

INSTALLATION, OPERATION,
AND MAINTENANCE MANUAL

Odor Beast



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GENERAL DESCRIPTION

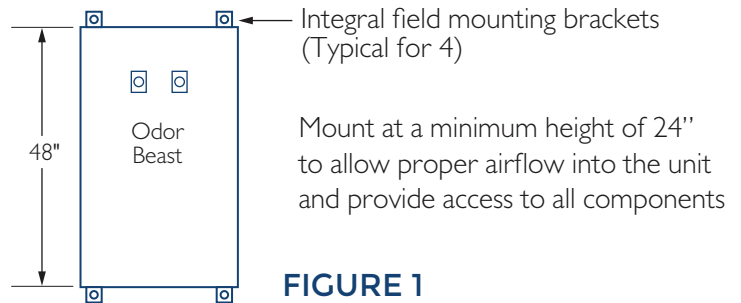
The Air+ Odor Beast is an ionization-based system used for continuous odor control and corrosion protection for wet wells, lift stations, wastewater treatment plants and other facilities that suffer from high odor problems including hydrogen sulfide (H₂S). This is a low maintenance and low-cost solution to eliminating fugitive odors from a hatch, manhole cover, or vent while protecting the equipment in the wet well from hydrogen sulfide related corrosion.

MECHANICAL INSTALLATION

GENERAL MOUNTING CRITERIA

Carefully remove the equipment from its shipping crate. Ensure that no damage occurred to any of the components. Depending on options, the Odor Beast can weigh up to 210 lbs. There are three options for mounting the Odor Beast:

1. Wall mounting. Mount the unit to a wall using the four (4) integral field mounting brackets. Utilize appropriate stainless steel hardware.



2.

Diagram illustrating the Unistrut mounting option for the Odor Beast. The unit is shown mounted to a vertical Unistrut beam. The mounting is secured with a bolt through the unit mounting bracket and Unistrut. The Unistrut is anchored to a concrete pad. Labels include: "Integral field mounting brackets", "Odor Beast", "Bolt through unit mounting bracket and Unistrut", "Unistrut", and "Concrete pad".

Mount the Odor Beast to Unistrut using appropriate hardware through the four (4) integral field mounting brackets. All support bolts, washers and nuts must be made of stainless steel. The Unistrut should be anchored to a concrete pad.

FIGURE 2

3. Mounting legs. The Odor Beast is available with optional stainless steel mounting legs. If selected, anchor the mounting legs to a concrete pad.

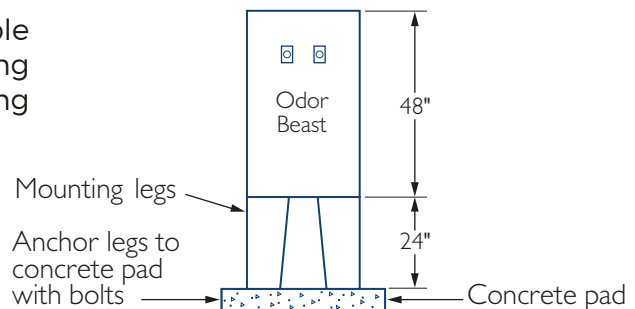


FIGURE 3

ADDITIONAL INSTALLATION NOTES:

1. In all installation options, insure a minimum of 36" clearance in front of the unit.
2. In 2 and 3 above, ensure that the concrete pad is of sufficient thickness to support the weight of the Odor Beast.
3. Use 8" diameter PVC or stainless steel duct to connect the discharge of the Odor Beast to the wet well. Do not reduce the 8" diameter because this will significantly impact air flow.
4. Follow all local codes as provided by the authority having jurisdiction.

ELECTRICAL INSTALLATION

CAUTION: Do not connect to power before the installation is complete. Always disconnect power to the unit before handling any of the unit components.

1. A weatherproof junction box with disconnect switch should be installed within 4 feet of the unit. A flexible metal conduit or SO cord should be installed between the J-box and the power inlet (see Figure 4).
2. Connect 120V/1 ph power through the power inlet gland (1/2" or 3/4" conduit hole) and up to the terminal block and connect hot to 1, neutral to 2 and ground to ground (see Figure 5).
3. If a powered shut-off damper is being used, power the damper from positions 2 and 3 (see Figure 5).

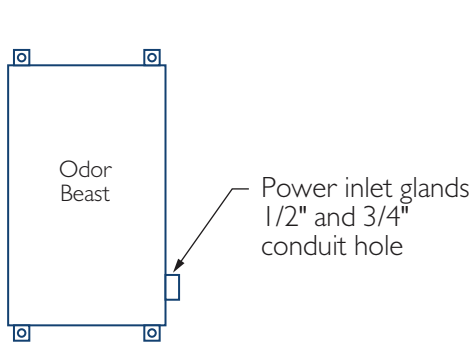


FIGURE 4

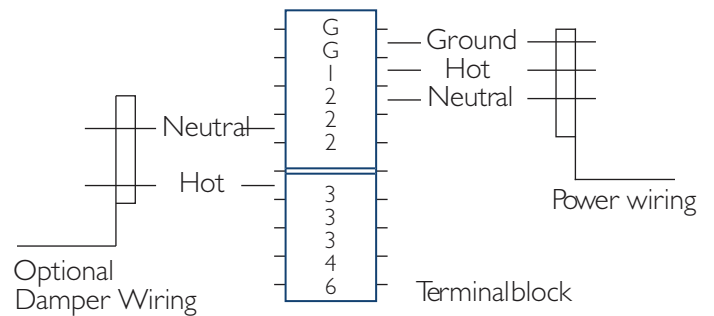


FIGURE 5

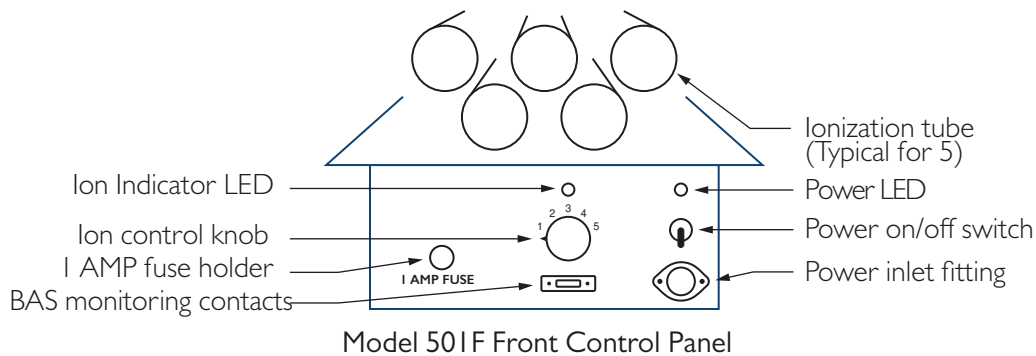


FIGURE 6

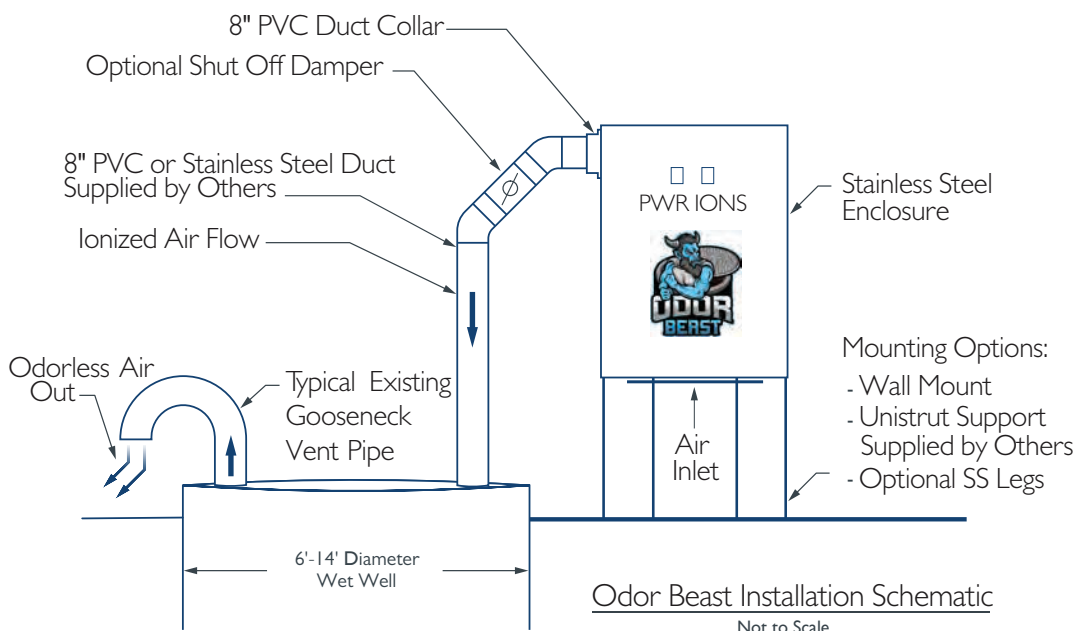


FIGURE 7

OPERATION

1. When the unit is properly powered, the green light on the front panel will illuminate. When the ionization unit is operating, the red light will illuminate.
2. When the front panel door is opened, the door switch kills power to the ionizer.
3. Adjust the unit's airflow by modulating the fan speed controller inside the cabinet.

MAINTENANCE

CAUTION: The secondary voltage to the ionizing tubes can be 2,900 Volts AC. Always disconnect power to the unit and switch the power to the "off" position before performing any maintenance.

1. Check the air inlet screen at least once per week for dirt and fouling.
2. Check that there are no obstructions at the fan inlet at least once per month.
3. Due to the high level of pollutants, the ionization tubes should be inspected at least once every three months. The tubes should be cleaned, if necessary, at the six-month inspection. Always wear gloves for personal protection when handling the ionization tubes. To clean the tubes:
 - a. Remove the tubes from the unit, starting from the outside tubes and working inward.
 - b. Remove the wire mesh "sock" from the outside of the tubes. Wash the sock in clean soapy water.
 - c. Clean the outside glass of the tube with clean soapy water or commercially available glass cleaner. Reinstall the sock on the tubes and the tubes in the unit. Install the top middle tube first.
4. Tubes are rated for approximately one (1) year of service and should be replaced at that interval. Contact your local Air+ Sales Rep to purchase replacement tubes, www.air-plus.com.

REMOTE MONITORING

1. The ionization unit is equipped with an alarm circuit that will close on loss of power. This circuit can be used to initiate a local alarm or be tied into a SCADA system.
2. An optional nine-conductor cable can be ordered with the unit. The black and yellow wires should be used to connect to the facility's monitoring circuit.
3. The unit is wired to a dry contact and to the Red Indicator Light on the front of the panel to show that the ionizer is operating. There are two dry contacts that will show when there is power to the unit and that the ionizer is running.

TROUBLESHOOTING

If the unit is not working, check in the following order that:

1. The 1 Amp glass cartridge fuse on the ionizer is not blown. The fuses are 5mm x 20mm rated at 250 volts and are available at any electrical supply store or contact Air+ at www.air-plus.com.
2. If the ionizer fuse is blown, remove all tubes and replace the fuse. Turn on power to the ionizer without any tubes installed. If the fuse blows again, return the unit for factory service. Please contact your local rep for an RMA number.
3. If the fuse does not blow, the most likely problem is a cracked tube. Carefully inspect the tubes for cracks. Although rare, cracks can occur at the capped end of the tube.
4. Install tubes into the unit one at a time, powering the unit after each tube installation. If the fuse blows, the last tube installed is defective and requires replacement.

