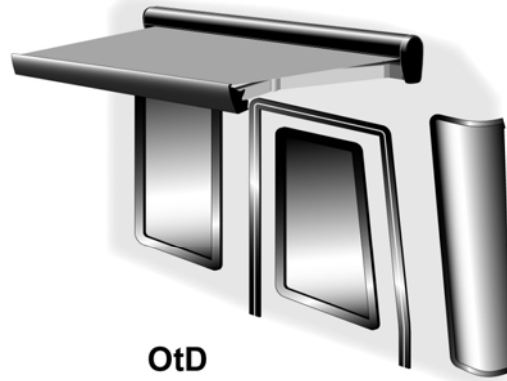




RV



WINDOW



OtD

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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

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### WARNING

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

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### 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](http://www.carefreeofcolorado.com)

052549-001 Marquee Installation Manual

052549-201 Marquee Owner's Manual

052549-301 Marquee Service Manual

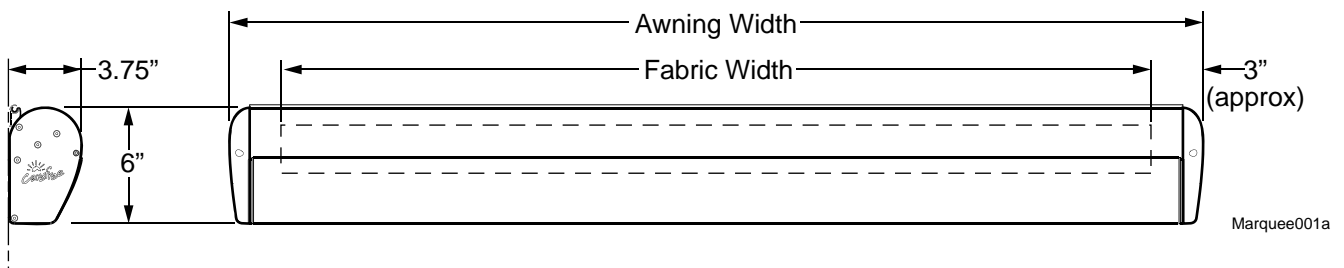
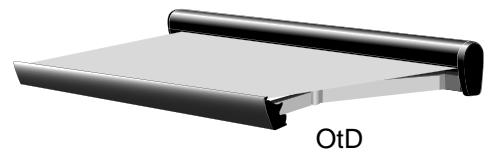
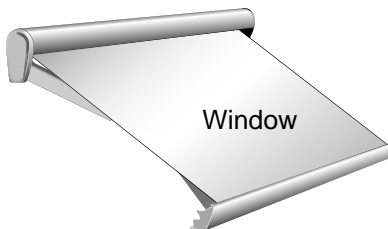
## PRODUCT OVERVIEW

The Marquee Window and OtD (Over the Door) Awnings are state of the art lateral arm awnings. When retracted, the housing provides protection against the elements while the streamlined styling blends in with the coach side wall. The full tension canopy fabric allows the awning to be partially or fully extended for best shade coverage. No vertical arms interfere with coach sidewalls, custom graphics or equipment that may be mounted on the sidewalls.

### Awning Specifications:

- Fully retractable and self storing;
- The sealed awning motor operates on standard 12VDC (range 10VDC to 14VDC);
- Fabric is woven acrylic;
- Case and frame are constructed of high-strength aluminum extrusions, protected with a polyester paint finish;
- Stainless steel fasteners and hardware.

EXTENSION: 36"	AVAILABLE WIDTHS:	<i>OtD</i>	50", 54", 60", 66", 72"
		<i>Window</i>	50", 54", 60", 66", 72", 7', 8', 9', 10' 11', 12' & 13'
LEADING EDGE POSITION ACTUATION AND CONTROL			
<i>Power:</i>	Lateral Arm Spring		
<i>Minimum Tension</i>	Open		
<i>Position Control:</i>	<i>Motorized:</i>	Roll Out/In Controlled by Electrical Motor	
MOTOR SPECIFICATIONS			
<i>Motor Type:</i>	Tubular		
<i>Power:</i>	12VDC	<i>Minimum:</i> 8VDC	<i>Output:</i> 30 Watts
	<i>Nominal Current:</i> 2.5Amps		<i>Max Current:</i> 14Amps (stall @ min voltage)
<i>Power Source:</i>	Motor and controls are routed and hardwired into the vehicle's 12V system		
<i>Torque</i>	<i>Continuous:</i> 6Nm/4.5 ft-lbs.		<i>Tightening:</i> 18Nm/13.2 ft-lbs.
<i>Speed</i>	15 rpm		
COLORS AVAILABLE			
<i>Case</i>	Standard: White, Black Custom: Champagne and Pewter		
<i>Fabric</i>	Woven Acrylic Fabric (refer to sales literature for colors available)		



COMPONENT CHECKLIST

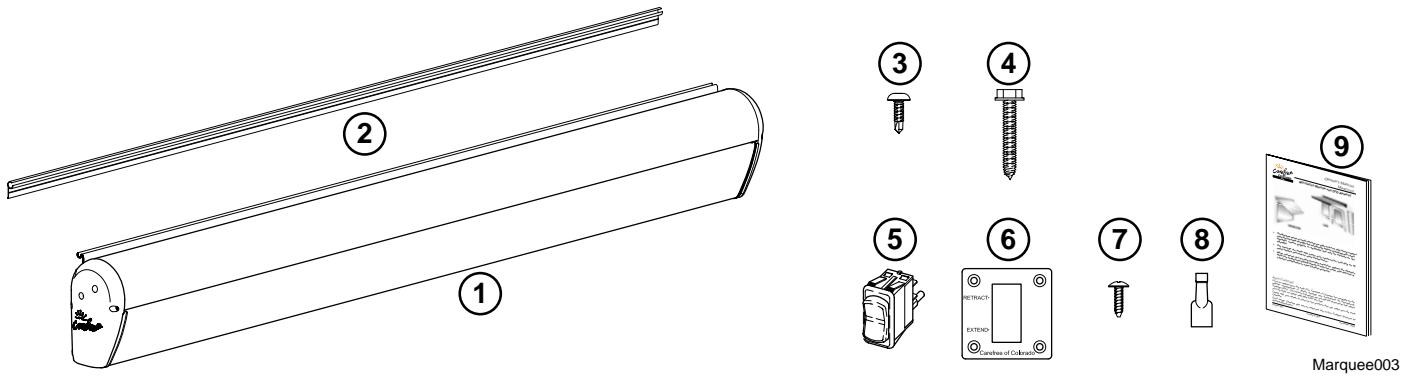


Figure 1. Component Checklist.

<input checked="" type="checkbox"/>	ITEM	DESCRIPTION	QTY	NOTE
<input type="checkbox"/>	1	Awning Assembly	1	1
<b>AWNING RAIL HARDWARE KIT</b>				4
<input type="checkbox"/>	2	Awning Rail	1	
<input type="checkbox"/>	3	Screw, Truss Head, Square Drive	#10 x 1	20
<input type="checkbox"/>	4	Screw, Lag	1/4 x 1 1/2	3
<b>ELECTRICAL</b>				
<input type="checkbox"/>	5	Switch, DPDT, Momentary Contact		1
<input type="checkbox"/>	6	Switch Plate, Single Switch		1
<input type="checkbox"/>	7	Screw	#6 x 1/2	4
<input type="checkbox"/>	8	Spade Connector, Female		4
<input type="checkbox"/>	9	Owner's Manual		1
				3

- Notes:
1. Awning configuration is specified at time of order, including awning length, fabric, color etc. Check awning assembly against original purchase order.
  2. Place Owner's Manual (item 20) with RV owner information. Installation manual, if included is for installer reference.
  3. Mounting hardware kit is determined at time of order

## INSTALLATION

The awning is mounted using a standard awning rail.

If there is an awning rail installed, check that the awning rail runs the full length of the awning. The awning rail must be extremely straight to accommodate the awning mount. If a full length awning rail is installed, skip to step 6 below.

### INSTALLATION USING AN AWNING RAIL

- Determine the optimum positioning of the awning.
  - The centerline of the awning fabric is offset from the centerline of the awning assembly. To align the center of the fabric, use the backplate of the awning assembly for measurements.
  - When installed, the bottom of the awning case is 5 7/8" from the centerline of the awning rail. The rail must be mounted a minimum of 7 1/2" above openings to avoid interference.
  - Measure each end of the rail position so that the rail will be mounted parallel to the ground.
- Mark the position with a chalk line.
- Coat the back of the rail with silicone sealant or putty tape.
- Align the awning rail onto the wall and secure with the truss head, square drive #10 x 1 screws. Use all the attach holes and ensure that the rail is securely mounted to the structural frame.
- Lightly coat the outside of the mounting rail of the awning case with a silicone lubricant or equivalent.
- Lift the awning up and tilt as shown.
- Hook the mounting rail of the awning into the awning rail and roll down.
- Adjust the position of the awning horizontally as required. It may be necessary to lightly lift the awning so that it will slide in the awning rail.
- Route the motor wires into the vehicle:
  - Lift the awning upward slightly. On the coach wall, mark the location of where the motor wires exit the awning case. If the location interferes with interior features, the location may be adjusted horizontally along the back of the case. The wires can be routed behind the case to hole.
  - Measure and drill one 3/8" hole through the outer wall at the mark.
  - Route the motor wires through the hole and seal with silicone sealant.
- Rotate the awning down.
- Open the awning. To open the awning, momentarily connect the motor wires to a 9-18VDC drill battery or car battery. If the motor runs in the reverse direction, reverse the leads.
- (Refer to figure 4) Drill three (3) 3/16" holes through the back of the case into the mounting surface and into the structure. Use care to not drill through the inner wall.
- Drill out the 3/16" holes in the awning case to 5/16". Do not allow the drill to extend into the wall.

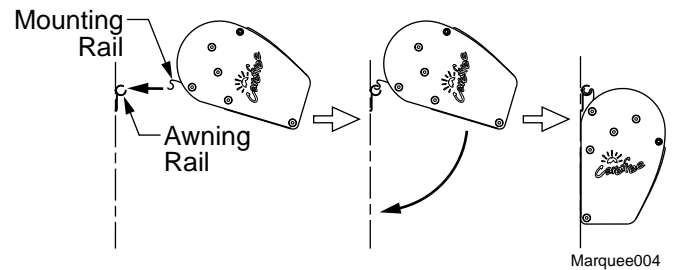


Figure 2. Mount Using Awning Rail.

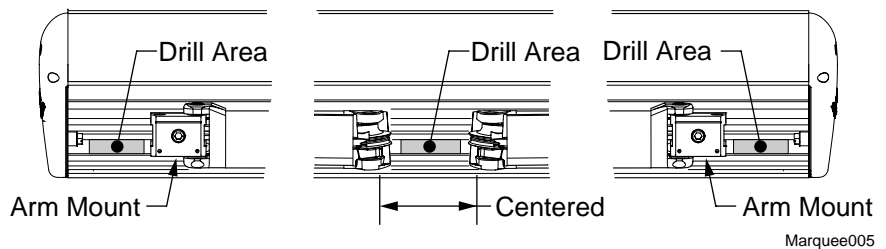


Figure 3. Securing the Awning Case.

### ⚠ CAUTION

**THE SCREWS MUST BE LOCATED IN THE OPEN AREAS OF THE AWNING CASE AS SHOWN. THE ARMS CANNOT CLOSE COMPLETELY IF THE SCREW HEADS ARE UNDERNEATH.**

- Secure the awning case to the RV using three (3) 1/4 x 1 1/2 lag screws.

## ELECTRICAL

### ⚠ CAUTION

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

**NOTE:** The recommended cable from the switch to the awning should be 2-conductor, 20AWG, stranded, PVC coated, unshielded wire.

### STANDARD SWITCH INSTALLATION

### ⚠ CAUTION

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

- Determine the location of the switch.
  - There is approximately 8' of wire from the point of entry.
  - Location should provide the operator a view of the awning during operation.
  - The switch requires a 2 3/4" x 2 3/4" area on the mounting surface and a minimum clearance depth of 2 3/4" from the mounting surface.

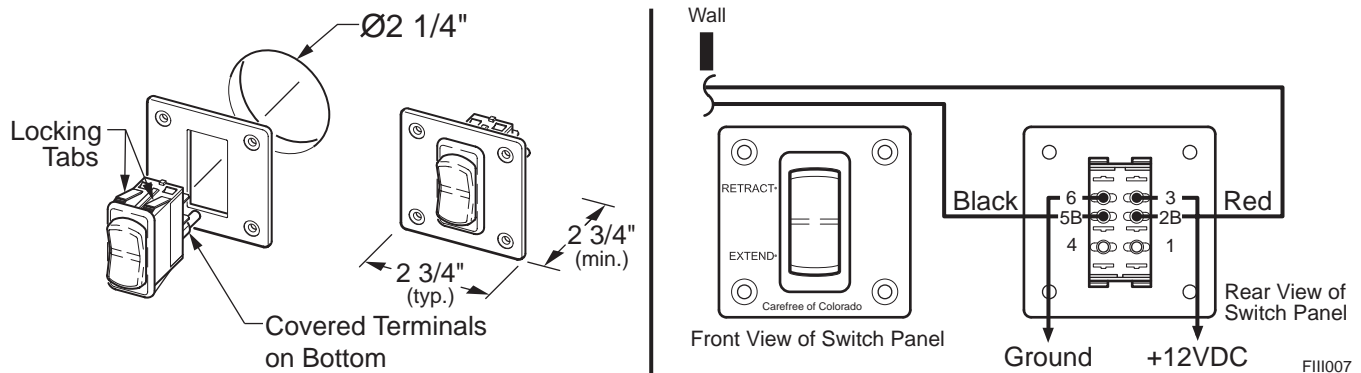


Figure 4. Switch Installation.

### ⚠ WARNING

**TERMINALS 1 AND 4 ARE CAPPED WITH FULLY INSULATED CONNECTORS. THESE TERMINALS MUST REMAIN CAPPED AT ALL TIMES.**

- Using a 2 1/4" hole saw, cut a hole through the mounting surface.
- Route the awning wires through the hole and terminate with spade connectors.
- Run a 14 gauge wire (never use less than 16 gauge) from the power distribution panel (auxiliary battery circuit) or equivalent. The circuit should be protected by a 15 amp fuse.
- Run a wire to system ground.
- Route the two new wires through the hole and terminate with spade connectors.
- Push the switch into the face plate until the tabs on the switch "click" into place behind the face plate. Ensure that the switch and face plate are oriented as shown.
- Attach the four wires to the switch as shown.
- Restore vehicle power and test operation.
- If the awning operates in a reverse to the switch plate markings:
  - Shut off power;
  - Reverse the red and black motor leads on the switch;
  - Restore power and test.
- Push the wires and switch into the mounting hole and secure the plate using four (4) #6 x 1/2" screws.

## INSTALLER FURNISHED SWITCHES

Two switch alternatives are available for installers wishing to furnish the control switch.

### Alternate Switch A

The installer can use a double pole, double throw switch with momentary ON, center OFF (Momentary ON – OFF – Momentary ON). The switch MUST have polarity reversal between the two ON positions. Wire the switch as shown on page 6.

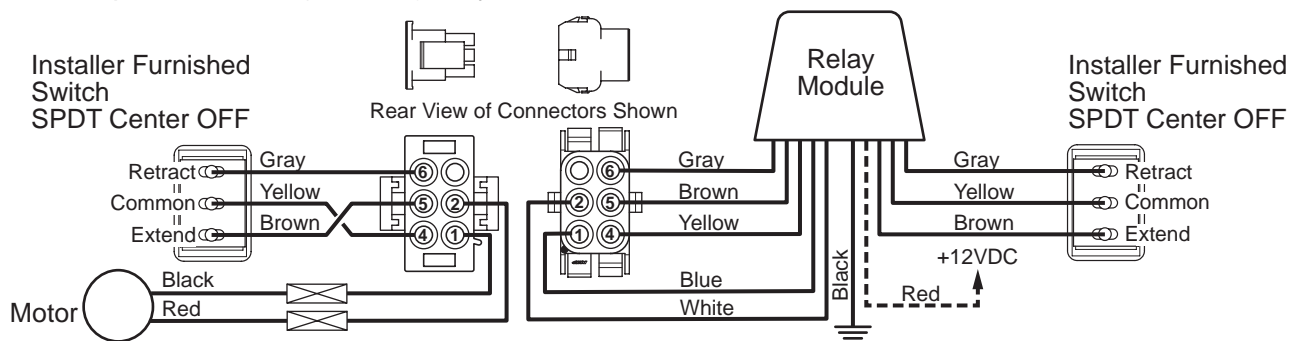
### Alternate Switch B

Used with the Carefree relay module, the installer may use up to two (2) single pole switches. The switch(es) must be momentary on, single pole, double throw, center OFF (Momentary ON – OFF – Momentary ON).

1. Route a cable for the motor wires from the motor location through the carriage walls to the location of the switch/relay module. The recommended cable from the switch to the awning should be 2-conductor, 20AWG, stranded, PVC coated, unshielded wire.
2. Butt-splice the motor wires to the installer furnished cable wires. Match the wire colors.
3. Determine the location of the switch.
  - Location should provide the operator a view of the shade during operation.
  - Follow the switch manufacturer's directions for preparing the switch mount location.
  - The relay module must be mounted within 16" or less of the switch location.
4. Separate the wires from the relay module into 3 groups:
  - Brown, yellow and gray (primary switch),
  - Black and red (power leads),
  - Connector bundle with: Brown, yellow and gray (switch); and, Blue and white (motor).

**NOTE: The relay module harness is supplied with one connector installed. The installer must furnish the mating connector (p/n 1-480704) and terminals (p/n 350547-3) for the exterior switch and motor cables. Vendor: AMP/Tyco Electronics.**

5. Measure and cut away any excess cable from the motor and primary switch wires. Terminate the wires and install in the mating connector as shown.
4. Run a wire from chassis ground to the relay module. Suitable ground would be the vehicle chassis or conductive structure connected to the chassis. Butt splice to the black (ground) relay wire.
5. Run an 18 gauge wire from the power distribution panel (auxiliary battery circuit) or equivalent to the relay module. The circuit should be protected by a 5 amp fuse (the motor has a maximum 2 amp stall current). Butt splice to the red (+12VDC) relay wire.



**Figure 5. Relay Module Wiring Diagram.**

6. Restore vehicle power and test the switch operation. Note which direction extends the awning and which direction retracts the awning.
7. Orient the switch so that pushing the switch up corresponds with retracting the awning, pushing the switch down corresponds with extending the awning. Install the switch into the mounting surface.

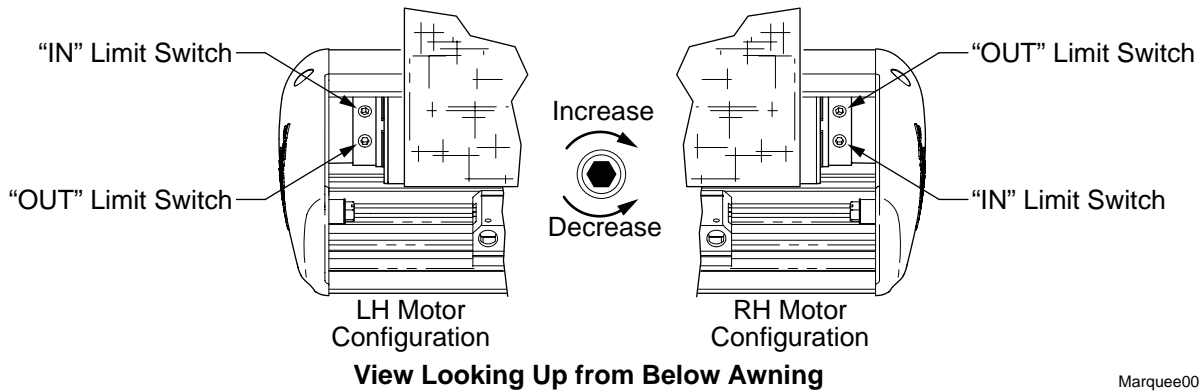
**NOTE: If the switch cannot be reoriented, reverse the top and bottom leads to the switch to reverse awning direction.**

8. On the relay module, remove the paper cover on the adhesive foam and press the module onto a flat surface.

## SETTING THE MOTOR LIMITS

The motor limit switches are preset at the factory for best operation of the awning. The “OUT” limit switch is used to stop the motor when the awning is fully extended. The “IN” limit switch is used to stop the motor when the awning is fully retracted.

The limit switches are located inside the case, near the end cap. It is necessary to extend the awning to access the switches.



**Figure 6. Motor Limit Switches.**

### *Adjusting the OUT Limit Switch*

**NOTE:** During normal operation, the awning will extend out completely then roll back slightly to provide tension to the fabric.

1. Extend the awning out completely.
2. Confirm that the arms are fully extended. The motor should stop and the fabric should be tight. If the motor continues to run, the fabric will sag; or, if the motor quits before the arms are extended, it will be necessary to adjust the “OUT” limit switch.
3. Using a 4mm Allen wrench turn the “OUT” limit switch. CLOCKWISE increases time the motor runs during extension, COUNTERCLOCKWISE reduces the time the motor runs.

**NOTE:** It is best to make the adjustments in increments of a single turn. 3 full turns of the screw equals approximately 2” of fabric extension.

4. Extend and retract the awning several times to confirm that the adjustment is correct.
5. Repeat steps 3 and 4 as required until the awning extends correctly.

### *Adjusting the IN Limit Switch*

1. Retract the awning in completely.
2. Confirm that the arms are fully retracted. The motor should stop when the awning is fully retracted. If the motor continues to run; or, if the motor quits before the arms are fully retracted, it will be necessary to adjust the “IN” limit switch.
3. Using a 4mm Allen wrench turn the “IN” limit switch. Clockwise increase time the motor runs during retraction, counter clockwise reduces the time the motor runs.

**NOTE:** It is best to make the adjustments in increments of a single turn. 3 full turns of the screw equals approximately 2” of fabric extension.

4. Extend and retract the awning several times to confirm that the adjustment is correct.
5. Repeat steps 3 and 4 as required until the awning retracts correctly.