

Replacing the X-ray Generator and Secondary Collimator Assembly



WARNING: Before removing the covers, you **MUST** switch OFF the unit **AND** disconnect the unit from the main power supply by switching OFF the circuit breaker in the electrical cabinet.

ONLY an approved Carestream technician is qualified to inspect or maintain the unit while it is switched on and while the covers are removed. In this case, **NO** unqualified person must approach the unit.

1. Description

The X-ray generator:

- Supplies high-voltage circuit power to the X-ray tube.
- Enables the selection of kV, mA, and exposure time.

The secondary collimator assembly directs the X-ray beam for image acquisition.

Tool Requirements

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You must supply the following tools:

- Metric allen keys.
- Metric spanners.
- Flathead screwdriver.
- Calibration tools.



Note: The tool references mentioned in this guide are ISO tool references.

Before Removing or Replacing the X-ray Generator and Secondary Collimator Assembly

Before removing or replacing the X-ray generator and secondary collimator assembly, make sure that:

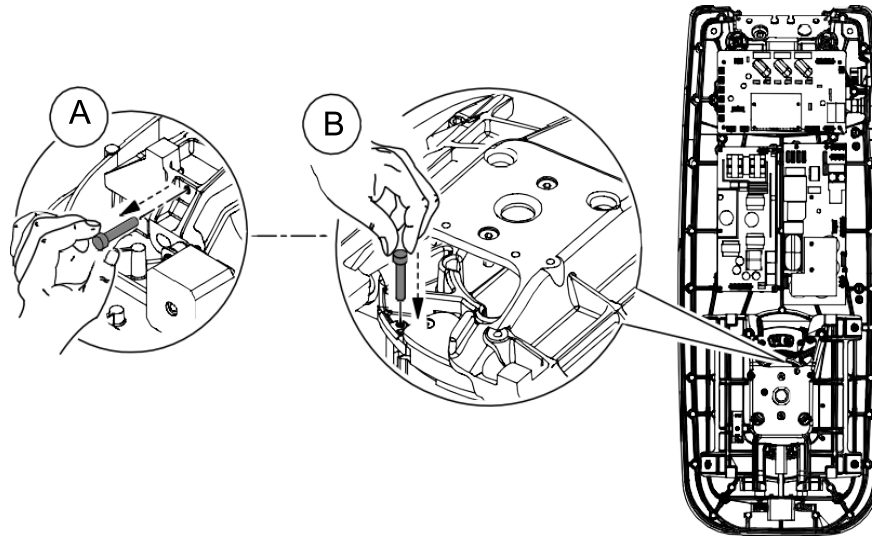
- The unit is disconnected from the main power supply by switching off the circuit breaker in the electrical cabinet.
- The unit is switched off.
- The rotative arm covers are removed.
- You have the required tools.
- You have the appropriate new X-ray generator and secondary collimator assembly.
- You have three new lock nuts.

2. Removing the X-ray Generator and Secondary Collimator Assembly

To remove the X-ray generator and secondary collimator assembly, follow these steps:

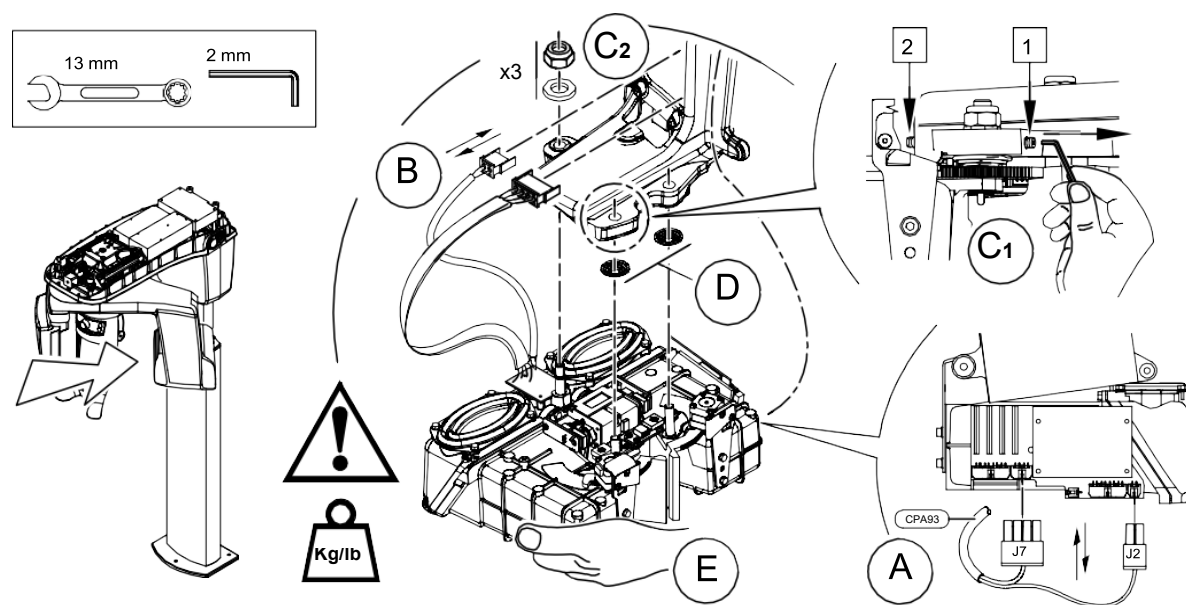
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1. Block the rotative movement by placing the pin **A** in the slot on the left of the metal access plate **B** that covers the CJ857 movement detector board.



2. Disconnect the two cables from the CJ889 collimator driver board on the side of the X-ray generator. **A**

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3. Disconnect the two X-ray generator cables from the CJ855 generator power board. (B)
4. Loosen the two adjustment screws. (C₁)
5. Undo the three lock nuts. (C₂)

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6. Support the X-ray generator with one hand. (E)
7. Remove the three lock nuts and washers with your other hand. (C₂)

**WARNING: The X-ray generator is HEAVY.**

8. Carefully lower the X-ray generator and be careful not to lose the two springs. (D)

3. Replacing the X-ray Generator and Secondary Collimator Assembly

To replace the X-ray generator and secondary collimator assembly, follow these steps:

1. Place the two springs in position on the X-ray generator. (D)
2. Support the X-ray generator with one hand (E) and position it in the three holes on the rotative arm. C₂

**WARNING: The X-ray generator is HEAVY.**

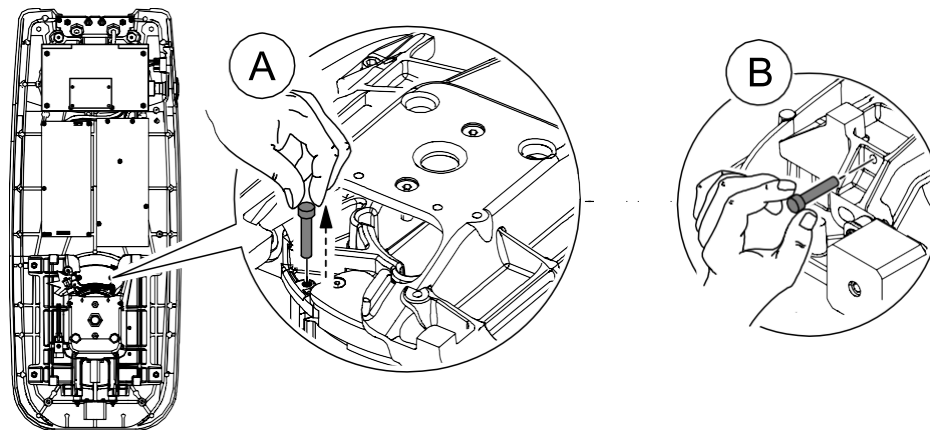
3. Place the three washers and new lock nuts in position and tighten them until they are even with the threaded rod.
Then completely tighten the lock nut at the back. (C₂)

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Important: You must use three NEW lock nuts when replacing the X-ray generator.

4. Unscrew adjustment screw **1** completely and tighten adjustment screw **2** completely. Then tighten adjustment screw **1** until contact and not completely.
5. Connect the two X-ray generator cables to the CJ855 generator power board. **B**
6. Connect the two cables to the CJ889 collimator driver board on the side of the X-ray generator. **A**
7. Remove the pin blocking the rotative movement **A** and put it back in its storage position. **B**



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8. Switch on the circuit breaker in the electrical cabinet.
9. Switch on the unit.
10. Using the Service Tools:
 - Go to **Generator replacement** procedure under **Part replacement**.
 - Carry out all the calibrations (generator, collimator, geometric and cephalometric) by following the on-screen instructions.
 - Save the system and calibration parameters.

4. Testing the X-ray Generator and Secondary Collimator Assembly

To test the X-ray generator and secondary collimator assembly, follow these steps using the Service Tools:

1. Run the post installation procedure.
2. Register the intervention

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