AC Cloud Control

Device Configuration

Issue date: 10/2020 V1.0

Important User Information

Disclaimer

The information in this document is for informational purposes only. Please inform HMS Industrial Networks of any inaccuracies or omissions found in this document.

HMS Industrial Networks disclaims any responsibility or liability for any errors that may appear in this document. HMS Industrial Networks reserves the right to modify its products in line with its policy of continuous product development. The information in this document shall therefore not be construed as a commitment on the part of HMS Industrial Networks and is subject to change without notice. HMS Industrial Networks makes no commitment to update or keep current the information in this document.

The data, examples and illustrations found in this document are included for illustrative purposes and are only intended to help improve understanding of the functionality and handling of the product. In view of the wide range of possible applications of the product, and because of the many variables and requirements associated with any particular implementation, HMS Industrial Networks cannot assume responsibility or liability for actual use based on the data, examples or illustrations included in this document nor for any damages incurred during installation of the product. Those responsible for the use of the product must acquire sufficient knowledge in order to ensure that the product is used correctly in their specific application and that the applications, codes and standards. Further, HMS Industrial Networks will under no circumstances assume liability or responsibility for any problems that may arise as a result from the use of undocumented features or functional side effects found outside the documented scope of the product. The effects caused by any direct or indirect use of such aspects of the product are undefined and may include e.g. compatibility issues.



INDEX

| 1. | Des | cription | 4 |
|----------|--|--|--------------------------------------|
| | 1.1 | Introduction | 4 |
| | 1.2 | About this document | 4 |
| | 1.3 | What is needed | 4 |
| 2. | AC | Cloud Control Button | 6 |
| | 2.1 | Reset Wi-Fi settings | 7 |
| | 2.2 | WPS mode | 8 |
| | 2.3 | Change Wi-Fi channel | 9 |
| | 2.4 | Autolearning1 | 0 |
| | | | |
| 3. | Cor | figuration1 | 2 |
| 3. | Cor 3.3 | figuration | 2 5 |
| 3. | Cor 3.3 3.4 | figuration | 2 5 7 |
| 3. | Cor 3.3 3.4 3.5 | figuration 1 Automatic 1 Manual 1 WPS 1 | 2 5 7 9 |
| 3. | Cor 3.3 3.4 3.5 3.6 | figuration 1 Automatic 1 Manual 1 WPS 1 Settings 2 | 2 5 7 9 |
| 3. | Cor 3.3 3.4 3.5 3.6 LEE | figuration 1 Automatic 1 Manual 1 WPS 1 Settings 2 9 status information 2 | 2 5 7 9 1 3 |
| 3. | Cor 3.3 3.4 3.5 3.6 LEE 4.1 | figuration 1 Automatic 1 Manual 1 WPS 1 Settings 2 O status information 2 LED status during Wi-Fi configuration 2 | 2 5 7 9 1 3 3 |
| 3. 4. | Cor 3.3 3.4 3.5 3.6 LEC 4.1 4.2 | figuration 1 Automatic 1 Manual 1 WPS 1 Settings 2 O status information 2 LED status during Wi-Fi configuration 2 LED status during IR configuration (Autolearning mode) 2 | 2 5 7 9 1 3 3 3 |



1. Description

1.1 Introduction

AC Cloud Control is the perfect IoT solution for professional AC management. It has been developed along with the mayor AC manufacturers and offers the possibility to control almost any domestic, commercial or VRF AC unit in the market from a generic dashboard available for Android, iOS or in any web browser.

The AC Cloud Control system offers many functionalities covering different needs like energy saving and air conditioner maintenance just to name some of them. All these functionalities make the product the best professional solution for offices, stores, schools or any other commercial building.



Figure 1.1 AC Cloud integration.

1.2 About this document

This document describes how to configure the AC Cloud Control device It contains the meaning of the feedback light from AC Cloud Control LED during the configuration process and working mode

1.3 What is needed

In order to use AC Cloud Control system is needed, at least, the following:

• AC Control device.

Before start using AC Cloud Control is needed to acquire (if the user hasn't done yet) an AC Cloud Control device¹. In addition, is necessary be close to it (See Figure 1.2)



¹ AC Cloud Control devices can be purchased in your usual air conditioner or heat pump reseller center.



Figure 1.2 Get close to the device.

• Make sure to buy the right device.

Remember that there are the Universal and the Band Specific Wi-Fi Controllers available for each manufacturer and type of climate system, check <u>the compatibility</u>.

• Internet access².

The AC Cloud Control devices must be connected to internet using Wi-Fi, therefore make sure the Wi-Fi signal reaches the device location (See Figure 1.3).



Figure 1.3 Check Wi-Fi Signal.

 Device with Internet access: A device with internet access is needed (Smartphone or Tablet).

Make sure the smartphone or tablet used is Android or iOS compatible.

In addition, double check that the data is turned off and Wi-Fi is turned on.



² Costs related with Internet access are not included in the AC Cloud Control price. Ask your Internet Service Provider about the associated costs of your Internet connection.

2. AC Cloud Control Button

AC Cloud Control devices have one unique button located in different places depending of the device Universal (See <u>Figure 2.1</u>), specific brand AC (See <u>Figure 2.2</u>) and specific brand RC (See <u>Figure 2.3</u>).



Figure 2.1 Universal's button



Figure 2.2 AC's button



Figure 2.3 RC's button



2.1 Reset Wi-Fi settings

To reset the Wi-Fi information in an AC Cloud Control device is needed to hold the button for 10 seconds (See Figure 2.4), the light of the LED will blink in green after some seconds it will turn steady green (See Figure 2.5).



Figure 2.4 Reset Wi-Fi procedure.



Figure 2.5 Reset LED feedback.



2.2 WPS mode

Press one time the button to activate the WPS mode in the AC Cloud Control device (See <u>Figure 2.6</u>), the light of the LED will blink in blue (See <u>Figure 2.7</u>).



Figure 2.6 WPS mode.



Figure 2.7 WPS mode LED feedback.



2.3 Change Wi-Fi channel

Holding the button for 2 seconds to change the channel of the Wi-Fi network (See <u>Figure 2.8</u>), the light of the LED will blink in green and it will turn steady green (See <u>Figure 2.9</u>). The process can be repeated until reach the channel wanted.



Figure 2.8 Change Wi-Fi channel procedure.



Figure 2.9 Change Wi-Fi channel LED feedback.



2.4 Autolearning

Autolearning mode is used to pair the IR control of the Climatize system with the Universal AC Cloud Control device.



To active the Autolearning mode in the Universal device is needed to hold the button for 4 seconds (See <u>Figure 2.10</u>), the light of the LED will be steady white (See <u>Figure 2.11</u>).



Figure 2.10 Autolearning procedure.



Figure 2.11 Autolearning LED feedback.

Once the light is steady withe, press the on/off button of the IR remote of the air conditioner machine pointing it to the universal device (See Figure 2.12), the light of it will blink green. If the Universal device recognized the IR remote successfully the light will turn steady green (See Figure 2.13). Otherwise, it will turn red (See Figure 2.14).





Figure 2.12 IR remote pointing to Universal device.



Figure 2.13 Autolearning performed successfully LED feedback.



Figure 2.14 Autolearning performed with not success LED feedback.



3. Configuration

Configuration of the AC Cloud Control device must be done through the AC Cloud Control app.



There are 2 ways to realize the procedure

- 1. Tap on **Device configuration** in the main page (See Figure 3.1).
- 2. Login, tapping on settings and in the white square (See Figure 3.2).



Figure 3.1 Access to Configuration network device without login.



Figure 3.2 Access to Configuration network device from settings login.



Go to Wi-Fi settings of your mobile or Table and select the network generated by AC Cloud Control device (See Figure 3.3). Tap on **Next**.

In case the user is not connected to the device network a pop-up window will be shown asking to connect to it. (See Figure 3.4).

The mode to configure the Wi-Fi network can be selected as preference. Further information about each mode configurations will be found at <u>Section 3.3</u>, <u>Section 3.4</u> and <u>Section 3.5</u>.



Figure 3.3 Configuration network procedure.



Figure 3.4 Configuration network warning pop-up window.



If the configuration network has been carried out successfully the light of the LED will follow a light sequence (See Figure 3.5). Tap on **Done**.



Figure 3.5 LED configuration network sequence.



3.3 Automatic

1. Tap on Automatic (See Figure 3.6)



Figure 3.6 Automatic configuration procedure.

2. Tap on name of the network wanted (See Figure 3.7)



Figure 3.7 Wi-Fi Network selection.

3. Enter the password of the Wi-Fi network selected, to double check if the password entered is the correct one and tap on show password (See Figure 3.8). Tap on **Connect**.



| 'III 🕹 | 2:37 PM | |
|---------------|----------------|---------------------|
| く Back | IntesisNetLess | Connect |
| Channe | el | |
| WiFi Sig | gnal | Excelent |
| Security | y level | WPA2_PSK |
| Show P | assword | |
| Passwo | rd | Enter your password |
| | | |

Figure 3.8 Enter password.

If the configuration network has been carried out successfully the light of the LED will follow a light sequence (See <u>Figure 3.5</u>). To continue tap on done.

In case the light of the LED does not follow the sequence or start lighting different, start the process from the beginning.



3.4 Manual

Tap on Manual (See Figure 3.9)



Figure 3.9 Manual configuration procedure.

In case to select the security open, type the SSID of the Wi-Fi network wanted. (See <u>Figure 3.10</u>). Tap on **Connect**.

| .ıl ≎ | 2:37 PM | _ |
|-----------------|------------------|---------------|
| 〈 Device | DEVICE_ XXXXXXX | Connect |
| | | |
| SSID | | ani ninessiti |
| Security | Open | WEP / WPA2 |
| | Advanced Options | |
| | | |

Figure 3.10 Security Open.

If the configuration network has been carried out successfully the light of the LED will follow a light sequence (See <u>Figure 3.5</u>). Tap on **Done**.

In case the light of the LED does not follow the sequence or start lighting different, start the process from the beginning.



 In case to select the security WEP/WAP2 type the SSID of the Wi-Fi network wanted. Also, type the password Wi-Fi network and to make sure is well entered slide Show password selector (See <u>Figure 3.11</u>). Tap on **Connect**.

| '¶ & | 2: | 37 PM | _ |
|-----------------|--------|------------|--------------|
| 〈 Device | DEVIC | E_ xxxxxx | Connect |
| SSID | | | and an and a |
| Security | | Open | WEP / WPA2 |
| Show Pase | sword | | |
| Password | | | VOLT DEEVO |
| | Advanc | ed Options | 1 |
| | | | |

Figure 3.11 Security WEP/ WPA2.

If the configuration network has been carried out successfully the light of the LED will follow a light sequence (See <u>Figure 3.5</u>). Tap on **Done**.

In case the light of the LED does not follow the sequence or start lighting different, start the process from the beginning.

In manual mode is an option for advanced configuration. (See <u>Figure 3.10</u> and <u>Figure 3.11</u>). By default, it comes in option DHCP (See <u>Figure 3.12</u>). Tap on **Save**.

| ''II ∻ | 2:37 | 7 PM | |
|--------|-----------|-----------|------|
| Cancel | IP Addres | s Method | Save |
| | | | |
| | DHCP | Static IP | |
| | | | |

Figure 3.12 Advanced options (DHCP).

In case to select Static IP, type the IP address, Subnet Mask and Getaway. (See <u>Figure</u> <u>3.13</u>). Tap on **Save**.

| .ıl ≎ | 2:37 | PM | - |
|--------|-----------|-----------|-------|
| Cancel | IP Addres | s Method | Save |
| | онср | Static IP | |
| IP Add | ress | | eyo - |
| Subne | t Mask | | eyp (|
| Gatew | ay | | evo . |

Figure 3.13 Advanced options (Static IP).



3.5 WPS

There are 2 ways to start the WPS configuration procedure

- 1. Tap on **WPS** (See Figure 3.14).
- 2. Press one time the button to activate the WPS. Further information can be found at <u>Section 2.2</u>

| 개 🗢 2:37 PM |
|--|
| Configuration Device |
| You are connected to the DEVICE_xxxxxx device. |
| Please select the configuration type: |
| Automatic |
| |
| Manual |
| WPS |
| Or visit the settings menu: |
| Settings |

Figure 3.14 WPS configuration procedure.

Follow the instructions in the screen shown (See Figure 3.15). Tap on Next.



Figure 3.15 Instructions to perform WPS mode configuration.



the light of the LED will blink blue, 2 minutes after the WPS button of the router had been pressed the light of the LED will be off (See Figure 3.16).



Figure 3.16 Performing WPS configuration LED feedback.

If the configuration network has been carried out successfully the light of the LED will follow a light sequence (See Figure 3.5). To continue tap on done.

In case the light of the LED blinks Magenta (See Figure 3.17), start the process from the beginning.



Figure 3.17 Unsuccessful connection LED feedback.





3.6 Settings

In settings the domain region where the AC Cloud Control device will work can be changed, also, if the installation has more than device and the user needs to identify which device is going to be configured it can be called.

Tap on **Settings** (See Figure 3.18)

| •• | 2:37 PM |
|----|---|
| < | Configuration Device |
| | You are connected to the DEVICE_xxxxxx device. |
| | Please select the configuration type: |
| | Automatic |
| | Manual |
| | WPS |
| | Or visit the settings menu: |
| | Settings |
| | |

Figure 3.18 Settings configuration site.

 To identify to which network AC Cloud Control device is connected the mobile or tablet tap on Identify (See <u>Figure 3.19</u>). the light of the LED will blink white for 6 seconds, then it will be off (See <u>Figure 3.20</u>).



Figure 3.19 Settings AC Cloud control.





Figure 3.20 Identify LED feedback.

To change of Region, tap on the region wanted (See <u>Figure 3.19</u>). A pop-up will be shown telling that if the region is changed the configuration process must be started from the beginning (See <u>Figure 3.21</u>). Tap on **OK**. Tap on save (See <u>Figure 3.19</u>).

The light of the LED will blink green for 6 seconds, then it will turn steady green (See Figure 3.22)



Figure 3.21 Change region.







4. LED status information

AC Cloud Control device has an external LED which uses to give the user a feedback to communicate the status of the device.

4.1 LED status during Wi-Fi configuration

| LED Color (s) | Behavior | Description |
|----------------|--------------------|--|
| Blue | Blinking | Performing WPS connection (up to 2 min) |
| Magenta | Blink | WPS connection error |
| White | Blinking | Identifying AC Cloud Control Device |
| 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. |
| Yellow - Green | Alternate blinking | Server not reached. Check if there is Internet connectivity on your Access Point or router. |

4.2 LED status during IR configuration (Autolearning mode)

Note: The autolearning can be performed just with Universal AC Cloud Control devices.

| LED Color | Behavior | Description |
|-----------|----------|--|
| White | Steady | Waiting customer pressing the On/Off button of the IR remote controller (up to 20 seconds) |
| Green | Blinking | The IR remote controller has been linked as expected with the AC Cloud Control device |
| Red | Blinking | The IR remote controller has NOT been linked as expected with the AC Cloud Control device |



4.3 LED status during working mode

| LED Color | Behavior | Description |
|-----------|----------|---|
| Off | | AC Cloud Control device not powered or AC Cloud Control device working, and the AC unit is Off. |
| Blue | | Indoor Unit ON working in Cool or Dry mode |
| Red | | Indoor Unit ON working in Heat mode |
| Green | Steady | Indoor Unit ON working in Fan mode |
| Yellow | | Indoor Unit ON working in Auto mode |
| Cyan | | Indoor Unit working in anti-frost mode |
| Blue | | Command received or sent during Cool or Dry mode |
| Red | | Command received or sent during Heat mode |
| Green | 3 blinks | Command received or sent during Fan mode |
| Yellow | | Command received or sent during Auto mode |
| Cyan | | Command sent during anti-frost mode |
| Red | Blinking | AC Cloud Control device trying to connect to the Internet |

