

GENESIS AIR 2008DT



Lamp/Filter section (Return)

INSTALLATION AND OPERATIONS MANUAL

**PLEASE READ AND SAVE THESE INSTRUCTIONS!
ACCESS ABOVE CEILING REQUIRED.**



OPERATIONS AND MAINTENANCE SCHEDULE

This manual will guide the maintenance personnel in installing and servicing the Genesis Air 2008DT unit.

<u>INTRODUCTION</u>	.....	3
<u>INSTALLATION</u>	.....	3
<u>MAINTENANCE</u>	.....	4
<u>LAMPS</u>	.....	4
GENERAL	.....	4
INSPECTION	.....	5
REMOVAL	.....	5
DISPOSAL	.....	5
INSTALLATION	.....	5
<u>CATALYST</u>	.....	5
GENERAL	.....	5
INSPECTION	.....	6
REMOVAL	.....	6
CLEANING	.....	6
DISPOSAL	.....	6
INSTALLATION	.....	6
<u>BALLASTS</u>	.....	6
<u>FILTERS</u>	.....	6
<u>REPLACEMENT PART NUMBERS</u>	.....	7
<u>UL DISCLAIMERS</u>	.....	7
<u>CONTACT INFORMATION</u>	.....	7

INTRODUCTION

The Genesis Air 2008DT is a ducted-in unit used to reduce the levels of Volatile Organic Compounds (VOC's) and viable airborne biological contaminants. The unit is utilized in the returns of an Air Handling System (AHU). The 2008DT uses one 2020E Genesis Air PCP Compound panel. Also, a UV shield is incorporated to protect the user from escaping UV radiation. It is suitable for spaces up to 4000 ft³. For recommended unit configurations, consult the 2008 GAP Product Calculator supplied with packet. Contact Genesis Air if you do not have one. All Genesis Air products incorporate 3-step GAP technology: MERV Filtration, UVGI Lamps and Photocatalysis.

UL REQUIREMENTS

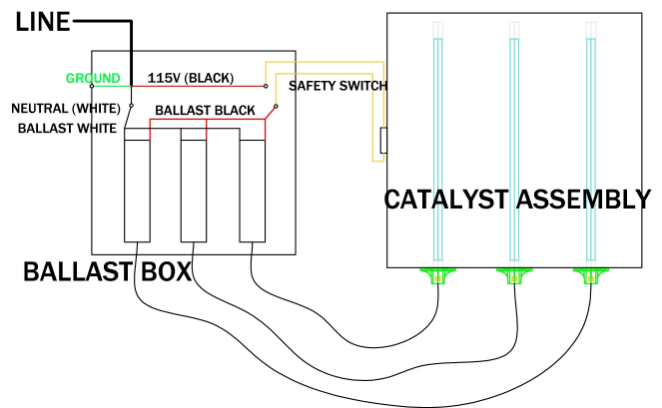
- 105°C minimum electrical connections
- For catalyst marked “XXXX”, 50°C/122°F maximum ambient temperature. For those marked “XXXX-E”, 80°C/176°F maximum ambient temperature.
- Suitable for air-handling units
- Access above ceiling may be required
- The health aspects associated with the use of this product and its ability to aid in disinfection of environment air have not been investigated by UL.
- Use only 20” First Light type T5 15 UVC Watt lamps.
- **Warning:** The electrical supply circuit connected to this UV appliance must be routed through an electrical interlock switch placed on the HVAC system duct access panels and doors to prevent accidental UV exposure when servicing the air ducts or equipment.
- **Caution:** Equipment Damage Hazard. Ultraviolet light can cause color shift or surface degradation and sometimes structural degradation of non-metallic components. Select mounting location that prevents exposure to plastic flexible duct components, polyurethane foam insulation material, rubber hoses, wiring insulation, filtration media, etc. If mounting options are limited, items above should be protected with ultraviolet resistant material such as aluminum foil, aluminum duct tape, or metallic shields.

INSTALLATION

This unit is designed to be installed in the drop-tile ceiling grid. Installation must be completed by competent personnel. **Genesis Air, Inc. assumes no liability for damages or injuries sustained from installations done by other than qualified Genesis Air technicians.**

- Choose a return close to the source of odors or biologicals. The lamp/filter section should be installed in this general vicinity.
- Using a lift, ladder or scaffolding, remove a ceiling tile above the source next to the return grille. Use judgment here: there needs to be clearance from permanent ductwork, beams, lights, sprinklers or other above-ceiling fixtures. If an adjacent tilespace is better, remove the tile and make sure. **You must have clearance to remove 20” lamps from the PCP.** Disconnect existing ductwork and remove the existing return.

- Using a helper, lift the lamp/filter section up above the ceiling grid. The unit may need to be angled thru the gridwork. Gridwork may need to be removed to provide adequate room. Once the unit is above the grid, set the unit onto the grid carefully. You should see the 4” particulate filter from the ground.
- Attach the ductwork to the Genesis Air unit. The ballast box may be attached to this section, attached to adjacent wall or suspended from the roof. **Note: If ductwork is altered, installer must insure that no leakage of UV light occurs as a result of ductwork modifications!**
- Connect the safety switch to line in power, then to ballast box. Follow all applicable codes and guidelines; refer to authority having jurisdiction.
- Use the same guidelines to add more returns.
- If your unit has more than one lamp/filter section, wire up the second using the supplied wiring diagram.
- Clean up your mess, and replace ceiling tiles.



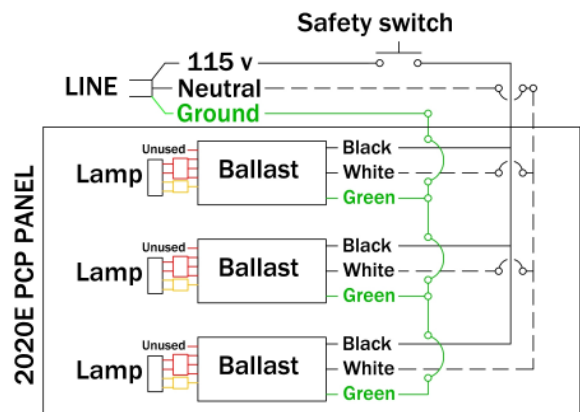
MAINTENANCE

LAMPS

- ALL UNITS MUST BE POWERED DOWN BEFORE LAMP REPLACEMENT.
- ALL MAINTENANCE PERSONNEL MUST WEAR UV PROTECTIVE FACE SHIELDS. ALL EXPOSED SKIN MUST BE PROTECTED BY UV RESISTANT CLOTHING.

GENERAL

To operate effectively, the lamps must be replaced each year, as the intensity of the lamps decreases over time. The catalyst must be energized by the lamps to create the field of



hydroxyl radicals that is required to remove VOC's and biologicals. Without the proper lamp output, VOC's and biologicals will not be reduced!

INSPECTION

- **To inspect the lamps, the lamps must be powered. Wear UV resistant face shields and personal protective equipment!**
- The Greensleeves attached to each lamp will indicate if the lamp is operating or if the lamp has failed.
- Remove a ceiling tile near the Genesis Air unit. Visually inspect the Greensleeves.
- A bright green glow will emit from the Greensleeve to indicate an operating lamp. If a lamp appears unlit, ensure the lamp is plugged in firmly to receptacle. If lamp is still unlit, replace lamp with Genesis Air GA20HO. If the new lamp does not light, the problem may be in the ballast or wiring. Call your Genesis Air Representative for assistance.

REMOVAL

- **Power the Genesis Air unit down using the kill switch or breaker to unit.**
- Remove a ceiling tile near the Genesis Air unit.
- Unplug the harness that connects the faulty lamp to the ballast.
- Unscrew the GreenSleeve mount from the base of the unit and remove lamp from the catalyst panel with a twisting motion so as not to deform the catalyst pleats. Retain screws.

DISPOSAL

- In most states and provinces, UVGI lamps may be disposed of in the same manner as fluorescent lamps. While UVGI lamps contain a trace amount of mercury, the quantity is so minute that disposal is not regulated by federal standards (established by the EPA). Individual states and provinces may have established disposal standards. Please adhere to your local regulations.

INSTALLATION

- Installation is the reverse of removal. The lamps are slowly twisted through the catalyst material until the GreenSleeve is resting against the PCP. If the lamp binds excessively against the catalyst, do not force. Remove and try again.
- Once the base of the lamp is against the PCP, screw down the Greensleeve base using the same holes as removed. Do not overtighten!
- The rest of installation is the reverse of removal.

CATALYST

- **ALL UNITS MUST BE POWERED DOWN BEFORE SERVICING.**
- **ALL MAINTENANCE PERSONNEL MUST WEAR UV PROTECTIVE FACE SHIELDS. ALL EXPOSED SKIN MUST BE PROTECTED BY UV RESISTANT CLOTHING.**

GENERAL

Genesis Air recommends catalyst replacement every fifteen years to provide an efficient system. As debris and contaminants accumulate on the catalyst, the effectiveness of the

catalyst is decreased. The catalyst must be inspected periodically for build up of particulate. Inspection is performed from the bottom of the unit and removal of the catalyst is from the top of the unit.

INSPECTION

- Turn off power to the 2008DT unit using breaker or kill switch.
- Unlatch the filter grille, and remove the filter.
- If the catalyst appears clean and free of particulate, congratulations! Otherwise, proceed to removal.

REMOVAL

- **If the catalyst will be cleaned and reused, keep track of orientation so they will be returned from the order they were removed. This will prevent installation problems.**
- Remove a ceiling tile near the Genesis Air unit.
- Remove the lamps from the PCP unit.
- Disconnect the duct pan from the top of the panel, and then unscrew the panel from the filter grille. Remove the PCP unit.

CLEANING

- If the catalyst needs cleaning, remove catalyst panel. Proceed to a wash bay, mop sink or other washing area.
- Shake or brush heavy particulate from the catalyst.
- Spray catalyst liberally using Nu-Calgon CalClean, Special HD or other suitable coil cleaner on catalyst only. **Do not immerse ballasts in cleanser!** Allow to sit 15 minutes, and then wash off with water. **Do not immerse ballasts in water! Do not remove installation reminders!**
- Allow catalyst to dry completely before returning to service. May be dried in the sun.

DISPOSAL

- Individual states and provinces may have established disposal standards. Please adhere to your local regulations.

INSTALLATION

- Installation is the reverse of removal.

BALLAST

The ballasts supply power to the lamps. They are located in the external ballast box. If a lamp is unlit and a new lamp attached to the same harness will not light, the ballast may be at fault. If a ballast failure is suspected, contact Genesis Air for replacement options.

FILTERS

The filters help protect the catalyst and lamps from dirt and debris. They should be inspected and replaced regularly. Genesis Air recommends MERV-13 or higher filters.

REPLACEMENT PART NUMBERS AND SCHEDULE

Lamps, catalyst and ballast should only be replaced by the Genesis Air equivalent.

	DESCRIPTION	GENESIS AIR PART NUMBER
BALLAST	Fulham WH-33	GA33
LAMPS	First Light 2813	GA20HO
FILTER	20"x 20"x 4" MERV 13	GA2020413
CATALYST	20"x 20"x 6"	GA2020E
UV SHIELD	20"x 20"x 2"	GA2020UVS

CONTACT INFORMATION

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