Expansion Port Pin Assignments

The following table lists the expansion port pin assignments you will need when building remote cables. All connections between cables are point-to point, that is, pin 2 of one end to pin 2 of the opposite end, pin 3 to pin 3, etc.

Table 10-2. Expansion Port Pin Assignments

Pin Number	Signal Name	Function
16	DIODT	I/O Serial Data Positive
17	DIODT/	I/O Serial Data Negative
24	DIOCLK	I/O Serial Clock Positive
25	DIOCLK/	I/O Serial Clock Negative
20	DRSEL	Remote Select Positive
21	DRSEL/	Remote Select Negative
12	DRPERR	Parity Error Positive
13	DRPERR/	Parity Error Negative
8	DRMRUN	Remote Run Positive
9	DRMRUN/	Remote Run Negative
2	DFRAME	Cycle Frame Positive
3	DFRAME/	Cycle Frame Negative
1	FGND	Frame Ground for Cable Shield
7	0V	Logic Ground

I/O Expansion Bus Termination

When two or more baseplates are cabled together in an expansion system, the I/O expansion bus must be properly terminated. The I/O bus *must be terminated* at the last baseplate in an expansion system. Each signal pair is terminated with 120 ohm, 1/4 watt resistors wired between the appropriate pins, as follows (see the above table, also):

pins 16 - 17; 24 - 25; 20 - 21; 12 - 13; 8 - 9; 2 - 3

The I/O bus termination can be done one of the following ways:

- By installing an *I/O Bus Terminator Plug*, catalog number IC693ACC307, on the last expansion baseplate (local expansion baseplate or remote baseplate) in the system. The Terminator Plug has a resistor pack physically mounted inside of a connector. The I/O Bus Terminator Plug is shipped with each baseplate; only the last baseplate in the expansion chain can have the I/O Bus Terminator Plug installed. Unused I/O Bus Terminator Plugs can be discarded or saved as spares.
- If an expansion system has only one expansion baseplate, the I/O bus can be terminated by installing as the last cable, the 50 foot (15 meter) I/O Expansion cable, catalog number IC693CBL302 or IC693CBL314. These cables have the termination resistors installed in the end that connects to the expansion baseplate connector.
- You can also build a custom cable with termination resistors wired to the appropriate pins for installation at the end of the bus.