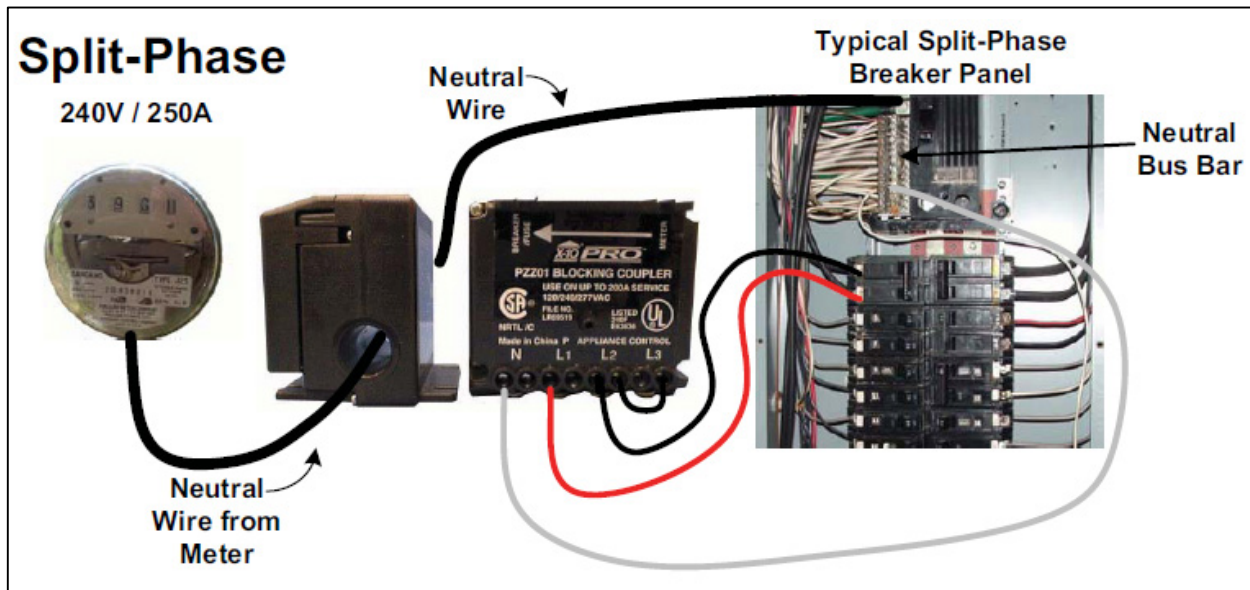# Blocking/Coupler Filter - Passive PZZ01

Description: The X10 PRO Split-Phase or 3-phase 250A Signal Blocking Coupler is designed to attenuate (at a rate of 30:1) X10 Command Signals from crossing from one household to another via the AC wiring. The Coupler/Blocker is installed between the Meter and the Breaker Panel, using the Copper Neutral Wire between the two. The unit may be used in Split or Three Phase installations. For best results, a PZZ01 should be installed at both homes experiencing the signal crossings. Unique features of the design include its ability to efficiently couple X10 Signals between phases, the elimination of any direct connections to the power company-side wiring and the elimination of heavy current carrying inductors, resulting in a very compact design. DO NOT use any other X10 Phase Coupler, if installing the PZZ01.

Note: Installation must be performed by qualified installers only. The Main Breaker must be turned OFF during installation. The Coupler must be installed in a suitable workbox or enclosure per local code. Installation must be in accordance with all applicable codes and requirements, including, but not limited to, the National Electrical Code (NEC).

Specific Requirements: 240VAC.
Split-Phase System 120/240V - L1, L2.
Three Phase System 120/208Y - L1, L2, L3.

Optional / Supplementary Devices & Modules:
XPPF Plug-in 5A Filter & XPF Wire-in 20A Filter to reduce interfering noise from electronic devices.

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. Switch OFF the power at the Main Breaker panel.
2. Install the Filter into a suitable workbox or equivalent enclosure using the four mounting slots.
3. Disconnect the neutral cable running between the Meter and the Breaker Panel/Fuse Box Neutral Bar. Pass the cable through the channel in the Filter and re-connect it. (Maximum 250 Amp Copper)

Note: If the cable is not long enough, use a new cable of the correct type and rating. Do not attempt to extend the cable by joining it. The cable must be passed through the Filter in the correct direction as indicated by the label on the side of the Filter.

4. Connect the N terminal on the Filter to Neutral in the Breaker Panel using minimum 15A wire.
5. Install a minimum 15A Breaker or Fuse in the Breaker Panel on Phase A and connect it to the Filter terminal marked L1 using minimum 15A wire.
6. Install a minimum 15A Breaker or Fuse to Phase 2 and connect to terminals L2 on the Filter.

Note: If using in a 120/240 Split-Phase system, connect a jumper wire between L2 and L3 on the PZZ01. Go to Step 8 if Split-Phase System.

7. If Three Phase Installation, install a minimum 15A Breaker or Fuse to Phase 3 and connect to terminals L3 on the Filter.
8. Check all wiring and switch ON the Main Breaker.

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

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