MLS High Level Interface Unit

MLSUCA mk2-JACE

The MLSUCA mk2-JACE is an embedded controller/web-page server for remote monitoring and control of Ex-Or Digital Managed Lighting Systems, (MLS). It also has the capability of presenting its status information and receiving commands in BACnet protocol form.

Application

As a controller/web-page server exclusively for the Ex-Or MLS it is able to control and display up to 700 lighting zones spread over a number of Ex-Or RB2000/MLS Bus served areas of a building or campus. With the inclusion of the BACnet capability it is able to serve 450 lighting zones.

For the lighting control and lighting status display application the MLSUCA mk2-JACE takes the role of Bus Master on the RS485 Spine that can link a number of RB2000s. Each RB2000 drives an MLS Bus capable of supporting up to 100 separate lighting zones comprised of up to 200 individual presence detectors with photocells.

Control Features

Control functions in the lighting application can be either pre-programmed actions governed by an onboard time-of-day clock or manual interventions delivered via the supported web-page from any co-networked Personal Computer running a web-browser. With the BACnet capability installed real-time control actions can also be initiated by remote BMS devices.

Conversely via the BACnet protocols information gathered by the lighting system's detectors, typically occupancy data, can be passed to other BMS disciplines.
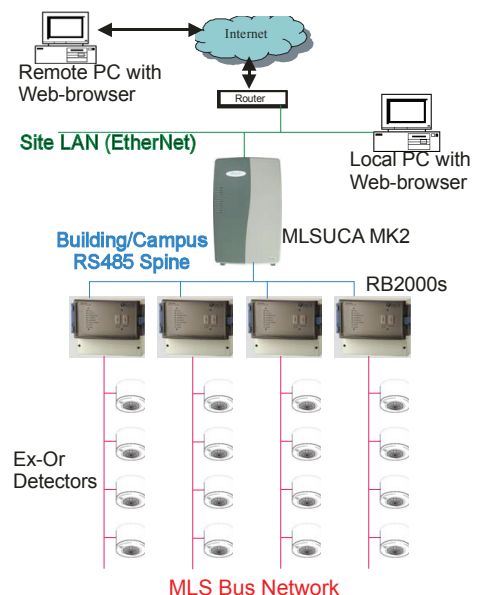
Installation & Connection

The MLSUCA mk2-JACE should be positioned in a readily accessible location, usually adjacent to the mains distribution board for the area being controlled. A fused 3A, 230 volt mains supply is required which should be dedicated to the MLSUCA mk2-JACE for maximum reliability.
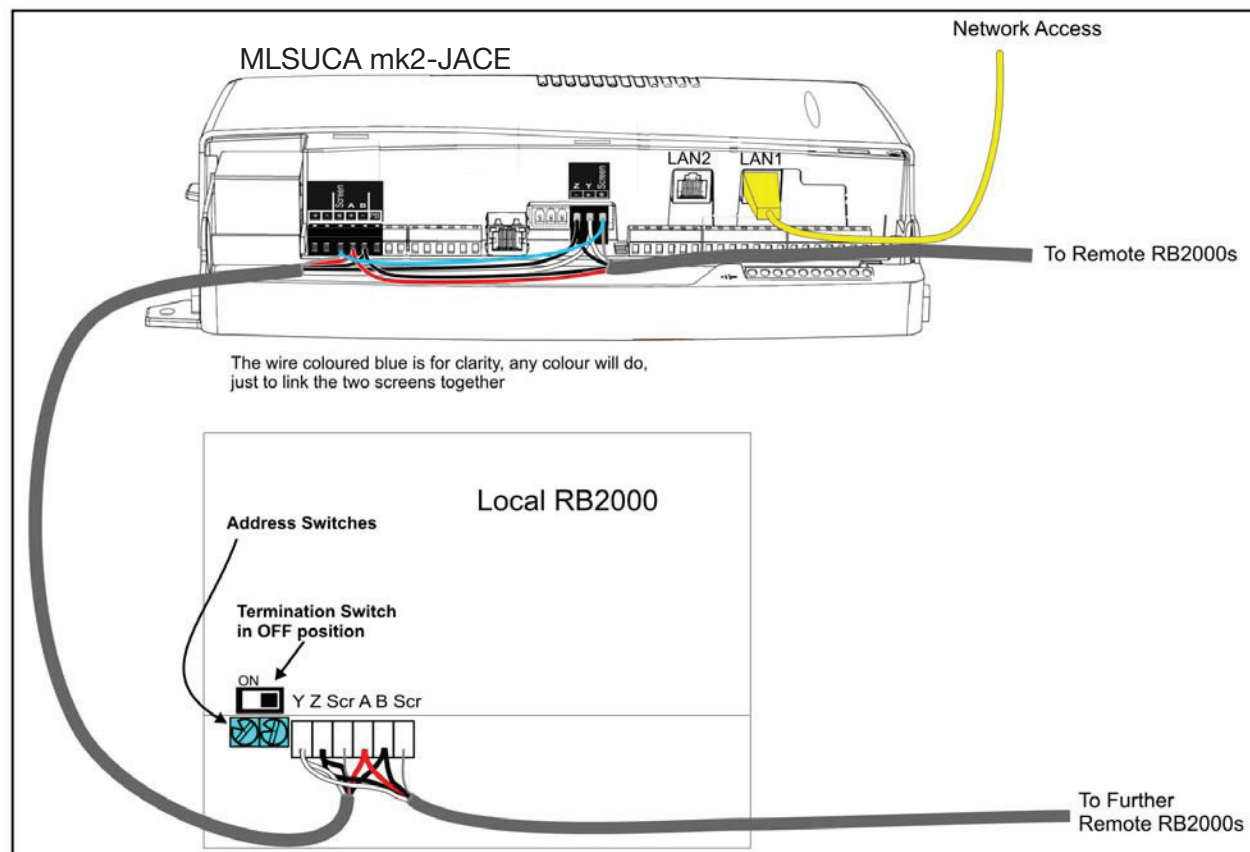

Connecting the MLSUCA mk2-JACE

The MLSUCA mk2-JACE is connected to the MLS via a 'spine' or 'backbone'. The spine should be wired using 24AWG two twisted pair, screened communications cable, e.g. Belden 9502. Connection to the network is made via a straight-through CAT5e patch lead to the onboard RJ45 socket.

Example wiring of system

Internal Connections

MLSUCA mk2-JACE

Network Access

LAN2 LAN1

To Remote RB2000s

The wire coloured blue is for clarity, any colour will do, just to link the two screens together

Local RB2000

Address Switches

Termination Switch in OFF position

ON

Y Z Scr A B Scr

To Further Remote RB2000s

Key Features

- Remote monitoring of MLS lighting zones

- Programmable timed-event scheduling

- Straightforward browser-based user interface

- Real-time event control from the BMS

- Remote scene-recall commands

- Sharing of occupancy information with the BMS

- Remote execution of test modes

Typical Screen Display
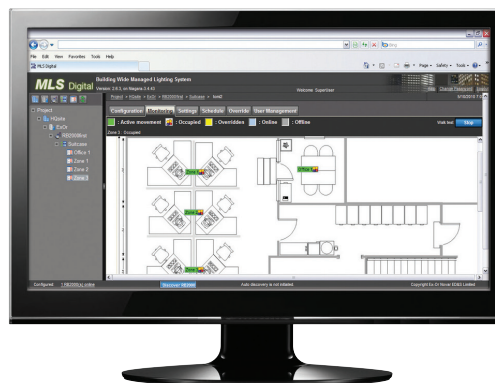
Technical Data

Construction: Plastic, screw mount chassis with plastic cover. Enclosure rating IP40 – designed for indoor use only.

Overall Dimensions: 197mm (W) x 321mm(H) x 58mm (D)

Weight: 1.36kg

Power Supply: 90-240V ~ 50-60Hz universal PSU.

Cooling: Internal air convection.

Wiring Access: 21.5mm hole provided at top and bottom of case. Knock-outs in base of case for hidden wiring. Segregation of mains and signal wiring provided for.

Operating Temperature Range: 0ºC to 50ºC

Relative Humidity: 5 to 95% at 25ºC, non-condensing.

Cable Specifications

Spine/Backbone cable: Belden 9502, available from RS 382-7303 (304m)