



Aidoo controller





Aidoo

Ducted Unit in Residential





Aidoo Ducted Unit in Residential

Øirzone ↔











KNX LOXONE CLUTRON. Mandbus ATT &U:E WAGD GWAVE



Advantages

AIRZONE	vith the Assistant	Indoor Inverter/VRF AC Unit	
Full ControlTemperatureOn/OffOperating modeSpeed.Slats position.	versions++	Plug&Play Simple one device solution Mix&Match Confidence Certified dedicated protocols for each manufacturer	
Additional features Time schedules Scenes Voice control Affordable solution	DKNX	Additional PRO features Error codes in your smartphone Smart remote diagnosis	
USER		PROFESSIONAL	



Choose your Aidoo!







Aidoo Wi-fi

Aidoo Pro

Aidoo Z-Wave



Aidoo KNX



Aidoo Pro Fancoil



		CONTROL OPTIONS	INTEGRATION OPTIONS	OTHER FEATURES
Aidoo Pro VRF/Inverter	©rezous	Voice control, Mobile App, HA/BMS, Smart Thermostats	Cloud API, REST API, Modbus, BACnet MS/TP	Airtools, Bluetooth Configuration, Auxiliary Heat Output, Configurable dry contact
Aidoo Fan coil Fan coil		Voice control, Mobile App, HA/BMS, Airzone thermostat	Cloud API, REST API, Modbus, BACnet MS/TP	Airtools, Window & Presence Detection, Eco Mode, Bluetooth Configuration
Aidoo Wi-Fi VRF/Inverter		Voice control, Mobile App, HA/BMS	Cloud API, Modbus	Airtools, Bluetooth Configuration
Aidoo Z-Wave VRF/Inverter		Z-Wave Systems	Z-Wave, Modbus	-
Aidoo KNX VRF/Inverter		KNX Systems	KNX	Three configurable digital inputs



Aidoo PRO Characteristics





Device Components Aidoo PRO



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- Indoor Unit cable (1)
- **Modbus-BACnet Port** 2
- **Indoor Unit Port** 3
- **Restart device** (4)
- 5 Forget Wi-Fi network details
- 6 Ext. Power Supply
- 7 **12 Vdc Output**
- **Digital Input** 8
- **3rd Party Smart Thermostat Connection** 9
- 10 **Power Supply input**

Instalation





Instalation





Aidoo Pro Fancoil











Connection

2







Connection

3





Connection

3





Aidoo KNX





1	I1: DI 1
	12: DI 2
	-: Common
	13: DI 3
2	KNX Connection
3	Indoor Unit Port
4	Restart Device
5	Programming push button





AIRZONE Zoning system Technical Training

Easyzone IAQ

EZ8

Traditional VS Airzone

Wall mounted/cassette units



Traditional













All in one Plug&Play solution for transforming a mass-produced standard unit into one adapted to user needs

Ionisation

Combined control

Comfort and savings



Connectivity





Easyzone QAI

Zone by zone control system with air purification by ionization



 \approx purified air

AIRZONE

All-in-one Plug&Play solution for ducted systems



control system and communications gateway

Controls up to 8 zones (8 outputs for motor control and ionizer) Communications coverage, improved radio





purified air

AIRZONE

All-in-one Plug&Play solution for ducted systems



- Control system and communications gateway
- Purification system based on gated ionizers





purified air

AIRZONE

All-in-one Plug&Play solution for ducted systems



- Control system and communications gateway
- Purification system based on gated ionizers
- **Particle sensor** integrated in the plenum. Detection of floating particles in the air (smoke and fumes, dust, etc.)





All-in-one Plug&Play solution for ducted systems



- Control system and communications gateway
- Purification system based on gated ionizers
- **Particle sensor** integrated in the plenum.
- Thermostat and Airzone Cloud air purification control.
- Insulated plenum adapted to each indoor unit
- 3 models available (Standard, Medium, Slim)
- VMC input (Standard and Slim models)





Easyzone Plenum (IAQ) Presentation





Air-quality information on screensaver and main screen. (Blueface and Think)

Air quality:

- Good (below 25 μg/m3 by default).
- $_{\bullet}\,$ Average (between 25 and 50 $\mu\text{g/m3}$ by default).
- Low (above 50 μg/m3 by default).







2

Ionization activation control per zone (user configuration). (Blueface and Think).





2

Ionization activation control per zone (user configuration). (Blueface and Think).





The purification is activated when:

- _ The zone has a demand for air
- Indoor Air Quality (IAQ) measured by the particle sensor is not Good

The zone halts purification automatically when it has had a Good IAQ measurement

The system has the Auto option by defaolt for allhoones inutes



2

Ionization activation control per zone (user configuration). (Blueface and Think).





Purification will always be on as long as there is a demand for air in the zone.

The system has the Auto option by default for all zones.



2

Ionization activation control per zone (user configuration). (Blueface and Think).





Purification will never be activated.

The system has the Auto option by default for all zones.





INSTALLATION











General requirements






Assembly in the indoor unit







Assembly in the indoor unit



Strips of 25 mm thick insulation material (glass wool or polyethylene foam).





Fresh air intake





Easyzone IAQ







The motorized elements are numbered the following way:

















Main control board

- IAQ : connection with particle sensor
- AZ1, AZ2, AZ3... Connection with thermostats
- P3 : improved radio antenna
- SW1 : reset and open radio channel
- Module ON/OFF : off in each zone by dry

contact

• DM1 : Home automation bus, interconnection

of several systems to manage them through peripheral controls

• UI : connection with the communication

gateway (already connected)

101 109 : connection outputs to ionizors and













Powering the system

Loosen the cable gland



Neutral



Insert the cable

Power input: 110 / 230 VAC.











Multiple Easyzone Systems



2 x 0.22 mm²





Main control board



Status of main control board LEDs when operating properly.

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
D6	AC unit On/Off	Blinking	Green
D7	CMV/Boiler	Blinking	Green
D8	Data transmission from AC unit bus	Blinking	Red
D9	Data reception from AC unit bus	Blinking	Green
D10	Wireless data packets reception	Switches	Green
D11	Main control board power supply	Fixed	Red
D18	Associated element	Fixed	Green
D19	Association channel: active	Fixed	Red
	Open dampers	On	Green
Close dampers	On	Red	
Purifier actived	Fixed	Blue	

AC Unit Integration



Perfect integration with indoor units

Exclusive device that integrates the indoor AC unit with the Airzone control system.

- On/Off
- Mode (Stop/Ventilation/Cooling/Heating)
- Dynamic control of fan speed
- Dynamic control of set-point temperature









Element that fully integrates MHI AC units and Airzone systems, enhancing the performance of the installation.

Some available parameters for each gateway are:

Parameters	AZX6GTCMHI
On/Off	W/R
Set point	W/R
Operation mode	W/R
Fan speed	W/R
Return temperature	W/R
Error code	R
Master control	Yes



AZX6GTCMHI





Element that fully integrates Midea AC units and Airzone systems, enhancing the performance of the installation.

Some available parameters for each gateway are:



AZX6QADAPT3MD1





Parameters		AZX0GICHII/3	
On/Off	W/R	W/R	
Set point	W/R	W/R	
Operation mode	W/R	W/R	
Fan speed	W/R	W/R	
Return temperature	W/R	R	
Error code	R	R	
Master control	Yes	-	



Element that fully integrates Midea Air to water HP units and Airzone systems, enhancing the performance of the installation.

Some available parameters for each gateway are:

Parameters	AZX6QADAPT3MD 3	
Ambient	R	
LWT(leaving water T.)	R/W	
DHW	R/W	
Fan speed	W/R	
Return	R	
Error code	R	
Master control	-	



AZX6QADAPT3MD3





Element that fully integrates Midea AC units and Airzone systems, enhancing the performance of the installation.

Some available parameters for each gateway are:

Parameters	AZX6GTCMHI	AZX6GTCHIT/3
On/Off	W/R	W/R
Set point	W/R	W/R
Operation mode	W/R	W/R
Fan speed	W/R	W/R
Return temperature	W/R	R
Error code	R	R
Master control	Yes	-



AZX6GTCLGE



Mitsubishi Heavy-Airzone gateway

AZX6GTCMHI - AIRZONE- MITUBISHI HEAVY INDUSTRIES COMMUNICATION GATEWAY

- 1) Disconnect the indoor unit and the Airzone system.
- Find the XY connector among the electronic components of the indoor unit and connect the Airzone gateway to this port using the cable supplied.
- Power the Mitsubishi Heavy indoor unit and the Airzone system. Check the gateway LEDs.







The use of the Mitsubishi Heavy Thermostat is optional. In case of using the thermostat, to select the temperature of the system as operating temperature, it is necessary to set as Sub the Mitsubishi Heavy thermostat at the start-up process.





AZX6QADAPT3MD1 - AIRZONE-MIDEA V5 PROTOCOL GATEWAY

- 1) Disconnect the power supply of the indoor unit and the Airzone system.
- 2) Find the X Y E connection of the indoor unit.
- 3) Connect the Airzone Gateway to the X Y E port of the unit. Respect the polarity. X-Red, Y-Gray, E-Black.
- 4) Power the indoor unit and the Airzone system. Check the gateway LEDs.



AZX6QADAPT3MD1





AZX6GTCMD2 - AIRZONE- MIDEA V6 PROTOCOLCONTROLLER 3.0 GATEWAY

- 1) Disconnect the power supply of the indoor unit and the Airzone system.
- 2) Find the X1 X2 connection of the indoor unit (where the thermostat is connected).
- 3) Connect the Airzone Gateway to the X1 X2 port of the unit using the cable supplied by Airzone.
- 4) Power the indoor unit and the Airzone system. Check the gateway LEDs.



AZX6GTCMD2

*Only compatible with WDC-120G/WK RC OR EQUIVALENT



MIDEA M-THERMAL-Airzone gateway

AZX6GAWMD3 - AIRZONE- MIDEA M-THERMAL AIR TO WATER HP GATEWAY

- Starting from the default configuration, set the indoor unit as Master with address 1 by accessing installer menu 17. HMI ADDRESS SET and configuring HMI SET = MASTER, HMI ADDRESS FOR BMS = 1.
- 2) Configure the unit to work in water flow temperature mode by accessing 5. TEMP TYPE SETTING and setting 5.1 WATER FLOW TEMP = YES, 5.2 ROOM TEMP = NO, 5.3 DOUBLE ZONE = NO.
- 3) In the installer menu, set 6. ROOM THERMOSTAT = NO.
- 4) Disconnect the power supply from the unit and the Airzone system.
- 5) Locate the H1-H2 and A-B-X-Y-E terminals located on the back of the unit's wired thermostat. Connect the Airzone gateway using the cable supplied: connect the red wire to terminal H2, the gray wire to terminal H1 and the black wire to terminal E.
- 6) Connect the indoor unit and the Airzone system to the power supply. Check the gateway's LEDs.



AZX6GAWMD3





AZX6GTCLGE – AIRZONE - LG CONTROLLER 3.0 GATEWAY

- Set as operating temperature the measurement of the LG thermostat probe, access the installer setting and set the value 3 in the function 4 (refer to the installation manual of the thermostat).
- 2) Disconnect the power supply of the indoor unit and the Airzone system.
- 3) Find the connector where the thermostat is connected with the indoor unit and disconnect the LG thermostat.
- 4) Connect the cable suplied by Airzone to the indoor unit.
- 5) Conect the thermostat with the LG gateway. Important: For ZVAFCB2LGE, the indoor unit's thermostat must stay disconnected.
- 6) Power the indoor unit and the Airzone system. Check the gateway LEDs.



AZX6GTCLGE



HITACHI-Airzone gateway

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	Steady	Red
D34	Data transmission to the indoor unit	Blinking	Red
D35	Data reception from the indoor unit	Blinking	Green





AZX6QADAPT3GR1





Control Logic

CMV/Boiler connector

This output can be configured as controlled mechanical ventilation control or boiler control. (See Blueface Advanced Configuration Menu, system parameters)

CMV configuration

Status	Stop	Ventilation	Cooling	Air heating	Heating radiant
Demand ON	CMV OFF	CMV ON	CMVON	CMV ON	CMV ON
Demand OFF	CMV OFF	CMV ON	CMVON	CMV ON	CMV ON

Boiler configuration

Status	Stop	Ventilation	Cooling	Air heating	Heating radiant
Demand ON	BOIL. OFF	BOIL. OFF	BOIL. OFF	BOIL. OFF	BOIL. ON
Demand OFF	BOIL. OFF	BOIL. OFF	BOIL. OFF	BOIL. OFF	BOIL. OFF

Relay specs: $I_{max} = 1$ A at 24/48 Vac, voltage-free. Note that to control elements with a greater power, it is recommended to use contactors in accordance with the power required.

AC Start-stop relay

This output is developed to start-stop AC units. Logic of operation of the output:

Status	Stop	Ventilation	Cooling	Air heating	Heating radiant
Demand ON	AC UNIT OFF	AC UNIT ON	AC UNIT ON	AC UNIT ON	AC UNIT OFF
Demand OFF	AC UNIT OFF				

Relay specs: I_{max} = 1 A at 24-48 Vac, voltage-free. Note that to control elements with a greater power, it is recommended to use contactors in accordance with the power required.

Configuration and Set Up Standard Configuration







Initial settings



Evaluation





Blueface thermostat







Blueface thermostat







Blueface thermostat







Wired Think thermostat



Important Use **WIRZONE** to confirm and **E** to return





Wireless Think thermostat

Open the radio association channel to link your wireless thermostats.







Wireless Think thermostat



Language/Country



Set up wireless device



Important Use **WIRZONE** to confirm and **E** to return





Think thermostat



Important: The Airzone Think thermostat works with capacitive buttons. It does not have a touchscreen. To access the main screen, press on the Airzone icon.





Think thermostat

Main screen

Access the main screen by pressing "Airzone" from the screensaver:






Wired/Wireless Lite thermostat



Ensure the radio association channel is open to link your wireless thermostats.

To set up a Lite thermostat you must remove it from its base. Once the microswitches are configured, put the thermostat back in its base.







Lite thermostat







Check the following points:

✔ AC unit communication





Thermostat communication

3





AC remote controller



Airflow regulation

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Description

Airflow regulation device

Controlled mechanical ventilation

Recommendation



Functionalities – Air Flow regulation

Dampers settings – Flow adjustment (REG)

Important: Start adjusting the flow from the central dampers and finish off with damper 1.



- 1. Turn on and generate demand in all zones to open all the ^z dampers.
- 2. Turn off the zone/damper to be adjusted.
- 3. Adjust the maximum opening you want with the REG lever (I/II/III/IV)
- 4. Turn on the zone and check the flow is correct.



Description.

What is Easyzone?

– Plenum effect.





Airflow regulation device.

Functionality.

- REG \rightarrow Balanced air distribution duct network.
- $A-M \rightarrow Minimum airflow.$







Airflow regulation device.

Functionality.

- REG \rightarrow Balanced air distribution duct network.





Airflow regulation device.

Functionality.

- REG \rightarrow Balanced air distribution duct network.







Airflow regulation device.

Functionality.

- REG \rightarrow Balanced air distribution duct network.



83

Airflow regulation device.

Balanced air distribution duct network.

- Handling of the REG lever.



 $\Delta P_{zone1} \approx \Delta P_{zone3}$





 $\Delta P_{zone1} < \Delta P_{zone3}$



Airflow regulation device.

Balanced air distribution duct network.

- Handling of the REG lever.









Airflow regulation device.

Balanced air distribution duct network.

- Handling of the REG lever.









Airflow regulation device.

Balanced air distribution duct network.

– Handling of the REG lever.









Troubleshooting

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Checking Errors

Error codes

Check power supply to the system's main control board	<u>Error 8</u>
Check activity of the system's main control board	<u>Error 9</u>
<u>Error 1</u>	<u>Error 11</u>
<u>Error 5</u>	AC Unit Error
Error 6	IAQ Error



Power Supply to the System

Checking the power supply to the system















Error 1: Communication failure between thermostat and system's main control board







Error 1: Communication failure between thermostat and system's main control board

WIRED THERMOSTAT Power supply to main control board 1.8Vdc Airzone bus communication LEDs Connections 000 **ERROR** 1 Voltage between poles (A/-) and (B/-) [0.9-1.6 Vdc] AMZONE Restart the zone and OOOOreassociate it @ @ @ @ ≑A-B+





Error 1: Communication failure between thermostat and system's main control board

WIRELESS THERMOSTAT



Thermostat status. Coverage



- Power supply to main control board
- Wireless communication LEDs
- Restart the zone and reassociate it





Error 5: Open circuit in temperature sensor

Error 6: Short circuit in temperature sensor

The zone loses the room temperature measurement, leaving the zone unable to generate demand. In the event of such an incident, the device must be replaced or sent for repair.



In the case of the Lite thermostat, errors 5 and 6 are shown in remote zones.





Error 8: Lite thermostat not found







Error 8: Lite thermostat not found

WIRED THERMOSTAT







Error 8: Lite thermostat not found

WIRELESS THERMOSTAT









Error 9: Error in gateway - system communication







Error 9: Error in gateway - system communication





Status of the gateway LEDs









Error 11: Error in gateway - AC unit communication







Error 11: Error in gateway - AC unit communication





Error Codes

Error IAQ2: Loss of communication between the Airzone particle sensor - main control board



Check that the Airzone particle sensor is properly connected to the main control board's IAQ port.

This warning indicates the non-detection of the particle sensor and means that Indoor Air Quality cannot be measured. Once a sensor is connected, the error disappears







Error IAQ3: Zone module with ionizer not connected





Check the ionization status LEDs on the main control board

This warning indicates that an ionizer has not been detected in a zone and is generated when ionization is started in a zone.







Error IAQ4: Actuator connected directly without ionizer

Check that you have not connected an actuator directly to the main control board



Check the connections between the actuator and the ionizer, as well as between the ionizer and the main control board.

This error occurs when an actuator is directly connected to the outputs intended for the

ionization boards on the main control board. It can cause the actuators to stop







Acuazone







1	AZDI6ACUAZONE AZDI6BLUEZEROCB AZDI6ZMOFANC		Airzone Acuazone main control board 32Z Airzone Blueface Zero Thermostat wired white 32Z Airzone fancoil individual unit zone module wired 0-10V/3SPD 32Z	
2				
3				
4	AZDI6OUTPUT8		Airzone control module of radiant elements 32Z	
AZX6CCPDK2HUB (5) (6) (7)		5	AZX6CCPGAWI	Airzone hydronic production control board
		AZX6GAWDA2	Airzone Altherma 3 Gateway	
		AZX6WSPHUB	Airzone Webserser HUB	

Symbol/Nomenclature	Definition	
	Airzone Bus Cable	
\odot	Dedicated Electric Circuit	








Radiant heating/cooling integration available



