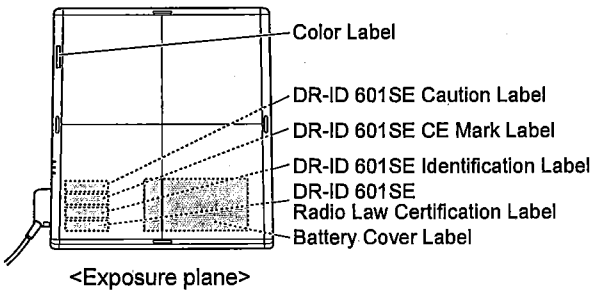
1.6 Locations of Labels and Signs

Locations of labels and signs affixed to the FDR D-EVO, and the relevant safety signs are shown below.

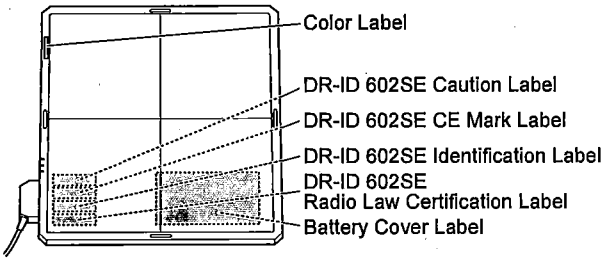
1.6.1 Locations of Labels

Flat panel sensor (DR-ID 601SE)



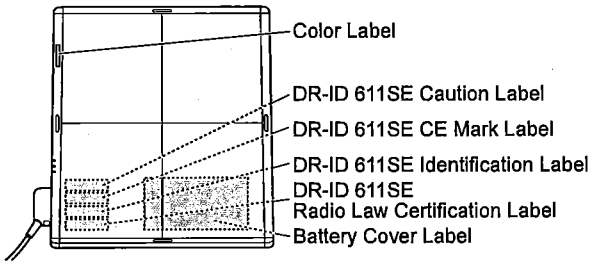
<Exposure plane>

Flat panel sensor (DR-ID 602SE)



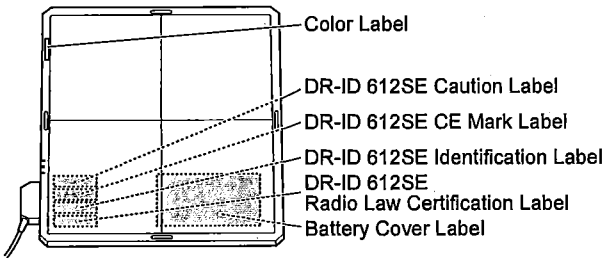
<Exposure plane>

Flat panel sensor (DR-ID 611SE)



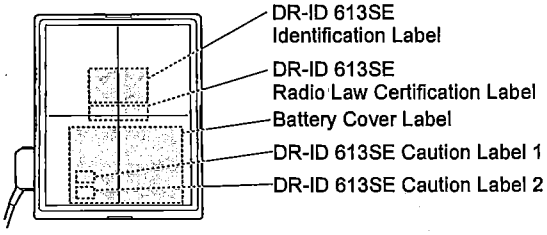
<Exposure plane>

Flat panel sensor (DR-ID 612SE)



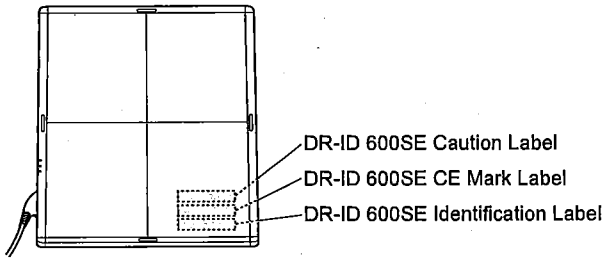
<Exposure plane>

Flat panel sensor (DR-ID 613SE)



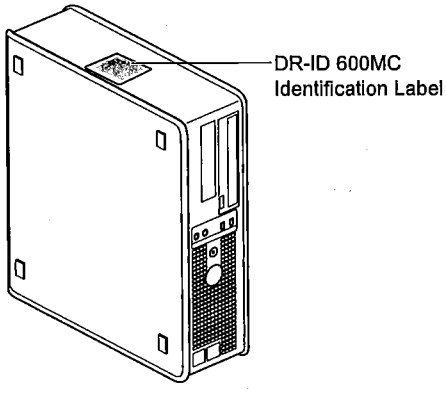
<Exposure plane>

Flat panel sensor (DR-ID 600SE)



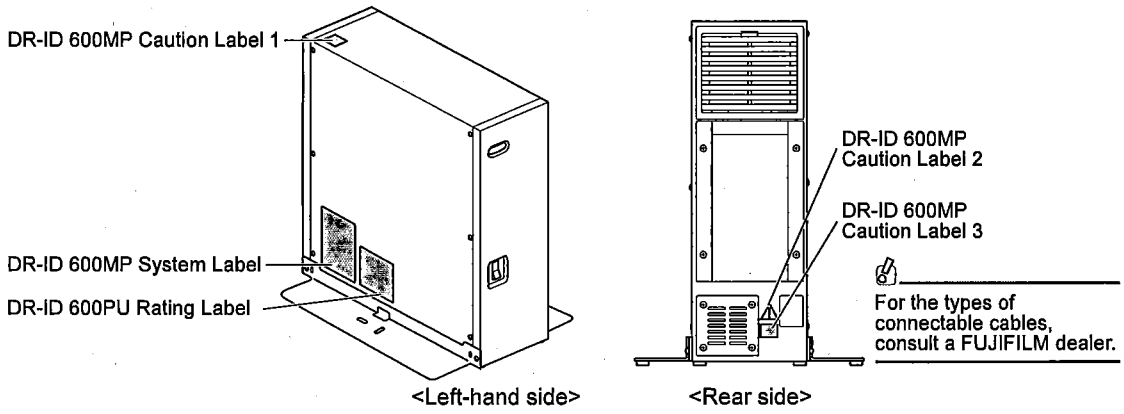
<Exposure plane>

Control cabinet (DR-ID 600MC)

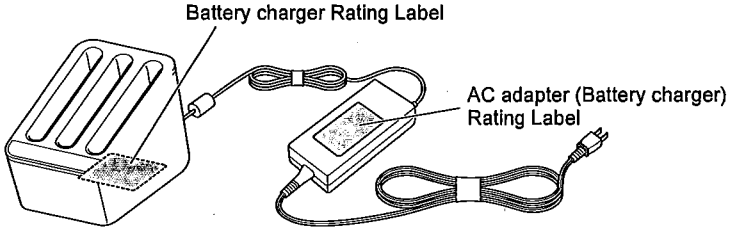


If the control cabinet is not included in the system, the DR-ID 600MC identification label is placed on the CD case of the software for the control cabinet.

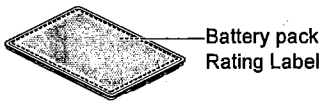
Power supply unit (DR-ID 600MP)



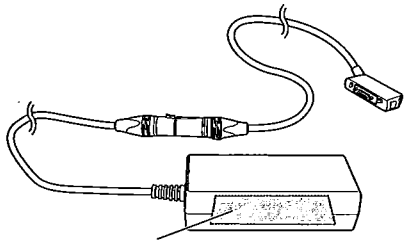
Battery charger
(optional)



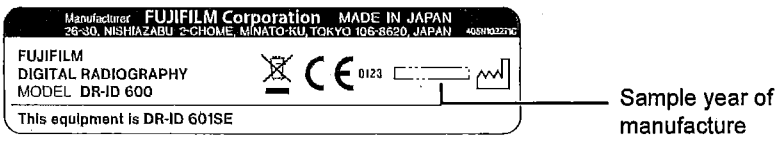
Battery pack
(optional)



AC adapter for cradle
(optional)

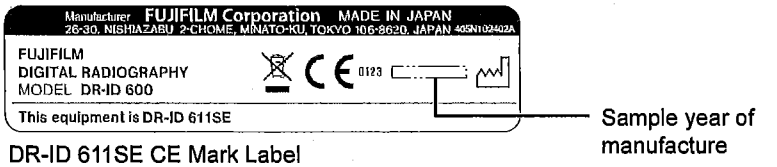


1.6.2 DR-ID 600

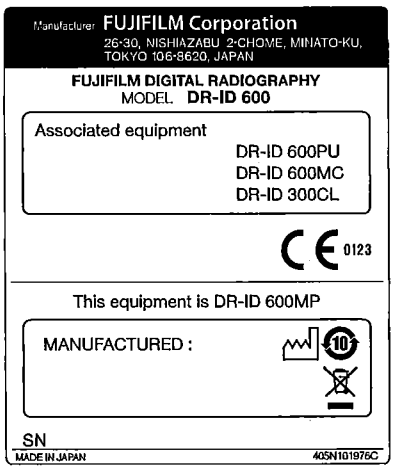


DR-ID 601SE CE Mark Label

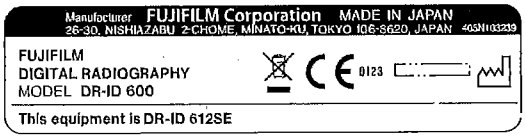
DR-ID 602SE CE Mark Label



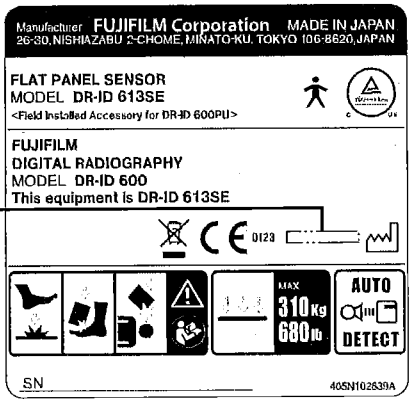
DR-ID 611SE CE Mark Label



DR-ID 600MP System Label



DR-ID 612SE CE Mark Label

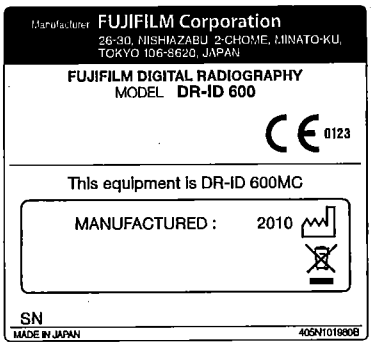


Sample year of manufacture

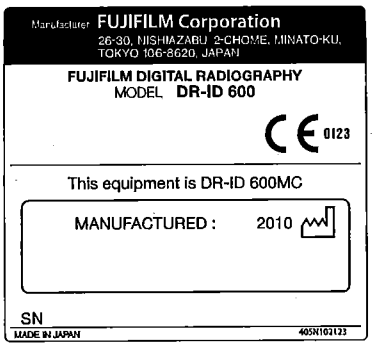
DR-ID 600SE CE Mark Label

Sample year of manufacture

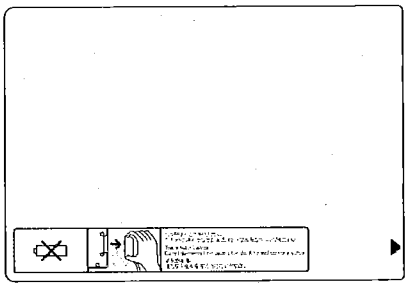
DR-ID 613SE Identification Label



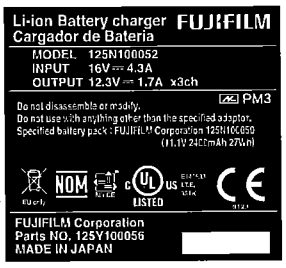
DR-ID 600MC Identification Label



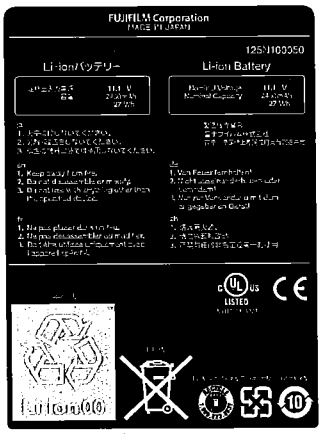
DR-ID 600MC Identification Label (for the system without the DR-ID 600MC)



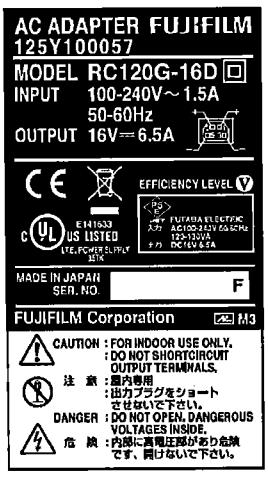
Battery Cover Label



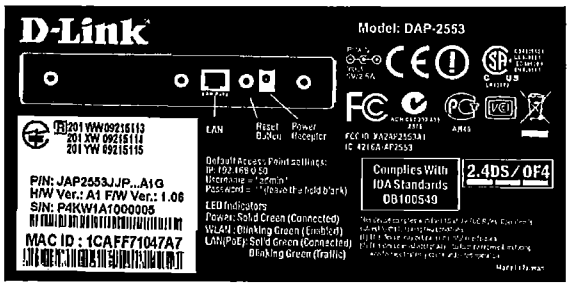
Battery Charger Rating Label



Battery Pack Rating Label



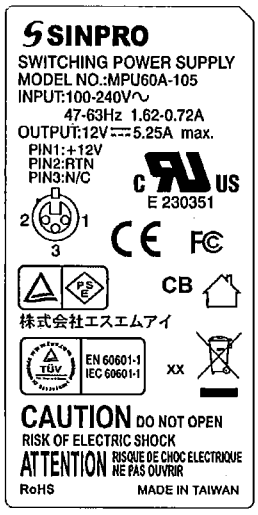
AC Adapter (Battery Charger) Rating Label



Access Point Rating Label*

AC Adapter (Access Point) Rating Label*

* The access point model is subject to change.

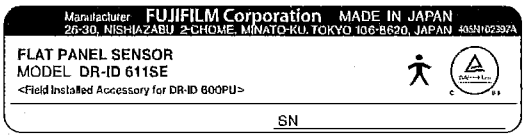


AC adapter for cradle Rating Label

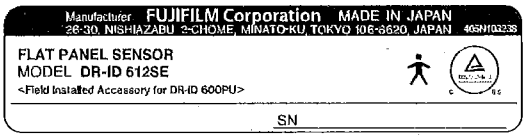
1.6.3 DR-ID 600PU

DR-ID 601SE Identification Label

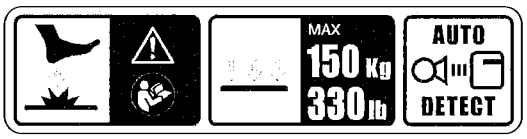
DR-ID 602SE Identification Label



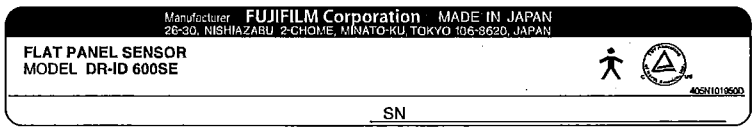
DR-ID 611SE Identification Label



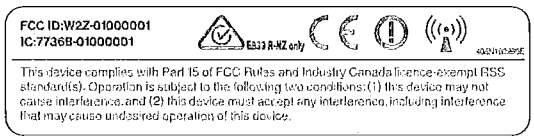
DR-ID 612SE Identification Label



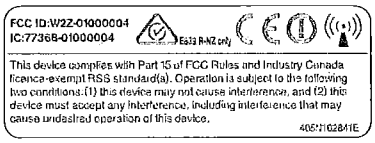
DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/DR-ID 612SE Caution Label



DR-ID 600SE Identification Label

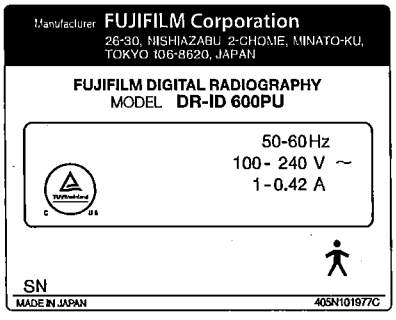


DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/DR-ID 612SE Radio Law Certification Label



DR-ID 613SE Radio Law Certification Label

DR-ID 600SE Caution Label



DR-ID 600PU Rating Label

DR-ID 600MP Caution Label 1

DR-ID 600MP Caution Label 2 / DR-ID 613SE Caution Label 1

DR-ID 600MP Caution Label 3 / DR-ID 613SE Caution Label 2

1.6.4 Safety and Other Symbols

The following safety symbols are used in the labels or on its body.

Symbol	Description
CE 0123	This symbol indicates compliance of the equipment with Directive 93/42/EEC.
	Caution (See "1.6.1 Locations of Labels" (page 1-23).)
	OFF (To indicate disconnection from the mains, at least for mains switches or their positions, and all those cases where safety is involved.)
	ON (To indicate connection to the mains, at least for mains switches or their positions, and all those cases where safety is involved.)
	Protective earth (ground)
	Alternating current
	This symbol indicates that the equipment is a Type B Applied Part.
	Ready (To indicate the machine is ready for operation.)
	Electric energy
	General mandatory action sign
	Stand-by
	This symbol indicates that this product is not to be disposed of with your household waste, according to the WEEE Directive (2002/96/EC) and your national law. This product should be handed over to a designated collection point. Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about waste, please contact FUJIFILM dealers.
	Year of manufacture
10	Environmentally Friendly Use Period (EFUP)
	Caution for local load (See "1.5.3 During Exposure" (page 1-21).)
MAX 125 kg 275 lb	Entire surface load
AUTO DETECT	This symbol indicates that the flat panel sensor supports the automatic X-ray detection function.
	No stepping on surface
	Refer to instruction manual/booklet
	Do not drop the flat panel sensor to the user/patient.

1.7 Installation Conditions

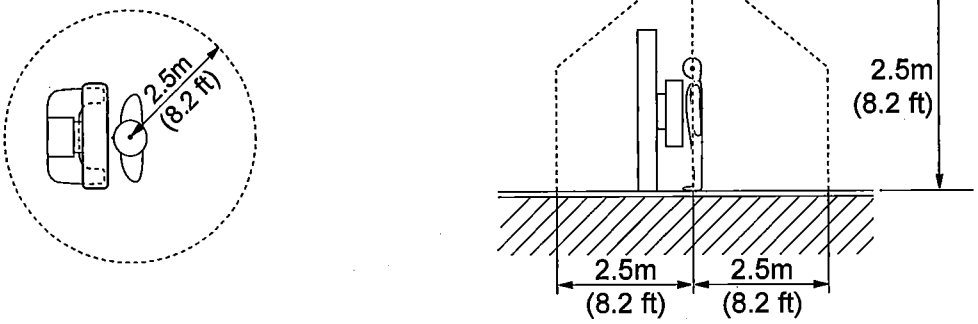
1.7.1 Installation Space When Setting the Control Cabinet in the X-ray Room

In case that the control cabinet is installed in the X-ray room, ensure a certain distance between the control cabinet and the upright-type or bed-type radiographic examination stand. See the figure below for reference.
For the products that can be installed in patient environment, see "2.1.1 System Configuration" (page 2-1).

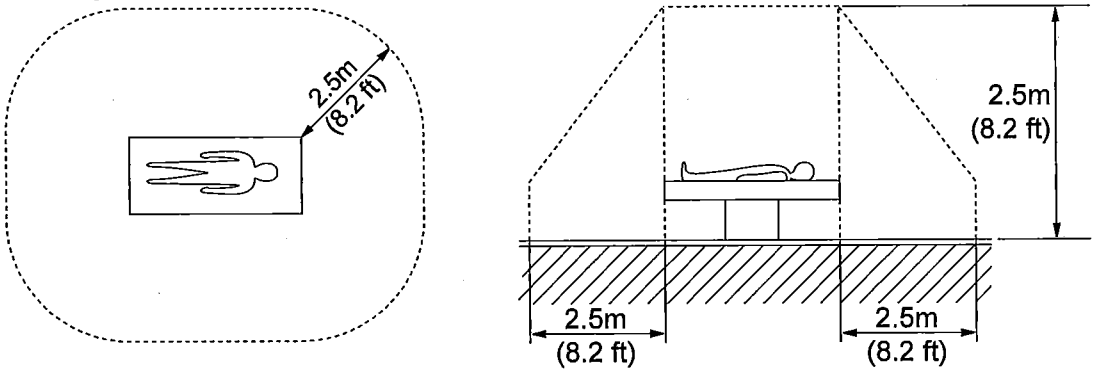
⚠ CAUTIONS

Do not install the power supply unit, control cabinet, image processing unit, Battery charger (optional) and Access point in an area of the X-ray room, where the user can easily trip over. Falls could result in injury.

■ Upright type



■ Bed type

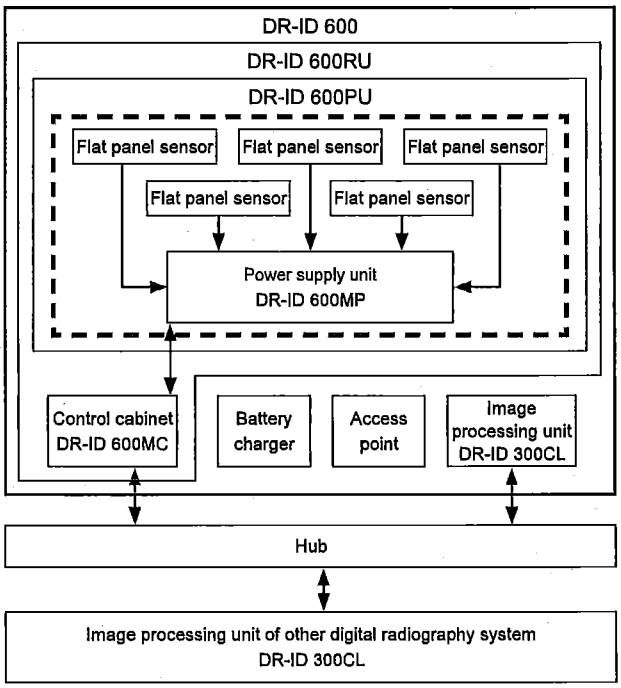


Chapter 2 System Configuration (Product Overview)

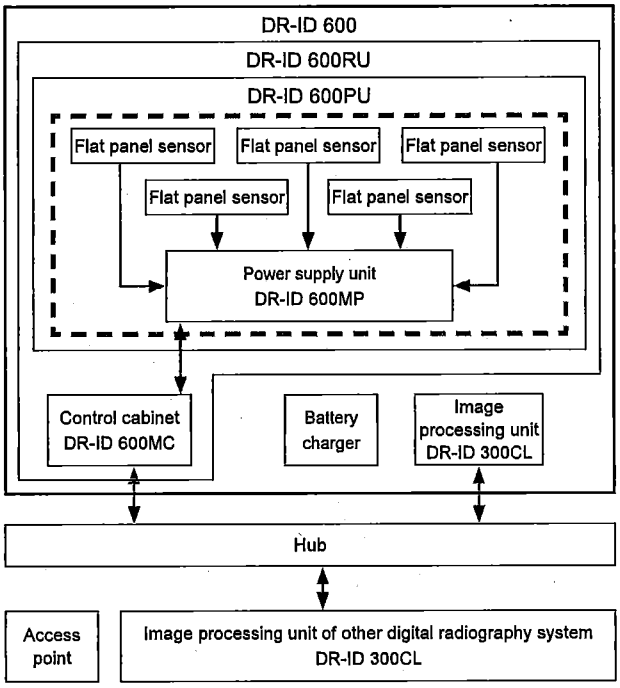
2.1 FDR D-EVO

2.1.1 System Configuration

For the U.S.



For other countries



- The products in [ ] can be installed in patient environment.
- The FDR D-EVO consists of the DR-ID 600RU and the image processing unit DR-ID 300CL.
- An access point is used only in wireless communication mode.

* The configuration of the system varies depending on the country.

- Up to five flat panel sensors can be connected. Up to two flat panel sensors can be connected to one power supply unit in wired communication mode. Up to two power supply units can be used.
- When the flat panel sensors are used with three to four different techniques, two power supply units are required.
- Depending on the configuration, the control cabinet (DR-ID 600MC) may not be included in the system. If not included, the software for the control cabinet can be installed on the image processing unit (DR-ID 300CL).
  For detail specification of image processing unit, please refer to "DR-ID 300CL Operation Manual".

2.1.2 Features of the FDR D-EVO

This section describes the main features of the FDR D-EVO.

1 The external dimensions and the weight of the flat panel sensor are the same as those of the conventional cassette used for general exposure. Due to this feature, the flat panel sensor can be inserted into the radiographic examination stand that has been used, allowing the user to avoid cassette replacement.

2 The flat panel sensor can be connected/disconnected with the relay connector of the connection cable. This allows the user to carry the flat panel sensor and insert/remove it into/from the upright-type or bed-type radiographic examination stand more easily.

3 The light weight and the thin and round design increase the operability of the flat panel sensor, making it possible to place it under a lying patient.

4 An image can be displayed on the image processing unit in as fast as approximately 1 second after X-ray exposure processing is completed. (However, the required time varies depending on the mode setting.)

5 Owing to the highly sensitive flat panel sensor, X-ray exposure dose can be reduced accordingly.

6 Due to the effects of digital image processing, the system produces X-ray images that have a high diagnostic value and are easy to observe.

7 The system has a wide latitude for incident X-rays so that a large amount of X-ray diagnostic information is obtained.

8 As the system has a wide latitude and an automatic sensitivity adjustment function, its X-ray images are not affected by small changes in X-ray exposure conditions. Therefore, consistent image density is obtained for all images.

9 Image processing parameters are automatically selected through an anatomical region selection system from the image processing unit.

10 Multi-objective Frequency Processing (MFP), a newly introduced image processing function, not only improves the image quality also achieves high-speed image processing.

11 A DICOM-conformed open network can be supported by connecting the image processing unit.

12 With the flat panel sensor (DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE), wireless communication mode or wired communication mode can be selected. In wireless communication mode, exposures can be performed without connecting the cable.

13 The SmartSwitch is built in the flat panel sensor with the following logo.
With the SmartSwitch technology, operations for making an exposure start when the flat panel sensor detects X-rays. For this reason, it is not necessary to connect a cable to the flat panel sensor.

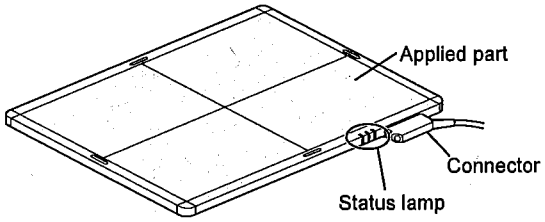
SmartSwitch

2.2 Unit Names and the Functions

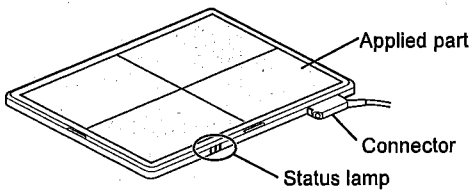
Unit names and the functions of the FDR D-EVO are described below.

2.2.1 DR-ID 600

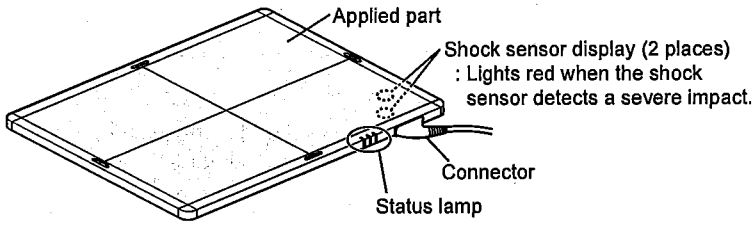
■ DR-ID 600PU



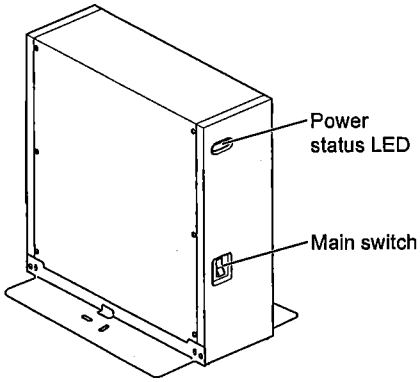
Flat panel sensor
(DR-ID 601SE, DR-ID 602SE, DR-ID 611SE and DR-ID 612SE)
* Exposure plane is shown in this figure.



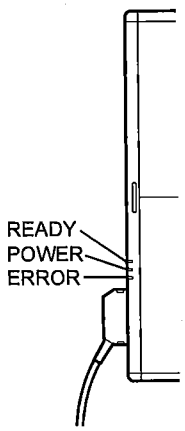
Flat panel sensor (DR-ID 613SE)
* Exposure plane is shown in this figure.



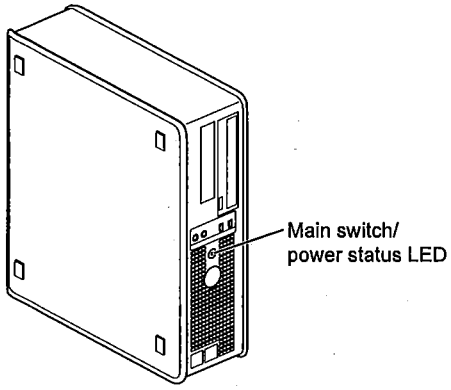
Flat panel sensor (DR-ID 600SE)
* Exposure plane is shown in this figure.



Power supply unit (DR-ID 600MP)

Name	Description			
Flat panel sensor	The DR-ID 600SE, DR-ID 601SE and DR-ID 602SE incorporate a GOS indirect panel. The DR-ID 611SE, DR-ID 612SE and DR-ID 613SE incorporate a CsI indirect panel. There are six types of flat panel sensors: DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE (wireless/wired communication mode) and DR-ID 600SE (wired communication mode).			
Status lamp	Indicates the equipment status by LEDs.			
	READY ○ (Green)	On	Exposure possible	
		Blinks for 1.0 second.	During exposure sequence	
		Off	Ready	
	POWER ⏻ (Green) (In wireless communication mode, the status of the battery pack is indicated. In wired communication mode, the power status is indicated.).		Wireless	Wired
		On	OK (Power ON)	Power ON
		Blinks for 1.0 second.	Less than 10 min	-
		Off	Empty (Power OFF)	Power OFF
	ERROR ❗ (Orange)	On	Communication not possible.	
		Blinks for 1.0 second.	Error occurred	
		Off	Normal	
	* All LEDs are off when the equipment is off.			
Power supply unit (DR-ID 600MP)	Supplies the power to the flat panel sensor and connects the flat panel sensor and the control cabinet.			
Main switch	Supplies the power to the flat panel sensor and the inside of the power supply unit.			
Remote switch (optional)	Turns on/off the power to the flat panel sensor.			
Power status LED	Displays ON/OFF of the power supply unit.			

■ DR-ID 600MC

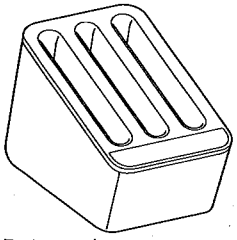


Control cabinet (DR-ID 600MC)

Name	Description
Control cabinet (DR-ID 600MC)	A personal computer used for controlling the flat panel sensor and performing image processing.
Main switch	Supplies the power to the control cabinet.
Power status LED	Displays ON/OFF of the control cabinet.

Depending on the configuration, the control cabinet (DR-ID 600MC) may not be included in the system. If not included, the software for the control cabinet can be installed on the image processing unit (DR-ID 300CL). For detail specification of image processing unit, please refer to "DR-ID 300CL Operation Manual".

■ Battery charger (Optional)



Battery charger

Name	Description
Battery charger	Charges the battery pack (optional) for the flat panel sensor (DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE). Three packs can be charged at the same time.
Charge status indicator LED	Indicates charge status.

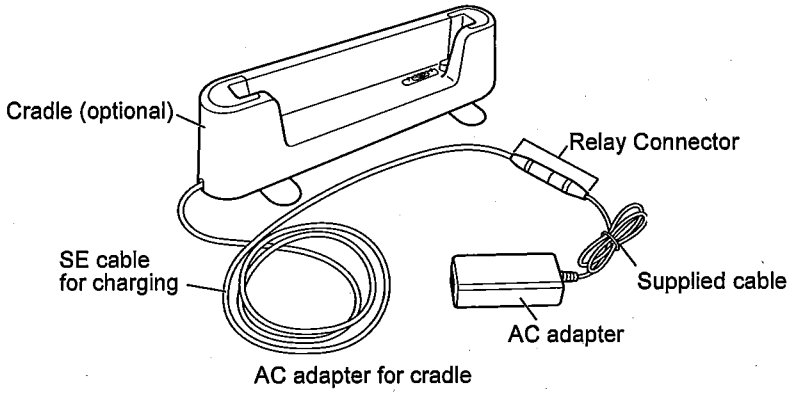
■ Access point

- Product compliant with IEC60950, UL60950, PSE or JIS
- Compliant with IEEE802.11n [W52] (in the 5.2GHz band) /36, 40, 44, 48ch
- WLAN interface: 1000BASE-T/100BASE-TX (minimum requirements)
- LAN interface: 1000BASE-T/100BASE-TX (minimum requirements)
- Available OS: Linux
- Compliant with UL
- Compliant with FCC part15

■ DR-ID 300CL

For the unit names and functions of the DR-ID 300CL, see the "DR-ID 300CL Operation Manual".

■ AC adapter for cradle (optional)



Name	Description
AC adapter for cradle	Charge the flat panel sensor (DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE) by combining it with the separately sold cradle or Cradle for 24.

⚠ CAUTIONS

- **Do not connect directly to the flat panel sensor when the AC adapter for cradle is not connected to the cradle.**
- **Do not use a flat panel sensor that is being charged with the AC adapter for cradle for an exposure. The image being exposed may not be acquired correctly.**

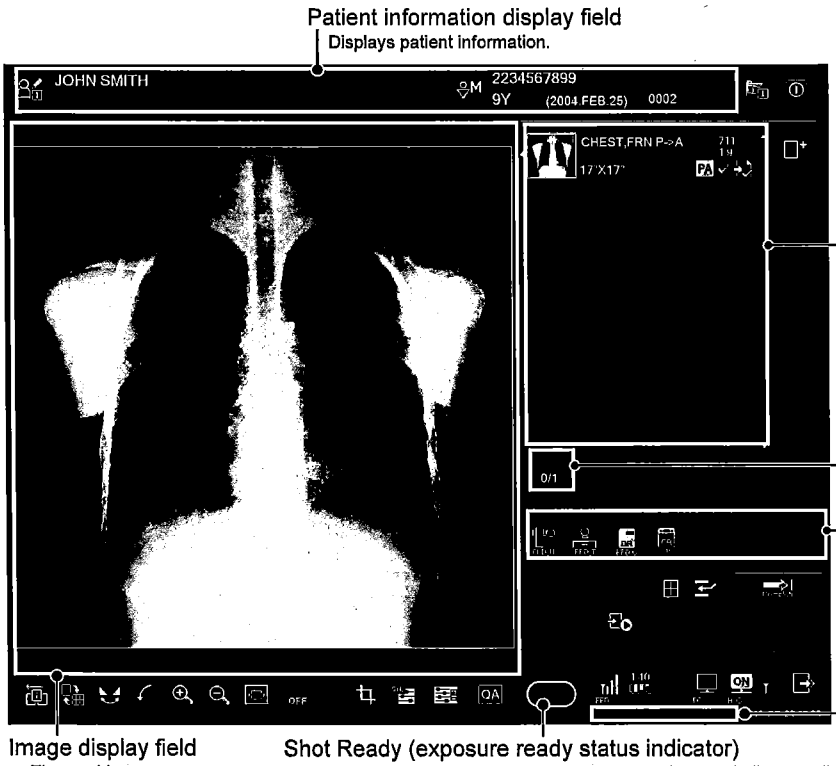
2.3 Image Processing Unit's Display Configuration

When the self-initialization process ends, the Patient Information Input Screen will appear on the image processing unit's display.

For details, see "DR-ID 300CL Operation Manual".

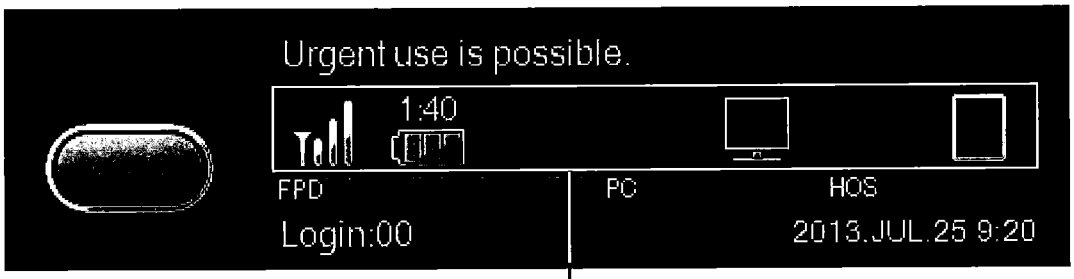
■ Patient Information Input Screen

■ Study Screen



■ Connected Devices Status

Details on each icon and its display area are described below.



Other indicator icons display area

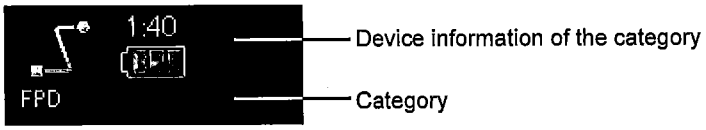
Other indicator icons display area

The status of the flat panel sensor and that of the image processing unit are displayed as icons. The status of each connected device is shown in three categories.

Device information displayed in each category is as follows.

Category	Device information
Status of exposure unit	(1) Exposure unit communication indicator (2) Exposure unit battery indicator
Status of the image processing unit	(3) Console event indicator
Other (Status of output unit)	(4) Output status indicator

The information is displayed in each category as shown below.



Locations of category information can be customized in the user utility. For details, see "DR-ID 300CL Reference Guide".

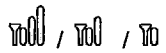
(1) Exposure Unit Communication Indicator

The following icons display communication status of the flat panel sensor corresponding to the selector selected in the exposure unit display field of the "Study screen".
If the flat panel sensor has a wired connection, the following icons are displayed.

 : Connected

 : Disconnected

If the flat panel sensor is connects wirelessly, the following icons are displayed.

 : Connected. Displays the signal strength in three levels.

 : Disconnected

 : Unknown

(2) Exposure Unit Battery Indicator

When the exposure unit is connected to the image processing unit, the battery status is indicated with the following icons.

 : Ready for exposure (battery charge: fully charged)

 : Ready for exposure (exposure time available: less than one hour)

 : Ready for exposure (battery charge: recharge needed)

 : Ready for exposure (charging)

 : Not ready for exposure

CAUTIONS

When an exposure is ready to be made (the READY status lamp on the flat panel sensor is lit green), the power consumption of the flat panel sensor increases. Although the indicator icon of the remaining battery level changes to low and the value of the operable time display decreases temporarily, these are not failures.

(3) Console Event Indicator

The following icons display the status of the image processing unit.

 : Normal

 : Warning-level event ongoing

 : Error-level event ongoing

(4) Output Status Indicator

The following icons display the output status.

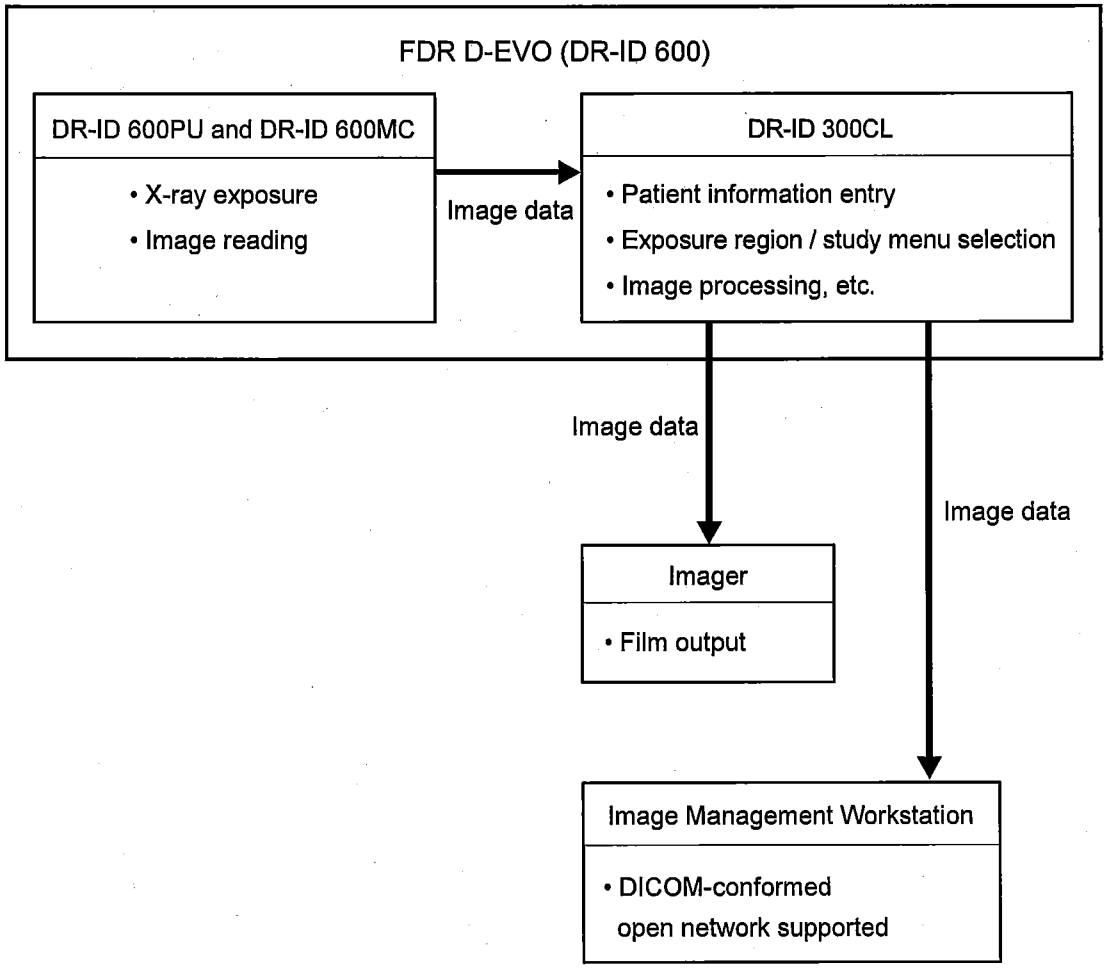
 : Waiting for image output

 : Processing image output

 : Output error

2.4 Routine Operation Diagram

The system configuration and the routine operation diagram for the FDR D-EVO is as follows.



2.5 Wireless Specifications

1 Technical Specification : IEEE802.11.n (protocol) , W52 (frequency)

2 Intended environment : Room size of 10m x 10m x 3m (32.8 ft x 32.8 ft x 9.8 ft) (height) or less (general X-ray room)
(The electric shield does not exist excluding the installation stand or bed.)

3 Installation : DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/DR-ID 612SE/DR-ID 613SE and Access Point must be installed in the same room.
Do not place Access Point within the reach of patients.
Do not Place more than one Access point in the same room.
Do not place devices generating electromagnetic wave (CT,MRI, diathermy, RFID etc.) near this equipment.
We recommend not to use any other wireless devices such as cellular/smart phones, portable phones, microwave ovens, WAPs, etc. within 2m (6.6 ft) of the wireless D-EVO system.
When other wireless devices are used within 2m (6.6 ft), wireless data communication may be delayed.
(Data communication is guaranteed. If timeout occured, retry can be done.)
Do not change the position of the access point once installed.
Do not cover the Flat Panel Sensor (DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/DR-ID 612SE/DR-ID 613SE) with a shield such as a metallic plate as this will interfere with a wireless communication.

4 Information being transmitted :
X-ray Control Signal (Prep-SW, Shot-SW)
System Control Signal, (Img_req_CMD, etc..)
Image Data(Raw data Before Image processing)(Note: Patient Information is not transmitted by wireless interface.)

5 Wireless range : max. 10m (32.8 ft) from the Access point as tested. Actual range may vary.

6 Data transfer rate : 35Mbps
(This value is FUJIFILM measuring result of wireless module, and actual data rate may vary.)

7 Transfer Power : 12.26 dBm or less (13.89 dBm or less for the DR-ID 613SE) (According to FCC part15 test report)

8 Modulation : OFDM (Provided by IEEE802.11.n standard)
"RADIO TEST" is executed to this product according to FCC part15 subpart E: 2010 standard.
All the test items are passed.

9 Wireless Data Security : Wireless D-EVO system (DR-ID600 with DR-ID 601SE/DR-ID 602SE/ DR-ID 611SE/DR-ID 612SE/DR-ID 613SE) will be utilizing the IEEE standard 802.11.n at the 5.2GHz frequency, which will allow us a maximum wireless signal rate of up to 35Mbps. The Wireless Access Point (WAP) has a feature that limits the maximum number of users per Access Point to ensure data integrity. Further the WAP has MAC Address Filtering (unique IP address) and Wireless LAN Segmentation to ensure handshaking with only the registered wireless D-EVO Flat Panel Sensors (DR-ID 601SE/DR-ID 602SE/ DR-ID 611SE/DR-ID 612SE/DR-ID 613SE).
In addition to the MAC address filtering, the wireless communication between DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/DR-ID 612SE/ DR-ID 613SE (Flat Panel Sensor) and the wireless access point is secured by WPA2-PSK encryption with AES (Advanced Encryption Standard).
Data security feature will be enabled during installation by a FUJIFILM field service engineer. No patient information is transmitted between DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/ DR-ID 612SE/DR-ID 613SE (Flat Panel Sensor) and Wireless Access Point.

10 Handshaking/Pairing : The Wireless Access Point and DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/DR-ID 612SE/DR-ID 613SE (Flat Panel Sensor) will be paired during installation by a FUJIFILM field service engineer to ensure one-to-one wireless connection. FUJIFILM field service engineer will measure the wireless transmission speed during installation to find the best position of the wireless access point and the wireless D-EVO system.

11 Frequency Tolerance : ±20ppm

Quality of Service (QoS) (For DR-ID 601SE/DR-ID 602SE/DR-ID 611SE/DR-ID 612SE)

Item	Standard		Unit	Remarks
Form of electric wave	Spectrum diffusion		-	
Center frequency	HT20	5180-5240	MHz	36ch,40ch,44ch,48ch W52
	HT40	5190-5230	MHz	38ch,46ch W52
Channel interval	IEEE802.11.n	20(HT20) / 40(HT40)	MHz	
Transmission rate	IEEE802.11.n	11n HT20 : MCS 0-15 11n HT40 : MCS 0-15	-	
Modulation	OFDM (64QAM,16QAM,QPSK,BPSK)		-	
Output power	HT20 Max	11.82*	dBm	
	HT40 Max	12.26*	dBm	
Frequency Tolerance	-20 ~ +20		ppm	MAX
Reception sensitivity (PER (Packet Error Rate)<10%)	MCS0, 8	-82	dBm	HT20
	MCS1, 9	-79	dBm	
	MCS2, 10	-77	dBm	
	MCS0, 8	-79	dBm	HT40
	MCS1, 9	-76	dBm	
	MCS2, 10	-74	dBm	
Current consumption	TX5G	550 (Typ)	mA	Thruput test mode
	RX5G	450 (Typ)	mA	Thruput test mode

*The value is based on the FCC report of the Flat Panel Sensor.

Quality of Service (QoS) (For DR-ID 613SE)

Item	Standard		Unit	Remarks
Form of electric wave	Spectrum diffusion		-	
Center frequency	HT20	5180-5240	MHz	36ch,40ch,44ch,48ch W52
	HT40	5190-5230	MHz	38ch,46ch W52
Channel interval	IEEE802.11.n	20(HT20) / 40(HT40)	MHz	
Transmission rate	IEEE802.11.n	11n HT20 : MCS 0-15 11n HT40 : MCS 0-15	-	
Modulation	OFDM (64QAM,16QAM,QPSK,BPSK)		-	
Output power	HT20 Max	13.84*	dBm	
	HT40 Max	13.89*	dBm	
Frequency Tolerance	-20 ~ +20		ppm	MAX
Reception sensitivity (PER (Packet Error Rate)<10%)	MCS0, 8	-82	dBm	HT20
	MCS1, 9	-79	dBm	
	MCS2, 10	-77	dBm	
	MCS0, 8	-79	dBm	HT40
	MCS1, 9	-76	dBm	
	MCS2, 10	-74	dBm	
Current consumption	TX5G	550 (Typ)	mA	Thruput test mode
	RX5G	450 (Typ)	mA	Thruput test mode

*The value is based on the FCC report of the Flat Panel Sensor.

Chapter 3 Basic Operation

3.1 Preparing the Flat Panel Sensor

This section describes how to prepare the flat panel sensor.

3.1.1 Type of Flat Panel Sensor

DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE :
Wireless communication mode or wired communication mode is available. When used in wireless communication mode, an access point*1, battery pack (optional) and battery charger (optional) are required.

*1 In the countries other than the U.S., an access point is not included as a component of the system. For details including installation, consult our official dealer.
- Product compliant with IEC60950, UL60950, PSE or JIS
- Compliant with IEEE802.11n [W52] (in the 5.2GHz band) /36, 40, 44, 48ch
- WLAN interface: 1000BASE-T/100BASE-TX (minimum requirements)
- LAN interface: 1000BASE-T/100BASE-TX (minimum requirements)
- Available OS: Linux
- Compliant with UL
- Compliant with FCC part15

CAUTIONS

Use only one access point. A communication error may occur if two units or more are used.

DR-ID 600SE : Wired communication mode

3.1.2 Number of the Connectable Flat Panel Sensors

To enable the flat panel sensor, its ID needs to be registered in advance by a FUJIFILM dealer.
Up to a hundred flat panel sensors can be registered.
Up to five flat panel sensors can be connected. Up to two flat panel sensors can be connected to one power supply unit in wired communication mode. Up to two power supply units can be used.

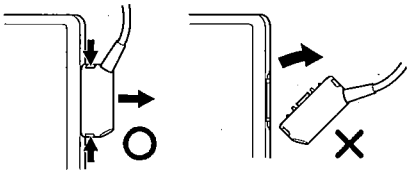
Depending on the configuration, the control cabinet (DR-ID 600MC) may not be included in the system. If not included, the software for the control cabinet can be installed on the image processing unit (DR-ID 300CL).
For detail specification of image processing unit, please refer to "DR-ID 300CL Operation Manual".

3.1.3 Connecting/Disconnecting the Flat Panel Sensor (DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE) Connector

When used in wireless communication mode, disconnect the connector.

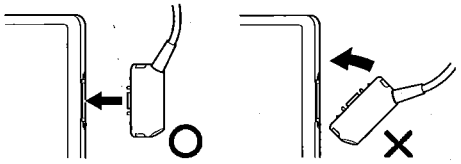
1 Disconnect the connector.

Press the latches on both sides of the connector.



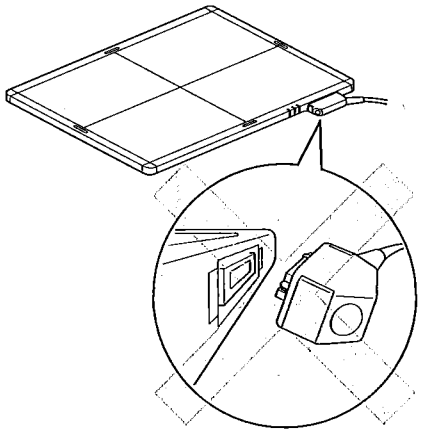
2 Connect the connector.

Press the connector into the insertion section.



Make sure that the latches on both sides are properly engaged when connecting the connector. If the flat panel sensor is used with the connector inserted incompletely, the flat panel sensor may turn off.

Connect/Disconnect the connector straight to the flat panel sensor. If connected/disconnected at an angle, the connector may be damaged.



3.1.4 Connecting/Disconnecting the Sensor Cable Relay Connector for the Flat Panel Sensor (DR-ID 600SE)

Follow the procedure below to connect/disconnect the sensor cable relay connector.

- Do not connect the flat panel sensor to the power supply unit other than of the FDR D-EVO. Otherwise, the connector may be damaged.
- Do not connect the flat panel sensor unregistered to the system. Otherwise, the power to the flat panel sensor will be disconnected automatically. For details on the registration, contact a FUJIFILM dealer.
- When connecting/disconnecting the sensor cable relay connector, always hold the grip of the connector. The wire inside may be broken, if you connect/disconnect by holding the cable. If you turn the outer bushing of the grip, the cable lock becomes loose, causing a short-circuit of the cable.
- Do not drop the sensor cable relay connector when connecting/disconnecting it. Otherwise, personal injury may result, or properties or the connector may be damaged.
- Do not connect an 8.5m(27.9 ft)-long cable for the power supply unit and that for the flat panel sensor of the same length. If the total length of the connected cables exceeds 10m (32.8 ft), the flat panel sensor may malfunction.

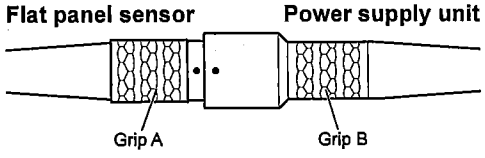
1 Make sure that the READY lamp of the flat panel sensor is not blinking, and press the OFF side of the power supply unit. Alternatively, turn off the flat panel sensor by pressing the operation button on the optional remote switch, and make sure that the POWER lamp of the flat panel sensor turns off.

For the external view of the optional remote switch, see "O.2 Using the Remote Switch" (page O-3).

The remote switch can be simultaneously connected to both the upright type and the bed type.
The relay connector can be connected/disconnected by turning off either of the remote switches.

You can proceed to the next step even if an error message appears after turning off the power supply unit.

2 To disconnect, hold the grips A and B of both the connectors, and then pull the grip A of the flat panel sensor to unlock.

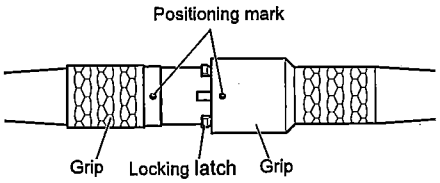


CAUTIONS

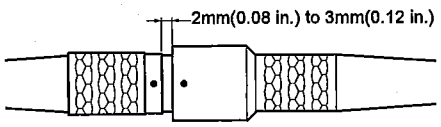
If you skip Step 1 and perform Step 2, a communication error occurs. In such a case, turn the power back on to the power supply unit. Note, however, that repeating this action may result in damage to the equipment.

3 To connect, align the positioning marks, and then push the connectors in.

Align the positioning mark on the connector of the power supply unit with that of the flat panel sensor, and then insert the connectors by slightly turning them.



Push in until you feel a click.



Push further in to the position shown in the figure in Step 2 until you feel a click again to lock them into place.

4 Press the ON side of the main switch of the power supply unit, or press the operation button on the optional remote switch.

3.1.5 Connecting/Disconnecting the AC adapter for cradle (optional) Relay Connector

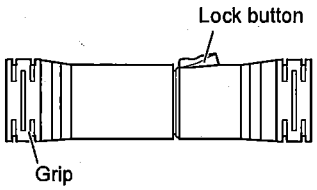
Follow the procedure below to connect/disconnect the AC adapter for cradle relay connector.

- When connecting/disconnecting relay connector, always hold the grip of the connector. The wire inside may be broken, if you connect/disconnect by holding the cable.
- Do not drop relay connector when connecting/disconnecting it. Otherwise, personal injury may result, or properties or the connector may be damaged.

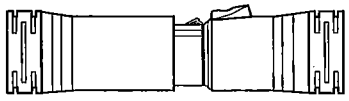
1 Remove the AC adapter for cradle power cable from the power outlet, and check that the AC adapter LED has turned off.

2 To disconnect the adapter, pull the grip on the side of the flat panel sensor while pressing the lock button.

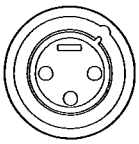
Flat panel sensor side **AC adapter side**



3 To connect the adapter, align both sides of the relay connector with the terminal position, and insert it until it makes a clicking sound.



Flat panel sensor side terminal



AC adapter side terminal

4 Connect the AC adapter for cradle power cable to the power outlet, and check that the AC adapter LED has turned on.

3.1.6 Inserting/Removing the Flat Panel Sensor into/from the Radiographic Examination Stand

Follow the procedure below to insert/remove the flat panel sensor into/from the radiographic examination stand.

◗ For details, see the Operation Manual for the radiographic examination stand.

⚠ CAUTIONS

For the positioning at the time of inserting/removing the flat panel sensor, see the Operation Manual for the radiographic examination stand.

⚠ CAUTIONS

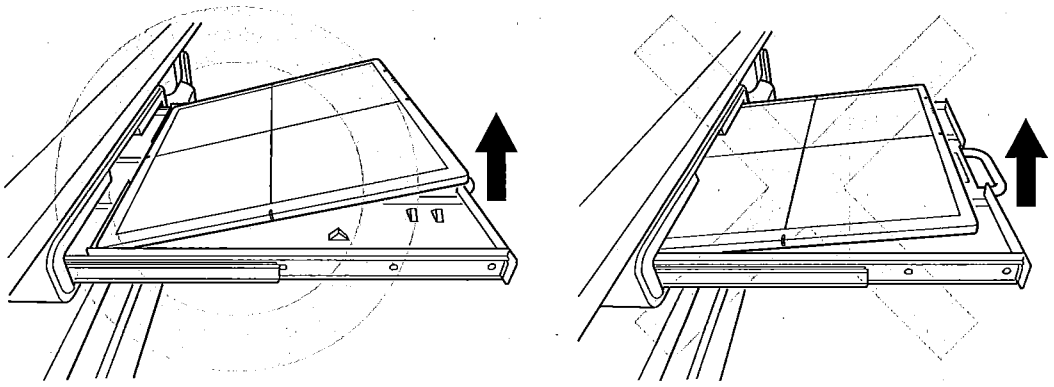
Be careful not to have your fingers caught when inserting/removing the flat panel sensor into/ from the radiographic examination stand.

⚠ CAUTIONS

When pulling out/pushing in the tray of the radiographic examination stand after setting the flat panel sensor on it, be careful not to drop the flat panel sensor or damage the tray.

⚠ CAUTIONS

Before inserting/removing the flat panel sensor into/from the radiographic examination stand, pull out the tray completely. Otherwise, the flat panel sensor may be damaged.



For the effective area of the flat panel sensor, see page A-7.

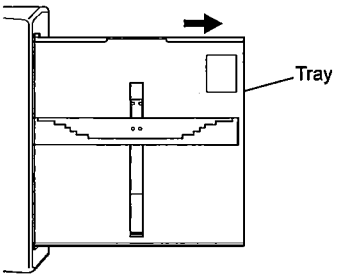
[1] Upright type

When inserting from the right-hand side

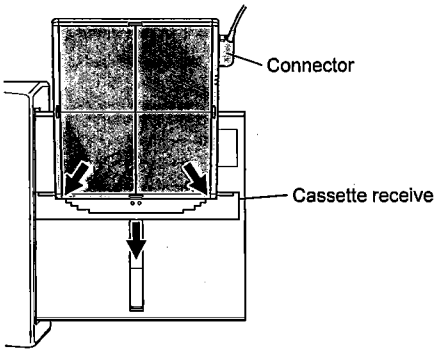
CAUTIONS

When inserting the flat panel sensor into the radiographic examination stand, direct the exposure plane toward the X-ray tube.

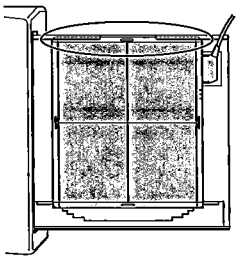
1 **Pull out the tray.**



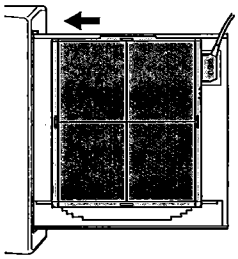
2 **Insert the flat panel sensor into the cassette receive while the connector directed to the upper right, and then move it downwards.**



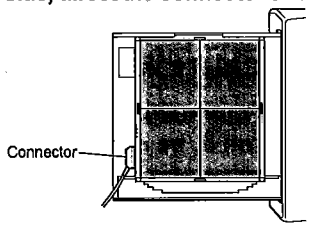
3 **Set the flat panel sensor to the upper part of the tray.**



4 **Push the tray back into place after setting the flat panel sensor.**



When inserting the flat panel sensor from the left-hand side, direct the connector to the lower left.



5 **Remove the flat panel sensor after use.**

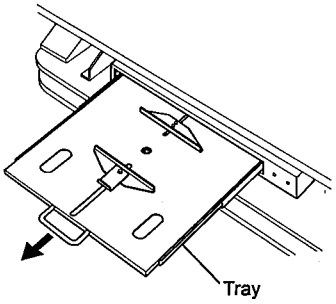
Pull out the tray, push the cassette receive downwards, and then remove the flat panel sensor. Push the tray back into place.

[2] Bed type

CAUTIONS

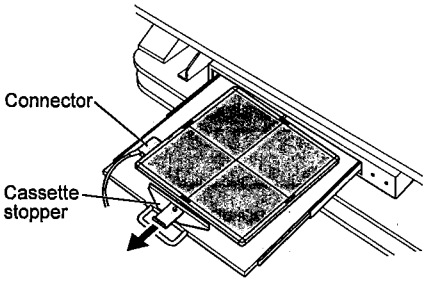
When inserting the flat panel sensor to the radiographic examination stand, direct the exposure plane upwards.

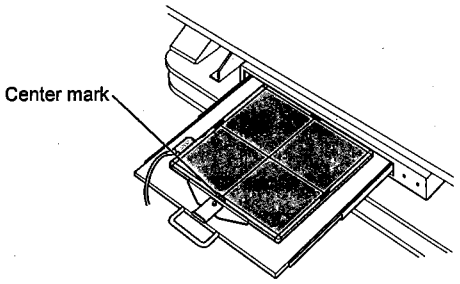
1 **Pull out the tray by using the handle.**



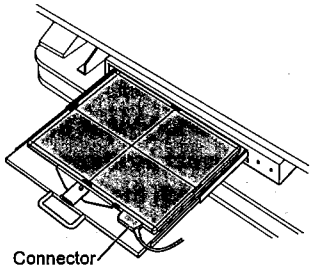
2 **Pull the cassette stopper, and set the flat panel sensor so that its center mark is aligned with the center of the stopper.**

Position the connector of the flat panel sensor as shown in the figure below.

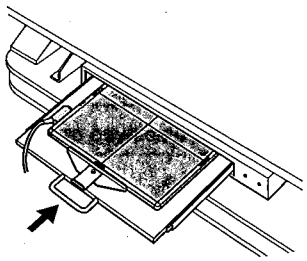




When setting the flat panel sensor horizontally, position the connector as shown in the figure below.



3 **Push the tray back into place by using the handle after setting the flat panel sensor.**

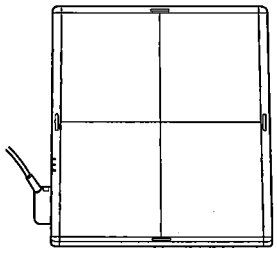


4 **Remove the flat panel sensor after use.**

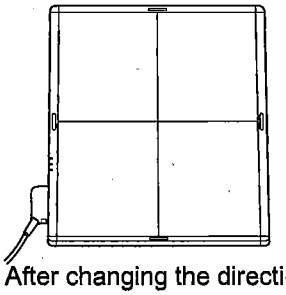
Hold the handle and pull out the tray. Remove the flat panel sensor while pulling the cassette stopper, and then push the tray back into place.

3.1.7 Changing the Direction of the Flat Panel Sensor Connector

The direction of the connector of the flat panel sensor can be changed, depending on how it is inserted into the radiographic examination stand.
To change the direction, contact a FUJIFILM dealer.



When shipped



After changing the direction

3.1.8 Charging the Battery Pack (Optional) for the Flat Panel Sensor (DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE)

When used in wireless communication mode, charge the battery pack (optional) using the battery charger (optional).

⚠ CAUTIONS

Do not charge the battery pack other than those designated by FUJIFILM Corporation. If the battery pack is charged under the charging conditions (voltage, current and charging method) different from those specified by FUJIFILM Corporation, the battery pack may emit smoke, ignite, explode or leak fluid.

⚠ CAUTIONS

When setting the battery pack into the battery charger, make sure that the orientation of the battery pack is correct as shown in the figure in Step 1. If the battery pack is forcibly set in the wrong orientation, both the battery pack and the battery charger may be damaged and emit smoke, ignite, leak fluid or cause electric shock.

When a new battery pack is fully charged, it is possible to perform exposures for a maximum of approximately 750 images for DR-ID 601SE, approximately 500 images for DR-ID 602SE/DR-ID 611SE/DR-ID 612SE and approximately 700 images for DR-ID 613SE. However, the number varies depending on the usage conditions.

The capacity of the battery is displayed on the POWER status lamp and in the image processing unit's display.

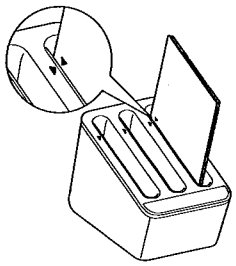
When the remaining capacity of the battery pack becomes less than 10 minutes, a pop-up window appears on the image processing unit, and exposures cannot be performed. If this happens, perform the following operations.
- Replace or charge the battery pack.
- Connect the connector to the flat panel sensor.

When the connector is connected to the flat panel sensor, exposures in wired communication mode and charging the battery pack can be performed.

Charge the battery pack using the battery charger.
In wireless communication mode, when the remaining capacity of the battery pack becomes insufficient, exposures are prohibited and the POWER status lamp blinks every one second. If the flat panel sensor is used in wireless communication mode for another 10 minutes or so, the battery pack is not charged even if the SE cable is connected. If this happens, remove the battery pack and charge it using the battery charger. When the battery pack is charged using the battery charger for about one minute, charging the battery pack by connecting the SE cable become available.

1 **Set the battery pack in the battery charger.**

When the battery pack is set, a buzzer sound is generated and the charge status indicator LED lights.
Three battery packs can be charged at the same time.



2 **When battery charge is completed, remove the battery pack.**

When battery charge is completed, the charge status indicator LED changes from blinking to lighting.

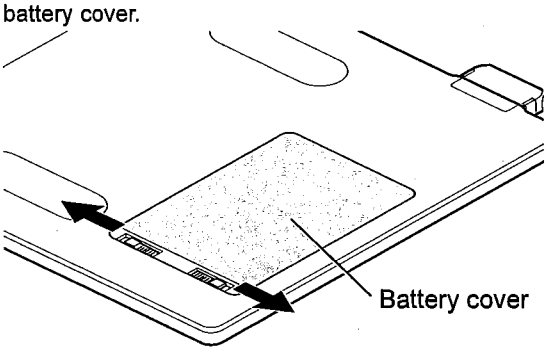
3.1.9 Installing/Removing the Battery Pack (Optional) for the Flat Panel Sensor (DR-ID 601SE, DR-ID 602SE, DR-ID 611SE, DR-ID 612SE and DR-ID 613SE)

Follow the procedure below to install/remove the battery pack (optional) for the flat panel sensor.

When installing/removing the battery pack, place the flat panel sensor on a flat place.

1 **Remove the battery cover.**

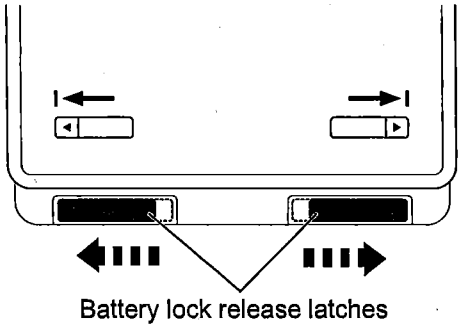
Place the flat panel sensor with the back side facing upward, and then simultaneously slide both the battery lock release latches outward to remove the battery cover.



2 **Install the battery pack.**

Make sure that the battery lock release latches are released.

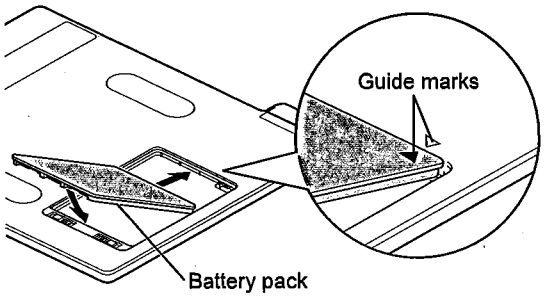
When the battery lock release latches are released



Slide the battery pack along the dent of the battery section of the flat panel sensor toward the connector terminal. Align the guide mark of the battery pack with that of the flat panel sensor, and push the battery pack in to install it.
Make sure that battery pack is securely installed.

Pushing the battery pack in with the guide marks misaligned may damage the connector terminal.

When the battery pack is installed, the power is automatically turned on.



- To remove the battery pack, perform the same procedure as Step **1** (removing the battery cover).
- To install the battery cover, perform the same procedure as Step **2** (installing the battery pack).