



*MANUFACTURING HIGH QUALITY
ENVIRONMENTAL ABATEMENT EQUIPMENT
SINCE 1988*



OmniAire 1600PAC Operations and Maintenance Manual

	WARNING	
<p>This equipment to be operated only by trained personnel. Do not use with combustible or explosive material. Do not expose to water or rain. Connect only to grounded outlet with GFCI device. Disconnect power for cleaning and servicing.</p>		
		



CONFORMS TO UL STD 507
 CERTIFIED TO CAN/CSA STD
 C22.2 NO. 113-M1984

SPECIFICATIONS

- Motor:** 1 hp, 115 V 10 amps, thermal protected
- Controls:** UVGI Light Switch, Variable speed control, vacuum gauge 0-3” W.C., Hour Meter
- Airflow:** 200 - 1800 cfm.
- Final Filter:** HEPA 99.99% @ 0.3 micron, galvanized steel frame, 18”x24”x11.5”
- Pre-filter:** MERV11 pleated filter, 60% efficiency, 24”x16”x2”
- Housing:** Aircraft Grade Aluminum, Powder Coated
- Weight with Filters:** 135 lbs.
- Dimensions:** 26”L x 20”W x 40”H

ORDERING INFO.....	PART #
OmniAire OA1600PAC.....	OA1600PAC
HEPA Filter 99.99%, 0.3µ.....	OAH2418G
Primary/Secondary Intake Filter	OAP2614
Exhaust Filter (Box of 20).....	OFP2518
Intake Manifold, 12”	OAIM2000-12
Quick Clamp, 12”	QCW14
Flexible Duct, 12”x25’	OFD12

OPERATING INSTRUCTIONS

Unpacking: Visually inspect the unit for damage. Remove the top grill and the exhaust filter and ensure that the HEPA filter has not been dislodged during shipping. The HEPA filter should be sitting on the filter guides and the filter tabs that hold the HEPA filter in place should be tight. See Figure 1.

If the filter is not seated correctly then remove the filter tabs, reposition the filter, and reinstall the filter tabs before operation to ensure that there is no bypass around the filter.

If the filter tabs are loose verify that the filter is in the correct position and retighten the filter tab nuts.

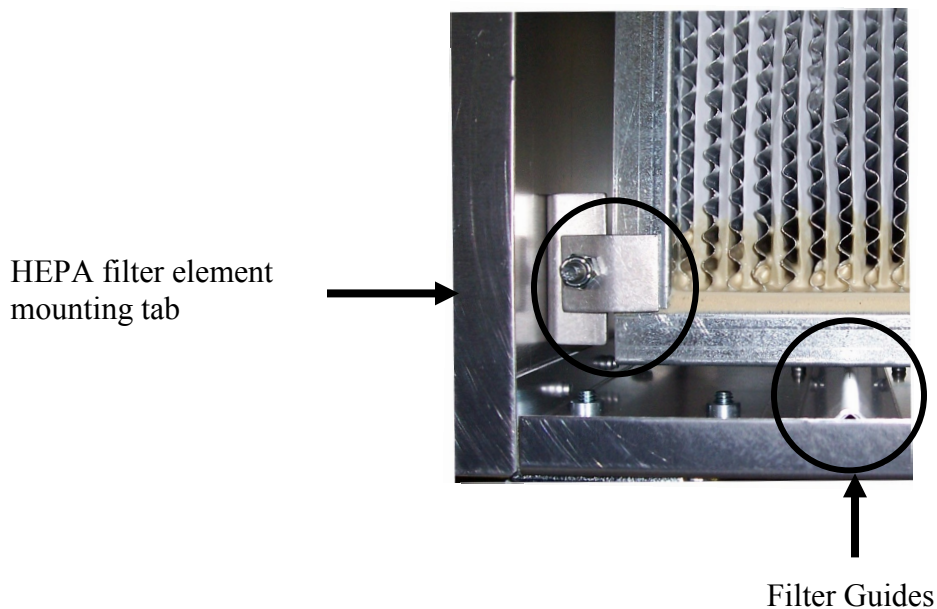


Figure 1

Operating UV Germicidal Lights

UVGI lights are installed in the compartment facing the HEPA filter. The air passing by the UVGI lights is sterilized and the bio-contaminants captured on the HEPA are killed or deactivated.

The **UVGI** lights should be turned on before the fan starts to run and should stay on after the air blower is stopped to complete the sterilization of the HEPA filter. The proper operation of the UVGI lights is monitored by **LIGHT** and **BALLAST** indicating LEDs which turn on when the UVGI lights are on.

We recommend leaving the UVGI light on for another 10 minutes, after the air flow is turned off to sterilize the inside of the compartment and the intake side of the HEPA filter.

To create negative pressure inside the containment, more air has to be exhausted out than leaks into the containment. Place the machine inside the containment and hook a flexible duct to the outlet ring of the machine exhausting to outside the containment. (See Figure 2) All of the air being exhausted has been treated by the HEPA filter so no contaminants are being exhausted from the containment.

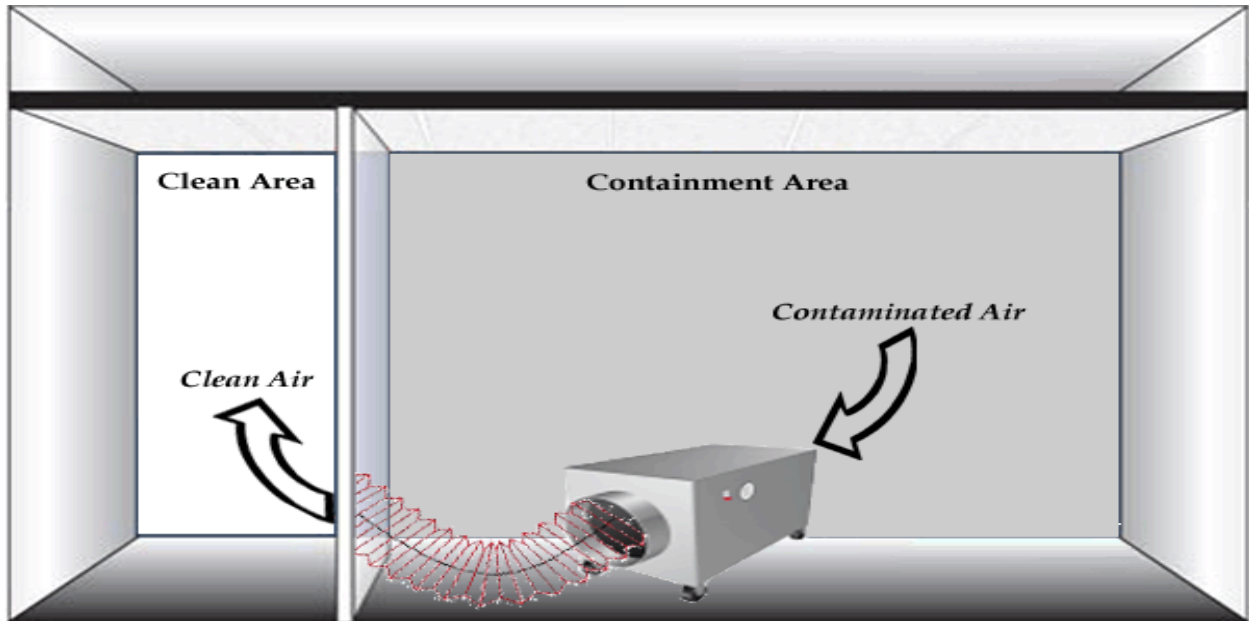


Figure 2

To create positive pressure inside the containment, more air has to be pumped in than leaks out of the containment. Place the machine outside the containment and hook a flexible duct to the outlet ring of the machine ducting the exhaust into the containment. (See Figure 3)

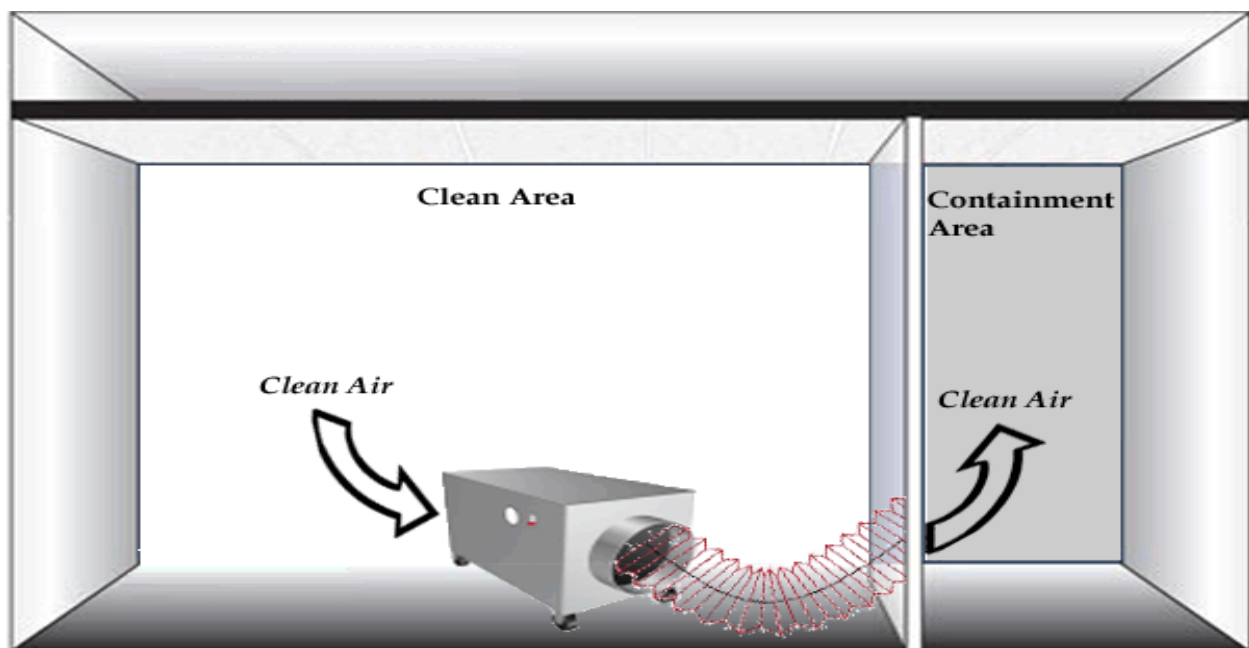


Figure 3

MAINTENANCE INSTRUCTIONS

Due to tolerance issues in the zeroing of the water column gauge please note the initial reading of the water column gauge with the machine in HIGH SPEED operation here _____.

REPLACEMENT OF THE PREFILTER

Replace the prefilter after every 50 hours of operation. When replacing the prefilter ensure that the airflow arrow on the filter points in toward the machine. When the machine is restarted the gauge reading will increase.

When the gauge reading is .4 above the initial reading after replacing the prefilter then the HEPA filter is full and must be replaced to maintain airflow.

Please note that even though the HEPA filter is fully loaded the filter is still removing the particulates from the air, but at a reduced airflow which will affect the ability of the machine to provide positive or negative pressure within the containment.

REPLACEMENT OF THE HEPA FILTER

To replace the HEPA filter remove the top grill and remove the exhaust filter. You will see 4 filter tabs holding the HEPA filter in place. See figure 4 below. These tabs are secured with 1/4-20 Nylock nuts, which require a 7/16" wrench or socket to remove them. Remove all 4 filter tab retaining nuts and remove the filter tabs as well. Lay the machine down and rest it on the handle. Slide the HEPA filter out along the filter guides and remove it from the machine.

ALWAYS TREAT THE USED HEPA FILTER AS HAZMAT AND PROCESS IT ACCORDING TO YOUR ESTABLISHED HAZMAT PROCEDURES.

To replace the HEPA filter ensure that the gasket on the HEPA filter faces inwards toward the flange, slide the filter in place along the filter guides and re-install the filter tabs and filter tab securing nuts. The nuts should initially be tightened to where the stud is flush with the end of the nut. This will compress the gasket on the filter approximately 1/2 of the thickness. This allows for the filter to be resealed and tightened at a later time if necessary. Stand the machine up and re-install the exhaust filter and top grill.

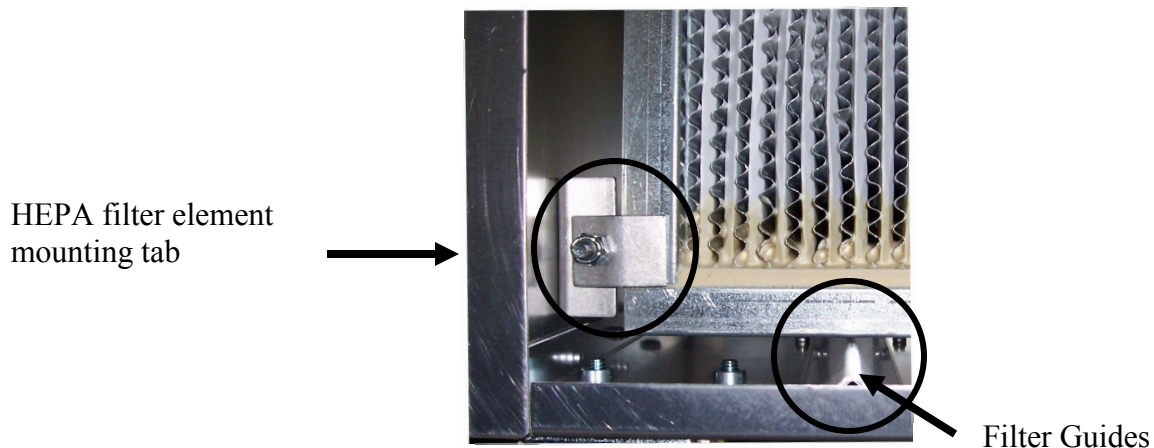


Figure 4

Replacement of UVGI Lamps

The UVGI lamps are located under the HEPA filter. To replace a lamp remove the HEPA filter—see page 5 “REPLACEMENT OF THE HEPA FILTER” — and the lamps will be seen. Remove the square connector from the end of the non functioning lamp and carefully remove the lamp from the clips holding it in place. Install the new lamp into the clips and plug the square connector into the lamp. Replace the HEPA filter.

Troubleshooting

Your Omnitec Design machine is designed and engineered to provide years of trouble free service. Occasionally though problems do occur. Here are some helpful tips and solutions to common problems.

The machine does not start or just hums when turned on

1. Check the circuit you have the machine on and ensure that it has power.
2. Remove the prefilter and push the blower wheel by hand. If it does not move freely or if you hear a grinding/scraping noise as you spin it then the blower wheel is touching the side of the blower housing. The most common reason for this is that due to an impact of some kind the motor mounts have been bent. Remove the motor/blower assembly and replace the bent motor mounts.
3. If the blower wheel spins freely the next thing to check is the capacitor. With the prefilter still removed from the machine push the blower wheel and as it is spinning turn the power switch on. If the machine runs at this point then the problem is in the capacitor. Ensure that the wiring connected to the capacitor is plugged in and not broken. If the wiring is correct, then the capacitor is faulty. Replace the capacitor.

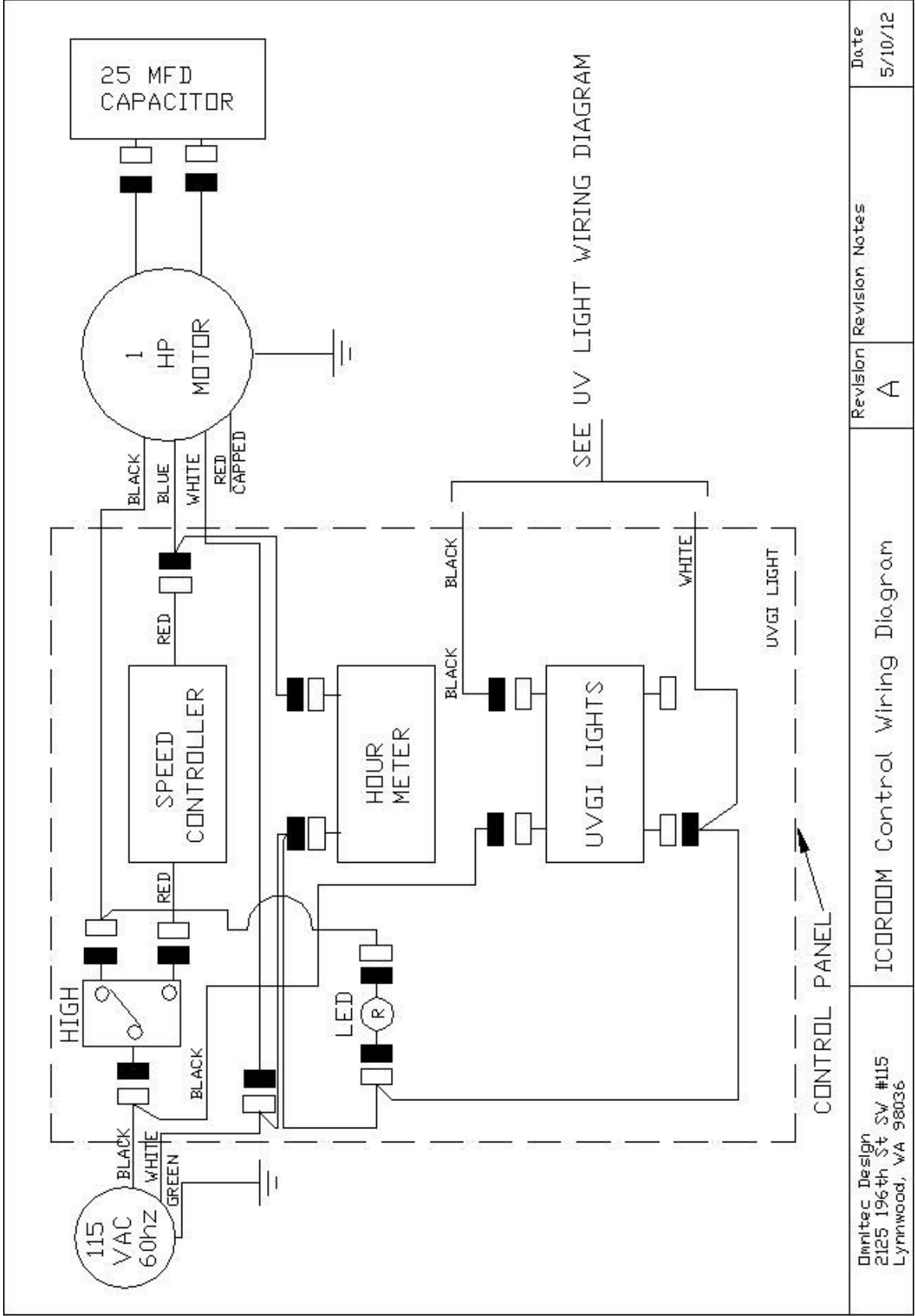
The machine will run for a few minutes then turn off

1. This machine MUST be run with a HEPA filter in place. If you are trying to run it without a filter in place the motor will overheat within a few minutes and the thermal overload in the motor will engage. Let the motor cool off for 30 minutes, install the filter and try running the machine again.
2. If the filter is in place and the machine still shuts off after a few minutes then the motor is faulty. Replace the motor.

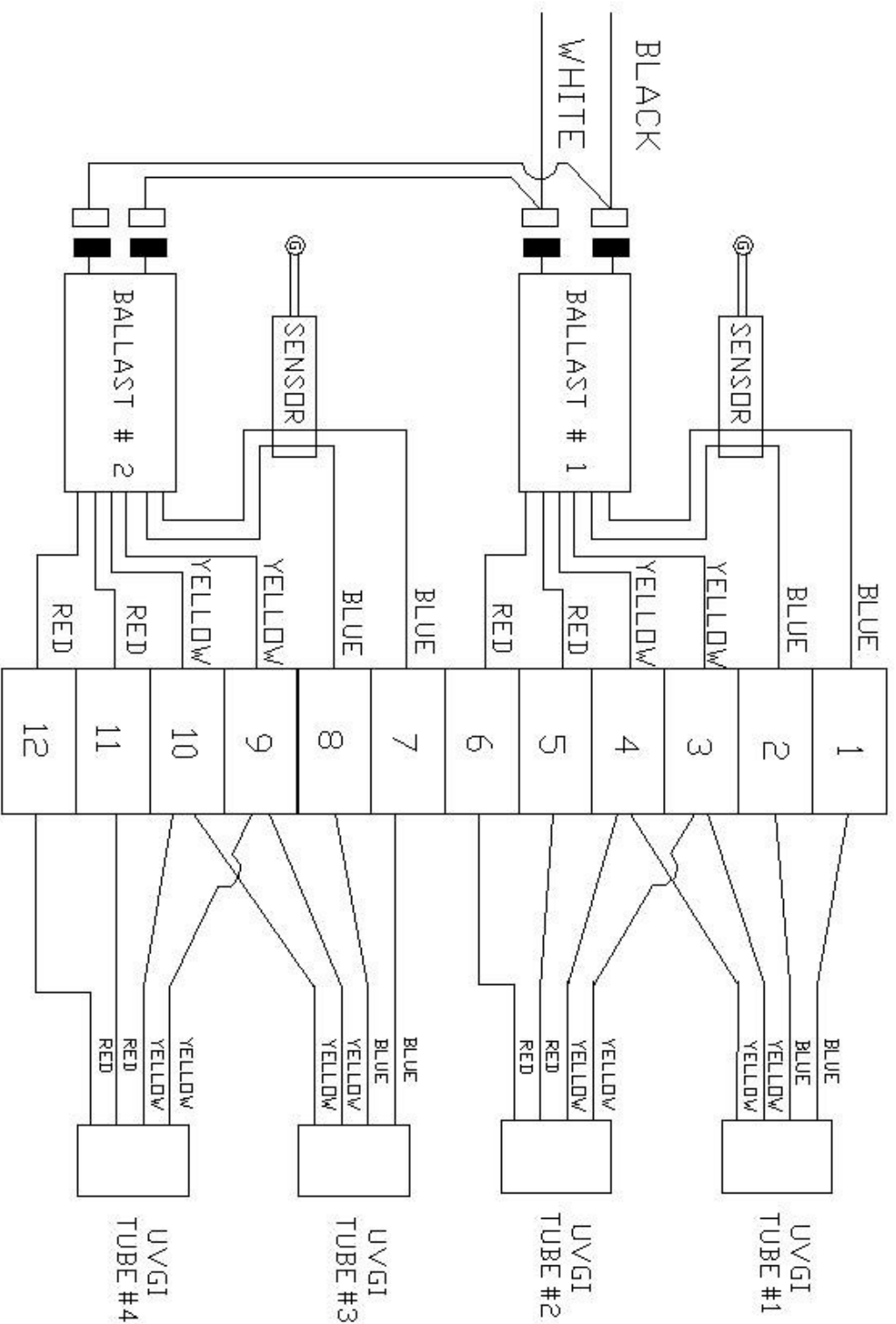
The machine vibrates excessively when running

1. This is an indication that the motor bearings are worn. If the machine is allowed to continue running at this point the vibration will cause the center hub of the blower wheel to separate from the wheel requiring replacement of both the motor and blower. Replace the motor.

If the machine does require electrical servicing of the motor or switches the following page contains a wiring diagram to aid in repair or troubleshooting.



Dnritec Design 2125 196th St Lynnwood, WA 98036	ICOROOM Control Wiring Diagram	Revision A	Revision Notes Date 5/10/12
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Dmaltrec Design
 2125 196th St SW #115
 Lynnwood, WA 98036

ICOROOM UV
 WIRING DIAGRAM

Revision A
 Revision Notes

Date
 5/29/12

Omnitec Design, Inc.

4640 Campus Place, Suite 110 Mukilteo, WA 98275

Visit us @ www.omnitecdesign.com

Office: 425-290-3922