

Further information: Berriman Associates 1-800-480-3630 [www.berriman.com](http://www.berriman.com)

# **Model 850P.2 Owners Manual**

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Thank you for purchasing the **Model 850P.2** medical grade air purification system (APS), one of the finest air cleaning devices in the world. In order to ensure optimizing the unit's effectiveness and safe use, please read this Owners Manual in its entirety before installing and operating the **Model 850P.2**.

### **SPECIFICATIONS:**

|                 |                                      |
|-----------------|--------------------------------------|
| Height:         | 67"                                  |
| Width:          | 26"                                  |
| Depth:          | 20"                                  |
| Weight:         | 225 lbs.                             |
| Construction:   | 18 gauge Steel                       |
| Electrical:     | 120 Volt/60 Hz / Single Phase, 1.9 A |
| Air Flow:       | 850 cfm max.; Variable Low           |
| Pressure Gauge: | 0-10" WC                             |

### **REPLACEMENT PARTS:**

| <b><u>PART NUMBER</u></b> | <b><u>DESCRIPTION</u></b>  | <b><u>QUANTITY</u></b> |
|---------------------------|--|------------------------|
| 20201-30                  | 20 x 20 x 1" Pleated Prefilter<br>(30% ASHRAE)   | 2                      |
| 24483-99                  | 19 ¾ x 43 ¾ x 3 ½"<br>Gel Seal Certified HEPA Filter<br>(DOP) With Anodized Aluminum frame | 1                      |
| TMSUV22                   | 22" UV Lamp  | 4                      |

*All filters and UV lamps come factory installed and should not be removed until replacement is required.*

**WARNING:** This device utilizes UV technology. As a result, direct contact with UV radiation must be avoided. Direct UV radiation will burn eyes. The Model 850P.2 is an electrical appliance that can not be exposed to rain or used near or in water.

***UNPLUG UNIT BEFORE ANY SERVICE WORK IS  
PERFORMED***

## **INSTALLATION:**

The Model 850P.2 is a portable air system designed to be moved into a room and used to create negative pressure or clean and recirculate room air. It is equipped with a detachable power cord to prevent the cord from being pulled too hard and exposing live wires. If the cord becomes frayed or damaged in any way, contact your dealer for a replacement cord.

The unit is shipped with the Recirculation Top installed and the Negative Pressure Top separate from the cabinet body. The tops can easily be changed by removing the screws securing the top to the upper cabinet.

### ***NEGATIVE PRESSURE***

Wheel the unit into the room in which negative pressure is desired (after ensuring air flow requirements). Make sure the unit is equipped with the Negative Pressure Top (flat top with a 12" hole).

In order to keep the unit out of the way and assure against disturbing the duct connection, it is recommended that the unit be located against a wall. Twelve inch round exhaust duct should be connected to the top using a collar on the top of the unit and vented to the exterior of the room/building through a window, wall, or dedicated sanitary air duct.

### ***RECIRCULATION OPTION***

To utilize the Model 850P.2 as a recirculation unit, simply make sure the recirculation top is installed (top with slots for air exhaust), wheel the Model 850P.2 into the desired location, and plug it in. TO ENSURE PROPER AIR FLOW PATTERN PLEASE MAKE SURE THE TOP IS INSTALLED VENTING THE AIR UPWARDS AND OUTWARDS TOWARD THE FRONT OF THE UNIT.

After installation in either of the above-mentioned manners, the unit need only be turned on to the desired speed setting.

## **CREATING NEGATIVE PRESSURE**

To create negative pressure, the CDC requires that exhaust flows be 10% greater than the supply air entering the room, but no less than 50

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cfm. For example, a room with 150 cfm of supply air is required to have at least 200 cfm of exhaust air.

The supply air should be measured to establish the incoming cfm. The return air grille for the HVAC system should be blocked off to prevent untreated air from returning into the general ventilation system.

A 12" round duct should be connected to a collar at the top of the unit, and vented to the exterior of the building through a wall, window, or dedicated sanitary air duct.

Please be advised that the CDC does allow the exhausted air to be returned to the general ventilation system when it is not possible to vent the air outside, but this is the least desirable alternative.

## **MAINTENANCE**

### **MOTOR/BLOWER:**

The blowers are motorized backward curved AC impeller types and are selected for continuous operation. Maintenance is not required.

### **PREFILTERS:**

The life of the Prefilters will depend on the ambient conditions within the room from which the air is being drawn. Average Prefilter life is 1-6 months, depending on the amount of use and the application.

### **PREFILTER REPLACEMENT:**

When changing filters, we recommend the use of gloves and a mask, but standard operating procedures for the facility should always be followed. Used filters should be placed in plastic bags, sealed, and treated according to your standard state, local or facility's disposal procedures.

The Prefilters are removed through the air intake grille. To change the prefilters:

1. Unscrew the six screws located in the protective grille and remove it.
2. Next, slide the Prefilters out from the Protective Grille (being sure not to disrupt and trapped dust).
3. Dispose of the old Prefilter as per State, local or facility SOP.

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4. To install a new Prefilter, simply slide it into the protective grille. Reinstall the protective grille in the correct configuration.

## **UV LAMPS**

The UV lamps are rated to run 9,000 hours, but can last longer. A UV indicator light is located on the control panel, and it monitors the functioning of the UV lamps. Upon installation, the indicator should shine. When the UV lamps need to be changed, the indicator light will go out. UV shields are also attached to the intake grille to help ensure that direct exposure to UV radiation is avoided. **DO NOT REMOVE THE UV SHIELDS FROM THE GRILLE OR OPERATE THE UNIT WITHOUT THE GRILLE AND SHIELDS IN PLACE. FAILURE TO DO SO COULD RESULT IN DIRECT EXPOSURE TO UV LIGHT.**

## **UV LAMP REPLACEMENT:**

***UNPLUG UNIT BEFORE ANY SERVICE WORK IS  
PERFORMED***

**WARNING: ALL POWER MUST BE SHUT OFF BEFORE REMOVING THE HEPA FILTER. DIRECT EXPOSURE TO UV RADIATION WILL BURN EYES.** Once the intake grille is removed (as noted above), carefully remove the end of the UV lamps from their holders and pull the out from the socket. Installing the new lamps is done by reversing the removal process. Note: pins fit into socket in one direction. When installing UV lamps be careful not to touch the glass with bare hands, as skin oils will block UV output, making them less effective.

**WARNING: DO NOT RUN THE Model 850P.2 WITHOUT THE GRILLE/UV SHIELDS INSTALLED ON THE UNIT. FAILURE TO DO SO COULD CAUSE DIRECT EXPOSURE TO HARMFUL UV RADIATION.**

## **CERTIFIED HEPA FILTER:**

The life of the HEPA filter will depend on the ambient conditions within the room from which the air is being drawn. Average HEPA filter life is 1-3 years, depending on the application. The Digital Differential Pressure Monitor measures the differential pressure across the HEPA filter. It should be used to accurately determine when the HEPA Filter needs to be changed. Pressure readings should always be logged when new HEPA filters are installed.

When to change HEPA filter: When the differential pressure reading is twice the original reading after installing a new prefilter.

### **HEPA FILTER REPLACEMENT:**

When changing filters, we recommend the use of gloves and a mask, but standard operating procedures for the facility should always be followed. Used filters should be placed in plastic bags, sealed, and treated according to your standard disposal procedures.

1. The HEPA filter is removed through the air intake grille. Unscrew the six bolts located in the protective grille and remove it and the Prefilters.
2. Next, removed the UV lamps as outlined above.
3. The HEPA filter is held in place via two holding bars, so these need to be removed and the HEPA carefully uninstalled and disposed of as per facility SOP.
4. To install the HEPA, mount the HEPA filter into the module with the knife edge in the cabinet centered inside the gel seal track of the filter. **DO NOT TOUCH THE HEPA MEDIA AS IT IS VERY FRAGILE AND WILL TEAR VERY EASILY.** While carefully holding the HEPA into place (it may be easier to hold into place by actually pushing on the bars), install the HEPA holding bars and tighten until snug with the wing nuts. Be sure not to over-tighten as this could strip the bolts or damage the filter.
5. Replace the UV lamps, Prefilter, and perforated grille and hand-tighten the grille screws (**DO NOT OVER-TIGHTEN**)

## **Limited Liability Warranty**

All products are warranted by Manufacturer to be free from defects in materials and workmanship for a period of five (5) years after shipment from its factory, provided the buyer demonstrates to the satisfaction of Manufacturer that the product was properly installed and maintained in accordance with Manufacturer's instructions and recommendations and that it was used under normal operating conditions.

This warranty is limited to the replacing and/or repairing by Manufacturer of any part or parts which have been returned to Manufacturer, with Manufacturer's written authorization and in which Manufacturer's opinion are defective. Parts not manufactured by Manufacturer but installed by Manufacturer in equipment sold to the buyer shall carry the original manufacturer's warranty only. The buyer shall pay for all transportation charges, any and all sales and use taxes, duties, imports, or excises for such part or parts. Manufacturer shall have the sole right to determine whether defective parts shall be repaired or replaced.

This warranty does not cover any customer labor charges for replacement of parts, adjustments or repairs, or any other work unless such charges shall be assumed or authorized in advance, in writing, by Manufacturer.

This warranty does not cover any replaceable items such as filters or lamps, or any products which in the judgment of Manufacturer, has been the subject to misuse or negligence, improper handling or which has been repaired or altered outside Manufacturer's factory in any way, which may have impaired its safety, operation or efficiency, or any product, which has been subject to accident.

This warranty shall be null and void if any part not manufactured or supplied by Manufacturer for use in any of its products shall have been substituted and used in place of a part manufactured or supplied by Manufacturer for such use, without authorization in advance, in writing by Manufacturer.

There are no warranties, other than those appearing on the acknowledgement form including no warranty of merchantability or fitness for a particular purpose, given in connection with the sale of the goods sold hereunder. The buyer agrees that his sole and exclusive remedy, and the limit of Manufacturer's liability for loss from any cause whatsoever, shall be the purchase price of the goods sold hereunder for which a claim is made.

No warranty or affirmation of fact, expressed or implied, other than as stated in "LIMITED LIABILITY WARRANTY" above is made or authorized by Manufacturer.