

Mandatory Service Bulletin

This document is valid for USA only!

Mandatory update to DMC firmware V11R3b5 and mounting of revised resistive arrestor strap necessary

Task

Timing	Category	Subject	
<input checked="" type="radio"/> Immediately. Completion anticipated by date 31.12.2015	<input checked="" type="radio"/> Mandatory for all affected sites	<input checked="" type="checkbox"/>	PowerHelp complaint / HQ issue: PR1411200006, PR1501190003
		<input checked="" type="checkbox"/>	Problem affects serial number(s) / batch(es) listed below.

Risk

Risk description PR1411200006 and PR1501190003:

The probability of potential harm is set to the level "Incredible" available in our risk management procedure but we were informed by our supplier of a potential safety issue on the mobile units.

Task Tracking

After completion of your task the following entry in your Service Report is required:

DD+DIS077.15E

*

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

Purpose of this document:

- This document contains information about updating the DMC Firmware V11R3b5 and protecting the DMC board against damages.
- It also provides information for the mounting of the resistive arrestor strap.

Affected serial number(s) / batch:

Refer to list of affected serial numbers attached to this document.



This Mandatory Service Bulletin has been issued as part of the Global Corrections and Removals Procedure. It is connected to a product recall. Check with your local QA/RA and HE Sales/Marketing teams to make sure that your service activities are coordinated with their associated responsibilities.

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1 Introduction to PR1411200006 - Mandatory update to DMC firmware V11R3b5

Symptom Irregular behavior of the DX-D 100 motion control after building in a new DMC (Digital Motion Control) board and switching the unit on.

Risk The probability of potential harm is set to the level "Incredible" available in our risk management procedure but we were informed by our supplier of a potential safety issue on the mobile units.

Cause The issue is the result of an accidental short circuit that occurred during service activities. This short circuit resulted in a failure of the U1 processor in the DMC board.

Solution This problem is solved with the new DMC board firmware version V11R3b5.

- In case a DMC board with revision "H" is already installed:
Update the firmware to V11R3b5. Refer to section 1.2.1.
- In case a DMC board with a revision lower than "H" is already installed:
Replace the DMC board with the latest available board, where the firmware V11R3b5 is already installed and apply loctite. Refer to section 1.2.2

1.1 Prerequisites



SOFTWARE:

Download the "DMC firmware V11R3b5" software from the Agfa HealthCare Library:
Direct Radiography > DX-D 100 > DX-D 100 Generic



SPARE PART:

For DX-D 100 / 100 Wireless units

with installed DMC board revision "H", order the following spare part:

- SC+A521065-05 upgrade dig. mot. control V11R3b5, consisting of:
 - *Windows Serial Downloader Program on CD ROM*
 - *DMC firmware V11R3b5*
 - *DMC Programming cable*

For DX-D 100 / 100 Wireless units

with installed DMC board with revision lower "H", order the following spare part:

- SC+A521079-03 Dig. mot. control V11R3b5, consisting of:
 - DMC board rev H with the firmware V11R3b5 already loaded
 - Buzzer



NOTE:



It is possible that spare part SC+A521079-02 that contains a DMC board with revision H is in stock at some locations.

In this case, it is possible to install these parts. Additionally, it is necessary to upgrade the firmware version to V11R3b5.

- (1) Replace faulty parts with a spare part SC+A521079-02
- (2) Upgrade the firmware.



REFERENCED DOCUMENTS:

DX-D 100 - X-Ray Mobile - Troubleshooting, Document ID 41600560 ( [Agfa Intranet](#) /  [Agfa Portal via Internet](#)).

1.2 Instructions / Verification

1.2.1 Updating the firmware with Digital Motion Control upgrade kit SC+A521065-05

**IMPORTANT:**

Upgrade of the firmware is necessary for DX-D 100 / 100 Wireless units **with installed DMC board revision “H”**.

**REQUIRED TIME:**

60 minutes

- (1) Upgrade the firmware version according to the description in:
DX-D 100 - X-Ray Mobile - Troubleshooting - Chapter 6.8.6 Updating the
Microcontroller, Document ID 41600560 ([Agfa Intranet](#) / [Agfa Portal via Internet](#)).

1.2.2 Upgrading the DMC board with Digital Motion Control kit SC+A521079-03



IMPORTANT:

Replacement of the DMC Board (with already installed Firmware V11R3b5) necessary for DX-D 100 / 100 Wireless units **with installed DMC board with a revision lower revision "H"**.



REQUIRED TIME:

60 minutes

- (1) Replace the DMC board according to the description in DX-D 100 - X-Ray Mobile - Troubleshooting - Chapter 6.8.7, Replacement of the Digital Motion Control Board, Document ID 41600560 ([Agfa Intranet](#) / [Agfa Portal via Internet](#)).



NOTE:

Additional information when replacing the DMC board:

- Fix the DMC board with 4 plastic screws and isolate the board from the metallic mounting plate by 4 plastic spacers.



Figure 1

- After the replacement it is necessary to protect the DMC board SAT-A3539-01 against possible damages (e.g. during the measurement of the voltage on the Test Point TP8). For that it is necessary to apply a coating protection over the C16 capacitor before measuring the voltage. Use Loctite 7400 for coating.
- In case the Loctite 7400 is not available use a piece of electrical tape over the C16 capacitor. In case the tape is used it should be removed after adjusting the TP8 voltage.

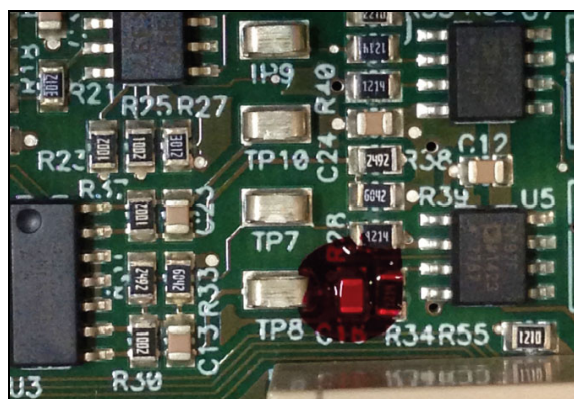


Figure 2

2 Introduction to PR1501190003: Replacement of the Resistive Arrestor Strap

Symptom Static discharge from the Mobile Unit.

Risk The probability of potential harm is set to the level "Incredible" available in our risk management procedure but we were informed by our supplier of a potential safety issue on the mobile units.

Cause The equipment is electrically charged after moving it through the hospital floor. Depending on the consistency of the floor or other circumstances the charge is higher or lower. Due to the low resistance of this arrestor (1 Ohm), this electrostatic charge could be unintentional discharged to the ground when the arrestor touches against a metallic part (e.g. when it is moved over a threshold or get in/out an elevator).
The voltage and power discharged to the ground in this very short time could be very high and sometimes it could affect the unit.

Solution Replace the old arrestor strap with the revised arrestor.

2.1 Prerequisites



SPARE PART:

SC+A9365-01 Resistive arrestor kit

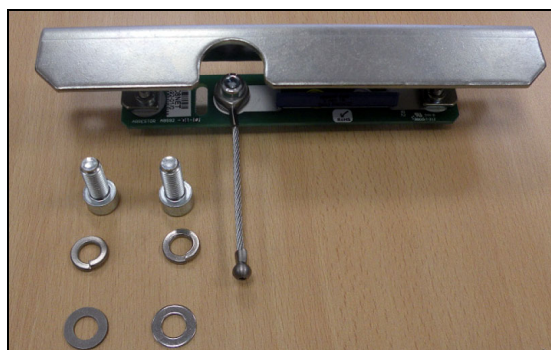


Figure 3



TOOLS:

- Standard service tool kit
- 2 wood blocks (height approximately 10 cm)



REFERENCED DOCUMENTS:

DX-D 100 - X-Ray Mobile - Troubleshooting - Document ID 41600560 ([Agfa Intranet](#) / [Agfa Portal via Internet](#)).

2.2 Instructions / Verification



REQUIRED TIME:

- If no arrestor is mounted: 15 minutes
- If arrestors are mounted at position A or B: 15 minutes (see figure 6)
- If arrestors are mounted at position C or D: 120 minutes (see figure 6)



NOTE:

It is not required to remove the flap.

- (1) Push the column of the DX-D 100 backwards to lift it up slightly.
- (2) Place two pieces of wood (approximately 10cm height) below the wheels of the unit to keep the unit in this position.



Figure 4



Figure 5

- (3) Check if an arrestor is directly fixed to the frame (see figures below for possible locations).
- (4) Only required if an arrestor is mounted at position C or D:
Remove the covers of the DX-D 100 / DX-D 100 wireless as explained in the troubleshooting chapter of the service manual.

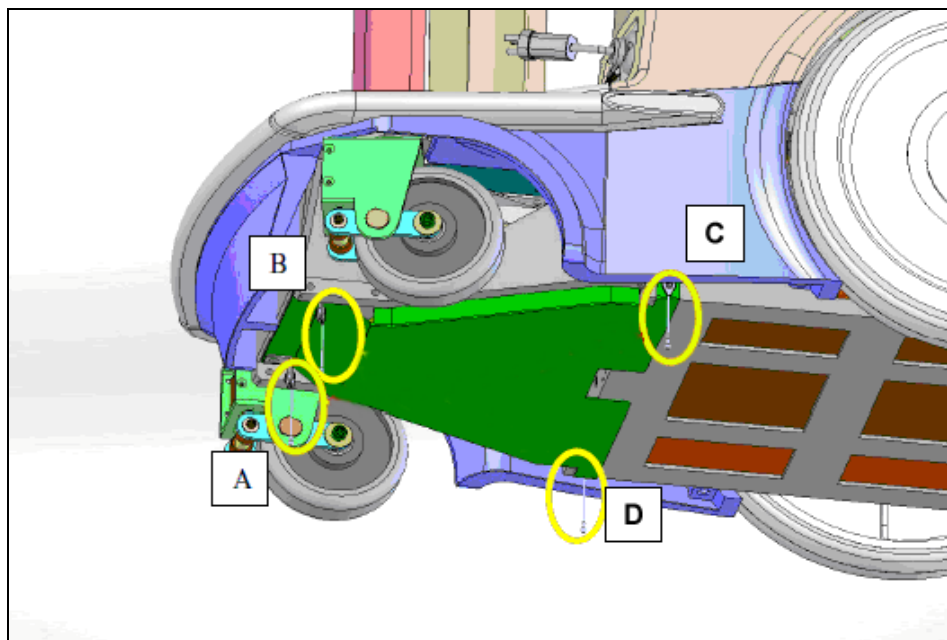


Figure 6 - Bottom view of the mobile unit

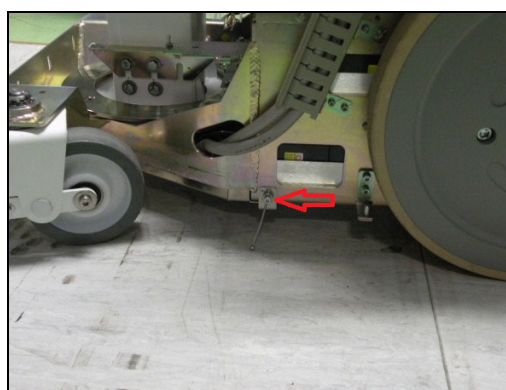


Figure 7 -
Location of the side arrestor

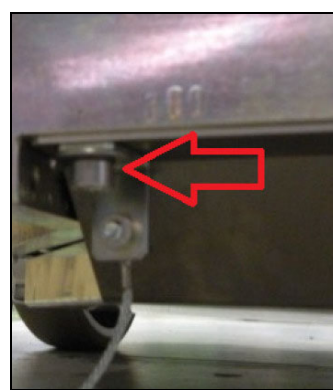


Figure 8 -
Location of the front arrestor

- (5) In case that an arrestor is present: Remove the old arrestor from the unit.



NOTE:

If one of the arrestors is a rubber arrestor:
Cut the rubber.

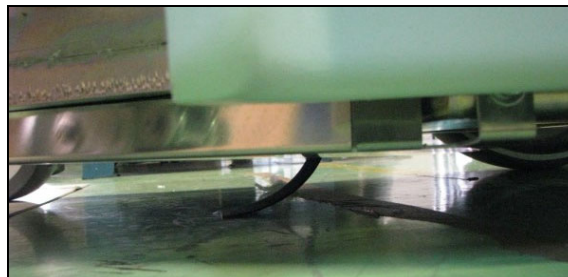


Figure 9

- (6) Remove both screws shown in the figure below.
See also figure 4: The screws are located at position A and B.

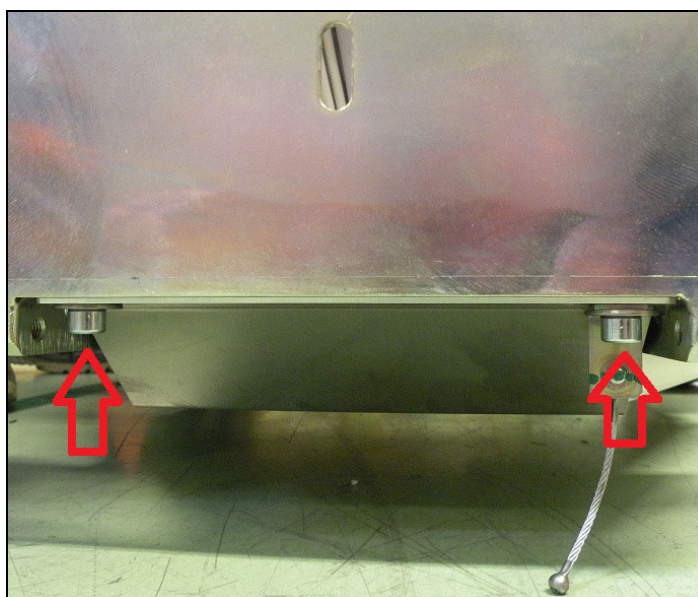


Figure 10 - Location of the column cable protector cover

- (7) After removing both screws, the column cable protector cover will go to down position as shown in the figure below.

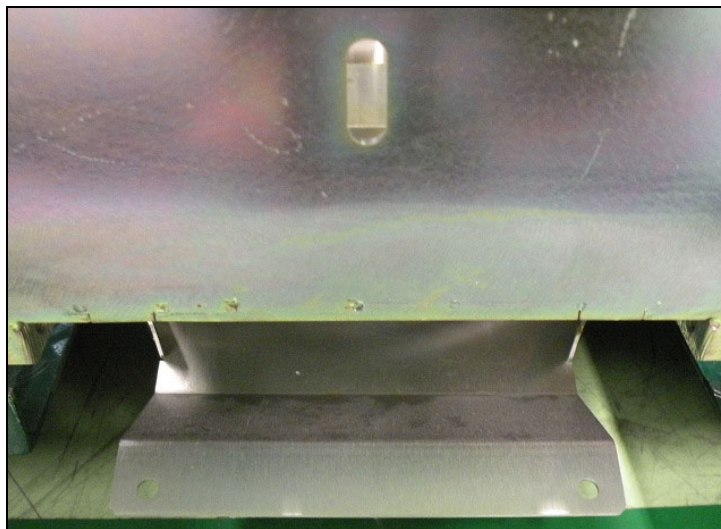


Figure 11 - Column cable protector cover without screws

- (8) Lift the column cable protector cover to the original position. Install the resistive arrestor assembly with the screws and the washers included in the kit as shown in the figures below.

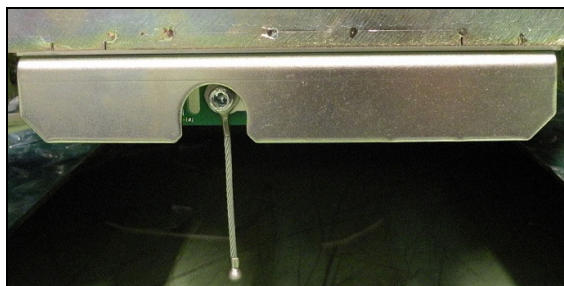


Figure 12 - Column cable protector cover without screws

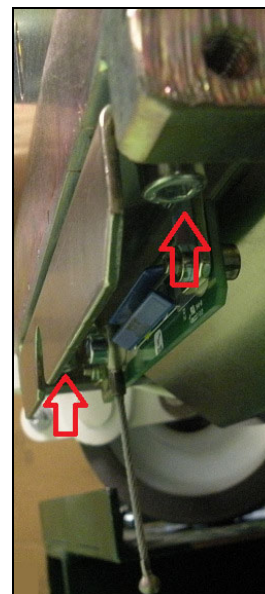


Figure 13 -
Locations of the resistive arrestor assembly
fixing screws

- (9) Remount all covers.

3 Keywords

TMC

4 Version history

Version	Change	Date
1.0	Initial Version	05-2015