

Plan the installation

For Warm White 3000K, Natural White 4000K and Cool White 6000K strips.

ALWW240L12V / ALNW240L12V / ALCW240L12V

12V DC

Constant voltage

20 W/m

100W per 5m roll

IP20

Dry indoor use

5 Years

Warranty

BEFORE YOU START

Installation should be carried out by a suitably qualified electrician. Isolate the supply before cutting, connecting or handling wiring. Check the strip for damage, loose components or oxidation before fitting.

Plan a clean, smooth and dry mounting route away from moisture and splashes. At 20W/m, an aluminium profile is recommended to dissipate heat. Use a profile with space for the 10mm PCB.

SELECT THE 12V DC POWER SUPPLY

Use a regulated, constant-voltage 12V DC LED driver. The supplied manual requires the full connected strip load plus 30% headroom. Allow for any driver derating in its installation instructions.

Connected strip	Strip load	Approx. current	Minimum driver rating
1 metre	20W	1.67A	26W
3 metres	60W	5.00A	78W
5 metres	100W	8.33A	130W

Calculated at 20W/m and 12V DC. Minimum driver rating = connected strip watts × 1.30. For several runs, add their loads before calculating headroom.

CONNECT ADDITIONAL RUNS IN PARALLEL



Original single-colour wiring illustration from the supplied manual. Use a 12V DC driver for this range; keep each strip run within 5m. Size the driver, cable and connections for the total load.

Match + to + and - to -. Individually insulate unused end wires. If dimming is required, use a compatible 12V DC single-colour dimmer rated for the connected load.

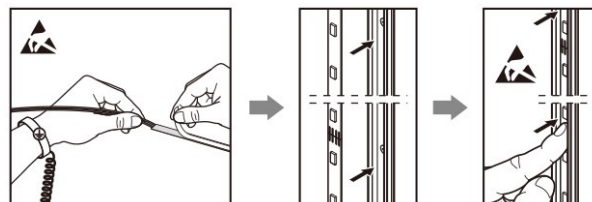
Never connect this strip directly to 220-240V AC mains or a 24V output.

Fit, cut and connect

Wear suitable anti-static protection when handling the strip. Keep power isolated.

01 Prepare the profile and fit the strip

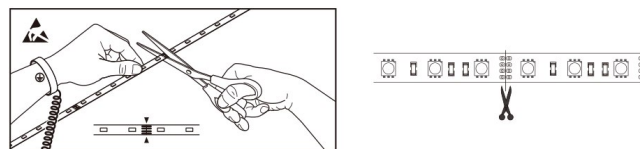
Clean and dry the mounting surface, removing dust, grease and sharp edges. Peel the liner from the 3M Tape gradually and press the PCB gently into position. Avoid pressure on LEDs, resistors and solder joints.



Handle the strip by its edges and support it along the route.

02 Measure and cut only at the marked pads

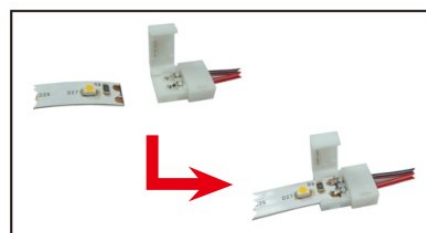
This range cuts every 3 LEDs: 12.5mm (1.25cm). Measure the required length, lay the strip flat and cut squarely at the printed cut mark. Do not cut through LEDs or unmarked sections of PCB.



The source illustration shows the cutting method; LED spacing varies.

03 Join the strip with a suitable connector

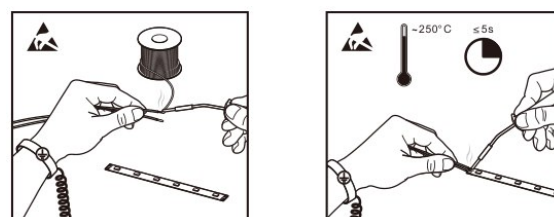
Use a 10mm, two-pole single-colour connector compatible with this dense PCB and rated for the load. Seat the copper pads correctly, match the polarity and check the connection is secure. Support the cable so it cannot pull on the strip.



Check fit and current rating before choosing a connector.

04 Solder only where required

The supplied manual specifies an iron temperature no higher than 250°C and contact for less than 5 seconds. Use anti-static protection. Keep the + and - pads separate and insulate the finished joints.



Source artwork is retained to show the installation method; it is not an exact drawing of the 240 LEDs/m product.

Support, protect and check

Handle the flexible PCB gently throughout installation to protect its solder pads.

UNREEL AS YOU FIT - SUPPORT LONG LENGTHS



Avoid loose, unsupported strip

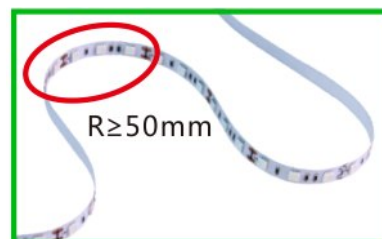
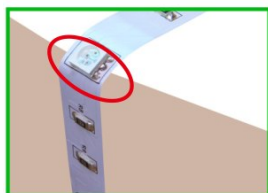
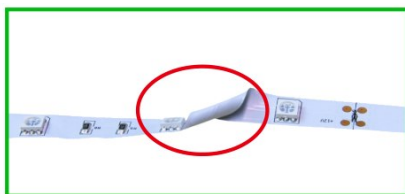


Support while unreeling

Use two people for long lengths. Unreel only the length being fitted and keep it supported so it cannot tangle, collide with objects or be crushed.

Do not pull the strip by its cable or let its weight hang from a joint. Before applying power, uncoil the strip fully and lay it out or mount it in the profile.

BEND GENTLY - NEVER KINK OR TWIST



Minimum bend radius: 50mm. Bend along the flexible length without stressing components.

Avoid twisting, kinking and folding over sharp edges.

FINAL CHECKS

1. Verify 12V DC output, correct polarity and adequate driver capacity.
2. Check each run is no longer than 5m; additional runs are fed in parallel.
3. Check connections, insulated end wires, cable support and heat dissipation.
4. Test the installed strip and any dimmer before completing covers and finishes.

Environment: IP20, dry indoor locations. Operating temperature: -25 to +60°C. Store dry at -40 to +80°C. The current product packaging supplies these temperature ratings.

Based on the supplied Low Voltage LED Strip Manual (printed pages 1-4), with ATOM LED packaging and merchant-confirmed range details. Original source illustrations are reproduced for installation guidance. Revision: 22 September 2026.