



Installation Guide: **POW-R-PAK**

SS4350X UL-2161 Listed Outdoor Type 3
ELECTRONIC NEON POWER SUPPLY FOR INDOOR/OUTDOOR USE
IN CHANNEL LETTER APPLICATIONS

FEATURES:

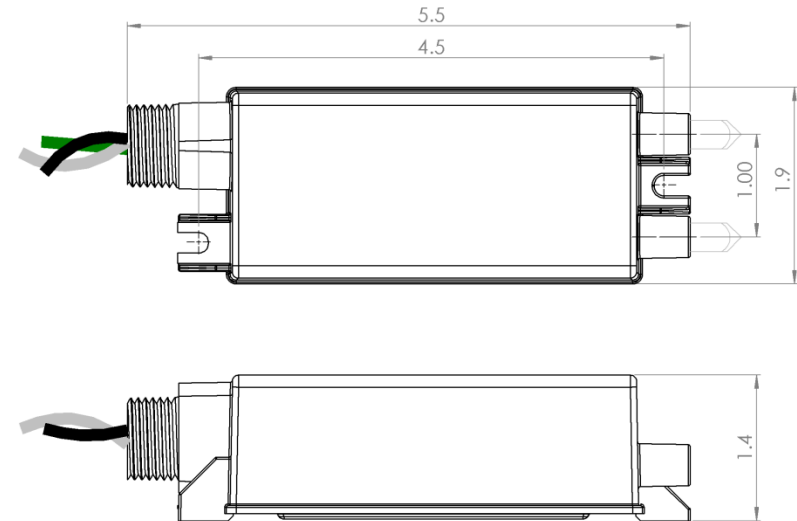
- Secondary circuit ground fault shutdown protection complies with UL2161
- Open Circuit and Overload shutdown protection
- Small Size Solid State Technology
- Lead wires

SPECIFICATIONS:

Input Voltage	120 VAC $\pm$ 3%
Input Frequency	50/60 Hz.
Input Current@Rated Load	0.35 A.
Output Voltage	2 - 4 KV RMS.
Output Current	35 mA. RMS.
Size (LxWxH)	5.5 x 1.9 x 1.4 inch
Weight	0.4kg

ABSOLUTE MAXIMUM RATINGS

Input Voltage	108-132 VAC
Operating Temperature	-22°F - +104°F (-30°C - +40°C)
Storage Temperature	-22°F - +140°F (-30°C - +60°C)



READ CAREFULLY BEFORE INSTALLATION

- o The *POW-R-PAK* ground wire must be connected to a properly grounded polarized receptacle. Removing the ground wire will **void** warranty.
- o Please make sure that the high voltage output leads are connected firmly to the gas tube(s) and electrodes are properly insulated before powering the unit. Loose connection of high voltage wires can cause hazardous arcing. *Contact with the transformer's high voltage output leads may cause electric shock, burn or death.*
- o Do not ground output leads. Do not run output leads in metal conduit.
- o When operating two or more power supplies in the same installation, make sure units are at least 6" inches (150 mm.) apart.
- o *POW-R-PAK* can be mounted directly inside channel letter and /or mounted on the back wall, underneath tubes. *POW-R-PAK* should not be mounted in a position where it is exposed to water.
- o Integral GTO wire leads do not require additional sleeving, however, precautionary measures to protect the integrity of the high voltage leads are recommended.

INSTALLATION AND OPERATION

- o Firmly secure the *POW-R-PAK* to the application with proper size screws or pop rivets.
- o If *POW-R-PAK* is mounted on metallic surface, make sure transformer is grounded to metal frame via ground foot provided on unit.



- o Ensure that all HV output leads and tubes are at least 1³/₄" inch (45mm) away from metal.
- o Firmly connect high voltage output leads to electrodes of the gas tube(s) and cover electrode connections with UL/CSA approved "boots" or other approved insulation.
- o Wire the power supply to any standard 120 Volts, (3) three wire, grounded power source.
- o Do NOT run GTO leads from an electronic power supply in metallic conduit. Doing it will cause severe loss of driving distance, and GTO failure.
- o Do NOT overload. The unit has protection and will "flash" if there is an over load or excessive capacitance coupling. Work from the footage chart. If in doubt, contact our Tech support hotline at 1-800-661-7251.
- o Keep GTO leads, as short and as far from each other and all surfaces as possible. We recommend 1³/₄" inch (45mm) spacing as a minimum.
- o If long jumper leads must be used, place these as close to the middle of the gas tube as possible, that will lessen the chance of tripping.
- o Balance gas tube load and high voltage leads as much as possible. Place the *POW-R-PAK* in the middle of the gas tube. This minimizes current loss due to capacitance coupling through the tube.
- o Follow all applicable UL, NEC, CEC and local codes.

TROUBLESHOOTING TIPS

There is a protection circuit in the *POW-R-PAK* that will interrupt power whenever an abnormal operation condition happens. A ground fault or a secondary open circuit will trip the unit. The *POW-R-PAK* will flash the tubes (sign) once before shutting down in case of an open circuit, overload or a ground fault. Please follow the procedure outlined below.

Remove power from the *POW-R-PAK*. This action will reset the protection circuit. Wait 10 seconds before reapplying power. If tripping continues, remove power and check the following:

- o Are the output leads connected securely and properly to the gas tube(s)?
- o Is the gas tube broken or cracked, resulting in an open circuit?
- o Is one of the tubes leaking?
- o Is there a ground fault condition occurring within the system?
- o Is an unbalanced loading causing false tripping?
- o Are the H.V. leads too close to any metal or ground plain? Remember to keep minimum 1³/₄" inch (45mm) clearance from conductive or combustible surface.

After completing the above check list and rectifying any detected problems, reestablish the input power to the transformer to energize the gas tube (sign). If

the *POW-R-PAK* continues to not work properly call customer service at 1-800-661-7251.

Footage Chart (ANSI)

	Tube Diameter	Driving Footage
Mercury	10mm	5' – 8'
	12mm	7' – 12'
	15mm	9' – 16'
Neon	10mm	4' – 7'
	12mm	5' – 10'
	15mm	7' – 13'
Outdoor Mercury	10mm	4' – 6'
	12mm	5' – 10'
	15mm	6' – 12'

Note: Each additional pair of electrodes is equivalent to one foot of tubing. The above footage chart is intended as a guide only. Actual distance will vary due to application.



Allanson International, Inc. Warranty

Allanson International Inc. warrants to the purchaser that the ballasts and or transformers will be free of defects in material and workmanship. Should any properly installed ballast or transformer prove to be defective within two years from date of manufacture, Allanson will at its option, repair or make available a replacement.

The liability of the company to the purchaser shall not exceed the cost of supplying a replacement. The company is not liable for transportation or installation expenses.

The warranty is in lieu of any other warranties, whether written oral or implied.

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