Instruction manual on Q8BAT-SET Battery

This instruction manual explains specifications and handling instructions on the large capacity battery for MELSEC-Q series CPU modules, Q8BAT-SET battery.

1. Specifications

Item		Specification
Battery type		Lithium/Manganese dioxide primary battery (assembled battery)
Initial voltage		3.0V
Nominal current capacity		18000mAh (1800mAh×10)
Storage life		5 years (at normal temperature)
Application		Retention of the following memory in the event of power failure: Program memory, standard RAM and latch device
Dimensions	Q8BAT battery	98mm (3.86 inch) (H)×55.2mm (2.17 inch) (W)×87mm (3.43 inch) (D)
	Q8BAT connection cable	1000mm (39.4 inch)
Accessory		Q8BAT connection cable (QC10BAT)×1

For the retention time at the event of power failure, refer to the user's manual of your CPU module.
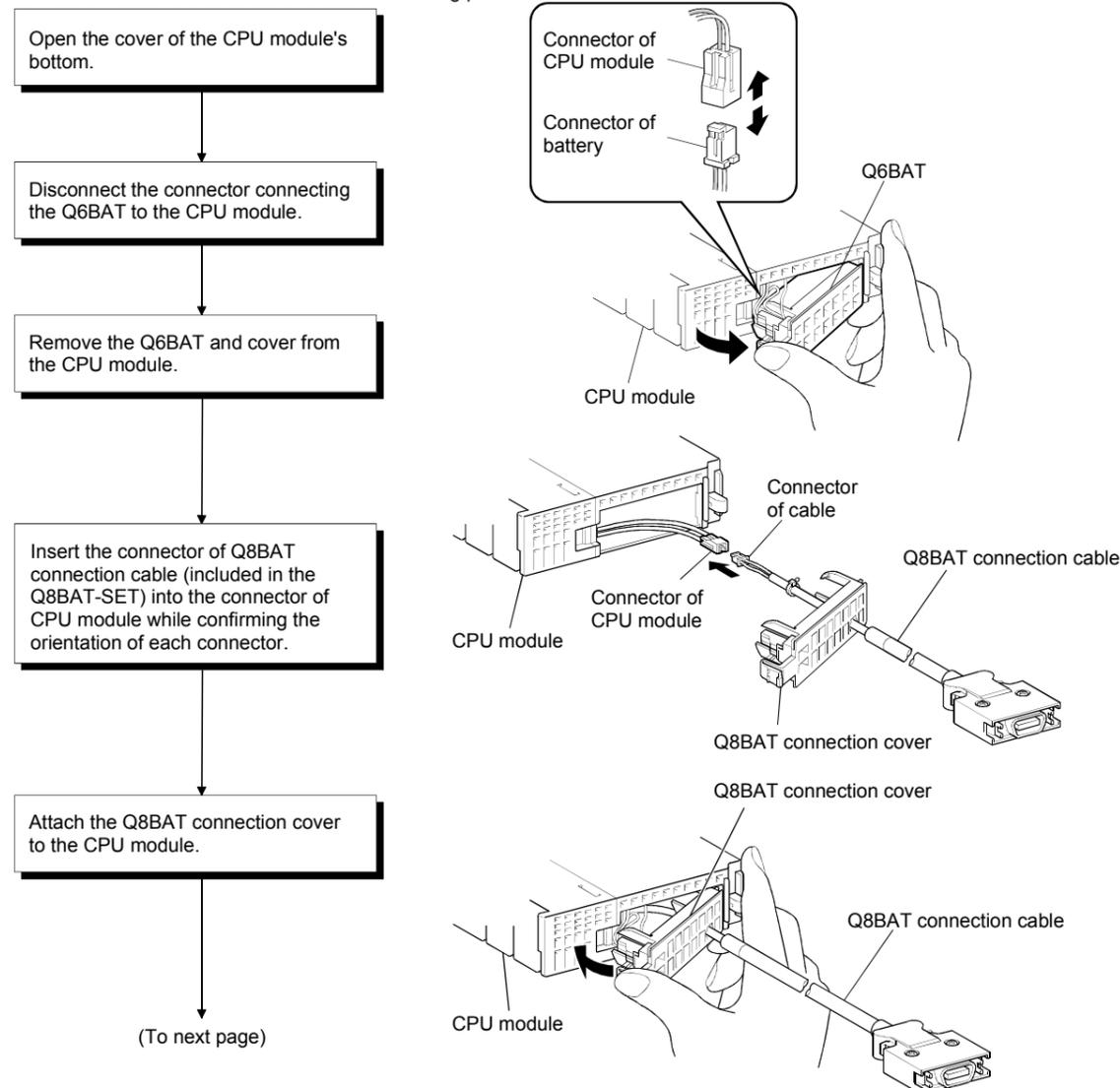
2. Battery Replacement

When the Q8BAT comes to the end of the life, replace the battery with new one (Q8BAT).
The PLC power needs to be ON for 10 minutes or longer prior to battery removal.
Make sure to complete the battery replacement within 3 minutes.   Failure to do so may delete the data in memory, although it includes a condenser to back up the memory for a while without battery.
When the MELSEC-Q series is used as a UL-certificated product, the Q8BAT replacement must be done by service personnel.   The service personnel are defined as experienced technicians who have been sufficiently educated and trained, and are capable of perceiving and avoiding operational hazard.
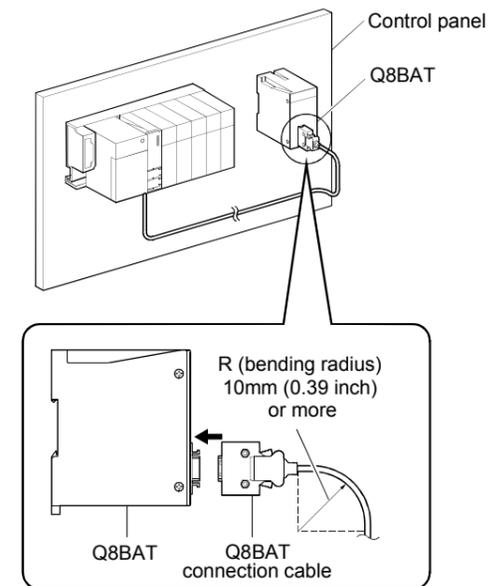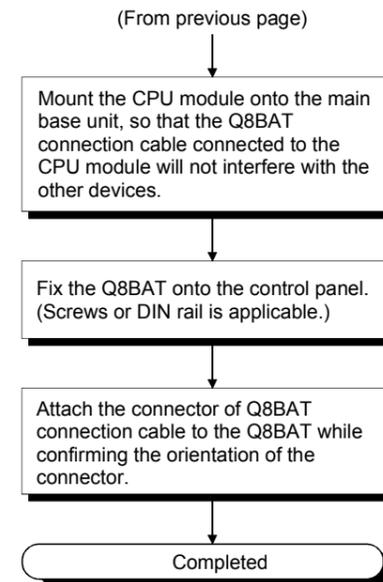
3. Disposal of batteries

When disposing of batteries, separate them from other wastes according to the local regulations. (For details of the battery directive in EU member states, refer to the user's manual for the CPU module used.)

4. Procedure for connecting Q8BAT battery to CPU module

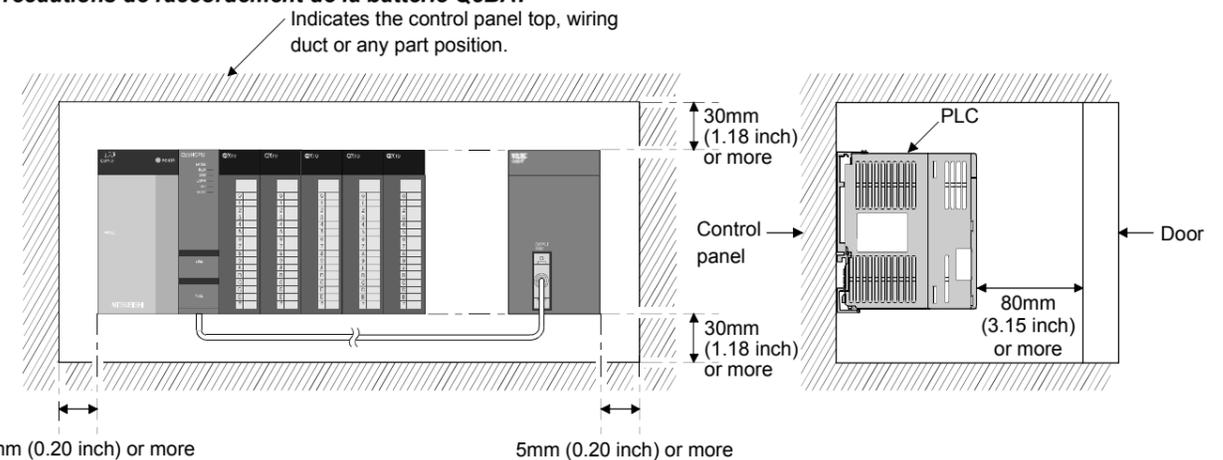Connect the Q8BAT to the CPU module in the following procedures.

5. Precautions for connecting Q8BAT battery
Précautions de raccordement de la batterie Q8BAT

English	French	English	French
Indicates the control panel top, wiring duct or any part position.	*Indique la position du haut du tableau de commande, du conduit de câblage, etc.*	Door	*Porte*
5mm (0.20 inch) or more	*5mm (0,20 pouces) au minimum*	Control panel	*Tableau de commande*
30mm (1.18 inch) or more	*30mm (1,18 pouces) au minimum*		
80mm (3.15 inch) or more	*80mm (3,15 pouces) au minimum*		

- When setting the Q8BAT inside the control panel, ensure the above distance, as is the case with PLC.
- While holding the connector, carefully pull out the battery connector so that the Q8BAT connection cable will not be broken.
- When mounting the Q8BAT directly onto the control panel, make sure to use M4×14 screws (user-prepared) and tighten them in the torque range of 0.66 to 0.89N•m.
- Ensure the bending radius of 10mm (0.39 inch) or more for the Q8BAT connection cable.
- Fix the Q8BAT connection cable using a clamp.
  Failure to do so may cause damage of the Q8BAT connection cover, connector or cable due to unintentional swinging and shifting or accidental pull of the cable.
- *À l'installation de la Q8BAT dans le tableau de commande, respecter les distances ci-dessus comme dans le cas du PLC.*
- *Débrancher le connecteur de batterie en tirant avec soin sur le connecteur lui-même pour ne pas risquer d'endommager le câble de raccordement de la Q8BAT.*
- *Pour fixer la Q8BAT directement au tableau de commande, utiliser 14 vis M4 (fournies par l'utilisateur) et serrer ces vis avec un couple de 0,66 à 0,89N•m.*
- *Veiller à ce que le rayon de courbure du câble de raccordement de la Q8BAT ne soit pas inférieur à 10mm (0,39 pouces)*
- *Attacher le câble de raccordement de la Q8BAT avec un collier*
  Faute de quoi, tout déplacement ou effort de traction sur le câble risquerait d'endommager le capot de connexion, le connecteur ou le câble de la Q8BAT.

6. Transportation precautions

As they include lithium, the Q8BAT must be treated as Class 9 dangerous goods during transportation.   Prior to shipment, Mitsubishi packs products properly in order to ensure safety. However, when transporting the products, which are unpacked once or repacked after purchase, make sure to observe the dangerous goods regulations of the country as well as IATA Dangerous Goods Regulations and IMDG code. Also, consult and determine the details with the transportation company.