SPT Prewired LED Light Strip

Installation Instructions for either 14V or 28V
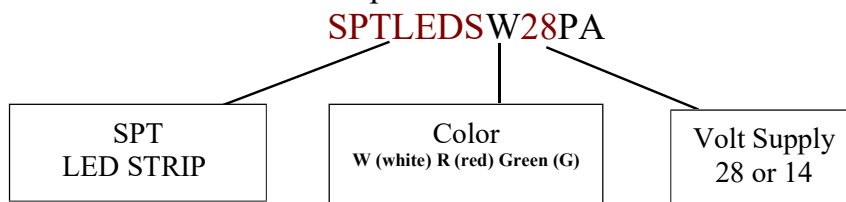
IMPORTANT: See primer instructions at the end for best adhesion.

Thank you for your purchase of Superior Panel Technology's LED Strip. You will find that the SPT LED Strips provide a very nice white, red or green, fully dimmable lighting that significantly improves the lighting of a cockpit. When used under a glare-shield, the SPT LED Strip will improve the visibility of instruments, nomenclature of switches, breakers and will aid in the reading of charts and maps. The flexible SPT LED Strip can also be used to light up other areas such as baggage compartments or under-the-seat lighting to illuminate the floor.

The installation tips listed below are for installing the SPT LED Strips under a glare- shield. Similar procedures are used when placing it in other areas.

1. The source of power should be protected by a two amp circuit breaker or fuse. We recommend the use of our pulse-width-modulating dimming kit (part number SPTPWMLEDS) for smooth continuous dimming of the lamps. Use a dedicated dimming circuit for the LED Strips for optimal light control.
2. SPT makes red, green, and white kits for both 14 and 28 volt systems. Verify that you have the correct kit by looking at your part number.

Part number specs are as follows
SPTLEDSW28PA

SPT LED STRIP	Color **W (white) R (red) Green (G)**	Volt Supply 28 or 14

Supply voltage wiring: The RED wire is for input (+) voltage. Connect the BLACK wire to a secure aircraft ground.

3. The LED Strip Lamps come with 18" leads. Place 1/8" heat shrink tubing on the section of wires from the lamp to the through hole in the instrument panel "the short section that will be visible from the underside of the glare-shield".
4. Drill a 1/4" hole in the appropriate place for the wires to pass through the panel. This is normally centered near the top of the panel. Use caution when drilling through your panel. Nothing will ruin your day more than accidentally drilling though a rigid oxygen line or wire bundle. If you are drilling through an overlay, be sure to hold it down while drilling to prevent it from cracking. A thin peace of wood with the 1/4" hole drilled in it can be used as a guide to protect the panel, keep the bit from walking and hold the overlay down. The best bit for this operation is a Unibit step bit.

5. You need to temporarily position the LED Strip under the glare-shield and mark its footprint. Do this by placing it under the glare-shield and tape it down with masking tape. Place masking tape around the outside perimeter of the SPT LED Strip. Remove the LED strip.
6. Break the barrier in the ampoule by pressing at the round dot. Shake the ampoule. Then coat the masked area liberally with adhesive primer (see picture below). Allow the primer to thoroughly dry (10-20 minutes).
7. Remove the release liner on the LED Strip and adhere it to the glare-shield using the masking tape as a guide. The tape is pressure sensitive, see below. NOTE: It is recommended that a <u>very small dap</u> of adhesive (Poly-Bond, Gorilla Glue or other adhesive/sealant) be applied to the ends and center (on the black heat shrink).

Follow the surface preperation steps below to obtain best adhesion:

1. Shake well the 3M 94 Primer before using.
2. Press primer tip and rub vigorously onto surface and let dry thoroughly (10-20 min).
3. Firmly press the LED strip down to the bonding surface. Use a stiff piece of plastic and press firmly between the LEDs. We have found that pressing the LED strip down a second time after about 30 minutes helps to secure the strip.
4. Maximum adhesion is achieved after <u>72 hours.</u>

Additional tips:
- Leave a service loop of the wire on the backside of the panel where it passes though the top of the panel.
- Although flexible lengthwise, the SPT LED Strips will not make compound curves. Take your time to temporarily position the strips first with masking tape before applying the adhering them permanently into place.

This image shows the SPT Glow Strips. The SPT LED Strip would look similar.