IntesisBox®

WiFi series configuration process

Air Conditioning

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2 / 19

Configuration process for the WiFi series products.

Order Code:

IBWMPDAI001I000
IBWMPMHI001I000
IBWMPMIT001I000
IBWMPPAN001I000

INDEX

1. Presentation

The IntesisBox WiFi gateways range of products allows an easy Air Conditioner integration in any kind of control and monitoring system using a simple IP Protocol.

This product family is specifically designed for Home Automation manufacturers or integrators interested in offering a control solution for the Air Conditioning system, allowing them to create a simple driver for their Home Hubs controllers.

Main features:

- Control and monitor: On/Off, Mode, Set Temp., Room Temp., Fan Speed, Vane Position.

- Power supply directly from the AC system[1].

- Does not require cable installation between the Air Conditioner & the Home Controller.

- Easy creation of new drivers for any Home Controller thanks to the easy IP protocol.

- Possibility to auto-discover the WiFi devices installed in the WiFi network.

- Easy installation: Hidden inside the AC unit, on the wall or over the desktop.
  Check your installation manual for more information.

- Automatic firmware updates through the configuration tool.

- WiFi configuration allows Dynamic IPs or Static IPs.

- AC unit status and monitoring.

- Available controls:

Control	Universal	Specific
On/Off	✓	✓
Mode	✓	✓
Set point	✓	✓
Room temperature	✓	✓
Fan speed	✓	✓
Vanes	✓	✓
Signal error	X	✓
Error code	X	✓
Others	X	✓

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[1] Only the IS-IR-WMP-1 may need an external power supply. The AC/DC converter, with connection to EU, UK, US and AU plugs is provided by IntesisBox along with the device.

2. Installation

For the product installation, please follow the steps given in the installation guide or refer to this web page for additional information: https://www.intesisbox.com/en/wifi/gateways/

3. Configuration and setup

The configuration process to follow is similar for all the Wi-Fi products:

- DK-AC-WMP-1: Daikin domestic AC units to Wi-Fi

- ME-AC-WMP-1: Mitsubishi Electric AC units to Wi-Fi

- MH-AC-WMP-1: Mitsubishi Heavy AC units to Wi-Fi

- PA-AC-WMP-1: Panasonic Etherea AC units to Wi-Fi

3.1. WiFi network configuration

The devices from factory are configured as access point. Once the product is powered on, the network should be visible in the WiFi box list with the SSID name **DEVICE------** and the last 6 digits of the MAC address.
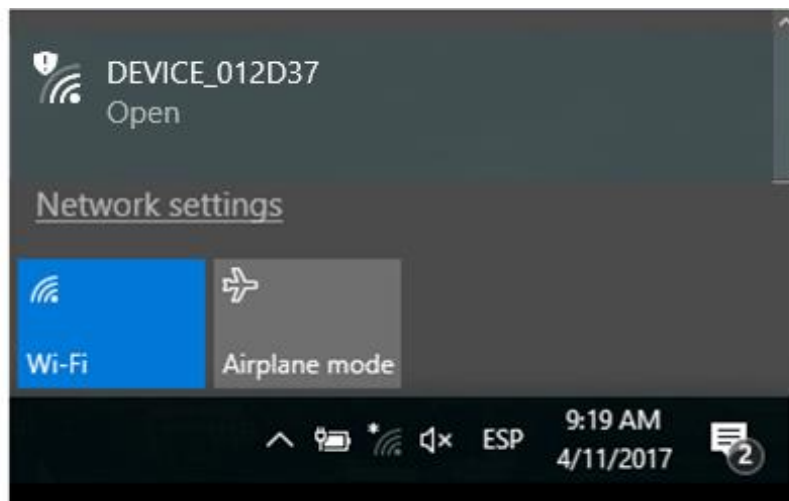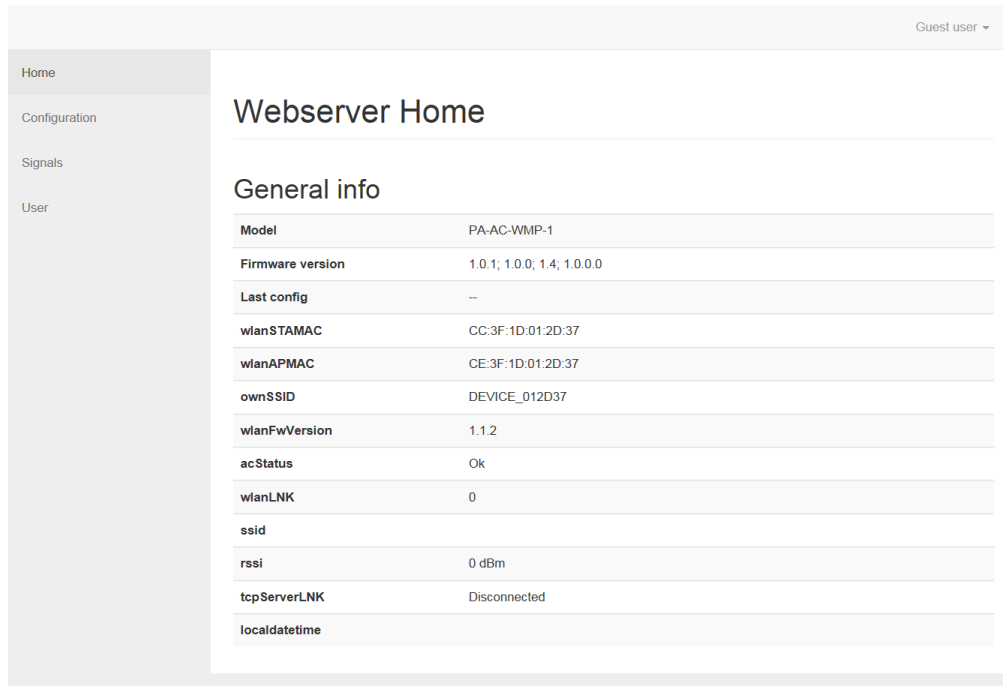

Connect your PC or mobile to this network and use the following web page/IP to connect the WiFi device to the WiFi network: **192.168.10.1.**

A progress bar will appear in the browser while the main page is loading:

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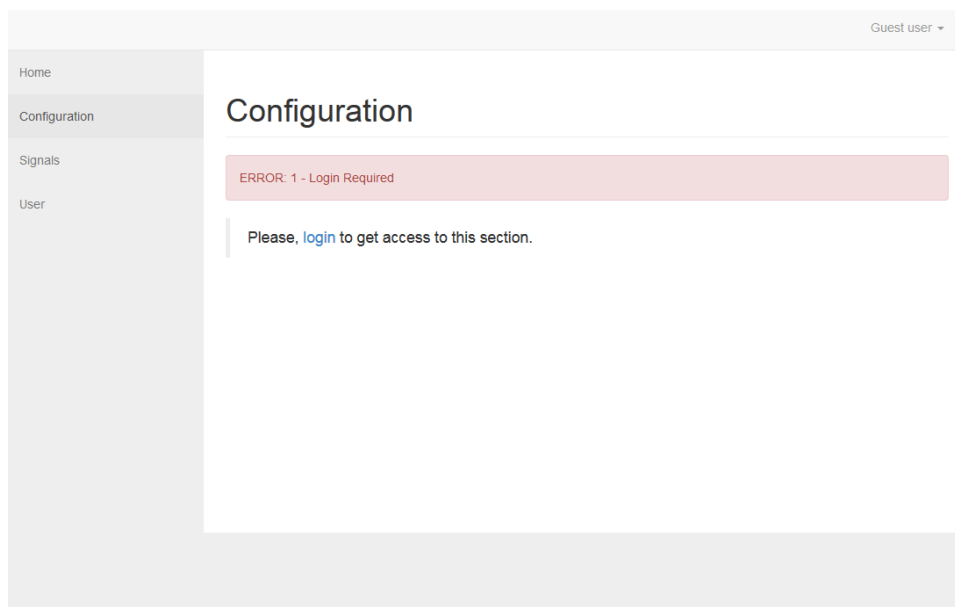URL   http://www.intesisbox.com
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Then, following page will appear:

Guest user ▾

Home
Configuration
Signals
User

Webserver Home

General info

Model	PA-AC-WMP-1
Firmware version	1.0.1; 1.0.0; 1.4; 1.0.0.0
Last config	--
wlanSTAMAC	CC:3F:1D:01:2D:37
wlanAPMAC	CE:3F:1D:01:2D:37
ownSSID	DEVICE_012D37
wlanFwVersion	1.1.2
acStatus	Ok
wlanLNK	0
ssid	
rssi	0 dBm
tcpServerLNK	Disconnected
localdatetime	

3.1.1. WiFi Configuration

By clicking on **Configuration** section, it will ask to log in:

Guest user ▾

Home
Configuration
Signals
User

Configuration

ERROR: 1 - Login Required

Please, login to get access to this section.

Click on login link, and use default credentials:

- User: admin
- Password: admin

Click on **Login** button to log in and go back to section **Configuration**.

It has sections **General**, **IP settings** and **Access Point settings**.

Configuration / General

It indicates the model of the device and it offers a button to identify the device. Clicking button **Identify device** will make the LED of the device blink white for a few seconds, so you can identify its location.

IP settings

It allows configuration of IP parameters of the device, which will take effect when connected to a certain WiFi. Parameters **IP Address**, **IP Netmask**, **IP Gateway** and **DHCP** can be changed in this section.

Access Point settings

It allows configuration of surrounding WiFi network / Access point to which the device will go connected to. This configuration can be done in several ways: Scanning for available WiFi networks, Manual configuration (hidden SSID) and WPS. Explanation on each mode is given below.

A. Scanning for available WiFi networks

In section 'Access Point settings', 'Wi-Fi search' must be clicked. Scan will take up to 45 seconds, results will appear in a list:

SSID	Signal level	Security mode	Channel	Action
Test-Office	Excelent	WPA2_PSK	3	Select
Test-Room1	Excelent	WPA2_PSK	6	Select
Test-Home	Excelent	WPA2_PSK	1	Select
Test-Room2	Excelent	WPA2_PSK	6	Select

Wi-Fi network — Select the Wi-Fi network where you want to connect: — Cancel

Desired Wi-Fi network / Access point must be selected (button **Select**). This will move the SSID to corresponding field of previous section (Access Point settings), where corresponding password for the SSID/Wi-Fi network must be entered.

To finish this process, button **Save / Reboot** must be pressed.

B. Manual configuration (hidden SSID)

SSID, Security standard and Password can be entered in corresponding fields of Access Point settings section. This allows for connection to Wi-Fi networks with hidden SSID.

Again, to finish this process, button **Save / Reboot** must be pressed.

C. WPS

In 'Access Point settings' section, clicking button **WPS** will start the WPS procedure. By clicking it, dialog window will appear providing further instruction

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3.1.2. Wireless settings applied

Once **Save / Reboot** button is pressed, device will apply the new settings and restart. Following page will display telling the LED sequence that the device will follow. At the end of the sequence, once the device is successfully connected, LED will remain OFF.

If process finishes and LED is not off (Red/Green or Yellow/Green blinking), it's possible that reconfiguration of the device is needed (for example, if wrong password for Wi-Fi was entered, etc).

To do so, IntesisBox device button must be pressed for 10s and then released. Device's LED will blink green and go to steady green. At this point, device is again accessible as Access Point (DEVICE_XXXXXX) and configuration process can be restarted.

3.2. Product configuration via IBOX-WMP

IBOX-WMP is a Windows compatible software tool developed specifically to monitor and configure IntesisBox WMP series gateways. A unique configuration tool is used for all the WiFi serie products. The tool can be downloaded from:

https://www.intesisbox.com/en/wifi/gateways/

Once the configuration tool is installed, open it by double click. The devices present in the network will appear automatically on the left column (A) with some general information. This process can take up to 1 minute.

The frame of the device takes the colour blue while a correct connection is stablished. If the connection is lost, the frame takes the colour red.
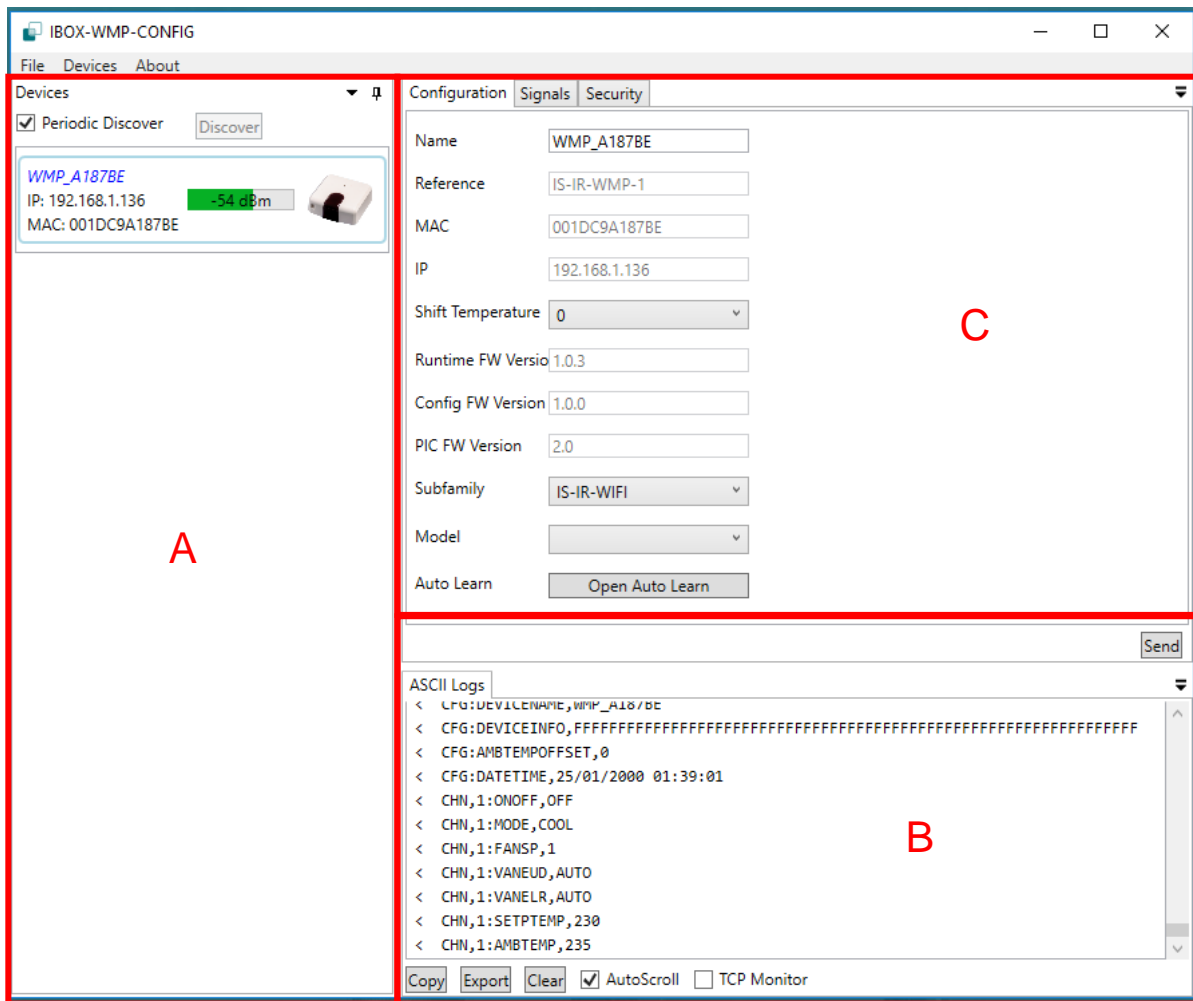
If the device detects a new firmware available, the following window will appear automatically allowing the update.

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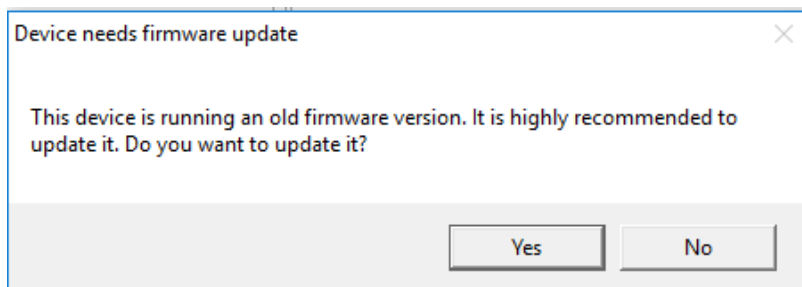
Once the firmware is updated, the device will be restarted and it might disappear from the menu A or the frame might take the colour red (no connected). As soon as the device is restarted, it will appear again in the menu.

B. ASCII Logs

This window shows the ASCII commands sent by the Intesis product or received from the AC controller.
> : Sent
< : Received

It is a useful functionality that allow the user to understand the ASCII protocol implemented. By sending some commands, the answer of the Intesis product can be monitored and evaluated.

C.1. Configuration

The configuration window displays some general information of the product such as name, reference, MAC or IP address.

The "Shift Temperature" parameter allows to define a correction in the measurement of the ambient temperature. A value from -5 to 5 ºC can be selected. This is a useful option when the device is installed close to some heat/cool source and the measurement of the ambient temperature does not match with the real one.

Subfamily, Model and Auto Learn fields are only available for IS-IR-WMP-1 products. The manufacture and model of the AC to be controlled can be selected manually from the available list or be discovered automatically by using the auto learn function.

If there is a new version of the firmware available, by pressing this button the device will be updated.

Only available for IS-IR-WMP-1

> ➤ **Auto Learn**

The auto learn function is available for IS-IR-WMP-1 products with the firmware version 1.0.3 or newer. This function allows to identify the infrared remote control automatically by only sending a command pointing to the WMP device.

Please note that internet connection is required for this function to work correctly therefore the IS-IR-WMP-1 device must be connected to a WiFi network with internet connection.

To launch the function, press the button "Open Auto Learn" and follow the instructions given in the pop-up window:
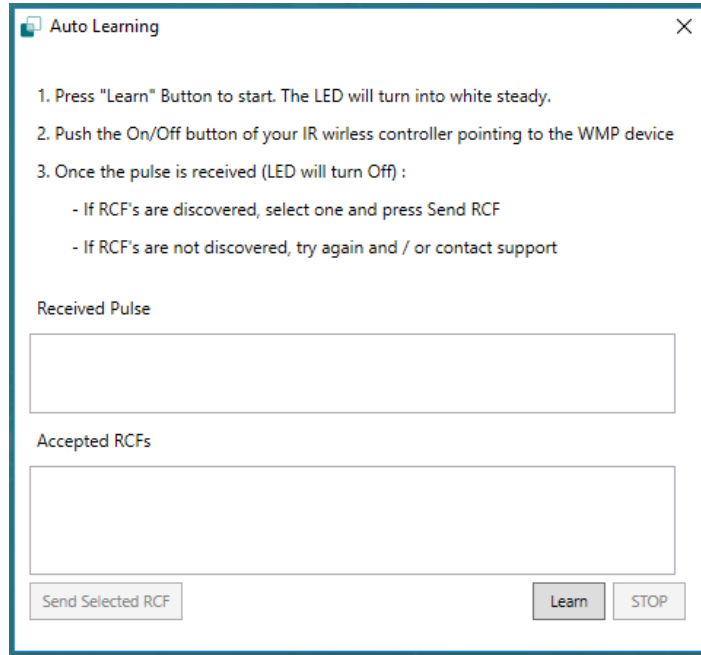
If RCF's are discovered, they will appear in the "Accepted RCF's" section:

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13 / 19

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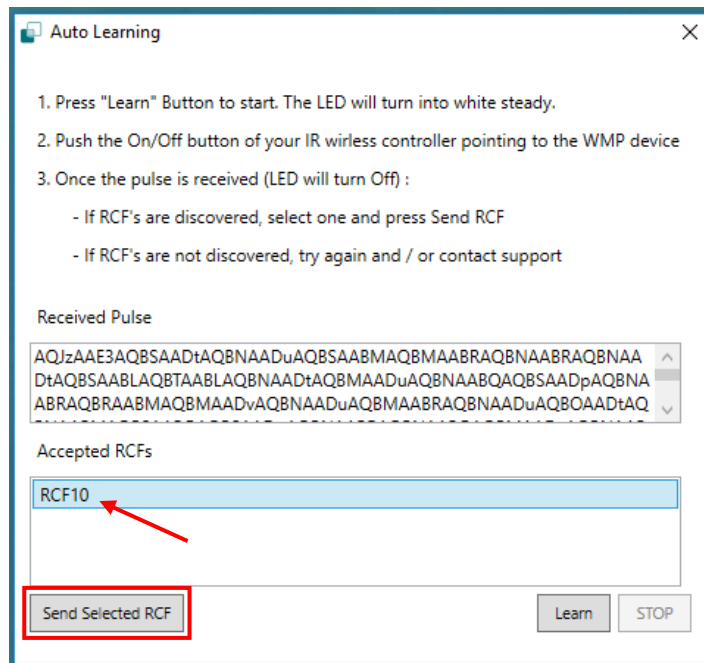
Finally, once the correct RCF is selected from the list, press the button "Send Selected RCF" and automatically the "Subfamily" and "Model" will be selected.

The "Auto Learn" function can be also launched by the IS-IR-WMP-1 device itself by following this sequence:

1 Press during 5 seconds the device button. The device LED will switch on steady white.

2 Press the button On/Off of the infrared remote controller pointing to the WMP device.

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Once the IR command has been sent, check if the device LED follows this sequence:
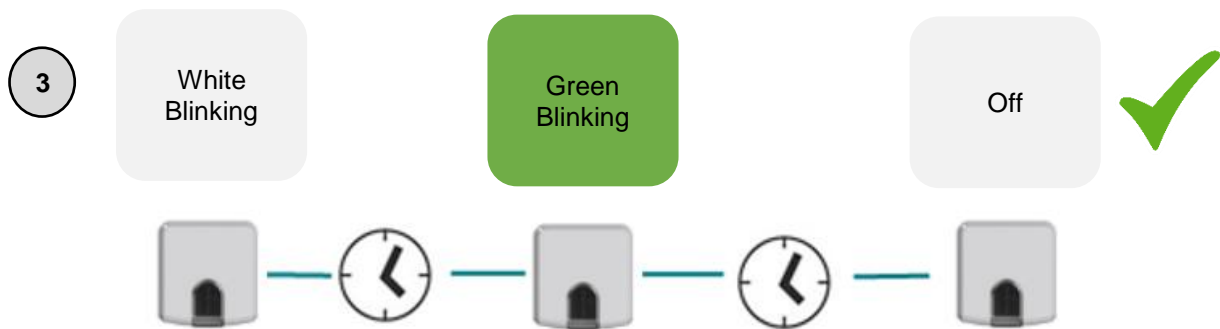
Note: The green blink means that the IR command has been correctly recognized and that the WMP product has been configured with the corresponding remote model. Therefore, the green color indicates that the process has finished successfully.

On the other hand, if the WMP device does not recognize the received command, the LED will follow this sequence:
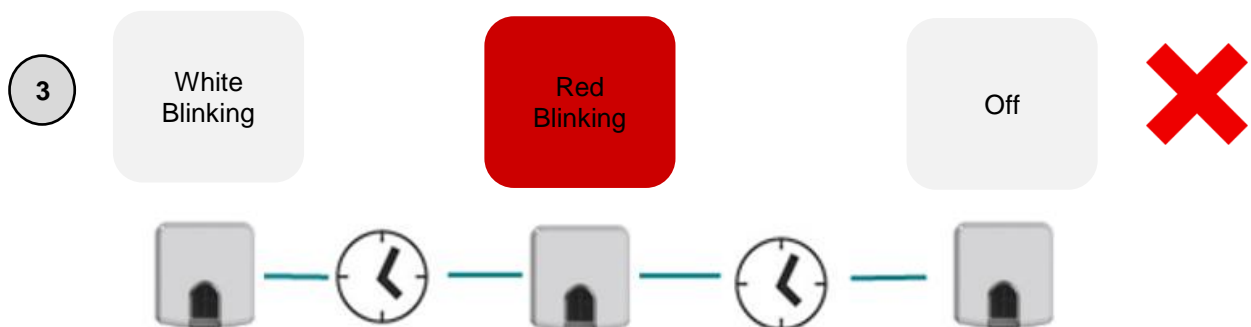
Note: The red blink means that the IR command has not been correctly recognized and therefore indicates that the remote controller used is not included in the device database. In this case, try it again and if the result is similar, contact with our support department.

Other error that the device can report is a missing internet connection and therefore a non-access to the database in the server. In this case, the LED will follow this sequence:
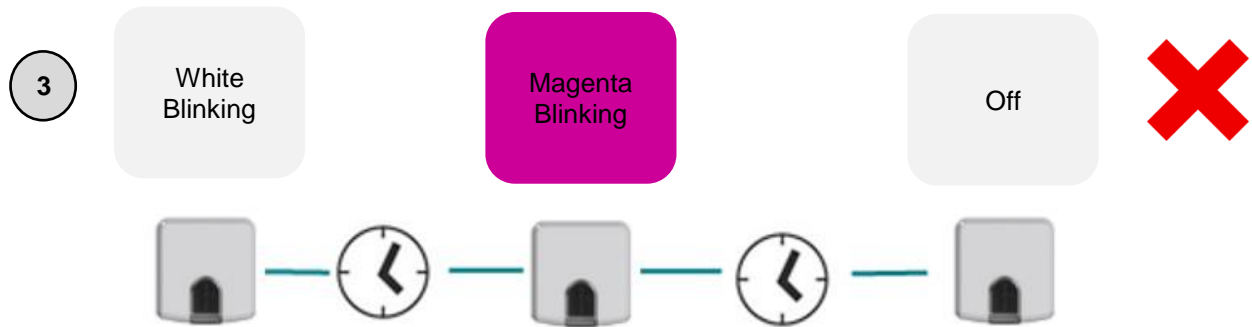
Note: The magenta blink means that the device is not connected to the internet. Please, check if the device is correctly connected to the available WiFi network and if the network has internet connection.

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C.2. Signals

The signal window allows sending and receiving commands between the PC and the AC units. The current ambient temperature, error status and error code can be monitored.
It is a useful function for testing and start-ups.

Name	Value	Description
ONOFF	OFF	On Off
SETPTEMP	230	Setpoint Temperature
VANELR	AUTO	Vanes Left / Right
VANEUD	AUTO	Vanes Up / Down
FANSP	1	Fan Speed
MODE	COOL	Mode
AMBTEMP	280	Ambient Temperature
ERRSTATUS	ERR	Error Status
ERRCODE	65535	Error Code

C.3. Security

The security window allows creating a security PIN to access to the product configuration and to encrypt the communication. Connection Example

Signals	Configuration	Security

PIN   [⊙]   [Login]

Security Level   None

[Send]

Note: If any home automation driver is being used, please be sure the driver allows encrypted communication before creating any security.

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4. List of compatible AC indoor units.

A list of indoor unit model references compatible with the WMP products and their available features can be found in:

UNIVERSAL - IS-IR-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_IS-IR-xxx-1_AC_Compatibility.pdf

MITSUBISHI ELECTRIC - ME-AC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_ME-AC-xxx-1_AC_Compatibility.pdf

DAIKIN - DK-AC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_DK-AC-xxx-1_AC_Compatibility.pdf

DAIKIN - DK-RC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_DK-RC-xxx-1_AC_Compatibility.pdf

TOSHIBA - TO-RC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_TO-RC-xxx-1_Compatibility.pdf

MITSUBISHI HEAVY INDUSTRIES - MH-RC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_MH-RC-xxx-1_AC_Compatibility.pdf

PANASONIC - PA-AC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_PA-AC-xxx-1_AC_Compatibility.pdf

PANASONIC - PA-RC2-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_PA-RC2-xxx-1_Panasonic_Compatibility.pdf

LG - LG-RC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_LG-RC-xxx-1_AC_Compatibility.pdf

FUJITSU - FJ-RC-WMP-1:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_FJ-RC-xxx-1_AC_Compatibility.pdf

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18 / 19

5. Home automation drivers available

→ https://www.chowmainsoft.com/intesisbox-control4

→ http://applicationmarket.crestron.com/intesisbox/

→ https://www.chowmainsoft.com/intesisbox-elan

→ Visit our webpage https://www.intesisbox.com/

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