## Trouble Shooting Guide

Use this chart to help correct any problems you may encounter. If further assistance is needed, contact your Chart Industries representative.

| Condition | Causes | Solutions |
|---|---|---|
| • **Red alarm light and audible alarm are present** | • Alarm condition is present | • Correct low liquid level condition, or adjust sensor to proper liquid level. |
| | • Sensor plug is disconnected | • Connect sensor plug properly |
| | • Sensor is shorted | • Locate and correct short |
| | • Sensitivity control needs adjustment | • Turn sensitivity adjustment screw slowly counterclockwise just until alarm stops |
| • **Alarm light flashes and audible alarm sounds intermittently** | • Battery is losing power | • Replace with fresh battery |
| • **No lights** | • ON/OFF switch in OFF position | • Move power switch into the ON position |
| | • Defective battery | • Replace with fresh battery |

## Product Warranty

Backed by Chart Industries' 90 day product warranty.

Chart Industries, warrants all manufactured cryogenic equipment to be free from defects in workmanship or materials.

Chart Industries' liability under the warranty shall be limited to correcting or replacing the defective workmanship or materials. A claimant under the warranty must notify Chart Industries within ten (10) days after discovery of the defect and immediately discontinue use of the defective equipment. Chart Industries reserves the right, at their discretion, to correct the defect(s) in the field without return shipment to Chart Industries in New Prague, MN.

This warranty does not cover defects on cryogenic equipment resulting from abusive handling and subsequent structural failure.

At the end of the Level Alarm's useful life, contact your distributor for proper disposal, as specified per the WEEE directive in Europe.

Ref 11624361 Rev A 1/09

SECURITY THROUGH MVE SYSTEMS™

# Level Alarm Manual


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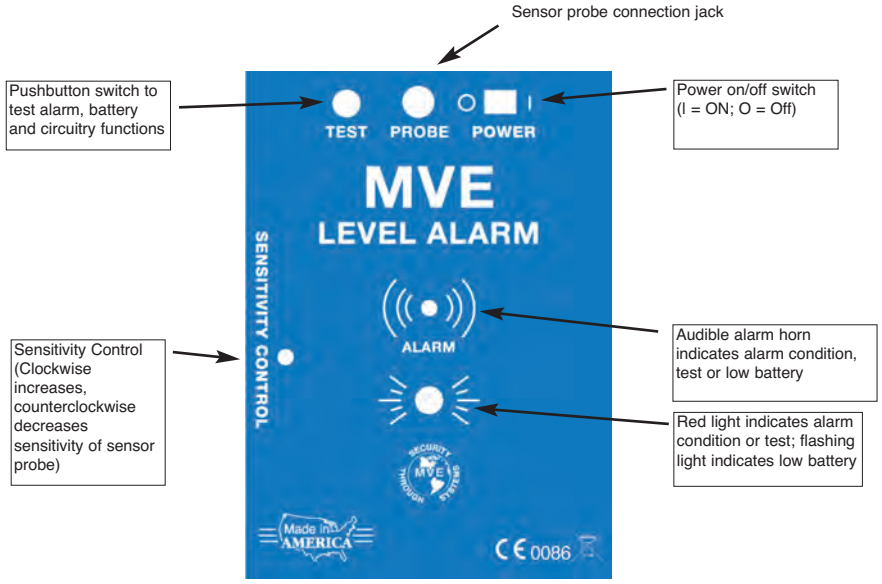
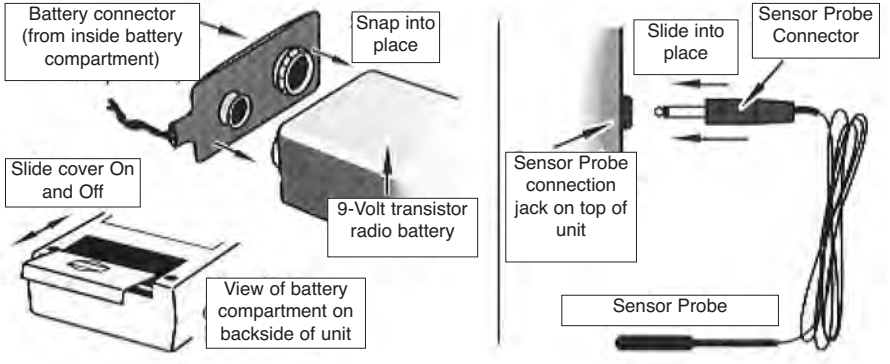
## Parts Identification




## Connections

Use the diagrams to ensure correct hook-up of all parts (drawings not to scale).




## Specifications

| | |
|---|---|
| Power requirements: | One 9-volt (transistor radio) battery |
| Dimensions (LxWxH): | 3-1/4” x 1-1/2” x 4-3/8” or 8.3 cm x 3.8 cm x 11.1 cm |
| Weight: | 7 oz or .196 kg (including battery) |

## Suggested Installation

This section is intended to represent a generic installation. Because the Level Alarm is so versatile many different installations are possible, but all should be based on the following instructions.

1. Remove sensor plug from connector terminal.
2. Using wire ties, firmly but gently attach sensor probe and wire to a component of the storage system in a location which will expose it to the liquid nitrogen. A “stiffening” rod or tube may be used to mount the sensor probe in an appropriate position.
3. Position the sensor so it accurately monitors the liquid level.

> Note:
> It is extremely important for proper operation, that the sensor probe is positioned at the (liquid) level where an alarm condition would occur.

4. Mount the Level Alarm as desired. The level alarm does not need to be mounted in a level position, but should be readily visible. Also, do not close-in the unit creating a situation where the audible alarm cannot be heard.
5. Attach sensor probe connector to the corresponding jack on the top panel.
6. Connect battery to the jack inside the battery compartment on the back panel.
7. Move the power switch to the ON position.
8. If no alarm condition is occurring, push test the button to check system integrity.
9. When sensor probe has been submerged in liquid nitrogen for 5 minutes, turn sensitivity adjustment screw clockwise until alarm sounds.
10. Now turn sensitivity adjustment slowly back the other way just until alarm stops.
11. Double check installation, including all connections, to ensure accurate trouble free operation.