# 2 CHANNEL DALI TO Z-WAVE USER MANUAL


## Introduction

2 Channel DALI to Z-Wave is a miniature Micro Module, which is remotely controlled and designed to operate in AC mains. In AC mains, it operates with a common neutral lead. Two Bell Switches enable ON/OFF and dimming control of regular loads. It can be used to control different types of analog/ digital dimmable lights. The Device also operates as a repeater within the Z-Wave Network to which it is associated and uses the latest Z-Wave plus chips.

## Technical Specification

| | |
|---|---|
| **Power Input** | 110 to 240 VAC, 50/60Hz |
| **Maximum Load per Channel @240VAC** | NA |
| **CumulativeLoad - 4 Channels Muxed @240VAC** | NA |
| **Operating Temperature** | -10° to +55°C |
| **Temperature Sensing** | NA |
| **Relative Humidity** | 8% - 80%RH |
| **Dimensions** | 50mm x 50mm x 17mm |
| **Radio Frequency** | 865.2MHz (IN) |
| **Surge Protection** | 1.2 kV |
| **Typical Line of Sight Range** | 10~15m Indoor /30m Outdoor |
| **Plastic Housing** | Fire Retardant ABS |
| **Supported Load Type for LED indication** | DALI Loads<br>110 to 240 VAC, 8A, 150W Max |

## Warnings & Considerations

**CAUTION**
**READ INSTRUCTIONS IN FULL BEFORE USE**
The wiring Connection Diagram and Parameters to use are mentioned in the manual. The Manufacturer, Confio will not be held responsible for any loss or damage resulting from not following the instructions of the operating manual.

**CAUTION**
**DO NOT CONNECT THE DEVICE TO LOADS EXCEEDING RECOMMENDED VALUES**
Connect loads to the module below the load ratings to work normally. Do not connect over Load, this may lead to Module failure.

**CAUTION**
**FOLLOW INSTRUCTION MANUAL FOR CIRCUIT CONNECTION**
Connections must be made according to the instructions available on operational manual, faulty connection leads to manual failure.

**DANGER**
**DANGER OF ELECTRIC SHOCK**
Any works introducing changes into the configuration of connections or the load must be always performed with disconnected voltage.Since there are high chances of voltage occurance at the terminals even after device turn off. (Turn off the MCB)

**DANGER**
**DANGER OF ELECTRIC SHOCK**
If the installation is done by an unauthorized Technician the Manufacturer will not be held responsible. Contact support@confiolabs.com or call +91-9606030659 for a list of authorized Technicians.

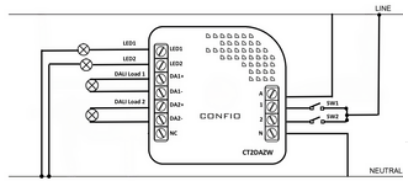
**DANGER**
**DANGER OF ELECTRIC SHOCK**
Faulty connection or use may result in fire or Electric shock.

## Safety Measures

1. Before installation, make sure that the power supply Mains are turned off.
2. Remove the Switch Board cover frame and the switch frame to access the switches.
3. Select the Loads to be connected on particular terminals.
4. If multiple Loads are connected to a single terminal, use appropriate connectors to avoid short circuits.
5. Use only minimum 1.5mm² wires and maximum 2.5mm² wires for connections.
6. This Device requires a neutral lead to operate.

## Circuit Connections

The below wiring diagrams explain the possible combinations that are available.




## Activating Confio Dimmer

**1. Installing the Device**
a. Make sure that the power supply mains is turned off.
b. Connect the Device in accordance with the wiring diagram.
c. Connect the DALI driver connections.
d. Replace existing switches using Bell Switch, SW1 and SW2.
e. Complete all the connections and check the Pairing before sealing the Electrical Box.
**2. Managing the Device through Z-Wave Network**
It is recommended to place the Micro Module within 3m Line of Sight, as adding mode requires direct communication with the Controller. Move the Module near the Primary Controller during this step, if required.
**NOTE: The Manufacturer, Confio will not be held responsible for any loss or damage resulting from not following the instructions of Operating Manual.**

## Inclusion Methods

**Method 1**
Press the Node ID Button (at the back of the Module), to start Pairing to the Gateway.
**Method 2**
Toggle SW1 3 times within 4 seconds to start Pairing to the Gateway.
(Sequence: ON-OFF, ON-OFF, ON-OFF)

## Exclusion Methods

**Method 1**
Press the Node ID Button (at the back of the Module), to start Unpairing from the Gateway.
**Method 2**
Toggle SW1 3 times within 4 seconds to start Unpairing from the Gateway.
(Sequence: ON-OFF, ON-OFF, ON-OFF)

## Resetting Device

**Method 1**
For resetting the Micro Module, press and hold the Node ID Button behind the Module for 10 seconds, Once the red and green led glows release the switch. Then, the Device will be restored to default.
**Method 2**
Hard reset can be done by pressing the SW2 ON-OFF for 13 times.

## LED Indications

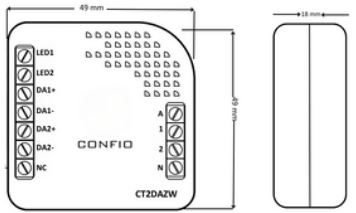
| LED Indication | Status |
|---|---|
| Red Blinking | Excluded |
| Green Blinking | Included/Paired |
| Red and Green | In Pairing Mode |

## Controlling by Position Switches

- SW1 and SW2 are controlled by Bell Switches for Dimming and Position Switches for ON/OFF.
- Press and hold the appropriate switch to increase or decrease the brightness of the channel.

## Setting Additional Parameters

- Log on to Z-Wave Gateway from app
- Click Device Options >> Add Configuration Settings.
- Enter the Parameter Number in the Variable Box and enter the desired Parameter Value. *For example, to disable on board Leds, set Parameter - |11 1-Byte-Dec 00|.*
- Click "SET".
- Close the dialog box and click Update Button.




## Important Instructions

- Wear standard personal protection equipment to give protection to the Installer.
- Position the antenna far away from metal elements to avoid interference.
- Do not cut or shorten the antenna, as its length is matched to the band in which the system operates.
- Do not over-tighten the terminal block. It can cause serious malfunctioning after installation.

## Parameters

**Parameter 01**
Power ON status of load 1 0 to 1 (0: Switch
**Range**
SW1,1: Memory)
**Default**
1: Memory
**Description**
This parameter decides the power ON state (when module is powered ON) of Load connected on channel1. This parameter provides two options either power ON to memory (previous state as it was before power OFF) or present switch position

**Parameter 02**
Power ON status of load 2
**Range**
0 to 1 (0: Switch SW21: Memory)
**Default**
1: Memory
**Description**
This parameter decides the power ON state (when module is powered ON) of Load connected on channel2 This parameter provides two options either power ON to memory (previous state as it was before power OFF) or present switch position.

**Parameter 04**
Dimming preference for load1
**Range**
0 to 1(0: Instant,1: Smooth)
**Default**
1: Smooth
**Description**
This parameter switch between the dimming preference Smooth dimming or Instant dimming for the load connected on channel 1.

**Parameter 05**
Dimming preference for load 2
**Range**
0 to 1(0: Instant,1: Smooth)
**Default**
1: Smooth
**Description**
This parameter switch between the dimming preference Smooth dimming or Instant dimming for the load connected on channel 2.

**Parameter 06**
Dimming speed for load 1
**Range**
1 to 5 1: Very fast0
2: Fast
3: Medium
4: Slow
5: Very Slow
**Default**
3: Medium
**Description**
This parameter sets the dimming speed of load connected on channel 1.

**Parameter 07**
Dimming speed for Load 2
**Range**
1 to 5 1: Very fast
2: Fast
3: Medium
4: Slow
5: Very Slow
**Default**
3: Medium
**Description**
This parameter sets the dimming speed of load connected on channel 2.

**Parameter 09**
SW1 Functionality
**Range**
0 to 3 0: Position switch ON-to-ON and OFF-to-OFF
1: Toggle switch
3: No switch
2: Bell switch
**Default**
2: Bell switch
**Description**
This parameter switch between the switch functionality for SW1 i.e. Position switch OR toggle switch OR Bell switch dimming.

**Parameter 10**
SW2 Functionality
**Range**
0 to 3 0: Position switch ON-to-ON and OFF-to-OFF
1: Toggle switch
2: Bell switch
3: No switch
**Default**
2: Bell switch
**Description**
This parameter switch between the switch functionality for SW2 i.e. Position switch OR toggle switch OR Bell switch dimming.

**Parameter 11**
On board LED enable/disable
**Range**
0 to 1( 0: Disable,1: Enable)
**Default**
1: Enable
**Description**
This parameter enables or disables on board LEDs

**Parameter 12**
Channel 1 minimum ON level Calibration Value
**Range**
0 to 100
**Default**
0
**Description**
This parameter holds the min value for the dimmer connected on channel 1 to turn on.

**Parameter 13**
Channel 2 minimum ON level Calibration Value
**Range**
0 to 100
**Default**
0
**Description**
This parameter holds the min value for the dimmer connected on channel 2 to turn on.

**Parameter 18**
Channel 1 maximum ON level Calibration Value
**Range**
0 to 100
**Default**
100
**Description**
This parameter holds the maximum value for turning on the dimmer connected on channel 1.

**Parameter 19**
Channel 2 maximum ON level Calibration Value
**Range**
0 to 100
**Default**
100
**Description**
This parameter holds the maximum value for turning on the dimmer connected on channel 2.

**Parameter 20**
Channel 1 minimum ON level for Position/Toggle switch
**Range**
30 to 100
**Default**
30
**Description**
This parameter holds the minimum value for SW1 (Position/Toggle switch)

**Parameter 21**
Channel 2 minimum ON level for Position/Toggle switch
**Range**
30 to 100
**Default**
30
**Description**
This parameter holds the minimum value for SW2(Position/Toggle switch)

## Common Issues

**Pairing not Working:** Confirm that the Main Controller and the Dimmer Controller are within 3 meters from each other. Check that the Node ID Button is pressed properly, Red and Green LED will appear if the device goes to Inclusion/Exclusion Mode.

## Operating the Device

The two loads may be operated using the following options:

- Bell Switches connected to SW1 and SW2.
- Z-Wave Remote Controller with Multi-Channel implementation.
- Bell Switches (Dimming)/Position Switches (ON/OFF)/Toggle Switches (ON/OFF).
- Any Controller compatible with Multi-Channel implementation of Z-Wave.

## Recommendations

- For connecting multiple loads on a single Device, ask the Electrician to calculate the total load and confirm that it does not exceed the ratings mentioned under Specification section.
- Check the space behind the Switch Box for placing the Device. Turn off the MCB before the installation of Puck Module.
- Use only minimum 1.5mm² wires and maximum 2.5mm² wires for connections.
- Strictly follow the wiring diagram for connections.
- If there are signs of water seeping into the Switch Box, disconnect the power supply to avoid short circuits.

## Warranty

Standard Warranty of 24 months from the date of supply is applicable for all product

**The Warranty shall not cover:**

- Mechanical damages caused by impact, falling or dropping the Device or their object, unauthorized use or not observing the Operation Manual.
- Damages resulting from external causes, for example, flood, storm, fire, lightning, natural disasters.
- Damages resulting from surges in the power and/or telecommunication network, improper connection to the grid in a manner inconsistent with the operating manual, or from connecting other Devices not recommended by the Manufacturer.
- Damages resulting from the use of spurious spare parts or accessories improper for given model, repairing and introducing alterations by unauthorized persons.
- Defects caused by operating inoperable devices or accessories.

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By Confio

For any technical and support queries,
please contact the Manufacturer

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