

# Monitor and Control Unit

## Model LD2550

### FEATURES

Simultaneous monitoring of up to 12 channels Front panel programming of alarm conditions Remote receiving attention clear down input Standard 1U 19" shelf unit Monitors N/O or N/C inputs Latched/non latched outputs Fully flexible for future bus expansion requirements

### OPTIONS

Standard Unit -Local status monitoring and summary alarm output.  
Option A -Remote individual alarm mimics via form C relay contacts (37 pin D-type socket)  
Option B -Remote monitoring and control via RS232 or RS485 bus (9 pin D-type socket )  
Option C --28V dc power supply

### GENERAL DESCRIPTION

The L.TEQ model LD2550 Monitor and Control Unit (MCU) is a state of the art subsystem which has been designed to meet current requirements for a universal interface between local operational equipment and the station or network management system. The MCU provides facilities for monitoring and controlling, via relay contacts or standard bus, the status of up to 12 units incorporated into a 19"equipment rack.

The LD2550 uses microprocessor technology to provide a high degree of flexibility in a single unit. For example in its basic form the MCU acts as a conventional Receiving Attention Module (RAM) providing individual alarm and summary indications only. In this configuration, alarm input are received from individual equipments and are displayed on tri-colour LED switches. These indicate whether each unit is online, failed, receiving attention or not present; In addition a summary alarm is generated giving an audio and visual presentation of the overall status.

The unit can however be field upgraded at a later date to provide complete bus communications to the primary M & C system, enabling status monitoring and remote control of system functions. This degree of flexibility reduces the initial cost and makes future system improvements more economic.

### LD2550 Specifications

#### Electrical

Alarm inputs. 12 Opto-isolated (N/O or N/C)  
Alarm sense. Grounding input will indicate either OK or FAULT ( each input is operator configurable via the front panel)  
Supply voltage. 85 to 265 Vac, 50 to 400Hz (Std)  
( -7 to -40 V dc Option C)  
Power requirements. 20 Watts  
Reset input. 1 Opto-isolated ( allows remote clearance of latched summary alarm)  
Summary alarm. .1 Set of 'form C' relay contact, 1 large LED, audible sounder

## **Mechanical**

Overall dimensions. 1 U high x 360min

### **Front Panel**

Status indication. 12 red and 12 green LEDs (1 pair per alarm input)

Attention indication. 12 yellow LEDs (1 per alarm input)

Summary indication. Large red LED and piezo sounder

Audible indication. Red LED will illuminate when audible alarm is muted

Attention control. 12 Non-latching push button switches

Audible alarm mute. 1 Push button switch

Lamp test. 1 Push button switch

### **Rear Panel**

Alarm inputs. 12 Plugs (9 pin D-type )

Summary alarm. 1 Socket (9 pin D-type)

/Remote reset

Power. IEC320 Socket/fuse holder ( ac version)

Switch. DPDT mains rocker on/off

## **General**

Attention standard. Mayor may not re-sound alarm upon fault clearance ( operator selectable via the front panel)

Self check. Tested automatically on power up

Safety .Meets EN 60 950

RFI .Meet EN 55022 ( class A)

EMC .Meets IEC 801

## **Operation**

### **Alarm Sense**

The alarm can be indicated by either opening or closing the input connection to ground. The logic sense can be programmed for each individual input via the front panel.

To program the logic sense, press the Lamp Test button 3 times in quick succession, whilst in lamp test mode.

Once in the programming mode, the LED's will flash if no logic sense has been previously selected. To set the logic sense, press the appropriate receiving attention alarm button to toggle between the red (upper) and green (lower) LED.

When the red LED is illuminated, a logic High on the input will denote an alarm condition, whilst a green LED will indicate a Low on the input causes an alarm.

To exit the programming mode, press the lamp test button.

Latched or non-latched outputs can also be programmed from the front panel in a similar manner .

### **Alarm Resound**

The alarm resound may be toggled on and off by pressing the Alarm Mute button when in programming mode. The resound option allows the piezo to sound ( or not) when an accepted alarm clears.

### **Lamp Test**

Pressing and releasing the button will cause all of the LED's to be illuminated for two seconds and then automatically extinguish.

### **Local Alarm Mute**

Pressing and releasing the local alarm mute button will cause the LED to be toggled on or off. If the LED is on, then the audible alarm will not sound even though the summary alarm LED is on.

If the LED is extinguished, then the audible alarm will be active.

If the audible alarm is muted, the mute will be de-activated by any new incoming alarm.

**RS485 Selection**

The RS485 bus ( option B) can be selected to be full duplex ( 4 wire) or half duplex (2 wire ). Half duplex is made by first removing the top cover of the MCU unit and moving jumpers. The termination of each RS485 bus is selected by removing the lid of the MCU unit and moving jumper.

**RS485 / RS232 Selection**

The remote control ports can be selected by removing the lid of the MCU unit and moving the jumper .