Service Bulletin

Battery Overheating Issue

Task

Timing	Category		Scope
Next service as agreed with customer	⊙	**Apply at all sites**	**PowerHelp complaint / HQ issue: HQ_1204260002**
	○	**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+DIS123.12E	*

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

Purpose of this document:

- To inform about the addition of a thermostat in the DX-D 100 / DX-D 100 Wireless that prevents overheating of a battery and the adjacent batteries during the charging process.
- To inform about availability of the corresponding new schematics.

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

Symptom   Sulfation (forming of lead sulfate powder) and overheating of batteries next to the battery which is being charged, caused by heat which is transmitted to the other batteries.

Cause   When the battery of the DX-D 100 / DX-D 100 Wireless is charging for a very long time there is a possibility that it will overheat during the charging process.

Solution   A thermostat will be added inside the DX-D100 / DX-D 100 Wireless.

This thermostat will interrupt the charge of the batteries if the temperature inside the DX-D 100 reaches 50ºC (122º F).

This prevents heat damage to the charged battery and the batteries next to it.

NOTE:

The newer DX-D 100 / DX-D 100 Wireless solutions are delivered with a thermostat.

Older DX-D 100 / DX-D 100 Wireless solutions which were delivered before a certain point in time may not have been fitted with a thermostat.

IMPORTANT:

So, check whether a thermostat has been installed in the solution or not.

If no thermostat has been installed, follow the procedure described below.

2   Prerequisites

SPARE PARTS:

The Thermostat Service Kit can be ordered via following spare part number*:
SC+A8224-01

*   The last digit in the spare part number indicates the spare part revision at release of this document.
    When ordering, the actual revision of the spare part is delivered.

REFERENCED DOCUMENTS:

- DX-D 100 Wireless schematics:
  54302150, revision I (refer to document DX-D 100 Wireless - X-Ray Mobile –
  Schematics in the Agfa HealthCare Library):
  Direct Radiography → DR Equipment → DX-D 100 Wireless

- DX-D 100 schematics:
  54302200, revision E (refer to document DX-D 100 - X-Ray Mobile –
  Schematics in the Agfa HealthCare Library):
  Direct Radiography → DR Equipment → DX-D 100

3   Instructions

REQUIRED TIME:
Approximately 45 minutes for mounting

3.1   Mechanical Preparations at the Console

(1)   Disconnect the device from the mains.

(2)   Remove console frame:
   o   Open the pencil tray and remove
         the two screws that fasten the
         console frame to the unit.
   o   Push the console frame towards
         the column. Do not lift up the
         console frame until its upper side is
         fully released.

Figure 1

(3)   Remove the front covers:
   o   Remove the six lateral screws
         placed on the front cover (see
         dotted-line marking) at both sides
         underneath the console frame.
         See figures 2 and 3.

Figure 2

Figure 3

(4)   Pull the curved-top cover upwards to disengage the three snaps underneath.

Figure 4

(5)   Remove the two fixing screws that fix the front cover to the mobile frame and remove the three screws to dismount the Bucky connector cover.
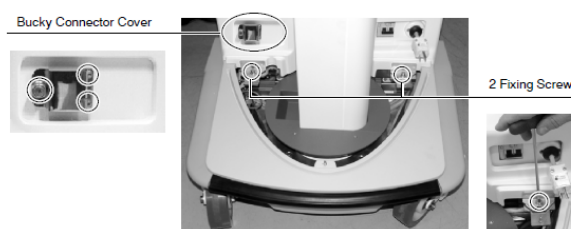

Figure 5

(6)   Before dismounting the front cover, remove two screws to dismount the catch of the parking detent device; then disconnect the sensor signal cable connector (J13).

Figure 6

(7)   Lift the front cover from the unit as shown in figure 7, passing the power line plug through its window.
For units with infrared remote control (optional), disconnect the sensor signal cable from the PCB and pass it through the cover hole.

Figure 7

(8)   Loosen the screws of the LF1 line filter behind which the thermostat will be fixed so that the thermostat support can be slid behind the line filter.

(9)   Dismount thermostat covers.

The following 2 figures illustrate how the thermostat kit is installed behind the line filter:

(10)   Mount the thermostat on the support which is fixed at the mobile location shown in figure 10 (dotted red line).
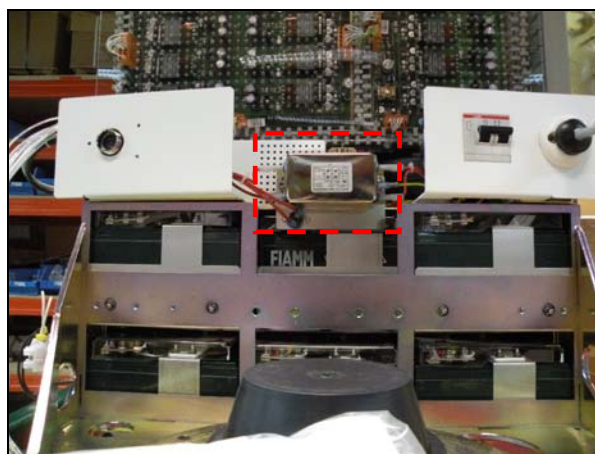

Figure 8

(11) Figure 11 shows the position of the bracket (with the installed switch) mounted behind the line filter in greater detail.
The area marked with a dotted frame in figure 12 corresponds exactly with the detail in figure 11.
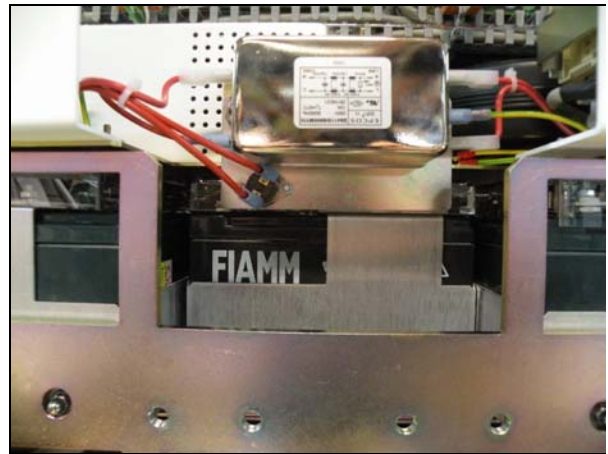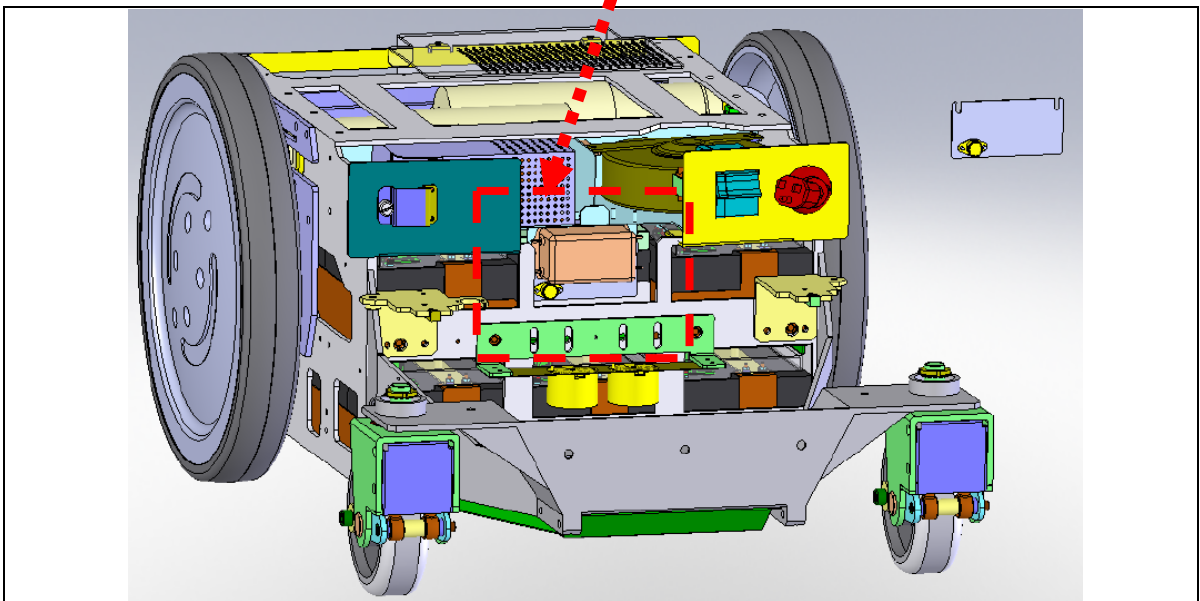

Figure 9

Figure 10

3.2 Electrical Installation

The following two figures show the complete wiring diagram (fig. 13) and the relevant detail which shows the new wiring layout with the built-in thermostat (figure 14).
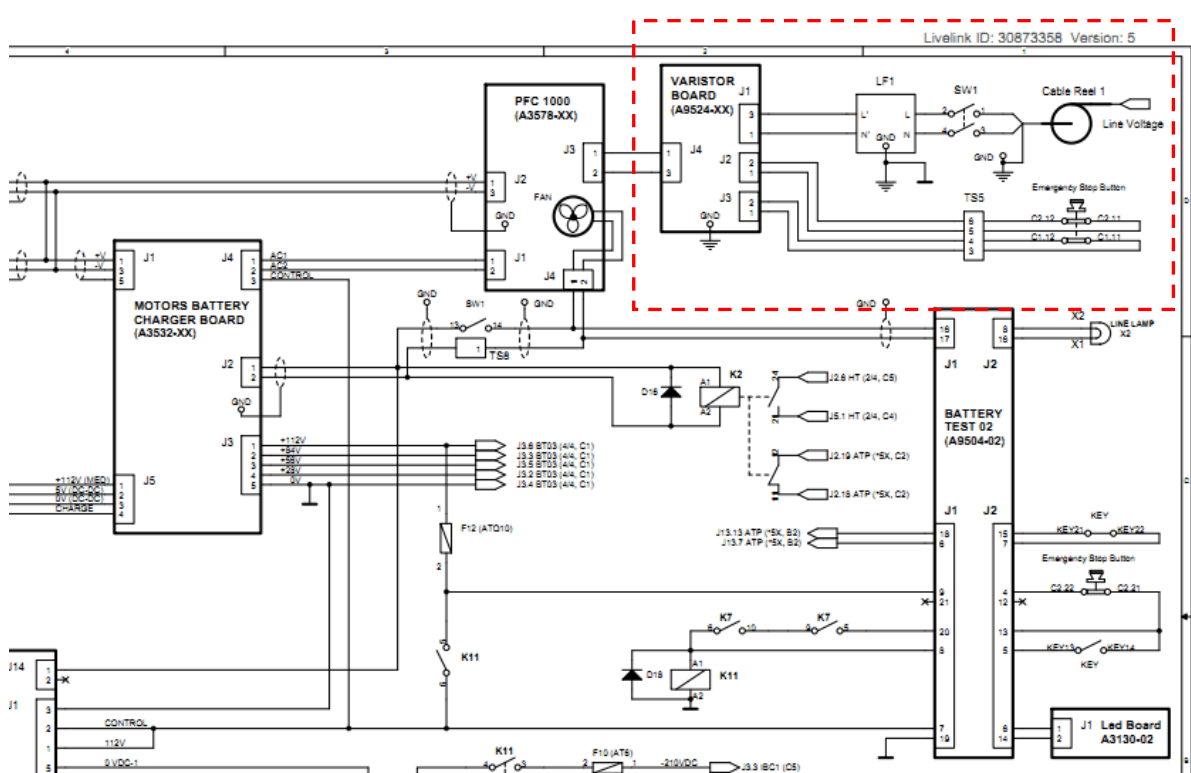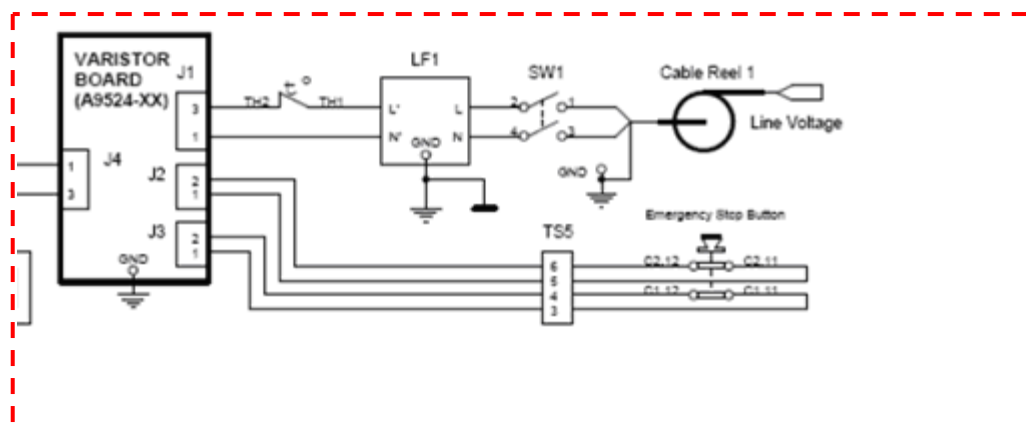

Figure 11

Figure 12

4   Verification

Perform a complete battery charging cycle and check if the issue occurs again.

The thermostat should interrupt the charging process if the temperature inside the DX-D 100 reaches 50ºC (122º F).

5   Keywords

Battery, overcharge, thermostat, charging, interrupt.

6   Version history

Version	Change	Date
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