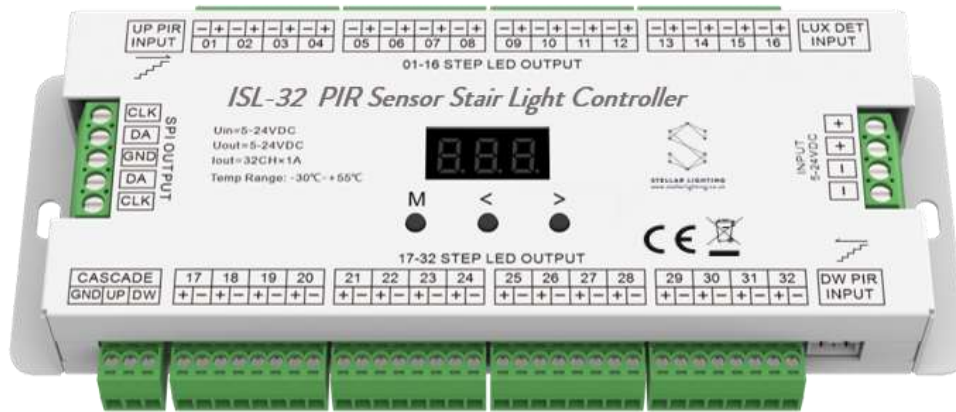




# ILS-32 Intelligent stair light controller Installation Steps



This document explains how to install the ILS-32 Intelligent stair light controller unit.

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### Contents of your set

Your set includes:

- 1 x LED stair light controller
- 2 x standard PIR motion sensors (with 39cm cable)
- 2 x reduced detection angle PIR motion sensor (with 39cm cable)
- 2 x PIR sensor extension cable (5m each)
- 1 x Daylight sensor (with 30cm cable)
- 1 x User manual

### Equipment required for installation

You will need:

- Suitable power supply/supplies
- LED strips / Spotlights – please check compatibility
- Protective profiles
- Screws suitable for your installation and stair lighting configuration
- Adhesive tape or glue to attach motion sensors
- 2 x 0.3 mm<sup>2</sup> or 2 x 0.75 mm<sup>2</sup> wire as required to extend the tails on the stair strips
- Two core flex of sufficient length to reach your mains supply
- Electrical connector blocks
- Electrical enclosure
- Suitable tools for all installation steps for your stair lighting configuration

### Safety notices

DIY tips and safety advice

- Personal protective equipment. Make sure that you are equipped with suitable and sufficient personal protective equipment. This could include eye protection, face mask, protective overalls, safety footwear and gloves.
- Consider your safety! Think about the potential risks and dangers of the work and the steps you should take to avoid them.
- Ensure that the work area is sufficiently illuminated.
- Check that the tools you will be working with are in a good operating condition.

Electrical work safety advice and tips

- Ensure that a 220-240 V AC power source is available.
- An appropriate protective device e.g. fuse or miniature circuit breaker should be installed at the consumer unit. We recommend a 6 A type B MCB for this purpose. If the supply circuit to the stair lights is not dedicated, your electrician can advise on protection arrangements.
- Before undertaking any electrical connection work, ensure the circuit is isolated at the consumer unit by turning off the MCB and, if practicable, locking it in the OFF position. Working live can cause injury and can damage components of your Intelligent Stair Lighting.



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### Step 1: Plan your stair lighting installation (video: 0:11)

1. Familiarise yourself with the controller wiring diagram (included with the product)
2. Decide on the lights you'll be using for your set-up (considering the various modes of the controller):
  - Constant voltage, single colour LED stair light (CV\_Step)
  - Addressable pixel RGB LED side light (SD\_Line),
  - Addressable pixel RGB LED stair light (SD\_Step)
  - Constant voltage, single colour LED stair light + Addressable Pixel RGB LED side light (CV\_Step+SD\_Line)
3. Identify suitable positions for the motion sensors so that they are unlikely to be triggered if someone walks past the stairs and does not enter the stairway. A push-button can substitute or complement the operation of the sensors.
4. Plan the wiring of your lights and motion sensors and how the wires will be hidden. When choosing the correct wiring, consider the controller's specification and the current demand to be placed on your supply system. Wiring of the correct cross-sectional area should be selected to ensure the supply wiring is not overloaded.
5. Ensure sufficient voltage is available to drive the LED strips. Depending on the type and length of LED strips you're using, you might need multiple power injections for the LED strips (both ends and middle)
6. Measure the length of LED strip you require for each step and/or for the sidelight
7. Measure the length of wire required between each LED strip and the controller (the length required will depend on the installation method: CV\_Step, SD\_Line, SD\_Step or CV\_Step+SD\_Line).

### Step 2: Prepare the LED strips (video 0:55)

8. Cut LED strips to size. Do not make cuts other than at the positions where cutting is indicated
9. Wire the LED strips and shrink wrap the connection if soldering was used
10. Don't forget to number the constant voltage LED strips and wires so you can identify which is which when connecting to the controller
11. Test the LED strips by temporarily connecting them to the controller. Set the controller's program to the correct mode, LED strip type and the number of steps and/or pixels. Check all lights come on as expected and therefore that all wire connections are made correctly and sufficient power is supplied



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### Step 3: Prepare the protective profiles (where applicable) (video 1:27)

12. Cut the profiles to size

13. You can secure the profiles to the stairs with screws or double-sided tape

13.1. Option 1: Securing the profiles with screws

- Mark the location of the screw holes
- Drill from the back of the profile
- Remove any metallic swarf and debris from the profiles and wipe them clean to ensure the surface is clean and smooth
- Screw the profiles in place securely.

13.2. Option 2: Double-sided sticky tape

- Clean and dry the surfaces where the double-sided tape will be applied according to the instructions on the tape
- Cut the tape to size
- Apply the tape on the profile
- Apply the profile on the surface

### Step 4: Install the LED strips and wires (video 2:37)

14. Place the LED strips inside the profiles.

15. Hide the wires - the method to be used depends on the set-up of your stairs, the surroundings and your preferences. The wires can be hidden in cable trunking (inside or outside of the wall), behind the skirting board or under the stairs. Consult your electrician for advice on the best way of doing this.

16. Add profile covers by clipping them into the profiles

### Step 5: Install motion sensors (video 3:37)

17. Ensure that the motion sensors are positioned in a way that they are only triggered when someone enters the stairway. If this is not possible, the motion sensor can be substituted with a push-button switch.

18. Hide the wires, as with the wires for the LED strips



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Step 6: Fit the controller and power supply/supplies in their final location (video 3:58)

19. An ideal location is under the stairs or in a cabinet near the stairs. In the demo video, we used a [wall-mounted electrical enclosure](#) with 2 x 12 modules
20. Connect all the LED strips and motion sensor to the controller according to the wiring diagram applicable for your set-up and considering the correct sequence of the lights and motion sensors.
21. Make sure that the + and - wires are connected correctly
22. Important! All electrical work on the controller should be performed with the unit powered down
23. Connect the power supply unit(s) to the control unit
24. Connect the power supply to the mains, according to the diagram on the unit
25. Program the controller