

# How Does It Work?

## General Information

- The Winplus Home Automation range consists of kits, modules and controllers. Winplus Home Automation kits are made up of modules and controllers.
- Winplus Home Automation products are DIY.
- Winplus Home Automation uses globally recognized X10 technology.

## What is X10?

- X10 uses power line carrier technology (PLC) transforming the existing power lines in your home into a home automation network without the need for additional wiring.

## Associated Technologies

### Infrared Technology (IR)

- Control Audio Visual devices such as TV's, DVD players and stereos.

### Radio Frequency (RF)

- Send signals through walls and ceilings to activate home automation modules from anywhere in the house.



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## House And Unit Codes

- All Winplus Home Automation modules are assigned an address, which consists of a House and Unit code.

- There are 16 House codes (A through P)
- Each House code has 16 Unit codes (1 – 16)
- This means there are 256 possible addresses.



- An example of a Winplus Home Automation address would be A5, where A is the House code and 5 is the Unit code.
- The default address of all modules is A1. Changing the address is a simple process and varies according to module.
- For individual control, modules need to be set to unique addresses i.e If you have 2 appliance modules with address B2, when the B2 On command is sent both appliance modules will switch on. If individual control is required the user could change one of the modules to address B3.
- Modules monitor the power lines for a command i.e A lamp module set to address B3 will monitor the power lines for any signals sent to address B3 by a Winplus Home Automation controller.

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## Confused?

Imagine you have a room that contains groups of people. In fact, there are 16 groups of people. In each group, there are 16 people. You are at the front of the room and your job is to issue instructions to these people. Some of the instructions you are going to issue are for specific people and others are for entire groups of people. To prevent miscommunication, every group has been assigned a letter (A through P), and each person has been assigned a number (1 through 16). Each person wears a sign around their neck that has the letter and number they have been assigned.

Your first instruction is for a man you had spoken with earlier that day. His sign reads "A7". To ensure that he is the only one to respond to your instruction, you say, "A7 take one step forward." The man wearing the A7 sign obeys your instruction. No one else in the room follows this instruction. This example parallels commanding a specific Winplus Home Automation controlled lamp or appliance module (set to A7) in your home to turn on or off.

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## How does Winplus Home Automation Work?

Winplus Home Automation combines X10 PLC, Infrared and Radio Frequency technology.

Typically the light, appliance or device you wish to automate is connected to a module, the module is then connected to your mains power by simply plugging into a power outlet.

The address of the module is then set as desired (house and unit code). The module can then be switched on, off or even dimmed (lamp and In-Wall Dimmer modules only) using one of the Winplus Home Automation controllers.

There are 2 types of controller in the range, a PLC controller and a wireless controller. A PLC controller plugs into a power outlet in your home and sends signals along the power lines in your home to Winplus Home Automation modules. Wireless controllers send RF signals to a Winplus Home Automation transceiver. Transceivers are connected to the mains power, they receive RF signals from wireless controllers and transmit them along the power lines to Winplus Home Automation modules.

Infrared is incorporated into the Winplus Home Automation Universal Remote. As well as being able to send RF signals to a transceiver, the Universal Remote can simultaneously transmit IR signals to control audio visual devices such as TV's, DVD players and stereos.