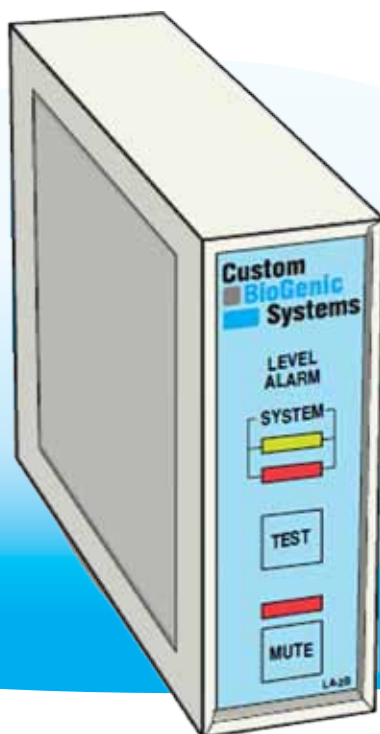


# LA-2B

## LEVEL ALARM

### SET-UP AND TECHNICAL MANUAL



**Custom**  
**BioGenic**  
**Systems**

[www.custombiogenics.com](http://www.custombiogenics.com)

150 Shafer Drive ♦ Romeo, MI 48065 ♦ USA

1.800.523.0072 ♦ Tel: 1.586.331.2600 ♦ Fax: 1.586.331.2588

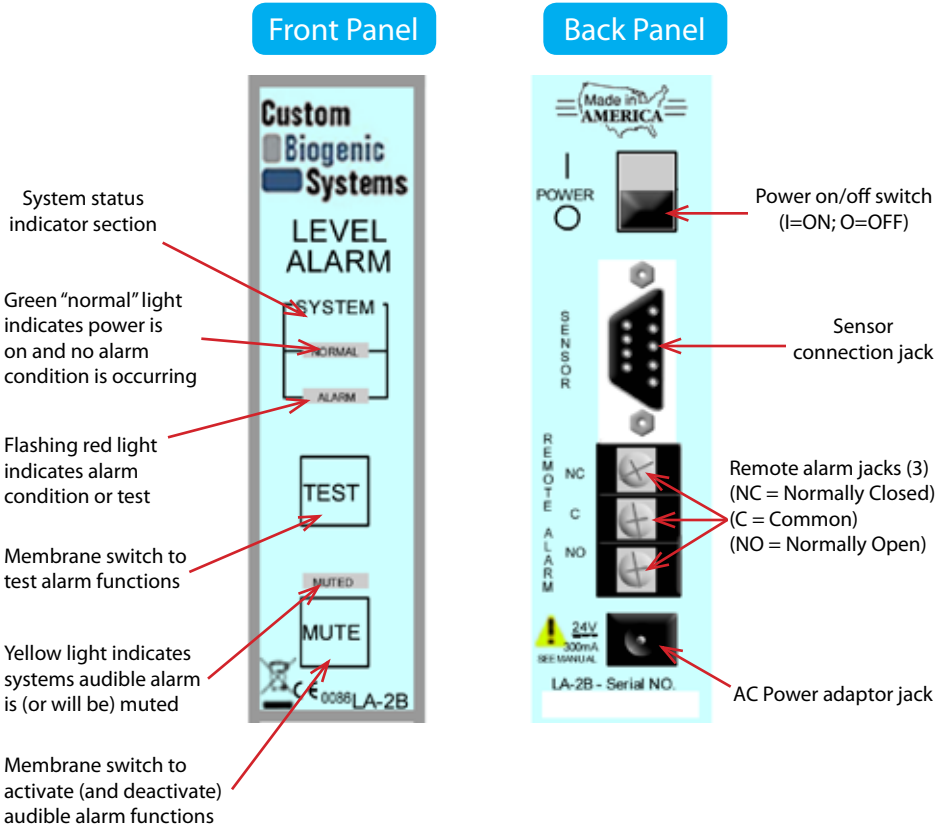


Leading the World with Innovative Cryopreservation Technology Solutions

## - BEFORE USE -

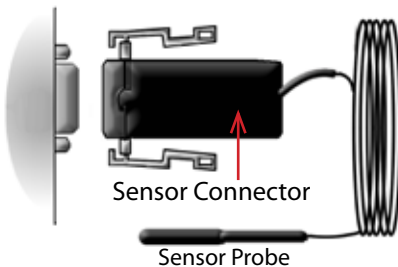
**Caution:** Do not plug in the AC power plug before completing initial set-up. Check to see that all parts are accounted for and are damage-free.

## - PARTS IDENTIFICATION -

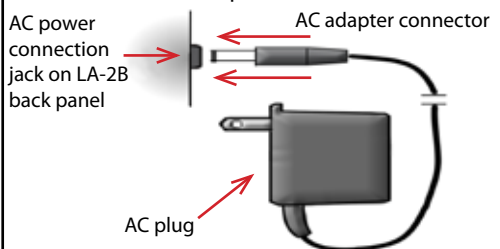


## - CONNECTIONS -

Push until clipped into place



Slide into place



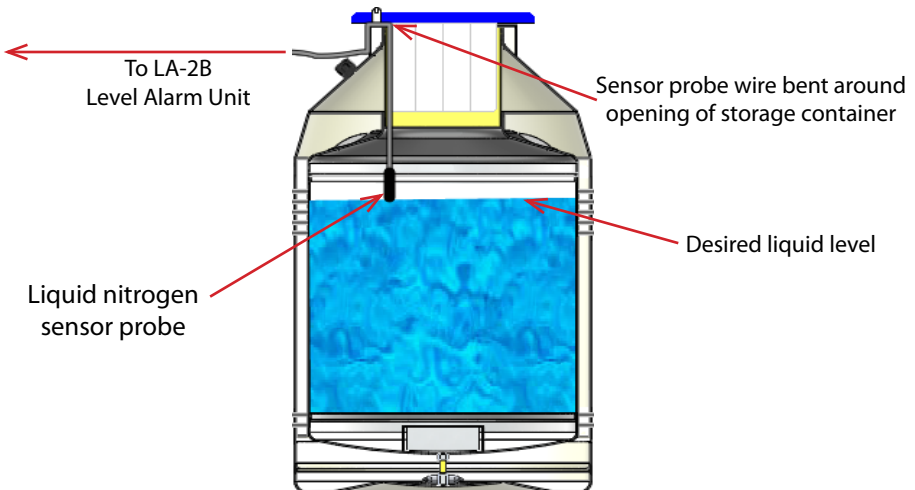
## - SUGGESTED INSTALLATION -

This section is intended to represent a generic installation. Because the LA-2B Level Alarm is so versatile many different installations are possible, but all should be based on the following instruction.

1. Remove sensor plug from connector terminal.
2. Bend the stiffened portion of the sensor probe wire over the edge of the storage container, so it will hang firmly in place with the sensor extending down into the container. (See illustration below). Do not attempt to bend wire immediately after removal from liquid nitrogen.
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 LA-2B 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 LA-2B unit creating a situation where the audible alarm cannot be heard.
5. Attach sensor probe connector to the corresponding jack on the back panel.
6. Connect remote alarm if desired.
7. Connect power supply to the jack on the back panel.
8. Plug the power adapter into a standard wall socket.
9. Move the power switch to the ON position. (The audible alarm may be muted at this time).
10. If no alarm condition is occurring, push test button to check system integrity.
11. Double check installation, including all connections, to ensure accurate trouble free operation.



## - SUGGESTIONS FOR SAFETY -

**Caution:** Liquid nitrogen can cause severe frostbite. Do not touch liquid or frosted materials. Wear face shield and gloves whenever possible.

- ◆ Nitrogen gas can cause suffocation quickly and without warning, do not use liquid nitrogen in confined areas without proper ventilation.
- ◆ Use caution when making electrical connections. Do not make electrical connections when hands or parts are wet.
- ◆ If unsure, contact qualified personnel rather than taking unnecessary risks.

## - NOTES AND MAINTENANCE -

- ◆ Clean unit with mild, non-abrasive cleansers.
- ◆ Visually check all lights regularly to ensure proper operation.
- ◆ It is suggested that at the end of each day the system be tested by pushing the TEST button.
- ◆ Visually check wires and connections for signs of wear, and locate potential future problems.
- ◆ Avoid exposing the unit to conditions that may cause damage or interrupt proper operation.

## - SPECIFICATIONS -

Power requirements:	120 V AC 24 V DC Internal 2 Watts Maximum
Remote contact type:	Normally open Normally closed
Remote contact rating:	10 Amp - 120 V AC 6 Amp - 220 V AC
Dimensions (LxWxH):	5.19 x 1.50 x 5.00 (13.2cm x 3.8cm x 12.7cm)
Weight:	24 oz. (.672 kg) including power supply

## - TROUBLE SHOOTING GUIDE -

Use this chart to help correct any problems you may encounter. If further assistance is needed, contact your **Custom BioGenic Systems** representative.

CONDITION	CAUSES	SOLUTIONS
<ul style="list-style-type: none"> <li>◆ Alarm light flashes</li> </ul>	<ul style="list-style-type: none"> <li>◆ Alarm condition is present</li> <li>◆ Sensor plug is disconnected</li> <li>◆ Sensor is shorted</li> </ul>	<ul style="list-style-type: none"> <li>◆ Correct low (or high) liquid level condition, or adjust sensor to proper liquid level</li> <li>◆ Connect sensor plug properly</li> <li>◆ Locate and correct short</li> </ul>
<ul style="list-style-type: none"> <li>◆ Alarm light flashes but no audible alarm is heard</li> </ul>	<ul style="list-style-type: none"> <li>◆ Audible alarm is muted</li> </ul>	<ul style="list-style-type: none"> <li>◆ Push mute switch</li> </ul>
<ul style="list-style-type: none"> <li>◆ Remote alarm working improperly</li> </ul>	<ul style="list-style-type: none"> <li>◆ Remote alarm connected to wrong terminal</li> </ul>	<ul style="list-style-type: none"> <li>◆ Reconnect to proper terminal according to diagram (pg. 1)</li> </ul>
<ul style="list-style-type: none"> <li>◆ No lights</li> </ul>	<ul style="list-style-type: none"> <li>◆ No power at wall outlet</li> <li>◆ AC power supply not plugged in</li> <li>◆ ON/OFF switch in off position</li> </ul>	<ul style="list-style-type: none"> <li>◆ Use live power source</li> <li>◆ Plug the AC adapter into a wall socket</li> <li>◆ Move power switch into the ON position</li> </ul>

### PRODUCT WARRANTY

Custom BioGenic Systems warrants all manufactured cryogenic equipment to be free from defects in workmanship and materials for a period of one year.

Custom BioGenic Systems' liabilities under the warranty shall be limited to correcting or replacing the defective workmanship or materials. A claimant under the warranty must notify Custom BioGenic Systems within ten (10) days after discovery of the defect and immediately discontinue use of the defective equipment. Custom BioGenic Systems reserves the right, at their discretion, to correct the defect(s) in the field without return shipment to Romeo, Michigan. This warranty does not cover defects on cryogenic equipment resulting from abusive handling and subsequent failure.

## - REPLACEMENT PARTS & ACCESSORIES -

When ordering replacement parts or accessories be sure to use the following part numbers to ensure that you get the correct parts for your particular level alarm application.

<u>Number</u>	<u>Description</u>
51004	LA-2B Level Alarm system (includes AC power adaptor and Liquid Nitrogen Sensor Probe)
51004-1	110 V AC Power Adapter
51004-2	220 V AC Power Adapter
51004-3	Liquid Nitrogen Sensor Probe (with 60" wire)
51004-4	Remote Alarm Connectors (pkg of 3)
51004-5	Wire Ties (for mounting sensor probe - 36")
51004-6	Mounting Rod (for mounting sensor probe -36")
51004-7	Velcro Hold-down
51004-8*	Handle Mount
51004-9*	Velcro Wall Mount
51004-10*	Strap Mount
51004-11*	Roller Base
51004-12*	Roller Stand

\* These parts are all options for mounting the LA-2B Level Alarm unit, to suit any application need you may encounter.



**AVAILABLE FROM CBS**

**Liquid Nitrogen Equipment Including:**

**Freezers & Dewars  
Controlled Rate Freezing Systems  
Freezer Racks and Boxes  
Transfer Lines  
Solenoid Valves  
Liquid Level & Temperature Alarms  
Liquid Level & Temperature Controls  
Temperature Recorders / Monitors  
Cryogenic Accessories**



**Custom  
BioGenic  
Systems**

**150 Shafer Drive  
Romeo, Michigan 48065 U.S.A.**

**LA.TM0696**

**Revision: A**

**© 2005 Custom BioGenic Systems**

All designs and materials contained herein are protected under Federal copy right law. Unauthorized distribution or use will be subject to prosecution to the fullest extent of the law.