



AFTER MARKET INSTALLATION MANUAL

ECLIPSE ARMS AND CANOPY

THIS PUBLICATION COVERS THE FOLLOWING AFTERMARKET MODELS:

- Universal Eclipse
- Eclipse XL

RV

These instructions apply to all models listed. Details and procedures unique to a specific model are labeled appropriately.

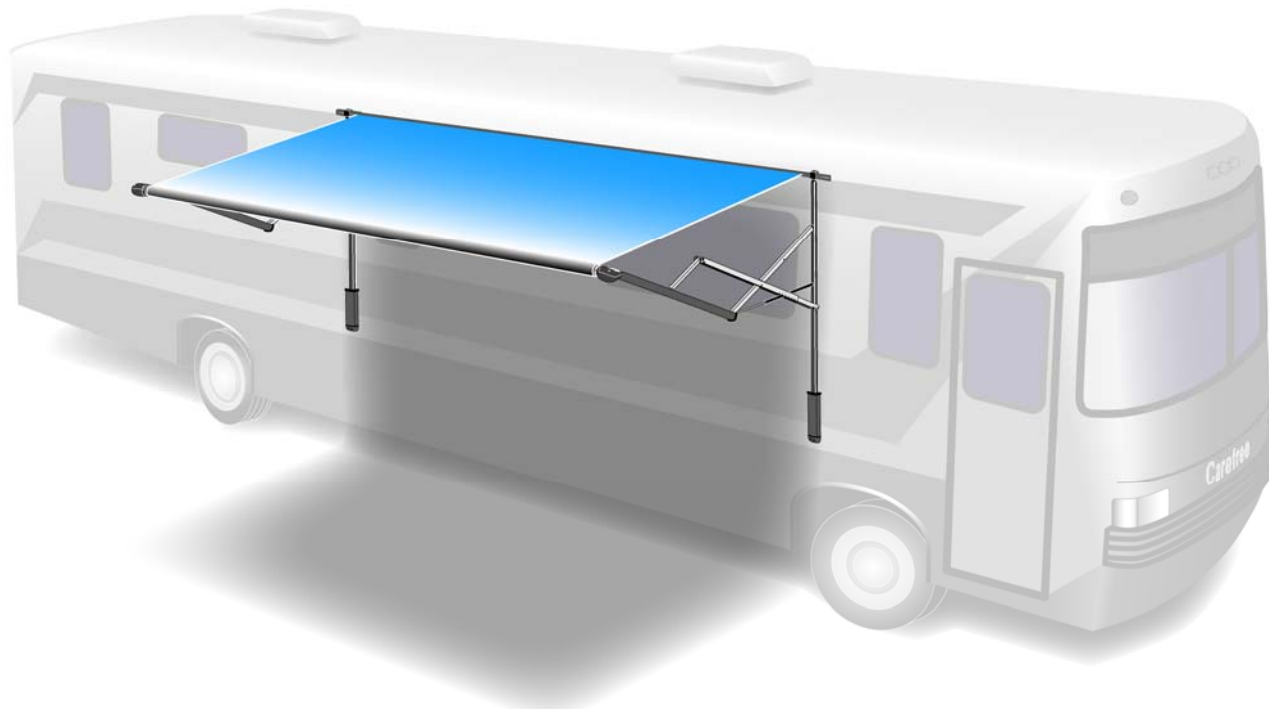


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PROPRIETARY STATEMENT

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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

WARNING

A WARNING INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY AND/OR MAJOR PROPERTY DAMAGE.

CAUTION

A CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION THAT MAY CAUSE MINOR TO MODERATE PERSONAL INJURY AND/OR PROPERTY DAMAGE. IT MAY ALSO BE USED TO ALERT AGAINST UNSAFE PRACTICES.

NOTE: A note indicates further information about a product, part, or step.

Tip: A tip provides helpful suggestions.

Safety Notes:

- 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, use care to not over tighten. Soft materials such as fiberglass and aluminum can be "stripped out" and lose the ability to grip and hold.

Reference Publications located @ www.carefreeofcolorado.com:

052547-001	Eclipse Arms and Canopy After Market Installation Manual
052547-021	Eclipse Arms and Canopy OEM Installation Manual
052547-101	Eclipse Arms Upgrade for One-Touch
052547-201	Eclipse Owner's Manual
052547-301	Eclipse Service Manual
052987-002	WindSmart Installation & Operation Manual (for reference only, option discontinued in 2007)
052526-001	Direct Response Installation & Operation Manual

PRODUCT OVERVIEW

The Eclipse Patio Awning uses unique “scissor” style arms that do not require vertical ground support. The arms provide easy to use pitch adjustment—simply push together the pins on the arms, snap into the hole set desired, and the pitch is set! The pitch can be left in any position and the Eclipse will roll up completely! When the awning is rolled back out, it rolls out to pitch setting previously set.

The awning rollbar and arms are made from light weight, no-rust aluminum. The awning fabric is offered in either heavy weight vinyl or the Sunbrella® fabric, one of the most durable, strongest, weather-resistant and fade resistant fabrics on the market.

Eclipse Patio Awning Specifications:

	ECLIPSE UNIVERSAL	ECLIPSE XL
<i>Maximum Extension:</i>	8 foot	9 foot
<i>Maximum Length:</i>	21 feet	21 feet
<i>Drop @ Min. Pitch:</i>	approximately 12 inches	approximately 13.5 inches
<i>Drop @ Max Pitch:</i>	approximately 40 inches	approximately 45 inches
<i>Extend Actuation:</i>	Gas Shock	Gas Shock
<i>Retract Actuation:</i>	Motorized roll up	Motorized roll up w/ supplemental spring tension
<i>Position Control:</i>	Motorized roll out/in	
<i>Power Requirements:</i>	12VDC (operating range 10VDC to 14VDC) ¹	
<i>Circuit Rating:</i>	20 amp	
<i>Power Source:</i>	Motor and controls are routed and hardwired into the vehicle's 12V system	
<i>Emergency Retract:</i>	Electrical override system (external power source)	

Eclipse Patio Awning Options:

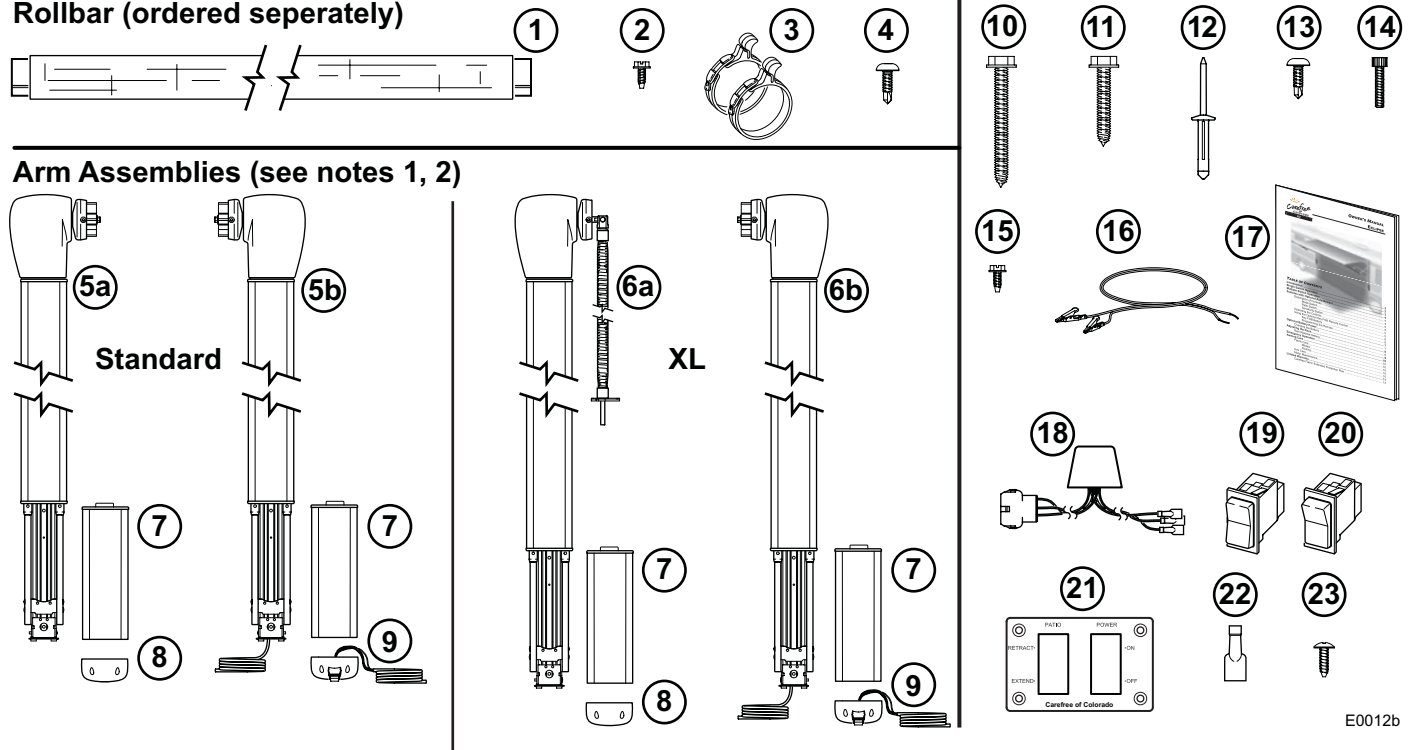
• Alumaguard Awning Wrap ²	• 12V Direct Response Auto-Retract System
• Uniguard Awning Wrap ²	• Remote Control ³
• SunBlocker	

NOTES:

1. Installation with optional SunBlocker shade requires a minimum power source of 12VDC (operating range 12VDC to 14VDC)
2. Selected at time of initial order.
3. Remote Control available with auto-retract installations only

COMPONENT CHECKLIST

Rollbar (ordered separately)



E0012b

<input checked="" type="checkbox"/>	ITEM	DESCRIPTION	QTY	NOTE
<input type="checkbox"/>	1	Rollbar Assembly	1	
<input type="checkbox"/>	2	Screw, HWHC #6 x 3/8	2	
<input type="checkbox"/>	3	Tractioner	2	3
<input type="checkbox"/>	4	Screw, Truss Head, SQ Drive #10 x 5/8	2	3
<input type="checkbox"/>	5A	LH Arm Assy, Idler	1	2
<input type="checkbox"/>	5B	RH Arm Assy, Motorized	1	2
<input type="checkbox"/>	6A	LH Arm Assy, Idler, XL only	1	2
<input type="checkbox"/>	6b	RH Arm Assy, Motorized, XL only	1	2
<input type="checkbox"/>	7	Fascia Assy	2	
<input type="checkbox"/>	8	Bottom Cover w/o switch	1	
<input type="checkbox"/>	9	Bottom Cover w/ switch	1	5
<input type="checkbox"/>	10	Screw, Lag 1/4 x 2 1/2	8	
<input type="checkbox"/>	11	Screw, Lag 1/4 x 1 1/2	8	
<input type="checkbox"/>	12	Rivet, Moly 3/16	4	
<input type="checkbox"/>	13	Screw, Truss Head, SQ Drive #10 x 5/8	4	
<input type="checkbox"/>	14	Screw, SHC #8 x 3/4	4	
<input type="checkbox"/>	15	Screw, HWHC #6 x 3/8	2	
<input type="checkbox"/>	16	Jumper Cable	1	4
<input type="checkbox"/>	17	Owner's Manual	1	4
<input type="checkbox"/>	18	Relay Module	1	
<input type="checkbox"/>	19	Switch, DPDT, Latching	1	
<input type="checkbox"/>	20	Switch, DPDT, Momentary	1	
<input type="checkbox"/>	21	Switch Plate, Double	1	
<input type="checkbox"/>	22	Spade Connector Female	2	
<input type="checkbox"/>	23	Screw #6 x 1/2	4	

- Notes:
- Awning configuration is specified at time of order, including awning length, fabric, color etc. Check awning assembly against original purchase order.
 - The arm assemblies are specific for the Universal Eclipse and the Eclipse XL and are not interchangeable.
 - Screws and Tractioners are furnished with rollbar assemblies equipped with optional Alumaguard.
 - Place Jumper Cable (item 17) and Owner's Manual (item 18) with RV owner information. Installation manual, if included, is for installer reference.
 - For installations not using the exterior switch, installer must order a bottom cover w/o switch (R001103XXX)

INSTALLATION

REQUIRED PRE-INSTALLATION PREPARATION

1. Park the vehicle on a flat surface and level the unit.
2. If this is an upgrade for a manual patio awning, follow the awning manufacturer's instructions and remove the awning from the coach including the roll bar and canopy.
 - Remove all brackets.
 - Plug and seal all mounting holes. The new Eclipse arms may not match the locations of the old awning arms.
 - Remove the roll bar from the arms and on a flat clean surface, roll the fabric onto the roll bar.
 - If the canopy is equipped with Alumaguard, remove the tractioners and set aside. These will be reinstalled after the new awning assembly is installed.
3. 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.
4. 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.
5. Refer to the important note on page 5 about the required positioning of the centerline of the roll bar.

INSTALLING AN AWNING RAIL

NOTE: For canopies WITHOUT Alumaguard or Uniguard: If the vehicle already has a full-length awning rail installed, skip to step 6. 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.

For Alumaguard and Uniguard installations: 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.

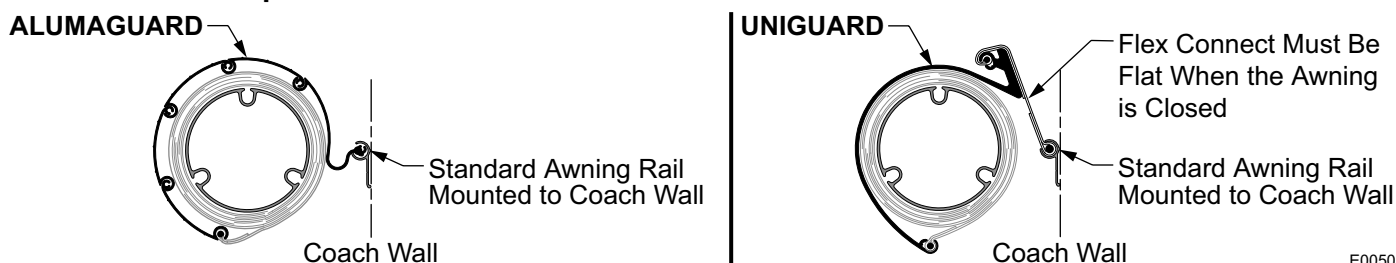


Figure 1. Fabric Wrap Positioning.

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 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.
3. 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.



CAUTION

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.

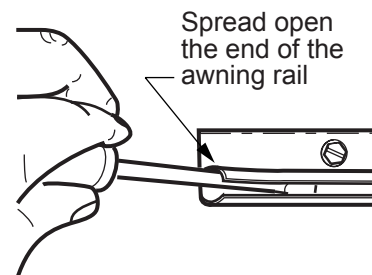


Figure 2. Adjusting the Awning Rail.

ASSEMBLING THE AWNING

For installations not using the exterior switch, disregard instructions for the switch cable.

1. Decide on the location of the switches and control box to determine the cable routing.
2. If the motor and switch cables are to be routed through the RV wall at the bottom of the arm, no modification is required. Go to step 4.
3. If the motor and switch cables are to be routed through the RV wall at the top of the arm:
 - 3.1 Insert the 3-strand cable (switch cable) into the groove in back of the channel. Allow 5" of cable to extend from the bottom of the channel. Tie the end cap with switch to the bottom of the channel to avoid damage during installation.
 - 3.2 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".

CAUTION

THE ARM IS UNDER TENSION FROM THE GAS SHOCK LOCATED IN THE ARM.

- 3.3 (Refer to Figure 6 pg. 7) Pull the motor cable out of the hole in the top of the channel.
- 3.4 Insert the switch cable through the hole from the back of the channel.
- 3.5 Route the excess wire up and out the top of the channel and close the arm.
- 3.6 Secure the top of the arm in the closed position using a plastic wrap or equivalent.

CAUTION

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.

4. (Refer to Figure 3) 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. For the standard awning, repeat steps 4 through 6 to attach the non-motorized arm assembly to the roller assembly.
7. For the XL awning, insert the spring into the roller assy then rotate the end cap until the slot in the cap aligns with the empty slot in the roller assembly. Finish pressing the roller assembly fully into the cap and secure using two # 10 square drive screws.

CAUTION

NO PRE-TENSION IS REQUIRED ON THE SPRING. Do not WIND OR TWIST THE SPRING. XL MODEL ONLY.

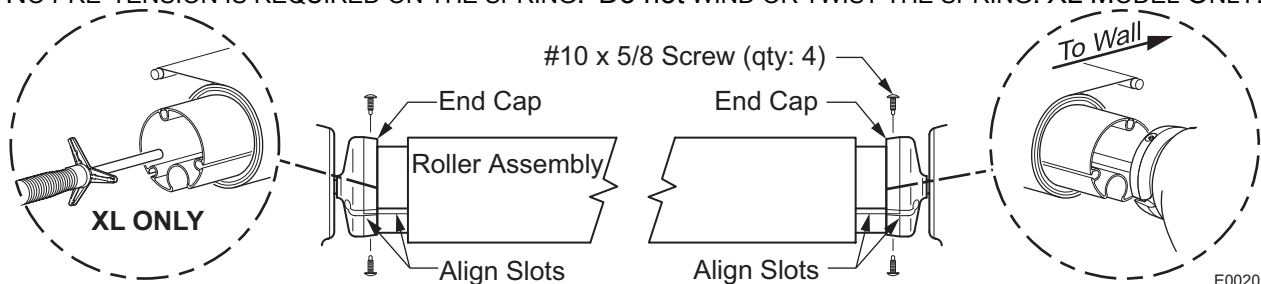


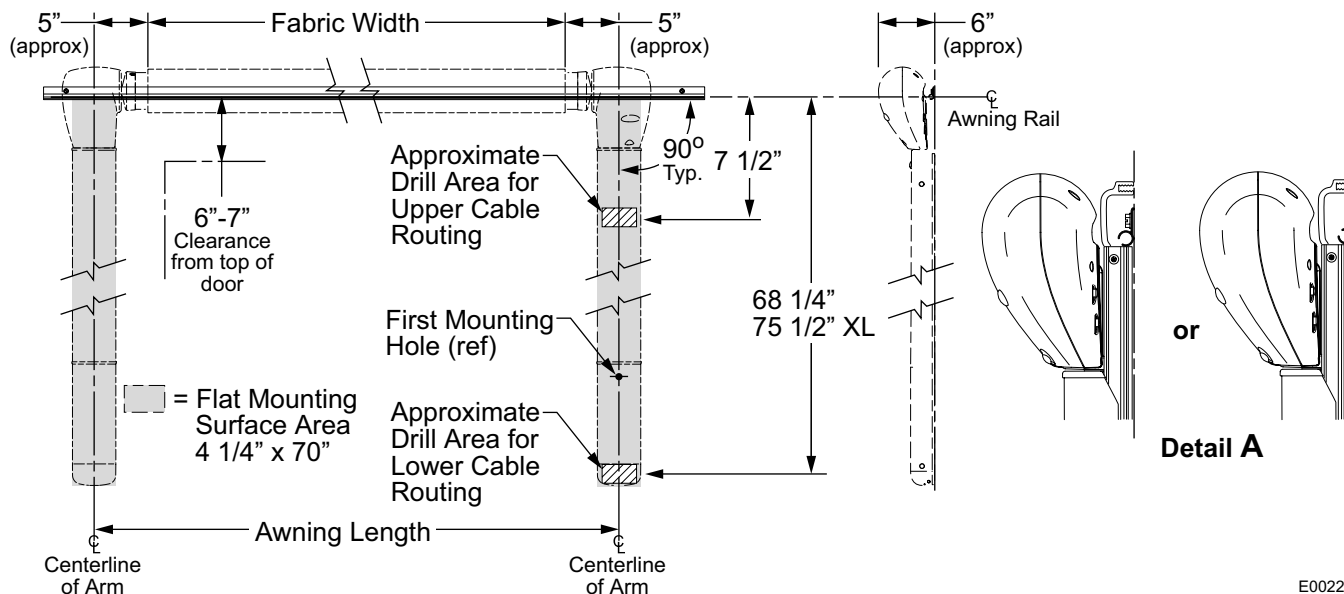
Figure 3. Assembling the Awning.

MOUNTING THE AWNING

⚠ CAUTION

IT IS RECOMMENDED THAT AT LEAST THREE PEOPLE INSTALL THE AWNING DUE TO ITS SIZE AND WEIGHT.

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.



Dimensions shown are for reference only. Follow the directions for placement of arms.

Figure 4. General Layout and Installation.

- Unroll the canopy one wrap.
- 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.

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

5. (Refer to Figure 3, Detail A) 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 in Detail A.

IMPORTANT NOTE: For Uniguard and Alumaguard installations, the centerline of the roll bar must be 3/4" ± 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. (Refer to Figure 4) Drill a 5/32" hole at the first mounting hole.
 - If the hole goes into a structural member, attach the motorized arm using a 1/4 x 1 1/2" lag screw.
 - If the hole is through the outer skin only, ream hole out to 1/4" and attach arm with a moly rivet.
7. Confirm that the arm is perpendicular to the awning rail, then repeat step 6 for the second mounting hole (shown in Figure 4).
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 and butt the rear channel against the awning rail.

9. Drill a 5/32" hole at the first mounting hole.
 - If the hole goes into a structural member, attach the motorized arm using a 1/4 x 1 1/2" lag screw.
 - If the hole is through the outer skin only, ream hole out to 1/4" and attach arm with a moly rivet.
10. Check the alignment; the arm assembly must be perpendicular to the roller assembly. When the alignment is correct, repeat step 9 for the second mounting hole
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. Cap or cover the exposed ends of the motor wires. **This is to prevent accidental shorting or grounding during assembly.**
13. Open the awning about 18" or until the top mounting holes on the arms are visible. To open
 - Use the supplied jumper cables and attach to the emergency terminals located on the top of the motorized head.
 - Connect the other ends of the jumper leads to a 12V source. If the awning does not begin to move, reverse the leads.

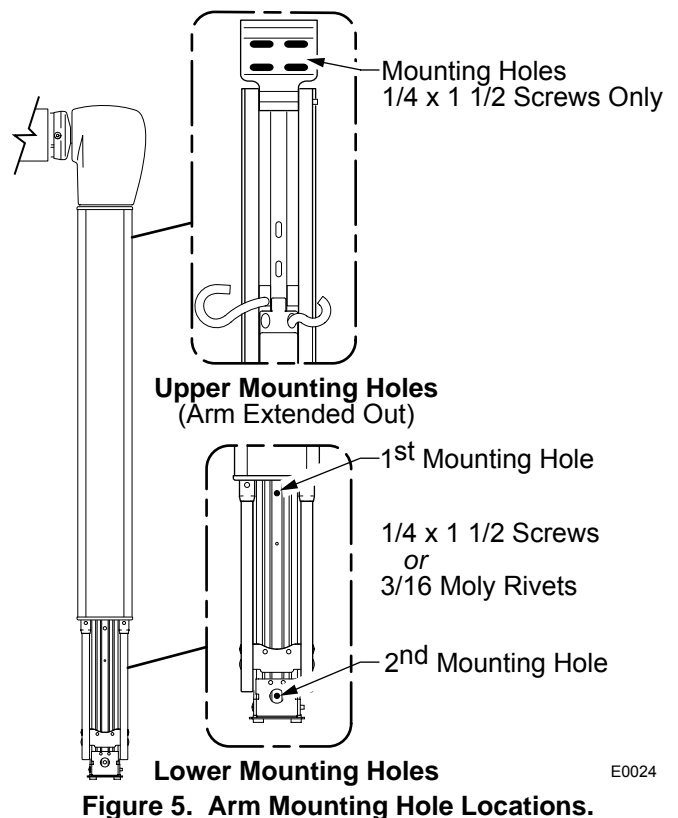


Figure 5. Arm Mounting Hole Locations.

14. Using a 5/32" drill bit, locate and drill the upper mounting holes.
15. Using two each 1/4 x 2-1/2" lag screws, attach the top of the arm assemblies to the vehicle. The upper mounting holes must be mounted into the structural frame.
16. *For multi-switch installations, go to "Multi-Switch Installation and Wiring" on page 7.*

INSTALLATION – ELECTRICAL

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

⚠ CAUTION

ALWAYS DISCONNECT THE VEHICLE BATTERY AND ELECTRICAL SOURCES BEFORE WORKING WITH THE ELECTRICAL WIRING AND COMPONENTS.

MULTI-SWITCH INSTALLATION AND WIRING (STANDARD)

The Eclipse Patio Awning multiple switch configuration uses one power switch, one exterior extend/retract switch, one interior extend/retract switch and a control box.

1. Determine the final layout of the switches and the relay module and mark the locations.

NOTE: For furnished wire harnesses, the maximum distance from the cable point of entry to the relay module is 48". Maximum distance from the relay module to the switches is 16".

2. (Refer to Figure 5) Drill two 5/16" holes through the vehicle wall for the motor cable and exterior switch cable. Move the cables out of the way to avoid damage while drilling.
3. Route the cables through the holes to the location of the relay module.
4. Seal the cables and holes using a silicone sealant.

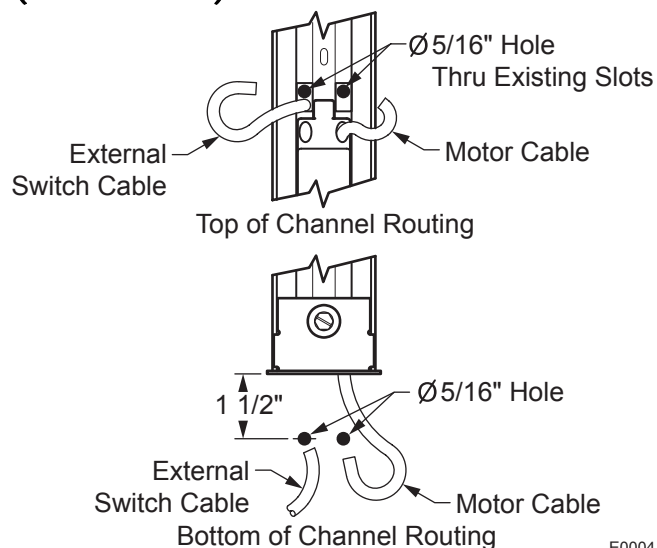


Figure 6. Wall Pass-Through Drill Patterns.

E0004

STOP – If an optional Direct Response system is being installed, complete the electrical installation using the instructions included with the Auto-Retract kit. (052526-001 Direct Response)

5. Separate the wires from the relay into 3 groups:
 - Brown, yellow and gray with spade terminals (interior switch),
 - Black and red with spade terminals (interior power switch),
 - Connector bundle with:
 - Brown, yellow and gray (exterior switch), and
 - Blue and white (motor)
6. Cut off the connector from the harness and discard. Butt splice the cable and control wires as shown in the wiring diagram.

NOTE: The relay module harness is supplied with one connector. For installations using the exterior switch, cut off the connector and discard. For installations not using the exterior switch, cut only the Yellow and Blue wires from the connector. The connector will act as a cap for the Brown, Yellow and Gray wires.

7. *(Refer to Figure 7)* At the switch panel location, use a 2 1/4" hole saw and cut two holes 1 1/2" apart.
8. Route the remaining wires, from the relay module, through the double hole.
9. Push the switches into the faceplate until the locking tabs click into place behind the faceplate.

NOTE: The switches must be located and oriented as shown. The power switch is a double throw, latching switch. The patio switch is a double throw, momentary contact switch.

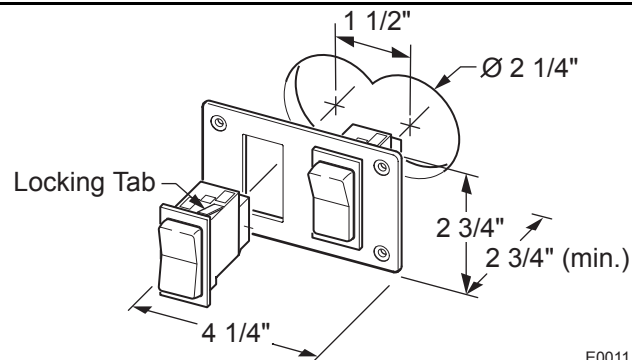


Figure 7. Switch Plate Installation.

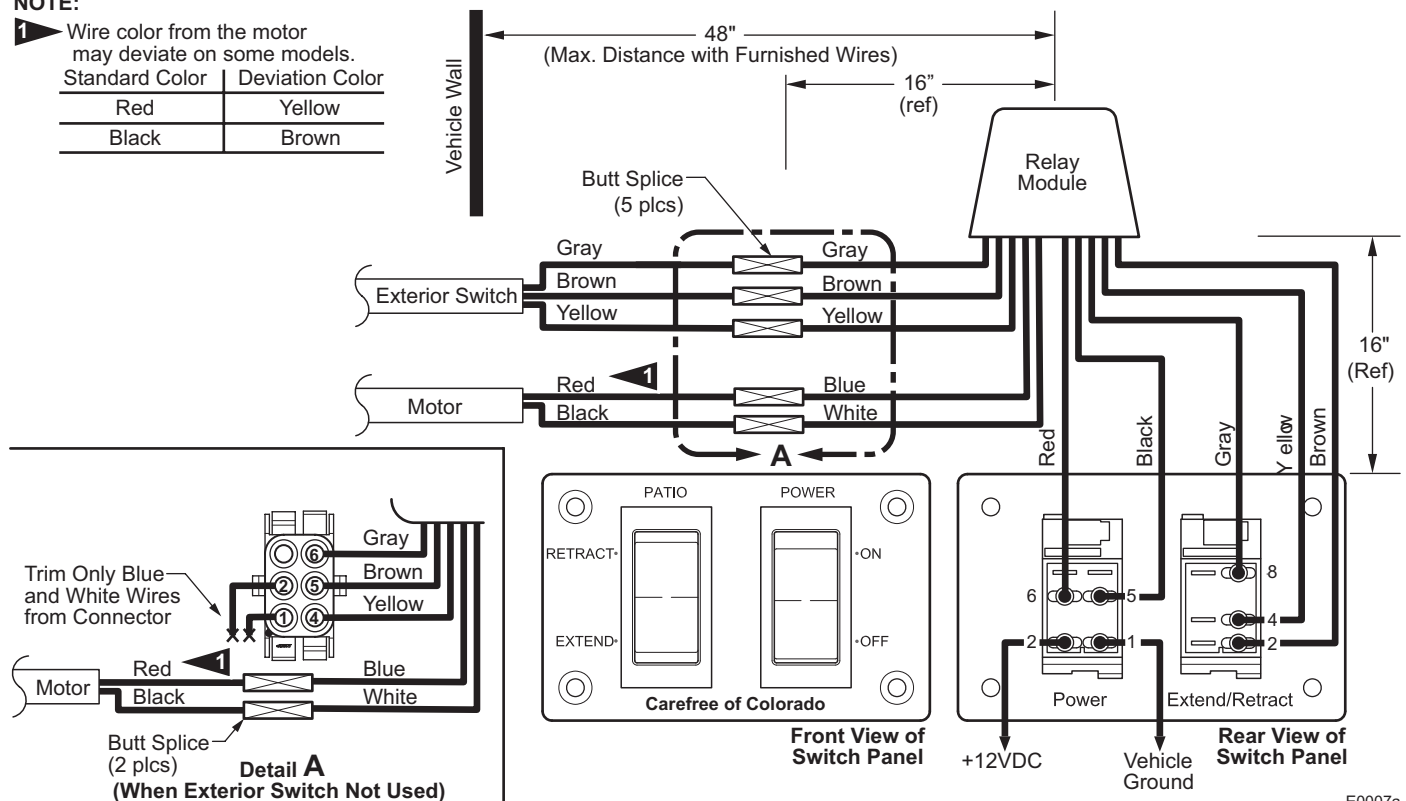
10. Connect the wires from step 9 to the switches as shown below.
11. Run a 12 gauge wire (never use less than 14 gauge) from the power distribution panel (auxiliary battery circuit) or equivalent. The circuit should be protected by a 20 amp fuse.
NOTE: Minimum wire length and maximum wire size should be selected to assure adequate voltage.
12. Run a wire to chassis ground. Suitable ground would be the vehicle chassis or conductive structure connected to the chassis.
13. Route the two new wires through the hole and terminate with spade connectors. Connect to the power switch.
14. Carefully push the wires and switches into the mounting hole and attach the switch plate assembly using 4 #6 x 1/2" screws.
15. Remove the paper backing from the adhesive foam on the relay module and press on a flat surface in the proximity of the switches.
16. Restore vehicle power and test the awning operation.

Multi-Switch Wiring Diagram

NOTE:

1 Wire color from the motor may deviate on some models.
Standard Color | Deviation Color

Standard Color	Deviation Color
Red	Yellow
Black	Brown



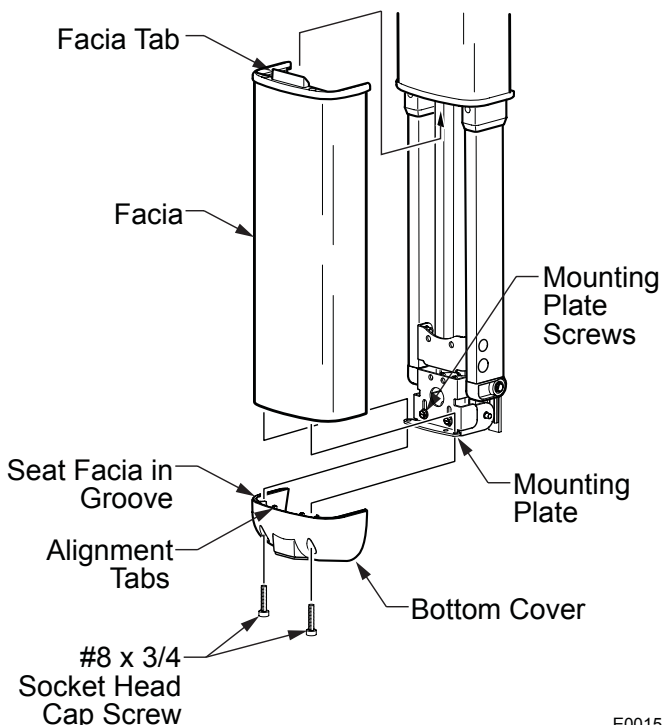
FINAL ASSEMBLY

ATTACHING THE FASCIA AND BOTTOM COVER

For installations not using the exterior switch: Set aside the end cover with switch and replace with an end cover with no switch (p/n R001103XXX). Cover must be ordered separately.

1. Make sure the awning is completely closed.
2. Insert the tab, on the fascia, under the arm base and rest it on the mounting plate.
3. Check that the gap between the top of the fascia and the arm channel is approximately 1/8".
 - If the gap is too large or too small, set the fascia aside, loosen the mounting plate screws and adjust the mounting plate height as required. Tighten the screws and set the fascia in position.
4. Place the bottom cover beneath fascia. Carefully tuck any wires into the bottom cover.

NOTE: There are tabs on the top of the cover to correctly align the bottom cover and fascia. The fascia should seat in the groove of the cover.



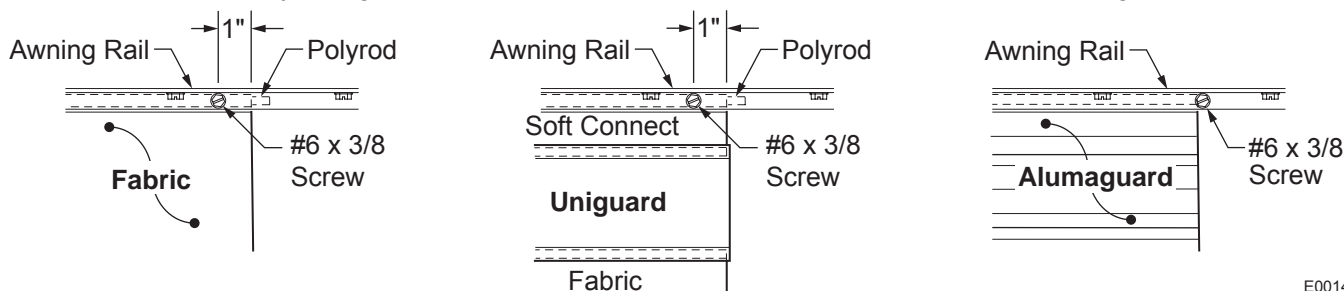
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Figure 8. Attaching the Fascia and Bottom Cover.

5. Attach the cover to the fascia with the supplied socket head screws using a 9/64" Allen wrench. The bolts must go through the cover, the plate, and the fascia.
6. Repeat for the other side.
7. Verify proper installation by opening and closing the awning.

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.



E0014

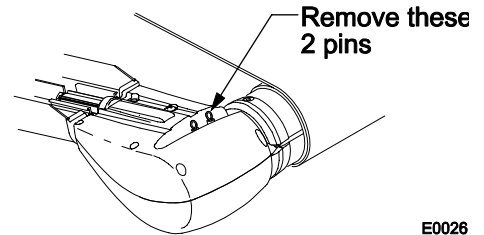
Figure 9. Securing the Fabric.

- 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 operate with the pins in place; for long term use, the pins must be removed to allow for climate variances.

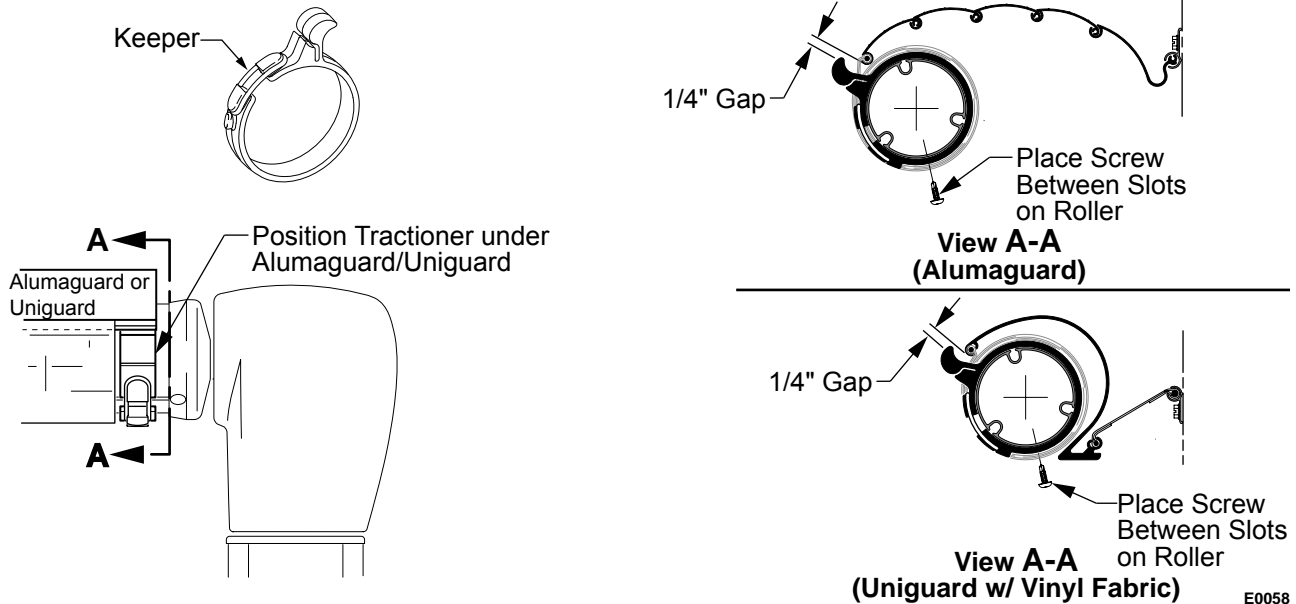


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Figure 10. Removing the Assembly Pins.

INSTALLING THE TRACTIONERS

The tractioners are used with the alumaguard metal fabric wrap and vinyl fabrics with Uniguard.



E0058

Figure 11. Installing the Alumaguard Tractioner.

1. Partially extend the awning until the Alumaguard/Uniguard 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.
4. 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 rollbar, roughly center the hole between two slots of the rollbar.
7. Secure with one (1) #10 square drive screw.