Instruction Manual

WLED150CV1

Wired Single Channel Constant Voltage Dimmer

2024
Version 2.2.0

For programming system programming information: Wired system setup guide.

For a general overview: Wired RAK application sheet.

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1 What is the WLED150CV1?

The WLED150CV1 is a single Channel constant voltage dimmer used in a Rako Wired network.

The RJ11 port on the WLED150CV1 is used to connect to the Rako Wired network, if it is not connected to one of the RAK-LINKs RJ11 ports, a WK-CONNECT is required.

2 Loadings

Voltage (MAX)	Wattage (MAX)
12VDC	150W
24VDC	300W

3 Installing the WLED150CV1

⚠WARNING

Installation should only be carried out by a competent electrician.
DO NOT CONNECT DIRECTLY TO THE MAINS SUPPLY.

- WLED150CV1 modules should be mounted in areas that are adequately ventilated, and dry.
- Modules should be mounted vertically, with the terminals at the bottom, or horizontally.
- While the modules are designed to be maintenance-free, they should be mounted in an accessible location should investigation or re-addressing of the units be necessary.
- Ensure that the cable clamps are fitted tightly to secure the cables.
- The unit input voltage is 12V or 24V DC, and the power supply must be adequately rated for the connected load.

STEP 1		Remove the covers and cable clamps.
STEP 2		Connect the 12/24V DC power supply to the 'DC Input' terminals. Connect the 12/24V load to the 'Output' terminals. NB The connected power supply must be adequately rated for the load.

STEP 3		Connect the RJ11 cable to the RJ11 port. If the WK-CONNECT is used, connect the opposite side of the RJ11 cable to the WK-CONNECT RJ11 port. The WK-CONNECT punch-down connection can accept up to two CAT5 or CAT6 cables.
STEP 4		Connect the RJ11 cable to the RJ11 port. If the WK-CONNECT is used, connect the opposite side of the RJ11 cable to the WK-CONNECT RJ11 port. The WK-CONNECT punch-down connection can accept up to two CAT5 or CAT6 cables.
STEP 5		Secure the cables with the cable clamps provided.
STEP 6		Replace the covers.

4 Terminating the WK-CONNECT

The WK-CONNECT is used to connect between the WLED150CV1 and the Rako Wired network. The WK-CONNECT must be terminated correctly otherwise the WLED150CV1 will not function. The termination requirements depend on the nature of the installation and the position of the WK-CONNECT within the system.

No TERM - Both jumpers removed
When the WK-CONNECT is not at the end of line. This is usually identifiable by two cables being punched down to the WK-CONNECT.

TERM - Jumper fitted across 1+2 & 4+5
When the WK-CONNECT is the end of line in a daisy chain configuration.

STAR TERM - Jumper fitted across 2+3 & 5+6
When the WK-CONNECT is end of line in a STAR wire configuration.

5 Adding the WLED150CV1 into Rasoft Pro

Once the WLED150CV1 has been installed and connected to the Rako Wired network, it needs to be assigned as a Device in Rasoft Pro.

The following steps assume:

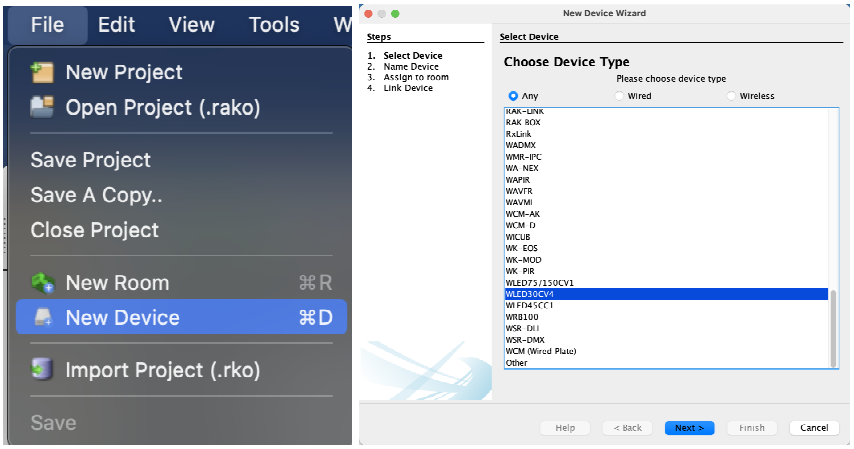
- A Project File has been created.
- Rooms have been added to the Project File.
- Channels have been added to the Project File.
- The HUB has been configured.

If any of the above steps have not been completed, see Wired System Setup Guide.

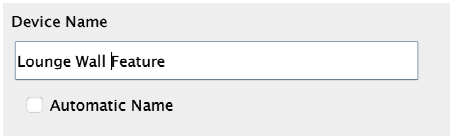
- Connect to the HUB in the communications window by double-clicking it, there will be a green tick to confirm the connection has been successful.



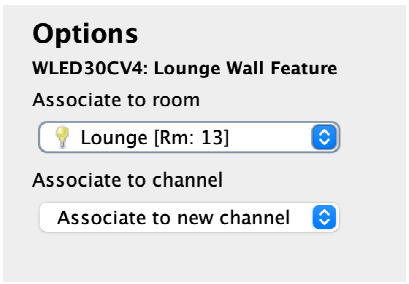
- Select "File" - "New device" to bring up the "New device Wizard" and choose "WLED150CV1" from the list.



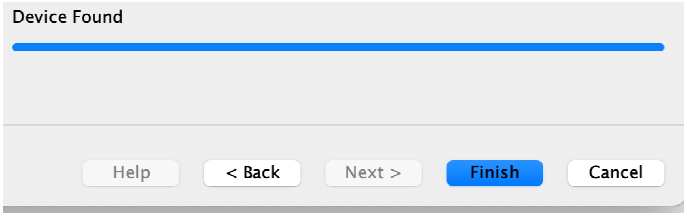
- Choose a Device name, if multiple devices are being programmed it is advised to add a unique description. To assign an automatic name and leave the text field blank, tick the box 'Automatic Name'.



- Assign the WLED150CV1 a Room, and leave 'Associate to new Channel' blank.



- Press and hold the clear button on the WLED150CV1 for 3-4 seconds until it starts to flash, 'Device Found' will appear in the software window.



- Select 'Finish'.

NB

The Rako Wired network must be connected and powered to the WLED150CV1 for pairing to be successful.

The WLED150CV1 has now been added as a Device, the Channel for the Device can be found by selecting the Room it was programmed to.

Appendix 1 - Wiring Examples

A1.1 STAR Wiring

Star Wired systems are connected back to the RAK-STAR unit with individual runs of CAT5 or CAT6 cable, there can be multiple Devices on a single run, although the end of line must be set to 'STAR' at the end of line.

A1.2 Radial Wiring

Radial wiring connects two or more Devices together in a single continuous run, each end of line must have a 'Term' set on the termination jumpers.