ATX LED Consultants Inc

Merged IoT and Power Solutions
LED Drivers   Room quality sensors

ATX-LED

Atx Led Consultants Inc
815-A Brazos #326
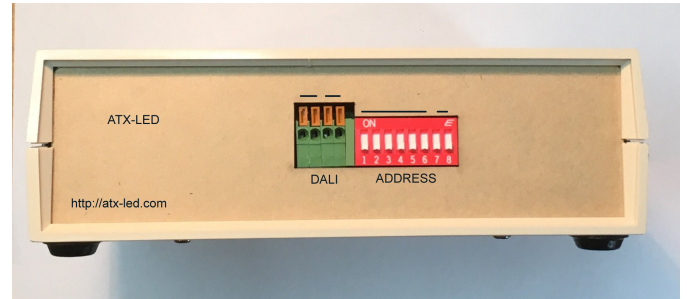Austin Tx, 78701
512 377 6052

AL-DALI-Wiz8

Cloud Interface for Apps, Alexa, Google Home, IFTTT

8 – way DALI outputs

Product Description - AL-DALI-WIZ8

This device interconnects the Cloud (via App, Alexa, IFTTT, or Google Home etc) to and from a DALI bus. Using the Wiz Connected Home App – you can enable the cloud to control lighting. The Cloud app is linked to Amazon Alexa, or Google Home or any other cloud service. The AL-DALI-Wiz8 connects to your home WiFi network on the 2.4 ghz band.

The AL-DALI-Wiz8 device will send DALI commands to individual addresses, Groups, Scenes or Broadcast to all from Cloud actions. Groups and Scenes allow multiple DALI drivers to be controlled in sync from one Cloud command.

The Al-DALI-Wiz8 device listens to DALI bus traffic and updates the cloud with the changes registered locally.

Overview

The user connects our device to his WiFi Network. Please see the instructions for connecting to the WiFi at https://www.wiz.world – 8 individual devices are built into each Wiz8.

The Wiz application gives the user control of the state of DALI fixtures. The device is connected to a DALI bus and thus to a fixture.

After the wifi connection is established, the next step is to use the Wiz App to test the function. After that, use Alexa or Google to discover the device and connect it with voice control.

Wiring Connections

Power for the AL-DALI-Wiz8 module

Apply power to the Module using the 2.1mm DC connector. The device uses 24 to 56 volts and 2 watts max.

Alexa WiFi Connection

Install the Wiz Connected Light app on your smartphone. Follow the instructions to connect the AL-DALI-WIZ device to your Alexa or Google account.

DALI bus applications

Connect a pair of DA pins to your DALI bus. You will need a DALI power supply for the bus. If DALI is not being used – you can leave this open. DALI operation is set by the dip switches. The DALI bus must have a current limited (typically 260 mA 16 volt) supply for normal operation. Set the DIP switches to Broadcast mode to start. Apply a DALI power supply. Once broadcast is operating, you can move on to Groups, Scenes and individual addresses.

Specifications

| Name	Function	Description
DC/Gnd	Power source	2.1x5.5 mm DC connector 20 to 57 volts
	Internal Power consumption	2 watt 100 mA at 20 volts 50 mA at 48 volts
DA	DALI Bus	DALI in and out – wired together Multi Master collision detect 24 volt max, 260 mA max Opto Isolated
WiFi	Home Automation Support	Alexa Google Home IFTTT 802.11b/g/n supported
	App Support	iPhone, Android
	Operating Temperature	0°C ~ 50°C
	Size	75 mm x 55 mm x 27 mm

Wiz Connected Light App Setup

Search for Wiz Connected in the App store – install it
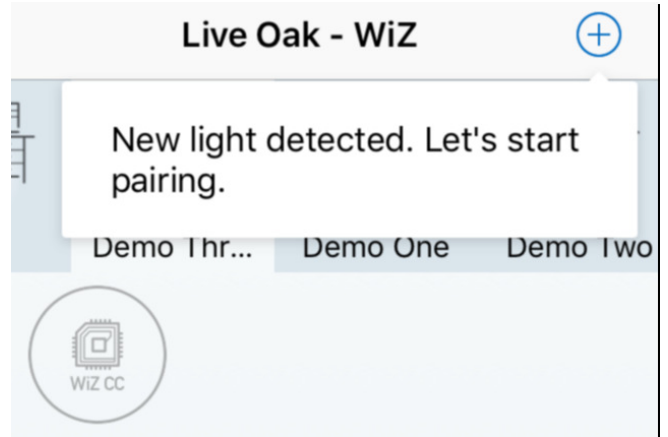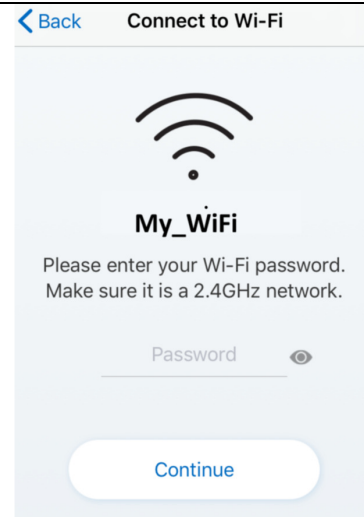

The App will show a new device to connect
(this this does not appear –
try a 2.4 ghz network)

Click on the (+) symbol
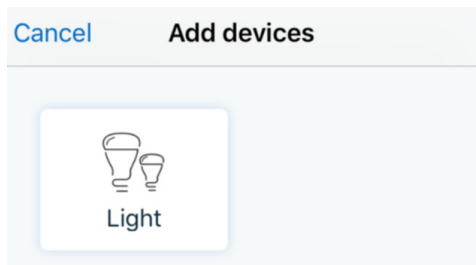
Click on the "Light" tab

Enter your WiFI Password

Wiz Connected Light App Setup con't

Back   **Add new light**

Adding lights to Demo Three

1. Turn OFF your lights
2. Turn ON your light
3. Tap on "Start"

Start

Power off/on then click start

Cancel   **Searching lights**

Searching for lights. Please don't power them off.

Wait for the search to finish

Searching lights

WiZ CC

Finish

New device found

Live Oak - WiZ

Demo Thr... Demo One

WiZ CC

You can now control the light. Next step is in the Amazon Alexa App to add this light to voice control

DALI operation Modes

The AL-DALI-Wiz8 can operate stand alone – no other controller or master is required. For DALI operation - connect your 16 volt, current limited, DALI bus to either set of DALI pins (polarity is not significant). Our implementation allows multiple masters – we use collision detection to avoid conflicts on the bus.   We offer a low cost DALI power supply.

For first time DALI users – we recommend simple Broadcast mode.   Set all switches to ON, and connect one or more DALI LED drivers.   Alexa can now turn all of these on/off and dimming is also supported.   No configuration of DALI drivers is required to use Broadcast mode.
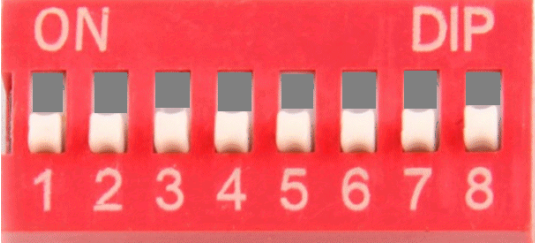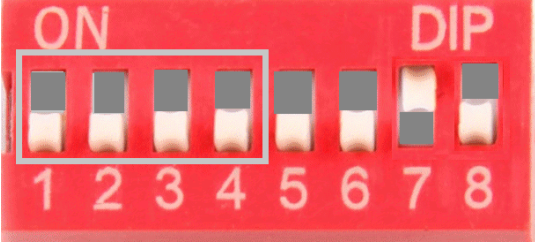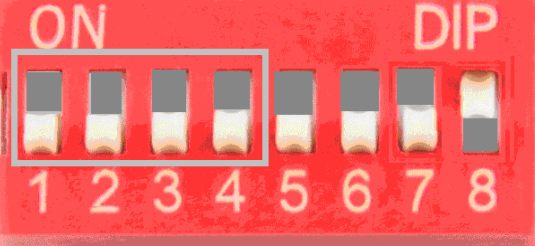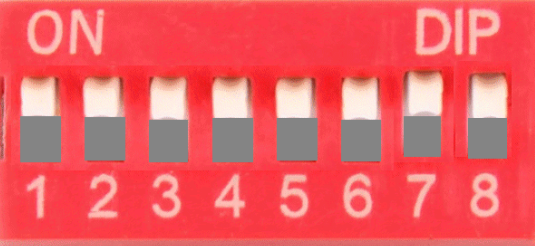
A more interesting setup has each DALI LED driver assigned a unique address, and controlled by either multiple AL-DALI-Wiz products, by the AL-DALI-Wiz8, or by the AL-DALI-Pi controller.

To use Groups, Scenes and Single addresses, your LED drivers will need a DALI configuration tool – one example is our DALI-100 device for this function.   Use it to assign a unique address to each LED driver.

DALI Addressing

8 DIP switches on the side control the addressing method for the DALI and DMX outputs. This sets the mode – see detailed setup info below.
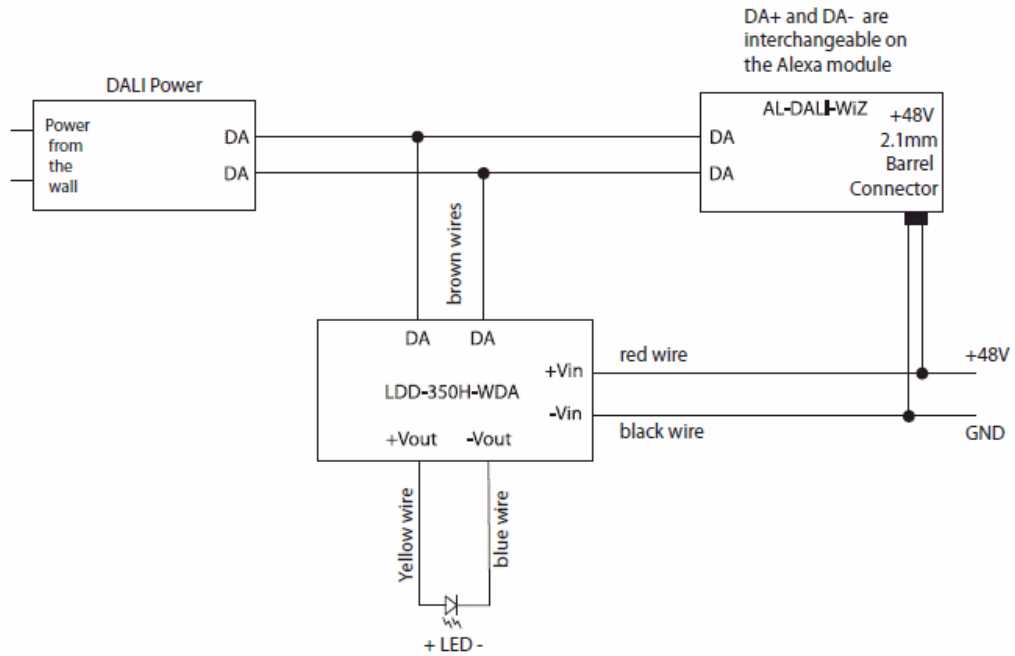
Switch Settings for DALI Address Modes

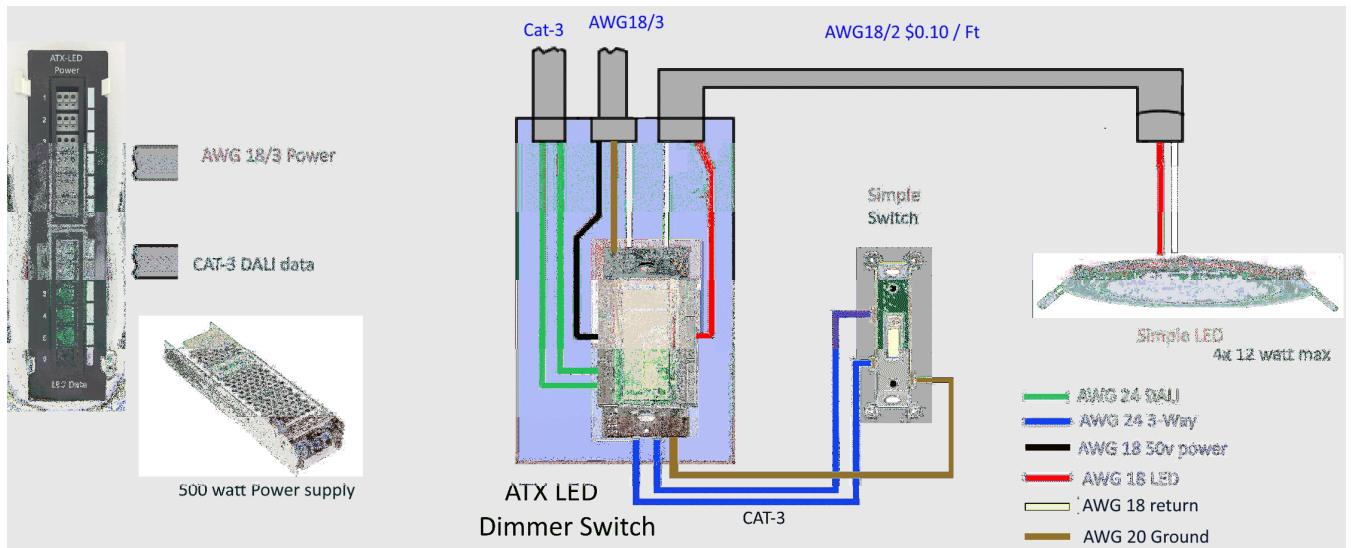|	Mode	Address
	Individual Address 0 thru 63	Set the DALI fixture address in 1-6, LSB is switch 1, therefore DALI address 6 has switch 2 and 3 ON. 8 sequential addresses
	Group Address 0-15	Set the DALI group address in 1-4, LSB is switch 1, therefore DALI group 3 has switch 1 and 2 ON. 8 sequential groups
	Scene Address One Scene	Set the DALI scene address in 1-4, LSB is switch 1, therefore DALI scene 3 has switch 1 and 2 ON. 8 sequential scenes
	Broadcast	The level will be broadcast to all DALI fixtures, including those with no short addresses assigned.

Cloud to DALI Example

In this example – we use the device to connect from the Cloud to any DALI device.

Connecting DALI power supply to Meanwell LED Driver and AL-DALI-WiZ

Cloud to AL-WS-DR2 Example

DALI bus products from ATX LED Consultants

Structured Wiring DALI power supply with easy wiring	Wall Switch + LED Driver with DALI AL-DALI-DR2	Wall Switch + 0-10 volt DALI AL-DALI-010v

Other standard DALI products

120 VAC DALI LED driver	DALI Wall Switch	DC-DC Dali driver expansion option

DALI Commands Supported

Broadcast / Individual / Group commands

0   LED Off
1   UP   8 steps
2   Down 8 steps
3   UP one step but don't turn on
4   Down one step but not off
5   Set to MAX level
6   Set to Min level
7   Down one step and Off if needed
8   Up one step or on if needed