panel, and touch panel brightness.

(1) Type A, Type B, Type C

Sets parameters for the monitor, control panel, and touch panel brightness all at once.

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(a) Monitor

Parameters	Options	Description
Brightness	1 to 10	Sets the brightness of the monitor.
Contrast	1 to 10	Set the contrast of the monitor.
Color Temp.	Low, Medium, High	Sets the color temperature of the monitor.
Back Light	1 to 10/1 to 20	Sets the backlight of the monitor. NOTE: Items you can set differ depending on the size of the screen. NOTE: This item does not appear when a 22-inch monitor is used.
Scaling	Small, Medium, Large	Sets the size of the screen displayed on the monitor. NOTE: This item appears only when a 23-inch monitor is used.

(b) Touch panel

Parameters	Options	Description
Brightness	1 to 10	Sets the brightness of the touch panel.

(c) Panel LED

Parameters	Options	Description
Brightness	Low, Medium, High	Sets the LED brightness of the operation panel.

10.2.3 Trackball

Sets the sensitivity of the trackball.

(1) Sensitivity

Parameters	Options	Description
M&FAM Cursor	-50 to 50 (Common parameters)	Sets the sensitivity of the trackball for each parameter. The standard is set at [0]. Minus slows the response, while plus makes it faster.
PW&CW Cursor		
PW&CW&SWM Cursor[*1]		
CF Scan Area		
Measurement		
Probe Mark		
Cine Search		
Pointer		
Focus		
Other		

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*1.
The optional product SOP-ARIETTA750-151 is required.

10.2.4 Filing

Sets image output.

(1) Archive tab

(a) Archive Group

Perform the following steps to set the output method for Archive Group1 to Archive Group5.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [SystemPreset], [Filing], and then the Archive tab.
3. Select a group from Archive group.
4. In the Real-time field of Assign function, set the output method for images that are displayed in real time .
5. In the Freeze field of Assign function, set up to three output methods for use after images are frozen.
6. In Format Type, set the output format of the Archive Group.
7. Select [Save] to save settings.
8. Select [Close] to return to the scanning screen.
   If the following message is displayed: "Save changes to preset data?"
   Select [Yes] to save changes.
   Select [No] to close the preset screen without saving changes.

(b) Format Type(Archive Group)

Parameters	Options	Description
USB	DICOM, JPEG, BMP, TIFF	Sets the data storage format for saving to USB, CD-R Buffer, or DVD.
CD-R Buffer		
DVD		

(2) Printer/Recorder tab

(a) Local Printer

Parameters	Options	Description
Printer Select (B/W)	SSZ-X311 UP-X898MD P95D	Sets the black-and-white printer.
Printer Select (Color)	SSZ-D710 UP-D25MD CP30D	Sets the color printer.

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Parameters	Options	Description
Number of Pages to Print	1 to 3	Sets the number of continuous prints with a digital black-and-white printer.

(3) Review1 tab

(a) Auto Select

Parameters	Options	Description
When thumbnails are displayed in the Tile View or thumbnail area.	Select All Deselect All	Sets the selection status of thumbnails in Tile View or in the thumbnail area.

(b) Double Click (Find)

Parameters	Options	Description
When an image is double clicked on the Find screen.	Tile Full Screen	Sets the screen to be displayed after you move the pointer to a thumbnail in the search screen and then press the [Enter] key twice.

(c) Order (Review)

Parameters	Options	Description
Set the order of thumbnail display in Tile View.	Old to New New to Old	Sets the display sequence for thumbnails in the Tile view.

(d) Auto Loop (Tile)

Parameters	Options	Description
Loop playback of the thumbnails of Video Clip images in the Tile View.	On, Off	Sets the playback of thumbnails (video) in the Tile View.

(e) Protocol Assistant (Find/Tile)

Parameters	Options	Description
Sorts images taken with protocol assistant running from images taken without.	On, Off	Sets whether to save the images saved during execution of the protocol in a series that differs from other image series. NOTE: When On is specified, images are saved in a separate series, if images are saved during execution of a protocol. When Off is specified, the series are not divided when images are saved during execution of a protocol. A pink image number is displayed on the thumbnails of the images that are saved during execution of a protocol. If the system is shut down, the numbers are displayed in green the next time the system starts.

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(4) Review2 tab

(a) Auto Search (Find)

Parameters	Options	Description
When Find screen is displayed, search and display the current patient.	On, Off	When the screen is switched to the Find screen, the system automatically enters Today in Study Date to perform a search, and then displays the patient currently being examined with the patient selected. NOTE: This parameter is enabled only when you add or delete image data or for the first time after you press [New Patient].

(b) Thumbnail

Parameters	Options	Description
Display annotation on thumbnail.	On, Off	When an image is saved with a comment input, this setting displays the comment as large text on the thumbnail.

(c) Auto Load Raw Data

Parameters	Options	Description
Raw data of a single raw image is automatically loaded by:	Playing Raw Image	When displaying an image selected as a thumbnail or in Tile view in full screen, the system automatically loads the Raw data into Cine memory and plays back the image.
	Pressing Measurement/ Caliper SW	After an image selected as a thumbnail or in Tile view is displayed in full screen, the system automatically loads the Raw data into Cine memory and plays back the image when the [Caliper] or [Measurement] key is selected.
	Off	The system does not automatically load Raw data into Cine memory.

(5) Detail tab

(a) Auto Delete

Parameters	Options	Description
Auto Image Delete	Storage Commitment	After receiving a Commitment, images stored on the system hard disk (blue icons) are deleted once the accumulation time has elapsed. These images are deleted when the system is shut down after the accumulation time has elapsed.
	Time	Deletes only images set in Delete Object from among the images that have been saved to the system hard disk and whose accumulation time has elapsed. These images are deleted when the system is shut down after the accumulation time has elapsed.
	Off	Specifies that stored images are not to be deleted.

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Parameters	Options	Description
Delete Object	All images	Specifies that all images stored on the system hard disk are to be automatically deleted.
	Clipped or sent images	Specifies that the following images are to be deleted: images output from the system hard disk to external media (light blue icons), and images transferred to the server (icons are orange or blue).
Holding TIme (0-60)	Day,Week, Month	Sets the storage period for images saved to external media or transferred to the server from the system hard disk. Select the type from [Day], [Week], or [Month], and set the numerical value.

(b) Compression Data

Parameters	Options	Description
JPEG Q Factor (50-99)	50 to 99	Sets the image compression rate to use when the transfer syntax is JPEG.

(c) DICOM File Type (Stress Echo)

Parameters	Options	Description
Convert to Video Clip (Net. / USB)	On, Off	Set whether to copy images stored in the system hard disk to Video Clip format.

(d) Store ID Screen

Parameters	Options	Description
When starting examination, store ID Screen	On, Off	Sets whether to automatically save the Main Setting screen of the ID screen as an image when the ID screen on which a patient ID has been input is closed. NOTE: Select [Setup] at the top right of the ID screen, and then, in the General tab, set Emergency ID to [On]. If the Emergency ID setting is [Off], the Main Setting screen is not automatically saved because no patient ID is automatically input.

10.2.5 Network Setting

You can set various system network settings.

Parameters	Options	Description
AE Title		Enter an AE name for the system. Enter no more than 16 characters.
Station Name		Sets the station name of the system.
Port#	0 to 65535	Set the port number of the system.
QR Port#	0 to 65535	Sets the QR port no. of the system.

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Parameters	Options	Description
Select IP Version	IPv4, IPv6	Sets the IP version to be used for the system. The IP address window changes to the window for IPv4 or for IPv6, depending on the setting of Select IP Version. This setting also determines whether data is to be transferred to the IPv4 server or the IPv6 server. When IPv4 is selected, the settings of the IPv4 server are applied. When IPv6 is selected, the settings of the IPv6 server are applied.

Wired Network Connection and Wireless Network Connection (When Select IP Version is set to IPv4)

Parameters	Options	Description
Obtain an IP Address from a DHCP server	On, Off	Sets to automatically acquire the IP address via the DHCP server.
Use the following IP address	On, Off	Sets to a fixed IP address. The following 4 items have to be configured.
IP Address		Sets the IPv4 address for the system.
Router1		Sets the IPv4 address of the default gateway for prior use.
Router2		Sets the IPv4 address of the default gateway for alternative use. This router will be used when there is no response from Router1.
Subnet Mask		Sets the IPv4 address of the subnet mask of the system.

Wired Network Connection and Wireless Network Connection (When Select IP Version is set to IPv6)

Parameters	Options	Description
Obtain an IP Address from a DHCP server	On, Off	Sets to automatically acquire the IP address via the DHCP server.
Use the following IP address	On, Off	Sets to a fixed IP address. The following 4 items have to be configured.
IP Address		Sets the IPv6 address for the system.
Router1		Sets the IPv6 address of the default gateway for prior use.
Router2		Sets the IPv6 address of the default gateway for alternative use. This router will be used when there is no response from Router1.
Prefix Length		Sets Prefix Length for the IPv6 address.

NOTE: Input rules of IPv6 addresses comply with the rules of Windows.

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(1) Checking TCP/IP for the system

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Network Setting] of [System Preset].
3. Set various system network settings.
4. Select [Local Ping].

   → The system TCP/IP examination begins.

Examination Results

The following message is displayed when the test is complete.

Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.

10.2.6 DICOM

Sets DICOM related parameters.

(1) Common tab

Parameters	Options	Description
Private Tag	None	Setting for no private tag to be assigned.
	Put into File	Sets assignment of a private tag when saving DICOM data to external media.
	Put into Network	Sets assignment of a private tag when sending DICOM data to a server.
	Put into Both	Sets assignment of a private tag when saving DICOM data to external media or transferring it to a server.
	Put into File +DICOMDIR	Sets assignment of a private tag when saving DICOM data to external media. Sets to also assign a private tag to DICOMDIR.
	Put into All	Sets assignment of a private tag when saving DICOM data to external media or transferring it to a server. Sets to also assign a private tag to DICOMDIR.
Attach Thumbnail	On	Produces thumbnail data within a folder and DICOMDIR.
	Off	Creates thumbnail data only in a folder.
	Off(PDI)	Does not produce thumbnail data in a folder nor in DICOMDIR.

(a) Store on Disk

Sets items related to the saving of images on external media.

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Parameters	Options	Description
Syntax	Implicit Little Explicit Little RLE Lossless JPEG Baseline	Sets the transfer syntax.
DICOM+Raw	On, Off	Sets the assignment of Raw data when saving images in DICOM format.

(b) Send to Storage

Sets items related to the transferring of images to the network.

Parameters	Options	Description
Photometric	RGB Monochrome2	Sets the transfer method for color images.
JPEG Q Factor	50 to 99	Set the compression ratio when the Syntax is set for [JPEG Baseline]. NOTE: The smaller the value, the higher the compression rate is.
Dicom+Raw	On, Off	Sets the assignment of Raw data when saving images in DICOM format.
Window Center	0 to 255	Sets the median brightness value to DICOM Tag (0028,1050) when Photometric is set to [Monochrome2].
Window Width	1 to 256	Sets the brightness width to DICOM Tag (0028,1051) when Photometric is set to [Monochrome2].

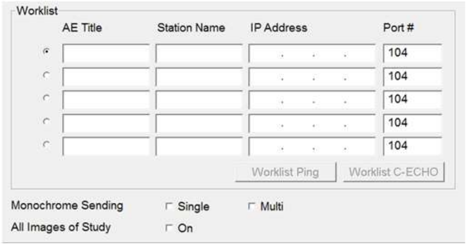
(2) Server/Worklist tab

(a) Setting up servers

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the Server/Worklist tab from [DICOM] of [SystemPreset].
3. Enter information about the network server.
   Network server setting items

When Select IP Version is set to IPv4

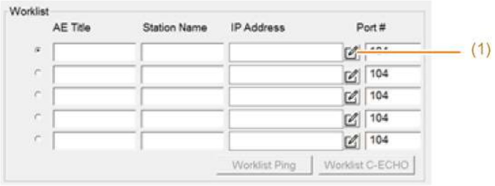

Worklist
AE Title
Station Name
IP Address
Port #
Worklist Ping
Worklist C-ECHO

● ○ ○ ○ ○

AE Title	Station Name	IP Address	Port #
		. . .	104
		. . .	104
		. . .	104
		. . .	104
		. . .	104

Monochrome Sending ☐ Single ☐ Multi
All Images of Study ☐ On

When Select IP Version is set to IPv6


Worklist
AE Title
Station Name
IP Address
Port #
104
104
104
104
Worklist Ping
Worklist C-ECHO
(1)

(1) IP Address editing button

Parameters	Options	Description
AE Title		Enter the AE name for the network server. Enter no more than 16 characters.

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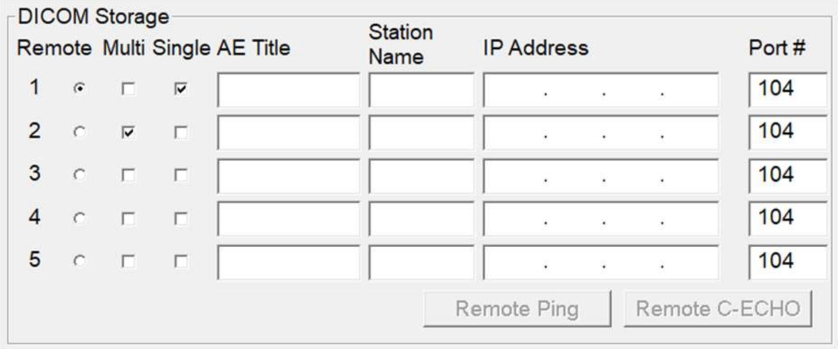
Parameters		Options	Description
Station Name			Sets the computer name of the network server.
IP Address			Sets the IP address of the network server. NOTE: If Select IP Version is set to IPv6 and you click an IP Address editing button, the IPv6 address settings dialog box appears. Specify an IPv6 address.
Port#		0 to 65535	Sets the port no. of the network server. The DICOM standard setting is [104].
Monochrome Sending[*1]	Single	On, Off	Sets whether to use a still image identification transfer (sent by RGB transfer if a color image is included, and by Monochrome2 format if a color image is not included) if the destination is set to [Net (DICOM)].
	Multi	On, Off	Sets whether to use a video identification transfer (sent by RGB transfer if a color image is included, and by Monochrome2 format if a color image is not included) if the destination is set to [Net (DICOM)].
All Images of Study		On, Off	The SR file and image are sent if SR Auto Creation is On in the preset ([Preset Setup] > [SystemPreset] > [DICOM] > [SR]). NOTE: Make sure in advance that the destination server is selected. If no destination server is selected, data will not be sent.

[*1] This item can be set if RGB is set for the Photometric parameter from the preset ([System Preset] > [DICOM] > [Common] > [Send to Storage]).

4. Select the radio button for the server to which images are to be sent.
   Setting the destination server
   Multi: Select the check box for the server you want to send a video to.
   Single: Select the check box for to the server you want to send a still image to.



DICOM Storage

Remote		Multi	Single	AE Title	Station Name	IP Address	Port #
1	●	☐	☑			. . .	104
2	○	☑	☐			. . .	104
3	○	☐	☐			. . .	104
4	○	☐	☐			. . .	104
5	○	☐	☐			. . .	104

5. For the Worklist server, specify settings in steps 2 and 3 in the same way.

(b) Checking TCP/IP or C-ECHO for the network server

Prior confirmation

Enter all the network settings (4 items) for the desired server.

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Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the Server/Worklist tab from [DICOM] of [SystemPreset].
3. Select the radio button for the target network server.
4. Select [Remote Ping] to check TCP/IP functionality, and [Remote C-ECHO] to confirm the retention of DICOM handling functions.

   → Starts the test of the system.

Examination Results

The following message is displayed when the test is complete.

Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.
Echo check to *******.******* succeeded.	DICOM functions are being maintained.
Echo check to *******.******* failed.	DICOM functions are not being maintained. Consult the network administrator of the hospital network.

(c) Checking TCP/IP or C-ECHO for a worklist

Prior confirmation

Enter all the network settings (4 items) for the worklist server.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the Server/Worklist tab from [DICOM] of [SystemPreset].
3. Select the radio button for the work list server.
4. Select [WorkList Ping] to check TCP/IP functionality, and [WorkList C-ECHO] to confirm the retention of DICOM handling functions.

   → Starts the test of the system.

Examination Results

The following message is displayed when the test is complete.

Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.

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Messages	Status
Echo check to *******.******* succeeded.	DICOM functions are being maintained.
Echo check to *******.******* failed.	DICOM functions are not being maintained. Consult the network administrator of the hospital network.

(3) QR tab

NOTE: IPv4 is the only supported IP version.

(a) Setting up servers

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the QR tab from [DICOM] of [SystemPreset].
3. Enter information about the network server.

Network server setting items

Parameters	Options	Description
AE Title		Enter the AE name for the network server. Enter no more than 16 characters.
Station Name		Sets the computer name of the network server.
IP Address		Sets the IP address of the network server.
Port#	0 to 65535	Sets the port no. of the network server. The DICOM standard setting is [104].

4. Select the radio button for the server to which images are to be sent.

(b) Checking TCP/IP or C-ECHO for the network server

Prior confirmation

Enter all the network settings (4 items) for the desired server.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the QR tab from [DICOM] of [SystemPreset].
3. Select the radio button for the target server.
4. Select [Ping] to check TCP/IP functionality, and [C-ECHO] to confirm the retention of DICOM handling functions.

   → Starts the test of the system.

Examination Results

The following message is displayed when the test is complete.

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Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.
Echo check to *******.******* succeeded.	DICOM functions are being maintained.
Echo check to *******.******* failed.	DICOM functions are not being maintained. Consult the network administrator of the hospital network.

(4) MPPS/Commitment tab

(a) Specifying settings for the MPPS server or the Storage Commitment server

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the MPPS/Commitment tab from [DICOM] of [SystemPreset].
3. Enter information about the MPPS server.

MPPS Server settings

Parameters	Options	Description
AE Title		Enter the AE name for the network server. Enter no more than 16 characters.
Station Name		Sets the computer name of the network server.
IP Address		Sets the IP address of the network server. NOTE: If Select IP Version is set to IPv6 and you click an IP Address editing button, the IPv6 address settings dialog box appears. Specify an IPv6 address.
Port#	0 to 65535	Sets the port no. of the network server. The DICOM standard setting is [104].

4. Make settings in step 2 in the same way for the Storage Commitment server.
5. Make the various settings for Storage Commitment.

Parameters	Options	Description
Transaction limit	1 to 60	Set the wait time to wait for a reply from the Storage Commitment server after an image is sent. NOTE: A response is not received after the set time has elapsed. After entering the values, select the type from [hour], [day], and [week].
	Unlimited	Sets to continue waiting for a reply from the Storage Commitment server.

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Parameters	Options	Description
Retries	0 to 99	Sets the number of resend attempts if there is no response after an image is sent. [0] displays an error message without resending.
	Unlimited	Sets to continually retransmit until there is a reply from Storage Commitment server.

(b) Checking TCP/IP or C-ECHO for MPPS

Prior confirmation

Enter all the network settings (4 items) for the desired server.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the MPPS/Commitment tab from [DICOM] of [SystemPreset].
3. Select the radio button for the target server.
4. Select [Ping] within the MPPS Server frame to check the TCP/IP function, and select [C-ECHO] within the MPPS Server frame to confirm the retention of DICOM handling functions.

   → Starts the test of the system.

Examination Results

The following message is displayed when the test is complete.

Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.
Echo check to *******.******* succeeded.	DICOM functions are being maintained.
Echo check to *******.******* failed.	DICOM functions are not being maintained. Consult the network administrator of the hospital network.

(c) Checking TCP/IP or C-ECHO for Storage Commitment

Prior confirmation

Enter all the network settings (4 items) for the desired server.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the MPPS/Commitment tab from [DICOM] of [SystemPreset].

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3. Select the radio button for the target server.
4. Select [Ping] within the Storage Commitment frame to check the TCP/IP function, and select [C-ECHO] within the Storage Commitment frame to confirm the retention of DICOM handling functions.

   → Starts the test of the system.

Examination Results

The following message is displayed when the test is complete.

Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.
Echo check to *******.******* succeeded.	DICOM functions are being maintained.
Echo check to *******.******* failed.	DICOM functions are not being maintained. Consult the network administrator of the hospital network.

(5) SR tab

(a) Configuring settings for a SR Storage server

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the SR tab from [DICOM] of [SystemPreset].
3. Configure the SR Auto Creation.

   SR Auto Creation setting items

Parameters	Options	Description
Auto create&transfer SR file when the New Patient operation is generated.	On, Off	Sets the DICOM SR file auto create timing when the [New Patient] key is pressed or [End Exam] is selected.

4. Enter information about the SR Storage server.

   DICOM SR Storage setting items

Parameters	Options	Description
AE Title		Enter the AE name for the network server. Enter no more than 16 characters.
Station Name		Sets the computer name of the network server.

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Parameters	Options	Description
IP Address		Sets the IP address of the network server. NOTE: If Select IP Version is set to IPv6 and you click an IP Address editing button, the IPv6 address settings dialog box appears. Specify an IPv6 address.
Port#	0 to 65535	Sets the port no. of the network server. The DICOM standard setting is [104].

5. Select the radio button for the target server.

(b) Checking TCP/IP or C-ECHO for SR Storage

Prior confirmation

Enter all the network settings (4 items) for the desired server.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the SR tab from [DICOM] of [SystemPreset].
3. Select the radio button for the target server.
4. Select [Ping] to check TCP/IP functionality, and [C-ECHO] to confirm the retention of DICOM handling functions.

   → Starts the test of the system.

Examination Results

The following message is displayed when the test is complete.

Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.
Echo check to *******.******* succeeded.	DICOM functions are being maintained.
Echo check to *******.******* failed.	DICOM functions are not being maintained. Consult the network administrator of the hospital network.

(6) Printer tab

(a) Configuring a DICOM printer

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the Printer tab from [DICOM] of [SystemPreset].

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3. Enter information about the DICOM printer.

DICOM Printer setting items

Parameters	Options	Description
Model Name		Select the printer model from the list.
AE Title		Enter the AE name for the DICOM printer. Enter no more than 16 characters.
Station Name		Sets the computer name of the DICOM printer.
IP Address		Sets the IP address of the DICOM printer. NOTE: If Select IP Version is set to IPv6 and you click an IP Address editing button, the IPv6 address settings dialog box appears. Specify an IPv6 address.
Port#	0 to 65535	Sets the port No. of the DICOM printer. The DICOM standard setting is [104].

4. Select the radio button for the DICOM printer to use.

(b) Checking TCP/IP or C-ECHO for a DICOM printer

Prior confirmation

Enter all the network settings (4 items) for the desired server.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select the Printer tab from [DICOM] of [SystemPreset].
3. Select the radio button for the target server.
4. Select [Ping] to check TCP/IP functionality, and [C-ECHO] to confirm the retention of DICOM handling functions.

   → Starts the test of the system.

Examination Results

The following message is displayed when the test is complete.

Messages	Status
Ping check to *******.******* succeeded.	TCP/IP is functioning normally.
Ping check to *******.******* failed.	TCP/IP is not functioning. Consult the network administrator of the hospital network.
Echo check to *******.******* succeeded.	DICOM functions are being maintained.
Echo check to *******.******* failed.	DICOM functions are not being maintained. Consult the network administrator of the hospital network.

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(7) Detail tab

Parameters	Options	Description
Timeout (1 - 1000)	1 to 1000	Sets the time (s) until communications time out.
Retry Interval	1 to 60, Power On	Sets the time before resending. Select the type from either [min] or [hour] after configuring the numeric value on the left.
DICOM Planar Configuration	Plane, Pixel	Configures DICOM RGB during network transmission.

10.3 Application presets

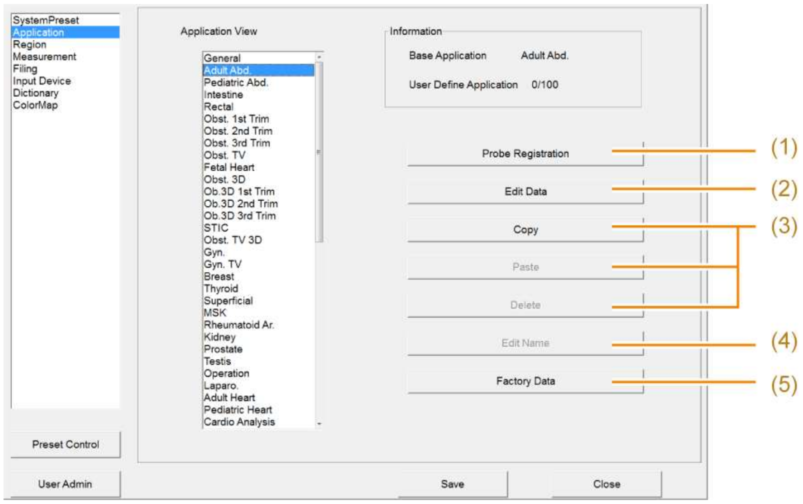
Configures categories dependent on probes.

Procedure

1. Press the [Probe/Preset] key.
2. Select [Preset Setup] on the touch panel.
3. Select [Application].

Display example

Application consists of the application list, information, and various buttons.



Information

Base Application Adult Abd.

User Define Application 0/100

SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Preset Control
User Admin
Application View
General
Adult Abd.
Pediatric Abd.
Intestine
Rectal
Obst. 1st Trim
Obst. 2nd Trim
Obst. 3rd Trim
Obst. TV
Fetal Heart
Obst. 3D
Ob.3D 1st Trim
Ob.3D 2nd Trim
Ob.3D 3rd Trim
STIC
Obst. TV 3D
Gyn.
Gyn. TV
Breast
Thyroid
Superficial
MSK
Rheumatoid Ar.
Kidney
Prostate
Testis
Operation
Laparo.
Adult Heart
Pediatric Heart
Cardio Analysis
Probe Registration
Edit Data
Copy
Paste
Delete
Edit Name
Factory Data
Save
Close
(1)
(2)
(3)
(4)
(5)

This screen can be used as follows.

Parameters		Description
(1)	Probe Registration	Registering an Application to a Probe
(2)	Edit Data	Editing application parameters
(3)	Copy, Paste, Delete	Copying, pasting, and deleting applications
(4)	Edit Name	Changing application names
(5)	Factory Data	Initializing applications (resetting to the factory default settings)

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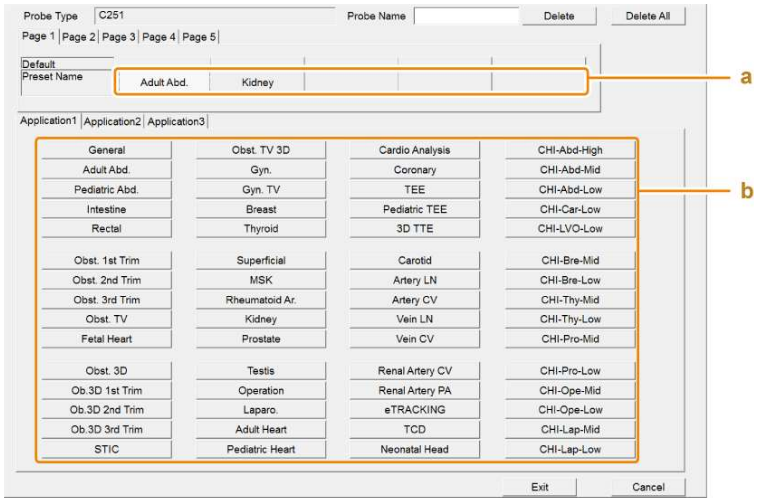
10.3.1 Registering applications to a probe

Up to 25 applications can be registered to one probe. Applications that are registered to one probe can still be registered to another.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
4. Select [Probe Registration].
5. Select a probe.
6. Select an application.
    a. Select the registration position.
    b. Select an application.


Probe Type C251

Default Preset Name: Adult Abd., Kidney

Probe Name
Delete
Delete All
Page 1
Page 2
Page 3
Page 4
Page 5
a
Application1
Application2
Application3
b
General
Adult Abd.
Pediatric Abd.
Intestine
Rectal
Obst. 1st Trim
Obst. 2nd Trim
Obst. 3rd Trim
Obst. TV
Fetal Heart
Obst. 3D
Ob.3D 1st Trim
Ob.3D 2nd Trim
Ob.3D 3rd Trim
STIC
Obst. TV 3D
Gyn.
Gyn. TV
Breast
Thyroid
Superficial
MSK
Rheumatoid Ar.
Kidney
Prostate
Testis
Operation
Laparo.
Adult Heart
Pediatric Heart
Cardio Analysis
Coronary
TEE
Pediatric TEE
3D TTE
Carotid
Artery LN
Artery CV
Vein LN
Vein CV
Renal Artery CV
Renal Artery PA
eTRACKING
TCD
Neonatal Head
CHI-Abd-High
CHI-Abd-Mid
CHI-Abd-Low
CHI-Car-Low
CHI-LVO-Low
CHI-Bre-Mid
CHI-Bre-Low
CHI-Thy-Mid
CHI-Thy-Low
CHI-Pro-Mid
CHI-Pro-Low
CHI-Ope-Mid
CHI-Ope-Low
CHI-Lap-Mid
CHI-Lap-Low
Exit
Cancel

To cancel application registrations:
Select the desired application and then select [Delete].
Select [Delete All] to cancel the registrations of all applications.
To configure applications as defaults:
Select the button above the name of the application.
To set any probe name:
Enter the name in the Probe Name field.
The set probe name appears in the scanning screen or touch panel probe image.

7. Select [Exit].

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10.3.2 Adding and deleting applications

(1) Adding applications

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select an application to copy.
4. Select [Copy].
5. From the Application View field, select the application to overwrite.
   To add a new application, select "[ ]".
   NOTE: Factory default applications and applications used in the scanning screen cannot be overwritten.
6. Select [Paste].

   → The selected application is overwritten.
   Newly added applications are added at the bottom of the Application list. This application is counted as a user-defined application.

(2) Deleting applications

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
   NOTE: Factory default applications and applications used in the scanning screen cannot be deleted.
4. Select [Delete].
5. Check the message and select [OK].

   → The selected application is deleted. The application list is updated by moving applications upwards.

10.3.3 Changing application names

Change the name of newly added applications.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
   NOTE: The names of factory default applications and "[ ]" cannot be changed.
4. Enter a name.

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    a. Select [Edit Name] and enter a name.
    b. Select [Enter] on the keyboard.

10.3.4 Initializing applications

The selected application is restored to its factory default state.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
4. Select [Factory Data].
5. Select [OK] on the message.

    → This resets it to the factory default settings. For user-defined color maps, this returns the color map of the copy source to its factory default settings. However, the name does not change.

10.3.5 Sorting applications

Move the selected application within the application list.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
4. Use the trackball to move the application to the desired position, while holding down the [Enter] key.
5. Release the [Enter] key.

10.3.6 Editing application parameters

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
4. Select [Edit Data].
5. Select the desired parameter in the items field.

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Application items

Item	Description	Reference
General	Configures parameters not classified below.	
B	B mode-related settings	
M	M mode-related settings	
Doppler	D mode-related settings	
Color	CF mode-related settings	
Tissue Dop.	TDI mode-related settings	
Body Mark	Body mark menu settings	
CHI	Contrast Harmonic Imaging-related settings	Separate manual "Advanced Operations 2"
Elasto	Settings related to real-time tissue elastography	Separate manual "Advanced Operations 2"
RVS	Settings related to real-time virtual sonography	Separate manual "Advanced Operations 2"
Stress Echo	Stress echo-related settings	Separate manual "Advanced Operations 1"
eTRACKING	Settings related to eTRACKING	Separate manual "Advanced Operations 3"
3D/4D	Settings related to 3D/4D	Separate manual "Advanced Operations 3"
BiPlane	Settings related to BiPlane	Separate manual "Advanced Operations 3"
Cardiac 3D	Settings related to Cardiac 3D	Separate manual "Advanced Operations 3"
Shear Wave Meas.	Shear Wave Measurement-related settings	Separate manual "Advanced Operations 2"
Auto FHR+	Settings related to Auto FHR+	
Protocol	Settings related to Protocol Assistant	

6. Select a tab.
7. Edit the parameters.
   To return parameters on the displayed tab to their factory default settings:
   Select [Initialize]. This changes only the parameters on the displayed tab to their factory default settings.
8. Select [Save] to save settings.
9. Select [Close] to return to the scanning screen.
   If the following message is displayed: "Save changes to preset data?"
   Select [Yes] to save changes.
   Select [No] to close the preset screen without saving changes.

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10.3.7 Application parameters: General

(1) Common tab

(a) Auto Optimizer

Parameters	Options	Description
Brightness Level	Auto, Manual	Sets acquisition of target brightness values to automatic or manual.
Brightness Level (Manual) [dB]	40 to 80	Sets the target brightness value when Brightness Level is set to [Manual].
Base Line Position	0 to 16, Unchanged	Sets the position for shifting the baseline when baseline shift is corrected in D mode and [Auto Optimizer] is On.
Vel.Range (PW)	1.26 to 802.08	Sets the target speed range for correcting in PW mode when [Auto Optimizer] is On.
Vel.Range (CW)	25.07 to 802.08	Sets the target speed range for correcting in CW mode when [Auto Optimizer] is On.

Target

Parameters	Options	Description
Gain (B [M])	On, Off	Sets whether to use B(M) gain correction including TGC and LGC.
Gain (Color)	On, Off	Sets whether to use color gain compensation.
Gain (D)	On, Off	Sets whether to use Doppler gain compensation.
Sound Speed	On, Off	Sets whether to use speed of sound correction.
Dop Vel./Baseline	On, Off	Sets whether to use Doppler speed range and Doppler baseline shift compensation.
Dop Angle (Freeze)	On, Off	Sets whether to use Doppler detection angle (freeze) compensation.
Doppler Assist Function	On, Off, iVascular	Sets the type of automatic configuration to be used when Auto Optimizer starts. If On is set, Dop Angle (Real) or Dop Cursor Assist (Cardiology) is automatically set. If Off is set, the Doppler cursor is not automatically set. In Dop Angle (Real), correction of the Doppler detection angle (real time) is automatically set. In Dop Cursor Assist (Cardiology), the cross section of a heart is identified, and the position of the sample volume is automatically sets. If iVascular is selected, iVascular is automatically set.

iVascular

Parameters	Options	Description
Auto Color ROI	On, Off	Sets whether to automatically set the position of the flow area when iVascular starts.

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Parameters	Options	Description
Auto Sample Gate	On, Off	Sets whether to automatically set the sample volume when iVascular starts. If On is selected, this sets whether to automatically set Gate Position, Gate Size, and Angle Correct.

Parameters	Options	Description
Region Data Setting	Abdomen, Obstetric, Gynecology, Cardiology, Vascular, Small Parts, Urology, Transvaginal, Transrectal, Operation, Obst. 3D, Cardiac 3D Matrix, CHI, User 1 to User 9	Sets diagnostic region settings associated with applications.
Input Device	Abdomen, Obstetric, Gynecology, Cardiology, Vascular, Small Parts, Urology, Obst. 3D, CHI, CHI-HiMI, CHI-Linear, Cardiac 3D Matrix, CHI-Cardio, *** GP, User 1 to User 9	Sets input devices associated with applications.
Measurement Application	Abdom/Rad, OB, GYN, Cardio, Vascular, URO, S. parts, Other, eTRACKING, Cardio Pediatrics	Sets measurement applications associated with applications.
Measurement study		Sets the measurement study. NOTE: Choices vary depending on the application selected Measurement Application.

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Parameters	Options	Description
Color Map	Abdomen, Obstetric, Gynecology, Cardiology, Vascular, Small Parts, Urology, User 1 to User 9	Sets the color map regions applied to this application.
Probe		Sets probes associated with applications.
Protocol		Sets protocols associated with applications. NOTE: If you select [None], no protocols are set.

(b) Counter

Parameters	Options	Description
Counter (A) Offset	-59 to 0	Configures the counter to start from -59 seconds.
Counter (B) Offset	-59 to 0	Configures the counter to start from -59 seconds.

(2) General tab

(a) Physiology

Parameters	Options	Description
Sweep Speed (B) [mm/s]	40.0, 50.0, 66.7, 100.0, 133.3, 200.0, 300.0	Sets the sweep speed (mm/s) of vital signs on tomographic images.

Parameters	Options	Description
ECG Display Select	ECG, ECG DC IN	Configures the ECG signal to display on the monitor.

Parameters	Options	Description
ECG Lead	I, II,III	Sets the method for leads in an ECG.

(b) R-R Detection

Parameters	Options	Description
R-R Detection	On, Off	Sets whether to start R-R detection after the image is frozen.
Display the optimal R-R automatically	On, Off	Sets whether to automatically display the image in the time phase in which RRp/RRpp is closest to 1 after the image is frozen.
Tachy/Brady Filter	On, Off	Sets whether to exclude the heartbeats for which the R-R interval is outside the range from 0.6 seconds to 1 second in the target sectors from the displayed results of R-R interval detection.

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Parameters	Options	Description
Display the R-R interval time	On, Off	Sets whether to show the R-R interval of the detected heartbeat.

10.3.8 Application parameters: B

(1) Common tab

Parameters	Options	Description
Vertical Shift [mm] (-200 - 100)	-200 to 100	Sets the B mode image display position (vertical direction) in 1-mm increments in relation to the display range.
LGC Type	Linear, V1, V2, V3	Sets the type of gain compensation to apply to an electronic sector probe in the lateral direction.
Standoff	On, Off	Sets to move the initial focus position one step deeper when using a coupler with an electronic linear probe.
Frame Smoothing	On, Off	Runs correlation of previous/next frames and smooths out the image. Sets whether to apply frame smoothing to the image.
HI REZ PLUS	On, Off	Sets whether to apply a filter that reduces speckle noise to clarify the tissue structure.
PAN Zoom Start Ratio	1.1, 1.5, 2.0	Sets the zoom ratio when PAN Zoom starts.
Focus Limitation in the Screen	On, Off	Limits the focal position to inside the US image.

(a) HI Zoom

Parameters	Options	Description
Area Width (HI Zoom)	25 to 100	Sets the ROI width in 5% steps when HI Zoom starts.
Area Height (HI Zoom)	25 to 100	Sets the ROI height in 5% steps when HI Zoom starts.
Area Depth (HI Zoom)	1 (Shallow) 2 (Center) 3 (Deep)	Sets the ROI depth when HI Zoom starts.
Reference Display	On, Off	Sets whether to display the reference image when zooming.

(b) DSD

Parameters	Options	Description
DSD Speed	1/2, 1/3, 1/4, 1/10	Sets the playback speed of slow-motion images when the DSD mode starts.
DSD Refresh Timing [s]	1 to 10	Sets the time until slow-motion images refresh in 1-second increments when D.S.D mode is started in DSD (time).

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(2) Puncture tab

Parameters	Options	Description
Puncture Guide Line	On, Off	Sets the following to be used at application startup: whether to display the puncture guide line.
Puncture Guide Line Color	White, Green	Sets the puncture guide line display color.
Puncture Angle Select	1 to 8	Sets the puncture angle or the distance from the ultrasonic irradiation area to the puncture guide line. NOTE: The settings vary with the probe.
Needle Emphasis	On, Off	Sets improved visibility for the puncture needle echo.
Angle Select (NE)	-30 to 30	When the linear probe is used and [Needle Emphasis] is set to On, this sets the angle of Graphic Line 2 in 5-degree increments. NOTE: The maximum angle value varies depending on the probe. NOTE: If a convex probe is used, the value that is set for the preset is displayed and the value cannot be changed.
Puncture Link (NE)	On, Off	When the linear probe is used and [Needle Emphasis] is set to On, this displays Graphic Line 1 as close to perpendicular to the puncture guide line as possible.
Emphasis Level(NE)	Low, Mid, High	Allows you to adjust the degree of emphasis for improving the visibility if [Needle Emphasis] is set to On when a convex probe is used.

(3) Range tab

Parameters	Options	Description
7.5 mm to 400 mm		Sets the range to use.

10.3.9 Application parameters: M

(1) Common tab

Parameters	Options	Description
FAM Cursor Number	2, 3	Sets the number of FAM cursors when FAM mode is started.
MAG (FAM)	x0.5, x0.75, x1.00, x1.50, x2.00	Sets the FAM mode image depth display magnification for B mode images when FAM mode is started.
PSAX	On, Off	Sets whether to join the FAM cursors at their midpoints at a uniform angle when the FAM mode is started.
Trace Fit	On, Off	Sets whether to match the FAM cursor length to the diagnostic distance of the B mode image when started in FAM mode.
Scan Area (FAM)	25 to 100, Auto	Sets the B mode image scan area when started in FAM mode.

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Parameters	Options	Description
Sweep Speed (M) [mm/s]	40.0, 50.0, 66.7, 100.0, 133.3, 200.0, 300.0	Sets the sweep speed (mm/s) when started in M mode or FAM mode.

10.3.10 Application parameters: Doppler

(1) Common tab

Parameters	Options	Description
Sweep Speed (Single D) [mm/s]	40.0, 50.0, 66.7, 100.0, 133.3, 200.0, 300.0	Sets the sweep speed (mm/s) when D mode is started.
Sweep Speed (Dual D) [mm/s]	40.0, 50.0, 66.7, 100.0, 133.3, 200.0, 300.0	Sets the sweep speed (mm/s) when Dual Gate Doppler is started.
Beam Steer (D) [deg]	-30 to 30	Sets the steering angle of the ultrasound beam in an electronic linear probe, in 5-degree increments. NOTE: The steering angle range varies depending on the probe.
Steering Link	On, Off	Sets the linkage between Invert Spectrum and Invert Color Map.
Invert Spectrum	On, Off	Sets whether to invert the display of the Doppler image when D mode is started.
High Pulse Repetition Frequency	On, Off	Sets whether High Pulse Repetition Frequency runs when the flow velocity range has been raised.
Triplex Frame Rate	Low Medium High	Sets the frame rate when B/CF/D modes are started.
D2 is assigned TDI	On, Off	Sets the D2 cursor to TDI when Dual Gate Doppler is started. NOTE: If the image is displayed in TDI mode, TDI is set for the D2 cursor even if the D2 is assigned TDI setting is Off.
Angle Correct Threshold [deg] (0 - 80)	0 to 80	Sets the threshold value for inverted display of angle correction values.
Angle Correction [deg] (-80 - 80)	-80 to 80	Sets the angle correction value when D mode is started.
Angle Correct Value Display	On, Off	Sets the angle correction value display when the D cursor is displayed.

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Parameters	Options	Description
Dop Cursor Assist	Off	Does not set the position of the sample volume.
	Cardiology	Identifies the cross section of a heart, and automatically sets the position of the sample volume.
	General	Temporarily memorizes a B mode image and automatically sets the sample volume at the position of the memorized image.
Dop Vel./Baseline Assist	On, Off	While a D waveform is displayed, the Doppler speed range and Doppler baseline are automatically set to the optimum values.

(a) Dual Dop Auto Measurement

Parameters	Options	Description
Dual Dop Auto Measurement	On, Off	Sets whether to perform automatic measurement if Dual Gate Doppler is selected.
Procedure step 1	- TDI PW MA TDI PW1 TDI PW2	Sets a measurement that is to be started after Trans M Flow measurement finishes. If a hyphen ('-) is selected, no measurement is started.
Procedure step 2	- TDI PW MA TDI PW1 TDI PW2	Sets a measurement that is to be started after the measurement set by Procedure step 1 finishes. If a hyphen ('-) is selected, no measurement is started.
Procedure step 3	- TDI PW MA TDI PW1 TDI PW2	Sets a measurement that is to be started after the measurement set by Procedure step 2 finishes. If a hyphen ('-) is selected, no measurement is started.

(2) Auto Trace tab

Parameters	Options	Description
Measurement Transfer List-Freeze	Auto	Specifies that the menu for transferring measurement memory is to be displayed when the [Freeze] key is pressed.
	Manual	Hides the menu for transferring measurement memory when the [Freeze] key is pressed.
Measurement Transfer List-Doppler Auto Trace	Auto	Specifies that the menu for transferring measurement memory is to be displayed when [Doppler Auto Trace] is selected during a freeze.
	Manual	Hides the menu for transferring measurement memory when [Doppler Auto Trace] is selected during a freeze.

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Parameters	Options	Description
Measurement Transfer List-Measurement	Auto	Sets to display the menu for transferring measurement memory when the [Measurement] key is pressed if the results of auto-Doppler trace are displayed.
	Manual	Hides the menu for transferring measurement memory if the [Measurement] key is pressed while the results of an auto-Doppler trace are displayed.
Measurement Start	Off	Does not start measurement.
	Freeze	Starts the measurement specified for [Measurement] on the Auto Trace tab in the preset ([Preset Setup] > [Application] > [Edit Data] > [Doppler]) when the [Freeze] key is pressed.
	Meas. Key	Starts the measurement specified for [Measurement] on the Auto Trace tab in the preset ([Preset Setup] > [Application] > [Edit Data] > [Doppler]) when the [Caliper] key is pressed.
Measurement	FV(Artery), FV(Vein)	Sets the Measurements menu item that shows the measurement result of Doppler Auto Trace.
Doppler Auto Trace	On, Off	Sets to launch automatic trace when displaying in the D mode.
Trace Smooth	Low, High	Sets the smoothness level of the trace line.
Trace Direction	Toward	Sets the traced region for Doppler Auto Trace to above the baseline.
	Away	Sets the traced region for Doppler Auto Trace to below the baseline.
	Both	You can freely change the traced region for Doppler Auto Trace to the region above or below the baseline.
	Auto	Sets the traced region for Doppler Auto Trace to switch automatically. If the baseline is in the center of the image, or below the center, the area above the baseline is targeted. If the baseline is above the center of the image, the area below the baseline is targeted.
Trace Threshold	-22 to 0	Sets the trace domain to the Doppler signal
Freeze Trigger	On, Off	Sets to display a trace line upon freezing.
Trace Result	One	Displays the measurement results from a trace of a single heartbeat in Doppler Auto Trace.
	Average	Displays the measurement results from the average of multiple heartbeat traces in Doppler Auto Trace.
Average	1 to 15, All	Sets the heart rate used to obtain the mean value of the measurement results when multiple heartbeats are traced using Doppler Auto Trace.
Mean Trace	On, Off	Displays the mean trace line of the Doppler waveform during Doppler Auto Trace. NOTE: You need to set Vm of Display Item to On.

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Parameters	Options	Description
Heartbeat detection for ECG	On	Detects heartbeats from the ECG waveform in Doppler Auto Trace.
	Off	Detects heartbeats from the trace line in Doppler Auto Trace.

(a) Display Item

Parameters	Options	Description
PI	On, Off	Sets whether to display the PI measurement parameter of Doppler Auto Trace.
RI	On, Off	Sets whether to display the RI measurement parameter of Doppler Auto Trace.
S/D	On, Off	Sets whether to display the S/D measurement parameter of Doppler Auto Trace.
D/S	On, Off	Sets whether to display the D/S measurement parameter of Doppler Auto Trace.
HR	On, Off	Sets whether to display the HR measurement parameter of Doppler Auto Trace.
ACC	On, Off	Sets whether to display the ACC measurement parameter of Doppler Auto Trace.
Vm	On, Off	Sets whether to display the Vm measurement parameter of Doppler Auto Trace. NOTE: You need to set Mean Trace to On.
EDV	On, Off	Sets whether to display the EDV measurement parameter of Doppler Auto Trace.
MnV	On, Off	Sets whether to display the MnV measurement parameter of Doppler Auto Trace.
FlowT	On, Off	Sets whether to display the FlowT measurement parameter of Doppler Auto Trace.
PSV	On, Off	Sets whether to display the PSV measurement parameter of Doppler Auto Trace.
AccT	On, Off	Sets whether to display the AccT measurement parameter of Doppler Auto Trace.
VTI	On, Off	Sets whether to display the VTI measurement parameter of Doppler Auto Trace.

10.3.11 Application parameters: Color

(1) Common tab

Parameters	Options	Description
Accumulation Time [sec]	0.25, 0.5, 0.75, 1, 2, 3, 4, 8, Continuous	Sets the [Accumu. Imaging] accumulation time. The color Doppler display is updated at the specified time. The color Doppler display is not updated if the setting is [Continuous].

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Parameters	Options	Description
Vector Scan (Color, PW)	On, Off	Sets the scan method to a vector scan when a Trapezoidal Scan is started in CF mode, PD mode, eFlow mode, or DFI mode.
Focus Control (Color)	Auto	Sets the focus position to be automatically adjusted in color Doppler mode.
	Manual	Sets the focus position to be manually adjusted in color Doppler mode.
Dual CF Offset Gain (-30 - 30)	-30 to 30	Sets the gain compensation value to apply to B mode gain when Dual CF starts with a B+ color Doppler image.
Beam Steer (Color) [deg]	-30 to 30	Sets the steering angle of the ultrasound beam in an electronic linear probe, in 5-degree increments. NOTE: The steering angle range varies depending on the probe.
Sensitivity Priority	On, Off	Sets the condition for projection repeat frequency (PRF) when starting in CF mode to detection sensitivity priority.
Wall Motion Reduct Type	A, B	Sets the type of body movement in CF mode, PD mode, or eFlow mode. B has a stronger effect than A for removing body movement.

(a) Power Doppler

Parameters	Options	Description
Directional	On, Off	Sets the Directional display when started in PD mode.
Sensitivity Priority	On, Off	Sets the condition for projection repeat frequency (PRF) when started in PD mode to detection sensitivity priority.

(b) eFlow

Parameters	Options	Description
Directional	On, Off	Sets the Directional display when started in eFlow mode.
Sensitivity Priority	On, Off	Sets the condition for projection repeat frequency (PRF) when started in eFlow mode to detection sensitivity priority.

(c) DFI

Parameters	Options	Description
Directional	On, Off	Sets the directional display when DFI mode starts.
DFI Image Priority	Reso, Pene	Sets the DFI transmission and reception method.

(d) Color Flow

Parameters	Options	Description
Colormap CF Intensity	On, Off	Sets whether to display the CF image by referencing the intensity of the color Doppler signals when CF mode starts.

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Parameters	Options	Description
Variance Inactive/ Variance Active	Variance Inactive	If Colormap CF Intensity is On, this displays the CF image without using decentralized information.
	Variance Active	If Colormap CF Intensity is On, this displays the CF image by using decentralized information.

10.3.12 Application parameters: Tissue Dop.

(1) PW tab

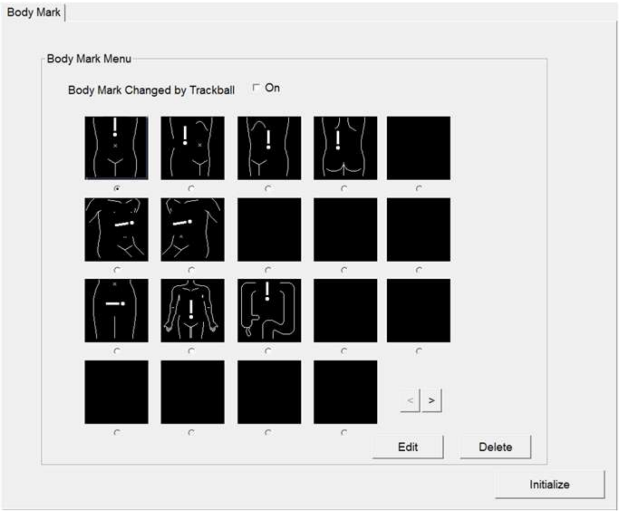
Parameters	Options	Description
Invert Spectrum	On, Off	Sets whether to invert the display of the Doppler image when TDI mode is started.

10.3.13 Application parameters: Body Mark

The Body Mark parameter is for editing the Body Mark menu.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
4. Select [Edit Data].
5. Select [Body Mark] from the list of items.
6. Use Body Mark Changed by Trackball to configure to make changes to body marks by using the trackball.



Body Mark Changed by Trackball ☐ On

Setting the default body marks to display
Select the radio buttons for the desired body marks.
Deleting body marks (leaving the field blank)

a. Select the body mark to be deleted.

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b. Select [Delete].

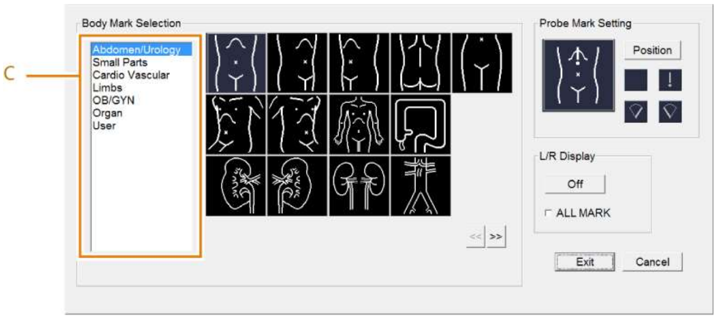
Replacing menus

a. Select the body mark to be replaced.

b. Select [Edit].

c. Select the body mark type in Body Mark Selection.

d. Select the desired body mark.
The page can be switched using [<<] and [>>] at the bottom right.


C
Body Mark Selection
Abdomen/Urology
Small Parts
Cardio Vascular
Limbs
OB/GYN
Organ
User
<< >>
Probe Mark Setting
Position
L/R Display
Off
☐ ALL MARK
Exit
Cancel

Setting probe marks

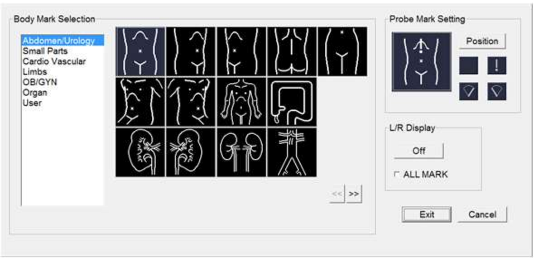
a. Select a probe mark.

b. Select [Position].

c. Use the trackball to move the position of the probe mark.

d. Turn the [Pointer] rotary encoder to set the angle of the probe mark.

e. Press the [Enter] key.


Body Mark Selection
Abdomen/Urology
Small Parts
Cardio Vascular
Limbs
OB/GYN
Organ
User
<< >>
Probe Mark Setting
Position
L/R Display
Off
☐ ALL MARK
Exit
Cancel

Setting the left/right display

a. Sets the left/right display (L or R display) under L/R Display.

Applying all body marks which can be used with L/R display
Check the ALL MARK check box.
Remove the check mark to make settings for each body mark.

7. Select [Exit].
To return to the prior screen without making changes:
Select [Cancel].

8. Repeat steps 6 and 7 for the body marks you wish to change.

9. Select [Save].

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10.3.14 Application parameters: EyeballEF

(1) Display Setting tab

Parameters	Options	Description
Transparency (0 - 100)	0 to 100	Sets the transparency ratio of ROIs.
Color		Sets the transparency color of ROIs.

(a) ROI

Parameters	Options	Description
Display Long Axis	On, Off	Sets whether to display the long axis on the ultrasonic image.
Display of Freeze OFF	On, Off	Sets whether to display the analysis results on the ultrasonic image if freeze is disabled.

(b) Analysis Result

Parameters	Options	Description
Display of Freeze OFF	On, Off	Configures the display of analysis results inside the analysis results when freeze is off.
Volume	On, Off	Sets the display of Volume within the analysis results frame.
Stroke Volume	On, Off	Sets the display of Stroke Volume within the analysis results frame.
Ejection Fraction	On, Off	Sets the display of Ejection Fraction within the analysis results frame.
%dif	On, Off	Sets whether to display %difD and %difS.
GLS	On, Off	Sets the display of GLS within the analysis results frame.

(c) Graph

Parameters	Options	Description
The Maximum of The Spindle is set.	On, Off	Sets whether to use the user-specified value (see the next item) for the maximum value of the vertical axis of a graph.
	0 to 200	Sets the maximum value (ml) of the vertical axis of a graph.

(2) Analysis Setting tab

(a) Analysis Setting

Parameters	Options	Description
Auto	On, Off	Sets whether to automatically set the region analysis method.
A4C	On, Off	Sets whether to set A4C as the region analysis method.
A4C->A2C	On, Off	Sets whether to set A4C and A2C, in that order, as the region analysis methods.

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(b) Time From End-Diastole

Parameters	Options	Description
Time from End-Diastole	On, Off	Sets whether to set the end systole to the time phase the specified time (see the next item) after the end diastole.
	150 to 400	Sets the offset time (ms) from the end diastole.
Calculation from Volume	On, Off	Sets whether to calculate the end systole from the volume.

(3) Function Setting tab

(a) Systole Edit

Parameters	Options	Description
Set three points.	On, Off	Sets whether to set Three points Set. as the systole editing method.
Correct the tracking results.	On, Off	Sets whether to set The tracking is corrected. as the systole editing method.

(b) After Freeze

Parameters	Options	Description
All Correct.	On, Off	Sets whether to correct all items.
It skips to correction of ROI.	On, Off	Sets whether to skip the correction procedures for some items to make corrections for only the ROIs of the end-diastolic image and end-systolic image.

10.3.15 Application parameters: Auto FHR+

(1) Common tab

Parameters	Options	Description
Time Scale [sec]	3, 5, 10, 20, 30, 60, 120, 180	Sets the length of the horizontal axis of the heart rate waveform.
Ref. Line	On, Off	Sets whether to display dotted lines that indicate the tachycardia and bradycardia levels if the heart rate baseline is displayed.
Ref. Line U [BPM]	140 to 180	Sets the tachycardia level for the heart rate baseline.
Ref. Line L [BPM]	90 to 130	Sets the bradycardia level for the heart rate baseline.
Cardiac Cycles #	1 to 10	Set the number of heartbeats that are used to obtain the average heart rate.
FH Sound	On, Off	Sets whether to enable a function that sounds a beep in synchronization with the peak of a heart rate waveform.
Frame Rate Auto Increase(30FPS)	On(Scan Area Adjustment), Off	Automatically adjusts the Scan Area so that, when the frame rate is less than 30 fps, the frame rate can take priority and become 30 fps. NOTE: Frame rate cannot be automatically adjusted for Trapezoidal Scanning.

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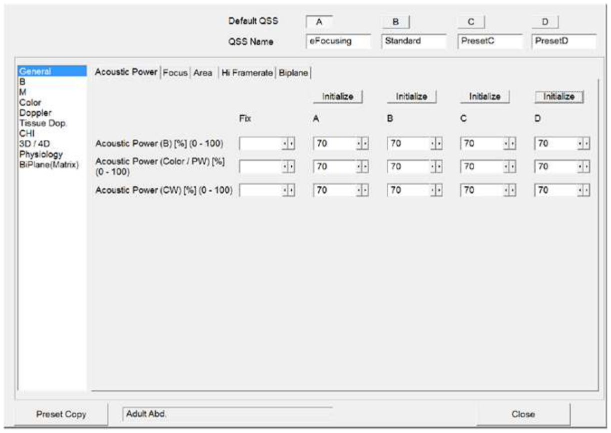
Parameters	Options	Description
Min. Scan Area[%]	25, 30, 35, 40, 45, 50	Sets the minimum width (%) for the Scan Area when Frame Rate Auto Increase(30FPS) is set to On.

10.3.16 Application parameters: Protocol

Parameters	Options	Description
Next View Trigger	Store & UnFreeze, Store	Sets the method of transition to the next view.
Disp. Complete Dialog	On, Off	Sets whether to display a protocol end confirmation dialog box when the settings for all views are completed.
Measurement Trigger	Measurement, Freeze	Sets the timing at which measurement is to be started if a measurement is registered for the view.
Use Guide View	On, Off	Sets whether to display a reference image when the protocol is started.
Disp. Report	On, Off	Sets whether to display a report when a protocol ends.
Start in B Mode	On, Off	The system displays images in B mode when switching the display mode to color Doppler mode or a view registered in D mode.
Close Measurement	On, Off	Stops measurement if measurement has not completed when you switch from a view with a registered measurement to the next view.

10.4 QSS presets

QSS (Quick Scanning Selector) presets are for making batch changes to settings corresponding to the body shape or organs of the test subject. You can change the QSS preset without changing the application.


General
B
M
Color
Doppler
Tissue Dop.
CHI
3D / 4D
Physiology
BiPlane(Matrix)
Acoustic Power
Focus
Area
Hi Framerate
Biplane
Initialize
Initialize
Initialize
Initialize
Preset Copy
Close

		A	B	C	D
Default QSS		A	B	C	D
QSS Name		eFocusing	Standard	PresetC	PresetD

	Fix	A	B	C	D
Acoustic Power (B) [%] (0 - 100)		70	70	70	70
Acoustic Power (Color / PW) [%] (0 - 100)		70	70	70	70
Acoustic Power (CW) [%] (0 - 100)		70	70	70	70

Adult Abd.

Example of QSS preset settings

In QSS presets, image quality-related parameters (gain, dynamic range, etc.) are collected in each compatible mode. The corresponding modes are classified as follows:

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Classification of QSS presets by corresponding mode

Item	Description	Reference
General	Configures parameters not classified below.	
B	B mode-related settings	
M	M mode-related settings	
Color	CF mode-related settings	
Doppler	D mode-related settings	
Tissue Dop.	TDI mode-related settings	
CHI	Contrast Harmonic Imaging-related settings	Separate manual "Advanced Operations 2"
3D/4D	Settings related to 3D/4D	Separate manual "Advanced Operations 3"
Physiology	Settings related to physiological signals	
BiPlane(Matrix)	Settings related to the 2D array probe	Separate manual "Advanced Operations 3"

10.4.1 Editing QSS presets

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Application].
3. From the Application View field, select the desired application.
4. Select [Edit Data].
5. Select [QSS] to edit the presets.
   Sets the following to be used at application startup: the QSS preset to be used first.
   Select the relevant button under Default QSS (1 in diagram below).
   Changing Names
   In QSS Name (2 in the figure below), enter the QSS preset name. Enter no more than 16 characters.
   Changing parameters

   a. Select a category.

   b. Select a tab.

   c. Change the parameter.
      Changing the Fix column
      If the parameters are set in the Fix column (3 in the figure below), the settings are applied to presets from A to D.
      If any of the columns A through D are changed, the Fix column is shown blank.

   d. Repeat steps a - c for the parameters concerned.
      Items that have been changed from their factory default settings are highlighted.

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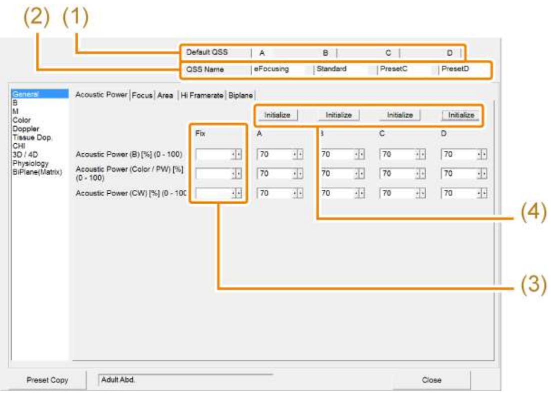

(2)
(1)
(4)
(3)
General
B
M
Color
Doppler
Tissue Dop.
CHI
3D / 4D
Physiology
BiPlane(Matrix)
Acoustic Power
Focus
Area
Hi Framerate
Biplane
Initialize
Initialize
Initialize
Initialize
Preset Copy
Close

Default QSS	A	B	C	D
QSS Name	eFocusing	Standard	PresetC	PresetD

	Fix	A	B	C	D
Acoustic Power (B) [%] (0 - 100)		70	70	70	70
Acoustic Power (Color / PW) [%] (0 - 100)		70	70	70	70
Acoustic Power (CW) [%] (0 - 100		70	70	70	70

Adult Abd.

Returning to the factory default settings

Select [Initialize] (4 in diagram above) in the desired QSS preset column.

The applicable QSS presets are restored to their factory default settings.

Copying QSS presets

a. Select [Preset Copy].

b. Select an application as the copy destination or source.

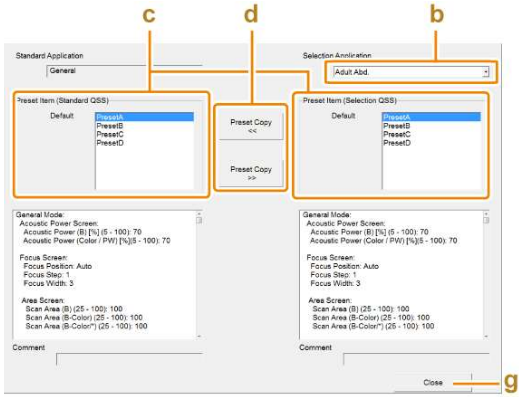
c. Set the QSS presets for the copy source and copy destination.

d. If the copy destination is on the left, select [Preset Copy<<], and if it is on the right, select [Preset Copy>>].

e. Enter the name for the QSS preset in the dialog box.

f. Select [OK].

g. Select [Close].


c
d
b
g
Standard Application
Selection Application
Preset Item (Standard QSS)
Preset Item (Selection QSS)
Default
PresetA
PresetB
PresetC
PresetD
Default
PresetA
PresetB
PresetC
PresetD
Preset Copy <<
Preset Copy >>
Comment
Comment
Close

Standard Application: General

Selection Application: Adult Abd.

General Mode:
Acoustic Power Screen:
Acoustic Power (B) [%] (5 - 100): 70
Acoustic Power (Color / PW) [%](5 - 100): 70

Focus Screen:
Focus Position: Auto
Focus Step: 1
Focus Width: 3

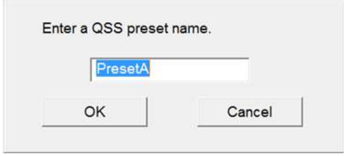
Area Screen:
Scan Area (B) (25 - 100): 100
Scan Area (B-Color) (25 - 100): 100
Scan Area (B-Color*) (25 - 100): 100

General Mode:
Acoustic Power Screen:
Acoustic Power (B) [%] (5 - 100): 70
Acoustic Power (Color / PW) [%](5 - 100): 70

Focus Screen:
Focus Position: Auto
Focus Step: 1
Focus Width: 3

Area Screen:
Scan Area (B) (25 - 100): 100
Scan Area (B-Color) (25 - 100): 100
Scan Area (B-Color*) (25 - 100): 100

Copying QSS presets


Enter a QSS preset name.

PresetA

Step e dialog box

6. Select [Close].

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10.4.2 QSS parameter: General

(1) Acoustic Power tab

Parameters	Options	Description
Acoustic Power (B) [%] (0 - 100)	0 to 100	Sets the ultrasonic output power at startup of B mode or M mode in 1% increments.
Acoustic Power (Color/PW) [%] (0 - 100)	0 to 100	Sets the acoustic power in increments of 1% when color Doppler mode or PW mode starts.
Acoustic Power (CW) [%] (0 - 100)	0 to 100	Sets the ultrasonic output power at startup of CW mode, in 1% increments.

(2) Focus tab

Parameters	Options	Description
Focus Position	F16 to F1, Auto	Sets the focus position in the B mode image.
Focus Step	1 to 4	Sets the number of focus steps in the B mode image.
Focus Width	2 to 15	Sets the focus combination in the B mode image.

(3) Area tab

Parameters	Options	Description
Scan Area (B) (25 - 100)	25 to 100	Sets the scan area for B mode images, in 5% increments.
Scan Area (B-Color) (25 - 100)	25 to 100	Sets the B mode scan area for B (Color) mode images in 5% increments.
Scan Area (B-Color/*) (25 - 100)	25 to 100	Sets the scan area for B mode images during B (Color)/* mode operation in 5% increments.

(4) Hi Framerate tab

Parameters	Options	Description
eFocusing	On, Off	Sets the following to be used at application startup: whether to use the transmission aperture synthesis processing method (eFocusing) for B mode images.
HI Frame (B)	On, Off	Sets the following to be used at application startup: the high frame rate display for B mode images
HI Frame (Color)	On, Off	Sets the following to be used at application startup: the high frame rate display for color Doppler mode images

(5) Biplane tab

Parameters	Options	Description
Focus Position [L]	F16 to F1, Auto	Sets the focus position in the longitudinal plane B mode image when a 1-connector-type biplane probe is connected.

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Parameters	Options	Description
Focus Position [T]	F16 to F1, Auto	Sets the focus position in the lateral plane B mode image when a 1-connector-type biplane probe is connected.
Focus Step [L]	1 to 4	Sets the number of focus steps in the longitudinal plane B mode image when a 1-connector-type biplane probe is connected.
Focus Step [T]	1 to 4	Sets the number of focus steps in the lateral plane B mode image when a 1-connector-type biplane probe is connected.
Focus Width [L]	2 to 15	Sets the focus combination in the longitudinal plane B mode image when a 1-connector-type biplane probe is connected.
Focus Width [T]	2 to 15	Sets the focus combination in the lateral plane B mode image when a 1-connector-type biplane probe is connected.

10.4.3 QSS parameter: B

(1) B1 tab

Parameters	Options	Description
Initial Range [mm]	7.5 to 400	Sets the following to be used at application startup: the display range for B mode images.
Tx Mode	Fundamental Tissue Harmonic Coded Imaging	Sets the following to be used at application startup: the observation mode.
Frequency (Fundamental)	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the transmission frequency (for fundamental).
Tissue Harmonic Mode	FmT, WbT, HdT,	Sets the following to be used at application startup: the method to use when the transmission mode is [Tissue Harmonic].
Frequency (FmT)	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the transmission frequency (for FmT).
Frequency (WbT)	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the transmission frequency (for WbT) .
Frequency (HdT)	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the transmission frequency (for HdT).
Frequency (Coded Imaging)	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the transmission frequency (for encoded transmission).

(2) B2 tab

Parameters	Options	Description
Gain (0-80)	0 to 80	Sets the following to be used at application startup: the B gain, in 1-dB increments.

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Parameters	Options	Description
Dynamic Range (B)	40 to 90	Sets the following to be used at application startup: the Dynamic Range (B) .
Line Density (B)	1 to 8	Sets the following to be used at application startup: the line density (B) for B mode images. Line density increases when the level goes up, and decreases when the level goes down.
Line Density [HI Zoom] (B)	1 to 8	Sets the line density (B) to apply when Hi Zoom (B Mode) starts. Line density increases when the level goes up, and decreases when the level goes down.
PRF (B/M)	High, Mid, Low	Changes the pulse repetition frequency. The upper limit on pulse repetition frequency increases in the order [Low], [Mid], [High].
Persistence Level (B)	0 to 7	Sets the following to be used at application startup: the level of correlation processing (Persistence) to apply between image frames. When [0], no correlation processing is performed.
Persistence Level [Compound] (B)	0 to 7	Configures the level of correlation processing (Persistence) between the image frames at Compound start-up. When [0], no correlation processing is performed.
Persistence Type (B)	Manual, Auto	Configures the method of correlation processing (Persistence) between image frames. Specifies that correlation processing (persistence) is to be performed between image frames that depend on the number of frames when [Manual] is set, and on both the frame rate and number of frames when [Auto] is set. NOTE: When [Compound] is On, [Auto] is not available.
AGC (B)	0 to 7	Sets the following to be used at application startup: the AGC(B).
Graymap	1 to 10	Sets the following to be used at application startup: the gray map to be applied to B mode images.
Color Map	A to O	Sets the following to be used at application startup: the color map to be applied to B mode images.

(3) B3 tab

Parameters	Options	Description
Compound	On, Off	Sets the following to be used at application startup: whether to use compound startup.
Compound #	2, 1	When [Trapezoidal Scanning] is set to Off, this sets the following to be used at application startup: the number of Compound addition layers.
Angle (Compound)	5 to 30	When [Trapezoidal Scanning] is set to Off, this sets the compound steering angle in 5-degree increments. NOTE: The maximum steering angle value varies depending on the probe.

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Parameters	Options	Description
Trapezoidal Scanning	On, Off	Sets whether Trapezoidal Scanning is started when the application starts.
Compound # (Trapezoidal)	2, 1	When [Trapezoidal Scanning] is set to On, this sets the following to be used at application startup: the number of Compound addition layers.
Angle (Trapezoidal Compound)	5 to 30	When [Trapezoidal Scanning] is set to On, this sets the compound steering angle in 5-degree increments. NOTE: The maximum steering angle value varies depending on the probe.
Beam Steer (B) [deg]	-30 to 30	Sets the following to be used at application startup: the electronic linear probe steering angle of the ultrasound beam, in 5-degree increments. NOTE: The steering angle range varies depending on the probe.
Wide Scanning	On, Off	Sets whether Wide Scanning is started when the application starts. NOTE: For details about compatible probes, see the separate manual "Instructions for Use".
Compound # (Wide)	2, 1	When [Wide Scanning] is set to On, this sets the following to be used at application startup: the number of Compound addition layers.
Angle (Wide Compound)	5 to 30	When [Wide Scanning] is set to On, this sets the compound steering angle in 5-degree increments. NOTE: The maximum steering angle value varies depending on the probe.

(4) B4 tab

Parameters	Options	Description
TGC Enhancement	On, Off	Sets the following to be used at application startup: the B mode gain and color flow gain optimization in the depth direction. NOTE: For details about compatible probes, see the separate manual "Instructions for Use".
ANR	Off, 1 to 9	Adjust the level of ANR effect.
NNR	Off, Low, Mid, High	Adjusts the level of NNR effect.
NNR Type	A, B, C, D, E	Select the type of NNR.
Sound Speed [m/s]	1400 to 1650	Sets the speed of sound adjustment level corresponding to the receive focus delay time. [1540] is the standard speed of sound.

(5) B5 tab

Parameters	Options	Description
HI REZ (B)	On, Off	Sets the following to be used at application startup: HI REZ (B).

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Parameters	Options	Description
Smooth/Enhance (B)	-8 to 8	Sets smoothing or edge enhancement levels. The smoothing filter range is from -8 to -1; 0 is no filtering and edge enhancement filtering is from 1 to 8.
HI REZ Level	1 to 8	Changes the HI REZ image filter level when [HI REZ (B)] is On. Changes the BCF image filter level when [HI REZ (B)] is On and [BCF (B)] is On.
Echo Enhancement (B)	0 to 7	Sets the following to be used at application startup: the system to apply image filtering for the gap-filling process in the scan direction to create an image from a weak signal. When [0], no filtering is applied.
Texture	Smooth, Sharp	Displays smoother surfaces of images.
BCF (B)	On, Off	Sets whether BCF is used when the application starts. NOTE: This item is valid only if the [HI REZ (B)] setting is On.
Low Echo Reduction (B)	0 to 70	Sets the following to be used at application startup: the level of suppression of hypoechoic areas for B mode images. When 0, no suppression of hypoechoic areas is applied.
Grayscale Enh. (B)	Off, Low, Mid, High	Sets the balance between low brightness and high brightness in the gray scale of B mode images when an application is started.

(6) Post Process tab

Parameters	Options	Description
Gamma Type (B)	Window Type, S-Curve Type, Parabolic Type, Linear Type	Sets the following to be used at application startup: the γ type.
Gamma (B) (-4.0 - 4.0)	-4.0 to 4.0	Sets the following to be used at application startup: the gamma value, in 0.1 increments.
Rejection (B) (0 - 255)	0 to 255	Configures the location of the rise of the curve.
Center (B) (0 - 255)	0 to 255	Sets the location of the center for S-shaped curves.
Saturation (B) (0 - 255)	0 to 255	Configures the saturation location of curves.

(7) Biplane 1 tab

Parameters	Options	Description
Gain (B) [T] (0 - 80)	0 to 80	Sets the following to be used at application startup: the lateral plane B gain, in 1-dB increments.
Gain (B) [L] (0 - 80)	0 to 80	Sets the following to be used at application startup: the B gain of the longitudinal section of 1-connector biplane, in 1-dB increments

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Parameters	Options	Description
Scan Area (B) [T] (25 - 100)	25 to 100	Sets the visual field of transverse section B mode images for 1-connector biplane, in 5% increments.
Scan Area (B) [L] (25 - 100)	25 to 100	Sets the visual field of longitudinal section B mode images for 1-connector biplane, in 5% increments.
Initial Range [T] [mm]	7.5 to 400	Sets the following to be used at application startup: the lateral plane B mode image display range in 1-connector-type biplane.
Initial Range [L] [mm]	7.5 to 400	Sets the following to be used at application startup: the longitudinal plane B mode image display range in 1-connector-type biplane.
Tx Mode [T]	Fundamental Tissue Harmonic Coded Imaging	Sets the following to be used at application startup: the lateral plane observation mode in 1-connector-type biplane.
Tx Mode [L]	Fundamental Tissue Harmonic Coded Imaging	Sets the following to be used at application startup: the longitudinal plane observation mode in 1-connector-type biplane.
Frequency (Fundamental) [T]	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the lateral plane transmission frequency (for fundamental) in 1-connector-type biplane.
Frequency (Fundamental) [L]	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the longitudinal plane transmission frequency (for fundamental) in 1-connector-type biplane.

(8) Biplane 2 tab

Parameters	Options	Description
Frequency (FmT) [T] Frequency (WbT) [T] Frequency (HdT) [T]	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the lateral plane transmission frequency (for tissue harmonics) in 1-connector-type biplane.
Frequency (FmT) [L] Frequency (WbT) [L] Frequency (HdT) [L]	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the longitudinal plane transmission frequency (for tissue harmonics) in 1-connector-type biplane.
Frequency (Coded Imaging) [T]	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the lateral plane transmission frequency (for encoded transmission) to be used in 1-connector-type biplane when the application starts.
Frequency (Coded Imaging) [L]	5 (High), 4, 3 (Middle), 2 , 1 (Low)	Sets the following to be used at application startup: the longitudinal plane transmission frequency (for encoded transmission)to be used in 1-connector-type biplane when the application starts.

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Parameters	Options	Description
Tissue Harmonic Mode [T]	FmT, WbT, HdT	Sets the following to be used at application startup: the method when the lateral plane transmission mode is set to [Tissue Harmonic] in 1-connector-type biplane.
Tissue Harmonic Mode [L]	FmT, WbT, HdT	Sets the following to be used at application startup: the method when the longitudinal plane transmission mode is set to [Tissue Harmonic] in 1-connector-type biplane.

10.4.4 QSS parameter: M

(1) Post Process tab

Parameters	Options	Description
Gamma Type (M)	Window Type, S-Curve Type, Parabolic Type, Linear Type	Sets the following to be used at application startup: the γ type.
Gamma (M) (-4.0 - 4.0)	-4.0 to 4.0	Sets the following to be used at application startup: the gamma value, in 0.1 increments.
Rejection (M) (0 - 255)	0 to 255	Configures the location of the rise of the curve.
Center (M) (0 - 255)	0 to 255	Sets the location of the center for S-shaped curves.
Saturation (M) (0 - 255)	0 to 255	Configures the saturation location of curves.
Gamma Type (FAM)	Window Type, S-Curve Type, Parabolic Type, Linear Type	Sets the following to be used at application startup: the γ type.
Gamma (FAM) (-4.0 - 4.0)	-4.0 to 4.0	Sets the following to be used at application startup: the gamma value, in 0.1 increments.
Rejection (FAM) (0 - 255)	0 to 255	Configures the location of the rise of the curve.
Center (FAM) (0 - 255)	0 to 255	Sets the location of the center for S-shaped curves.
Saturation (FAM) (0 - 255)	0 to 255	Configures the saturation location of curves.

(2) M tab

Parameters	Options	Description
M Offset Gain (-30 - 30)	-30 to 30	Sets the following to be used at application startup: the offset value for the B gain, in 1-dB increments.
Dynamic Range (M)	40 to 90	Sets the following to be used at application startup: the Dynamic Range (M).

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Parameters	Options	Description
Enhancement Level (M)	1 to 4	Sets the following to be used at application startup: the enhancement level.
Graymap	1 to 10	Sets the following to be used at application startup: the gray map to apply to M mode images.
AGC (M)	0 to 7	Sets the following to be used at application startup: the AGC(M).
Echo Enhancement (M)	0 to 7	Sets the following to be used at application startup: the system to apply image filtering for the gap-filling process in the scan direction to create an image from a weak signal. When [0], no filtering is applied.
Color Map	A to O	Sets the following to be used at application startup: the color map to be applied to M mode images.
Low Echo Reduction (M)	0 to 70	Sets the following to be used at application startup: the level of suppression of hypoechoic areas for M mode images. When [0], no suppression of hypoechoic areas is applied.
Grayscale Enh. (M)	Off, Low, Mid, High	Sets the balance between the low brightness and high brightness in the gray scale of M mode images when an application is started.

(3) FAM tab

Parameters	Options	Description
Dynamic Range (FAM) [dB]	40 to 90	Sets the following to be used at application startup: the Dynamic Range (M).
Graymap	1 to 10	Sets the following to be used at application startup: the gray map to apply to M mode images.
Low Echo Reduction (FAM)	0 to 70	Sets the following to be used at application startup: the level of suppression of hypoechoic areas for FAM mode images. When [0], no suppression of hypoechoic areas is applied.
Grayscale Enh. (FAM)	Off, Low, Mid, High	Sets the balance between low brightness and high brightness in the gray scale of FAM mode images when an application is started.

10.4.5 QSS parameter: Color

(1) Area tab

Parameters	Options	Description
Area Width (Flow) (5 - 100)	5 to 100	Sets the following to be used at application startup: the flow area width, in 5% increments.
Area Width (Flow/*) (5 - 100)	5 to 100	Sets the flow area width in 5% increments when using Flow/*mode.
Area Height (Flow) (25 - 100)	25 to 100	Sets the following to be used at application startup: the flow area height, in 5% increments.

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Parameters	Options	Description
Area Depth (Flow)	1 (Shallow) 2 (Center) 3 (Deep)	Sets the following to be used at application startup: the flow area depth, in 5% increments.

(2) Color Flow 1 tab

Parameters	Options	Description
Ref. Frequency (Color Flow)	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the reference frequency (transmission frequency) for CF mode.
Gain (Color Flow) (0 - 127)	0 to 127	Sets the following to be used at application startup: the CF gain.
Line Density (Color Flow)	1 to 8	Sets the following to be used at application startup: the line density (CF) for CF mode images. Line density increases when the level goes up, and decreases when the level goes down.
Line Density [HI Zoom] (Color Flow)	1 to 8	Sets the line density (CF) to apply when Hi Zoom (CF Mode) starts.
Line Density (Color Flow (BW))	1 to 8	Sets the scanning line density (B) in CF mode.
Line Density [HI Zoom] (Color Flow(BW))	1 to 8	Sets the line density (B) to apply when Hi Zoom (CF Mode) starts.
Velocity Range (CF)	0.63 to 458.33	Sets the following to be used at application startup: the velocity range for CF mode. NOTE: The velocity range varies depending on the probe.
Persistence Level	0 to 7	Sets the following to be used at application startup: the level of correlation processing (Persistence) to apply between image frames. When [0], no correlation processing is performed.
Wall Filter	1 to 6	Sets the level for removing unnecessary signals due to wall movement.
Packet Size	Large	Displays high-definition CF images. With this setting, the frame rate is lower than that for Middle.
	Middle	Sets a medium packet size (between Large and Small).
	Small	Displays low-definition CF images. With this setting, the frame rate is higher than that for Middle.
Wall Motion Reduction	Off Low Middle High	Sets the level for removing clutter signal (wall motion noise).

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(3) Color Flow 2 tab

Parameters	Options	Description
Smoothing	0 to 4	Sets the smoothness level for displaying the CF image.
Variance Enhance	1 to 8	Sets the variance level for displaying the CF image.
Color Map	A to O	Sets the following to be used at application startup: the color map to be applied to CF mode.
Color Map (CF Intensity)	A to O	If Colormap CF Intensity is On, this sets the color map to be applied to CF mode.
Display Priority: BW Threshold	0 to 16	Sets the monochrome brightness threshold value for parts of the B mode image that are deemed to be tissue and have color removed.
Display Priority: BW Coefficient	1 to 10	Sets the monochrome brightness correction coefficient for parts of the B mode image that are deemed to be tissue and have color removed.
Flow Edge	Off	Does not suppress the protrusion of color into tissue.
	Low Middle High	Changes the suppression level of protrusion of color into tissue.
Texture	Smooth, Sharp	Sets whether to display smooth CF images or sharp CF images.
Glossy Level	Off, 1 to 4	Sets the glossy level of the CF image.

(4) Power Doppler 1 tab

Parameters	Options	Description
Ref. Frequency (Power Doppler)	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the reference frequency (transmission frequency) for PD mode.
Gain (Power Doppler) (0 - 127)	0 to 127	Sets Power Doppler gain.
Line Density (Power Doppler)	1 to 8	Sets the following to be used at application startup: the line density (PD) for PD mode images. Line density increases when the level goes up, and decreases when the level goes down.
Line Density [HI Zoom] (Power Doppler)	1 to 8	Sets the line density (PD) to apply when Hi Zoom (PD Mode) starts.
Line Density (Power Doppler(BW))	1 to 8	Sets the scanning line density (B) in PD mode.
Line Density [HI Zoom] (Power Doppler(BW))	1 to 8	Sets the line density (B) to apply when Hi Zoom (PD mode) starts.
Velocity Range (PD)	0.63 to 458.33	Sets the following to be used at application startup: the velocity range for PD mode. NOTE: The velocity range varies depending on the probe.

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Parameters	Options	Description
Persistence Level	0 to 7	Sets the following to be used at application startup: the level of correlation processing (Persistence) to apply between image frames. When [0], no correlation processing is performed.
Wall Filter	1 to 6	Sets the level for removing unnecessary signals caused by wall movement in order to show just the blood flow signal. Raising the level increases the frequencies to be removed.
Packet Size	Large	Displays high-definition PD images. With this setting, the frame rate is lower than that for Middle.
	Middle	Sets a medium packet size (between Large and Small).
	Small	Displays low-definition PD images. With this setting, the frame rate is higher than that for Middle.
Wall Motion Reduction	Off Low Middle High	Sets the level for removing clutter signal (wall motion noise).

(5) Power Doppler 2 tab

Parameters	Options	Description
Smoothing	0 to 4	Sets the smoothness level for displaying the PD image.
Dynamic Range	1 to 16	Sets the following to be used at application startup: the Dynamic Range (PD).
Color Map (PD)	A to O	Sets the following to be used at application startup: the color map to be applied to PD mode.
Display Priority: BW Threshold	0 to 16	Sets the monochrome brightness threshold value for parts of the B mode image that are deemed to be tissue and have PD removed.
Display Priority: BW Coefficient	1 to 10	Sets the monochrome brightness correction coefficient for parts of the B mode image that are deemed to be tissue and have PD removed.
Color Map (Dir.-PD)	A to O	Sets the following to be used at application startup: the color map to be applied to Directional PD mode.
FlowEdge	Off	Does not suppress the protrusion of color into tissue.
	Low Middle High	Changes the suppression level of protrusion of color into tissue.
Texture	Smooth, Sharp	Sets whether to display smooth PD images or sharp PD images.
Glossy Level	Off, 1 to 4	Sets the glossy level of the PD image.

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(6) eFlow 1 tab

Parameters	Options	Description
Ref. Frequency (eFlow)	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the reference frequency (transmission frequency) for eFlow mode.
Gain (eFlow) (0 - 127)	0 to 127	Sets the following to be used at application startup: the eFlow gain.
Line Density (eFlow)	1 to 8	Sets the following to be used at application startup: the line density (eFlow) for eFlow mode images. Line density increases when the level goes up, and decreases when the level goes down.
Line Density [HI Zoom] (eFlow)	1 to 8	Sets the line density (eFlow) to apply when Hi Zoom (eFlow mode) starts.
Line Density (eFlow(BW))	1 to 8	Sets the scanning line density (B) in eFlow mode.
Line Density [HI Zoom] (eFlow(BW))	1 to 8	Sets the line density (B) to apply when Hi Zoom (eFlow mode) starts.
Velocity Range (eFlow)	0.63 to 458.33	Sets the following to be used at application startup: the velocity range for eFlow mode. NOTE: The velocity range varies depending on the probe.
Persistence Level	0 to 7	Sets the following to be used at application startup: the level of correlation processing (Persistence) to apply between image frames. When [0], no correlation processing is performed.
Wall Filter	1 to 6	Sets the level for removing unnecessary signals caused by wall movement in order to show just the blood flow signal. Raising the level increases the frequencies to be removed.
Packet Size	Large	Displays high-definition eFlow images. With this setting, the frame rate is lower than that for Middle.
	Middle	Sets a medium packet size (between Large and Small).
	Small	Displays low-definition eFlow images. With this setting, the frame rate is higher than that for Middle.
Wall Motion Reduction	Off Low Middle High	Sets the level for removing clutter signal (wall motion noise).

(7) eFlow 2 tab

Parameters	Options	Description
Smoothing	0 to 4	Sets the smoothness level for displaying the eFlow image.
Dynamic Range	1 to 16	Sets the following to be used at application startup: the Dynamic Range (eFlow).
Color Map (eFlow)	A to O	Sets the following to be used at application startup: the color map to be applied to eFlow mode.

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Parameters	Options	Description
Display Priority: BW Threshold	0 to 16	Sets the monochrome brightness threshold value for parts of the B mode image that are deemed to be tissue and have eFlow removed.
Display Priority: BW Coefficient	1 to 10	Sets the monochrome brightness correction coefficient for parts of the B mode image that are deemed to be tissue and have eFlow removed.
Color Map (Dir.-eFlow)	A to O	Sets the following to be used at application startup: the color map to be applied to Directional eFlow.
Texture	Smooth, Sharp	Sets whether to display smooth eFlow images or sharp eFlow images.
Glossy Level	Off, 1 to 4	Sets the glossy level of the eFlow image.

(8) Biplane tab

Parameters	Options	Description
Gain (Color Flow) [T] (0 - 127)	0 to 127	Sets the following to be used at application startup: the Color Flow gain of 1-connector biplane transverse section.
Gain (Color Flow) [L] (0 - 127)	0 to 127	Sets the following to be used at application startup: the Color Flow gain of 1-connector biplane longitudinal section.
Gain (Power Doppler) [T] (0 - 127)	0 to 127	Sets the following to be used at application startup: the Power Doppler gain of 1-connector biplane transverse section.
Gain (Power Doppler) [L] (0 - 127)	0 to 127	Sets the following to be used at application startup: the Power Doppler gain of 1-connector biplane longitudinal section.
Gain (eFlow) [T] (0 - 127)	0 to 127	Sets the following to be used at application startup: the lateral plane eFlow gain in 1-connector-type biplane.
Gain (eFlow) [L] (0 - 127)	0 to 127	Sets the following to be used at application startup: the longitudinal plane eFlow gain in 1-connector-type biplane.
Ref. Frequency (Color Flow) [T]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the lateral plane CF mode reference frequency (transmission frequency) in 1-connector-type biplane.
Ref. Frequency (Color Flow) [L]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the longitudinal plane CF mode reference frequency (transmission frequency) in 1-connector-type biplane.
Ref. Frequency (Power Doppler) [T]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the lateral plane PD mode reference frequency (transmission frequency) in 1-connector-type biplane.
Ref. Frequency (Power Doppler) [L]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the longitudinal plane PD mode reference frequency (transmission frequency) in 1-connector-type biplane.
Ref. Frequency (eFlow) [T]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the lateral plane eFlow mode reference frequency (transmission frequency) in 1-connector-type biplane.

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Parameters	Options	Description
Ref. Frequency (eFlow) [L]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the longitudinal plane eFlow mode reference frequency (transmission frequency) in 1-connector-type biplane.

(9) DFI1 tab

Parameters	Options	Description
Ref. Frequency(DFI)	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the reference frequency (transmission frequency) for DFI mode.
Gain (DFI (0 - 127))	0 to 127	Sets the following to be used at application startup: the DFI gain.
Line Density (DFI)	1 to 8	Sets the following to be used at application startup: the line density (DFI) for DFI mode images. Line density increases when the level goes up, and decreases when the level goes down.
Line Density [HI Zoom] (DFI)	1 to 8	Sets the line density (DFI) to apply when Hi Zoom (DFI mode) starts.
Persistence Level	0 to 7	Sets the following to be used at application startup: the level of correlation processing (Persistence) to apply between image frames. When [0], no correlation processing is performed.
Packet Size	Large	Displays high-definition DFI images. With this setting, the frame rate is lower than that for Middle.
	Middle	Sets a medium packet size (between Large and Small).
	Small	Displays low-definition DFI images. With this setting, the frame rate is higher than that for Middle.
Wall Motion Reduction	Off Low Middle High	Sets the level for removing clutter signal (wall motion noise).

(10) DFI2 tab

Parameters	Options	Description
Smoothing	0 to 4	Sets the smoothness level for displaying the DFI image.
Dynamic Range	1 to 16	Sets the following to be used at application startup: the Dynamic Range (DFI).
Color Map (DFI)	A to O	Sets the following to be used at application startup: the color map to be applied to DFI mode.
Color Map (Dir. DFI)	A to O	Sets the following to be used at application startup: the color map to be applied to Directional DFI mode.
Display Priority: BW Threshold	0 to 16	Sets the monochrome brightness threshold value for parts of the B mode image that are deemed to be tissue and have the DFI image removed.

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Parameters	Options	Description
Display Priority: BW Coefficient	1 to 10	Sets the monochrome brightness correction coefficient for parts of the B mode image that are deemed to be tissue and for which the DFI image is to be removed.
Texture	Smooth, Sharp	Sets whether to display smooth DFI images or sharp DFI images.
Glossy Level	Off, 1 to 4	Sets the glossy level of the DFI image.
DFI Sensitivity	0 to 3	Sets the blood flow depiction sensitivity of a DFI image.

10.4.6 QSS parameter: Doppler

(1) Common tab

Parameters	Options	Description
Color Map	A to O	Sets the following to be used at application startup: the color map to be applied to D mode.

(2) PW1 tab

Parameters	Options	Description
Ref. Frequency (PW)	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the reference frequency (transmission frequency) for PW mode.
Gain (PW) (0 - 60)	0 to 60	Sets the following to be used at application startup: the D gain.
Velocity Range (PW)	1.26 to 802.08	Sets the following to be used at application startup: the velocity range for PW mode. NOTE: The velocity range varies depending on the probe.
Wall Filter (D)	1 to 12	Sets the level for removing unnecessary signals caused by wall movement in order to show just the blood flow signal. Raising the level increases the frequencies to be removed.
Spectrum Resolution (D)	Low Middle High	Sets data number to use for frequency analysis during PW wave display.
Dop. Gamma	1 to 8	Sets the following to be used at application startup: the Doppler waveform contrast and the level of gamma adjustment.
Low Echo Reduction (PW)	0 to 30	Sets the following to be used at application startup: the suppression level for hypoechoic areas of PW Doppler waveform. When [0], no suppression of hypoechoic areas is applied.
Grayscale Enh. (PW)	Off Low Mid High	Sets the balance between low brightness and high brightness in the gray scale of a PW Doppler waveform when an application is started.

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(3) PW 2 tab

Parameters	Options	Description
Sample Volume (PW1)	0.5 to 20.0	Sets the following to be used at application startup: the sample volume width (mm) for the D cursor or D1 cursor.
Sample Volume (PW2)	0.5 to 20.0	Sets the following to be used at application startup: the sample volume width (mm) for the D2 cursor.
Baseline Shift (PW)	-16 to 16	Sets the following to be used at application startup: the Doppler baseline position. Shifts up and down, relative to [0] as the image center position.
Baseline Shift (PW1)	-16 to 16	Sets the following to be used at application startup: the Doppler (PW1) baseline (0mm/s) position.
Baseline Shift (PW2)	-16 to 16	Sets the following to be used at application startup: the Doppler (PW2) baseline (0mm/s) position.

(4) Post Process tab

Parameters	Options	Description
Gamma Type (PW)	Window Type, S-Curve Type, Parabolic Type, Linear Type	Sets the following to be used at application startup: the γ type.
Gamma (PW) (-4.0 - 4.0)	-4.0 to 4.0	Sets the following to be used at application startup: the gamma value, in 0.1 increments.
Rejection (PW) (0 - 255)	0 to 255	Configures the location of the rise of the curve.
Center (PW) (0 - 255)	0 to 255	Sets the location of the center for S-shaped curves.
Saturation (PW) (0 - 255)	0 to 255	Configures the saturation location of curves.
Gamma Type (CW)	Window Type, S-Curve Type, Parabolic Type, Linear Type	Sets the following to be used at application startup: the γ type.
Gamma (CW) (-4.0 - 4.0)	-4.0 to 4.0	Sets the following to be used at application startup: the gamma value, in 0.1 increments.
Rejection (CW) (0 - 255)	0 to 255	Configures the location of the rise of the curve.
Center (CW) (0 - 255)	0 to 255	Sets the location of the center for S-shaped curves.
Saturation (CW) (0 - 255)	0 to 255	Configures the saturation location of curves.

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(5) CW tab

Parameters	Options	Description
Gain (CW) (0 - 60)	0 to 60	Sets the following to be used at application startup: the D gain.
Velocity Range (CW)	25.07 to 802.08	Sets the following to be used at application startup: the velocity range for CW mode (vertical axis direction, cm/s). NOTE: The velocity range varies depending on the probe.
Wall Filter (D)	1 to 12	Sets the level for removing unnecessary signals caused by wall movement in order to show just the blood flow signal. Raising the level increases the frequencies to be removed.
Spectrum Resolution (D)	Low Middle High	Sets the amount of data for use in frequency analysis during CW waveform display.
Dop. Gamma	1 to 8	Sets the following to be used at application startup: the Doppler waveform contrast and the level of gamma adjustment. Raising the level increases the frequencies to be removed.
Low Echo Reduction (CW)	0 to 30	Sets the following to be used at application startup: the suppression level for hypoechoic areas of CW Doppler waveform. When [0], no suppression of hypoechoic areas is applied.
Baseline Shift (CW)	-16 to 16	Sets the following to be used at application startup: the Doppler baseline position.
Echo Enh. (CW)	Off Low High	Sets whether to apply contrast between the Doppler waveform and background noise by enhancing the Doppler waveform and reducing background noise. The contrast is greater at [High] than at [Low].
Grayscale Enh. (CW)	Off Low Mid High	Sets the balance between low brightness and high brightness in the gray scale of a CW Doppler waveform when an application is started.

(6) Biplane tab

Parameters	Options	Description
Ref. Frequency (PW) [L]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the longitudinal plane PW mode reference frequency (transmission frequency) in 1-connector-type biplane.
Ref. Frequency (PW) [T]	3 (High) 2 (Middle) 1 (Low)	Sets the following to be used at application startup: the lateral plane PW mode reference frequency (transmission frequency) in 1-connector-type biplane.
Gain (PW) [L] (0 - 60)	0 to 60	Sets the following to be used at application startup: the longitudinal plane D gain in 1-connector-type biplane.
Gain (PW) [T] (0 - 60)	0 to 60	Sets the following to be used at application startup: the lateral plane D gain in 1-connector-type biplane.

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10.4.7 QSS parameter: Tissue Dop.

(1) PW1 tab

Parameters	Options	Description
Gain (TD-PW) (0 - 60)	0 to 60	Sets the following to be used at application startup: the D gain (TD-PW).
Velocity Range (TD-PW)	1.26 to 802.08	Sets the following to be used at application startup: the velocity range for TD-PW mode. NOTE: The velocity range varies depending on the probe.
Wall Filter (TD-PW)	1 to 12	Sets the level for removing unnecessary signals caused by wall movement in order to show just the blood flow signal. Raising the level increases the frequencies to be removed.
Spectrum Resolution (TD-PW)	Low Middle High	Sets data number to use for frequency analysis during PW wave display.
Dop. Gamma	1 to 8	Sets the following to be used at application startup: the Doppler waveform contrast and the level of gamma adjustment. Raising the level increases the frequencies to be removed.
Low Echo Reduction (TD-PW)	0 to 30	Sets the following to be used at application startup: the suppression level for hypoechoic areas of TD-PW Doppler waveform. When [0], no suppression of hypoechoic areas is applied.
Sample Volume (TD-PW1)	0.5 to 20.0	Sets the following to be used at application startup: the sample volume width (mm) for the D cursor or D1 cursor.
Sample Volume (TD-PW2)	0.5 to 20.0	Sets the following to be used at application startup: the sample volume width (mm) for the D2 cursor.
Baseline Shift (TD-PW)	-16 to 16	Sets the following to be used at application startup: the baseline position in TD-PW mode.
Baseline Shift (TD-PW1)	-16 to 16	Sets the following to be used at application startup: the Doppler (TD-PW1) baseline position.
Baseline Shift (TD-PW2)	-16 to 16	Sets the following to be used at application startup: the Doppler (TD-PW2) baseline position.

(2) PW2 tab

Parameters	Options	Description
Grayscale Enh. (TD-PW)	Off Low Mid High	Sets the balance between low brightness and high brightness in the gray scale of a TD-PW Doppler waveform when an application is started.

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(3) Post Process tab

Parameters	Options	Description
Gamma Type (TD-PW)	Window Type, S-Curve Type, Parabolic Type, Linear Type	Sets the following to be used at application startup: the γ type.
Gamma (TD-PW) (-4.0 - 4.0)	-4.0 to 4.0	Sets the following to be used at application startup: the gamma value, in 0.1 increments.
Rejection (TD-PW) (0 - 255)	0 to 255	Configures the location of the rise of the curve.
Center (TD-PW) (0 - 255)	0 to 255	Sets the location of the center for S-shaped curves.
Saturation (TD-PW) (0 - 255)	0 to 255	Configures the saturation location of curves.

(4) Area tab

Parameters	Options	Description
Area Width (TDI) (5 - 100)	5 to 100	Sets the following to be used at application startup: the flow area width, in 5% increments.
Area Width (B +TDI/*) (5 - 100)	5 to 100	Sets the flow area width in 5% increments when using B (TDI)/*mode.
Area Height (TDI) (25 - 100)	25 to 100	Sets the following to be used at application startup: the flow area height, in 5% increments.
Area Depth (TDI)	1 (Shallow) 2 (Center) 3 (Deep)	Sets the following to be used at application startup: the flow area depth, in 5% increments.

(5) Color tab

Parameters	Options	Description
Gain (TDI [B]) (0 - 127)	0 to 127	Sets the following to be used at application startup: the CF gain (TDI).
Line Density (TDI [B])	1 to 8	Sets the following to be used at application startup: the line density (TDI [B]) for TDI [B]. Line density increases when the level goes up, and decreases when the level goes down.
Line Density [HI Zoom] (TDI [B])	1 to 8	Sets the line density (TDI [B]) to apply when Hi Zoom (TDI mode) starts.
Line Density (TDI[B] (BW))	1 to 8	Sets the scanning line density (B) in TDI mode.
Line Density [HI Zoom] (TDI[B] (BW))	1 to 8	Sets the line density (B) to apply when Hi Zoom (TDI mode) starts.

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Parameters	Options	Description
Velocity Range (TDI)	0.63 to 458.33	Sets the following to be used at application startup: the velocity range for TDI mode. NOTE: The velocity range varies depending on the probe.
Persistence Level	0 to 7	Sets the following to be used at application startup: the level of correlation processing (Persistence) to apply between image frames. When [0], no correlation processing is performed.
Packet Size	Large	Displays high-definition TDI images. With this setting, the frame rate is lower than that for Middle.
	Middle	Sets a medium packet size (between Large and Small).
	Small	Displays low-definition TDI images. With this setting, the frame rate is higher than that for Middle.
Smoothing	0 to 4	Sets the smoothness level for displaying the TDI image.
Blend [%] (0 - 100)	0 to 100	Sets the color transparency ratio. When displaying the movement speeds of tissues in color, the higher the transparency ratio, the more transparent the color is, and the background B mode image becomes easier to see.
Color Map	A to O	Sets the following to be used at application startup: the color map to be applied to TDI mode.

10.4.8 QSS parameter: Physiology

(1) ECG tab

Parameters	Options	Description
ECG Display (B)	On, Off	Sets the following to be used at application startup: the ECG Display on B mode.
ECG Display (Sweep)	On, Off	Sets the following to be used at application startup: the ECG Display on M mode and/or D mode.
ECG Position (1 - 32)	1 to 32	Sets the following to be used at application startup: the ECG position.
ECG Sensitivity (0 - 30)	0 to 30	Sets the following to be used at application startup: the ECG sensitivity. The display amplitude of the ECG is increased according to the numerical value. At level [0], the ECG is displayed as a flat line.
ECG Auto Sensitivity	Off, S, M, L	Sets the level for automatic compensation of ECG sensitivity. Sensitivity is raised in order of [S], [M], and [L].

(2) PCG tab

Parameters	Options	Description
PCG Display (B)	On, Off	Sets the following to be used at application startup: the PCG Display on B mode.

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Parameters	Options	Description
PCG Display (Sweep)	On, Off	Sets the following to be used at application startup: the PCG Display on M mode and/or D mode.
PCG Position (1 - 32)	1 to 32	Sets the following to be used at application startup: the PCG position.
PCG Sensitivity (0 - 30)	0 to 30	Sets the following to be used at application startup: the PCG sensitivity. The display amplitude of the PCG is increased according to the numerical value. At level [0], the PCG is displayed as a flat line.

(3) Resp. tab

Parameters	Options	Description
Resp Display (B)	On, Off	Sets the following to be used at application startup: the Resp Display on B mode.
Resp Display (Sweep)	On, Off	Sets the following to be used at application startup: the Resp Display on M mode and/or D mode.
Resp Position (1 - 32)	1 to 32	Sets the following to be used at application startup: the Resp position.
Resp Sensitivity (0 - 30)	0 to 30	Sets the following to be used at application startup: the Resp sensitivity. The display amplitude of the breathing is increased according to the numerical value. At level [0], the exhalation is displayed as a flat line.

(4) AUIX tab

Parameters	Options	Description
Pulse Display (B)	On, Off	Sets the following to be used at application startup: the Pulse display on B mode.
Pulse Display (Sweep)	On, Off	Sets the following to be used at application startup: the Pulse display on M mode and/or D mode.
Pulse Position (1 - 32)	1 to 32	Sets the following to be used at application startup: the Pulse display position.
Pulse Sensitivity (0 - 30)	0 to 30	Sets the following to be used at application startup: the Pulse sensitivity. The display amplitude of the pulse is increased according to the numerical value. At level [0], the pulse wave is displayed as a flat line.

10.5 Settings for each diagnostic region

Procedure

1. Press the [Probe/Preset] key.
2. Select [Preset Setup] on the touch panel.

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3. Select [Region].

You can now perform the following operations:

- Edit parameters for the diagnostic field.
- Copy and paste the diagnostic field.
- Change the name of the diagnostic field.
- Initialize the diagnostic field (reset to the factory default settings).

10.5.1 Copying diagnostic field settings

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Region].
3. From the Region column, select the diagnostic field to copy.
4. Select [Copy].
5. From [User1] to [User9] in the Region column, select the copy-destination diagnostic field.
6. Select [Paste].
7. Select [OK] on the message.

   → The selected diagnostic field is overwritten.

10.5.2 Changing diagnostic field settings

Changes the name of user settings.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Region].
3. From [User1] to [User9] in the Region column, select the desired diagnostic field.
   NOTE: The names of factory default diagnostic fields cannot be changed.
4. Enter a name.
   a. Select [Edit Name] and enter a name.
   b. Select [Enter] on the keyboard.

10.5.3 Initializing diagnostic field settings

This resets diagnosis field settings to their factory default settings.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Region].

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3. From the Region column, select the desired diagnostic field.
4. Select [Factory Data].
5. Select [OK] on the message.

→ This resets it to the factory default settings. For user-defined color maps, this returns the color map of the copy source to its factory default settings. However, the name does not change.

10.5.4 Editing the parameters of diagnostic field settings

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Region].
3. From the Region column, select the desired diagnostic field.
4. From the Menu column, select the desired category.

Menu Categories

Item	Description	Reference
General	Configures parameters not classified below.	
B	B mode-related settings	
Doppler	D mode-related settings	
Color	CF mode-related settings	
Tissue Dop.	TDI mode-related settings	
Body Mark	Body mark menu settings	
Annotation	Annotation-related settings	
Physiology	Settings related to physiological signals	
PinP	Settings related to PinP.	
RVS	Settings related to RVS	Separate manual "Advanced Operations 2"

5. Select a tab.
6. Edit the parameters.
To return parameters on the displayed tab to their factory default settings:
Select [Initialize]. This only returns the parameters on the displayed tab to their factory default settings.
7. Select [Save] to save settings.
8. Select [Close] to return to the scanning screen.
If the following message is displayed: "Save changes to preset data?"
Select [Yes] to save changes.
Select [No] to close the preset screen without saving changes.

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10.5.5 Parameters of diagnostic field settings: General

(1) Operation1 tab

Parameters	Options	Description
Trackball Priority When Frozen (Color On)	Search Body Mark Comment Measurement + Search	Sets the state of trackball function when the [Freeze] key is set to On in CF mode, PD mode, TDI mode, eFlow mode, DFI mode, Elastography, and CHI-Color.
Trackball Priority When Frozen (Color Off)	Search Body Mark Comment Measurement + Search	Sets the trackball function when the [Freeze] key is set to On.
Trackball Priority When Freeze OFF	Auto	If the trackball function is set to Body Mark directly prior to Freeze being turned Off, the trackball function is set to Body Mark when Freeze is turned to Off. In all other situations, the trackball function setting is the same as "Unchanged" when Freeze is turned to Off.
	Unchanged	Immediately inherits trackball function status when Freeze is turned On after being turned Off.
Trackball Priority When Frozen (Color Off)(CHI)	Search Body Mark Comment Measurement +Search	Sets the trackball function when the [Freeze] key is set to On in CHI-B/W.
Trackball Priority (Focus/B.M.)	Focus Body Mark Off	Allows the trackball to be used to adjust the focus position or body marks.
Freeze Encoder on Frozen	Cine Search B Gain Low Echo Reduction	Sets the function of the [Freeze] rotary encoder when the [Freeze] key is set to On.
Velocity/Focus Paddle Switch	Velocity Focus Dependent Mode	Sets the following to be used at application startup: the [FOCUS/VELOCITY] paddle switch function.
Pointer R.E. (Color/D)	Scan Width Vel. Range	Sets the function of [Pointer] rotary encoder when in color Doppler mode or D mode.

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Parameters	Options	Description
Sweep mode Auto Active	Off	Turns off active switching of the tomographic image and sweep mode in response to cursor movement by the trackball in B/M and B/D modes.
	B Active by Cursor movement	This setting makes the tomographic image active when the cursor is moved using the trackball in B/M or B/D mode with sweep mode active.
	B/Sweep Active by Cursor movement	This setting makes the tomographic image active when the cursor is moved using the trackball in B/M or B/D mode with sweep mode active. When the tomographic image is active, this setting makes sweep mode active when the trackball is stopped with the cursor at the position of the sweep mode image.

(2) Operation2 tab

Sound Select

Parameters	Options	Description
Sound Select (Panel Switch)	Off A, B, C	Sets the sounds when operating keys on the operation panel.
Sound Select (Touch Panel Menu)	Off A, B, C	Sets the sound of operations on the touch panel.
Sound Select (Archive Switch)	Off A, B, C	Sets the sound from pressing the key that assigns Archives 1 through 5 from among the operation panel keys.
Sound of Store	On, Off	Sets the sound to go off when a still image or video is saved.

Parameters	Options	Description
Message Alarm	On, Off	Sets the sound when messages are displayed.
Monitor/Panel Setting	Type A Type B Type C	Sets the following to be used at application startup: the Monitor/Panel Setup.

(3) Display tab

Parameters	Options	Description
ID Input Type	CARD OB GYN ABD VAS SMP URO	Sets the type of ID input screen to be displayed when the [New Patient] key is pressed.
Menu Skin Select	A, B, C, D	Sets the design of the touch panel menu.

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Parameters	Options	Description
Pointer Home Position	Review Area	Configures the display of the pointer in the thumbnail area when the [Pointer] key is pressed.
	Comment Area	Configures the display of the pointer in the comment area when the [Pointer] key is pressed.
	Previous Position	Displays the pointer in the following way when the [Pointer] key is pressed: At initial start of pointer display, the pointer is displayed in the comment area. If pointer display is ended and restarted, the pointer is displayed in the area in which pointer display last ended.
TI Display (***)	TIS, TIB, TIC	Configures the thermal index display items. NOTE: The parameter complies with the standard shown in [***].
B/D Format	L/R	Configures the display to left/right when in B/D mode.
	U/D	Configures the display to up/down when in B/D mode.
B/M Format	L/R	Configures the display to left/right when in B/M mode.
	U/D	Configures the display to up/down when in B/M mode.
B/D Format Size (U/D)	Normal Wide	Sets the B mode and D mode image split size when B/D Format is set to [U/D]. Normal is B: D = 1:1, Wide is B: D = 1:2.
B/M Format Size (U/D)	Normal Wide	Sets the B mode and M mode image split size when B/M Format is set to [U/D]. Normal is B: M = 1:1, Wide is B: M = 1:2.
Font Size (Meas. Results)	x1, x1.2, x1.4	Configures the character size of the measurement result display.
Velocity Unit	cm/s, m/s kHz	Sets the following to be used at application startup: the velocity range display unit.
Joining display of 2B	On, Off	Displays two linked images in the dual-screen view when the left and right display conditions match. NOTE: Only a linear probe is supported. NOTE: Two linked screens cannot be displayed when using Trapezoid, Vertical Shift, CHI, or Zoom.
Cut-off freq. of Wall Filter	On, Off	Sets PW waveform and CW waveform cutoff frequency display.

(4) Cine tab

Parameters	Options	Description
Cine Memory Division	Off 2, 4	Sets the following to be used at application startup: the Cine Memory Division count.
Keep Display after 2B mapping	On, Off	If you freeze an image in single screen display, and then switch to dual screen display and unfreeze the image, dual screen display is maintained. NOTE: This parameter is enabled when Cine Memory Division is [Off].

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(5) Filing tab

Parameters	Options	Description
Filing	Abdomen, Obstetric, Gynecology, Cardiology, Vascular, Small Parts, Urology, CHI, User 1 to User 9	Sets the Filing presets associated with applications.

10.5.6 Parameters of diagnostic field settings: B

(1) B tab

Parameters	Options	Description
Initial Mode	B Dual Quad	Sets the following to be used at application startup: the B mode display screen.
B Format Size (H)	Normal Small	Sets the height and width of the B mode and M mode image display area in B, B/B, B/M, and B/D modes.
Rotary Plane Mark Display	On, Off	Sets the following to be used at application startup: the Rotary Plane mark display (only for compatible probes).
Rotary Plane Angle Display	On, Off	Sets the following to be used at application startup: the Rotary Plane angle display (only for compatible probes).
Invert L/R	On, Off	Sets the following to be used at application startup: the L/R Invert on B mode images.
Invert U/L	On, Off	Sets the following to be used at application startup: the U/L Invert on B mode images.
TGC	Fixed	Adjusts and configures the display depth to always be at a set ratio. Changes the adjustable range of TGC equally for an image display range.
	Variable	Sets the following to be used at application startup: the depth for dividing the screen display into equal parts during TGC.
TGC Curve	Normal Custom	Sets whether to apply the curve memorized in TGC at application startup.
Image Rotation [deg]	0 90 180 270	Sets the following to be used at application startup: the orientation (clockwise rotation angle) for B mode images.
Omni Plane Angle Setting [deg]	-45 to 45	Sets the Omni Plane angle to be used when the application starts (only for probes compatible with Omni Plane).

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Parameters	Options	Description
Omni Plane Mark Display	On, Off	Sets the Omni Plane mark display to be used when the application starts (only for probes compatible with Omni Plane).
Omni Plane Angle Display	On, Off	Sets the Omni Plane angle display to be used when the application starts (only for probes compatible with Omni Plane).

(2) Biplane tab

Parameters	Options	Description
Initial Plane	T L Previous exam	Displays biplane probe cross section images when the application starts. If [Previous exam] is selected, this displays the cross section images that were displayed at the end of the previous examination. NOTE: For CC41R1 and CC41R, this displays cross section images even if the setting is [Previous exam].
Invert L/R [L]	On, Off	Sets the following to be used at application startup: the longitudinal plane B mode image L/R invert in 1-connector-type biplane.
Invert L/R [T]	On, Off	Sets the following to be used at application startup: the lateral plane B mode image L/R invert in 1-connector-type biplane.
Invert U/L [L]	On, Off	Sets the following to be used at application startup: the longitudinal plane B mode image U/L invert in 1-connector-type biplane
Invert U/L [T]	On, Off	Sets the following to be used at application startup: the lateral plane B mode image U/L invert in 1-connector-type biplane.
Image Rotation [L] [deg]	0 90 180 270	Sets the following to be used at application startup: the longitudinal plane B mode image rotation in 1-connector-type biplane.
Image Rotation [T] [deg]	0 90 180 270	Sets the following to be used at application startup: the lateral plane B mode image rotation in 1-connector-type biplane.

(3) Radial Tab

Sets how radial probes are displayed by default at application startup.
PROX. displays images viewed from the probe insertion direction, and DISTAL displays images viewed from the opposite of the probe insertion direction.

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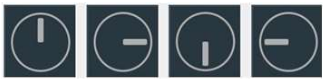
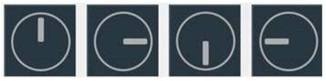
Options	Description
PROX.  DISTAL 	Sets the display direction (PROX. or DISTAL) and the display angle (0°, 90°, 180°, 270°) for B mode images.

10.5.7 Parameters of diagnostic field settings: Doppler

(1) Common tab

Parameters	Options	Description
Simultaneous (PW)	On, Off	Sets the following to be used at application startup: the B/D simultaneous display screen.
Direct to D Sweep	B+Cursor B/PW	Sets the screen on which the cursor is displayed when in B/D mode. If you select [B+Cursor], a cursor is displayed on the B mode image (single-screen view). The [B/PW] cursor is displayed on the B mode image in B/D mode.
Spectrum Format Size	Normal Wide	Sets the following to be used at application startup: the D mode image display area height for B/D mode.
Invert Axis (D)	Base Line Center	Sets the following to be used at application startup: the spectrum inversion standard.
Invert Link	On, Off	Configures the color polarity during spectrum inversion.
B Shift	On, Off	Sets the B mode image to follow the cursor movement in the B/D mode.
Spectrum Texture	Smooth Sharp	Sets the sensitivity of the Doppler waveform.
Simultaneous Smoothing	On, Off	Sets to display a smoother PW waveform when under simultaneous operation.

(2) Angle Bar tab

Parameters	Options	Description
Angle Correction Type	Keep an angle on screen Keep an angle with Doppler cursor	Configures the operation of the Angle Correction bar when the D cursor is moved. [Keep an angle on screen] keeps the angle on the screen. [Keep an angle with Doppler cursor] keeps the angle with the D cursor.
Automatic Reverse	On, Off	Configures the Angle Correction bar to invert at the same time as the D cursor steer angle inverts.

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10.5.8 Parameters of diagnostic field settings: Color

(1) Common tab

Parameters	Options	Description
Velocity Unit (PD)	On, Off	Sets the unit of velocity range (cm/s for eFlow mode and kHz for PD mode) when eFlow mode, PD mode, or DFI mode starts.
Invert Color Map	On, Off	Sets the following to be used at application startup: the color polarity inversion.
Line Density Offset (Triplex)	-7 to 0	Configures the line density offset when Triplex is running

10.5.9 Parameters of diagnostic field settings: Tissue Dop.

(1) Common tab

Parameters	Options	Description
Invert Axis (TD-PW)	Base Line Center	Sets the following to be used at application startup: the spectrum inversion standard.
Invert Color Map	On, Off	Sets the following to be used at application startup: the color polarity inversion.
Spectrum Texture	Smooth Sharp	Sets the sensitivity of the Doppler waveform.

10.5.10 Parameters of diagnostic field settings: Body Mark

(1) US tab

Parameters	Options	Description
Body Mark Display	On, Off	Sets the following to be used at application startup: the Body Mark display.
Body Mark Display (CHI)	On, Off	Sets the Body Mark display on CHI startup.
Body Mark Copy	On, Off	Setting of whether to inherit the body marks in the active screen when the active screen is switched in the dual-screen view or quad-screen view.
Probe Mark Copy	On, Off	Sets whether to inherit the types, positions, and angles of the probe marks in the active screen, when the active screen is switched in the dual-screen view or quad-screen view.

(2) RVS tab

Parameters	Options	Description
Body Mark Display	On, Off	Sets the display of body marks on US images.

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Parameters	Options	Description
3D Body Mark Display	On, Off	Sets the display of body marks on virtual images.
3D Body Mark Size	Small, Middle, Large	Sets the size of the 3D body mark.

10.5.11 Parameters of diagnostic field settings: Annotation

(1) Common tab

Parameters	Options	Description
Dictionary	Dic 1 to Dic 28	Configures the user dictionary to display during comment input.
Comment Menu	Annotation Annotaion + Keyboard Virtual Keyboard	Configures the menu to be displayed on the touch panel during comment input.
Character Size	Small Middle Large	Configures the size of comment text.
Annotation Dictionary Select	Full Spelling Abbreviation	Sets the mode in which the word selected from the Annotation menu is to be displayed. If [Full Spelling] is selected, the selected word is displayed in full. If [Abbreviation] is selected, an abbreviation of the selected word is displayed.
Comment Auto Delete	Erase Remain	Sets whether to erase/show comments when freezing is canceled. [Erase] erases the comments after freezing is canceled. [Remain] displays the comments even after freezing is canceled.
Comment Cursor Position	Home Position Previous Position	Sets the cursor display position if the Pointer Home Position of the preset ([Preset Setup] > [Region] > [General] > [Display]) is [Comment Area].
Replace Mode	On, Off	Sets the use of the replacement mode when entering comments.
Search Words	On, Off	Sets whether the registered words are searched during keyboard entry.

10.5.12 Parameters of diagnostic field settings: Physiology

(1) Common tab

Parameters	Options	Description
ECG Filter	On, Off	Sets the following to be used at application startup: the ECG Filter.
Invert ECG Display	On, Off	Sets the following to be used at application startup: U/L Invert of the ECG waveform.

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Parameters	Options	Description
R-Wave Beep	On, Off	Sets the R-wave detection sound.
Resp Scroll Display (Freeze)	On, Off	Sets the Resp Display during freeze to scroll (waveform) when Resp Display Method is [Bar].
Resp Display Method	Scroll, Bar	Sets the following to be used at application startup: the Resp display method.
PCG Filter	L, M, H	Sets the following to be used at application startup: the PCG filter.
R-Delay Time [s]	0.00 to 2.55	Sets the time phase to time (0.01 second steps) from the R wave.

(2) H.R.Stability tab

Parameters	Options	Description
RRp/RRpp (0.05 - 0.50)	0.05 to 0.50	Configures the allowable variation range between the latest and previous R-wave intervals in steps of 0.05. NOTE: If RRp/RRpp is within the allowable variation range, that sector is judged to be a stable heartbeat sector.
H.R. Stability Display	On, Off	Sets the following to be used at application startup: the determination and display of a stable heartbeat.
H.R. Stability Display (Average) [%] (0 - 50)	0 to 50	Configures the allowable range (%) relative to the average heart rate over the latest four heartbeats.
H.R. Stability Display (Continuous) [%] (0 - 50)	0 to 50	Configures the allowable range (%) relative to the rate of change between two consecutive heartbeats.

10.5.13 Parameters of diagnostic field settings: PinP

(1) Common tab

Parameters	Options	Description
Initial Display Size	Small Half Full	Sets the size at which the PinP window is to be displayed when the application starts.
Initial Display Location	Upper Left Lower Left Upper Right Lower Right	Sets the position in which the PinP window is to be displayed when the application starts.

10.6 Filing

This configures parameter settings related to image output and playback.

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10.6.1 Editing filing parameters

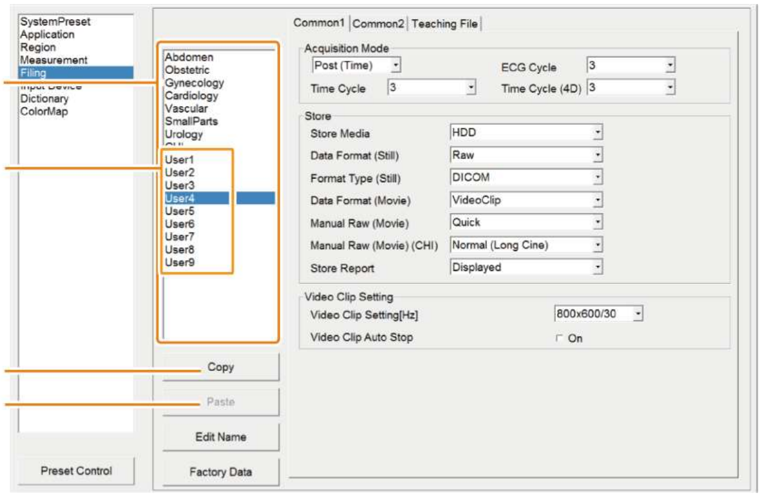
This configures the parameters in regard to image output and play in filing. This preset is set in every diagnosis field.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Filing].
3. Select the desired diagnostic field.
4. Edit the parameters.
5. Select [Save] to save settings.
6. Select [Close] to return to the scanning screen.
   If the following message is displayed: "Save changes to preset data?"
   Select [Yes] to save changes.
   Select [No] to close the preset screen without saving changes.

10.6.2 Filing batch copying and pasting

The parameters for a Filing can be copied and then pasted into a user definition.


SystemPreset
Application
Region
Measurement
Filing
Dictionary
ColorMap
Abdomen
Obstetric
Gynecology
Cardiology
Vascular
SmallParts
Urology
User1
User2
User3
User4
User5
User6
User7
User8
User9
Copy
Paste
Edit Name
Factory Data
Preset Control
Common1
Common2
Teaching File
3
5
4
6

Acquisition Mode
Post (Time)
Time Cycle: 3
ECG Cycle: 3
Time Cycle (4D): 3

Store
Store Media: HDD
Data Format (Still): Raw
Format Type (Still): DICOM
Data Format (Movie): VideoClip
Manual Raw (Movie): Quick
Manual Raw (Movie) (CHI): Normal (Long Cine)
Store Report: Displayed

Video Clip Setting
Video Clip Setting[Hz]: 800x600/30
Video Clip Auto Stop: ☐ On

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Filing].
3. Select the diagnostic field to copy from the list.
4. Select [Copy].
5. Select the diagnostic field from [User1] to [User9] in the list.
6. Select [Paste].
7. Select [OK] on the message.

   → The selected diagnostic field is overwritten.

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10.6.3 Initializing filings

This resets color maps back to their factory default settings.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Filing] and then select the desired diagnostic field from the list.
3. Select [Factory Data].
4. Select [OK] on the message.

   → This resets it to the factory default settings. For user-defined color maps, this returns the color map of the copy source to its factory default settings. However, the name does not change.

10.6.4 Changing filing names

Changes the name of user settings.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Filing].
3. Select the desired diagnostic field from [User1] to [User9] in the list.
   NOTE: The names of factory default diagnostic fields cannot be changed.
4. Enter a name.
   a. Select [Edit Name].
   b. Enter the name. Then press the [Enter] key.

10.6.5 Filing: Parameters

(1) Common1 tab

(a) Acquisition Mode

Parameters	Options	Description
Acquisition Mode	Pre (Time) Pre (ECG) Post (Time) Post (ECG) Manual	Sets the following to be used at application startup: the video acquisition method.
ECG Cycle	1 to 10	Configures the Cine playback range and video acquisition time after freezing according to the heart rate.
Time Cycle	1 to 16, 30, 45, 60, 75, 90	Configures the Cine playback range and video acquisition time (seconds) after freezing.

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Parameters	Options	Description
Time Cycle(4D)	1 to 16, 30, 45, 60, 75, 90	Configures the Cine playback range and video acquisition time (seconds) after freezing in 4D mode.

(b) Store

Parameters	Options	Description
Store Media	HDD USB CD-R Buffer DVD NET (DICOM)	Configures where the acquired video or still image is to be stored.
Data Format (Still)	Raw RGB	Sets the following to be used at application startup: the data format of still images.
Format Type (Still)	DICOM JPEG BMP TIFF	Sets the storage format when saving still images to anything other than the system hard disk.
Data Format (Movie)	Raw Video Clip Raw&V.C.	Sets the following to be used at application startup: the data format of videos.
Manual Raw (Movie)	Normal (Long Cine) Quick	Sets the timing at which a video is saved if the Data Format (Movie) setting is Raw or Raw&V.C.
Manual Raw (Movie)(CHI)	Normal (Long Cine) Quick	Sets the timing at which a video is saved in CHI mode if the Data Format (Movie) setting is Raw or Raw&V.C.
Store Report	Displayed Auto page-turning All	Sets the save method used when any of the following is pressed while a report is displayed: • [Store] key • [Archive Group 1] key • [Archive Group 2] key • [Archive Group 3] key • [Archive Group 4] key • [Archive Group 5] key [Displayed] saves the displayed report screen. [Auto page-turning] saves the displayed report screen, and then displays the next page. [All] saves all report screens in a batch. After the screens are saved, the last report screen page is displayed.

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(c) Video Clip Setting

Parameters	Options	Description
Video Clip Setting [Hz]	1024x768/30 800x600/60 800x600/30 640x480/60 640x480/30	Configures the playback speed and image size when saving video clips.
Video Clip Auto Stop	On, Off	Sets whether to freeze the scanning screen after a video clip is saved.

(2) Common2 tab

(a) Playback Mode

Parameters	Options	Description
Playback Mode	Short Long Align Free Run	Specifies how video playback is synchronized in the dual-screen view or quad-screen view.
Playback Speed Unit	Frame Rate Ratio	Sets the playback speed unit. [Ratio] means x1 of the frame rate during capture.
Loop Mode (Image Compare)	ECG Sync Free Run	Sets the synchronization method for images played in Image Compare mode.
Auto Playback	On, Off	Sets whether to automatically loop playback when acquiring a video. NOTE: This function is available if the Acquisition Mode setting is [PreECG].
Auto Freeze Off	On, Off	Sets whether to release the automatic freezing function after video images are saved while being continuously played back.
Loop Method	Frame, Beat	Sets how the playback range is to be changed.

(3) Teaching File tab

(a) Teaching File (Video)

Parameters	Options	Description
Teaching File (Video Clip)	On, Off	Configures the mask for patient data (patient ID and name) related to the output image when recording a video clip or to an external media.

Masking Item

Parameters	Options	Description
Hosp. & Sonographer Name	On, Off	Configures the mask for the hospital name and sonographer related to the output image when recording a video clip or to an external media.

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Parameters	Options	Description
Age	On, Off	Configures the mask for patient age related to the output image when recording a video clip or to an external media.
Gender	On, Off	Configures the mask for patient sex related to the output image when recording a video clip or to an external media.

(b) Teaching File (Net)

Parameters	Options	Description
Teaching File (Net)	On, Off	Configures the mask for patient data (patient ID and name) related to the output image when sending images to the network.

Masking Item

Parameters	Options	Description
Hosp. & Sonographer Name	On, Off	Configures the mask for the hospital name and sonographer name related to the output image when sending images to the network.
Age	On, Off	Configures the mask for patient age for output images when sending images to the network.
Gender	On, Off	Configures the mask for patient gender for output images when sending images to the network.

10.7 Input devices

Input Devices are presets for assigning functions to switches and menus. The following input devices are available.

Item	Description
Direct SW	Assigns functions to direct switches on the touch panel. For details about assignable functions, see "Direct switches" in this manual.
Function SW	Assigns functions to the function menu on the touch panel. For details about assignable functions, see the items other than Find/Tile in "Function menus" in this manual.
Find/Tile View Menu	Assigns functions to Find/Tile View menus. For details about assignable functions, see "Function menus: Find/Tile" in this manual.
TDI Analysis Menu	Assigns functions to the function menu in TDI analysis. For details about assignable functions, see the separate manual "Advanced Operations 1".
CHI Analysis Menu	Assigns functions to the function menu in CHI analysis. For details about assignable functions, see the separate manual "Advanced Operations 2".
2DTT Analysis Menu	Assigns functions to the function menu in 2DTT analysis. For details about assignable functions, see the separate manual "Advanced Operations 1".

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Item	Description
Custom SW	Assigns functions to keys on the control panel. For details about assignable functions, see "Direct switches" in this guide.
Custom-Foot SW	Assigns functions to foot switches
Custom-Keyboard SW	Assigns functions to the keys from F1 to F12 on the keyboard.
Measurement Menu	Assigns functions to the multi rotary encoder region in the measurement menu.
Protocol Start Menu	Assigns a protocol launch menu to the touch panel.

You can configure input devices to each application in order to link them to their applications.

Reference information

9.2 Direct switches on page 210

9.3 Function menus on page 218

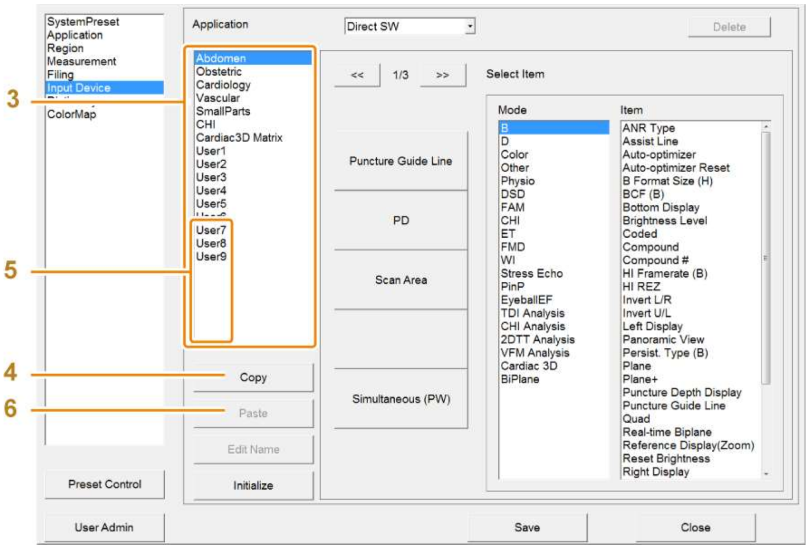
10.7.1 Copying and pasting input devices

Copying input device parameters and pasting to make user definitions.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Input Device].
3. From the Application column, select the diagnostic field to copy.
4. Select [Copy].
5. Select the copy-destination diagnostic field from the options ([User1] to [User9]) in the Application column.
6. Select [Paste].
7. Select [OK] on the message.

   → The selected diagnostic field is overwritten.


SystemPreset
Application
Region
Measurement
Filing
Input Device
ColorMap
3
5
4
6
Application
Direct SW
Delete
Abdomen
Obstetric
Cardiology
Vascular
SmallParts
CHI
Cardiac3D Matrix
User1
User2
User3
User4
User5
User7
User8
User9
<<
1/3
>>
Select Item
Mode
Item
B
D
Color
Other
Physio
DSD
FAM
CHI
ET
FMD
WI
Stress Echo
PinP
EyeballEF
TDI Analysis
CHI Analysis
2DTT Analysis
VFM Analysis
Cardiac 3D
BiPlane
ANR Type
Assist Line
Auto-optimizer
Auto-optimizer Reset
B Format Size (H)
BCF (B)
Bottom Display
Brightness Level
Coded
Compound
Compound #
HI Framerate (B)
HI REZ
Invert L/R
Invert U/L
Left Display
Panoramic View
Persist. Type (B)
Plane
Plane+
Puncture Depth Display
Puncture Guide Line
Quad
Real-time Biplane
Reference Display(Zoom)
Reset Brightness
Right Display
Puncture Guide Line
PD
Scan Area
Simultaneous (PW)
Copy
Paste
Edit Name
Initialize
Preset Control
User Admin
Save
Close

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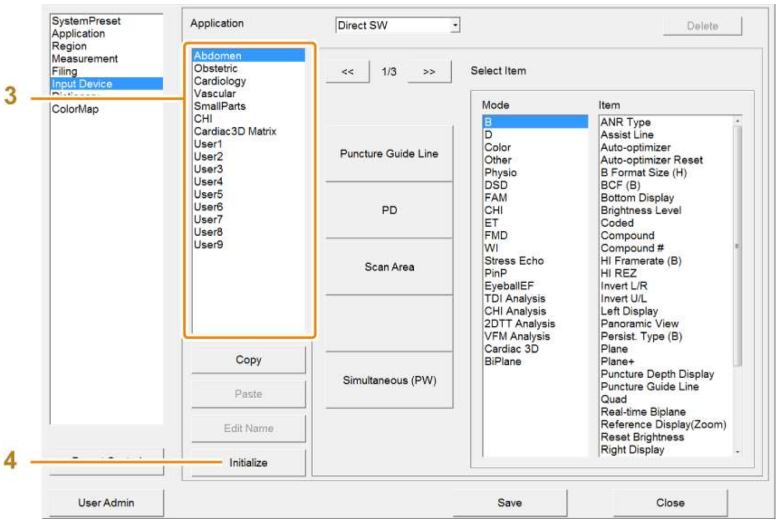
10.7.2 Initializing input devices

This resets input devices to their factory default settings.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Input Device].
3. From the Application column, select the desired diagnostic field.
4. Select [Initialize].
5. Select [OK] on the message.

   → This resets it to the factory default settings. For user-defined color maps, this returns the color map of the copy source to its factory default settings. However, the name does not change.


3
4
SystemPreset
Application
Region
Measurement
Filing
Input Device
ColorMap
User Admin
Application
Direct SW
Delete
Abdomen
Obstetric
Cardiology
Vascular
SmallParts
CHI
Cardiac3D Matrix
User1
User2
User3
User4
User5
User6
User7
User8
User9
Copy
Paste
Edit Name
Initialize
<<
1/3
>>
Select Item
Puncture Guide Line
PD
Scan Area
Simultaneous (PW)
Mode
B
D
Color
Other
Physio
DSD
FAM
CHI
ET
FMD
WI
Stress Echo
PinP
EyeballEF
TDI Analysis
CHI Analysis
2DTT Analysis
VFM Analysis
Cardiac 3D
BiPlane
Item
ANR Type
Assist Line
Auto-optimizer
Auto-optimizer Reset
B Format Size (H)
BCF (B)
Bottom Display
Brightness Level
Coded
Compound
Compound #
HI Framerate (B)
HI REZ
Invert L/R
Invert U/L
Left Display
Panoramic View
Persist. Type (B)
Plane
Plane+
Puncture Depth Display
Puncture Guide Line
Quad
Real-time Biplane
Reference Display(Zoom)
Reset Brightness
Right Display
Save
Close

10.7.3 Changing preset names of input devices

Changes the name of user settings.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Input Device].
3. Select the desired diagnostic field from the options in the range from [User1] to [User9]. NOTE: The names of factory default diagnostic fields cannot be changed.
4. Enter a name.
   a. Select [Edit Name].
   b. Enter a name.
   c. Press the [Enter] key.

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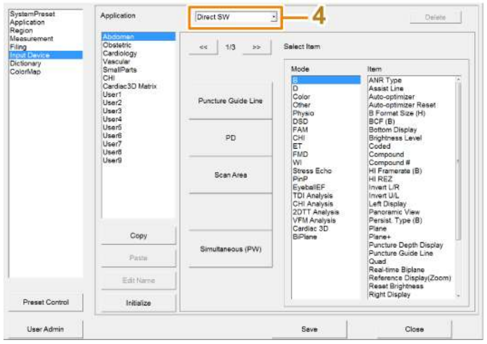
10.7.4 Assigning functions

This configures the assignment of functions to switches and menus.

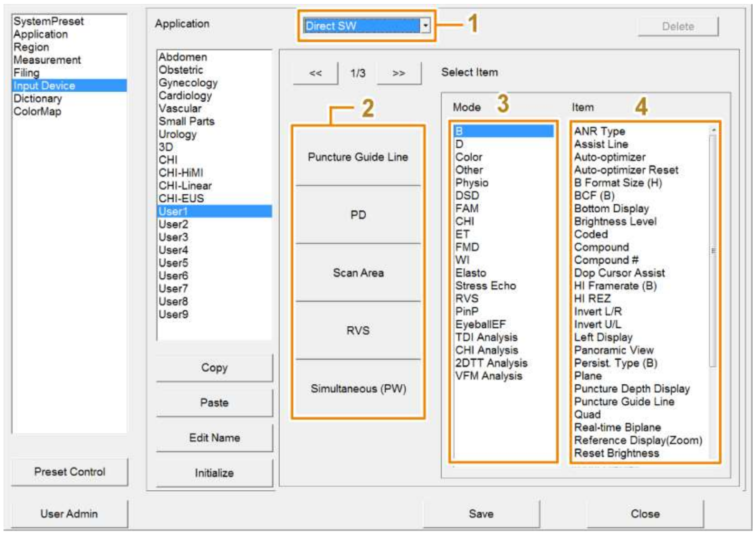
Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Input Device].
3. From the Application column, select the desired diagnostic field.
4. Select an input device.


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Application
Abdomen
Obstetric
Cardiology
Vascular
SmallParts
CHI
Cardiac3D Matrix
User1
User2
User3
User4
User5
User6
User7
User8
User9
Direct SW
4
Delete
<<
1/3
>>
Select Item
Puncture Guide Line
PD
Scan Area
Simultaneous (PW)
Mode
Item
Copy
Paste
Edit Name
Initialize
Preset Control
User Admin
Save
Close

5. Assign the functions.
   The assignment method differs depending on the input device. For details, see the next page and later.
6. Select [Save] to save settings.
7. Select [Close] to return to the scanning screen.
   If the following message is displayed: "Save changes to preset data?"
   Select [Yes] to save changes.
   Select [No] to close the preset screen without saving changes.

(1) Assigning to direct switches


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Application
Abdomen
Obstetric
Gynecology
Cardiology
Vascular
Small Parts
Urology
3D
CHI
CHI-HiMI
CHI-Linear
CHI-EUS
User1
User2
User3
User4
User5
User6
User7
User8
User9
Direct SW
1
Delete
<<
1/3
>>
Select Item
2
Puncture Guide Line
PD
Scan Area
RVS
Simultaneous (PW)
Mode
3
Item
4
B
D
Color
Other
Physio
DSD
FAM
CHI
ET
FMD
WI
Elasto
Stress Echo
RVS
PinP
EyeballEF
TDI Analysis
CHI Analysis
2DTT Analysis
VFM Analysis
ANR Type
Assist Line
Auto-optimizer
Auto-optimizer Reset
B Format Size (H)
BCF (B)
Bottom Display
Brightness Level
Coded
Compound
Compound #
Dop Cursor Assist
HI Framerate (B)
HI REZ
Invert L/R
Invert U/L
Left Display
Panoramic View
Persist. Type (B)
Plane
Puncture Depth Display
Puncture Guide Line
Quad
Real-time Biplane
Reference Display(Zoom)
Reset Brightness
Copy
Paste
Edit Name
Initialize
Preset Control
User Admin
Save
Close

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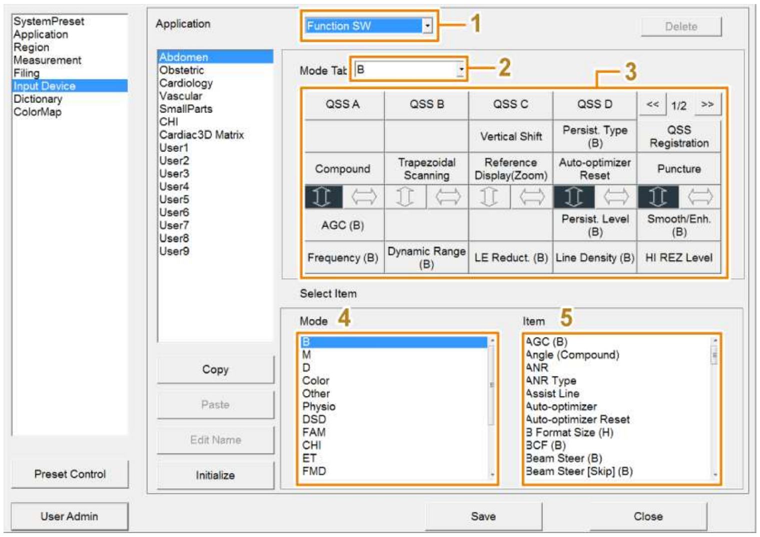
Procedure

1. Select [Direct SW] from the Input Device list.
2. Select the location you'd like to assign.
   There are three pages of direct switches you can assign. Select [<<] or [>>] to switch pages.
3. From the Mode column, select the desired mode.
4. From the Item column, select the functions to assign.
   Clearing a function
   Select the location to clear and then select [Delete].

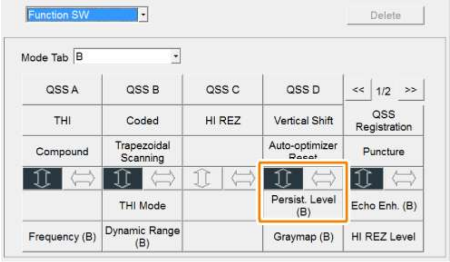
(2) Assigning to the function menu


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Application
Abdomen
Obstetric
Cardiology
Vascular
SmallParts
CHI
Cardiac3D Matrix
User1
User2
User3
User4
User5
User6
User7
User8
User9
Function SW
1
Delete
Mode Tab
B
2
3
Select Item
Mode
4
Item
5
B
M
D
Color
Other
Physio
DSD
FAM
CHI
ET
FMD
AGC (B)
Angle (Compound)
ANR
ANR Type
Assist Line
Auto-optimizer
Auto-optimizer Reset
B Format Size (H)
BCF (B)
Beam Steer (B)
Beam Steer [Skip] (B)
Copy
Paste
Edit Name
Initialize
Preset Control
User Admin
Save
Close

QSS A	QSS B	QSS C	QSS D	<< 1/2 >>
		Vertical Shift	Persist. Type (B)	QSS Registration
Compound	Trapezoidal Scanning	Reference Display(Zoom)	Auto-optimizer Reset	Puncture
AGC (B)			Persist. Level (B)	Smooth/Enh. (B)
Frequency (B)	Dynamic Range (B)	LE Reduct. (B)	Line Density (B)	HI REZ Level

Procedure

1. Select [Function SW] from the Input Device list.
2. Select a mode to assign a function from the Mode list.
3. Select a location to assign.
   Function menu arrows
   Arrows (double arrows) indicate the directions in which you can turn the multirotary encoders for the menus below the arrows.


Function SW
Delete
Mode Tab
B

QSS A	QSS B	QSS C	QSS D	<< 1/2 >>
THI	Coded	HI REZ	Vertical Shift	QSS Registration
Compound	Trapezoidal Scanning		Auto-optimizer Reset	Puncture
	THI Mode		Persist. Level (B)	Echo Enh. (B)
Frequency (B)	Dynamic Range (B)		Graymap (B)	HI REZ Level

4. From the Mode column under Select Item, select the desired mode.
5. From the Item column under Select Item, select the functions you want to assign.

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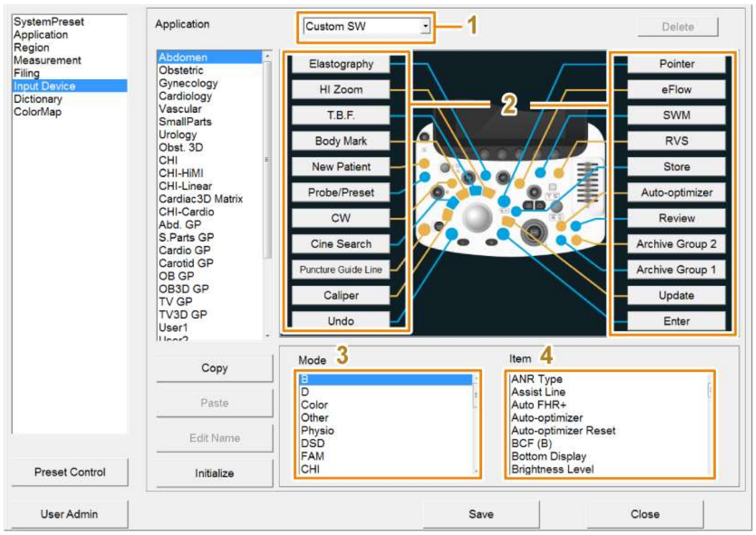
Clearing a function

Select the location to clear and then select [Delete].

(3) Assigning to custom switches


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Preset Control
User Admin
Application
Custom SW
1
Delete
Abdomen
Obstetric
Gynecology
Cardiology
Vascular
SmallParts
Urology
Obst. 3D
CHI
CHI-HiMI
CHI-Linear
Cardiac3D Matrix
CHI-Cardio
Abd. GP
S.Parts GP
Cardio GP
Carotid GP
OB GP
OB3D GP
TV GP
TV3D GP
User1
Copy
Paste
Edit Name
Initialize
Elastography
HI Zoom
T.B.F.
Body Mark
New Patient
Probe/Preset
CW
Cine Search
Puncture Guide Line
Caliper
Undo
2
Pointer
eFlow
SWM
RVS
Store
Auto-optimizer
Review
Archive Group 2
Archive Group 1
Update
Enter
Mode
3
B
D
Color
Other
Physio
DSD
FAM
CHI
Item
4
ANR Type
Assist Line
Auto FHR+
Auto-optimizer
Auto-optimizer Reset
BCF (B)
Bottom Display
Brightness Level
Save
Close

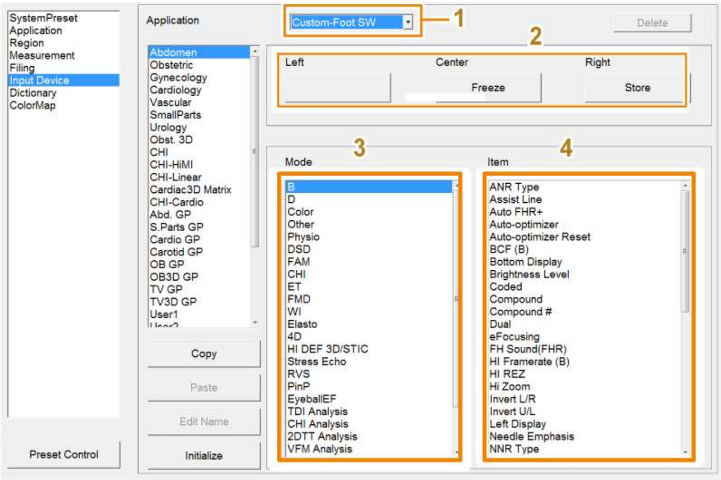
Procedure

1. Select [Custom SW] from the Input Device list.
2. Select the switch to assign.
3. From the Mode column, select the desired mode.
4. From the Item column, select the functions to assign.

   Clearing a function

   Select the switch to clear and then select [Delete].

(4) Assigning to custom foot switches


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Preset Control
Application
Custom-Foot SW
1
Delete
2
Abdomen
Obstetric
Gynecology
Cardiology
Vascular
SmallParts
Urology
Obst. 3D
CHI
CHI-HiMI
CHI-Linear
Cardiac3D Matrix
CHI-Cardio
Abd. GP
S.Parts GP
Cardio GP
Carotid GP
OB GP
OB3D GP
TV GP
TV3D GP
User1
Copy
Paste
Edit Name
Initialize
Left
Center
Right
Freeze
Store
Mode
3
B
D
Color
Other
Physio
DSD
FAM
CHI
ET
FMD
WI
Elasto
4D
HI DEF 3D/STIC
Stress Echo
RVS
PinP
EyeballEF
TDI Analysis
CHI Analysis
2DTT Analysis
VFM Analysis
Item
4
ANR Type
Assist Line
Auto FHR+
Auto-optimizer
Auto-optimizer Reset
BCF (B)
Bottom Display
Brightness Level
Coded
Compound
Compound #
Dual
eFocusing
FH Sound(FHR)
HI Framerate (B)
HI REZ
Hi Zoom
Invert L/R
Invert U/L
Left Display
Needle Emphasis
NNR Type

Procedure

1. Select [Custom-Foot SW] from the Input Device list.

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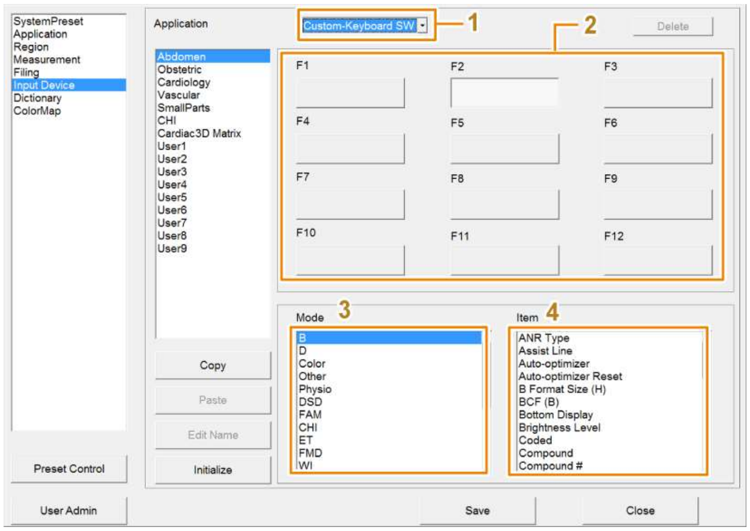
2. Select the switch to assign.
3. From the Mode column, select the desired mode.
4. From the Item column, select the functions to assign.

   Clearing a function

   Select the switch to clear and then select [Delete].

(5) Assigning functions to custom keyboards


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Preset Control
User Admin
Application
Custom-Keyboard SW
1
2
Delete
Abdomen
Obstetric
Cardiology
Vascular
SmallParts
CHI
Cardiac3D Matrix
User1
User2
User3
User4
User5
User6
User7
User8
User9
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12
Mode
3
Item
4
B
D
Color
Other
Physio
DSD
FAM
CHI
ET
FMD
WI
ANR Type
Assist Line
Auto-optimizer
Auto-optimizer Reset
B Format Size (H)
BCF (B)
Bottom Display
Brightness Level
Coded
Compound
Compound #
Copy
Paste
Edit Name
Initialize
Save
Close

Procedure

1. Select [Custom-Keyboard SW] from the Input Device list.
2. Select a key (F1 to F12) to assign.
3. From the Mode column, select the desired mode.
4. From the Item column, select the functions to assign.

   Clearing a function

   Select the key to clear and then select [Delete].

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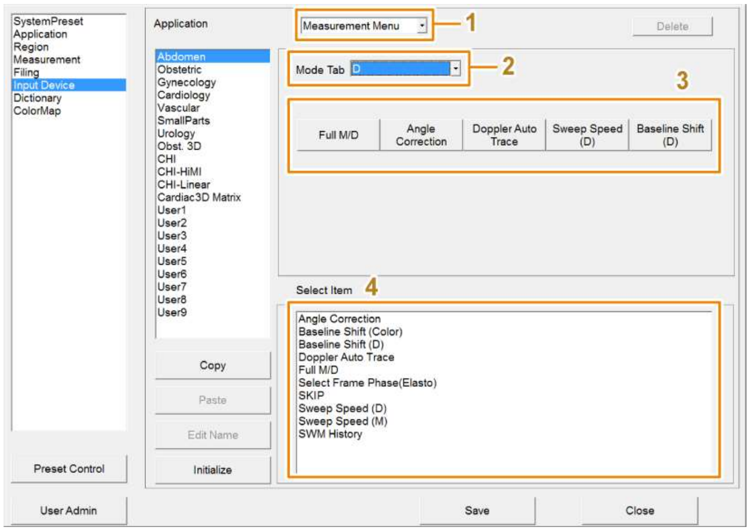
(6) Assigning Functions to the Multi Rotary Encoder Region in the Measurement Menu


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Preset Control
User Admin
Application
Abdomen
Obstetric
Gynecology
Cardiology
Vascular
SmallParts
Urology
Obst. 3D
CHI
CHI-HiMI
CHI-Linear
Cardiac3D Matrix
User1
User2
User3
User4
User5
User6
User7
User8
User9
Copy
Paste
Edit Name
Initialize
Measurement Menu
1
Delete
Mode Tab
D
2
3
Full M/D
Angle Correction
Doppler Auto Trace
Sweep Speed (D)
Baseline Shift (D)
Select Item
4
Angle Correction
Baseline Shift (Color)
Baseline Shift (D)
Doppler Auto Trace
Full M/D
Select Frame Phase(Elasto)
SKIP
Sweep Speed (D)
Sweep Speed (M)
SWM History
Save
Close

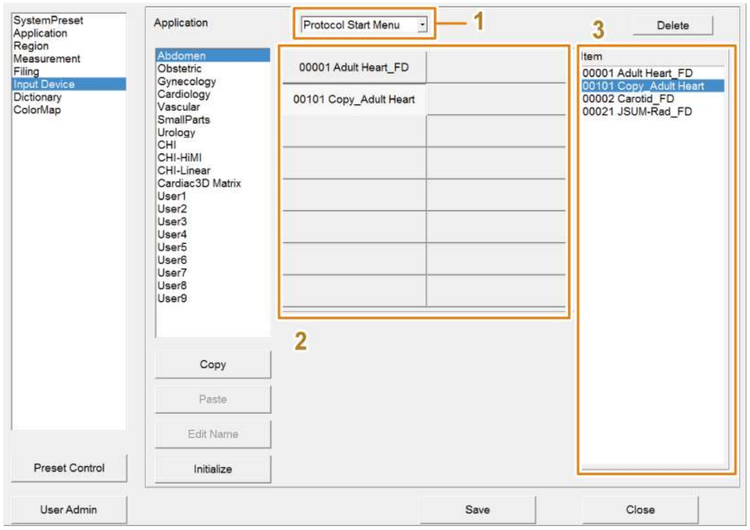
Procedure

1. Select [Measurement Menu] from the Input Device list.
2. Select a mode to assign a function from the Mode Tab list.
3. Select a location to assign.
4. From the Select Item column, select the functions you want to assign.

   Clearing a function

   Select the location to clear and then select [Delete].

(7) Assigning protocols to the Protocol Start menu


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
Preset Control
User Admin
Application
Abdomen
Obstetric
Gynecology
Cardiology
Vascular
SmallParts
Urology
CHI
CHI-HiMI
CHI-Linear
Cardiac3D Matrix
User1
User2
User3
User4
User5
User6
User7
User8
User9
Copy
Paste
Edit Name
Initialize
Protocol Start Menu
1
3
Delete
00001 Adult Heart_FD
00101 Copy_Adult Heart
2
Item
00001 Adult Heart_FD
00101 Copy_Adult Heart
00002 Carotid_FD
00021 JSUM-Rad_FD
Save
Close

Procedure

1. Select [Protocol Start Menu] from the Input Device list.

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2. Select a location to assign.

3. From the Item column, select the protocols to assign.
   Clearing a function
   Select the location to clear and then select [Delete].

10.8 Dictionary

Configures the user dictionary and system dictionary.

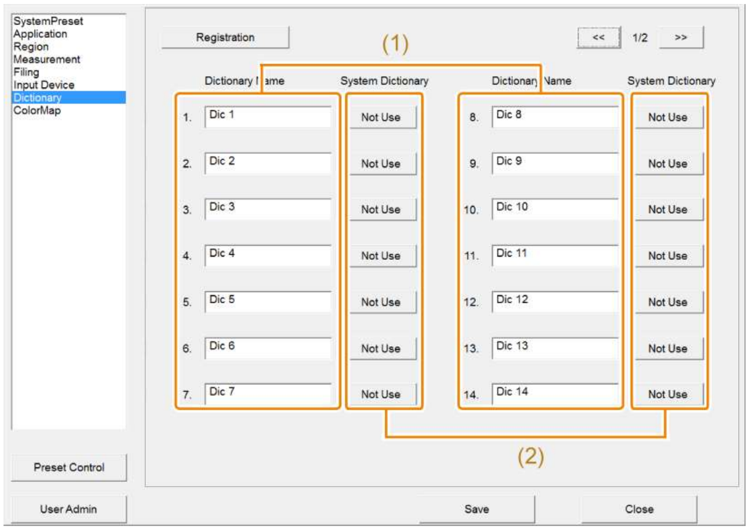
Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.

2. Select [Dictionary].

3. Changing the dictionary settings.
   Registering words into a dictionary
   Select [Registration] and register words on the screen that opens.
   For details, see *1.6.5 Registering a word in menu format in a user dictionary* on page 34 and *1.6.6 Registering a word in list format to a user dictionary* on page 35.
   Changing the name of a dictionary
   Enter a name into the Dictionary Name column (1 in the figure below). Enter no more than 8 characters. Only alphanumerics can be used.
   Configuring combined use with the system dictionary
   Select the button (2 in the figure below) that corresponds to the dictionary number for the System Dictionary.

   - Not Use: Use only the user dictionary.
   - Use: Combine the user dictionary and system dictionary.



	Dictionary Name	System Dictionary		Dictionary Name	System Dictionary
1.	Dic 1	Not Use	8.	Dic 8	Not Use
2.	Dic 2	Not Use	9.	Dic 9	Not Use
3.	Dic 3	Not Use	10.	Dic 10	Not Use
4.	Dic 4	Not Use	11.	Dic 11	Not Use
5.	Dic 5	Not Use	12.	Dic 12	Not Use
6.	Dic 6	Not Use	13.	Dic 13	Not Use
7.	Dic 7	Not Use	14.	Dic 14	Not Use

4. Select [Save] to save settings.

5. Select [Close] to return to the scanning screen.
   If the following message is displayed: "Save changes to preset data?"
   Select [Yes] to save changes.

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Select [No] to close the preset screen without saving changes.

Reference information

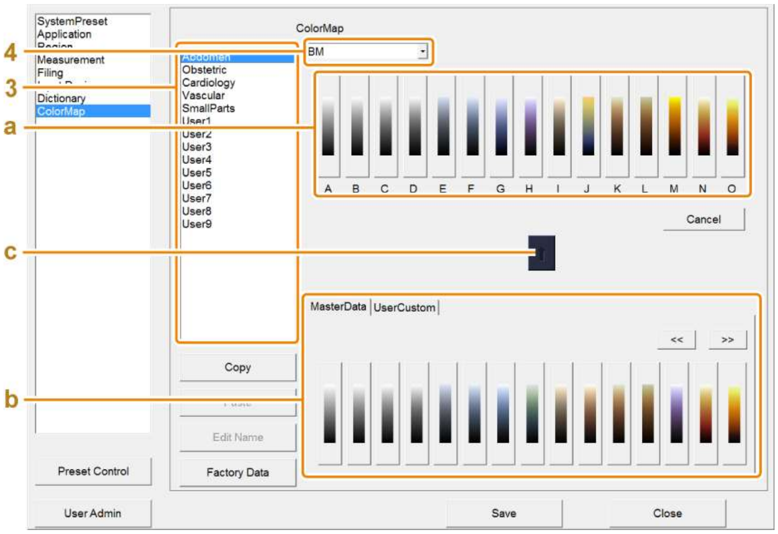
1.6.5 Registering a word in menu format in a user dictionary on page 34

1.6.6 Registering a word in list format to a user dictionary on page 35

10.9 Color maps

10.9.1 Editing the contents of a color map

You can configure 15 types per diagnostic field. These 15 types can be combined and edited.


4
3
a
c
b
SystemPreset
Application
Region
Measurement
Filing
Dictionary
ColorMap
Preset Control
User Admin
ColorMap
BM
Abdomen
Obstetric
Cardiology
Vascular
SmallParts
User1
User2
User3
User4
User5
User6
User7
User8
User9
Copy
Paste
Edit Name
Factory Data
A B C D E F G H I J K L M N O
Cancel
MasterData
UserCustom
<<
>>
Save
Close

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [ColorMap].
3. Select the desired diagnostic field from the list.
4. Select the mode from the list.
5. Edit the color map.
    a. Select the color map to change from A to O.
    b. Select where to copy the color map from using the MasterData tab or the UserCustom tab.
    c. Select ↑.
    d. Repeat steps a through c for each color map.
6. Select [Save] to save settings.
7. Select [Close] to return to the scanning screen.
   If the following message is displayed: "Save changes to preset data?"

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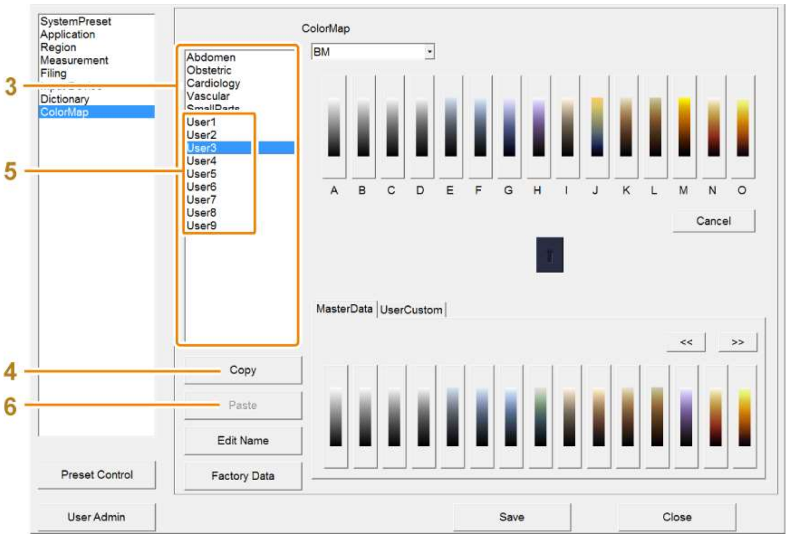
Select [Yes] to save changes.
Select [No] to close the preset screen without saving changes.

10.9.2 Batch copying and pasting a color map

The parameters for a Color Map can be copied and then pasted into a user definition.


SystemPreset
Application
Region
Measurement
Filing
Dictionary
ColorMap
ColorMap
BM
Abdomen
Obstetric
Cardiology
Vascular
SmallParts
User1
User2
User3
User4
User5
User6
User7
User8
User9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
Cancel
MasterData
UserCustom
<<
>>
3
5
4
6
Copy
Paste
Edit Name
Factory Data
Preset Control
User Admin
Save
Close

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [ColorMap].
3. Select the diagnostic field to copy from the list.
4. Select [Copy].
5. Select the copy-destination diagnostic field from [User1] to [User9] in the list.
6. Select [Paste].
7. Select [OK] on the message.

   → The selected diagnostic field is overwritten.

10.9.3 Initializing a color map

This resets color maps back to their factory default settings.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [ColorMap].
3. Select the desired diagnostic field from the list.
4. Select [Factory Data].
5. Select [OK] on the message.

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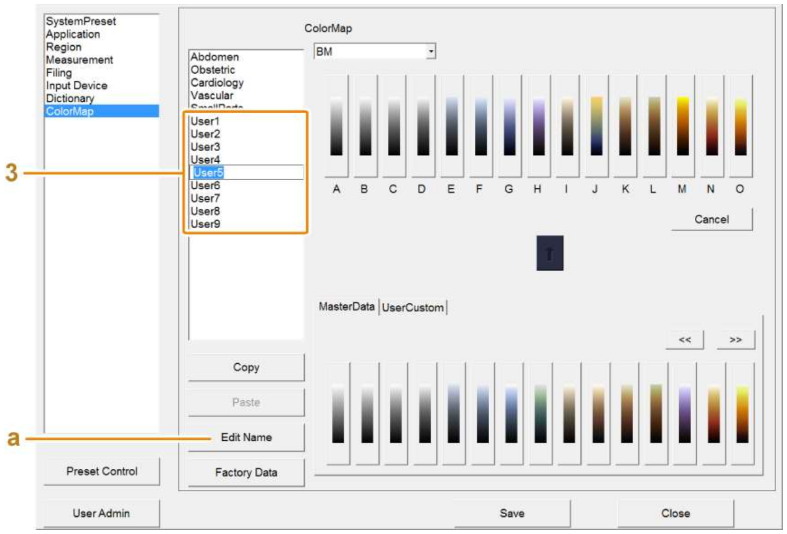
→ This resets it to the factory default settings. For user-defined color maps, this returns the color map of the copy source to its factory default settings. However, the name does not change.

10.9.4 Changing color map names

Changes the name of user settings.


SystemPreset
Application
Region
Measurement
Filing
Input Device
Dictionary
ColorMap
ColorMap
BM
Abdomen
Obstetric
Cardiology
Vascular
User1
User2
User3
User4
User5
User6
User7
User8
User9
3
A B C D E F G H I J K L M N O
Cancel
MasterData
UserCustom
<<
>>
Copy
Paste
a
Edit Name
Preset Control
Factory Data
User Admin
Save
Close

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [ColorMap].
3. Select the desired diagnostic field from [User1] to [User9] in the list.
   NOTE: The names of factory default diagnostic fields cannot be changed.
4. Enter a name.
   a. Select [Edit Name].
   b. Enter a name.
   c. Press the [Enter] key.

10.10 Loading and backing-up presets

This is for creating backups of presets and importing presets from a backup.
A wide variety of parameters are available in the system presets. You can create a backup of these parameters in a batch or by category. Backups can be imported to the system.
The data that can be imported and backed up is as follows.

- SystemPreset
- Application Menu + Q.S.S
- Application Menu
- Q.S.S

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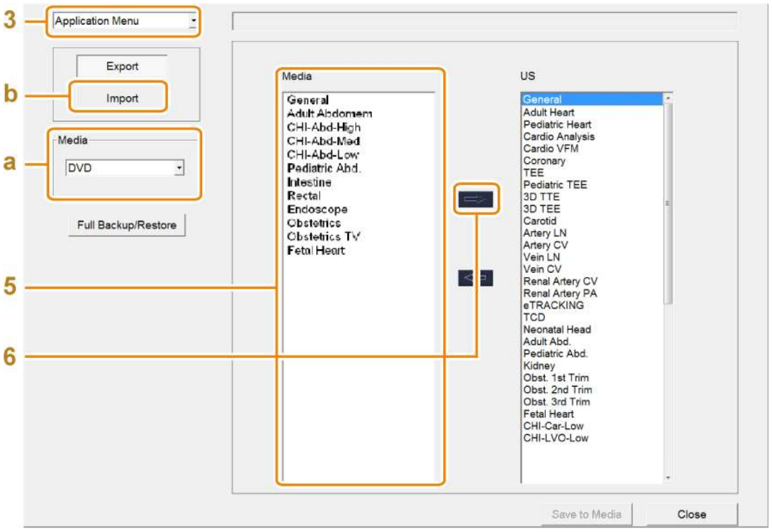
- Region Data Setting
- Measurement
- Filing
- Input Device
- Body Mark (Bitmap): User-created Bitmap data (import only)
- Annotation
- Color Map Setting (B/M/D)
- Color Map Setting (Others)
- Color Map (Bitmap): User-created Bitmap data (import only)
- Protocol
- Protocol (Bitmap): Reference image bitmap data for Guide View
  NOTE: If reference images are registered for each View, when you export a Protocol only and import it to another device, "No Image" is displayed in all views.
  NOTE: To redisplay the Protocol and reference images by importing the Protocol to another device, export the Protocol with the reference images registered and Protocol (Bitmap), and then import the Protocol in the configuration (Category and sequential number) that is the same as the configuration of the original device.

10.10.1 Importing the Selected Data into the System

This is for importing specified data to the system.

Prior confirmation

Connect the desired media. Alternatively, load a DVD.


3
Application Menu
Export
b
Import
a
Media
DVD
Full Backup/Restore
5
6
Media
General
Adult Abdomem
CHI-Abd-High
CHI-Abd-Med
CHI-Abd-Low
Pediatric Abd.
Intestine
Rectal
Endoscope
Obstetrics
Obstetrics TV
Fetal Heart
US
General
Adult Heart
Pediatric Heart
Cardio Analysis
Cardio VFM
Coronary
TEE
Pediatric TEE
3D TTE
3D TEE
Carotid
Artery LN
Artery CV
Vein LN
Vein CV
Renal Artery CV
Renal Artery PA
eTRACKING
TCD
Neonatal Head
Adult Abd.
Pediatric Abd.
Kidney
Obst. 1st Trim
Obst. 2nd Trim
Obst. 3rd Trim
Fetal Heart
CHI-Car-Low
CHI-LVO-Low
Save to Media
Close

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Preset Control].

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NOTE: The [Preset Control] is present on all preset screens.

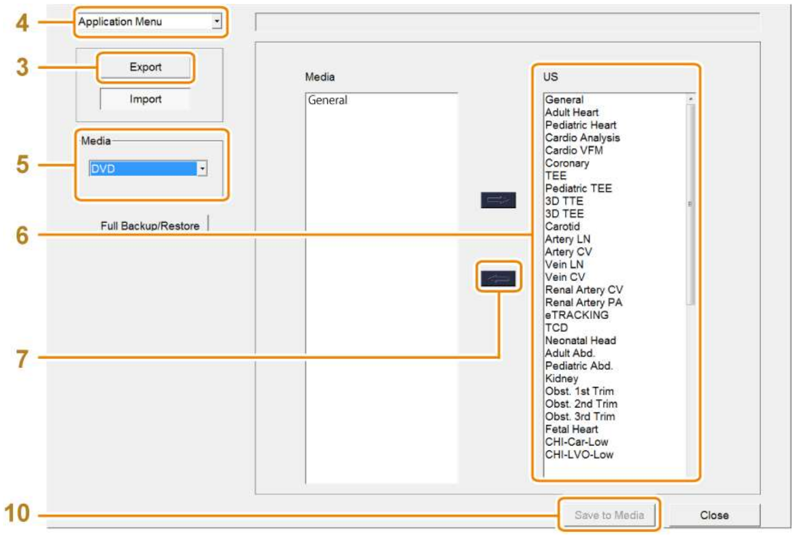
3. Select the desired data from the list.
4. Select the folder to import from.
   a. Select the desired media.
   b. Select [Import].
   c. Select a folder.
   d. Select [OK].
5. Select the data to load from the Media list.
6. Select [→].

10.10.2 Exporting the Selected Data from the System

This is for exporting the data you specify from the system.

Prior confirmation

Connect the desired media. Alternatively, load a DVD.


4
3
5
6
7
10
Application Menu
Export
Import
Media
DVD
Full Backup/Restore
Media
General
US
General
Adult Heart
Pediatric Heart
Cardio Analysis
Cardio VFM
Coronary
TEE
Pediatric TEE
3D TTE
3D TEE
Carotid
Artery LN
Artery CV
Vein LN
Vein CV
Renal Artery CV
Renal Artery PA
eTRACKING
TCD
Neonatal Head
Adult Abd.
Pediatric Abd.
Kidney
Obst. 1st Trim
Obst. 2nd Trim
Obst. 3rd Trim
Fetal Heart
CHI-Car-Low
CHI-LVO-Low
Save to Media
Close

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Preset Control].
   NOTE: The [Preset Control] is present on all preset screens.
3. Select [Export].
4. Select the desired data from the list.
5. Select the storage location.
6. Select the data to load from the US list.
7. Select [←].
   → The data is saved to the Media list.

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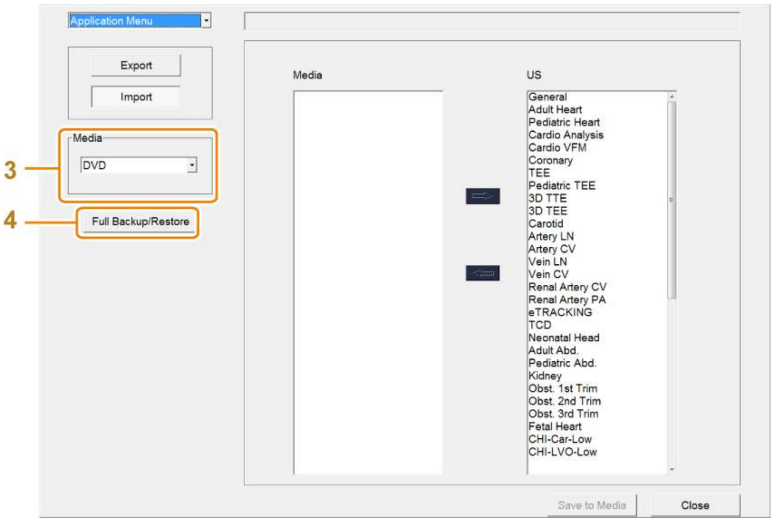
8. Repeat steps 4 to 7 for the target data.
9. Confirm that the data is included in the Media list.
10. Select [Save to Media].
    → The data in the Media list is saved to the specified media.

10.10.3 Creating backups

This is for creating a backup of all preset data.

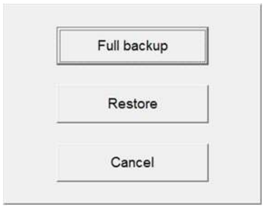
Prior confirmation

Connect the desired media. Alternatively, load a DVD.


Application Menu
Export
Import
Media
DVD
3
4
Full Backup/Restore
Media
US
General
Adult Heart
Pediatric Heart
Cardio Analysis
Cardio VFM
Coronary
TEE
Pediatric TEE
3D TTE
3D TEE
Carotid
Artery LN
Artery CV
Vein LN
Vein CV
Renal Artery CV
Renal Artery PA
eTRACKING
TCD
Neonatal Head
Adult Abd.
Pediatric Abd.
Kidney
Obst. 1st Trim
Obst. 2nd Trim
Obst. 3rd Trim
Fetal Heart
CHI-Car-Low
CHI-LVO-Low
Save to Media
Close

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Preset Control].
   NOTE: The [Preset Control] is present on all preset screens.
3. Selects the storage media where the data is to be saved.
4. Select [Full Backup/Restore].
   → A dialog box is displayed.


Full backup
Restore
Cancel

5. Select [Full backup] in the dialog box.
   → A backup file of all preset data is created. Backup files are saved in a folder with the name "device name_v version name_device serial number_YYYY_MMDD_HHMMSS".

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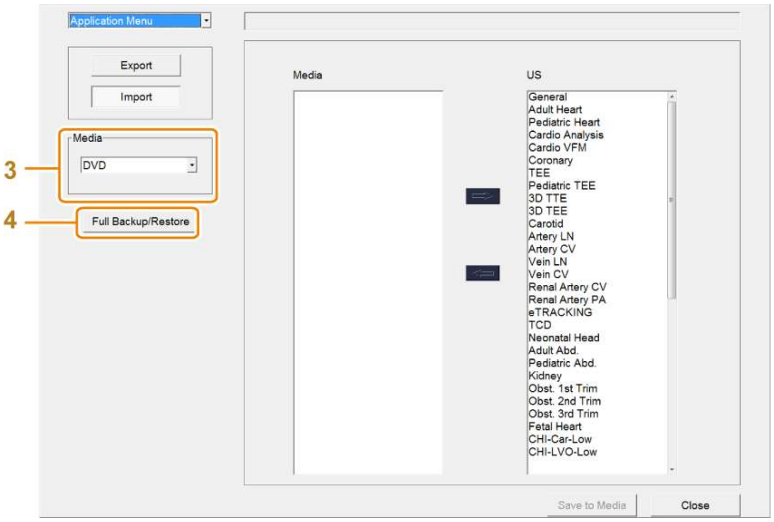
10.10.4 Restoring from backup data

You can restore backup data to the system.

Prior confirmation

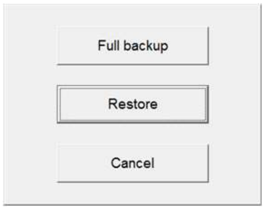
Connect the desired media. Alternatively, load a DVD.


Application Menu
Export
Import
Media
DVD
3
Full Backup/Restore
4
Media
US
General
Adult Heart
Pediatric Heart
Cardio Analysis
Cardio VFM
Coronary
TEE
Pediatric TEE
3D TTE
3D TEE
Carotid
Artery LN
Artery CV
Vein LN
Vein CV
Renal Artery CV
Renal Artery PA
eTRACKING
TCD
Neonatal Head
Adult Abd.
Pediatric Abd.
Kidney
Obst. 1st Trim
Obst. 2nd Trim
Obst. 3rd Trim
Fetal Heart
CHI-Car-Low
CHI-LVO-Low
Save to Media
Close

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [Preset Control].
   NOTE: The [Preset Control] is present on all preset screens.
3. Selects the media device for uploading.
4. Select [Full Backup/Restore].

   → A dialog box is displayed.

   
   Full backup
Restore
Cancel

5. Select [Restore] in the dialog box.
6. Select the backup data from list.
7. Select [OK].

   → The following message appears: "Setup will be overwritten. Do you still want to continue?"

8. Select [Yes].
9. When the "Preset Settings updated. System will reboot to reflect the setting changes." message appears, select [OK].

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→ The following message appears: "Do you want to restore the network setting from backed up data? Current data will be Overwritten."

10. Select whether to copy the network settings.
    Network settings data
    Applies to DICOM categories within the system presets.
    - ◦ [Yes]: All the data including the network settings is copied.
    - ◦ [No]: All data except for the network settings is copied.

    → The data is restored to the system.
11. Restart the system.

    → The restored backup data is applied to the system.

10.11 Managing users

This system can be used by registered users only. Patient data, system settings, and audit logs are managed and protected.
By granting system operation permissions to registered users only, patient data can be protected and access to patient data can be tracked. There are three levels of user access permissions, which helps to maintain system statuses such as presets.
By using presets, you can perform the following operations:

- Register and delete users.
- Change the access permissions, specify lock settings, and unlock the locked account.
- Set, use, and view audit logs.
- Specify complexity rules for user authentication passwords, and set and update the expiration dates of user authentication passwords

If user authentication is set, user management in presets is limited to users with Level 1 access permissions. User name and password are necessary to display the user management screen.
NOTE: Be sure to appropriately manage user names and their passwords so that they are not leaked to third parties.

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Access permissions and content

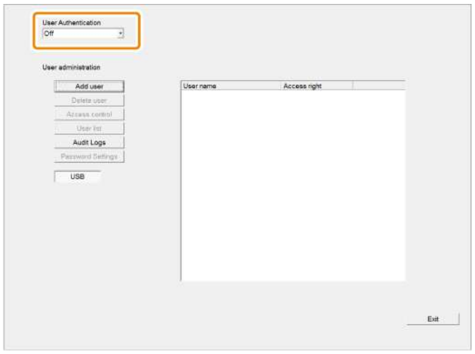
Access permission	Level 1	Level 2	Level 3
Managing users • Settings for user authentication functions • User management (register, delete, change access permissions) • Audit logs (ON/OFF, viewing, deleting, and outputting to external media) • Setting and updating the expiration dates of user authentication passwords • Specifying complexity rules for user authentication passwords • Specifying lock settings for user access permissions and unlock the locked account.	Yes	×	×
Access to the database of patient data	Yes	Yes	×
Changing parameters (including measurement) of presets	Yes	Yes	×
Changing login passwords	Yes	Yes	Yes
Other controls	Yes	Yes	Yes

10.11.1 Configuring user authentication

Set whether to display the login screen when starting the system.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [User Admin].
3. Enter the user name and password, and then select [OK].
4. Configure the User Authentication.
    - ◦ On
      Configures for user authentication. Displays the login screen from the next startup.
    - ◦ Off
      Disables user authentication. Does not display the login screen from the next startup. The authorized controls based on access permissions are also removed.



User Authentication: Off

5. Select [OK] on the message.

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→ Settings are applied from the next startup.

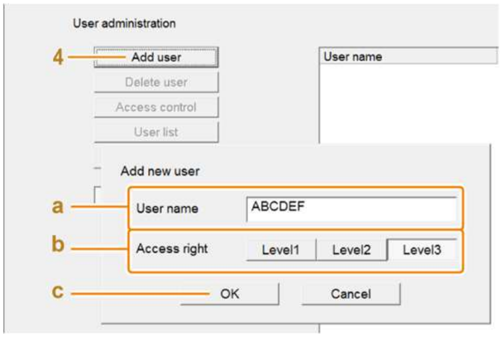
10.11.2 Registering users

You can register a user of the system.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [User Admin].
3. Enter the user name and password, and then select [OK].
4. Select [Add User].
5. Configure the user name and access rights.
    a. Enter a user name. Enter no more than 16 alphanumeric characters.
    b. Select the access permissions.
    c. Select [OK].

→ The user is registered.
The password for the newly registered user is configured during initial login.



User name: ABCDEF

(1) Setting passwords

Procedure

1. Start the system.
2. Enter the user name and current password on the login screen and then select [Password].
NOTE: If this is the first login after a user is registered, leave the password blank.
NOTE: If you click the Information button, the complexity rules that are currently specified are displayed. Refer to this information when changing the password.
NOTE: If you select the Show Password check box, the character string specified for Password is displayed.
NOTE: If you leave the Show Password check box as it is after selecting it, the entered password might be seen and abused by a third party. For this reason, you must not leave the Show Password check box as it is after selecting it.

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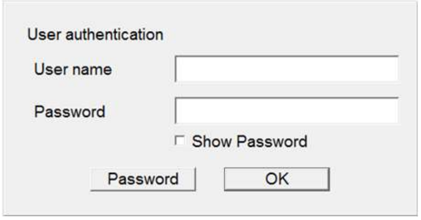
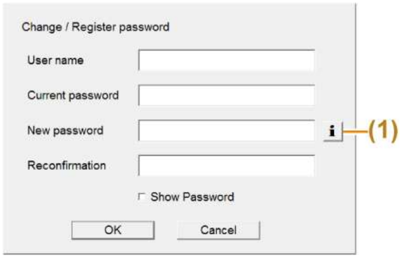

User authentication
User name
Password
☐ Show Password
Password
OK

Login screen


Change / Register password
User name
Current password
New password
Reconfirmation
☐ Show Password
OK
Cancel
(1)

Password change screen

(1) Information button

Displays the password complexity rules that are currently specified.

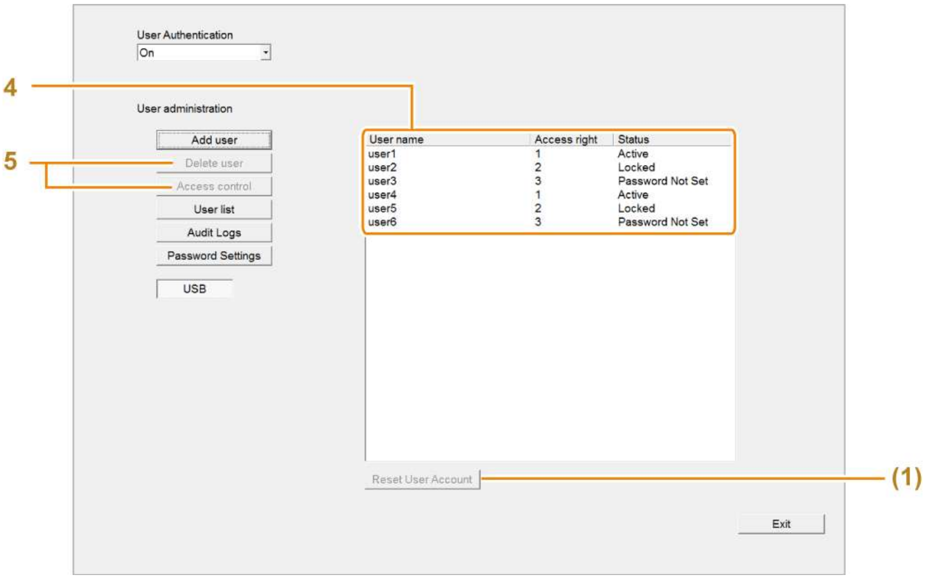
3. Enter the user name and current password on the password change screen.
   NOTE: If this is the first login after a user is registered, leave the password blank.
4. Enter a new password consisting of 4 to 16 alphanumeric characters.
   NOTE: Space characters cannot be used.
5. Enter the new password again.
6. Select [OK].

10.11.3 Editing registered users

This function specifies settings for changing access permissions of registered users, initializing locked access permission, and deleting registered users.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [User Admin].
3. Enter the user name and password, and then select [OK].
4. Select a user.


User Authentication
On
4
User administration
5
Add user
Delete user
Access control
User list
Audit Logs
Password Settings
USB
Reset User Account
(1)
Exit

User name	Access right	Status
user1	1	Active
user2	2	Locked
user3	3	Password Not Set
user4	1	Active
user5	2	Locked
user6	3	Password Not Set

Status

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Display	Status of the user
Active	The user can log in.
Locked	The account is locked and the user cannot log in.
Password Not Set	The user is registered for the first time. Alternatively, no password is set after the locked access permission is initialized.

(1) [Reset User Account]

This button is enabled only if you select a user whose Status is Locked.
If you select this button, the locked access permission is initialized and the Status is changed to Password Not Set. Then, the user is restored to the status in which a password can be set.

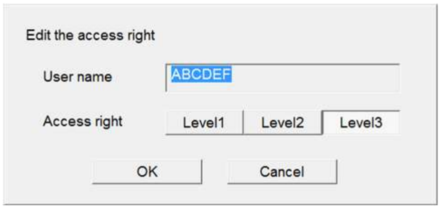
5. Edit the user.

Changing Access Permissions

a. Select [Access Control].

b. Change access permissions in the dialog box.

c. Select [OK].


Edit the access right

User name: ABCDEF

Access right

Deleting a User

a. Select [Delete User].

b. Select [Yes] on the message.

10.11.4 Outputting user lists

This function outputs the registered users and their access permissions to a CSV file.

Prior confirmation

Connect media to a USB port.

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [User Admin].
3. Enter the user name and password, and then select [OK].
4. Select [User list].

→ Output the user name and access permissions list as a CSV file to the USB.

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10.11.5 Setting up and using the audit log

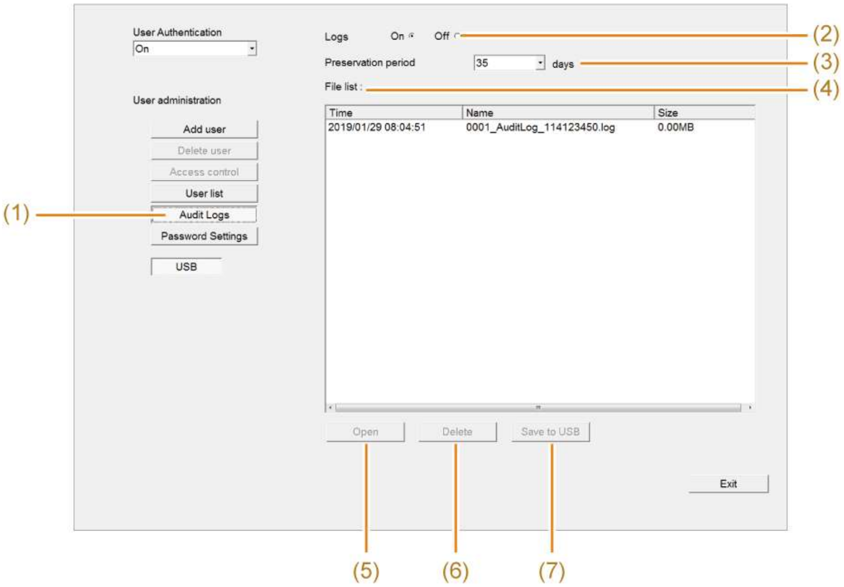
Accesses related to user management and patient data are recorded as audit log data.
NOTE: The following information is recorded as audit log data:

- Managing users
    - Attempts to log in to the user management screen
    - User authentication settings, registration and editing of users, and output of user lists
    - Attempts (success or failure) to log in to, and log off from, user authentication
    - Registration and updates of user authentication passwords
    - Setting and updating the expiration dates of user authentication passwords
- Patient data access
    - User registration on the ID screen
    - Searches, updates, and deletions of patient data on the ID screen and data management screen
    - Saving of images
    - Searches, deletions, and output to storage media of saved images

Procedure

1. Press the [Probe/Preset] key, and then select [Preset Setup] on the touch panel.
2. Select [User Admin].
3. Enter the user name and password, and then select [OK].
4. Select [Audit Logs].

→ The settings screen for audit logs opens.



User Authentication: On

Logs On ● Off ○

Preservation period 35 days

File list :

Time	Name	Size
2019/01/29 08:04:51	0001_AuditLog_114123450.log	0.00MB

User administration
Add user
Delete user
Access control
User list
Audit Logs
Password Settings
USB
Open
Delete
Save to USB
Exit
(1)
(2)
(3)
(4)
(5)
(6)
(7)

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(1) [Audit Logs]
The settings screen for audit logs opens.

(2) Logs
Sets audit log records to On or Off.
This setting takes effect after you restart the system.

(3) Preservation period
Sets a storage period for audit logs.
This setting takes effect after you restart the system.

(4) File list
Displays a list of audit log files stored in the system.

(5) [Open]
Displays the content of the audit log file selected in File list

(6) [Delete]
Deletes the audit log file selected in File list.

(7) [Save to USB]
Saves, in text format, the audit log file selected in File list to an externally-connected medium.

10.11.6 Settings for User Authentication Passwords

In the screen for setting user authentication passwords, you can specify settings regarding the period for which passwords are valid, notification of the valid period, password complexity rules, histories, and locking of access permissions.

Procedure

1. Press the [Probe/Preset] key.
2. Select [Preset Setup] on the touch panel.
3. Select [User Admin].
4. Enter the user name and password, and then select [OK].
5. Select [Password Settings].

→ The Password Setting screen is displayed.

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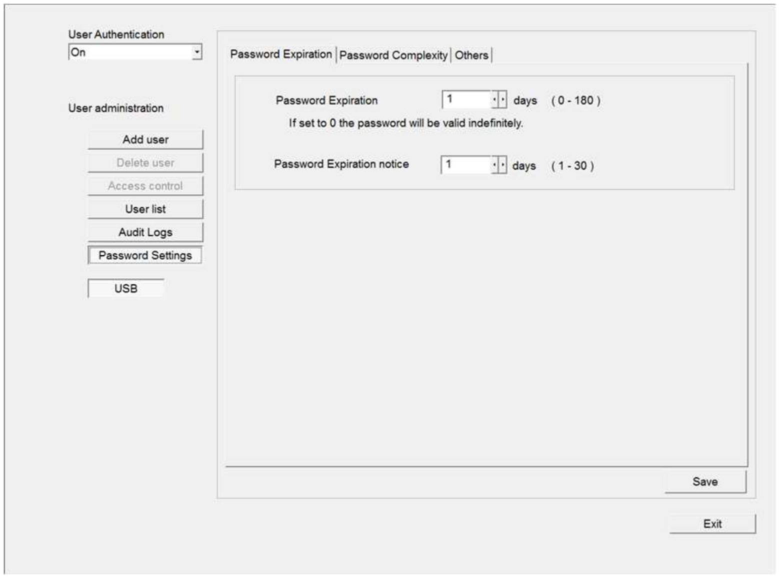
User administration
Add user
Delete user
Access control
User list
Audit Logs
Password Settings
USB
Password Expiration
Password Complexity
Others
Save
Exit

User Authentication: On

Password Expiration: 1 days (0 - 180)

If set to 0 the password will be valid indefinitely.

Password Expiration notice: 1 days (1 - 30)

6. Select a tab.
7. Edit the parameters.
8. Select [Save] to save settings.
9. Select [Exit] to return to the preset screen.

(1) Password Expiration tab

Parameters	Options	Description
Password Expiration	0 to 180	Sets the number of days for the period for which passwords are valid. If you select [0], passwords are valid indefinitely. The default value is [0].
Password Expiration notice	1 to 30	Sets the number of days for displaying the message when the password expiration date is approaching.

(2) Password Complexity tab

Parameters	Options	Description
Minimum Password Length	4 to 16	Sets the minimum number of characters for a password. The value needs to meet the following condition: Minimum Password Length <= Maximum Password Length.
Maximum Password Length	4 to 16	Sets the maximum number of characters for a password. The value needs to meet the following condition: Minimum Password Length <= Maximum Password Length.
Num. of Changed Char.	1 to 4	Sets the minimum number of characters that need to be changed in the password.

(a) Character Groups

NOTE: Turn On the settings of the parameters to be enabled.
NOTE: If you enable Uppercase Char. or Lowercase Char., you need to turn On the setting of Alpha Char.

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NOTE: If you enable Special Char. or Digits, you need to turn On the setting of Non-Alpha Char.

Parameters	Options	Description
Alpha Char.	1 to 8	Sets the minimum number of alphabetical characters that need to be included in a password.
Uppercase Char.	1 to 4	Sets the minimum number of alphabetical characters (uppercase) that need to be included in a password.
Lowercase Char.	1 to 4	Sets the minimum number of alphabetical characters (lowercase) that need to be included in a password.
Non-Alpha Char.	1 to 8	Sets the minimum number of numeric characters[*1] or special characters[*2] that need to be included in a password.
Special Char.	1 to 4	Sets the minimum number of special characters[*2] that need to be included in a password.
Digits	1 to 4	Sets the minimum number of numeric characters[*1] that need to be included in a password.

*1.

0 to 9

*2.

~ ! @ # $ % ^ & * ( ) ` < > ? : " { } | , . / ; ' [ ] \ - _ + =
Note that space characters are not included.

(b) Password Restrictions

NOTE: Select the check boxes for the parameters to be enabled.

Parameters	Options	Description
Disallow Consecutive Identical Characters	2 to 4	Disallows a password in which the number of consecutive identical characters exceeds the set value.
Disallow Username in Password		Disallows a password that includes the entire name of the user who logged in to the system.
Disallow Digit as First Character		Disallows a password that begins with a numeric character.
Disallow Digit as Last Character		Disallows a password that ends with a numeric character.
Disallow Incremental Password		Disallows a password in which only the last character is changed.
Disallow Consecutive Characters(3 or more) of Username		Disallows a password that includes three or more consecutive characters of the name of the user who logged in to the system.

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