

UV100A2008 Coil Irradiation Ultraviolet Air Treatment System

PRODUCT DATA/INSTALLATION INSTRUCTIONS



APPLICATION

When installed in forced air heating and cooling systems, the UV100A2008 Coil Irradiation Ultraviolet Air Treatment System kills airborne and surface micro-organism contaminants.

FEATURES

- UV-C light kills airborne and surface bacteria.
- Continuously emits ultraviolet energy.
- UV lamp does not produce ozone.
- Sealed unit design prevents accidental installer and homeowner contact with the voltage and with the ultraviolet rays.
- Safe design prevents lamps from lighting unless the base is correctly mounted on the HVAC duct.
- Light pipe to safely view the lamp operation.
- Power cord that plugs into 240 Vac electrical outlet.
- Quick and easy lamp replacement.
- Easy lamp maintenance.
- AIRWATCH™ Indicator can be installed to remind customers when to change lamp.
- To capture and minimize micro-organism pass-through in residential heating, ventilation and air conditioning (HVAC) systems, combine the Ultraviolet Air Treatment System with a high-efficiency air filtration system that includes an electronic air cleaner.

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SPECIFICATIONS

IMPORTANT

The specifications in this publication do not include normal manufacturing tolerances; therefore, an individual unit may not exactly match the listed specifications. This product is tested and calibrated under closely controlled conditions and some minor differences in performance can be expected if those conditions are changed.

TRADELINE® Model

The UV100A2008 Coil Irradiation Ultraviolet Air Treatment System is an air conditioner coil irradiation unit that is mounted downstream from the air conditioner of the HVAC system. The unit reduces mold growth and spores on duct surfaces, coils and drip pans.

Efficiencies:

The UV100A Coil Irradiation unit:

- kills up to 99.9% of mold on system cooling coils.
- test performed in a test duct showing reduction in colony-forming aspergillus niger mold spores when surface was irradiated at a distance of 18 in. for three hours in still air, using new lamps.

Approvals:

Underwriters Laboratories: File no. E212213.

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.

Electrical Ratings:

Power Rating: 240 Vac, 60 Hz.

Consumption:

Model	Input Power (A)	Lamp Wattage (W)
Coil Irradiation	0.35	36

Temperature Ratings:

Ambient Temperature Range: 30°F to 120°F (-2°C to 49°C).

Lamp Temperature Range: 30°F to 120°F (-2°C to 49°C) and 170°F (77°C) in moving air.

Relative Humidity:

Up to 95% relative humidity, non-condensing.

Dimensions: See Fig. 2.

See Fig. 2.

ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

1. Your local Honeywell Automation and Control Products Sales Office (check white pages of your phone directory).
2. Honeywell Customer Care
1885 Douglas Drive North
Minneapolis, Minnesota 55422-4386

In Canada—Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Scarborough, Ontario M1V 4Z9.

International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

INSTALLATION

When Installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the rating given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.



CAUTION

Personal Injury Hazard.

Power supply can cause electrical shock.

Disconnect power supply before beginning installation. Do not open base unit or lamp knob; there are no user-serviceable components inside.



WARNING

UV Light Hazard.

Harmful to bare skin and eyes.

Can cause temporary or permanent loss of vision.

Never look at the lamps while illuminated. Only view illumination by way of the light indicator on the lamp knob.

To prevent exposure to ultraviolet light, disconnect power to the ultraviolet air treatment system before servicing any part of the heating/air conditioning system.

Do not mount device in location that allows ultraviolet light to be seen after installation.

Do not attempt to bypass the duct mount switch.

Selecting Mounting Location



CAUTION

Equipment Damage Hazard.

Ultraviolet light can cause color shift or structural degradation of plastic HVAC materials.

Select mounting location that prevents exposure to plastic components with *unknown resistance to ultraviolet light*. Three-foot minimum is recommended between ultraviolet lamps and plastic-fabricated devices (such as humidifiers and non-fiberglass media filters).

IMPORTANT

If mounting options are limited, protect plastic or rubber materials listed in CAUTION with ultraviolet-resistant material such as aluminum foil duct tape.

NOTE: When the installer is uncertain about whether the drip pan in the installation can tolerate UV exposure, consult the UV exposure white paper, form no. 50-8788, at hbctechlit.com Web site.

1. The ultraviolet air treatment system can be mounted in any orientation.
2. Choose a location that is readily accessible for regular inspection and cleaning.
3. Allow clearance in front of the device for removing the lamp assemblies. See Fig. 2 for lamp assembly lengths.
4. Select mounting location that prevents exposure to plastic components with unknown resistance to ultraviolet light. A minimum of three feet is required between the ultraviolet lamps and devices fabricated of plastic, such as humidifiers.
5. Mount the ultraviolet air treatment system to non-lined metal ductwork. Do not mount in a location that permits ultraviolet exposure to plastic flexible duct liner.



CAUTION

Sharp Edges Hazard.

Can cause personal injury.

Be careful when inserting ultraviolet device into the sheet metal cutout.

Wear protective gloves when working near sheet metal.

Duct Mounting

Use the following instructions to mount the air treatment system on the air duct of an HVAC system:

1. Disconnect power to the HVAC system before installing the Ultraviolet Air Treatment System.
2. Determine the location for installation (see Fig. 1):
 - a. The coil irradiation unit requires an easily-accessible, flat mounting surface on the metal supply air duct of the HVAC system. The coil irradiation unit must be located so the lamp surrounds the evaporator coil and drip pan with ultraviolet light.
 - b. The duct mounting location must be a minimum of 8 in. wide. See Fig. 2.
 - c. The depth of the duct must accommodate the full length of the ultraviolet lamp as shown in Fig. 2.
 - d. The unit should be located as far away as possible from any rubber or plastic components, such as isolators, in the duct.
 - e. The space adjacent to the mounting location must be large enough to allow for ultraviolet lamp installation and removal.
 - f. 240 Vac must be available to power the unit (see Important).

IMPORTANT

If a 240 Vac outlet is not accessible with attached line cord, the enclosed receptacle can be installed according to local and National Electric Code requirements.

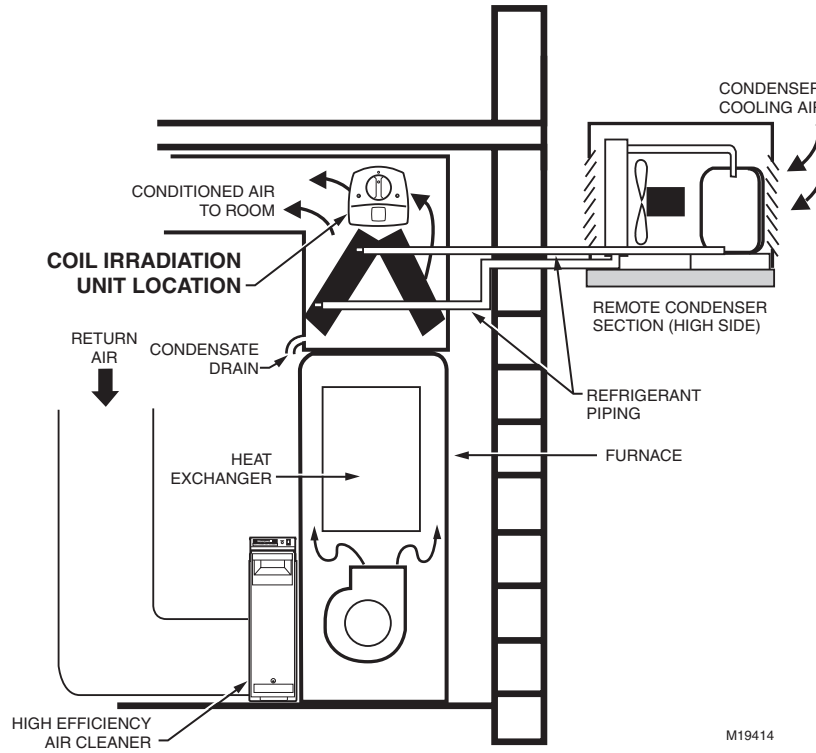


Fig. 1. Mounting location for Ultraviolet Coil Irradiation Air Treatment System.

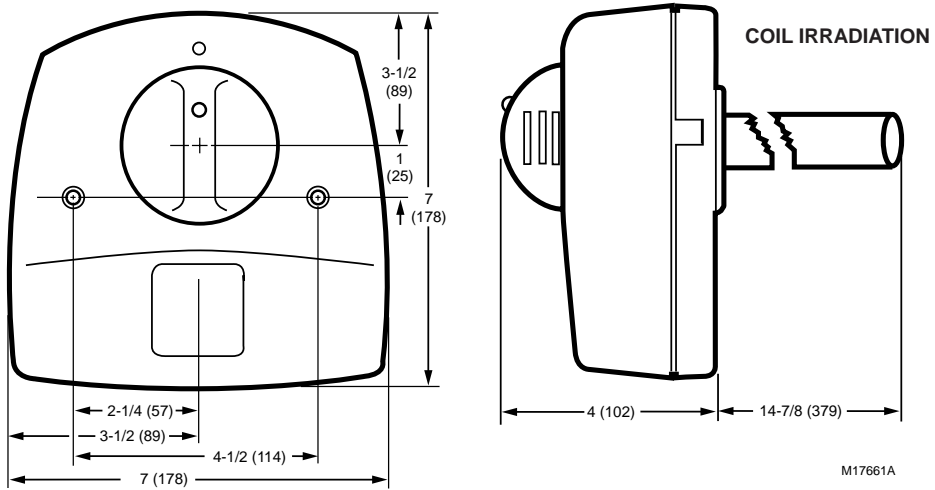


Fig. 2. Ultraviolet Coil Irradiation Air Treatment System dimensions in in. (mm).

3. Place the template on the duct surface, centering the lamp hole on the duct. See Fig. 3.

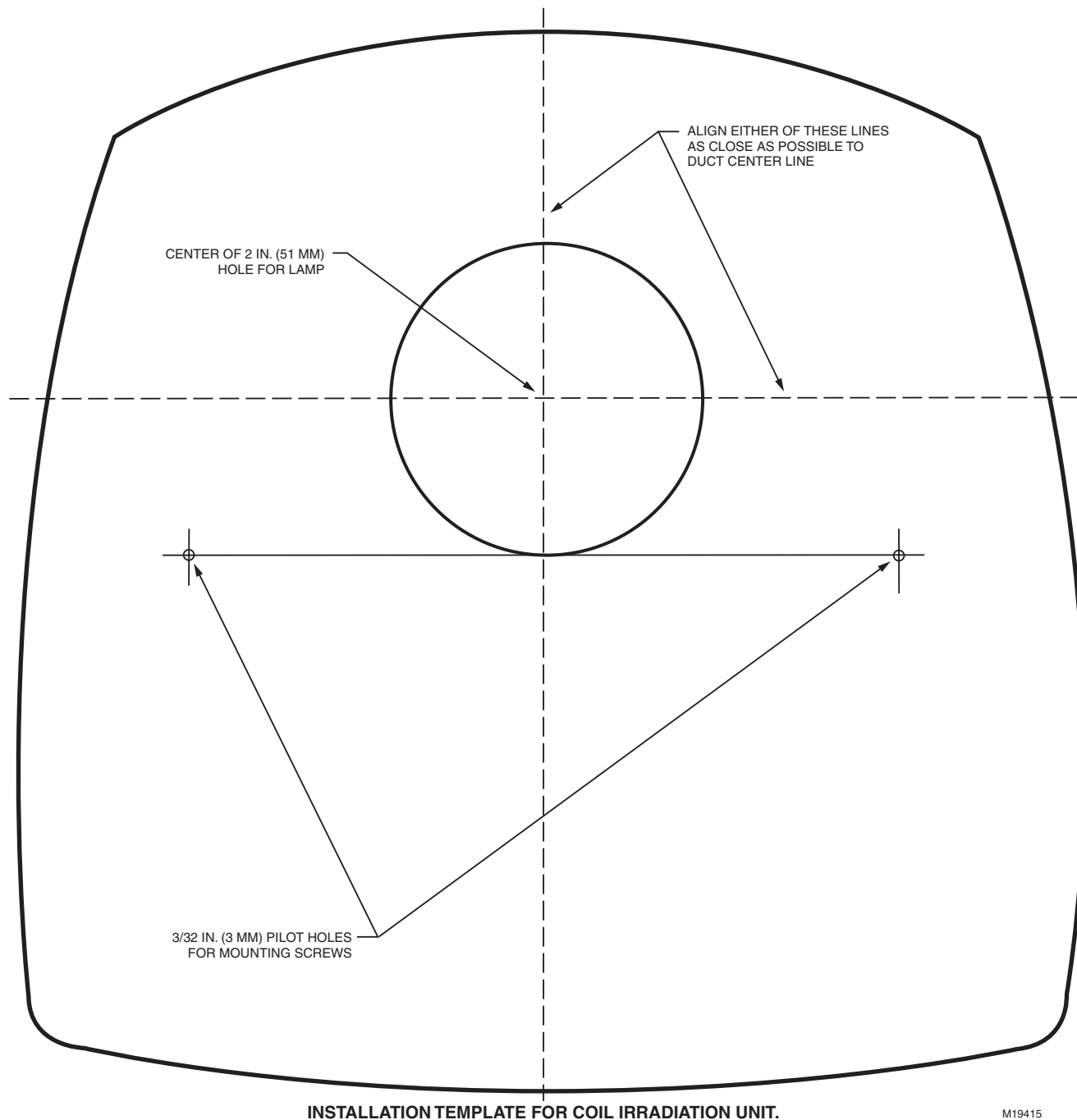


Fig. 3. Ultraviolet Coil Irradiation Air Treatment System template.

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|--|---|
| <ul style="list-style-type: none"> 4. Mark the location on the duct for the 2 in. diameter lamp hole and the unit mounting-screw pilot holes. 5. Cut the 2 in. lamp hole in the duct. Remove any burrs. 6. Use a 3/32 in. drill to provide pilot holes for the mounting screws. 7. Be sure the duct surface is flat after all holes are drilled. | <ul style="list-style-type: none"> 8. Position the entire base unit on the duct. Be sure the lamp holes in the duct align with those in the unit to allow lamp insertion. 9. Install the unit into the duct using the two no.10, 2 in. Phillips head sheet metal mounting screws provided. 10. Tighten the screws to 12 to 14 in.-lb so the space between the case and duct is sealed. |
|--|---|



CAUTION

Breakable Glass Hazard.

Can cause personal injury.

Be careful when inserting lamps(s) into lamp base.
Wear protective gloves when handling lamp(s).



MERCURY NOTICE

This device contains mercury in the sealed ultraviolet lamp(s). Do not place your used lamp(s) in the trash. Dispose of properly.

Broken Lamp Cleanup.

Do not use a household vacuum.

Sweep debris into a plastic bag and dispose of properly.

Contact your local waste management authority for instructions regarding recycling and the proper disposal of old lamp(s).

11. Insert the lamp into the base unit with the lamp light indicator at the eleven o'clock position (left of the raised button on the unit cover). *Do not touch the lamp surface with your hands.*
12. Continue lightly pushing in on the lamp while rotating it slowly counterclockwise. This should cause the lamp to drop into the bottom of the lamp well.
13. Rotate the lamp clockwise until it snaps into place with the lamp indicator light aligned with the raised button on the unit cover.



WARNING

UV Light Hazard.

Harmful to bare skin and eyes.

Can cause temporary or permanent loss of vision.

Never look at the lamps while illuminated.
Only view illumination by way of the light indicator located on the lamp knob.

To prevent exposure to ultraviolet light, disconnect power to the ultraviolet air treatment system before servicing any part of the heating/air conditioning system.

14. Place HVAC Maintenance Labels on adjacent HVAC equipment to warn future HVAC Service personnel to disconnect power to the ultraviolet air treatment system before servicing the HVAC system to prevent exposure to UV light.
15. Plug the cord into the nearby 240 Vac electrical outlet.
16. Reconnect the power to the HVAC system.
17. Choose a location on the adjacent HVAC equipment for the HVAC maintenance label included in the air treatment system packing box. Choose a location that a future installer can easily see during any future HVAC maintenance or repair.

CHECKOUT

The installer should verify that the ultraviolet lamp(s) are operating *only by viewing the lamp indicator on the lamp knob. Do not attempt to look directly into the duct to see the illuminated ultraviolet lamps.*

The installer should orient the homeowner to the unit by showing them the blue glow of the lamp indicator and discussing how to determine when the unit is functioning properly without looking directly into the duct to see the illuminated ultraviolet lamps. The installer should also emphasize the hot surface and electrical shock safety warnings.

The installer should leave the Owner's Guide with the homeowner and review the lamp cleaning and lamp replacement procedures. A Lamp Cleaning Schedule is included in the Owner's Guide to help the homeowner set up and track a regular cleaning schedule.

TROUBLESHOOTING AND SERVICE

The Ultraviolet Air Treatment System has no field-serviceable parts. Lamp cleaning is recommended as routine maintenance four times a year or every three months (quarterly). Annual lamp replacement is required. See the Owner's Guide for detailed procedural information.

MAINTENANCE

How You Can Maintain Your Ultraviolet Air Treatment System

Your should regularly clean your ultraviolet lamps to maintain your air treatment system. And once every year, you must remember to replace your ultraviolet lamps.

CAUTION

Personal Injury Hazard.
Power supply can cause electrical shock.
 Disconnect power supply before cleaning or replacing ultraviolet lamp(s).
 Do not open base unit or lamp knob; there are no user-serviceable components inside.

CAUTION

Breakable Glass Hazard.
Can cause personal injury.
 Be careful when inserting lamp(s) into lamp base.
 Wear protective gloves when handling lamp(s).

Cleaning Your Lamps Every Three Months (Quarterly)

MERCURY NOTICE

This device contains mercury in the sealed ultraviolet lamp(s). Do not place your used lamp(s) in the trash. Dispose of properly.

Broken Lamp Cleanup.
Do not use a household vacuum.
 Sweep debris into a plastic bag and dispose of properly.

Contact your local waste management authority for instructions regarding recycling and the proper disposal of old lamp(s).

Lamp cleaning is recommended as routine maintenance four times a year or every three months (quarterly). Use the Ultraviolet Lamp Cleaning Reminder Schedule, Fig. 4, to help you establish and track your regular cleaning schedule.

UV LAMP CLEANING REMINDER SCHEDULE

INSTALLATION DATE: (month) _____, (year) _____

YEAR	J	F	M	A	M	J	J	A	S	O	N	D

M13516

Fig. 4. Ultraviolet lamp cleaning reminder schedule.



CAUTION

UV Lamp Burn Hazard.
Harmful to bare skin.
Can cause severe burns.
 Disconnect power 15 minutes before removing the ultraviolet lamp(s)

To clean your lamps:

1. Disconnect the power to your HVAC system.
2. Unplug your ultraviolet air treatment system cord from the electrical outlet and allow the lamps to cool for at least 15 minutes.
3. Rotate your lamp knob counterclockwise and gently pull the lamp knob to remove the lamp(s).
4. Holding only the lamp knob, wipe the lamp glass using a soft cloth with window cleaner applied to it. Do not touch the lamp surface with your hands. Use only the cloth.
5. To ensure that the lamp indicator continues to function, use a moistened cotton swab to gently remove any dust that may have collected between the lamp light indicator on the base and the black lamp base.
6. Wipe your lamps with a clean, dry cloth.
7. Put your clean lamps back into the unit base by following Replacing Your Lamps (Annually) section steps 5, 6, and 7.



⚠ WARNING

UV Light Hazard.

Harmful to skin and eyes.

Can cause temporary or permanent loss of vision.

Never look at the lamps while illuminated.

Only view illumination by way of the light indicator located on the lamp knob.

To prevent exposure to ultraviolet light, disconnect power to the ultraviolet air treatment system before servicing any part of the heating/air conditioning system.

8. Plug the cord into the nearby 240 Vac electrical outlet.
9. Verify that the ultraviolet lamp(s) are operating *only* by viewing through the lamp light indicator on the lamp knob. *Never look directly at your lamps while illuminated.*
10. Reconnect the power to your HVAC system.

⚠ WARNING

UV Lamp Burn Hazard.

Harmful to bare skin.

Can cause severe burns.

Disconnect power 15 minutes before removing ultraviolet lamp(s).

Replacing Your Lamps (Annually)

Annual replacement of your lamps is required. To replace your lamps:

1. Select and obtain the correct replacement lamp for your unit. See Parts List.
2. Disconnect the power to your HVAC system.

3. Unplug your ultraviolet air treatment system cord from the electrical outlet and allow the lamps to cool for at least 15 minutes.
4. Rotate the lamp knob counterclockwise and gently pull the lamp knob to remove the lamp(s).
5. Insert the lamp into the base unit with the lamp light indicator at the eleven o'clock position (left of the raised button on the unit cover). *Do not touch the lamp surface with your hands.*
6. Continue lightly pushing in on the lamp while rotating it slowly counterclockwise. This should cause the lamp to drop into the bottom of the lamp well.
7. Rotate the lamp clockwise until it snaps into place with the lamp light indicator aligned with the raised button on the unit cover.



⚠ WARNING

UV Light Hazard.

Harmful to bare skin and eyes.

Can cause temporary or permanent loss of vision.

Never look at the lamps while illuminated.

Only view illumination by way of the light indicator located on the lamp knob.

To prevent exposure to ultraviolet light, disconnect power to the ultraviolet air treatment system before servicing any part of the heating/air conditioning system.

8. Plug your ultraviolet air treatment system cord into the nearby 240 Vac electrical outlet.
9. Verify that your ultraviolet lamp is operating *only* by *viewing through* the lamp light indicator on the lamp knob. *Never look directly at the lamp while illuminated.*
10. Reconnect the power to your HVAC system.

UV100A2008 Parts List

Unit Description	Replacement Lamps	Wattage
UV100A2008 240V Coil Irradiation Unit	UC100A1054	36W



UV100A2008 COIL IRRADIATION UNIT

M19416

Honeywell

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