

3-CPU3 Central Processor Module Installation Sheet

Description

The 3-CPU3 Central Processor Module is the control element for all rail modules and control/display modules installed in a control panel. The 3-CPU3 module performs the following functions:

- Processes all information from modules installed within the cabinet as well as data received from other panels over the network data circuit
- Identifies and supervises all modules installed on the rail chassis and uses an integral watchdog to identify both hardware and software faults
- Supervises all traffic on the rail bus and implements ground fault detection
- Date-time stamps events and initiates timed events using an internal clock with leap year function
- Communicates with other 3-CPUx and 3-ANNCPUx modules over a Class A or Class B network data circuit (requires an optional Network Communications card)
- Distributes audio messages across a Class A or Class B network audio circuit (requires an optional Network Communications card)

In addition, the 3-CPU3 module:

- Provides connections for two optically isolated RS-232 serial ports (requires an optional 3-RS232 card)
- Provides command and control functions for the eight-channel digital audio subsystem installed on the rail
- Provides an optically isolated RS-232 port for data uploads, downloads, and system maintenance
- Provides a Form C common alarm, common trouble, and common supervisory relay

All field wiring connections to the 3-CPU3 module are made using plug-in connectors.

The 3-CPU3 module occupies the two leftmost positions on the rail chassis assembly (logical address 0). The 3-CPU3 ships without plastic doors and mounting brackets. Before you can install a 3-CPU3 you must attach the mounting brackets supplied with an LCD main display module or a 3-CPUDR, both ordered separately.

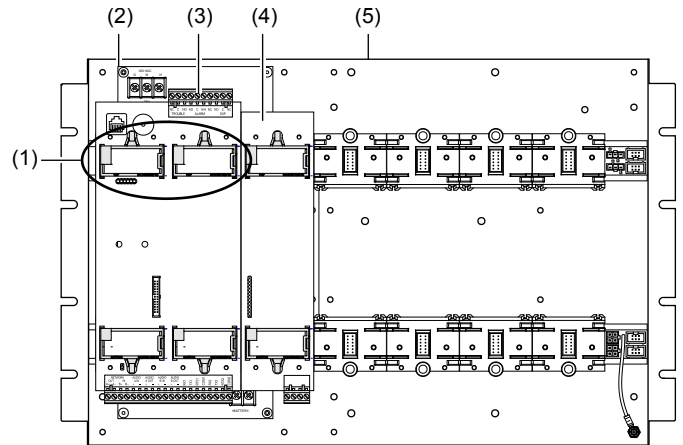
Note: The 3-CPU3 is a replacement for the 3-CPU module and the 3-CPU1 module.

Installation

1. Attach the mounting brackets from the LCD main display module or the 3-CPUDR to the 3-CPU3 module. For detailed instructions, see their respective installation sheets.
2. Install the network communications option cards, if required. For detailed instructions, see their installation sheets.
3. Align the option cards to the card guides, and then slide the 3-CPU3 into the first two rail slots on the rail chassis assembly. See Figure 1.

4. Gently push the 3-CPU3 until it is firmly seated into the rail connectors.
5. Secure the module to the rail by pushing in the plungers on the top and bottom display mounting brackets.

Figure 1: Mounting diagram



- (1) Display mounting brackets (supplied separately)
- (2) Primary power supply monitor card
- (3) Primary power supply
- (4) 3-CPU3
- (5) 3-CHAS7

Wiring

Wire the 3-CPU3 as shown in Figure 2 through Figure 6.

Notes

- Network data circuit wiring and network audio circuit wiring is supervised and power-limited.
 - When connecting a network data circuit, always wire the Network B (isolated) terminals on one CPU module to the Network A (nonisolated) terminals of another. See Figure 2.
- On Class B network data circuits, the control panel designated as the service panel must be the first panel on the network. On Class A network data circuits, any control panel can be the service panel.
- Common relay wiring is unsupervised and power-limited only when connected to a power-limited source.

Figure 2: Network data circuit wiring

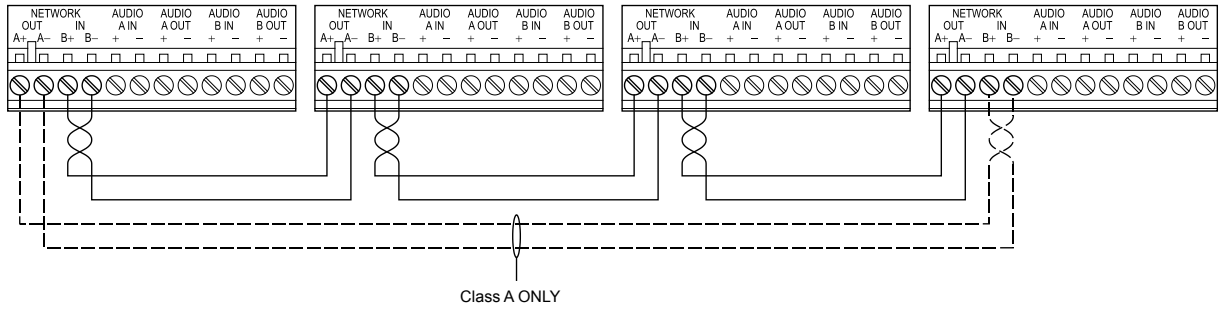


Figure 3: Class B network audio circuit wiring

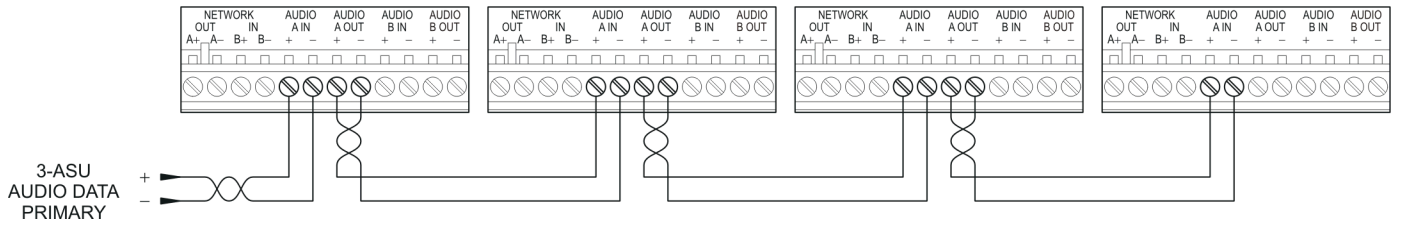


Figure 4: Class A network audio circuit wiring

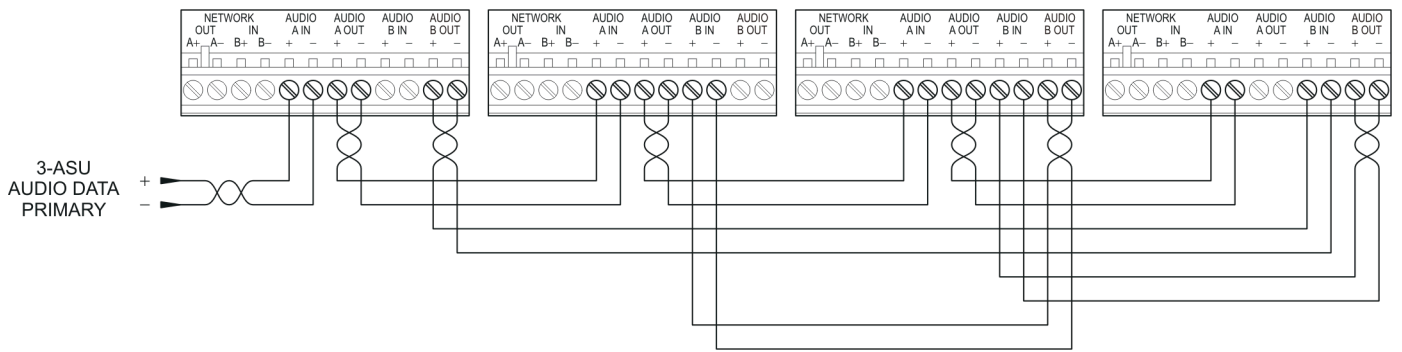


Figure 5: RS-232 port wiring

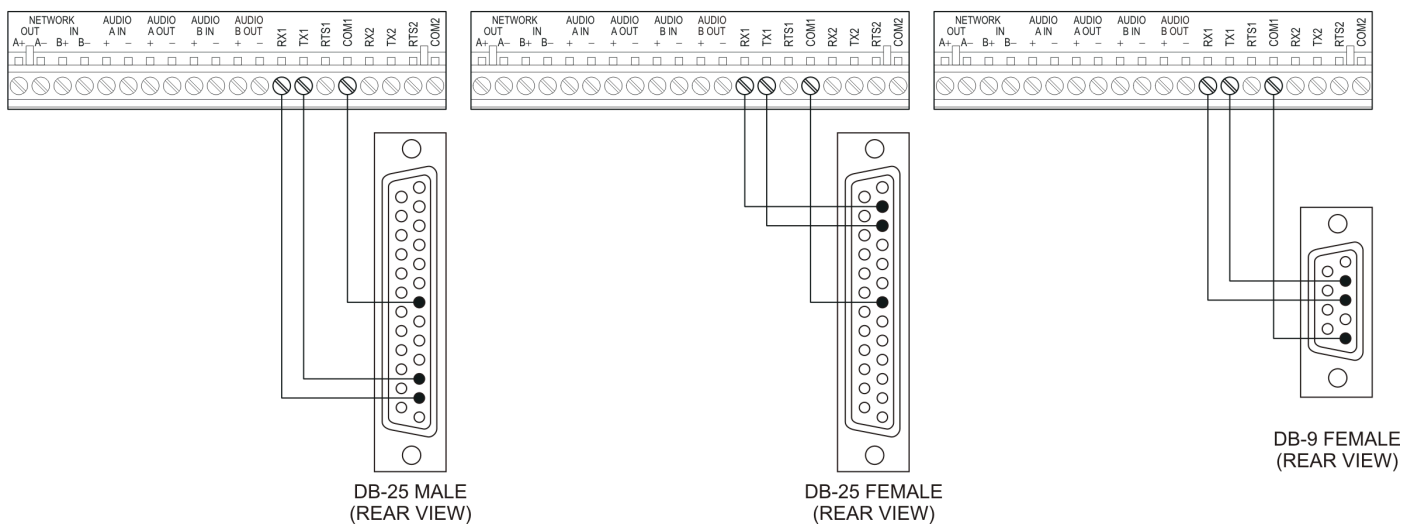
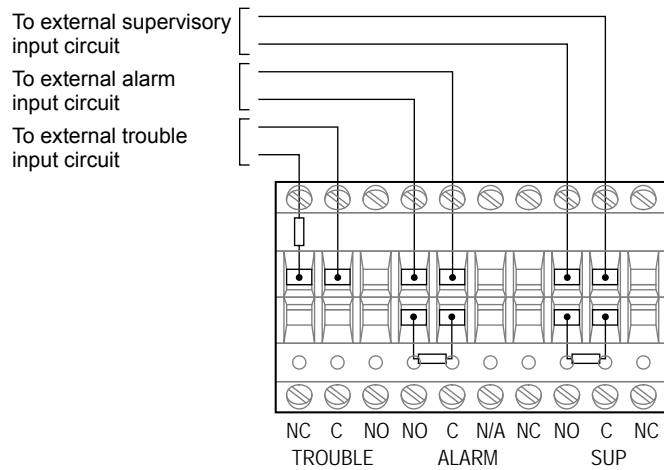


Figure 6: Common relay wiring



Specifications

Voltage	24 VDC
Current	
Standby	155 mA at 24 VDC
Alarm	165 mA at 24 VDC
Ground fault impedance	0.1 Ω
Mounting	Two LRM spaces on the hardware layer
Wire size	
TB1 (top)	12 to 18 AWG (1.0 to 4.0 mm ²)
TB2 (bottom)	14 to 18 AWG (1.0 to 2.5 mm ²)
Internal RS-232 serial port	
Type	Isolated, Class B
Connector	RJ-11
Common relays	
Quantity	3 (alarm, supervisory, and trouble)
Type	Form C
Rating	30 VDC at 1 A
Wiring	Class E
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing

Notes

- For battery calculations, standby and alarm currents include all listed primary power supplies.
- The common trouble relay operation does not include AC trouble delay functionality.
- Required software: 3-CPU3 boot and application code must be version 1.33 or later

Contact information

For contact information, see www.edwardsfiresafety.com.