Service Information Bulletin

This Bulletin is for information only.

Release of tube rotation upgrade kit without any detent in system version 4.6.80

Task

Timing		Category
Next service	○	**Apply at all sites**
	○	**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+DIS125.14E** *

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

Purpose of this document:

- This document announces system version 4.6.80 of the DX-D 100 / 100 Wireless solutions.
- With this system version, a new upgrade kit which admits the rotation of the tube without any detent is introduced.
- This bulletin contains the ordering and installation instructions for this upgrade kit.

1 Introduction/purpose

Symptom

The system had to be repositioned completely when only small adjustments of the tube angle were required.

The tube - collimator unit tended to drop back into the detent on both axes even if this was not desired.

Cause

The tube provided no possibility that allowed small adjustments of the tube angle.

Solution

Solved with an upgrade kit that admits rotation of the tube without any detent. This kit is introduced in production with the release of DX-D 100 / DX-D 100 Wireless system version 4.6.80.

Figure 1 shows the lateral view of the tube rotation kit.

Figure 1

Figure 2 shows the frontal view of the rotation kit.

Note:

This is the old rotation kit, which can be identified by the two detent pins indicated by the circle marks.

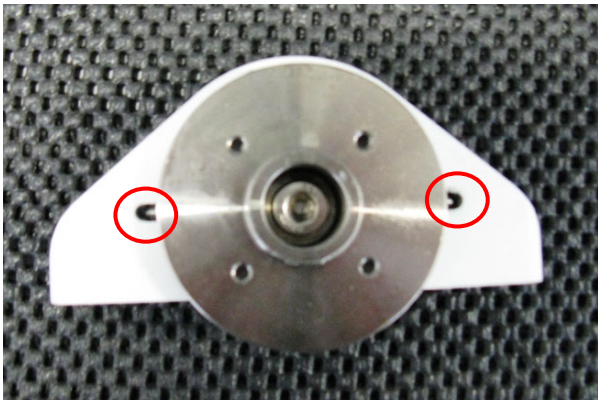

Figure 2

For instructions on how to install the upgrade kit, refer to section 3 in this document.

2 Prerequisites

SPARE PARTS:

The Tube rotation kit without 90° detent can be ordered via the following spare part number:

- TUBE TURNING RIGHT KIT W/O 90DEG DETENT SC+A520204-02

TOOLS:

- Standard service engineer's tool kit
- Medium strength threadlocker (Loctite 243)
- Allen key with ball head

REFERENCED DOCUMENTS:

- DX-D 100 Mobile X-Ray Unit User Manual 0188 C
  Direct Radiography > DX-D 100 > DX-D 100 Generic > User Manual

IMPORTANT:

Two persons are required for steps 10 to 14.

3 Instructions

REQUIRED TIME:
Approximately 60 minutes

The following instruction explains how to upgrade the DX-D 100 mobile X-Ray unit for use without any detent position in the tube - collimator movement on its horizontal axis.

See Figure 3 for a lateral view of the tube rotation kit in the complete collimator assembly and Figure 4 for a near-frontal view of the right-hand side and left-hand side tube rotation kits.

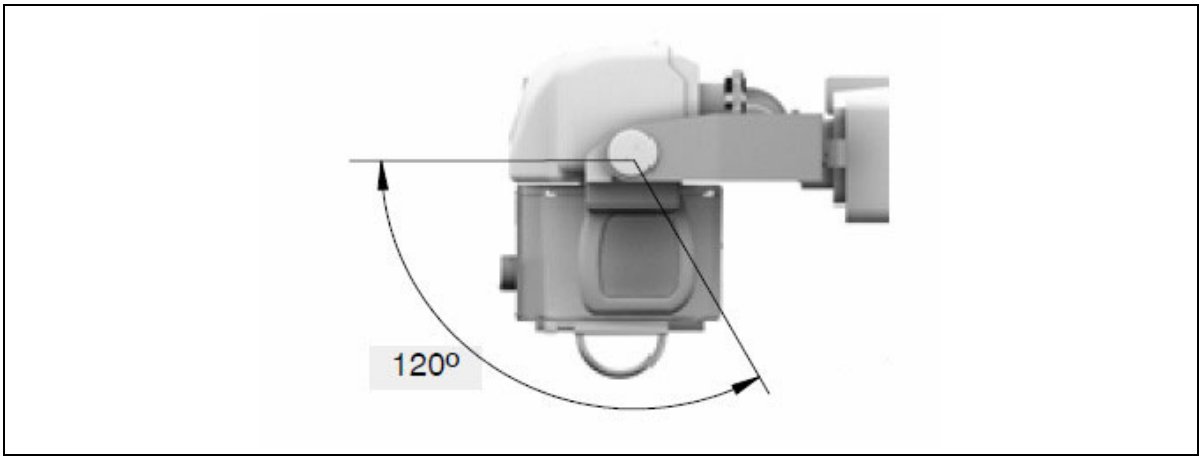

Figure 3

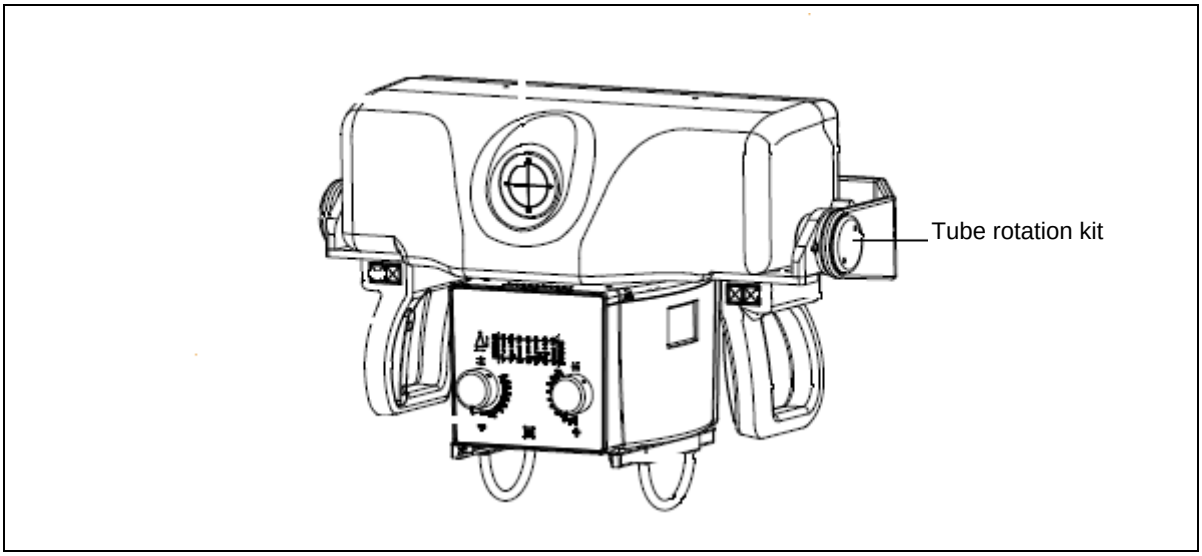

Figure 4

(1) Turn the telescopic arm of the mobile unit so that the tube–collimator assembly is positioned away from the unit's body. See Figure 5.

IMPORTANT:

Make sure that the telescopic arm is in a secure position so that the DX-D 100 can't move during installation.

For detailed instructions on how to operate the mobile unit, refer to the *DX-D 100 Mobile X-Ray Unit User Manual 0188 C,* chapter 3.7, *Motion Controls.* See section 2, *Referenced Documents* in this bulletin.

Figure 5

(2) Lower the tube - collimator assembly so that it rests safely on a table placed beneath it.

Figure 6

Remove the tube cover by unscrewing the four fixation screws as indicated in Figures 7 – 8.

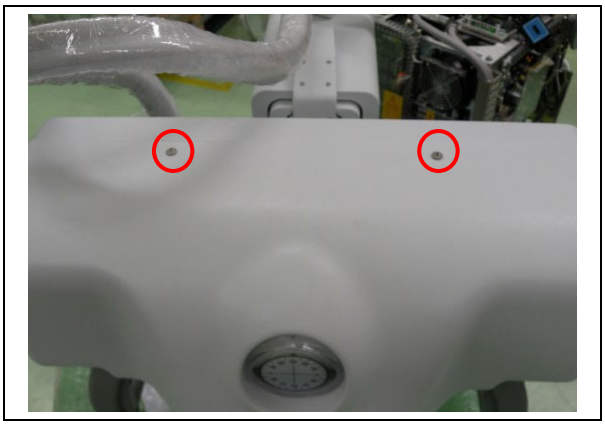

Figure 7

NOTE:
Use a ball head Allen wrench for the two screws on the lower side of the cover.

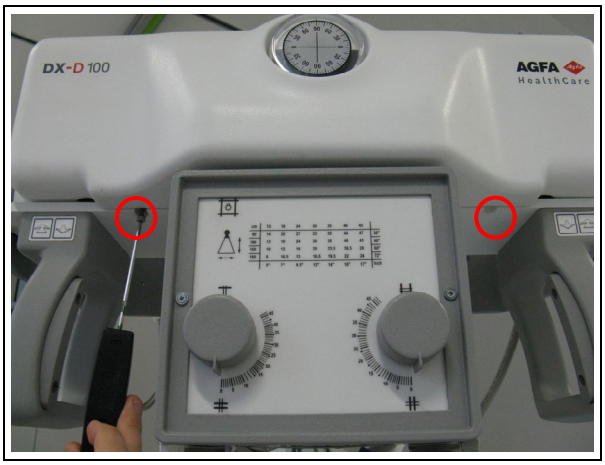

Figure 8

(3) Remove the side cover of the tube - collimator assembly by unscrewing the two fixation screws as indicated in Figure 9.

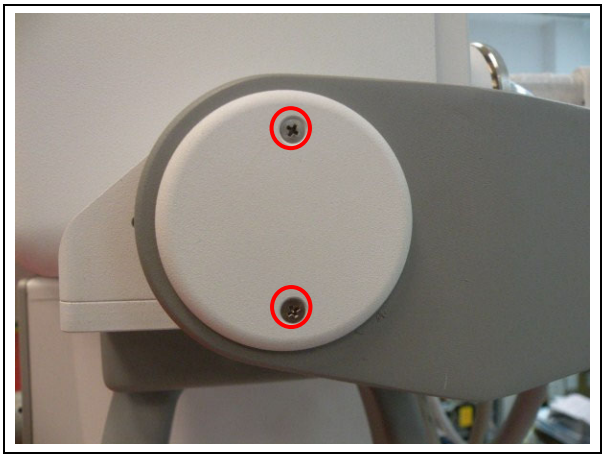

Figure 9

(4) Remove the four M4 fixation screws.

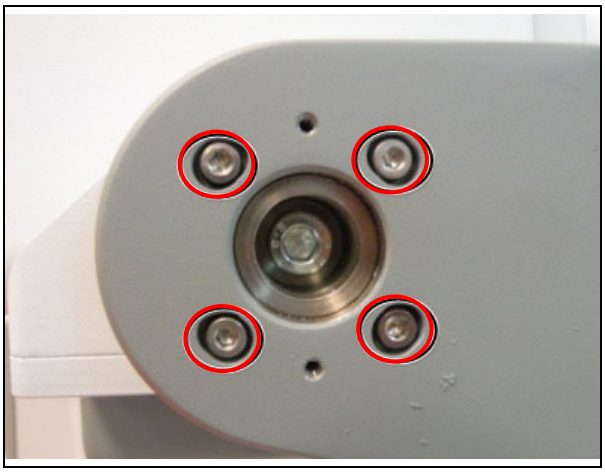

Figure 10

(5) Remove the four M5 screws from the lower part of the tube - collimator assembly as indicated in Figure 11.

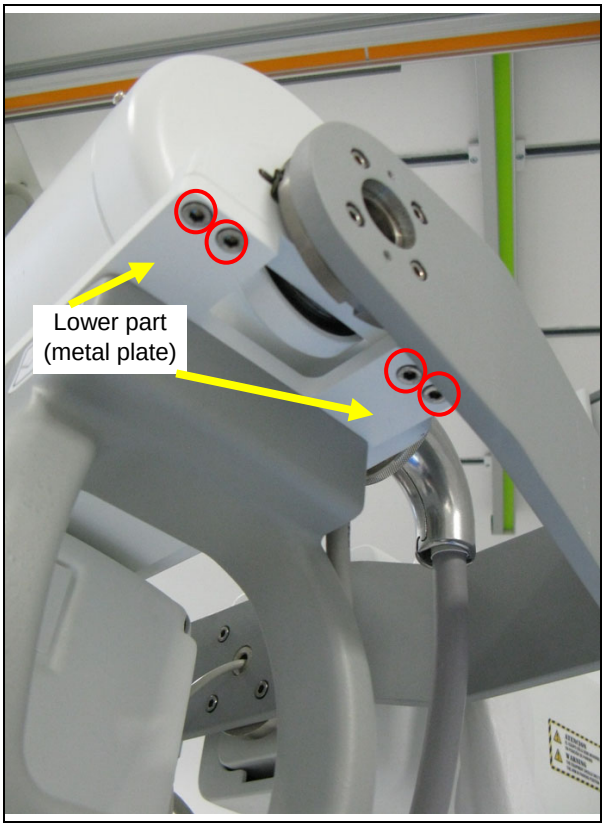

Figure 11

(6) Slide the rotation kit out of the holder. See direction of arrow in Figure 12.

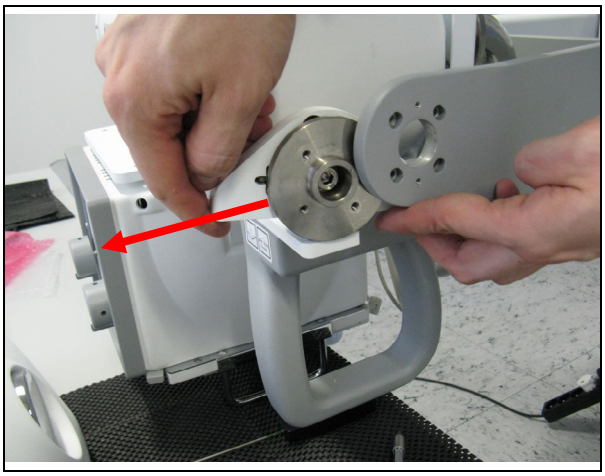

Figure 12

(7) Replace the old rotation kit by the new one. As the dimensions of both parts are identical, it can be inserted in exactly the same way as the old one.

Reassembling:

(8) Fix the four M4 fixation screws. Use medium strength threadlocker (Loctite 243) for fixing the screws.

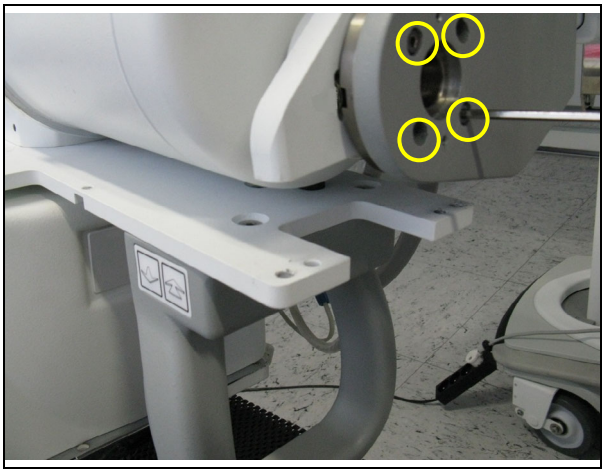

Figure 13

IMPORTANT:

The following two steps should be performed by two persons, one supporting the lower part metal plate and one inserting the rotation kit.

Make sure that the metal plate which forms the lower part of the complete assembly is held safely in place.

When fixing the four M5 screws at the lower part of the tube - collimator assembly, make sure that the bore holes of the metal plate and the bore holes of the rotation kit's side parts are matching. See Figures 14 and 15.

Use medium strength threadlocker (Loctite 243) for fixing the M5 screws.

Figure 14

(9) Support the lower part with both hands so that it is parallel with the rotation kit's side parts.
The yellow arrow marks in Figure 15 indicate the positions of the bore holes in both parts.

(10) Bring the lower part metal plate close the bottom side of the rotation kit.

(11) Apply a screw by inserting it in a bore hole from below and bring it towards the corresponding bore hole at the bottom side of the rotation kit.

(12) As soon the screw begins to grip, the person supporting the lower plate can apply a little pressure from below. This helps bringing the lower plate closer to the rotation kit's bottom side as the screw begins to grip in the thread of the bore hole.

(13) Apply the remaining three screws.

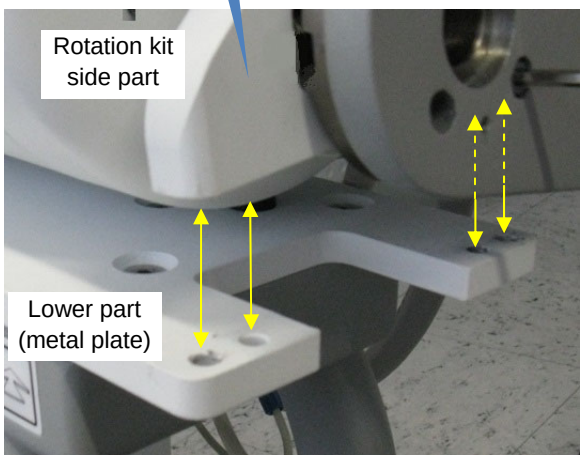

Figure 15

(14) Fix the side cover of the tube - collimator assembly.
Use medium strength threadlocker (Loctite 243) for fixing the screws.

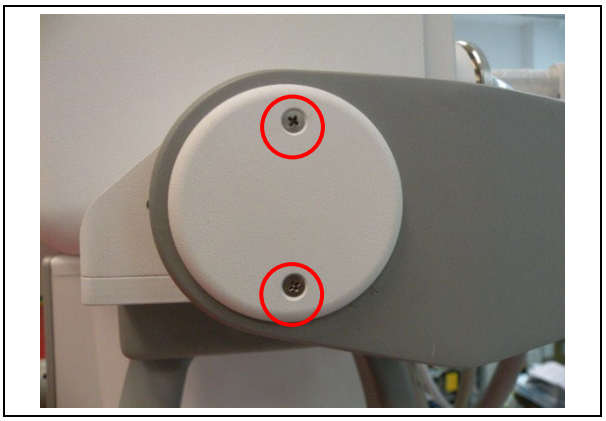

Figure 16

(15) Remount the tube cover, starting with the two screws on the lower side of the cover.

4 Verification

Check proper movement of the tube - collimator assembly.

5 Keywords

Detent; tube-collimator

6 Version history

Version	Change	Date
1.0	Initial version	10-2014