![JANUS]

LMA – LINE MONITOR ALERT
USER'S MANUAL

TABLE OF CONTENTS

Overview

The Line Monitor Alert Board (LMA) provides visual and audible alerts when detecting a contact closure at the Alert input. The Alert input of the LMA board can be connected to the Phone line monitoring output (AUX2) of any Janus Elevator Products ADA phone that includes it. This will allow monitoring the status of the phone line on a Janus Elevator phone or any other ADA phone equipped with such output.

If more then one ADA phone needs to have the phone line monitored then the LMA should be used in conjunction with the Line Monitor Expansion Board (LMX) which will support up to 10 ADA phones. If more then 10 phones are used then you could use multiple Expansion Boards and connect the Alert Output of one Expansion Board to any of the Inputs of another Expansion Board.

LMX

If the ADA phone(s) are connected to an EMS5 call director then you should also use the Line Monitor Expansion Board (LMX) and connect the AUX1 of the EMS5 to any of the inputs of the LMX board and the ADA phones to the rest of the inputs.

Installation

1. The LMA require 1 pair of wires from the Phone Line Monitoring output (AUX2) of the ADA elevator phone to the LMA Alert input. (See Figure 1)

2. The LMX require 1 pair of wires from the Phone Line Monitoring output (AUX2) of each ADA elevator phone to each input of the LMX and 1 pair of wires from the LMA Alert input to the LMX Alert output. (See Figure 1)

3. The LMA / LMX system requires 12-24VDC/0.5A to operate. The Power terminal is not polarity sensitive.

Note 1: Cabling can be inexpensive 18-24 gauge pair cable.

Note 2: If the Phone line Monitoring output of the ADA elevator phone is normally close (NC) instead of the standard normally open (NO) output you can install a jumper at the "NC" location next to the Alert input connector(s) of the LMA or LMX units.

OPTIONAL: If an LMX unit is provided Install it on the wall or flat surface with (4) 8-32 screws using the (4) holes on the sides of the unit. (See Figure 3)

Operation & Test

1. The LMA and LMX boards are both equipped with Power / Board status LED. When the Board is first powered up the LED will flash rapidly to indicate Resetting and then flash slower to indicate normal operation. If you need to reset the boards without removing power you can press and hold the "Test/Reset" button for at least 5 seconds.

2. If the phone line from a Janus Elevator Products ADA phone equipped with a phone line monitoring relay is disconnected or shorted the AUX2 Output of the ADA phone will close within 10 minutes.

3. The LMA Board will detect an Alert Input closure and it will trigger the Audible and Visual Alarms.

4. The LED(s) will flash and the Piezo Buzzer will emit a beep every 9 seconds. The volume of the Piezo Buzzer is set at optimal Level at the factory but can be adjusted using the "VOL" potentiometer on the LMA board.

5. The Piezo Buzzer can be silenced only by authorized personnel if the "Key switch Reset" input is closed. The LED(s) will continue to flash until the phone line is re-connected or fixed on the ADA phone.

6. If an LMX board is used the user can also identify which ADA phone has a phone line issue by checking the LED next to each input. If the LED is "ON" on any of the Inputs it will indicate a phone line failure of an ADA phone connected to this input. (The LEDs are located inside the LMX enclosure)

Quick Test

- To Test the LMA or the LMX Boards you can press and release the "Test/Reset" button. On the LMA Board you will see the LED(s) flashing and you will also you hear the Piezo Buzzer beep at least twice (Once every 9 seconds) to indicate an active Alert Input. On the LMX Board you will see the LED of each input from 1 to 10 light up for 1 second to indicate an Active Input and the Alert Output will then close accordingly. If the LMX is connected to the LMA while performing this test you can test both systems at once.

   Note: This Test will only Test the functionality of the LMA and LMX boards. Please refer to the "Complete System Test" below to test the entire phone line monitoring system.

Complete System Test

- In order to test the entire system you must first make sure everything is connected and powered up according to the Installation Instructions of this manual.

- Remove the phone line from the ADA phone and within 10 minutes the Alert Input of the LMA board will close and this should cause the LED(s) to flash and the Piezo Buzzer to sound. (If the LMX is also used it will close the Alert input of the LMA board if any of it's 10 inputs is closed)

- Activate the Key switch Input on the LMA board to make sure you can silence the Piezo Buzzer but make sure that the LED(s) continue to flash.

- To turn "OFF" the LED(s) and the Piezo Buzzer on the LMA board Re-connect the phone line to the ADA phone.

Troubleshooting

1. If the LMA / LMX do not turn 'ON' make sure that the wall transformer is plugged into 110VAC outlet, and measure the voltage on the "POWER" connector inside the LMA / LMX unit. The voltage should read about 12-24VDC. The "POWER" connection is **not** polarity sensitive.

2. If the phone line is removed from the ADA phone and it does not trigger an alarm first check the connections according to diagram on Figure 1. If all connections are good make sure you test the AUX2 Line Monitoring output of the ADA phone by removing the phone line and wait about 10 minutes until this input will close. If this input does not close make sure you have 12-24VDC supplied on the "PWR" connector of the ADA phone. This connector is polarity sensitive. If all checks good replace ADA phone and repeat test.

3. If the LMA is activated but the phone line on the ADA phone is good disconnect the Alert Input wires from the LMA board to see if that stops the alarm. If the Alarm does not stop cycle power on the LMA board or press and hold the Test/Reset button onboard for at least 5 seconds to reset the LMA board. If the Alarm does stop when the Alert input wires are disconnected then you must check for a short on the wiring or a fault on the AUX2 Line monitor output of the Janus Elevator products ADA phone.

Notes:_____
_____
_____
_____
_____

Figure 1
LMA CONNECTION DIAGRAM

Elevator 2

Janus Elevator Products
ADA Phone

AUX2

Elevator 1

Janus Elevator Products
ADA Phone

AUX2

Machine Room

POWER
12-24VDC

Line Monitor Alert Expansion

IN1
IN2
IN3
IN4
IN5
IN6
IN7
IN8
IN9
IN10

ALERT
OUTPUT

Elevator Landing
Main Panel

Piezo

Line Monitor Alert Board

Key Switch
Reset

2V LED

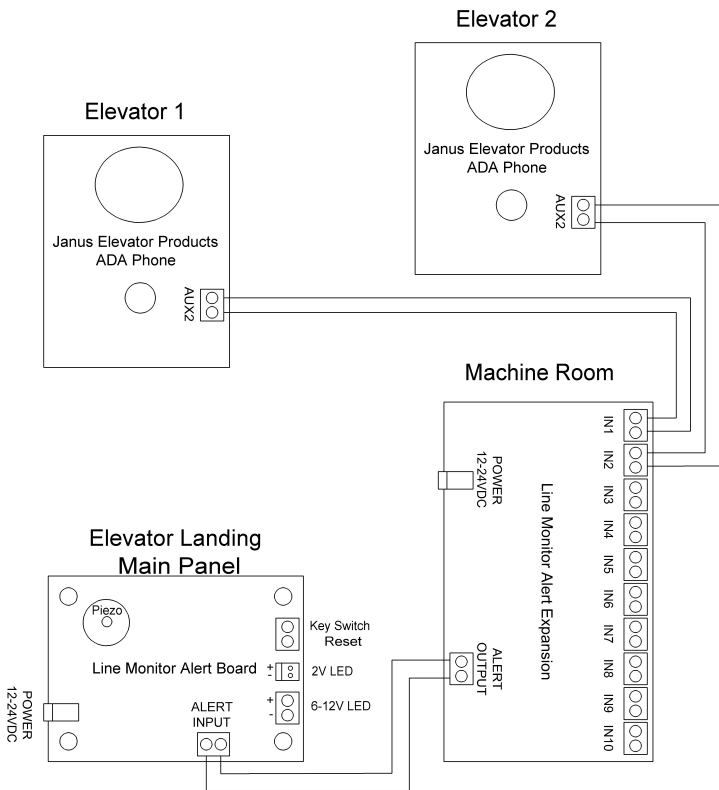6-12V LED

ALERT
INPUT

POWER
12-24VDC

Figure 2
LMA MOUNTING DIAGRAM
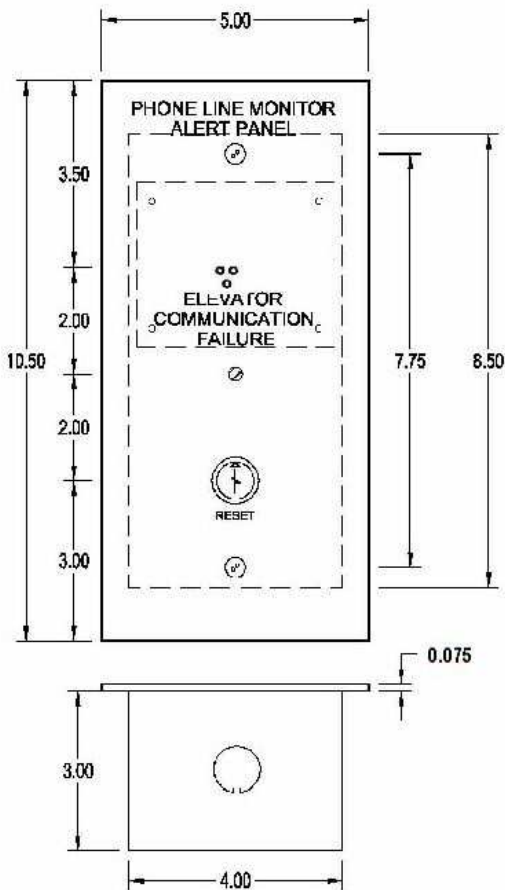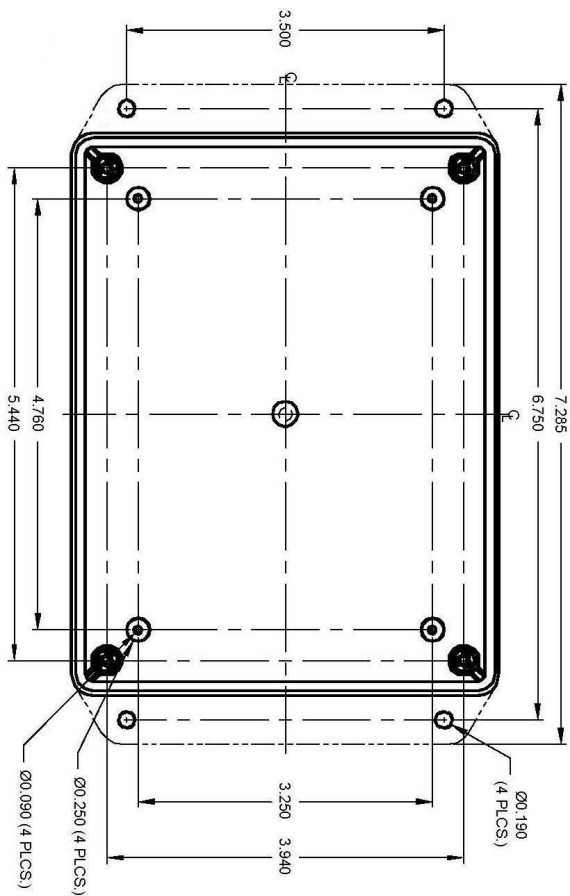
Figure 3

LMX MOUNTING DIAGRAM

Specifications

LMA

Mechanical:
• Size: 10.5" H X 5" W X 3.1" D
• Weight: 4lbs

Electrical:
• Operating Voltage: 12-24 VDC
• Operating current: 400mA
• Supplied with standard 12VDC/0.5A transformer
• Operating Temperature Range 0 to 70 degrees C
• Storage Temperature Range: -20 to 70 degrees C
• Relative Humidity: Up to 95% (non-condensing)

LMX

Mechanical:
• Size: 7 1/4" H X 4 5/8" W X 1 3/8" D
• Weight: 0.5lbs

Electrical:
• Operating Voltage: 12-24 VDC
• Operating current: 150mA
• Supplied with standard 12VDC/0.5A transformer
• Operating Temperature Range 0 to 70 degrees C
• Storage Temperature Range: -20 to 70 degrees C
• Relative Humidity: Up to 95% (non-condensing)

Warranty Policy

Avire Inc. warrants its products to be free from defect in materials and workmanship under normal use and service for 24 months from date of purchase. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor any product which proves defective in materials or workmanship under normal use and service. Avire shall not be responsible for any damage to the unit incurred during installation. Seller shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Avire factory service. For warranty service, contact Avire at 631-864-3699 or 800-527-9156.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

Return Policy

During installation, if a product does not appear to function properly the installer must call the **Avire** Technical Support Unit at (800) 527-9156, Monday through Friday. If the technician determines that the product is not functioning, an **RA** (Return Authorization) number will be issued, allowing the installer to return the product directly to **Avire** for repair, replacement or credit. Returns with no fault found, will result in a bench charge plus shipping costs. Returns without an **RA** number will result in a restocking charge of 25% or more plus shipping costs.

Need Technical Assistance?

Call 1-800-527-9156