

# μ/Cryo-Sentry Low Level Alarm

## **Setup:**

The μ/Cryo-Sentry low level alarm is designed to detect low LN<sub>2</sub> levels in cryogenic dewars and refrigerators. Simply plug the wall transformer into the alarm box at the plug with the label "AC POWER." Then plug the sensor assembly into the alarm box at the plug with the label "SENSOR." The μ/Cryo-Sentry can either be attached to the dewar with the supplied velcro straps or can be hung on the wall with screws. The μ/Cryo-Sentry is ready for operation.

## **Battery Operation:**

The alarm can also run on 4 AA batteries. Duration of operation can vary from 3 months to 1 year depending on usage. To install the batteries, remove the back cover and install batteries with the + on the batteries pointed in the direction of the + label on the battery holder.

## **Operation:**

The μ/Cryo-Sentry automatically checks the liquid level every 30 minutes. This conserves the batteries while providing an adequate warning if liquid level gets too low. The user can check the level at any time by pressing the "LEVEL CHECK" button. When the "LEVEL CHECK" button is pressed, the μ/Cryo-Sentry checks the sensor for 30 seconds after which it gives the results. The possible results are listed below:

Green light flashing every 30 seconds.	The liquid level is OK
Yellow light flashing once per second.	Checking the Level
Red light flashing once per second with matching audible beep.	Low Battery
Red light flashing twice per second with matching audible beep.	Low LN <sub>2</sub>
Red light flashing three times per second with matching audible beep.	Open Sensor

The open sensor alarm alerts the user if the sensing element is not connected into the μ/Cryo-Sentry.

In an alarm condition, the audible alarm can be muted by pressing the "TEST/MUTE" button. In a normal condition (non-alarm), pressing the "TEST/MUTE" button will test the audible alarm and the light.

**Please note: A test of the alarm will only occur if the unit is not in an alarm mode.**

## **Remote Alarm:**

The μ/Cryo-Sentry is equipped with a remote alarm relay. The remote alarm is triggered immediately upon detection of an error condition. The remote alarm will continue until the "LEVEL CHECK" button is pressed or the μ/Cryo-Sentry does its automatic periodic check. The remote alarm will remain activated even if the alarm runs out of battery power. Pins 1 and 2 are closed in normal operating conditions while pins 2 and 3 are closed in an alarm condition.