

# FireCR

## Maintenance Guide

### *Universal Cassette*

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Part No. : CR-FPM-03-001EN

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**DIGIRAY**

## Contact

The logo for DIGIRAY, featuring the word "DIGIRAY" in a bold, sans-serif font. The letter "Y" is stylized with a red diagonal line above it.

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## Warnings and Used Symbols

To ensure the safety of patients, staff and other persons, any changes to software and hardware delivered by **Digiray Corp.** may only be made with prior written permission from **Digiray Corp.**

Please read the respective manuals of the connected software, such as acquisition and diagnostic software, before starting to use the system.

The following symbols will be used throughout this manual:



### **DANGER**

General prohibition indication.

The functionality of the system can be destroyed in the case of incorrect use.

If unauthorized changes have been made to delivered system and accessories, the warranty by **Digiray Corp.** becomes void.

**Digiray Corp.** will not accept any responsibility or liability for the proper functioning of the product in such a case.



### **DANGER**

General mandatory action manual.

The functionality of the system can be destroyed in the case of incorrect use.

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**Digiray Corp.** will not accept any responsibility or liability for the improper functioning of the product in such a case.



### **WARNING**

The functionality of the system can be limited in the case of incorrect use. Hints that require special attention.



### **NOTE**

Notes represent information that is important to know but which do not affect the functionality of the system.

## **General Safety Guidelines**

All the safety and operating instructions should be read carefully before this device is operated.

This device has been designed and tested to meet strict safety requirements applicable to medical equipment, and has been supplied in a safe condition. To ensure personnel and patient safety, the device shall be operated and serviced in compliance with all procedures, warnings and precautions during all phases of operation and service of this device. Failure to comply to with safety guidelines may result in injury to service personnel, operator, or patient. **Digiray Corp.** assumes no liability for failure to comply.

If this device is not used as specified, the protection provided by the device could be impaired. This device must be used in a normal condition only.

Installation, service and operation of this device should only be undertaken by qualified trained personnel. The operator should study instructions and precautions carefully before starting to use the device listed here and throughout the manual.

There are no user serviceable parts inside this device. The device should only be opened and serviced by qualified service personnel. Failure to heed this warning may result in injury to service personnel or damage to equipment, and void any and all warranties. If there is a service problem, please contact **Digiray Corp.** or authorized dealer.

Do not spill liquids on the device, and never operate the device in a wet environment.

Keep the device from radiators and heat sources.

Use the device only with accessories supplied with this device.

This device is intended to be grounded. Plug power cord into properly grounded electrical outlets. This cord is equipped with three-prong plugs to help ensure proper grounding.

This device contains static sensitive components. Proper static handling procedures and equipment must be used when servicing this device.

Do not look inside of the device.

If any of the following conditions occur, unplug the device from the electrical outlet and contact authorized service personnel.

- ✓ The power cord or power adapter is damaged.
- ✓ An object has fallen into the device.
- ✓ The device has been exposed to water.
- ✓ The device has been dropped or damaged.
- ✓ The device does not operate correctly when the operating instructions are followed.

## 1. Universal Cassette Type

There are 2 types of cassettes, and each size cassette supports following size imaging plates.

- ✓ Universal Cassette 35cm x 43cm (14" x 17") : Imaging plate size 35cm x 43cm
- ✓ Universal Cassette 24cm x 30cm (10" x 12") : Imaging plate size 24cm x 30cm

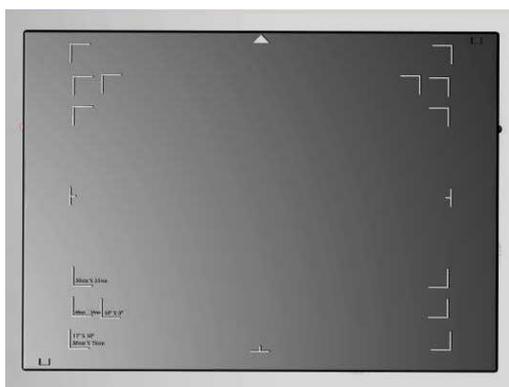
Cassette contains the imaging plate glued on a moving plate.



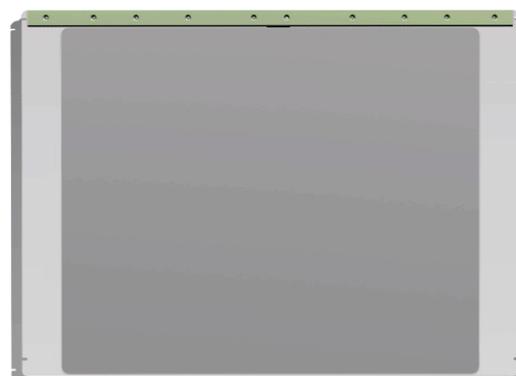
Universal Cassette 35cm x 43cm



Imaging Plate 35cm x 43cm with Moving Plate



Universal Cassette 24cm x 30cm



Imaging Plate 24cm x 30cm with Moving Plate

## 2. Imaging Plate Cleaning

- ✓ Protect your investment

Dust and dirt build up on CR imaging plate, leading to image artifacts. To avoid contamination, plates need cleaning at regular intervals.



### **WARNING**

As CR imaging plates are highly sensitive to water based cleaning fluids, we strongly recommend an ethanol-based plate cleaner.

If possible, use a cleaner that is specially designed for CR imaging plates. This will help ensure longest possible service life.

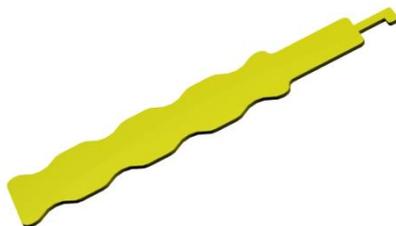
### 2.1. Service Life

Imaging plates in the following condition cannot be used.

- ✓ Scratches on the surface of the protective layer and they appear on the image.
- ✓ The phosphor layer has peeled away from the support layer.

### 2.2. Imaging Plate Cleaning Tools

- ✓ Moving plate extracting tool

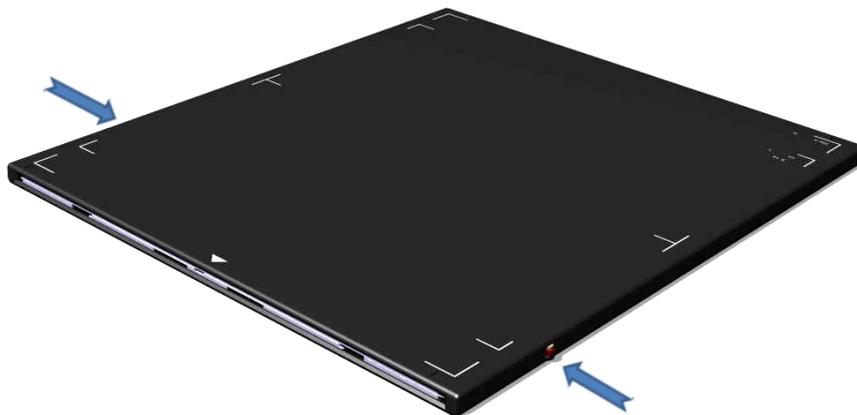


- ✓ Imaging plate cleaner  
Use ethanol based cleaner : ethanol > 99.5%
- ✓ Soft lint free dry cotton (nonabrasive cloth)

## 2.3. Imaging Plate Cleaning Process

### 2.3.1. Moving Plate Pull Out

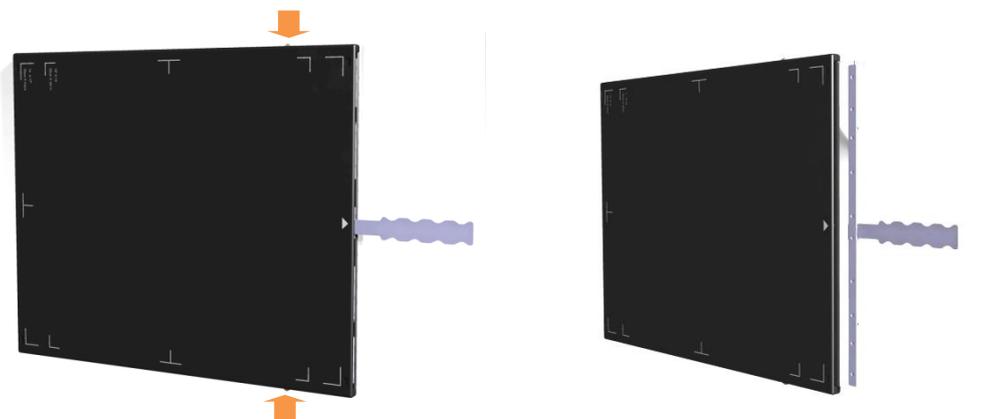
Pull out the moving plate from the cassette using extractor.



There are 2 push buttons on each side of cassette for unlocking the moving plate.



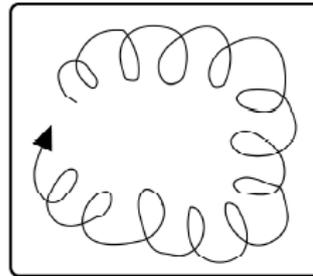
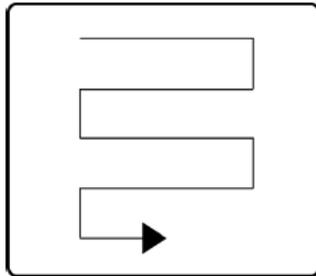
Stand the cassette on the side and press push button. Make sure both of buttons keep pressed.



Hook and pull the moving plate out.

### 2.3.2. Cleaning Process

- ✓ Using the dry cleaning cloths listed previously, clean the imaging plate surface as illustrated below.



- ✓ Use ethanol dampened cleaning cloths to clean stains that do not come off with the above method.
- ✓ When the imaging plate surface has been cleaned using ethanol dampened cloth, slightly wipe it off with the listed dry cloths.



**WARNING**

Do not pour ethanol directly on to the imaging plate.  
Make sure the imaging plate surface is completely dry before using the imaging plate.



**WARNING**

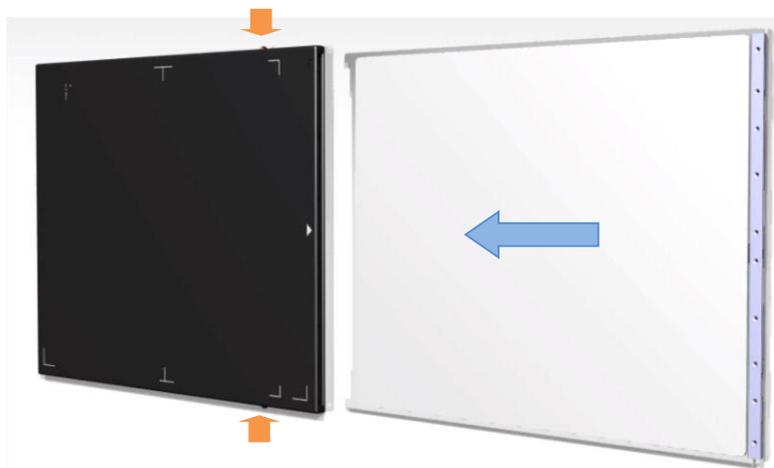
Be sure not to damage the imaging plate.  
Do not scratch the imaging plate with your fingernails.  
Never use erasures or any other solvents.  
Never use hand lotions or sunblock cosmetics prior to handling the imaging plate.  
Do not bend or crack the imaging plate during use or cleaning.  
Do not stack other objects on the image plate.  
Do not let the imaging plate stand under direct rays (ultraviolet rays).



**WARNING**

Imaging plates must be discarded according to laws and regulations applicable in each country.

### 2.3.3. Insert Moving Plate



- ✓ Stand the cassette on the side and press push button. Make sure both of buttons keep pressed firmly.
- ✓ Insert moving plate into the cassette



**WARNING**

Make sure both of buttons keep pressed firmly.



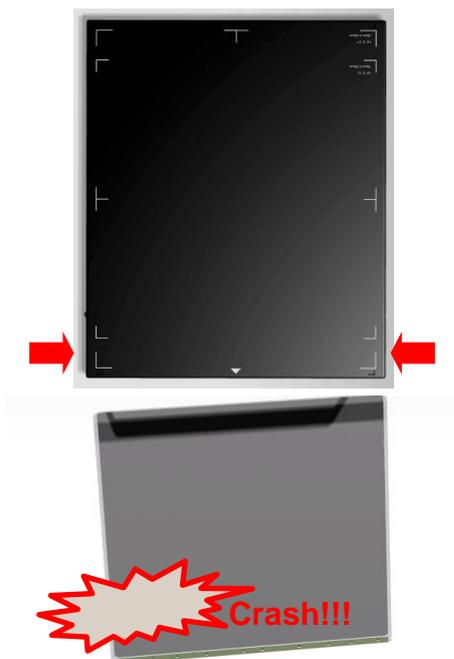
**WARNING**

Do not position the imaging plate upside down when it is inserted.  
Do not insert moving plate in wrong direction.



**DANGER**

Never press push buttons of the cassette with upside down position. A crash will cause damage of the imaging plate and moving plate which can affect X-ray image quality.



Always carry the cassette with the slot side up.

