AGFA HealthCare
Imaging Services

DX-D 100
DX-D 100 Wireless

Type 5410   SB No. 37
Type 5411   SB No. 34

DD+DIS184.13E

Service Bulletin

Revised Information:
Release of DX-D 100 / DX-D 100 Wireless
System Version 4.3.10

Task

Timing	Category		Scope
Next service as agreed with customer	○	**Apply at all sites**	**PowerHelp complaint / HQ issue:** **HQ_1204190001, HQ_1301080016, PR1307120003, PR1308090005, PR1306140002, FR1302280012, PR1401240005**
	○	**Apply at affected sites as listed below**	
	⊙	**Optional to improve functionality of product**	

Task Tracking

After completion of your task the following entry in your Service Report is required:	**DD+DIS184.13E**	*

* Insert the document number into the field "Comment" (SMS form).

Purpose of this document:

- This document announces version 4.3.10 of the DX-D 100/100 Wireless system.
- It lists the solutions and corrective action for the mentioned HQ, PR and FR cases.
- It lists the components and spare parts which have been introduced with DX-D 100/100 Wireless system version 4.3.10.

The signatures on the approval page indicate the solutions described in this Service Bulletin have been reviewed and are NOT reportable because no actions are taken to reduce a "Risk to Health" according to our risk assessment process.

1 Introduction/Purpose

This document contains specific information about system version 4.3.10 of the DX-D 100/100 Wireless.

Symptom   The following HQ issues / Problem Records (PR) occurred with the previous version of the DX-D 100/100 Wireless.

Case Number	Description
HQ_1204190001	Electrostatic discharge while moving DX-D 100 around. Solution 1: Solved in production. Arrestor kit for retrofitting is available. Solution 2: Electrostatic wheels are available as option.
HQ_1301080016	Remote control holder is breaking. Solved in production by installing an improved holder. The holder is available as spare part.
PR1307120003	Power cord reel problems. Solved in production. Different plugs have been integrated in the cord reel. Service kits for retrofitting are available.
PR1308090005	Protection cap for handle bar screws comes off. Solved in production by using improved caps. A Handle Bar Caps Kit for retrofitting is available.
PR1401240005	While charging the motor battery the battery charger boards might be damaged due to a short circuit (potentially with smoke). Solved in production by introducing redesigned battery charger boards (Revision E). See Section 3.5 for identification of the boards if needed.
FR1302280012	Paint coming off the wheels. Solved in production by installing stainless steel hubs at the wheels. A service kit for retrofitting is available.

Solution   The HQ issues / Problem Records (PR) listed above have been solved with the release of DX-D 100/100 Wireless system version 4.3.10.

✓ **NOTE:**
For retrofitting devices refer to section 2 and section 3.

Symptom   When Source Image Distance (SID) is short and collimator rotated by approx. 45° the light
PR13061400 field does not match up with X-ray field. Part of Field of View (FOV) is not exposed (see
02   Figure 1).
             The issue appears when the user wants to use SID smaller than 100 cm.
             The reason is the angle of the anode (12°).

The blue circle indicates the area
that is cut off

Collimator drawing

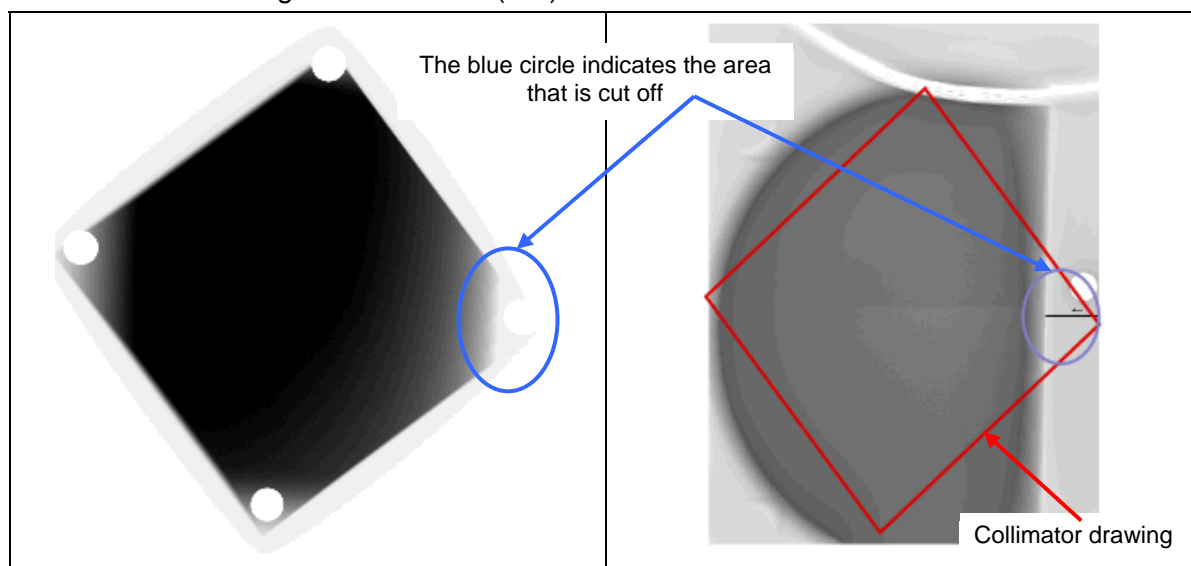| Figure 1 | Figure 2: Picture taken with collimator removed and |
| | tube output window completely free |
| | (lead focal removed) |

Cause   This is due to the limitations, specifications and performances of the X-ray tube.

Solution   It is not possible to solve the issue when using the same tube with SID 100 cm.
             Advice the user to use an SID higher than 100 cm.

1.1   Announcement of DX-D 100/100 Wireless System Version 4.3.10

With the release of DX-D 100/100 Wireless system version 4.3.10, the following components of the system have been changed ex factory (compared to previous version):

- Electrostatic wheels are available as option. Refer to section 2.

- New and improved parts are introduced. Spare parts are available for retrofitting. Refer to section 2.

- The EPROM 24C16 installed in HT controller PCB (Generators) and Tomo table control PCB (Millennium table) has become obsolete and is replaced by a small PCB. The existing installed base of devices does not need to be updated.

- X-Ray charger boards and Motor charger boards have been improved. Revision changed from D to E, fully compatible with previous versions.
  The existing installed base of devices does only need to be updated in case of an issue. Refer to section 3.5.

2   Prerequisites

SPARE PARTS:

Spare Parts:	Spare Part number:
Arrestor Strap Kit	SC+A7993-01
Electrostatic Wheels (see Note below)	SC+1951801003
Handle Bar Caps Kit	SC+A521080-01
Cable reel kit consisting of a metal plate and cable reel with plug integrated:	
USA plug	SC+A521068-01
China Plug	SC+A521068-02
U.K. Plug	SC+A521068-03
Shuko Plug (Europe)	SC+A521068-04
Remote Control Holder	SC+19129-01
Hubcap Kit Each kit includes **one** hubcap and its complete hardware set.	SC+A521082-01

NOTE:

Order the electrostatic wheels only via spare parts when there is still an issue with electrostatic discharge.

The wheels are made of natural rubber (TBC) and can give marks on the floor.

TOOLS:

- Standard service tool kit

REFERENCED DOCUMENTS:

- DX-D 100 - SB No. 29 / DX-D 100 Wireless - SB No. 26 - Release of DX-D 100 / 100 Wireless System Version 4.2, DD+DIS118.13E

  The document can be downloaded from the Agfa HealthCare Library:
  Direct Radiography > DX-D 100 > DX-D 100 Generic > Service Bulletin or
  Direct Radiography > DX-D 100 Wireless > DX-D 100 Wireless Generic > Service Bulletin

3 Instructions

3.1 Replacing the discharging strap (HQ_1204190001)

To improve the electrostatic discharge the current strap for discharging the equipment can be replaced by a metallic arrestor, fixed with an iron bracket and bolts.

(1) Order the Arrestor Strap Kit. Refer to section 2.
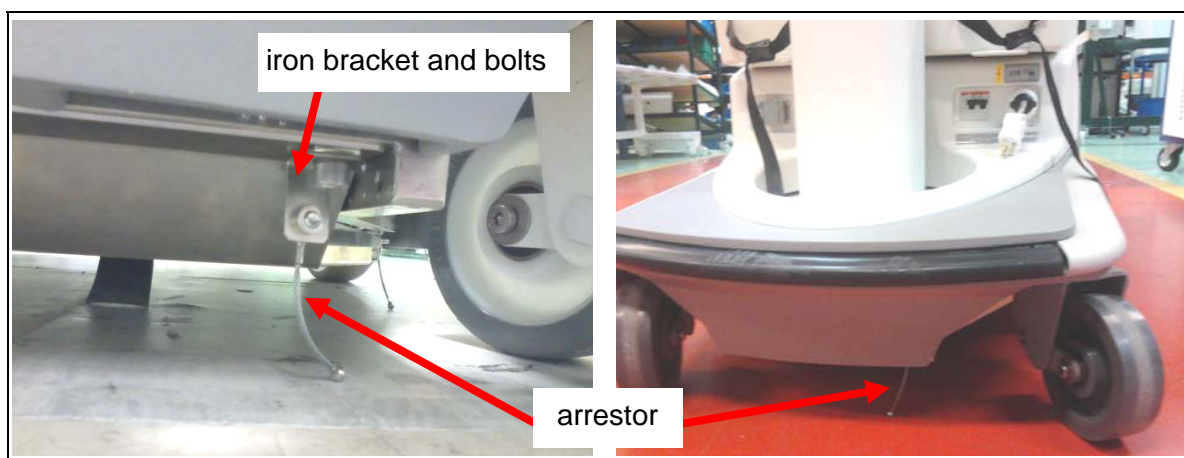(2) Mount the arrestor at the front side by the means of the iron bracket and bolts.

iron bracket and bolts

arrestor

Figure 3

3.2 Replacing the protection caps for handle bar (PR1308090005)

(1) Order the Handle Bar Caps Kit. Refer to section 2.
(2) Replace the caps and secure with Loctite (401).

3.3 Mounting the stainless steel hubs (FR1302280012)

(1) Order Hubcap kit(s). Refer to section 2.
One kit consists of **one** hubcap and the hardware needed for installing.

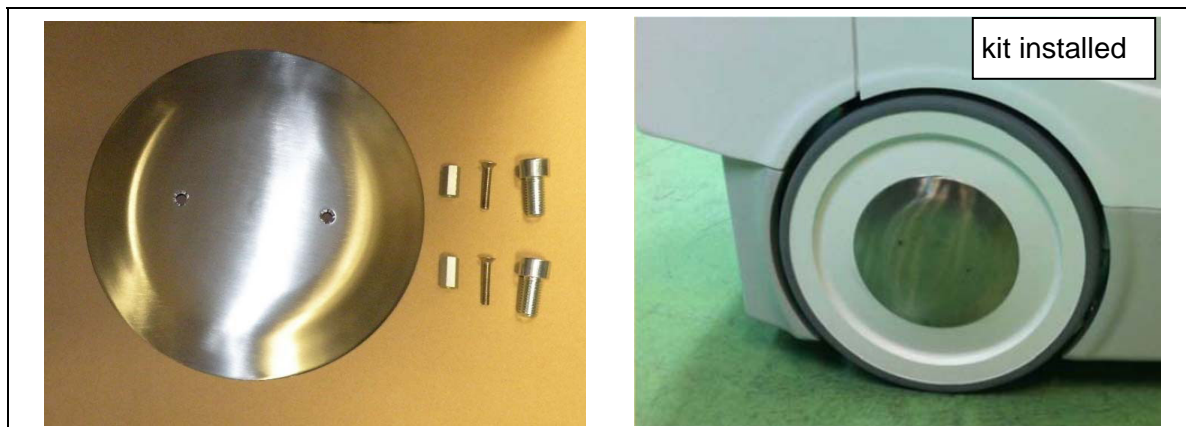(2) Mount the stainless steel hubs at the rear wheels. The installation instruction is part of the delivery.

Figure 4

3.4 Replacing the metal plate and cable reel (PR1307120003)

(1) Order the cable reel kit containing the plug applicable for your country. Refer to section 2.
The kit consists of one of the cord reels (plug installed) and a metal plate.

(2) Follow the instructions for mounting the metal plate as described in the Service Bulletin "Release of DX-D 100 / 100 Wireless System Version 4.2"
See section 2 'Referenced Documents'.

3.5 Replacing the X-Ray charger boards and Motor charger boards

The replacement of X-Ray charger boards and Motor charger boards is only necessary in case of:

- Issues like short circuit or smoke at the boards during charging the batteries.
- DX-D 100 wireless with serial number lower than A5411000302
- Boards serial number revision is below E. The revision of the charger boards can be identified on the boards itself (see figures below).

Replacing battery charger boards is described in the DX-D 100 / DX-D 100 Wireless - Mobile X-Ray Unit - Service Manual in section "Troubleshooting", chapter "Batteries and Chargers". The document is available in the Agfa Healthcare Library:

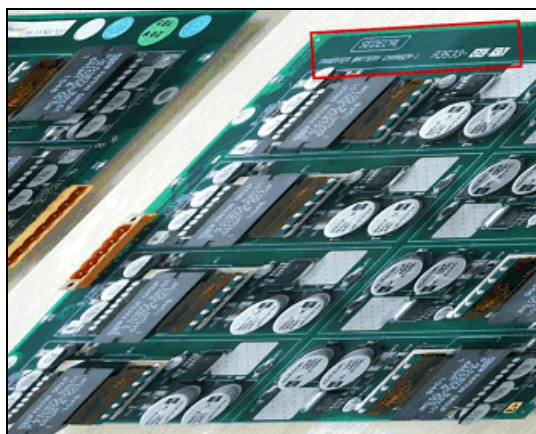Document ID 41600560, 📄 Agfa Intranet / 📄 Agfa Portal via Internet.

Figure 5: Old revision Inverter Battery Charger 1 A3533-04
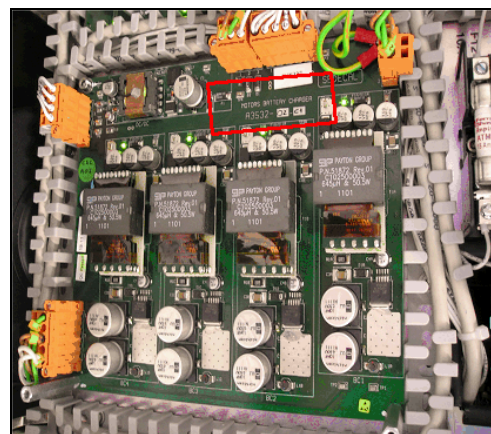

Figure 6: Old revision Inverter Motor Battery Charger A3532-04
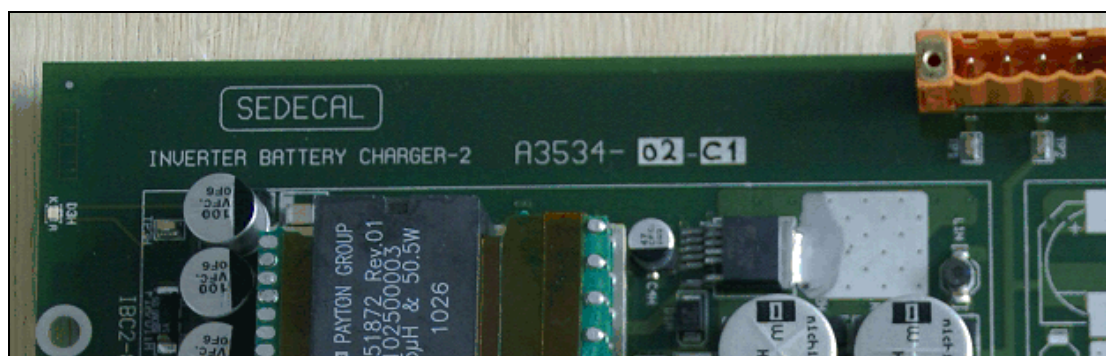

Figure 7: Old revision Inverter Battery Charger 2 A3534-04

3.6   Verification

Not applicable

4   Keywords

ESD, cord reel

5   Version history

Version	Change	Date
1.0	Initial version	12-2013
1.1	Added PR1401240005 and section 3.5 Replacing the X-Ray charger boards and Motor charger boards	05-2014

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