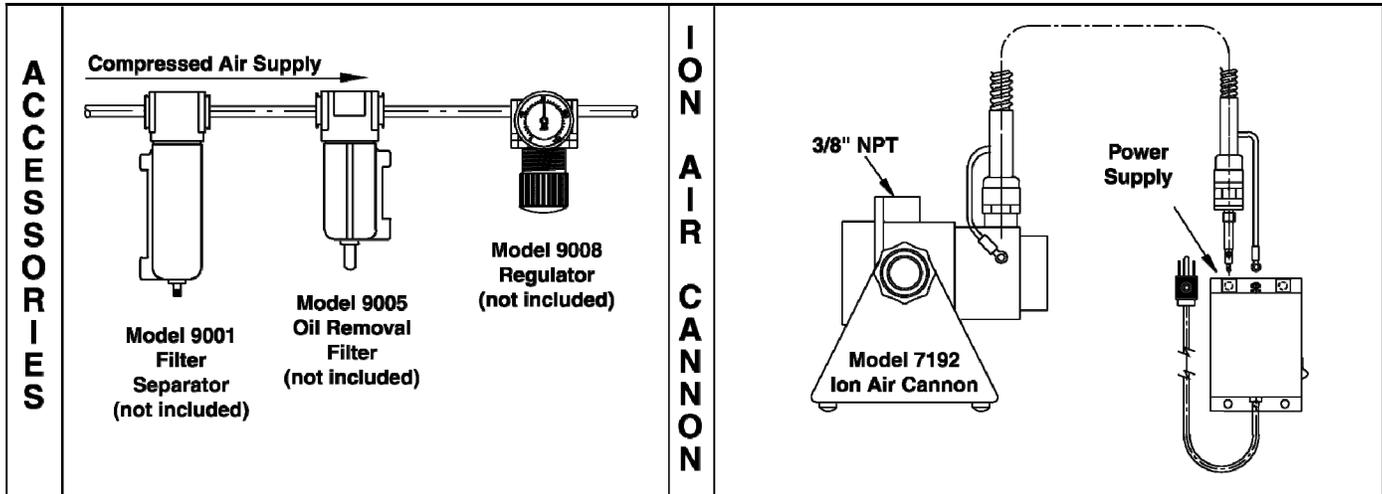


## ION AIR CANNON™ INSTALLATION & MAINTENANCE



### COMPRESSED AIR LINE SIZES

Compressed air lines should be sized to hold pressure drops to a minimum. When installing supply lines, use 1/4" pipe up to 25' (7.6m) long, 3/8" pipe up to 50' (15.2m) long. Compressed air hose (not included) should be 3/8" I.D. up to 10' (3m), 1/2" I.D. up to 25' (7.6m). Do not use restrictive fittings such as quick connects. They can "starve" the Ion Air Cannon by causing excessive line pressure drop.

### COMPRESSED AIR SUPPLY

With proper filtration and separation of dirt, moisture and oil from the compressed air supply, the Ion Air Cannon will operate for years without clogging.

Use a 10 micron or smaller filter separator on the compressed air supply (Model 9001 Automatic Drain Filter Separator). To prevent problems associated with oil, use an oil removal filter (Model 9005 Oil Removal Filter). The oil removal filter should be used downstream from the automatic drain filter separator. Filters should be used close to each Ion Air Cannon, within 10 to 15' (3 to 4.6m) is best.

The Ion Air Cannon is designed to use normal shop air supplies of 5 to 100 PSIG (.3 to 6.9 BAR). For infinite control of flow and force, pressure may be regulated (Model 9008 Pressure Regulator).

### USING THE ION AIR CANNON

Connect ground wire to power supply. Screw power cable into power supply. On permanent installations, it is recommended that the ionizer cable be shielded in plastic conduit or otherwise insulated from grounded metal surfaces for optimum performance.

The Ion Air Cannon should be located at a point after the material has received its static charge. If the treated material is subjected to additional friction, it may build up another static charge and additional Ion Air Cannons may be needed.

The Ion Air Cannon should be placed so that the column of air flows across the material to be treated. The ionized air will eliminate the static charge from the surface it touches. Mounting the Ion Air Cannon close to the surface will remove the charge more rapidly but in a smaller area. It may be located above or below the material. When the static charge is extremely high or the material is moving at high speeds, it may be necessary to place an Ion Air Cannon on both sides of the material.

The emitter point is shockless and may be touched without injury.

**The Ion Air Cannon And Power Supply Should Not Be Used In An Explosive Or Flammable Area.**

**ELECTRICAL SUPPLY**

The Model 7901 Power Supply (two outlet) and Model 7940 Power Supply (four outlet) require a 115V, 50/60Hz source. The Model 7907 Power Supply (two outlet) and Model 7941 Power Supply (four outlet) require a 230V, 50/60Hz source. For proper operation, the Ion Air Cannon and power supply must be properly grounded. If the unit is not grounded, the Ion Air Cannon will produce a shock and will not function properly. The ground terminal on the power supply must be connected to the grounding wire of the Ion Air Cannon. A common ground to a machine can be obtained by attaching the Ion Air Cannon and the power supply to the metal frame of the machine.

**TROUBLESHOOTING & MAINTENANCE**

**If There Is A Reduction In Flow Or Force From The Ion Air Cannon**, check the pressure by installing a gauge at the inlet of the Super Air Amplifier portion of the Ion Air Cannon. Large pressure drops are possible due to undersized lines, restrictive fittings and clogged filter elements.

**For replacement or repair filter and regulator parts, contact EXAIR at 1-800-903-9247 or [techhelp@exair.com](mailto:techhelp@exair.com). Call (513) 671-3322 for outside the US and Canada.**

**CLEANING**

If contaminants have clogged the Super Air Amplifier portion of the Ion Air Cannon, inspect the unit by disassembling. Super Air Amplifiers are made up of two threaded component parts and between them is a shim to set the gap that the compressed air exhausts through. This is usually .003" (.08mm) thick although thicker shims can be used. Inspect each part for dirt contamination and a possible oil film in the area of the slotted nozzle. Clean both pieces and reassemble with the shim installed in the correct position.

The best method to determine how well the Ion Air Cannon is working is with the Model 7905 Static Meter. The static meter is easy to use and will accurately display the charge on a surface without touching it. To do this, simply measure the charge on the surface before ionizing (power supply and air off). Then, ionize the surface (power supply and air on). Measure the surface again. A "zero" volt reading indicates that the Ion Air Cannon is working properly. If a charge is still present, this may indicate the need for cleaning.

Accumulation of light dust or dirt on the surface of the ionizing point will degrade the effectiveness of the ionizer. A simple cleaning operation added to your planned maintenance schedule can eliminate this potential performance problem. The frequency of cleaning required will depend upon the environment in which the ionizer is installed. Dirty industrial environments may require daily cleaning, while clean-room applications may require only monthly cleaning. It is important to evaluate the cleaning needs of each individual ionizer installation.

A dull or dirty emitter point will eventually cease to operate. The emitter point should be cleaned with a stiff brush. The aluminum collar should be scrubbed as well.

**Never Clean An Ionizer With The Power On!**

Periodic cleaning will keep the ionizer operating at peak performance for the life of the unit.

If you have any questions or problems, please contact:

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EXAIR Ion Air Cannon is UL Component Recognized to U.S. and Canadian safety standards.



Power supplies are UL Listed to U.S. and Canadian safety standards. There are no user serviceable parts inside.



Power Supplies meet the requirements of applicable European Directive(s).

