Warrick® TA-732XX Monitoring Panel
Installation and Operation Bulletin

This bulletin should be used by experienced personnel as a guide to the installation of the TA-732 Series Remote Alarm Panels. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact the Gems Sensors Inc. or our local representative if further information is required.

Important

Before installing and wiring the unit, read these instructions thoroughly.

*** Warning: To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

When installed according to these instructions, this device provides an intrinsically safe output for interface into Class I, II and III, Division 1, Groups A thru G hazardous locations. Electrical equipment connected to associated apparatus should not exceed maximum voltage marked on product.

Location
The panel must be situated in a non-hazardous area where an explosive atmosphere will not exist at anytime.

Intrinsically Safe Wiring
1. Terminal strip capable of handling 12-22 gauge stranded wire 14-22 gage solid wire.
2. Intrinsically safe wiring must be kept separate from non-intrinsically safe wiring.
3. Wire the sensor(s) to the TA-732XX as shown in in the wiring diagram on the reverse side. (Diagram D-2)
4. An approved seal should be used at the point where the intrinsically safe control circuit wiring enters the hazardous area.

Notes
1. All intrinsically safe wiring must be installed in accordance with article 504 of the National Electrical Code, publication ANSI/NFPA 70.
2. **Grounding:** To maintain intrinsic safety, the terminal marked **"GND"** on the AC supply terminal should be connected to the earth ground buss of the AC power supply feeder. Metal conduit must be used to provide a redundant system ground. The resistance between the system ground terminals (at the control) and the earth ground buss must be less than 1 ohm.
3. The maximum total length of intrinsically safe wiring extending from terminal S1 **shall not exceed 5,000 feet. *(This excludes ground)***
4. The intrinsically safe terminals of the TA732XX can be connected to any non-energy storing switch device, such as a limit or float type switch or any Warrick electrode fitting assembly.
5. For additional guidance on "Hazardous Location Installation" and "Intrinsically Safe Devices", consult ANSI/ISA standard RP 12-6 or NEC articles 500 through 516.
6. To retain the intrinsically safe outputs, the metallic barrier enclosing the sensor terminals must be in place.
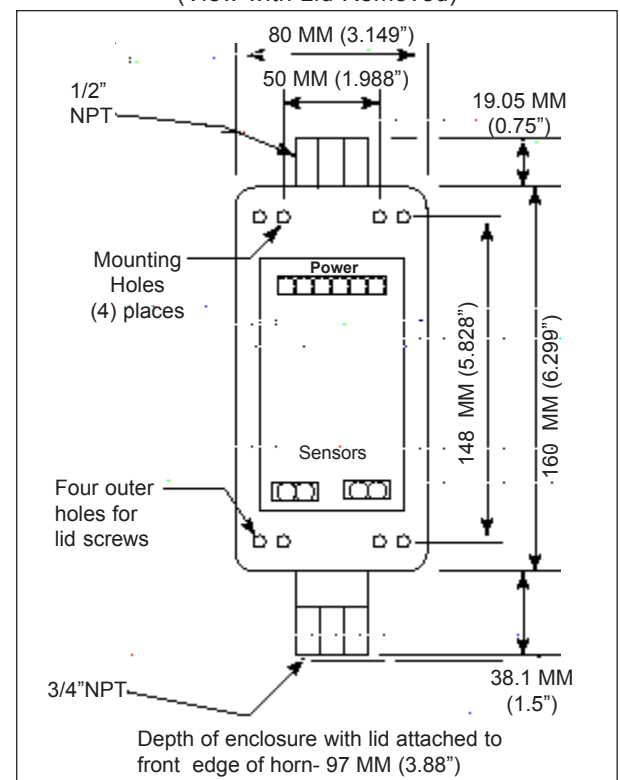
Specifications

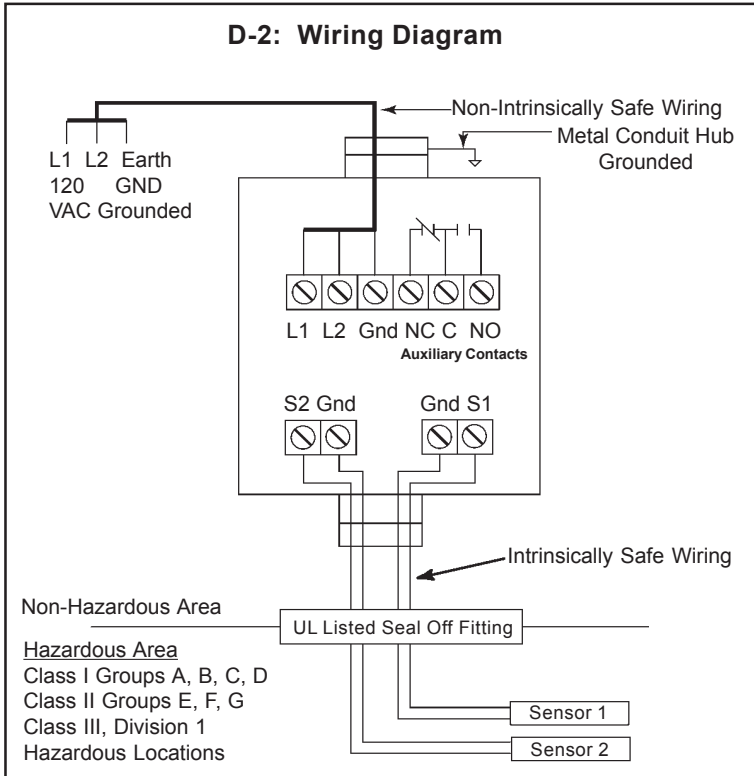|	
Supply Voltage	120 VAC +10% -15%. 6.6 VA max
Sensor Voltage	12 VDC, .248 milli-amp current
Indicators	2 Red and 1 green solid state LED's
Audible Alarm	Field adjustable from 77 to 97 db @ 2 feet by rotating shutter
Enclosure	weather tight polycarbonate (6.25h X 3.25w X3.5d)
Terminals	Size 6 pan head screws with captivated wire clamping plate
Temperature	-22°F to +150°F Ambient
Sensitivity	0-26K ohm maximum specific resistance
Auxiliary Contact	SPDT 10A@ 120, 240 VAC, 10A@ 30 VDC, Resistive, 1/3 H.P. @ 120, 240 VAC
Listing	UL Listed, Process Control Equipment Associated Apparatus with Intrinsically Safe Output (913)
Conduit Connection	Sensor, 3/4" NPT, PVC, Power, 1/2" NPT, Metal

Installation
1. Mount the TA-732XX panel on wall or other solid object with 4 (four) #8 or appropriately sized screws.
2. Incoming Power: 3-wire 120 VAC supply, Class I circuit.

D-1 Installation Diagram
(View with Lid Removed)

1/2" NPT

80 MM (3.149")
50 MM (1.988")
19.05 MM (0.75")

Mounting Holes (4) places

Power

148 MM (5.828")
160 MM (6.299")

Sensors

Four outer holes for lid screws

3/4"NPT

38.1 MM (1.5")

Depth of enclosure with lid attached to front edge of horn- 97 MM (3.88")

D-2: Wiring Diagram

L1 L2 Earth
120 GND
VAC Grounded

Non-Intrinsically Safe Wiring
Metal Conduit Hub Grounded

L1 L2 Gnd NC C NO
Auxiliary Contacts

S2 Gnd   Gnd S1

Intrinsically Safe Wiring

UL Listed Seal Off Fitting

Non-Hazardous Area

Hazardous Area
Class I Groups A, B, C, D
Class II Groups E, F, G
Class III, Division 1
Hazardous Locations

Sensor 1

Sensor 2

D-3: Auxillary Relay Slide Switch

Horn

Slide Switch

Cutoff   Alarm

Circuit Board

Backside of Lid

auxiliary relay. The relay will mimic the **red LED** or fault condition. The relay will activate on fault condition, changing the state of the contacts. To deactivate the relay, you must clear the fault condition. Pressing the **acknowledge** button will not deactivate the relay. In "alarm" mode, the relay will mimic the horn. The relay will activate on fault condition indicated by either channel, changing the state of the contacts. To deactivate the relay, either press the **acknowledge** button or clear the fault condition. If the second channel detects a fault condition after the first channel has been acknowledged, the auxiliary contact will again activate. To deactivate the relay, either press the **acknowledge** button or clear the fault condition. On models TA732X1 and TA-732X2, the auxiliary relay is preset at the Factory and is not field adjustable.

Operation

Dry Contact Operation: The **green LED** will light when power is applied to the unit. When either sensor contact switches state(fault condition), the **horn** will activate and the appropriate **red LED** will light. On pressing the **acknowledge** pushbutton, the **horn** will silence. The **red LED** will remain lit as long as the fault condition is present. On correcting the fault condition, the **red LED** will automatically clear.

If one of the channels has detected a fault and has been acknowledged, and the other sensor detects a fault, the appropriate **red LED** will light and the horn will again activate. The **red LED** will remain lit as long as the fault condition is present. On correcting the fault condition, the **red LED** will automatically clear.
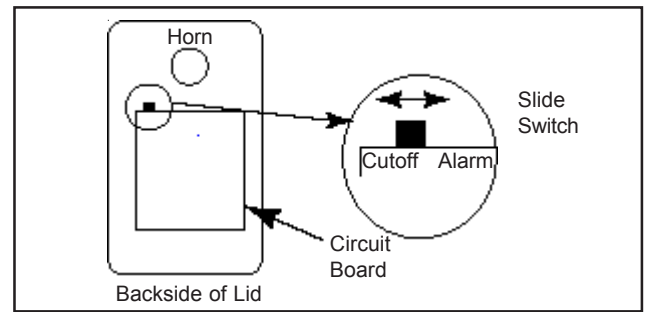
Test Button

Pushing the test button allows you to test the alarm panel circuitry. On pushing the **test** button, the **horn** will activate, both **red LED's** will light and the auxiliary relay will activate. On releasing the **test** button, the **horn, red LED's** and auxiliary relay will deactivate.
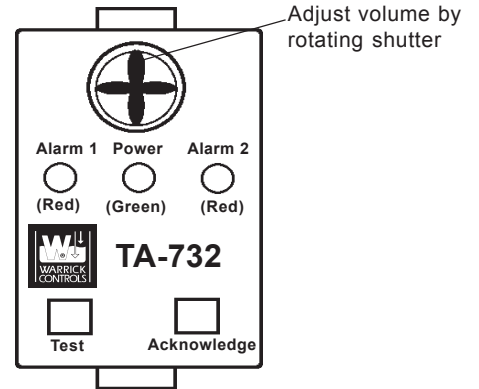
Auxiliary Relay Operation

Model TA-732X0 contains an auxiliary relay for remote indication of a fault condition. The contact configuration shown in **Diagram D-2**, shows the position of the contacts in the non-fault condition. The relay can be field set to either a "cut-off" mode or "alarm" mode. In "cut-off" mode, only channel 1 will activate the

Adjust volume by rotating shutter

Alarm 1   Power   Alarm 2
(Red)   (Green) (Red)

TA-732

Test   Acknowledge

Model Number

TA 73 X X X

Optional Character
0 - No option

Interface Contact (both same)
A - N.O. dry contacts (close on fault)
B - N.C. dry contacts (open on fault)

Number of Channels
2 - Two channel unit

Monitoring Panel