

# MMU2-16LE SmartMonitor™

## MMU2-16LEip SmartMonitor™



▶▶ The MMU2-16LE SmartMonitor® series Malfunction Management Unit (MMU) exceeds all the requirements set forth in

## About MMU2-16LEip-RM

The MMU2-16LE series includes two large area Liquid Crystal Displays (LCD) for a continuous Full Intersection display. A separate graphical LCD provides a menu driven interface to status, signal voltages, configuration, event logs, and the integrated context sensitive Help System.

The built-in Setup Wizard ensures that the enhanced monitor programming is done quickly and accurately, even by a novice. The industry first patented Diagnostic Wizard automatically pinpoints malfunctioning signals and offers trouble shooting advice.

An Ethernet or EIA-232 port is used to communicate with a Personal Computer or Traffic Management Center using field proven EDI ECom software.

### At A Glance

- ▶ A key component for safer traffic control
- ▶ The MMU-16LEip model replaces the standard EIA-232 port with a 10/100 Mbps Ethernet port for remote communications with a Traffic Management Center
- ▶ Meets the new MMU2 Standard and MUTCD Requirements
- ▶ Full intersection LCD back-lighted signal display
- ▶ Built-in Set up Wizard automatically configures enhanced parameters



## NEMA TS2-2003 (R2008) Standard Including Amendment #4

The MMU2-16LE SmartMonitor meets all specifications of the NEMA Standard TS2-2003 (R2008) for the MMU2 configuration while maintaining compatibility with NEMA TS1-1989 Assemblies.

## NEMA Standard Flashing Yellow Arrow PPLT

Standard MMU2 requirements of TS-2 Amendment #4-2012, providing modes for both TS-2 or TS-1 cabinet configurations.

## ECcom PC Software

Access to the MMU2-16LE data is provided by the industry standard ECcom Windows based software for status, event, log retrieval, configuration, and data archival, event logs, and the Help system.

## RMS Engine

A DSP coprocessor converts AC input measurements to True RMS voltages, virtually false sentencing due to changes in frequency, phase, or sine wave distortion.

## LEDguard®

This innovative signal threshold technique can be used to increase the level of monitoring protection when using LED based signal heads.

## Standardized Communications

Real-time SDLC communications with the Controller Unit exchanges field input status, Controller Unit output status, fault status, MMU programming, and time and date.

## Event Logging

A time-stamped nonvolatile event log records the complete intersection status as well as AC line events, configuration changes, monitor resets, temperature, and true RMS voltages.

## Module Choices

- ▶ MMU2-16LEip SmartMonitor 12/16 channel LCD Series with Ethernet Port
- ▶ MMU2-16LE SmartMonitor 12/16 channel LCD Series with EIA-232 Port

## Setup Wizard

Use the built-in setup wizard to configure the NEMA enhanced settings of the SmartMonitor by answering a short series of questions regarding intersection design and operation.

## Diagnostic Wizard & Help System

The diagnostic wizard automatically pinpoints faulty signals and offers trouble-shooting guidance. The integrated help system provides context sensitive operational assistance.

## Full Intersection & Status Display

Two high contrast, large area LCD continuously show full RYG(W) intersection status. A separate graphic LCD provides a menu driven user interface to status, signal voltages, configuration, event logs, and the Help system.

## Program Card Memory

Enhanced settings of the MMU2-16LE SmartMonitor are stored in nonvolatile memory on the program card. Moving the program card to another MMU2-16LE automatically transfers all settings.

