

## Integration manual

# **影LUTRON**®







ΕN

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### Introduction

#### **DESCRIPTION AND CHARACTERISTICS**

Airzone systems allow integration with Lutron through two devices: the Webserver HUB and the Aidoo Pro. This integration can be carried out through the:

- HomeWorks QS/QSX processor.
- myRoom XC processor.
- Lutron Palladiom thermostat.

#### Webserver HUB Airzone Cloud Dual 2.4-5 GHz/Ethernet (AZX6WSPHUB)

The Webserver HUB enables the integration of Lutron control systems into Airzone HVAC systems through the Lutron HomeWorks QS/QSX processor.

The Webserver HUB is a Plug&Play device for Airzone systems that, using the Telnet protocol (in the case of a HomeWorks QS processor) or through authentication/encryption using LAP and LEAP protocols (in the case of a HomeWorks QSX processor), enables the following actions to be carried out:

- Control of up to 32 systems.
- Configuration and control of zone and system parameters through Cloud platform.
- Association with router via Bluetooth through the app.
- Multi-user and multi-session.
- Port for integration via Modbus or BACnet MS/TP protocol.
- Integration via Local API.
- Remote update of Webserver firmware and connected systems.
- Remote management and solution of system errors.

The system requires the connection of at least one Airzone Blueface Zero thermostat. It enables the HVAC control of each connected zone via Lutron Keypads and the control of time schedules both through the HomeWorks QS/QSX processor and the Lutron app.

#### Aidoo Pro (AZAI6WSPxxx)

The Aidoo Pro enables the integration of Lutron control systems into individual HVAC units through the RS-485 port of the Lutron Palladiom thermostat or through authentication/encryption using LAP and LEAP protocols (in the case of a HomeWorks QSX processor).

The Aidoo Pro is a Plug&Play device for the control of individual HVAC units, enabling the following actions to be carried out:

• Control of the different HVAC unit parameters:

- Control of set point temperature
  - Control of the operation mode
  - Control of fan speed
- Control of switching the HVAC unit on and off
- Communication via Wi-Fi Dual (2.4/5 GHz).
- Detection of errors during communication.
- Access to device parameter settings via Bluetooth.





#### **CONNECTION DIAGRAMS**

#### Webserver HUB connection diagram with the HomeWorks QS processor



Important: The Webserver HUB can control up to 32 systems simultaneously from a single Lutron HomeWorks QS system. Each system has an identifier that will be necessary to perform the configuration through Lutron Designer.

Note: The Webserver can be connected to the router via an Ethernet cable or Wi-Fi.

#### Webserver HUB connection diagram with the HomeWorks QSX processor



Important: The Webserver HUB can control up to 32 systems simultaneously from a single Lutron HomeWorks QSX system. Each system has an identifier that will be necessary to perform the configuration through Lutron Designer.

Note: The Webserver can be connected to the router via an Ethernet cable or Wi-Fi.

#### Aidoo Pro connection diagram with the Lutron Palladiom thermostat







#### **TECHNICAL SPECS**

#### Webserver HUB

Power supply	Power supply and consumption						
Type of power supply	Vac						
Max. V	12 V (powered from the system main control board)						
Max. I	1.1 mA						
Standby consumption	1.3 W						
Operating	) temperatures						
Storage	- 20 – 70 °C (- 4 – 158°F)						
Operation	0 – 50 °C (32 – 113 °F)						
Operating humidity range	5 – 90% (no condensation)						

Etherne	t
Cable type	UTP cat. 5
Standard	100BASE-TX
Default IP addressing	DHCP
Wi-Fi	
Protocol	Wi-Fi CERTIFIED ™ 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 (328 ft)
Default IP addressing	DHCP





Note: For further information about the Webserver HUB, please refer to the <u>technical datasheet</u>.

#### Aidoo Pro

Power supply and consumption							
Type of power supply	Vdc						
Max. V	18 V						
Max. I	2 mA						
Consumption	1.85 W						
Operating	temperatures						
Storage	- 20 – 70 °C (- 4 – 158 °F)						
Operation	0 – 45 °C (32 – 113 °F)						
Operating humidity range	5–90% (no condensation)						

RS485 port							
Twisted shielded cable	2 x 0.22 + 2 x 0.5 mm <sup>2</sup> (2 x AWG 23 + 2 x AWG 20)						
Communication protocol	RS-485 BACnet MS-TP Even – 19200 bps						
Wi-F	i						
Protocol	Wi-Fi CERTIFIED ™ 802.11a/b/g/n/ac						
Frequency	2.4 GHz (max. 150 Mbps) 5 GHz (max. 433 Mbps)						
Maximum power:	19.5 dBm						
Sensitivity	- 82 dBm						
Default IP addressing	DHCP						

000000	00 00	$\bigcirc$
AIRZONE	((:-	0
	4>	0
	O	0
	₫	0
	P	•
	C	•
L		



Note: For more information about the Aidoo Pro, please visit airzonecontrol.com.

### Installation

#### ASSEMBLY AND CONNECTION

#### Webserver HUB

The module is DIN rail or surface mounted. The location and assembly must comply with current electronic regulations.



Mounted using DIN rail



Mounted on wall

Note: To remove the module on DIN rail, pull the tab downwards to release it.

For connection to the first main control board, use the DMI 5-pin terminal to connect the Webserver HUB to the main control board's automation bus. Use the appropriate cable: 4-wire twisted shielded cable:  $2 \times 0.22 \text{ mm}^2 + 2 \times 0.5 \text{ mm}^2$  ( $2 \times AWG$  23 +  $2 \times AWG$  20). Fix the cables with the screws on the terminal, following the color code.



A connection must be established between the Webserver HUB and the Lutron system (either via Ethernet or Wi-Fi). Once the system main control board is connected to the Webserver, it will automatically detect its presence and will set the parameters to enable operation with the Lutron system.

#### Aidoo Pro

The Aidoo Pro (DX) is surface mounted (using screws or double-sided adhesive tape). The Aidoo Pro Fancoil is DIN rail or surface mounted.



For connection with the Lutron Palladiom thermostat, fix the cables with the screws on the terminal, following the polarity.

#### Aidoo Pro (DX)

Aidoo Pro Fancoil





#### SYSTEM IDENTIFICATION

To perform the configuration process, the system must first be identified; to do so, remove the Blueface thermostat from its base and check the code on the label located on the back of the thermostat.



Depending on the code printed on the label, the system will be configured differently. For more information, please refer to the documentation associated with each system:

	Classification	Associated documentation			
	Flexa 3.0 / Innobus Pro6 system	Quick Guide	Installation Manual		
AZCE6	Flexa 4.0 / Innobus Pro8 system	-	Installation Manual		
	Flexa 25 system	-	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-pipe / 2-wire system	Quick Guide	-		

Note: This step is only necessary when the application has a Webserver HUB.

### Configuration of Airzone systems with HomeWorks QS

The Webserver HUB acts as an interpreter using the services defined by the Lutron HomeWorks QS processor to connect Airzone and Lutron systems through the Lutron integration protocol.

Note: The HomeWorks QS processor must use the Lutron Designer software version 13.0 or above.

The Webserver HUB is a Plug&Play device that, when connected to the Airzone system main control board and to the HomeWorks QS processor (via Ethernet or Wi-Fi), using the Lutron integration protocol, self-configures and configures the system main control board to work with the Lutron system.

#### INTEGRATION IDENTIFIERS

Depending on the presence or absence of the Airzone thermostat in the zones, two different configurations are possible.

Regardless of the thermostat used, the HomeWorks QS system will have full control of the zones from the keypads, timers and the Lutron app.

#### Identification of the HVAC zone

The Airzone system uses HVAC commands to control the set point temperature, operation mode and ventilation mode. The necessary format for this identifier (HVAC Integration ID) is: IXXYY, where XX is the system number and YY the HVAC zone number.

- $XX \rightarrow 01$  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 (depending on the type of Airzone system).

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

#### Identification of the Lutron thermostat

The *DEVICE* identifier is used to exchange the room temperature measured by the Lutron thermostat in the zone with the Airzone system. The necessary format for this identifier (*Device Integration ID*) is as follows: 2XXYY, where XX identifies the system number and YY the Airzone zone number.

- $XX \rightarrow 01$  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 (depending on the type of Airzone system).

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

#### **CONFIGURATION WITH LUTRON DESIGNER**

1. Define the HVAC zones in the Lutron Designer software from the design - loads menu in the "HVAC zones" tab (by clicking on "Add load") and configure their parameters.

**Note:** The UID (DEVICE/HVAC Integration ID) must be unique for each zone and will be assigned with the format 2XXYYY or 1XXYYY, depending on whether the zone has a Lutron Palladiom thermostat or not, as described in the "Integration identifiers" section.

#### Important: For zoned ducted units, Fan Speeds must be set to Auto.

	File Edit Reports Tools Help								Lutron Designer - N	ew Unsaved	Project*	
de	esign loads	P	rogram			activate			transfer		diagnosti	cs
Te	est Bedroom			Loads	(	HVAC Zones						
ì	Living Room	+ . ×	Edit	Zone #	θ	Zone Name $\theta$	UID	θ	Operating Modes	Fan Spee	ds Fan	
j	Equipment Room		<u> </u>	1		Living hvac	001		Off,Heat,Cool	Auto	-	
P	Previous Area Next Area	Colla	ose 🔺 🦷	-								
1		Cond		Add Io	ad							

2. Define the Webserver HUB on the design - equipment screen. To do so, add a "3rd Party HVAC" device.

File Edit R	eports Tools Help								
design	quipment 🔽	program	activate	transfer	diagr	nostics			
			·						
AirZone system		Equipmen	t Panels DIN R	ail Modules Stu	uff +				
Bedroom					interio	10' alar			
-Living Roc	m	α.	/		titeras				
Equipmer	nt Room + 📭	K Edit	_	100					
		Ethernet Device	Connect Bridge Hy	ybrid Repeater Pi Su	ug-in Power upply	3rd Party HVAC			
						/			
		Equipmer	nt Locations Expan	nd all Collapse all					
		•	Processor Panel	K Edit					
		- 4	lirzone system						
			10'		Output				
					Zone Name 0	UID 🗄 Areas 🕸	Operating Modes $\theta$	Fan Speeds 0	Assigned Devices
					Iroom hvac	002 AirZone system	Off,Heat,Cool	Auto	Assign
					• Uving hvac	001 AirZone system	Off,Heat,Cool	Auto	Uving Room + Uving room
			Manufacturer: Generic	: (Via Integr	Assign	. ز			
			Connection: Ethernet		Some 3rd party HV	AC controllers may require an	interface to connect to the	e processor over Ethe	met link.

Once the device has been added, select "Generic (via integration)" in the Manufacturer drop-down menu and under Setpoint type select "Dual" for VAF/ZBS/ZS6 systems or "Single" for Flexa/Acuazone/RadianT systems.

Flexa/Acuazone/RadianT systems only use °C, while VAF/ZBS/ZS6 systems use both °C and °F, so the system must be configured with the same units used in the Lutron project.

In the "Output" table, click on "Assign" and add all the HVAC zones created previously.

Set the minimum and maximum set point temperature to 19°C and 30°C (66°F and 86°F), respectively. In the case of "Set point Dual", set the "Minimum Heat/Cool Set point Difference" value equal to that of the Lutron system.

3. If Lutron Palladiom thermostats are used as zone thermostats, add the thermostat on the *design – controls* screen from the "Temperature" tab. The HVAC zone that will control this thermostat must be assigned in the *Remote Zone* parameter.

File Edit Reports Tools Help			Lutron	Designer - New	Unsaved Project*	
design, controls	program	activate	transt	fer	diagnos	stics
Test Bedroom + Living Room + + K Edit Equipment Room	Wall Keypads	Other Keypads Dimme S Auto-Create Loads Ex	rs Sensors	Hybrid (	Temperature H	-
	- River		HVAC Controller	emote Zone S	ensor States	
	x = x		Model	HVAC Zone	Name	
			HQWT-T-HW-XXX-A	Living hvac		
	Displays a split	equipment HVAC zone (?)	low to convert to a 'N	Master' thermost	at	
Previous Area   Next Area Collapse 🔺						

4. Click on Tools in the menu of the top toolbar and select Configure Integration.

File Edit	Reports	Tools	Help					
desian	equipm	Proj	Project Settings					
		Sync Homeowner Edits						
AirZone system Bedroom Living Room  -Equipment Roon		Sens Con						
		Whe						
		Veri						
			ait					
		Upg	rade Processor Firmware	-				

5. Select the *Integration* tab and, in the *Assign integration IDs* drop-down menu, click on "Devices". The *Integration IDs* of the Palladiom thermostats must now be assigned manually with the 2XXYY format as described on page 9.

Superior Configure Integration		×
Integration Ethernet Device Commands	Telnet Logins	
Assign integration IDs to: Devices		Integration Protocol
Living Room		ID: 20101

Next, select "HVAC" in the Assign integration IDs drop-down menu. The Integration IDs of the HVAC zones must now be assigned manually with the IXXYY format as described on page 9.

*Note:* The Integration IDs must be unique for each zone.

Configure 1	ntegration		×
Integration	Ethernet Device Commands	Telnet Logins	
Assign integratio	n IDs to: HVAC		Integration Protocol
Bedroom	🕼 om hvac 属		ID: 10102

6. Click on the "Telnet Logins" tab on the *Configure Integration* screen. Enter the Username and Passphrase that will be used by the Webserver HUB to make the Telnet connection to the HomeWorks QS processor.

Configure Inte	egration						
Integration	Ethernet	Device Commands	Telnet Logins				
Username	÷	Access Level (i) 0	Button Editing	Timeclock Editing	Passphrase	Enabled?	0
Default Home Co	ontrol+ Us	User	Add / Edit	Add / Edit	Preconfigured	Yes	
airzone		Admin	Add / Edit	Add / Edit	Change Passphrase	Yes	

#### **CONFIGURATION WITH AIRZONE CLOUD**

Access the Airzone Cloud app and, in the side menu, click on "Airtools" to access the advanced settings. Click on the "Bluetooth" icon to search for devices and select the device that you want to configure.



You can see the *Network settings* in the "Device information" tab. By selecting the *Integration* submenu, you can also choose the type of integration of your system.

<	AIRZONE	< (A)	RZONE	< In	tegration
Device information	1	Network settings		Local	
Alias	Device_7066	Ethernet	뀸	Local API	
Bluetooth Name	AZW5GR5DF3	DHCP		BACnet IP	$\bigcirc$
MAC	28:CC:FF:00:70:66	Ip Address	192.168.50.120	Lutron Homeworks QS	
Firmware	3.43	Subnet mask	255.255.255.0	Lutron Homeworks QSX	$\Box$
Modem Version	1.00	Gateway	192.168.0.0	MDNS	
Cloud connection		DNS Server	8.8.8.8	Integration port	
Ip Address	192.168.50.120			Output	Modbus DS495
Network settings	>			output	Moubus R3465
Integration	s				

#### LINKING THE AIRZONE SYSTEM TO HOMEWORKS QS

Using a web browser, open the IP address set on the Airzone Blueface thermostat (see the *Configuration of Airzone systems* section), enter the Username "airzone" and the Passphrase "lutron" in the access request pop-up window. Once inside, enter the Username and Passphrase to match those created in the HWQS software in step 6, as described on page 11. In the "Lutron IP Gateway" field, enter the IP address of the Lutron HomeWorks QS processor and click on "Set IP".

### Configuration of Airzone systems with HomeWorks QSX

The Webserver HUB acts as an interpreter using the services defined by the Lutron HomeWorks QSX processor to connect Airzone and Lutron systems through the Lutron integration protocol.

Note: The HomeWorks QSX processor must use the Lutron Designer software version 23.0 or above.

The Webserver HUB is a Plug&Play device that, when connected to the Airzone system main control board and to the HomeWorks QSX processor (via Ethernet or Wi-Fi), using the Lutron integration protocol, self-configures and configures the system main control board to work with the Lutron system.

#### **INTEGRATION IDENTIFIERS**

Depending on the presence or absence of the Airzone thermostat in the zones, two different configurations are possible.

Regardless of the thermostat used, the HomeWorks QSX system will have full control of the zones from the keypads, timers and the Lutron app.

#### Identification of the HVAC zone

The Airzone system uses *UID* to control the set point temperature, operation mode and ventilation mode. The necessary format for this identifier (*UID*) is: *1XXYY*, where XX is the system number and YY the HVAC zone number.

- $XX \rightarrow$  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 (depending on the type of Airzone system).

Example: A UID for Airzone system 1 and zone 2 will be 10102.

#### Identification of the Lutron thermostat

The UID identifier is used to exchange the room temperature measured by the Lutron thermostat in the zone with the Airzone system. The necessary format for this identifier (UID) is as follows: 2XXYY, where XX identifies the system number and YY the Airzone zone number.

- $XX \rightarrow 01$  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 (depending on the type of Airzone system).

Example: A Palladiom thermostat UID for Airzone system 1 and zone 1 will be 20101.

#### **CONFIGURATION WITH LUTRON DESIGNER**

1. Define the HVAC zones in the Lutron Designer software from the design - loads menu in the "HVAC zones" tab (by clicking on "Add load") and configure their parameters.

**Note:** The ID must be unique for each zone and will be assigned with the format 2XXYYY or 1XXYYY, depending on whether the zone has a Lutron Palladiom thermostat or not, as described in the "Integration identifiers" section.

#### Important: For zoned ducted units, Fan Speeds must be set to Auto.

File Edit Reports Tools Help			Lutron De	signer - New	Unsaved Project*			
design, loads	m	activate	transf	er	diagnostic	S		
Airzone System Test	Loads	HVAC Zones						
Project Airzone System + 📕 × Edit								
	Zone # 0	Zone Name	θ	UID 0	Operating Modes	Fan Speeds	Fan	
	1	Room 1		10101	Off,Heat,Cool	Auto	-	
	2	Room 2		10102	Off,Heat,Cool	Auto	-	
	3	Room 3		20103	Off,Heat,Cool	Auto	-	
Previous Area Next Area Collapse 🔺	+ Add load							

2. Define the Webserver HUB on the design - equipment screen. To do so, first create a new group in the Toolbox and add the processor.

File Edit Reports Tools	Help		Lutron Designer - New Unsa	aved Project*
design equipment	program	activate	transfer	diagnostics
Airzone System Test Project Airzone System	+ <b>  ■</b> + <b> </b> × <b> </b> Edit	Panels Devices Tempera Panels Devices Tempera UV-21 LV-14 QS Smart Panel Equipment Locations	Ature +	ar DIN Rail Power Panel 8 Panel 9
Previous Area   Next Area	Collapse 🔺		Drag	and drop devices here from the toolbox above.

Toolbox				×
Panels Devices Te	mperature Processor	+		Reset
Tab Name : Processor	Delete Tab			
Search by model number, descrip	otion. etc.			
Processor	HomeWorks Dual Radio	2-Link Processor	1-Link Processor	
(HQP7-RF)				Default Part Number: HW 2-Link Processor (HQP7) (HQP7-2)
QSM - System	a <sup>rd</sup>	L.		Description: HomeWorks QSX 2-Link Processor
				✓ Add Device Done

**Note:** This step is only necessary when installing for the first time.

Then, create another group in the *Toolbox* and add a "3rd Party HVAC" device.

File Edit Repo	orts Tools Help			Lutron Designer - New U	nsaved f	Project*
design equ	ipment 🔽	program	activate	transfer	c	liagnostics
design equ Airzone System Te Project Airzo	ipment	Program Panels Filippe A	activate       Devices     Ter       Devices     Ter       HQP7)     HWQ:	transfer       mperature     Processor       Expand all     Collapse all       SX Processor     ×     Edit		liagnostics
Toolbox						×
Panels Devic	es Temperature	Processor Equipmer	ht			Reset
Tab Name : Equipmen	nt	Delete Tab				
Search by model num	ber, description, etc.					
Ethernet Devices	Jin Carl	ty HVAC				1030- 59 
Device	<u> </u>					Default Part Number: 3rd Party HVAC
Hub/Gateway						Description: 3rd Party HVAC
						Add Device Done

Once the device has been added, select "Airzone" in the Manufacturer drop-down menu, under Model select "Webserver HUB" and under Setpoint type select "Dual" for VAF/ZBS/ZS6 systems or "Single" for Flexa/Acuazone/RadianT systems.

Flexa/Acuazone/RadianT systems only use °C, while VAF/ZBS/ZS6 systems use both °C and °F, so the system must be configured with the same units used in the Lutron project.

In the "Output" table, click on "A	Assign" and add all the HVAC zones cr	reated previously.
------------------------------------	---------------------------------------	--------------------

File Edit Reports Tools Help		Lutron Designer - New Unsaved Project	Ni Assign	×
dosign aminment	program	transfor diag	Expand all Collapse all	Advanced Settings
			Proyect Airzone System	Assign
Alexand Custom Test	Papels Davisas Temporaturs	Brocossor Equipment +	Room 2	Assign
Airzone system lest	Parleis Devices Temperature	e Processor Equipment	Room 3	Assign
Project Airz + + + K Edit		1		
	Equipment Locations Expand all	Collapse all		
	HWQSX Processor	× Edit		
	3rd Party HVAC 001			
		Output		
		Zone Name		
		Room 1		
		Room 2		
	Manufacturer: Airzone	Room 3		
	Model: Webserver Hub	Assign		
	Setpoint Type: Dual Connection: Ethernet	Some 3rd party HVAC co	5	
			-	
			New Load	Done
Previous Area   Next Area Collapse 🔺				

Set the minimum and maximum set point temperature to 19°C and 30°C (66°F and 86°F), respectively. In the case of "Set point Dual", set the "Minimum Heat/Cool Set point Difference" value equal to that of the Lutron system.

3. If Lutron Palladiom thermostats are used as zone thermostats, add the thermostat on the *design – controls* screen from the "Temperature" tab. The HVAC zone that will control this thermostat must be assigned in the *Remote Zone* parameter.

Sign controls	program Wall Keypads	activate	transfer	diagnostics
zone System Test	Wall Keypads			
		Other Keypads Dir	mmers Sensors H	ybrid Temperature +
Project Airzone System +	Edit HWQS Palladiom Thermostat  Device Locat Lutron Pallad	ions   I Auto-Create Loads liom 3 (Companion)	Expand all Collapse all HVAC Controller Remo	te Zone Sensor States
			Model	HVAC Zone Name
	Displays a	split equipment HVAC zone  ?	How to convert to a 'Maste	er' thermostat

Note: This step is only necessary when installing for the first time.

4. Return to the design - equipment screen and check that the data have been updated correctly.

File Edit Reports Tools Help			Lutron Designer - Ne	w Unsaved Project*	
esign equipment	program	activate	transfer	diagnostics	
cone System Test Project Airz +   = +   ×   Edit	Panels Devices Tempo and an	erature Processor Equipment +			
	Equipment Locations Equipment Hwqsx P	and all   Collapse all occessor   X   Edit			
	Tri Party HVAC 001	Output Zone Name	0 UID 0 Are	eas θ Operating Modes θ	Fan Speeds 🕴 Assigned Devices
	Manufacturer: Airzo	Room 1 Room 2 Room 3	10101 Airza 10102 Airza 20103 Airza	one System Test Off,Heat,Cool one System Test Off,Heat,Cool one System Test Off,Heat,Cool	Auto         Not assigned to a Palladiom thermostat.           Auto         Not assigned to a Palladiom thermostat.           Auto         > Lutron Palladiom 3(Companion)
	Setpoint Type: Dual Connection: Ethen	Assign  Assign  (7) Some 3rd party HVAC	controllers may require an interfac	ce to connect to the processor over Ethernet	t link.
Previous Area Next Area Collapse 🔺					

**Note:** The UID must be unique for each zone and will be assigned with the format 2XXYYY or 1XXYYY, depending on whether the zone has a Lutron Palladiom thermostat or not, as described on page 13.

#### 5. Once all the zones are defined and associated, select the transfer screen and start transferring the configuration to the processor.

File Edit Reports	Tools Help		Lutron De	esigner - C:\Users\ccanadas\[	Desktop\QSX CE8 PALLADI	OM-v23.2.2.14097.hw	
design	program	ac	tivate	transfer		diagnostics	
i Securely transfer You can now transfer t connected locally or or	r to the system from anywhe o all activated processors that a ver the Internet.	<b>re.</b> are either	Transfer Details				
Processor Connec	tion Status	Refresh					
			Transfer Log 🛛	Auto Scroll			Sł
Ad	Start Transfer						

#### **CONFIGURATION WITH AIRZONE CLOUD**

Access the Airzone Cloud app and, in the side menu, click on "Airtools" to access the advanced settings. Click on the "Bluetooth" icon to search for devices and select the device that you want to configure.



You can see the *Network settings* in the "Device information" tab. By selecting the *Integration* submenu, you can also choose the type of integration of your system.

Note: The Lutron HomeWorks QSX processor is available in the Webserver HUB from version 3.44.

<	AIRZONE	<	IRZONE
Device informati	ion	Network settings	
Alias	Device_7066	Ethernet	品
Bluetooth Name	e AZW5GR5DF3	DHCP	
MAC	28:CC:FF:00:70:66	lp Address	192,168,50,120
Firmware	3.43	Subnet mask	255.255.255.0
Modem Version	1.00	Gateway	192.168.0.0
Cloud connectio	on 🔒	DNS Server	8.8.8.8
Ip Address	192.168.50.120		
Network setting	is >		
Integration	<u>\</u>		
Systems			
System 1	>		

After enabling integration with the Lutron HomeWorks QSX processor, 3 parameters appear:

- Linked. This indicates whether Airzone has been linked to Lutron. Both systems must be on the same network (Wi-Fi or Ethernet) and the association process must have been enabled at least once on the Lutron HomeWorks QSX processor (by pressing the button on the processor). To delete a previous link, a factory reset can be performed from the Webserver (by pressing for 10 seconds or longer) or from the Airzone Cloud app by following the Airtools → Bluetooth → Factory reset path. Once the parameter status is active, the Airzone system zones will be linked to the Lutron HVAC zones.
- IP. This defines, on an informative basis, the association between the Lutron HomeWorks QSX processor and the Webserver HUB. It is possible
  to control several Lutron processors with a single Webserver, provided they are on the same network. If it is necessary to divide the application
  with several processors and webservers, different IP ranges must be used to share the same physical interface with different configurations.
- **General Master.** If this option is enabled, all Lutron HVAC zones will be able to change the operation mode of the Airzone system. However, if it is disabled, only the Lutron HVAC zone associated to the Airzone master zone will be able to change the mode, while the rest of the zones will work in the mode the master zone is in when they are on demand.

### Configuration of Aidoo Pro with the Lutron Palladiom thermostat

To control an individual HVAC unit, the integration could be carried out through the RS-485 port of the Lutron Palladiom thermostat.

Note: The Lutron Palladiom thermostat must use the Lutron Designer software version 13.0 or above.

#### **CONFIGURATION FROM LUTRON PALLADIOM**

When connecting the Lutron Palladiom thermostat to the Aidoo Pro for the first time, the following parameters must be configured:



- 1. HVAC controller selection mode. The thermostat will automatically enter HVAC controller selection mode if no HVAC controller has been previously selected.
- Parameter ID "01": HVAC controller option. This parameter indicates the HVAC controller connected to the Lutron Palladiom thermostat. In the case of Aidoo Pro, the value of this parameter must be "03".
- 3. Parameter ID "02": Modbus address. This parameter indicates the Modbus address of the device. In the case of Aidoo Pro, the value of this parameter must be "99".

#### **CONFIGURATION WITH AIRZONE CLOUD**

Access the Airzone Cloud app and, in the side menu, click on "Airtools" to access the advanced settings. Click on the "Bluetooth" icon to search for devices and select the device that you want to configure.



Selecting the Aidoo Pro device, click on the Integration submenu. Then select "Lutron Palladiom" as the output of the integration port.

< Ai	idoo
Information	Settings
Device information	
Alias	Aidoo Pro
Name	AZPMHI4617
MAC	70:87:A7:C4:46:17
Firmware	10.13/6.20
Wi-Fi	Airzone PT4 Oficina 奈
Ip Address	192.168.12.124
Network settings	>
Integration	>
Remote diagnostics	>
Indoor unit info	
Thermostat units	°C >
Simulation mode	$\bigcirc$

<	Integration
Local	
Local API	
Venstar	$\bigcirc$
ecobee SB	$\bigcirc$
Pelican	$\bigcirc$
BACnet IP Airzone	$\bigcirc$
MQTT	$\bigcirc$
Lutron Homeworks	QSX
MDNS	
SDDP - Control4	$\bigcirc$
Modbus TCP Airzone	
Integration port	
Output	Lutron Palladiom >

### Configuration of Aidoo Pro with HomeWorks QSX

To control an individual HVAC unit, the integration could be carried out using the Lutron integration protocol with the Lutron HomeWorks QSX processor.

Note: The HomeWorks QSX processor must use the Lutron Designer software version 23.0 or above.

#### **INTEGRATION IDENTIFIERS**

Depending on the presence or absence of the Airzone thermostat in the zone, two different configurations are possible.

Regardless of the thermostat used, the HomeWorks QSX system will have full control of the zone from the keypads, timers and the Lutron app.

#### Identification of the HVAC zone

The Aidoo Pro uses UID to control the set point temperature, operation mode and ventilation mode. The necessary format for this identifier (UID) is: 10101.

#### Identification of the Lutron thermostat

The UID identifier is used to exchange the room temperature measured by the Lutron thermostat in the zone with the Aidoo Pro. The necessary format for this identifier (UID) is as follows: 20101.

#### **CONFIGURATION WITH LUTRON DESIGNER**

1. Define the Aidoo Pro in the Lutron Designer software on the design – equipment menu. To do so, first create a new group in the Toolbox and add the processor.

File Edit Reports Tools Help			Lutron Designer - New Unsaved Pr	roject*	
design equipment	program	activate	transfer	diagnostics	
design equipment	Program	activate anels Devices Temperal LV-14 QS Smart Panel uipment Locations	transfer ture + Panel with POE DIN Rail Power switch (Q-POE- Panel 2 PNL)	diagnostics	ox above.
Previous Area   Next Area Co	illapse 🔺				

Toolbox				×
Panels Devices Ten	mperature Processor	+		Reset
Tab Name : Processor	Delete Tab			
Search by model number, descript	tion, etc.			
Processor " <sup>4</sup> / <sub>b</sub> <sup>4</sup> / <sub>b</sub> <sup>4</sup> ClearConnect Gateway - Type X (HQP7-RF)	HomeWorks Dual Radio	2-Link Processor	1-Link Processor	
QSM - System				Default Part Number: HW 2-Link Processor (HQP7) (HQP7-2)
Received and the second	CSM Ash	QSM R		Description: HomeWorks QSX 2-Link Processor
				Add Device Done

**Note:** This step is only necessary when installing for the first time.

Then, create another group in the *Toolbox* and add a "3rd Party HVAC" device.

👯 File Edit Reports Tools Help		Lutron	Designer - New Unsaved F	Project*	
design equipment	▼ program	activate	transfer	diagnostics	
Test Bedroom	+   •+   ×   Edit	Panels Devices Temperature	Processor +		
		Equipment Locations Expand all	Collapse all		
Previous Area Next Area	Collapse 🔺				

s∰ Toolbox	×
Panels Devices Temperature Processor Equipment +	Reset
Tab Name : Equipment Delete Tab	
Search by model number, description, etc.	
Ethernet Devices	Default Part Number: 3rd Party HVAC Description:
Panel with POE switch (Q-POE- PNL)	3rd Party HVAC Add Device Done

Once the device has been added, select "Airzone" in the *Manufacturer* drop-down menu, under *Model* select "Webserver HUB" and under *Setpoint type* select "Single". Set the minimum and maximum set point temperature to 19°C and 30°C (66°F and 86°F), respectively.

Note: The Aidoo Pro must be configured with the same units used in the Lutron project.

An HVAC zone with no data will appear in the "Output" table.

design	equipment	program	activate	e	transfer		diagnostics			
Test Bedro	om +	•+   X   Edit	Panels Devices	Temperature	Processor	Equipment	+			Edir Toolbox
			Equipment Locations	Expand all C	ollapse all Cit Cit	tput	â UID â Areas â	Operating Modes	⇔ Fan Speeds ⇔	Customize columns
			Manufacturer: Model: Setpoint Type: Connection:	Airzone Webserver Hub Single Ethernet		droom HVAC Zone ssign	/AC controllers may require an	None selected	No Fan	Not assigned to a Palladiom thermostat.
Previous A	rea   Next Area	Collapse 🔺								

Configure the parameters of the HVAC zone on the design - loads menu in the "HVAC zones" tab.

File Edit Reports Tools Help		Lutron [	Designer - New Unsaved Project*	
design loads	program	activate	transfer	diagnostics
Test	Loads	HVAC Zones		
	Zone # $\theta$	Zone Name 🕴 UID	Operating Modes	Fan Speeds Fan
	1	Bedroom HVAC Zone 001 10101	Off,Heat,Cool	Auto -
Previous Area   Next Area C	Collapse 🔺 🕂 🕂 Add Ioad			

Return to the design - equipment menu and check that the data have been updated correctly.

design equipment	program	activate t	transfer   diagnostics	
Test Bedroom	+   •+   ×   Edit	Panels Devices Temperature I	Processor Equipment +	Edit Toolbox
		Equipment Locations   Expand all   Co HWQSX Processor   X 3rd Party HVAC 001	Edit	Customize columns
		Manufacturer: Airzone Model: Webserver Hub Setpoint Type: Single Connection: Ethernet	Zone Name <ul> <li>UID</li> <li>Areas</li> <li>Operating Modes</li> <li>Fan Speeds</li> <li>Bedroom HVAC Zone 001</li> <li>10101</li> <li>Test</li> <li>Off:Heat.Cool</li> <li>Auto</li> </ul> Assign	Assigned Devices Not assigned to a Palladiom thermostat.
Previous Area   Next Area	Collapse 🔺			

2. If Lutron Palladiom thermostat is used as zone thermostat, configure the parameters of the HVAC zone on the design - loads menu in the "HVAC zones" tab.

💥 File Edit Reports Tools Help				Lutron Desig	ner - New Unsaved Project	*			
design loads	program		activate	tr	ansfer	diagnosti	ics		
Test	+   •+   ×   Edit	Loads	Loads HVAC Zones						
		Zone # $\theta$	Zone Name 🛛 🖯	UID 0	Operating Modes	Fan Speeds	Fan		
		1	Bedroom HVAC Zone 001	20101	Off,Heat,Cool	Auto	-		
Previous Area   Next Area	Collapse 🔺	+ Add load							

Then, add the thermostat on the *design – controls* menu from the "Temperature" tab. The HVAC zone that will control this thermostat must be assigned in the *Remote Zone* parameter.

The cure reports tools theip			auton Designer - New Onsaved Ph	ject		THE HONG		
design controls	program	activate	transfer	diagnostics		Expand all Bedro	Collapse all	Advanced Settings
Test Bedroom	+   •+   ×   Edit	Wall Keypads       Other Keypads         Wall Keypads       Other Keypads         Image: State of the state of t	s Dimmers Sensors te Loads Expand all Colla it Cut Copy View HVAC Controller Model HQWT-T-HW-XX one ⑦	Hybrid Temperature	<b>+</b>		Bedroom HVAC Zone 001	Asign
Previous Area   Next Area	Collapse 🔺							Done

Note: This step is only necessary when installing for the first time.

Return to the design - equipment menu and check that the data have been updated correctly.

desig	gn e	equipment	🔄 progran	ı	activat	e	transfer		diagnostic	5			
Test	edroom		+   =+   X   Edit	Panels	Devices	Temperature	Processor	Equipment	+				Edit Toolbox
				Equipme	ant Location	IS Expand all HWQSX Processor	Collapse all	Output	, <b>с</b> , –				Customize columns
					Manufacturer: Model: Setpoint Type: Connection:	Airzone Webserver Hub Single Ethernet	I I	Zone Name Bedroom HVAC Zo Assign Some 3rd party	UD     UD     UD	Areas 🗘	Operating Modes   Off.Heat.Cool  Interface to connect to the provided to the p	Fan Speeds 🕸	Assigned Devices Bedroom + Lutron Palladiom(Compani et link.
Previo	us Area	Next Area	Collapse 🔺										

3. Once all the zones are defined and associated, select the *transfer* screen and start transferring the configuration to the processor.

File Edit Reports Tool	s Help		Lutron Designer - C:\Users\ccanadas\Desktop\QSX CE8 PALLADIOM-v23.2.2.14097.hw						
design	program	a	ctivate	transfer	d	liagnostics			
Securely transfer to th You can now transfer to all ac connected locally or over the	e system from anywhere tivated processors that ar Internet.	<b>.</b> e either	Transfer Details						
Processor Connection S	Enclosure Device 001	Refresh							
Advance	rt Transfer ed Options ▼		Transfer Log <table-cell></table-cell>	Auto Scroll			S		

#### **CONFIGURATION WITH AIRZONE CLOUD**

Access the Airzone Cloud app and, in the side menu, click on "Airtools" to access the advanced settings. Click on the "Bluetooth" icon to search for devices and select the device that you want to configure.



You can see the *Network settings* in the "Device information" tab. By selecting the *Integration* submenu, you can also choose the type of integration of your Aidoo Pro.

Note: The Lutron HomeWorks QSX processor is available in the Aidoo Pro from version 10.13.

< ,	Aidoo	<	IRZONE
Information	Settings	Network settings	
		Wi-Fi	Airzone PT4 Oficina 奈
Device information			
Alias	Aidoo Pro	DHCP	
Name	AZPMHI4617	Ip Address	192.168.12.124
MAC	70:87:A7:C4:46:17	Subnet mask	255.255.255.0
Firmware	10 13/6 20	Gateway	192.168.0.0
		DNS Server	8.8.8.8
WI-FI	Airzone P14 Oricina 🛜		
lp Address	192.168.12.124		
Network settings	>		
Integration	>		
Remote diagnostics			
Indoor unit info			
Thermostat units	°C >		
Simulation mode	$\bigcirc$		

After enabling integration with the Lutron HomeWorks QSX processor, 3 parameters appear:

- Linked. This indicates whether Airzone has been linked to Lutron. Both systems must be on the same network (Wi-Fi or Ethernet) and the association process must have been enabled at least once on the Lutron HomeWorks QSX processor (by pressing the button on the processor). To delete a previous link, a factory reset can be performed from the Aidoo Pro (by pressing for 10 seconds or longer) or from the Airzone Cloud app by following the Airtools → Bluetooth → Factory reset path. Once the parameter status is active, the Aidoo Pro zone will be linked to the Lutron HVAC zone.
- IP. This defines, on an informative basis, the association between the Lutron HomeWorks QSX processor and the Aidoo Pro.

### Troubleshooting

#### THE AIRZONE SYSTEM DOES NOT DETECT THE WEBSERVER HUB

Check the following points:

- The D9 LED (microcontroller activity) is blinking.
   The D7 → I and D8 I ← LEDs are blinking alternately.
- 3. The connection between the Webserver HUB and the Airzone system main control board is correct.

#### THE WEBSERVER HUB DOES NOT CONNECT

Check the following points:

- The LED \$\overline\$, and the LEDs on the Ethernet cable connector are active or verify Wi-Fi connectivity.
   The Ethernet cable is connected correctly.



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