



RV



Read this manual before installing or servicing this product. Failure to follow the instructions and safety precautions in this manual can result in personal injury and/or cause the product to not operate properly.

SPECIFICATIONS

Mounting Options:	a) LED light strip is mounted in the roller tube. The power harness is concealed in the canopy hem. b) LED light strip is mounted at the awning rail. Requires special canopy with integrated strip holder	
Length:	Available for awnings 10' – 21'	
	<u>White LED:</u>	<u>Color LED:</u>
Power:	1A, 12Vdc	2A 12Vdc
Colors:	a) Bright White 6000K (standard) b) Warm White 3000K (OEM option)	RGB (with variable color control)
Controls:	a) Single pole, single throw switch (SR0101) b) Lighted single throw switch (SR0111) <i>Note: For an installer furnished switch, see notes in "Switch Installation " on page Error! Bookmark not defined.</i>	IR (infrared) Remote and Controller Kit (SR0109)
<i>Note: Aftermarket upgrade kits from Carefree use RF remotes and controllers for white and RGB installations. These controls are not interchangeable with the factory installed controls.</i>		

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This manual covers LED lighting applications used with box awnings. For vertical arm awning applications, refer to 052584-301 “LED Service Manual for Vertical Arms” available on-line at www.carefreeofcolorado.com

PROPRIETARY STATEMENT

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The information contained in this manual pertains to the current configuration of the models listed on the title page. Earlier model configurations may differ from the information given. Carefree of Colorado reserves the right to cancel, change, alter or add any parts and assemblies, described in this manual, without prior notice.

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SAFETY INFORMATION



This is the safety alert symbol. It is used to alert individuals to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible personal injury or death.



Indicates a hazardous situation, which if not avoided, could result in death or serious bodily injury.



Indicates a hazardous situation, which if not avoided, may result in minor or moderate bodily injury.



Indicates a situation that may result in equipment-related damage.

General Safety:



Shock Hazard. Always disconnect battery or power source before working on or around the electrical system.



Always wear appropriate safety equipment (i.e. goggles).



Always use appropriate lifting devices and/or helpers when lifting or holding heavy objects.



When using fasteners, do not over tighten. Soft materials such as fiberglass and aluminum can be "stripped out" and lose the ability to grip and hold.

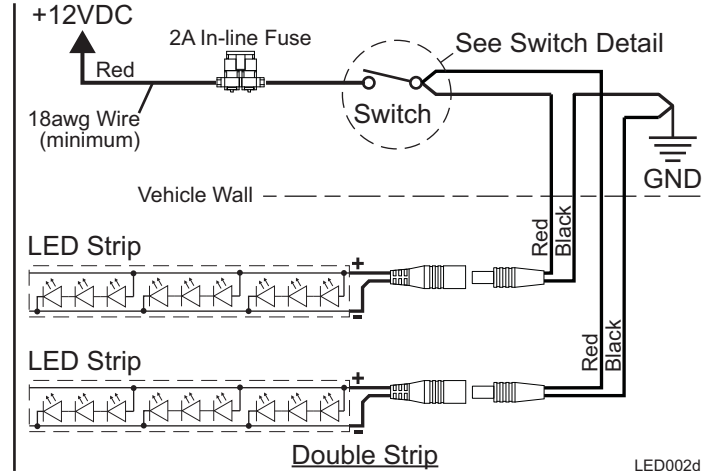
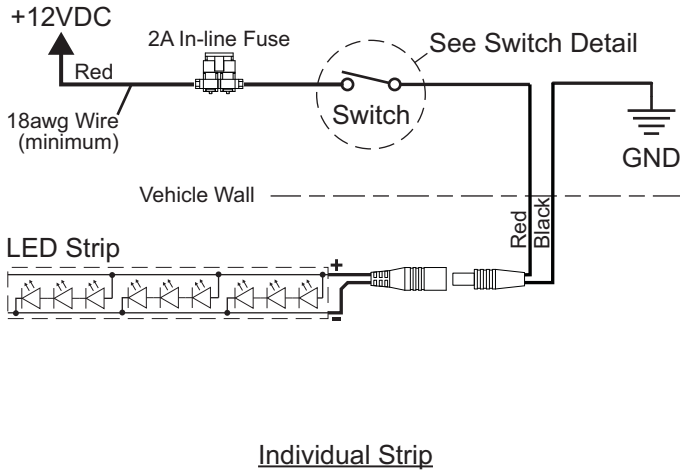
CALIFORNIA PROPOSITION 65



This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm. California's Proposition 65 requires this warning to be given to customers in the state of California.

SWITCH AND POWER INSTALLATION

WHITE LED



LED002d

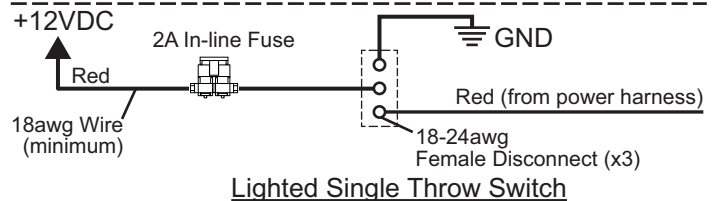
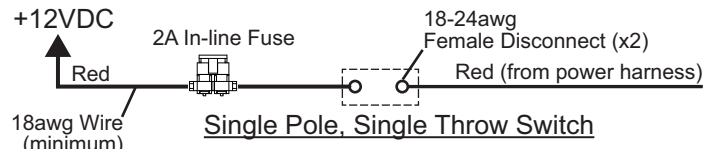
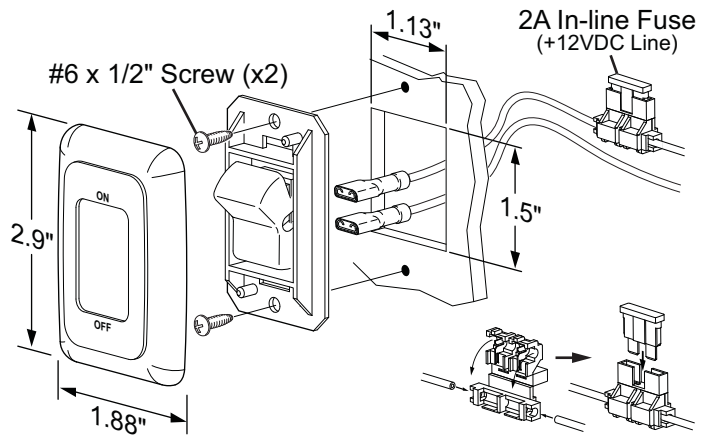
NOTE: Installers may choose to furnish the control switch. The installation requires that the power line (+12VDC) be attached to a dedicated 2A circuit breaker or a 2A in-line fuse must be installed between the switch and power source. For easy access, locate the fuse close to the switch.

The following steps describe the switch and fuse installation using the switch and fuse kit available from Carefree.

1. Determine the location of the switch.
2. At the switch location, cut a 1 1/8" x 1 1/2" hole.
3. Wire the switch as shown below. Wire terminals at the switch are .187, 18-24 awg female disconnects.

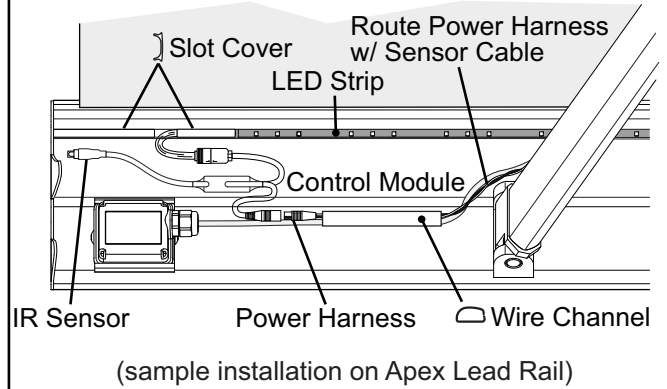
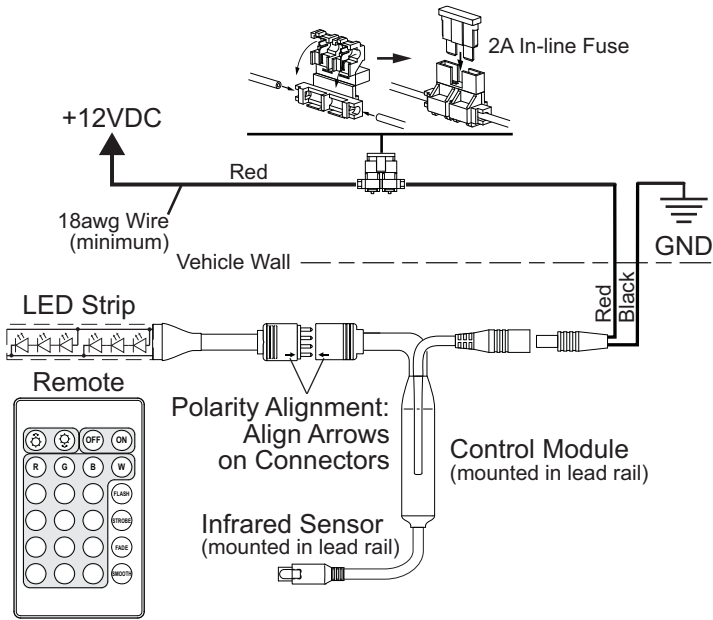
NOTE: Allow adequate slack in the 12VDC power line so that the in-line fuse (installed in step 4) can be accessed from behind the switch.

4. Install the in-line fuse:
 - 4.1. Near the switch, cut the red 12VDC power line to the switch. Do not strip the insulation.
 - 4.2. Insert a wire end into one of the wire channels until it butts up against the stop.
 - 4.3. Fold that half of the connector body over until the element contacts the wire. Use pliers to crimp the connector closed.
 - 4.4. Repeat for the second wire end.
 - 4.5. Slide the fuse into the fuse port. Ensure that is firmly seated.
5. Press the in-line fuse, wires and switch into the mounting hole. Secure the switch using two (2) #6 x 1/2" screws.
6. Snap the switch bezel over the switch frame.



LED002b

RGB LED (OEM OPTION)

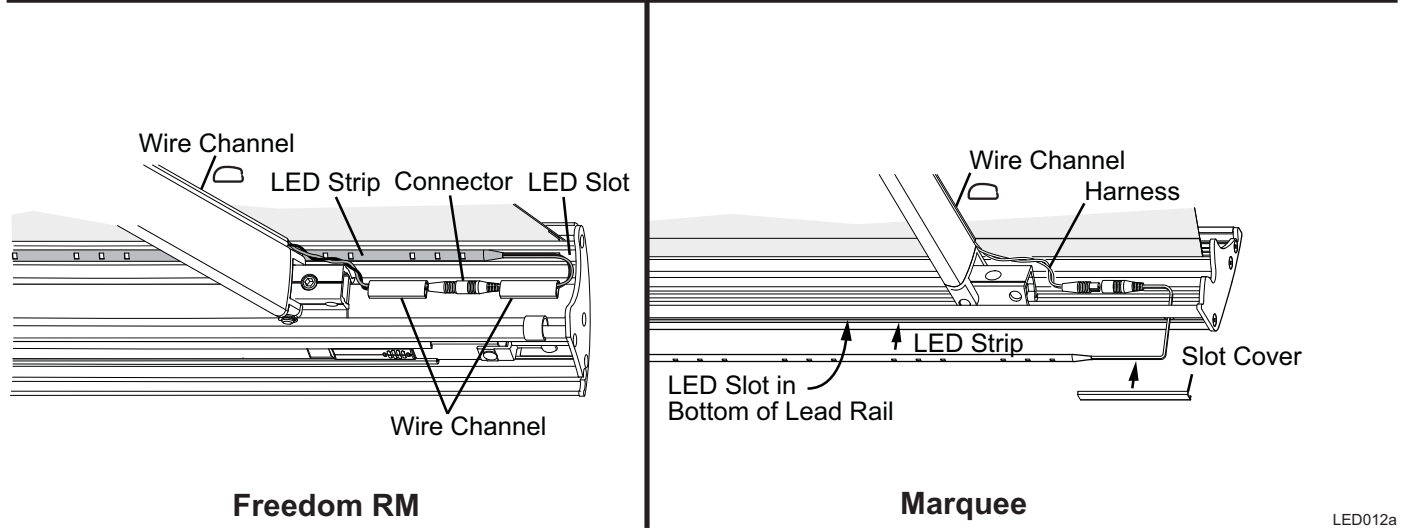
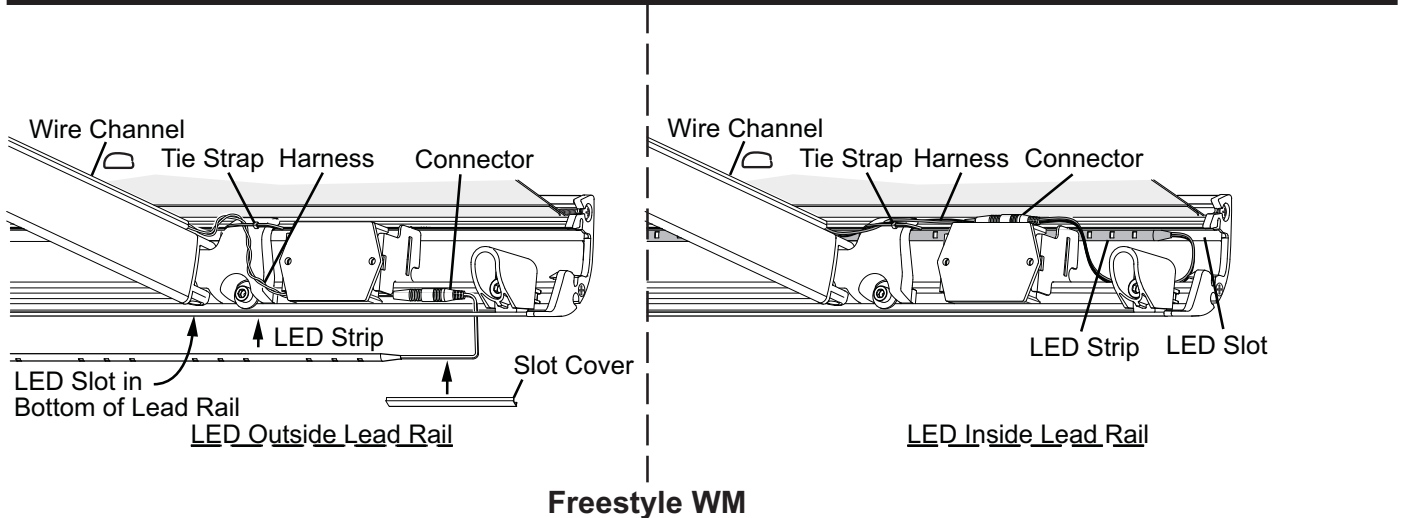
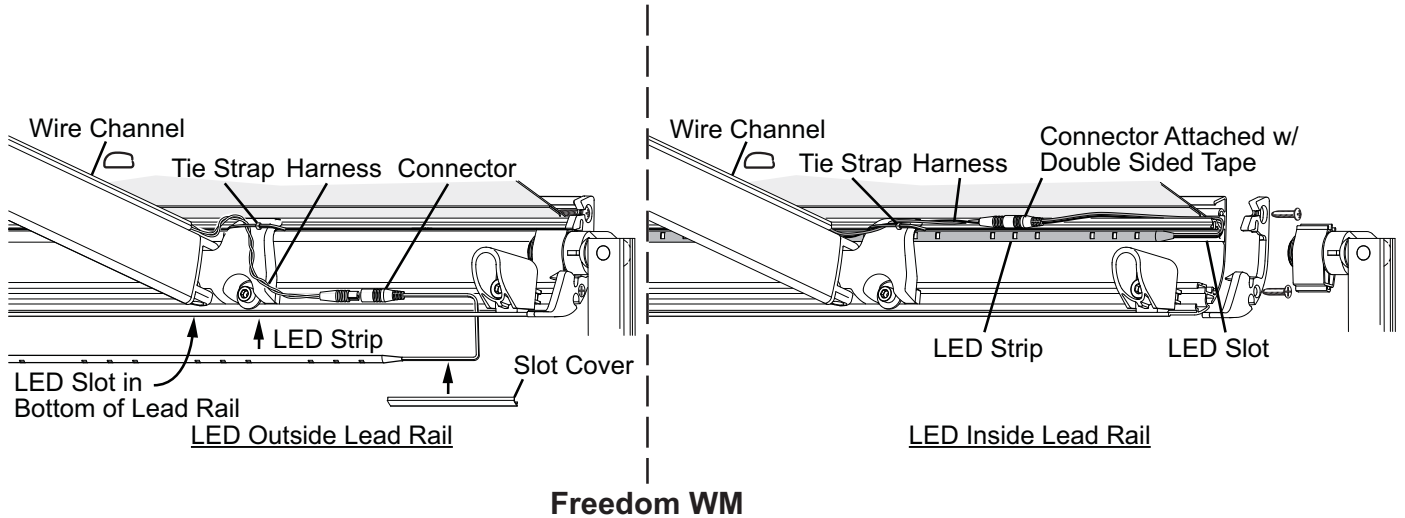


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AWNING LED LAYOUTS

SMALL BOX AND MARQUEE LED LAYOUTS

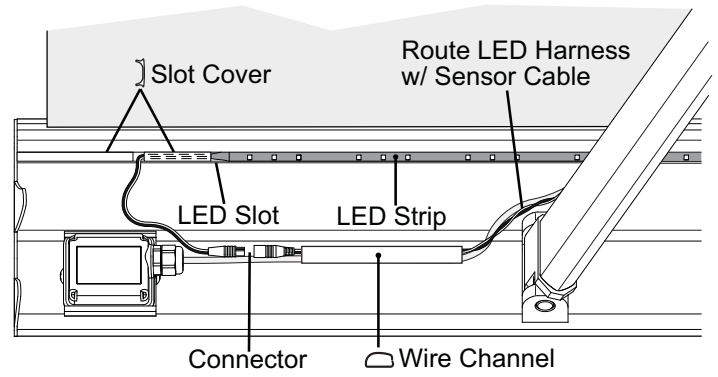
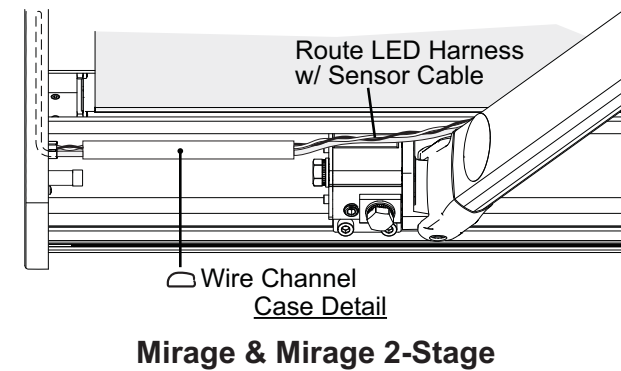
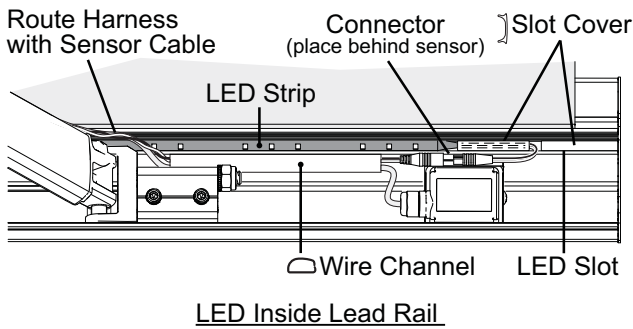
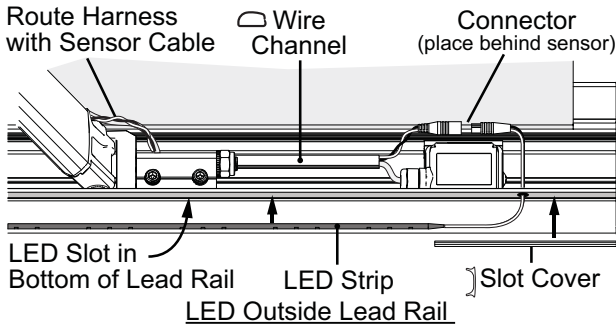
These illustrations show the basic LED layout for the Freedom WM, Freestyle WM, Freedom RM and Marquee. Refer to the next page for big box awnings.



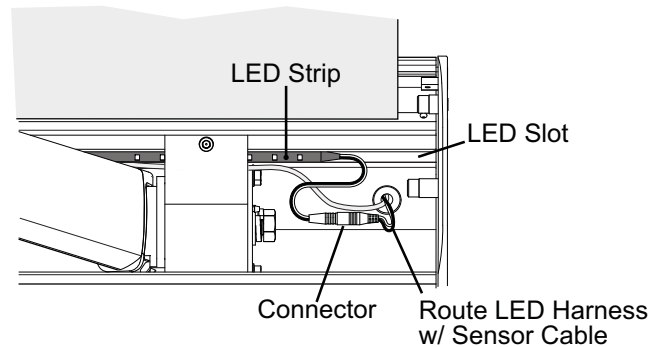
LED012a

BIG BOX LED LAYOUTS

These illustrations show the basic LED layout for the Mirage, Mirage 2-Stage, Apex and Paramount. Refer to the previous page for small box awnings.



Apex & Paramount Lead Rail



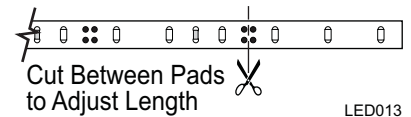
Paramount Case LED

LED012b

REPLACING THE LED STRIP

Refer to the appropriate awning LED layout illustrations on pages 2 and 3.

1. Extend the awning out completely.
2. Disconnect power to the awning and LED strip.
3. Use a non-permanent marker to mark the location of the ends of the LED strip.
4. If installed, remove the slot covers from the ends of the LED strip and set aside.
5. *For Freedom WM with LED's inside the lead rail:* Remove the lead rail end plate and support leg.
6. Disconnect the LED strip connector.
7. Remove the existing LED strip.
8. Clean the slot to remove any dirt and tape residue.
9. *For LED's inside the lead rail:* Thread the LED strip behind the arm/lead rail connectors before pressing the strip into the slot.
10. Starting at the reference mark made previously, remove the release paper from the back of the new strip and press the strip into the LED slot.
11. At the end of the LED slot, cut the LED strip to match the mark made previously. To trim the LED strip, always cut between the 4-pad cluster as shown.



⚠ CAUTION Ensure that power is off to the LED strip. Cutting the strip with power on can short the LED strip.

12. Route the wires as shown and connect LED and harness connectors.
13. Install the slot covers and other parts that were removed previously.
14. Restore power and test.

WIRE HARNESS REPLACEMENT

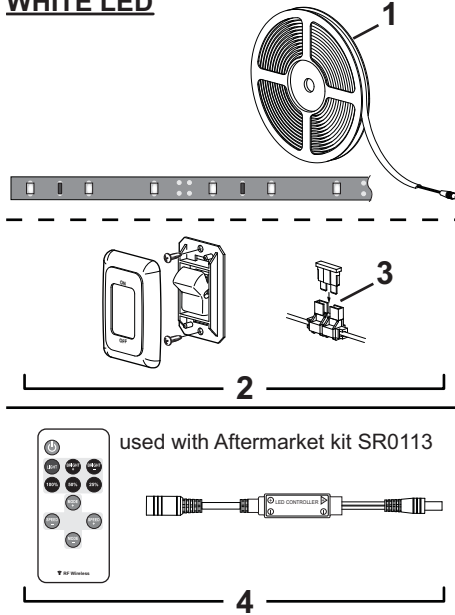
(refer to the illustrations on pages 2 and 3)

1. Extend the awning out to access the inside of the case or lead rail as required.
 2. Disconnect power to the awning and LED.
 3. Separate the LED connectors.
 4. *For lead rail LEDs:*
 - 4.1. The wire is routed along the top of the arm. Remove the harness from the arm channels.
 - 4.2. At the case, clip the harness and clamp the harness at the case to prevent it from falling in the vehicle wall.
 - 4.3. Connect the new harness to the LED strip.
 - 4.4. Route the harness through the wire channel in the arms. At the arm joints, arch the cable slightly to avoid binding.
 5. *For all LEDs:*
 - 5.1. Route the new harness through the case and vehicle wall to the switch.

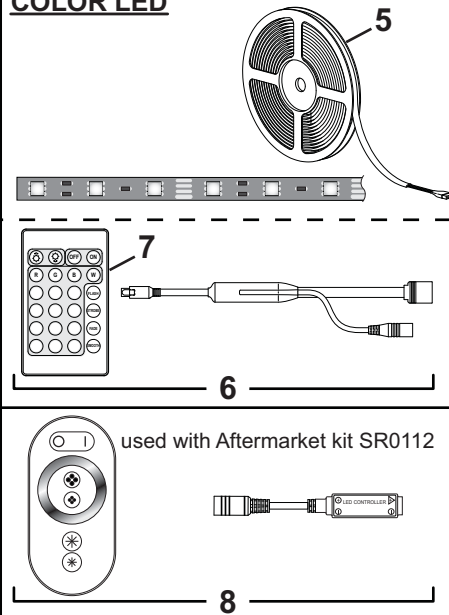
Tip: Tie the new harness to the old harness that was cut previously. Use the old harness to pull the new harness through the wall to the desired location.
 - 5.2. Seal the entrance hole and harness with a quality silicone sealant.
 - 5.3. Connect the new harness to the switch. Two (2) .187, 18-24 awg female disconnects are provided if connecting to a switch.
 - 5.4. Alternate method: At the wall, splice the new harness to the existing harness using 24 awg butt connectors. Push the connectors into the vehicle wall. Seal the entrance hole and wires with a quality silicone sealant.
- NOTE:** Be sure to allow enough harness from the arm to provide a slack in the harness and adequate length for the connectors to be pushed inside before sealing the hole and harness with a quality silicone sealant.

LED COMPONENTS

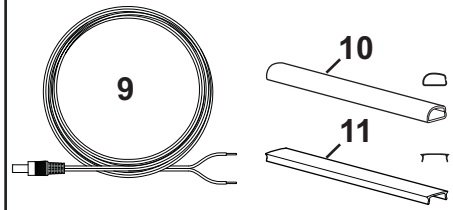
WHITE LED



COLOR LED

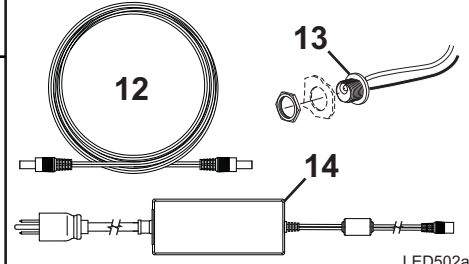


Factory Installed Power Harness



External Power Harnesses

(used with Aftermarket kits SR0112 & SR0113)



LED502a

Item	Part Number	Description	Notes
1a	R001714	LED Strip, Bright White 6000K 16' Length 8" Lead 30 LPM	7
1b	R001715	LED Strip, Bright White 6000K 16' Length 26" Lead 30 LPM	6,7
1c	R001736	LED Strip, Bright White 6000K 49" Length 8" Lead 30 LPM	2
1d	R001735	LED Strip, Bright White 6000K 20' Length 8" Lead 30 LPM	
2	SR0101	Switch and Fuse Kit	
	SR0111	Switch and Fuse Kit, Lighted	
3	R019493-001	Fuse Kit (includes fuse holder and 2A fuse)	
4	R001868	RF Remote and Controller Kit	Used with Aftermarket Kit SR0113 3
5a	R060733-001	LED Strip, RGB, 16' Length 8" Lead	
5b	R060733-002	LED Strip, RGB, 16' Length 26" Lead	6
6	SR0109	IR Remote and Controller Kit	RGB
7	SR0114	IR Remote	Used with SR0109 (item 6)
8	R001869	RF Remote and Controller Kit	Used with Aftermarket Kit SR0112 3
9a	R001718	Harness w/ Bungee	used with canopy with metal wrap
9b	R060740-001	Harness, Twisted, 24awg, 16' Length	
9c	R060718-001	Harness, Twisted, 24awg, 22' Length	Used on Big Box Awning
10	R040616-206	Wire Channel	43" Length
11	R001716	Slot Cover	24" Length
12	R060724-001	Power Cord, 12V	External Power Supply
13	R060275	Power Socket, 12V	External Power Supply
14	R060725-001	AC/DC Power Supply 110AC to 12Vdc	External Power Supply
15	SR0113	White LED Upgrade Kit	Not Shown 4
16	SR0112	RGB LED Upgrade Kit	Not Shown 5

- Notes:
- LED strips (items 1 & 5) are sent on rolls and cut to length during installation.
 - Item 1c (LED Strip, White, 49" Length) is used for Marquee awnings 66" or shorter.
 - RF remotes are not available separately. It is necessary to replace the remote and controller.
 - White LED upgrade kit (SR0113) contains items 1b, 4, 12, 13 & 14.
 - RGB LED upgrade kit (SR0112) contains items 5b, 8, 12, 13 & 14.
 - LED strips with 26" leads are used for awnings 19' and longer to allow the strip to be centered.
 - Some OEMs may offer alternate white LED's:

Warm White:	R001883	3000K	16' Length	8" Lead	60 LPM
(Yellow)	R001884	3000K	16' Length	26" Lead	60 LPM
Warm White	R001885	2500K	16' Length	8" Lead	60 LPM
(Pink)	R001886	2500K	16' Length	26" Lead	60 LPM
 - White and RGB components are NOT interchangeable.
 - IR and RF receivers and remotes are NOT interchangeable.