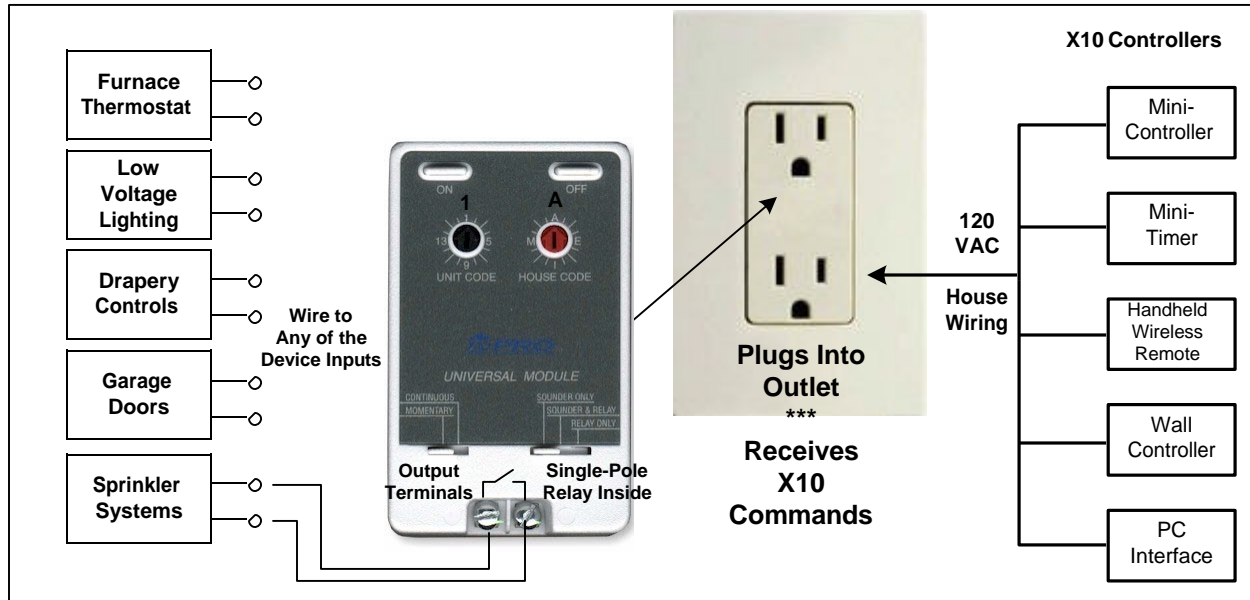# Universal Module - Receiver   PUM01

Description: The PUM01 Universal Module RECEIVES X10 ON/OFF Signals and it Closes/Opens its internal Single-pole relay switch. The PUM01 is used to operate furnaces via their low-voltage thermostat wires, low voltage lighting, drapery controls, garage door openers, sprinkler systems, etc. The PUM01's internal switch relay is a path interrupter for devices which are not powered above 24VDC (5A) or 30VAC (3.3A).

Specific Requirements: 120VAC Power
Max 24VDC / 5Amps or 30VAC / 100VA (3.3A) through the Output Terminals.

Optional / Supplementary Devices & Modules:
Any X10 Controller can send a Command to operate the PUM01.

X10 Protocol:
House Code Dial - Letters A-P   **Unit Number Dial** - Numbers 1-16
Each X10 Receiver Module is set to a unique Unit Number or to an identical Unit Number as desired.
Each X10 Controller operating a specific set of Receiver Modules must be set to the same House Code as the Receivers they are controlling.

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:
Set Operation Modes:
    Momentary - When an X10 "ON" Command is received the Relay closes, approximately 1.5 seconds, then releases.
    Continuous - When an X10 "ON" Command is received the Relay closes and will remain closed until an X10 "OFF" Command is received. The Relay will not change its status due to a power loss.

    Sounder Only - a SOUNDER will go off. No Relay switching will occur.
    Sounder & Relay - a SOUNDER will go off and Relay switching will occur.
    Relay Only - only Relay switching will occur.
Plug the PUM01 into a 120VAC Wall Outlet.
Connect the PUM01, with two wires, to the terminals of the low-voltage device being controlled.

Testing the Universal Module
    Press ON - Module activated according to selected modes.
    Press OFF - Module is switched OFF if in the Continuous mode.

SPECIAL OPERATIONS
    1. The PUM01 Output Terminals can be directly wired to the PSC01 Powerflash Module's Input Terminals. This allows an X10 ON/OFF Command to be sent to a detached facility, (which is on separate AC power), via 2 Low Voltage wires, carrying little power on them.
        a. The PUM01 receives an X10 ON Command, closes its Relay.
        b. The PSC01 senses the contact closure and sends an X10 ON Command onto the separate power system.
        c. The two Low Voltage wires can be replaced with a Wireless RF Transmitter/Receiver setup (non-X10) to pass the contact closure/X10 Command over long distances.
    2. The PSC01 senses a contact closure and sends an X10 ON Command.
        a. The PUM01 (at a remote location), on the same power system, receives the X10 ON Command and emits a remote contact closure (great for a detached garage security zone reporting a closure to an alarm panel).