

Modicon 140 XBE 100 00 Backplane Expander



Instruction Sheet 31000972 Version 01

The Quantum Backplane Expander allows I/O in an adjacent “secondary” backplane to communicate with the CPU or RIO drop adapter in the “primary” backplane over a custom communications cable that can be a maximum of three meters long.

Module Specifications

Number of Connected Backplanes	2
Maximum Distance	3 meters
Backplane Requirements	
Size	All backplane sizes– 3, 4, 6, 10 and 16 slot.
Slots used	1
Number of Backplane Expander modules allowed	1 per backplane
Power	Power Supply in each backplane
LEDs	None.
Required Addressing	The Backplane Expander will look like an unfilled slot in the PLC I/O map.
Communication Cable	
Nominal impedance	120 ohm
Power Requirements	
Power Consumption	2.5 watts
Bus Current Required	500 mA
Connector	37 pin D-type
Compatibility	
Programming Software	Modsoft V 2.6 or Concept V 2.2 at a minimum
Executive Firmware	140 CPU X13 0X – Version 2.20 140 CPU X34 1X – Version 1.03 140 CPU 424 02 – Version 2.15 140 CRA 93X 0X – Version 1.20
Primary Backplane	No restrictions
Secondary Backplane	All types of Quantum I/O modules can be used in the secondary backplane (unless otherwise noted in the I/O documentation).

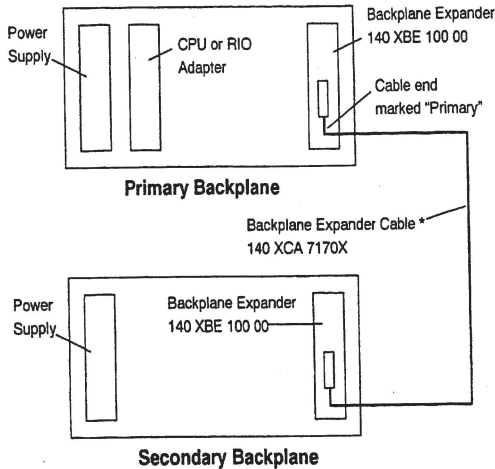
Cable Specifications

Part Number	Length
140 XCA 71703	1 meter
140 XCA 71706	2 meters
140 XCA 71709	3 meters



Basic Configuration

Backplane Expander module must be installed in each backplane. The cable provides all the signals required to accomplish data communication between the backplanes. Only a single Backplane Expander module can be added to each backplane.



*Cable must be installed before powering up the backplanes



Caution: Do not Hot Swap a Backplane Expander module into a powered backplane unless the communications cable has first been connected to the module.

- | The same 140 XBE 100 00 Backplane Expander modules are used for the primary and secondary backplanes. **The end of the Backplane Expander cable marked "Primary" always connects to the Backplane Expander module in the Primary Backplane.**
- | The system can use any Quantum type power supply. Each backplane can have a different type of power supply.
- | Loss of power in the secondary backplane will not shut down the entire drop. Only modules located in the "Secondary" backplane will lose power.

- | Backplane expander modules can be located in any slot in the backplane and do not have to be placed in corresponding slots in the primary and secondary backplanes.
- | It may be necessary to update the CPU or RIO drop executive firmware (see “Executive Firmware” listed on page 1).
- | The Backplane Expander will not be recognized by the programming panel software. It will look like an unfilled slot in the PLC I/O map.
- | I/O modules that have downloadable executive firmware, such as the ESI module, are allowed in the secondary backplane except when downloading their execs. Executive firmware cannot be downloaded to modules in the secondary backplane.
- | The Backplane Expander will allow configuration or I/O mapping of additional modules in the local drop containing a CPU or RIO drop adapter up to the drop word limit or physical slot address limitation.
- | Option modules, such as NOMs, NOEs and CHSs must reside in the primary backplane.
- | Any Interrupt module can be located in the secondary backplane, but the interrupt mode is not supported.
- | The Backplane Expander module can not be Hot Swapped into a powered backplane without first attaching the communications cable. In order to install the Backplane Expander in a powered backplane, first connect the cable to the Backplane Expander module and then mount the module into the powered backplane.

For complete information concerning this and other modules, please obtain a copy of the *Quantum Automation Series Hardware Reference Guide* (840 USE 100 00) from our distributor or local sales office.

