

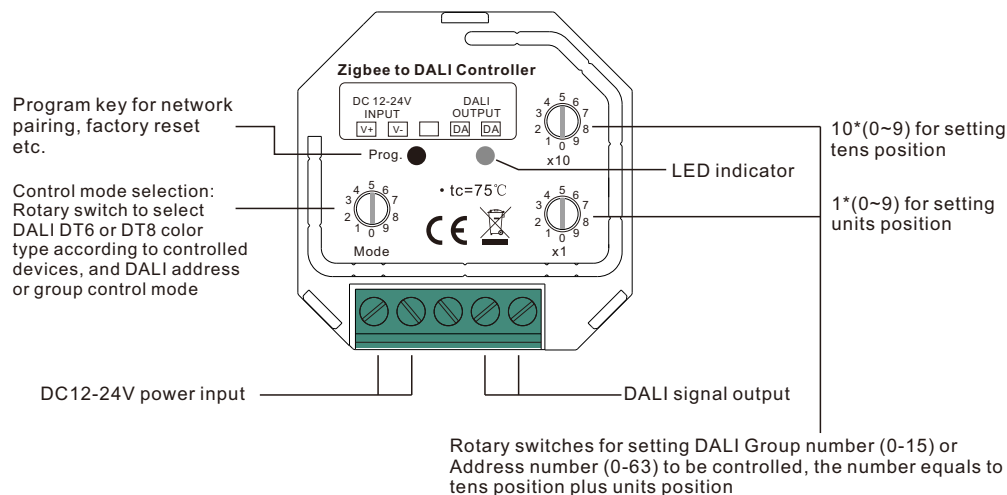
# 4 in 1 ZigBee to DALI DT6 & DT8 Controller

70030138-A



**Important:** Read All Instructions Prior to Installation

## Function introduction



## Product Data

|                          |                |
|--------------------------|----------------|
| Input signal             | ZigBee         |
| Radio frequency          | 2.4GHz         |
| Output                   | DALI signal    |
| Power Supply             | 12-24VDC       |
| DALI Current Consumption | <4mA           |
| Operating temperature    | 0-40°C         |
| Relative humidity        | 8% to 80%      |
| Dimensions(LxWxH)        | 45.5x45x20.3mm |

- 4 in 1 ZigBee to DALI DT6 & DT8 Controller based on ZigBee 3.0
- Receives ZigBee signal and outputs DALI signal to DALI line, 12-24VDC power supply
- ZigBee end device that supports Touchlink commissioning
- Supports zigbee green power and can learn to max. 20 zigbee green power switches
- Can directly pair to a compatible ZigBee remote through Touchlink
- Compatible with universal ZigBee gateway products
- Supports self-forming zigbee network without coordinator
- Enables to add devices to the self-formed zigbee network
- Compatible with universal ZigBee remotes
- DALI current consumption less than 4mA

- Controlled DALI device type can be DT6 or DT8, device type selectable by rotary switch
- Controlled DT8 device color type: Tc, XY coordinates, RGBW selectable by rotary switch
- Enable to select Group control or Address control to DALI line by rotary switch
- Enable to control 1 DALI Group of devices or 1 DALI Address on DALI line
- Enable to control all devices on DALI line via broadcast
- Enable to select any DALI Group (0-15) or DALI Address (00-63) to control by rotary switches
- Each DALI line can install multiple controllers for multi control points
- Waterproof grade: IP20

## Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

## ZigBee Clusters the device supports are as follows:

### Input Clusters

- 0x0000: Basic
- 0x0003: Identify
- 0x0004: Groups
- 0x0005: Scenes
- 0x0006: On/off
- 0x0008: Level Control
- 0x0300: Color Control
- 0x0b05: Diagnostics

### Output Clusters

- 0x0019: OTA

## Operation

### 1. Select DALI Address/Group Control Mode & DT6/DT8 Control Mode:

A rotary switch is used to select Address/Group control mode & DT6/DT8 control mode.

| Control Mode Switch Position | 0             | 1           | 2                | 3              | 4                | 5              | 6                    | 7                  |
|------------------------------|---------------|-------------|------------------|----------------|------------------|----------------|----------------------|--------------------|
| Control Mode Selected        | Address & DT6 | Group & DT6 | Address & DT8 Tc | Group & DT8 Tc | Address & DT8 XY | Group & DT8 XY | Address & DT8 RGBWAF | Group & DT8 RGBWAF |

### 2. Select DALI Address to be Controlled:

- 1) Once an address control mode is selected, use the two rotary switches for setting address number (00-64) to select the DALI address (00-63) you would like to control, the number equals to tens position plus units position.
  - 2) Set the address number as 0, all DALI devices on the circuit will be controlled through broadcast.
  - 3) Set the address number as X except 0 (01-64), control gear with DALI address X-1 will be controlled.
- Note: if X is set as 64, control gears with DALI address 63 will be controlled by the controller.

### 3. Select DALI Group to be Controlled:

- 1) Once a group control mode is selected, use the two rotary switches for setting group number to select the DALI group (0-15 selectable) you would like to control, the number equals to tens position plus units position.
- 2) This DALI controller enables dimming commands and DT8 commands to be sent to 1 Group of devices on the DALI circuit.
- 3) When group number is set as 0, all DALI devices on the circuit will be controlled through broadcast.
- 4) When group number is set as X except 0 (1-15), the controller will control DALI Group X-1.

**Note: Please first group all DALI control gears on the circuit by a master controller.**

Please refer to the detailed Group setting table as follows:

| Group Number Setting | 0         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----------------------|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| DALI Group Selected  | Broadcast | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 13 | 14 |

**4. This ZigBee device is a wireless receiver that communicates with a variety of ZigBee compatible systems. This receiver receives and is controlled by wireless radio signals from the compatible ZigBee system.**

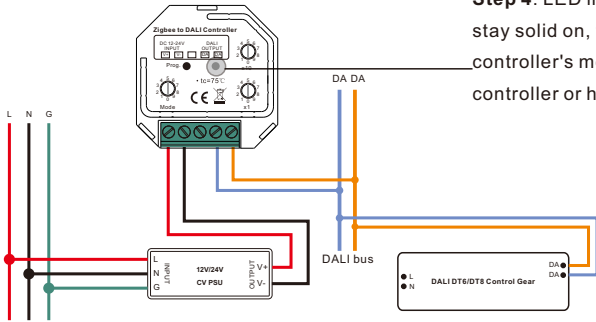
## 5. Zigbee Network Pairing through Coordinator or Hub (Added to a Zigbee Network)

**Step 1:** Remove the device from previous zigbee network if it has already been added to, otherwise pairing will fail. Please refer to the part "Factory Reset Manually".

**Step 2:** From your ZigBee Controller or hub interface, choose to add lighting device and enter Pairing mode as instructed by the controller.

**Step 3:** power on the device, it will be set into network pairing mode (LED indicator flashes twice slowly), the network pairing mode will last until the device is added to a zigbee network.

**Step 4:** LED indicator will blink 5 times and then stay solid on, then the device will appear in your controller's menu and can be controlled through controller or hub interface.

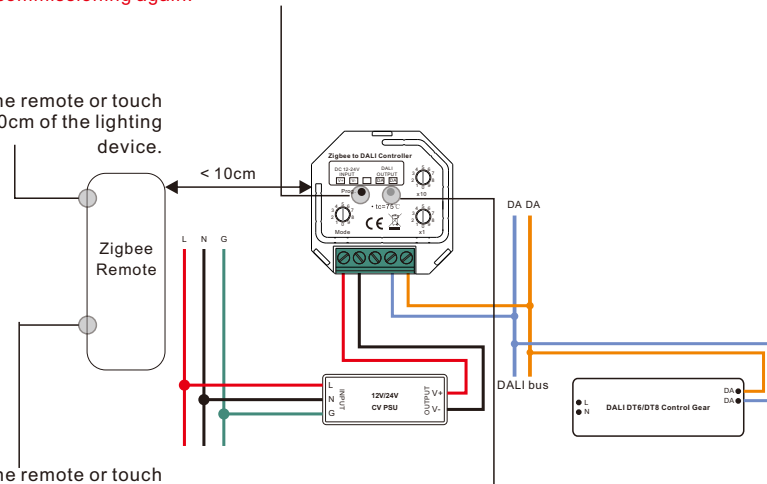


## 6. TouchLink to a Zigbee Remote

**Step 1: Method 1:** Short press "Prog" button 4 times (or reset power of the device 4 times) to start Touchlink commissioning immediately under any circumstances, which lasts for 180S, once time out, repeat this step.

**Method 2:** Power on the device, whether the device has been added to a Zigbee network or not, it will be set into Touchlink commissioning immediately, Touchlink will last for 180S, once time out, reset power of the device to set it into touchlink commissioning again.

**Step 2:** Bring the remote or touch panel within 10cm of the lighting device.



**Step 3:** Set the remote or touch panel into Touchlink commissioning, please refer to corresponding remote or touch panel manual to learn how.

**Step 4:** There shall be indication on the remote for successful link and LED indicator will flash twice.

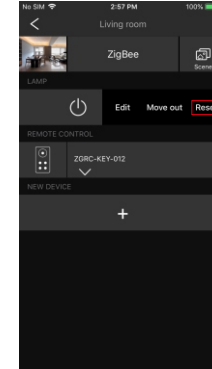
**Note:** 1) Directly TouchLink (both not added to a ZigBee network), each device can link with 1 remote.

2) TouchLink after both added to a ZigBee network, each device can link with max. 30 remotes.

3) To control by both gateway & remote, add remote and device to network first then TouchLink.

4) After TouchLink, the device can be controlled by the linked remotes.

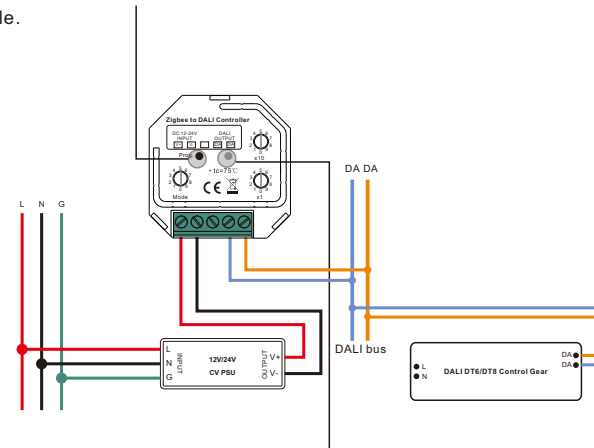
## 7. Removed from a Zigbee Network through Coordinator or Hub Interface



From your ZigBee controller or hub interface, choose to delete or reset the lighting device as instructed. The connected light blinks 3 times to indicate successful reset.

## 8. Factory Reset Manually

**Step 1:** Short press "Prog." key for 5 times continuously or reset power of the controller 5 times continuously if the "Prog." key is not accessible.



**Step 2:** LED indicator will blink 3 times to indicate successful reset.

**Note:** 1) If the device is already at factory default setting, there is no indication when factory reset again.

2) All configuration parameters will be reset after the device is reset or removed from the network.

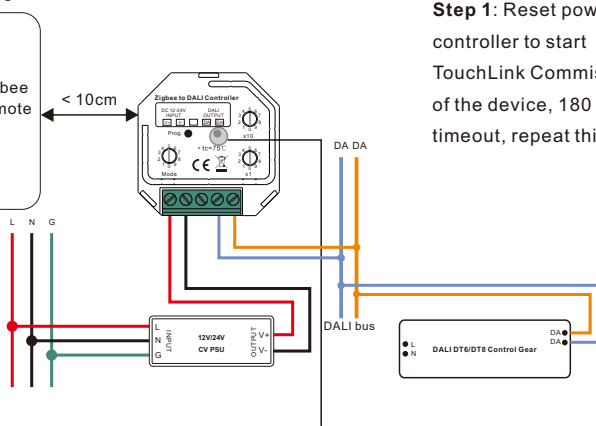
## 9. Factory Reset through a Zigbee Remote (Touch Reset)

**Note:** Make sure the device already added to a network, the remote added to the same one or not added to any network.

**Step 2:** Bring the remote or touch panel within 10cm of the lighting device.

**Step 1:** Reset power of the controller to start TouchLink Commissioning of the device, 180 seconds timeout, repeat this step.

**Step 3:** Set the remote or touch panel into Touch Reset procedure to reset the device, please refer to corresponding remote or touch panel manual to learn how.



**Step 4:** There shall be indication on the remote and LED indicator flashes 3 times for successful reset.

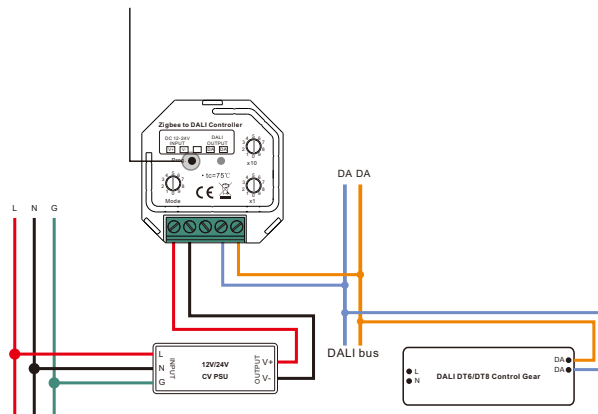
## 10. Find and Bind Mode

**Note:** Make sure the device and remote already added to the same zigbee network.

**Step 1:** Short press "Prog." button 3 times (Or reset power of the controller 3 times) to set the device (initiator node) to start Find and Bind mode (LED indicator flashes slowly) to find and bind target node, 180 seconds timeout, repeat this step.

**Step 2:** Set the remote or touch panel (target node) into find and bind mode, and enable it to find and bind initiator, please refer to corresponding remote or touch panel manual.

**Step 3:** There shall be indication on the remote or touch panel that it bind the device successfully and can control it then.



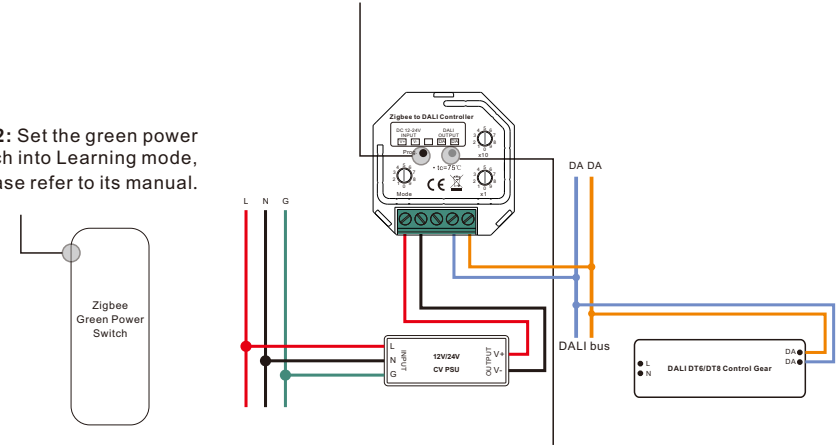
## 11. Learning to a Zigbee Green Power Switch

**Step 1:** Short press "Prog." button 4 times (Or reset power of the controller 4 times) to start Learning to GP switch mode (LED indicator flashes twice), 180 seconds timeout, repeat the operation.

**Step 2:** Set the green power switch into Learning mode, please refer to its manual.

**Step 3:** LED indicator will flash twice to indicate successful learning. Then the switch can control the device.

**Note:** Each device can learn to max. 20 zigbee green power remote.

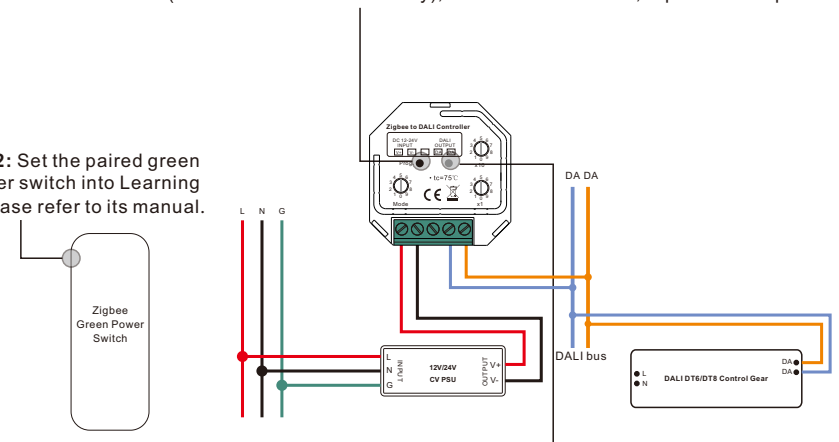


## 12. Delete Learning to a Zigbee Green Power Switch

**Step 1:** Short press "Prog." button 3 times (Or reset power of the controller 3 times) to start delete Learning to GP switch mode (LED indicator flashes slowly), 180 seconds timeout, repeat this step.

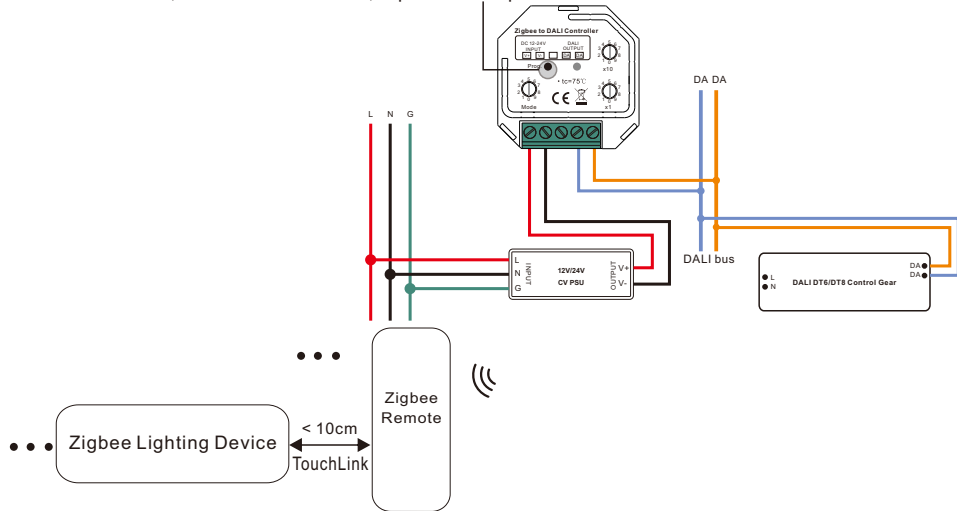
**Step 2:** Set the paired green power switch into Learning mode, please refer to its manual.

**Step 3:** LED indicator will flash 4 times to indicate successful deleting.

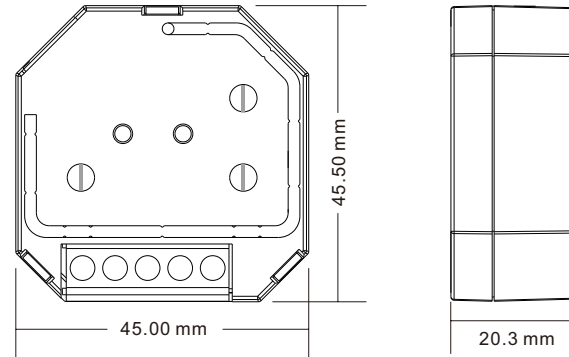


### 13. Setup a Zigbee Network & Add Other Devices to the Network (No Coordinator Required)

**Step 1:** Short press "Prog." button 4 times (Or reset power of the controller 4 times) to enable the device to setup a zigbee network (LED indicator flashes twice) to discover and add other devices, 180 seconds timeout, repeat this step.



### Product Dimension



**Step 2:** Set another device or remote or touch panel into network pairing mode and pair to the network, refer to their manuals.

**Step 3:** Pair more devices and remotes to the network as you would like, refer to their manuals.

**Step 4:** Bind the added devices and remotes through Touchlink so that the devices can be controlled by the remotes, refer to their manuals.

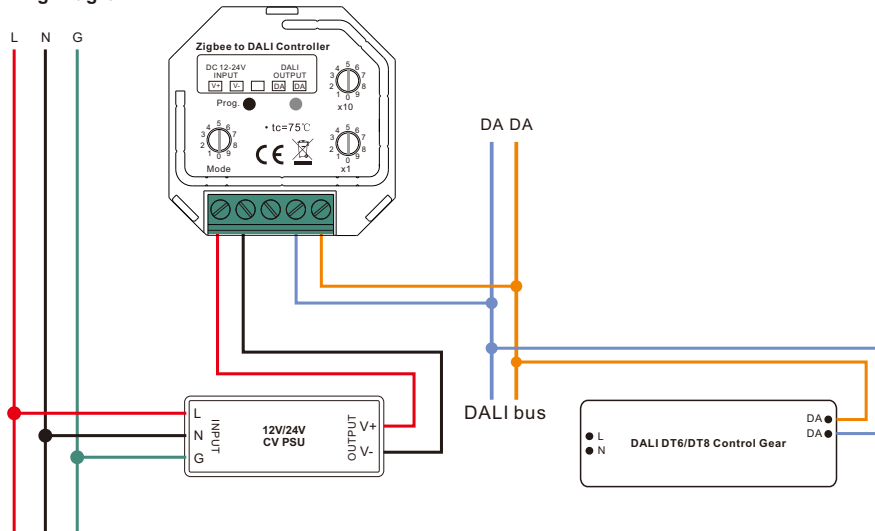
**Note: 1) Each added device can link and be controlled by max. 30 added remotes.**

**2) Each added remote can link and control max. 30 added devices.**

### 14. OTA

The device supports firmware updating through OTA, and will acquire new firmware from zigbee controller or hub every 10 minutes automatically.

### Wiring Diagram



Note: If multiple converters are installed in the same DALI bus, please do not control them at the same time.