MMU-1600 Malfunction Management Unit

About MMU 1600

The MMU-1600 is fully compliant with NEMA Standard TS2-1998. The MMU-1600 can operate in either Type 16-mode (16 channels) or Type-12 mode (12 channels). When configured to operate in Type-12 mode, the unit is downward-compatible with NEMA TS1 Standard.

The MMU-1600 has 77 Light Emitting Diodes (LEDs) that are used to convey information to the user. These LEDs are color coded to increase visibility and intuitiveness of the display. The LEDs provide an intuitive indication of input status when the MMU is configured to operate in either Type-12 or Type-16 Mode. The LEDs used are ultra-bright to allow viewing of the front panel indicators in direct sunlight.

The MMU-1600 is designed with flash based memory components. The front panel-mounted RS-232 communications port facilitates software upgrades. The MMU-1600 is designed to be used with RaeComM. RaeComM permits the user to view and save event logs, view and modify configuration parameters, and view the real-time status of all inputs to the monitor. RaeComM also allows viewing and retrieving of internal diagnostic codes and statistics on all communications ports.

At A Glance

▷ Red, Yellow, Green, and Walk indicators

▷ Upgradeable via front panel-mounted serial port

▷ DSP provides:

▷ Accurate measurement of AC RMS voltages

▷ Sampling speed in excess of 200 samples per line cycle

▷ Free RaeComM monitor management software

▷ Built-in memory on program card

▷ Disable local flash

ECONOLITE
CANADA

Event Logging

When using the MMU-1600 in conjunction with RaeComM software, the MMU functions not only as a Malfunction Management Unit, but also as an event logging system. Six different event logs provide detailed date and time stamped documentation of events that occur in the cabinet. This data is useful in troubleshooting and provides an accurate historical record of cabinet operation. The six event logs are:

- Time change log - 50 most recent time changes
- MMU reset log - 20 most recent resets
- Configuration log - 10 most recent configuration changes
- Prior faults log - 20 most recent faults
- AC line log - 50 most recent changes in AC line status including alarms
- Signal sequence log:
- Event mode: 60 most recent events preceding the failure
- Time mode: Two seconds preceding the failure

Flashing "Don't Walk" Monitor

This feature allows the user to ensure that flashing "Don't Walk" displays do not conflict with other Greens, Yellows, or Walks.

Audible Buzzer

The MMU-1600 is equipped with an audible buzzer. This buzzer is used to bring important events to the attention of the user. The buzzer can be disabled for all features except for critical failures.

Configuration Monitoring

The MMU-1600 checks all configuration settings for changes once per second. If a change is found, an audible signal (buzzer) will begin to sound to indicate that a configuration setting has changed. No configuration changes are implemented until the front panel RESET switch or external RESET input is activated (pending changes are not implemented when power to the MMU is cycled.)

Basic Specifications

▷ 12 VDC Monitoring
- This feature converts the +24V monitor II to a +12V monitor. It can be very useful in TS2 cabinets with 12 VDC supplies. The MMU-1600 can now monitor a +12 VDC supply as well as a +24 VDC supply. The operation of the input is the same as if it were the +24V monitor II, except that the voltage levels are changed.

▷ Type-16 Only Mode
- This feature is useful in instances when the user is retrofitting a TS2 monitor into a TS1 cabinet and wants to use the Type-16 mode, but the existing connector A harness does not have a wire for Pin HH (Type Select). Activating this feature forces the MMU-1600 to operate in Type-16 mode regardless of the logic level on the Type Select input.

Built-in Memory on Program Card

Program cards have an integral serial EEPROM. These program cards are interchangeable with other manufacturer's program cards for the programming of all standard features. The serial EEPROM has a way of storing programming settings for some of the extended NEMA features of our MMU-1600.