



***Professional
Automated Living
PAL2***

Home Automation Package

For New Construction

(14 Piece)

Installer's Guide

The PAL2 includes the following:

- 1 PHR03 16+ Hand Held RF Remote Control**
- 1 PHR04 2 Channel RF Keychain Remote**
- 1 PUR08 8 In One Universal Learning Remote**
- 1 PAT01 Transceiver w/built-in appliance module**
- 1 PHT02 Programmable Mini-timer**
- 1 PLM01 Plug-in Lamp Module with AGC Circuit**
- 2 XPDI3 Decorative Inductive Wall Dimmer Switches**
- 4 XPS3 Decorative 20A Wall Switches**
- 1 XPCP Passive Coupler (Signal Bridge)**
- 1 PHS01 Dual Floodlight Motion Sensor**

Pre-installation Technical Information:

The X10 PRO products you are about to install utilize a unique communications protocol called PLC (Powerline Carrier). PLC superimposes a digital packet on the existing powerline of the home, making special wiring unnecessary.

The individual HOUSE and UNIT Codes are addressable on all receivers (A-P) and must match those set on the Transmitters. Example: House Code "A" set on a transmitter can only transmit to devices set to match House Code "A", and receivers set to "A" can only receive "A" commands.

The Specific UNIT CODE set to a receiver makes it only identify with an individual command from a transmitter (1-16). Only a matching House and Unit code can properly control a PLC device.

Using the existing 120VAC powerlines of the house, PLC products transmit in an environment where other electrical equipment share the power lines. Other devices can cause interference with PLC products. These Interference Issues are solvable. Should you detect an operational inconsistency of X10 PRO products, an XPPF (Plug-in Filter) or an XPF (Wire-in Filter) may be required to eliminate the noise situation caused by an "Offending Device".

Such offending devices are those having power supplies that are on the line even if that device is turned off. (i.e. computer, monitor, printer, TV, low voltage lighting, surge suppressors, etc.). When you unplug one of these devices and the X10 PRO controls begin working again, you have identified a noise producing device. Simply plug in the XPPF Filter and plug the offending device into it. If the offending device is hard wired and you cannot unplug it, then shut the breaker off that supplies power to that circuit. If this solves your noise issue, then install the XPF Filter on that circuit.

X10 PRO has available the XPTT and the XPTR (Test Set) making signal noise testing simple, quick and more accurate than without them.

Installation:

The following is designed to be a quick installation reference guide, listed in the suggested installation order. For more detailed information regarding setup, install, or operation of a particular module, please reference the installation sheet packaged with each individual product.

XPCP Passive Coupler

Designed for Installation between two 120V phases of an electrical panel, the XPCP installs in or next to the electrical panel. The Coupler provides a transmission path between both phases allowing the X10 Signal to pass from one phase to the another. **Please read and follow all the Installation Instructions and precautions found in the package containing the XPCP.**

XPDI3 Decorative Inductive Wall Dimmer Switches (Includes White & Ivory)

Possible installation locations: Master Bedroom or Hallway.

Rated for max. 500W Incandescent loads or 4A Inductive loads, the Inductive Wall Dimmer Module is designed to fit a standard, single or multi gang wall box controlling incandescent lighting or inductive loads (i.e. low-voltage lighting transformers, small motors and ceiling fans) up to 4A. With the power shut off, connect the Blue wire from the XPDI3 to the load, the White wire to Neutral and the Black wire to supplied Line Voltage 120VAC. *If you are using this switch as a single pole switch, simply cap off the Red wire. If you are using this as a three way master, connect the Red wire to the traveller wire carrying control to the Slave Switch (XPSS).*

Finally, set the House Code on the module (under the removable Decorative cover) to match the code selected that will match the additional modules that you will install. The Unit code will be the individual address used to control each device independently or as a group. **Please read and follow all the Installation Instructions and precautions found in the package containing the XPDI3.**

XPS3 Decorative 20A Wall Switch (Includes White & Ivory)

Possible installation Locations: Inside switches controlling Outdoor Walkway, Outside Entryway, Outdoor Floodlights and Inside Foyer.

Rated at 20A, the Decorative Wall Switch can operate Incandescent or Inductive Loads. Designed to fit a standard, single or multi gang wall box, the XPS3 also requires the use of a Neutral wire. With the power shut off, connect the wire leading to the load to the LOAD terminal on the switch. Connect a neutral to the NEUTRAL terminal and 120VAC to LINE on the switch. *If you are using this switch as a single pole switch, simply make no connection to the CONTROL terminal. If you are using this as a three way master, connect the CONTROL terminal to the traveller carrying control to the Slave Switch (XPSS).*

Finally, set the House Code on the module (under the removable Decorative cover) to match the code selected that will match the additional modules that you will install. The Unit code will be the individual address used to control each device independently or as a group. **Please read and follow all the Installation Instructions and precautions found in the package containing the XPS3.**

PLM01 Plug-in Lamp Module w/AGC Circuit (White)

Possible installation locations: Convenient Lamp in Living Room or Nightstand in Master Bedroom or Child's Room Security Light.

Rated at 300W incandescent, the PLM01 allows you to plug a standard non-dimming lamp into this module and give you ON/OFF and BRIGHTEN/DIM control over the powerline. The AGC circuit is an advanced design that allows the receiver to adjust the "GAIN" or level of which it listens for it's commands. Take a lamp plug and insert it into the PLM01 and plug the PLM01 into a nearby electrical socket. Set the House code to match that of the previous installed devices and the Unit code to another unused code (unless you want it to match another installed device to activate at the same time). *Leave the key switch on the lamp in the "On" position to let the module control the lamp from commands sent to it by a transmitter.*

PHT02 Programmable Mini-Timer (White)

Possible installation location: Master Bedroom Dresser or Headboard shelves.

This versatile Mini-Timer/Controller gives you the capability to directly control Unit Codes 1-4 or 5-8 from the rocker switches located on top of the unit. A "DIM/BRIGHTEN" command can be sent directly following the "ON/OFF" command sent, assuming that the command you sent was to a "Light" controller with Dimming capabilities. Using the "ALL LIGHTS ON and ALL UNITS OFF" commands, you have access to all modules in your home with the push of a single button. Using the four position memory located in the timer you can program up to 2 "ON" and 2 "OFF" commands to 4 devices (1-4 or 5-8) every 24 hours. You can also use the built-in wake up alarm to wake you up in the morning.

Setting Up the Mini-Timer

- * Set the HOUSE Code to match the Receivers already installed.
 - * Insert a 9 volt battery into the compartment on the bottom of the Mini-Timer and plug the Timer into a nearby outlet where you have located it.
 - * Set the Mode Selector to "Set Clock" and using the left/right arrow buttons set the current time.
 - * Set the Mode Selector to "Prog. Set" and using the arrows set a time for a device to come on/off. Next push the unit rocker that you want to function at that time (ON/OFF). Put selector back in the Run mode.
- To verify the current programs, set the Mode Selector to "Prog. Review". Press each of the rockers to display the time set for that function. Pressing the rocker twice displays both times (if you have two functions programmed). **For more detailed programming and operation of this device, please read and follow all the Installation Instructions and precautions found in the package containing the PHT02.**

PAT01 Base Transceiver w/Built-in Appliance Module (White)

Possible installation Location: Centrally located maybe on top of a plant shelf and convenient for Special Indoor or Holiday Lighting, powered from the built-in Appliance Module.

The Transceiver is necessary for the next two devices described. The Transceiver receives RF Commands from Wireless Transmitters and inserts them onto the Powerline as X10 Commands.

* Find a location for the Transceiver to be located, (higher is better), and plug it into 120VAC.

* Set the House Code to match those that you have already installed.

* Set the "1-9" slide to either location to receive and process all 1-16 commands, however only 1 or 9 will be selected for the built-in appliance module.

PHR03 16+ Hand Held RF Remote Control

Possible installation locations: Next to your bed on a night stand or conveniently located on a living room coffee table.

The 16+ Remote allows you to access, by RF control, ON/OFF plus Brighten/Dim control (when used with receivers that have dimming capabilities) of 16 X10 PRO devices. The PHR03 transmits to the PAT01 which receives the commands and inserts them onto the powerline.

* Set the House Code (A-P) on the front of the control to match that of the PAT01 (Base Transceiver).

* Set the Selector Switch at the bottom to either 1-8 or 9-16 to control the devices having those particular Unit Addresses.

* Insert two AAA Batteries in the proper direction and close the case.

The PHR03 has a range of 100 feet, "line-of-sight", less than that through walls and electrical fields. Try various locations with the PAT01 Base Transceiver for the best possible response.

PHR04 Two Channel RF Keychain Remote

Possible installation locations: The Keychain of your choice or conveniently in your vehicle in a easy to reach location.

The Two Channel Keychain Remote allows you to access, by RF control, ON/OFF and Brighten/Dim of two X10 PRO devices. The PHR04 transmits to the PAT01 which receives the commands and inserts them onto the powerline.

To change the Housecode:

* Press and hold the first (top) **ON** button. The red LED blinks once. 3 seconds later, the LED blinks the current setting: 1 blink for House code A, 2 blinks for B.... 16 blinks for P.

* Release the first (top) **ON** button.

* Press and release the first (top) **ON** button the appropriate number of times for the Housecode you want to set. Once for A, twice for B, etc. The LED blinks for each press. **IMPORTANT:** Hold the button on your last press. 3 seconds later, the red LED blinks back the new setting, (i.e. 3 blinks for Housecode C). If you do not follow this programming sequence, the LED will stay on for 1 second and your existing setting will not be changed.

To change the Unit code repeat the above steps using the top OFF button.

The PHR04 has a range of 100 feet, "line-of-sight", less than that through walls and electrical fields. Try various locations with the PAT01 Base Transceiver for the best possible response.

PUR08 8-in-1 Universal Learning Remote

Possible placement locations: Primary nighttime TV viewing area or Master Bedroom Nightstand (for Bedroom TV/VCR, etc.).

The following is only a short description of the most common usages. Please consult the booklet provided with the PUR08 regarding various other detailed functions and Library Codes for specific IR device models.

The PUR08 can control up to sixteen X10 PRO Modules (in RF Mode with PAT01 RF Transceiver supplied in this kit or IR Mode with optional IR543 IR Transceiver), PLUS seven IR devices.

- Setting up X10 Commands

- * After installing 4 AAA Batteries in the back battery compartment;
- * Press and hold the SETUP Button until the LED lights solid.
- * Press the X10 Button, the LED winks once.
- * Punch in 013 for RF communication to the PAT01.
- * Press the ENT Button and the code is stored.

- Setting the X10 House Code (A-P)

- * Press the X10 Button, the LED winks once.
- * Press and hold the SETUP Button until the LED lights solid.
- * Punch in the desired House Code (matching those already installed) using the Numeric digits, A=1, B=2, through P=16.
- * Press the ENT Button and the code is stored.

- Controlling Various X10 PRO Modules

- * Press and release the X10 Button.
- * Press the individual Unit Code for the module you desire to operate (1 through 16).
- * Press and release the control function (ON/OFF) **or** Press and hold the command (BRIGHTEN/DIM) to control the intensity of a lamp dimmer module. All the modules that you have installed and setup for the same HOUSE Code are now controllable through the PUR08.
- * After Pressing and releasing the X10 Button, an "ALL LIGHTS ON" (controlled as the Power Button) and "ALL UNITS OFF" (controlled as the Mute Button) can be transmitted as a single command.

Using the Code Libraries supplied in your Owner's Manual, program the TV, VCR, CBL, CD, AUX1, AUX2 and SAT Buttons on the remote (all or as few as you choose) by the following example:

- Setting up the IR Functions

- * Press and hold the SETUP button until the Red LED lights Solid.
- * Press the desired button (i.e. TV) that you want to program (the LED winks once)
- * Punch in the Code from the Library in the Owner's Manual with respect to the device that you want to control.
- * Press the ENT Button to store the code.

The stored code under that particular device will now operate the device (i.e. TV). Simply press the TV button and then press POWER and the TV will be able to be controlled.

Now program the rest of the desired buttons that you wish to control.

If you do not find the code for your particular device in the Code Libraries, you can perform a Code Search (see page 26 of the Owner's Manual) or you can LEARN the IR codes from an existing remote, when pointed at the front of the PUR08 (see page 29 of the Owner's Manual.) *NOTE: A maximum of three full libraries may be LEARNED, all others must be selected from the listed Code Libraries.*

PHS01 Dual Floodlight Motion Sensor

Primarily used as a motion sensor and/or dusk sensor, the PHS01 has the unique ability to respond to an X10 Command. When tripped by motion, up to 4 sequential X10 ON/OFF commands can be sent and when tripped by Dusk/Dawn 4 other sequential ON/OFF commands can be sent.

Setting up the PHS01

- * Connect the PHS01 directly to 120VAC and Neutral (being careful not to connect to a switched power source, as with a wall switch).
- * Set the Range Dial to the desired sensitivity (Min/Max).
- * Set the Dusk Dial to the desired operation for Dusk sensitivity.
- * Set the House (A-P) and Unit Codes (1-16) to the desired X10 Control sequence for "This Unit".
- * Set the Time Delay for the duration of ON/ OFF cycle time you desire when the Sensor is tripped by motion.
- * Set the "This Unit" selector to Sensor for the Floodlights to come on with motion, or to Dusk to come on at Dusk and off at Dawn.
- * Sensor selectors +1, +2, +3, +4 are for sequential X10 Commands added to the Start Code of the Sensor to turn on when the Flood Light is triggered by motion. +5, +6, +7, +8 are sequentially triggered by Dawn/Dusk.

E X P A N D I N G YOUR SYSTEM

The Products described in this booklet represent just a few of the wide range of X10 PRO compatible products you can choose from to expand your Home Automation system.

X10 PRO Home Automation products also integrate with X10 PRO Security Systems, so you can use the Security Remotes that come with them to control macros and flash lights when the Security System is tripped.

Check our Web Site at:

<http://www.x10pro.com>

for more information on these and many other X10 PRO products.

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