



# MCS-MAGNUM-MLB-15.4

## Description & Specifications



Part #  
**MCS-MAGNUM-MLB-15.4**

*Photo shown with optional lights/  
switches & Expansion boards*



### Description

The **MCS-MAGNUM-MLB-15.4** enclosure is made of powder coated aluminum for durability and longevity. A left hand swing door is mounted with three eight-inch hinges for strength. A key lock is provided for security on the door while still giving easy access of the display. This box is intended for use in an environment protected from the weather.

The MCS-MAGNUM-MLB-15.4 consists of a **MCS-MAGNUM, MCS-S116-A04** expansion board, and a Touchscreen 15.4" display. The **MCS-TOUCH-15.4** is a new touchscreen interface designed to simplify user access with the MCS-MAGNUM utilizing **MCS-CONNECT** to provide both graphics and service mode access to technicians. Information and graphics on the MCS-TOUCH-15.4 are shown on a 15.4" high resolution (1280x800) LCD display with LED backlighting, which will guarantee long-life operation.

Additional options are available as shown below.

Complementing the MCS-MAGNUM micro controller are a variety of MCS expansion boards that allow for system expansion to a maximum of 112 inputs and 80 outputs. Communication to these units occur at 38,400 baud over the MCS-I/O port which is dedicated for this purpose.

### Options

- MB-WIRELESS-MODEM ..... Cellular Modem with 1 yr subscription
- MB-RO10-(24/115/230) ..... 10 relay output expansion board
- MB-SI16-A04-(24/115/230) ..... 16 sensor input expansion board
- MB-24VOLT-(115/230) ..... 115(230) to 24vac transformer
- MB-RUN-LT#(1/2/3/4) ..... Green run indicator
- MB-COMP#(1/2/3/4) ..... Single compressor on/off switch
- MB-BYPASS ..... Momentary bypass push button
- MB-ETHERNET ..... Industrial rated RS-232/Ethernet device
- MB-ETHERNET-SW ..... Ethernet switch and power supply
- MB-BMS-GATEWAY ..... BacNet IP to MSTP/Lontalk
- MB-EXV-DRIVER-xx ..... Control board for EXVs

### Specifications

#### NEMA Rating – Type 1 Enclosure - IP20 Rating

Enclosure is intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment and is not protected from liquids.

#### Enclosure – Medium Large Box

Dimensions ..... 22" w x 28.50" h x 8" d  
Mounting Holes ..... Mounts with four pre drilled 15/32" holes

#### Temp. Range for Enclosure & Touch Screen

Operating Temperature ..... -4°F to 158°F (-20°C to 70°C)  
Operating Humidity ..... 0-95% Non-Condensing  
Storage Temperature ..... -4°F to 158°F (-20°C to 70°C)

#### Controller Specification

Microprocessor ..... Zilog eZ80 Acclaim! @ 50mhz  
Sensor Inputs (SI) ..... 12 inputs 0-5vdc (10-bit A/D)  
Digital Inputs ..... 4 inputs 0 or 5vdc only  
Relay Outputs (RO) ..... 10 outputs 6.3amps @ 230vac  
Analog Outputs (AO) ..... 4 outputs 0-10vdc  
Printed Circuit Board ..... Six layer with separate power and ground planes

Input Power (Standard) ..... 115 or 230vac ±10% 50/60Hz @77°F (25°C) ambient, 20VA max (Voltage is field selectable)

MCS-I/O Comm Port ..... 1 @ 38,400 baud  
RS-485 Comm Port ..... 1 @ 19,200 baud  
Ethernet ..... 10/100 Mbps Ethernet  
Real Time Clock ..... Battery backup  
Power Detection ..... Automatic power fail reset

#### Touch Screen 15.4 - Specification

Dimensions ..... 17" L x 12.11" W x 3.228" H  
Gasket Material HT-800  
Medium Cellular Silicone  
LCD Screen 15.4" (16:10 Diagonal)  
16.2 Million Colors  
1280x800 Resolution  
View Angle 70°x70°x70°x 70°  
(Up, Down, Left, Right)

5-Wire resistive touch w/Stylus pen  
White LED Backlight  
(Min Life 50,000 Hrs)  
Luminance Min. 300 cd/m<sup>2</sup>  
Surface Treatment ..... Glare/Anti-Reflection ≤1.5%  
Hard Coating (3H)

Power Input ..... 12Vdc 2 amps  
Motherboard ..... Freescale i.MX6 Dual Core 800mhz  
1Gb of 512mhz DDR3 RAM Mem.  
4Gb of eMMC Flash memory  
1Gb Ethernet (100Mb/10Mb comp.)  
1 Micro-SD Slots;  
1 USB On-The-Go (OTG)  
2 USB Host 2.0; Real Time Clock (RTC) w/ Battery  
LVDS for 15.4" LCD w/5-wire resistive touch  
3 RS485 communication ports (max. baud rate 115k)

Revision - 2018-05-04