

**MICROCON®**  
INSTALLATION, OPERATION &  
SERVICE MANUAL



READ AND SAVE  
THESE INSTRUCTIONS

***STOP!! Read this first:  
UNPACKING & ASSEMBLY INSTRUCTIONS***

**MODELS: MAP 800 M & 800MUV**

**MICROCON®**

**MAP 800 M**

**&**

**MAP 800 MUV**

## UNPACKING & ASSEMBLY

### INSTRUCTIONS:

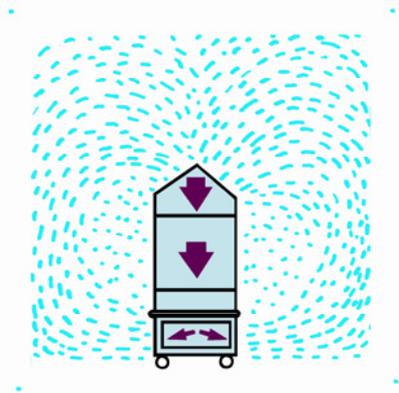
1. Open box #1 (base section) first. **Do not use sharp object.**
2. Grasp unit by recessed handles and lift out of shipping container.
3. Fold out four (4) black draw latches to a fully open position.
4. Tilt box #2 on its side.
5. Open box #2. **Do not use sharp object.**
6. Carefully slide filter cube from container, being careful not to damage either filter face.
7. Remove cardboard face protector from bottom of filter cube.
8. Lift filter cube and place on fan (base) section, aligning black keeper plates.
9. Attach each draw latch to keeper and secure with downward pressure, locking filter cube into place. (If adjustment of latches is necessary refer to drawing on next page).
10. Open box #3. **Do not use sharp object.**
11. Remove incline cap from container.
12. Place on top of filter cube aligning holes on cap with those on filter cube.
13. Secure with fasteners provided.
14. Unit is now ready for operation.

### INITIAL START-UP

1. Before operating unit confirm that air intake and exhaust grills are unobstructed and all draw latches are securely fastened. Place unit in desired location and adjust casters to their locked position.
2. Plug unit directly into any standard 115V grounded outlet. **Do not use grounder adapters.**
3. To turn unit on, turn speed control clockwise. Adjust to the desired speed, positioning line on knob to setting on panel.
4. Unit is now ready to operate.

## PLACEMENT WITHIN THE ROOM

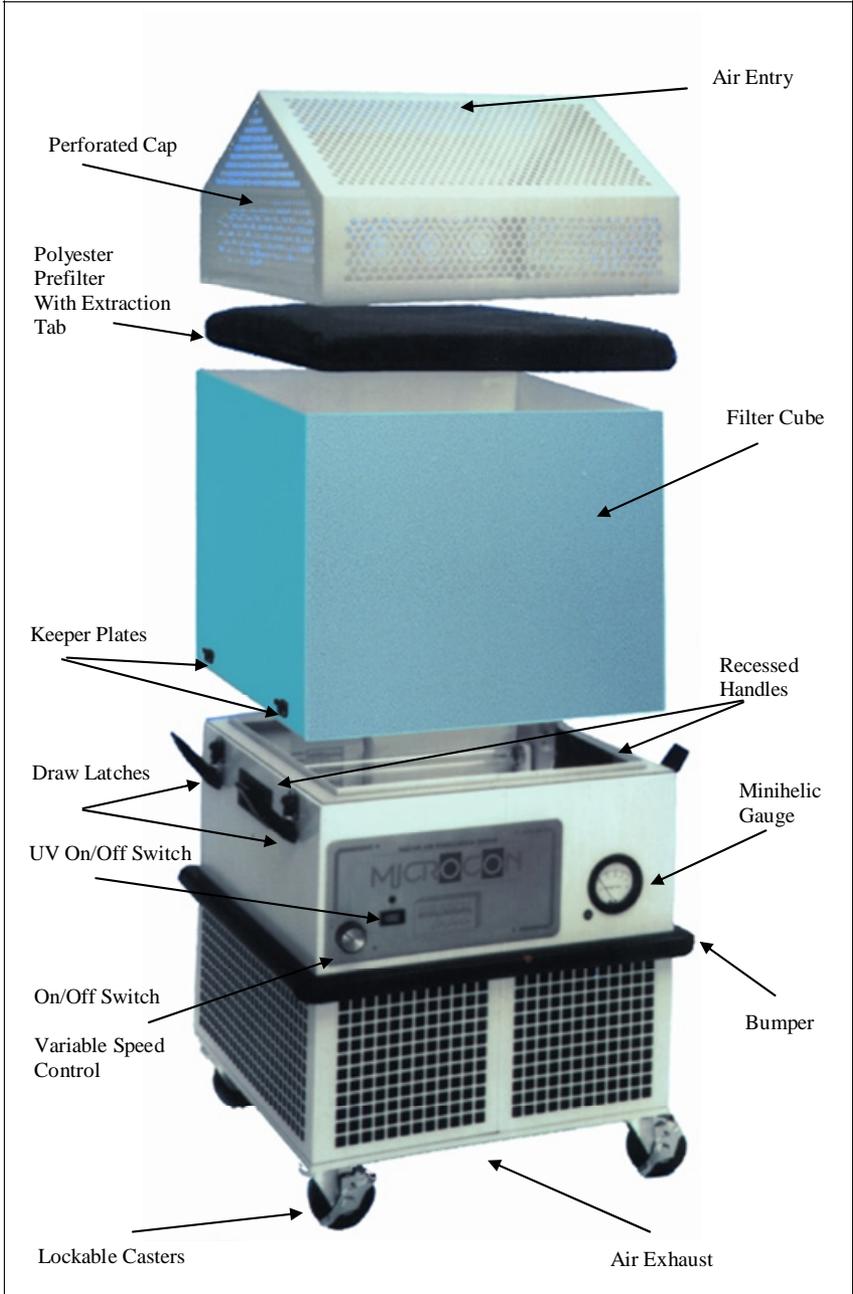
**MICROCON**<sup>®</sup> is designed to take in air from all around its periphery and to exhaust it in a like manner. The ideal placement of the unit is in the center of the room. This affords the optimum airflow pattern and the greatest number of unobstructed air changes. When placement in this position isn't possible, positioning the unit close to the source is recommended.



When the unit must be positioned near a wall the **CIRCUMFLOW**<sup>®</sup> air pattern may be obstructed by blocking of the air intake, but it will still provide adequate volume of air exchanges to decontaminate the environment. If the unit must be placed in a corner of a room it is recommended that it be placed diagonally to prevent over restricting the airflow. Nothing should ever be placed on or over the air inlet as this could seriously impede the unit's operation by restricting the airflow.

### PLACEMENT IN ISOLATION ROOMS

The unit should be located as far from the doorway as possible. This allows for the contaminants to be drawn away from common-use areas, such as corridors and waiting areas.



## SETTING UNIT'S OPERATION SPEED

**MICROCON**<sup>®</sup> is equipped with a variable speed control. This allows the unit to function at various settings, up to 725 CFM. Four pre-set markings are identified on the label. The "evacuation" mode provides the maximum capacity setting of 725 CFM. This setting is recommended when it is necessary to obtain many air exchanges quickly, or when the unit is operating in a large room. The "High" speed setting provides 675 CFM: only 50 CFM less than the evacuation setting, but at a lower noise level. The "Med" setting provides about 400 CFM and is the recommended setting for most rooms. It provides the most acceptable combination of air changes at an unobtrusive noise level.

The main function of the **MICROCON**<sup>®</sup> is determined by multiplying the desired number of air changes by the cubic footage of the room and dividing by 60. This will provide the required CFM to achieve the desired result.

## CLEANING:

Use of a mild detergent will not harm the painted finish. When cleaning the perforated cap, care should be taken not to drip any liquids inside the unit which could damage the HEPA filter. If strong detergents or disinfectants are used, that could harm the paint finish, use of an optional stainless steel cap is suggested.

## FILTER MAINTENANCE:

**Note:** Prior to any maintenance procedure the unit must be disconnected from the power source.

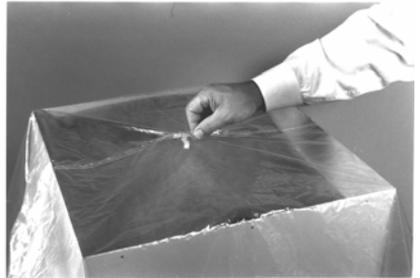
### ***When to change the prefilter:***

The prefilter should be replaced once every other month on average. If the unit is to be stored for extended period of time the prefilter should be replaced prior to storage.

### ***How to change the prefilter:***

(Part#: PF-082)

1. Replacement of the prefilter requires removing fasteners from the inclined cap and lifting the cap from the filter cube, exposing the prefilter.
2. It is recommended that the unit be left running when changing the prefilter, in the event any particulate material is released it will be pulled into the final filter by vacuum.



3. Use a standard garbage bag to dispose of the used prefilter. Place the bag over the filter cube, allowing center of the bag to drape down inside the cube. With the bag in place reach inside filter cube and grab the prefilter tab, pulling it up into the bag. Seal off the bag with a plastic twist tie and dispose of properly.
4. Take new prefilter and place it inside the filter cube with the extraction tab facing up.
5. Replace the inclined cap and secure it with fasteners.

### ***When to change HEPA filter:***

1. The HEPA filter should be replaced once per year on average. However, actual replacement time is governed by the MiniHelic gauge reading. When the unit is running at high and the gauge

reads 1.0" WG it is time to replace the filter. Unit should not be operated above recommended pressure differential levels in order to insure the integrity of the filter and performance of the unit.

**How to change HEPA Filter:  
(When replacing HEPA filter also new prefilter)**

1. Replacement requires removal of fasteners from the inclined cap. Lift off the cap and set it aside.
2. Remove the tamper-resistant screws (if supplied) from the draw latches. Unfasten the draw latches by pulling on and up from the bottom of the latch.
3. Use a standard garbage bag to dispose of used HEPA filter. Place this bag over the entire filter cube (including enclosed prefilter) and lift off the cube from the unit base.
4. Place the filter cube on its side, on the floor, and secure the open end with a plastic twist tie.
5. Dispose of the filter cube according to hospital guidelines/policy.

**Replacing HEPA Filter:**

(Part# HS-082 Steel, HL-082 Wood)

1. Inspect the gasket around lip of unit base. If deterioration is evident gasket should be replaced. (Order replacement gasket kit from factory, part# RGK-800)
2. Remove all protective packing material from filter.
3. Extend draw latches to the fully open position. Place the filter cube securely and carefully on the unit base, make sure not to damage the face of the filter during installation (in the event the filter is damaged it should not be used, as it will not provide the proper filtration efficiency required).
4. Secure the filter cube with draw latches and replace tamper resistant screws (if supplied)

**NOTE:** Used HEPA filter – Treat as contaminated substance.

5. Install new prefilter in the top of the cube, with extraction tab facing up.
6. Replace the inclined cap and secure it with fasteners.

**AS A RECOMMENDED SAFETY PRECAUTION, LATEX GLOVES AND MASK CAN BE WORN WHEN RENEWING FILTERS.**

**REPLACEMENT OF UV LAMPS:**

**When to change:**

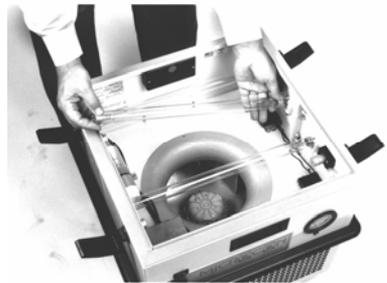
1. UV Lamps should be changed after 5000 hours of operation.

**How to change:**

1. Unfasten draw latches and remove the filter cube and inclined cap as one piece, taking care not to damage the face of the HEPA filter.
2. Remove lamps from unit and dispose of them accordingly to hospital policy.

**Installing new UV Lamps**

1. When installing new UV lamps care must be taken not to touch the glass of the lamps with fingers, as this will decrease the life of the lamps. Bulbs should be handled only by their metal ends while being replaced.



2. Once secured in place, confirm that all bulbs are operable. Proper eye protection is required for all individuals in immediate area.

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**WARNING!! Do not look at UV lamps without using proper eye protection.**

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3. With the fan switch and the UV switch both in the off position, reconnect the power source. Inspect lamps according to above steps and reconnect the filter cube to the base unit. Reattach draw latches and tamper-resistant screws.

## **ORDERING REPLACEMENT**

### **PARTS:**

When ordering any replacement components for the MICROCON MAP 800, model and serial number should be provided. This label is located on the back inside wall of the base unit.

### **RETURNING MODULES TO FACTORY:**

Before shipping any component to the factory a return authorization must be issued by the factory for units under warranty. For units out of warranty a written purchase order must be issued to Biological Controls prior to return. The factory will NOT accept and will refuse any merchandise returned without the proper written authorization. Factory is not responsible for any damage to the unit during return shipping.

***DO NOT return any used filter modules or prefilters to factory under any circumstances.***

For any questions related to operation of unit or ordering of replacement components please contact the factory by writing or calling:

**Biological Controls™ Inc.**  
749 Hope Road, Suite A  
Eatontown, NJ 07724

Web: [www.biologicalcontrols.com](http://www.biologicalcontrols.com)

Email: Sales@biologicalcontrols.com

*Toll Free (800)224-9768*

*Tel (732)389-8922*

*Fax (732)389-8821*

### ***Note: On Filter replacement:***

Life expectancy of HEPA and pre-filters is determined upon use of machine, environmental conditions during operation, and maintenance of pre-filters. Therefore, you can expect no two machines to perform identically. Monitoring of the minihelic gauge (located on front panel of machine) will give you the best indication of filter performance and replacement requirements. On average, machines that have been in use for any average of 4 years (under continuous operation) usually require the pre-filters to be replaced one every 3-4 months, and HEPA filters replaced every 12-18 months. Many hospitals simply replace the HEPA filters once per year as standard maintenance procedure.

US Patent No 5,240,478

## **LIMITED WARRANTY**

Biological Controls™ Inc. (BCI) warrants to its purchasers that all products sold by it will be free of manufacturing and material defects. Any defective product will be replaced, free of any charge if a claim is brought to BCI's attention in writing, within ONE year following the date of shipment by BCI. BCI will not be responsible for any installation costs involved in such replacement. Replacement will include shipment cost within the continental United States. This warranty is IN LIEU OF any other warranty, expressed or implied, including, but not limited to, any implied **WARRANTY OF MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE**. BCI's liability under this warranty is limited to replacement and does not include any responsibility for incidental or consequential damages of any nature.



**BIOLOGICAL**  
*Controls*<sup>™</sup>

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