

Installation / Operation / Maintenance

Staticmaster®

Model 6010 Static Neutralizing Power Unit

General Description

The Static Control System consists of two parts:

- A high impedance, high voltage, lower power, constant voltage, Power Unit.
- An ionizing device in the form of a bar, air blower, air gun, air nozzle, or air knife.

The system is designed to create an abundance of both positive and negative air ions in a “field” which tends to neutralize electrically charged materials (paper, plastic, glass, wood, etc.) that pass through it.

The Static Neutralizing Power Unit

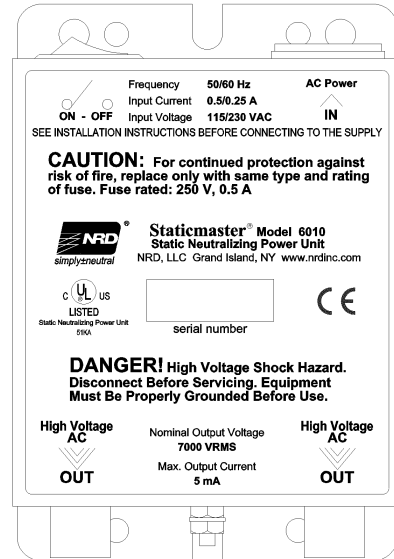
The Model 6010 Static Neutralizing Power Units are low power, high impedance, step-up transformer, potted with internal current limits to provide appropriate power to the ionizing device, and safety to the user. This unique Power Unit features a constant voltage transformer, which provides a stable output voltage over a wide range of voltage fluctuations.

Inspect the Power Unit for visible damage that may have occurred during shipment. If the unit was damaged in shipment, please report it to your receiver and contact us so that we may promptly send a replacement.

CAUTION: IT IS IMPORTANT THAT ONLY QUALIFIED PERSONNEL FAMILIAR WITH HANDLING HIGH VOLTAGE ELECTRICAL EQUIPMENT BE ENTRUSTED TO INSTALL, SERVICE, AND TROUBLESHOOT THIS EQUIPMENT. FEEL FREE TO CONSULT THE FACTORY IF YOU HAVE ANY QUESTIONS.

The Static Neutralizing Power Unit Safety Guidelines

- **NOTICE:** Completely read these instructions before connecting Power Unit to the supply.



- **CAUTION:** For continued protection against risk of fire, replace only with same type and rating of fuse.
- **DANGER!** High Voltage Shock Hazard. Disconnect before servicing. Equipment must be properly grounded before use.
- **CAUTION:** Do not remove the ground prong from the line cord.
- **CAUTION:** Keep water, oil, grease, and other contamination away from ionizing device and Power Unit at all times.
- **CAUTION:** Avoid areas where ambient temperature is continuously in excess of 40°C/104°F.

Locating the Static Neutralizing Power Unit

Locate the Power Unit as close as possible to the ionizing device using its mounting plate to securely fasten the unit in place. Choose a location free of oil, water and gross contamination. Avoid areas where ambient temperature is continuously in excess of 40°C/104°F.



2937 Alt Boulevard / PO Box 310 / Grand Island, NY 14072-0310

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Mount the Power Unit so that the High Voltage Output Ports are facing down or to either side to prevent entry of foreign material. Unless specified differently on the order, each ionizing device is equipped with a standard 6 foot length of high voltage cable inside a metal braid shield. This length of cable allows the installation of two ionizing devices approximately 10 feet apart connected to one, centrally located Power Unit. If the high voltage cable is too long, you may coil it and secure it neatly out of harm's way.

Grounding the Static Neutralizing Power Unit

For proper/reliable grounding, attach one end of a ground wire to the ground stud located on end of unit with the High Voltage Output Ports, and the other end to a suitable, confirmed good, electrical "ground".

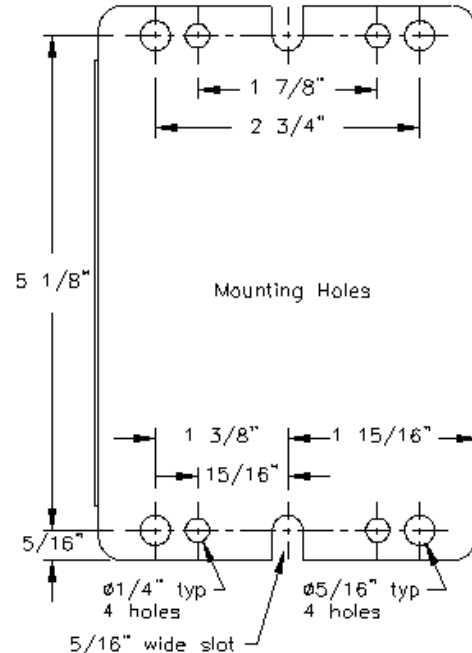
Mounting the Static Neutralizing Power Unit

The base of the Power Unit contains four mounting holes, two on each side of the unit. Using the dimensions herein provided, drill and tap two or four holes (#10-32 or 1/4"-20 are adequate to secure the Power Unit in place) into the metal machine frame.

Mount the Power Unit so that the High Voltage Output Ports are facing down. The second best mount would be to face the ports right or left, **not up**. This will prevent contamination from traveling down the cable and into the high voltage port and possibly causing a high voltage "short" circuit.

Power-Line Voltage 120VAC or 240VAC, 50/60Hz, single-phase

The Model 6010 Power Unit comes standard with a selector switch for 120VAC or 240VAC, 50/60 Hz single-phase power source. The Power Unit is



equipped with a detachable (from the Power Unit) three-conductor line cord and a three-prong plug. Be sure to plug the cord into a grounded three-prong receptacle.

Very Important: Before plugging the unit into a power source, be sure to set the voltage selector switch, found just above the power cord receptacle on the end of the unit, to the proper input voltage setting, either 120V or 240V. Failing to properly set the switch can damage or destroy the Power Unit, increasing risk of high voltage shock to operators and the warranty.

Remember: Proper grounding of the Static Neutralizing Power Unit is essential to the safety of the user and proper operation of the equipment. A power cord with a ground prong as supplied must be used to assure the Power Unit is grounded. For added convenience and safety, these Power Units come equipped with a fuse and a lighted on/off switch. A spare fuse is included, stowed inside the removable fuse retainer.



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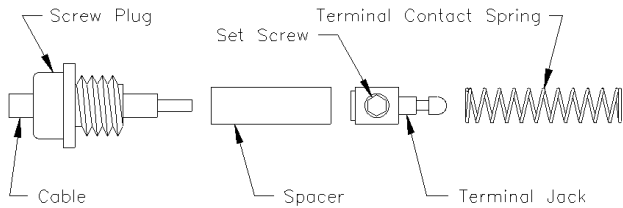
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Attaching the Connector Kit to the High Voltage Cable

After you have determined the locations of the ionizing device and Power Unit, attach the High Voltage Cable Connector as follows:



1. For unshielded cable, cut the cable to the shortest length between the device and Power Unit. For shielded cable, coil excess cable and secure it neatly out of harms way.
2. Slide the screw plug over the end of the cable with threads facing the cable end.
3. Slide the spacer onto the cable.
4. Carefully strip approximately 1/2 inch of insulation from the end of the high voltage cable exposing the conductors.
5. Twist the conductor strands and insert them into the hole in the end of the terminal jack.
6. Tighten the set-screw in the retainer until the conductors are held firmly in place.

Caution: do not twist spring end of high voltage connector while handling, this can fatigue the wire causing it to break.

Connecting an Ionizing Device to the Static Neutralizing Power Unit

Each Model 6010 Power Unit is equipped with two High Voltage Ports internally threaded to accept the NRD High Voltage Connector Kit as well as most other manufacturer's similar high voltage connector kits.

These connectors consist of a Screw Plug, Plastic Spacer, Terminal Jack, and Terminal Contact Spring. Connect the ionizing device to the Power Unit as follows:

1. Remove the dust cover from the high voltage output port and insert the high voltage cable connector firmly in place.
2. While pushing to compress the spring, thread the screw plug into the threaded output port and finger tighten firmly.
3. For devices with shielded cable, secure ring terminal on green grounding lead to grounding stud between output ports on Power Unit.
4. For devices with unshielded cable, verify that the device is connected to a proper ground.
5. After the ionizing device and Power Unit have been properly installed, positioned and **grounded**, plug the Power Unit line cord into a properly grounded 3-wire AC electrical outlet. Be sure that the Model 6010 voltage selector switch is set to match the line voltage and frequency supplied. **Do not** remove the ground prong from the line plug or use a three to two prong adapter.

Operation

Before turning the power on, be sure the Power Unit is secure in its mounting, all grounds and connections are proper and secure, line voltages and frequency are appropriate and that the ionizing device is clean and correctly installed. Apply the line voltage and push the switch to the "on" position.



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Maintenance

Both the Power Unit and the ionizing device must be kept clean and free of water, oil, grease, solvents, and other contaminants that would cause short circuits to them or any electrical device. Although this Power Unit is made with reliable, high quality components and great care, a contaminated, arcing, sparking, ionizing device will shorten the life of both the ionizing device and Power Unit.

Troubleshooting

Only a qualified person familiar with handling high voltage equipment should attempt to troubleshoot and service this equipment.

- Turn the power off and disconnect all ionizing devices.
- Confirm that grounds are proper and secure.
- Confirm line voltage and frequency are appropriate and applied.
- Confirm that voltage selector switch setting matches actual input line voltage.
- Confirm good fuse. The fuse is located inside the A/C inlet where the detachable cord plugs into the Power Unit. Replace if needed.
- Confirm On/Off Switch is "ON".

Please also note that some high voltage test probes give inaccurate readings when testing high impedance, low power, Power Units. For further assistance, please consult us at our factory.

Phone: 716-773-7634 Fax: 716-773-7744

Agency Listings

UL – Listed for United States and Canada. Static Neutralizing Power Unit.

CE – To standards EN55011. Note: To meet CE requirements, the Ionizing device (Air Ionizer in the form of a bar, air blower, air gun, air nozzle, or knife) must utilize a shielded cable to reduce high voltage interference with sensitive electronic control systems.

Specifications

Type: High voltage, AC, constant output transformer.

Input Voltage: 115/230 VAC

Frequency: 50/60 Hz

Output Voltage: 7.0 kV

Input Current: 0.5/0.25 A

Output Current: 5 mA

Line Cord: 6 foot detachable with US 3-prong grounded plug

Weight: 5.75 lbs.

Dimensions: Width: 4"
Height: 3.5"
Length: 5.75"

Certifications:



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