2.3 Remote Control Desk and Remote Console

2.3.1 Remote Control Desk

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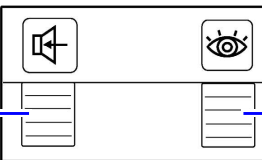

No.	Name	Function
1	Microphone	Your voice is heard from the speaker in the examination room when the intercom foot switch is being pressed down.
2	Acquisition monitor	Images being acquired are displayed in real time.
3	Reference monitor	Displays images whose acquisition is complete and examination control data.
4	Speaker	Transmits sound from the examination room.
5	Operation cabinet	This is the control cabinet of the digital radiography unit.
6	Foot switch	The microphone is enabled when the intercom foot switch (left) is pressed down. Fluoroscopy is performed when the fluoroscopy foot switch (right) is pressed down while the remote console's 🔒 button is lit up.
7	Remote console	This is a console to operate the equipment from outside the examination room. ☞ Reference P.2-8

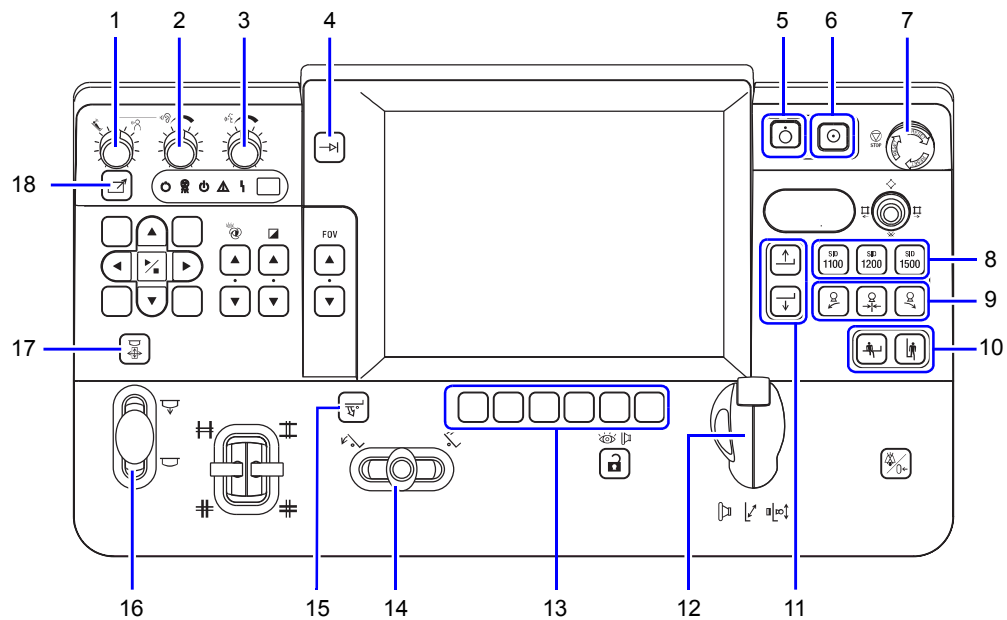| No.	Name	Function
8	Hand switch	This is a two-stage switch for X-ray radiography. When ⚙ on the remote console is lit and this switch is pushed down to the first level, the equipment is in a state of readiness for radiography. When this switch is pushed down to the second level, radiography is performed. Stage 1 Stage 2

2.3.2 Remote Console

This is a console to operate the equipment from outside the examination room.
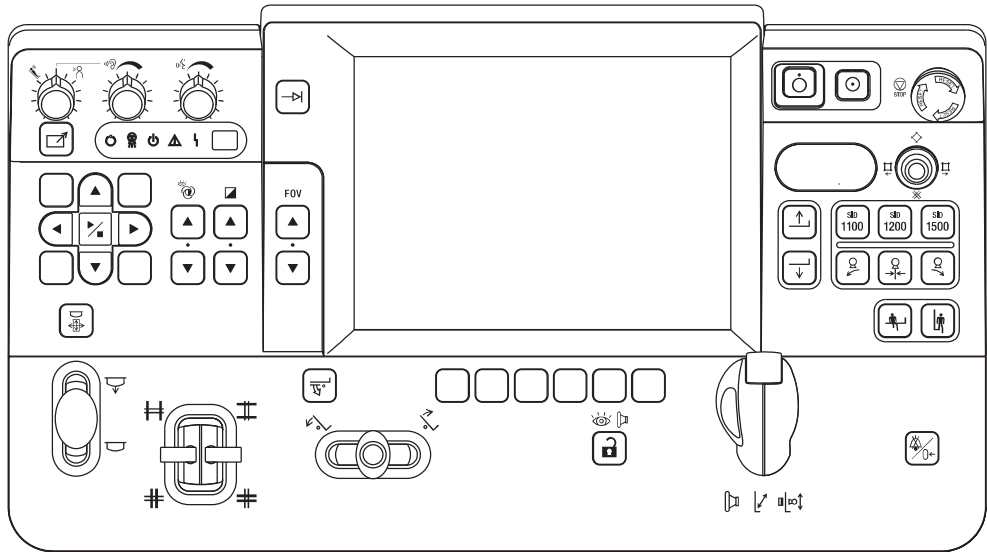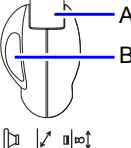
Some of the buttons and levers on the console are connected with the movement of the X-ray diagnostic table and some are connected with X-ray irradiation. They are explained according to function.
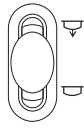
Reference "Controls that Operate the X-ray Diagnostic Table" P.2-9
"Controls Related to Fluoroscopy and Radiography" P.2-12

Controls that Operate the X-ray Diagnostic Table

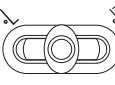| No.	Form	Name	Function
1		Balance adjustment dial	Adjusts the mixing balance between the microphone installed in the tabletop and the auxiliary microphone. Mixing is increased for the tabletop microphone when the dial is turned towards, and increased for the auxiliary microphone when the dial is turned towards. Reference P.4-73
2		Control room speaker volume adjustment dial	Adjusts the volume of the control room speaker. Turning it to the right increases the volume, and turning it to the left lowers the volume. Reference P.4-73
3		Examination room speaker volume adjustment dial	Adjusts the volume of the examination room speaker. Turning it to the right increases the volume, and turning it to the left lowers the volume. Reference P.4-73
4		Set button[*1]	Used with the position memory function. Reference P.4-59 Moves the X-ray tube and FPD to the radiography start point in the SLOT radiography (option). Reference P.4-153
5		Power OFF button	Turns the system's power off. Reference P.4-34
6		Power ON button	Turns the system's power on. Reference P.4-34
7		Emergency stop button	Brings the movement of the X-ray diagnostic table to an emergency stop. Reference P.5-2

| No.	Form	Name	Function
8	SID 1100 SID 1200 SID 1500	SID switchover buttons	Sets the distance of the FPD input surface from the focal spot of the X-ray tube unit. ☞ **Reference** P.4-58
9	(buttons)	Oblique projection buttons[*1]	Controls the oblique projection angle of the X-ray tube unit. (button) slants the X-ray tube unit towards the patient's head and (button) slants it towards the feet. (button) returns the X-ray tube unit back to the center from the slanted position. ☞ **Reference** P.4-58
10	(buttons)	Tabletop return buttons[*1]	Returns the tabletop slant and height to the set position. (button) returns the tabletop to the horizontal position and to the height set when it was installed. (button) moves the tabletop to the vertical position. ☞ **Reference** P.4-59
11	↑ ↓	Raise tabletop button[*1] Lower tabletop button[*1]	(↑) raises the tabletop and (↓) lowers it. ☞ **Reference** P.4-53
12	A B	Tabletop and imaging unit control lever[*1]	When tilted to the left or right, the tabletop moves to the left or right. When tilted up or down, the imaging unit moves up or down. A: Radiography button B: Button to change the speed of the tabletop's movement to the left or right ☞ **Reference** P.4-51, P.4-57
13	(button)	Customizable buttons	You can assign frequently used functions to these buttons. ☞ **Reference** P.2-25
14	(lever)	Tabletop tilting lever[*1]	Tilts the tabletop. It is operated while holding down the button on the top of the lever. When it is moved to the right, the tabletop is tilted in a vertical direction. It is tilted in the opposite direction when the lever is moved to the left. ☞ **Reference** P.4-48
15	(button)	Tabletop reverse tilt check button	Press when reversing the tilt of the tabletop. When the button is pressed and lit up, the tilt can be reversed using the tabletop tilting lever. ☞ **Reference** P.4-49
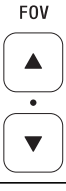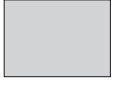
No.	Form	Name	Function
16		Compression unit control lever[*1]	Controls the compression unit. Push forward to apply compression on the patient. Pull towards you to return the compression unit to its original position. ☞ **Reference** P.4-63
17		Squeeze compression button	Use this when applying "squeeze compression". ☞ **Reference** P.4-64
18		Operational button	When this button is lit up, the X-ray diagnostic table and X-ray exposure can be controlled by the remote console. ☞ **Reference** P.4-47

*1:Only moves while the button is being pressed or the lever is being operated.

2

■ Controls Related to Fluoroscopy and Radiography

No.	Form	Name	Function
1		Image control buttons	These are used when looking at the taken images on the acquisition monitor. Their operations vary according to the image display style (display of one frame or display of multiple frames). **When one frame is displayed:** ▲ displays the previous image and ▼ displays the next image. ◀ displays the previous frame and ▶ displays the next frame. ▶/■ starts or stops video playback. **When multiple frames are displayed:** ▲ selects the upper frame and ▼ selects the lower frame. ◀ selects the left-hand frame and ▶ selects the right-hand frame. ▶/■ displays the selected frames one at a time. Refer to "M517-E210 Digital Radiography System DR-300 Instruction Manual (Image Acquisition)" for details. The surrounding four buttons ( ) are customizable buttons. You can assign frequently used functions to these buttons. ☞ Reference P.2-25
2		Ready for radiography display	The green light comes on when the preparations for radiography are complete.

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No.	Form	Name	Function
3		X-ray irradiating display	The yellow light comes on during X-ray irradiation.
4		System standby status display	The green light comes on when X-rays can be radiated. The light goes off when X-rays cannot be radiated, for example due to a failure.
5		Caution display	The red light comes on when the interlock is on for the X-ray diagnostic table movement or X-ray irradiation.
6		Failure display	The red light comes on when the system's protective circuit is in operation, or when an error has occurred in the system's functions.
7		Caution/failure code display	Displays the caution/failure code when the caution or failure display is lit up. ☞ **Reference** P.5-13
8		Density buttons	These adjust the density during AEC radiography in 11 stages, from -5 to 5. ▲ increases density and ▼ reduces density. ☞ **Reference** P.4-94
9	FOV	Magnification size switchover buttons	Changes the FPD magnification size through 5 levels. ▲ increases the magnification and ▼ decreases it. ☞ **Reference** P.4-67
10		Touch panel	Sets the fluoroscopy and radiography conditions. Operated by touching the screen display. ☞ **Reference** P.2-14
11		Collimator open/close switch	Controls the collimator irradiation field. Controls the C-leaf collimator (optional) and independent mask collimator (optional). ☞ **Reference** P.4-69
12		Fluoroscopy timer button	Turns off the fluoroscopy timer alarm, and restarts the timer count from 0. ☞ **Reference** P.4-83
13		X-ray irradiation clearance button	Lights up when pressed, signalling that X-ray irradiation is permitted.
14		Collimator open/close lever	Controls the collimator irradiation field. Controls the collimator in a horizontal/vertical direction. ☞ **Reference** P.4-68
15		Fluoroscopy density buttons	Adjust the brightness of the fluoroscopy images during IBS fluoroscopy. ▲ brightens the image and ▼ darkens it. ☞ **Reference** P.4-81

■ Touch Panel

Operated by touching the screen display.

⚠ CAUTION
🚫 **Do not press hard on the touch panel or place objects upon it.** Prohibitions   Doing so can cause a malfunction.
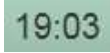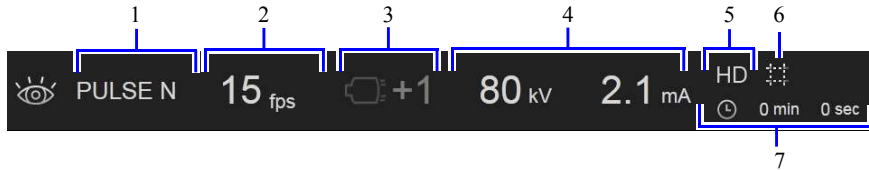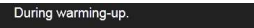
⚠ CAUTION
🚫 **Do not press 2 or more points on the touch panel at the same time.** Prohibitions   Doing so can cause unexpected operation.

Display when no examination is being performed (DR technique)

No.	Item	Function
1		The current technique is displayed. Press the button to change the technique.
2	 Displays the current position information of the X-ray diagnostic table. 1 Oblique projection angle 2 Tilt angle 3 Tabletop height When the screen is pressed, X-ray diagnostic table related functions can be used.	

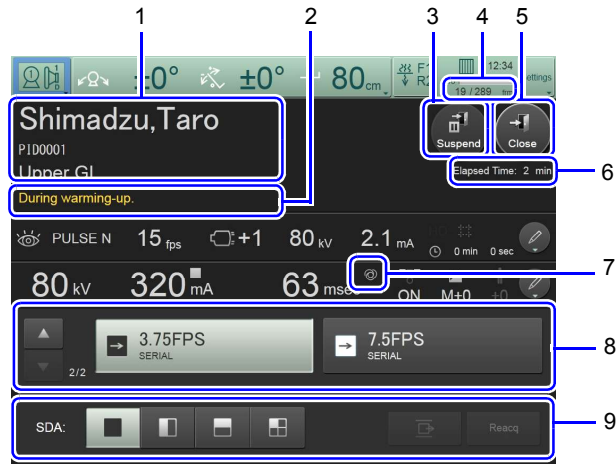| No.	Item	Function
3	F3	Displays the current information of the BH filter. • F: For fluoroscopy • R: For radiography Press this button to browse detailed information about the filter or change the filter.
4		Displays the current information of the grid.
5	HU	Displays the current information of the heat unit.
6	19:03	Displays the current time.
7	Settings	Press this button to open the settings menu. The settings menu is for selecting the touch panel display mode and the control method for the radiography X-ray conditions and for resetting the fluoroscopy timer/fluoroscopy cumulative time. ☞ Reference P.2-18
8	Emergency Study	Starts an emergency study.
9	Fluoroscopy detailed configuration button	Press this button to set/browse detailed fluoroscopy-related information.
10	Radiography program display button	Toggles display/hide of the radiography program list.
11	Fluoroscopy information display 1 2 3 4 5 6 👁 PULSE N 15 fps ⬜+1 80 kV 2.1 mA HD ⌖ 🕐 0 min 0 sec 7 The current fluoroscopy conditions and fluoroscopy-related information is displayed. 1 Displays the current fluoroscopy mode. 2 Displays the fluoroscopy pulse rate. 3 Displays IBS ON/OFF and IBS density. 4 Displays the fluoroscopy tube voltage and fluoroscopy tube current. 5 Is lit up while HD fluoroscopy is selected. 6 Is lit up when virtual collimation is on. 7 Displays the fluoroscopy cumulative time.	
12	During warming-up. Message display	Displays system messages, such as the current system status.

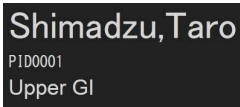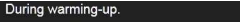**Display when no examination is being performed (other than DR technique)**
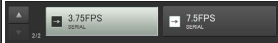
No.	Item	Function
1	500.0 μGy·m²	Displays the dose area product value after radiography.
2	Radiography detailed configuration button	Press this button to set/browse detailed radiography-related information.
3	Radiography information display 1 2 3 4 5 6 7 73 kV 320 mA 100 msec ON M±0 ±0	The current radiography conditions and radiography-related information is displayed. 1 Radiography tube voltage 2 Radiography tube current or radiography current time product 3 Radiography focus 4 Radiography time 5 AEC ON/OFF and photo pickup field 6 Density of AEC and film sensitivity 7 Body thickness correction

Display during an examination

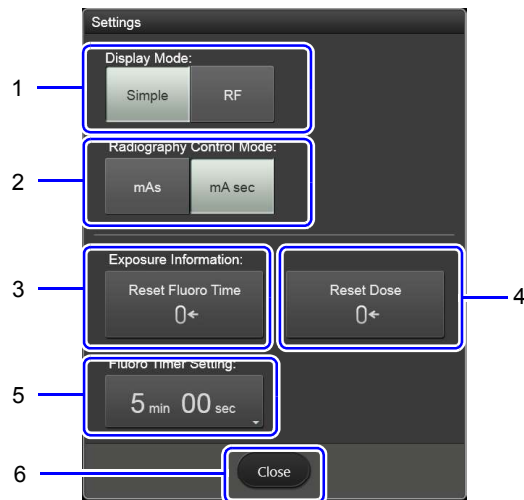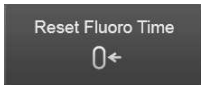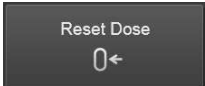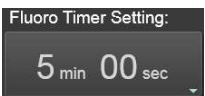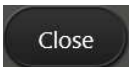| No.	Item	Function
1	**Shimadzu,Taro** PID0001 Upper GI Examination information display	Displays the patient's name, ID and procedure.
2	During warming-up. Message display	Displays system messages, such as the current system status.
3	Suspend Examination suspend button	Suspends the examination.
4	19 / 289 frm	When serial radiography is selected, the number of shots that can be taken under the current X-ray conditions is displayed as the denominator and the number of shots taken is displayed as the numerator.
5	Close Examination end button	Ends the examination.
6	Elapsed Time: 2 min	The time elapsed since the start of the examination is displayed.
7	⊚	This is displayed when memory shot is selected.
8	3.75FPS SERIAL 7.5FPS SERIAL 2/2 Protocol display section	The current radiographic protocol is displayed. Press any button to change the radiographic protocol.
9	SDA: Subdivisional acquisition information display section	The current subdivisional acquisition settings are displayed. Press any button, for example, to change the subdivisional acquisition settings or retry radiography.

Settings menu

The settings menu is displayed when the [Settings] button is pressed. In the settings menu, the touch panel display mode and the control method for the radiography X-ray conditions can be selected, and the fluoroscopy timer/fluoroscopy cumulative time can be reset.

No.	Item	Function
1	Display Mode: Simple / RF	Changes the display mode of the touch panel.
2	Radiography Control Mode: mAs / mA sec	Selects the control method for the radiography X-ray conditions.
3	Reset Fluoro Time 0←	Resets the fluoroscopy cumulative time.
4	Reset Dose 0←	Resets the cumulative dose information.
5	Fluoro Timer Setting: 5 min 00 sec	Sets the fluoroscopy timer.
6	Close	Closes the settings menu.