

EKON BMS HVAC system

Wireless Thermostat
with Light Switch



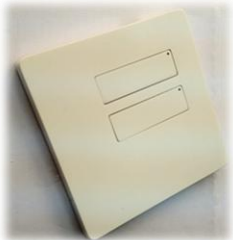
Control Fan Coil or
Central AirCon

Wireless

Touch Screen
Controller




Wireless Light or
Motorized Blind
Wall Switch



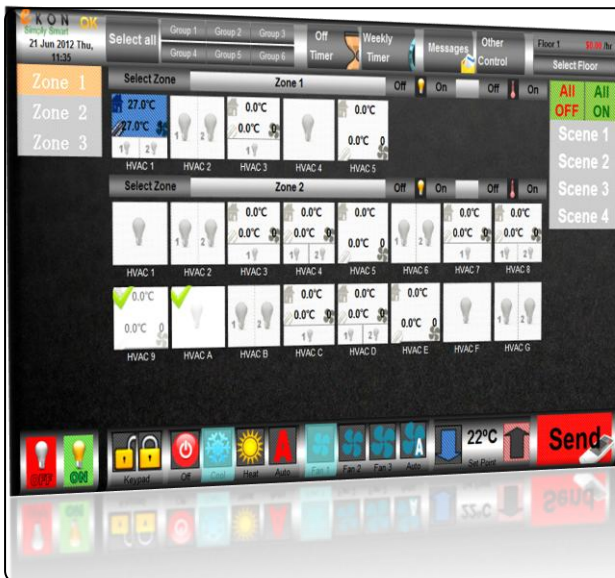
www.ekonhome.com

Simply Smart

EKON Redefine BMS HVAC



Wireless Control and Monitoring of large number of HVAC and Lights in many remote Buildings for Energy Saving & Reduce Cost



EKON Reinvent the HVAC BMS System:

- Simple **Install.**
- Quick **Setup.**
- Easy **Operation.**

Yet the most sophisticated system to date



Control Heating, Air Condition & Lights from the same Wall Panel

Shanghai Branch

Beijing Branch

Sichuan Branch

Shenzhen Branch

Floor 1
Mode: OK

Local Controller

Weekly timer

Branch 101	Branch 102	Branch 103	Branch 104	Branch 105	Branch 106
Branch 201	Branch 202	Branch 203	Branch 204	Branch 205	Branch 206
Branch 301	Branch 302	Branch 303	Branch 304	Branch 305	Branch 306
Branch 401	Branch 402	Branch 403			

Scene 1 Scene 2 Scene 3 Scene 4 Scene 5

National Central Control of Many Branches in Different Cities

Fan Coil

Central AirCon

IR

25 23

Compatible with Fan Coils and Most Central AirCon brands

Features

Control large number of HVAC and Lights Simultaneously

Easy to use Graphical User Interface



Simple as 1, 2, 3

1. Select multiple Thermostat \ Lights or Zones to control
2. Select Settings (Mode, Fan Level, Set point, Lock Keypad and Light on\off)
3. Press "SEND"

2 way communication

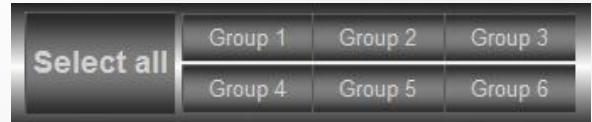
Show Online the real status of all Air Conditions, Heating, Lights and Blinds in a building



Status include Set Point Temperature, Room Temperature, HVAC Mode (On / Off / Heat / Cold or Auto), Fan Level, Keypad Unlock / Lock, Light On or Off and Blinds Open or Close.

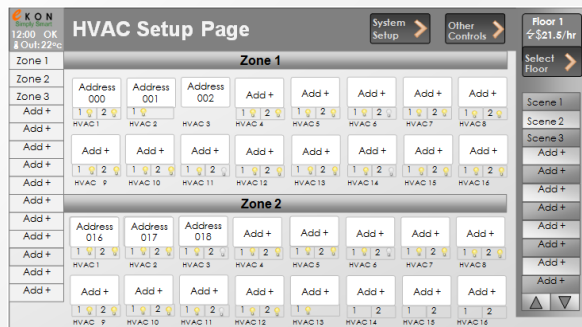
Group Control

Select Single or Multiple Zones or Pre Defined Thermostat and Light and Control them all by 1 press of a button



Simple Setup (no programming)

This is as simple as it can be. If you know how to setup up you smart phone, you will know how to setup this BMS system



Each thermostat and light is given an address. Give it a name. You are done.

User Interface in any Language

Each of the Zones, Thermostats and Scenes are named in any name and any language you wish



Names can be modified at any time after. These names are used in messages also

Easy Installation (no wires)

Wireless Thermostat ensures installation is completed in matters of minutes.

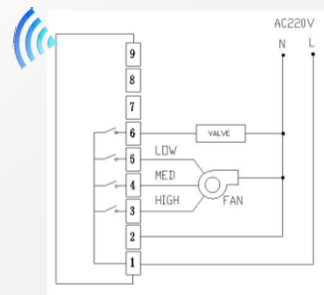


Retrofit - install in existing buildings.

Simply replace the old thermostat and let it communicate with the master controller over the air by Radio Frequency 433MHz (modifiable frequency).

Compatible with Fan Coil

Connect thermostat directly to Fan Coil Units with standard wiring



The thermostat can then communicate with controller Wirelessly or by RS485

Compatible with Central AirCon

Wirelessly Control Central Air Condition with remote control via Infrared



Note: thermostat must be matched with the AirCon brand (Carrier, Daikin, Haier, LG, Mitsubishi, Samsung and more)

Reduce Wiring Cost of Fan Coil

Eliminate the wires between the Thermostat and the Fan Coil



Connect the Fan Coil to IR interface and the IR thermostat will communicate with it wirelessly by IR (require eye contact)

HVAC + LIGHT combined

Thermostat and Light Switches are combined together on the same device for slick design on the wall



Save Energy – Fix Set Point

Lock thermostats at optimum set point and ensure user cannot change it.



Ensure thermostats cannot be turned ON by user from the thermostat at certain period of times when unnecessary.

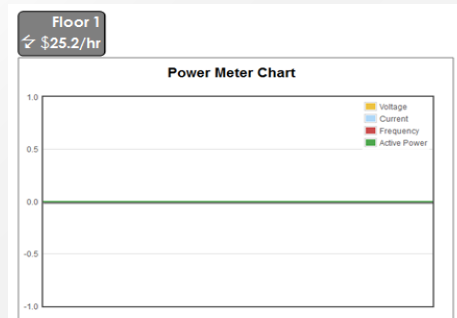
Save Energy – Auto Off

Add wireless Motion sensor to power off Lights and HVAC when room is left empty for preset period of time



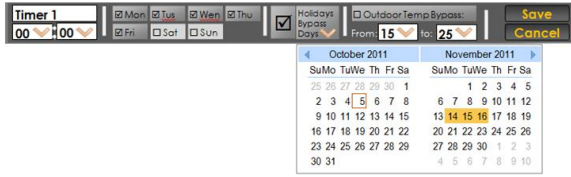
Save Energy – Power Meter

System show online the power consumption and calculate the average cost per hour



Smart Timer – Energy Save

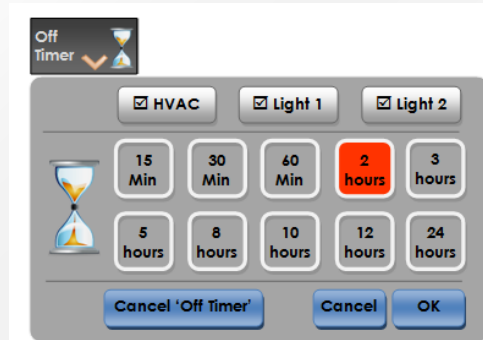
Weekly Timer to power On or Off group of air conditions at certain times



Allow to set holiday dates to bypass the timer automatically.
Optional outdoor temperature sensor to bypass timer if outside conditions are idle

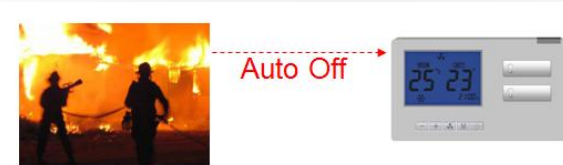
Sleep Timer – Energy Save

Countdown timer ensure AirCon are powered ON only for a preset amount of time to ensure they are power off



Safety First – Fire AC shut down

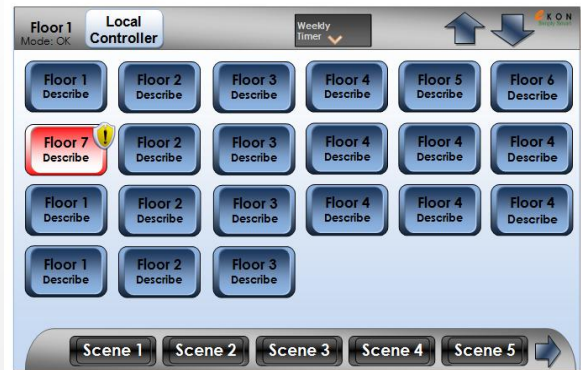
Automatically Power Off all the air conditions in case of a Fire to ensure smoke are not circulated in AirCon sys.



Interface with Fire Alarm system by Dry Contact or RS232

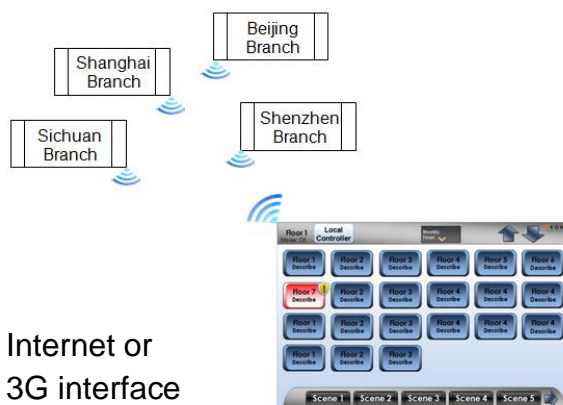
All Building/s Control

Control all HVAC and Lights in the building/s from main control room



Total Central Branch Control

Centrally Control all HVAC and Lights in many buildings around the country



Internet or 3G interface

Power Failure Restore

After power failure system will return back to its last knows status



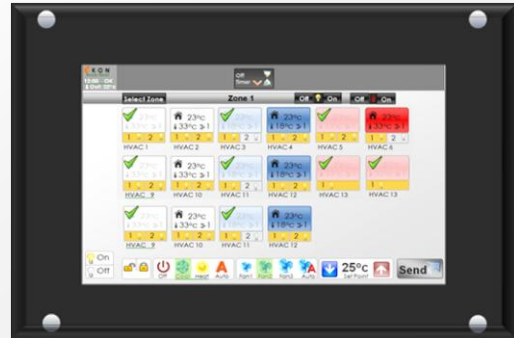
Messages Online

System will display messages about any abnormal status of any device

The image shows six distinct warning messages arranged in a grid. Each message features a yellow warning icon (a shield with an exclamation mark) and a blue header. The messages are: 1. 'Power Failure' with 'Time: 00:00'. 2. 'Power Restore' with 'Time: 00:00'. 3. 'No Signal' with 'Time: 00:00' and 'Thermostat is not communicating', including a sub-button for 'Zone 1 HVAC 1'. 4. 'Over Power' with 'Time: 00:00' and 'The Power Consumption is ABOVE the preset average'. 5. 'Room Temp' with 'Time: 00:00', 'Room Temperature is out of Range!', 'Room Temp is: 29°C', and 'Limit is 10°C to 28°C', including a sub-button for 'Zone 1 HVAC 1'. 6. 'Fire Alarm Set Off' with 'Time: 00:00' and 'Air Condition Auto Power Off', including a sub-button for 'Zone 1 HVAC 1'.

Local Zone Control by PAD

Control single zone by Android, iPad, iPhone, computer, etc.



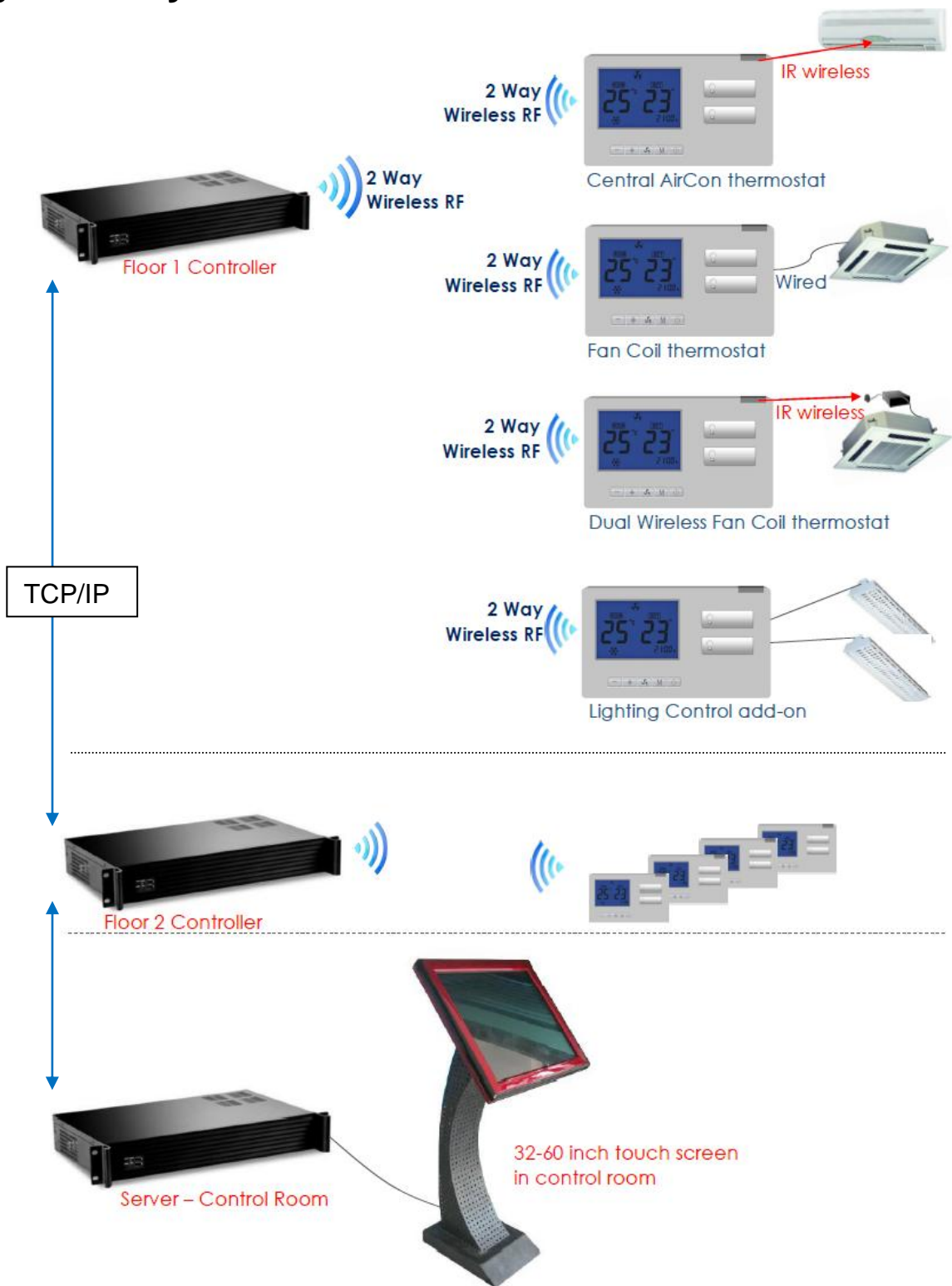
Light Switch

Add Wireless Light Wall Switch

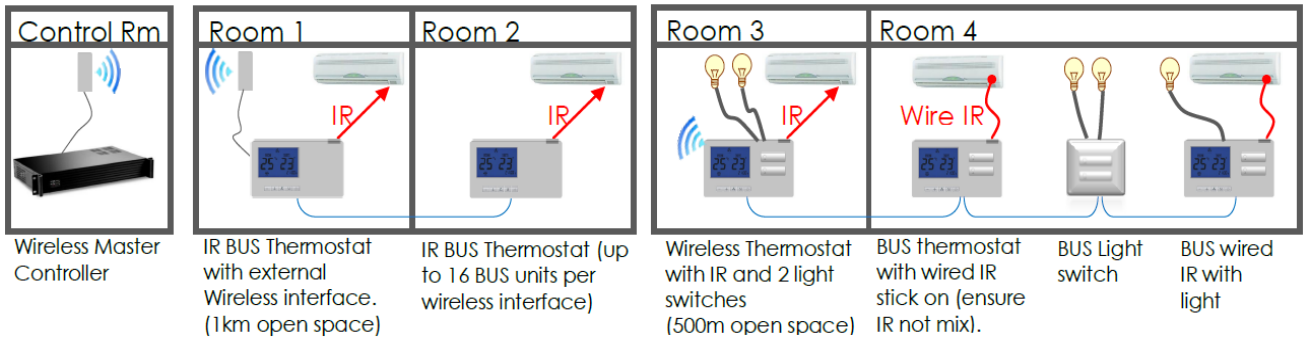


Optional Wired wall switch to connect to wireless thermostat (to save cost of system)

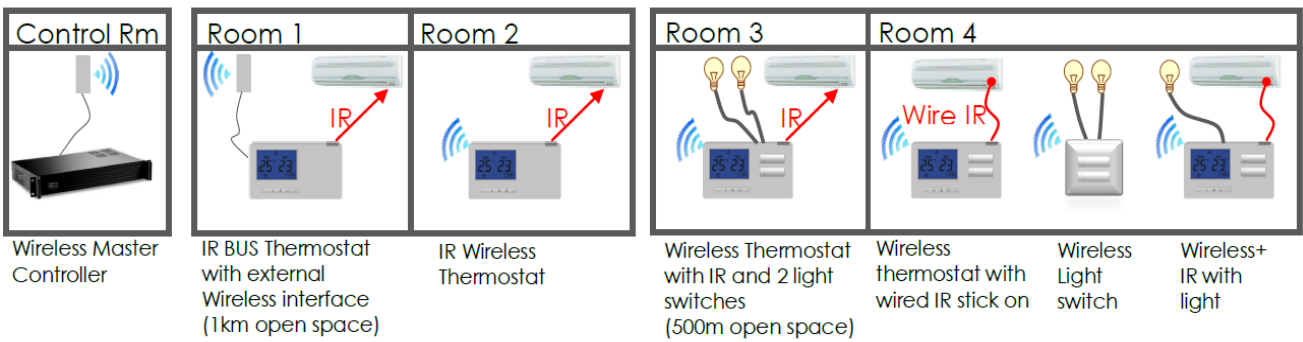
System Layout



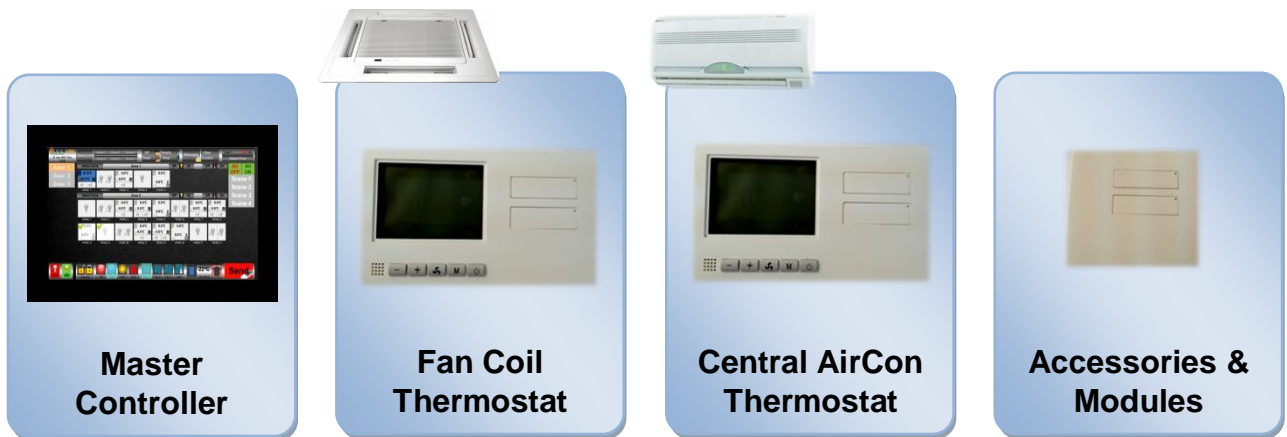
Semi Wireless Configuration



Total Wireless Configuration



Products

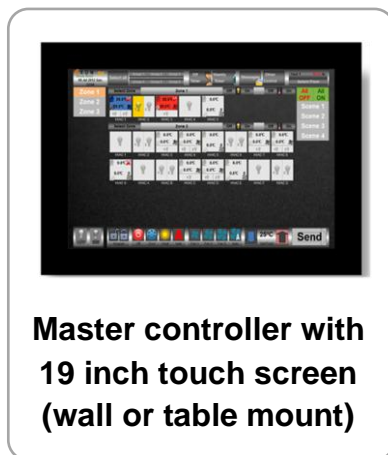


Master Controller

Each system must have 1 Master controller. There are 3 types of master controller to choose from.



Master controller with 10 inch touch screen (wall or table mount)



Master controller with 19 inch touch screen (wall or table mount)



Master controller with 10" LCD - installed in electric board

Specification

- Control up to 128 thermostats
- Control up to 128 light switches of blinds switches
- Optional PLC module add-on: Control 224 PLC loads (dimmer, IR...)
- 32 Scenes – control many devices at the same time
- 5 Smart Timers for each Scene & 5 Smart Timers for each Load
- 16 RF address codes for maximum signal security
- Table Mount or Wall mount
- Screen: TFT LED Wide Screen 10.2" Touch Screen (multi point)
- Browser based software (easy programming)
- Local PC control with easy to use program
- RF Frequency: 433MHz (modifiable)
- CPU: Intel Atom N450, 1.66Ghz

Fan Coil Thermostat



Fan Coil Thermostat & Light Add-On



Fan Coil Thermostat – Wireless to Fan Coil



With light add-on



Without light add-on

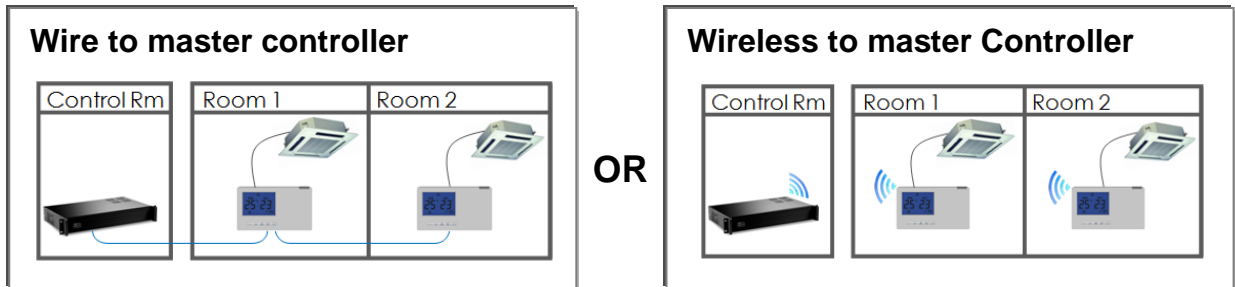
Add IR interface on the Fan Coil side to remove the wires between the thermostat and the Fan Coil to save installation cost and for retrofit installation where passing wires is difficult. The thermostat will communicate with the IR unit on the fan coil via IR so eye contact is required



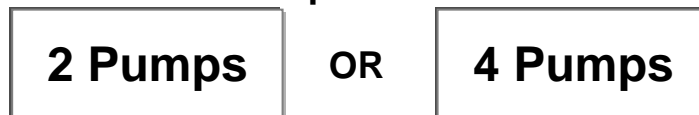
Options

Each of the 3 fan coil thermostat have different options to choose from:

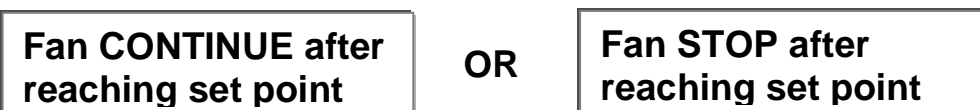
1) Wire or Wireless



2) Two or Four Pumps



3) Fan Function

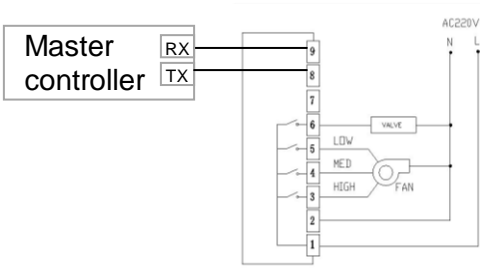


4) Infrared remote control Add-On

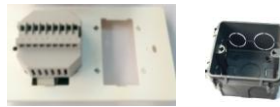
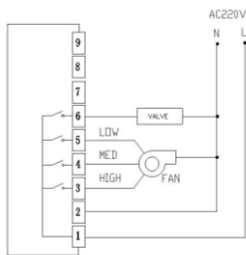


Installation Wiring

Wired thermostat

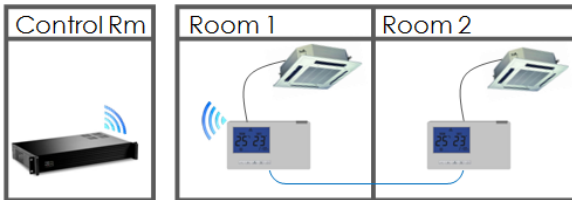


Wireless thermostat

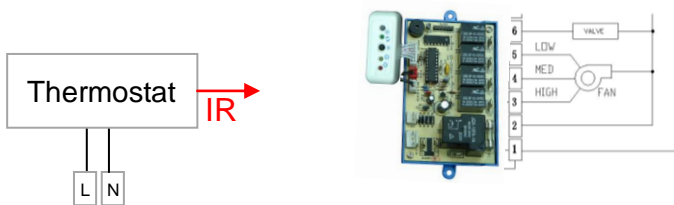


Wireless + Wire thermostat

Wire thermostat can be connected to wireless thermostat



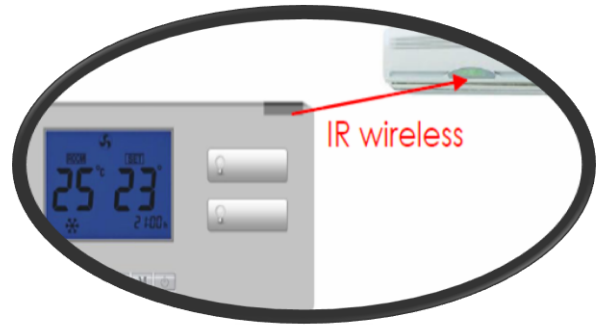
Wireless thermostat with IR interface



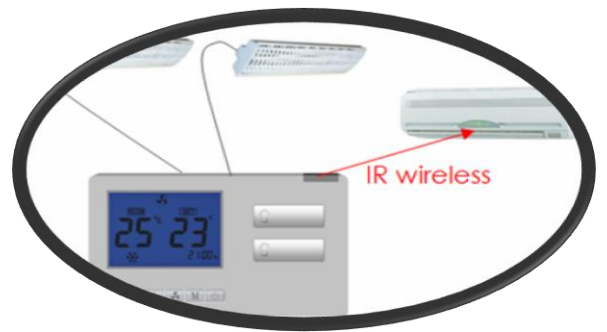
Light Add-On



Central AC Thermostat



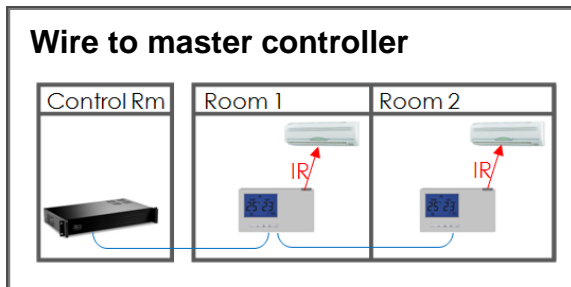
Central AirCon Thermostat & Light Add-On



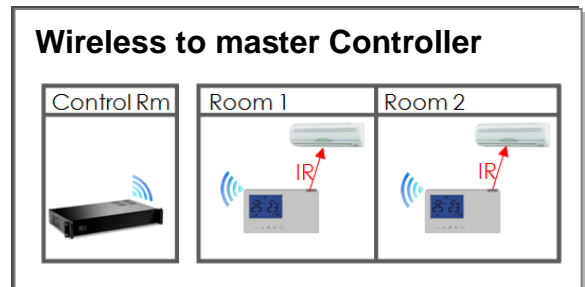
Options

Each of the 2 central AirCon thermostat have different options to choose from:

1) Wire or Wireless



OR

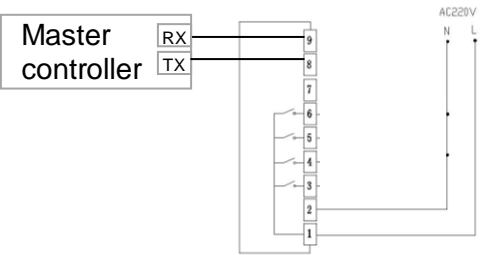


2) Battery Operated

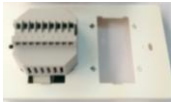
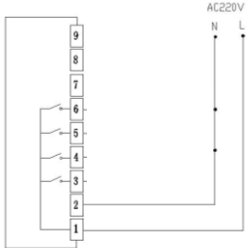


Installation Wiring

Wired thermostat

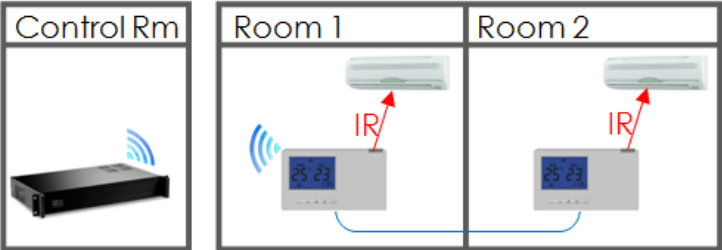


Wireless thermostat



Wireless + Wire thermostat

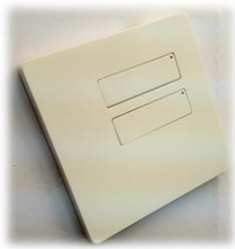
Wire thermostat can be connected to wireless thermostat



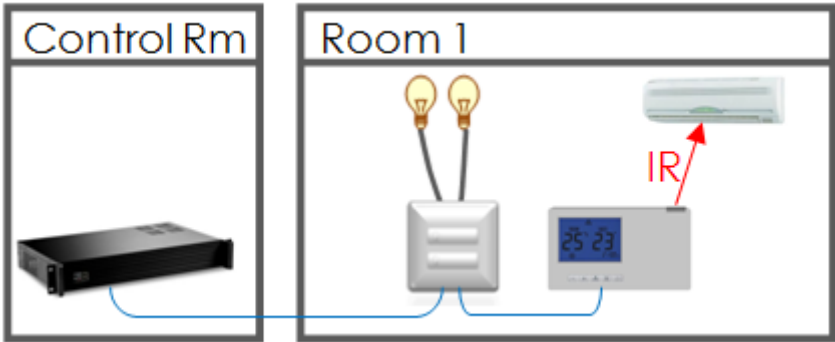
Light Add-On



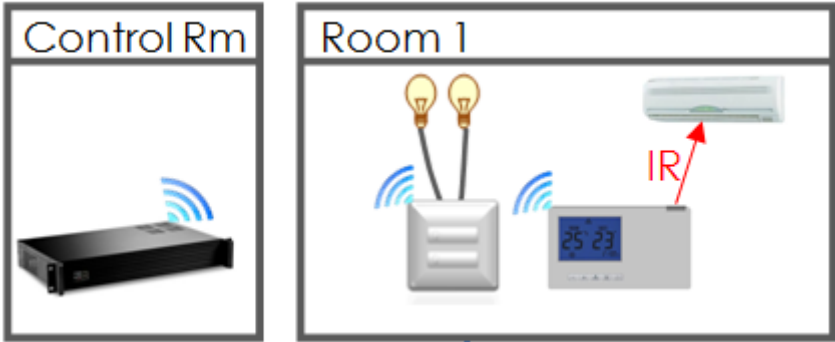
Light Wall Switch



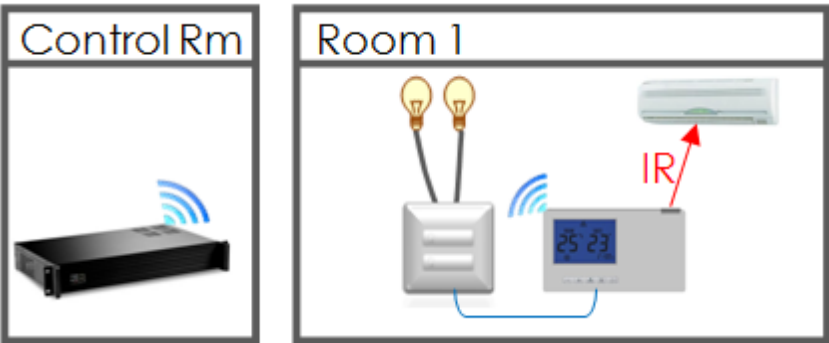
Wire light switch



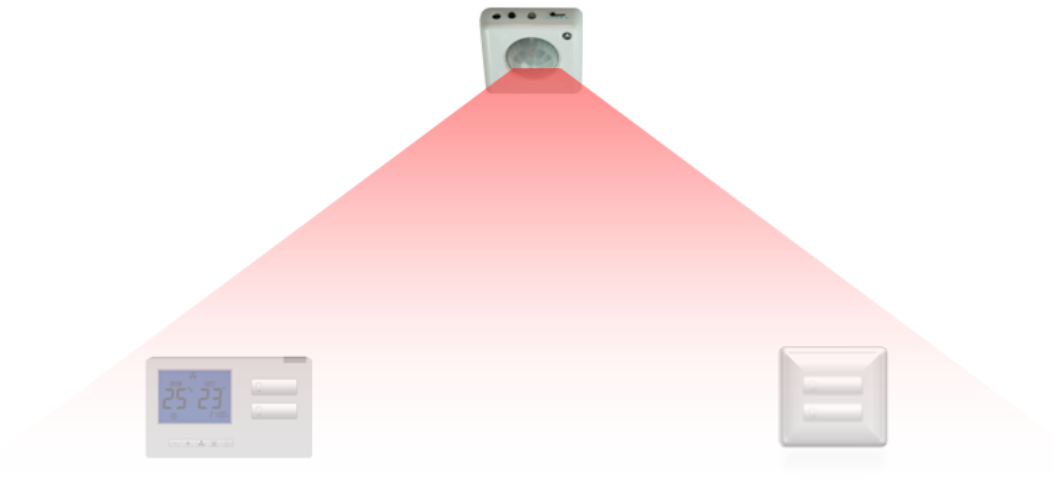
Wireless light switch



Wire light switch can connect to wireless thermostat



Wireless motion sensor



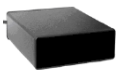
Wireless motion sensor to automatically power off light /s and air condition when room is left empty. Require 2 AAA batteries.

Digital input for fire alarm



Connect digital input to this interface so when fire alarm goes off, it will send command for the controller to power off all the air condition in case of a fire. Optional wire or wireless module.

Outdoor Temperature sensor



Outdoor temperature sensor to bypass timer in case ambient temperature does not require air condition or heater. Optional wire or wireless module.

Wireless RF Extender



For large building with many concrete walls it might be necessary to increase the wireless signal by this RF extender

32 to 60 inch touch screen

Control and monitor building from Control Room on large screen



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