Installation Instructions

Installing the ProcessLogix Battery Extension Module

Catalog no. 1757-BEM

This document tells you how to install the Battery Extension Module (1757-BEM) into the ProcessLogix™ System. For more specific information regarding the placement of the 1757-BEM in non-redundant and redundant configurations, refer to the ProcessLogix System Planning Guide, publication 1757-2.1.

The Battery Extension Module is shipped with the battery un-installed. Follow the steps in this document to install it. The module also ships with a spare battery.

Important: The Control Processor contains a non-rechargeable lithium battery (catalog no. 1757-PLXBAT) that provides memory backup time of 6 days (with a fully-charged battery). Ideally, you should remove the lithium battery when a 1757-BEM is also present (to prevent it from being needlessly depleted), but both may be present in the controller chassis. If both batteries are present, the BAT LED will turn red instead of green when the CPM goes through startup diagnostics and enters the IDLE state.

ATTENTION: Use care when handling the lithium battery. For specific handling and disposal instructions, refer to the Guidelines for Handling Lithium Batteries, publication 1757-5.13.

Publication 1757-5.20 - March 1999

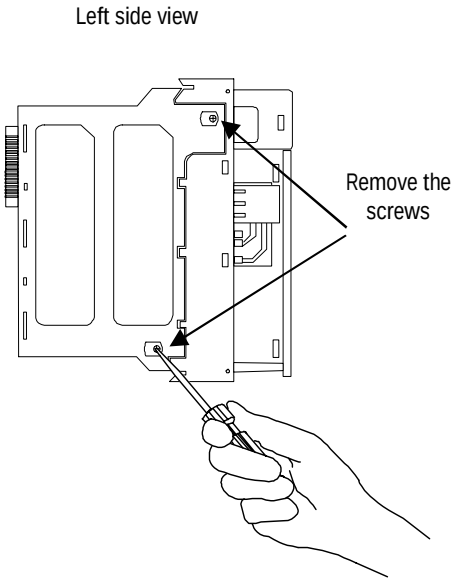
ATTENTION: Hazardous Location Consideration.

ProcessLogix removal and insertion under power (RIUP) feature does not apply to installations that must conform to Division 2, Hazardous Location requirements. Unless the location is known to be non-hazardous, do not:

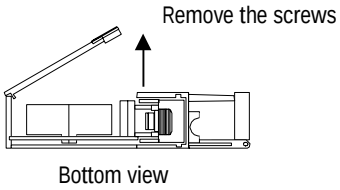
- connect or disconnect cables
- connect or disconnect Removable Terminal Blocks (RTBs)
- install or remove modules

Installing the Battery into the Battery Extension Module

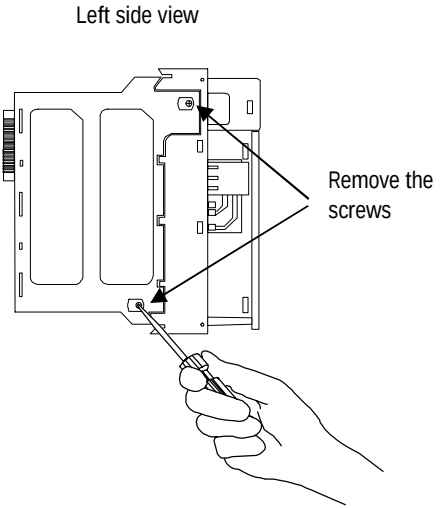
1. Remove the screws securing the cover to the Battery Extension Module.



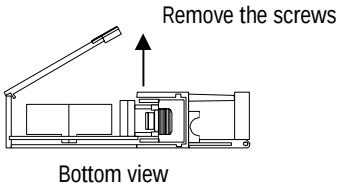
2. Remove the module cover.



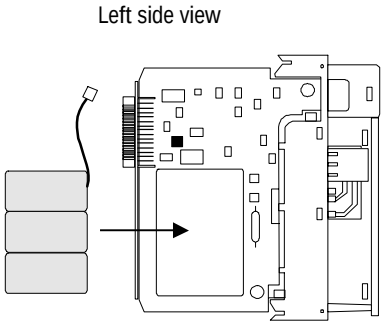
3. Remove the screws securing the cover to the Battery Extension Module.



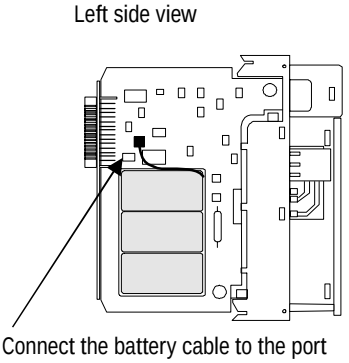
4. Remove the module cover.



5. Insert the battery into the battery holder.



6. Connect the battery cable to the port.



7. Reinstall the cover and replace the two screws removed in step 1.

1757-BEM Chassis Slot Position

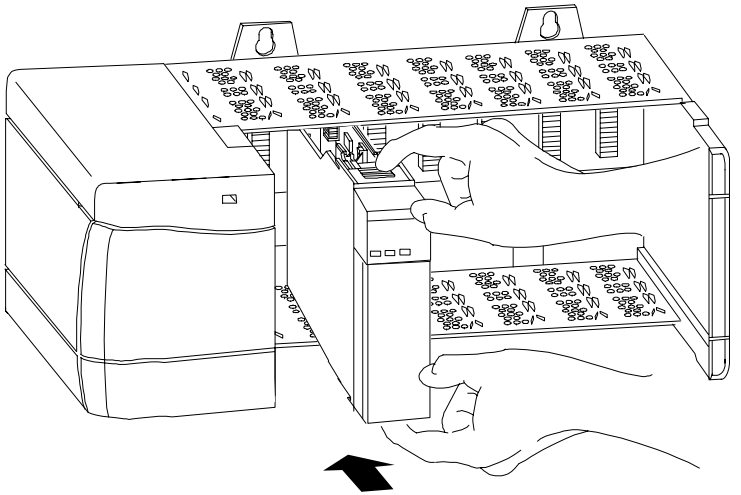
Be sure to place the 1757-BEM module in the correct slot according to the table below.

if your chassis is this size:	install 1757-BEM in this slot:
7 or 13 slot chassis	slot 6
10 or 17 slot chassis	slot 4

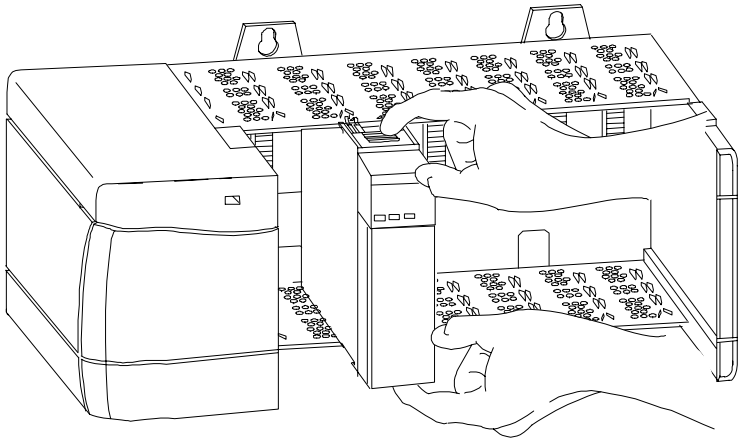
1757-BEM Chassis Installation

1. Position the module at the correct chassis slot as instructed in the table.

2. Align the module's circuit board with the top and bottom chassis guides.



3. Slide the module into the chassis until the module tabs click into position



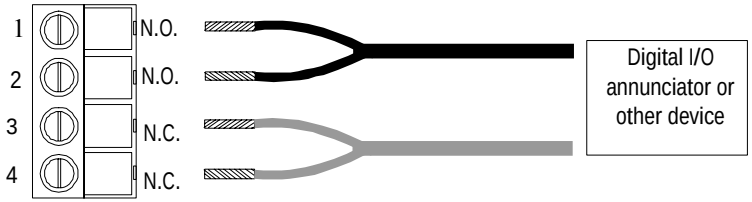
Wiring the 1757-BEM Status Connector

The 1757-BEM is supplied with a connector (in the spare parts bag). You must wire the connector, then install it.

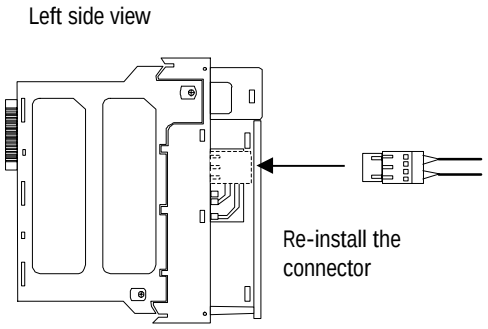
1. Locate the connector in the spare parts bag shipped with the module.

2. Insert the appropriate wiring and tighten the screws. Terminals 1 and 2 provide a normally-open relay contact. Terminals 3 and 4 provide a normally-closed relay contact.

   For relay contacts performance rates for resistive loads, refer to the Controller Redundancy Specification in the ProcessLogix Control Specifications Reference Manual, publication 1757-6.5.25.



3. Install the connector into the 1757-BEM.



For Technical Assistance

For technical assistance, call Rockwell Automation Technical Support at (440) 646-6800.

Specifications

electrical	backplane current	5.1 V dc @ 112 mA 24 V dc @ 36 mA
	power dissipation	1.424 w
environmental	operating temperature	0 to 60 deg. C
	storage temperature	-40 to 85 deg. C
	relative humidity	5 to 95% without condensation
physical	chassis location (recommended default)	slot 6 in 7- or 13-slot slot 4 in 10- or 17-slot
	weight	0.35 kg
alarm relay contacts	voltage/current ratings	30 v ac/dc maximum / 100 milliamps maximum
	channels	one
	ground isolation	1500 VA
agency certification (when product or packaging is marked)		UL CE marked for all applicable directives Class 1 Div 2 Hazardous(1) (2)

(1) CSA certification - Class 1, Division 2, Group A,B,C,D or nonhazardous locations

(2) FM approval - Class 1, Division 2, Group A,B,C,D or nonhazardous locations

CSA Hazardous Location Approval

CSA certifies products for general use as well as for use in hazardous locations. Actual CSA certification is indicated by the product label as shown below, and not by statements in any user documentation.

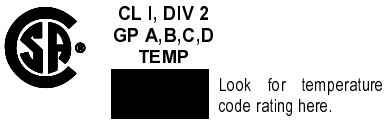
Example of the CSA certification product label:

To comply with CSA certification for use in hazardous locations, the following information becomes a part of the product literature for this CSA-certified industrial control product.

- This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D, or non-hazardous locations only.
- The products having the appropriate CSA markings (that is, Class I, Division 2, Groups A, B, C, D) are certified for use in other equipment where the suitability of combination (that is, application or use) is determined by the CSA or the local inspection office having jurisdiction.

Important: Due to the modular nature of a programmable control system, the product with the highest temperature rating determines the overall temperature code rating of a programmable control system in a Class I, Division 2, location. The temperature code rating is marked on the product label as shown.

Temperature code rating:



The following warnings apply to products having CSA certification for use in hazardous locations.

ATTENTION: Explosion hazard.

- Substitution of components may impair suitability for Class I, Division 2.
- Do not replace components unless power has been switched off or the area is known to be non-hazardous.
- Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.
- Do not disconnect connectors unless power has been switched off or the area is known to be non-hazardous. Secure any user-supplied connectors that mate to external circuits on this equipment by using screws, sliding latches, threaded connectors, or other means such that any connection can withstand a 15 Newton (3.4 lb.) separating force applied for a minimum of one minute.
- Batteries must only be changed in an area known to be non-hazardous.

Approbation d'utilisation dans des environnements dangereux par la CSA

La CSA certifie des produits pour une utilisation générale aussi bien que pour une utilisation en environnements dangereux. La certification CSA en vigueur est indiquée par l'étiquette produit et non par des indications dans la documentation utilisateur.

Exemple d'étiquette de certification d'un produit par la CSA :

Pour satisfaire à la certification CSA en environnements dangereux, les informations suivantes font partie intégrante de la documentation des produits de commande industrielle certifiés.

- Cet équipement ne convient qu'à une utilisation dans des environnements de Classe 1, Division 2, Groupes A, B, C, D ou non dangereux.
- Les produits portant le marquage CSA approprié (c'est-à-dire Classe 1, Division 2, Groupes A, B, C, D) sont certifiés pour une utilisation avec d'autres équipements, les combinaisons d'applications et d'utilisation étant déterminées par la CSA ou le bureau local d'inspection

Important: De par la nature modulaire des systèmes de commande programmables, le produit ayant le code de température le plus élevé détermine le code de température global du système dans un environnement de Classe I, Division 2. Le code de température est indiqué sur l'étiquette produit.

Code de température :

CL I, DIV 2
GP A,B,C,D
TEMP

[redacted] Le code de température est indiqué ici.

Les avertissements suivants s'appliquent aux produits ayant la certification CSA pour une utilisation dans des environnements dangereux.

ATTENTION: Risque d'explosion --

- La substitution de composants peut rendre ce matériel inadapté à une utilisation en environnement de Classe 1, Division 2.
- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de remplacer des composants.
- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.
- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs fournis par l'utilisateur pour se brancher aux circuits externes de cet appareil à l 'aide de vis, loquets coulissants, connecteurs filetés ou autres, de sorte que les connexions résistent à une force de séparation de 15 Newtons (1,5 kg - 3,4 lb.) appliquée pendant au moins une minute.
- S'assurer que l'environnement est classé non dangereux avant de changer les piles.

AVERTISSEMENT :Le sigle CSA est une marque déposée de la Canadian Standards Association.

Reach us now at www.rockwellautomation.com

Wherever you need us, Rockwell Automation brings together leading brands in industrial automation including Allen-Bradley controls, Reliance Electric power transmission products, Dodge mechanical power transmission components, and Rockwell Software. Rockwell Automation's unique, flexible approach to helping customers achieve a competitive advantage is supported by thousands of authorized partners, distributors and system integrators around the world.

Americas Headquarters, 1201 South Second Street, Milwaukee, WI 53204, USA, Tel: (1) 414 382-2000, Fax: (1) 414 382-4444
European Headquarters SA/NV, avenue Herrmann Debroux, 46, 1160 Brussels, Belgium, Tel: (32) 2 663 06 00, Fax: (32) 2 663 06 40
Asia Pacific Headquarters, 27/F Citicorp Centre, 18 Whitfield Road, Causeway Bay, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Rockwell Automation

Publication 1757-5.20 - March 1999
PN 955138-23
Supersedes Publication 1757-5.20 - December 1998