

# INSTALLATION MANUAL

# **ADJUSTABLE TRAVEL'R ARMS AND CANOPY**

### RV

# WITH DIRECT RESPONSE



Read this manual before installing or using 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.



The Adjustable Pitch Travel'r with Direct Response is an OEM option only.

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# 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.

NOTICE

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

# General Safety:

WARNING This product can expose you to chemicals including Di-isodecyl phthalate (DIDP), Vinyl Chloride and Formaldehyde, which are known to the state of California to cause cancer or birth defects or other reproductive harm. For more information visit www.P65warnings.ca.gov



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



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



**CAUTION** | 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.

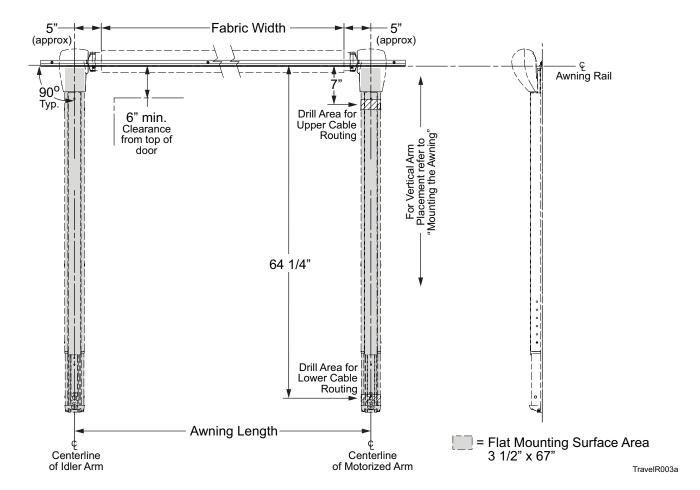
# **PRODUCT OVERVIEW**

The adjustable Travel'r provides motorized awning comfort with Carefree's standards for looks, strength and dependability. It is the successful blend of style, quality and economy.

The awning roller tube and arms are made from light weight, no-rust aluminum. The awning fabric is heavy weight vinyl.

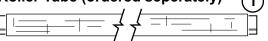
# Travel'r Patio Awning Specifications:

MAXIMUM EXTENSION:		8 foot	MAXIMUM LENGTH:	21 feet	
Рітсн:	FLAT		<b>DROP:</b> approximately 6 inches		
	STEEP			approximately 33 inches	
			Measurement is from centerline of Awning Rail to centerline of roller tul		
MOTOR:		Power: 10VDC-14VDC	Circuit Rating: 15 amp	motor mounted in arm	
Power Source: Motor and controls are		Motor and controls are ro	routed and hardwired into the vehicle's 12V system		
EXTEND ACTUATION: Gas		Gas Shock			
POSITION CONTROL: Motorized roll out/in					
CONTROLLER: Caref		Carefree Direct Response			
Color:	Frame:	White, Black			
	Canopy:	Available in a Variety of fabrics and colors – refer to order sheet			



# **COMPONENT CHECKLIST**

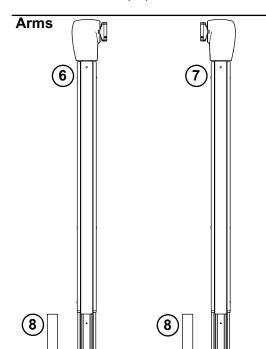


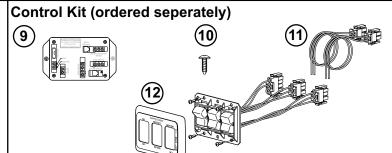












# Remote Control Kit (Optional)

















Travelr002c

abla	☑ ITEM DESCRIPTION				NOTE
	1	Roller tube Assembly	Ordered Separately	1	
	2	Tractioner		2	2
	3	Screw, Truss Head, SQ Drive	#10 x 5/8	2	2
	4	Screw, Hex Washer Head	#6 x 3/8	2	
	5	Screw, Truss Head, SQ Drive	#10 x 5/8	4	
	6	Arm Assembly, LH		1	1
	7	Arm Assembly, RH		1	1
	8	Fascia		2	
	9	Control Box, Direct Response		1	
	10	Screw, Phillips Truss Head	#6 x 1/2	2	
	11	Harness, Power, Motor		2	
	12	Switch Kit, Direct Response (includes bezel and connector harnesses)			
	13	Receiver, RF, 433 MHz		1	
	14	Screw, Phillips Truss Head	#6 x 1/2	2	
	15	Cable	60"	1	
	16	Remote Control Key FOB, 433MHz		1	
	17	Cable	60"	2	
	18	Sensor, Ignition Lock-Out		1	
	19	Splitter		1	

Notes: 1. Awning configuration is specified at time of order, including awning length, fabric, color etc. Check awning assembly against original purchase order. Arms are configuration specific and are not interchangeable.

2. Screws and Tractioners are furnished with roller tube assemblies equipped with optional Alumaguard.

# INSTALLATION

# **REQUIRED PRE-INSTALLATION PREPARATION**

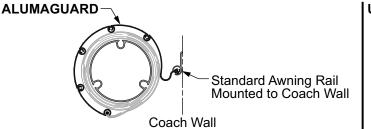
- 1. Park the vehicle on a flat surface and level the unit.
- 2. Check where the awning arms will be installed. The arms fit snug to the side of the vehicle and must not cover or interfere with exhaust vents, lights etc.
- 3. If there is an awning rail installed, check that the awning rail runs the full length of the awning. Please refer to the note under "Installing an Awning Rail" before proceeding.
- 4. Refer to the important note on page 5 about the required positioning of the centerline of the roller tube.
- 5. For the bottom 3 mounting holes: if mounting into structure, use the 1/4 x 1 1/2 screws; if not attaching into structure, use the furnished moly rivets.

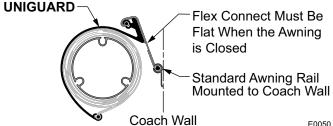
NOTE: The upper mounting holes (all configurations) MUST attach into vehicle structure

### Installing an Awning Rail

NOTE: For canopies WITHOUT Alumaguard or Uniquard: If the vehicle already has a full-length awning rail installed, skip to step 5. The awning rail and arms must be positioned so that any existing trim does not interfere with the awning arm when in the closed position.

<u>For Alumaquard and Uniquard installations:</u> If the existing awning rail is incorporated into the coach trim or a drip rail, it will be necessary to mount a standard awning rail flat on the coach wall. The awning rail and arms must be positioned so that any existing trim does not interfere with the Alumaguard or Uniguard's "Flex Connect" or the awning arm when in the closed position.

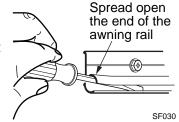




- 1. Determine the optimum positioning of the awning so that the arms will not interfere with the door frame or light fixtures. The centerline of the awning rail should be above the door opening a minimum of 6" for vinyl and 7" for Alumaguard/Uniguard. After determining mounting position, mark the position with a chalk line.
- 2. Awning rail must be level.
- Seal the back of the rail with silicone sealant or putty tape.
- 4. Align the awning rail onto the wall and secure with #10 x 3/4" screws. Use all the attach holes in the rail.

NOTICE Make sure the screws are securely mounted to the structural frame of the vehicle.

- 5. Use a screwdriver to spread open one end of the awning rail on the installation side.
- 6. File any sharp edges or burrs from the end of the rail. This will help protect the awning fabric from damage during installation.
- 7. Spray inside the awning rail track with a dry silicone lubricant.



### **ASSEMBLING THE AWNING**

<u>Important Note:</u> If using the optional wall spacers for the awning, follow the spacer supplement directions for assembling and mounting the awning. After mounting the awning, go to page 7 "Direct Response Installation".

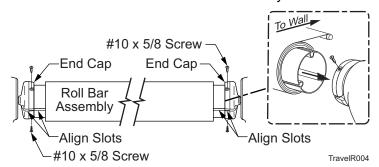
- 1. Decide on the location of the switches and control box to determine the cable routing.
- 2. If the motor cable is to be routed through the RV wall at the bottom of the arm, slip the cable through the slot at the bottom of the track (refer to 7). Go to step 4.
- 3. If the motor cable is to be routed through the RV wall at the top of the arm:
  - 3.1 Remove the plastic wrap at the top of the motorized arm. Partially open the arm being careful to not let the arm extend more than 6".

The arm is under tension from the gas shock located in the arm. When the wrap is removed, the arm will try to open completely. Firmly hold the arms closed while removing the wrap.

- 3.2 Pull the motor cable from the back of channel and out the hole in the top of the channel.
- 3.3 Close the arm.
- 3.4 Secure the top of the arm in the closed position using a plastic wrap or equivalent.
- 4. Align the roller assembly with the end cap on the motorized arm assembly. Rotate the end cap until the slot in the cap aligns with the empty slot in the roller assembly, and then press the roller assembly fully into the cap. The end cap must seat squarely over the end of the roller assembly when complete.

**NOTE:** The roller assembly must be oriented with the fabric going over the roller toward the mounting surface.

- 5. Secure the end cap to the roller assembly using two #10 square-drive screws.
- 6. Repeat steps 5 and 6 to attach the non-motorized arm assembly to the roller assembly.



**NOTICE** During assembly and installation, The arm assemblies must remain perpendicular to the roller assembly. Failure to handle the arm assemblies carefully can bend the drive shaft.

### MOUNTING THE AWNING



# CAUTION size and weight.

# It is recommended that at least three people install the awning due to its

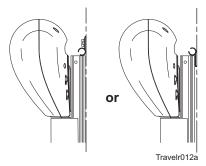
(Refer to the General Layout on page 1.)

- 1. Check the location the awning is to be mounted. Ensure that the awning will not interfere with other equipment on the vehicle, such as a slide out room, light fixtures, exhaust vents etc.
- 2. On the awning rail, mark the location of the centerline of the motorized arm assembly.
- 3. Unroll the canopy one wrap.

**NOTE:** While the awning fabric is fairly robust, care must be taken not to snag it on the awning rail.

- 4. With one person holding each arm, the third person should thread the polyrod (the plastic rod on the edge of the fabric) into the awning rail, starting at one end. Carefully move across the vehicle, gently pulling the fabric into the rail, until the awning is in the pre-determined location.
- Position the motorized arm on the coach: Align the center of the motorized arm with the centerline marked in step 2. Butt the top of the rear channel against the awning rail as shown.

**IMPORTANT NOTE:** For Uniguard and Alumaguard installations, the centerline of the roller tube must be 3/4"  $\pm$  1/4" above the centerline of the awning rail. If the arm cannot be positioned as shown and meet this requirement because of trim below the awning rail, the installer must remove the trim where the arms mount or install a new awning rail below the trim.

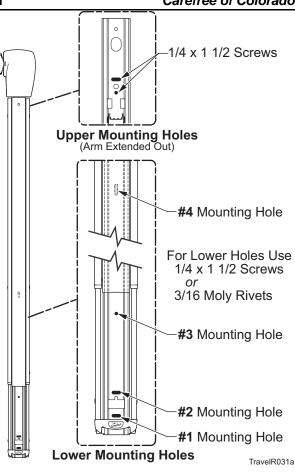


6. Hold the arm assembly perpendicular to the awning rail and drill a 5/32" hole through the #2 mounting hole and attach the motorized arm using a 1/4 x 1 1/2" lag screw

**NOTE:** For the bottom 3 mounting holes: when attaching into structure, use  $1/4 \times 1 \times 1/2 \times 1/4 \times 1 \times 1/4 \times 1/4$ 

The upper mounting holes (all configurations) must be attached into structure using appropriate length 1/4" screws.

- 7. Confirm that the arm is perpendicular to the awning rail, attach the arm through the #1 mounting hole using a 5/32" pilot hole and a 1/4 x 1-1/2" lag screw.
- 8. Position the roller assembly so that it is perpendicular to the motorized arm assembly. Position the non-motorized arm perpendicular to the roller assembly.
- 9. Drill a 5/32" hole through the #2 mounting hole and attach the non-motorized arm using a 1/4 x 1 1/2" lag screw.
- 10. Check the alignment; the arm assembly must be perpendicular to the roller assembly. When the alignment is correct, drill and attach the arm through the #1 mounting hole using a 5/32" drill bit and a 1/4 x 1-1/2" lag screw.
- 11. Hold the awning closed and carefully remove the plastic wraps at the top of the arms. The awning will open a few inches.
- 12. Open the awning about 18" or until the top mounting holes on the arms are visible. To open:
  - 12.1. Temporarily connect the ends of the motor wires to a 12V-14V source (i.e. drill battery). If the awning does not begin to move, reverse the leads.
  - 12.2. Remove the battery after the awning is open.
- 13. Drill 5/32" pilot holes for the upper mounting holes then attach using 2 ea 1/4 x 1 1/2 lag screws.
- 14. Attach either the #3 or #4 lower mounting hole with a 1/4 x 1 1/2 lag screw or moly rivet.



### **DIRECT RESPONSE INSTALLATION**



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

Notes:

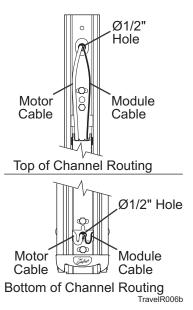
- 1. Failure to follow the wiring instructions in this publication may void the motor warranty.
- 2. DO NOT wire two or more motors to one switch—No parallel wiring.
- 3. All wiring must conform to NEC (National Electrical Code) and local codes.

# Routing the Wire into the Vehicle

- 1. Determine the final layout of the switches and the control box and mark the locations.
- 2. Drill a 1/2" hole through the outside wall of the vehicle.
- 3. Route the sensor cable and motor wires through the hole and into the vehicle.

Tip: Insert the sensor cable connector through the hole first then insert the motor cable.

4. Seal the cables and holes using a silicone sealant.



# Installing the Switches

- At the switch location cut a 3.5" [8.9cm] x 1.5"
   [3.8cm] hole
- Push the wires and switches into the hole then attach the switch frame using four (4) #6 x 1/2" screws.

**NOTICE** Ensure that the switches are oriented with the ON/OFF switch on the left to match the faceplate labels for the switch identification and orientation.

Tip: Drilling a small pilot hole for the screws will reduce the chance of splitting or stripping out the holes in the mounting surface.

3. Press the face plate onto the switch frame.

# #6 x 1/2" Screw (4 plcs) 2.9" [7.4cm] 1" [2.5cm] Min. Clearance

# Wiring an Additional Patio Switch

(Refer to the wiring diagram on page 10)

- 1. Route the switch wires to the main switch location.
- 2. Splice the wires in parallel with the EXTEND/RETRACT switch wires. Pin 1 of the additional switch should go to pin 1 of the main patio switch etc.

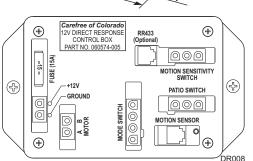
T)

# Installing the Control Box

(refer to the wiring diagram on page 10)

- 1. Position the control box and secure using two (2) #6 x 1/2" screws.
- 2. Attach the switch harness connectors to the box at the positions labeled on the box. Press the connectors in until the tabs click into place to ensure a solid connection.
- 3. Connect the cable from the Direct Response sensor to the control box.
- 4. Connect a two-wire harness to the control box in the position marked MOTOR.
- 5. Run the motor wire cable from the awning to the control box. Splice the wires to the harness in step 4. The red wire should go to Pin marked "B" and the black goes to the pin marked "A".

**NOTE:** During testing, it may be necessary to reverse these wires (red to B, black to A) if the awning extend and retract functions are reversed.



- Connect power to the control box;
  - 6.1. Run a 14 awg wire from the power distribution panel (auxiliary battery circuit) or equivalent.
  - 6.2. Run a 14 awg wire to chassis ground. Suitable ground would be the vehicle chassis or conductive structure connected to the chassis.

**NOTE:** If the wire run for ground or power is 30 feet or longer, use 12awg wire to prevent voltage drop.

- 6.3. Connect a two-wire harness to the control box in the position marked +12V/GROUND.
- 6.4. Splice the power and ground wires to the harness. Carefully note the labeling on the box so that the 12V power goes to the 12V pin and the ground goes to the pin labeled ground.

# Ignition Lockout Sensor Installation (Optional)

The optional STD ignition lockout disables the extend function when the module receives current through a switched 12VDC circuit.

A switched 12VDC source is a line that is "hot" when the ignition switch is in the on position; or, a 12VDC circuit through a relay that is "hot" when a specific condition is met (i.e. releasing the parking brake). Relays are furnished by the installer.

(Refer to the wiring diagram on page 10)

- 1. Disconnect power to the awning. Disconnect the battery or pull the appropriate circuit breaker.
- Locate the control box for the Direct Response System.

**NOTE:** The 6" cable and splitter are for systems with a remote. If there is no remote, attach the 60" cable to the module; plug the other end directly to the "RR24" port in the control box. Then proceed with step 8.

- 3. If there is a remote receiver, disconnect the cable from the "RR24" port in the control box. Do not disconnect the cable from the receiver box.
- 4. Connect the supplied 6" cable to "RR24" port in the control box.
- 5. Attach the splitter to the other end of the cable.
- 6. Plug the cable from the remote receiver into the splitter.
- 7. Attach the Lock-Out Sensor to the end of the 60" cable. Route the cable as desired and connect the cable to the splitter.

**NOTE:** Wires to the module are not pin specific.

- 8. Attach one 18-gauge wire to a terminal of the sensor and route the wire to a suitable 12VDC ground.
- 9. Attach a second 18-gauge wire to the second terminal of the sensor and route the wire to a SWITCHED 12VDC source.
- 10. Bundle and secure the sensor, cable and wires as required.

5 1/4"

#6 x 1/2 Screw

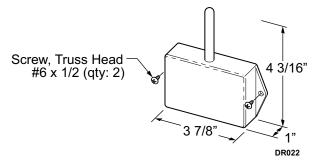
3 1/8"

(2 plcs)

8

# Installing the Remote Receiver

- 1. Determine the location of the optional RF receiver:
  - 1.1 Do not mount the unit near heat producing elements such as LP appliances or engine exhaust components.
  - 1.2 For best reception, do not mount the unit near or on a metal surface.
  - 1.3 Mount the unit with the antenna pointing up.
  - 1.4 The included cable is approximately 60 inches long. Mount the unit close enough to the control box so that the cord can be connected without stressing the connections.
  - 1.5 Allow room below the box to access the connector jack, programming button and indicator light.
- 2. Position the control box and secure using two (2) #6 x 1/2" screws.



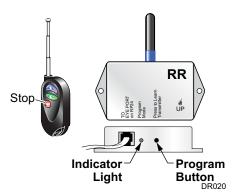
**NOTE:** If the box is mounted on a surface that is less that 1/2" thick, the screws will protrude through the opposite side of the surface.

- 3. Connect the cable to the receiver.
- 4. If using the Ignition Lockout Sensor, route the cable to the splitter and connect. If not using the sensor connect the cable directly to the control box

# Programming the Receiver

These instructions apply to the current 433 MHz configuration of the remote and receiver. For older versions (418 MHz) refer to the Eclipse Service Manual.

- 1. Power to the control box must be on.
- 2. Press and release the "Press to Learn Transmitter" button on the bottom of the receiver box. The receiver is in program mode when the red light comes on.
- 3. Press and release the stop button on the remote. The red light will go out after the receiver learns the remote signal.



**NOTE:** Pressing the stop button will cause the blue up arrow button to default as the close (retract) function.

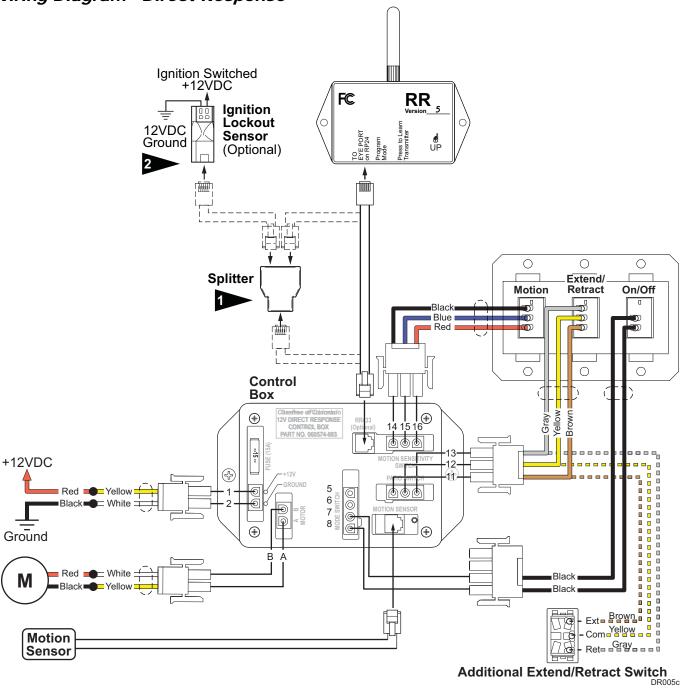
If a function button is pressed to train the receiver, it will be programmed as the close (retract) button. Example: Pressing the bottom button will program the bottom button for retract and the top button as extend.

4. Repeat for each additional remote.

## **OPERATIONAL NOTES:**

- Transmitter and receiver operate on a frequency of 433 MHz.
- The receiver exits the program mode after ten seconds.
- If the light does not come on above, the memory is full and must be cleared. If the light still does not come on, check the continuity of the cord between the boxes and repair or replace as required. Pin 1 of the 1<sup>st</sup> connector goes to pin 1 of the 2<sup>nd</sup> connector etc.
- If the light does not go out in above, the receiver already knows the transmitter's signal or the battery in the remote needs to be replaced.
- To clear the memory: <u>PRESS AND HOLD</u> the transmitter learn button. While holding the button, the indicator light should be OFF for the full 5 seconds then come on.
- The system may be programmed for up to 5 remotes. Additional remotes may be ordered separately.

# Wiring Diagram - Direct Response



Splitter is used only when the optional Lock-Out Sensor is installed. Connect the RF receiver directly to the control box if Lock-Out is not installed.

2

The optional Lock-Out Sensor can be used only with control boxes marked "060574-003" or higher.

Wires for the sensor are not pin specific.

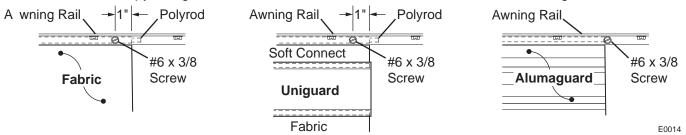
Remove these

TravelR011

2 Pins

### SECURING THE FABRIC

- 1. Roll the awning in and out several times to make sure that the fabric is square on the rollbar.
- 2. Secure the canopy using one, #6 x 3/8" hex head screw at both sides of the awning.



- 2.1 For vinyl awnings, place screw through awning rail, polyrod and canopy approximately 1" in from the end of the fabric.
- 2.2 For Uniguard awnings, place screw through awning rail, polyrod and the soft connect material approximately 1" in from the end of the fabric.
- 2.3 For Alumaguard awnings, place screw on the outer edge of the Alumaguard (not through the Alumaguard).

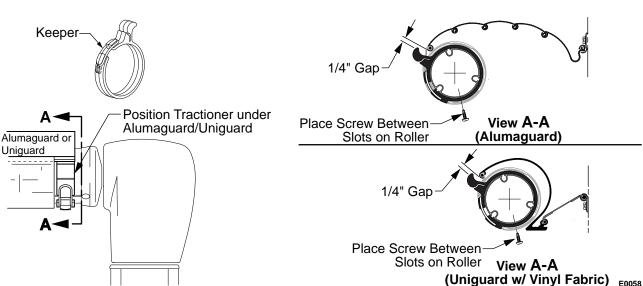
## REMOVING THE TEMPORARY ASSEMBLY PINS

2 pins are inserted into the back of the left (idler) head for lateral stability during installation. Using a pair of pliers, remove and discard both pins.

**NOTE:** The awning will temporarily operate with the pins in place; however, for long term use the pins must be removed.

### INSTALLING THE TRACTIONERS

The tractioners are used with Alumaguard and Uniguard metal fabric wraps.



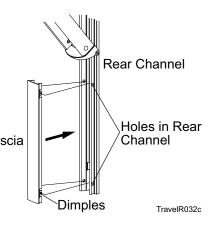
- 1. Partially extend the awning until the Alumaguard/Uniquard is extended as shown.
- 2. Unlock the keeper and wrap the tractioner around the roller tube.
- 3. Position the tractioner under the Alumaguard/Uniguard with a 1/4" gap between Alumaguard and tractioner. Lock the keeper.
- Repeat for the other end of the rollbar.
- 5. Extend the awning to verify that the tractioners are lifting the metal wrap up and over the roller assembly.
- 6. To secure the tractioner, drill a 1/8" hole through the tractioner and roller tube, roughly center the hole between two slots of the rollbar.

7. Secure with one (1) #10 square drive screw.

### **ATTACHING THE FASCIA**

The fascia fits inside the rear channel.

- 1. Open the awning to provide access to the bottom of the rear channel.
- 2. Press the bottom dimples on the fascia into the rear channel until they snap into the bottom holes in the sides of the rear channel.
- 3. Press the top of the fascia into the rear channel until the upper Fascia dimples snap into the upper holes.



# **OPTIONAL LED'S**

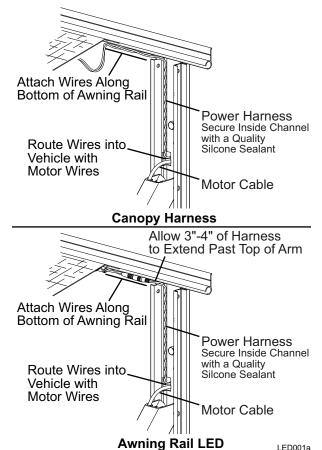
Optional White LED light strips mounted in the roller tube are available for aftermarket and OEM installations. Some OEM's may offer LEDs at the awning rail.

# NOTICES:

- a. Do not route the wire over sharp edges or heat sources that can cut or fray the wires or wire insulation.
- b. Damage that is a result of improper routing may void warranty.

### WIRE ROUTING

- For roller tube LED's:
  - 1.1 Route the LED canopy harness wires into the vehicle with the awning motor wires as shown.
  - 1.2 Allow a minimum 3" loop between the canopy and rear channel
  - 1.3 Secure the LED harness inside the channel with a quality silicone sealant.
- 2. For optional OEM awning rail LED's:
  - 2.1 Route the LED power harness into the vehicle with the awning motor wires. Allow 3" 4" to extend past the top of the channel.
  - 2.2 For white LED's: On the outside of the vehicle connect the power cord to the LED strip.

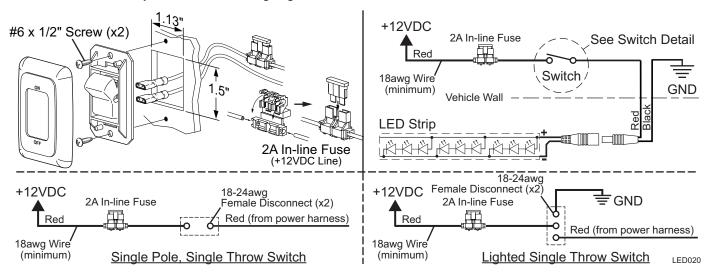


### **SWITCH INSTALLATION**

A single pole switch is required for the white LED installations.

#### NOTES:

- a) 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.
- b) Per RVIA Low Voltage Systems in Conversion and Recreation Vehicles Chapter 3, Section 3-1: For Carefree LED strip lighting near the awning rail: when the 24AWG power harness is spliced or connected 10" or less from the harness connector using a heavier gauge wire, the fuse size is determined by the heavier wire gauge.



- 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.

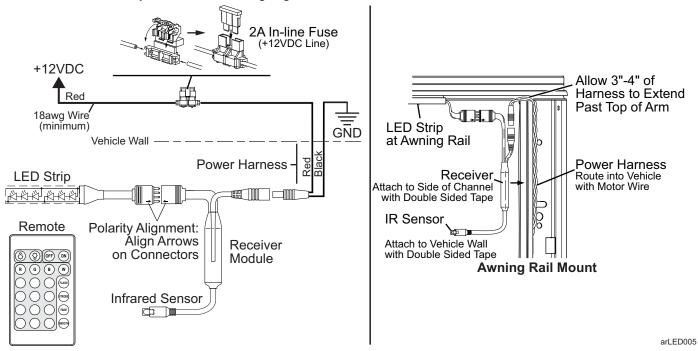
- 4. Install the in-line fuse:
  - 4.1. Near the switch, cut the red 12VDC power line to the switch. Do not strip the insulation.
  - 4.2. Insert a wire end into one of the wire channels until it butts up against the stop.
  - 4.3. Fold that half of the connector body over until the element contacts 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.

# POWER CONNECTION FOR OPTIONAL OEM RGB LED'S

The RGB LED uses a receiver and remote (SR0109).

### **NOTES:**

- a) 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 control module and power source. Locate the fuse for easy access. Fuse and connector are furnished by the installer.
- b) Per RVIA Low Voltage Systems in Conversion and Recreation Vehicles Chapter 3, Section 3-1: For Carefree LED strip lighting near the awning rail: when the 24AWG power harness is spliced or connected 10" or less from the harness connector using a heavier gauge wire, the fuse size is determined by the heavier wire gauge.



- 1. Route the power cable into the vehicle with the motor cables from the awning.
- 2. Route the Red wire to +12Vdc.
- Route the Black wire to ground.
- 4. Ensure that the connections are tight, solid and sealed when completed.
- 5. For awning rail applications:
  - 5.1. Mount the control module and RF sensor on the outside of the vehicle as shown using double sided tape.
  - 5.2. Connect the module wires to the power harness and LED strip.

**NOTE:** The LED connector and receiver connectors must be oriented with the arrows on the connectors lined up. The lights will not work if the connectors are not properly oriented.