How to Remove the Backup Battery for Clock

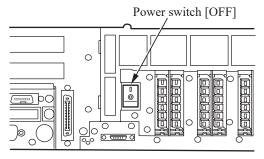
Refer to the following steps 1–8 for how to remove the backup battery for clock.

1 Remove the controller as a single unit.

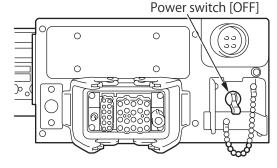
(1)Always wear safety goggles, helmet and shoes during work.

- (2) Turn the controller power switch off, and make sure that the pilot lamp has gone out.
- (3) Turn off power to peripheral devices (equipment) of robot.
- (4) Disconnect all connectors on the controller.
- (5) Remove bolts holding the controller, and take out the single controller.
- (6) Place the controller on a workbench in anenvironment where no flammable gas orconductive material is diffused. Refer to "Securing optimum installation environment" in Denso Robot Owner's Manual (INSTALLATION & MAINTENANCE GIIDE) for details on required environment.

<In the case standard specifications and without safety I/O specifications>



<In the case UL specifications>



2 Remove the seven screws (ten screws in the case UL specifications) holding the controller upper cover, and then remove the controller upper cover.

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 WARNING

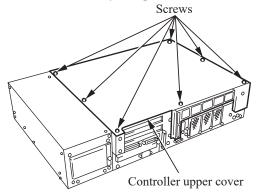
DANGER

Be sure to wait at least three minutes before removing the upper cover, after turning off the power switch on controller. (There are high-voltage sections or large-capacitance capacitors in controller: Touching them with electric charge still on is a crucial danger of electric shock.)

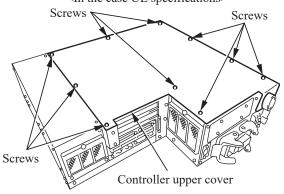
A CAUTION

- (1) Wear a wristband and connect its terminal to a grounded portion before starting work.
- (2) Do not touch elements or their terminals on any printed circuit board with bare hand (elements could be destroyed by static electricity).
- (3) Take caution not to apply impact to the controller.

<In the case standard specifications and without safety I/O specifications>

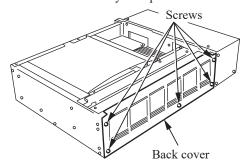


<In the case UL specifications>

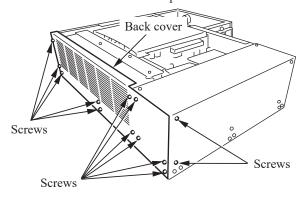


Remove the five screws (13 screws in the case UL specifications) holding the back cover, and then remove the back cover.

<In the case standard specifications and without safety I/O specifications>

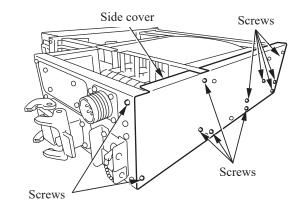


<In the case UL specifications>

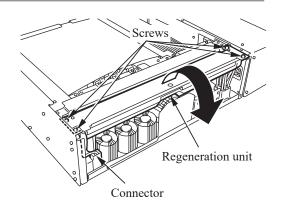


In the case of UL specifications, remove the 11 screws holding the side cover, and then remove the side cover.

*In the case standard specifications, without safety I/O specifications, proceed to step 5.



Remove the four screws holding the regeneration unit, and then remove the regeneration unit in the direction of the arrow.

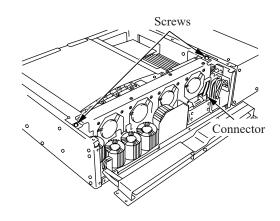


A CAUTION

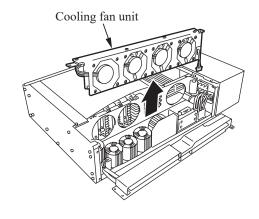
Do not disconnect the connector.

Remove the two screws holding the cooling fan unit, and then disconnect the connector.

<u>↑</u> WARNING Do not allow screw to fall inside the controller. If a screw should fall in, do not leave the fallen screw as is, but be sure to remove it immediately, interrupting your work.



Remove the cooling fan unit in the direction of the arrow.



8 Disconnect the connector of the backup battery for clock and remove the backup battery for clock.

