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Lubbock, Texas U.S.A.

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11041902

# Commercial Air Handler / Induct

## 2008 PCP GAP™ Compound Induct Photocatalytic Oxidation Technology (PCO)

### Installation and Maintenance Instructions for All 2008 PCP Compounds

#### General

The Populated Catalyst Panel (PCP) Compound is used to reduce the levels of Volatile Organic Compounds (VOC's) and viable airborne biological contaminants in airstreams, such as Air Handling Units (AHU's), Roof-Top Units (RTU's) or in the duct work. The PCP Compound is a "scalable" technology, it may be engineered for any size air stream using combinations of standard sizes, or by designing custom units for the non-standard pathways. The Compound is comprised of 1-3 PCP Standards joined together. All Genesis Air products incorporate 3-step GAP technology: MERV 13 Filtration, UVGI Lamps and Photocatalysis.

#### Shipping and Packing List

- 1 - Populated catalyst panel
- 1 - Electrical Whip (Power Module Panel Only)
- Accessories Options
- Power Kill Box
- Fan Proof Switch
- Door Micro Switches
- Catalyst Racks

#### Nomenclature

XXXX

2440 = 24" Height / 40" Length

#### Packaged Unit Description

56 = Power Unit Compound (Line Voltage Input)

57 = Center Section Compound

58 = End Section Compound

#### WARNING



Electric shock hazard  
Can cause injury of death  
Disconnect all remote electrical power supplies before servicing.  
Access panels must be in place during operation.

#### WARNING



UVC light hazard. UVC light can cause temporary or permanent loss of vision and sunburn. Take proper precautions to protect eyes and skin from direct exposure.

#### WARNING!

Mercury Hazard. Do not Break  
Each UVC lamp contains a small amount of Mercury.  
In case of breakage use proper disposal techniques on page 5-6.

#### WARNING!

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer or service agency.

#### Clearance and Requirements

**Air Speed:** 500 fpm

**Pressure drop:** .05 in wc

**UVGI life cycle:** 12,000 operation hours

**Installation location:** After filtration

**Installation location preference:** Down stream of evap. coil in saturated zone

**Clearance from AHU to nearest obstacle:** Clearance must be at least the distance of the length longest compound installed in the system.

## Dimension/Specifications

### Safety Certifications

UL Classified UL File No. E326567  
FIFRA....EPA EST No. 877447--TX--001  
OSHPOD - Pending

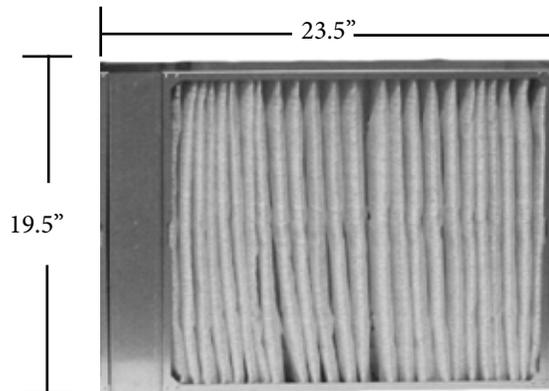


### UL REQUIREMENTS

- 105°C minimum supply 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 First Light type T5 lamps specified by the PCP Compound.
- **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.*

### Dimensional Data

The standard sizes for the PCP Compounds are found in the chart below. The first dimension is the measurement of the panel across the lamps; the second measurement is along the lamps (see figure).



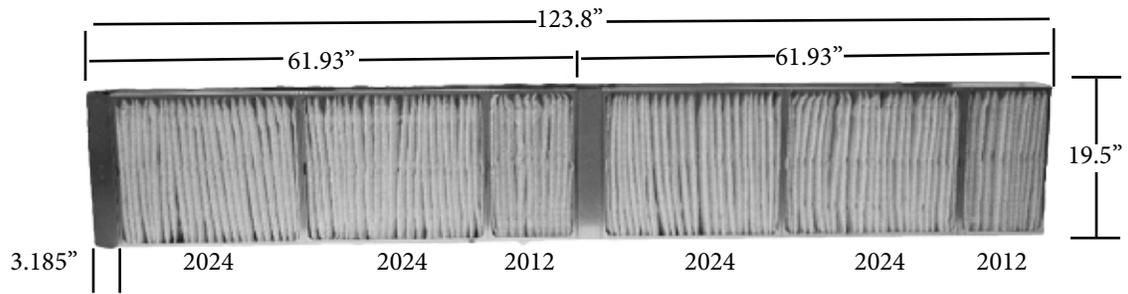
20x24 PCP Standard

All dimensions are nominal; actual dimensions are listed in the table below. All PCP Compounds are 6” deep nominal; actual dimension is 5 13/16”. The catalyst is pleated at one pleat per inch. The lamps are spaced 6” from each other on all models, then centered over the width of the panel. All PCP Compounds are rated at 500 fpm. As residence time is the most critical factor in designing a viable solution, do not exceed 500 fpm.

**Complete List of PCP Compounds by Genesis Air 11.11.11**

PROPRIETARY AND CONFIDENTIAL

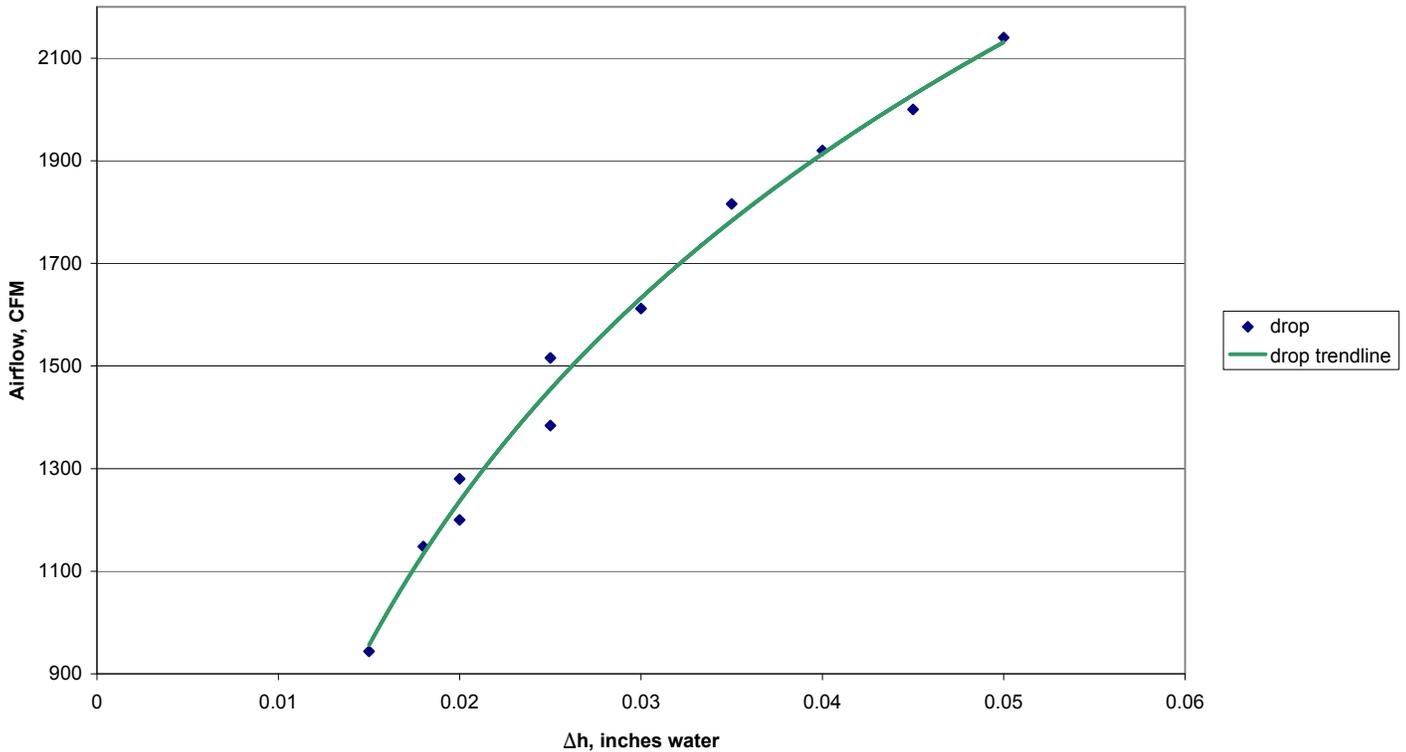
	Height Designation	Width Designation	Ball From Standards		Actual Height	Total Length with Ballast Tray and Bolted Frames	Lamps	Lamp Length	Amps per Lamp	Total Amps	UVB Watts	Approx Weight Gal. lbs.	Approx Weight SS. lbs.	Approx Weight AL. lbs.
1212	1	12 12	12		11.3	14.938	2	12"	0.224	0.45	7	7.348	6.488	5.284
1216	2	12 16	16		11.3	18.938	2	16"	0.296	0.59	9	8.224	7.344	6.162
1220	3	12 20	20		11.3	22.938	2	20"	0.367	0.73	15	9.099	8.299	7.038
1221	4	12 21	21		11.5	24.063	2	20"	0.367	0.73	15	9.355	8.475	7.273
1224	5	12 24	24		11.3	26.938	2	24"	0.519	1.04	18	9.975	9.115	7.913
1226	6	12 26	16	12	11.5	30.438	2	26"	0.604	1.21	21	12.327	11.030	9.218
1232	7	12 32	22	9	11.3	34.438	2	31"	0.659	1.32	24	13.203	11.906	10.093
1233	8	12 33	24	9	11.5	35.938	2	31"	0.659	1.32	24	13.469	12.192	10.379
1236	9	12 36	24	12	11.3	38.438	2	36"	0.752	1.50	27	14.078	12.781	10.949
1237	10	12 37	24	13	11.5	39.488	2	36"	0.752	1.50	27	14.331	13.034	11.221
1240	11	12 40	20	20	11.3	42.438	2	40"	0.844	1.69	30	14.954	13.657	11.845
1241	12	12 41	21	20	11.5	43.563	2	40"	0.844	1.69	30	15.190	13.892	12.090
1244	13	12 44	24	20	11.3	46.438	2	44"	0.908	1.82	32	15.829	14.532	12.720
1245	14	12 45	24	21	11.5	47.563	2	44"	0.908	1.82	32	16.065	14.768	12.954
1249	15	12 46	24	22	11.3	48.938	2	44"	0.908	1.82	32	16.334	15.037	13.223
1248	16	12 48	24	24	11.5	50.438	2	48"	0.981	1.96	36	16.705	15.400	13.596
1252	17	12 52	24	16	12 11.5	53.938	2	51.5"	1.033	2.07	36.5	19.057	17.323	14.900
1253	18	12 53	24	20	9 11.5	55.438	2	51.5"	1.033	2.07	36.5	19.343	17.609	15.184
1259	19	12 56	24	22	9 11.3	57.938	2	55"	1.103	2.21	41	19.833	18.199	15.774
1257	20	12 57	24	24	9 11.5	59.438	2	55"	1.103	2.21	41	20.119	18.485	16.062
1259	21	12 59	21	21	17 11.5	61.668	2	59"	1.17	2.34	44	20.690	18.956	16.533
1260	22	12 60	24	24	12 11.5	61.938	2	59"	1.17	2.34	44	20.808	19.074	16.632
1281	23	12 61	24	24	14a 11.3	63.438	2	59"	1.17	2.34	44	21.093	19.360	16.938
1282	24	12 62	24	24	14b 11.3	64.188	2	59"	1.17	2.34	44	21.290	19.546	17.123
1612	25	16 12	12		15.5	14.938	3	12"	0.224	0.67	7	9.753	8.556	6.883
1616	26	16 16	16		15.5	18.938	3	16"	0.296	0.89	9	10.741	9.544	7.871
1620	27	16 20	20		15.3	22.938	3	20"	0.367	1.10	13	11.730	10.532	8.860
1621	28	16 21	21		15.5	24.063	3	20"	0.367	1.10	15	11.994	10.796	9.124
1624	29	16 24	24		15.5	26.938	3	24"	0.519	1.56	18	12.716	11.521	9.848
1626	30	16 26	16	12	15.3	30.438	3	26"	0.604	1.81	21	15.853	14.030	11.462
1632	31	16 32	22	9	15.3	34.438	3	31"	0.659	1.98	24	16.843	15.019	12.470
1633	32	16 33	24	9	15.5	35.938	3	31"	0.659	1.98	24	17.157	15.333	12.784
1636	33	16 36	24	12	15.5	38.438	3	36"	0.752	2.26	27	17.831	16.007	13.456
1637	34	16 37	24	13	15.3	39.488	3	36"	0.752	2.26	27	18.112	16.288	13.739
1640	35	16 40	20	20	15.3	42.438	3	40"	0.844	2.53	30	18.820	16.955	14.447
1641	36	16 41	21	20	15.5	43.563	3	40"	0.844	2.53	30	19.084	17.239	14.711
1644	37	16 44	24	20	15.5	46.438	3	44"	0.908	2.72	32	19.805	17.904	15.435
1645	38	16 45	24	21	15.3	47.563	3	44"	0.908	2.72	32	20.072	18.248	15.699
1646	39	16 46	24	22	15.3	48.938	3	44"	0.908	2.72	32	20.370	18.545	15.994
1646	40	16 48	24	24	15.5	50.438	3	48"	0.981	2.94	36	20.797	18.972	16.424
1652	41	16 52	24	16	12 15.5	53.938	3	51.5"	1.033	3.10	36.5	23.933	21.402	18.057
1653	42	16 53	24	20	9 15.3	55.438	3	51.5"	1.033	3.10	36.5	24.247	21.796	18.371
1656	43	16 56	24	22	9 15.3	57.938	3	55"	1.103	3.30	41	24.922	22.470	19.043
1657	44	16 57	24	24	9 15.3	59.438	3	55"	1.103	3.32	41	25.236	22.784	19.360
1659	45	16 59	21	21	17 15.5	61.668	3	59"	1.17	3.51	44	25.764	23.312	19.807
1660	46	16 60	24	24	12 15.3	61.938	3	59"	1.17	3.51	44	25.910	23.438	20.034
1661	47	16 61	24	24	14a 15.3	63.438	3	59"	1.17	3.51	44	26.224	23.773	20.348
1662	48	16 62	24	24	14b 15.3	64.188	3	59"	1.17	3.51	44	26.438	23.986	20.562
1726	49	17 26	25		17	20.000	3	24"	0.519	1.56	18	14.000	12.392	10.142
2012	50	20 12	12		19.3	14.938	3	12"	0.224	0.67	7	11.014	9.556	7.518
2016	51	20 16	16		19.3	18.938	3	16"	0.296	0.89	9	12.113	10.637	8.618
2020	52	20 20	20		19.3	22.938	3	20"	0.367	1.10	15	13.217	11.738	9.721
2021	53	20 21	21		19.5	24.063	3	20"	0.367	1.10	15	13.509	12.050	10.013
2024	54	20 24	24		19.5	26.938	3	24"	0.519	1.56	18	14.316	12.859	10.622
2026	55	20 26	16	12	19.5	30.438	3	26"	0.604	1.81	21	17.970	15.770	12.698
2032	56	20 32	22	9	19.3	34.438	3	31"	0.659	1.98	24	19.071	16.872	13.799
2033	57	20 33	24	9	19.3	35.938	3	31"	0.659	1.98	24	19.414	17.214	14.141
2036	58	20 36	24	12	19.5	38.438	3	36"	0.752	2.26	27	20.173	17.973	14.900
2037	59	20 37	24	13	19.5	39.488	3	36"	0.752	2.26	27	20.461	18.262	15.209
2040	60	20 40	20	20	19.3	42.438	3	40"	0.844	2.53	30	21.274	19.074	16.001
2041	61	20 41	21	20	19.3	43.563	3	40"	0.844	2.53	30	21.566	19.366	16.293
2044	62	20 44	24	20	19.5	46.438	3	44"	0.908	2.72	32	22.375	20.175	17.103
2045	63	20 45	24	21	19.5	47.563	3	44"	0.908	2.72	32	22.667	20.468	17.395
2048	64	20 46	24	22	19.5	48.938	3	44"	0.908	2.72	32	22.993	20.793	17.720
2049	65	20 48	24	24	19.5	50.438	3	48"	0.981	2.94	36	23.476	21.277	18.204
2052	66	20 52	24	16	12 19.5	53.938	3	51.5"	1.033	3.10	36.5	27.126	24.180	20.000
2053	67	20 53	24	20	9 19.5	55.438	3	51.5"	1.033	3.10	36.5	27.421	24.500	20.422
2056	68	20 56	24	22	9 19.5	57.938	3	55"	1.103	3.32	41	28.230	25.289	21.181
2057	69	20 57	24	24	9 19.5	59.438	3	55"	1.103	3.32	41	28.572	25.631	21.523
2059	70	20 59	21	21	17 19.5	61.668	3	59"	1.17	3.51	44	29.156	26.216	22.107
2060	71	20 60	24	24	12 19.5	61.938	3	59"	1.17	3.51	44	29.331	26.390	22.282
2061	72	20 61	24	24	14a 19.5	63.438	3	59"	1.17	3.51	44	29.673	26.733	22.624
2062	73	20 62	24	24	14b 19.5	64.188	3	59"	1.17	3.51	44	29.915	26.974	22.864
2412	74	24 12	12		23.5	14.938	4	12"	0.224	0.90	7	13.285	11.527	9.071
2416	75	24 16	16		23.5	18.938	4	16"	0.296	1.18	9	14.499	12.741	10.285
2420	76	24 20	20		23.3	22.938	4	20"	0.367	1.47	13	15.713	13.953	11.500
2421	77	24 21	21		23.5	24.063	4	20"	0.367	1.47	15	16.033	14.275	11.820
2424	78	24 24	24		23.5	26.938	4	24"	0.519	2.00	18	16.927	15.169	12.714
2426	79	24 26	16	12	23.3	30.438	4	26"	0.604	2.42	21	21.229	18.578	14.875
2432	80	24 32	22	9	23.3	34.438	4	31"	0.659	2.64	24	22.443	19.972	16.089
2433	81	24 33	24	9	23.5	35.938	4	31"	0.659	2.64	24	22.814	20.183	16.460
2436	82	24 36	24	12	23.5	38.438	4	36"	0.752	3.01	27	23.657	21.006	17.303
2437	83	24 37	24	13	23.5	39.488	4	36"	0.752	3.01	27	23.994	21.343	17.640
2440	84	24 40	20	20	23.3	42.438	4	40"	0.844	3.38	30	24.871	22.220	18.517
2441	85	24 41	21	20	23.5	43.563	4	40"	0.844	3.38	30	25.192	22.541	18.838
2444	86	24 44	24	20	23.5	46.438	4	44"	0.908	3.63	32	26.065	23.434	19.731
2445	87	24 45	24	21	23.5	47.563	4	44"	0.908	3.63	32	26.406	23.755	20.052
2446	88	24 46	24	22	23.5	48.938	4	44"	0.908	3.63	32	26.759	24.109	20.405
2446	89	24 48	24	24	23.5	50.438	4	48						



2-2060s, or 4 2024s and 2 2012s Creating 2 2060 PCP Compounds

### Pressure Drop Across PCP Panel

PCP Standard 24"x24"x6" Pressure Drop



Air velocity, FPM	Air flow, CFM	$\Delta h$ , in H <sub>2</sub> O
236	944	0.015
287	1148	0.018
300	1200	0.02
320	1280	0.02
346	1384	0.025
379	1516	0.025
403	1612	0.03
454	1816	0.035
480	1920	0.04
500	2000	0.045
535	2140	0.05

This test was performed at Genesis Air, inc. on Thursday, June 05, 2008.  
 Air conditions:  
 Temp 74°F  
 RH 38.4  
 DEW 47.1  
 Meter: Dwyer Magnehelic 1" scale  
 ± 0.02"

## UVGI Lamps

**Genesis Air lamps do not produce ozone!** The lamps provide a minimum intensity of 775 microwatts/cm<sup>2</sup> (5 milliwatts per square inch) at 10.77 centimeters (4.24") to activate the catalyst effectively. To maintain tested performance, lamps may not be substituted with another manufacturer's products. These lamps provide UV-C wavelengths @ 254 nm. All lamps must be replaced every 16 months (12000 hrs) of continuous use to maintain intensity requirements. Genesis Air lamps contain trace amounts of mercury, encapsulated within the lamp and therefore reducing risk to the consumer or ecosphere.

### LAMP SERVICE

**ALL UNITS MUST BE POWERED DOWN BEFORE REPLACING LAMPS.**

**ALL MAINTENANCE PERSONNEL MUST WEAR UV PROTECTIVE SAFETY GLASSES. ALL EXPOSED SKIN MUST BE PROTECTED BY UV RESISTANT CLOTHING.**

### GENERAL

To operate effectively, the lamps must be replaced every 16 months, 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!**
- On all units, inspect the green mounting sleeves (Green Sleeve) on the unit. If the lamps are lit, they will emit a bright green glow.
- If any lamp is unlit, power off the unit. Unplug the wiring harness from the lamp and plug the harness onto a lamp known to be operational. Power on the unit. If the new lamp does not light, the problem could be in the ballast. Keep in mind that the safety switch will not allow the lamps to light if the filter grille door is open. **THIS IS NOT CONSIDERED POWERING DOWN THE UNIT!** A pressure-kill box is an accessory that provides electricians with single point to wire to and two safety devices. One will kill power to the lamps when pressure drops below a set point, and the other kills power to the lamps when an access door is opened. A momentary safety bypass, also included, will allow power to bypass the safeties to power the lamps for visual inspection.
- If the new lamp lights, the old lamp is faulty. Proceed to removal.

### Removal

- **Power the Genesis Air unit down using the kill switch or breaker to unit.**
- **Caution! The lamps may be hot! Wear gloves to protect hands.**
- Unplug the harness from the faulty lamp.
- Unscrew the GreenSleeve from the base of the unit and remove lamp with sleeve from the unit.

### Disposal

- Mercury produces a hazardous waste. Every form of it is toxic and yet mercury is an essential element in millions of fluorescent lamps throughout the United States and millions more throughout the world. State and federal regulatory agencies are working to reduce mercury releases to the environment. Since January 1, 2000, the United States Environmental Protection Agency (USEPA) has allowed for spent lamps to be managed as Universal Wastes. The Universal Waste Rules (UWR) are designed in part to simplify the management of mercury-containing wastes including spent fluorescent lamps. The Rules are also intended to encourage recycling, thereby reducing mercury emissions to the environment.

As an alternative to managing lamps as universal wastes, a facility may elect to manage its spent lamps as hazardous wastes. Hazardous waste rules - like the universal waste rules - are promulgated under the federal Resource Conservation Recovery Act (RCRA) and state laws equivalent to RCRA. RCRA regulates hazardous wastes "from the cradle to the grave." RCRA Subtitle C requires a waste generator to properly identify, treat, store, transport and dispose of hazardous wastes. The USEPA oversees the RCRA program but has delegated to the States the responsibility for the day-to-day management of the program.

### **List of Lamp Recycling Facilities for the US**

AERC Recycling Solutions - Hayward, CA	Universal Recycling Technologies - Janesville, WI
AERC Recycling Solutions - West Melbourne, FL	Veolia ES - Phoenix, AZ
AERC Recycling Solutions - Allentown, PA	Veolia ES - Tallahassee, FL
Universal Recycling Technologies - Dover, NH	Veolia ES - Soughton, MA
Universal Recycling Technologies - Clackamas, OR	Veolia ES - Port Washington, WI
Universal Recycling Technologies - Fort Worth, TX	

### **Installation**

- Installation is the reverse of removal
- Push socket onto lamp pins until socket butts against lamp



### **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 buildup of particulate.

### **Inspection**

- Power down the unit undergoing inspection.
- Locate the Genesis Air PCP Compound in question.
- Visually inspect each catalyst wearing UV protective clothing and face shields. If the catalyst appears clean and free of particulate, proceed to the next unit. If the catalyst cannot be seen, continue to next item.
- Remove some of the lamps. With a flashlight, visually inspect the catalyst through the holes.
- If the catalyst appears clean and free of particulate, replace lamps and proceed to the next AHU. Otherwise, proceed to removal.

## Cleaning

- If the catalyst needs cleaning from light to moderate dust build up. Disconnect power, use a hand sprayer with water only and rinse the catalyst. Avoid heavy concentrations of spray on ballast tray.
- If catalyst is soiled by resin (E.T.S.) or grease. Remove and spray catalyst liberally with Nu-Cal-gon CalClean, Special HD or other suitable coil cleaner on catalyst only. Allow to sit 15 minutes, then wash off with pump up water spray bottle. Do not remove installation reminders!
- Allow catalyst to lightly dry before returning to service.

## Removal

- If catalyst will be cleaned and reused, keep track of which area the catalyst came from so they will be returned from where they were removed. This will prevent installation problems. Write or draw on the metal frames to help with installation.
- Remove all lamps from the catalyst.
- Remove from the rack. *You may need to contact the installer.*

### **WARNING!**

**High pressure spray will damage the windowing in the catalyst substrate**

## Power

Ballasts are matched to the specific length of lamp. To maintain tested performance, ballasts may not be substituted with another manufacturer's products. The ballasts must be specified either 120v or 240v, 60 Hz: contact the factory for other voltage/frequency requirements. The ballast operating temperature range is -20°F to 158°F.

## Safety

### UVGI

Ultraviolet germicidal irradiation (UVGI) used for the activation of the PCO Catalyst. The residual light can be used for irradiating the evap. coil surface for biological microorganisms but presents a variety of potential health hazards to humans as well, including eye damage, skin burns, and even has the potential to cause skin cancer. Because germicidal UV rays are invisible to the eye, humans may be subject to hazardous doses of UV long before they realize it. There is no Occupational Safety and Health Administration (OSHA) standard for exposure to ultraviolet light. UV can be associated with adverse health effects depending on duration of exposure and the wavelength. The adverse health effects that may occur are erythema (sunburn), photokeratitis (a feeling of sand in the eyes), skin cancer, melanoma, cataracts, and retinal burns. Since maintenance personnel may be accidentally exposed to the radiation from UV lamps while in the course of their duties, it is essential that all UV sources and facilities be adequately labeled to instruct such personnel of the danger of exposure (in some cases, these warnings should be in both English and Spanish; Danger – Ultraviolet Radiation > Peligro -- Radiación Ultravioleta). Ideally, all activated UV sources should either be attended by knowledgeable personnel at all times.

- DISCONNECT ALL POWER TO SYSTEM BEFORE SERVICING
- PROPER **SAFETY GLASSES** OR FACE SHIELD MUST BE WORN WHEN INSPECTING OPERATIONAL LAMPS
- PROPER CLOTHING MUST BE WORN TO COVER EXPOSED SKIN
- **ALL ENTRY DOORS THAT HAVE DIRECT SITE TO THE CATALYST MUST HAVE SAFETY LIMIT SWITCHES INSTALLED TO SHUT OFF LAMPS DURING ENTRY INTO AHU.**
- ALL VIEWING WINDOWS OR PORTS MUST BE HAVE UV RESISTANT AND FILTERING PROPERTIES. **NO GLASS IS PERMITTED**
- Harden all plastic in direct site of the catalyst (Foil Tape)
- All field wiring when possible should be in metal conduit or of a UV resistant type.
- In case of lamp breakage the lamps are incased in a Teflon coating to reduce any chance of glass or mercury of entering the air stream.

## Installation

### Installation Examples

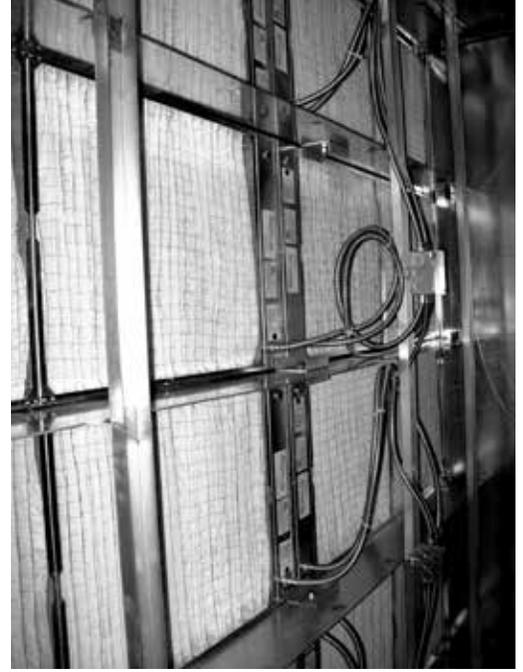
#### Side Load

For when there is an access door available and proper clearance is available in front of the access door.



#### Front Load

For when there is no door available and standing room and proper clearances inside the AHU or duct is available.



### WARNING!

Do not use silicone to seal catalyst racks to floor or ceiling. The presence of silicone in UV light will pollute the catalyst.

### WARNING!

Sharp edges hazard.  
Equipment sharp edges can cause injuries  
Use protective gloves when grasping equipment edges.

### WARNING!

#### Unpacking required

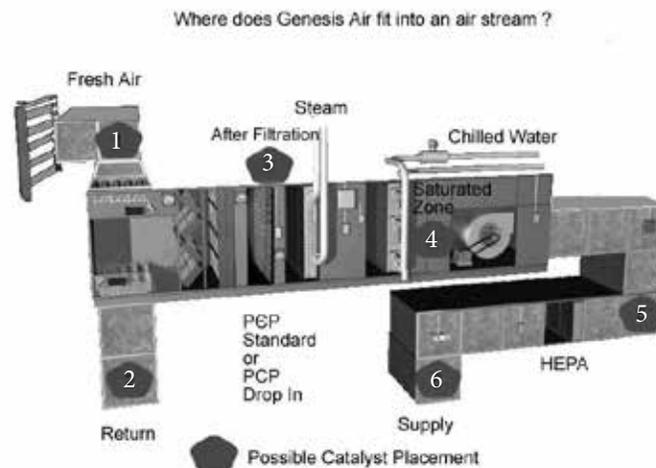
Remove all protective packing material from the box before removal of catalyst panel. All packing material should be discarded properly.

### WARNING!

#### Lamps contain Mercury.

Ingestion or contact with mercury or mercury vapor is hazardous to your health.  
Take care when handling lamps. If broken, avoid contact with mercury

### Where to place PCP Standard and Compounds

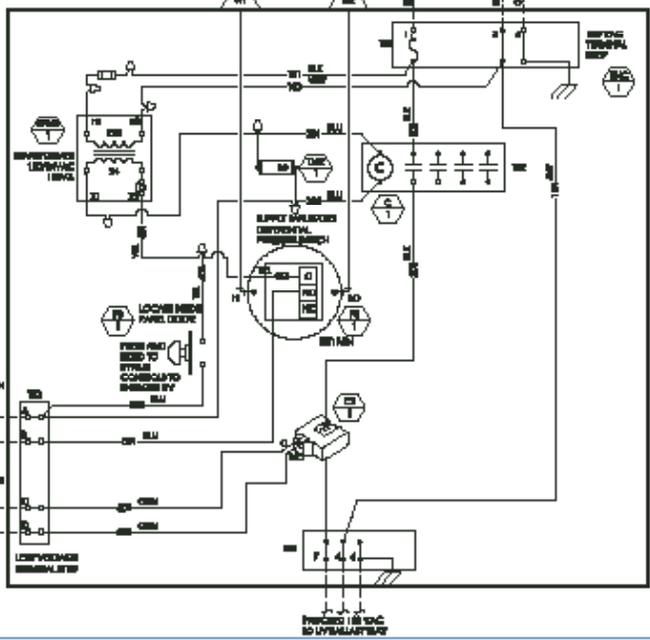
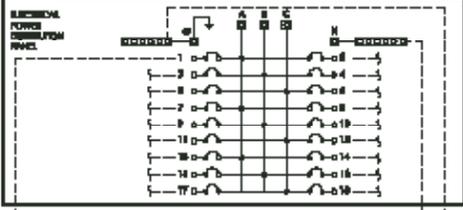


Objective	Location	Solution
Reduce contaminants before entering the AHU	1	<p>Example – fresh air intake located near heliport</p> <ul style="list-style-type: none"> <li>• Recommended for general IAQ to reduce TVOC and viable biologics entering unit</li> <li>• Ideal for Genesis Air PCP Compounds or 2008LB</li> <li>• Note: metal pre-filter required</li> </ul>
Reduce contaminants leaving particular areas or offices from mixing into air stream	2	<ul style="list-style-type: none"> <li>• Example – Funeral home body prep; coroner’s office; branch on common return with contamination problems (must have filter grille upstream)</li> </ul>
Reduce contaminants entering unit in mixed air stream after filter bank	3	<ul style="list-style-type: none"> <li>• Reduces viable biologics and particulate load</li> <li>• Ideal for Genesis Air Compounds</li> <li>• This placement is preferred when typical RH is 15% or more</li> <li>• Note: May accelerate filter degradation!</li> </ul>
Reduce risk of viable biohazards entering supply duct by prohibiting biologics and mold from accumulating on the cooling coil	4	<ul style="list-style-type: none"> <li>• Example – Accessory filter section to bathe coils in UV-C light</li> <li>• Ideal for Genesis Air PCP Compounds</li> <li>• These units are a cost-effective solution if the end user is requesting UV-C lamps since PCP Compounds will reduce biolevels as well as prohibit buildup on surfaces</li> <li>• This location is preferred when typical upstream RH is below 15%</li> </ul>
Lengthen HEPA life by reducing load of contaminate upstream of HEPA	5	<ul style="list-style-type: none"> <li>• Reduces viable biologics and particulate load</li> <li>• Typical applications include clean rooms and operating suites</li> <li>• Ideal for Genesis Air PCP Compounds</li> <li>• Renders captured contaminants non-viable</li> </ul>

**SEQUENCE OF OPERATION**

WHENEVER AIR FLOW IS DETECTED BY SENSA AND UNIT ACCESS DOOR IS CLOSED, CONTACTOR C-1 IS ENERGIZED TO BRING ON UV BALLASTS. IF ACCESS DOOR IS OPEN, C-1 IS DE-ENERGIZED. A MANUAL OVERRIDE MOMENTARY PUSH-BUTTON IS LOCATED ON THE CONTROL ENCLOSURE DOOR. IF PROVIDED, IF THE BUTTON IS PRESSED, DPS-1 AND DOOR SWITCH WILL BE ENERGIZED TO ENERGIZE C-1 TO BRING ON UV BALLASTS.

CURRENT SENSOR CS-1 IS AVAILABLE AS AN OPTION TO MONITOR UV BALLAST ON/OFF STATUS. CS-1 NORMALLY OPEN CONTACTOR ARE WIRED IN SERIES FOR THIS USE.



BILL OF MATERIALS			
SYMBOL	QTY	MANUFACTURER AND MODEL NUMBER	DESCRIPTION
C-1	1	ABB A16-8L-50-81	FOUR POLE NORMALLY OPEN, 80A CONTACTOR, 24 VAC COIL, DIN RAIL MOUNTED
CS-1	1	SENVA CS28L	MINI BUT CORE CURRENT SENSOR, NORMALLY OPEN, ADJUSTABLE SETPOINT
DPS-1	1	UNIVERSAL SCION WITH PREPARED BACKPANEL	NEMA TYPE 4, 20" X 20" X 1/2" GASKETED DOOR ENCLOSURE WITH PANEL
PB-1	1	ABB MPM1-10 1NO MCS-106 MPPY1-0 (1 Y/LG)	RED PUSH-BUTTON MOMENTARY PUSH-BUTTON WITH ONE NORMALLY OPEN CONTACT AND ENCLOSURE
DOOR SW	1	DIFFER 1910-0	DIFFERENTIAL PRESSURE SWITCH, 8 PSI, 0.12" TO 0.85" WC
UVBL-1	1	BECKHOFF MODEL 34	ELECTRONIC HOUR METER 24V
	1	FUNCTIONAL DEVICES, INC. BK100VAD02	UL CLASS 2, 120VAC, 100 VA TRANSFORMER WITH CIRCUIT BREAKER
		ABB D4/SL, PRO, BAHS, M810/24, JE, RUL3.6.2, CS-21, ABB-8045	TERMINAL BLOCKS, MOUNTING HARDWARE AND ACCESSORIES INCLUDING WIRING DUCT

**GENESIS AIR CONTROL WIRING DIAGRAM**  
Model No. 1CK8-4 NOT TO SCALE



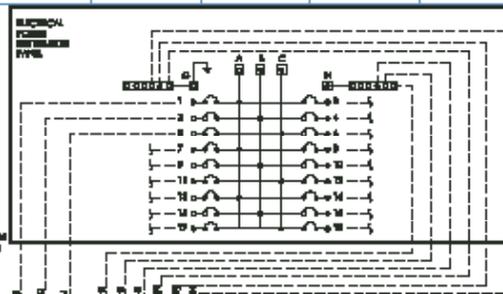
GENESIS AIR, INC.
CONTROL WIRING DIAGRAM
1 CIRCUIT KILL BOX
REFERENCE
Sheet 04 of 01 Date: 12.12.12



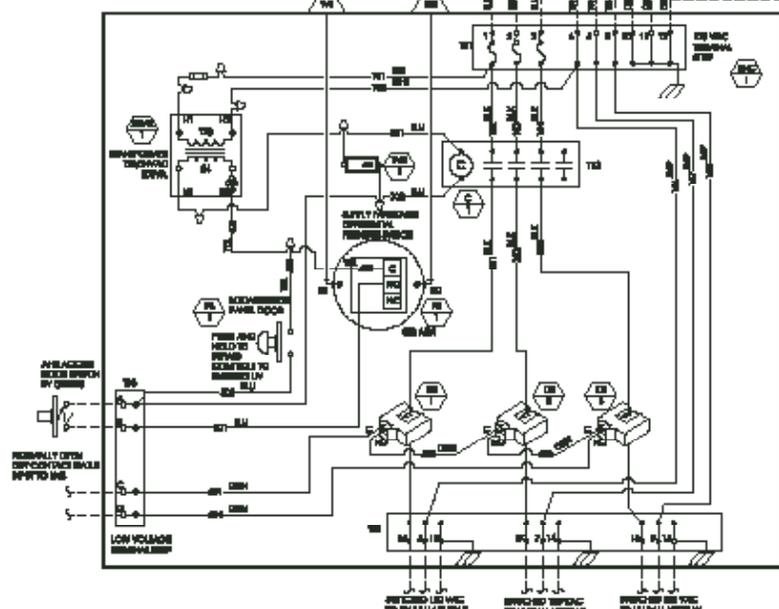
**SEQUENCE OF OPERATION**

WHENEVER AIR FLOW IS DEMAND BY DPH-1 AND UNIT ACCESS DOOR IS CLOSED, CONTACTOR C-1 IS ENERGIZED TO START ON UV BALLAST. F ACCESS DOOR IS OPEN, C-1 IS DE-ENERGIZED. A NORMAL CLOSURE MOMENTARY PUSHBUTTON PB-1 LOCATED ON THE CONTROL ENCLOSURE DOOR, IS PROVIDED. IF PB-1 IS PRESSED, CPH-1 AND DCPH-1 SWITCH WILL BE BYPASSED TO ENERGIZE C-1 TO START ON UV BALLAST.

CURRENT SENSORS CS-1 THROUGH CS-4 ARE AVAILABLE OPTIONS TO MONITOR BY BALLAST CROCKETS. CS-1 THROUGH CS-4 NORMALLY OPEN CONTACTS ARE WIRING IN SERIES FOR SENS. LINE.



OPT 1: UV TO OPERATOR, SEE TO BEHIND OPERATOR'S TERMINAL  
 OPT 2: UV TO FRONT PANEL, TERMINAL, SEE TO OPERATOR



BILL OF MATERIALS			
SYMBOL	QTY	MANUFACTURER AND MODEL NUMBER	DESCRIPTION
C-1	1	ABB A16-4L-3041	THREE POLE NORMALLY OPEN 30A CONTACTOR 24 VAC COIL ON PANEL MOUNTED
CPH-1 THRU CPH-3	3	JENVA C303L	MINI SLIT CORE CURRENT SENSOR, NORMALLY OPEN, ADJUSTABLE SETPOINT
DPC-1	1	UNIVERSAL 2000A WITH PREFABRICATED BACKPANEL	NEMA TYPE A, 20" X 20" X 8" MOUNTED DOOR ENCLOSURE WITH PANEL
PB-1	1	ABB MFM1-10 110 ACS-105 MUPY1-0 (1 Y/LC)	RED PUSHBUTTON MOMENTARY PUSH-BUTTON WITH ONE NORMALLY OPEN CONTACT AND ENCLOSURE
PS-1	1	DRYTEX 1P10-D	DIFFERENTIAL PRESSURE SWITCH, SPDL 0.16" TO 0.65" YFC
DAR-1	1	REDINGTON MODEL 34	ELECTRONIC HOUR METER 30Y
CPHAR-1	1	FUNCTIONAL DEVICES/BSI B100VAG22	UL CLASS E, 120/240 VAC, 100 VA TRANSFORMER WITH CIRCUIT BREAKER
		ABB D465L, P300, 5A402, 5A102P45L, 5LEA2, CE-EL, ABB-3043	TERMINAL BLOCKS, MOUNTING HARDWARE AND ACCESSORIES INCLUDING WIRING DUCT

**GENESIS AIR CONTROL WIRING DIAGRAM**  
 Model No. 9CKB-4 NOT TO SCALE

CREATING CLEAN AIR TO BREATHE

Proprietary and Confidential  
www.genetec.com

GENESIS AIR, INC.

CONTROL WIRING DIAGRAM

3 CIRCUIT KILL BOX

REFERENCE

Sheet 04 of 01 Date: 12.12.12

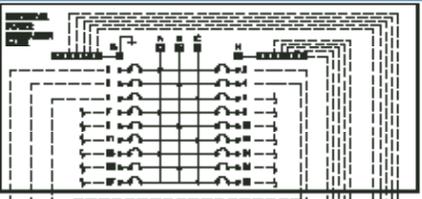


12 11 10 9 8 7 6 5 4 3 2 1

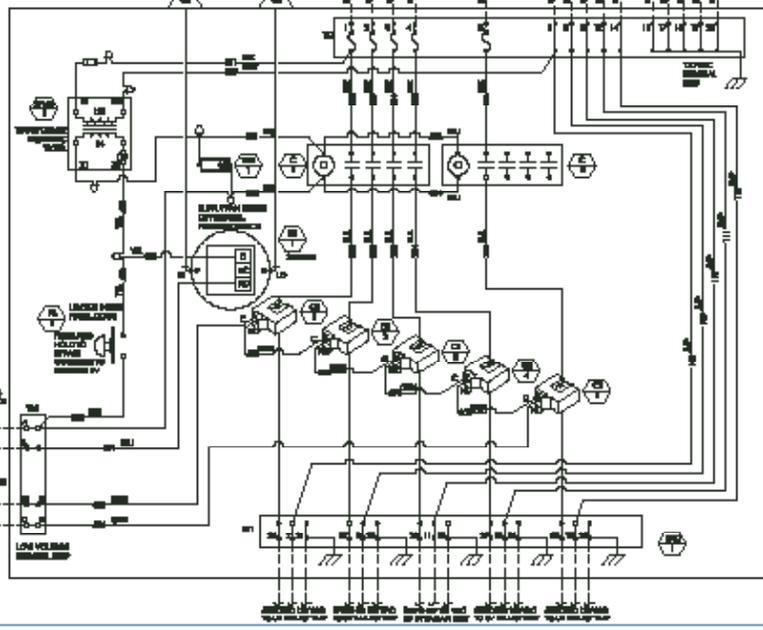
### SEQUENCE OF OPERATION

HYDRAVIEW AIR PANEY IS TRIPPED BY CFS-4 AND UNIT ACCESS DOOR IS CLOSED, DEFROSTER C-1 IS TRIPPED BY BUNG-ON BY SALVAGE. FROSTING DOOR IS OPEN, C-4 IS BE SHUT OFF. A MANUAL OVERRIDE PUSHBUTTON PB-1, LOCKED ON THE CONTROL ENCLOSURE DOOR, IS PROVIDED. IF 9000 BUTTON IS PRESSED, CFS-4 AND DOOR SWITCH WILL BE BYPASSED TO CHECK C-1 TO BRING ON UNIT BYPASS.

ALTERNATE DOOR ON THE LINE C-4 ARE AVAILABLE AS OPTIONS TO ACHIEVE BY BUNG-ON QUALITY SEVER. C-1 THROUGH C-4 NORMAL OPEN CONTACT ARE WOUND IN SERIES FOR 500 AMP.



WY 11 IS TO AVOID THE POWER SUPPLY PROBLEMS CFS-4 IS TO FORMERLY BE AVOIDED BY AVOIDING



### BILL OF MATERIALS

SYMBOL	QTY	MANUFACTURER AND MODEL NUMBER	DESCRIPTION
C-1, 2	2	ABB A16-62L-00-61	FOUR POLE, NORMALLY OPEN, 32A CONTACTOR, 24 VAC COIL, DIN RAIL MOUNTED
C-1 THRU C-6	5	SENNA C252L	MINI SELF COIL CURRENT SENSOR, NORMALLY OPEN, ADJUSTABLE SETPOINT
ENC-1	1	UNIVERSAL 2000A WITH PREFABED BACKPANEL	NEMA TYPE 4, 20" X 20" X 8" GASKETED DOOR ENCLOSURE WITH PANEL
PB-1	1	ABB MFM1-10 1NO-1NC-10E MEPY-0 (1 TA)G	RED MUSHROOM MOMENTARY PUSH-BUTTON WITH ONE NORMALLY OPEN CONTACT AND ENCLOSURE
PB-1	1	DRYER 1P10-0	DIFFERENTIAL PRESSURE SWITCH, 3POLE, 6.1MP TO OJMP W/C
TRM-1	1	EDINGTON MODEL 34	ELECTRONIC ROOM METER 24VAC
XFMR-1	1	FUNCTIONAL DEVICES TR100VAC22	UL CLASS 2, 120/24 VAC, 100 VA TRANSFORMER WITH CIRCUIT BREAKER
		ABB DVA-2L, PERL, BAHZ, AB10/24LP, BUC-2, CS-R1, ABB-604E	TERMINAL BLOCKS, MOUNTING HARDWARE AND ACCESSORIES INCLUDING WIRING DUCT

### GENESIS AIR CONTROL WIRING DIAGRAM Model No. 50XB-4



GENESIS AIR, INC.
CONTROL WIRING DIAGRAM
5 CIRCUIT KILL BOX
REFERENCE
Sheet 04 of 01 Date: 12.12.12

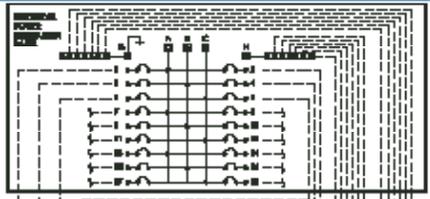
12 11 10 9 8 7 6 5 4 3 2 1

12 11 10 9 8 7 6 5 4 3 2 1

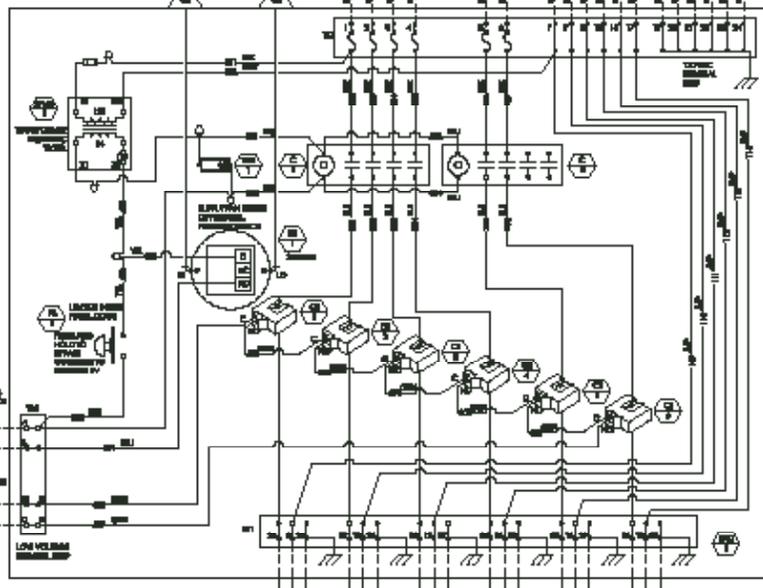
### SEQUENCE OF OPERATION

HYDRAVIB AIR PACT IS TRIPPED BY OPA-4 AND UNIT ACCESS DOOR IS CLOSED, DECELERATOR C-1 IS TRIPPED BY BUNG-ON BY SALVAGE. FLOWING DOOR IS OPEN, C-4 IS SET TO SHUT OFF. A MANUAL OVERRIDE PUSHBUTTON PBA-1, LOCATED ON THE CONTROL ENCLOSURE DOOR, IS PROVIDED. IF THIS BUTTON IS PRESSED, OPA-4 AND DOOR SWITCH WILL BE BYPASSED TO CHECKER C-1 TO BRING ON UNIT FLOWERS.

ALTERNATE OPA-4 TRIP LINE C-4 ARE AVAILABLE AS OPTION TO MONITOR BY BUNG-ON QUARTY SEVER. C-1 THROUGH C-4 NORMALTY OPEN CONTACT ARE WOUND IN SERIES FOR SSB USE.



OPA-1: 40-AMP/300V WITH LOW-VOLTAGE SENSING  
OPA-2: 40-AMP/300V WITH LOW-VOLTAGE SENSING



### BILL OF MATERIALS

SYMBOL	QTY	MANUFACTURER AND MODEL NUMBER	DESCRIPTION
C-1,2	2	ABB A16-62-00-61	FOUR POLE, NORMALLY OPEN, 32A CONTACTOR, 24 VAC COIL, DIN RAIL MOUNTED
C3-1 THRU C3-6	6	SENNA C325SL	MINI SELF-COMING CURRENT SENSOR, NORMALLY OPEN, ADJUSTABLE SETPOINT
ENC-1	1	UNIVERSAL 20004 WITH PREWASHER ENCLOSURE	NEMA TYPE 4, 20" X 20" X 6" GASKETED DOOR ENCLOSURE WITH PANEL
PE-1	1	ABB MFM1-10 1NC-1NC-10B MEPY-0 (1 TA)G	RED MUSHROOM MOMENTARY PUSH-BUTTON WITH ONE NORMALLY OPEN CONTACT AND ENCLOSURE
PS-1	1	DRYER 1P10-0	DIFFERENTIAL PRESSURE SWITCH, 3 PSI, 6.1 MP TO OMP W/C
YFMR-1	1	EDINGTON MODEL 34	ELECTRONIC ROOM METER 24VAC
YFMR-1	1	FUNCTIONAL DEVICES TR100VAC22	UL CLASS 2, 120/24 VAC, 100 VA TRANSFORMER WITH CIRCUIT BREAKER
		ABB DVA-2L, PERL-BAWZ, AB10/24SP, BUC6A2, CS-R1, ASS-604E	TERMINAL BLOCKS, MOUNTING HARDWARE AND ACCESSORIES INCLUDING WIRING DUCT

### GENESIS AIR CONTROL WIRING DIAGRAM

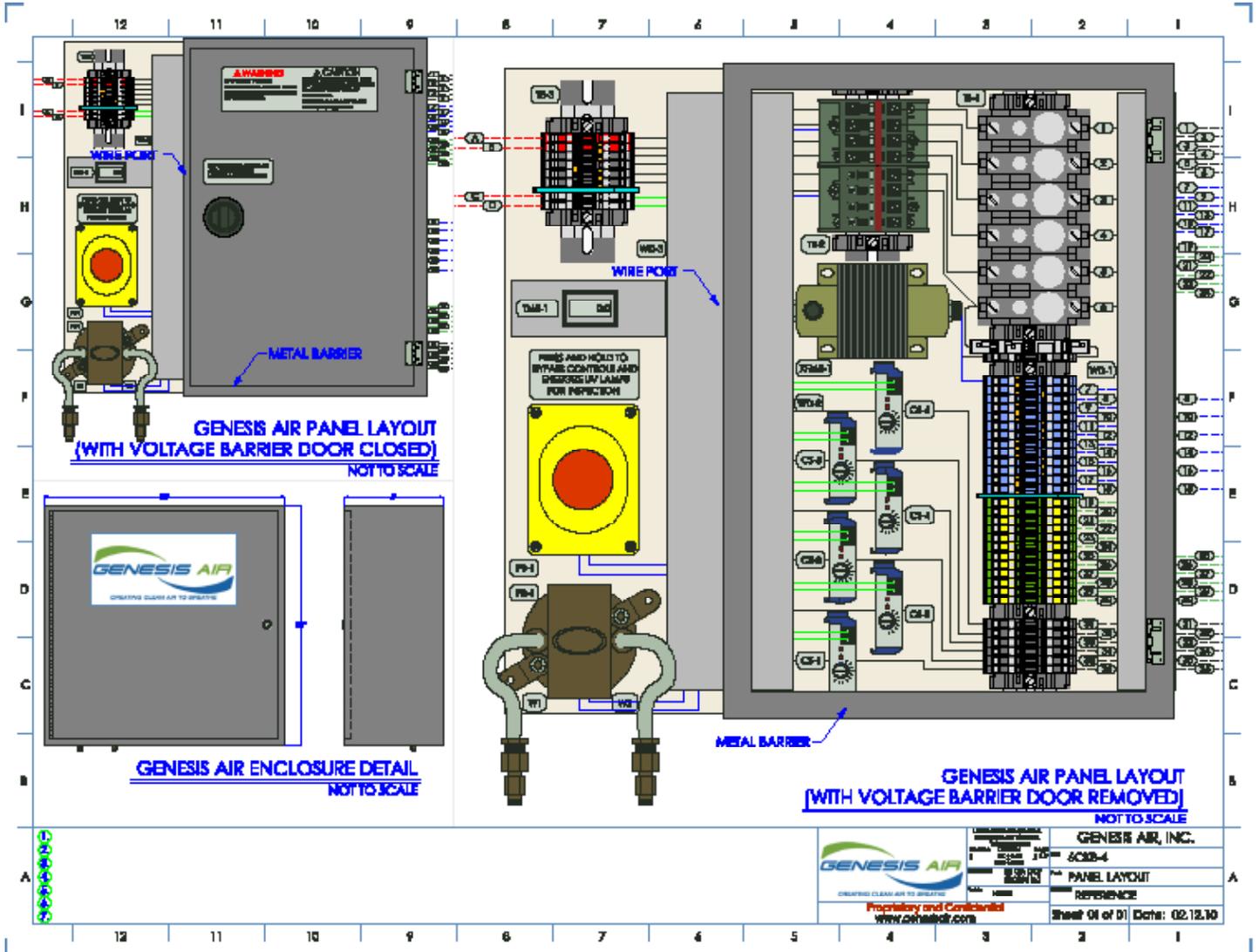
Model No. 6CKB-4



GENESIS AIR, INC.  
CONTROL WIRING DIAGRAM  
#6 CIRCUIT KILL BOX  
REFERENCE  
Sheet 06 of 01 Date: 12.12.12

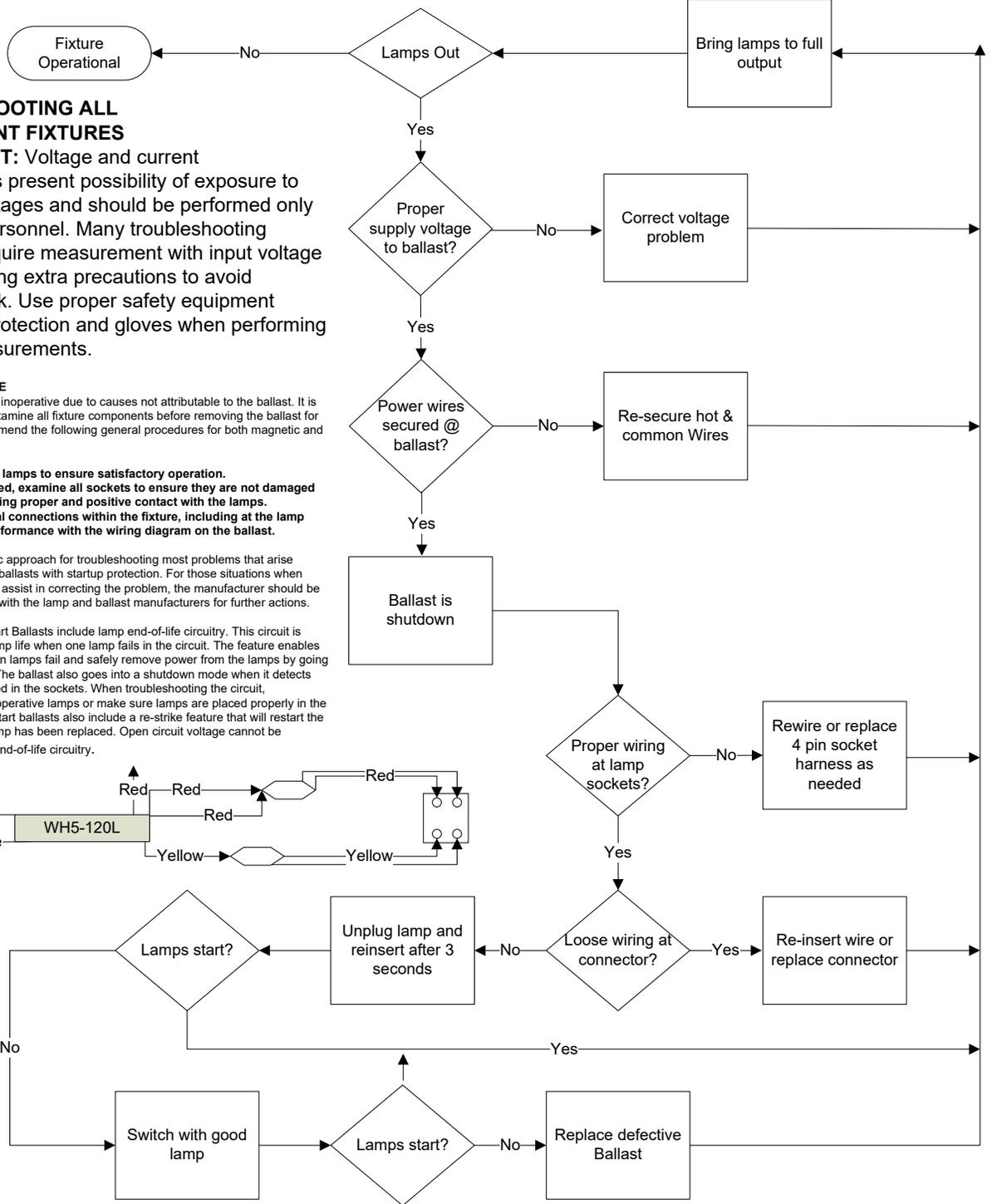
12 11 10 9 8 7 6 5 4 3 2 1

# Control Kill Box



# Ballast Troubleshooting Chart

Figure 1a



## TROUBLESHOOTING ALL FLUORESCENT FIXTURES

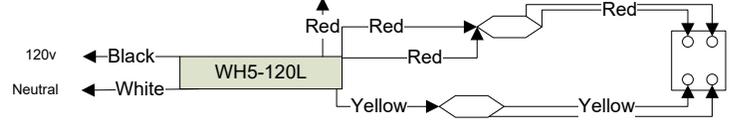
**SAFETY FIRST:** Voltage and current measurements present possibility of exposure to hazardous voltages and should be performed only by qualified personnel. Many troubleshooting techniques require measurement with input voltage applied requiring extra precautions to avoid electrical shock. Use proper safety equipment such as eye protection and gloves when performing electrical measurements.

**INOPERATIVE FIXTURE**  
Often a fixture becomes inoperative due to causes not attributable to the ballast. It is therefore important to examine all fixture components before removing the ballast for replacement. We recommend the following general procedures for both magnetic and electronic ballast.

1. Replace or check all lamps to ensure satisfactory operation.
2. As lamps are removed, examine all sockets to ensure they are not damaged or broken and are making proper and positive contact with the lamps.
3. Examine all electrical connections within the fixture, including at the lamp sockets, to ensure conformance with the wiring diagram on the ballast.

Figure 1a is a systematic approach for troubleshooting most problems that arise regarding fixtures using ballasts with startup protection. For those situations when these documents do not assist in correcting the problem, the manufacturer should be contacted to coordinate with the lamp and ballast manufacturers for further actions.

**NOTE:** Programmed Start Ballasts include lamp end-of-life circuitry. This circuit is included to maximize lamp life when one lamp fails in the circuit. The feature enables the ballast to detect when lamps fail and safely remove power from the lamps by going into a shutdown mode. The ballast also goes into a shutdown mode when it detects lamps not properly placed in the sockets. When troubleshooting the circuit, make sure to replace inoperative lamps or make sure lamps are placed properly in the sockets. Programmed Start ballasts also include a re-strike feature that will restart the lamps after the failed lamp has been replaced. Open circuit voltage cannot be measured due to lamp end-of-life circuitry.



## General Genesis Air Spec Sheet

**Document Revision Date: August 31, 2011**

The following is a guide specification for the Genesis Air, Inc. PCP (Populated Catalyst Panel) Compound Product. This specification is not intended to be used without editing, as there are numerous choices throughout the document (enclosed in brackets “[ ]” & highlighted in blue) that require decisions to be made by the specifying design professional. GENESIS AIR, INC. IS NOT RESPONSIBLE FOR THE USE OF SUPERCEDED OR INACCURATE SPECIFICATIONS BY OTHERS. Designers are encouraged to check with their local Manufacturer’s Representative, or with Genesis Air, Inc., to ensure that the guidance documents being used are the latest revision.

### **1.0 PHOTOCATALYTIC OXIDATION (PCO) UNIT**

PCO unit shall be factory-fabricated and tested two-part integral assembly for treatment of air by: (1) Ultra-violet Germicidal Irradiation (UVGI) using UVC lamps; and (2) Photocatalytic Oxidation using TiO<sub>2</sub> media. Assembly shall be housed in casing. [PCO units shall be provided as indicated on the drawings.]

#### **1.1 Unit Casing**

Casing shall be of single-wall construction, fabricated of [5052 aluminum] [24 gauge 304 stainless steel] [22 gauge galvanized steel]. All portions of the casing shall be free from sharp edges and burrs. Casing shall be 5 13/16” deep.

#### **1.2 Unit Capacity**

Unit shall be rated for a maximum velocity across the unit face of 500 feet per minute.

#### **1.3 UL Certification**

The entire PCP assembly shall bear the UL Classification Mark and be investigated in accordance with ANSI/UL 1598, “Luminaires,” and ANSI/UL 1995, “Heating and Cooling Equipment,” under the Air Duct Mounted Accessories category (ABQK). Compliance is to be verified by the UL Online Certifications Directory.

#### **1.4 PCO Media**

Media shall consist of six-inch (nominal) non-metallic media with face area to match casing opening, pleated at one pleat per inch (nominal), with a 40-200 nanometer TiO<sub>2</sub> coating. PCO media shall be placed perpendicular to the air stream in the unit casing.

Media shall have an internal mechanism to eliminate the silica produced by the oxidation of ethanol.

#### **1.5 UVGI Lamps & Ballasts**

Lamps and ballasts shall be designed specifically to provide type-C ultraviolet light with a wavelength at or near 254nm. Lamps shall be non-ozone-producing. Lamps shall be Teflon-coated to reduce breakage. Sufficient lamps shall be provided and positioned center point through the media equidistant from edges so as to achieve a minimum coverage of 9.5 milliwatts per square inch of UVC light, upstream and downstream, across all exposed surfaces of the PCO media. Lamp UVC output shall not drop below 9.5 milliwatts per square inch over their usable 12000 hr life.

#### **1.6 Electrical**

Unit shall be configured to operate with 120V/1 $\phi$ /60Hz electrical power. Unit shall be provided with junction box for point of connection.

#### **1.7 Unit exemplified by:**

Manufacturer: Genesis Air, Inc.  
Model No.: [XXXX] [E] PCP Compound  
Manufacturer’s Website: [www.genesisair.com](http://www.genesisair.com)

#### **1.8 DDC System Connection (Optional Add-On)**

Unit shall be [provided with stand-alone direct digital control (DDC) system containing required monitoring, reporting and control features as listed below] [configured for connection to facility’s DDC system]. [24V] [120V] power source shall be provided [with the unit] [by others] to derive control power for DDC equipment. All sensors shall be provided [by others] [by PCO Unit manufacturer] and installed by the Contractor. All other related controls hardware required for connection to DDC system shall be provided and installed by Contractor. Required DDC points are listed in the following table:

DDC Point Description	Point Type	Range
[Lamps – Current Draw	Analog In	0 – 25 A]
[Filters – Differential Pressure	Analog In	0 – 3.0” wc]
[Sensor – CO2	Analog In	0 – 2,000 ppm]
[Sensor – TVOC	Analog In	0 – 3,000 ppm]
[Sensor – Particulates, 0.3 µm	Analog In	0 – 1,000 µg/m3]
[Sensor – Particulates, 1.0 µm	Analog In	0 – 1,000 µg/m3]
[Sensor – Particulates, 2.5 µm	Analog In	0 – 1,000 µg/m3]

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## LIMITED WARRANTY

### **FAILURE TO MAINTAIN YOUR EQUIPMENT WILL VOID THIS WARRANTY**

Your GENESIS AIR™ purification system is expressly warranted from the date of installation to be free from manufacturing defects for the coverage period stated below. Defective parts must be returned no later than thirty (30) days after the failure by you to the installing contractor together with the GENESIS AIR™ purification system's model number, serial number, and documented installation date of the GENESIS AIR™ purification system.

#### **ONE (1) YEAR COVERAGE -- RESIDENTIAL AND COMMERCIAL APPLICATIONS**

The covered equipment and covered components are warranted by GENESIS AIR for a period of ONE (1) year from the date of the original unit installation, when installed in a residential or commercial application. If during this period, a covered component fails because of a manufacturing defect, GENESIS AIR will provide a free replacement part. You must pay shipping charges and all other costs of warranty service. GENESIS AIR will not pay labor involved in diagnostic calls or in removing, repairing, servicing or replacing parts. Such costs may be covered by a separate warranty provided by the installer. NOTE - If the date of original installation cannot be verified, the warranty period will be deemed to begin six (6) months after the date of manufacture.

#### **EXCLUDED COMPONENTS**

The following components are not covered by this warranty: the UVCGI lamps or the pleated photo catalytic material. These are replacement items, which must be replaced as stated in the Maintenance section of the installation instructions to ensure effective operation.

#### **REPAIRS**

All repairs of covered components must be made with authorized service parts by a qualified service dealer or contractor. Labor charges are not covered by this warranty.

#### **WARRANTY LIMITATIONS**

This warranty will be voided if the covered equipment is removed from the original installation site. This warranty does not cover damage or defect resulting from:

- 1 - Flood, wind, fire, lightning, or installation and operation in a corrosive atmosphere (chlorine, fluorine, salt, recycled waste water, urine, fertilizers, or other damaging chemicals).
- 2 - Accident, or neglect or unreasonable use or operation of the equipment, including operation of electrical equipment at voltages other than the range specified on the unit nameplate (includes damages caused by brownouts).
- 3 - Modification, change or alteration of the equipment, except as directed by GENESIS AIR.
- 4 - Operation with system components (indoor unit and control devices), which do not match, or meet the specifications recommended by GENESIS AIR.
- 5- Operation with system components (indoor unit and control devices), which exceed operational temperature range of: -20 F to 122F.
- 6-Warning: The panels are self cleaning when lamps are on and replaced every 16 months. Failure to replace lamps within 16 months or power lamps after install on an operational unit will void all panel warranties.**

THIS WARRANTY SHALL NOT OBLIGATE THE MANUFACTURER FOR ANY LABOR COSTS AND SHALL NOT APPLY TO DEFECTS IN WORKMANSHIP OR MATERIALS FURNISHED BY THE INSTALLING CONTRACTOR AS CONTRASTED TO DEFECTS IN THE GENESIS AIR™ PURIFICATION SYSTEM ITSELF. IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID COVERAGE PERIOD. THE MANUFACTURER'S LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFORESAID IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT FROM FAILURE TO HAVE THIS UNIT INSTALLED BY A QUALIFIED HEATING AND AIR CONDITIONING CONTRACTOR. IF THE LIMITED WARRANTY IS VOID DUE TO FAILURE TO USE A QUALIFIED CONTRACTOR, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitations 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.

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**To register your new GENESIS AIR™ Purification System, PLEASE CUT ON DOTTED LINE AND RETURN THE REGISTRATION FORM TO THE ADDRESS NOTED BELOW.**

Customer Name: Address: \_\_\_\_\_

City: State/Province: Zip/Postal Code: \_\_\_\_\_

Home Phone: E-mail: \_\_\_\_\_

Installing Contractor: Phone: \_\_\_\_\_

Date of installation: Model Number: \_\_\_\_\_ Serial Number: \_\_\_\_\_



Please send this completed form to: GENESIS AIR™  
GENESIS AIR, INC.  
5202 CR 7350, SUITE D LUBBOCK, TX 79424