

Installation Manual



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OVERVIEW

DESCRIPTION AND FEATURES

The Airzone-Lutron interface allows the integration of Lutron control systems on Airzone systems through the Lutron HomeWorks QS Processor.

The Airzone-Lutron interface is a Plug&Play device for Airzone systems which, using the telnet protocol, enables the following actions:

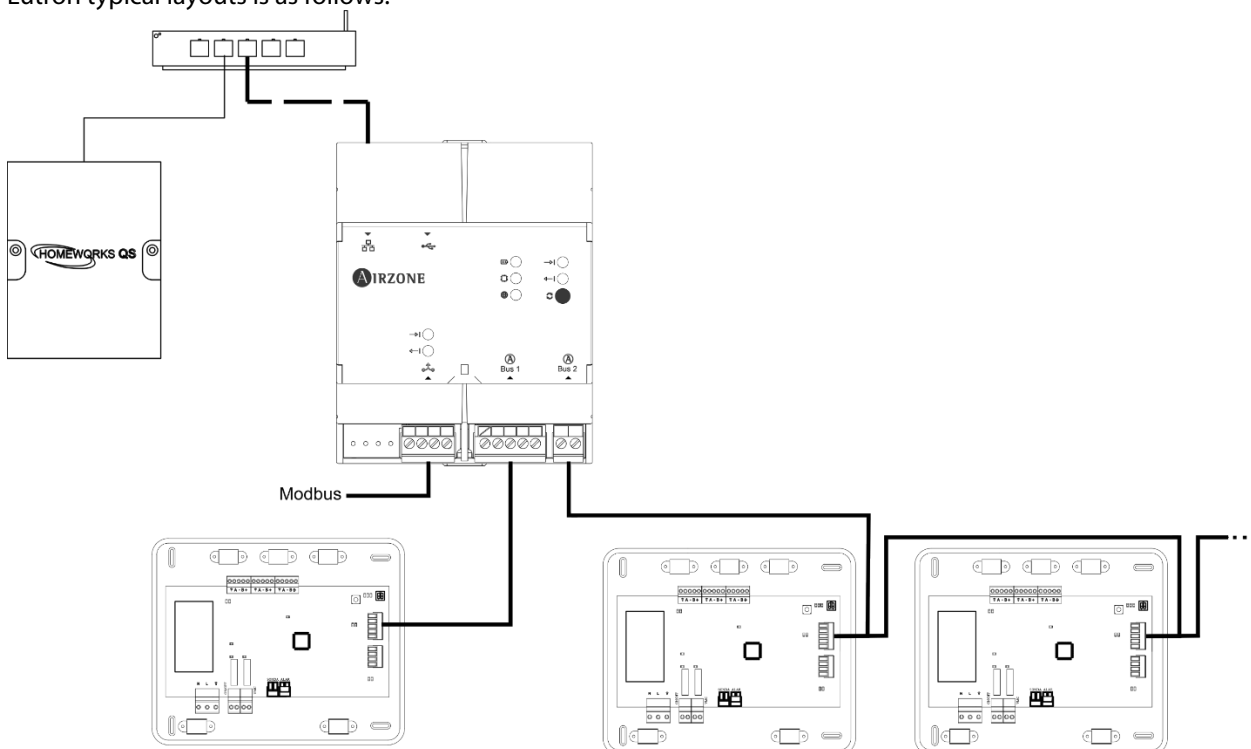
- Reading/Writing of the room temperature.
- Reading/Writing of the set-point temperature.
- Reading/Writing of the operating mode.
- Reading/Writing of the cooling/heating demand.
- Reading/Writing of the fan speeds.

The system requires the connection of at least one Airzone Blueface Thermostat. It allows the control of the conditioning of each zone associated from Lutron Keypads devices, and the control of time schedules both from the HomeWorks QS Processor and from the Lutron Connect App.

The Airzone-Lutron also allows its use as Airzone Cloud Webserver Ethernet, for further information about its usage, please refer to the [installation manual](#).

SYSTEM OUTLINE

Lutron typical layouts is as follows:

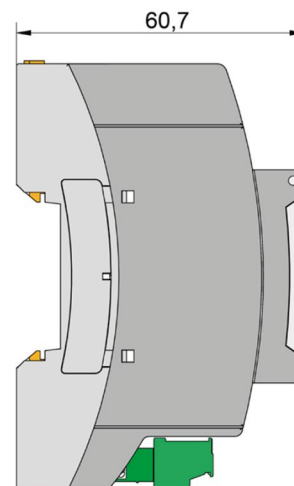
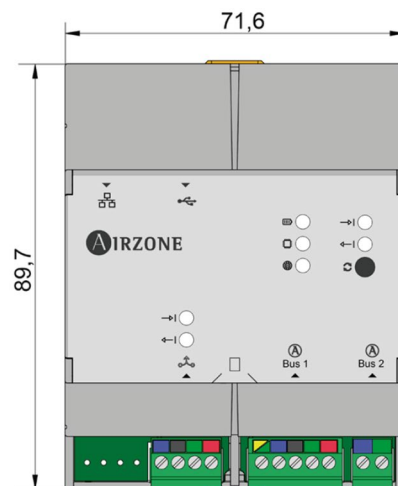


Important: The Airzone-Lutron interface enables the control of up to 32 Airzone systems simultaneously from a single HomeWorks QS system.

SPECIFICATIONS AND ELEMENTS OF THE AIRZONE-LUTRON INTERFACE

Power supply and consumption	
Type of power supply	Vac
V max.	12 V supplied from the Control Board
I max.	0.5 mA
Stand-by consumption	1.3 W
Operative temperatures	
Storage	-20 to 70 °C
Operation	0 to 50°C
Operating humidity range	5 to 90% (non-condensing)

Ethernet	
Type of cable	UTP cat 5
Norme	100BASE-TX
IP address by default	DHCP
Wi-Fi	
Protocol	Wi-Fi CERTIFIED™ TM 802.11a/b/g/n/ac
Frequency	2.4 GHz (max. 150 Mbps) 5 GHz (max. 433 Mbps)
Maximum power	19.5 dBm
Maximum distance	100 m
IP address by default	DHCP



Note: For further information, please refer to the associated [datasheet](#).

INSTALLATION

The Airzone-Lutron interface operates as an interpreter using the services defined by the Lutron HomeWorks QS Processor to connect Lutron and Airzone systems via Ethernet using the Lutron integration protocol.

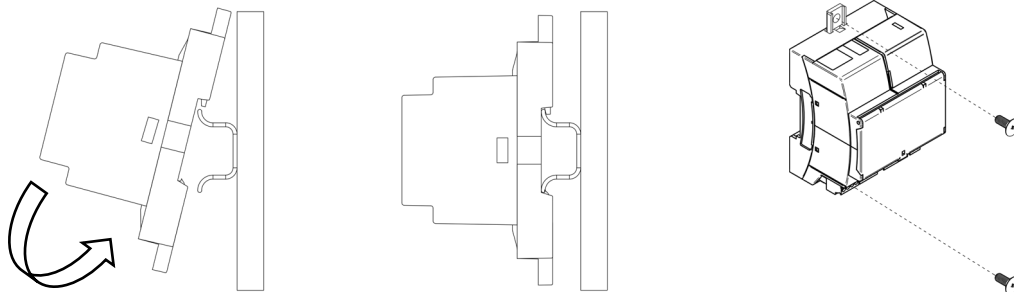
Note: The HomeWorks QS Processor and the Palladiom thermostat must use software version 13.0 or newer.

The Airzone-Lutron interface is a Plug&Play device which, when connected to the Airzone Main Control Board and to the HomeWorks QS Processor via Ethernet using the Lutron integration protocol, configures itself and configures the Main Board to work with the Lutron system.

Important: It is necessary to have at least one Airzone Blueface thermostat connected all the time.

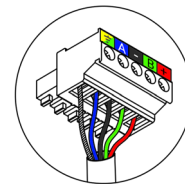
ASSEMBLY AND CONNECTION

The module is mounted on DIN rail. It should be placed and mounted in accordance with the current electrotechnical regulations.



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

To connect with the first system main board, use the 5-pin terminal to connect the Webserver Cloud to the automation bus of the main board in order to provide power supply to the Webserver. Use the proper cable: shielded twisted pair 4 wired: 2x0,22 mm² + 2x0,5 mm² (2 x AWG23 + 2 x AWG 20). Attach the wires with the terminal screws following the color code.

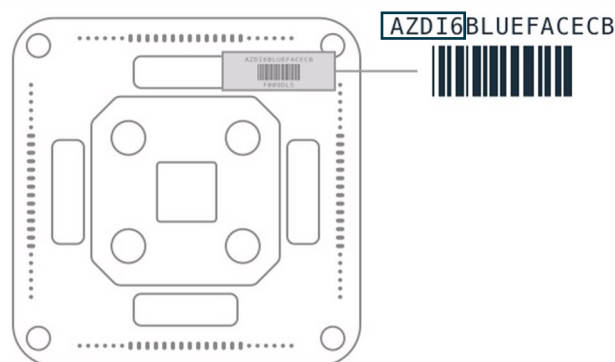


A	Azul
-	Negro
B	Verde
+	Rojo
⊥	Malla

The ethernet cable should be connected to the Airzone-Lutron interface. Once the control board has the interface connected, it will auto-detect the presence of the interface and will automatically set the parameters to enable the operation with the Lutron system.

SYSTEM IDENTIFICATION

To start the configuration process, it is necessary to identify the system, to do this, remove the Blueface thermostat from its base and check the code printed on the label located on the back of the thermostat.



Depending on the code printed on the label the system will be configured in different ways, for further information, please refer to the documentation related to each system:

Identification		Related documentation	
AZCE6	Flexa 3.0 / Innobus Pro6 System	Quick Guide	Installation Manual
AZDI6	Acuazone / Innobus Pro32 System	Quick Guide	Installation Manual
AZRA6	RadianT365 System	Quick Guide	Installation Manual
AZVAF	VAF System	Quick Guide	Installation Manual
AZZBS	ZBS System	Quick Guide	Installation Manual
AZZS6	2 pipes / 2 wires System	Quick Guide	Installation Manual

CONFIGURATION

CONFIGURATION MODES WITH LUTRON SYSTEMS

Depending on the existence or absence of Airzone thermostats in the zones, there are two available configurations.

Regardless of which thermostats are used, the HomeWorks QS system will have full control of the HVAC zones from the keypads, time clocks and the Lutron Connect App.

Configuration with Lutron Palladiom thermostat to control the HVAC zone

When a Lutron Palladiom thermostat is used to control an HVAC zone, there are two integration commands used. First, depending on the type of HVAC system, the Airzone-Lutron interface will use *DEVICE commands* to read the current temperature from the Palladiom thermostat. Second, the Airzone-Lutron interface will use *HVAC commands* for control of the set-point temperature, operating mode and fan speed.

The *Integration IDs* of the *DEVICE* and *HVAC commands* must follow the rules below:

When the system uses Lutron Palladiom thermostats, it uses *DEVICE commands* to read the room temperature with the *Integration ID: 2XXYY* format, where XX stands for the system's number and YY stands for the zone's number.

XX → 01 for Airzone system 1, 02 for Airzone system 2... Up to 32 Airzone systems.

YY → 01 for Airzone zone 1, 02 for Airzone zone 2... Up to 32 Airzone zones per system (based on the type of the system).

Example: A Palladiom thermostat *DEVICE Integration ID* for the Airzone system 1 and for zone 1 will be 20101.

The Airzone system uses *HVAC Integration IDs* to control the set-point temperature, operating mode and fan speeds using the *Integration ID: 1XXYY* format, where XX stands for the system's number and YY stands for the HVAC zone's number.

XX → 01 for Airzone system 1, 02 for Airzone system 2... Up to 32 Airzone systems.

YY → 01 for Airzone zone 1, 02 for Airzone zone 2... Up to 32 Airzone zones per system (based on the type of the system).

Example: A *HVAC Integration ID* for the Airzone system 1 and for the zone 2 will be 10102.

Configuration with Airzone thermostat

When an Airzone thermostat is used to control an HVAC zone, *HVAC integration commands* are used for control of set-point temperature, operating mode and fan speed.

The Airzone system uses *HVAC Integration IDs* to identify and to associate the system and the HVAC zone with the *Integration ID: 1XXYY* format, where XX stands for the system's number and YY stands for the HVAC zone's number.

XX → 01 for Airzone system 1, 02 for Airzone system 2... Up to 32 Airzone systems.

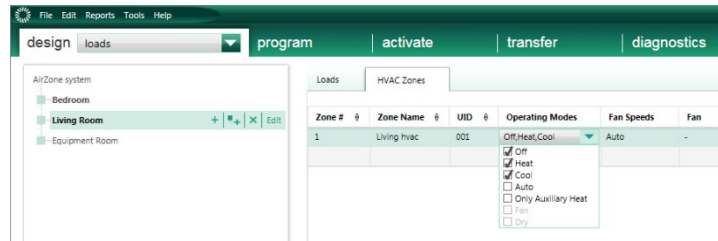
YY → 01 for Airzone zone 1, 02 for Airzone zone 2... Up to 32 Airzone zones per system (based on the type of the system).

Example: A *HVAC Integration ID* for the Airzone system 1 and for the zone 3 will be 10103.

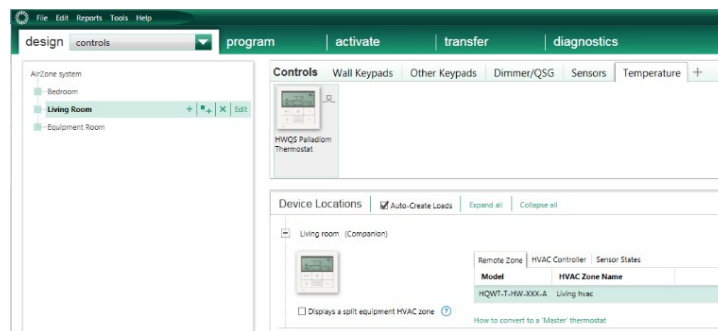
LUTRON CONFIGURATION

To perform the integration with the Airzone system in the HomeWorks QS software, please follow the steps below:

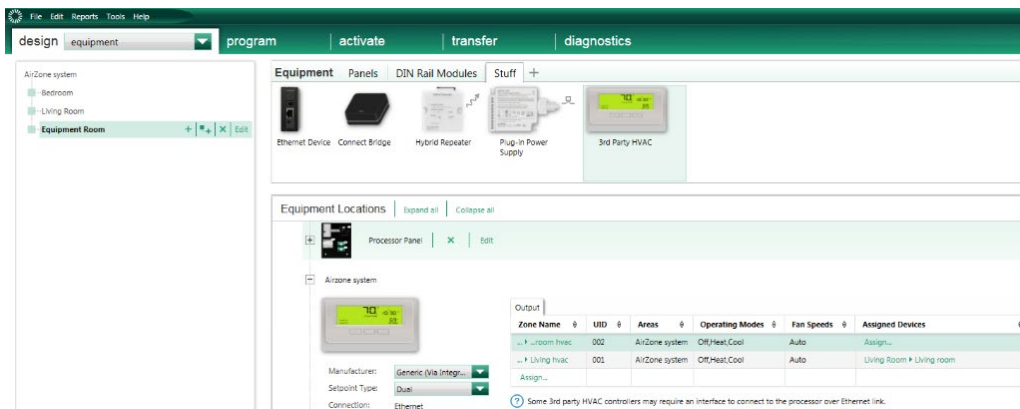
1. Define the HVAC zones in the software in the menu *design – loads* and select HVAC zones.
Important: On zoned ducted units the Fan Speed option enabled must be Auto. The “Auto” Operating Mode is only available for Airzone systems in North America.



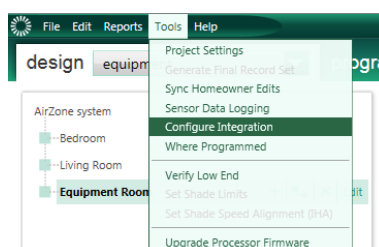
2. For Palladiom thermostats, add them to the rooms in the *design – controls* screen. After adding a thermostat, you must assign the HVAC zone it will control in the *Remote Zone* setting.



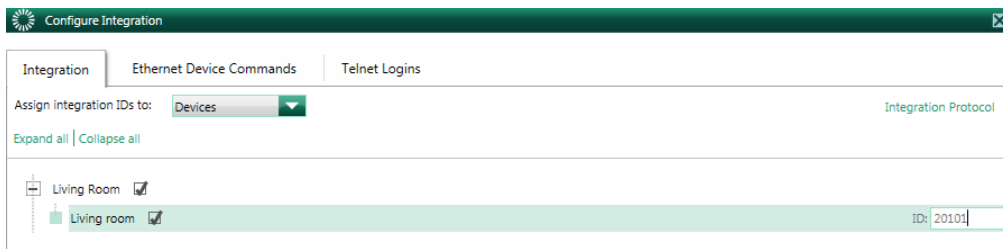
3. Define the Airzone-Lutron interface in the *design – equipment* screen. Add a “3rd Party HVAC” device and name it “Airzone System”. In the *Manufacturer* drop down, select “Generic (via integration)”. For *Setpoint type*, select “Dual”. In the output table, click on Assign and add all the HVAC zones you created previously.
Note: The UID must be unique for each zone. Set the minimum and maximum Setpoint at 19°C and 30°C respectively. Set the same differential value of Minimum Heat/Cool as Lutron System in case of Setpoint Dual.



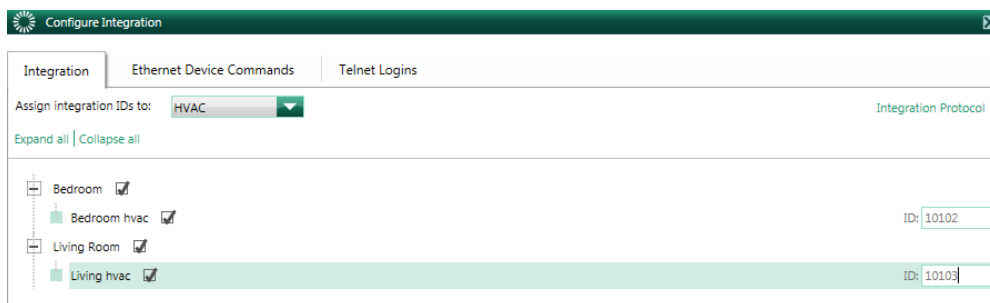
4. On the navbar, click *Tools* and select *Configure Integration*.



- Select the *Integration* tab and then in the drop down box for *Assign integration IDs*, select "Devices". Now you must manually assign the Integration IDs of the Palladiom thermostats in the format 2XXYY as described on [page 6](#).



Next, in the drop down box for *Assign integration IDs*, select "HVAC". Now you must manually assign the *Integration IDs* of the HVAC zones in the format 1XXYY as described on [page 6](#).



- While still in the *Configure Integration* screen, select the tab "Telnet Logins". Add the Username and Passphrase the Airzone-Lutron interface will use to make a Telnet connection with the HomeWorks QS processor.

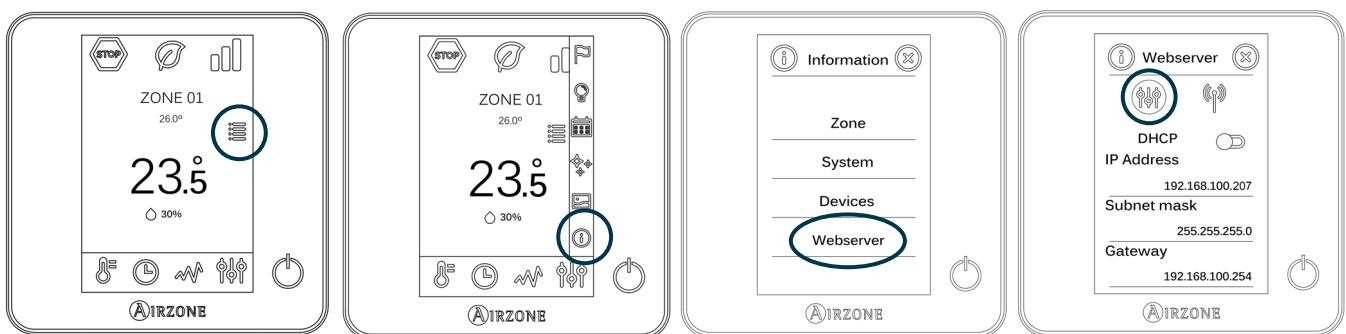
Username	Access Level	Button Editing	Timeclock Editing	Passphrase	Enabled?
Default Home Control+ Us	User	Add / Edit	Add / Edit	Preconfigured	Yes
airzone	Admin	Add / Edit	Add / Edit	Change Passphrase	Yes

AIRZONE SYSTEM CONFIGURATION

System configuration for ACUAZONE / IBPRO32, FLEXA 3.0 / IBPRO6 and RADIANT365

For Acuazone / IBPRO32, FLEXA 3.0 / IBPRO6 and RADIANT365 go to the main screen, press the icon, select information and press Webservice.

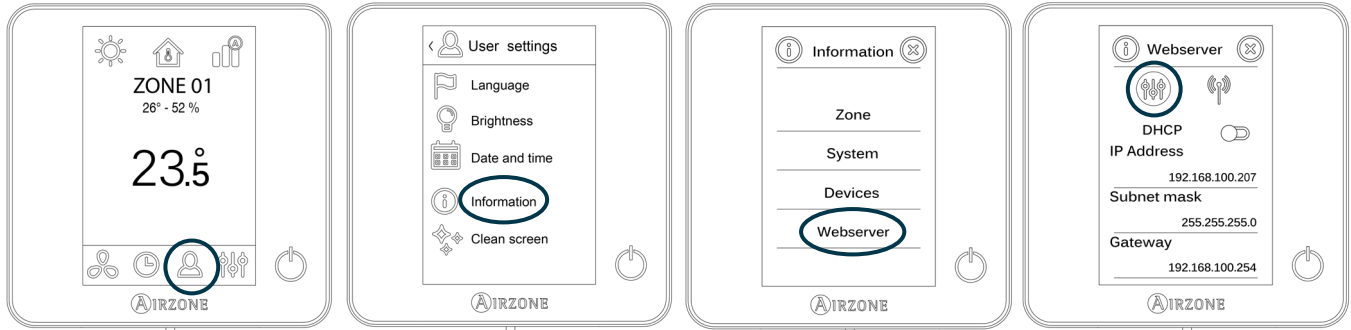
Inside the Webservice menu, press the settings icon and set the static IP address, for example 192.168.100.207



System configuration for VAF and ZBS

For VAF and ZBS, go to the main screen, press the user settings icon and select the information parameter, once in, press Webservice to access.

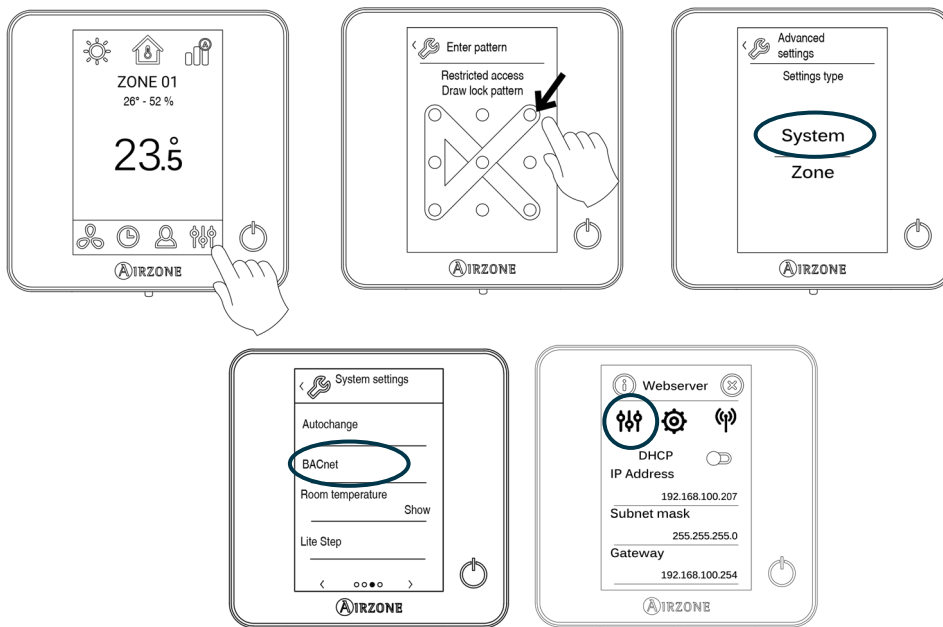
Inside the menu, press the settings icon and set the static IP address, for example 192.168.100.207



System configuration for 2 PIPES / 2 WIRES

For 2 pipes / 2 wires systems, go to the main screen, press the settings icon, enter the access pattern and select system settings, once in, find and press BACnet to access.

Inside the menu, press the settings icon and set the static IP address, for example 192.168.100.207






LOAD THE CONFIGURATION INTO THE HOMEWORKS QS

Using a web browser, open the IP address established on the Airzone Blueface thermostat (see section [Airzone system configuration](#)), enter the username "airzone" and the pass "lutron" in the access pop-up window. Next, set the Username and Passphrase to match those created in the HWQS software in step 6 as described on [page 8](#). In the Lutron IP Gateway field, enter the IP address of the Lutron HomeWorks QS Processor and click Set IP.

TROUBLESHOOTING


THE AIRZONE SYSTEM DOES NOT DETECT THE AIRZONE-LUTRON INTERFACE

Verify the following items:

1. The D9 LED /  LED (Microswitch performance) is blinking.
2. The D7 and D8 LEDs /  y  LEDs are alternately blinking.
3. The correct connection between the Airzone-Lutron Interface in the Airzone Main Control Board.

THE AIRZONE-LUTRON INTERFACE CANNOT BE CONNECTED

Verify the following items:

1.  LED, and those in the Ethernet connector are active.
2. Check that the Ethernet cable is properly connected.



www.lutron.com

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