

BST AWNING INSTALLATION MANUAL

INTRODUCTION

Customer Service:

Congratulations and thank you for purchasing a Quality BST Retractable Awning. We are confident of your satisfaction and years of enjoyment with our product. In order to make the best of your investment, be certain to familiarize yourself with the contents of this entire owner's manual before installation or operation. We recommend that you retain this manual for future reference. Your new awning is designed to be installed by the homeowner with the assistance of a second person. If however, you feel this procedure is too difficult to achieve on your own, seek the assistance from a local handyman.

IMPORTANT: Improper installation and operation of your awning can result in product failure not covered by the warranty. We have taken great care to properly align and adjust your awning at the factory. Altering, disassembling or readjusting any of the awning's mechanics (including the extension arms' locations) will cancel the warranty. Exceptions are adjusting the INCLINATION/PITCH and the AWNING'S TRAVEL DISTANCE as described in these instructions.

If you experience a problem, first try the solutions suggested in the **TROUBLESHOOTING SECTION** on Page 7 and if the problem persists then contact our Customer Service Center (<http://BstProductsInc.com/support>). Our well-trained staff will respond in a timely fashion and will assist you and/or resolve any questions or problems you are experiencing.

BST Awning Customer Service Center: <http://BstProductsInc.com/support>

The Main Shipping Container consists of the following items:

- Your assembled awning, one 4' Manual Crank, ONE BOX that contains: *loose awning mounting hardware, one Crank Extension, one Green Limit Switch Adjustment Tool (motorized awning only), one Remote Wall Control Panel (motorized awning only), two Remote Controls (motorized awning only), two Torsion Bar End Caps (if optional hood is not ordered), set of Wall Mounting Brackets, one 7' pig tail Power Supply Cable (motorized awning only) and if ordered separately or with the Elite Package one Wind Sensor Assembly.*
- If either the optional Soffit or Roof Mounts are ordered a SECOND BOX may be included which contains the *mounts and hardware.*

A Second Shipping Container consists of the following items:

- You will only receive a second shipping container if you ordered the Elite Package. It will contain *one Protective Awning Hood, two Hood End Caps and the Hood Hardware.*

Product Handling:

Your new BST Retractable Awning has been constructed, packaged, and shipped with the utmost care. **Take care when removing the awning from the shipping container so it will be protected from accidental damage or soiling.** Once the awning has been removed from the shipping container do not drop or drag the awning across the ground. **Transport the awning by lifting it by the square Torsion Bar that runs the entire length of the awning. DO NOT lift the awning by the Awning Extension Arms because they may break.** Remove the plastic wrap around the awning and discard. **CAUTION:** The fabric material is just below the clear protective wrap and use of a razor blade or knife may accidentally slice into it.

IMPORTANT WARNING!

Your new awning is intended as a protection against the sun only. It is not to be used during periods of strong wind, heavy rain, hail, or snow. The warranty will not cover use during these periods.

INSTALLATION TOOLS RECOMMENDED

- | | |
|---|--------------------------------------|
| A. Drill | B. 1/16" & 1/4" Drill Bit |
| C. 9/16" Socket or Adjustable Wrench | D. Phillips Head Screw Driver |
| E. Caulking Line | F. Tape Measure |
| G. Level | H. Stud Finder |

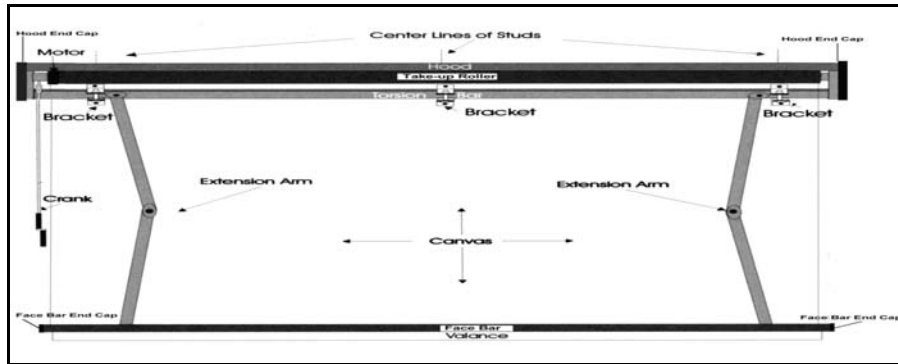
INSTALLATION OF OPTIONAL HOOD and END CAPS

- 1) If your awning includes the **optional** Protective Awning Hood, install and secure it to the inside of the hood mounting brackets that are already installed to the back of the Torsion (square steel) Bar. Use the smallest screws and nuts, included in the separate hardware packet, to secure the Hood to the Brackets. In rare instances the predrilled holes in the Hood may not line-up with the Bracket holes. In this case you have two options. You can either loosen the brackets, repositioning them and retightening them onto the Torsion (square steel) Bar so the holes line up or you can drill new holes in the Hood. Using the appropriate size drill bit drill, drill carefully so as not to damage the awning fabric on the Fabric Take-up Roller.
- 2) Once the hood is attached to the Torsion Bar Hood Brackets, mount the two Hood End Caps to their appropriate ends. Make sure that the ends of the Protective Hood are **inside** each of the End Caps. In the rare instance, where the Hood End Caps and the Hood holes do not line up or have not been drilled, drill mounting holes through both the End Caps and the Hood being careful not to damage the Motor or Fabric Take-up Roller. Secure the End Caps to the Hood using the 10 tap screws included in the separate hardware packet.

It is important that when positioning the End Caps onto the Hood that the front edge of the Caps do not retard the movement of the Face Bar as it travels past the Caps when the awning opens and closes. The Front Bar should just meet the hood when fully retracted, adjust if needed.

AWNING (BASIC WALL MOUNTING) INSTALLATION

The following instructions are for a BASIC WALL MOUNTING installation of the awning. Soffit and Roof mount installations are done in the same order and using a similar technique when mounting the brackets to rafters or joists.

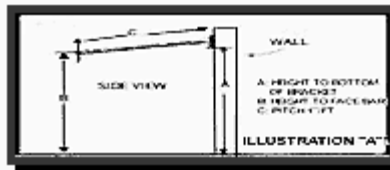


NOTE: The extension arms when fully extended will not be straight. There will be a approximately a 5° angle at each elbow as shown in the above illustration and fabric left on the Take-Up Roller.

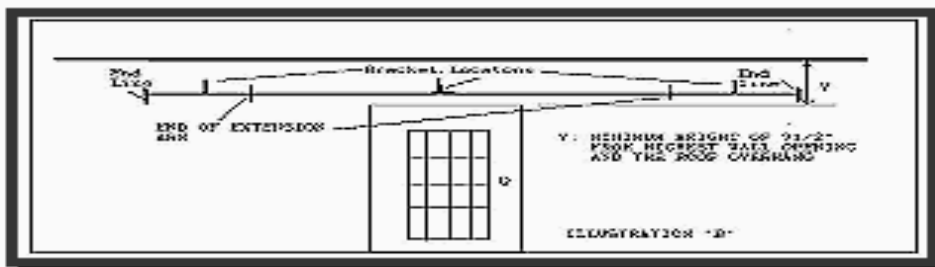
MOUNTING THE AWNING WALL BRACKETS

The mounting of the brackets to the building is extremely important in ensuring a quality, long-life installation. The importance of this fact can not be over emphasized. To fasten the bracket to the wall you should HIT-A-STUD. All brackets included with your awning must be installed to the **center** of a wall stud to ensure a secure installation. The 12' awning comes with 2 included brackets. Each bracket should be mounted as close to each end of the torsion (square steel) bar as practical. The 14' & 16' awnings come with 3 included brackets. One bracket should be as close to the center of the torsion (square) bar as possible and each of the remaining two should be mounted as close to each end of the torsion bar as practical. The 18' awning comes with 4 included brackets. A bracket should be located 2' from either side of the center of the torsion (square) bar and each of the remaining two should be mounted as close to each end of the torsion bar as practical.

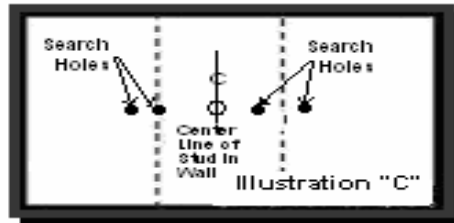
- 1) You will need to allow for a minimum distance of 9^{1/2}" between the top of your highest window or door opening and the roof overhang. The suggested minimum mounting height "A" of the bottom of the mounting brackets is 7'-0". This will allow for a head height "B" of 6' 4" at the awning's face bar when the awning is fully extended the 10'-0". *If you prefer that the front awning bar to be lower after the awning is mounted, the inclination/pitch of the extension arms can be adjusted lower (see 'CHANGING INCLINATION/PITCH' Page 4).* The recommended pitch "C" for the lateral arm awning is 1" per foot of extension or 10" from the awning Take-up Roller to the Face Bar when fully opened. (See Illustration "A")



- 2) Using a level, draw a line, on the wall, the length of the awning's torsion bar at the height you determined for the **bottom** of the mounting brackets. (**Important - the line must be level**). Next place a mark on the wall at the torsion bar end points and approximate end points of the **closed** extension arm supports. (See Illustration "B")



- 3) Locate the studs to which you will be mounting the brackets. (See Illustration "C")
- drill a series of small search holes to determine the edges and finally the center of the studs.
 - position the brackets over the center of the studs making sure that the bottoms of the brackets are level with the **bottom-of-bracket** line you drew in Step 2.
 - mark the center of each bracket hole on the wall
 - drill the pilot holes for the lag bolts; again verifying that you have located the stud centers
 - secure the brackets with **3/8" zinc plated lag bolts** (not included) that are long enough to penetrate the studs at least **2"**.

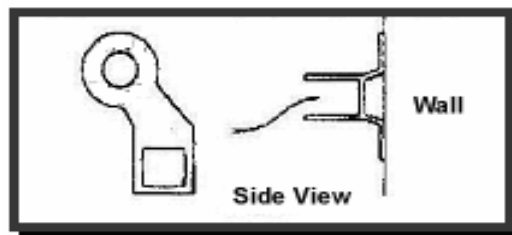


IMPORTANT—The required 3/8" wood lag bolts, to mount the brackets to wood, are not included because of the different lengths required in different wall structures. The lag bolts used must be long enough to penetrate the studs at least 2" deep.

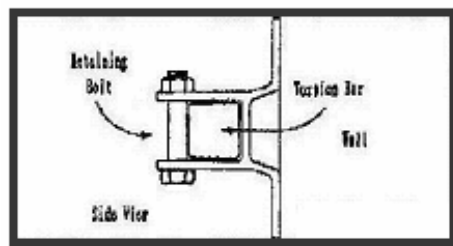
TIP: When mounting the awning on aluminum or vinyl siding it is recommended that you cut spacers (solid wood or plywood) the size of the brackets, and place them under the siding at each stud you will be mounting to. Mount the brackets with spacers directly to the center of the studs. It is important that the brackets are bolted to a solid backing: Mounting to 1/2" siding will not be strong enough! If you are unable to mount the brackets to one or more studs in the proper location then it is recommended that you mount an exterior weather treated 2" x 6" board the length of the torsion bar and secure it to the studs across it's length. The brackets can then be mounted to the board in the appropriate locations.

MOUNTING THE TORSION (Steel Square Steel) BAR TO BRACKETS

With help, lift the awning to the brackets on the wall; slip the steel torsion bar into the brackets, and line up the ends of the torsion bar with the end lines, previously marked in **Step 2** above, on the wall. Push the torsion bar to the very rear of the bracket, and install the included retaining bolts and nuts into the brackets and tighten them securely.



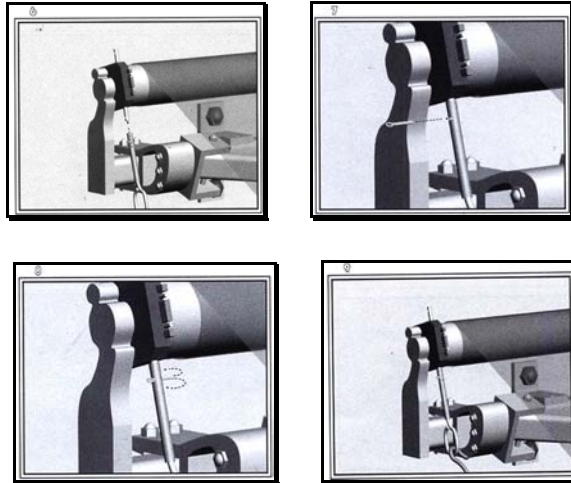
NOTE: The retaining bolts should be inserted from the bottom of the brackets with the washers and nuts secured on top.



INSTALLATION OF MANUAL CRANK UNIT

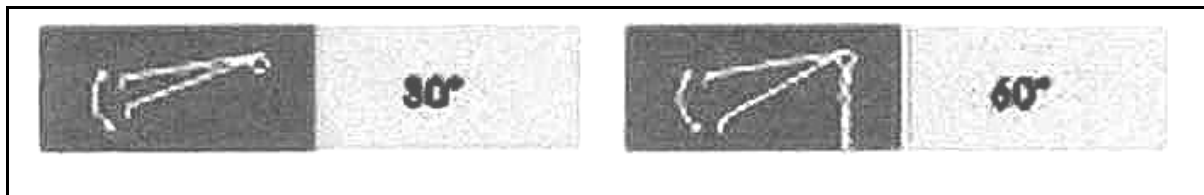
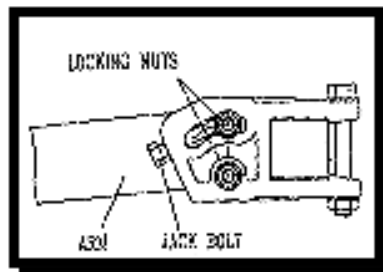
WARNING: IF YOU HAVE A MOTORIZED MODEL THE MANUAL CRANK IS INTENDED TO BE USED ONLY WHEN THERE IS A POWER FAILURE. THE ELECTRIC SUPPLY MUST BE OFF WHEN USING THE MANUAL CRANK. NOT FOLLOWING THIS PROCEDURE WILL VOID THE MOTOR WARRANTY.

To assemble the Manual Crank Extension follow Illustrations 6, 7, 8 & 9.



CHANGING INCLINATION/PITCH

To change the inclination/pitch (angle of drop of the front bar) make sure to have another person lift the arms in order to take the weight off the adjustment mechanism before attempting to adjust the awning pitch. Our extension arm brackets allow you to change the inclination of the arms from 30° to 60° by simply loosening the two locking nuts located on the side of each extension arm bracket and then turning the 'Jack Bolt' until the desired pitch is arrived at. At this point re-tighten the two side locking nuts. Repeat this procedure to adjust the second extension arm. ***NOTE: Allow enough inclination/pitch for water to run off and not pool-up on the awning and for the end bar to clear the hood edge when closing.***



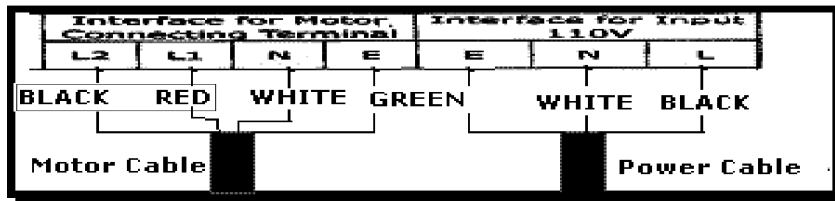
INFORMATION FOR MOTORIZED AWNING ONLY

If you have a motorized model the motor is mounted on the same side as the hand crank mechanism (standard location is the left side). The motor comes with a 4 wire-6' cable that must be connected to the terminals of the included **Wall Control Panel**. The 6' pig tail Power Supply cable with the 3 prong grounded plug must also be installed into the Control Panel (see Illustration "D" wiring diagram). The plug is then plugged into an electrical power receptacle. If you need to use an extension cord to reach the receptacle it must be a minimum of 16ga with a grounding plug.



Illustration "D"

NOTE: REVERSE the MOTOR CABLE'S BLACK and RED wires when connecting to the L2 and L1 terminals of the Wall Control Panel if the motor is mounted on the RIGHT hand side when facing the awning's mounting surface.



* If the optional wind sensor opens the awning rather than closing it, simply reverse the Motor Cable's black and red wires.

RESETTING THE AWNING TRAVEL DISTANCE

NOTE: If the optional Wind Sensor has been connected, it must be disconnected until the travel distance adjustment is completed. Review the separate Wind Sensor instructions for more detail wind speed adjustment details.

The limit for the projection/extension travel distance the awning travels and the closing/retraction distance the awning travels are preset at the factory and should not require further adjustment.

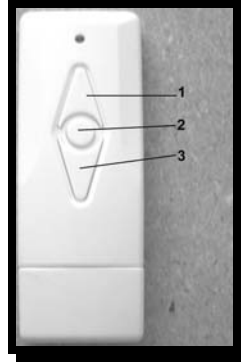
In the rare instance where a travel distance needs to be readjusted, use the **GREEN** adjustment tool (included with awning) when turning the Limit Switch Adjustment Screws to protect against a static discharge which could damage the motor and carefully follow the below instructions. **IMPORTANT: Turn the Adjustment Screws in small increments.**

- For **LEFT HAND** mounted motor the awning extension is adjusted using the screw located in the bottom **RED** adjustment hole, Turn the screw in the **+** direction to increase the extension travel distance and turn the screw in the **-** direction to decrease the extension travel distance. For **RIGHT HAND** mounted motor the adjustment is made using the screw located in the bottom **BLACK** adjustment hole.
- For **LEFT HAND** mounted motor the awning retraction is adjusted using the screw located in the bottom **BLACK** adjustment hole, Turn the screw in the **+** direction to increase the retraction travel distance and turn the screw in the **-** direction to decrease the retraction travel distance. For **RIGHT HAND** mounted motor the adjustment is made using the screw located in the bottom **RED** adjustment hole.

Please note that the maximum retraction **MUST** be set with the front bar at least 2 inches from the motor housing. If your awning includes a hood, the front bar should not retract under the hood. The design is for the front bar to just meet the hood. The motor must never be allowed to retract too far. If this ever occurs, immediately press the stop button. Permanent motor failure will occur and it will not be covered by the warranty.



REMOTE CONTROL OPERATION



- **To open the awning:** Press button 1
- **To stop the awning's travel:** Press button 2
- **To close the awning:** Press button 3

WALL CONTROL PANEL OPERATION



- **To open the awning:** Press button 3 twice
- **To close the awning:** Press button 1 twice
- **To stop the movement of the awning:** Press either button 2 once
- **To reverse the travel direction of the awning after stopping it:** Press either button 2 a second time

NOTE:

After Installation and at the beginning of each season or at least once a year, if the awning is used year round, all exposed bolts should be checked to insure that they are tight and all pivot points should be lightly oiled.

- **Face Bar 6 Extension Arm bolts (3 for each arm);**
- **Awning Bracket Mounting bolts that hold the Torsion (square steel) Bar to the structure;**
- **Take-up Roller End Bracket bolts on the ends of the Torsion Bar;**
- **Motor mounting bolts should be checked at installation to make sure that they have not loosened during shipping;**
- **If installed: all Roof and Soffit Mount hardware should be checked;**

MISCELLANEOUS

Rather than cutting up the shipping tube and discarding as garbage consider using it as follows:

- Cut into sections, paint and use as garden planters
- Use sections vertically in the garage to store brooms, rakes and sport equipment
- Use horizontally and mount to garage ceiling with metal straps and store long lengths of lumber, molding or plumbing pipes
- Use sections as a form for concrete footings

Send us an email if you have other applications

TROUBLESHOOTING SECTION

1. The awning does not fully retract or fully extend.

NOTE: When the awning is fully opened *the extension arms WILL NOT BE STRAIGHT. There will be approximately a 5° angle at both of the extension arm elbows (See illustration on Page 2) and fabric will be left on the Take-Up Roller.*

- **Solution:** Adjust the travel distance, using the GREEN LIMIT Switch Adjustment Tool, by turning the correct Motor Limit Switch Adjustment Screw. Turn the Adjustment Screw in small increments. (See 'RESETTING THE AWNING TRAVEL DISTANCE' Page 5).

2. The fabric sags and is not tight.

- **Solution:** The fabric can stretch if exposed to rain and water and it is allowed to pool-up on the awning. Remember, your awning is designed for shade, not as a heavy rain cover. Retract the awning in and on the next sunny day, extend the awning and allow it to dry thoroughly. Your awning should not be rolled up wet for long periods of time. You may want to consider adjusting the awning's inclination/pitch so that the water will run off and not pool-up (see 'CHANGING INCLINATION/PITCH' on Page 4)

The arms are at full projection/extension but the fabric has continued to unwind off the Take-Up Roller.

- **Solution:** For some reason the travel distance has come out of adjustment. **Decrease** the *projection/extension* travel distance, using the GREEN LIMIT Switch Adjustment Tool and turning the appropriate Motor Limit Switch Adjustment Screw **clockwise** in small increments. (See 'RESETTING THE AWNING TRAVEL DISTANCE' on Page 5).

3. The awning squeaks when operated.

Creaking or squeaks caused by the arms' internal springs are usually present and normal.

- **Solution:** You may also want to lubricate all pivot points with light general purpose household oil.

4. Unable to adjust the inclination/pitch on the awning.

- **Solution:** The inclination/pitch adjustment is being performed incorrectly. (see 'CHANGING INCLINATION/PITCH' on Page 4)
- **Solution:** The awning is already at its maximum height or drop. Do not force the awning any further.

5. The awning does not move in or out.

The awning will not move using one of the Remote Controls but will respond with the Wall Control Box.

- **Solution:** Replace the Remote Control battery.
The awning will not move using the Wall Control Box
- **Solution:** Be sure there is power to the electrical outlet. Check to see if there is a reset button on the exterior electrical outlet or if a circuit breaker has switched off.
- **Solution:** Make sure that all the wires from the motor and from the electrical supply are firmly secured in the Wall Control Box. (see 'INFORMATION FOR MOTORIZED AWNING ONLY' on Page 5)

The awning will not move using either the Remote Controls or the Wall Control Box.

- **Solution:** Water has entered the Control Box and damaged the electronics. A new Control Box must be purchased.

6. The fabric bunches up or wrinkles in places when retracted.

- **Solution:** This can possible occur in wider awnings that have a Center Mounting Brackett. Center Mounting Brackets are mounted to the Torsion Bar (square tube) and positioned around the Take-Up Roller to prevent it from bowing out and keeping the fabric taut while extended. It is common for the fabric to bunch or pucker slightly when retracted on wider awnings. This will not harm the fabric.
- **Solution:** The fabric can stretch if exposed to rain and water and then retracted when wet. On the next sunny period, extend the awning and allow it to dry thoroughly. The fabric should return to its original condition after drying. Remember your awning is not intended to be a rain cover for heavy downpours.

7. The optional Wind Sensor Unit opens the awning rather than closing it.

- **Solution:** Reverse the Motor Cable's black and white wires. (see 'INFORMATION FOR MOTORIZED AWNING ONLY' on Page 5)

8. When it is windy or gusty the awning will not extend with the remote or Wall Control Panel.

The awning's **full** extension and retraction movements are being controlled by the Wind Sensor Unit.

- **Solution:** Turn the appropriate adjustment screw, located on the under side of the Wind Sensor unit, turning it counter-clockwise to increases the set wind speed.
- **Solution:** In order to override its' control the Wind Sensor must be disconnect from the Wall Control Panel.

Shipping:

BST PRODUCTS INC. reserves the right to use alternate shipping methods. We will make every attempt to ship so your item delivery date is observed. **Shipping is not refundable under any circumstances. In the event of a return, it must be returned freight prepaid by customer. Returned item(s) must be packaged as original. Cost of original shipping and a 10% restocking fee will be deducted prior to issuing any credit. Note that some items are sold with promotional Free Shipping programs. You will be responsible for the actual delivery and return shipping fees incurred to transport your replacement product. If the unit is damaged when returned this will be the responsibility of the purchaser, we suggest insuring the return shipment.**

Retractable Awnings:

‘Curbside Delivery Information’ via common carrier

- This product ships to the 48 contiguous states only. Estimated delivery time is 2 weeks. Your product usually ships within 3-5 days of your order
- ‘Curbside Delivery’ provides delivery made to the curb at the end of your driveway. It is not the driver's responsibility to bring freight into house, garage, etc. Drivers do not assist with unpacking, set-up or clean up.
- Please include a daytime phone number in the shipping information at the time of check out.
- A signature is required for delivery. Before accepting and/or signing for your delivery, please inspect your order thoroughly. If the packaging appears to be damaged in any way, please note the damage on the freight bill or refuse the delivery as damaged. If you discover concealed or internal damage after unpacking your item(s), please contact **BST Awnings Customer Service** <http://BstProductsInc.com/support/> within 5 business days of receipt of your order. This will help us improve and expedite your return/replacement experience.

All retractable awnings are shipped using freight carriers. Note that some items are sold with promotional ‘Free Shipping’ programs. You will be responsible for the actual delivery and return shipping fees incurred to transport your awning. Free freight represents a shipping cost of \$190.00 or more, depending on location. Under no circumstance will shipping be refunded. In the event an order is canceled after it has been shipped the actual shipping cost we incurred, including any damage on the initial shipping and the return shipping, will be deducted from any credit that is issued.

RECOMMENDED AWNING CLEANING INSTRUCTIONS

When cleaning your awning's fabric, it is important to observe the following:

Always use a natural soap NEVER A DETERGENT.

Water should be cold to lukewarm fresh water. NEVER more than 100 degrees.

Natural air dry only. NEVER apply artificial heat to the fabric.

To clean the fabric while still on the frame, follow these simple steps:

- 1) Brush off loose dirt.
- 2) Hose down with cold to lukewarm fresh water.
- 3) Prepare a cleaning mixture of water and mild, natural soap (NO Detergents) or a mild commercial fabric cleaner (ex: 303 Fabric cleaner).
- 4) Use a soft bristle brush to clean. Allow soap to soak in.
- 5) Rinse thoroughly with cold to lukewarm fresh water
- 6) Natural air dry. NEVER apply artificial heat to the fabric.

If stubborn stains persist, you can use the diluted chlorine bleach/soap mixture below for spot cleaning of mildew, roof run-off and other similar stains.

Stubborn Stain Special Cleaning Mixture:

- *Four ounces (half cup) of chlorine bleach*
- *DO NOT USE MORE BLEACH THEN IS RECOMMENDED*
- *Two ounces (one-fourth cup) of natural soap.*
- *One gallon of water.*

- 1) Clean with soft bristle brush and cleaning solution.
- 2) Let stand for 15 minutes.
- 3) Rinse thoroughly with cold to lukewarm fresh water.
- 4) Natural air dry only. NEVER apply artificial heat to the fabric.

Repeat process only if necessary.

We recommend that you clean your awning's hardware at least once a year (monthly if mounted in or near salt water spray environment).

When cleaning your awning's hardware it is important to use the following process:

- 1) Prepare a cleaning mixture of water and mild, natural soap (NO detergents).
- 2) Wipe the frame clean with a soft cloth wetted with the cleaning mixture.
- 3) Using cold to lukewarm fresh water, rinse thoroughly the wiped surfaces, exterior of the hand crank mechanism and the exterior of the motor end and mount.

APPLYING FABRIC WATER REPELLANT

Following a thorough cleaning; the awning fabric should be treated with commercially available non silicone fabric water repellent (ex: 303 High Tech Fabric Guard). After cleaning the fabric, allow it to air dry completely and then apply a thin, even coating of the water repellent to the top side of the awning. After allowing the first coat to air dry, apply a second thin, even coating. Two light coatings are typically more effective in restoring fabric water resistance than a single heavy coating.

DO NOT ALLOW THE REPELLANT TO POOL-UP ON THE FABRIC.

10 Year Limited BST AWNING Warranty

The BST Products Inc.'s, awning system is warranted for a period of ten (10) years from the date of original purchase. This is a prorated warranty.

The fabric is not warranted against fading from sun or chemicals. The fabric, motor and frame integrity are warranted for (10) ten years. The warranty prior to the end of the 3rd year amounts to the full original purchase price. The warranty after the 3rd year is a prorated warranty. (Example: awnings warranted on the 5th year of ownership will be replaced at a 50% credit of the full original purchase price. Awnings warranted on the 10th year of ownership will be replaced at a 10% credit of the full original purchase price). The Wall Control Panel and Remote Controls are warranted for (1) one year.

Under this limited warranty, BST Products Inc. warrants to the original purchaser that the BST Awning will be free from defects under normal and proper use in material and workmanship during the warranty period. Under this warranty, BST Products Inc. agrees to repair at our facility or replace (at our option) any hardware or component part, not including labor costs and any "in the field" labor related to the repair. Any defect must be reported within the warranty period listed above. All shipping charges will be paid by the owner of the awning.

WARRANTY EXCLUSIONS. Normal wear and tear or failure due to use or misuse for which the product was not intended or improper maintenance are not covered by this warranty. BST Products Inc. assumes no liability for damage due to faulty installation, altering, disassembling or readjusting any of the awning's mechanics (including the extension arms' locations). Exceptions are adjusting the INCLINATION/PITCH and the AWNING'S TRAVEL DISTANCE as described in the instructions. BST Products Inc. is not liable for damage to any structure to which the awning is attached, or to property above below or near the awning. This warranty does not cover any damage to the awning caused by nature such as acts of God, ice, snow, rain, high winds, vandalism, neglect, fire, use of which the awning and accessories are not intended, weights or loads allowed to accumulate, or normal wear and tear from use. This warranty is in lieu of all warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose. BST Products Inc. will not be liable for any consequential or incidental damages. This warranty gives specific legal rights and you may also have other rights that may vary from state to state.

RETURNS FOR REPAIRS OR REPLACEMENT: No returns will be accepted without prior written authorization by BST Products Inc.. A Return Authorization number issued by BST Products Inc. must accompany all returns. All unauthorized returns will be refused. The return shipment is to be freight prepaid by the Buyer, and under no circumstances shall the Buyer deduct the value of the returned merchandise or the freight from any remittance due.