

Power Box

DR-ID 1200PB

Operation Manual

2nd Edition : April 2016

For Safe Operation

**System
Configuration
(Product Overview)**

Basic Operation

**Daily Inspection and
Maintenance**

Appendix

**Maintenance and
Inspection**

Introduction

The power box DR-ID 1200PB is a device which supplies power to the flat panel sensor and connects between the flat panel sensor, image processing unit and control cabinet.

The power box DR-ID 1200PB is an optional item of DR-ID 1200.

This Operation Manual includes descriptions of matters necessary when using the DR-ID 1200PB, such as the equipment overview, operation procedures and precautions to observe, as well as daily inspections and maintenance.

Accompanying documents were originally drafted in the English language.

Installation may only be conducted by authorized service personal.



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This system is classified as a medical device under EC Directive 93/42/EEC.

Process waste correctly, as stipulated by local law or any regulations that apply.

Caution : Rx Only in the United States (Federal law restricts this device to sale by or on the order of a physician.)

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Maintenance and Inspection

Chapter 1 For Safe Operation

1.1 Safety

Before using the DR-ID 1200PB, read this section thoroughly to ensure that you use the product properly.

Electric Shock Warnings and Cautions



WARNING

The power supply to this device is AC100 to 240V.

To avoid electric shocks, users should always take the following precautions:

- Do not open any covers when it is not necessary.
- Install the equipment in a location where it will not be exposed to water.
- Check that the equipment is securely earthed.
- Check that all of the cables are completely and securely connected.



WARNING

Do not touch the patient's body while touching the control cabinet and the image processing unit. Otherwise, the patient may receive an electric shock.



WARNING

Do not use a multiple tap connector or extension cable for powering the devices constituting the system. Otherwise, fire or electric shock may occur due to the electrical load exceeding the allowable limit.



WARNING

Observe the following precautions when using the cables.

- Do not touch the plug and connector with wet hands. Otherwise, electric shock may result, causing death or severe injury.
- Hold the plug or connector when removing the cable.
Pulling the cable or carrying by holding it may damage the cable, causing fire or electric shock.
- Do not damage or remodel the cable.
Do not place a heavy object on the cable or lay it under the flat panel sensor. Do not step on, pull, forcibly bend, or bundle the cable. Otherwise, fire or electric shock may result.
- Do not use the flat panel sensor for the radiographic examination stand if its cable becomes overloaded. Otherwise, the cable may be damaged, causing fire or electric shock.



WARNING

Do not turn on the system with dew condensation on the flat panel sensor. Otherwise, fire or electric shock may result.



WARNING

Do not use the equipment in a location where metal particles could come into the equipment. This may cause an electric shock.



WARNING

Do not disassemble or remodel the equipment. Otherwise, fire or electric shock may result. Keep away from the parts inside the product, which may cause electric shock. If you touch them accidentally, death or severe injury may result.



WARNING

Do not hit or drop the equipment or subject it to severe shock. Otherwise, the equipment may be damaged. If the damaged equipment is used, fire or electric shock may result.



WARNING

Make sure to use the optional parts recommended by us. Failure to use the optional parts recommended by us may result in damage to the equipment and/or electric shock and injury.



CAUTIONS

As the cables of the equipment are long, be careful not to entangle the cables during use. Also, be careful not to trip over the cables. Falls could result in injury.



CAUTIONS

Follow the specified procedure when turning off the equipment. Otherwise, the flat panel sensor could be damaged by thermal shock.



CAUTIONS

Do not store magnetic media near the DR system and control cabinet. Otherwise, magnetism generated by the equipment may cause the data to be lost.



CAUTIONS

Keep the equipment away from patient's body fluids, chemicals, water, etc. Otherwise, it may become damaged, causing fire or electric shock.

Explosion Warnings



WARNING

Because this equipment is not explosion-proof, do not use combustible and explosive gases near the equipment.



WARNING

Flammable gasses may stay in the room after disinfection. If you turn the system on just after disinfection, ensure that the room is well ventilated before powering on the system.

Warnings for Abnormalities



WARNING

If any of the following occurs, immediately turn off the power of each unit, unplug the power cable from the outlet, and then contact our official dealer or FUJIFILM Representative.

- When smoke, strange odor, or abnormal sound is present.
- When a foreign object (such as a metal object) or liquid enters the product.
- When the equipment is dropped or hit and is damaged.

Avertissements relatifs aux anomalies



AVERTISSEMENT

Si l'une des conditions répertoriées ci-après se produit, mettez immédiatement chaque unité hors tension, débranchez le cordon d'alimentation de la prise secteur, puis contactez notre revendeur agréé ou notre représentant FUJIFILM.

- En cas de présence de fumée, d'une odeur étrange ou d'un bruit anormal.
- En cas de pénétration d'un corps étranger (comme un objet métallique) ou d'un liquide dans le produit.
- En cas d'endommagement de l'équipement suite à une chute ou à un impact.

Installation Precautions



CAUTIONS

Do not install the equipment in a location with the following conditions.

- Where the temperature changes sharply.
- Close to heat sources such as a heater.
- Where the equipment may be exposed to water due to water leakage or ingress.
- Where corrosive gas may be generated.
- Where there is excessive dust.
- Where the equipment is subject to frequent or excessive vibration/shock.
- Where the equipment is exposed to direct sunlight.
- Where there is no ventilator.



CAUTIONS

Do not install the power box in a place where it may be stepped on or kicked inadvertently.



CAUTIONS

Do not install the device in a high place. If the cable is pulled, the device may fall down, leading to damage to the device or personal injury.



CAUTIONS

For veterinary or mobile applications, contact our official dealer or FUJIFILM Representative.



CAUTIONS/ATTENTION

Do not place any object in a place where removal of the power cable is prevented.

Ne placez aucun objet à un emplacement gênant le débranchement du câble d'alimentation.



CAUTIONS

To ensure optimal image quality, it is recommended that you do not use the flat panel sensor near devices (motor, transformer, switching supply, etc.) that generate electromagnetic noise.

Connection Instructions



WARNING

Make sure that the devices to be connected to the equipment are authorized for connection.

Precautions on External Network Connection



CAUTIONS

When a setting of the network to which the equipment is connected has been changed, check that the change does not affect the system operation and take measures if necessary. The setting change may include the following:

- Change of connection destination
- Addition of devices
- Removal of devices
- Update of devices
- Upgrade of devices

Warnings and Cautions on Network



WARNING

Make sure to use the optional parts and networks recommended by us. Failure to use the optional parts and networks recommended by us may result in damage to the equipment and/or electric shock and injury.



CAUTIONS

Connect to the Ethernet Network of 100BASE-TX or 10BASE-T prescribed in the IEEE standard 802.3. Do not connect telephone lines to LAN connector. Only UTP-type straight LAN cables of 4-pair Category 5 cable (CAT 5E) or higher are appropriate for connection to this connector.



CAUTIONS

After connecting this system to the network with other systems, confirm that the other systems are not affected. If they are affected, take countermeasures such as network separation.



CAUTIONS

If the length of the network cable to be used is 2m or more, be sure to use a HUB.

System Isolation Instructions



WARNING

To ensure complete system isolation, never install any unauthorized items.

When it is necessary to install authorized optional items, contact our official dealer or FUJIFILM Representative.



WARNING

Keep the products other than those used for patients out of their reach to ensure appropriate system isolation.

For details on the products that can be installed in the patient environment, see “2.1.1 System Configuration”.



WARNING

In normal use, have a patient take a proper positioning for exposure. The operator should operate the system in a place where safety from radiation is ensured. The operator should also make sure before exposure that no one but the patient is in the exposure area and the operating area of the system.

Disinfection Instructions



WARNING

Confirm that the respiratory density of disinfectant including solvent is under legal regulation. Certain disinfectants may damage health. When using a disinfectant, follow instructions supplied by the manufacturers.



WARNING

Do not use the following disinfectants or sterilizers at the time of disinfection. Quality, performance and safety of the equipment cannot be assured.

- Chloric disinfectant which is strongly corrosive to metals and rubber parts.
- Disinfectant whose uses on metals, plastics, and coating are forbidden according to the instructions supplied with the disinfectant.
- Formalin gas and disinfectant sprays that may get inside the equipment.
- Ultraviolet sterilizers

Disinfectant ethanol is recommended for disinfection. Carefully read the instructions and cautions supplied with the disinfectant before use.

For details on the disinfectant, contact a FUJIFILM dealer or the service representatives at the agency from which you purchased the disinfectant.

Other Warnings and Cautions



WARNING

No modification of this equipment is allowed.



CAUTIONS

Install the system in accordance with what is provided by IEC 60601-1:2005 + A1:2012 Chapter 16. Contact our official dealer or FUJIFILM Representative for installation (except the flat panel sensor) of the system.



CAUTIONS

Do not hit or drop the equipment. Otherwise, injury or damage to images, etc. may result.



CAUTIONS

Be sure to inspect the system periodically.

To assure optimum performance of the equipment, it is necessary to systematically perform maintenance and inspection. For information on maintenance and inspection, contact our official dealer or FUJIFILM Representative.



CAUTIONS

Do not perform maintenance and inspection while the equipment is used for a patient.



CAUTIONS

The institution where the equipment is installed is responsible for its use and maintenance. In addition, this equipment should not be used by persons other than doctors or suitably trained staff.

Contraindications and Prohibitions

No contraindications present.

Classification

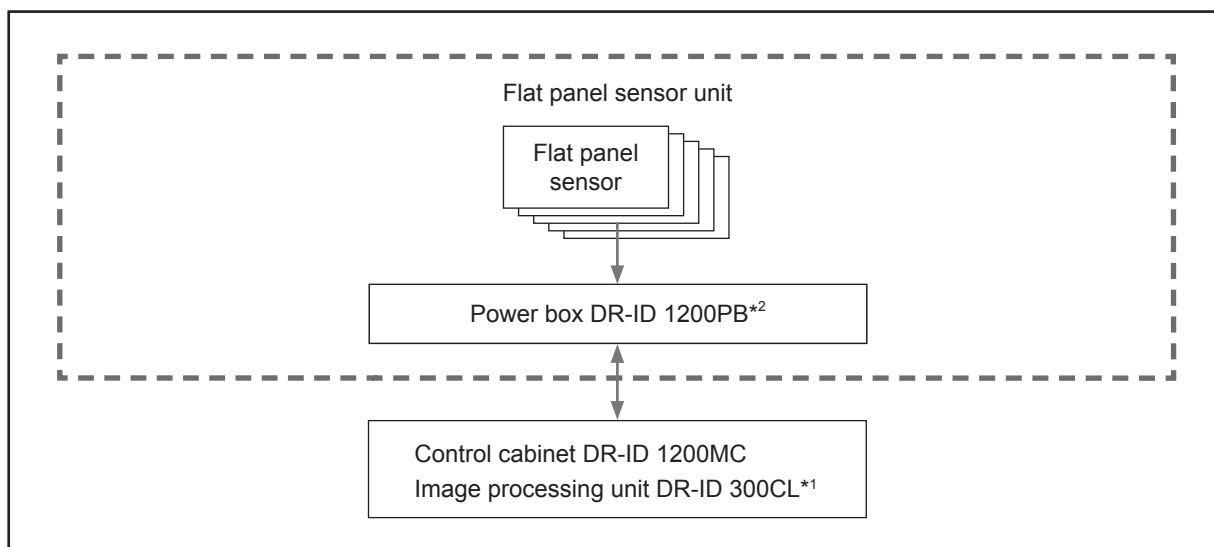
- According to the type of protection against electrical shock
Class 1 equipment
- According to the degree of protection against electrical shock
No applied part
- According to the degree of protection against harmful ingress of water
IP00
- According to the degree of safety of application in the presence of a flammable anesthetics mixture with air or with oxygen or nitrous oxide.
Equipment not suitable for use in the presence of a flammable anesthetics mixture with air or with oxygen or nitrous oxide.
- According to the mode of operation
CONTINUOUS OPERATION


Chapter 2 System Configuration (Product Overview)

2.1 DR-ID 1200PB

2.1.1 System Configuration

DIGITAL RADIOGRAPHY DR-ID 1200



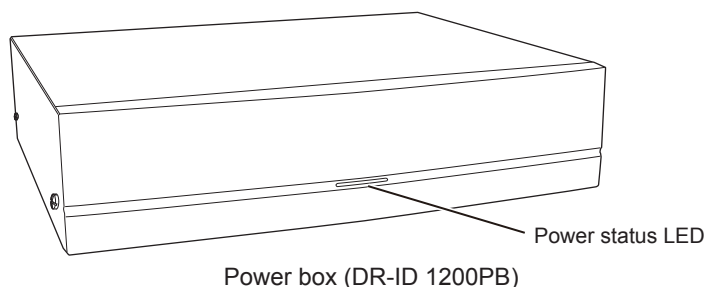
- The products in  can be installed in patient environment.
- Only one flat panel sensor can be connected to one power box in wired communication mode. Up to three power boxes can be used for one system.

*1 For detail specification of image processing unit, please refer to "DR-ID 300CL Operation Manual".

*2 The length of the network cable to be used between the DR-ID 1200PB and the DR-ID 1200MC is 2 meters. When the distance between the DR-ID 1200PB and the DR-ID 1200MC is 2 meters or longer, install a commercially available HUB.

2.2 Unit Names and the Functions

Unit names and the functions of the DR-ID 1200PB are described below.

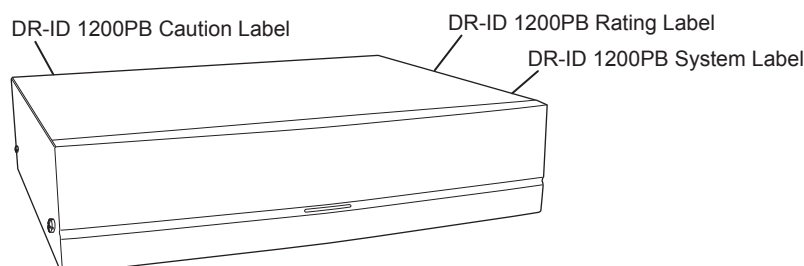


Be sure to connect the LAN cable (2m) supplied with this product to the power box. If a longer cable is required, connect the other end of the LAN cable supplied with this product to a HUB, and connect an additional LAN cable via the HUB.

2.3 Locations of Labels and Signs

Locations of labels and signs affixed to the DR-ID 1200PB, and the relevant safety signs are shown below.

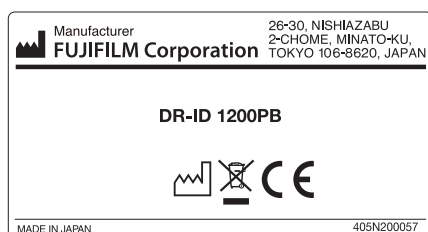
2.3.1 Locations of Labels



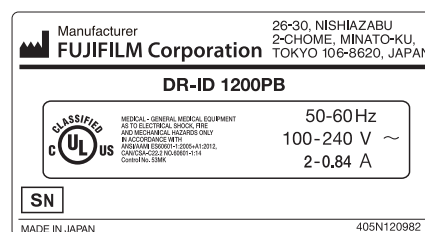
For the types of connectable cables, consult our official dealer or FUJIFILM Representative



Pour en savoir plus sur les types de câbles connectables, contactez notre revendeur agréé ou notre représentant FUJIFILM.



DR-ID 1200PB System Label









DR-ID 1200PB Rating Label



DR-ID 1200PB Caution Label







2.3.2 Safety and Other Symbols

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

Symbol	Description
	CE marking
	Protective earth (ground)
	Alternating current
	<p>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.</p> <p>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.</p> <p>At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources.</p> <p>For more information about waste, please contact our official dealer or FUJIFILM Representative.</p>
	Year of manufacture
	Refer to Instruction Manual/Booklet

2.3.3 Symboles de sécurité et autres

Les symboles de sécurité suivants sont utilisés sur les étiquettes ou sur le corps de l'équipement.

Symbole	Description
	Marquage CE
	Protection via mise à la terre (masse)
	Courant alternatif
	<p>Ce symbole indique que ce produit ne doit pas être mis au rebut avec les déchets ménagers, conformément à la directive DEEE (2002/96/CE) et à la législation nationale en vigueur. Ce produit doit être remis à un centre de collecte approprié.</p> <p>Une manipulation incorrecte de ce type de déchet peut avoir un impact négatif sur l'environnement et sur la santé humaine, en raison des substances potentiellement dangereuses généralement associées aux EEE.</p> <p>Votre coopération pour la mise au rebut correcte de ce produit contribuera en outre à une utilisation efficace des ressources naturelles.</p> <p>Pour en savoir plus sur les déchets, contactez notre revendeur agréé ou notre représentant FUJIFILM.</p>
	Année de fabrication
	Consultez le mode d'emploi

Chapter 3 Basic Operation

3.1 Preparing the Flat Panel Sensor

This section describes how to prepare the flat panel sensor.

3.1.1 Number of the Connectable Flat Panel Sensors

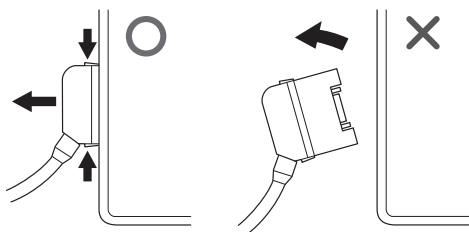
Only one flat panel sensor can be connected to one power box in wired communication mode. Up to three power boxes can be used for one system.

The types of connectable flat panel sensors are DR-ID 1201SE, DR-ID 1202SE, DR-ID 1211SE, DR-ID 1212SE and DR-ID 1213SE.

3.1.2 Connecting/Disconnecting the Flat Panel Sensor Connector

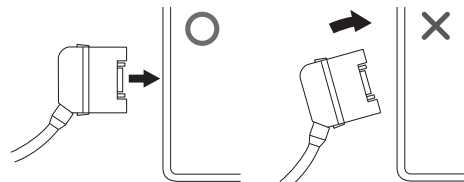
1 Disconnect the connector.

Press the latches on both sides of the connector.



2 Connect the connector.

Press the connector into the insertion section.



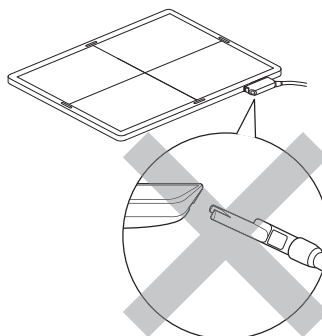
Make sure that the latches on both sides are properly engaged when connecting the connector. If the connector is inserted incompletely, the power may turn off.



When multiple flat panel sensors are used, make sure that the READY lamp among the status lamps of the flat panel sensor to be used for an exposure is lit.



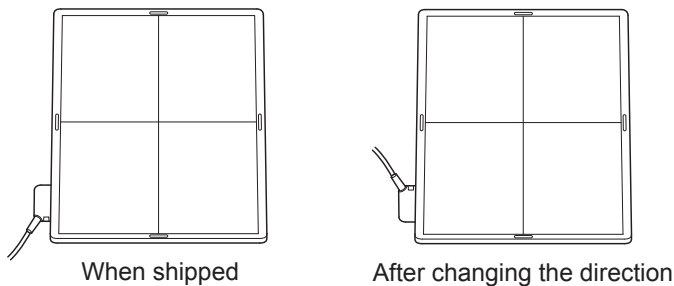
Connect/Disconnect the connector straight to the flat panel sensor. If connected/disconnected at an angle, the connector may be damaged.



Before connecting the connector to the flat panel sensor, make sure that the power box is turned on. If the connector is connected to the flat panel sensor with the power box turned off, the flat panel sensor turns off.



3.1.3 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 our official dealer or FUJIFILM Representative.



3.1.4 Checking the Connection between the Flat Panel Sensor and the Connector

After connecting the connector of the SE cable to the flat pane sensor, check the power ON/OFF state and communication state with the status LEDs on flat panel sensor.

POWER  (Blue) (The power on/off state of the flat panel sensor is displayed.)	On	Power ON
	Off	Power OFF
LINK  /Tilt (White)	On	Connected
	Off	Communication not possible.

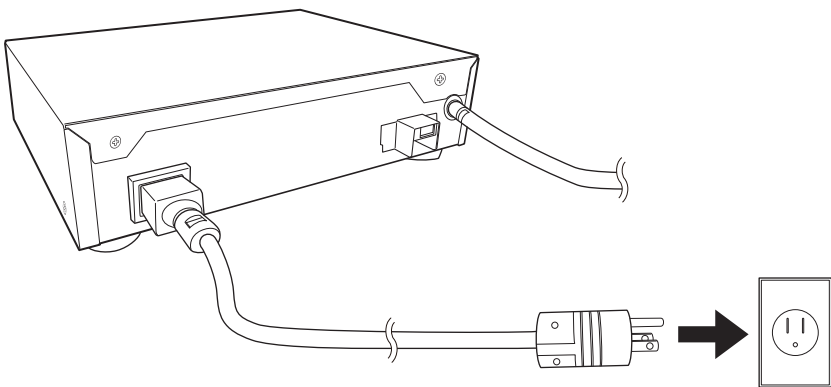
3.2 Starting Up and Shutting Down the DR-ID 1200PB

This section explains how to start up and shut down the DR-ID 1200PB.

3.2.1 Starting Up the DR-ID 1200PB

1 Insert the power cable of the power box into an outlet.

Make sure that the power status LED is lit in blue.



Start up the flat panel sensor with the initial settings properly made by our official dealer or FUJIFILM Representative.

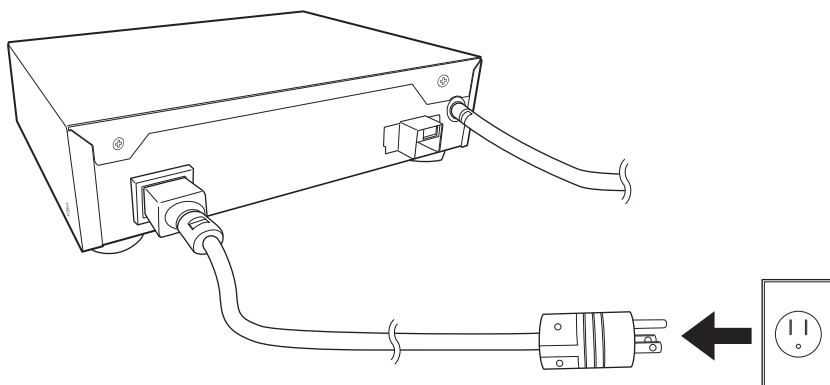
3.2.2 Performing an Exposure

- 1 When performing an exposure, make sure that the READY status lamp on the flat panel sensor is lit.

3.2.3 Shutting Down the DR-ID 1200PB

- 1 Disconnect the SE connector from the flat panel sensor, and then disconnect the power cable of the power box from the outlet.

Make sure that the power status LED is off.



The LED turns off a few seconds after the power cable is disconnected.

Chapter 4 Daily Inspection and Maintenance

4.1 Daily User Inspection and Maintenance

During maintenance and inspection, strictly observe precautions contained in “Chapter 1 For Safe Operation” in this manual for you to use the DR-ID 1200PB under best conditions.

4.1.1 Periodical Inspection

Inspection Every Three Months

Once every three months, remove any dirt or dust accumulated in each part of the equipment using a vacuum cleaner or air duster, clean each part with a slightly moistened soft cloth and then wipe off any moisture with a dry cloth.

● See “2.2 Unit Names and the Functions” (page 2-2).



CAUTIONS

Be sure to turn off the power before cleaning each part of the device.

No.	Unit
1	Power box



CAUTIONS

Ensure sufficient space when cleaning the equipment on a table, etc.

4

Daily Inspection and Maintenance

Appendix A Specifications

A.1 Specifications

Specifications of the DR-ID 1200PB are shown below.

A.1.1 Power Supply Conditions

Rated voltage : 100-240V~
Input current : 2-0.84A
Frequency : 50-60Hz

A.1.2 Environmental Conditions

(1) Operating Conditions

Temperature : 15°C (15%RH) - 30°C (80%RH)
Humidity : 15%RH (15°C) - 80%RH (30°C) (no dew condensation)
Atmospheric pressure : 700hPa - 1060hPa

(2) Non-operating Conditions

(Environmental conditions under which power can be supplied)

Temperature : 5°C - 35°C
Humidity : 10%RH - 80%RH (no dew condensation)
Atmospheric pressure : 700hPa - 1060hPa

(3) Storage Conditions

Temperature : -30°C - 50°C
Humidity : 10%RH - 90%RH (no dew condensation)
Atmospheric pressure : 700hPa - 1060hPa



CAUTIONS

When the flat panel sensor is used in high temperature condition for long period of time, it may cause image artifacts and/or failure of the device.

A.2 External View and Weight

The external view and weight of the DR-ID 1200PB are shown below.



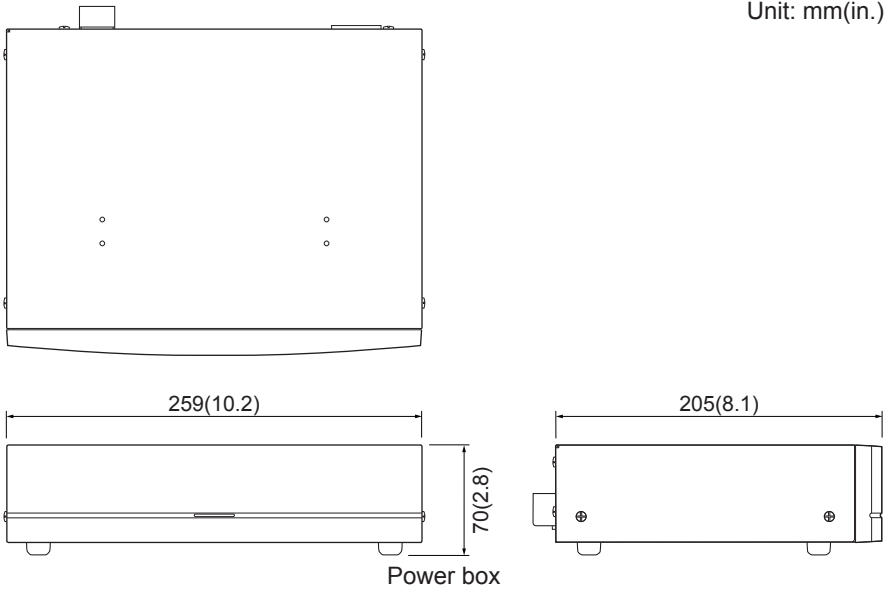
Specifications, dimensions and weight are subject to change for improvement without prior notice.

A.2.1 DR-ID 1200PB

	Width (mm(in.))	Depth (mm(in.))	Height (mm(in.))	Weight (kg(lb))
Power box	259(10.2)	205(8.1)*2	70(2.8)	3.2(7.1)*1,*3

- *1 The weight of the SE cable is included.
- *2 Protrusions are excluded.
- *3 The weight tolerance is ±10%.

Unit: mm(in.)



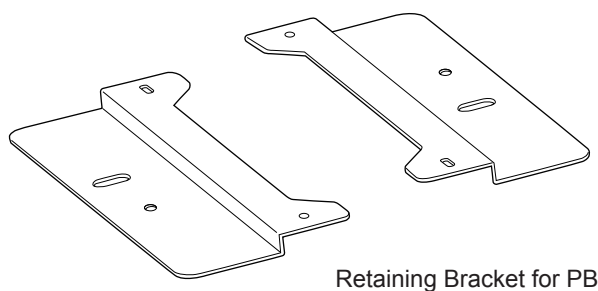
Appendix O Use of Optional Items

O.1 Optional Items

Name	Description
Retaining bracket for PB	A fixture used for securing the power box to the floor when this product is used in an examination car. ➤ For the external view, see “O.1.1 Retaining Bracket for PB” (page O-1).

O.1.1 Retaining bracket for PB

The retaining bracket for PB is an optional item.
This item is required when securing the power box to the floor of the examination car.



FUJIFILM Corporation
Model: 898Y200024

Retaining Bracket for PB
Identification Label



Contact a FUJIFILM dealer for installation of the Retaining bracket for PB.

Maintenance and Inspection

1 Maintenance and Inspection Items Assigned to Specified Dealer

For periodical inspection of the equipment and necessary arrangements, consult our official dealer or local representative.

FUJIFILM



Manufacturer :

FUJIFILM Corporation

26-30, NISHIAZABU 2-CHOME, MINATO-KU, TOKYO 106-8620, JAPAN



European Authorized Representative:

FUJIFILM Europe GmbH

Heesenstrasse 31, 40549 Duesseldorf, Germany

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