Installation Manual

RADIANT365 Wednesday 21/10/2015 Off Press to start \sim AIRZONE 26.0° () \mathcal{O} 111 AIRZONE

AIRZONE

1-6 ZONES



1-8 ZONES (CCP)







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WARNINGS AND ENVIRONMENTAL POLICY

PRECAUTIONS

For your security, and to protect the devices, follow these instructions:

- Do not handle the system with wet or damp hands.
- Disconnect the power supply before making any connections.
- Take care not to cause a short circuit in any of the system connections.

ENVIRONMENTAL POLICY



Do not dispose of this equipment in the household waste. Electrical and electronic equipment contain substances that may damage the environment if they are not handled appropriately. The symbol of a crossed-out waste bin indicates that electrical equipment should be collected separately from other urban waste. For correct environmental management, it must be taken to the collection centers provided for this purpose, at the end of its useful life.

The equipment's components may be recycled. Act in accordance with current regulations on environmental protection.

If you replace it with other equipment, you must return it to the distributor or take it to a specialized collection center.

Those breaking the law or by-laws will be subject to such purposes and measures as are laid down in environmental protection legislation.

6



SYSTEM ELEMENTS

AIRZONE RADIANT365 MAIN CONTROL BOARD (AZRA6RADIANT)

Configurable electronic board which manages the system through wired and wireless devices. Power supplied through the control module of radiant elements (AZRA6OUTPUT8Z). Device box (65 x 65 mm / Ø65 mm) mounting.

Functionalities:

- Control and management of the thermostats, up to 6 zones (8 zones through AZX6CCP).
- Communication with units of integral control of the installation.
- Communications with other external control systems through integration bus.

AIRZONE CONTROL MODULE OF RADIANT ELEMENTS (AZRA6OUTPUT8Z)

Control Module of Radiant Elements for cooling/heating stages. Communications through system Airzone connection bus. Externally powered at 110/230 Vac. Din rail mounted.

Functionalities:

- 6 Relay outputs available for cooling/heating demand management up to 6 zones.
- 2 Relay outputs available for cooling/heating demand management. Configurable as zone relay (AZX6CCP needed).
- 1 analog input for temperatura probe.

AIRZONE 3 SPEEDS/STAGES DEHUMIDIFIER CONTROL MODULE (AZRA6CMOD3V)

Dehumidifier control module for underfloor radiant heating installations. Control up to three fan-speeds/stages. Externally power supplied at 110/230 and wired communications. Mounted on DIN rail or on wall.

Functionalities:

- Two control relays for On/Off.
- Three control relays for fan-speed/stages selection.
- Automatic speed selection according to the number of zones on dehumidification demand.









AIRZONE BLUEFACE COLOR THERMOSTAT WIRED (AZRA6BLUEFACEC)

Color graphic interface with capacitive screen for controlling zones in Airzone systems. Powered by main control board. Finished in steel and glass. Available in white and black.

Functionalities:

- Available in Spanish, English, French, Italian, German and Portuguese.
- Control of temperature and Operation mode (Master thermostat).
- Room temperature and relative humidity measurement of the zone.
- Eco-Adapt function.
- Sleep function.
- Temperature and mode time schedules.
- Remote access to other zones of the system.
- Weather forecast and AC unit consumption (optional).



AIRZONE THINK MONOCHROME THERMOSTAT WIRED/WIRELESS (AZRA6THINK [C/R])

Graphic interface with low-energy e-ink screen and capacitive buttons for controlling zones in Airzone systems. Finished in steel and glass. Wired/wireless communications. Powered from main control board (wired) or by CR2450 button battery (wireless). Available in white and black.

Functionalities:

- Available in Spanish, English, French, Italian, German and Portuguese.
- Control of temperature and Operation mode (Master thermostat).
- Room temperature and relative humidity reading.
- Sleep function.
- Remote access to other zones of the system.
- Weather forecast (optional).

AIRZONE LITE THERMOSTAT WIRED/WIRELESS (AZRA6LITE [C/R])

Thermostat with capacitive buttons for controlling the temperature of the zones in Airzone systems. Finished in steel and glass. Wired/wireless communications. Powered from main control board (wired) or by CR2450 button battery (wireless). Available in white and black.

Functionalities:

- On/off of the zone.
- Set-point temperature control (Accuracy: ± 1°C, max: ±3°C.)
- Room temperature and relative humidity reading.







WEBSERVER AIRZONE CLOUD DIN ETHERNET/WIFI (AZX6WSCLOUDDIN [C/R])

Webserver for controlling Airzone systems through Airzone Cloud platform. Accessible through browser or App (available for IOS and Android). Connected to router via Ethernet (AZX6WSCLOUDDINC) or WiFi (AZX6WSCLOUDDINR). Externally power supplied at 110 / 230 Vac. Mounted on DIN rail or on wall.

Functionalities:

- Control of up to 32 systems.
- Configuration and control of zone parameters (Room and set-point temp., operating mode, etc.) and system parameters via Airzone Cloud.
- Temperature and Operation mode time schedules.
- Multi-user and multi-session.
- External control through Airzone Cloud platform.
- Remote updates of the Webserver firmware and the systems connected to it.
- Remote error detection and error resolution.





AZX6WEBSCLOUDDINR

WEBSERVER AIRZONE CLOUD ETHERNET/WIFI (AZX6WEBSCLOUD [C/R])

Webserver for controlling Airzone systems through Airzone Cloud platform. Accessible through browser or App (available for IOS and Android). Connected to router via Ethernet (AZX6WEBSCLOUDC) or WiFi (AZX6WEBSCLOUDR). Power supplied through Production Control Board (AZX6CCP).

Functionalities:

- Control of up to 32 systems.
- Configuration and control of zone parameters (Room and set-point temp., operating mode, etc.) and system parameters via Airzone Cloud.
- Temperature and Operation mode time schedules.
- Multi-user and multi-session.
- External control through Airzone Cloud platform.
- Remote updates of the Webserver firmware and the systems connected to it.
- Remote error detection and error resolution.







AZX6WEBSCLOUDC

AZX6WEBSCLOUDR

Important: Only available for installations with AZX6CCP.

AIRZONE SUPERMASTER CONTROLLER (AZX6CSMASTER [S/E] [B/G])

Monochrome LCD touch screen back-lighted controller for managing the system of the installation. Power supplied through the automation bus of the system. Wall-mounted (AZX6CSMASTERS) or wall-embedded (AZX6CSMASTERE). Available in white and grey.

Functionalities:

- Up to 8 control groups.
- Operating mode and set-point temperature control.
- Forced mode control: it imposes the operating mode and the temperature, blocking the user control.
- Semi-forced mode control: it imposes the mode range and the temperature every hour.
- Forced mode control: it imposes the operating mode and the temperature, blocking the control for the user.
- Temperature and Operation mode time schedules





AZX6CSMASTERE

AZX6CSMASTERS

Important: This device is not compatible with the Production Control Board (AZX6CCP/AZX6CCPWSCC).

CLOUD ETHERNET AIRZONE PRODUCTION CONTROL BOARD (AZX6CCPWSCC)

Control board of production units with webserver for controlling Airzone systems through Cloud platform. Connected to router via Ethernet and communications through domotic bus. Externally powered at 110/230 Vac. Wall mounted.

Features:

- Controls up to 32 systems.
- 7 control relays for cooling/heating modes, cooling/heating air demand, cooling/heating radiant demand.
- Inputs for semi-forced modes, boiler probe and DHW control.
- Configuration and control of zone parameters (Room and set-point temp., operating mode, etc.) and system parameters via Airzone Cloud.
- Temperature and operating mode time schedules.
- Multi-user and multi-session.
- Remote management of firmware updates and errors.



AIRZONE PRODUCTION CONTROL BOARD (AZX6CCP)

Control board of production units through 6 relays of 10 A. Communications through domotic bus. Externally powered at 110/230 Vac. Wall mounted.

Functionalities:

- Controls up to 32 systems.
- Controls cooling and heating mode through 2 relays.
- Controls cooling air and the heating air demand through 2 relays.
- Controls the cooling and heating radiant element demand through 2 relays.
- 3 Inputs for semi-forced mode.
- Input for boiler probe.

AIRZONE AIR TO WATER HP GATEWAY (AZX6GAW XXX)

Communication gateway between Airzone system and Air to water units. Powered through the AC unit bus of the production control board (AZX6CCPWSCC).

Features:

- Two-way communication of the basic control parameters depending on the demand of the Airzone control system.
- Reading of errors of the controlled unit.
- Imposes water production temperature based on the demand.

Important: Only available for installations with AZX6CCPWSCC.

AIRZONE-LUTRON INTEGRATION GATEWAY (AZX6GTILUT)

Integration gateway for Lutron control systems on Airzone systems through Lutron HomeWorks QS Processor. Connected via Ethernet. Power supplied through the main control board automation bus.

Features:

- One Airzone-Lutron interface per system.
- Reading/Writing of the room temperature.
- Reading/Writing of the set-point temperature.
- Reading/Writing of the operating mode.
- Reading/Writing of the cooling/heating demand.
- Reading/Writing of the fan speeds.

Important: Only available for installations with AZX6CCP.

AIRZONE TEMPERATURE METALLIC PROBE IN SHEATH (AZX6SONDPROTECT)

Temperature probe in metal sheath.

Functionalities:

• DEW Protection probe for the Airzone control module of radiant elements



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GENERAL REQUIREMENTS

Strictly follow the directions outlined in this manual:

- The system must be installed by a qualified technician.
- Verify that the units to be controlled have been installed according to the manufacturer's requirements and operate correctly before installing the Airzone System.
- Locate and connect all the devices of the installation in accordance with the electronic regulations in force.
- Verify that the air conditioning installation to be controlled is in accordance with the regulations in force.
- It is necessary to use a Blueface Thermostat to have all the features of the Airzone system.
- Follow these recommendations to locate the thermostats:



- Perform all the connections with total abscense of power suppliance.
- In order to connect the elements of the system, use Airzone cable: shielded twisted pair cable formed by 4 wires: 2x0,22 mm² + 2x0,5mm² (AWG 20 4 wired).
- Do not place the system bus close to high power lines, fluorescent lights, LED lamps, motors, etc. It might cause interference on the communications.



- Respect the connection polarity of each device. A wrong connection may seriously damage the product.
- For elements externally powered at 110/230 Vac, for the communications, it is only necessary to connect the poles "A" and "B" of the bus.
- For elements externally powered at 110/230 Vac, respect the connection polarity. A wrong grounding may produce electric shocks.
- According to the current local and national regulations, it is mandatory to add a switch (or other element to disconnect the system) to the external supply wiring so that a constant separation between poles is guaranteed. The system will restart automatically if the supply is eventually turned off. Use an independent circuit from the controlled system for the power supply.



INTRODUCTION

Airzone systems enable the management of Master and Zone interfaces. Master thermostats enable mode management or define the efficiency level with the Eco-Adapt function.

It is recommended the use of a Blueface thermostat as Master Interface, this enables time schedule management and more unique functionalities.

Remember: This system only admits one Master thermostat.

To distinguish a Master Interface from a Zone Interface, check the next points.

- Blueface Master: Mode and Eco-Adapt icons shown in white color.
- Blueface Zone: Mode and Eco-Adapt icons shown in gray color.
- Think Master: Accessing the settings menu, Operation Mode is available.
- Think Zone: Accessing the settings menu, Operation Mode is unavailable.



SYSTEM INSTALLATION

Before the Airzone system commissioning, please check:

• The system is going to control works correctly without the Airzone system installed.

Important: For installations with radiant surfaces only, it is recommended the installation of buffer tanks.

In order to install the Airzone system, carefully follow these steps:

- 1) Connect all the necessary elements (see sections Assembly and Connection).
- Connect all the elements of the system (thermostats, modules, etc.)
- Power the main board.
- 2) Check all the assembly and the connection are correct (see section Assembly and Connection evaluation).
- 3) Configure the system.
- Configure all the thermostats (see sections System Start-up and Advanced settings).
- 4) If you have any other doubt, check the user and installation manuals.

Access all our technical documents and the self-diagnosis section, check the most FAQs, certificates, watch our videos and read our declaration of conformity at: **myzone.airzone.es/productos/**



ASSEMBLY AND CONNECTION

AIRZONE RADIANT365 MAIN CONTROL BOARD (AZRA6RADIANT)

Assembly

The Main Control Board is delivered for assembling in a device box ($65 \times 65 \text{ mm} / \emptyset 65 \text{ mm}$). Location and installation of the module must comply the current electronic rules.

For the assembly of the Main Control Board, please follow these steps:

- Remove the cover from the main base.
- Once all the connections are set, screw the Main Control Board to the device box and place the cover again.

Connection



N٩	Description
	Airzone connection bus
2	SW1
ε	Domotic bus

Fig. 1

Fig. 2

Airzone connection bus connectors

The Airzone connection bus allows you to connect all the internal components independents of the Main Control Board to control up to 6 zones, (8 through the Production Control Board, AZX6CCP). These are the elements that can be connected:

- Airzone Thermostats: Blueface (AZRA6BLUEFACEC), Think (AZRA6THINKC) and Lite (AZRA6LITEC).
- Airzone Control Module of Radiant Elements (AZRA6OUTPUT8Z).
- Airzone 3 speeds/stages dehumidifier control module (AZRA6CMOD3V).

It has 1 5-pin terminals to connect the Airzone connection bus. Both star connection and bus connection are available. Attach the wires with the terminal screws following the color code .





SW1

The main control board can also connect to Airzone wireless elements. These elements are associated by opening the wireless association module of the Main Control Board. Press on SW1 and wait for the LED 19 to remain red. The wireless association module will be open during 15 minutes.

System reset: If needed, hold SW1 until LED D19 stops blinking to return to Factory values.





A Blue B Green

Domotic bus connector

The domotic bus allows you to interconnect multiple systems in order to control them through Airzone control peripherals or to integrate them into a superior control network. These are the elements that can be connected:

- Webserver Cloud DIN (AZX6WSCLOUDDIN [C/R]).
- Airzone Production Control Board (AZX6CCP).
- Airzone Supermaster controller (AZX6CSMASTER [S/E]).

It has a 2-pin terminal for the domotic bus connection. This system can only be connected by bus. Attach the wires with the terminal screws following the color code (Fig. 5).



AZX6CABLEBUS

AZX6CABLEBUS

AIRZONE CONTROL MODULE OF RADIANT ELEMENTS (AZRA6OUTPUT8Z)

Assembly

The Airzone Control Module of Radiant Elements is mounted on DIN rail (Fig. 6). It is externally powered at 110/230 Vac. Location and installation of the module must comply the current electronic rules.



Fig. 6

Note: To take the module away, pull the reed down to release it.



Connection

The Control Module of Radiant Elements is a device which connects to the Airzone connection bus of the main board (Fig. 7).



N٥	Meaning
(1)	Power supply
2	LEDs of relay state
3	Zone relays
4	Airzone connection bus
5	Cooling demand / Zone relay
6	Cooling demand / Zone relay
$\overline{7}$	Temperature probe input

Control relay specs: $I_{max} = 10$ A at 110/230 Vac, voltage-free.

Note that to control elements with a greater power, it is recommended to use contactors in accordance with the power required. Remember to connect the neutral connector directly from the circuit to the element to be controlled.

Operation of the relays:

N°		Meaning					
01	Radiant element demand - Zone 1						
02	Radiant element dema	nd - Zone 2					
03	Radiant element dema	nd - Zone 3					
04	Radiant element dema	nd - Zone 4					
O5	Radiant element demand - Zone 5						
06	Radiant element demand - Zone 6						
07	Without AZX6CCP Heating demand						
0/	With AZX6CCP* Heating demand / Radiant element demand - Zone 7						
00	Without AZX6CCP Cooling demand						
08	With AZX6CCP* Cooling demand / Radiant element demand - Zone 8						

Note: If the zones 7 and 8 are not associated, the O7 and O8 control realys mantain the Mode logic as in the installation without CCP. Once zones 7 and 8 have been associated, must do a system reset if it is required to revert the configuration.



Fig. 9

It has a 5-pin terminal to connect it to the Airzone connection bus of the main board 6. Attach the wires with the terminal screws following the color code (Fig. 8).

Connect the temperature probe to the digital input (7) of the Control Module of Radiant Elements (AZRA6OUTPUT8Z). The other end of the temperature probe should be connected to the manifold pipe.

Powe supply is connected to the module through a 3-pin terminal (1). Attach the wires with the terminal screws following the color code (Fig. 9).

Once powered, The Control Module of Radiant Elements performs a sequential openingclosing of all relay outputs. This operation is repeated once a week to ensure the correct operation of the valves. Neutral

Phase Ground



Important: According to the current local and national regulations, it is mandatory to add a switch (or other element to disconnect the system) to the external supply wiring so that a constant separation between poles is guaranteed. The system will restart automatically if the supply is eventually turned off.

AIRZONE 3 SPEEDS/STAGES DEHUMIDIFIER CONTROL MODULE (AZRA6CMOD3V)

AIRZONE WIRED THERMOSTATIC VALVE ACTUATOR 6CMOD3V)

Assembly

The Airzone Control Module of Radiant Elements is mounted on DIN rail (Fig. 10). It is externally powered at 110/230 Vac. Location and installation of the module must comply the current electronic rules.





Note: To take the module away, pull the reed down to release it.

Connection

The module is a device which connects to the Airzone connection bus of the main board (Fig. 11).



Control Z1-8 relay specs: $I_{max} = 5$ A at 110/250 Vac, voltage-free.

Note that to control elements with a greater power, it is recommended to use contactors in accordance with the power required. Remember to connect the neutral connector directly from the circuit to the element to be controlled.

Operation of the relays:



Fig. 12

Fig. 13

A Blue ₿ Green ≟ Shield

Neutral

Phase

Ground

It has a 5-pin terminal to connect it to the Airzone connection bus of the main board 2. Attach the wires with the terminal screws following the color code (Fig. 12).

Powe supply is connected to the module through a 3-pin terminal (1). Attach the wires with the terminal screws following the color code (Fig. 13).

Important: According to the current local and national regulations, it is mandatory to add a switch (or other element to disconnect the system) to the external supply wiring so that a constant separation between poles is guaranteed. The system will restart automatically if the supply is eventually turned off.

Assembly

The Airzone Control Module of Radiant Elements is mounted on DIN rail (Fig. 10). It is externally powered at 110/230 Vac. Location and installation of the module must comply the current electronic rules.



Fig. 10

Note: To take the module away, pull the reed down to release it.

Connection

The Airzone 3 speeds/stages dehumidifier control module is a device which connects to the Airzone connection bus of the main board (Fig. 11).



NºMeaning1Power supply2Airzone connection bus3Dehumidifier control relays4LEDs of relays state

Control relay specs: $I_{max} = 10$ A at 110/230 Vac, voltage-free.



Note that to control elements with a greater power, it is recommended to use contactors in accordance with the power required. Remember to connect the neutral connector directly from the circuit to the element to be controlled.

Operation of the relays:

Meaning					
Y-O On / Off					
V ₁ - O Speed 1					
V ₂ -O	Speed 2				
V ₃ -O	Speed 3				
W-O On / Off					

It has a 5-pin terminal to connect it to the Airzone connection bus of the main board 2. Attach the wires with the terminal screws following the color code (Fig. 12).

Powe supply is connected to the module through a 3-pin terminal 1. Attach the wires with the terminal screws following the color code (Fig. 13).

Important: According to the current local and national regulations, it is mandatory to add a switch (or other element to disconnect the system) to the external supply wiring so that a constant separation between poles is guaranteed. The system will restart automatically if the supply is eventually turned off.

AIRZONE WIRED THERMOSTATS (AZRA6BLUEFACEC / AZRA6THINKC / AZRA6LITEC)

Assembly

Wired thermostats are mounted on the wall through a support. It is recommended not to locate it more than 40 meters away from the main control board. To fix it to the wall, follow these steps (Fig. 14):

- Separate the back part of the thermostat from the wall support and make all the connections.
- Fix the back part of the thermostat to the wall.
- Place the display on the support once it is fixed. •
- Place the anti-theft rods for additional support (optional).

Connection

The Airzone thermostats are connected to the Airzone connection bus of the main board. Attach the wires with the terminal screws following the color code (Fig. 15).

Important: Use a suitable screwdriver to press in the locking tabs (Fig. 16).

5 cm

1 cm



Fig. 16



A Blue

Fig. 15

Press

Black Shield

Green B 4 Red



Fig. 13

Ground









AIRZONE WIRELESS THERMOSTAT (AZRA6THINKR / AZRA6LITER)

Assembly

Wireless thermostats are mounted on the wall through a support. It is recommended not to locate it more than 40 meters away from the main control board.

To fix it to the wall, follow these steps (Fig. 17):

- Remove the back of the thermostat and insert the CR2450 button battery.
- Fix the back part of the thermostat to the wall.
- Place the display on the support once it is fixed.
- Place the anti-theft rods for additional support.



Changing batteries

When a wireless Think thermostat is running out of battery, it displays this icon **O** on the screensaver (Fig. 18). In the case of wireless Lite thermostats, a warning message will be displayed on the Blueface. In order to know the zone of the Lite thermostat(s) running out of battery press on the warning icon (Fig. 19).



Fig. 18

Fig. 19

To replace the battery, separate the thermostat from its support and replace the battery (CR2450) (Fig. 20).



Fig. 20

Important: We recommend using of top-brand batteries. Using low-quality batteries may reduce the duration of use.

Remember to deposit the old battery into an appropriate recycling point.

Note: Do not forget to remove the security system before taking away the thermostat from the wall.



WEBSERVER AIRZONE CLOUD DIN ETHERNET/WIFI (AZX6WSCLOUDDIN [C/R])



Assembly

The Webserver Airzone Cloud Din can be mounted on DIN rail (Fig. 22) or on wall (Fig. 23). This module is externally power supplied at 110/230 Vac. Location and installation of the module must comply the current electronic rules.









Note: To take the module away, pull the reed down to release it.

Fig. 22

Connection

The Webserver Cloud DIN is a device which connects to the domotic bus of the Main Control Board (Fig. 24) or to the exterior domotic bus 2 of the Production Control Board, AZX6CCP (Fig. 25).

AZX6WSCLOUDDINC

AZX6WSCLOUDDINR





A Blue

Fig. 27





It has a 5-pin terminal to connect to the domotic bus of the Main Control Board 2. Attach the wires with the terminal screws following the color code (Fig. 26).

B Green 🛓 Shield Fig. 26 It is connected to the module through a 3-pin terminal 4. Attach the wires with the Neutral N Phase Ground

Important: According to the current local and national regulations, it is mandatory to add a switch (or other element to disconnect the system) to the external supply wiring so that a constant separation between poles is guaranteed. The system will restart automatically if the supply is eventually turned off.

WEBSERVER AIRZONE CLOUD ETHERNET/WIFI (AZX6WEBSCLOUD [C/R])

Important: Only available for installations with AZX6CCP.

terminal screws following the color code (Fig. 27).



N°	Description					
(1)	Ethernet					
\cup	WiFi USB connector and antenna					
2	Domotic bus output					
3	Domotic bus input					



Assembly

The Webserver Cloud is integrated into the exterior domotic bus 1 of the Production Control Board, AZX6CCP (Fig. 29). It has a 5-pin terminal. Disconnect the terminal to which you want to connect to the Webserver and fit the connector.

Note: Remove the fixing post from the Webserver to mount the production control board.



Connection

The Webserver Cloud connects to the domotic bus of the main board (Fig. 30 and 31).

AZX6WEBSCLOUDC



AZX6WEBSCLOUDR



It has a 2-pin terminal (exterior domotic bus 2) located in the Production Control Board (AZX6CCP). Attach the wires with the terminal screws following the color code (Fig. 32).

Note: For a proper operation of this module, all the main control boards must be addressed (see section Advanced settings).





AIRZONE SUPERMASTER CONTROLLER (AZX6CSMASTER [S/E] [B/G])

Important: This device is not compatible with the Production Control Board (AZX6CCP).

Assembly

Airzone supermaster controllers can be mounted on wall (AZX6CSMASTERS) (Fig. 33) or wall-embedded (AZX6CSMASTERE) (Fig. 34).

Wall mounting

- Separate the back part of the thermostat from the wall support.
- Fix the support directly to the wall or using a patters.
- Put the back part of the controller on the support (once it is fixed) passing the cable through the hole. Make sure that the back part is fixed by the tabs. Make all the connections.
- Place the display on back part.

Embedded mounting

Embedded Supermaster thermostats are supplied in 100x100 mm junction boxes. Compatible junction boxes:

- Solera 362 (100x100 mm)
- Jangar 2174 (100x100 mm)
- IDE CT110 (100x100 mm)
- Fematel Ct35 (100x100 mm)

For a perfect mounting, follow these steps:

- Remove the sub-frame of the display from the rest of the assembly and make the connections.
- Use the washers and screws to secure the display into the patters.
- Place the sub-frame again. Make sure it is fixed properly.

Connection

The Supermaster controller connects to the domotic bus of the Main Control Board (Fig. 35 and 37).

Important: This device is power supplied by the Airzone connection bus of the Main Control Board.

AZX6CSMASTERS









Fig. 35

For wall-mounted thermostats, use the tabs located on the back of the thermostats. Attach the wires with the tab screws following the color code (Fig. 36).





Fig. 33





AZX6CSMASTERE



Fig. 37

Wall-embedded Supermasters have a 5-pin terminal located on their back part. Attach the wires with the terminal screws following the color code (Fig. 38).

Note: To configure it, follow the steps described in the user's manual, available at myzone.airzone.es/productos **Note:** For a proper operation of this module, all the main control boards must be addressed (see section Advanced settings).

CLOUD ETHERNET AIRZONE PRODUCTION CONTROL BOARD (AZX6CCPWSCC)

Assembly

The production control board is supplied to be screwed to the wall (Fig. 39). It should be placed and mounted in accordance with the current electrotechnical regulations. For the mounting of the main control board, follow the following steps:

- Locate the control board close to the unit to be controlled.
- Unscrew the cover securing the back part to the wall.
- Make all the connections and screw the cover again.



Connection

Production control board is connected to the domotic bus of the main board (Fig. 40).



N٩		Description					
(1)	Power su	pply					
2	ACS	Deactivates the air conditioning through AC unit					
3	CALOR	Sets the heating semi-forced mode					
4	FRIO	Sets the cooling semi-forced mode					
5	STOP	Imposes the Stop mode in the system					
6	SONDA Boiler probe						
$\overline{7}$	Domotic bus output 1						
8	Domotic bus output 2 – Aerothermal gateway connection						
9	Ethernet						
	01	Cooling mode					
	02	Heating mode					
-	03	Cooling air demand					
(10)	04	Cooling radiant demand					
0	05	Heating air demand					
	06	Radiant heating demand					
	07	Reserved for internal use					
(11)	SW2						

Fig. 38

Power supply connector

This connector powers the main control board and all the elements connected to it. Externally powered at 110/110/230 Vac. It is connected through a 3-pin terminal. Attach the wires with the terminal screws following the color code (Fig. 41). For added security, secure the wires using the turret (Fig. 42).

2cm

1cm

Important: According to the current local and national regulations, it is mandatory to add a switch (or other element to disconnect the system) to the external supply wiring so that a constant separation between poles is guaranteed. The system will restart automatically if the supply is eventually turned off.

Remember: Once all the connections are made, make sure you replace the cover properly (Fig. 43).

Digital inputs

The production control board has 4 digital inputs to externally control the Airzone systems. These inputs are configured as normally open. It is recommended to use a shielded cable to connect it.

- ACS: This input activates the DHW mode: all the systems working on Air heat will stop and the message DHW will be displayed by the zone thermostats. This feature is recommended for Aerothermal installations when the Aerothermal unit starts producing DHW.
- CALOR: This input activates the semi-forced heating mode in all the system of the installation. These are the modes available to select: Stop, Heating and Ventilation.
- FRIO: This input activates the semi-forced cooling mode in all the system of the installation. These are the modes available to select: Stop, Cooling, Dry and Ventilation.
- STOP: This input activates the Stop mode in all the system of the installation.

The main control board has an analogical input to connect a temperature probe for boiler protection.











Domotic bus connectors

The indoor domotic bus allows you to connect the production control board with the main control board and aerothermal gateways (AZX6GAWDA2). The domotic bus has two terminals which are interconnected so that can be used interchangeably. This system can only be connected by bus. Attach the wires with the terminal screws following the color code (Fig. 44). Use the shield only on the connector of the main control board, not required in RadianT system.

78 A Blue B Green ↓ Shield

IRZONE

Fig. 44

Note: For a proper operation of this main control board, all main control boards must be addressed (up to 32 zones) (see section Advanced settings).

Control relays

This device has 7 relays for controlling the installation. The characteristics of the control relays are I_{max} : 10 A at 110/230 Vac (tension-free). Note that to control elements with a greater power, it is recommended to use contactors in accordance with the power required.

Important: Remember to connect the neutral connector directly from the circuit to the element to be controlled. Depending on the type of installation, the control relays will follow a different logic:

Mode	Domand	Control Relays					
	Demand	FRIO_Y	CALORB_W	AIRE_Y	RADIANTE_Y	AIRE_W	RADIANTE_W
Stop	Off						
Cooling mode	Air	ON		ON			
	Radiant	ON			ON		
	Off						
Heating mode	Air		ON			ON	
	Radiant		ON				ON
	Off						
	Off						

<u>Aerothermal</u>

2 pipes / 4 pipes

Mode	Demand	Control Relays					
		FRIO_Y	CALORB_W	AIRE_Y	RADIANTE_Y	AIRE_W	RADIANTE_W
Stop	Off						
Casting	Air	ON		ON			
Cooling	Radiant	ON			ON		
mode	Off	ON					
Heating	Air		ON			ON	
	Radiant		ON				ON
mode	Off		ON				

<u>RadianT</u>

Mada	Demand	Control Relays					
Mode		FRIO_Y	CALORB_W	AIRE_Y	RADIANTE_Y	AIRE_W	RADIANTE_W
Stop	Off						
Cooling	Radiante	ON			ON		
mode	Off						
Heating	Radiante		ON				ON
mode	Off						
Dehumidifier activation	Radiant	ON		ON			



Important: In order to optimize the production temperature of the aerothermal units, the following combinations will not generate air demand in the production control board:

- Communication gateway (AZX6QADAPTxxx / AZX6QADAPT3xxx) in Flexa 3.0, Innobus Pro6, Acuazone and Innobus Pro32 main control boards.
- Controller 3.0 gateway (AZX6GTC xxx) in Flexa 3.0, Innobus Pro6, Acuazone and Innobus Pro32 main control boards.
- Communication gateway for electromechanical units (AZX6ELECTROMEC) in Flexa 3.0, Innobus Pro6, Acuazone and Innobus Pro32 main control boards.
- Infrared gateway module (AZDI6MCIFR [C/R]) in Acuazone e Innobus Pro32 systems (when configured as a zoning system or mixed system).
- Gateway module (AZDI6MCIFR [C/R]) in Acuazone e Innobus Pro32 systems (when configured as a zoning system or mixed system).

Important: To guarantee the optimization of the production temperature of the aerothermal units, these device combinations do not generate radiant demand to the production control board:

- Zoning module for Electrical Heating Element (AZDI6MZSRE [C/R]) in Acuazone and Innobus Pro32 systems regardless of the Main Control Board configuration.

SW2

To force the production control board to search for the connected systems and save the configuration of the installation, press SW2(Fig. 45).

AIRZONE PRODUCTION CONTROL BOARD (AZX6CCP)

Assembly

The production control board is supplied in a patter that is screwed to Wall for a better fixing (Fig. 46). It is should be placed and mounted in accordance with the current electronic regulations. For the mounting of the main control board, follow the following steps:

- Locate the control board close to the unit to be controlled.
- Unscrew the cover securing the back part to the wall.
- Make all the connections and screw the cover again.



20

Fig. 45



Connection

It connects to the domotic bus of the main control board (Fig. 47).



N٩	Description						
(1)	Power						
2 6	Digital inputs						
$\overline{7}$	External d	lomotic bus 2					
8	Internal d	omotic bus					
9	External d	lomotic bus 1					
		FRIO_Y	Cooling mode				
		CALOR_W	Heating mode				
$\widehat{10}$	Control	AIRE_Y	Cooling air demand				
	relays	RADIANTE_Y	Cooling radiant demand				
		AIRE_W	Heating air demand				
		RADIANTE_W	Radiant heating demand				
(11)	Aerothermal gateway bus						
(12)	SW1						
(13)	SW2						

Power supply connector

This connector powers the main control board and all the elements connected to it. Externally powered at 110/230 Vac. It is connected through a 3-pin terminal. Attach the wires with the terminal screws following the color code (Fig. 48).

For added security, secure the wires using the turret (Fig. 49).

Fig. 47







Fig. 49

Important: According to the current local and national regulations, it is mandatory to add a switch (or other element to disconnect the system) to the external supply wiring so that a constant separation between poles is guaranteed. The system will restart automatically if the supply is eventually turned off.

Remember: Once all the connections are made, make sure you replace the cover properly (Fig. 50).





Digital inputs

The production control board you have 4 digital inputs to externally control the Airzone systems. These inputs are configured as normally open. It is recommended to use a shielded cable to connect it.

- ACS: This input activates the DHW mode: all the Acuazone/Innobus Pro32 systems working on Air heat will stop and the message ACS will be displayed by the zone thermostats. This feature is recommended for Aerothermal installations when the unit starts producing DHW.
- CALOR: This input activates the semi-forced heating mode in all the system of the installation. These are the modes available: Stop, Heating and Ventilation.
- FRIO: This input activates the semi-forced cooling mode in all the systems of the installation. These are the modes available: Stop, Dry, Cooling and Ventilation.
- STOP: This input activates the semi-forced cooling mode in all the systems of the installation.

The main control board has an analogical input for connecting a temperature probe to protect the boiler.

External domotic bus connector

The external domotic bus allows the connection of control peripherals in order to manage all the systems connected to the production control board. These are the elements that can be connected:

- Webserver Airzone Cloud Ethernet/Wifi (AZX6WEBSCLOUD [C/R]). (External Domotic bus 1)
- Webserver Airzone Cloud DIN Ethernet/Wifi (AZX6WSCLOUDDIN [C/R]).

It has two 5-pin terminals for connection of the domotic bus. This system can only be connected by bus. Attach the wires with the terminal screws following the color code (Fig. 51).

Note: For elements externally powered at 110/230 Vac, for the communications, it is only necessary to connect the poles "A" and "B" of the domotic bus.

When connecting the Webserver Cloud (AZX6WEBSCLOUD [C/R]), remove the fixing port from the Webserver and fit the connector into the external domotic bus 1 (Fig. 52).

Indoor domotic bus connectors

The internal domotic bus allows you to interconnect the production control board to the main control board or mains control board.

It has a 2-pin terminal for the domotic bus connection. This system can only be connected by bus. Attach the wires with the terminal screws following the color code (Fig. 53).

Note: For a proper operation of the main control board, all the main control board must be addressed (up to 32 systems) (see section Advanced Settings).

Aerothermal gateway bus connector

The AC unit bus allows you to connect multiple gateways of for air-to-water equipment installed. These are the elements that can be connected:

- Airzone - Daikin aerothermal gateway (AZX6ACUACP [DAI/DA2]).

In order to connect these gateways, disconnect the terminal of the AC unit bus and fit in the connector and the fixing post of the gateway (Fig. 54).



Fig. 54







Control relays

This device has 6 relays for controlling the installation. The characteristics of the control relays are I_{max} of 10 A at 110/230 Vac (voltage-free. Note that to control elements with a greater power, it is recommended to use contactors in accordance with the power required.

Important: Remember to connect the neutral connector directly from the circuit to the element to be controlled.

Depending on the type of installation, the control relays will follow a different logic:

<u>Aerothermal</u>

Mede	Domand			Control Relays				
Mode	Demand	FRIO_Y	CALORB_W	AIRE_Y	RADIANTE_Y	AIRE_W	RADIANTE_W	
Stop	Off							
Cooling	Air	ON		ON				
Cooling	Radiant	ON			ON			
mode	Off							
	Air		ON			ON		
Heating	Radiant		ON				ON	
mode	Off							

2 pipes / 3/4 pipes

Mede	Domand			Control Relays				
Mode	Demand	FRIO_Y	CALORB_W	AIRE_Y	RADIANTE_Y	AIRE_W	RADIANTE_W	
Stop	Off							
Cooling	Air	ON		ON				
Cooling	Radiant	ON			ON			
mode	Off	ON						
	Air		ON			ON		
Heating	Radiant		ON				ON	
mode	Off		ON					

<u>RadianT</u>

Mada	Domand		Control Relays			Control Relays				
Mode	Demand	FRIO_Y	CALORB_W	AIRE_Y	RADIANTE_Y	AIRE_W	RADIANTE_W			
Stop	Off									
Cooling	Radiant	ON			ON					
mode	Off									
Heating	Radiant		ON				ON			
mode	Off									
Dehumidifier	Radiant									
activation	Off	ON		ON						

Important: To guarantee the optimization of the production temperature of the aerothermal units, these device combinations do not generate demand to the production control board:

- Communication gateway (AZX6QADAPTxxx) in Flexa 3.0, Innobus Pro6, Acuazone and Innobus Pro32 main control boards.
- Communication gateway for electromechanical units (AZDI6MCIFR [C/R]) in Acuazone and Innobus Pro32 systems configured as zoning or combined systems.
- Airzone infrared individual unit zone module (AZDI6MCIFRC) in Acuazone and Innobus Pro32 systems configured as zoning or combined systems.
- Airzone individual unit modules (AZDI6MCxxxC) in Acuazone and Innobus Pro32 systems configured as zoning or combined systems.



<u>ا گر</u>

Fig. 55

SW1

Once all the main control boards have been addressed, you must save the configuration of the installation in the production control board. To do that, press SW1 (Fig. 44). If you make any changes in the installation, remember to save the new configuration. To reset the production control board, press SW1 for 10 seconds.

SW2

The microswitch SW2 sets the type of installation to control by the central production control. The operation logic of the microswitch is as follows:

Meaning							
	1 2		1 2				
Aerothermal	2 pipes	3/4 pipes	RadianT				

AIRZONE AIR TO WATER HP GATEWAY (AZX6GAW XXX)

Important: Only available for installations with AZX6CCPWSCC.



N°		Description	
2	Domotic Bus		

Assembly

The Airzone air to water gateway is integrated into the domotic bus of the Cloud Ethernet Production Control Board, (AZX6CCPWSCC). It has a 4-pin terminal. Disconnect the terminal to which you want to connect to the Webserver and fit the connector (Fig. 57)



Configuration

It is required to configure the relays control logic for the production control board, as well as the other parameters of the cloud production control board. The cloud production control board settings are only available in the master Blueface thermostat of the system n°1 (see section Cloud CCP Parameters).



AIRZONE-LUTRON INTEGRATION GATEWAY (AZX6GTILUT)

Important: Only available for installations with AZX6CCP.



N٥	Descripción
(1)	Ethernet
2	Domotic Bus



Assembly

Airzone Lutron gateway is integrated into the domotic bus of the production control board AZX6CCP (Fig. 59). It has a 5-pin terminal. Disconnect the terminal to which you want to connect to the gateway and fit the connector.



Note: Remove the fixing post from the Webserver to mount the production control board.

Important: The use of the Airzone-Lutron integration Gateway is not compatible with the following elements:

- Webserver airzone cloud (AZX6WEBSCLOUD [C/R] AND AZX6WSCLOUDDIN [C/R])
- Airzone cloud ethernet production control board (AZX6CCPWSCC).
- Surface supermaster controller (AZX6CSMASTER [S/E]).
- KNX-airzone integration gateway (AZX6KNXGTWAY).
- Airzone bacnet integration gateway (AZX6BACNET).

Configuration

To configure it, follow the steps described in the Lutron gateway installation manual available at myzone.airzone.es (<u>http://doc.airzone.es/producto/Gama_AZ6/Airzone/Comunes/Manuales/MI_AZ6_LUTRON_A4_EN.pdf</u>)



ASSEMBLY AND CONNECTION EVALUATION

Check the following aspects:

- The state of the LEDs of the main control board and the rest of control elements. Check the self-diagnose section of the data sheet of the elements.
- If all the thermostats are powered.

SYSTEM START-UP

Once the system is installed and all the elements are correctly connected, it is time to power the system.

Follow the steps described in the following sections to configure all thermostats.

Reset system: To reset the whole system, press and hold on SW1 (on the main control board) until the LED 19 stops blinking (Fig. 60).

IMPORTANT: To associate wireless thermostats, you must open previously the wireless association module. To do that, press on SW1. The LED D19 will remain steady red (Fig. 45). Once open, you have 15 minutes to make the association. If that period of time expires, start the process over again. Remember not to open more than one module at the same time, it may alter the process.



Fig. 60

You can also open the channel association radio through the Blueface and Think (see section System parameters)

AIRZONE BLUEFACE AND AIRZONE THINK SETUP

Important: Once you start the process, it cannot be interrupted.

Language/Country

Select your language and country. These are the available languages: Spanish, English, French, Italian, Portuguese and German.

To associate a wireless Think, press Airzone to start seeking and then confirm the wireless association. Verify **the range is correct** (30% minimum) and confirm.

2 Zone address

Select the zone associated to the thermostat. Each zone corresponds to a radiant element relay output. For example, zone 1 will control the relay output O1 of the control module of radiant elements (AZRA6OUTPUT8Z).

Important: In case of having a production control board (AZX6CCP) the system is able to work with up to 8 zones.

Associated outputs

If necessary, the system allows you to associate more than one control output to a zone. It is possible to control multiple outputs from the same thermostat.

4 Thermostat configuration

Select the operation of the thermostat:

- Master: Controls all the parameters of the installation.
- Zone: Controls all the parameters of the zone.

5 Control stages

Enables/Disables the radiant stage with cooling and heating modes.

6 Other settings

Access the advanced settings (system address, temperature range, etc.) to change other settings or activate the basic function if you want to (see *Advanced Settings, zone parameters*).







Think

Important: Use **O**IRZONE to confirm and **E** to return.









AIRZONE LITE SETUP

1) Zone address

Select the zone associated to the thermostat pulling up the microswitch of the corresponding zone.



2) Associated outputs

If required, select other control outputs associated to the zone. The address zone will be the one with a lower value.

3) Other settings

Configure other functionalities of the LITE thermostat from the advanced configuration menu of a Blueface thermostat (see section *Advanced Settings, Zone parameters*) or Webserver Cloud (see the Installation Manual of the Webserver Cloud).



If the association is correct, the LED \odot will flash green 5 times. If it flashes red, it means the zone is already occupied. If it flashes red twice, it means the thermostat is out of range.

If you want to return your Lite thermostat to factory values, pull down all the microswitchs and reinsert the thermostat in its base. The LED \bigcirc will flash green twice when the reset process is completed.

Remember: If you need to change the zone number, reset the thermostat and start association process.

INITIAL CONFIGURATION EVALUATION

Check the following aspects:

- AC unit-system communication: Choose any mode (except STOP mode) and switch on the zone to generate demand.
- Opening-closing of the dampers and control outputs: Turn on the system and generate demand in all the zones. Then, switch off and on all the zones to verify the associated control outputs are correct.

Important: For security reasons, the last zone will take around 4 minutes to close.

USER AND ZONE SETTINGS

USER SETTINGS - BLUEFACE THERMOSTAT

From this setting the user can control and change several features. Press on 🗮 to see all the direct access list:

Language/Country. Select your language and country

Brightness. Select the brightness intensity and activate/deactivate the brightness on the screensaver.

Screensaver. Determine what information to display on the screensaver. Depending on the configuration of your system, you can choose among this list:

- Zone state: Displays information about the zone state and settings
- Weather forecast: Only available with Airzone Cloud (AZX6WBSCLOUD [C/R] and AZX6WSCLOUDDIN [C/R]).
- AC unit consumption: Only available for some configurations.
- If you deactivate the information feature, only the time and zone state will be displayed.

Date and time. Press on the clock to set time, format type (12 or 24 hours) and whether or not you want the system to automatically change the time. Press on the calendar to set the date.

Clean screen. Activate this feature to lock the screen for some seconds to clean the screen.

(i) Information. Displays information about:

- Zone: Firmware, zone, association, actuator o communications status.
- System: Firmware, configuration and information about the controllers.
- Devices: Displays what elements are connected to the system.
- Webserver (Only for system 1 Master thermostat): Webserver status and settings, association to router.
- Errors: It warns you if any error occurs.



ZONE CONFIGURATION MENU – BLUEFACE AIRZONE THERMOSTAT

Press on to access this menu. You will see these settings:

Sleep mode. The Sleep mode works as an eco-timer that switches off the zone.

These are the values you can select:

- OFF. The timing is off.
- 30. The zone turns off after 30 minutes.
- 60. After the 30 minutes, the temperature increases or decreases in one degree and then after 30 more minutes, the zone turns off.
- 90. After 30 minutes, the temperature increases or decreases in one degree. 30 minutes later, the process is repeated (±1 degree). Then, after 30 more minutes the zone turns off.

Anti-freezing. This feature prevents the room temperature from lowering below 12°C, although your zone is off. (Will not be activated in Stop mode).

Lite settings. Selects the set-point temperature of the zone where the Airzone Lite is located. Moreover, from the Status LED feature, you can configure your Wired Lite thermostat to operate as wireless: after a few seconds (while the status of the zone is shown), it turns off.

Note: To access this setting, you must access to navigation by zones, to the area controlled by a thermostat Lite.

USER SETTINGS – THINK AIRZONE THERMOSTAT

Remember: In Think thermostats, use \mathbf{M} IRZONE to confirm and $\mathbf{\Xi}$ to return.

Press on **H** to access this menu. You will see these settings:

Sleep mode. The Sleep mode works as an eco-timer that switches off the zone. These are the values you can select:

- OFF. The timing is off.
- 30. Zone turns off after 30 minutes.
- 60. It activates the timing. The temperature increases or decreases in one degree after 30 minutes and then after 30 more minutes, the zone turns off.
- 90. It activates the timing. After 30 minutes, the temperature increases or decreases in one degree. 30 minutes later, the process is repeated (± 1 degree). After 90 minutes, the zone will switch off.

Zone navigation. Access any zone and turn it on/off, check the information of the zone or change the set point.

In master Airzone Think thermostats, it is also possible to change the **Operation mode** from the control bar. This is the list of available modes:

Stop. The air conditioning system will be stopped regardless of the state of the rest of the zones. Moreover, all the terminal elements (grilles, dampers, etc.) will stay closed.

Cooling. The system sets exclusively *cooling* mode when there is demand in any zone (*Set-point* T < Room T).

 $\dot{\mathbf{\varphi}}$ Heating. The system sets exclusively *heating* mode when there is demand in any zone (*Set-point* T < *Room* T).



ADVANCED SETTINGS

To access the advanced configuration menu of the thermostat and Blueface Think follow the following steps:

Blueface



Think

Important: Use **O**IRZONE to confirm and **E** to return.



From this menu you can change the system and zone parameters.

SYSTEM PARAMETERS

• **System address.** Defines the number of the system within your installation. The value 1 is shown by default. The system will display the available values (max = 247).

If the system has address 1 and there is a production control board (AZX6CCP) in the installation, it is possible to activate **Supermaster** feature which imposes the operating mode of system 1 to the rest of the systems connected to the AZX6CCP:

Operation mode: System 1	Available operation modes: Rest of the systems
бтор	STOP
*	
ý.	STOP - Č-

- **Temperature range.** Selects the highest temperature in heating mode (19-30 °C) and the lowest temperature in cooling mode (18-26 °C). It is also possible to disable some of the modes. The highest temperature by default is 30°C. The lowest temperature by default is 18°C.
- **Hysteresis configuration.** Defines the temperature differential between room temperature and set-point temperature required to start applying the RadianT Algorithm. In installations with radiators, set this value to 0°C. It is set to 2°C by default.



- Radio channel. It activates/deactivates the wireless association module of the system.
- **Condensation protection** (only available for thermostat Blueface on installations with cooling radiant control). Enables to select the protection level against condensation: Very high, high, medium (by default), low and very low. If necessary, it can be activated for 1h.

***Note**: In Very Low configuration, the humidifier will be automatically activated if the relative humidity level is higher than 55% in any active zone.

- **Reset system** (only available for master thermostat Blueface). Resets the system and returns to factory settings. To reconfigure the thermostats, please check System start-up).
- **Information** (only for Think thermostats). It provides information about:
 - Zone: Firmware, zone, association, actuator o communications status.
 - System: Firmware, configuration and information about the controllers.
 - Devices: Displays what elements are connected to the system.
 - Webserver: Firmware, IP address, gateway, MAC and PIN.

ZONE PARAMETERS

- Associated outputs. It displays and allows you to select the control outputs associated with the thermostat.
- Thermostat settings. Use this parameter to define the thermostat as Master or Zone.

*Note: It cannot be configured as Master if there is already another Master thermostat.

- **Use mode.** The thermostats can be set in Basic or Advanced mode. They are set in advanced mode by default. These are the parameters you can control in basic mode:
 - On/Off.
 - Set-point temperature.
 - Fan Speed

If you need to reset the thermostat to advanced mode, access the advanced configuration menu and then activate the advanced use mode.

- **Control stages.** Enables/disables cooling and heating stages in a selected zone or in all zones of the system.
- Offset. Allows you to correct ambient temperature that is measured in the various areas or in all of them, due to
 deviations by sources of heat/cold nearby, with a correction factor between 2,5°C and 2,5°C in steps of 0,5°C. It is in
 0°C by default.
- **Reset thermostat.** Resets the thermostat returning to Setup menu (see section *Zone Configuration menu Blueface Thermostat*).



CLOUD CCP PARAMETERS

The cloud production control board AZX6CCPWSCC settings are only available in the master Blueface thermostat of the system n°1.

- **Operation logic.** It allows to configure the operation logic for the control relays of the production control board:
 - Aerothermal unit (Default preset)
 - 2 pipes
 - 4 pipes
 - RadianT (Recommended for RadianT365 systems)

Note: See section cloud ethernet Airzone production control board to check the operation logic in each configuration.

- Activation delay. It allows to set a delay time in the power on of the production unit, configurable in minutes, from 0 to 7. (Default preset to 3 minuts).
- **LWT temperatures.** (Only available in installations with AZX6GAW XXX control gateways) It allows to set the LWT temperaturas for the heatting and cooling modes of the aerothermal unit. Selectable values depends on each particular aerothermal unit. Default presets are:
 - Air in cooling mode: 10 °C
 - Radiant in cooling mode: 18 °C
 - Air in heating mode: 50 °C
 - Radiant in heating mode: 35 °C
- **DHW function.** (Only available in installations with AZX6GAW XXX control gateways) It allows to turn on/off the Domestic Heat Water (DHW) function in the systems connected to the CCP. Activated by default.
- **Cooling mixing valve** (only available in installations with Aerothermal gateways). Select "Auto" if you have mixing valves for cooling in your installation. It is set to Manual by default.



SELF-DIAGNOSE

AIRZONE RADIANT365 MAIN CONTROL BOARD (AZRA6RADIANT)

Airzone RadianT365 Main Control Boards have integrated LEDs that detect unusual operations.



	Meaning		
D1	Data reception from automation bus	Blinking	Green
D2	Data transmission from automation bus	Blinking	Red
D3	Main control board activity	Blinking	Green
D4	Data transmission from Airzone connection bus	Blinking	Red
D5	Data reception from Airzone connection bus	Blinking	Green
D10	Wireless data packets reception	Switches	Green
D11	Main control board power supply	Solid	Red
D18	Associated element	Solid	Green
D19	Association channel: active	Solid	Red

AIRZONE CONTROL MODULE OF RADIANT ELEMENTS (AZRA6OUTPUT8Z)

Airzone control modules incorporate LEDS that detect malfunctions.





	Meaning						
D1	Power supply	Solid	Red				
D2	Module operating	Blinking	Green				
D3	Data transmission and reception from Airzone connection bus	Blinking	Green				
A	LEDs of relay state	Switches	Green				

AIRZONE 3 SPEEDS/STAGES DEHUMIDIFIER CONTROL MODULE (AZRA6CMOD3V)

Airzone control modules incorporate LEDS that detect malfunctions.



	Meaning		
D1	Data reception from Airzone connection bus	Blinking	Green
D2	Data transmission from Airzone connection bus	Blinking	Red
D3	Module operating	Blinking	Green
D13	Power supply	Solid	Red
4	Leds of relay state	Blinking	Green

AIRZONE BLUEFACE AND THINK THERMOSTATS (AZRA6BLUEFACEC / AZRA6THINK [C/R])

Blueface and Think Thermostats Warnings

Thermostat displays all the system warnings on the screensaver. If there is any error, it will be displayed on the screensaver, on the main screen and on "About errors", in user settings.

- Anti-freezing: It will be only displayed when it is activated. (See Zone settings Blueface thermostats).
- Active dew protection. It indicates there is a risk of condensation in the radiant stage and the air stage has been activated to avoid its creation.
- **Dew**. This alert warns of a risk of water condensation and the zone has been shut off, turning on the dehumidifier if it has been installed. Only available in systems with radiant stages in cooling mode.
- Lite dew protection. (only Blueface) It indicates there is a risk of condensation in the radiant stage and the air stage has been activated to avoid its creation in the Lite zone.
- **Dew Lite.** (*only Blueface*) It indicates there is a risk of condensation and the zone where the Lite thermostat is located has been turned off. Press the icon to know which zone is affected.
- **Battery Lite** (only Blueface). Low battery warning. Informs about the involved zone when the icon is pressed.
- **Qual Battery** (only Think wireless). Low battery warning.



Blueface and Think Thermostats Errors

If any type of anomaly is detected, the word "Error" is displayed on the screensaver of these devices. You may find the following errors:

Error 1: Wired thermostat-Main control board communication error

This incident blocks the control of the zone. Check this error is not common to all thermostats. If so, verify the proper operation of the main board. To solve this incident check:

- 1. Main control board status: Correctly powered.
- 2. Main control board status: Airzone connection bus LEDs are operating properly.
- 3. Connection: Verify the polarity of the main control board and thermostat connectors.
- 4. Wiring: Disconnect the terminal from the Airzone connection bus and check that the voltage between the poles (A/-) and (B/-) is about 0.65 Vdc.
- 5. Restart the zone and re-associate it with the system:
- Blueface thermostats: Press on Reset to restart the device. If the error persists, press and hold on ^{\$\u03c40\$} and reset the thermostat. Configure the system.
- Think thermostats: To do this, press and hold on **AIRZONE** and restart the start-up configuration process.
- 6. Restart system: If the system is restarted, this error may be displayed in the thermostats at the beginning of the process. This message should disappear after around 30 seconds.





Error 1: Wireless thermostat-Main control board communication error

This incident blocks the control of the zone. Check this error is not common to all thermostats. If so, verify the proper operation of the main board. To solve this incident check:

- 1. Thermostat status: Check the signal range of the thermostat with the main control board through the Information parameter (see section *Advanced settings, system settings*) or approach the thermostat to the main control board if the thermostat recovers the communication, it is necessary to relocate it as it was out of range.
- 2. Main control board status: Correctly powered.
- 3. Main control board status: Proper operation of the LED of wireless communication.
- 4. Restart the zone and re-associate it with the system. To do this, press and hold on **WIRZONE** and restart the startup configuration process. Note that, if you need to associate wireless devices, the wireless association module must be previously open (from SW1 button or from any thermostat, pressing *Wireless module* inside *Advanced Settings, zone settings*.
- 5. Restart system: If the system is restarted, this error may be displayed in the thermostats at the beginning of the process. This message should disappear after around 30 seconds.



Error 5: Temperature probe - Open circuit

The zone ceases to measure the room temperature; therefore, the zone cannot generate demand. Proceed to replace it of the device or sent it for repair.

Error 6: Temperature probe - Short circuit

The zone ceases to measure the room temperature; therefore, the zone cannot generate demand. Proceed to replace it of the device or sent it for repair.

Error R05: Control module of radiant elements temperature probe - Open circuit

The system loses the temperature measurement of the radiant manifold. Proceed to replace it of the device or sent it for repair.

Error R06: Control module of radiant elements temperature probe - Short circuit

The system loses the temperature measurement of the radiant manifold. Proceed to replace it of the device or sent it for repair.



Error 8: Wired Lite thermostat not found

The zone ceases to measure the room temperature of an associated wired Lite thermostat; therefore, the zone cannot generate demand. Check which Lite thermostat is not working properly. To solve this incident check:

- 1. Connection: Check the polarity of the main control board and thermostat connectors.
- 2. Wiring: Disconnect the terminal from the Airzone connection bus and check that the voltage between the poles (A/-) and (B/-) is about 0.65 Vdc.
- 3. Verify the thermostat microswitch corresponds with the zone associated. If not, activate it using the tab with the value needed.

Remember: If you need to change the zone number, reset the thermostat and start association process.



Error 8: Wireless thermostat Lite not found

The zone ceases to measure the room temperature of an associated wireless Lite thermostat; therefore, the zone cannot generate demand. Check which Lite thermostat is not working properly. To solve this incident check:

- 1. Power supply: Check the battery and replace it if necessary.
- 2. Verify the thermostat microswitch corresponds with the zone associated. If not, activate it using the tab with the value needed. Note that, if you need to associate wireless devices, the wireless association module must be previously open (from SW1 button or from any thermostat, pressing *Wireless module* inside *Advanced settings, zone parameters*).

Remember: If you need to change the zone number, reset the thermostat and start association process.





Error 12: Main Board-Webserver communication error

The system loses the communication with the webserver. Check the connection of the webserver to the Main board domotic bus.

AZX6WSCLOUDDIN [C/R]



AZX6WEBSCLOUD [C/R]

Check the webserver is properly plugged to the production control board as well as the connection between the production control board AZX6CCP and the system main board.





Error 13: Main Board-Control module of radiant elements communication error

This incident blocks the control of the zone. To solve this incident check:

- 1. Status of the control module of the radiant elements: Correctly powered.
- 2. Status of the control module of the radiant elements and the main control board: Airzone connection bus LEDs are operating properly.
- 3. Connection: Check the polarity of the connectors of the main control board and the radiant element board.
- 4. Wiring: Disconnect the terminal from the Airzone connection bus and check that the voltage between the poles (A/-) and (B/-) is about 0.65 Vdc.



Error 17: Airzone-Lutron integration Gateway-System

The system loses communication with the Gateway. Check the gateway is properly plugged to the production control board as well as the connection between the production control board AZX6CCP and the system main board.





Error 18: Main Control Board- Airzone 3 speeds/stages dehumidifier control module communication error

This incident blocks the control of the device. To solve this incident check:

- 1. Status of the control module of the radiant elements: Correctly powered.
- 2. Connection: Check the polarity of the connectors of the Main Control Board and the dehumidifier control module
- 3. Wiring: Disconnect the terminal from the Airzone connection bus and check that the voltage between the poles (A/-) and (B/-) is about 0.65 Vdc.



Error C-02: Main Control Board – Production Control Board communication error

This incident blocks the control of the zone. To solve this incident check:

- 1. Status of the control module of the radiant elements: Correctly powered.
- 2. Status of the Main Control Board: Airzone connection bus LEDs are operating properly.
- 3. Connection: Check the polarity of the connectors of the CCP and the Main Control Board of the system.





Error C-09: Aerothermal Gateway-Production Control Board Communication Error

The system loses communication with the Gateway and, therefore, with the aerothermal system. The control of the system will be disabled, enabling the system to work from the manufacturer's thermostat. To solve this incident check:

- 1. Verify that the Gateway is properly connected to the unit port of the Production Control Board.
- 2. Check the status of the LEDs of the gateway. To do this check the self-diagnose section or the technical sheet of the gateway.



Error C-11: Aerothermal Gateway- Aerothermal indoor unit Communication Error

The system loses communication with the aerothermal system. The control of the system will be disabled, enabling the system to work from the manufacturer's thermostat. To solve this incident verify that the Gateway is properly connected to the Domotic Bus of the Cloud Production Control Board AZX6CCPWSCC and the connection between the Gateway and the Aerothermal indoor unit.



AIRZONE LITE THERMOSTAT (AZRA6LITE [C/R])

Lite thermostats incorporate LEDs that detect malfunctioning.

Status LED \bigcirc blinking red quickly: Wired Lite Thermostat-Main control board communication error

This incident blocks the control of the zone. Check that "Error 1" not appear in all thermostats. If so, verify the proper operation of the main board. To solve this incident check:

- 1. Main control board status: Correctly powered.
- 2. Main control board status: Airzone connection bus LEDs are operating properly.
- 3. Connection: Verify the polarity of the main control board and thermostat connectors.
- 4. Wiring: Disconnect the terminal from the Airzone connection bus and check that the voltage between the poles (A/-) and (B/-) is about 0.65 Vdc.
- 5. Restart the zone and re-associate it with the system. To do this, pull down all the microswitchs, reinsert the thermostat in its base and press on the thermostat. The LED \bigcirc will flash green twice when the reset process is completed.
- 6. Restart system: If the system is restarted, this error may be displayed in the thermostats at the beginning of the process. This message should disappear after around 30 seconds.





Status LED \bigcirc blinking red quickly: Wireless Lite Thermostat-Main control board communication error

This incident blocks the control of the zone. Check that "Error 1" not appear in all thermostats. If so, verify the proper operation of the main board. To solve this incident, please check:

- 1. Thermostat status: Check the signal range of the thermostat with the main control board through the Information parameter from remote zones or approach the thermostat to the main control board if the thermostat recovers the communication, it is necessary to relocate it as it was out of range.
- 2. Main control board status: Correctly powered.
- 3. Main control board status: Proper operation of the LED of wireless communication.
- 4. Restart the zone and re-associate it with the system. To do this, pull down all the microswitchs, reinsert the thermostat

in its base and press on the thermostat. The LED \bigcirc will flash green twice when the reset process is completed. Note that, if you need to associate wireless devices, the wireless association module must be previously open (from SW1 button or from any thermostat, pressing *Wireless module* inside *Advanced settings, zone parameters*.

5. Restart system: If the system is restarted, this error may be displayed in the thermostats at the beginning of the process. This message should disappear after around 30 seconds.





WEBSERVER AIRZONE CLOUD (AZX6WSCLOUDDIN [C/R] AND AZX6WEBSCLOUD [C/R])

Airzone Webserver Cloud incorporate LEDs that detect malfunctions.





AZX6WEBSCLOUDR



		Meaning		
D5	A	Ethernet connected	Blinking	Green
D4	(\mathbf{B})	Ethernet activity	Blinking	Yellow / Red
D	7	Data transmission from domotic bus (input and output)	Blinking	Red
D	8	Data reception from domotic bus (input and output)	Blinking	Green
D	9	Microswitch performance	Blinking	Green
D1	0	Connected to the Internet	Blinking	Green
D1	1	Network data transmission	Blinking	Red
D1	2	Network data reception	Blinking	Green
D13		Configured as IP address through DHCP	On	Red
וט	5	Configured as Fixed IP address	Off	neu
D1	5	Power supply	Solid	Red



AIRZONE PRODUCTION CONTROL BOARD (AZX6CCP)

Airzone production control boards incorporate LEDs that detect malfunctions.



	Meaning		
D1	Power supply	Solid	Red
D2	Microswitch performance	Blinking	Green
D3	Data transmission from AC unit bus	Blinking	Red
D4	Data reception from AC unit bus	Blinking	Green
D6	Transmitting data from internal domotic bus	Blinking	Red
D7	Receiving data from internal domotic bus	Blinking	Green
D9	Transmitting data from external domotic bus 1	Blinking	Red
D10	Receiving data from external domotic bus 1	Blinking	Green
D12	Transmitting data from external domotic bus 2	Blinking	Red
D13	Receiving data from external domotic bus 2	Blinking	Green
A	LEDs of relay state	Solid	Green



CLOUD ETHERNET AIRZONE PRODUCTION CONTROL BOARD (AZX6CCPWSCC)

Airzone cloud production control board incorporate LEDs that detect malfunctioning.



Meaning							
D1	Receiving data from domotic bus	Blinking	Green				
D2	Transmitting data from domotic bus	Blinking	Red				
D3	Microproccesor performance	Blinking	Green				
D11	Power supply	Solid	Red				
D12	Connected to the Internet	Blinking	Green				
D13	Configured as IP address through DHCP	Switch on	Red				
015	Configured as Solid IP address	Switch off					
D14	Network data transmission	Blinking	Red				
D15	Network data reception	Blinking	Green				
D16	Ethernet activity	Blinking	Yellow / Red				
D17	Ethernet connected	Blinking	Green				
A	Ethernet connected	Blinking	Green				
B	Ethernet activity	Blinking	Yellow / Red				
D22D28	Leds of relay state	Switches	Green				



AIRZONE AEROTHERMAL GATEWAYS (AZX6GAW XXX)

Aerothermal gateways incorporate LEDs that detect unusual operations.

Consult the distribution of the LEDs in the data sheet supplied along with the product.

Meaning					
D3	Micro controller activity	Blinking	Green		
D8	Data transmission to the Airzone system	Blinking	Red		
D9	Data reception from the Airzone system	Blinking	Green		
D11	Gateway power supply	Solid	Red		
D34	Data transmission to the indoor unit	Blinking	Red		
D35	Data reception from the indoor unit	Blinking	Green		

AIRZONE-LUTRON INTEGRATION GATEWAY (AZX6GTILUT)

Airzone-bacnet and Airzone-Lutron integration gateways incorporates LEDs that detect malfunctions.



Meaning					
D5	(\mathbf{A})	Ethernet connected	Blinking	Green	
D4	(\mathbf{B})	Ethernet activity	Blinking	Yellow / Red	
D7		Data transmission from automation bus	Blinking	Red	
D8		Data reception from automation	Blinking	Green	
D9		Microswitch performance	Blinking	Green	
D1	0	Connected to the Internet	Blinking	Green	
D1	1	Network data transmission	Blinking	Red	
D1	2	Network data reception	Blinking	Green	
D13	2	Configured as IP address through DHCP	Switch on	Red	
	5	Configured as Fixed IP address	Switch off		
D1	5	Power supply	Solid	Red	



NAVIGATION TREES

NAVIGATION TREE - BLUEFACE THERMOSTAT





NAVIGATION TREE - THINK THERMOSTAT

Dry





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