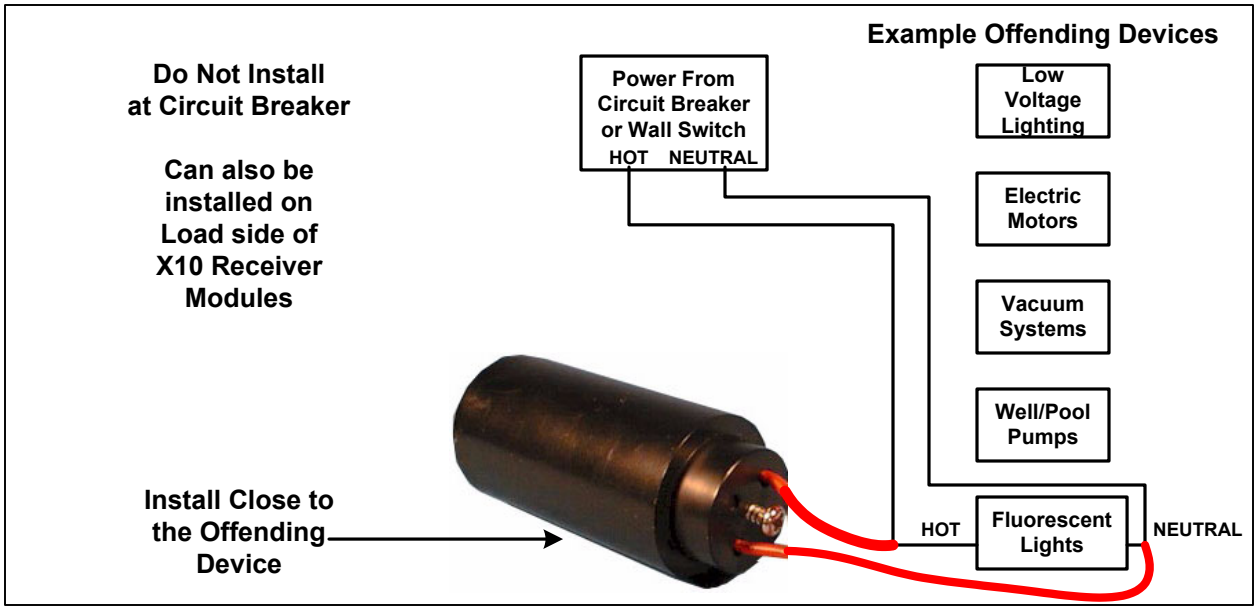
Noise Reducer Filter XPNR



Description: The XPNR Wire-In Noise Reducer is designed to reduce electrical noise (on power wires) generated from the power supply of an electronic device. The XPNR is typically a last effort to reduces noise above and below the X10 120KHz operating Frequency. Properly Filtering the offending device with an XPPF Plug-in Filter or the XPF Wire-in Filter should be your first solution. Use the XPNR in situations when intermittent or hard to filter noise interferes with the proper operation of the X10 PRO system.
Make sure the XPNR is wired close to the offending device, or as close to the X10 Module being interfered with. The X10 Signal will now operate freely throughout the house power system without interference from the electrical noise.

Note: The XPNR is a second line filter used only after trying the XPPF or XPF Filter(s) first. It can be wired across a 120V load or a 240V load. It can be used in any combination with the XPPF or XPF Filter(s) in hard-to-find noise environments.

The above drawing is a simple representation of the XPNR's basic elements of installation.

Note: Filters must always be located as close to the offending device as possible.

Specific Requirements: 120/240VAC.

Optional / Supplementary Devices & Modules:
XPCR - to ensure full X10 Signal Strength on both electrical 120V phases.
XPF - Wire-in Inline Filter, reduces noise at the X10 120KHz operating frequency.

Electrical Protocol:
Nearly all residential homes are wired SPLIT-PHASE. Each 120V Phase is NOT directly connected with the other 120V phase. If after installation, an X10 Receiver does not respond to a remote Controller, then check to ensure that the breaker serving the X10 Receiver is on the same phase as the Controller. If not, the breaker can be changed to the opposite phase. An alternative solution is recommended, to install a Phase Coupler for improving remote communications throughout the home. See www.x10pro.com, then select Technical Support and PLC Troubleshooting.

Installation:
1. Determine which electronic device is generating electrical noise, causing an X10 Receiver attached to a (light, etc.) to become inoperative.
2. Turn Power OFF, Wire-in the XPNR Noise Reducer across the power wire and neutral, close to the offending device.
4. Retry operating the X10 Receiver Module, previously inoperative, it should now be functional.

Determining Offending Device:
1. Always Un-plug/Un-power suspect electronic devices, turning-off is not sufficient as device power supply may still be ON in the idle mode.
2. Un-plug/Un-power one device at a time, retrying X10 Control each time.

Possible Wired-in Offending Devices:
Well/Pool Pumps, Electric Motors, Vacuum Systems, Fluorescent Lights (Tube or Bulbs), Low Voltage Lighting.

Tech Tip: See PLC Troubleshooting document, at www.x10pro.com, under Technical Support. This literature will offer in-depth problem solving techniques using the X10 PRO Test Equipment, Phase Couplers and Filters.

Investing in the X10 PRO Test Equipment, XPTT/XPTR, is an excellent way to ensure that X10 Signal Strength is at the appropriate levels.