CBU-DCS-LR

Bluetooth-enabled passive DALI controller

Warning!

Only qualified professionals should make the connections. Disconnect the power supply and verify its absence prior to installation.

PRODUCT DESCRIPTION

CBU-DCS-LR is a Bluetooth-controlled, long-range, Casambi-enabled, DALI controller. CBU-DCS-LR does not have its own power supply. Instead, it is powered directly from a DALI bus.

CBU-DCS-LR can be used with a DALI sensor for presence detection or daylight harvesting, or it can be used for controlling DALI drivers that have an integrated DALI bus power supply.

CBU-DCS-LR can be controlled with the Casambi app which can be downloaded free of charge from the Apple App Store and Google Play Store.

Different Casambi-enabled products can be used from a simple one-luminaire direct control to a complete and full-featured lighting control system where up to 250 units can automatically form an intelligent mesh network.

TECHNICAL DATA

Input

- Voltage range: 9,5–22,5 VDC
- Input current when idle, I_{idle}: 5 mA
- Peak input current, I_{peak}: 30 mA
- Max. DALI bus current: 250 mA
- Standby power: < 0,1 W

Radio transceiver

- Operating frequencies: 2402...2480 MHz
- Maximum output power: +8 dBm

Operating conditions

- Ambient temperature, t_a : -20 to +55 °C
- Max. case temperature, t_c : +65 °C
- Storage temperature: -25...+75 °C
- Max. relative humidity: 0...80 %, non-condensing

Connectors

- Wire range, solid: 0,5–1,5 mm², 16–20 AWG
- Wire strip length: 6-8 mm

Mechanical data

- Dimensions: 40,4 x 36,3 x 14,0 mm
- Weight: 15 g
- Degree of protection: IP20 (indoor use only)

Insulation

- Casing to DALI: Reinforced

Certifications

- CE

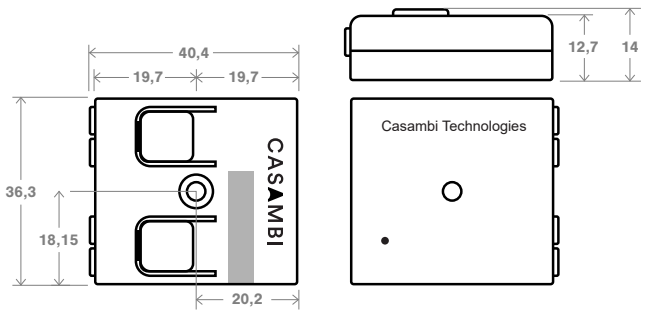
Disposal Instructions

In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste.

Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.

www.casambi.com

DIMENSIONS (IN MM)



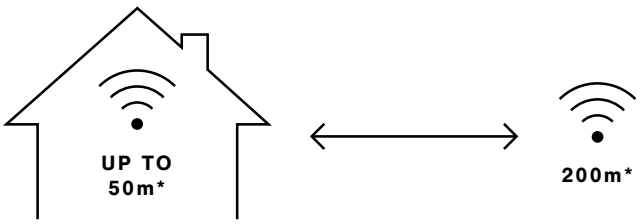
*t_c point is on bottom side •

Mounting hole diamter 3,5mm

Antenna location

RANGE

The communication range in radio technology may ultimately vary depending on the design of the product in which the antenna is housed and on the environment in which it operates. In practice, this means a well-designed product from a radio point of view, with a good line of sight connection between nodes, can achieve radio coverage up to 50 meters indoors, and, in theory, up to 200 meters in the open air. Casambi uses a mesh network technology, whereby each Casambi unit, or Casambi Ready product, also acts as a repeater. Hence, longer ranges can be achieved by using multiple Casambi products within the network.



*The wireless range of a Casambi unit is dependent on several factors; how it has been integrated into a luminaire, where it has been installed; taking into consideration surrounding obstacles such as walls and other building materials that may block signals.

CASAMBI MESH-NETWORK COMPATIBILITY

There are different radio modes that can be selected when creating a network in the Casambi App: ‘Balanced’, ‘Better Performance’ and now ‘Long Range’ options. The CBU-DCS-LR enables long-range capabilities only when the long-range radio mode has been selected and all the other devices within the network are long-range capable. It will revert to the shorter, standard range when deployed in networks set to ‘Balanced’ or ‘Better Performance’ modes.

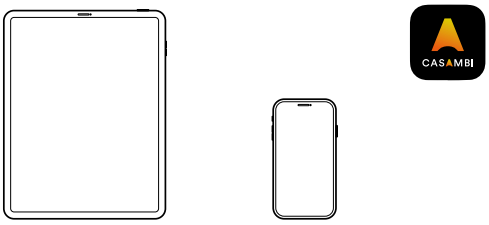
COMPATIBLE DEVICES

Download on the App Store

GET IT ON Google Play

Compatible devices: Android and iOS Operating Systems.

We support the latest OS versions for Android and iOS, and their last two major versions respectively.



Tablets

Smartphone

INSTALLATION

CBU-DCS-LR draws its operating power directly from the DALI bus. For this reason, it is important to make sure that the DALI bus is externally powered. If CBU-DCS-LR is connected directly to a DALI sensor or a DALI driver, these products must have an integrated DALI bus power supply.

CBU-DCS-LR draws 5 mA in idle mode with 30 mA peak current from the DALI bus. Use 0,5-1,5 mm2 solid conductor electrical wires. Strip the wire 6-8 mm from the end. Press the buttons on top of the dimmer case and insert the wires into the corresponding holes. The polarity of DA1 and DA2 does not matter.

CBU-DCS-LR has two sets of connectors. These connectors are internally connected in parallel with each other. This way the DALI bus can be routed through the product for easy installation.

CBU-DCS-LR, as any other Casambi product, should not be placed in a metal enclosure or next to large metal structures. Metal will effectively block radio signals which are crucial to the operation of the product. A thorough connectivity testing is strongly recommended in the installation site.

FIXTURE PROFILES

Profile#	Profile name / in app description	Description	Wiring
8079* default	Broadcast	Basic DALI broadcast dimmer, no short addressing required.	**1**
9146	BC+Sensors	Basic DALI broadcast dimmer, no short addressing required.	**2**
5755	DALI8/Dim,TW	Dimmer with tuneable white for CBU-DCS-LR with DALI DT8 driver supporting TC color model: warm/cool mixing is done by DALI driver, and CBU-DCS-LR sets dimlevel and temperature values.	**1,3**
8081	DALI8/ Dim,RGB,TW	DALI DT8 dimmer with mutually exclusive RGB or TC (color temperature) controls	**1,3**
8082	DALI8/Dim,RGB	3-channel (RGB) DALI DT8 dimmer supporting 'RGBWAF' color-type input: Dim and RGBWAF channels	**1,3**
8083	DALI8/Dim,RGBW	4-channel (RGBW) DALI DT8 dimmer supporting 'RGBWAF' color-type input: Dim and RGBWAF channels	**1,3**
8084	DALI8/ Dim[WarmCool]	Single dimmer controlling both light intensity and color temperature. E.g. light is warmer at low dimming levels and cooler at high brightness levels.	**1,3**
8089	1CH	Basic DALI dimmer, using address #0 for dimming channel.	**1,3**
12891	DALI8/Dim,XY,TW [Evolution]	Multichannel DALI DT8 dimmer supporting 'XY' color-type control	**1,3**
12893	DALI8/Dim,XY [Evolution]	Multichannel DALI DT8 dimmer supporting 'XY' color-type control	**1,3**
8090	1CH + Sensors	Basic DALI dimmer, using address #0 for dimming channel.	**2,5**
8650	Sensors (Daylight control, Presence)	Fixture providing presence and/or daylight sensing in the Pass-Through mode - delivering control commands observed on DALI bus.	**7,8**
4799	Sensors (daylight control)	Fixture providing presence and/or daylight sensing in the Pass-Through mode - delivering control commands observed on DALI bus.	**7,8**
8641	Sensors (Lux, Presence)	Fixture providing presence and/or daylight sensing in the Pass-Through mode - delivering control commands observed on DALI bus.	**7,8**
8085	2CH Dim Mixer	Luminaire with dimmer and vertical ratio selector (sum of channels is same as dim level)	**9,10**
6902	2CH TW	Two channel warm/cool mixer.	**9,10**
15900	2CH DIM MIXER	Luminaire with dimmer and vertical ratio selector, sum of channels is same as dim level (DALI Group Address pre-configured).	**11**
15898	2CH TW	Two channel warm/cool mixer (DALI Group Address pre-configured).	**11**

* Default profile, supplied from the factory.

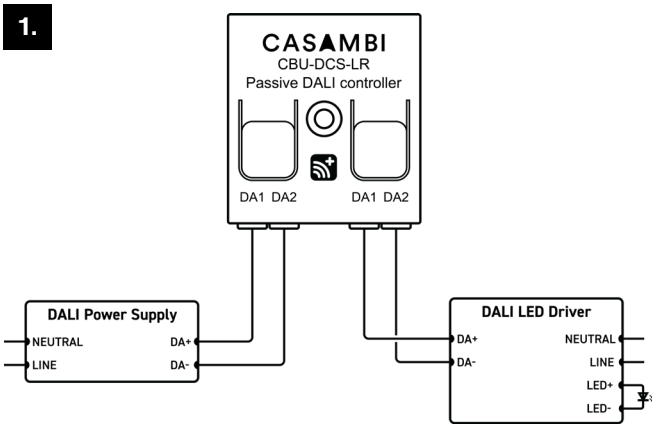
FIXTURE PROFILES

Profile#	Profile name / in app description	Description	Wiring
9323	4xDim	Four channel luminaire. Dimmer #1: address #0 Dimmer #2: address #1 Dimmer #3: address #2 Dimmer #4: address #3	**12,13, 14**
8842	8CH [Evo]	Fixture using DALI channels with custom elements. This fixture provides a dimmer control but it does NOT consume DALI address; it will be only used to multiply the output of selected custom elements. On CBU-ASD only supported attribute type is Slider	**15**
8843	8CH G0-G7 [Evo]	Fixture using DALI channels with custom elements. This fixture provides a dimmer control but it does NOT consume DALI address; it will be only used to multiply the output of selected custom elements. On CBU-ASD only supported attribute type is Slider	**16**
9000	DALI Gateway	Fixture connects DALI network to Casambi radio network.	**17**
12914	RELAY 1CH Dim	Fixture using DALI channels with custom elements. ON/OFF toggle	**18**
9775	DALI PushButton Coupler [Evolution]	**Important!** DALI Switch Panel needs to have DALI Group Addresses pre-configured to work with this profile! Casambi coupler for DALI controllers and input devices. Supports two types of inputs signals handled as actions on Casambi unit's switch presets: - DALI-scene selection and light regulation commands: scenes 0-3 activate push-button actions, control of Group 0 and/or broadcast of dimming levels and Up/Down commands adjust the active preset level. - DALI2 (IEC62368-301) push-button events: using the instance-type addressing (instance numbers 0-3) with possible light regulation (Group 0 or broadcast) accepted as additional preset-level control.	**19**

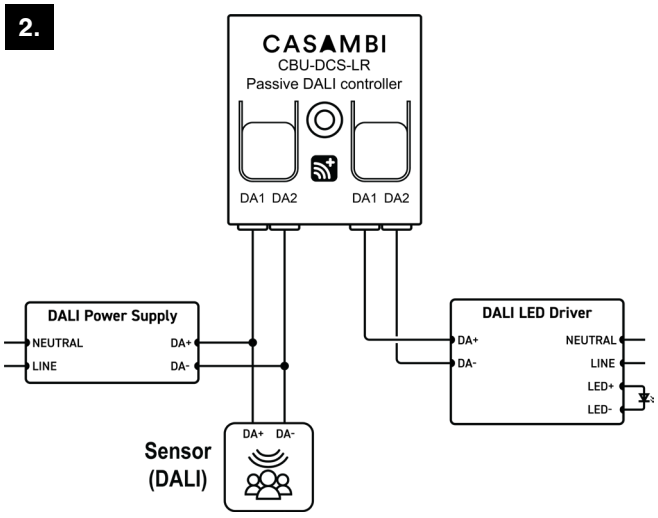
WIRING DIAGRAMS

Each CBU-DCS-LR product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Above are listed the fixture profile options for the CBU-DCS-LR.

1.



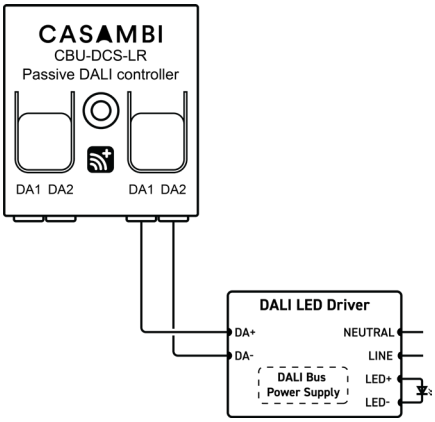
2.



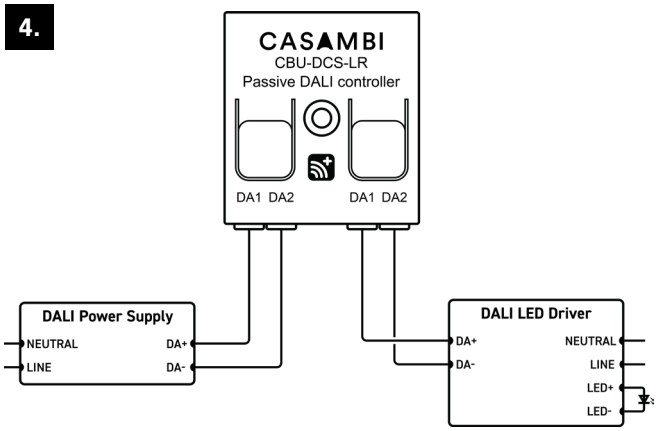
WIRING DIAGRAMS

Each CBU-DCS-LR product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Above are listed the fixture profile options for the CBU-DCS-LR.

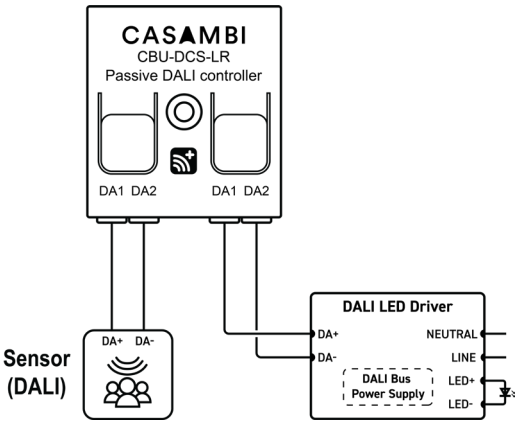
3.



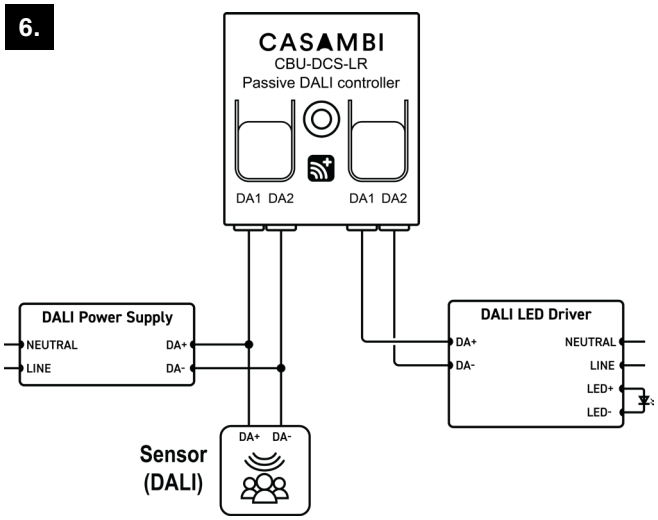
4.



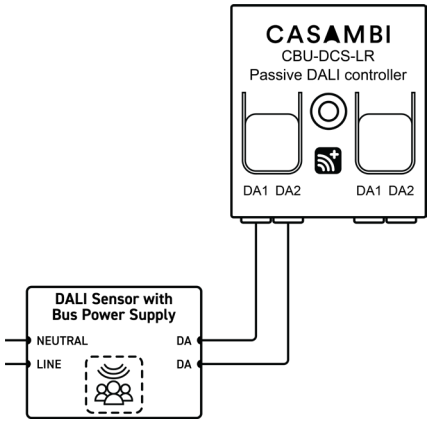
5.



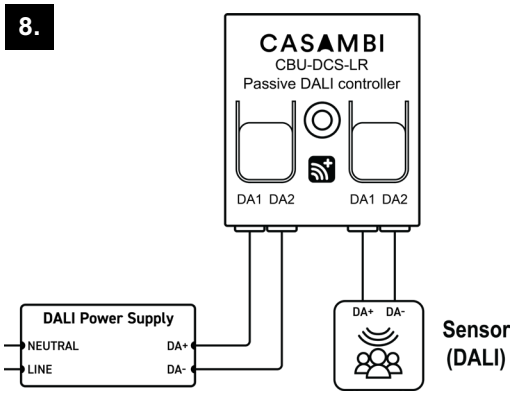
6.



7.



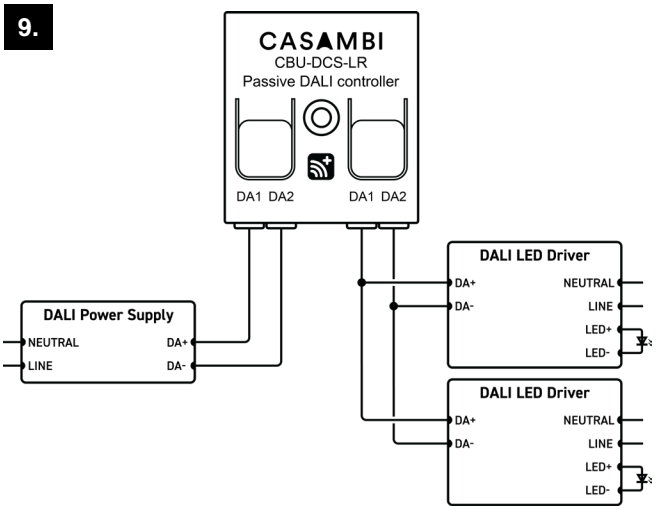
8.



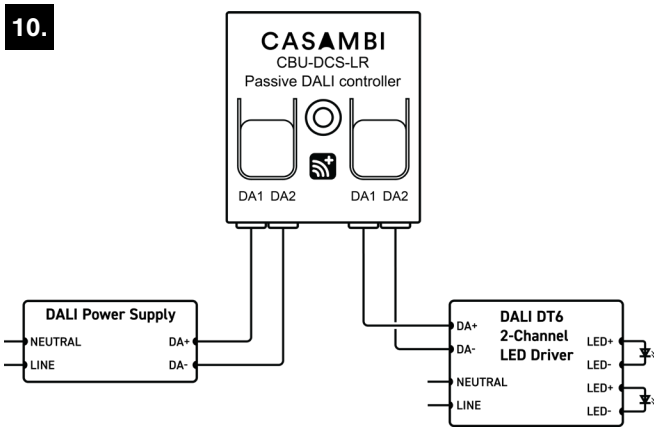
WIRING DIAGRAMS

Each CBU-DCS-LR product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Above are listed the fixture profile options for the CBU-DCS-LR.

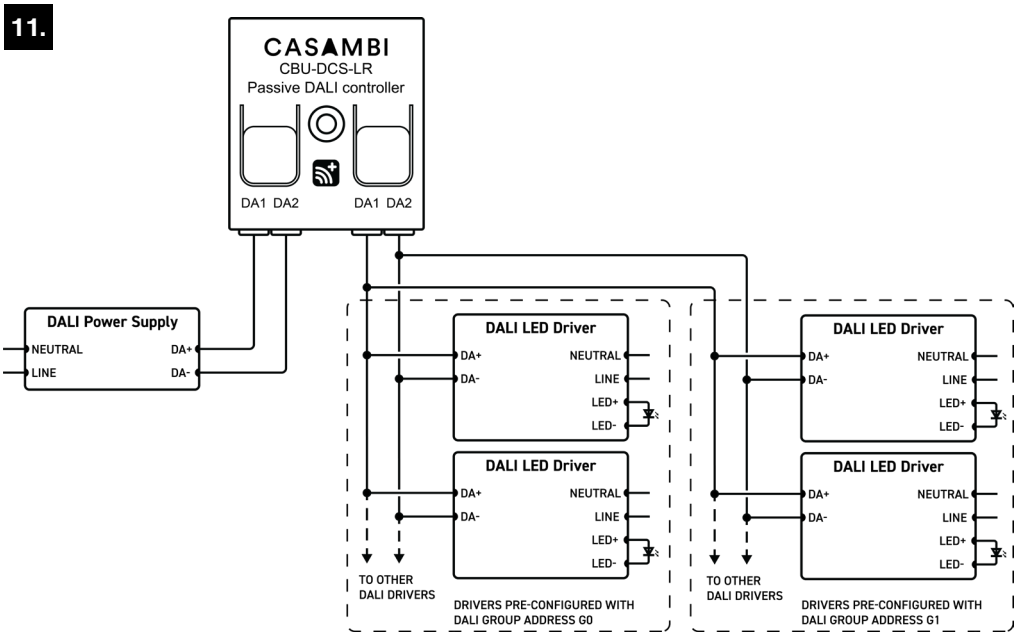
9.



10.



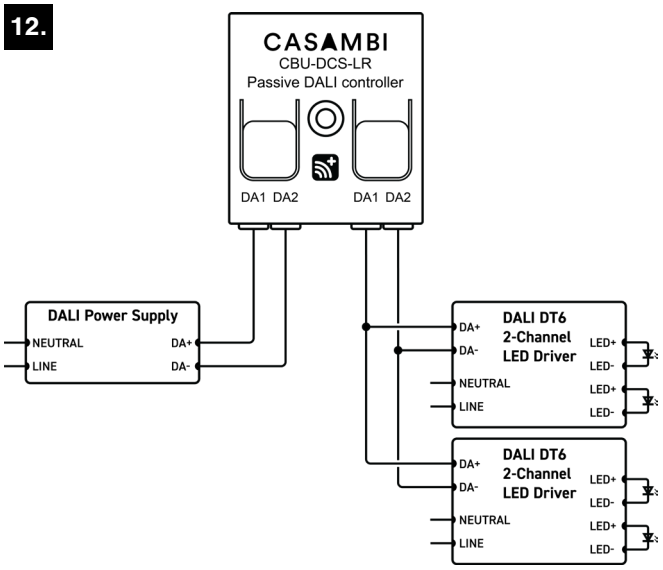
11.



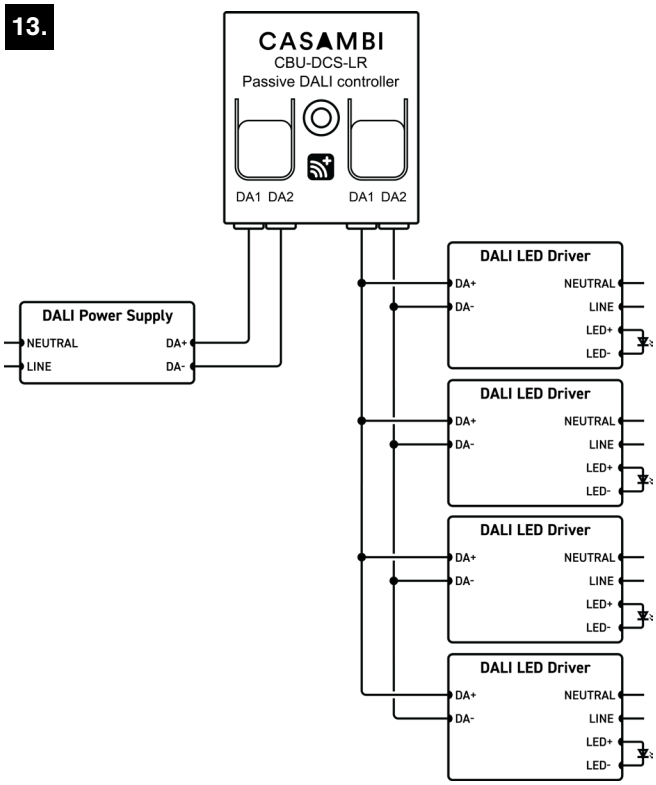
WIRING DIAGRAMS

Each CBU-DCS-LR product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Above are listed the fixture profile options for the CBU-DCS-LR.

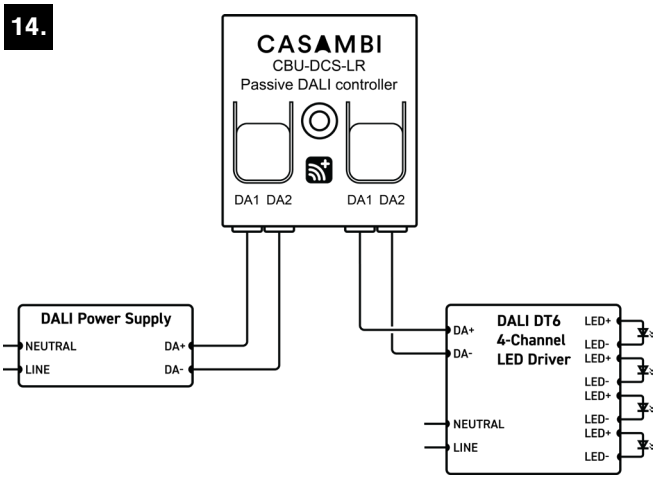
12.



13.



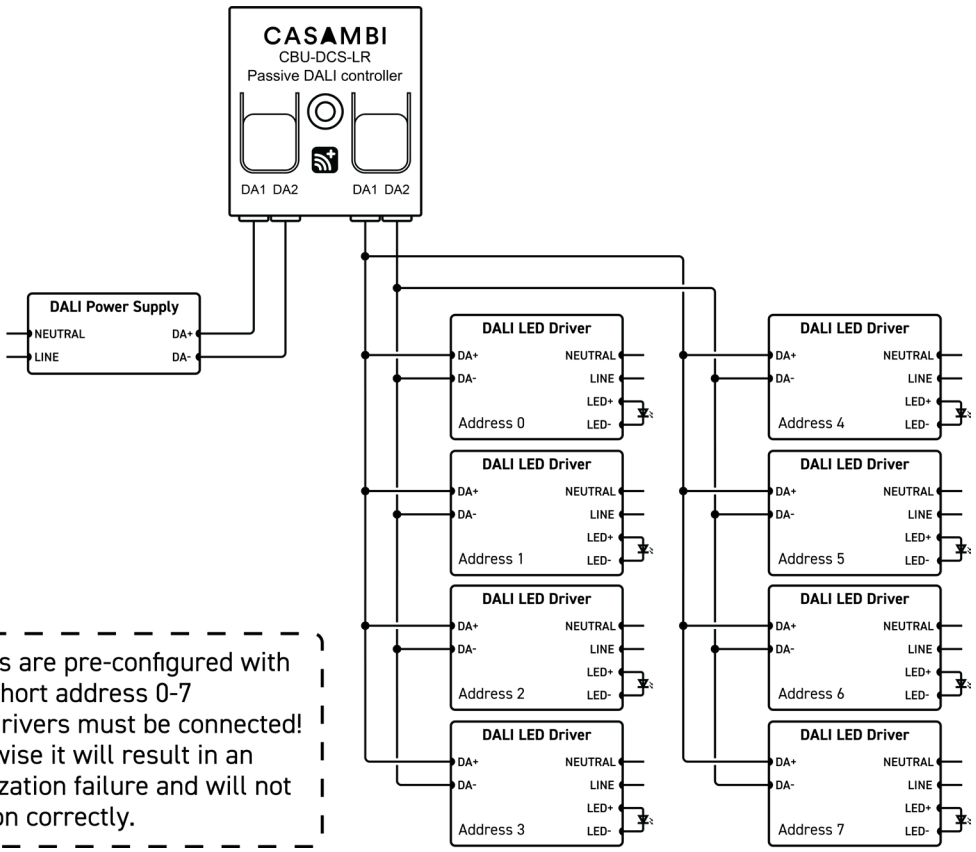
14.



WIRING DIAGRAMS

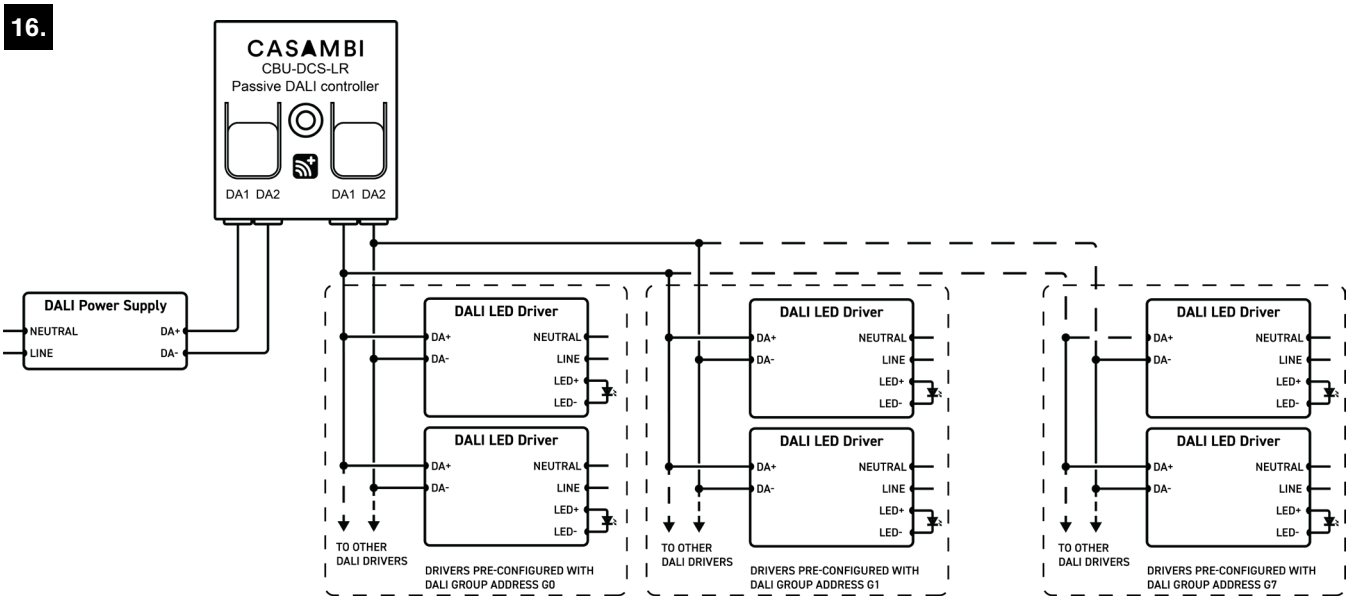
Each CBU-DCS-LR product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Above are listed the fixture profile options for the CBU-DCS-LR.

15.



Drivers are pre-configured with DALI short address 0-7
All 8-drivers must be connected! Otherwise it will result in an initialization failure and will not function correctly.

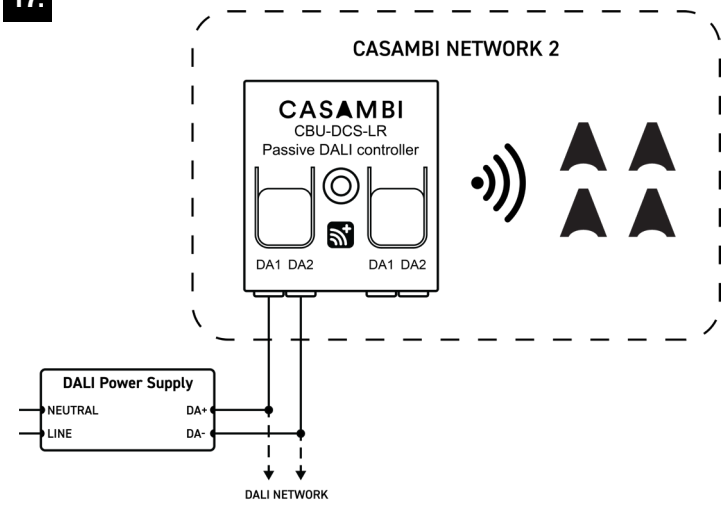
16.



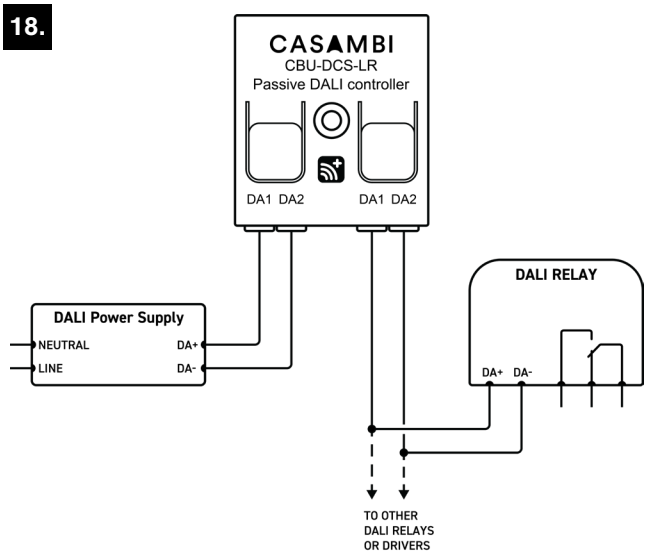
WIRING DIAGRAMS

Each CBU-DCS-LR product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Above are listed the fixture profile options for the CBU-DCS-LR.

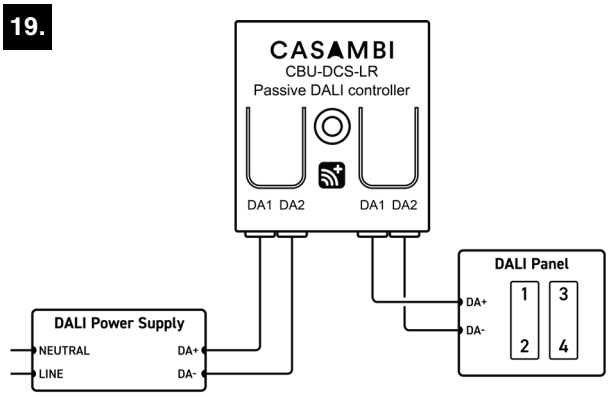
17.



18.



19.



DALI panel must send broadcast or G0 commands

DCS reacts to commands:

- GO TO SCENE #0-#3 for activation of button presets.
- OFF, RECALL MIN/MAX LEVEL, UP / DOWN, STEP UP/DOWN are applied as level adjustments to the last active preset (button) action
- DALI-2 commands also supported