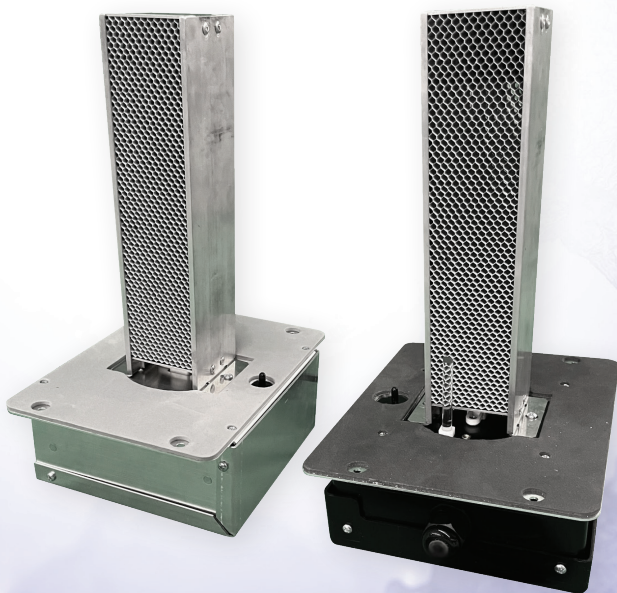


# MAK

MICROBIAL AREA KLEANER

## MAK-Inline™ Owner's Manual



# MAK-Inline™

MICROBIAL AREA KLEANER™



## Warnings and Precautions

**WARNING:** ALWAYS DISCONNECT POWER TO THE UNITS BEFORE PERFORMING ANY MAINTENANCE.

Follow all installation instructions. Failure to install unit properly may lead to injury or unit not working properly.

Use this unit in a manner intended by the manufacturer. If you have questions, contact the manufacturer.

**RISK OF ELECTRIC SHOCK:** These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instruction unless you are qualified to do so.

THIS PRODUCT SHALL NOT BE INSTALLED BEHIND A SUSPENDED FLOOR/CEILING OR A STRUCTURAL WALL, CEILING OR FLOOR.

**WARNING:** TO REDUCE THE RISK OF FIRE THIS UNIT SHOULD NOT BE INSTALLED DOWNSTREAM FROM A

HUMIDIFIER OR EXPOSED TO OTHER SOURCES OF MOISTURE.

Do Not Install in Conjunction with Combustion, Hydronic, or Electric Heat Sources Exceeding 140° F/60° C.

Before performing any service or cleaning of the unit, unplug it from its power source.

**WARNING:** This appliance is equipped with a three prong (grounding) plug. Product will malfunction and/or cause shock if not grounded. This product should be plugged directly into a properly grounded three prong receptacle or should be hard-wired by a licensed electrician.

**WARNING:** This device produces potentially harmful UV light. Disconnect from power supply before servicing. Failure to follow warning may cause damage to skin and eyes.

THE HEALTH ASPECTS ASSOCIATED WITH THE USE OF THIS PRODUCT AND ITS ABILITY TO AID IN DISINFECTION OF ENVIRONMENTAL AIR HAVE NOT BEEN INVESTIGATED BY UL.

Our products are not medical devices and are not intended to diagnose, treat, or cure any disease. Extreme Microbial Technologies, LLC declines all responsibility for all damages arising from improper use of any unit or in the case of tampering with the unit.

Congratulations on your purchase of a MAK-Inline™ Microbial Area Kleener™. This unit has been designed and engineered for installation into an existing HVAC system and used as a virtually maintenance free air purification system.

Each unit creates Energized Hydrogen Peroxide molecules which circulate throughout the indoor space. Energized Hydrogen Peroxide molecules are safe for people, pets and plants and seek out and neutralize a host of microbial contaminants such as molds, bacteria, and viruses.

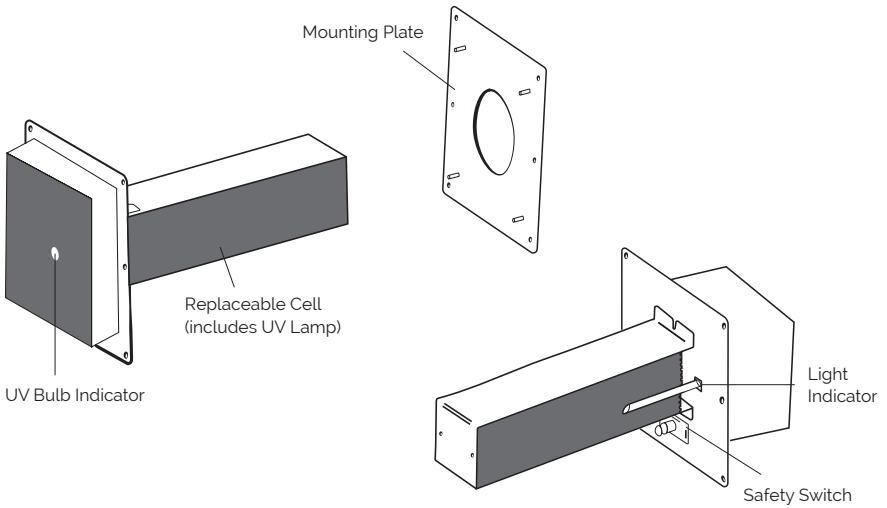
This guide has been put together to help you through the steps required to install and operate your unit. The air filters will need to be replaced periodically and the cell will need to be replaced at least every 24 months.

## Product Specifications

Product	MAK-Inline™ 5	MAK-Inline™ 9	MAK-Inline™ 14
Weight (lbs)	2.6	2.8	3.0
Dimensions (Inches)	8 x 8 x 7	8 x 8 x 11	8 x 8 x 16.75
Power (Type)	AC	AC	AC
Power (Watts)	13	13	19
Power (Volts)	120	120	120
Current (Amps)	0.11	0.11	0.16
Warranty	1 year	1 year	1 year
Filters	N/A	N/A	N/A
Filter Life (Approx.)	N/A	N/A	N/A
Air Flow (CFM Max)	500-800*	500-800*	500-800*
Coverage (CF)			
Typical Coverage	5,000-8,000	10,000-15,000	16,000-24,000
High Bioload Coverage	1,250-2,500	2,500-4,000	4,000-6,000

\*Coverage Range is affected by microbial load, physical layout, temperature, humidity, air exchange and air circulation patterns.

## MAK-Inline™ Product Contents



## Installation Hardware

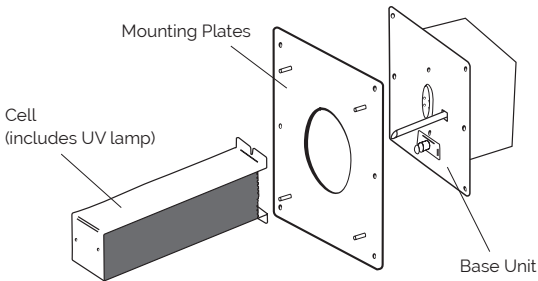


(6) #8 - .75  
1/4" SELF-TAPPING SCREWS



(4) #8 - 32  
HEX NUTS

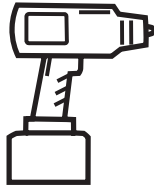
## Replacement Hardware



## Recommended Installation Tools



3 1/2" Hole Saw  
for Wood or Metal  
(Recommended)



Drill/Power Drive



Phillips Screwdriver



3/8" Drill Bit  
(If installing into fiberglass ducting with  
toggle bolts (not included))



11/32" Open-End Wrench



Safety Switch  
1/4" Nut Driver Bit

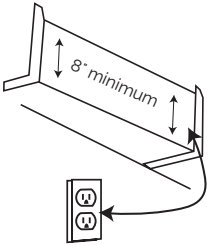


Utility Knife

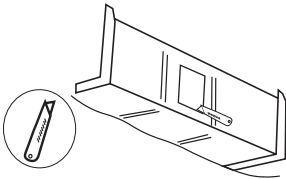


Tin Snips  
(For metal ductwork  
if not using hole saw)

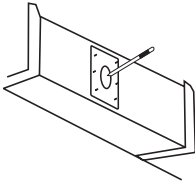
## Metal Ductwork Installation with Hole Saw



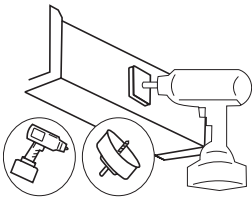
- 1 Locate suitable area of duct for installation



- 2 Cut away insulation to expose metal duct (if needed)

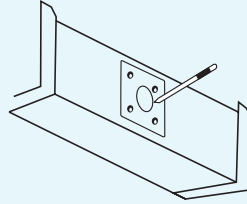


- 3 Mark location for 3.5" opening using the mounting plate

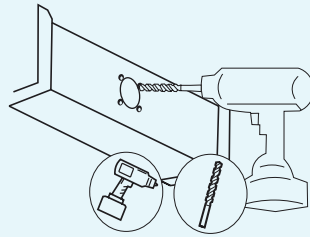


- 4 Cut hole in duct using 3.5" hole saw

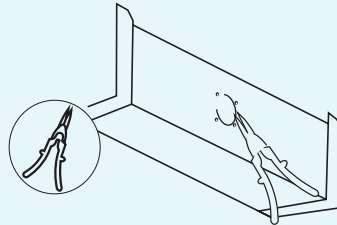
### Alternative Cutting Method with Tin Snips



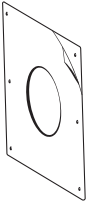
- a Using the mounting plate draw a circle on the duct



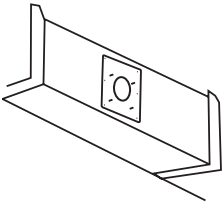
- b Drill 4 holes on the circle



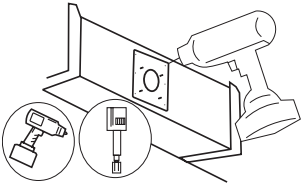
- c Cut holes using tin snips (doesn't have to be a perfect circle)



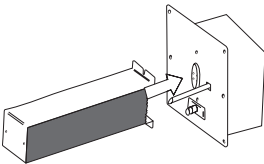
- 5** Remove backing from mounting plate adhesive gasket



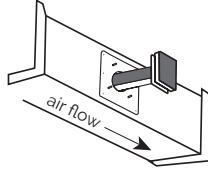
- 6** Center openings and press mounting plate onto duct. The adhesive gasket will hold the mounting plate in place



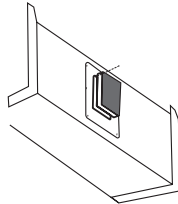
- 7** Secure the mounting plate using (6) #8 self-tapping screws



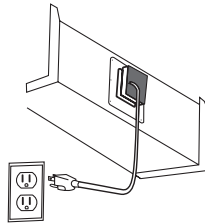
- 8** Attach the cell to the base unit by removing (2) two small screws from base and using them to secure cell onto base unit. Make sure the bulb plug is twisted to align properly with the receptacle on the base and make sure honeycomb side is against the light indicator stick.



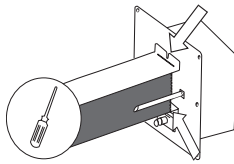
- 9** Insert unit into opening. Be sure the air will pass through the PCO Cell Honeycomb Matrix. (NOTE: Airflow indicator is located on probe base)



- 10** Secure the unit to the mounting plate with (4) #8-32 nuts. (DO NOT OVERTIGHTEN)

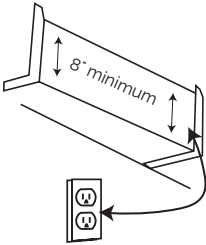


- 11** Plug unit into working power receptacle

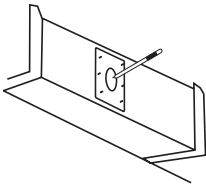


Hard wiring unit into HVAC system should be done by a licensed HVAC installer or electrical contractor only

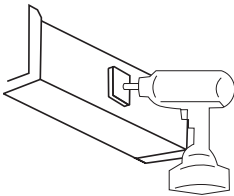
## Fiberglass Ductwork Installation



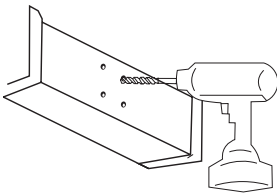
- 1 Locate suitable area of duct for installation



- 2 Mark location for 3.5" opening using either the mounting plate or included template. Also mark the locations of 4 corners (see template)

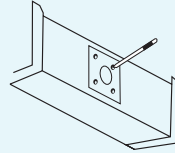


- 3 Cut hole in duct using 3.5" hole saw

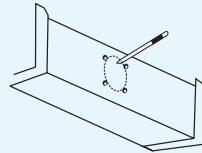


- 4 Using the base plate, drill 4 holes (at corner screw locations) using a 3/8" drill bit

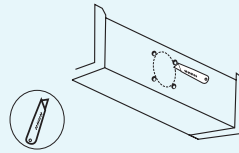
### Alternative Cutting Method



- a Using the mounting plate, draw a circle on the duct



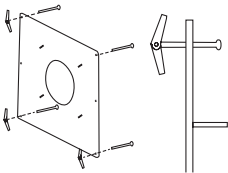
- b Draw a line between each corner mark



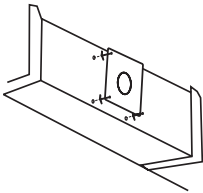
- c Cut out circle using a utility knife. Continue with #4 (left)



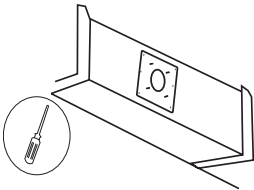
**5** Remove backing from mounting plate adhesive gasket



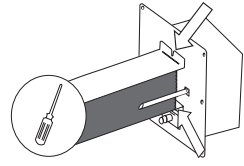
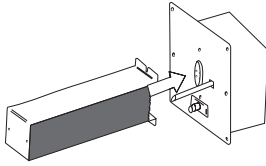
**6** Insert (4) 2" Threaded bolts into screw holes at corners of mounting plate. Attach (4) toggle bolt anchors to ends of threaded bolts



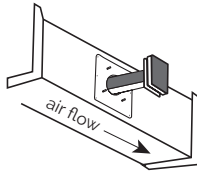
**7** Insert (4) toggle bolts into 3/8" holes in duct. Be sure to toggle anchors open after inserting



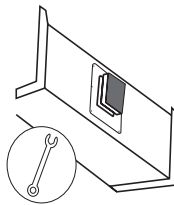
**8** Center large opening in mounting plate over 3.5" opening in duct and press plate to duct. The adhesive gasket will hold the mounting plate into place. Tighten toggle bolts (DO NOT OVERTIGHTEN)



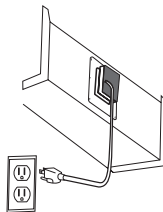
**9** Attach the cell to the base unit by removing (2) two small screws from base and using them to secure cell onto base unit. Make sure the bulb plug is twisted to align properly with the receptacle on the base and make sure honeycomb side is against the light indicator stick.



**10** Insert unit into opening. Be sure the air will pass through the PCO Cell Honeycomb Matrix (NOTE: Airflow Indicator located on Probe Base)



**11** Secure the unit to the mounting plate with (4) #8-32 nuts (DO NOT OVERTIGHTEN)



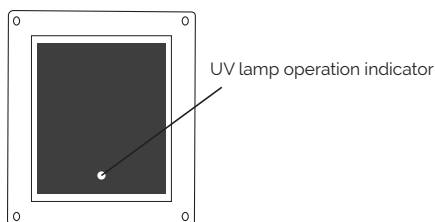
**12** Plug unit into working power receptacle

## UV Lamp Indicator / Maintenance

Each MAK-Inline™ unit has been designed to be virtually maintenance free beyond the normal replacement of the cell every 24 months.

The UV lamp operation indicator will maintain a glow when the unit is in use. If the indicator does not glow and the unit has power, the cell should be replaced, the unit may not be receiving power, or the safety switch may need to be checked.

NOTE: For optimal performance we recommend changing the cell every 24 months even if the UV lamp indicator is glowing and the lamp appears to be operating normally.




## Cell Disposal


Please do not throw your cell into the garbage. The special lamp used within the MAK-Inline™ cell contains a very small amount of mercury. Be sure to dispose of lamps properly or return your used cell to Extreme Microbial Technologies for proper disposal.

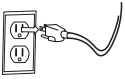
Send your used cell postage paid to:

Extreme Microbial Technologies, LLC  
2800 East River Road, Suite A  
Dayton, OH 45439

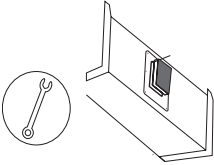
## Changing the MAK-Inline™ Cell

 **Warning:** UV light in operation. Disconnect from power supply before servicing. Failure to follow warnings could result in serious temporary eye or skin irritation.

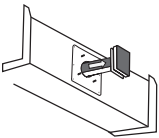
 **Warning:** Risk of electrical shock. Always disconnect power to the unit before performing any maintenance to the unit.



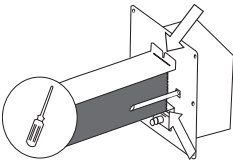
- 1** Unplug unit IF unit is hard wired, be sure the power to the unit is off



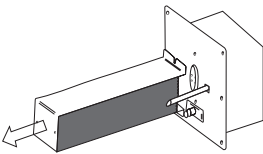
- 2** Remove the 4 mounting nuts



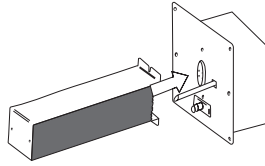
- 3** Remove the unit from the mounting plate



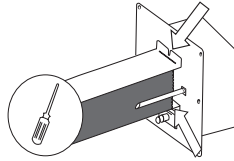
- 4** Remove the 2 screws holding the cell to the base unit



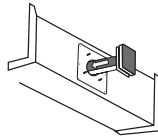
- 5** Separate the used cell from the base unit and dispose of properly



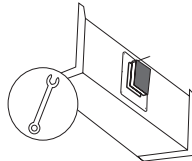
- 6** Plug the new cell into the base unit



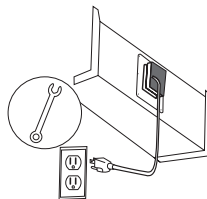
- 7** Secure with 2 screws



- 8** Insert the unit into the mounting plate



- 9** Secure units 4 with nuts



- 10** Reconnect power supply

## LIMITED WARRANTY INFORMATION

(applies to purchases only)

Your MAK-Inline™ unit is warranted to be free of all defects in material and workmanship in normal household/business use for a period of 1 year.

The warranty is granted only to the original purchaser. The warranty is subject to the following provisions:

Any damages or malfunctions caused by negligence, abuse, or use not in accordance with this Product Owner's Manual are not covered by this warranty. Likewise, any defects or damages caused by unauthorized service or the use of other than genuine Extreme Microbial Technologies, LLC parts are not covered.

Extreme Microbial Technologies, LLC will, at its option, repair or replace a defective product or part(s) for the product that is/are covered by this warranty. As a matter of warranty policy, Extreme Microbial Technologies, LLC will not refund the customer's purchase price.

## OBTAINING WARRANTY SERVICE

To obtain warranty service you must return the defective product along with proof of purchase to Extreme Microbial Technologies, LLC. All shipping costs submitted under this warranty shall be paid by the purchaser. Unless the warranty is expressly renewed or extended in writing by Extreme Microbial Technologies, LLC any repaired or replaced part of the unit shall be warranted to the original purchaser only for the length of the

unexpired portion of the original warranty.

Before any product is returned for service, the customer should contact Extreme Microbial Technologies to obtain a Return Merchandise Authorization (RMA) Number and a return shipping address. The RMA Number should be clearly written on the box before shipping. All parts/components, manuals, and original packaging should be included in the return if available.

## FURTHER LIMITATIONS AND EXCLUSIONS ARE AS FOLLOWS

Any warranty that can be implied in connection with your purchase or use of this product, including any warranty of merchantability or any warranty of Fitness for a Particular Purpose is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Your relief for the breach of this warranty is limited to the relief expressly provided above. In no event shall Extreme Microbial Technologies, LLC be liable for any consequential or incidental damages you may incur in connection with your purchase or use of this product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.





2800 E River Road, Suite A  
Moraine, OH 45439

[extrememicrobial.com](http://extrememicrobial.com)