

Service Information Bulletin

This Bulletin is for information only.

Release of new generator batteries in system version 4.6.50

Task

Timing		Category	
Next service	<input checked="" type="radio"/>	Apply at all sites	
	<input type="radio"/>	Apply at affected sites as listed below	
	<input 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+DIS126.14E

*

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

Purpose of this document:

- This document announces system version 4.6.50 of the DX-D 100 / 100 Wireless solutions.
- With this system version, the current generator battery model EVH12150(X2) becomes obsolete and is replaced by the new battery EVH12150(X3).
- This bulletin contains information about all changes in connection with the new batteries.
- It also describes how to install a new mechanical kit that makes the new batteries compatible with the installed DX-D 100 / 100 Wireless base.
- It contains the ordering and installation instructions for the batteries and the mechanical kit.

1 Introduction/purpose

New generator batteries have been introduced for the DX-D 100 / 100 Wireless with system version 4.6.50.

Batteries with the current design cannot be replaced individually with new batteries anymore because the design of the terminal clamps has changed.

Old batteries that are still in store can be used in the currently installed base.

Symptom The generator batteries currently used in the DX-D 100 / 100 Wireless solutions are mechanically incompatible with the batteries introduced with system version 4.6.50.

Cause The new batteries have a different design.

Solution A special mechanical kit for making the new batteries compatible with the installed DX-D 100 / 100 Wireless base can be ordered.



NOTE:

The new mechanical kit is referred to as 'Bornes kit'.

The battery parts at which this kit is applied are called 'terminal clamps'.

For instructions on how to order the new batteries and how to use the different kits that are available, refer to section 3 in this document.

1.1 Changes in comparison with the old batteries

The new batteries are not mechanically compatible with the previous ones. So, the current connections need to be modified.

- The color has changed from blue to red.



Figure 1: current batteries EVH12150X2

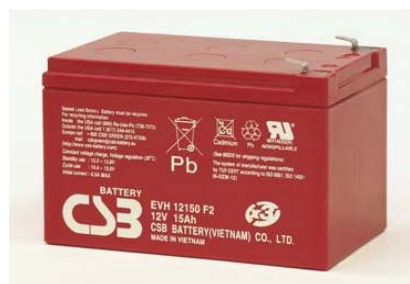


Figure 2: new batteries EVH12150X3

- The batteries' lifetime has been improved.
- The weight has been increased slightly (4.6 kg).
- The position of the terminal clamps has been changed. The new ones are turned by 90 degrees compared to the current one. The new batteries aren't mechanically compatible with the previous ones. So, the current connections need to be modified.
- See dotted markings in the following figures:

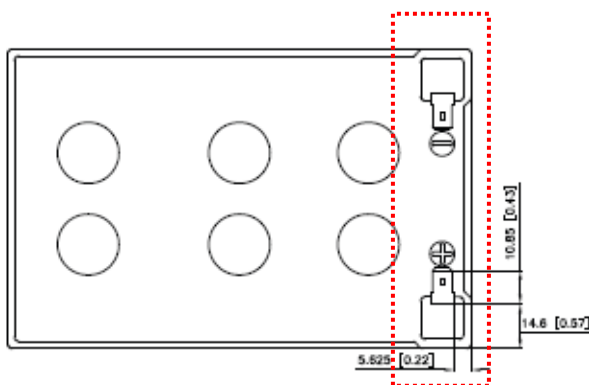


Figure 3: Current batteries EVH12150X2

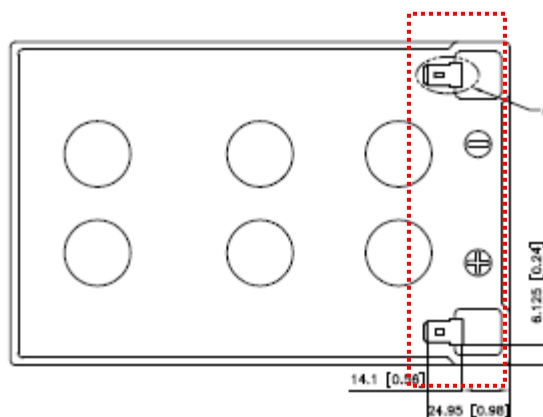


Figure 4: New batteries EVH12150X3

**NOTE:**

The new position of the terminal clamps is identical to the design of the black batteries that were used before introduction of the blue batteries.

1.2 Obsolete spare parts

The following spare parts have become obsolete with the introduction of the new batteries in DX-D 100 / 100 Wireless system version 4.6.50:

- A521048-01 Blue battery tray with batteries: Complete box and connections with batteries
- A521050-01 Blue battery tray without batteries: Complete box and connections without batteries
- A521051-01 Spare battery blue: Single battery

2 Prerequisites



SPARE PARTS:

- SC+A521048-02 Generator battery tray red: Complete box and connections with batteries
- SC+A521050-02 Empty generator battery tray red: Complete box and connections without batteries
- SC+A521051-02 Spare battery red: Single battery
- SC+A520190-01 Bornes kit: Mechanical kit for making the new batteries compatible with the trays fitted in the current installed base



NOTE:

Only order this kit if blue batteries are installed.

- Individual batteries can also be ordered also from local suppliers: Battery Manufacturer CVS, Type EVH12150.



TOOLS:

- Standard service tool kit



REFERENCED DOCUMENTS:

- DX-D 100 / DX-D 100 Wireless - Mobile X-Ray Unit – Troubleshooting, Document ID 41600560 :
- DX-D 100 / DX-D 100 Wireless - Mobile X-Ray Unit – Schematics, Document ID 41600560 :
Direct Radiography > DX-D 100 / DX-D 100 Wireless > Service Manual
- DX-D 100 DX-D 100 - Service Bulletin No. 20 - REVISED - Introduction of new Batteries for DX-D 100, Document ID 39809358
Direct Radiography > DX-D 100 / DX-D 100 Wireless > Service Bulletins
- CSB VRLA Battery Safety Instructions
Follow this link [CSB VRLA Battery Safety Instructions](#)
or click on the embedded pdf file below:



CSB VRLA Battery
Safety Instructions

3 Instructions

**REQUIRED TIME:**

Approximately 1 hour per tray.

3.1 Replacement scenario

**IMPORTANT:**

With the introduction of these new batteries, there are three sorts of trays in the installed DX-D 100 / 100 Wireless base:

- The new red battery trays,
- The previous blue battery trays,
- The old black battery trays.

So, there are three replacement scenarios.

3.1.1 Replace black trays with red trays

**NOTE:**

The design of the terminal clamps is identical for the black and the red batteries.

**IMPORTANT:**

When exchanging black trays with red trays, take care to install the red trays in the same way as the black trays.

Follow the instructions in sections 3.2 and 3.3 in this bulletin.

3.1.2 Replace combined black/blue trays with red trays

It is possible that a combination of black and blue trays is installed in a DX-D 100 / 100 Wireless, as complete black and blue trays can be mixed.

**NOTE:**

The black and the red battery trays come with an identical terminal clamps design.

**IMPORTANT:**

For the exchange of black trays with red trays, take care to install the red trays in the same way as the black trays.

For the exchange of blue trays with red trays, follow the instructions in sections 3.2 and 3.3 in this bulletin.

3.1.3 Replace blue trays with red trays

These options are available if a battery change is necessary from DX-D 100 / 100 Wireless version 4.6.50 onwards:

- Order the complete new tray which contains connections and batteries. This is a 'plug and play' option.
- Order the complete tray and connections but without batteries. This option is possible if the new, red batteries and the tray are bought independently.
- Order one or more individual batteries. This option applies if individual batteries in a red battery tray have to be exchanged.
Only for equipment in which the red batteries are already installed.

The following option applies for the installed DX-D 100 / 100 Wireless base:

- Order a special terminal Borne kit that only contains the new mechanical parts to make existing DX-D 100 solutions compatible with the new batteries.

**NOTE:**

It is possible to equip the installed DX-D 100 / 100 Wireless base with a combination of red battery trays and blue battery trays.

**IMPORTANT:**

It is **not** possible to mix the blue and red batteries **in the same tray!**

**NOTE:**

With publication of this bulletin, a large amount of the old blue batteries is still available and can be used up.

3.2 Installation instructions

3.2.1 Battery exchange procedure

**IMPORTANT:**

Observe the CSB VRLA Battery Safety Instructions.
See *Referenced Documents* in section 2 of this bulletin.

Refer to the battery exchange procedure as described in the in the
Replacing Faulty Batteries section in the
DX-D 100 / DX-D 100 Wireless - Mobile X-Ray Unit – Troubleshooting chapter
See *Referenced Documents* in section 2 in this bulletin.

**IMPORTANT:**

Strictly follow the battery exchange procedure referenced above!

**WARNING:**

Complete trays SC+A521048-02 come fully wired, including a ground wire which is **only** required for **tray 3**. Do NOT connect the ground wires of any other battery tray!
Remove the ground wire from trays 1, 2, 4, and 5 completely by removing the nut on the borne.

For clarification, refer to the wiring diagram in figure 5 on the following page. It shows how tray 3 is connected to the ground.

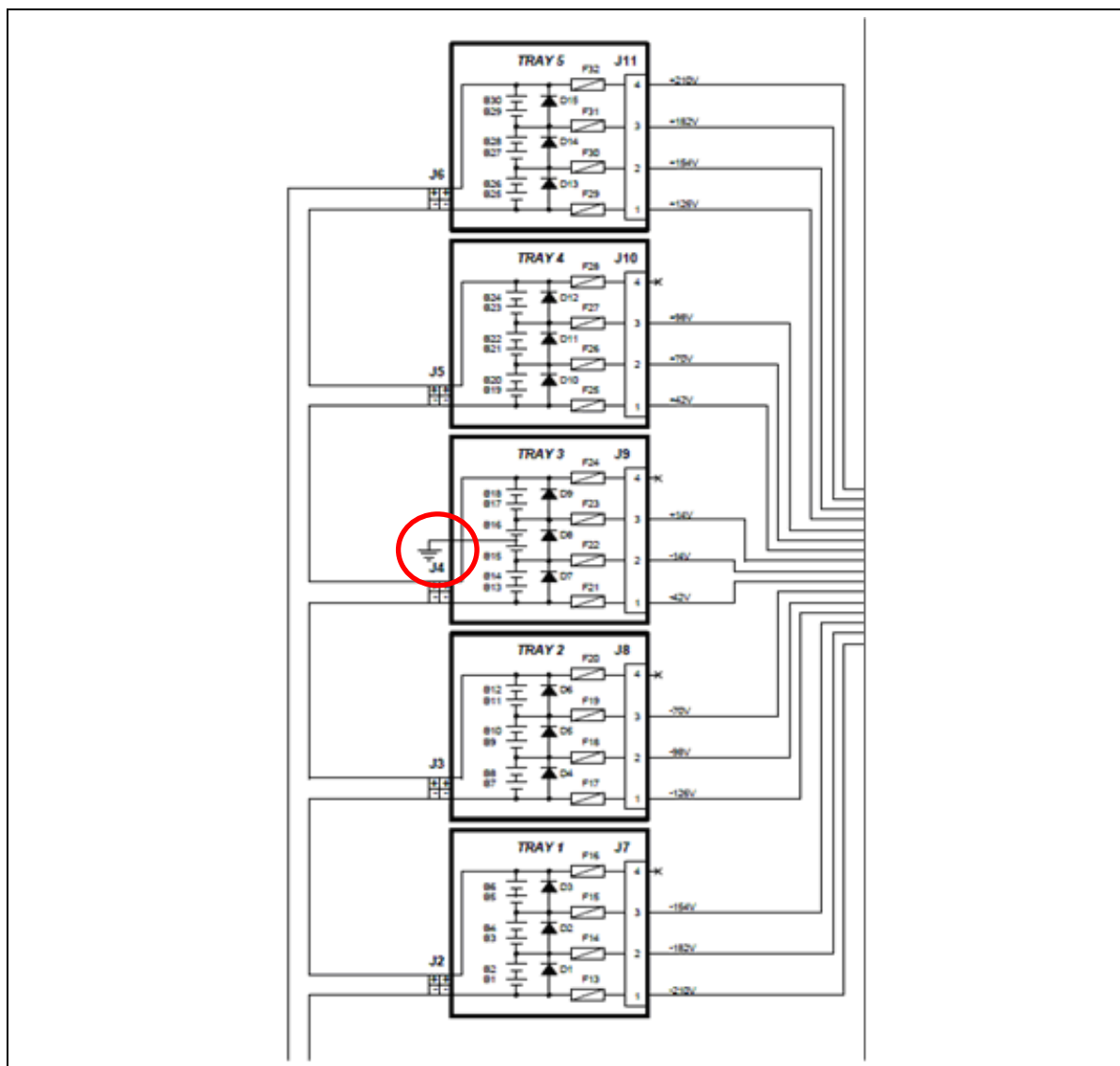


Figure 5

3.2.2 Installation of the Bornes kit

Install the Bornes kit.

3.3 Labelling

Current trays:

The current trays for the batteries have labels numbered from 1 to 6. The connection points of the batteries are documented on these labels.

New trays:

No labels are available ex factory. For an overview of the exact connection points of the **new** trays, please refer to the schematics in the Mobile X-Ray Unit Service Manual. See *Referenced Documents* in section 2 of this bulletin.



IMPORTANT:

It is strongly recommended to mark the new trays with the correct connection points.

Do this by either

- using printed labels with the correct connection points (see Figure 6) or
- writing the correct connection points onto each battery tray with a waterproof marker.

This will help to find the correct measuring points if troubleshooting is required.

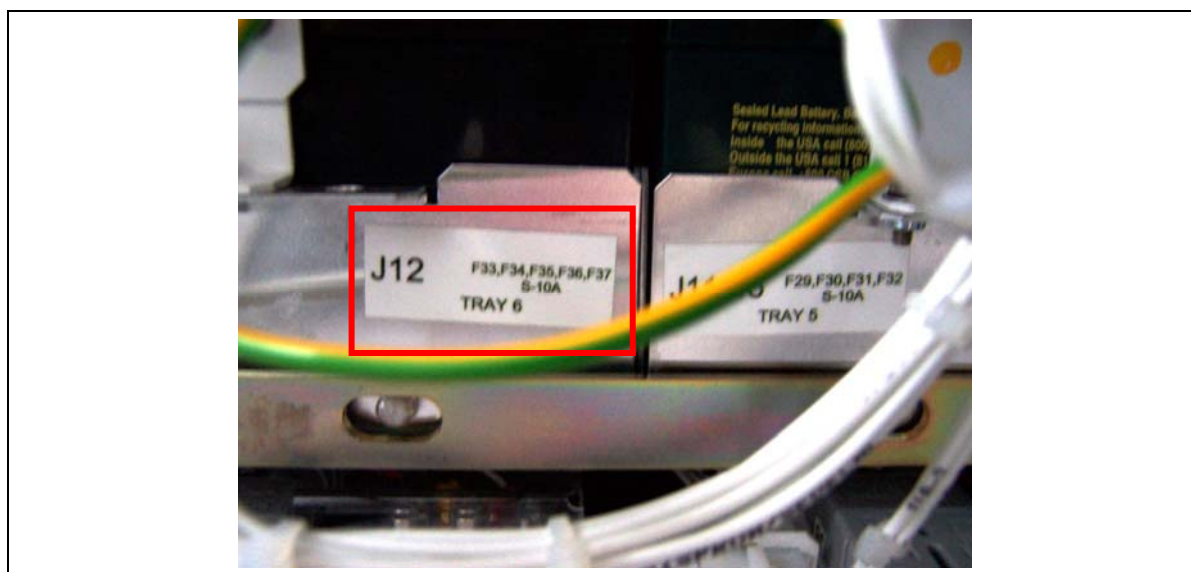


Figure 6

4 Verification

Not applicable

5 Keywords

Batteries; battery tray; EVH12150X2; EVH12150X3; Bornes kit; terminal clamps

6 Version history

Version	Change	Date
1.0	Initial version	11-2014