

GTEMP-0225 Rev 1

# Replacing the Cable Kit for the Secondary Collimator



**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 secondary collimator cable kit connect the secondary collimator to the X-ray generator.

### Tool Requirements

You must supply the following tools:

- Metric allen keys.
- Metric spanners.
- Flathead screwdriver.
- Cable extractor tool.
- Cable tie cutter.
- Calibration tools.

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

### Before Removing or Replacing the Cable Kit for the Secondary Collimator

Before removing or replacing the cable kit for the secondary collimator, make sure that:

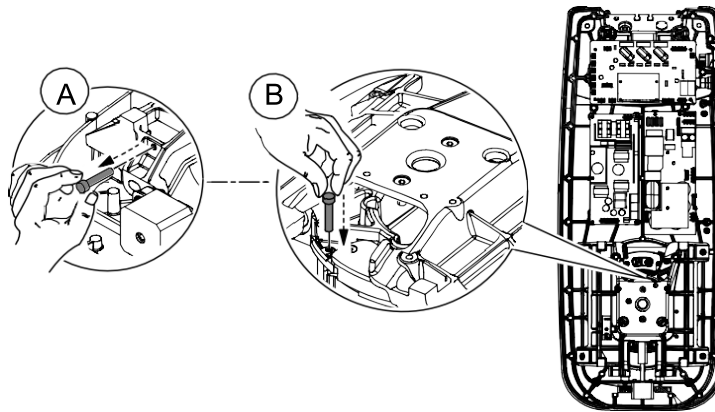
- The unit is disconnected from the main power supply by switching off the circuit breaker in the electrical cabinet.
- The unit is switched off.
- The rotative arm covers are removed.
- You have the required tools.
- You have the appropriate new cable kit for the secondary collimator.

## 2. Removing the Cable Kit for the Secondary Collimator

To remove the cable kit for the secondary collimator, follow these steps:

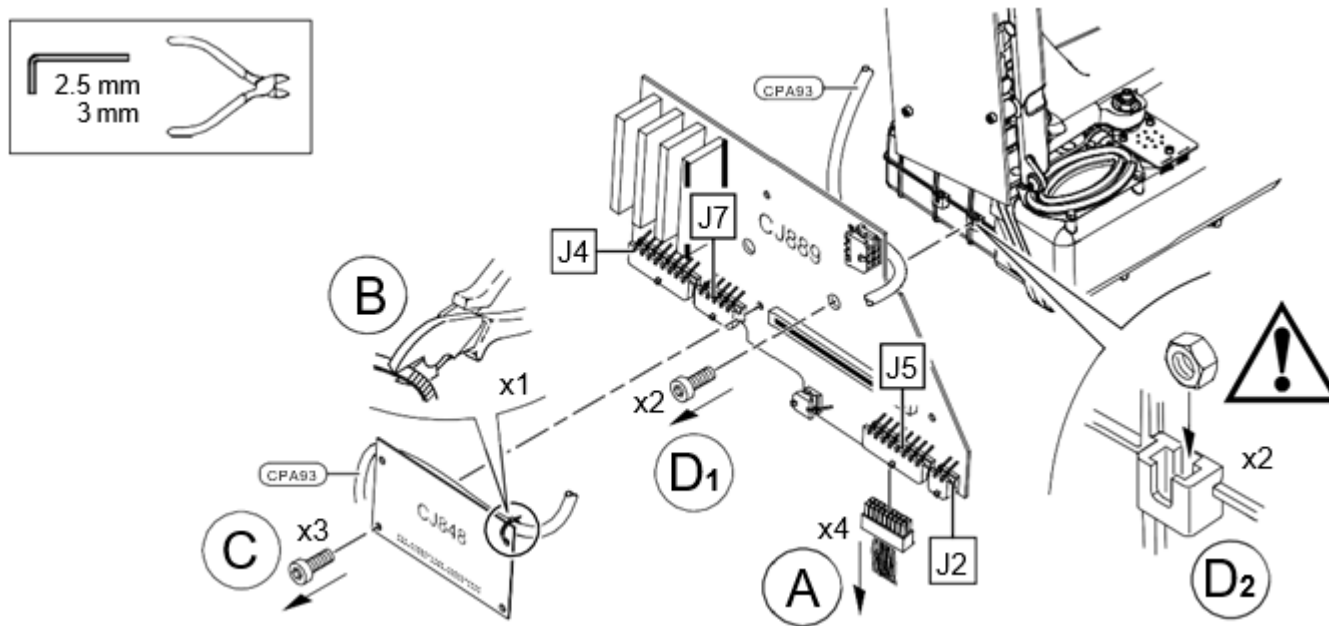
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1. Block the rotative movement by placing the pin (A) in the slot on the left of the metal access plate (B) that covers the CJ857 movement detector board.



2. Disconnect the four cables from the CJ889 collimator driver board. (A)

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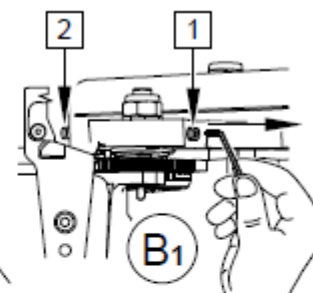
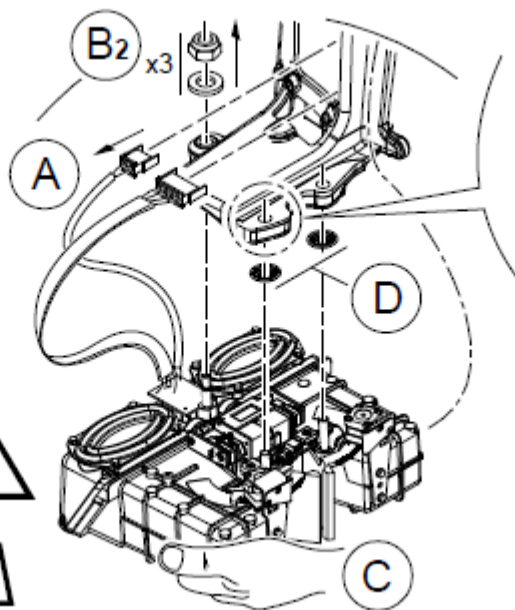
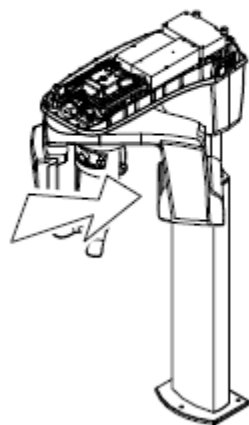
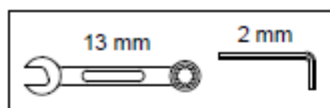
3. Cut and remove the cable tie. (B)
4. Remove the three screws and carefully unplug the CJ848 microprocessor board (C) from the CJ889 collimator driver board.
5. Remove the two bolts and the CJ889 collimator driver board. (D<sub>1</sub>)

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





**Important:** After you remove the two bolts, the two nuts will remain in the nut cages **D<sub>2</sub>**.



6. Disconnect the two X-ray generator cables from the CJ855 generator power board. **A**



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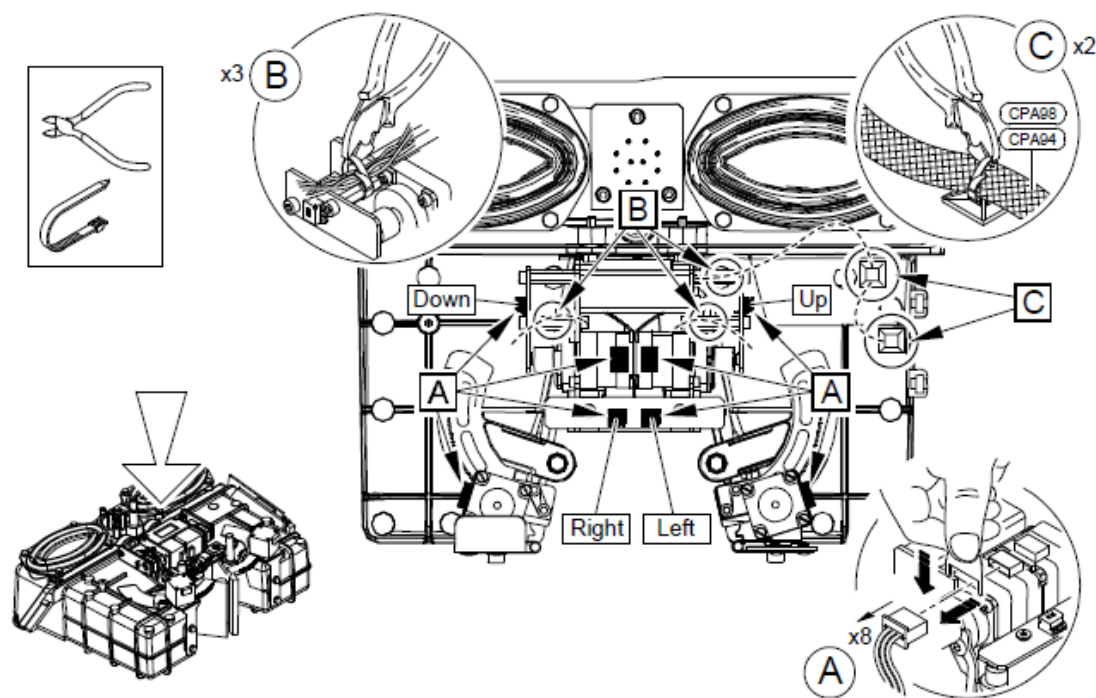
7. Loosen the two adjustment screws. 
8. Undo the three lock nuts. 
9. Support the X-ray generator with one hand. 
10. Remove the three lock nuts and washers with your other hand. 

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

11. Carefully lower the X-ray generator and be careful not to lose the two springs. 
12. Disconnect the eight cable connectors from the secondary collimator. 

**Important: You must use a cable extractor tool to remove the cables.**

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 13. Cut and remove the three cable ties. B

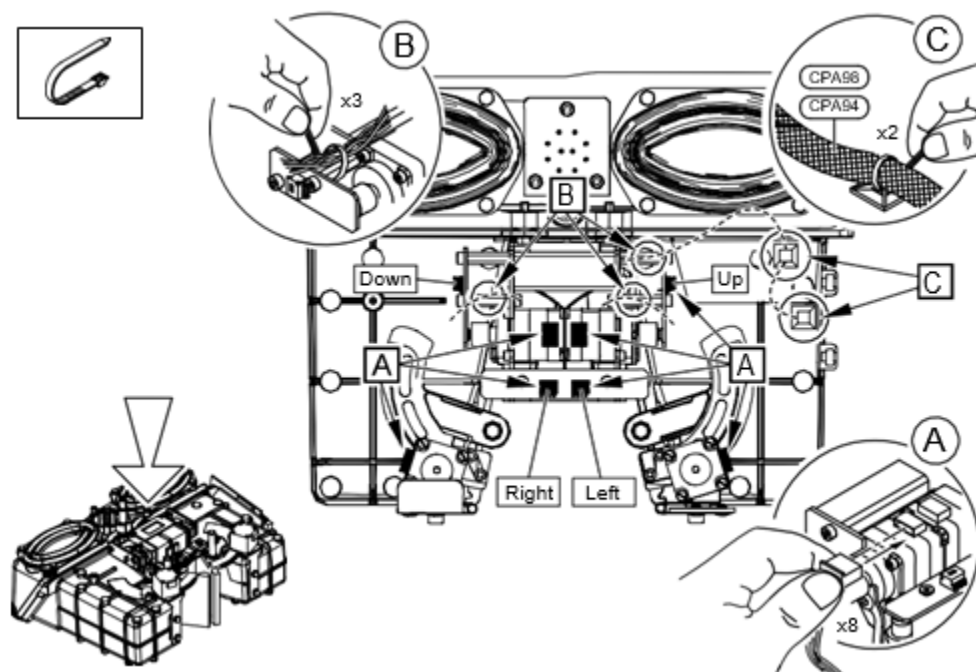
 14. Cut and remove the two cable ties. C

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### 3. Replacing the Cable Kit for the Secondary Collimator

To replace the cable kit for the secondary collimator, follow these steps:

1. Reconnect the eight cable connectors to the secondary collimator. (A)



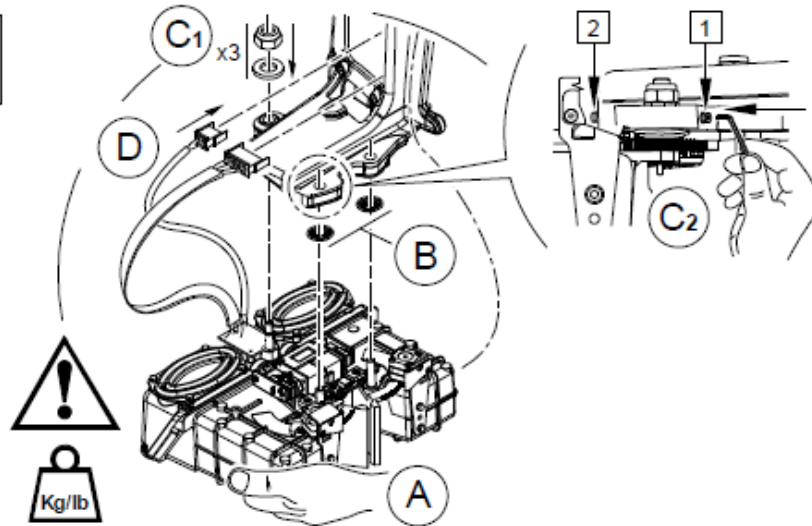
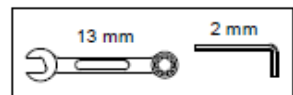


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
2. Replace the three cable ties, then cut off the cable tie ends (B). Make sure that you leave enough cable length to connect to the CJ889 collimator driver board.
3. Replace the two cable ties, then cut off the cable tie ends (C). Make sure that you leave enough cable length to connect to the CJ889 collimator driver board.
4. Support the X-ray generator with one hand (A) and position it in the three holes on the rotative arm.



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







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5. Place the two springs in position on the X-ray generator with your other hand. 
6. Place the three washers and new lock nuts in position and tighten them. 



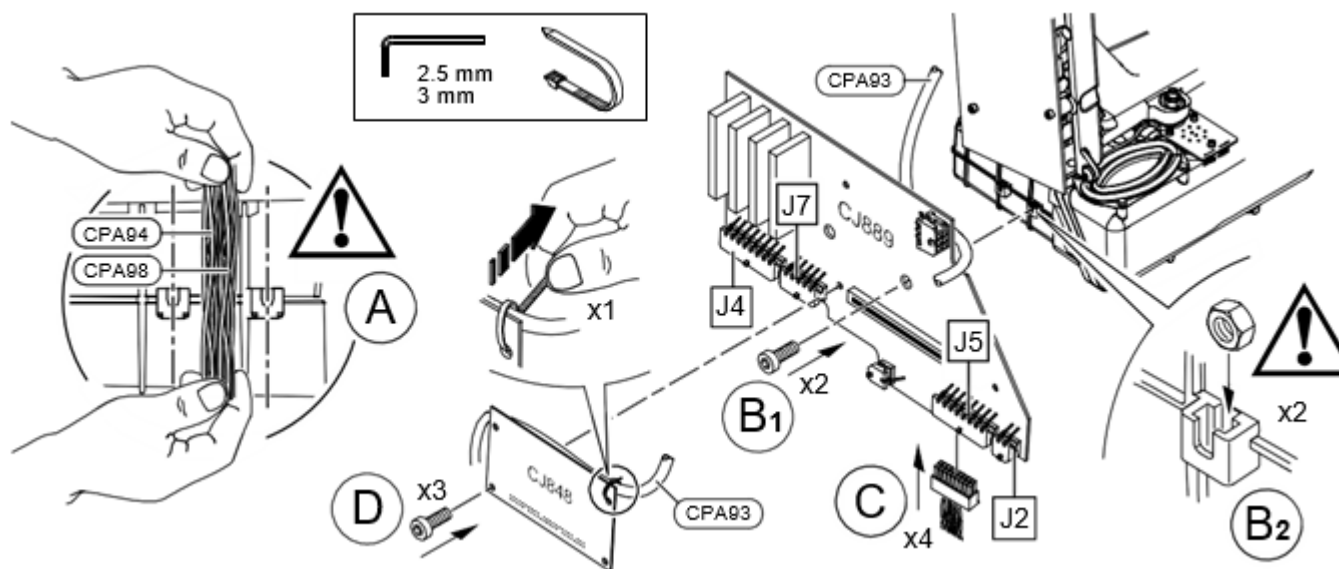
**Important: You must use three NEW lock nuts when replacing the X-ray generator.**

7. Tighten the two adjustment screws. 
8. Reconnect the two X-ray generator cables to the CJ855 generator power board. 
9. Position the CJ889 collimator driver board and tighten the two bolts  to the two nuts in the nut cages. 



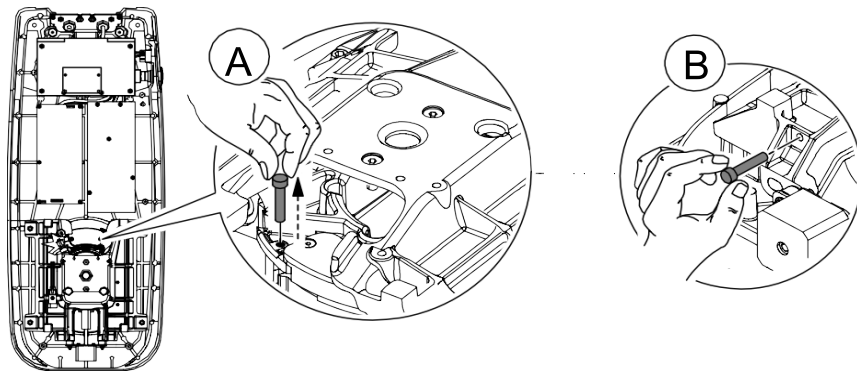
**WARNING: To avoid damaging the CPA94 and CPA98, ensure that you DO NOT trap them when you tighten the bolts to the nuts .**

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10. Replace the four connectors (J2, J4, J5, and J7) to the CJ889 collimator driver board. C  
Each cable is labelled with the reference number of the connector on the CJ889 collimator driver board.
11. Carefully plug the CJ484 microprocessor board to the CJ889 collimator driver board. D
12. Insert and tighten the three screws and replace the cable tie D. Cut off the cable tie end.
13. Remove the pin blocking the rotative movement A and put it back in its storage position. B

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14. Switch on the circuit breaker in the electrical cabinet.

15. Switch on the unit.

#### 4. Testing the Cable Kit for the Secondary Collimator

To test the cable kit for the secondary collimator, follow these steps using the Service Tools:

1. Calibrate the collimator by running the **Primary collimator initialization** procedures under **Part replacement**.  
Follow the on-screen instructions.
2. Save the system and calibration parameters.
3. Run the post installation procedure.
4. Register the intervention.

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