RN-SPCGK51

24 Replacing the X-ray Generator and Secondary Collimator Assembly for Units with the Cephalometric Modality

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.

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

You must supply the following tools:

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

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

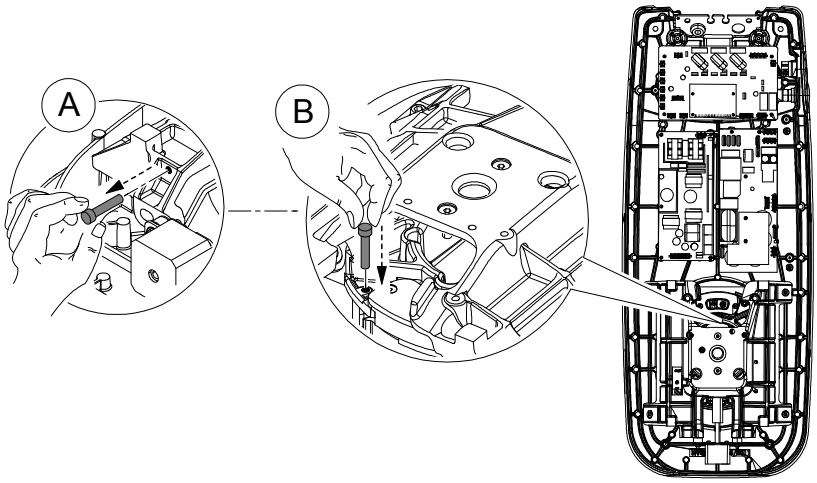
Before Removing or Replacing the X-ray Generator and Secondary Collimator Assembly

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

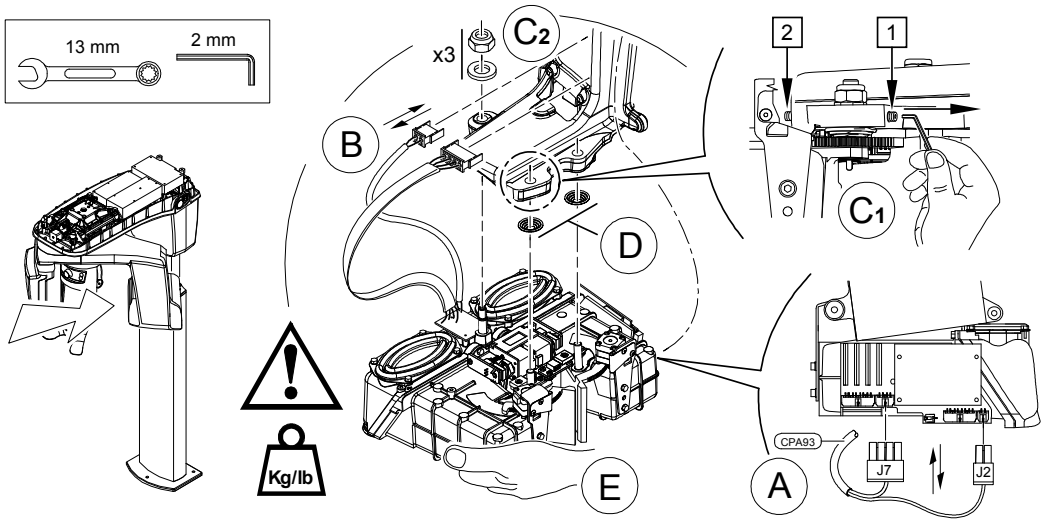
- The unit is **disconnected from the main power supply** by switching **off** the circuit breaker in the electrical cabinet.
- The unit is switched **off**.
- The head cover is removed.
- The rotative arm covers are removed.
- You have the required tools.
- You have the appropriate new X-ray generator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

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

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).



3. Disconnect the two X-ray generator cables from the CJ855 generator power board (B).

4. Loosen the adjustment screw (C_1).

5. Undo the three lock nuts (C_2).

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 loose the two springs (D).

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.

WARNING: The X-ray generator is HEAVY.

3. Place the three washers and **new** lock nuts in position and tighten them (C2).

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

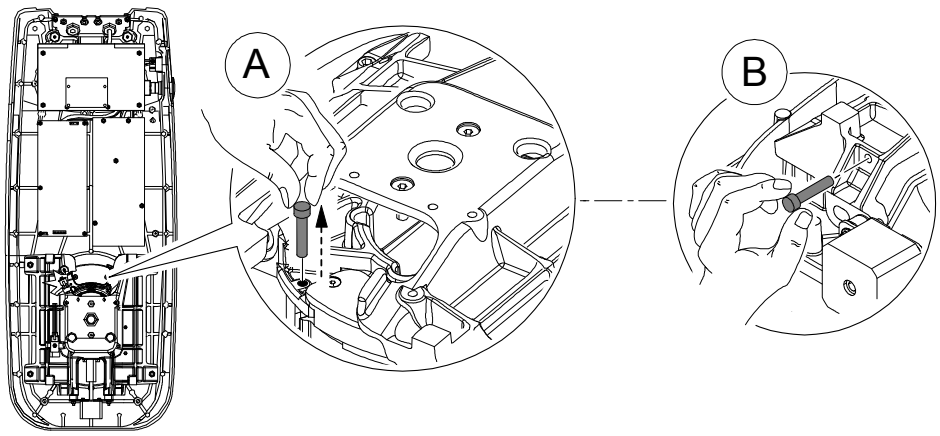
WARNING: When you tighten one of the lock nuts, be careful NOT TO DAMAGE the electronic board that is above the collimator.

4. Push the X-ray generator as much as you can to the left and tighten the adjustment screw (C1).

Important: You must do the necessary adjustments so that the generator is oriented towards the left when you have completed installing it.

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).



8. Switch on the circuit breaker in the electrical cabinet.
9. Switch on the unit.
10. Using the **Service Tools**:
    - Calibrate the X-ray generator:
        - kV calibration.
        - mA calibration.
        - Heating calibration.
    - Calibrate the secondary collimator by running **Full calibration procedure** under **Sensor collimation**.
      Follow the on-screen instructions.
    - Save the system and calibration parameters
      (see “Saving the System and Calibration Parameters” on page 42).

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.
   See “Registering the Intervention” on page 46.