INSTALLATION AND MAINTENANCE OF IONIZING AIR DEVICES

PAXTON PRODUCTS

ITW Air Management

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INSTALLING A PAXTON IONIZED AIR KNIFE OR NOZZLE MANIFOLD FOR CAN OR BOTTLE RINSING

INSTALL AIR KNIFE OR NOZZLE MANIFOLD ON CONVEYOR

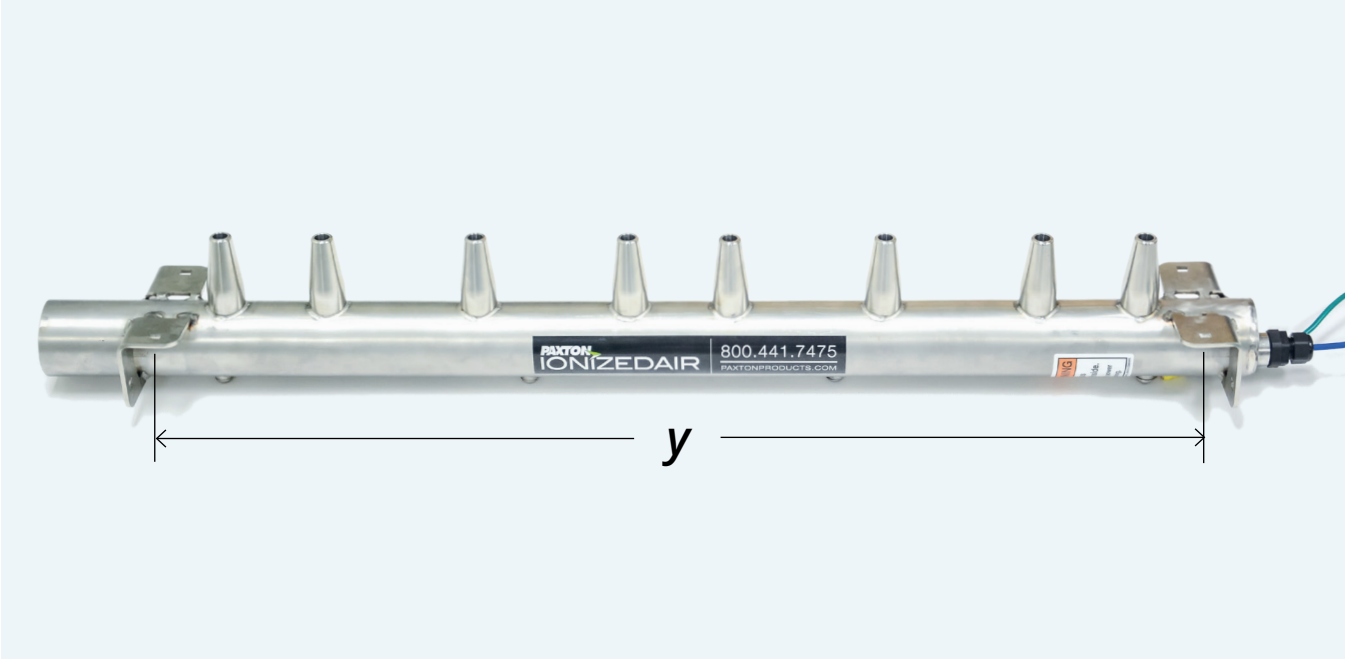
1. The Ionizing Knife or Manifold includes integral metal tabs for attaching to a bracket. The brackets are attached to the conveyor rails.

The brackets should be field-fabricated, based on the dimensions and layout of the conveyor rails. Four brackets are required, two right and two left. The bracket should allow the knife or manifold air discharge to be within x distance below the bottle or can opening. An example is shown below.

	x in inches	***x*** in mm
Air Knife	0.5 – 1	12 – 25
Nozzle Manifold	1	25

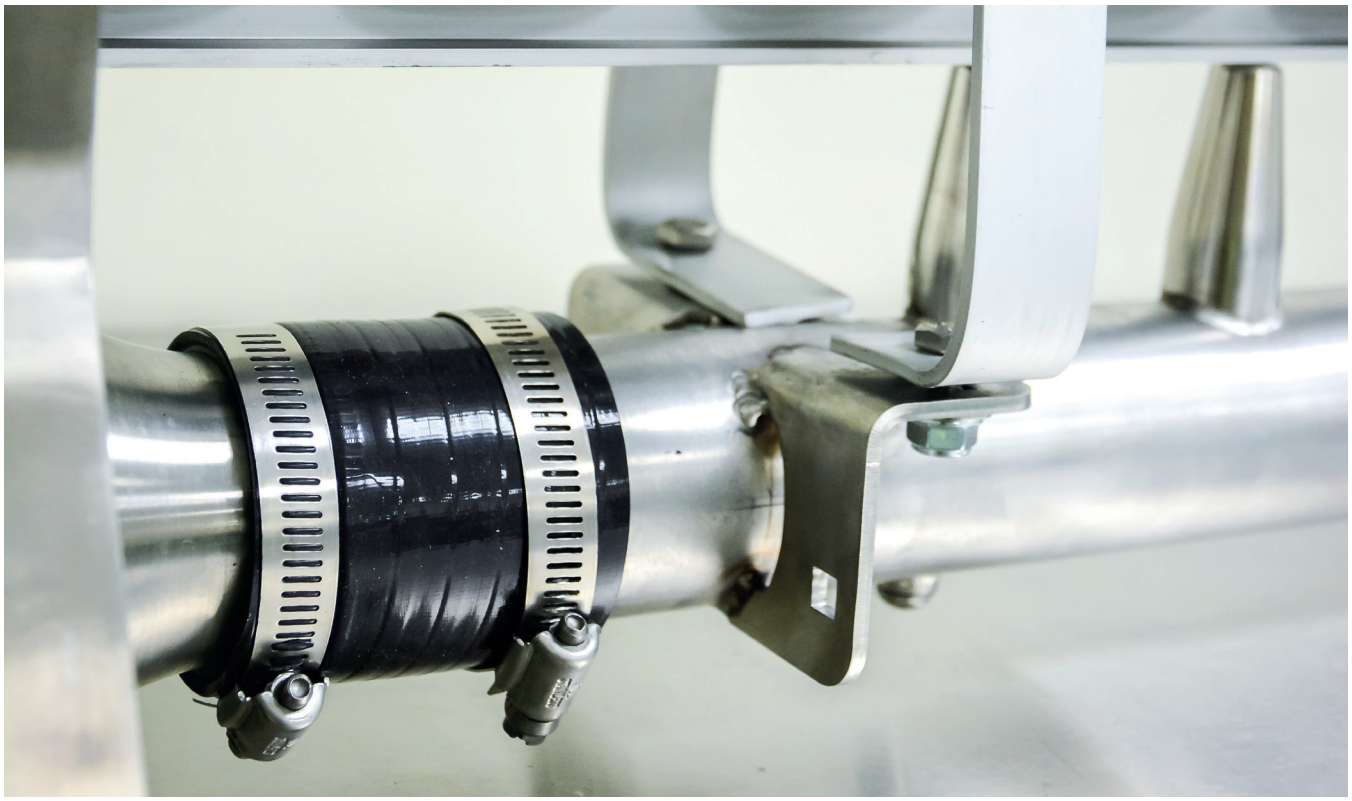
The right and left brackets should allow for some adjustment to position the air knife or air manifold off center of the bottle or can opening.

2. Attach one right and one left bracket to conveyor rails, directly across from each other.

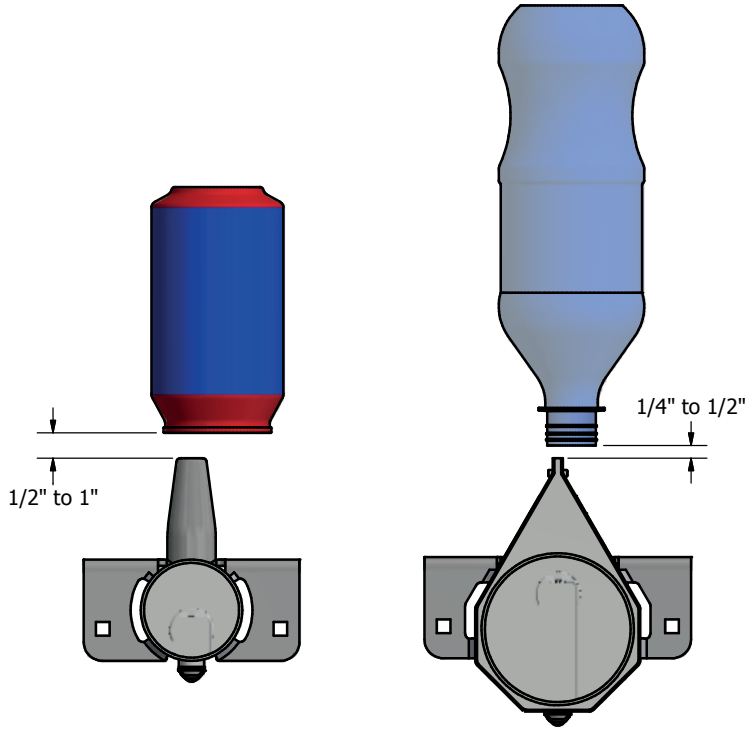


3. The second set of brackets should be positioned on the conveyor rails ***y*** inches away from the first set, with ***y*** being the distance between the tabs on the knife or manifold.

4. Attach knife or manifold to brackets.



5. Connect flexible hose or coupling to blower.



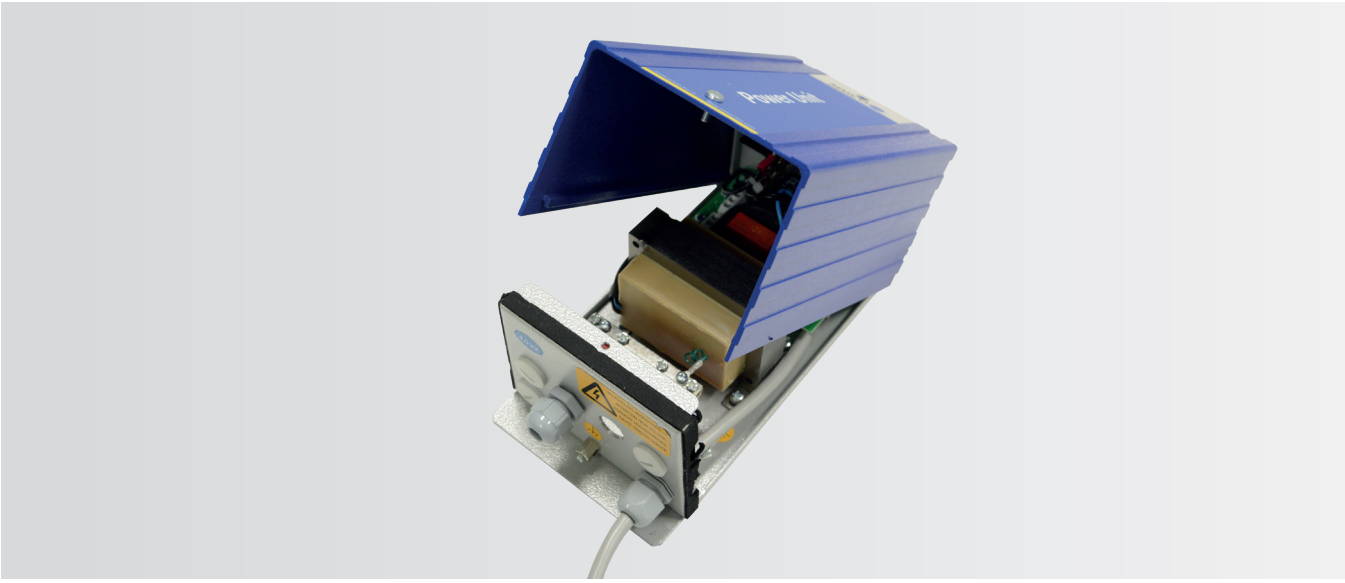
6. Adjust knife or nozzle to bottle or can opening as shown above, by shifting on mounting bracket.

CONNECT KNIFE OR MANIFOLD TO POWER SUPPLY

7. Position/Mount Ionizing Power Supply close to 110V or 240V outlet, depending on model purchased, and within 8 feet (2.5 meters) of installed knife or manifold. Power Supply can be mounted to a stable wall or machine part using the 6mm diameter mounting holes in the base plate.

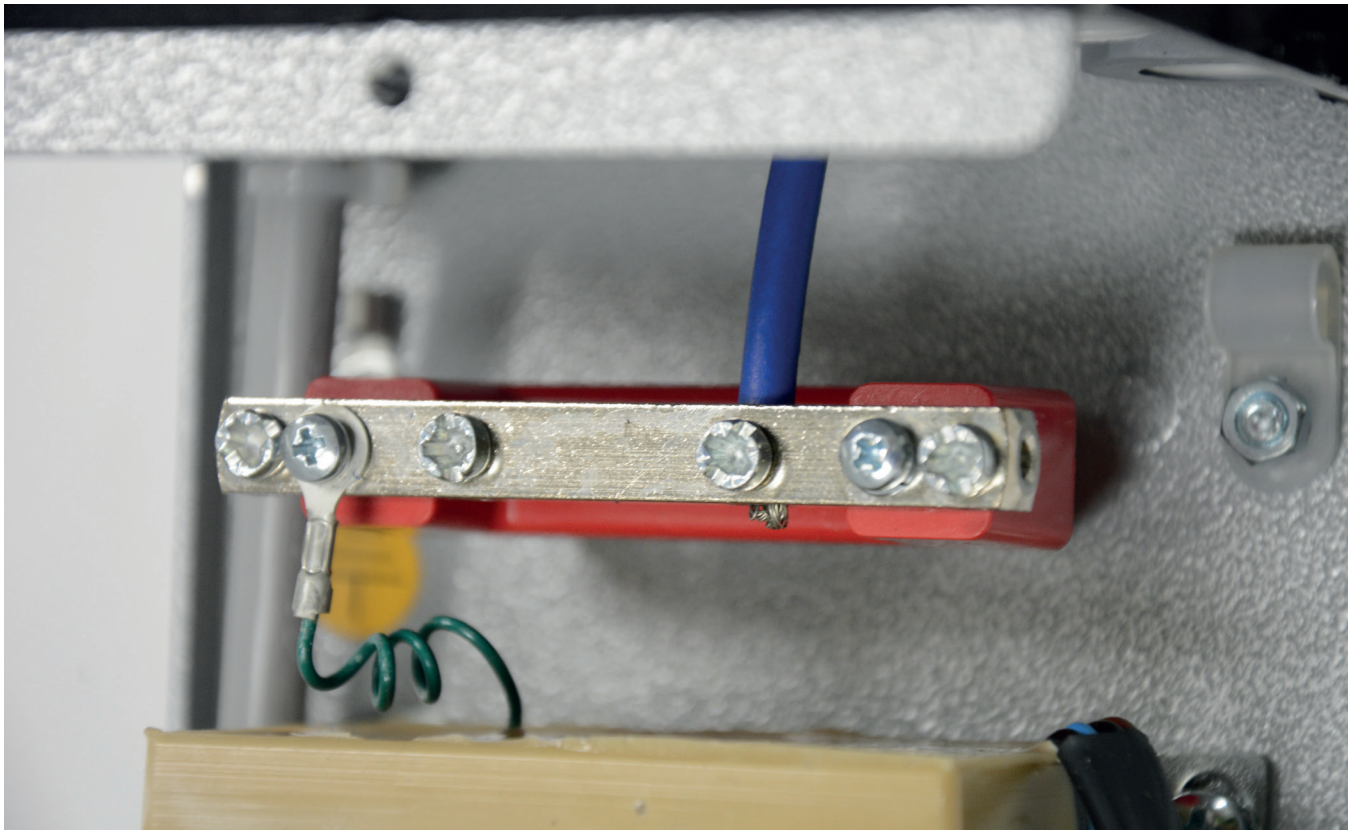
Ensure Ionizing Power Supply is unplugged before making any connections to it.

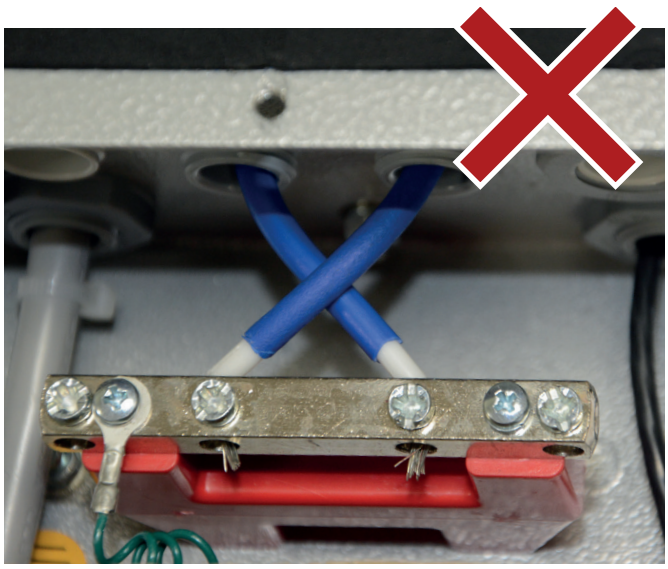
8. Loosen the two screws on the top of the cover, and carefully lift the cover from the power unit.

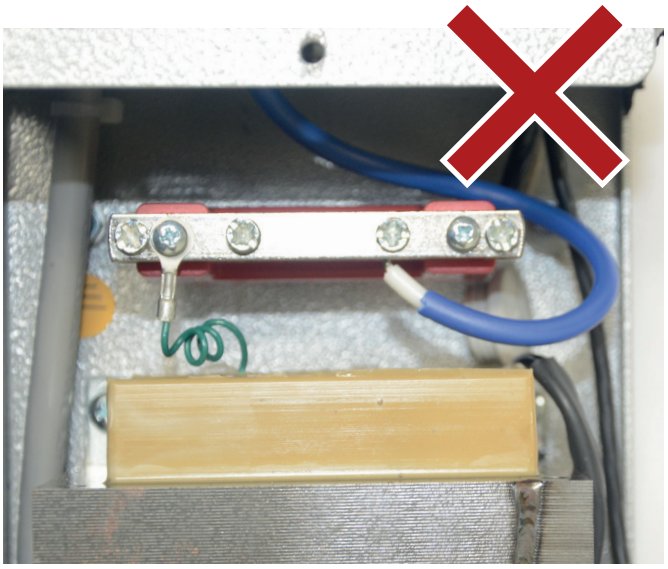


9. Loosen the gland screw on the outside back of the power supply.

10. Push the blue high voltage cable from the air delivery device into the power supply, through the gland nut.
11. Loosen one screw on the terminal block and connect cable wire. Tighten screw.







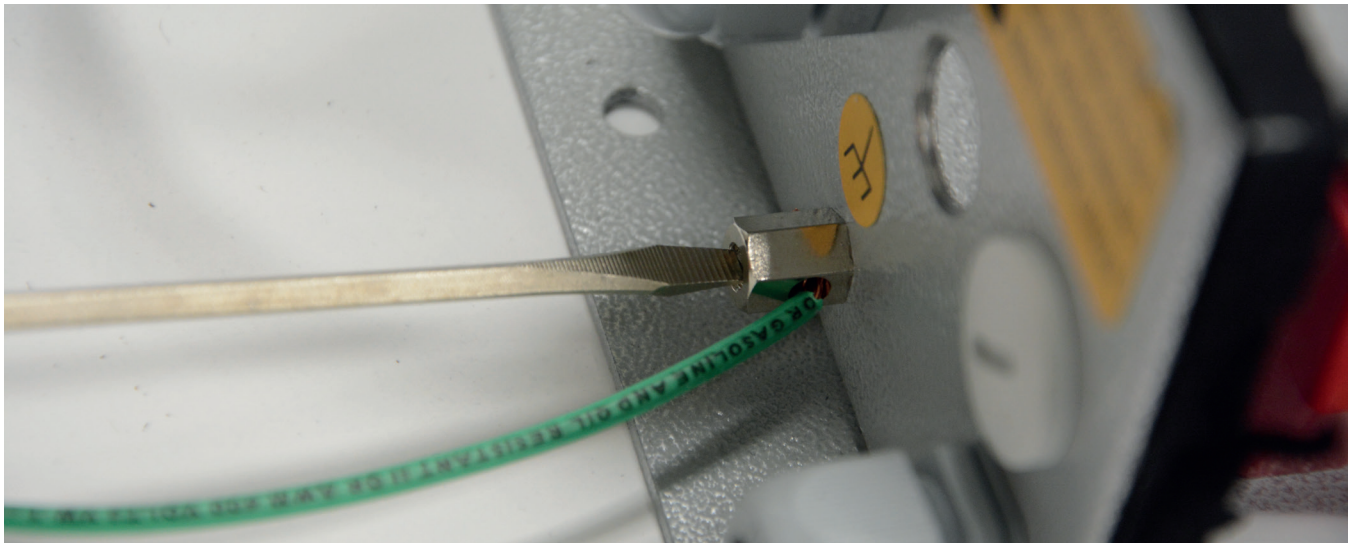
Do not allow the high voltage cable to form a loop or crisscross in the power unit. The cable must go straight into the terminal screw.

12. Tighten gland screw on outside of power supply.
13. Repeat steps 7-10 for additional air delivery devices.

The Power Supplies can power up to four (4) air delivery devices (4 blue cables) through the 4 glands. One gland can be used for alarm and relays.

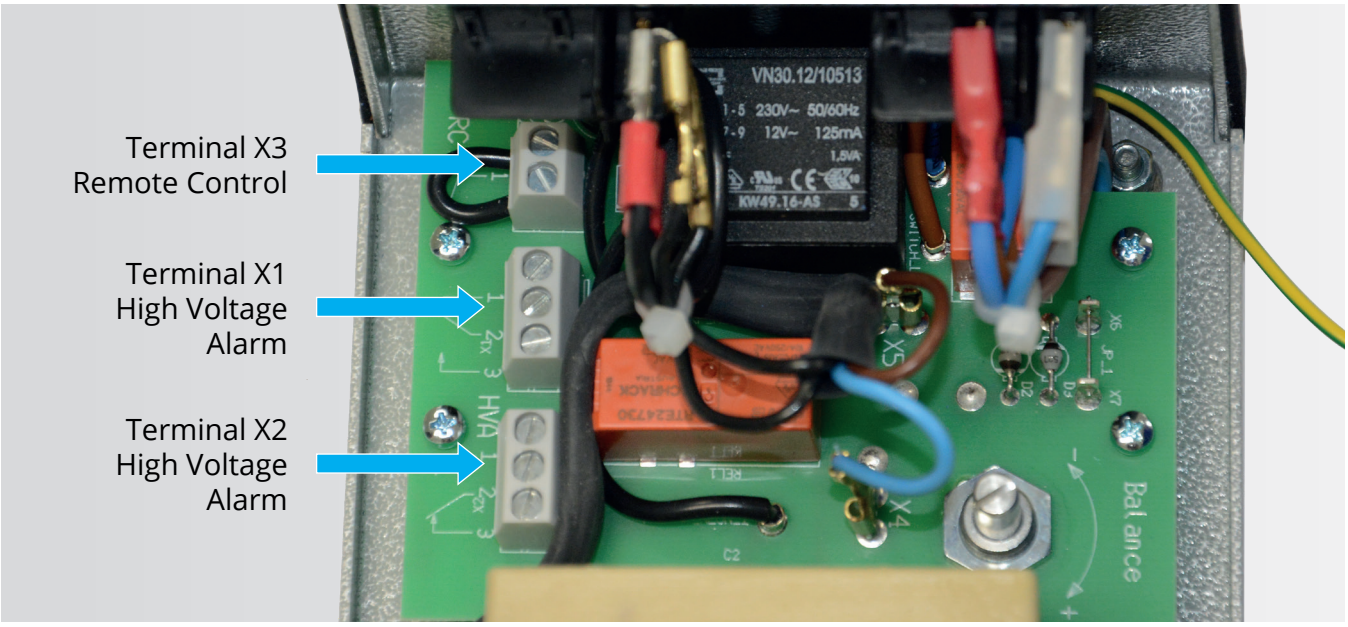
If high voltage alarm and/or remote control (BHR relays) are desired, please see page 11.

14. Replace the power supply cover and screw into place.
15. Connect green ground wire(s) from the air delivery device(s) to the ground point on the power supply.
16. Plug power supply into 110V or 240V outlet.



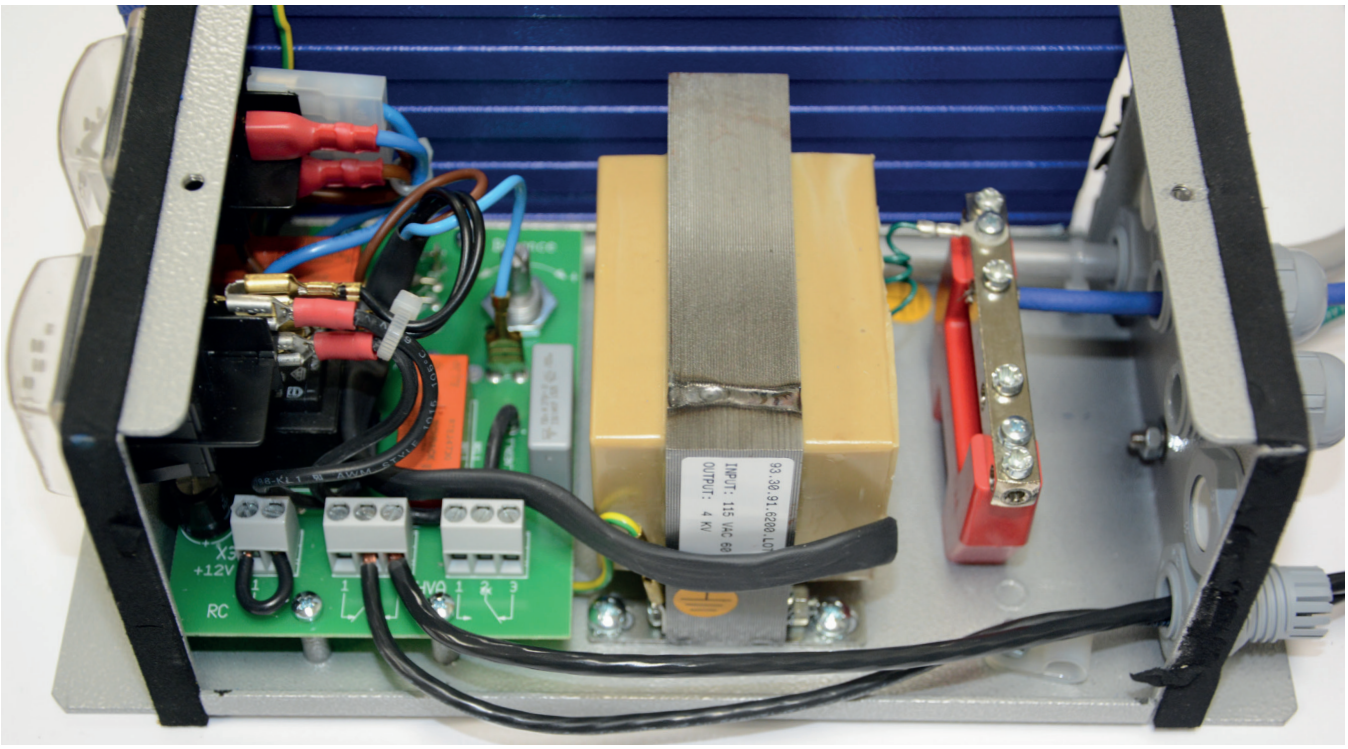
HIGH VOLTAGE ALARM AND REMOTE CONTROL (BHR RELAYS)

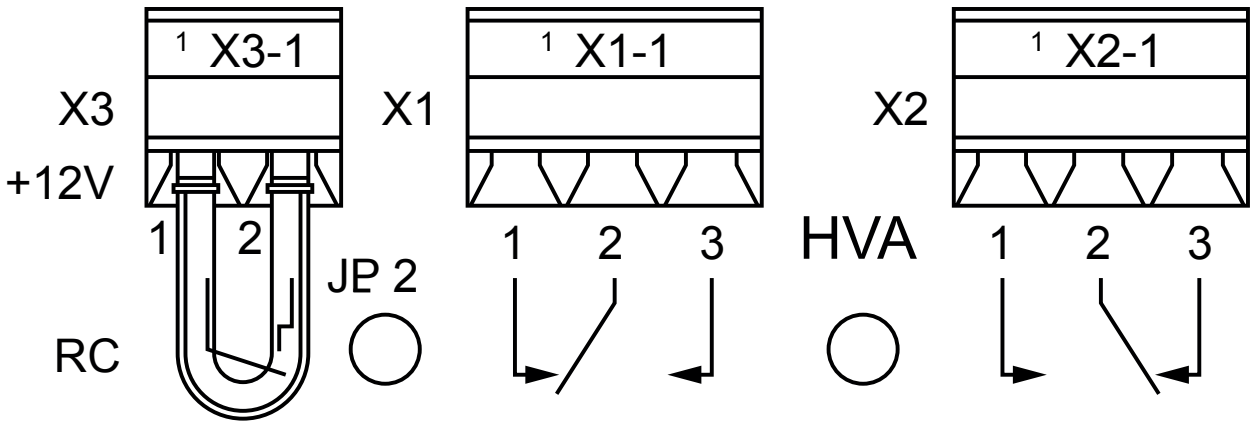
1. **High Voltage:** The unit is equipped with a relay that switches if the high voltage fails. In this way, an alarm signal, such as a light or buzzer, can be triggered. The contacts are two pole "make or break" contacts. The contact rating is 5 Amp, 240V AC; 5 Amp, 28V DC.



a. Feed the wire through the gland and lay it as far as possible from the high voltage terminal block. The nylon clamp provided can be used.

b. Connect wires to either terminal block X1 or X2.





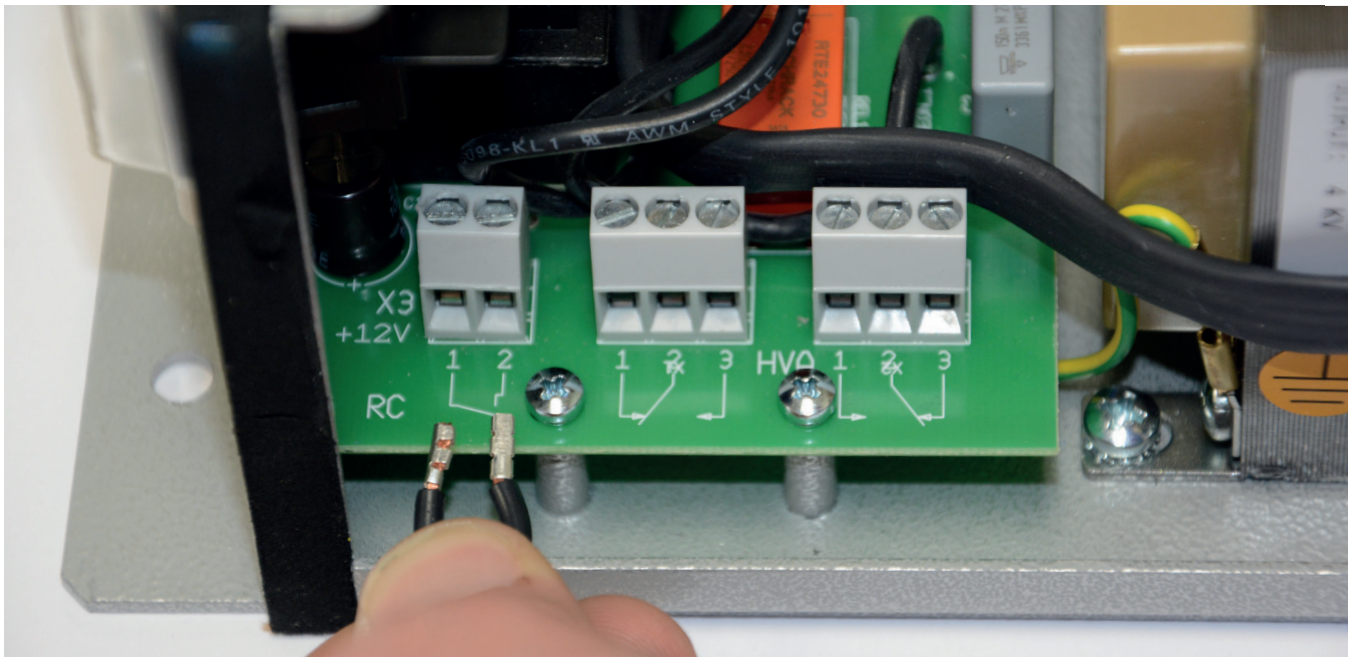
i. Position 2 is the common for both X1 and X2 terminal blocks

ii. X1 is normally closed in position 1

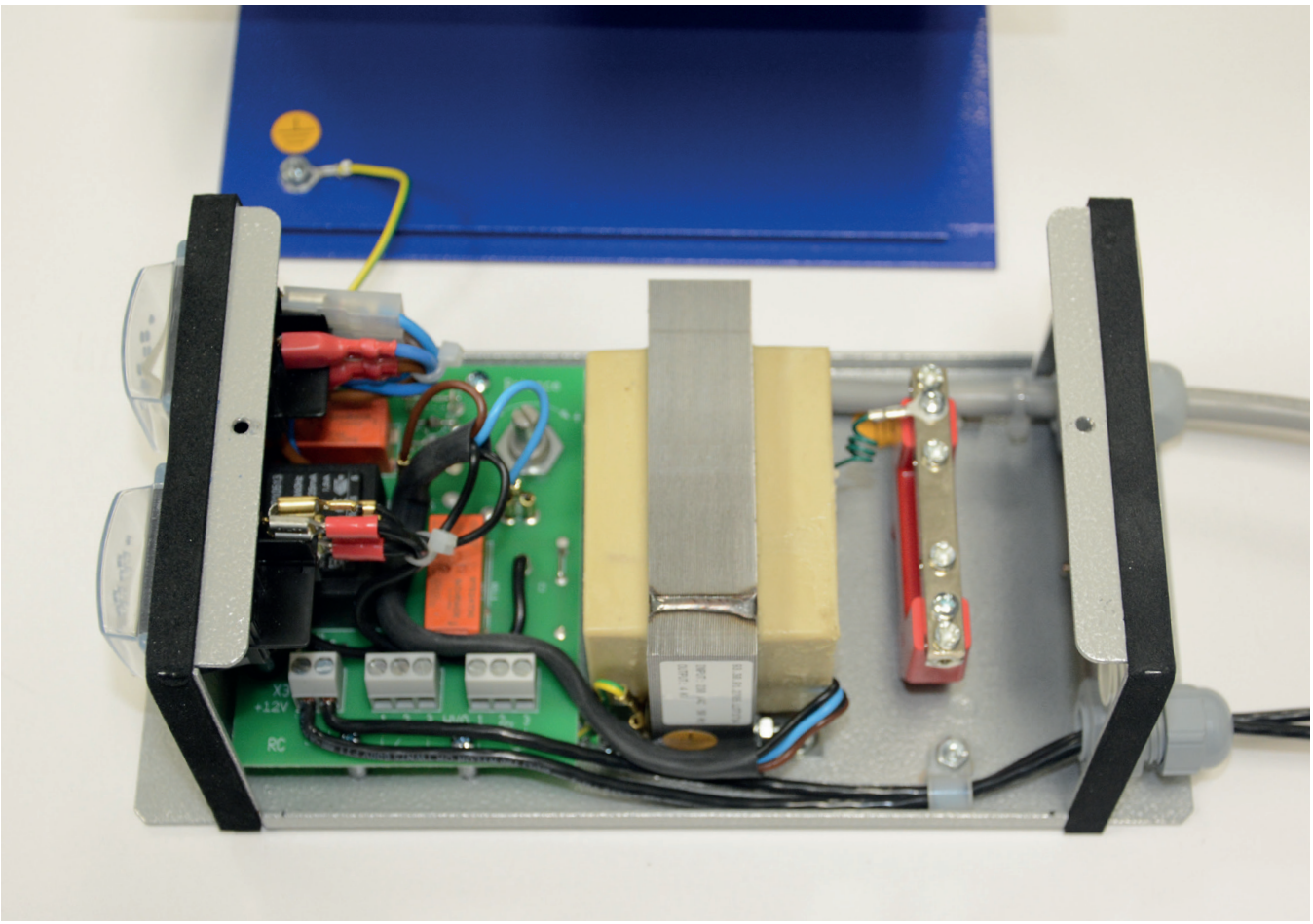
iii. X2 is normally closed in position 3

2. Remote Control: The unit can be wired to power on and off remotely using either a PLC contact or a switch/relay using terminal block X3. The contact must be able to switch at least 20 VDC, 110 mA.

a. Remove the interconnection of terminal block X3.



When Remote Control is not used, the interconnection of terminal block X3 must always be in place.

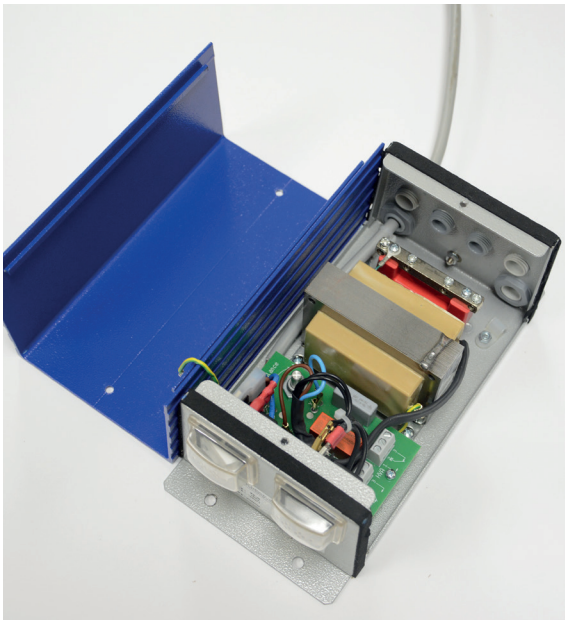


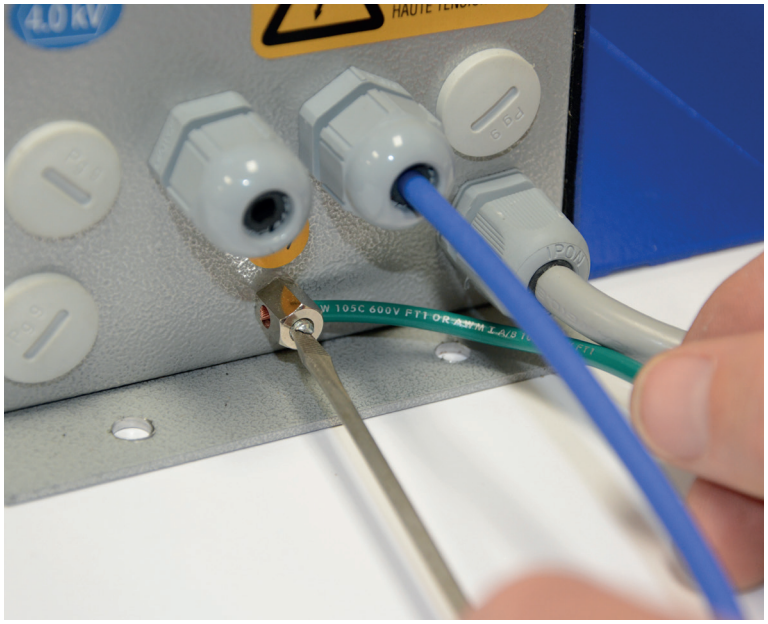
b. Feed the wiring through the gland and lay it as far as possible from the high voltage terminal block, and connect the wiring to terminal block X3.

IONIZED AIR KNIFE AND NOZZLE MANIFOLD MAINTENANCE

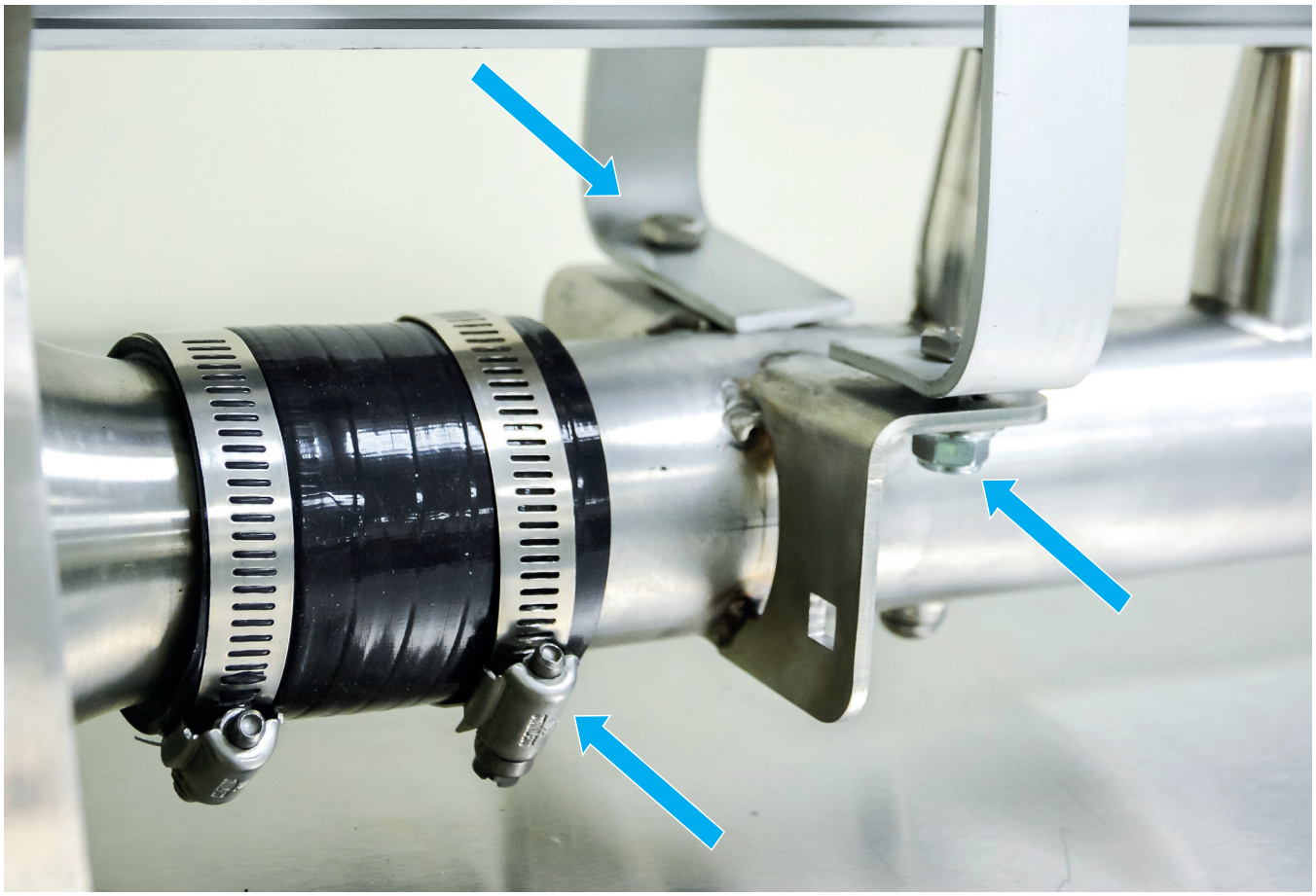
Lock out power to both the blower and the Ionizing Power Supply.

1. Open the cover of the power supply, by removing two screws.
2. Unscrew nut holding the ground wire.





3. Loosen the terminal screw holding the cable(s).
4. Unscrew the grey connector holding the cable in the power supply and slide the wire completely out. Set the grey connector aside.



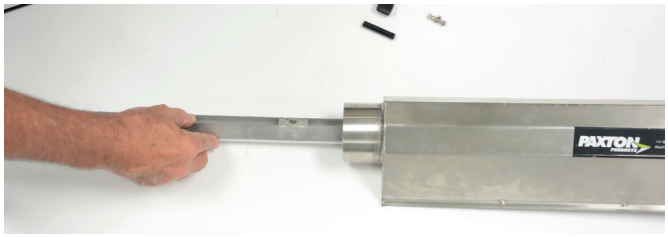
5. Disconnect the Ionized Air Knife or Manifold (Air Device) from the machine/rinser, by unscrewing the mounting brackets, and disconnecting the flexible hose from the blower.
6. Disconnect the ground wire from the Air Device using a 2mm allen wrench, keeping the screw and washers for reassembly later.

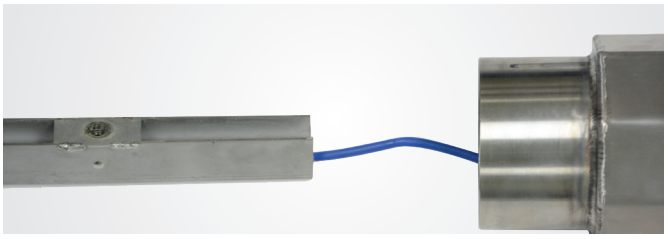
7. Remove the cable from the Air Device by unscrewing the black wire cap from the threaded coupling, sliding it off the end of the wire (exposed wire just disconnected from the power supply).

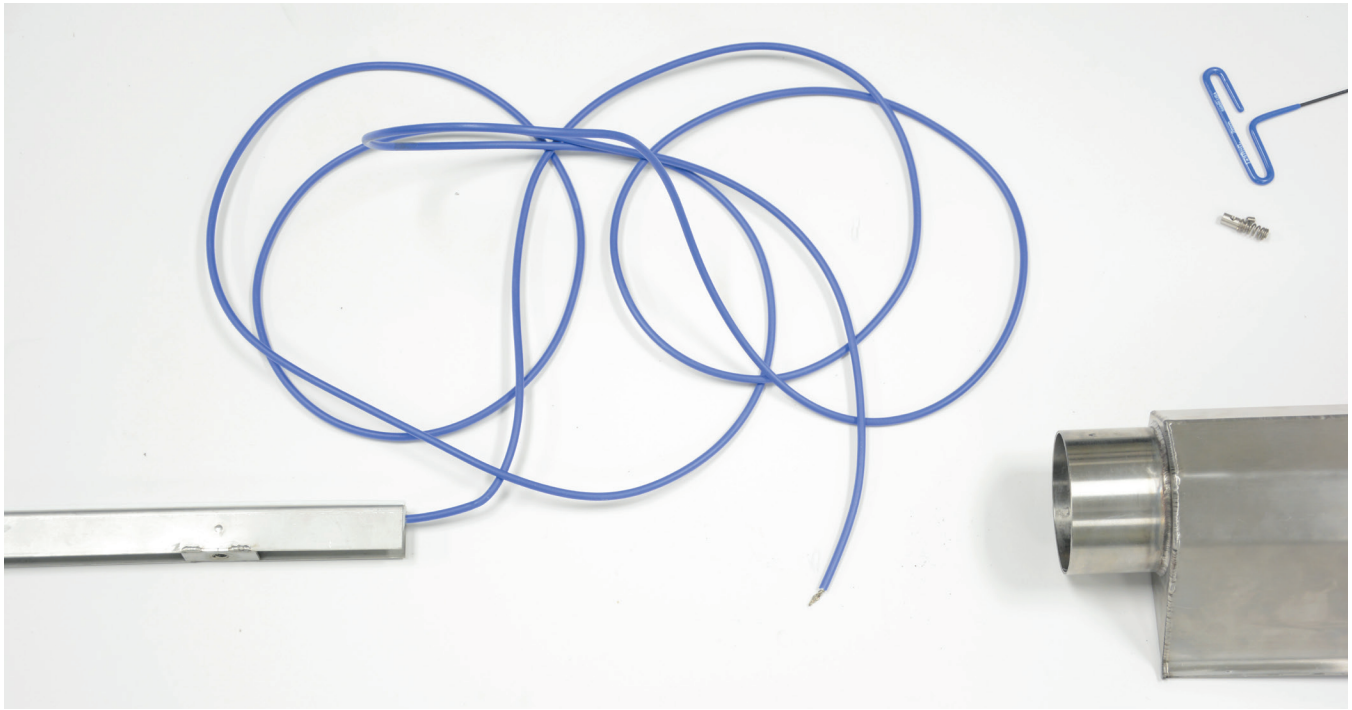
8. Using a 7/8" wrench, remove the threaded coupling, again sliding it off the end of the wire.

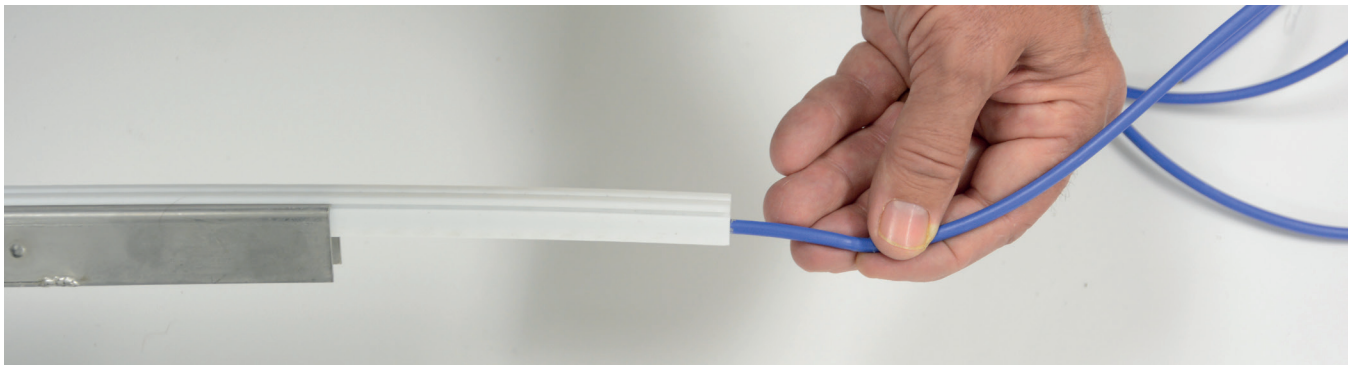
9. Beginning at the end of the Air Device where the ground wire was disconnected, remove the remaining screws on the back of the Air Device that secure the white bar and housing inside. Keep the screws for reassembly.

10. After all wire connects and screws spanning the length of the Air Device are removed, slide the Ionizing bar with housing out of the 2″ or 3″ opening on the opposite end from the ground wire.

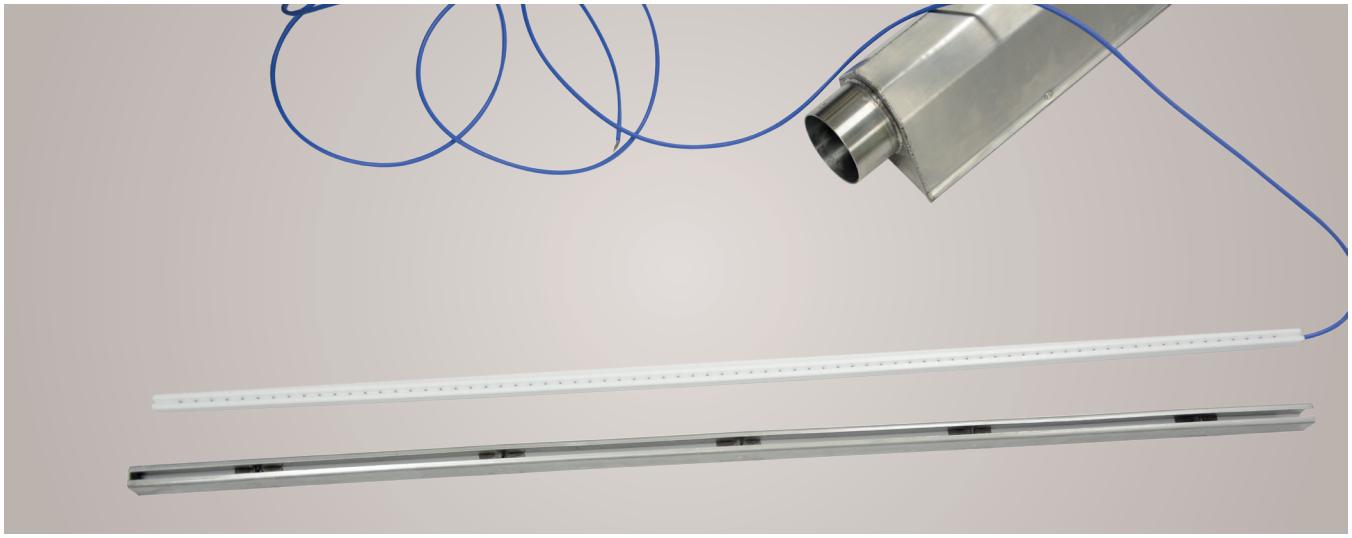








11. Holding the metal housing in one hand, and the blue cable in the other hand, gently pull the white ionizing bar from the housing. The ionizing bar will slide smoothly out of the grooved housing.



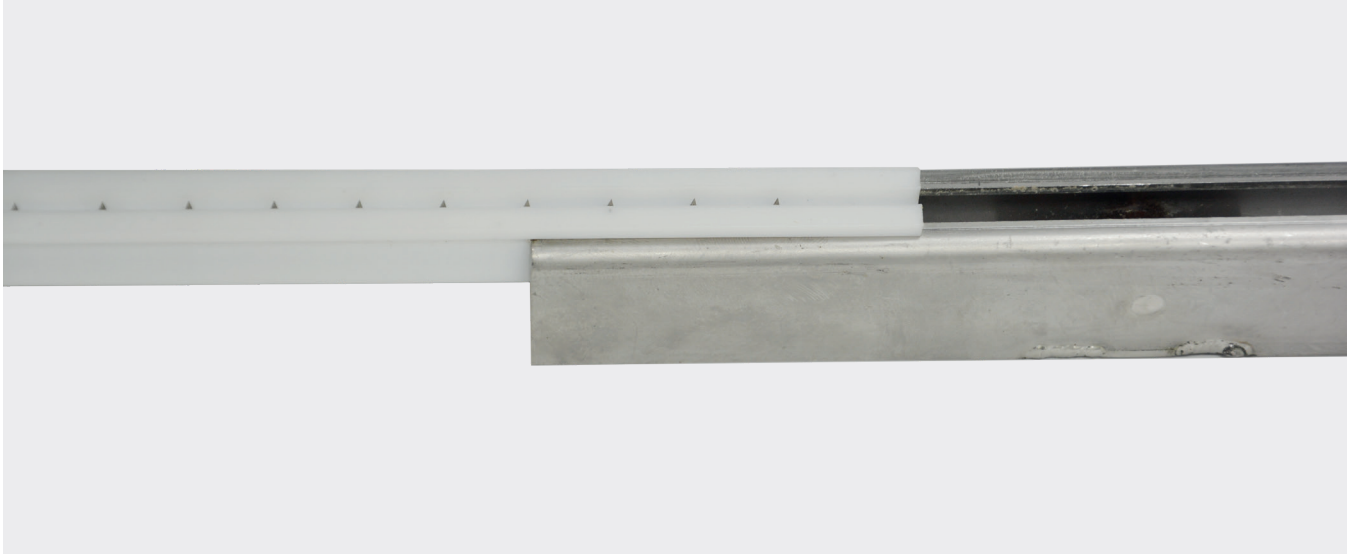
The white ionizing bar has sharp metal points on one side. Gloves are recommended when handling the ionizing bar to prevent skin puncture.

12. Using a moderately stiff brush or compressed air, clean the emitter points on the face of the bar to remove any metal fragments, filings or debris.

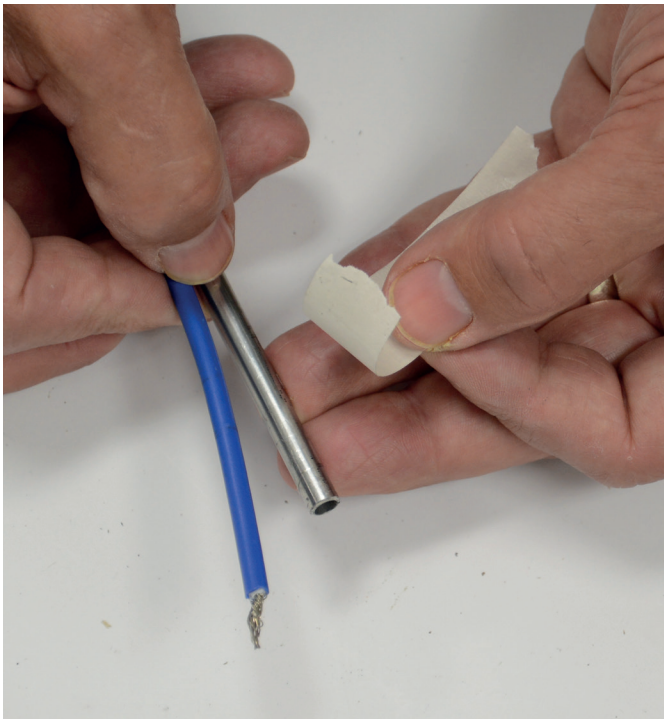
a. Periodic cleaning will prevent the emitter points from accumulating hardened balls of lint, grease or foreign matter which can reduce their sharpness and result in decreased efficiency.

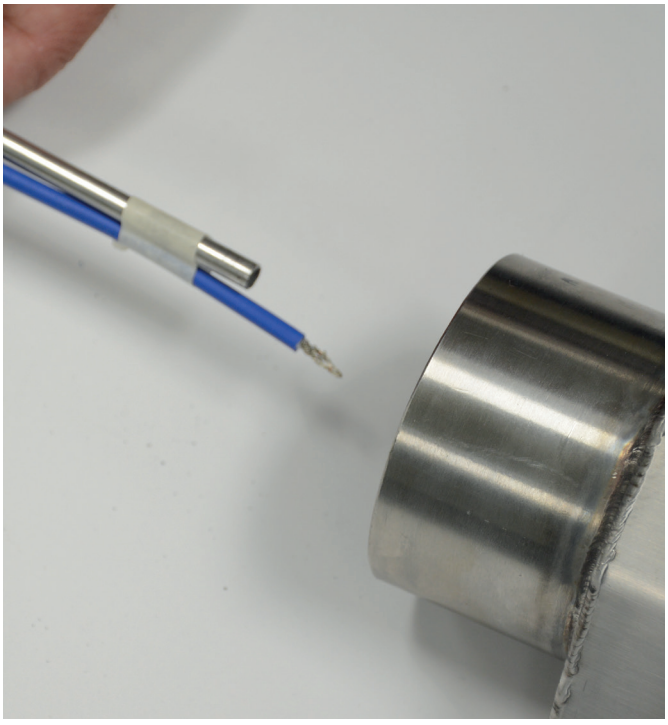
b. Commercial cleaner can be wiped on the emitter points to remove more resistant coatings.

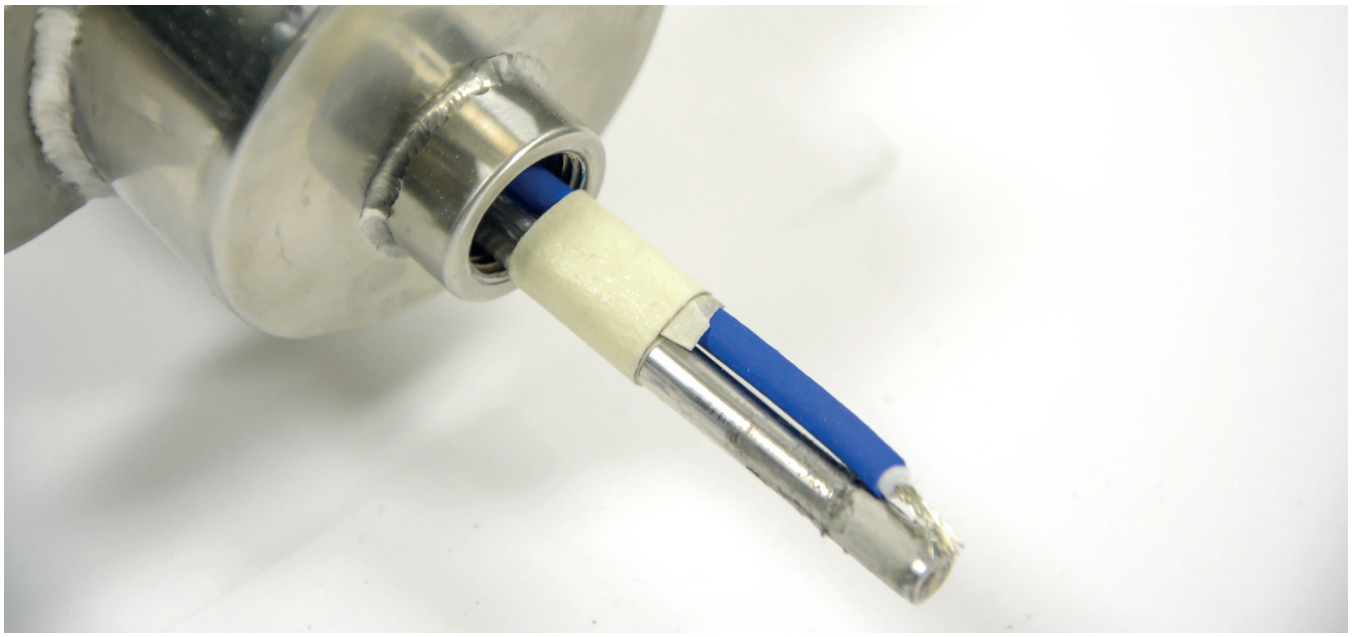
13. After cleaning, reinstall the ionizing bar by sliding the white ionizing bar back into the metal housing, using the tongue and groove, with the emitter points facing up.



14. Using a dowel or metal rod and tape, tape the exposed wire end of the blue cable to the rod, and feed the wire back through the 2" or 3" opening on the Air Device, and push it through the small opening on the opposite end of the Air Device.







15. Remove the tape and pull dowel or metal rod from air delivery device. Pull remaining blue wire through the small opening, until the ionizing bar and metal housing are fully inserted and the metal housing butts against the end cap of the air delivery device. Align the emitter points of the ionizing bar in the direction of the air discharge; and align the nut-serts on the metal housing with the screw holes on the air delivery device (180° from the air discharge).

16. Using the ¼" x ½" screws, replace the ground wire while simultaneously securing the power bar inside the device. Loosely tighten the screw.

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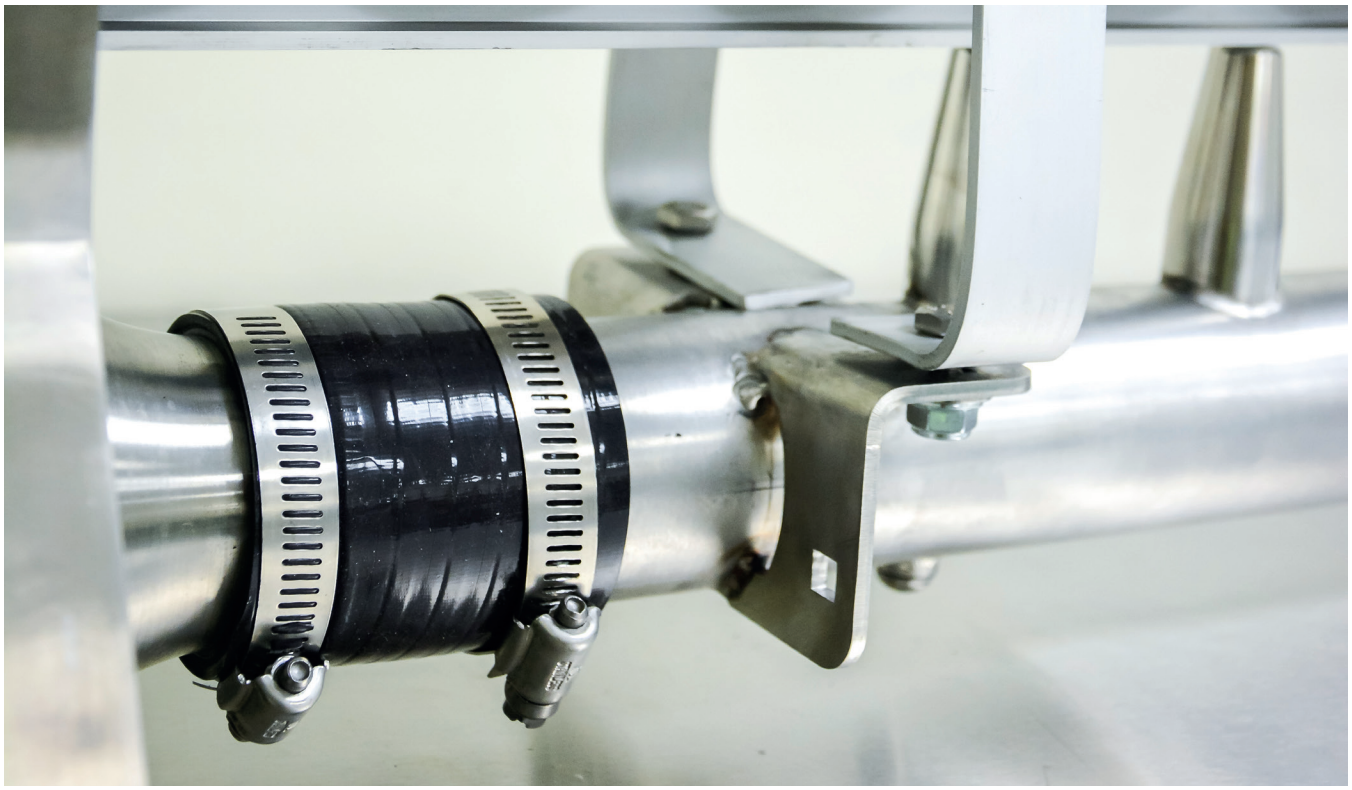
Bar alignment starting with the ground wire end is critical to proper installation of the ionizing bar.

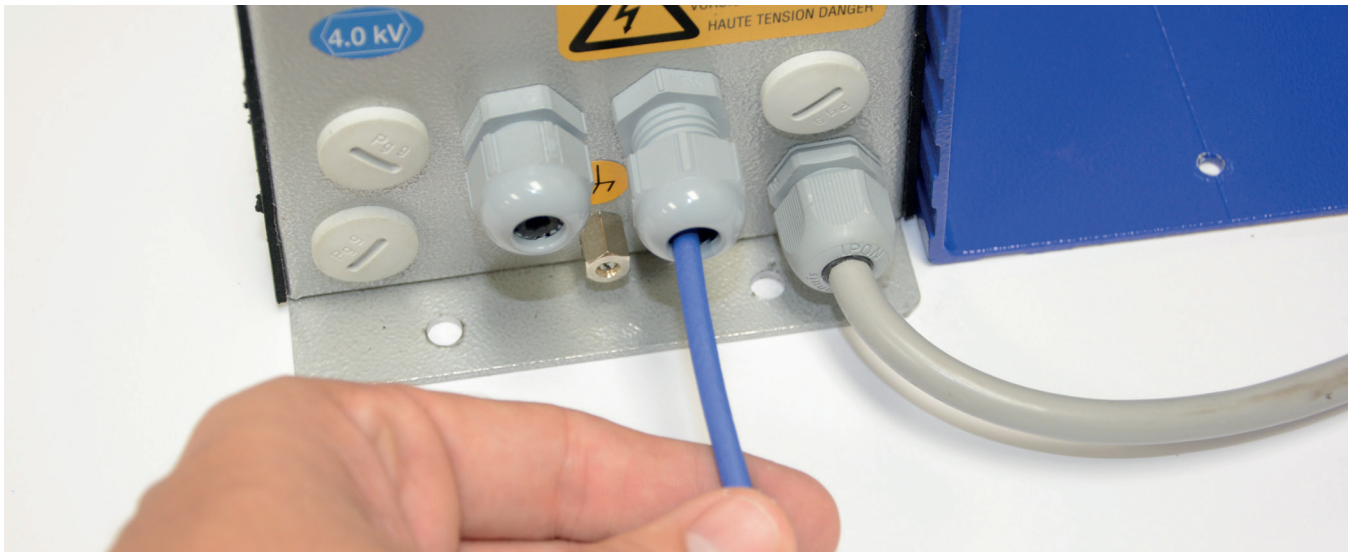
17. Continue inserting the remaining ¼" x ½" screws along the length of the Air Device to affix the Ionizing Bar housing inside the Air Device, working your way from the ground wire connection to the opposite end, and loosely tightening all screws. After all screws are in place, tighten all screws.

18. Replace the black threaded coupling and tighten snuggly with 7/8" wrench. Be careful not to overtighten.

19. Thread the wire secure cap onto the wire, and tighten onto the threaded coupling.

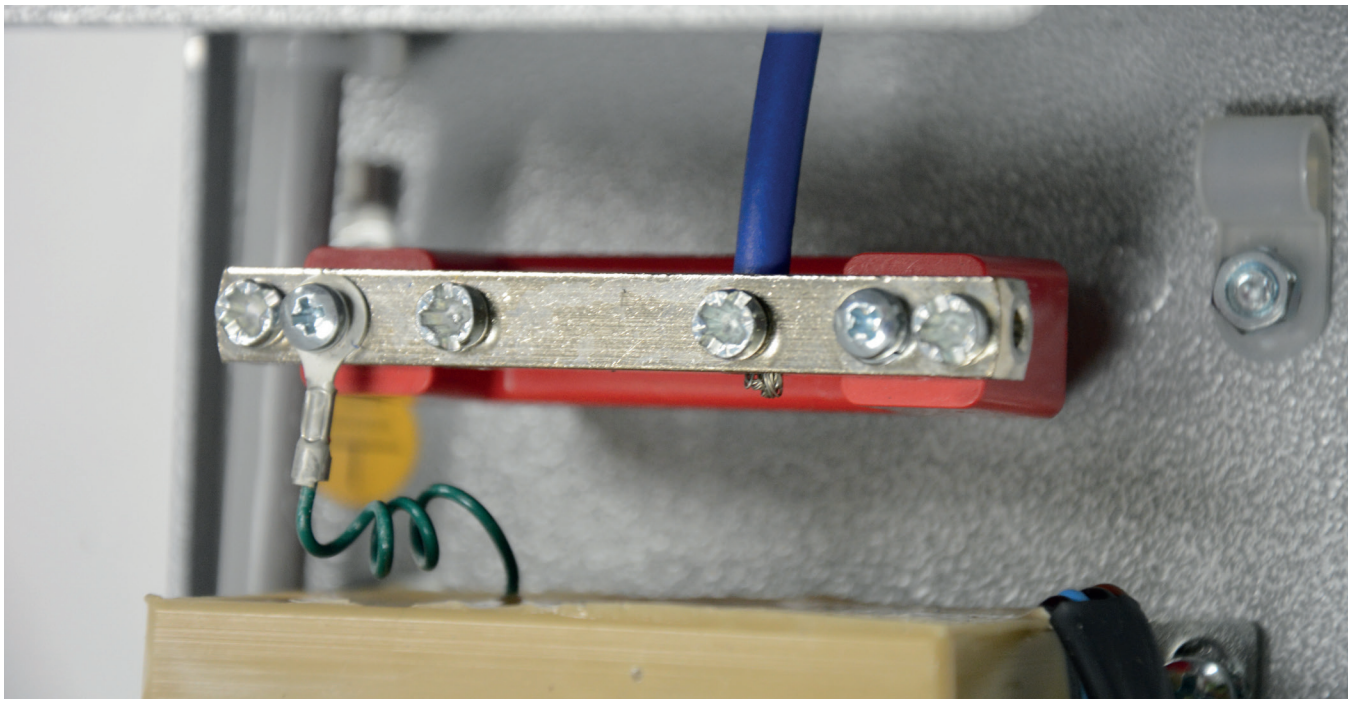


20. Reattach Air Device to the machine/rinser.
21. Reattach flexible hose or connector from blower to the 2″ or 3″ opening on Air Device.
22. Adjust alignment of air delivery devices relative to bottles or cans. Refer to the drawing on page 6.
23. Reassemble the power supply lead and connect to power supply.

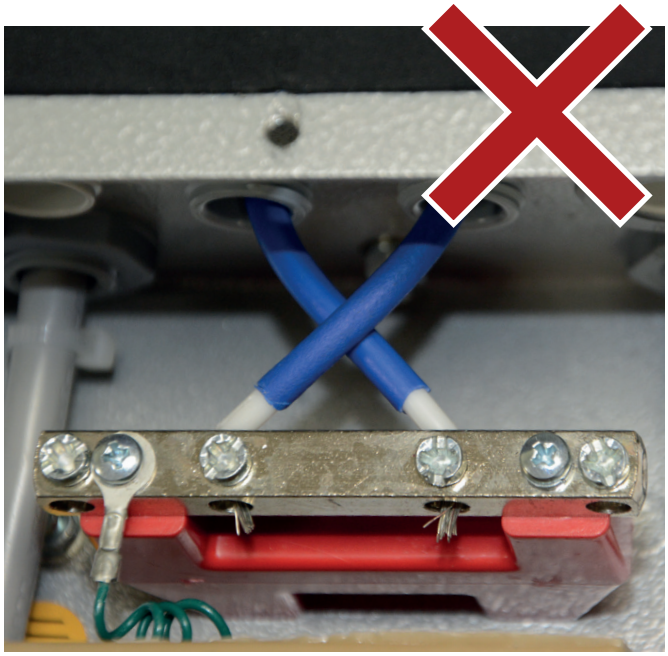


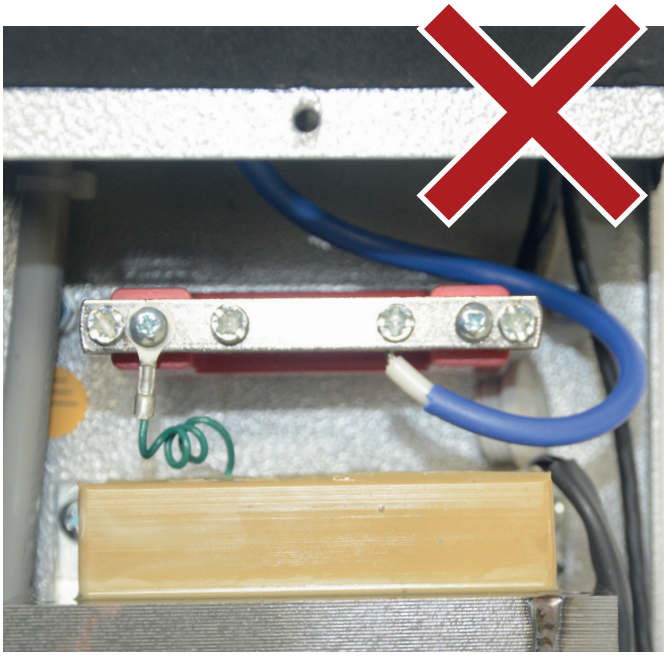
a. Insert the blue cable into the power supply through the gray connector.

b. Reconnect end of blue cable to terminal screw and tighten.



The cable must go straight into the terminal screw Do not allow the high voltage cable to loop or crisscross.





c. Tighten the gland screw on outside of power supply.

d. Reconnect green ground wire.

24. Restore power to the blower and to the power supply.

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