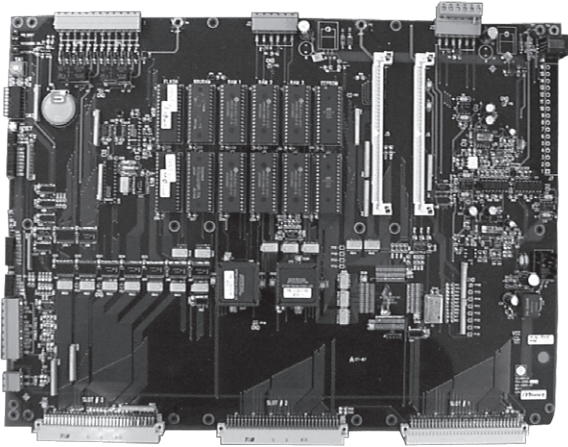


PRO-2000 Main Processing Unit (MPU) Card



Description

The Main Processing Unit (MPU) provides processing and communication circuitry for the X6 series panels. It provides two RS-422 full-duplex, 4-conductor serial links used for communications with the local LCD panel.

The MPU is shipped pre-installed on the enclosure backplate with an MPU Backplane attached and an RS-422 communication module installed. The MPU Backplane enables the MPU to have up to 6 expansion cards installed, for example, the ADI, Supervised output, or Supervised Input cards.

The MPU Backplane has a side connector to plug into the MPU expansion slot providing connectivity between the MPU and the expansion cards.

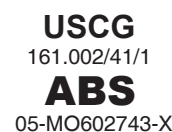
The MPU provides monitoring of the power supply for AC/DC fault detection. The card provides the following visual indicators and controls:

- Various status LEDs provide a visual indication of the card's health. There are Red LEDs for error codes, blinking LEDs (Running) indicating the board is working; Green Power LEDs, and Communication LEDs.

Features

- Six (6) I/O expansion slot capability
- Common alarm and fault relays
- High speed RS-422 serial communication interface to annunciator panel
- 4 MB of RAM memory
- One RS-232 serial port - for printer, video display unit or programming unit
- 1000 Event History Log for Alarm, Supervisory and Trouble events
- Watchdog circuit
- Calender/Clock
- Battery backed event memory
- On-card status indicators
- Ground fault detection circuit
- Can accommodate up to 3 repeater annunciator panels wired as Class A or B

- Reset push button to hard reset the MPU card.
- Dipswitch providing software options. Factory set only.
- Rotary switch allowing the selection of different configuration modes. Factory set only.
- Three jumpers, two for the watchdog and one for battery. These jumpers must be connected at all times. A watchdog circuit, monitoring microprocessor, halts system operation if a hardware or software failure occurs. The lithium battery provides the backup for the real-time clock and the RAM memory used for event logging. The real-time clock provides time and date for event recording.



When a system is first delivered the MPU card has its internal battery jumper, JP3, disabled. Prior to installation move the jumper shunt (located above the board mounted battery) into position over both pins. If the jumper is missing the panel will annunciate a "Clock Battery Fault " at power up. If the jumper is in, you can remove power and the event log and the clock remain powered.

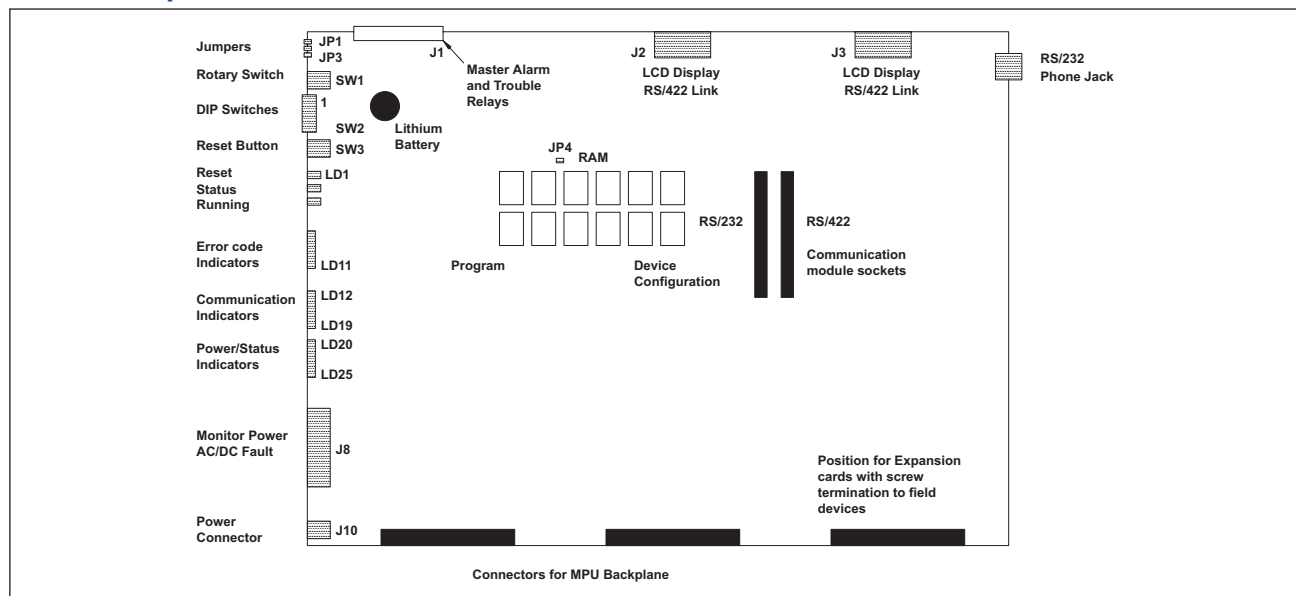
The MPU has two sockets for adding communication modules. Depending on your configuration, these could be either the RS-232 or RS-422 communication modules. Installing an RS-232 module activates the phone jack allowing MPU software configuration through an external PC or communication with a printer.

Installing an RS-422 module activates the two connectors to the LCD. The two connectors provide power to the LCD. This available power is current limited to 1 amp.

Note: The MPU ships with a pre-installed RS-422 module.

The MPU has built-in Master Alarm and Fault Relays; Two Form-C contacts for each relay. The Master Alarm Relay activates whenever an alarm is present on the system. The Master Fault Relay activates whenever a fault is present on the system. The rating for Master Alarm and Fault Relay is as follows: 0.3A, 115VAC, 0.3A, 110VDC 1A, 30V.

MPU Backplane



Specifications

| Electrical Specifications | |
|----------------------------------|--|
| Power Requirement Voltage | 20 to 28.5 VDC |
| Standby Current | 0.301 A |
| Common Alarm/Fault Relay Outputs | |
| Contact Arrangement | 2 Form C |
| Contact Load Rating | 0.3 A @ 115VAC 0.3A @ 110VAC 1 A @ 30VAC |
| RS-422 Communication | |
| Interface | RS-422 Full-Duplex Serial |
| Protocol | ADCCP CLASS UN |
| Maximum Baud Rate | 38400 |
| Maximum Cable Length | 1.2 Km |

| RS-232 Communication | |
|----------------------|--------------------|
| Interface | RS-232 Full-Duplex |
| Maximum Baud Rate | 38400 |
| Maximum Cable Length | 20 meters |
| Dimensions | |
| Height | 10.5" (266.7 mm) |
| Width | 19.0" (482.6 mm) |
| Depth | 1.5" (38.1 mm) |

Ordering Information

| Model Number | Description |
|--------------|--------------------------------|
| PCA-12886-00 | PRO-2000 MPU, UL/ULC |
| PCA-12886-01 | PRO-2000 MPU, Marine |
| PCA-12902-00 | PRO-2000 MPU Backplane, UL/ULC |
| PCA-12902-01 | PRO-2000 MPU Backplane, Marine |