

# IntesisBox<sup>®</sup>

## WiFi series configuration process

Air Conditioning

User's Manual

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r1.2 eng

IntesisBox<sup>®</sup> 

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Configuration process for the WiFi series products.

## Order Code:

DK-AC-WMP-1  
DK-RC-WMP-1  
FJ-RC-WMP-1  
IS-IR-WMP-1

LG-RC-WMP-1  
ME-AC-WMP-1  
MH-RC-WMP-1  
PA-AC-WMP-1

PA-RC2-WMP-1  
TO-RC-WMP-1

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## 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<sup>1</sup>.
- 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:

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

<sup>1</sup> 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/>

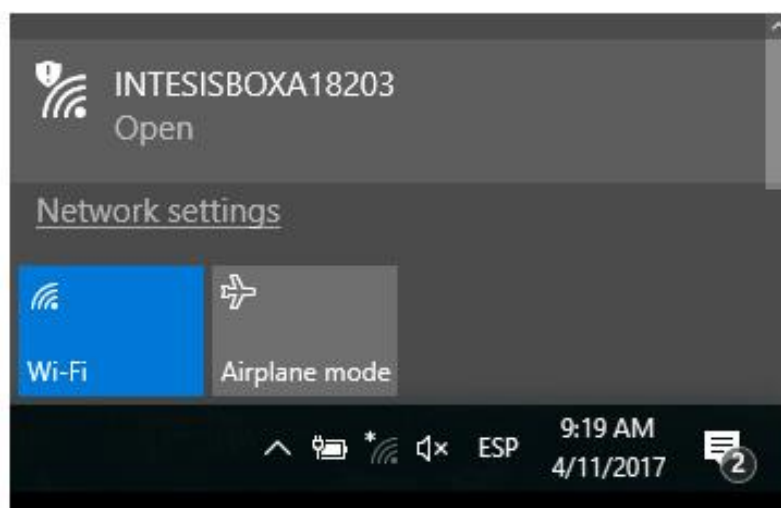
## 3. Configuration and setup

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

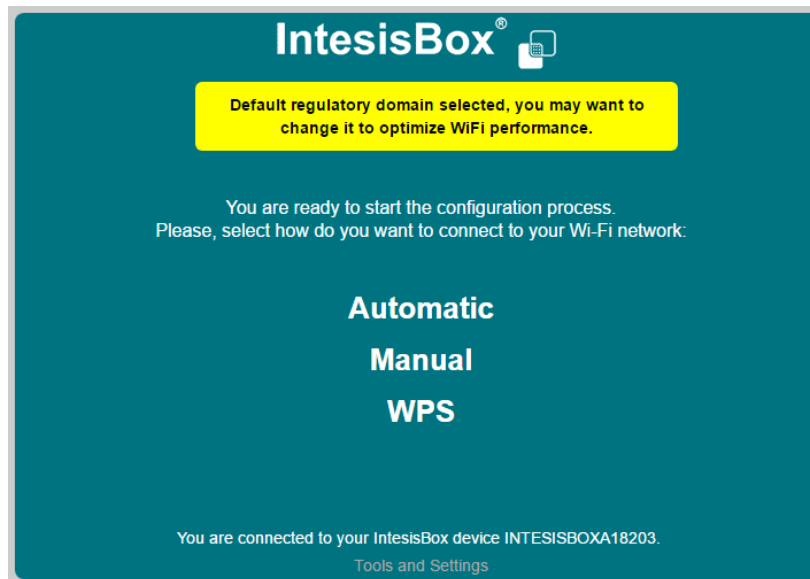
- IS-IR-WMP-1: AC units with IR receiver to Wi-Fi
- ME-AC-WMP-1: Mitsubishi Electric AC units to Wi-Fi
- DK-AC-WMP-1: Daikin domestic AC units to Wi-Fi
- DK-RC-WMP-1: Daikin VRF and SKY systems to Wi-Fi
- TO-RC-WMP-1: Toshiba VRF and Digital to Wi-Fi
- MH-RC-WMP-1: Mitsubishi Heavy Industries FD and KX6 systems to Wi-Fi
- PA-AC-WMP-1: Panasonic Etherea AC units to Wi-Fi
- PA-RC2-WMP-1: Panasonic ECOi and PACi systems to Wi-Fi
- LG-RC-WMP-1: LG domestic and VRV AC units to Wi-Fi
- FJ-RC-WMP-1: Fujitsu RAC and VRF systems 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 **INTESISBOX-----** and the last 6 digits of the MAC address.

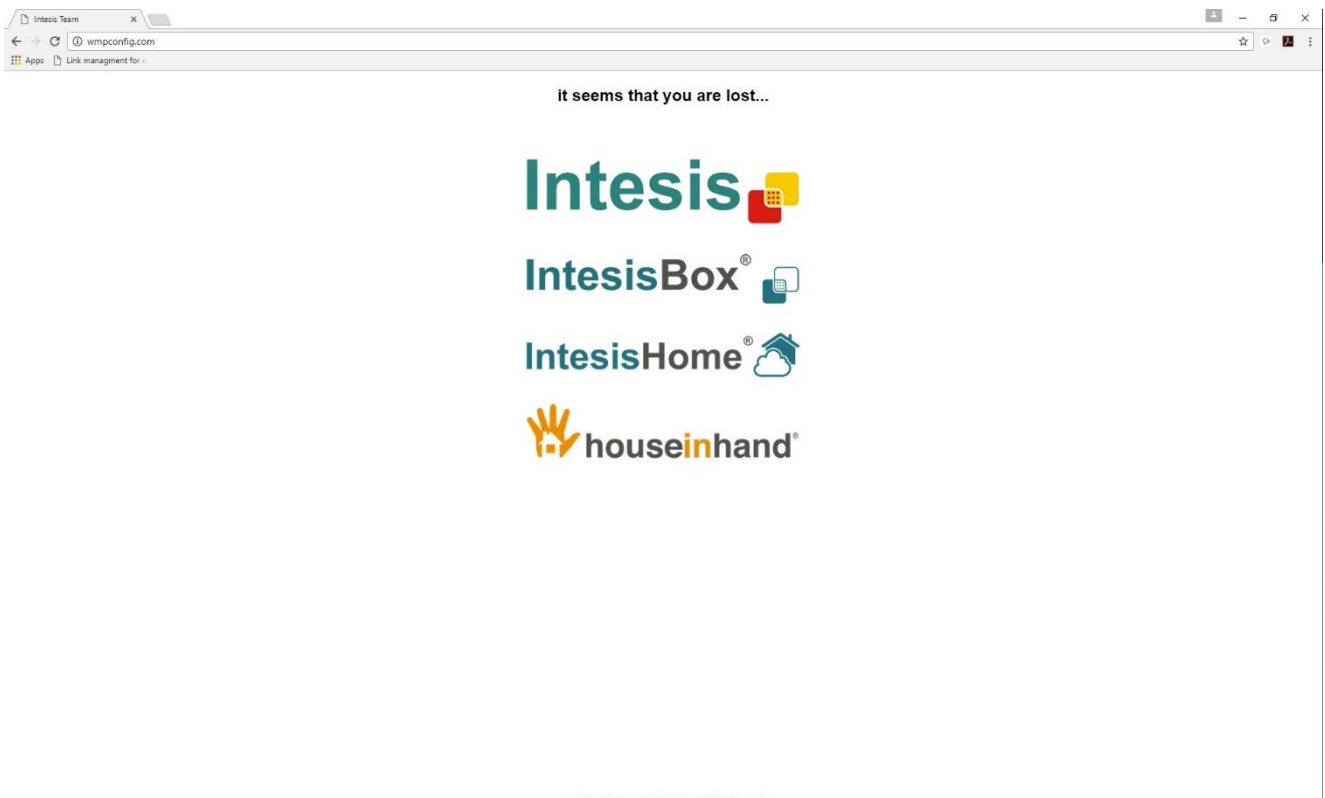


Connect your PC or mobile to this network and use the following web page to connect the WiFi device to the WiFi network: **wmpconfig.com**.



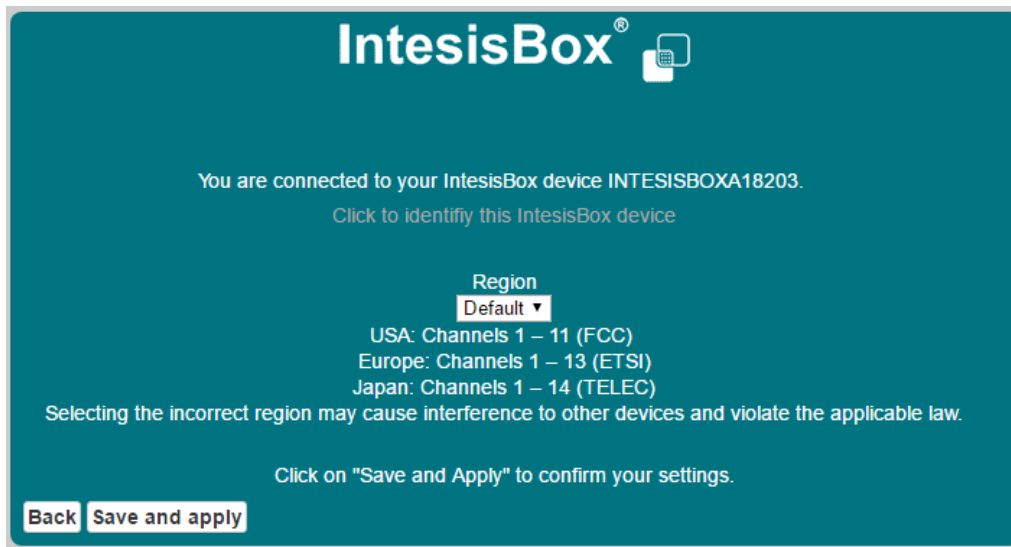
Note: in order to connect to the product properly, it is important to be only connected to the product WiFi network. If the PC or mobile has internet connection, it must be deactivated (disconnect ethernet cable, disconnect other WiFi connections, deactivate 3G...).

If the connection with the WiFi product is not established correctly and the device from where you are trying to connect has internet connection, the following web page will be shown as a warning. This is a real web page only created for this propose and if you reach it, it means the connection with the product is not established correctly and you must check again the network configuration.



### 3.1.1. Tools and Settings

By clicking “Tools and Settings” at the bottom of the web page the following window is shown:



When the button “Click to identify the IntesisBox device” is pressed, the LED of the product will start to blink in white color. It is a good way to identify to which device you are connected.

On the other hand, the region where the device is allocated can be selected. After saving and applying this setting, the device will be restarted and therefore the connection will be lost. It is then necessary to reconnect to the product again following the previous steps.



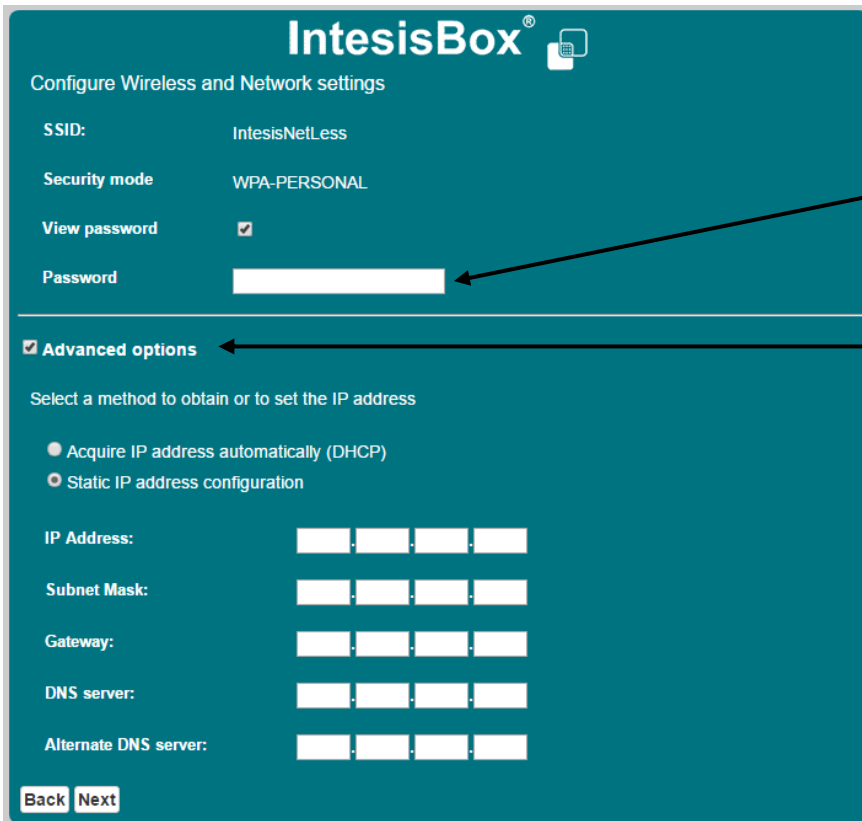
3.1.2. WiFi configuration modes

A. Automatic

By choosing automatic, all the networks available are listed and the one to be used shall be selected.



Once the network has been selected, the following information shall be filled:



Introduce the Wi-Fi network password.

By selecting the advanced options, the product can be configured as DHCP or static IP.

**B. Manual**

By choosing manual, the network details must be introduced manually. It is a useful option when the connection to a hidden SSIDs is required.

The screenshot shows the 'Configure Wireless and Network settings' page. It has a teal background with white text. At the top is the IntesisBox logo. Below it, the title 'Configure Wireless and Network settings' is followed by four input fields: 'SSID', 'Security mode' (a dropdown menu showing 'WPA/WPA2 Personal'), 'View password' (a checked checkbox), and 'Password'. Below these is a section titled 'Advanced options' with a checked checkbox. Underneath, it says 'Select a method to obtain or to set the IP address' and offers two radio button options: 'Acquire IP address automatically (DHCP)' and 'Static IP address configuration'. Below these are five rows of IP configuration fields: 'IP Address', 'Subnet Mask', 'Gateway', 'DNS server', and 'Alternate DNS server', each with four input boxes. At the bottom left are 'Back' and 'Next' buttons.

Introduce the Wi-Fi SSID.

Introduce the Wi-Fi security mode.

- No security
- WEP
- WPA-PERSONAL

Introduce the password.

**C. WPS**

In order to use this option, be sure the router support WPS mode. Then follow the instructions given.

The screenshot shows a teal background with the IntesisBox logo at the top. In the center, there are three numbered instructions: '1. Locate the WPS button on your AP.', '2. Click on the "Next" button below.', and '3. Press the WPS button on your AP within 2 minutes.' At the bottom left, there are 'Back' and 'Next' buttons.

3.1.3. Wireless settings applied

The following information is given once the button next is pressed and the device is connected to the network. Please observe carefully the device LED sequence to be sure the process is finished successfully.

IntesisBox®

**Wireless Settings**

**Wireless settings have been applied to connect your device to the network IntesisNetLess**

If connection has been successful, IntesisBox® LED will start the sequence shown in **Figure 1**. If the device LED follows the sequence indicated, you have correctly finished configuration process.

Green Steady

Not configured

>

Green Blinking

Checking

>

Yellow Blinking

Configuring

>

Red Blinking

Connecting

>

Off

Connected & working

Figure 1. Correct LED sequence

If your device is not following the proposed sequence and does not work properly, please check the LED status table in table 1 and if problem still persist visit our support site at [www.intesisbox.com/support](http://www.intesisbox.com/support).

LED Color(s)	Behavior	Description
Blue	Blinking	Performing WPS connection (up to 2 min)
Green	Steady	Not configured
Green	Blinking	Checking device configuration parameter values (up to 2 min)
Red	Blinking	Connecting to access point and server (up to 2 min)
Yellow	Blinking	Downloading configuration. Wait (up to 2 min)
Red/Green	Alternate blinking	Error Connecting to Access point or router. Try to connect again and make sure you write the correct password

Table 1. LED status

Once the WiFi configuration is completed, the product will save it and, under normal conditions, it is not necessary to do it again. Only in case the router is replaced on the network or the SSID or password are modified, the network configuration process needs to be redone. For this, it is necessary to restart the product back to factory mode (access point) by pressing the device button during 10 seconds. The LED will take the colour green if the factory mode has been acquired successfully.

In order to start the WMP configuration, it is mandatory to connect the PC or mobile to the same WiFi network that the Intesis product has been connected.

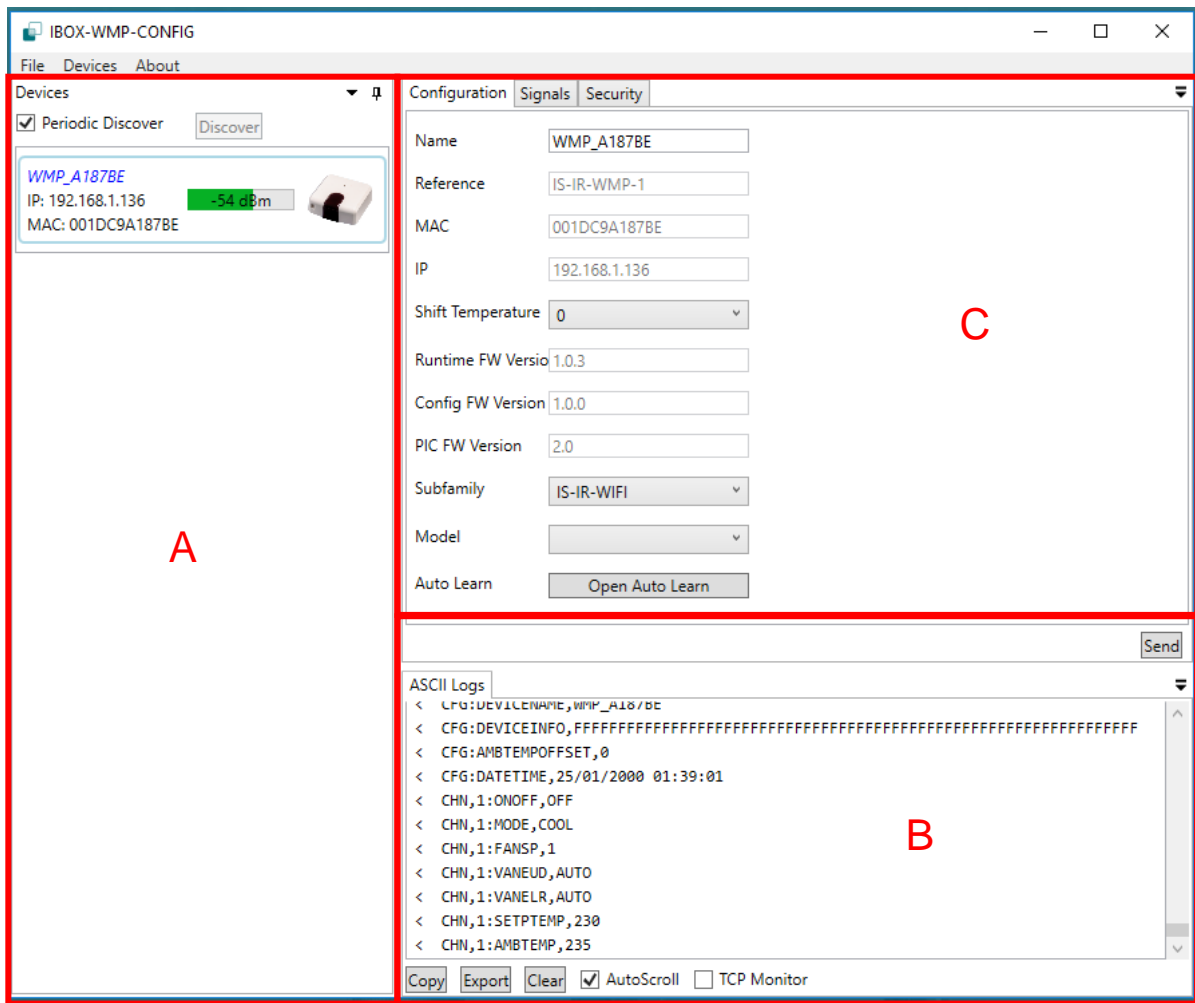
### 3.2. Product configuration via IBOX-WMP

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:

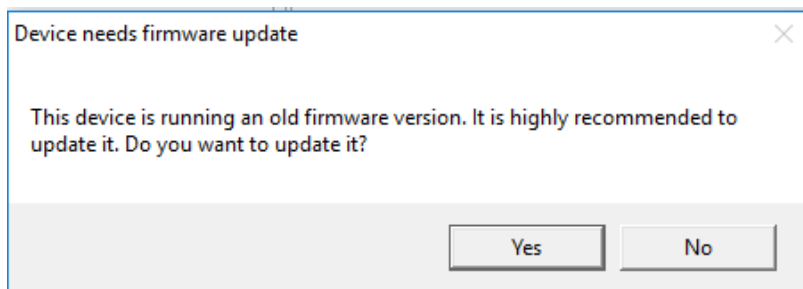
<https://www.intesisbox.com/en/wifi/gateways/>

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 established. 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.



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 °C 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.

The screenshot shows a configuration window with three tabs: Configuration, Signals, and Security. The Configuration tab is active. The fields and buttons are as follows:

Name	WMP_A187BE	
Reference	IS-IR-WMP-1	
MAC	001DC9A187BE	
IP	192.168.1.136	
Shift Temperature	0	
Runtime FW Versio	1.0.3	Update...
Config FW Version	1.0.0	
PIC FW Version	2.0	
Subfamily	IS-IR-WIFI	Only available for IS-IR-WMP-1
Model	RCF_19	
Auto Learn	Open Auto Learn	

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

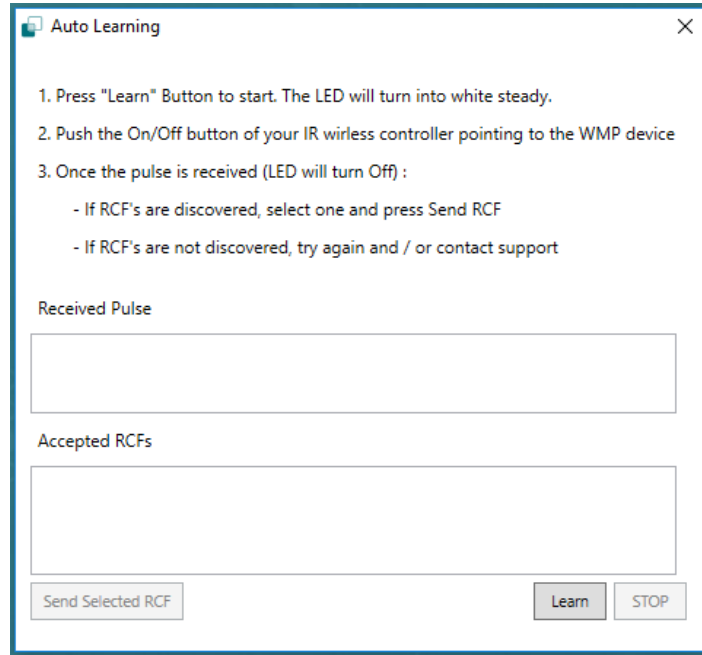
Send

➤ **Auto Learn**

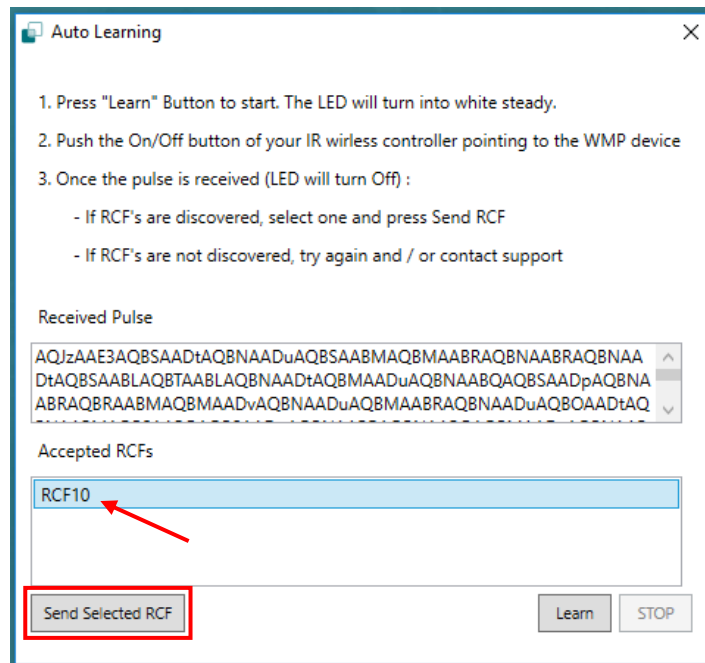
The auto learn function is available for IS-IR-WMP-1 products with the firmware version 1.0.3 or newer. This function allows to identify the infrared remote control automatically by only sending a command pointing to the WMP device.

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:



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.

Configuration	
Name	WMP_A18D7D
Reference	IS-IR-WMP-1
MAC	001DC9A18D7D
IP	192.168.100.155
Shift Temperature	0
Runtime FW Version	1.0.3
Config FW Version	1.0.0
PIC FW Version	2.0
Subfamily	IS-IR-WIFI
Model	RCF_10
Auto Learn	Open Auto Learn

Send

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

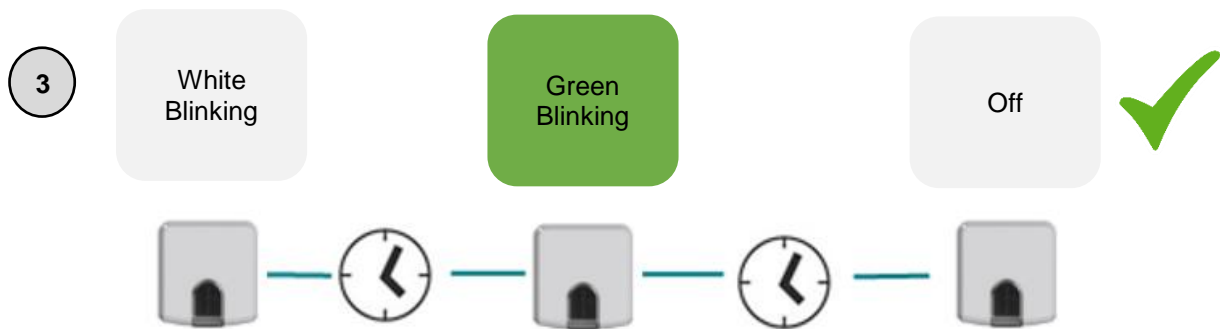


Press during 5 seconds the device button. The device LED will switch on steady white.



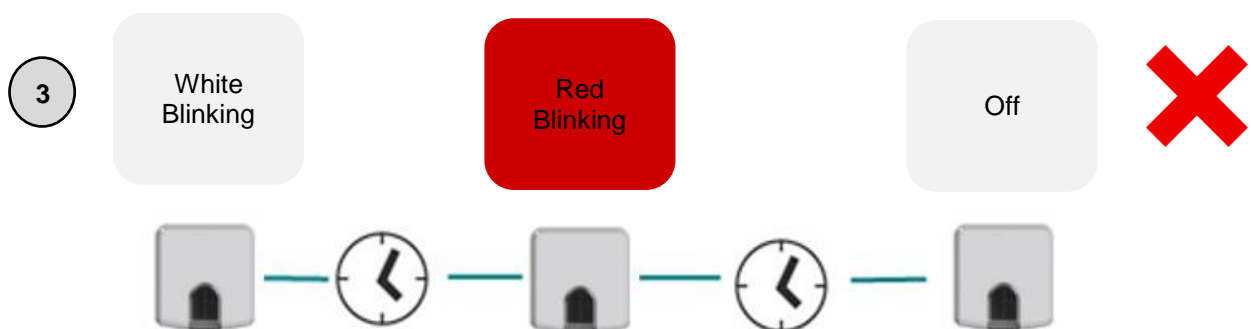
Press the button On/Off of the infrared remote controller pointing to the WMP device.

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.

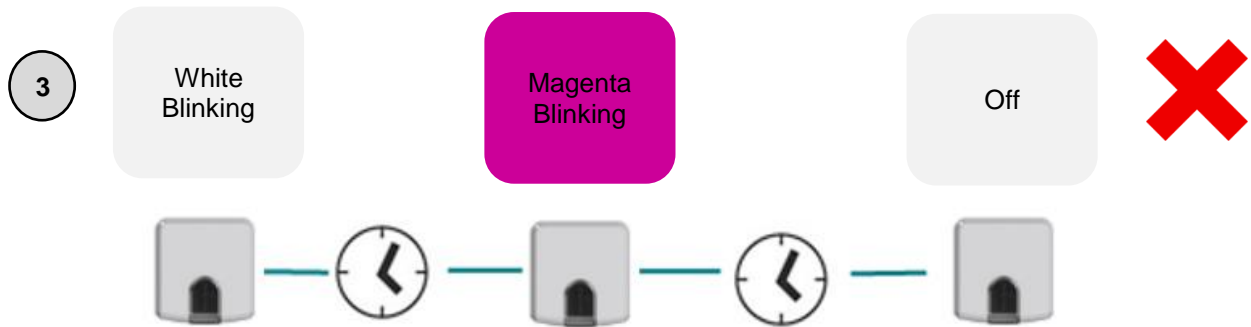
On the other hand, if the WMP device does not recognize the received command, the LED will follow this sequence:



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:

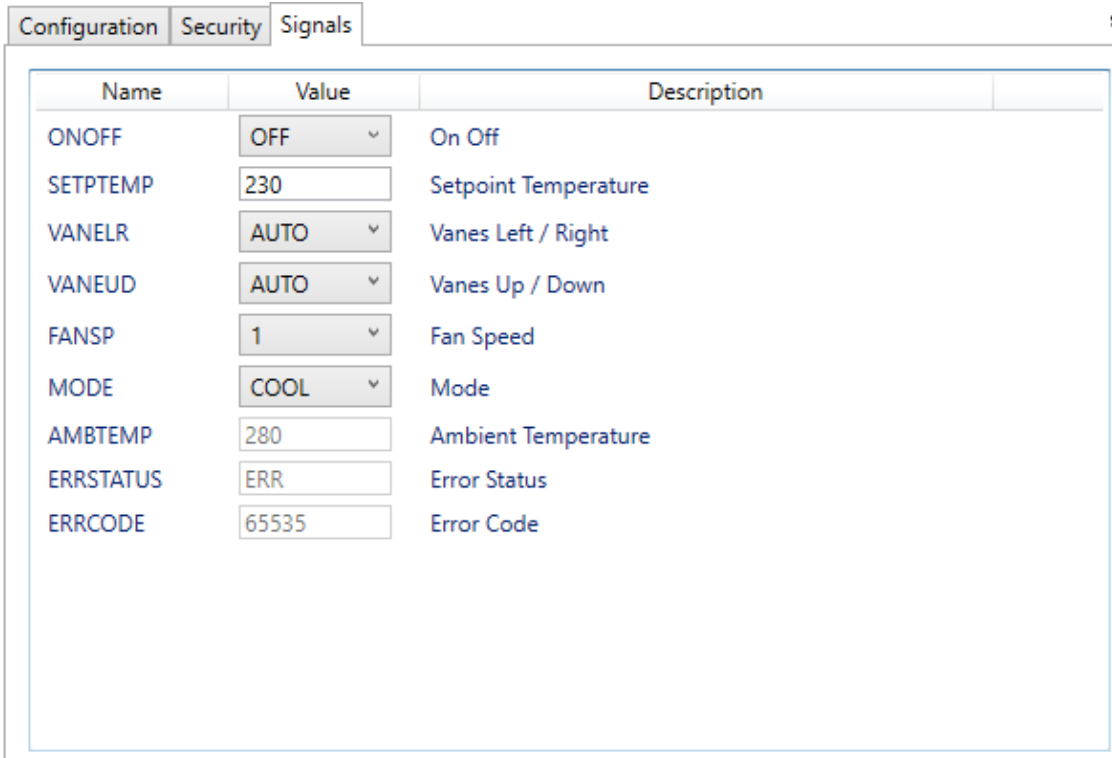


Note: The magenta blink means that the device is not connected to the internet. Please, check if the device is correctly connected to the available WiFi network and if the network has internet connection.

## 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.

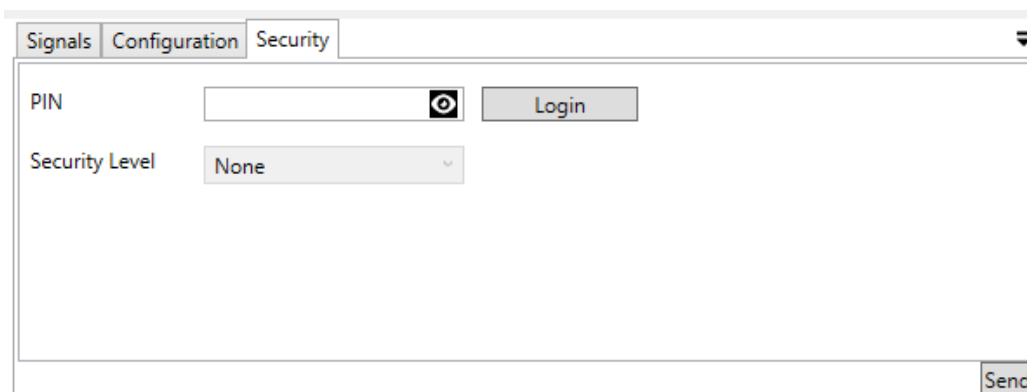
It is a useful function for testing and start-ups.



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

Security Level

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

## 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](https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_IS-IR-xxx-1_AC_Compatibility.pdf)

**DAIKIN - ME-AC-WMP-1:**

[https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox\\_ME-AC-xxx-1\\_AC\\_Compatibility.pdf](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](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](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](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](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](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](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](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](https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_FJ-RC-xxx-1_AC_Compatibility.pdf)

## 5. Home automation drivers available

Control4™ → <https://www.chowmainsoft.com/intesisbox-control4>

 **CRESTRON**® → <http://applicationmarket.crestron.com/intesisbox/>

**ELAN**® → <https://www.chowmainsoft.com/intesisbox-elan>