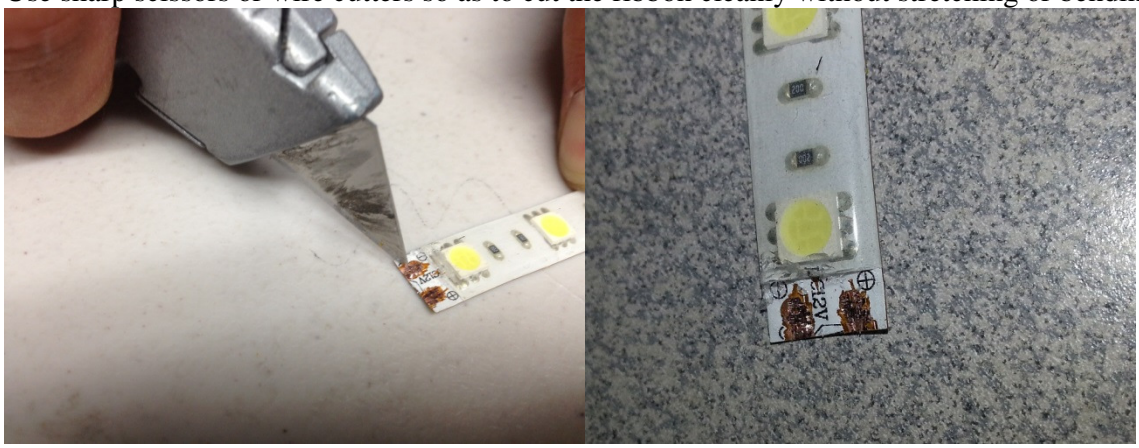
Ribbon Strip 10mm (2-Contact) Connector Instructions

These plastic 1-door connectors (for 10mm ribbon) eliminate the need to solder.
Carefully & gently pry open the plastic door using the edge of a knife or flat screwdriver.

Instructions

1. We recommend testing your ribbon before installing it. That way you can be sure your power supply and ribbon strip work together and you understand exactly how it will work. Occasionally, it happens that a customer inadvertently damages a reel of ribbon strip. Damaged sections may be cut out and spliced.

2. Ribbon strips may be cut ONLY on the lines with images of scissors, on the golden contacts, or just to one side of the contacts (as seen below). The contacts/scissor marks are located about every 2" for most models. Use sharp scissors or wire cutters so as to cut the ribbon cleanly without stretching or bending it.



For waterproof models: the silicone sealant must be stripped back about 1/4" from the cut point to expose the contacts and allow the plastic door to close without getting caught on the remaining silicone. Then, the contacts must be scraped clean of all debris and any circuit board varnish stripped to the point that the contacts appear like brushed gold (the blade of a knife held perpendicular to the ribbon, pushed down on the contacts and repeatedly scraped toward the end of the strip works well for this). Avoid over-stripping or damage to circuits.

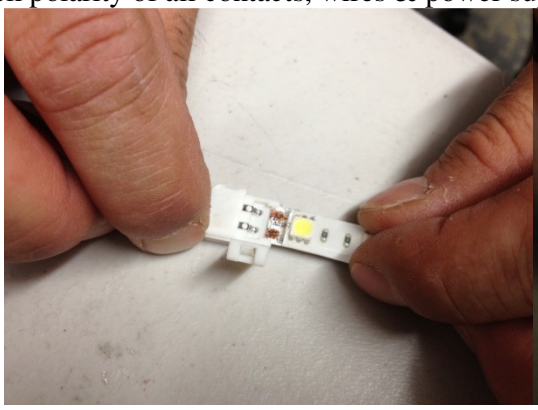
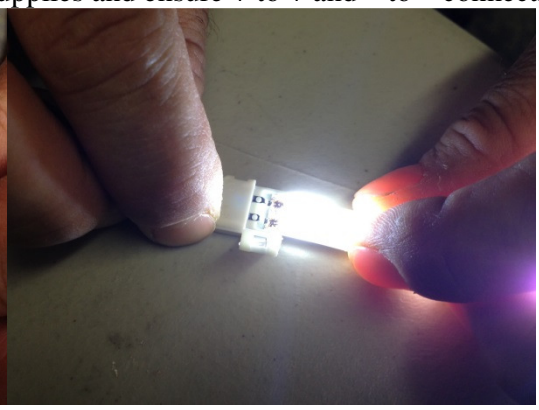
3. Illustrations in this guide are for 2-contact (5050 SMD) ribbon strips using 2-wire connectors.

On 2-contact 5050SMD ribbon strips, there is a +12 Volt and -12 Volt trace on the ribbon, clearly marked. Observe correct polarity or the diodes won't light. Don't worry, it won't damage the LEDs if reversed on the DC side. Just switch the wires to the correct polarity & they should light.

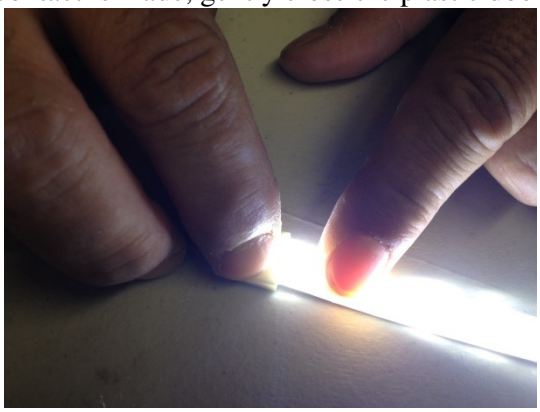
4. Ribbon strip connectors can be ribbon-to-ribbon or ribbon-to-cable for connecting ribbon to your power supply, or to another ribbon with wires. Splice connectors can be used to repair a cutting mistake or if you want to join two reels. If you accidentally cut the ribbon strip between cutting marks instead of on the marks, that segment is ruined and will need to be cut on either side of the errant cut & spliced to restore functionality.

5. For the connectors to work, the gold contacts must be face up. Fold back the 3M glue protector about ¼" & slide the circuit board into the slots of the connector & then under the contact hold downs. Note: if you have difficulty getting the board to slide all the way under the hold downs, gently (and barely!) raise the end of each hold down, less than 0.25mm, and try again. You should test the contact efficacy by connecting to a 12VDC power source.

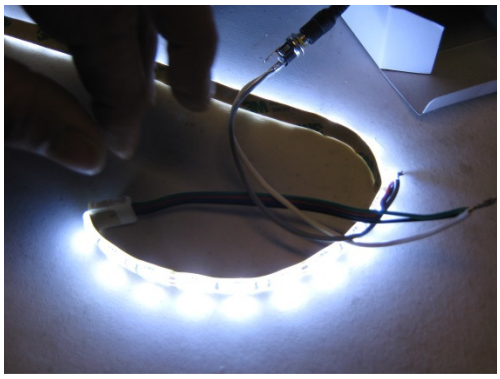
6. If the LEDs do not light, try sliding the ribbon forward & back a bit with the power applied and/or try closing the plastic door to ensure the contact hold downs are touching the contacts & watch for light to come on.
Check polarity of all contacts, wires & power supplies and ensure + to + and – to – connections.

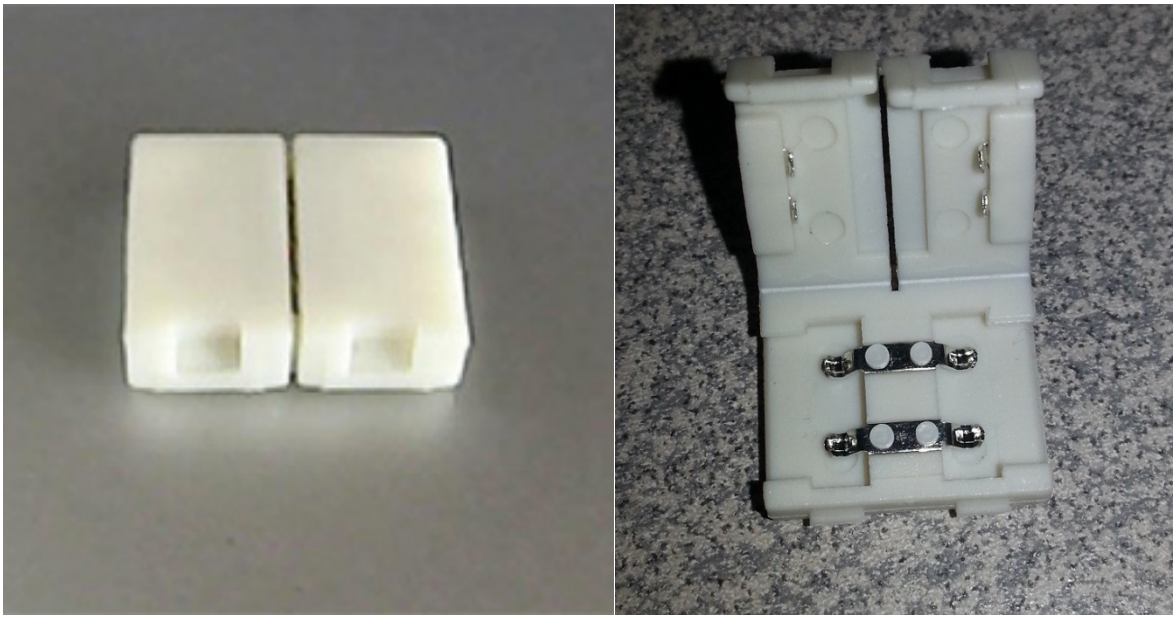
7. Once good contact is made, gently close the plastic door until it makes an audible click.




8. This connector will hold the ribbon and make a solid electrical connection as well. Check to be sure the ribbon is tightly secured by **gently** tugging it to make sure it doesn't pull out easily & LEDs still light.
Note: For outdoor locations, a small amount of clear silicone may be applied around all the connector seams to ensure waterproof connections.



9. If splicing with 2-sided connector (as seen below), repeat for the other side and you will have a splice:



Troubleshooting Tips:

On the 5050SMD ribbon with 300 LEDs, the LEDs are just 0.75" apart making the space for the connector somewhat limited. So, care should be taken not to damage the circuit board or the 1st diode of each run. It is important NOT to cut the ribbon strip too close to the 1st diode near where you will attach the connector. You need to leave enough room for the door to close easily while the contacts still touch the scraped areas on the circuit board. So, take care to cut right on the scissor lines.

If LEDs do not light:

Check polarity.

If LEDs flicker:

Check to be sure all the shellac has been scraped off the circuit board where the contacts touch it.

If LEDs light but turn off when door is closed:

Be sure you have stripped enough silicone off so the door closes easily.

Move the ribbon back from the 1st diode far enough so the door is not hitting or damaging the diode.

If ribbon position is changed, re-check the location of the contacts in relation to the scraped areas.

Scrape additional areas as needed to achieve absolute contact between the contacts & the scraped areas.

Note: It is recommended to put a bead of clear silicone down each side of the ribbon strips once they are working & held in place with the 3M tape.