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# **Basic Polymer & Aluminum Glove Box Instruction Manual**

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## **1.0 Warning**

*This Glove Box was not designed for negative pressure applications. Any use of the glove box under negative pressure will void the warranty.*

*Never purge the glove box at a higher rate than 15 psi. (with 1/4" ID Tubing) Doing so could over pressurize and damage the glove box.*

## **1.1 Warranty**

The Glove Box and all accessory contained in this chamber are warranted against defects in material and workmanship during the first 12 months after original date of shipment.

The factory will, at its option, repair or replace defective materials within the above periods at no charge for parts and labor.

All returns or exchanges must first be authorized by Coy Laboratory Products,  
Phone: 734-475-2200  
Fax: 734-475-1846

Shipping address: 14500 Coy Drive  
Grass Lake, MI 49240

The responsibility of Coy Laboratory Products, Inc., is limited to the purchase price of this product, and Coy Laboratory Products, Inc. will not be responsible for any consequential damages.

This warranty does not cover damage in shipment of damage as a result of improper use or maintenance of this product, This warranty does not cover damages caused by excessive line transients on the AC supply line.

## 1.2 Glove Box Assembly

The Glove Box has been pre-assembled at the factory with all accessory parts, Pressure Relief Valve, ¼" Ball Valve, Large Side Door, and Plug Strip installed.

## 1.3 Glove Box Components

### 1.3.1 ¼" NPT Ball Valve

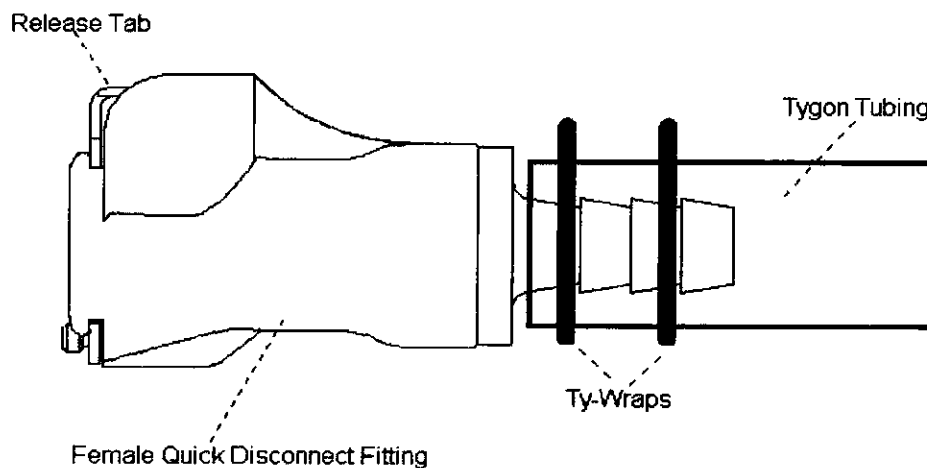
This ball valve located on the upper right side of the glove box (see figure #1) can be used for purging operations. The ball valve is equipped with a ¼" ID quick disconnect female and male fittings for tygon tubing. To install tygon tubing to the fittings follow the instructions listed below and figure #1 (below).

1. Place a female fitting on each end of tubing.
2. Place 2 ty-wraps around the hose barb on the female fittings and pull them as tight as possible.
3. Cut off excise ty-wrap.
4. Insert Female fitting connected to the tubing to the Male fitting on the Glove Box Ball Valve. When fitting is seated correctly, you will hear a "click".
5. To disconnect the tubing simply depress the silver tab on the male fitting.

Never purge the glove box at a higher rate than 15 psi. (with ¼" ID Tubing)  
Doing so could over pressurize and damage the glove box.

NOTE: Damage from over pressurizing the glove box will void the warranty.

### **Figure # 1 Tubing connection to Quick Disconnect Fitting**



### 1.3.2 Pressure Relief Valve

The pressure relief valve relieves the glove box of large internal pressure changes associated with gas purges. The valve is an automatic system that simply allows gas to escape to the room atmosphere when the glove box internal pressure rises.

The pressure relief valve can handle up to 15 psi of gas flow. Larger flow rates may over pressurize and damage the glove box.

### 1.3.3 Plug Strip & Feed Through Adapter

A power supply is sealed into the glove box through the COY Feed Through Adapter. The plug strip is equipped with a circuit breaker and ON/OFF switch.

The Feed Through Adapter is a rubber stopper that has been cut apart to accept the cord of the plug strip and resealed with silicone and placed in the plastic feed through which is then attached to both sides of the glove box by threading the cap nut. Please note when loosening or reattaching the feed through the black rubber O'Ring must be placed on the outside of the glove box to ensure an air tight fit.

### 1.3.4 Diaphragm Top

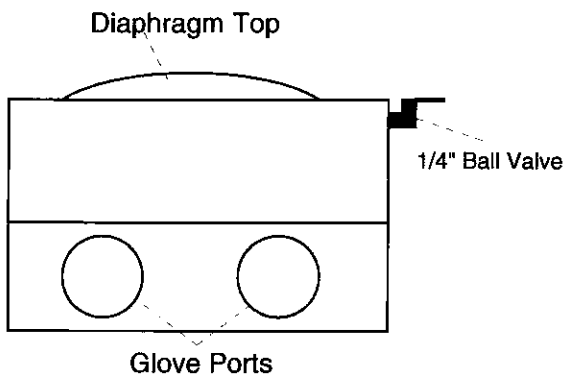
The diaphragm top is designed to compensate for small volume changes on the interior of the glove box associated with user entering and exiting the glove box through the gloves.

Manufactured from 20 mil PVC the vinyl is durable and long lasting. As the glove box is purged this top will expand until the pressure relief valve activates and relieves the excess pressure.

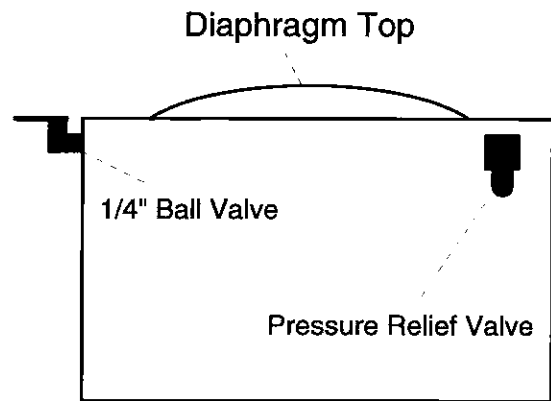
***Please note:** on some custom glove box designs the Diaphragm Top is located on the back wall of the glove box or other location. For these designs please make sure the diaphragm has room to expand and that there are no sharp objects that could damage the vinyl.*

## **Figure # 2 Basic Glove Box**

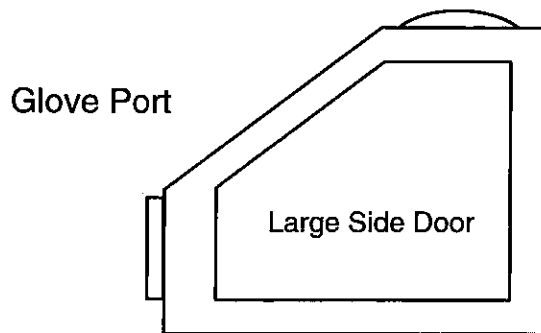
*Top View*



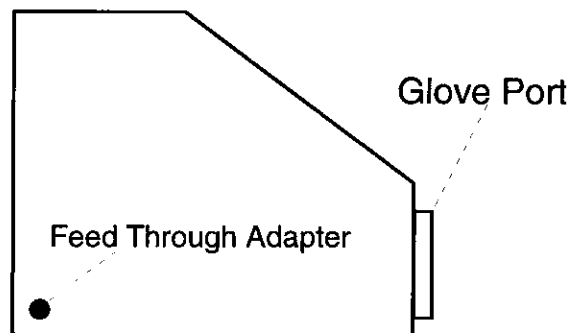
*Rear View*



*Left Side View*



*Right Side View*



## **2.0 Care and Maintenance**

### **2.1 Care of Polycarbonate**

There are several precautions you can take to prolong the life of your chamber. Precautions you should carefully follow are:

1. Do not use abrasive cleaners at any time on the polycarbonate portions of the glove box.
2. Do not use any solvent like liquids to clean the plastic. Isopropyl alcohol is acceptable as well as a mild (5-10%) bleach solution.
3. Rings and Jewelry should be removed prior to using the glove box, so as not to scratch the polycarbonate or tear the arms or gloves. Finger nails should be clipped short
4. Protect the Glove Box from organic solvent fumes and nearby painting and plastering. If splashed wipe immediately while wet with soft cloth

### **2.2 Cleaning the Glove Box**

Dust and clean with a soft cloth or chamois having first sprayed on a plastic cleaner. (COY part no. 1600-480) The use of a mild soap or detergent and plenty of water is good. Dry with a soft cloth or chamois.

Minor scratches can be removed by hand polishing. Polishes are best applied with a soft cloth dampened with water first. Several applications may be necessary, but most minor scratches can be reduced and the clarity improved in a short time.

### **2.3 Care of the gloves**

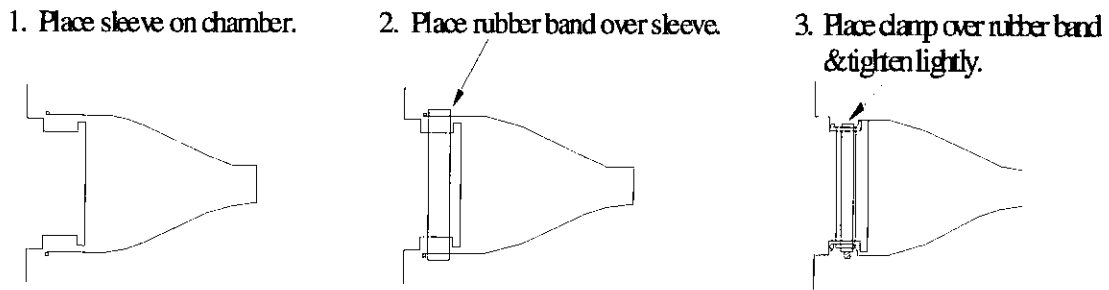
The arm length gloves are made of neoprene rubber and are susceptible to punctures and tears. Wear cotton gloves when working with sharp objects. Remove jewelry. If a hole is punctured in the glove, it must be replaced. Do not use the glove box until the damaged gloves have been replaced.

Butyl and Hypalon Gloves are also available. As well as Gloveless Sleeves that allow for barehanded entry into the glove box. Gloveless Sleeves should be purchased with Arm Port Plugs to seal the atmosphere when not in use.

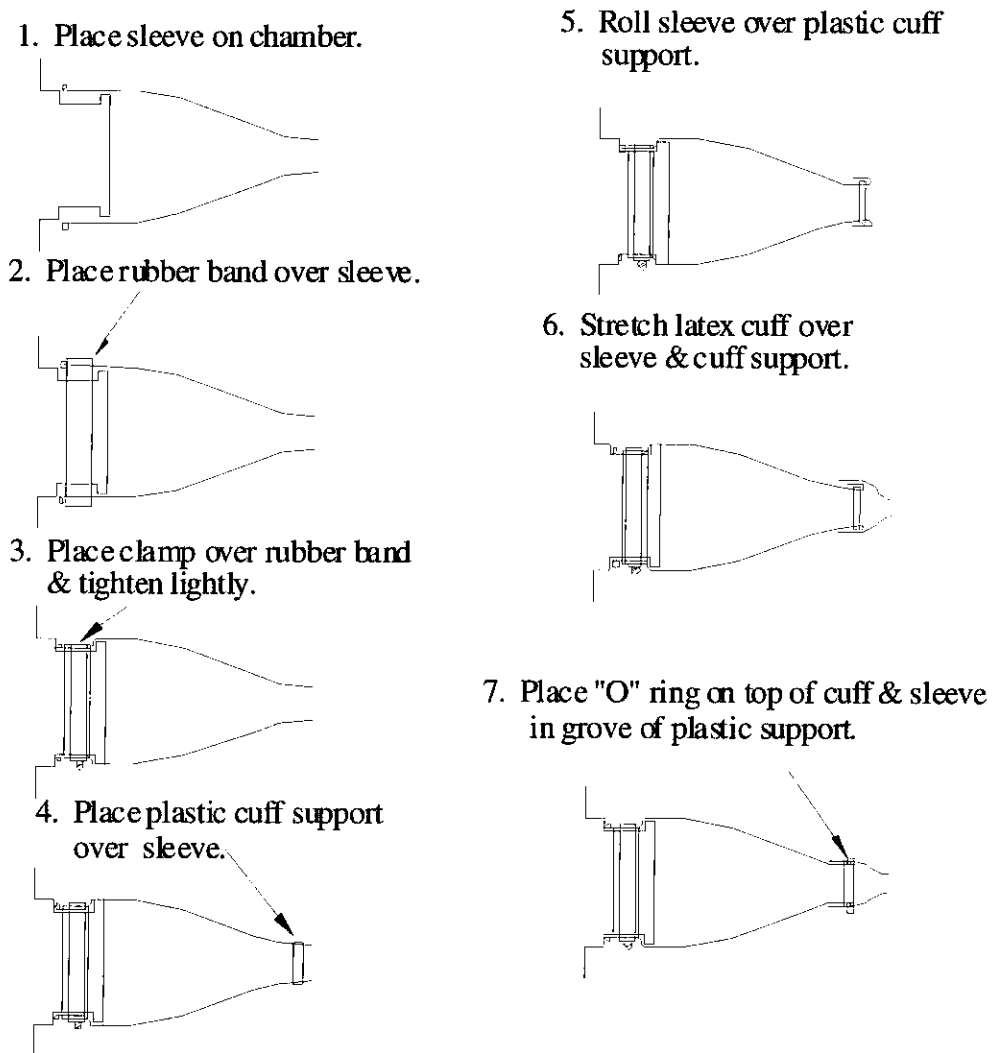
*See Figure #3 & 4 (page 7 & 8) for details on attaching the glove to the glove box.*



### **Figure # 3 Glove Attachment**



### **Figure # 4 Gloveless Sleeve (option) Attachment**



# NOTES