

## Service Information Bulletin

**Revised version: Revised instructions in the appendix**

### **Introduction of 3 optional hardware components: New collimator handgrips, redesigned handle switch button and new upper column cover**

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+DIS056.17E

\*

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

Purpose of this document:

This document

- This document introduces 3 new optional hardware components for the DX-D 100 / DX-D 100 Wireless Systems.
- The document provides installation instructions for the replacement of the collimator handgrips.
- It also provides references to the installation instructions for the other 2 optional hardware components.

Affected serial number(s) / batch: Refer to the section of each component for a serial number of the introduction in production if applicable.

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Release date: 08-2017

DX-D 100 / DX-D 100 Wireless

Agfa HealthCare Company Confidential Type 5410/050 / 5411/050/300/400

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## 1 Introduction

With DX-D 100 / DX-D 100 Wireless system version 9.1 the following 3 hardware options are introduced:

- New collimator handgrips
- Redesigned handle switch button
- New upper column cover

### 1.1 Revised collimator handgrips



**NOTE:**

The collimator handgrips are available as option for all DX-D 100 subtypes with collimators as of R 221/A 170E:

- DX-D 100 Type 5410/050 as of serial number A54100000090
- DX-D 100 Wireless Type 5411/050 as of serial number A5411000294
- All DX-D 100 Wireless Type 5411/300/400



Figure 1

In previous versions of the DX-D 100 the user had to rotate the tubehead in one step and had to move the collimator afterwards in a second step.

Now the handgrips of the collimator have been redesigned. With the new design the movement of the tube head and the collimator is possible at the same time in one step.

It is possible to upgrade the revised collimator handgrips in the field or add it optionally ex-factory.



Figure 2

For upgrades in the field it is possible to order:

- Revised collimator handgrips for DX-D 100 / DX-100 Wireless with Telescopic column:  
SC+14748-191 UPGRADE HANDLE COLIMATOR (telescopic column)
- Revised collimator handgrips for DX-D 100 / DX-100 Wireless with Standard column  
SC+14748-192 UPGRADE HANDLE COLIMATOR (standard column)

## 1.2 Revised handle switch button

**NOTE:**

The new handle switch button is available as option for all DX-D 100 subtypes.

The switch button inside the handle is redesigned to protect the wires connected to the switch of the handgrip. Additionally there is a new metallic plate as protection for the wires included in the revised switch.

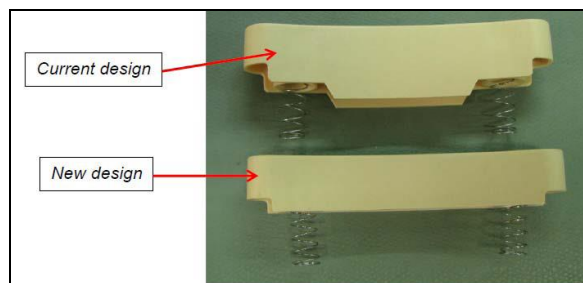


Figure 3



Figure 4

It is only required to replace the switch if there are issues with the old switch.

In the case that the switch should be replaced order the switch upgrade kit with order number SC+A521491-019. The kit includes:

- Two buttons,
- Two metallic protections
- Two springs

The upgrade kit is backwards compatible and can be installed on all installed DX-D 100 / DX-D 100 Wireless Systems.



Figure 5

### 1.3 New upper column cover

**NOTE:**

The new upper column cover is available as option for all DX-D 100 with standard column.

In previous released system versions the column upper cover shape is not completely aligned with the column. There is no influence on the functionality.



Figure 6

Now the upper cover was revised for a better fitting. The cover is available via spare part order number SC+11822-191 Top Cover Column.



Figure 7

The new part is backwards compatible.

## 2 Prerequisites



### SPARE PARTS:

- Revised collimator handgrips for DX-D 100 / DX-100 Wireless with Telescopic column:  
SC+14748-191 UPGRADE HANDLE COLIMATOR (telescopic column)
- Revised collimator handgrips for DX-D 100 / DX-100 Wireless with Standard column  
SC+14748-192 UPGRADE HANDLE COLIMATOR (standard column)
- Redesigned handle switch button upgrade kit:  
SC+A521491-019
- Revised upper column cover for DX-D 100 with standard column:  
SC+11822-191 Top Cover Column



### TOOLS:

- Standard service tool kit



### REFERENCED DOCUMENTS:

- Mobile X-Ray Unit - Service Manual  
**Direct Radiography > DX-D 100 > DX-D 100 Generic > Service Manual**,  
Document ID [41600560](#).
- DX-D 100 Wireless - Service Manual  
**Direct Radiography > DX-D 100 Wireless > DX-D 100 Wireless V9 > Service Manual**, Document ID [57323150](#)
- DX-D100 - Service Manual  
**Direct Radiography > DX-D 100 > DX-D 100 V9 > Service Manual**,  
Document ID [57538751](#)
- DX-D100 / DX-D 100 Wireless - Spare Parts List  
**Direct Radiography > DX-D 100 > DX-D 100 Generic > Service Spare Parts**,  
Document ID [30872155](#)



### IMPORTANT:

The installation and service of the product(s) described herein is to be performed by qualified personnel who are employed by Agfa HealthCare N.V or one of its affiliates or who are otherwise authorized by Agfa HealthCare N.V. or one of its affiliates to provide such services.

### 3 Instructions

#### 3.1 Replacement of the collimator handgrips



**REQUIRED TIME:**  
2 hours



**NOTE:**  
Follow the replacement instructions attached in the appendix of this document.

#### 3.2 Replacement of the handle switch button



**REQUIRED TIME:**  
1 hour



**NOTE:**  
For the replacement instructions of the handle switch button refer to Mobile X-Ray Unit - Service Manual with Document ID [41600560](#), Chapter Troubleshooting, 6.10 Handgrips and microswitches replacement.

#### 3.3 Replacement of the upper column cover



**REQUIRED TIME:**  
30 minutes



**NOTE:**  
For the replacement instructions of the upper column cover refer to Mobile X-Ray Unit - Service Manual with Document ID [41600560](#), Chapter Troubleshooting, 2.2.1.5 Column Covers.

## 4 Verification

Refer to the verification in the respective documentation

## 5 Keywords

Collimator handle bars, tube head handles, button handle

## 6 Version history

Version	Change	Date
1.0	Initial version	06-2017
2.0	Added new version of the appendix (Revision B)	08-2017

## 7 Appendix

Instructions for the replacement of the collimator handgrips:  
"UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1 Rev.B"



### NOTE:

In the following appendix the Sedecal spare part numbers and their names are mentioned.

- Mobile 3.0 is equivalent to DX-D 100 / DX-100 Wireless with Standard column
- Mobile 3.1 is equivalent to DX-D 100 / DX-100 Wireless with Telescopic column



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

Rev. B

SIN 17/03/05

**SECTION 1 APPLICATION**

This Service Information Note applies to Xray Mobile Units.

**SECTION 2 DESCRIPTION OF INTERVENTION****Introduction.**

This Service Information Note describes the steps to install the SAT-14748-01-XXX in the Xray Mobile.

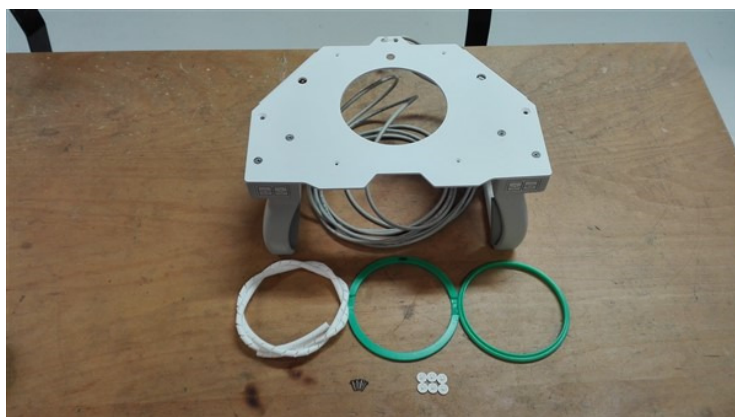
**Tools (Not provided in the kit).**

- Standard Service Engineer's Tool Kit
- Service manual

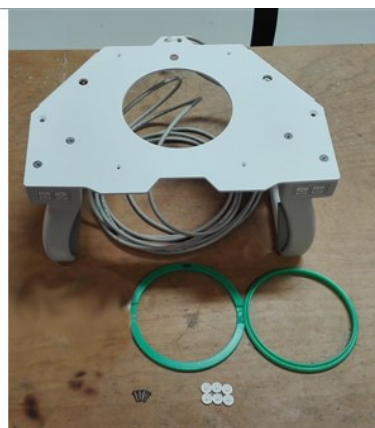
**Materials.**

- SAT-14748-01-XX1 – UPGRADE HANDLE COLIMATOR FOR MOBILE 3.1  
OR SAT-14748-01-XX2 - UPGRADE HANDLE COLIMATOR FOR MOBILE 3.0

SAT-14748-01-XX1



SAT-14748-01-XX2



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

Rev. B

SIN 17/03/05

**SECTION 3 FIELD ACTIONS**

1. Lift the telescopic arm out from the parking position and set the telescopic arm to a comfortable working height.

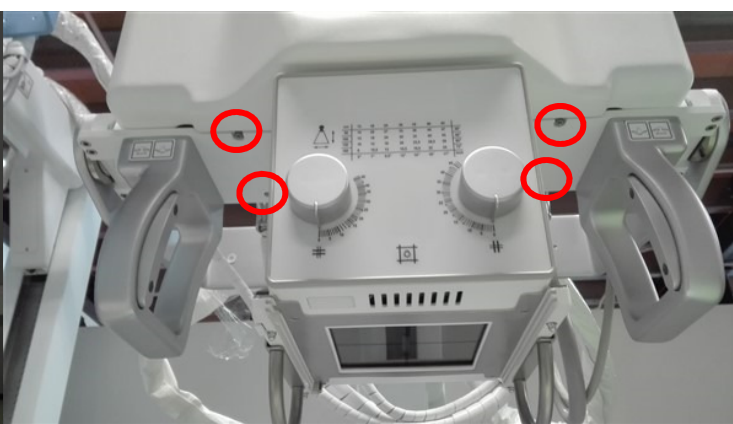
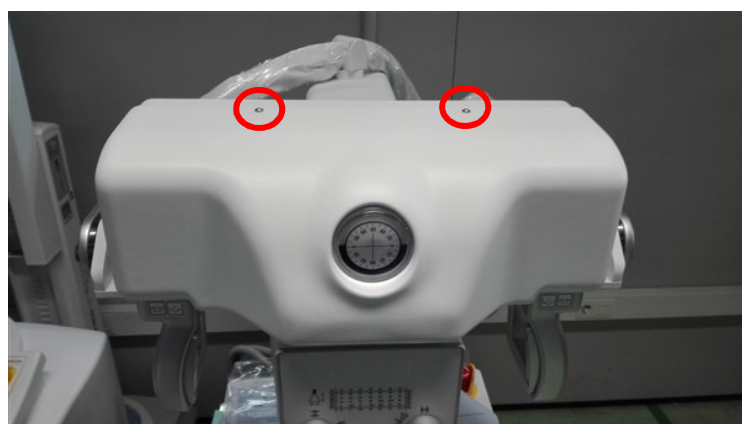


Mobile 3.1



Mobile 3.0

2. Turn OFF the unit.
3. Remove the tube cover by removing the fixing screws show on the next picture



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

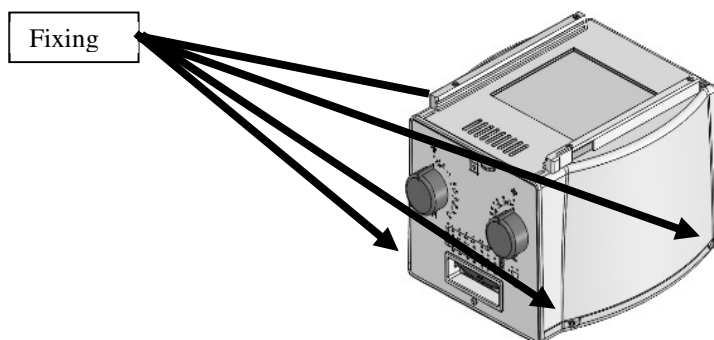
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4. Place on the top of the telescopic arm a weight equivalent to the collimator weight (8kg aprox.)



5. Disconnect the collimator and remove it from the unit loosening the 4 fixing screws.





**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

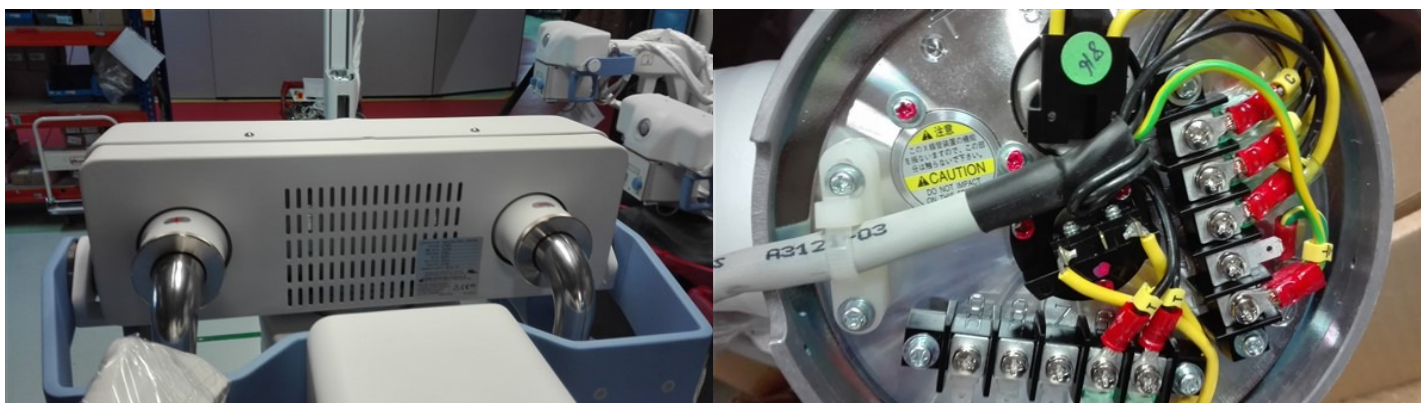
Rev. B

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6. Add on the top of the telescopic arm a weight equivalent to the Xray tube weight (15kg aprox).



7. Disconnect the Xray tube and remove it from the unit loosening the 4 fixing screws located on the output window of the tube.



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

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8. Remove the tube support handle removing the fixing screws show on the next pictures.



9. Remove the High voltage housing protector and the bracket that hold the high voltage cable.



Mobile 3.1

Mobile 3.0

**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

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10. Remove the Column top cover by removing the fixing screws.



Mobile 3.1



Mobile 3.0

11. Remove the high voltage column cover by removing the fixing screws show on the next pictures.



Mobile 3.1



Mobile 3.0



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

Rev. B

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12. Remove the front column cover by removing the screws show on the next picture.



Mobile 3.1



Mobile 3.0

13. Disconnect the connector J10, J11 and remove the 2 handles with their cables.



Mobile 3.1



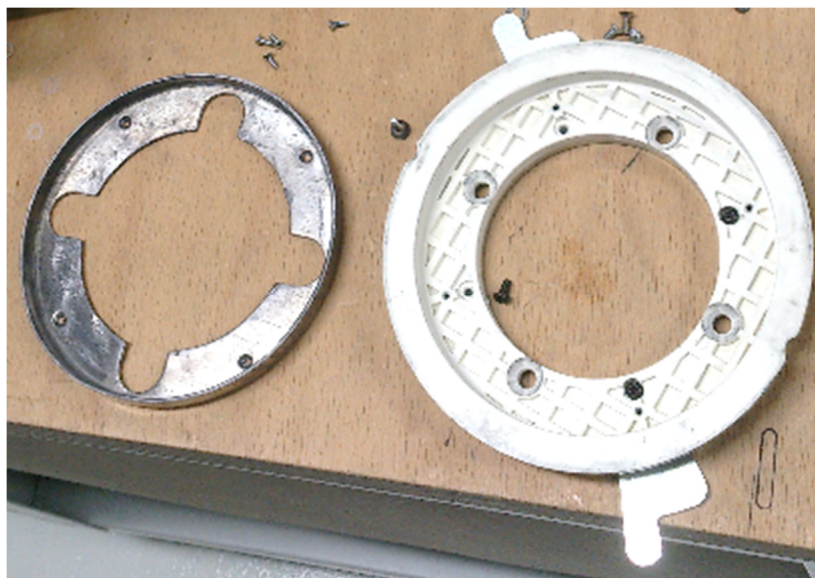
Mobile 3.0

**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

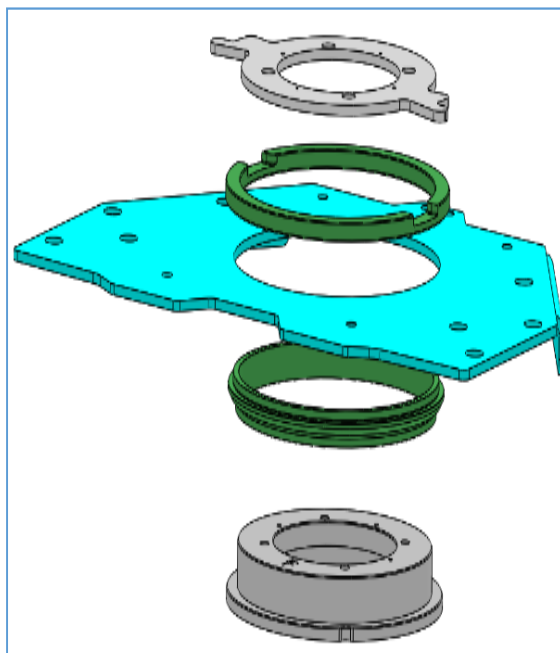
Rev. B

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14. Remove the screws from the lead part to access the screws that fasten the stopping plate to the flange.



Exploded view of the assembly:





**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

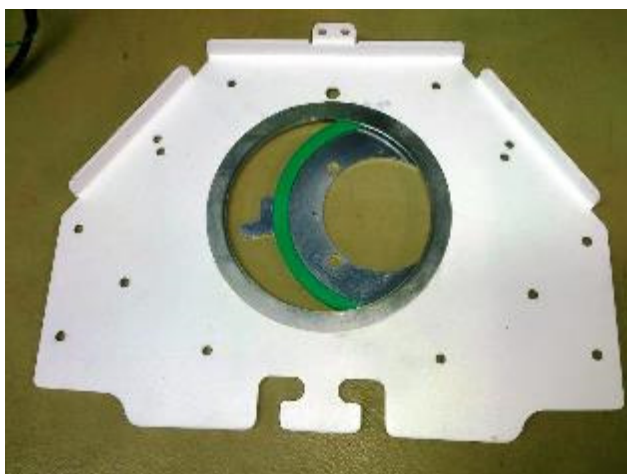
Rev. B

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15. Align the grooves in the ring with the protrusions of the stopping plate:



16. Orientation of the protrusions at the stopping plate:



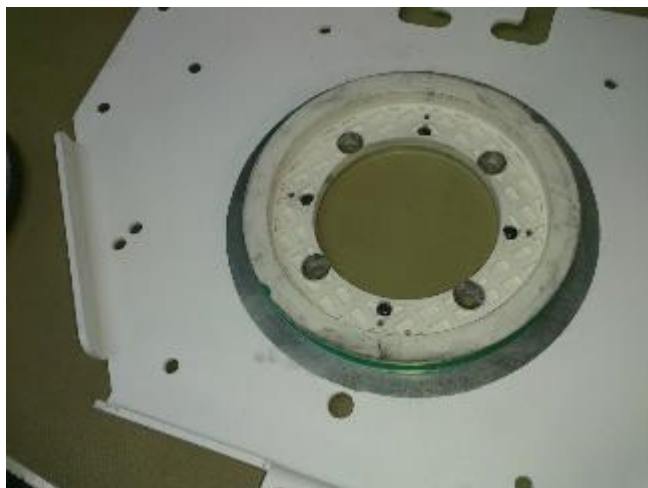
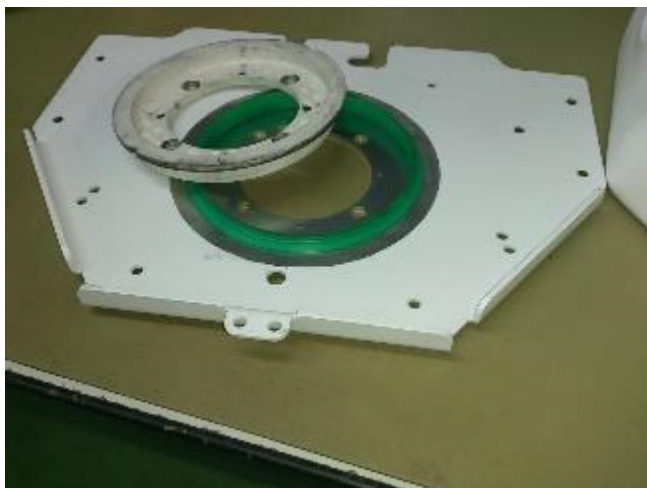
**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

Rev. B

SIN 17/03/05

17. Complete the assembly and reinstall the M3 black screws:

**CAUTION:** The "F" mark at the collimator flange must be in frontal position:



18. Reinstall the lead protection. Be careful to not cross-head the plastic thread.



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

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19. Reinstall the screws for the RX tube. Maintain the F mark of the plastic flange in the frontal position.

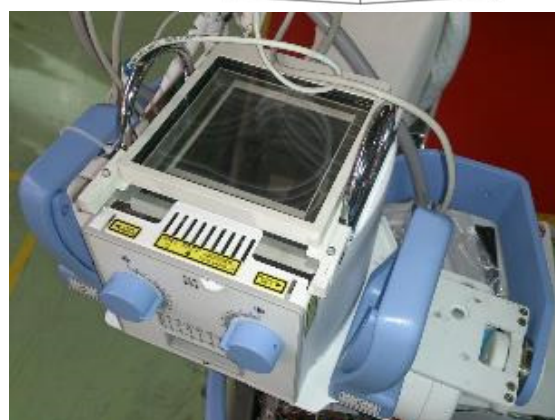
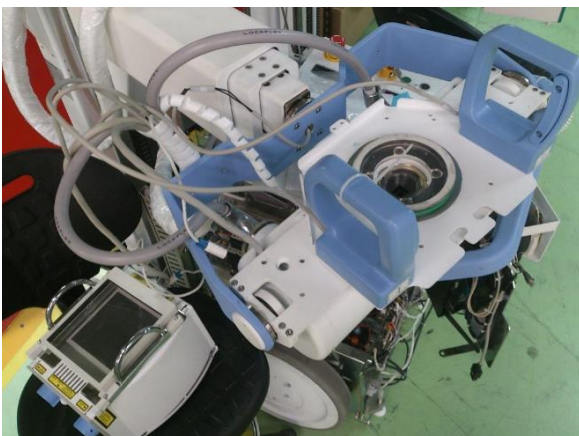
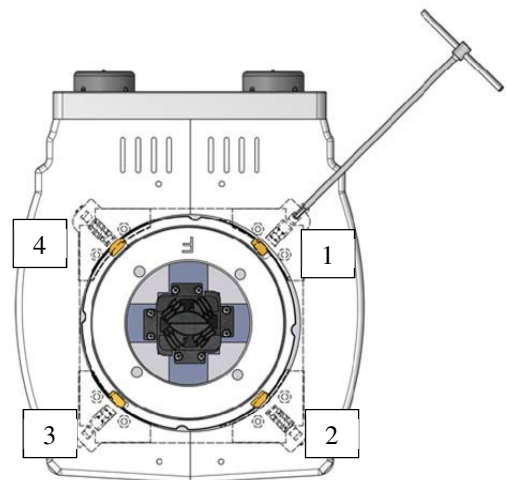
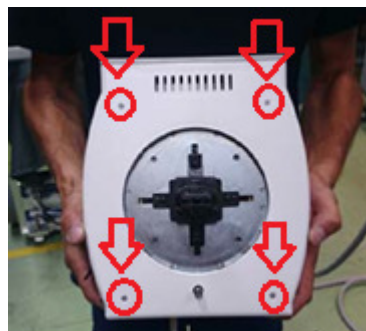


20. Remove the 15kg weight placed on the top of the telescopic arm.
21. Remove the 4 screws of the collimator top cover show on the next picture  
Turn downwards again the head to reinstall the collimator.  
Install the Collimator to the flange adjusting and tightening the four Collimator Allen screws as follows:

Screws 1 and 3 = 7 turns.

Screws 2 and 4 =  $5\frac{1}{2}$  - 6 turns, to ensure Collimator rotation.

*(If screws 2 and 4 are tightened more than  $5\frac{1}{2}$  - 6 turns, the collimator will not rotate. For further information, refer to the Collimator Manual)*



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

Rev. B

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22. Remove the 8kg weight placed on the top of the telescopic arm.
23. Turn up the RX tube head.
24. Use four M3 countersunk screws to fix the support plate to the collimator.



25. Two of the screws on the bottom necessary to reinstall the tube cover must be accessed through the holes of the plate.



26. Reconnect the tube and the collimator.



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

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27. Protect the cabling with the supplied plastic tapes.



28. Using the tie wraps, route the new connection cable to the high voltage cable to the column and reconnect J10 and J11.



Mobile 3.1



Mobile 3.0

**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

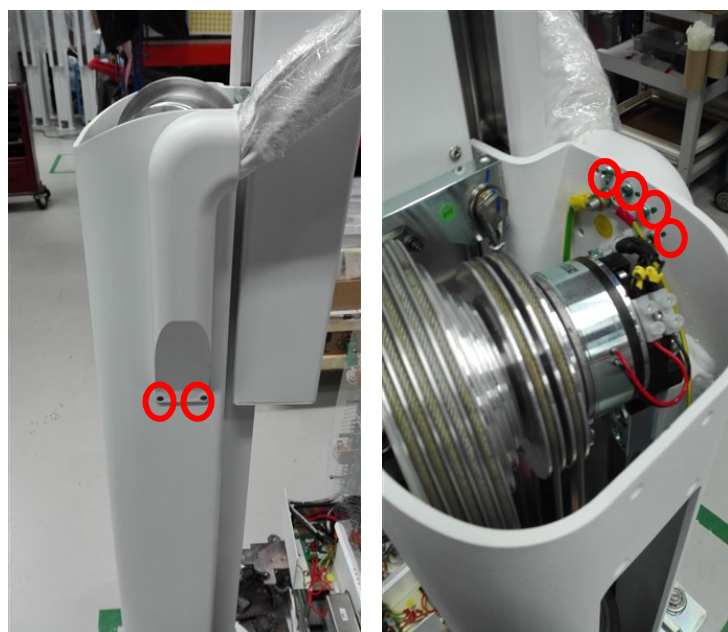
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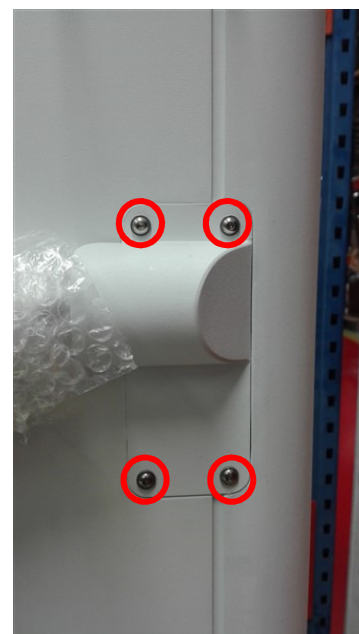
29. Set back the high voltage housing protector.



30. Install back the high voltage column cover.



Mobile 3.1



Mobile 3.0

**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

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31. Install back the column cover.



Mobile 3.1



Mobile 3.0

32. Install back the top column cover.



**UPGRADE HANDLE COLIMATOR MOBILE 3.0 AND 3.1**

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33. Turn ON the unit and check that the new brakes switchs are working properly and the unit is moving properly.
34. Make an exposure to check the collimator ajustement  
If necessary, using the service manual instrction, adjust the collimator position on the Xray tube.

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