

**Protector®  
Tissue Culture Enclosure**

**Models 510000 (115V 60 Hz)  
510002 (230V 50 Hz)**

**PCR Enclosure  
Models 510200 (115V 60 Hz)  
510202 (230V 50 Hz)**

**INSTRUCTION MANUAL**

**WARNING: THIS IS A NONVENTILATED ENCLOSURE**

Product designs are subject to change without notice  
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## ***PREFACE***

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Thank you for displaying confidence in us by selecting a Labconco Protector® Fiberglass Enclosure. Our design engineers, assemblers and inspectors have utilized their skills and years of experience to ensure that the new Labconco Protector® Fiberglass Enclosure meets our high standards of quality and performance.

### **IMPORTANT NOTICE**

This manual should be read carefully by all the end users in order to become familiar with the operation of the Protector® Fiberglass Enclosure. Recommendations are made within the manual to help you obtain maximum performance and life from your product.

We have included sections on initial set up, operation, maintenance and troubleshooting to provide you with all the tools necessary to achieve maximum performance.

If you have questions or concerns, do not hesitate to call us at 1-800-821-5525 for assistance.

## **Components Shipped**

Carefully check the contents of the carton for damage that might have occurred in transit. Do not discard the carton or packing material until all components have been checked against the following component list and the equipment has been installed and tested.

As shipped, the carton should contain the following:

<b>Part Number</b>	<b>Description</b>
5100000	Protector® Tissue Culture Enclosure, 115V, 60 Hz or
5100002	Protector ® Tissue Culture enclosure, 230V, 50 Hz or
5102000	Protector® PCR Enclosure, 115V, 60 Hz or
5102002	Protector® PCR Enclosure, 230V, 50 Hz
5114400	Instruction Manual

# ***INTRODUCTION***

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## **General Description**

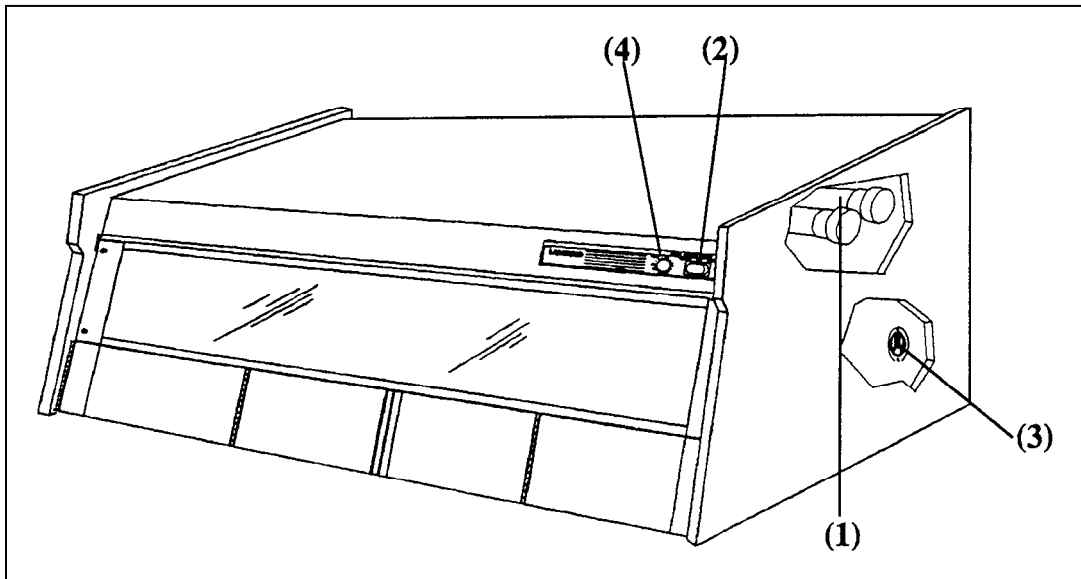
The Labconco Protector Tissue Culture Enclosures and PCR Enclosures come completely assembled and ready to use. They provide a non-ventilated, air circulation-free work area designed to reduce cross-contamination in laboratory applications.

The assembly includes a hinged ¼ inch tempered safety glass viewing panel, epoxy-coated steel bifold doors on the lower access opening, one 115 volt or 230 volt polarized and grounded electrical outlet (PCR models have two outlets) rated for 8 amps maximum, one 30 watt fluorescent light and one 36 inch 2,537 Angstrom germicidal ultra-violet light with continuous or timed control. Both lights operate from the same three-way safety switch and a three-wire cord and plug.

The interior surface is molded entirely of white fiberglass-reinforced polyester. This completely smooth, crevice-free interior assures easy cleaning and no contaminant accumulation. All interior corners are coved and molded as an integral part of the side panels. The, fiberglass reinforced polyester is chemical resistant, and classified “fire retardant”.

The exterior is constructed of charcoal gray epoxy-coated steel with glacier white phenolic/melamine laminated side panels.

## Component Identification



**Figure 1**

1. **Ultraviolet Germicidal Light.** Located in the upper portion of the unit, this lamp has a disinfecting effect upon the interior. It generates 2,537 Angstroms at its predominate wave length. Its microwatts rating per square centimeter at one meter is 85. The approximate life of the lamp is 7,000 hours.
2. **Three-Way Safety Switch.** Both the fluorescent and the ultraviolet lamp are controlled by this single three-way switch located in the upper right-hand corner of the unit. Because only one light is powered at a time, the operator is protected from inadvertent ultraviolet exposure.
3. **Electrical Outlets.** An electrical outlet is located on the rear interior near the right side. There are two electrical outlets rated for 8 amperes total on the 5102000 and 5102002 models.
4. **UV Timer.** (Models 5102000 & 5102002 only). Located on the control panel, this timer controls the ultraviolet germicidal light. It allows for continuous use, or automatic shut off of the UV light.

# ***INSTALLATION***

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## **Preparation**

The enclosure is shipped complete and ready for use. All that is necessary for the installer to do is plug in the factory-wired electrical connection.

## **Electrical Specifications**

<b><u>Model #</u></b>	<b><u>Electrical Requirements</u></b>
5100000	115V, 60 Hz, 10 amp
5100002	230V, 50 Hz, 10 amp
5102000	115V, 60 Hz, 10 amp
5102002	230V, 50 Hz, 10 amp

The enclosure comes complete with a 15-foot (9 foot on PCR Enclosure), three-wire grounded cord and plug. The circuit breaker, lamp starters and ballast are located on the right rear of the unit. Both lights, ultraviolet and fluorescent, operate from the same three-way safety switch.

On the 5100000 and 5100002 models, an electrical outlet is located on the interior rear wall near the lower right-hand corner. The 5102000 and 5102002 models have two electrical outlets instead of one.

### **Operating Instructions**

The only operation involved once the unit is plugged in is the turning on and off of the light. The following two labels should be understood thoroughly.

**CAUTION**  
**DO NOT ALLOW ANY PART OF THE BODY TO BE EXPOSED TO THE DIRECT ULTRAVIOLET LIGHT. KEEP HANDS OUT OF CABINET AND KEEP WINDOW SHUT WHEN ULTRAVIOLET LIGHT IS ON.**

**WARNING**  
**THIS IS A NONVENTILATED ENCLOSURE. IT IS NOT SUITABLE FOR PATHOGENIC, TOXIC OR VOLATILE PROCEDURES. CONTINUOUS FLAME OR HIGH HEAT BURNERS ARE NOT TO BE UTILIZED.**

### **Operating the UV Timer**

The UV timer controls the time interval that the UV light is on. At its maximum setting (the 8 o'clock position on the decal), the timer will keep the UV light on for approximately 2 hours. Each declination on the indicator face is therefore equal to approximately 8 minutes of operation.

## ***ROUTINE MAINTENANCE***

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### **Part Replacement**

In order to decrease delays in servicing the unit, it is advisable to have the following parts on hand:

1271100	Lamp starter
1271300	Ultraviolet lamp
1271400	Fluorescent lamp

### **Clean-Up Procedures**

No maintenance should be necessary for the fiberglass. Soap and water will usually be sufficient for washing, should cleaning be required. Decontamination solutions such as phenol, formaldehyde and ethylene oxide can be used on fiberglass surfaces. Most window cleaning materials are satisfactory for cleaning the safety glass sash.

A 36 inch germicidal-type ultraviolet light keeps microorganism growth from spreading in the hood when not in use.

Periodically clean the surface of the UV lamp with glass cleaner.

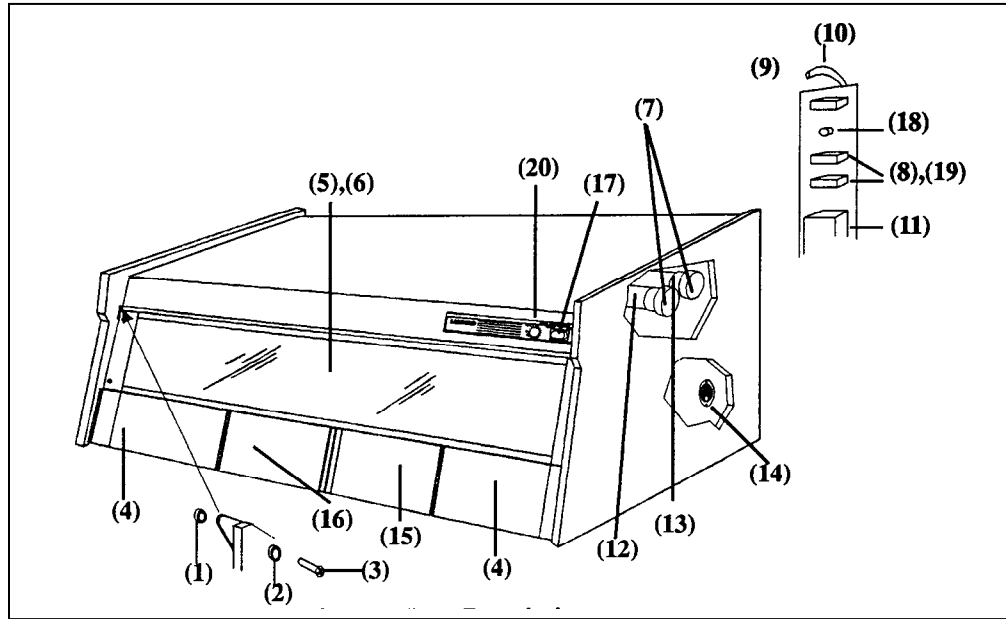
**CAUTION: Before servicing the unit, be sure it is unplugged.**

### **Environmental Conditions**

This equipment is designed to be safe under the following conditions:

- Indoor use
- Altitude up to 6562 Ft. (2000m)
- Temperature 41° to 104° (5° to 40°)
- Maximum relative humidity 80% for temperatures up to 88°F (31°C) decreasing linearly to 50% relative humidity at 104° (40°C)
- Main supply voltage fluctuations not to exceed  $\pm 10\%$  of the nominal voltage
- Transient over voltages according to Installation Categories II (Over voltage Categories per IEC 1010)
- Pollution degrees 2 (Normally only non-conductive foreign matter, solid, liquid, or gaseous (ionized gases), that may produce a reduction of dielectric strength or surface resistivity occurs. Occasionally, however, a temporary conductivity caused by condensation must be expected), in accordance with IEC 664

## **REPLACEMENT PARTS**



**Figure 2**

Ref No.	Qty	Catalog #	Description
1	2	6947000	Sash Bushing
2	2	1911316	Washer, ¼
3	2	1887610	Screw, ¼-20
4	2	5112300	Outer Door Weldment
5	1	5112800	Sash Assembly, Complete
6	1	5113400	Sash Glass
7	4	1270800	Lamp Holder
8	2	1271000	Starter Socket
9	1	1327201	Circuit Breaker (115V A.C.)
	1	1291200	Circuit Breaker (230V A.C.)
10	1	1334900	Power Cord (115V A.C.)
	1	1334100	Power Cord (230V A.C.)
11	1	1273100	Ballast (115V A.C.)
	1	1287200	Ballast (230V A.C.)
12	1	1271400	Lamp, Fluorescent
13	1	1271300	Lamp, Ultraviolet
14	1	1281100	Outlet (115V A.C.) - 2 Req'd. on Model 5102000
	1	1333900	Outlet (230V A.C.) - 2 Req'd. on Model 5102002
15	1	5111600	Inner Door Weldment
16	1	5111601	Inner Door Weldment
17	1	1302400	Switch
18	1	1290800	Power Inlet Socket (230V A.C.)
19	2	1271100	Starter, Light
20	1	51256	UV Switch Timer (on PCR Enclosure only)

# WIRING DIAGRAMS

## Tissue Culture Enclosure

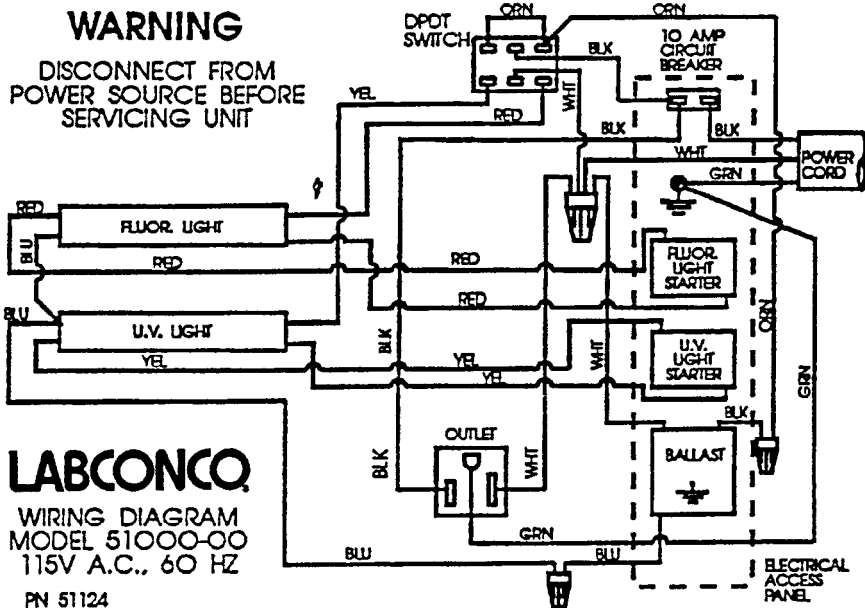


Figure 3

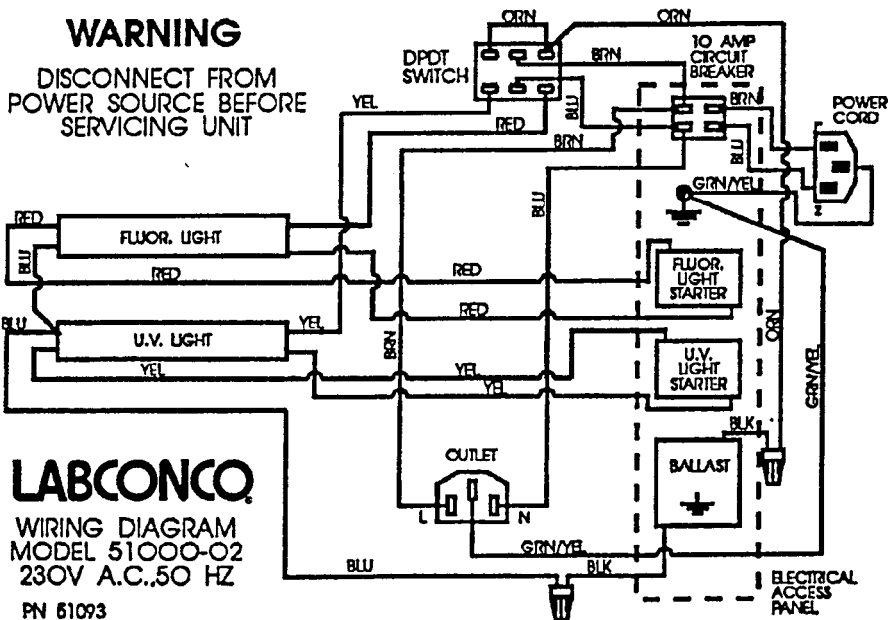


Figure 4

## PCR Enclosure

### WARNING

DISCONNECT FROM  
POWER SOURCE BEFORE  
SERVICING UNIT

WIRING DIAGRAM  
MODEL 5102000  
115V.AC, 60 HZ

**LABCONKO**

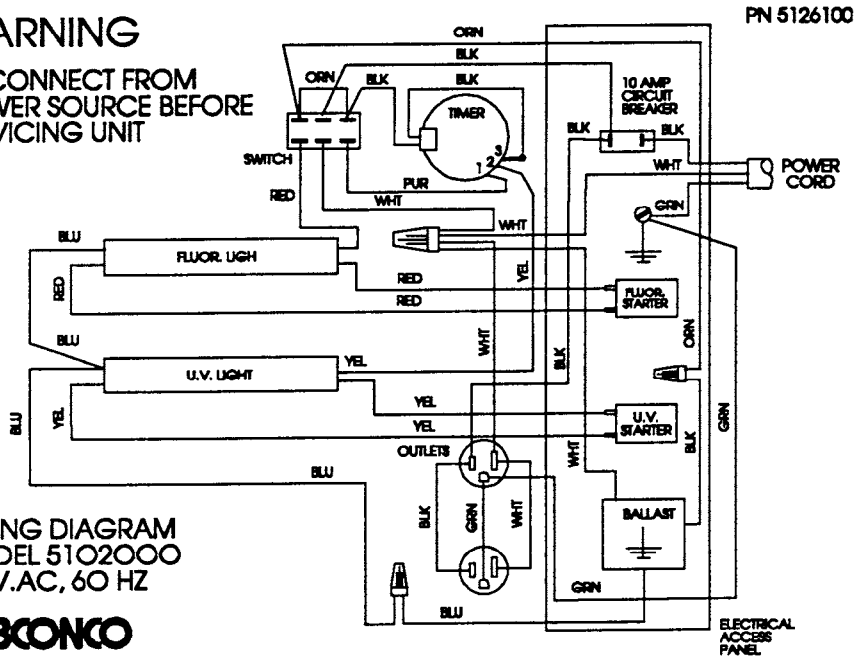


Figure 5

### WARNING

DISCONNECT FROM  
POWER SOURCE BEFORE  
SERVICING UNIT

WIRING DIAGRAM  
MODEL 5102002  
230V.AC, 50 HZ

**LABCONKO**

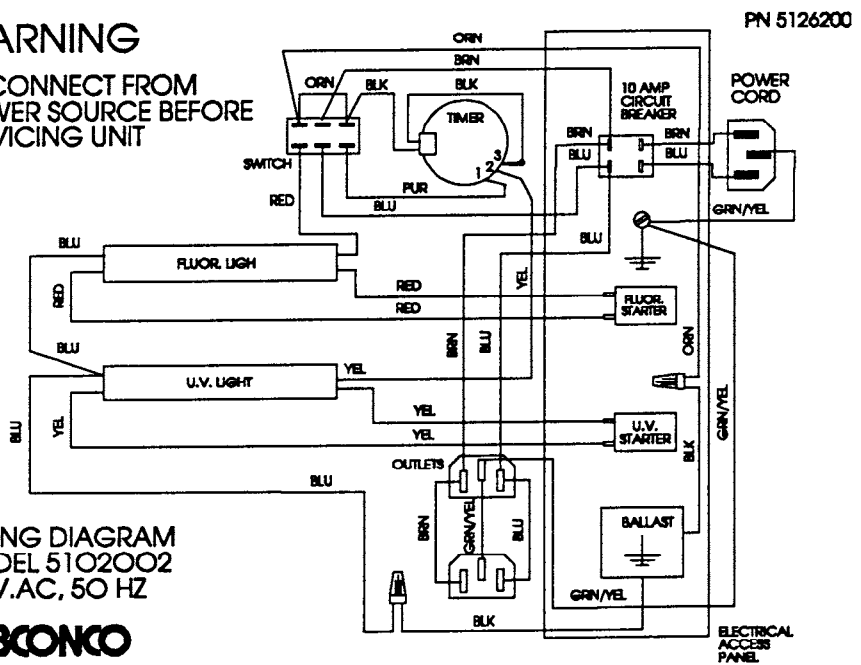


Figure 6

## ***TROUBLESHOOTING***

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<b>PROBLEM</b>	<b>CAUSES</b>	<b>CORRECTIVE ACTION</b>
Lights flicker or do not work.	Unit is not plugged in.	Reconnect.
	Lamp starters are loose.	Make sure they are screwed in tightly.
	Starters are defective.	Replace them. <b>NOTE:</b> It may take more than one attempt to find a starter that makes the proper connection.
	Lamp is defective.	Replace it.

The other possible problem areas are the ballast and wiring. If the above remedies have failed, call your local laboratory apparatus dealer from whom you purchased the part. They will be glad to service your unit.

### **WARRANTY-**

We are committed to providing our customers with quality equipment and service after the sale. Part of this objective involves keeping you informed of changes and new product additions. We, therefore, request that you take a moment to fill out the product registration card so we may know your location as well as some of the reasons that prompted you to purchase our product.

Labconco provides a warranty on all parts and factory workmanship. The warranty includes areas of defective material and workmanship, provided such defect results from normal and proper use of the equipment.

The warranty for all Labconco products will expire one year from date of installation or two years from date of shipment from Labconco, whichever is sooner, except the following:

- Purifier® Delta® Series Biological Safety Cabinets carry a three-year warranty from date of installation or four years from date of shipment from Labconco, whichever is sooner.
- Carts carry a lifetime warranty.
- Glassware is not warranted from breakage when dropped or mishandled.

This limited warranty covers parts and labor, but not transportation and insurance charges. In the event of a warranty claim, contact Labconco Corporation or the dealer who sold you the product. If the cause is determined to be a manufacturing fault, the dealer or Labconco Corporation will repair or replace all defective parts to restore the unit to operation. Under no circumstances shall Labconco Corporation be liable for indirect, consequential, or special damages of any kind. This statement may be altered by a specific published amendment. No individual has authorization to alter the provisions of this warranty policy or its amendments. Lamps and filters are not covered by this warranty. Damage due to corrosion or accidental breakage is not covered.

**WARNING:** The disposal and/or emission of substances used in connection with this equipment may be governed by various federal, state or local regulations. All users of this equipment are urged to become familiar with any regulations that apply in the user's area concerning the dumping of waste materials in or upon water, land or air and to comply with such regulations.

## ***SHIPPING CLAIMS***

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If a shipment is received in visibly damaged condition, be certain to make a notation on the delivering carrier's receipt and have their agent confirm the damage on your receipt. Otherwise, the damage claim may be refused.

If concealed damage or pilferage is discovered, notify the carrier immediately and retain the entire shipment intact for inspection. Interstate Commerce Commission rules require that the claim be filed with the carrier within 15 days after delivery.

**NOTE: Do not return goods.** Goods returned without prior authorization will not be accepted. Labconco Corporation and its dealers are not responsible for shipping damage. Claims must be filed directly with the freight carrier by the recipient. If authorization has been received to return this product, by accepting this approval, the user assumes all responsibility and liability for biological and chemical decontamination and cleansing. Labconco reserves the right to refuse delivery of any products, which do not appear to have been properly cleaned and/or decontaminated prior to return.

If you have any questions that are not addressed in this manual, or if you need technical assistance, please contact Labconco's Sales Information Department at 1-800-821-5525, and Service Information at 1-800-522-7658 or 1-816-333-8811, between the hours of 7:00 a.m. and 6:00 p.m. Central Standard Time.

Labconco's mailing address is:

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Fax # 816-363-0130

Visit Labconco through the Internet at:

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