

- You can use up to the maximum number of 1734 POINT I/O modules with the CompactLogix 5370 L1 controllers that are listed in [Table 8](#). This condition applies only as long as the total current drawn by the embedded I/O and local expansion modules does not exceed the available POINTBus backplane current of 1 A and field power current of 3 A.

IMPORTANT Do not put more than three of the 1734-IT2I or 1734-IR2 modules on the POINT I/O bus that draws power from the same power source. This restriction includes power sources such as from communication adapters or the 1734-EPAC or 1734-EP24DC expansion power supply modules. The inrush current exceeds the current limit of the DC to DC converter in the power source.

Based on the configuration of your application, you can use one of the following devices to make more POINTBus backplane current or field power current available:

- **1734-EP24DC POINT I/O Expansion Power Supply** - An expansion power supply is installed between embedded I/O modules and local expansion modules or between local expansion modules.

The expansion power supply breaks the available POINTBus backplane current between the modules to its left and right. With the expansion power supply installed, the modules to its left can draw up to 1 A of POINTBus backplane current. The modules to the right of the expansion power supply can draw as much current as is provided by the expansion power supply.

Additionally, the expansion power supply breaks the available field power current between the modules to its left and right. With the expansion power supply installed, the modules to its left can draw up to 3 A of field power current. The modules to the right of the expansion power supply can draw as much field power current as allowed by the expansion power supply.

For example, if you need six 1734-IR2 modules as local expansion modules for a 1769-L18ER-BB1B controller application, you must include the 1734-EP24DC expansion power supply in the local expansion-module installation.

For more information on the 1734-EP24DC expansion power supply, see the POINT I/O 24V DC Expansion Power Supply Installation Instructions, publication [1734-IN058](#).

- **1734-FPD POINT I/O Field Power Distributor Module** - A field power distributor module can also be installed between embedded I/O modules and local expansion modules or between local expansion modules.

The field power distributor module breaks the available field power current between the modules to its left and right. With the field power distributor module installed, the modules to its left can draw up to 3 A of field power current. The modules to the right of the field power distributor module can draw as much field power current as allowed by the field power distributor.

For more information on the 1734-FPD POINT I/O Field Power Distributor module, see the POINT I/O Field Power Distributor Module Installation Instructions, publication [1734-IN059](#).

IMPORTANT Remember, the field power distributor module changes only the level of field power current available in the system. It does not affect the level of POINTBus backplane current available.

- You must connect an external 24V DC power source to the FP+ and FP- terminals on the removable connector on the controller. This connection provides power to input and output devices that are connected to the local expansion modules.
 - Series A controllers require an extra external 24V DC power source for the FP+ and FP- terminal connections. For more information on how to connect an extra external power source for series A L1 controller to the FP+ and FP- terminals, see [Appendix C](#).
 - Series B controllers use the external 24V DC power source that is connected to the VDC+ and VDC- terminals on the controller for the FP+ and FP- terminal connections. Series B controllers can also use an extra external 24V DC power source for the FP+ and FP- terminal connections.

IMPORTANT Install a user-replaceable fuse with overcurrent protection of 4...6 A in line between the incoming power and the FP+ terminal.

The field-side power requirement of the local expansion modules of the controller is 24V DC nominally with an input range of 10...28.8V DC.

For more information on how to connect a power source to the FP+ and FP- terminals, see [page 144](#).