

9500E

(12 VDC) Power Case/Cassette Awning Model 231(LL)(CC).003(#)

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Read these instructions carefully. These instructions MUST stay with this product.

REVISION D

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USA & CANADA

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INTRODUCTION

This cassette awning (hereinafter referred to as "awning," or "product") is designed and intended for use on a Recreational Vehicle (hereinafter referred to as "RV") with straight sides. It is especially well-suited for RVs with an over-cab extension where there is not sufficient surface for a bottom mounting bracket. Use these instructions to ensure the correct operation of the product.

Dometic Corporation reserves the right to modify appearances and specifications without notice.

IMPORTANT SAFETY INSTRUCTIONS AND DOCUMENT SYMBOLS

This manual has safety information and instructions to help you eliminate or reduce the risk of accidents and injuries.

A. Recognize Safety Information

This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

B. Understand Signal Words

A signal word will identify safety messages and property damage messages, and will indicate the degree or level of hazard seriousness.

AWARNING indicates a hazardous situation that, if **NOT** avoided, could result in death or serious injury.

ACAUTION indicates a hazardous situation that, if **NOT** avoided, could result in minor or moderate injury.

NOTICE is used to address practices **NOT** related to physical injury.

Indicates additional information that is not related to physical injury.

Supplemental Directives

Read and follow all safety information and instructions to avoid possible injury or death. Read and understand these instructions before use and maintenance of this product.

Incorrect operation and maintenance of this product can lead to serious injury.

The installation **MUST** comply with all applicable local or national codes, including the latest edition of the following standards:

U.S.A.

CANADA

- ANSI/NFPA70, National Electrical Code (NEC)
- ANSI/NFPA 1192, Recreational Vehicles Code

- CSA C22.1, Parts I & II, Canadian Electrical Code
- CSA Z240 RV Series, Recreational Vehicles

D. General Safety Messages

AWARNING Failure to obey the following warnings could result in death or serious injury:

- This product **MUST** be serviced by a qualified service technician.
- Do **NOT** modify this product in any way. Modification can be extremely hazardous.
- Frequently examine product for imbalance (uneven fit, sagging, loose parts), and for signs of wear or damage to wiring (if applicable) and other critical parts. Do **NOT** use product if adjustments or repairs are necessary.

(*i*) Critical parts may include awning fabric, cables, arm assemblies, etc.

- Disconnect product from power supply (if applicable), and do **NOT** operate product when maintenance (such as window cleaning) is being carried out in the vicinity.
- Do **NOT** allow anyone (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge to use this product, unless they have been given supervision or instruction (concerning use of this product) by a person responsible for their safety.
- Do **NOT** allow children to play with product or with fixed controls (if applicable).
- Keep remote controls (if applicable) away from children.
- Do **NOT** add any devices or accessories to this product except those specifically authorized in writing by Dometic Corporation.

IMPORTANT SAFETY INSTRUCTIONS AND DOCUMENT SYMBOLS

WARNING IMPACT OR CRUSH HAZARD. **NEVER** leave an open awning unattended. Keep awning stowed (closed) when snow, heavy rain, wind, and severe weather conditions are expected.

- IMPACT OR CRUSH HAZARD. Do **NOT** allow water to pool, snow to accumulate, or heavy debris on awning fabric. Do **NOT** hang or place anything on awning. The awning will become unstable, and could bend or collapse.
- FIRE HAZARD. Keep sources of heat and fire (barbecue grills, portable heater, etc.) away from awning.

ACAUTION Failure to obey the following cautions could result in injury:

• PINCH HAZARD. Maintain a horizontal distance of at least 16" between fully open awning and any permanent object.

Do **NOT** face awning toward permanent objects that may interfere with awning operation.

• PINCH HAZARD. Keep **CLEAR** of arm assemblies while awning is open. If awning is equipped with a vibration sensor, arm assemblies will automatically close against back rail during windy conditions.

NOTICE This product is for use with 12 VDC only.

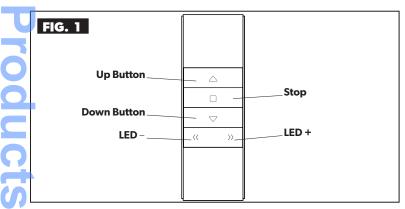
OPERATION

A. Opening And Closing The Awning

WARNING PINCH HAZARD. Keep CLEAR of arm assemblies while closing awning. Arm assemblies will close against back rail. Failure to obey this warning could result in death or serious injury.

ACAUTION PINCH HAZARD. Maintain a horizontal distance of at least 16" between fully open awning and any permanent object. Failure to obey this caution could result in injury.

NOTICE Do **NOT** allow awning fabric to rest on rafters. Wind will cause awning fabric to rub against arm assemblies which could result in premature wear and abrasions.



• Press the UP and DOWN awning remote buttons to retract and extend the awning.

BUTTON	FUNCTION	
Up	Retracts the awning (one touch)	
Stop	Stops the awning at an intermediate position	
Down	Extends the awning (one touch)	
LED –	Dims LED light(s)	
LED +	Brightens LED light(s)	



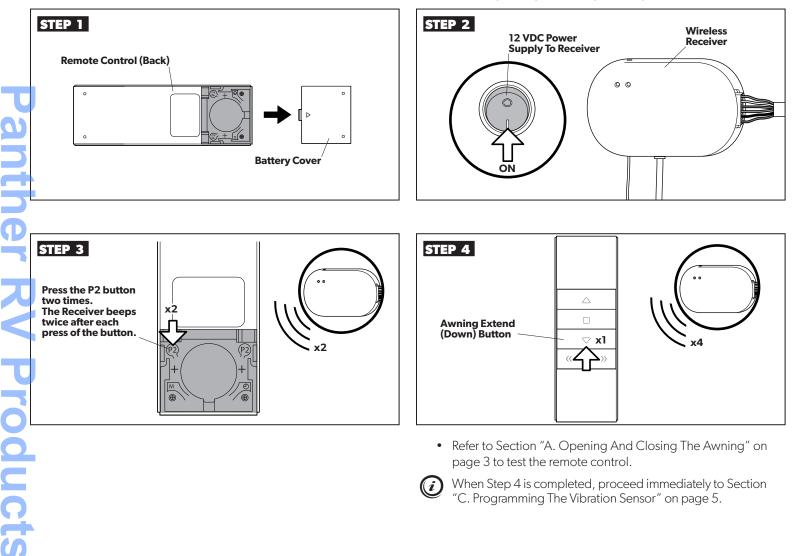
If the awning does **NOT** perform as indicated or fabric edges are sagging when extended, refer to "Troubleshooting" on page 14.

B. Programming The Remote Control

AWARNING IMPACT OR CRUSH HAZARD. Make sure the awning retract button and the awning extend button operate the awning in the intended direction. Failure to obey this warning could result in death or serious injury.

(i) Complete each programming step within four seconds of the previous step to keep the receiver in pairing mode. If the receiver resets, restart the programming process.

• Disconnect all power to the receiver and wait 10 seconds before reconnecting to begin the programming process.



(i)

When Step 4 is completed, proceed immediately to Section "C. Programming The Vibration Sensor" on page 5.

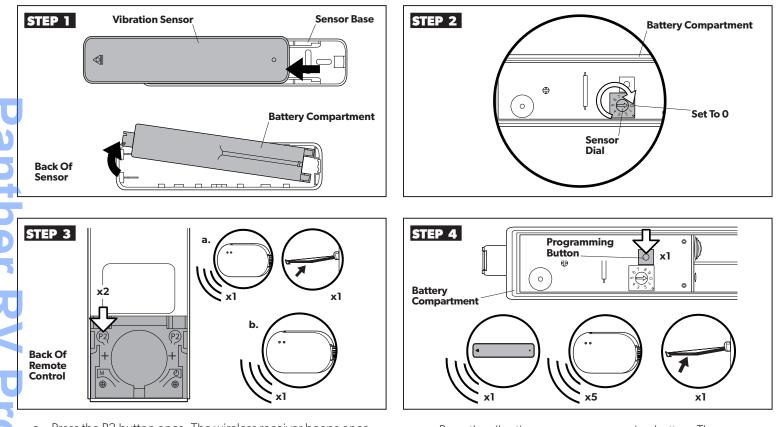
page 3 to test the remote control.

C. Programming The Vibration Sensor

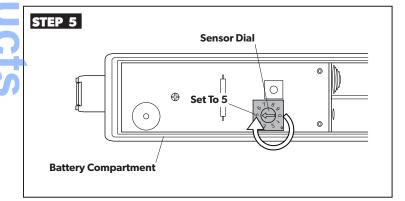
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Complete each programming step within four seconds of the previous step to keep the receiver in pairing mode. If the receiver resets, restart the programming process.

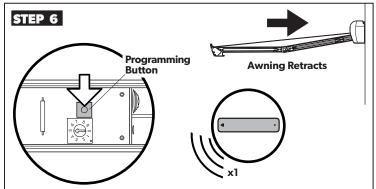
• When installing a vibration sensor, complete the steps in Section "B. Programming The Remote Control" immediately before beginning Step 1 of this procedure.



- a. Press the P2 button once. The wireless receiver beeps once and the awning jogs.
- b. Press the P2 button a second time. The receiver beeps once.

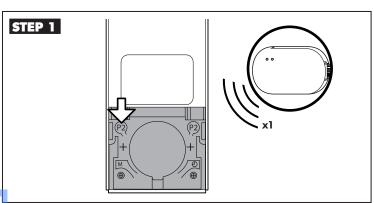


• Press the vibration sensor programming button. The sensor beeps once, the wireless receiver beeps five times, and the awning jogs.

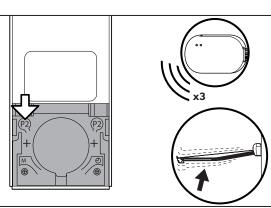


- Set the vibration sensor dial to the desired level of detection (see Section "A. Adjusting The Vibration Sensor" on page 9).
- Press the vibration sensor programming button once. The sensor beeps once and the awning retracts.

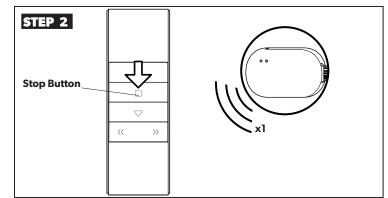
D. Resetting The Receiver



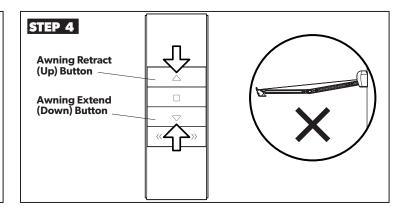
• Press the P2 button on the remote. The receiver beeps once.



Press the P2 button on the remote. The receiver beeps three times and the awning jogs.



• Press the Stop Button on the remote. The receiver beeps once.



- On the remote, press the Up button, then the Down button.
 - If the awning does not move, the receiver is reset.
 - If the awning moves, repeat Steps 1 through 3 until the awning does not move when the Up and Down buttons are pressed.
- Refer to Section "B. Programming The Remote Control" on page 4 to reprogram the remote to the receiver.

E. Testing The Awning Before Travel

AWARNING Failure to obey the following warnings could result in death or serious injury:

- IMPACT OR CRUSH HAZARD. Do NOT transport RV if awning fabric is torn or damaged, even if awning closes successfully. Damaged awning fabric could compromise awning's stability and could allow awning to extend quickly and unexpectedly during transit.
- IMPACT OR CRUSH HAZARD. Verify ignition interlock is working correctly before traveling with RV. If awning responds to remote with ignition in ON position, accidental operation during transit could occur. The awning **MUST** be disabled, then serviced by a qualified service technician.
- Inspect the awning for damage. If the fabric is torn, tie the lateral arm assemblies tightly before travel. Then contact a qualified service technician for repairs.
- Test the ignition interlock system by turning the ignition to the ON position. Attempt to retract the awning. If the awning operates, refer to "Troubleshooting" on page 14.

STEP 3 STEP 3 Pres time E. Test AWARD

F. Closing The Awning Using An Auxiliary Power Method

WARNING ELECTRICAL SHOCK HAZARD. Disconnect power from product before accessing wiring connections. There may be issues mimicking a power failure with electric current still present, or power may return unexpectedly. Failure to obey this warning could result in death or serious injury.

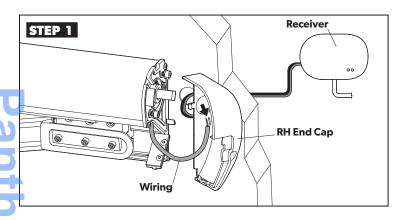


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RV Products

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Rule out simple causes for power failure BEFORE proceeding. Refer to "Troubleshooting" on page 14. After awning is closed manually, it will require service by a qualified service technician.



- Disconnect power to the RV, the receiver unit, and the awning.
- Unplug the motor connector from the RV wiring connector inside the RH end cap.
- Using 16 gauge wire leads, connect the positive (+) lead wire to the BLUE motor wire and the negative (-) lead wire to the BROWN motor wire. Secure using electrical tape.
- Connect the other end of the wire leads to the positive (+) and negative (-) terminals on an external 12 VDC power source.
- Disconnect the wire leads from the power source when the awning retracts fully.
- If the awning does not retract, proceed to "G. Closing The Awning Manually" on page 8.

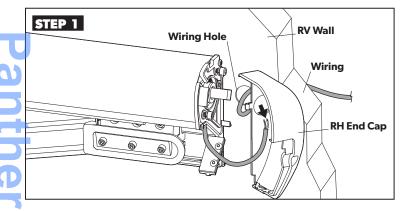
G. Closing The Awning Manually

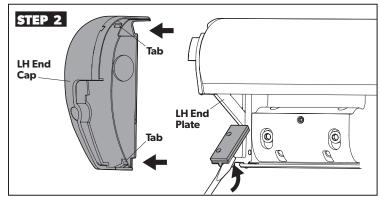
AWARNING PINCH HAZARD. Keep CLEAR of arm assemblies while closing awning. Arm assemblies will close against back rail. Failure to obey this warning could result in death or serious injury.



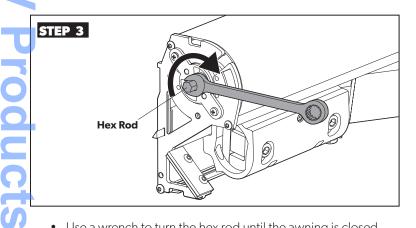
Read BEFORE proceeding with this section:

- Perform these steps ONLY if the awning did not retract after performing the steps in "E. Testing The Awning Before Travel" on page 6. Use a 3/8" wrench (or drill) and a flat-bladed screwdriver to complete steps.
- The awning may display up to a 4" gap when closed. To remove the gap, readjust the awning close limit after a qualified service technician has repaired the awning.





- Disconnect power to the RV, the receiver unit, and the awning.
- Unplug the motor connector from the RV wiring connector inside the RH end cap.



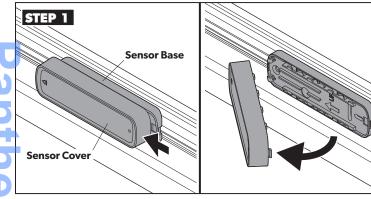
- Use a wrench to turn the hex rod until the awning is closed. ٠
- The awning may not close completely. Up to a 4" gap may (i)exist between the lead rail and the awning case.
 - Reinstall the LH end cap. ٠

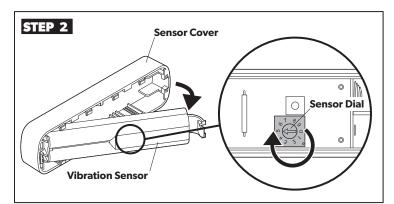
ADJUSTMENTS

A. Adjusting The Vibration Sensor

WARNING IMPACT OR CRUSH HAZARD. Keep your hands, arms, head, and torso clear of the awning hardware during periods of rain, wind, etc. These conditions may cause the vibration sensor to unexpectedly activate and retract the awning. Failure to obey this warning could result in death or serious injury.

- **NOTICE** Failure to obey the following notices could damage product or property:
- Do NOT rely on the vibration sensor to prevent damage to the awning. The awning should ALWAYS be closed when unattended or when strong rain, wind, etc., is expected.
- Do NOT hang any items from, or block, the travel of the hardware arms or awning when the vibration sensor is installed.



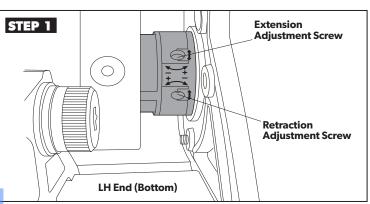


- To adjust the sensitivity of the vibration sensor, turn the dial to a setting between 1 (most sensitive) and 9 (least sensitive). Settings 0 and 5 are for programming only.
- (i)

After making adjustments, confirm that the vibration sensor is functioning correctly. See the installation manual for more details.

ADJUSTMENTS

B. Adjusting The Awning Open/Close Limits



- To adjust the awning so the front rail fits tightly against the case when the awning is fully closed:
 - Turn the retraction adjustment screw clockwise for less awning retraction.
 - Turn the retraction adjustment screw counterclockwise for more awning retraction.

The motor should turn off and stop turning when the awning is fully closed. If the motor continues turning after the awning closes, damage to the motor or awning components may occur.

- To adjust the awning so the fabric is not overly taut or sagging when the awning is fully open:
 - Turn the extension adjustment screw clockwise for less awning extension.
 - Turn the extension adjustment screw counterclockwise for more awning extension.

MAINTENANCE

NOTICE Failure to obey the following notices could damage product or property:

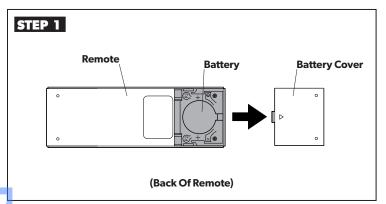
- Do **NOT** use insecticides or other sprays near the awning fabric. These could cause stains, and could adversely affect the fabric's ability to repel water.
- Do **NOT** expose the awning to adverse environmental conditions, corrosive agents, or other harmful conditions.
- Do **NOT** allow the corner of the entry door to contact the awning fabric. Otherwise, premature wear or tearing of awning fabric could occur.
- **NEVER** close the awning (for storage) when wet. The combination of moisture and dirt could result in mildew, discoloration, and stains. If it is necessary to roll up awning (temporarily) while wet, make sure you roll it out and let it dry (as soon as conditions allow) before rolling it up again.
- Do **NOT** allow dirt, leaves, or other debris to accumulate on the awning, which could cause abrasion and stains. Mildew could grow on dirt and organic debris, causing permanent discoloration, stains, and odors to the awning fabric.
- Do **NOT** use rechargeable batteries (NiMH, NiCD, etc.). Disposable Lithium or Alkaline batteries are recommended. Do not mix battery types.
- Make sure battery polarity is matched correctly to battery compartment.

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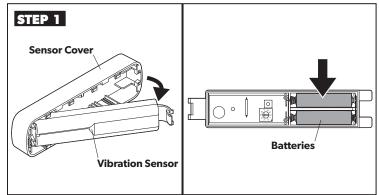
MAINTENANCE

A. Changing The Batteries In The Remote



• Insert one CR2430 Li-MnO2 battery. Replace battery cover.

B. Changing The Batteries In The Vibration Sensor



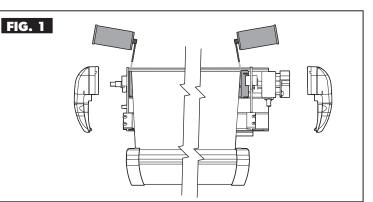
- Remove the vibration sensor from the sensor base on the lead rail and pull slide off the sensor cover.
- Insert two AAA disposable batteries. A short beep will emit from the sensor when the batteries are in place.
- Replace the sensor cover and reattach the vibration sensor.

C. Maintaining The Hardware

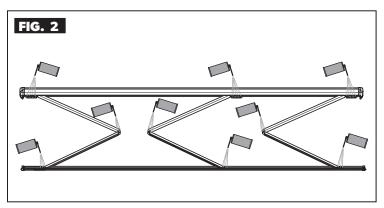
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NOTICE Failure to obey the following notices could damage product or property:

- Do **NOT** use strong chemicals or abrasives to clean parts, as their protective surfaces will be damaged.
- Do **NOT** use silicone sprays near labels. Otherwise, the adhesive bond to product surfaces could weaken.



Spray silicone lubricant on the moving parts of the awning.

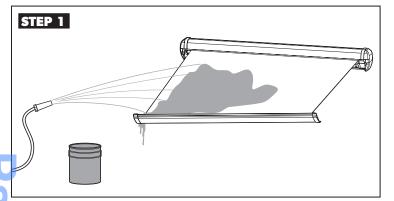


• Spray silicone lubricant at the joints of the arm assemblies.

MAINTENANCE

D. Maintaining The Fabric

Cleaning The Awning Fabric



NOTICE Failure to obey the following notices could damage product or property:

- Do **NOT** use abrasive or corrosive cleaners, mildew removers, or hard bristle brushes on the awning fabric.
- Remove solution COMPLETELY from awning fabric. Bleach will degrade awning fabric if NOT completely rinsed off.

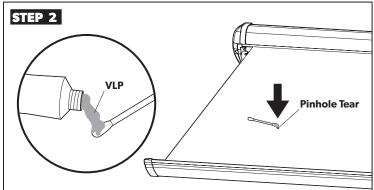
Wrinkling is a normal characteristic of a vinyl awning. To minimize wrinkling, leave the awning open during warm weather. If a slight "travel line" appears where the door roller (if installed) contacts the fabric, the integrity of the fabric will **NOT** be affected.

- Mix a cleaning solution of 1/4 cup dish soap and 1/4 cup bleach with five gallons of fresh water.
- Open the awning, apply the cleaning solution, then close the awning for five minutes.
- Open the awning and completely remove the solution from the top and bottom of the awning fabric, using clean water.
 - Rinse thoroughly. Bleach degrades the fabric.

Product

• Repeat process as necessary. Make sure the awning fabric is dry before closing.

Repairing The Awning Fabric



NOTICE NEVER close (roll up) awning when vinyl liquid patch (VLP) is wet. Otherwise, damage to other parts of the awning fabric (melting through layers) will occur.

- To repair a pinhole or a spot flaked off of the coating, apply a very small amount of VLP to a cotton swab.
- Gently roll the cotton swab around the pinhole. The VLP melts the coating (on the fabric) and fills in the pinhole so it blends with the vinyl color.
- Make sure the VLP is dry before closing the awning.

VLP is available from Dometic Corporation. Reference part number 3314216.000 when ordering.

TROUBLESHOOTING

A. Awning Motor And Remote

Awning motor does not respond to awning remote.Motor will not operate for approximately 60 seconds after awning is closed by vibration sensor.Power receiver OFF then ON to temp delay.Awning motor does not respond to awning remote.Remote batteries may be spent.Press either the UP or DOWN button b the LED lights momentarily (on remote) light, install new battery. See Section "A Batteries In The Remote" on page 11.Awning motor does not respond to awning remote.Remote is not activated, programmed to re- ceiver, or remote programming is corrupt.If remote is added from a kit, see Sec Programming The Remote Control" of Receiver may need to be reset. See S ting The Receiver" on page 6.Awning is disconnected from power source.Check all power connections.RV or power source breaker is tripped, or fuse is blown.Reset breaker, or replace fuse as nece persists, contact a qualified service to persists, contact a qualified service to	
Awning motor does not respond to awning remote.Remote batteries may be spent.the LED lights momentarily (on remote) light, install new battery. See Section "A Batteries In The Remote" on page 11.Awning motor does not respond to awning remote.Remote is not activated, programmed to re- ceiver, or remote programming is corrupt.If remote is added from a kit, see Sec Programming The Remote Control" of Receiver may need to be reset. See S ting The Receiver" on page 6.Awning is disconnected from power source.Check all power connections.RV or power source breaker is tripped, or fuseReset breaker, or replace fuse as nece	porarily bypass
Awning motor does not respond to awning remote. Remote is not activated, programmed to receiver, or remote programming is corrupt. Programming The Remote Control " or Receiver may need to be reset. See Sting The Receiver" on page 6. Awning is disconnected from power source. Check all power connections. RV or power source breaker is tripped, or fuse Reset breaker, or replace fuse as neces	e). If LED does not
Awning motor does not respond to awning remote. Awning is disconnected from power source. Check all power connections. RV or power source breaker is tripped, or fuse Reset breaker, or replace fuse as nece	
Awning is disconnected from power source. Check all power connections. RV or power source breaker is tripped, or fuse Reset breaker, or replace fuse as necessary.	Section "D. Reset-
A power line switch is OFF, or ignition disconnect switch is ON. Turn power line switch ON, or ignitio	on switch OFF.
RV battery has discharged. Recharge RV battery.	
Awning motor is damaged or defective.Close awning manually and contact a technician.	a qualified service
Awning motor travels in wrong direction when UP or DOWN button is pressed.Remote programming for motor rotation is incorrect.The motor and remote will need to be to change the direction on the remote Programming The Remote Control" of Control	ote. See Section "B.
Awning does not fully extend, or extends too far (fabric edge sags).Awning out limit is set incorrectly.See "B. Adjusting The Awning Open page 10 to reset the limit.	n/Close Limits" on
Awning closes slightly after stopping on extension.This is a feature added to enhance fabric tension and appearance.No action required.	

TROUBLESHOOTING

B. Vibration Sensor

	PROBLEM
	Awning does not automatically close when windy conditions are present.
T	Awning automatically clos- es during light breezes.
an	Awning automatically clos- es after 30 minutes without windy conditions.
ther R	Awning automatically clos- es after one hour without windy conditions.
	Vibration sensor does not beep when new batteries are installed.
Products	

PROBLEM	CAUSE	SOLUTION
rning does not comatically close when ndy conditions are esent.	Vibration sensor batteries are low.	Replace batteries. See Section "B. Changing The Batteries In The Vibration Sensor" on page 11.
	Vibration sensor is not programmed to awning motor.	Program the vibration sensor. See Section "C. Pro- gramming The Vibration Sensor" on page 5.
	Sensitivity setting is too low.	
ning automatically clos- during light eezes.	Sensitivity setting is too high.	Adjust to appropriate sensitivity level. See Section "A. Adjusting The Vibration Sensor" on page 9.
ning automatically clos- after 30 minutes without ndy conditions.	Vibration sensor batteries are low. This is indi- cated by the vibration sensor beeping at regular intervals.	Replace batteries. See Section "B. Changing The Batteries In The Vibration Sensor" on page 11.
ning automatically clos- after one hour without ndy conditions.	Vibration sensor is missing, or installed incorrectly on sensor base.	Install vibration sensor onto sensor base correctly. See vibration sensor instructions on how to replace the vibration sensor.
	Vibration sensor batteries are dead.	Replace batteries. See Section "B. Changing The Batteries In The Vibration Sensor" on page 11.
	Vibration sensor is damaged or defective.	Replace vibration sensor. See vibration sensor instructions on how to replace the vibration sensor.
pration sensor does not ep when new batteries installed.	Vibration sensor batteries are installed incorrectly.	Install batteries to correct polarity (direction).

WARRANTY

LIMITED ONE-YEAR WARRANTY AVAILABLE AT WWW.DOMETIC.COM/WARRANTY.

IF YOU HAVE QUESTIONS, OR TO OBTAIN A COPY OF THE LIMITED WARRANTY FREE OF CHARGE, CONTACT:

DOMETIC CORPORATION CUSTOMER SUPPORT CENTER 1120 NORTH MAIN STREET ELKHART, INDIANA, USA 46514 1-800-544-4881 OPT 3