

Service Information Bulletin

This Bulletin is for information only.

Replacement instructions for generator batteries

Task

Timing		Category
Next service	<input type="radio"/>	Apply at all sites
	<input type="radio"/>	Apply at affected sites as listed below
	<input checked="" type="radio"/>	Optional to improve functionality of product

Task Tracking

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

DD+DIS087.15E

*

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

Purpose of this document:

With System version 6.0 improved lead crystal batteries are released. This document provides the upgrade procedure with these batteries in the DX-D 100 / DX-D 100 wireless systems.

List of contents

1	Introduction/purpose	3
2	Prerequisites	4
3	Instructions.....	6
4	Verification	19
5	Keywords	19
6	Version history	19



1 Introduction/purpose

New batteries are introduced to DX-D 100 / DX-D 100 wireless.

This document provides installation instructions how to upgrade the system with the new generator batteries with lead crystal technology.

Also refer to Service Bulletin “Announcement of DX-D 100 / DX-D 100 Wireless system version 6.0 with telescopic column and new batteries”, Document ID 50385134

 [Agfa Intranet](#) /  [Agfa Portal via Internet](#).

An overview of sellable service updates for DX-D 100 / DX-D 100 Wireless is provided with the following document: “DX-D 100 - Service Bulletin No. 75 - DX-D 100 Service Updates available”, Document ID 51965743  [Agfa Intranet](#) /  [Agfa Portal via Internet](#).

2 Prerequisites

**IMPORTANT:**

DX-D 100 mobile units which are upgraded **must** be equipped with the following releases of the battery chargers:

- Inverter Battery Charger 1: SC+A3533-04-Rev E or newer
- Inverter Battery Charger 2: SC+A3534-04-Rev E or newer

The mentioned components are not included in the 10+9999913150 kit and must be ordered separately if necessary!

**CAUTION:**

Older releases of the Battery Charger may cause malfunction and/or damages in the lead crystal batteries!

**NOTE:**

Not all parts of this kit might be delivered. In case a part is missing it is possible to use the old part when mounting the batteries.

**SPARE PARTS:**

10+9999913150 DX-D 100 Upgrade Crystal batteries

- A - Support Elevation Leg (2 Units)
- B - Supplement Motor Battery Tray (1 Unit)
- C - Battery Tray W. Lead Crystal Battery (5 Units)
- D - Countersunk screw 4x8 (2 Units)
- E - Close Frame (1 Unit)
- F - Back Bumper (1 Unit)
- G - Screw M8x40 (2 Units)
- H - Washer M8 (6 Units)
- I - AET Washer (6 Units)
- J - Screw M8x30 (4 Units)
- K - Battery Monitor SAT-A3580-15 (1 Units)
- L - Nylon washers M4 (4 Units)
- M - Tie-Wraps (6 Units)

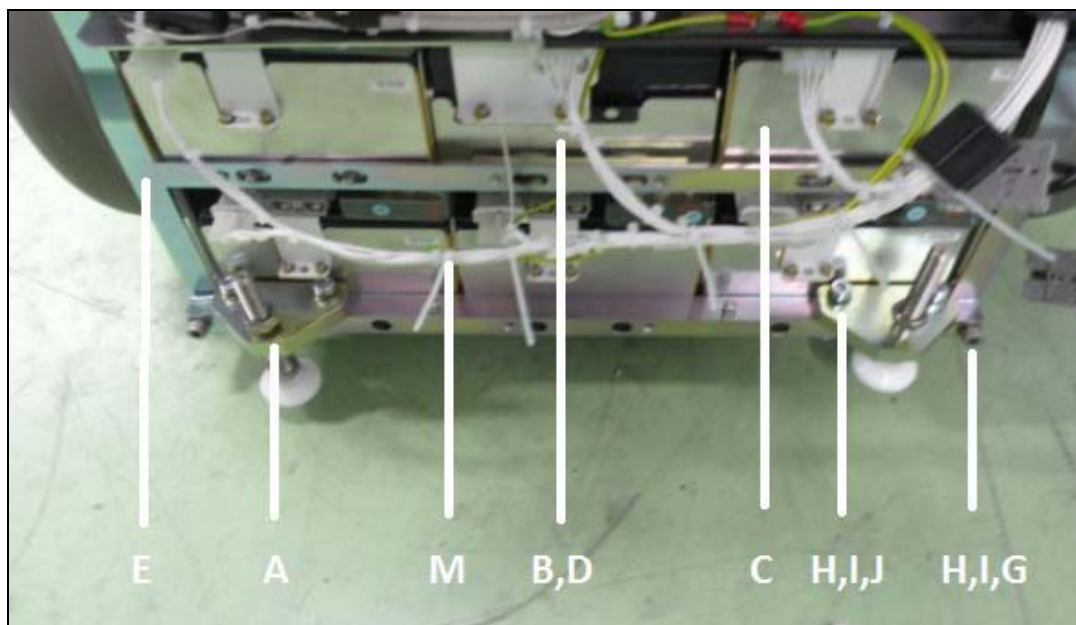


Figure 1

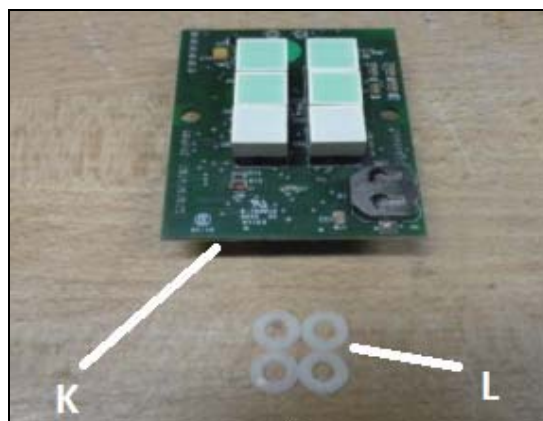


Figure 2

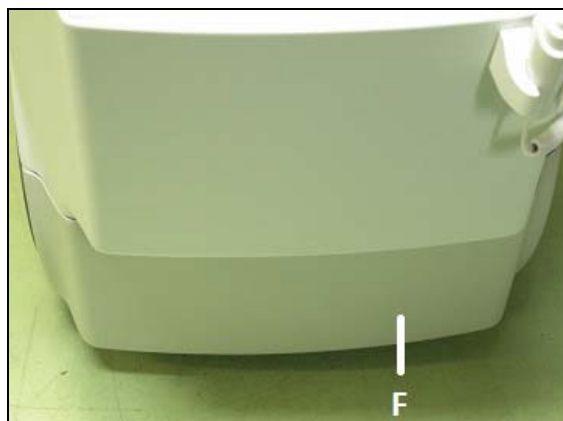


Figure 3

**TOOLS:**

- Standard service tool kit

**REFERENCED DOCUMENTS:**

- Direct Radiography > DX-D 100 > DX-D 100 V6 > Service Manual
- Direct Radiography > DX-D 100 Wireless > DX-D 100 Wireless V6 > Service Manual
- Direct Radiography > DX-D 100 Generic > Mobile X-Ray Unit - Service Manual
- Direct Radiography > DX-D 100 Generic > Service Bulletin > Service Bulletin 66 / 61 Recommendation to replace integrated PC of DX-D 100 / DX-D 100 Wireless
- Direct Radiography > DX-D 100 Generic > Service Bulletin > Service Bulletin 69 / 64 Announcement of DX-D 100 / DX-D 100 Wireless system version 6.0 with telescopic column and new batteries

3 Instructions

**REQUIRED TIME:**

8 hours

**NOTE:**

Make sure to have an electric socket in operating range during this replacement.'

- (1) Switch the generator OFF.
- (2) Press the emergency switch.
- (3) Remove the generator covers (lower back bumper, upper back cover, front cover, console frame) as explained in the Service Manual.
- (4) Loose the four screws at position 1 and position 2 located at both sides of the console (see figure below).
- (5) Lift up the lower end of the console.
- (6) Tighten both screws at position 1 to fix the console in place.

**NOTE:**

The cables should not be squeezed.

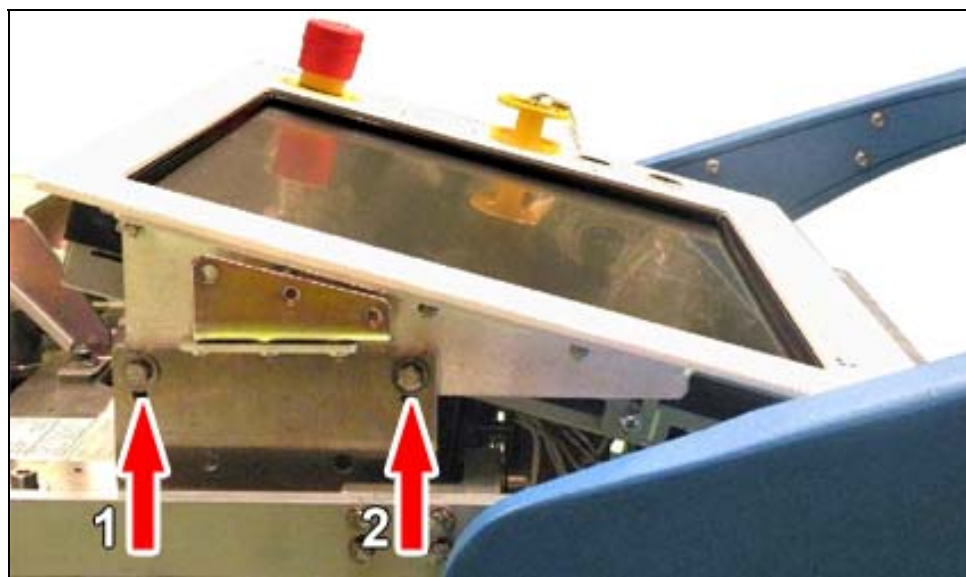


Figure 4: Generator Console



Figure 5: Generator Console, lifted up, view from the other side

- (7) Replace the battery monitor A3580-XX by the one provided in the replacement kit (see part 'K' in figure 2).



NOTE:

Take care of the two high washers when removing the board.

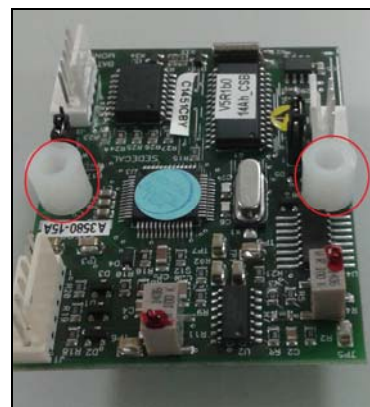


Figure 6

- (8) Use the nylon washers (see part 'L' in Fig 2) to isolate both sides of the board.
(9) Place the console as it originally was.
(10) Remove the two fixation screws of the cover for the DMC board.



Figure 7: Fixation screws DMC Cover

- (11) Unplug the Anderson Connector J1 located at the lateral side of the unit.



Figure 8: Anderson Connector J1

- (12) Move the left leg down to gain access to the batteries connectors.

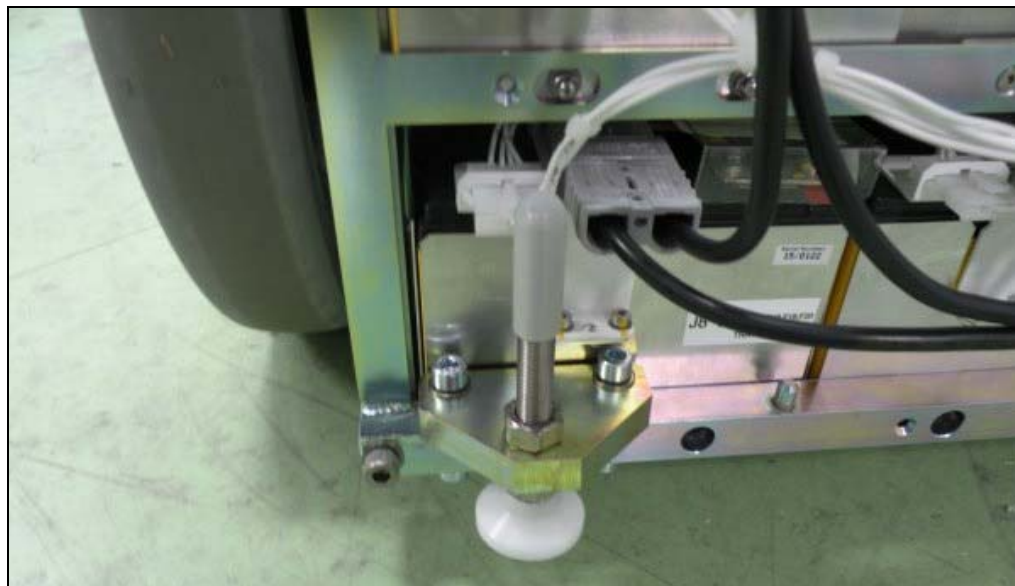


Figure 9: Left leg

- (13) Note down or tag where the plugs are connected at the generator batteries trays.
- (14) Unplug the Anderson & Molex connectors from all the Battery Trays used for the Generator.

Anderson connectors:

- J2 for Tray 1
- J3 for Tray 2
- J4 for Tray 3
- J5 for Tray 4
- J6 for Tray 5

Molex connectors:

- J7 for Tray 1
- J8 for Tray 2
- J9 for Tray 3
- J10 for Tray 4
- J11 for Tray 5
- J12 for Tray 6

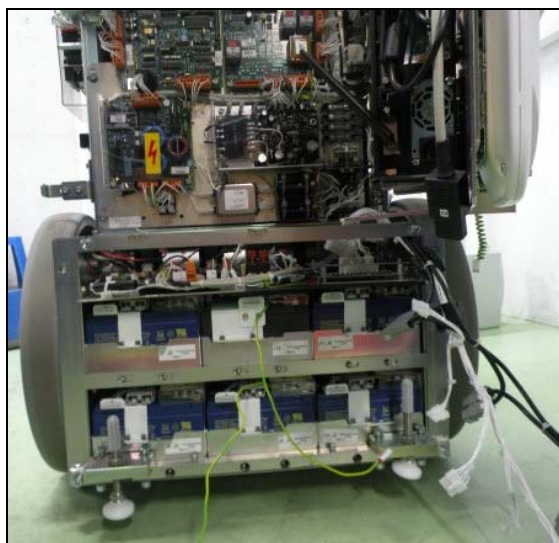


Figure 10: Anderson & Molex connectors - Generator batteries trays

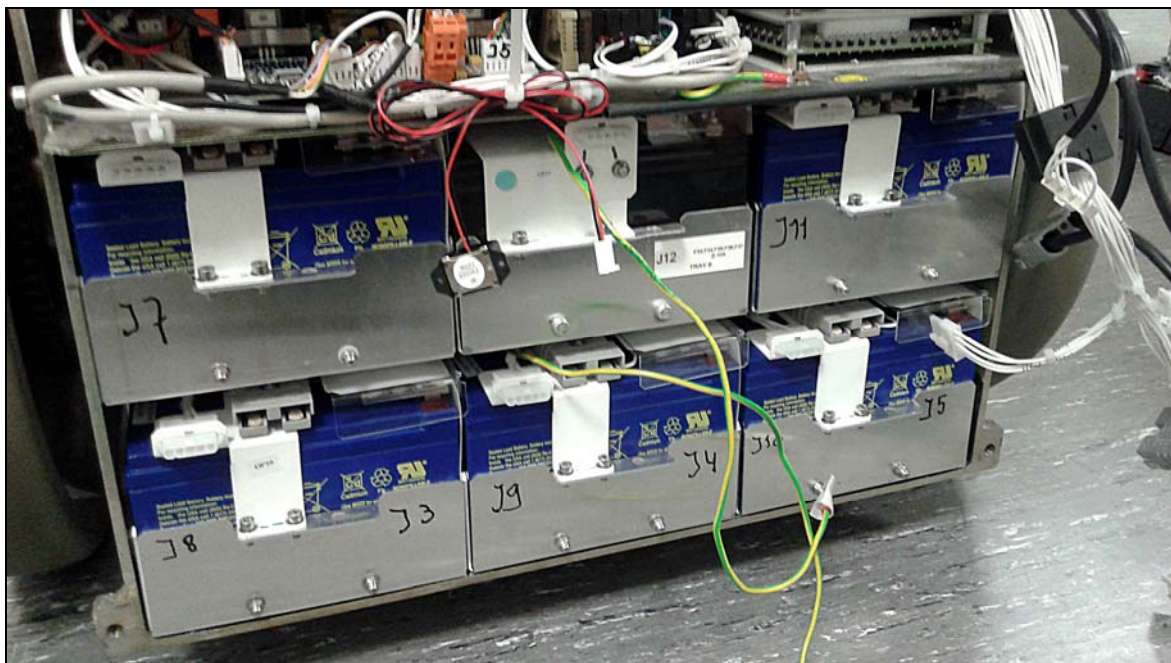


Figure 11: Generator batteries tray with markings

- (15) Disconnect the ground wires. Isolate them by using isolation tape to avoid short circuits.

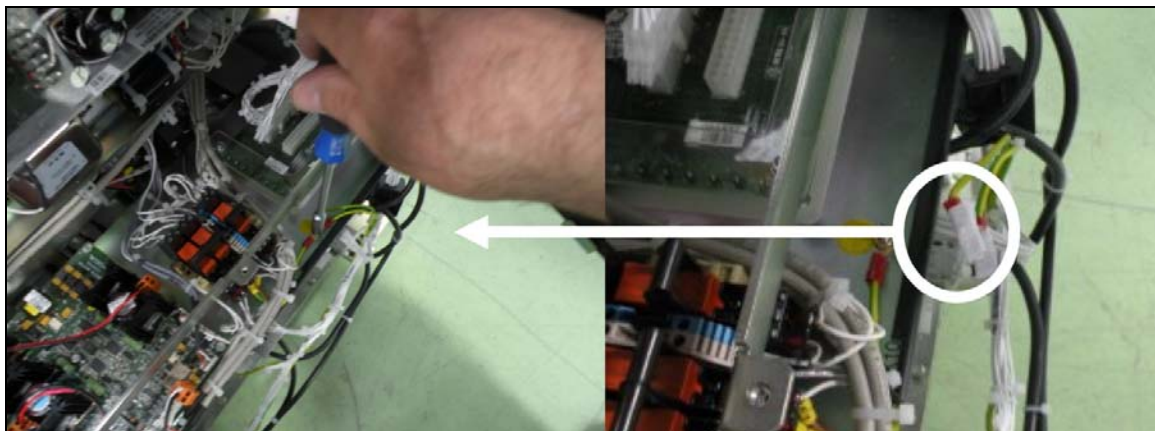


Figure 12: Ground wires – Battery trays 3 & 6

- (16) Cut the tie wraps which fix the ground wires with the batteries interconnection harness.

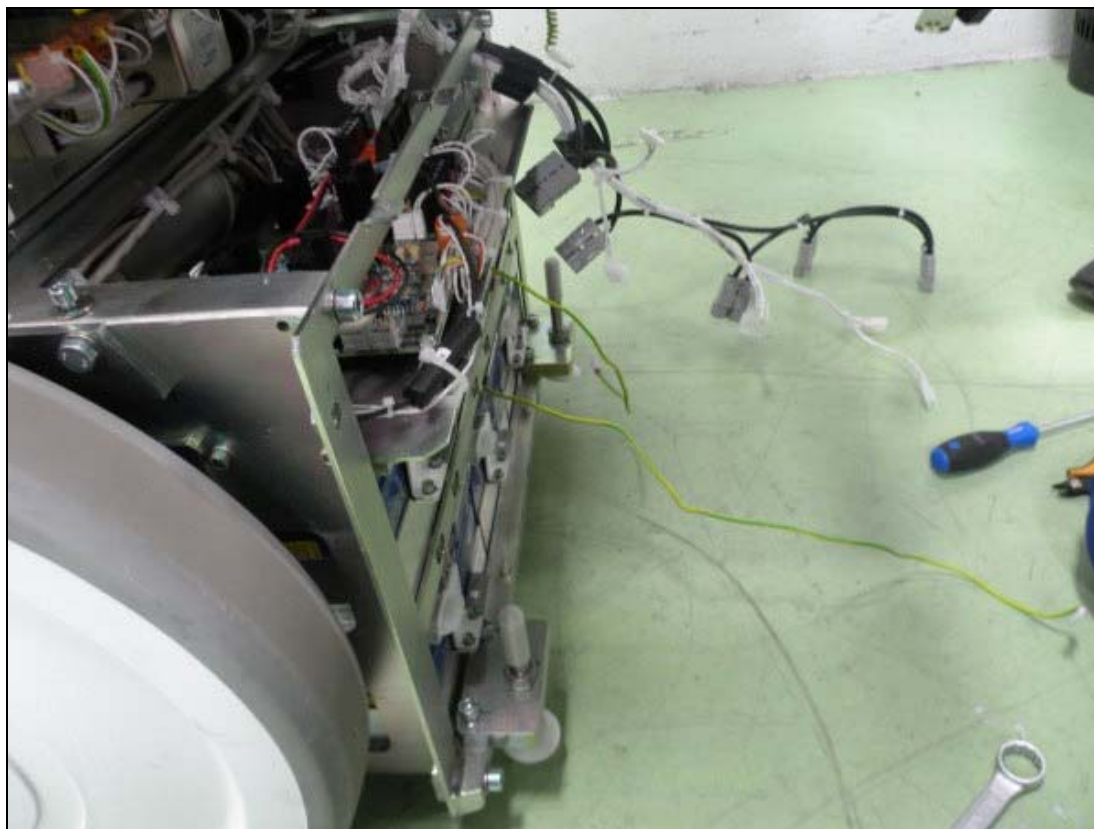


Figure 13: Batteries interconnection harness

- (17) Remove the four fixation screws and dismount the frame that secures the battery trays to the Unit.

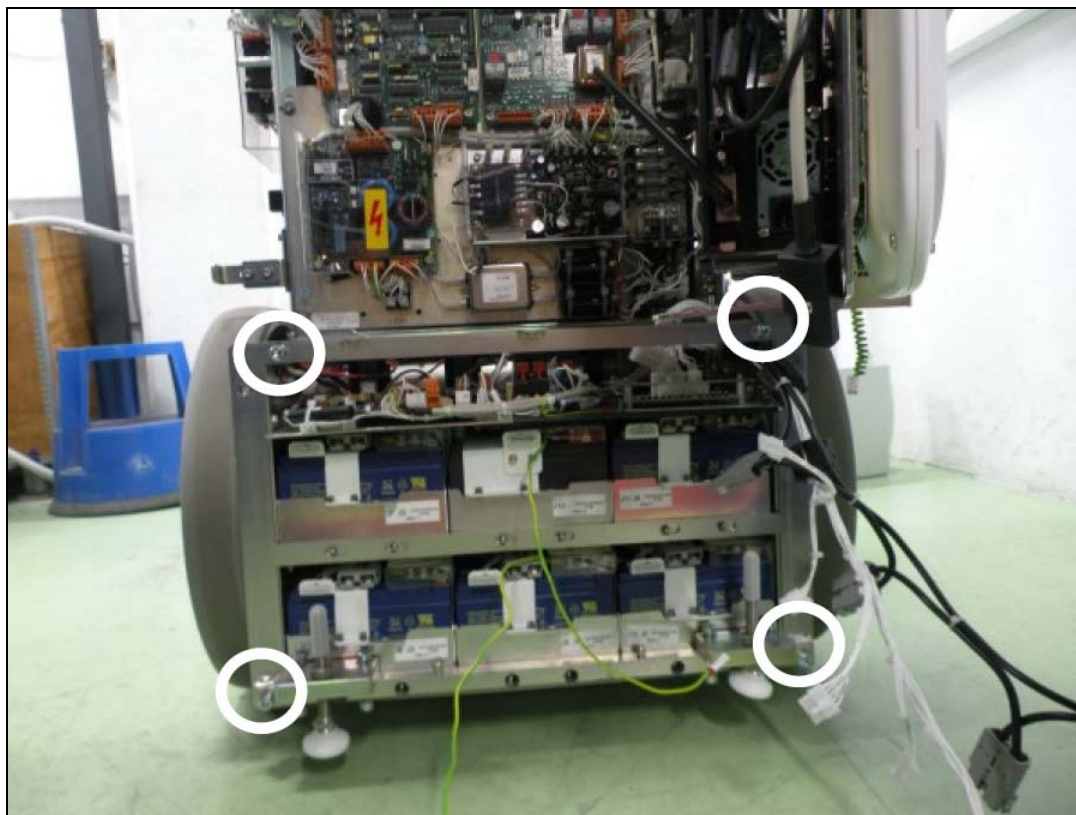


Figure 14: Fixation screws - Metallic frame

- (18) Slide the five generator batteries trays out of the generator to remove them.
- (19) Check if a tray with already connected GND was delivered:
 - If yes, use it for battery tray 3.
 - If no, remove the ground cable (green / yellow) of the original tray 3 and mount it in a new tray at the same location.

(20) Mount the generator lead crystal battery trays inside the unit.



NOTE:

Motion Battery tray will remain in the original position.

Generator Battery Tray n° 3: Install this tray under the Motion Battery tray in the same way as it was mounted originally.

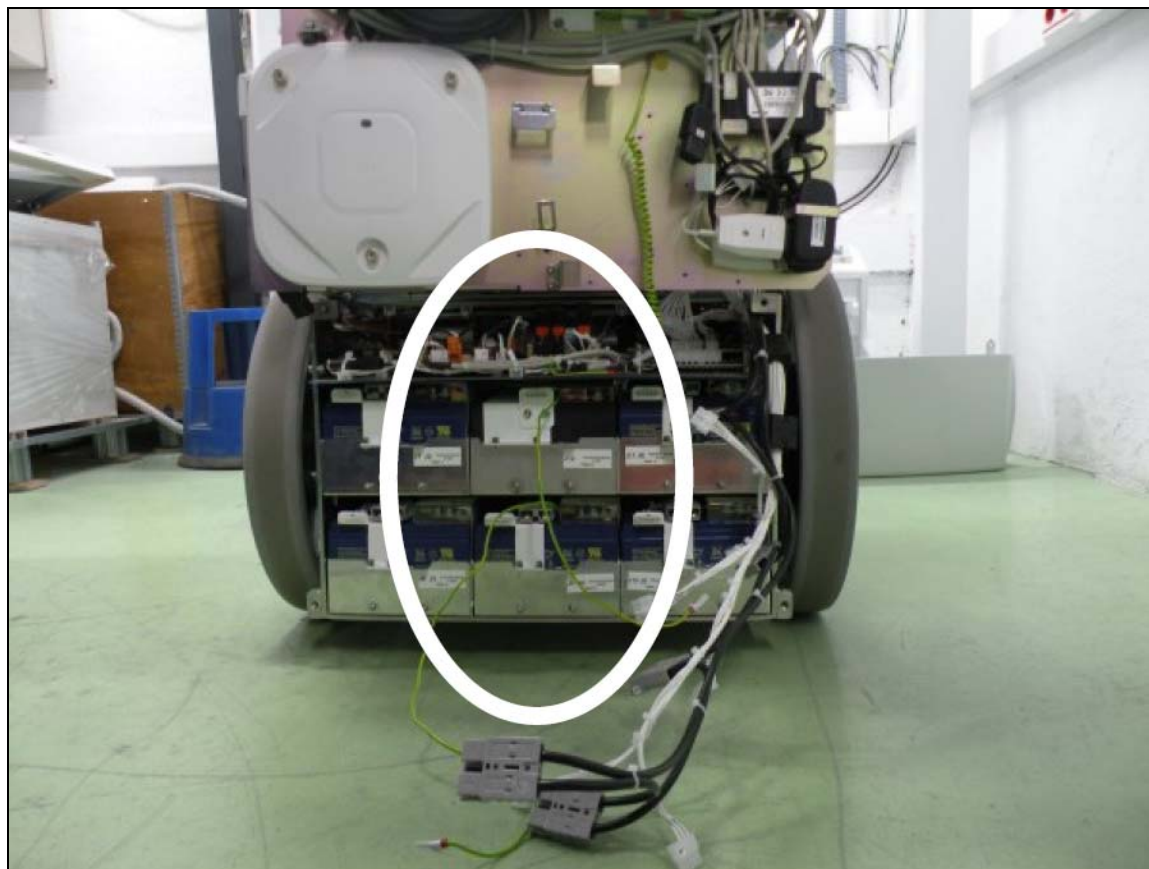


Figure 15: Generator Battery Tray (n°3) & Motion Battery Tray (n°6)

- (21) Remove boot legs with the protectors from the frame that secures the battery trays to the Unit.
- (22) Mount both legs in the supports (see part 'A' in Fig 1 – replacement kit).

**NOTE:**

The plates of the legs must be positioned in a way that the holes point to the outside.



Figure 16: Feet support assembly

- (23) Add part to the frame (see below).

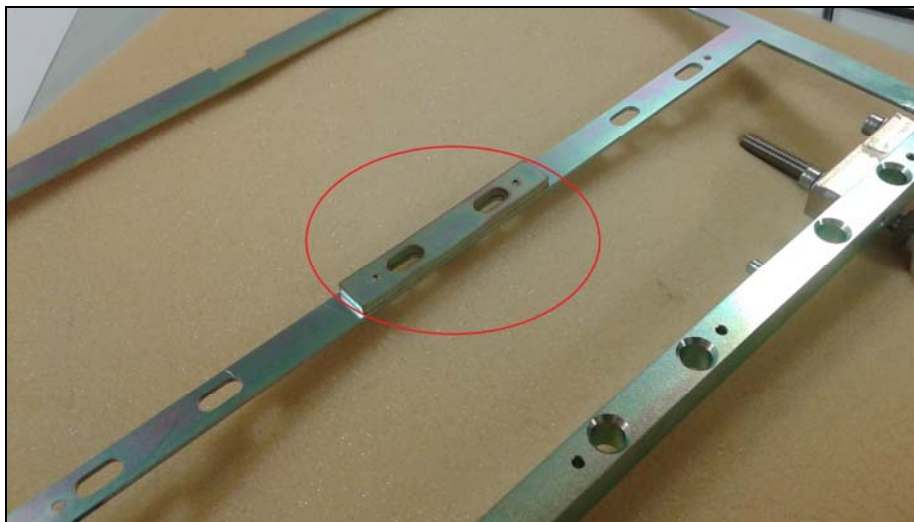


Figure 17: Frame that secures the battery trays to the generator

- (24) Mount the support of each leg into the Frame (see part 'E' in fig 1- replacement kit) by using the 4 screws M8x30 (see part 'J' in fig 1 - replacement kit) and the washers (see parts 'H & I' in fig 1 – replacement kit).



Figure 18: Frame that secures the battery trays to the generator

- (25) Mount the frame that secures the battery trays to the Unit:
 - Use 2 screws of the ones removed in step 13 to fix the upper side of the replacement frame to the generator.
 - Use 2 screws M8x40 (see part 'G' in fig 1 - replacement kit) to fix the lower side of the replacement frame to the generator.
- (26) Remove the isolation tape from the GND wires.
- (27) Connect both GND wires as originally were.

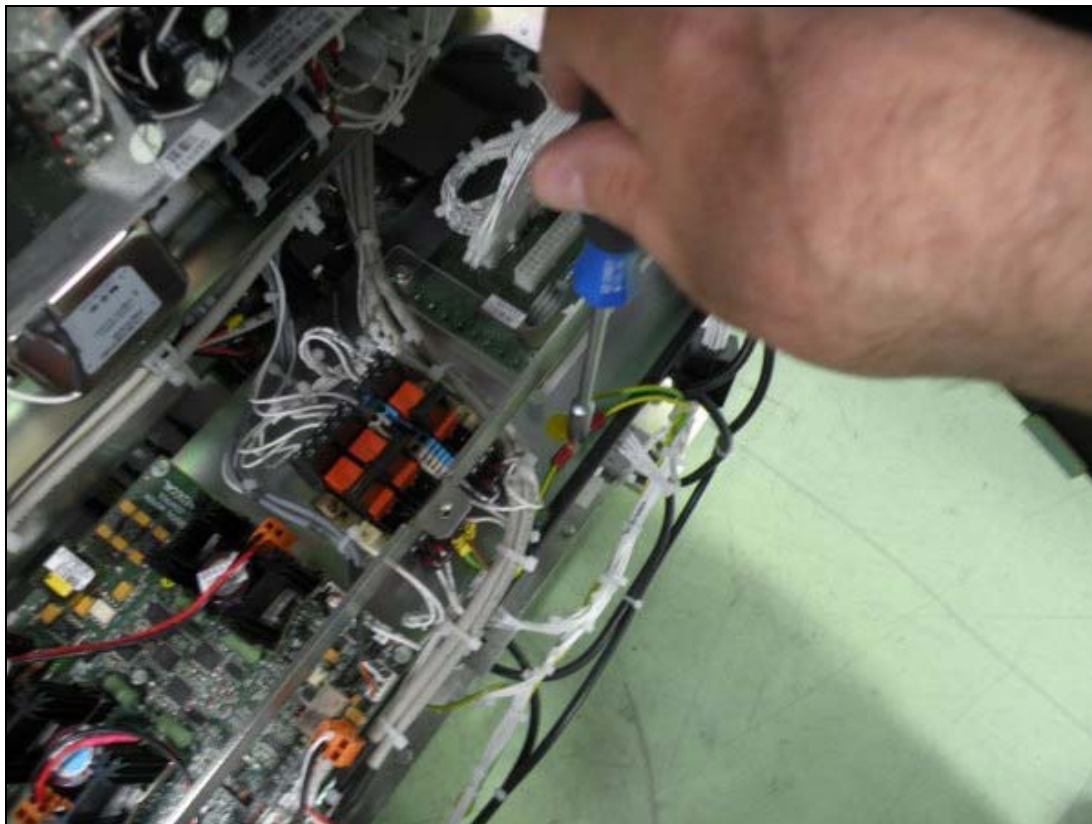


Figure 19: GND wires connection

(28) Connect Anderson connectors:

- J2 for Tray 1
- J3 for Tray 2
- J4 for Tray 3
- J5 for Tray 4
- J6 for Tray 5



CAUTION:

Damages of the connectors possible.

Always make sure that the system is plugged in and in charging condition before reconnecting the Molex connectors!

(29) Connect Molex connectors:

- J7 for Tray 1
- J8 for Tray 2
- J9 for Tray 3
- J10 for Tray 4
- J11 for Tray 5
- J12 for Tray 6

- (30) Fix the GND wires to the interconnection harness for the batteries with tie wraps (see part 'L' in fig 1 - replacement kit)
- (31) Isolate the Mobile unit from mains.
- (32) Press the emergency switch.
- (33) Plug in Anderson connector J1.
- (34) Release emergency switch.
- (35) Switch ON the Mobile generator.
- (36) Check proper functioning.
- (37) Mount the cover for the DMC board.

- (38) Attach the metal holders from the old back bumper at the new back bumper.

**NOTE:**

Fasten the 2 screws in the threaded holes of the new back bumper. Turn the first screw 180 degrees and after that turn the second screw 180 degrees. Repeat these steps until the metal holders are fixed.



Figure 20

- (39) Mount the lower back bumper cover (see part 'F' in fig 1 – replacement kit).
(40) Mount the covers (upper back cover, front cover) and console frame of the unit. Refer to the Service Manual of the DX-D 100 / DX-D 100 wireless.
(41) Keep the unit connected to the mains for at least ten (10) hours with the Generator OFF. This ensures that a complete charging cycle is performed.
(42) Perform a functional check.

4 Verification

No verification needed. The replacement was already verified in section 3.

5 Keywords

Lead battery

6 Version history

Version	Change	Date
1.0	Initial version	11-2015