

8.11 REPLACING THE BATTERY

8.11.1 Battery for Memory Backup (3 VDC)

The programs and system variables are stored in the SRAM in the main board. The power to the SRAM memory is backed up by a lithium battery mounted on the front panel of the main board. The above data is not lost even when the main power of controller is turned off. A new battery can maintain the contents of memory for about 4 years (Note).

When the voltage of the battery becomes low, the low-voltage battery alarm (system-035) is displayed on the teach pendant. When this alarm is displayed, replace the battery as soon as possible. In general, the battery can be replaced within one or two weeks, however, this depends on the system configuration.

If the battery voltage gets lower, it becomes impossible to back up the content of the SRAM. Cycling power to the controller in this state causes the system not to start, and the seven segment LED located on the main board displays "1" because the contents of memory have been lost. Clear the entire SRAM memory and reenter data after replacing the battery. Important data should be saved to the memory card or other external device beforehand in case of emergency.

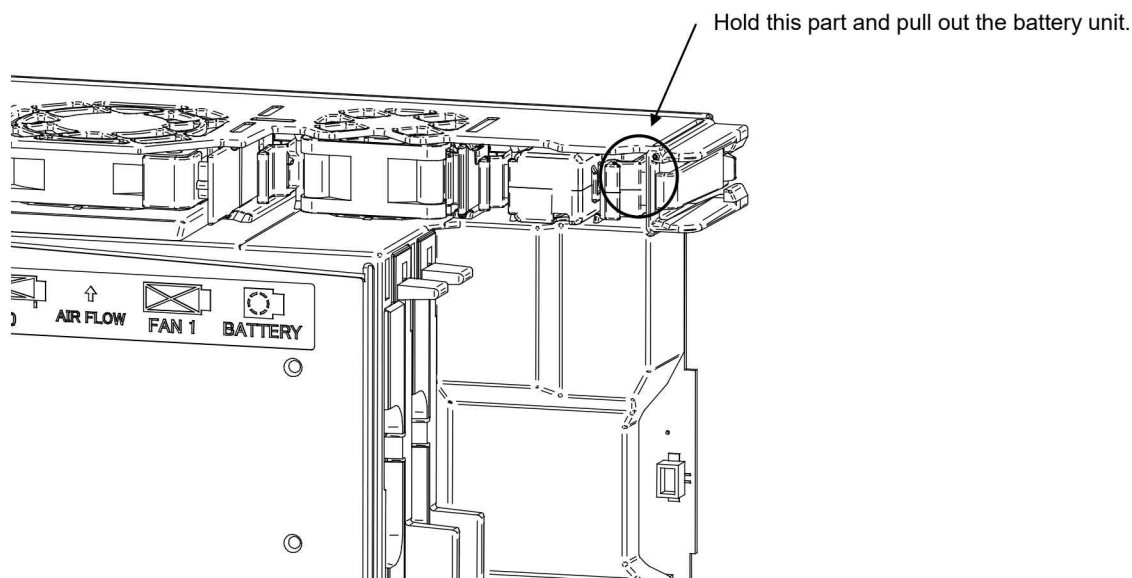


CAUTION

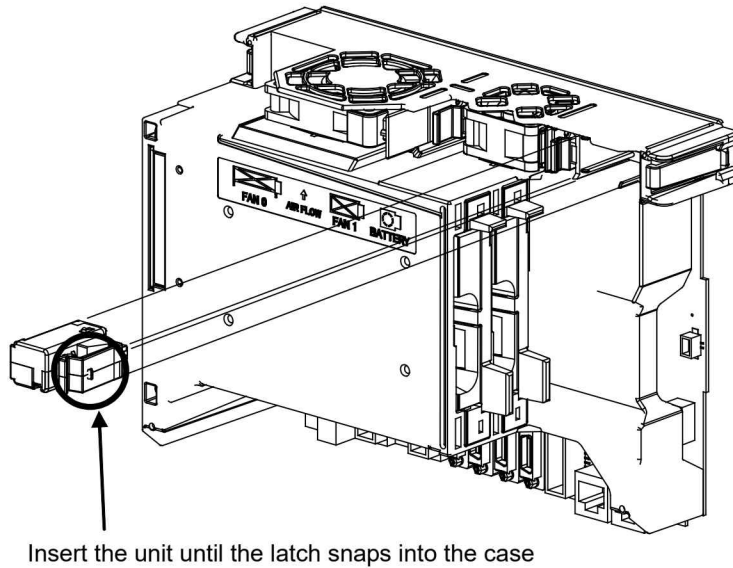
In a newly introduced robot, the battery is factory-installed. Battery replacement may, therefore, be needed within 4 years after the introduction of the robot.

Replacing the lithium battery

- (1) Prepare a new lithium battery (ordering drawing number: A05B-2650-K030, A98L-0031-0028).
- (2) Turn the robot controller on for about 30 seconds.
- (3) Turn the robot controller off.
- (4) Pull out the battery unit located in the lower right part of the backplane unit. (Hold the latch of the battery unit, unlatch the battery unit from the case, and pull out the unit.).



- (5) Install a new battery unit. (Insert the battery unit until the latch of the unit snaps into the case.) Check that the battery unit is latched securely.



Insert the unit until the latch snaps into the case

**CAUTION**

Execute steps (3) to (5) within 30 minutes.

Note that keeping the control unit unconnected to a battery for a long period of time may result in the memory contents being lost.

For a rainy day, you should make a backup copy of the robot programs and system variables before replacing the battery.

**WARNING**

Using other than the recommended battery may result in the battery explosion.

Replace the battery only with the specified battery (A05B-2650-K030, A98L-0031-0028).

Dispose of the replaced battery as an industrial waste, according to the laws and other rules in the country where the controller is installed and those established by the municipality and other organizations that have jurisdiction over the area where the controller is installed.