



RV Kits

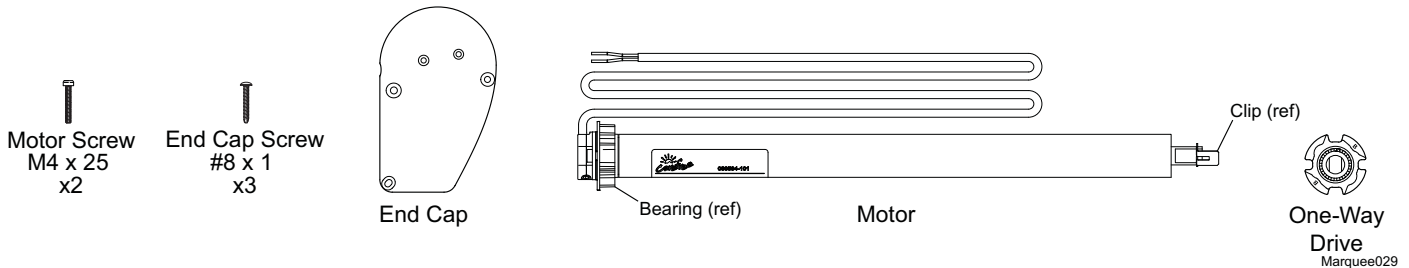
CAREFREE

TUBULAR MOTOR REPLACEMENT KIT

FOR THE MARQUEE WINDOW & OTD

This operation can be done while the awning is mounted on the vehicle. Use care not to damage the walls etc.

COMPONENT CHECKLIST



PRELIMINARY STEPS

1. Disconnect power to the awning.
2. If the awning is extended: (*Refer to Detail A*) Carefully push the lead rail toward the case so that the arms collapse. While holding the lead rail in this position, firmly tie the elbows of the spring arms together. Use a minimum 1/2" rope - do not use bungee cords. When tying the rope, use a non-slip knot such as a square knot or equivalent.
3. If the awning is closed: Firmly brace the lead rail in the closed position. A second person can hold the lead rail steady during the disassembly process.

⚠ CAUTION FAILURE TO SECURE THE LEAD RAIL AS DESCRIBED WILL ALLOW THE SPRING ARMS TO UNEXPECTEDLY EXTEND OUT POSSIBLY CAUSING PERSONAL INJURY AND DAMAGE TO THE AWNING.

4. Determine the type of roller tube that is used on the unit. For 2-slot roller tubes follow the procedure on page 2. For 3-slot roller tubes follow the procedure on page 3.

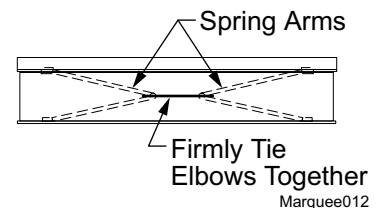


Figure 1. Tying the Arms.

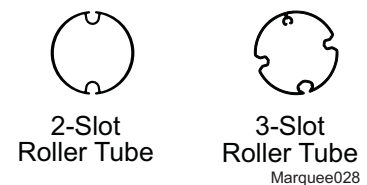


Figure 2. Roller Tube Types.

MOTOR REPLACEMENT W/ 2-SLOT ROLLER TUBE

This procedure replaces the motor and end cap of the awning.

1. Remove the three (3) screws holding the end cap to the case. Do not remove the two (2) motor screws.

⚠ CAUTION IF THE AWNING IS CLOSED WHEN THE END CAP IS REMOVED, THE SPRING ARMS WILL TRY TO OPEN. CONTINUE TO HOLD THE LEAD RAIL CLOSED.

2. Carefully pull the end cap and motor away from the case.
3. Pull the motor partially out from the awning case.

⚠ CAUTION WHEN PULLING THE MOTOR OUT OF THE CASE, THE SERVICING TECHNICIAN MUST USE CARE TO NOT BREAK OR DAMAGE THE MOTOR CABLES.

4. Disconnect the motor wires from inside the coach and pull out or clip the motor wires. If cutting the motor wires be sure to leave enough wire that can be stripped and spliced.
5. Pull the motor and end cap out of the roller tube and set aside.

⚠ CAUTION IF THE AWNING IS CLOSED WHEN THE END CAP IS REMOVED, THE SPRING ARMS WILL TRY TO OPEN. SUPPORT THE ROLLER TUBE AND ALLOW THE AWNING TO OPEN SLOWLY THEN SECURE THE ARMS BY TYING THE ELBOWS TOGETHER AS DESCRIBED PREVIOUSLY.

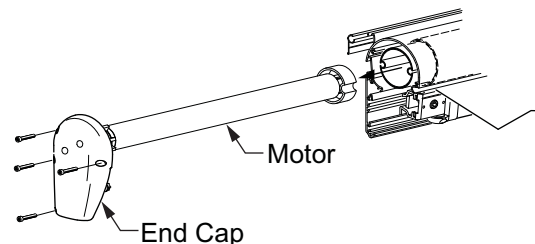
6. install the new one-way drive on the new motor.

⚠ WARNING THE ONE-WAY DRIVE MUST BE ORIENTED WITH THE "B" FACING THE MOTOR. FAILURE TO ORIENT THE DRIVE CORRECTLY WILL CAUSE THE AWNING NOT TO OPERATE AND THE ARMS WILL SPRING OUT WHEN RELEASED.

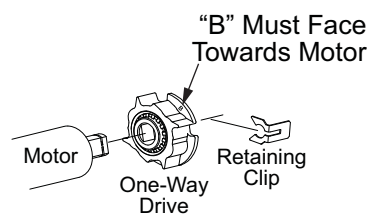
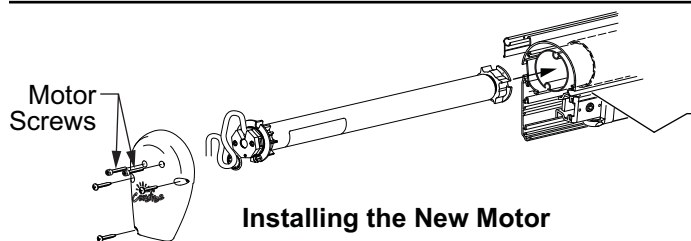
7. Attach the new motor to the new end cap. Note that the orientation is with the wire pointing up.
8. Route the wire around in the end cap as shown and secure using the supplied retaining ring.
9. Partially slide the new motor assembly into the roller tube. Ensure that the motor drive is properly seated inside the roller tube.
10. Route the new motor wire into the coach and attach or if the wires were cut, splice the new wires to the existing wires. Match the wires (Blue to Blue and Brown to Brown). Push the splices into the coach then use a quality silicone sealant to seal the wire hole into the coach.

NOTE: If splicing the wires, allow enough lead wire from the motor so that the completed splices can be pushed into the wall before sealing. There is not clearance room in the case for the wires and splices.

11. Finish pressing the motor into the roller tube; make sure that the bearing is aligned with the roller tube. Attach the end cap to the case.
12. While holding the lead rail, carefully remove any roller tube supports and arm ties. Allow the lead rail to extend until the fabric is taut. If the lead rail continues to extend after the fabric is taut, the one way drive was installed backwards. Retie the arms, remove the motor and orient the one way drive as shown above.
13. To test, restore power then extend and retract the awning.
14. After replacing the motor, it will be necessary to adjust the motor limits (page 4).



Removing the Old Motor



DETAIL A

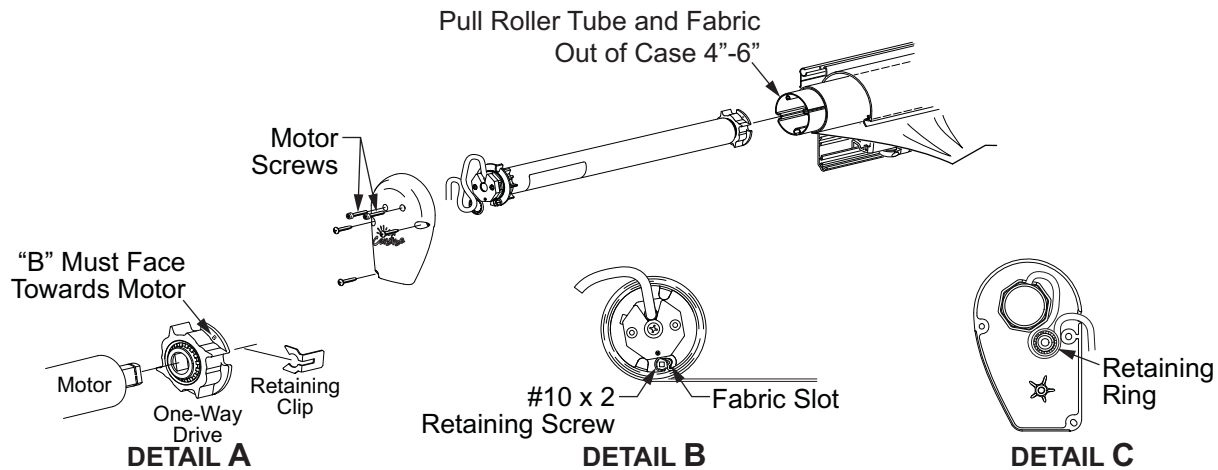


DETAIL B Marquee026

MOTOR REPLACEMENT W/ 3-SLOT ROLLER TUBE

This procedure replaces the motor and end cap of the awning.

⚠ CAUTION IF THE AWNING IS CLOSED WHEN THE END CAP IS REMOVED, THE SPRING ARMS WILL TRY TO OPEN. SUPPORT THE ROLLER TUBE AND ALLOW THE AWNING TO OPEN SLOWLY THEN SECURE THE ARMS BY TYING THE ELBOWS TOGETHER AS DESCRIBED ABOVE.



Marquee027

1. Remove the three (3) screws holding the end cap to the case. Remove the two (2) motor screws.
2. (Detail C) Carefully pull the end cap away from the case and remove the motor wire from the end cap. Set the end cap aside.
3. (Detail B) Remove the retaining screw from the bearing and roller tube. Pull the motor partially out from roller tube.

⚠ CAUTION WHEN PULLING THE MOTOR OUT, THE SERVICING TECHNICIAN MUST USE CARE TO NOT BREAK OR DAMAGE THE MOTOR CABLES.

4. Disconnect the motor wires from inside the coach and pull out or clip the motor wires. If cutting the motor wires be sure to leave enough wire that can be stripped and spliced.
5. Pull the motor out of the roller tube and set aside.
6. (Detail A) Install the new one-way drive on the new motor.

⚠ WARNING THE ONE-WAY DRIVE MUST BE ORIENTED WITH THE "B" FACING THE MOTOR. FAILURE TO ORIENT THE DRIVE CORRECTLY WILL CAUSE THE AWNING NOT TO OPERATE AND THE ARMS WILL SPRING OUT WHEN RELEASED.

7. (Detail B) Slide the new motor into the roller tube and attach the retaining screw through the bearing and in the fabric slot. The screw must be positioned to thread into the metal of the roller tube slot and the edge of the polycord. The screw action will pull the polycord further into the slot hole. DO NOT OVER TIGHTEN, maximum torque 16 in-lbs.
8. Carefully pull the roller tube and fabric out of the case 4"-6". This will pull the roller tube out of the idler side.
9. Attach the end cap to the new motor. Note that the orientation is with the wire pointing up.
10. (Detail C) Route the wire around in the end cap as shown and secure using the supplied retaining ring.
11. Route the new motor wire into the coach and attach or if the wires were cut, splice the new wires to the existing wires. Match the wires (Blue to Blue and Brown to Brown. Push the splices into the coach then use a quality silicone sealant to seal the wire hole into the coach.

NOTE: If splicing the wires, allow enough lead wire from the motor so that the completed splices can be pushed into the wall before sealing. There is not clearance room in the case for the wires and splices.

12. Align the roller tube on the idler side and slide the roller tube and fabric into the awning.
13. Align the screw holes in the end cap and attach to the awning case.
14. While holding the lead rail, carefully remove any roller tube supports and arm ties. Allow the lead rail to extend until the fabric is taunt. If the lead rail continues to extend after the fabric is taunt, the one way drive was installed backwards. Retie the arms, remove the motor and orient the one way drive as shown above.
15. To test, restore power then extend and retract the awning.
16. After replacing the motor, it will be necessary to adjust the motor limits (page 4).

SETTING THE MOTOR LIMITS

The limit switches are located inside the case, near the end cap. It is necessary to extend the awning to access the switches. The "OUT" limit switch stops the motor when the awning is fully extended. The "IN" limit switch stops the motor when the awning is fully retracted.

ADJUSTING THE OUT LIMIT SWITCH

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 fully 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

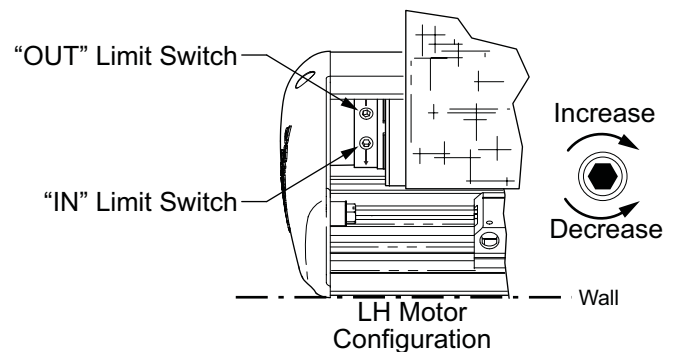


THE IN-LIMIT SWITCH MUST BE SET TO SHUT OFF THE MOTOR WHEN THE AWNING IS CLOSED. THE MOTOR MUST NOT CONTINUE TO RUN AFTER THE AWNING IS CLOSED OTHERWISE DAMAGE TO THE MOTOR WILL OCCUR IF THE MOTOR CONTINUES TO RUN AFTER THE AWNING IS CLOSED.

1. Retract the awning in completely.
2. Confirm that the arms are fully retracted. The motor must 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.



View Looking Up from Below Awning

Marquee008

Figure 3. Motor Limit Switches.



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