

VALIO™

24V LED STRIP

Installation Instructions

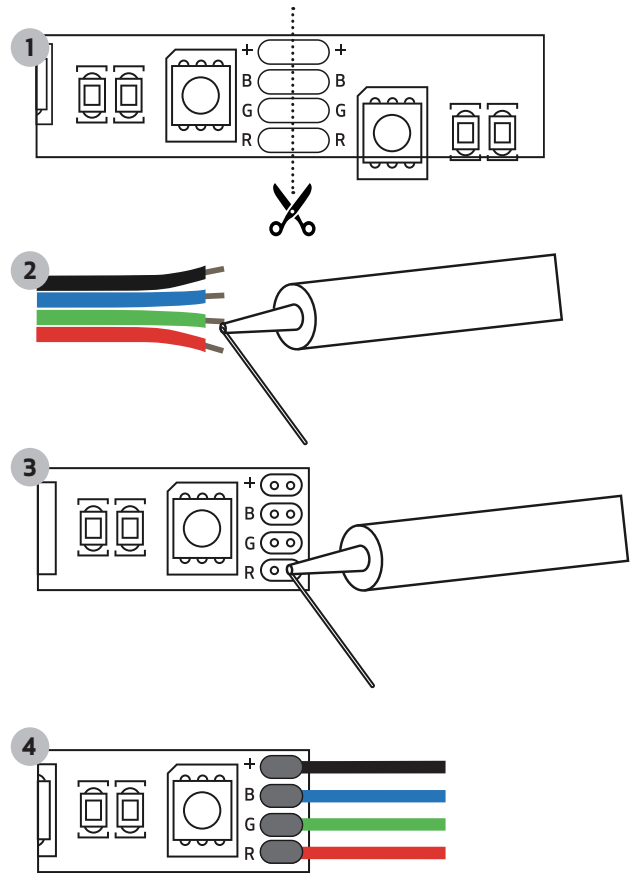
BY **M-ELEC**

INSTALLATION INSTRUCTIONS

DIRECT SOLDER INSTALLATION INSTRUCTIONS

PLEASE NOTE: There are several ways to install and connect LED strip. We strongly suggest using the 'Direct solder' version whenever possible for the best connection method and long-term reliability.

1. Measure the exact length required for your LED strip (please note any cuts necessary are only available on various lengths of the strip. Allow some space for this and your connection. Both items will take up space).
2. Measure and cut your LED strip on the appropriate cut locations (Pic 1). DO NOT cut on any other position or you will destroy components and the strip will not operate. Use scissors or a sharp, straight edged device. Do not use pliers or side cutters.
3. To prepare for soldering the tail/cable onto the strip secure it using a piece of masking tape to a suitable surface.
4. Pre-strip approximately 2-5mm your cable ends and twist them.
5. Tin your tail/cable in preparation for soldering directly onto the strip by putting a small amount of solder onto the end of your hot soldering iron and then touching the end of your cable ends. You should only have enough solder on the end of the cable to cover the strands, not large 'drips'. Pic 2
6. Tin the copper dots on the LED Strip by getting small amounts of solder on your hot solder iron tip and then touch the copper pad. Be sure not to apply so much that the solder is overlapping or bulged, this will cause problems on your strip and/or controllers. Pic 3
7. Ensuring you have the right colours to the right pads, hold each colour cable onto the pad and touch the soldering iron onto the cable/pad until the solder melts and bonds the pad to the cable. Do not over heat the strip by leaving the iron into place for long periods of time. Do not move either the strip or cable until the solder has cooled. Pic 4
8. Check the connections and ensure there is no overlapping or loose pieces of solder or cable. Also ensure that there are no dry/cold solder points which will cause arcing, high temperatures and cross connections. All joints should be strong, secure and clear from debris of any sort. If you are installing the strip into or onto any conductive material (such as M-Elec aluminium profiles) that any joints are protected or insulated.
9. Using either a 9V battery or a power supply, test the strip to ensure its fully operational on all colours. If multi-coloured we suggest only applying power to one colour at a time to ensure each cable does not power up a different colour or more than one colour at a time. Any variations to one colour, one cable are signs of cross connections.
10. Now go to the 'WP (weather protected) strip installation' or 'Indoor LED strip installation' guide

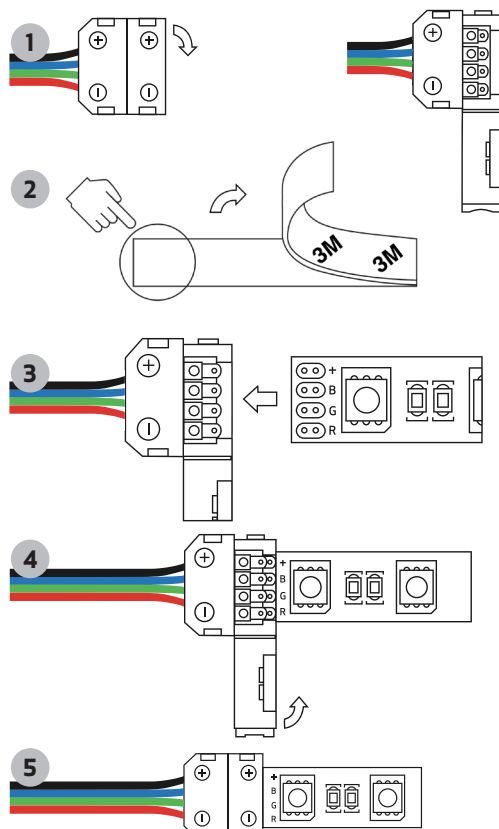


PLEASE NOTE: All strips can use these instructions no matter if they are multi-coloured or single

CLAMPING CLIP INSTALLATION INSTRUCTIONS

The below connection methods are to be used for all colour variations. Please ensure strong secure connections take place as M-Elec takes no responsibility for failed connections due to incorrect installation techniques. Please direct solder whenever possible.

1. Please check to see if there are any defects in the product before cutting or installing. Lay out the lights and connect them to the appropriate power unit. Check to ensure that all the LED's are in working order.
2. Solderless connectors and LED strips are fragile items, please be gentle - both strips and connectors are fragile. The solderless connectors have a plastic housing with connecting pins inside. Open the half of the plastic housing that is on the opposite side of the attached wires by unclipping it from the clasp and rotating it open. Pic 1
3. On every M-Elec strip, there are indicators along each cut line for + (positive) and - (negative) or colours such as RGB. The solderless connectors have coloured cables to keep a connection method for each of these connection points. Pic 2-3
4. Once the strip is cut to its desired length and the solderless connector is open, remove a small amount (5-10mm) of the double-sided tape's cover and then insert the bare strip UNDERNEATH the connectors. DO NOT pull up on the silver connector tabs (the double-sided tape can help keep the connector strongly in place). Pic 2-3
5. Please carefully note the connector and strip direction- rotating the strip over can cause connections to be missed due to the double-sided tape.
6. Close the connector until you hear a snap. Pic 4-5
7. Using either a 9V battery or a power supply, power up the strip. For multiple colour outputs M-Elec suggest only powering one colour up at a time to ensure there are no cross connections and checking colour codes are correct.
8. **IMPORTANT NOTE:** The wires do not have to match up by their colours. If you turn the strip upside down, then the reverse order will take place when trying to light up the strip. e.g. + could be the red wire, blue could be the green wire, green the blue wire, and red the black wire. Just pay attention to where the leads on the STRIP are connecting to. While M-Elec does not suggest this method it can assist making connections easier in some circumstances.

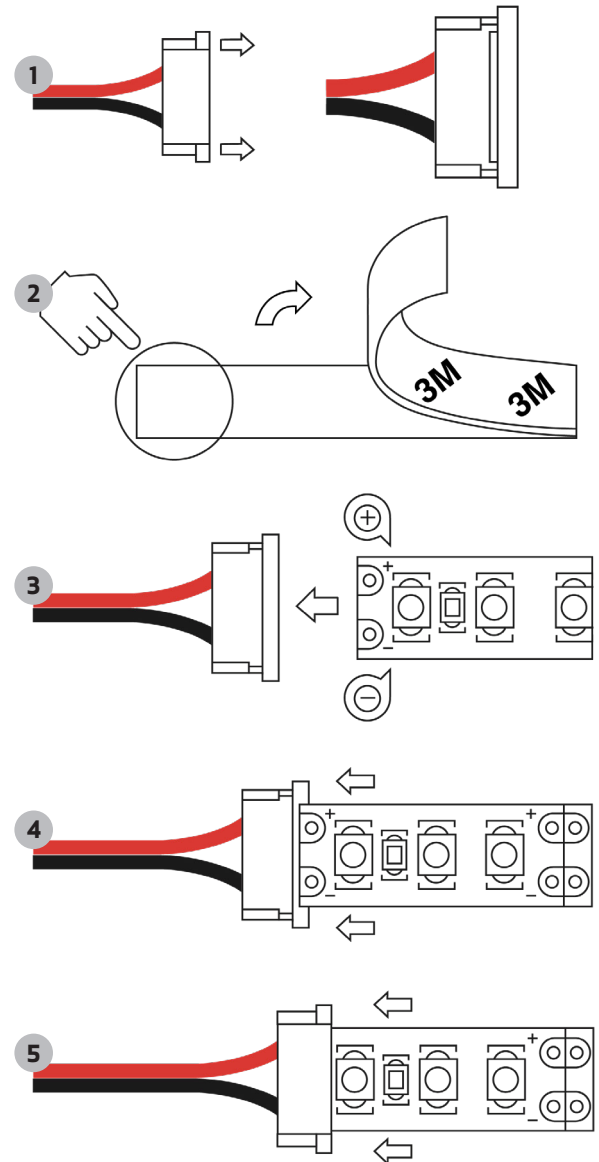


PLEASE NOTE: All strips can use these instructions no matter if they are multi-coloured or single

INSTALLATION INSTRUCTIONS

SLIDE CLIP INSTALLATION INSTRUCTIONS

1. Solderless connectors are fragile, please follow the instructions and whenever possible use direct solder methods (see other instructions). The solderless connectors have a plastic housing with a small black tray on the underside. Pull the black plastic tray out until the trays stops. NOTE: The tray will only pull out approximately 2-3mm. Trying to pull it out beyond this will result in poor connections or breakages. Pic 1
2. On every M-Elec strip, there are indicators along each cut line for + (positive) and - (negative or colours such as RGB). The solderless connectors have coloured cables to keep a connection method for each of these connection points.
3. Once the strip is cut to its desired length and the solderless connector is open, remove a small amount (5-10mm) of the double-sided tape's cover and then insert the bare strip UNDERNEATH the connectors (the double-sided tape can help keep the connector strongly in place). Pic 2/3
4. Once the LED strip is inserted into the solderless connector, close the black tray underneath by pinching the wings on the side of the connector (inward, toward the connector's housing). The LED strip should be snug inside the connector, and the black tray should be back in its original closed position. Pic 4-5
5. Please carefully note the connector and strip direction- rotating the strip over can cause connections to be missed due to the double-sided tape.
6. Using either a 9V battery or a power supply, power up the strip. For multiple colour outputs M-Elec suggest only powering one colour up at a time to ensure there are no cross connections and checking colour codes are correct.
7. IMPORTANT NOTE: The wires do not have to match up by their colours. If you turn the strip upside down, then the reverse order will take place when trying to light up the strip. e.g. + could be the red wire, blue could be the green wire, green the blue wire, and red the black wire. Just pay attention to where the leads on the STRIP are connecting to. While M-Elec does not suggest this method it can assist making connections easier in some circumstances.



INSTALLING THE STRIP

WP (WEATHER PROTECTED) STRIP INSTALLATION

1. Ensure that you have re-installed or sealed the WP strips using suitable sealant and end caps.
2. If you are using an M-Elec LED profile, follow the included instructions. For installation of WP strip into other locations you can use adhesives (such as silicone or Sikaflex) or use the included saddles. Please ensure you select the most appropriate method for your installation. M-Elec suggest the use of their Aluminium profiles for fast, safe and easy installation.
3. When using the saddles or an adhesive please ensure you do not pierce or cut the WP sheath protecting the LED strip. Any cuts or holes in the WP sheath break the strips IP rating.

INDOOR LED STRIP INSTALLATION

1. Always start by ensuring the surface you are about to stick to LED strip to is clean from any debris, oil or any other type of item that would prevent long term adhesion.
2. If you are using an M-Elec LED profile, follow the included instructions included. M-Elec suggest the use of their Aluminium profiles for fast, safe and easy installation.
3. Start the process by peeling off a small amount (approximately 300mm) of the double-sided tape. Stick this portion to the surface starting at the end of the strip and working to the opposite end. Only push down on the strip, never push along the components as this could break them.
4. Stick only portions down ensuring that its straight and the double-sided tape is getting even adhesion to the surface
5. Never turn corners greater then 30 degree's over 1meter to prevent any components becoming disconnected from the PCB.
6. Extra tip: For 90-degree corners, use a curve connector or 2 of the included strip to power connectors soldered together. Simply make a hole and push up any excess cable not required on the corner to get the strip as close together as possible.

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Version 1