



TUBULAR MOTOR REPLACEMENT KIT

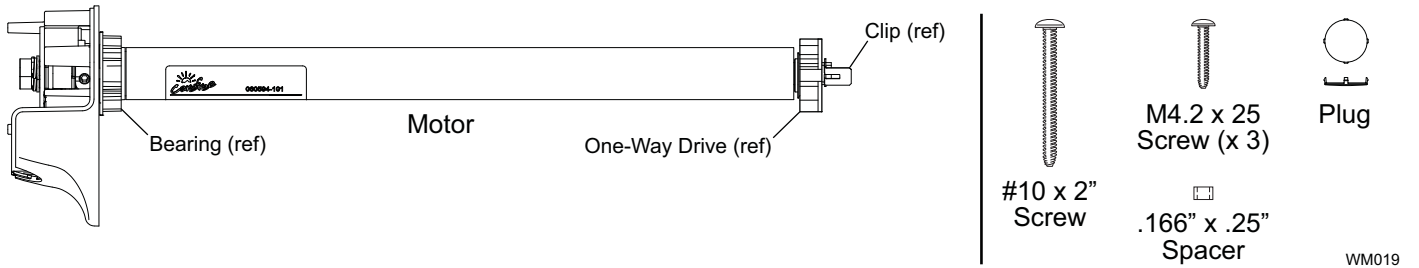
Kit No: R001637

RV Kits

FOR THE FREEDOM WM (STYLE CODE 98)

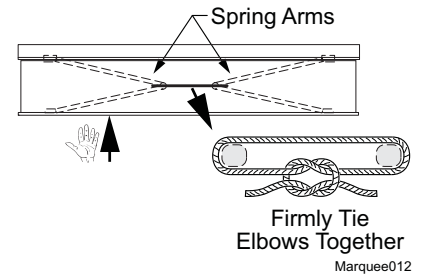
This operation can be done while the awning is mounted on the vehicle. Use care not to damage the walls etc.

COMPONENT CHECKLIST



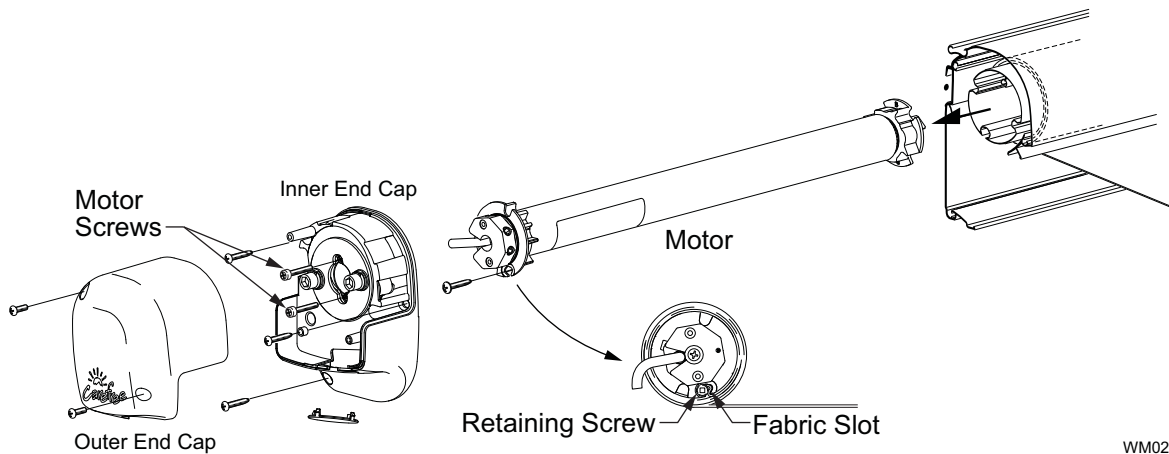
PRELIMINARY STEPS

1. Disconnect power to the awning.
2. If the awning is extended: 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.

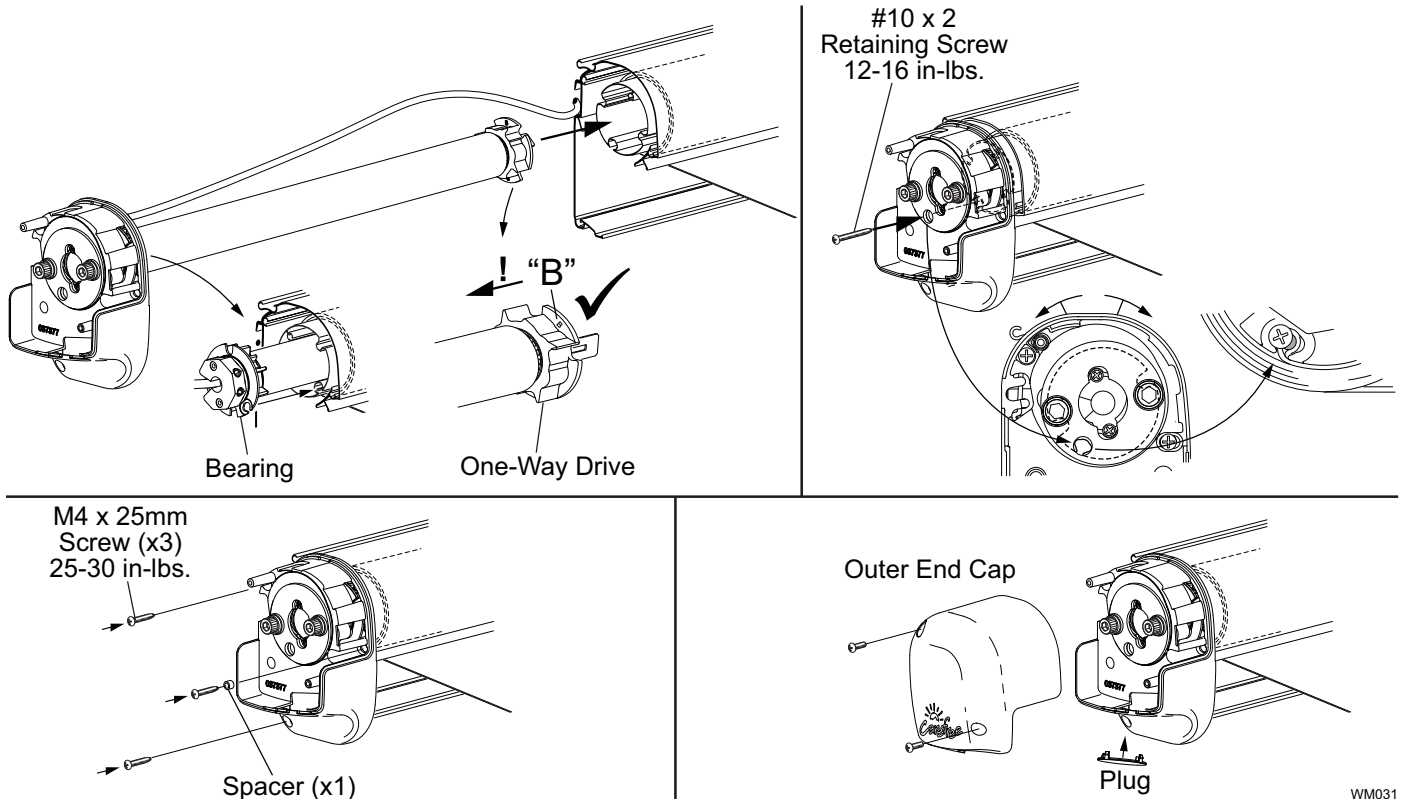
REMOVE OLD MOTOR



WM020

1. Remove the two (2) screws holding the outer end cap. Set the cap and screws aside.
2. Remove the three (3) screws and spacer holding the inner end cap to the case. Remove the two (2) motor screws.
⚠ CAUTION IF THE AWNING IS CLOSED WHEN THE INNER END CAP IS DETACHED, THE SPRING ARMS WILL TRY TO OPEN. CONTINUE TO HOLD THE LEAD RAIL CLOSED.
3. Carefully pull the inner end cap away from the case and remove the motor wire from the end cap. Set the end cap aside.
4. 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.
5. Disconnect the motor wires from inside the vehicle 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.
6. Pull the motor out of the roller tube and set aside.
⚠ CAUTION IF THE AWNING IS CLOSED WHEN THE MOTOR 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.

INSTALL THE NEW MOTOR



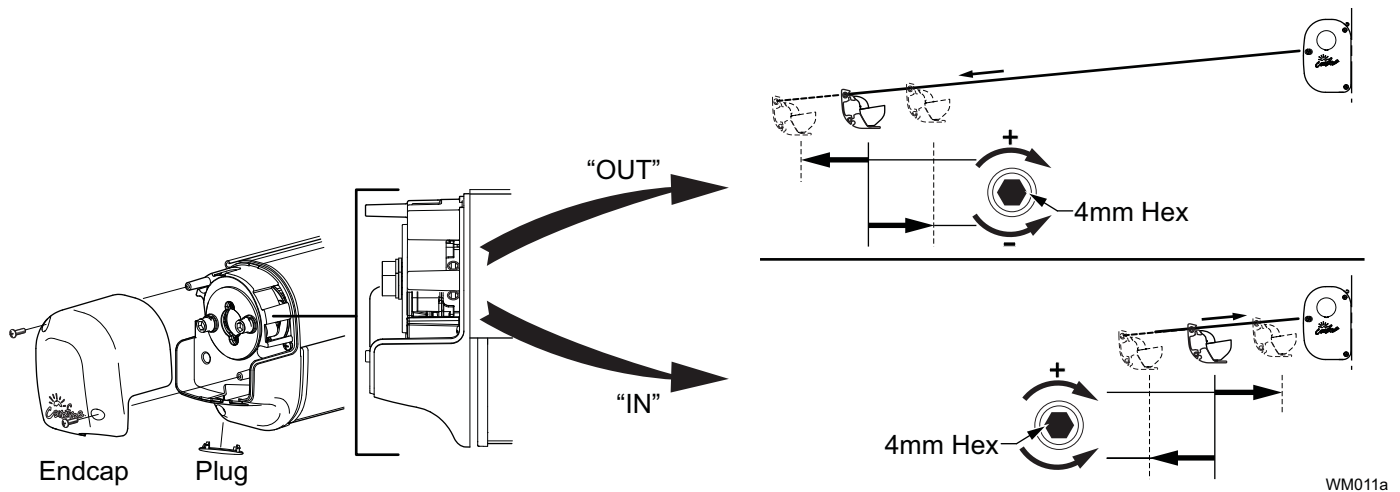
1. Check that the one-way drive is installed on the motor with the "B" pointing toward the motor.

⚠ WARNING THE ONE-WAY DRIVE MUST BE ORIENTED WITH THE "B" FACING THE MOTOR. IF THE DRIVE IS NOT ORIENTED THE AWNING NOT TO OPERATE AND THE ARMS WILL SPRING OUT WHEN RELEASED.
2. Align the one-way drive with the roller tube and start sliding the new motor into the roller tube.
3. Route the new motor wire into the vehicle 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 vehicle then use a quality silicone sealant to seal the wire hole into the vehicle.

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.
4. Align the bearing on the motor and slide into the roller tube.
5. Through the access hole in the inner end cap, 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. It may be necessary to rotate the roller tube to align the access hole and fabric slot.
6. Align the screw holes in the inner end cap and attach to the awning case using three (3) M4 x 25 screws and 1 spacer in the front attach hole.
7. 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.
8. To test, restore power then extend and retract the awning.
9. After replacing the motor, it will be necessary to adjust the motor limits (page 4).
10. After testing and adjusting the motor limits, attach the outer end cap.

WM031

ADJUSTING THE MOTOR LIMITS



WM011a

OUT LIMIT SWITCH

The "OUT" limit switch stops the motor when the awning is fully extended

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.

IN LIMIT SWITCH

The "IN" limit switch stops the motor when the awning is fully retracted.

CAUTION 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.