Integration manual

☀LUTRON.

For AZAI6WSPDKC

AIRZONE

Index

Introduction

DESCRIPTION AND CHARACTERISTICS

The DKN Plus enables the integration of Lutron control systems into individual HVAC units through the RS-485 port of the Lutron Palladiom thermostat.
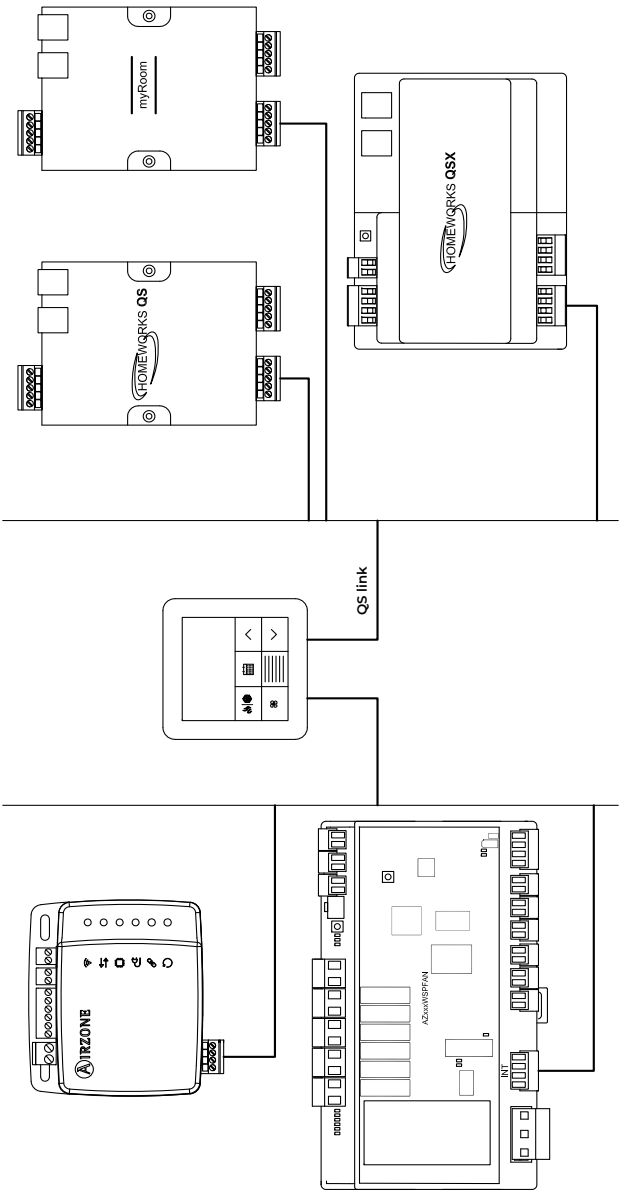
The DKN Plus is a Plug&Play device for the control of individual HVAC units, enabling the following actions to be carried out:

- 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.
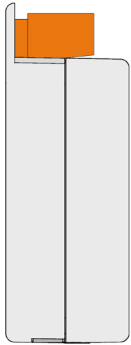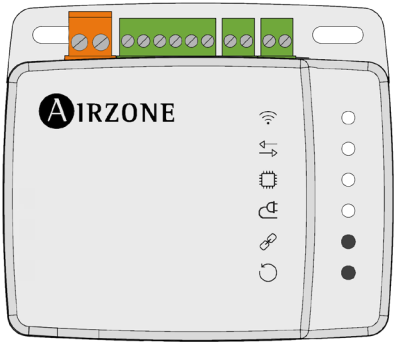- Access to device parameter settings via Bluetooth.

SYSTEM DIAGRAM

The typical connection diagram with Lutron is shown below:

DKN Plus connection diagram with the Lutron Palladiom thermostat

SPECIFICATIONS AND ELEMENTS

Power supply and consumption	
Type of power supply	Vcc
V máx.	18 V
I máx.	220 mA
V in	12-16 V
Consumption	1.08 W
Operating temperatures	
Storage	- 20 … 70 °C (- 4 … 158 °F)
Operation	0 … 50 °C (32 … 113 °F)
Operating humidity range	5 … 90% (no condensation)

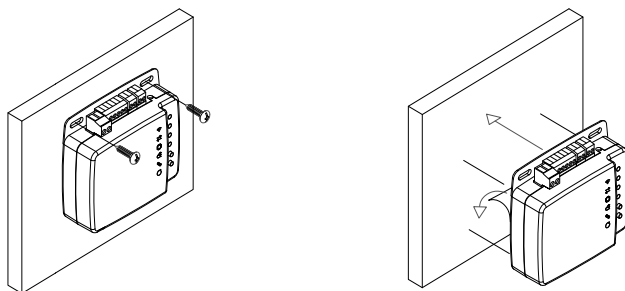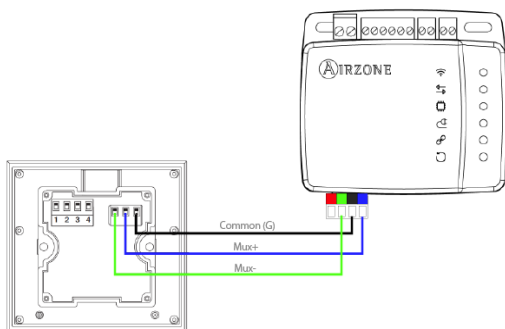| RS485 port	
Twisted shielded cable	2 x 0.22 mm² (2 x AWG 23)
Communication protocol	Modbus RS-485 Par BACnet MSTP 300 – 115200bps
Wi-Fi	
Protocol	Wi-Fi CERTIFIED ™ 802.11a/b/g/n/ac
Frequency	2.4 GHz (max. 150 Mbps) 5 GHz (max. 433 Mbps)
Maximum power:	19.5 dBm
Sensitivity	- 82 dBm
Default IP addressing	Static DHCP

Installation

The DKN Plus acts as an interpreter to control an individual HVAC unit. The integration will be carried out through the RS-485 port of the Lutron Palladiom thermostat.

ASSEMBLY AND CONNECTION

The DKN Plus is surface mounted (using screws or double-sided adhesive tape).
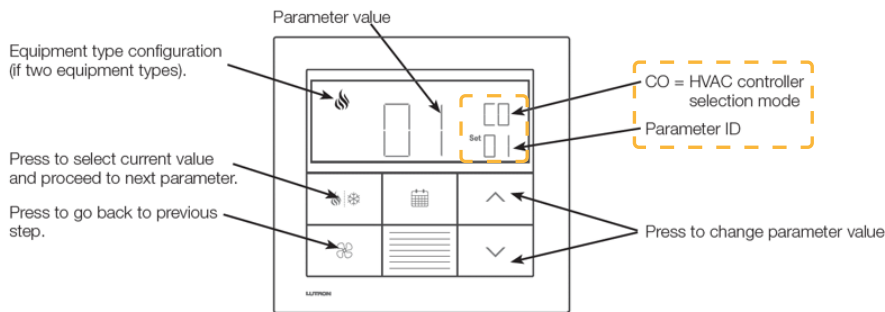

For connection with the Lutron Palladiom thermostat, fix the cables with the screws on the terminal, following the polarity.

Common (G)
Mux+
Mux-

Configuration of DKN Plus with the Lutron Palladiom thermostat

CONFIGURATION FROM LUTRON PALLADIOM

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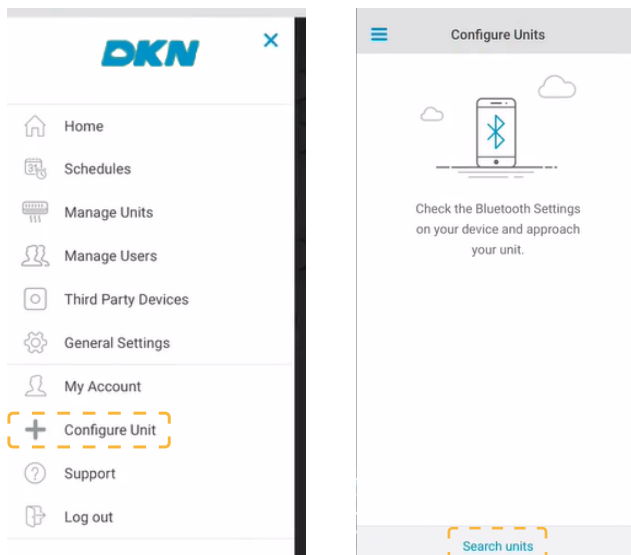

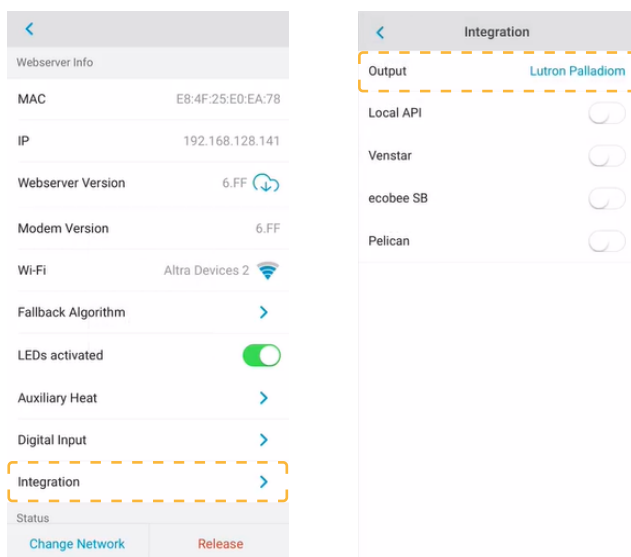|	
Parameter ID 01: HVAC controller option	03
Parameter ID 02: Modbus address	99*

1. **HVAC controller selection mode.** The thermostat will automatically enter HVAC controller selection mode if no HVAC controller has been previously selected.

2. **Parameter ID "01": HVAC controller option.** This parameter indicates the HVAC controller connected to the Lutron Palladiom thermostat. In the case of DKN Plus, 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 DKN Plus, the value of this parameter must be "99".

CONFIGURATION WITH DKN NA CLOUD

Access the DKN NA Cloud app and, in the side menu, click on "Configure unit". Click on "Search untis" to search for devices and select the device that you want to configure.

Selecting the DKN Plus device, click on the *Integration* submenu. Then select "Lutron Palladiom" as the output of the integration port.

LUTRON®

www.lutron.com

A

airzonecontrol.com

Marie Curie, 21

29590 Málaga

Spain

v. 100