

CPI NEON TRANSFORMER GENERAL INSTALLATION

Please read this Information and data on how to safely install your neon transformer and display. We use an example transformer with a simple checklist to verify the proper selection of the tube load, some basic installation guidelines, and a briefing on our warranty.

As you can see there are differences in operation with these transformers when compared to the common old 60 Hz core coils. If you follow these instructions you should end up with a long-lasting, trouble-free and safe installation.

1. SPECIFICATIONS

Make sure the transformer is being run within its specifications (input power and operating temperature).

Model	Input	Output	Power Factor	Operating Temperature	Temperature Rise
CPI-10035FL	120VAC \pm 10% 50/60Hz 1,200mA	10,000V 35mA	< 0.9	0°C to 40°C 32°F to 104°F	+20°C / 36°F Above Ambient

Here, we are using an example CPI-10035FL transformer.

2. TUBE LOAD

Refer to the transformer's Tube Load Chart to determine the maximum tube length that the transformer can power (deduct 1 foot per pair of electrodes). If you don't know the tube's diameter, measure it with a caliper or eyeball it with a ruler. Then check the appropriate column (neon or mercury) to see the maximum length that the transformer can run. For example, if you have a 9mm diameter tube filled with neon, the maximum length would be 16 feet. The transformer will automatically adjust its output to any shorter length, but do not run a longer length than specified or you risk overloading the transformer.

Specs	Clear or Fluorescent Red								Mercury Filled Clear or Fluorescent any color									
	22	20	18	15	13	12	10	9	8	22	20	18	15	13	12	10	9	8
Tube Diameter(mm)	22	20	18	15	13	12	10	9	8	22	20	18	15	13	12	10	9	8
Tube Length(ft)	57	48	40	34	29	26	18	16	13	67	55	45	40	33	31	23	18	15
Gas Pressure	7	7.5	8	9	10	11	13	15	17	7	7.5	8	9	10	11	13	15	17

3. GENERAL INSTALLATION

Tube Load

The transformers automatically adjust to tube length, including electrodes, from minimum to maximum output listed in the Tube Load Chart. Maximum length in feet may vary according to GTO leads length and environment. Always deduct 1 foot per pair of electrodes. Footage for mercury is based on operation in temperatures above 4C (40F). **DO NOT OVERLOAD** by exceeding the maximum tube length indicated in the chart.

Auto Shutdown

Built in protection circuit is designed to shutdown the power supply if unit is overloaded. But do not intentionally overload or you risk destroying the transformer.

Installation

- This power supply unit is for **INDOOR USE**. (May be used for outdoor applications if mounted in metal weatherproof enclosure/box.)
- This unit can be installed on either metallic or non-metallic surfaces.
- Always provide adequate ventilation to power supply.
- Keep overall length of GTO leads under 6 feet (2m).
- Always keep a minimum of 1 inch between GTO leads and any metallic surfaces.
- When using multiple power supplies on one sign, be sure to keep at least 3 inches between each unit.
- Never cross GTO leads.
- Never run GTO leads across the power supply.
- Keep GTO leads as equal in length as possible.
- Always keep installation in conformity with all local electric codes.
- Modification of any type including cutting/removing of AC cord, tampering with on/off switch or tampering with casing will void any existing product warranty. **NO**

EXCEPTIONS.

4. WARRANTY

The CPI-series transformers are warranted to be free from defects in materials and workmanship for 30 days from invoice date.

Company liability is limited to replacement cost only. Neither CPI nor its distributors are responsible for claims made for shipping, installation costs or other expenses, nor are they liable for any incidental or consequential expenses or liability incurred after purchase as a result of unreasonable use, improper installation, or failure to observe common safety practices. There is no warranty either expressed or implied, on clips, tube supports or other accessory parts.