

SURESHADE® TECHNICAL DOCUMENTATION

# SURESHADE® Power Bimini

INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL



**SURESHADE**

EXTENDING THE EXPERIENCE

A Lippert Components Company 

# INSTALLATION

**NOTE:** Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

## STEP 1 – ACTUATOR

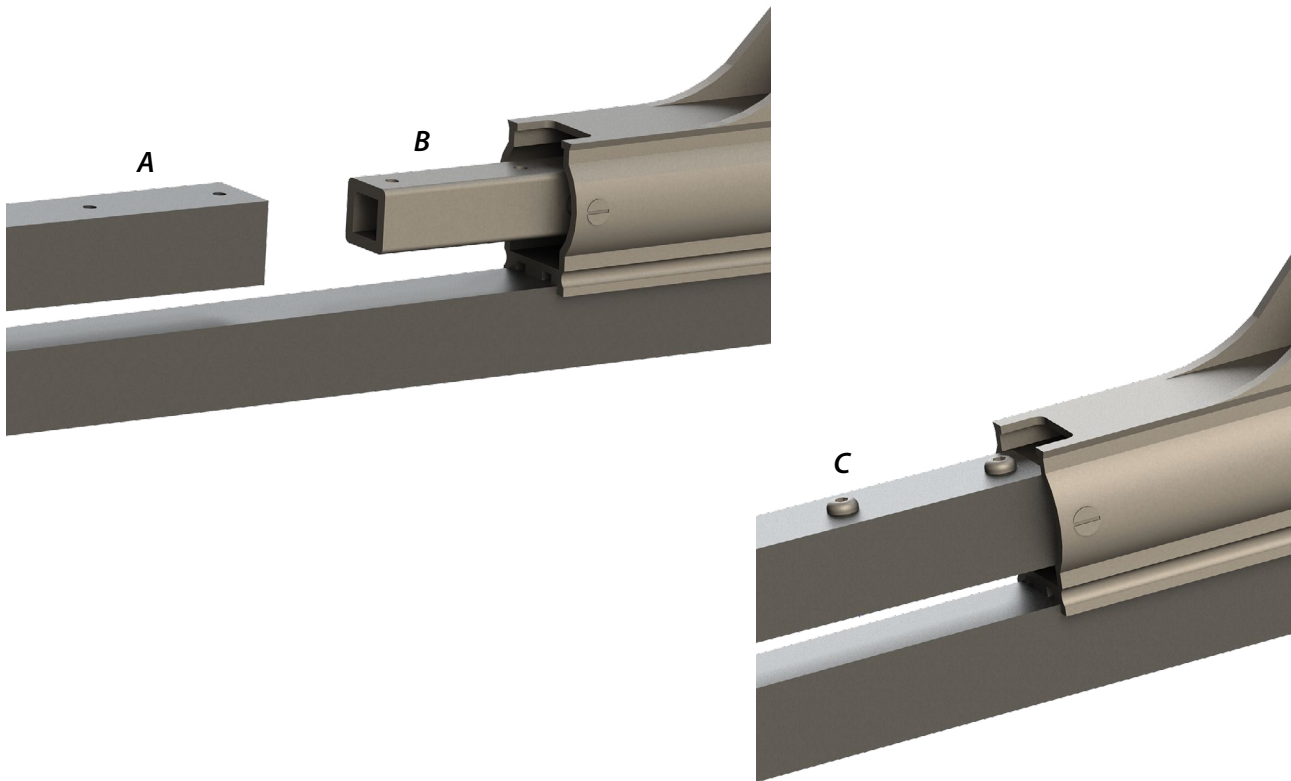
### TOOLS REQUIRED:

1. 5/32" hex wrench

### PARTS REQUIRED:

- A. Rear strut assembly
- B. Actuator
- C. 1/4" hex cap screws

Slide the rear strut assembly (A) over actuator rear receiver handle (B). Secure rear strut using 1/4" hex cap screws (C), tighten with 5/32" hex wrench.



**REPEAT STEP FOR THE SECOND ASSEMBLY**

## STEP 2 – LOCATE RIGHT

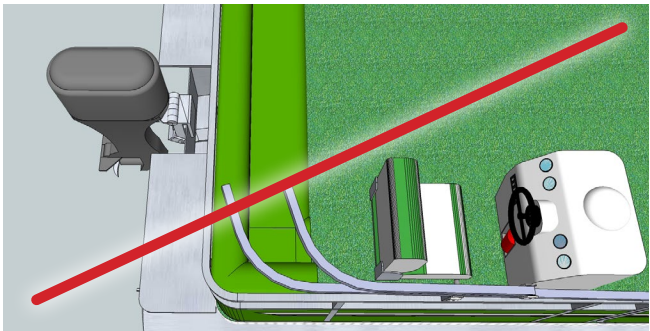
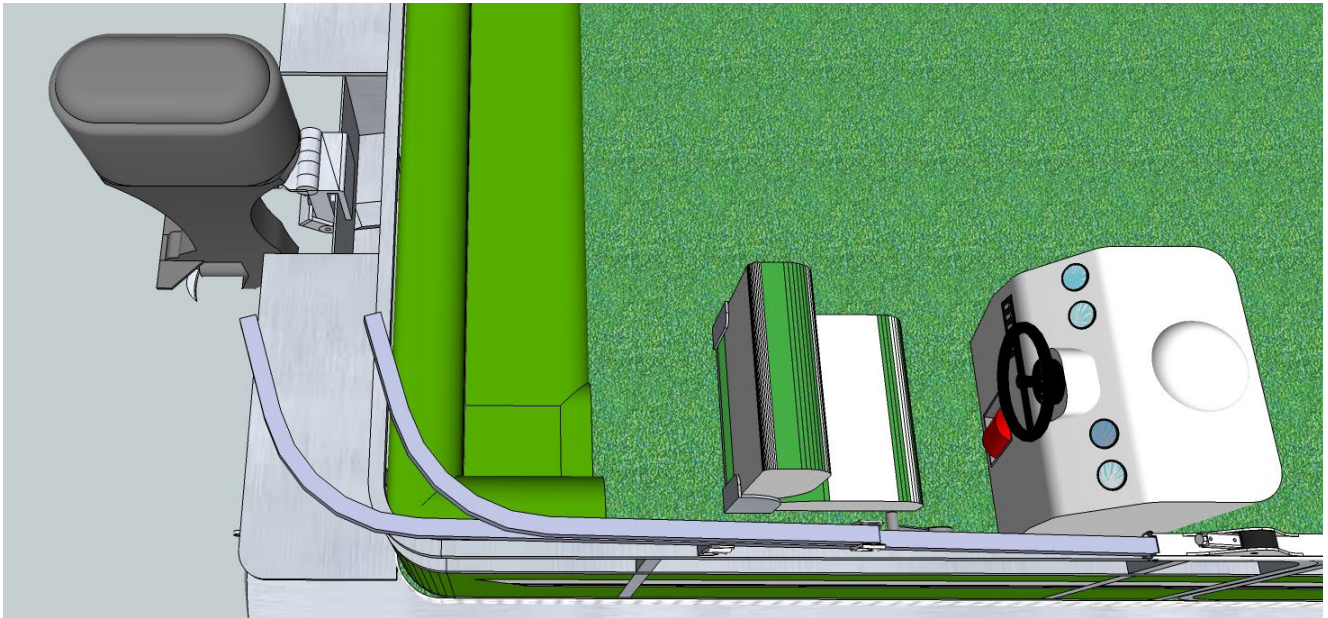
### TOOLS REQUIRED:

1. Pencil

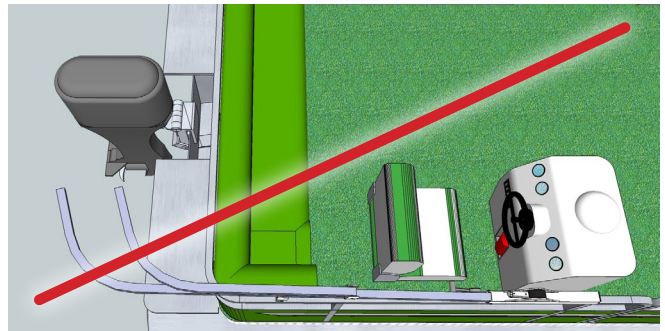
### PARTS REQUIRED:

- B. Rear strut/actuator assembly**

Locate the first rear strut/actuator assembly on to the boat. Proper position is generally determined by locating the assembly so that when the top is down, the struts are just behind the rear seats. Too far forward and the top will interfere with rear seating; while too far aft will provide less shade to the front of the boat. When properly positioned, use a pencil and trace a line across the front of the actuator.



*Too far forward of rear seats*



*Too far behind rear seats*

## STEP 3 – DRILL HOLES

### TOOLS REQUIRED:

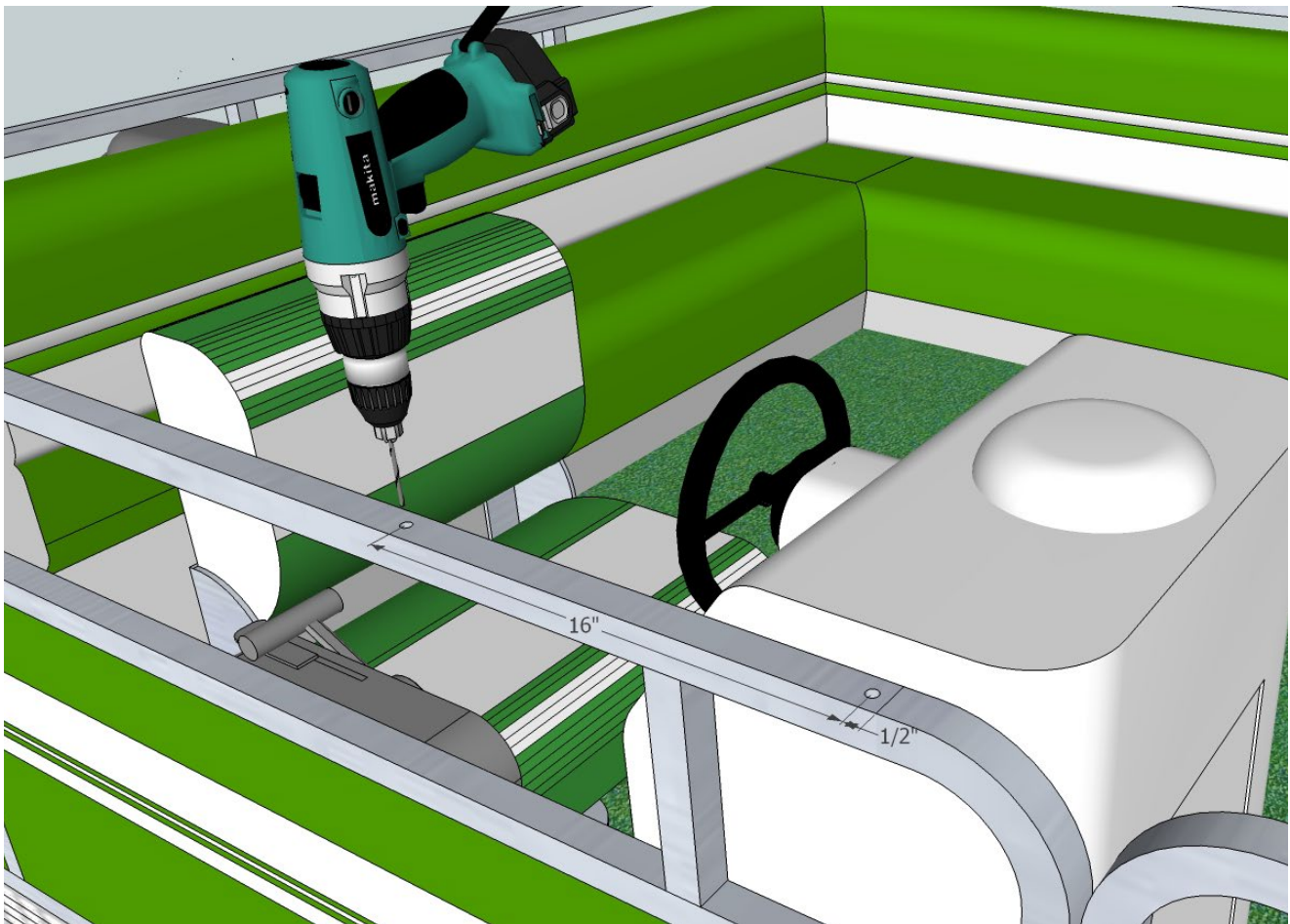
1. Cordless or electric drill or screw gun
2. 3/8" drill bit
3. Tape measure

### PARTS REQUIRED:

- A. None

Put a tape measure on the pencil line made in the previous step. Measure back 1/2" and 16-1/2" and make marks. Use a drill with a 3/8" bit to drill both holes in the center of the frame. These holes need to go all of the way through the rear frame tube.

**Caution: Some boats have wire run through this tube, drill half way and make sure you are clear of any wires.**



## STEP 4 – RUN WIRE

At this time you will need to run the wire from the actuator to the helm. Each boat is different, so the best way will be determined by you. Here are a few options to help you decide.

- 1) Inside the boat's rear frame
- 2) Along the bottom side of the boat's rear frame
- 3) Along the top or side of the boat's rear frame

### Options 1 and 2

Drill a third hole in the top of the boat's rear frame to accept the actuator wire. For option 1 this new hole will be drilled half way through the frame, with option 2 this hole will be drilled all of the way through the boat's frame. Locate this new hole by looking at where the wire exits the actuator and then transfer this location to the boat's rear frame and drill the hole. For option 1, snake the wire through the inside of the rear frame until it exits under the boat. From this point, run the wire to the underside of the helm and fish it up into the helm. For option 2, run the wire under the top frame using fastener-mount zip ties (not included) to support the wire, direct entry to the helm from the top frame is normally possible.

### Option 3

Bolt down the actuator as shown in Step 5. Use fastener-mount zip ties (not included) to run the wire along the top or side of the boat frame and into the helm.

## STEP 5 – BOLT DOWN

### TOOLS REQUIRED:

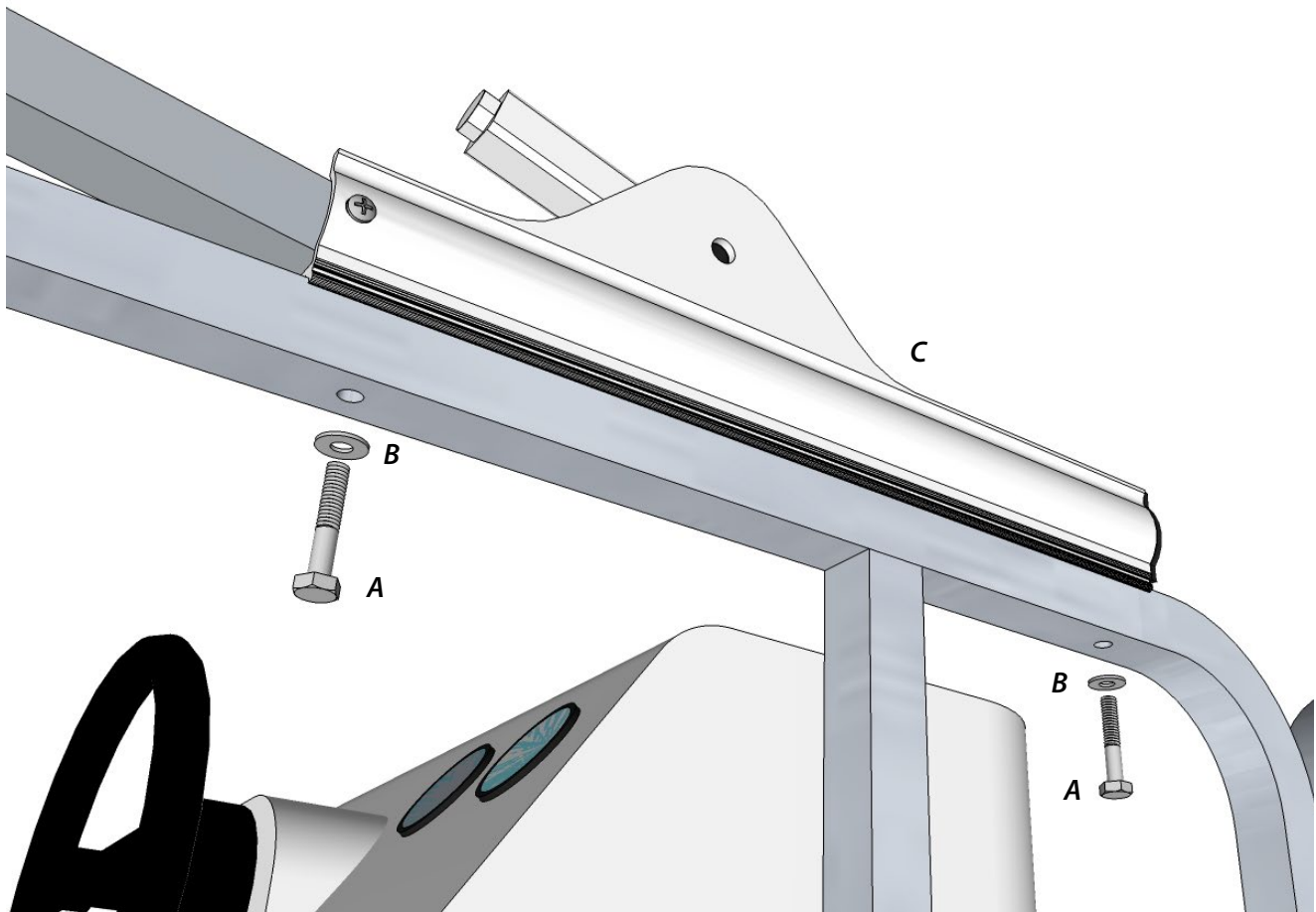
1. 1/2" wrench

### PARTS REQUIRED:

**A. 5/16" x 1-3/4" bolt**

**B. 5/16" flat washer**

Assemble flat washer (B) with bolt (A). Then, using a 1/2" wrench, fasten down strut/actuator assembly (C) to rear frame.



## STEP 6 – H-BRACKET

### TOOLS REQUIRED:

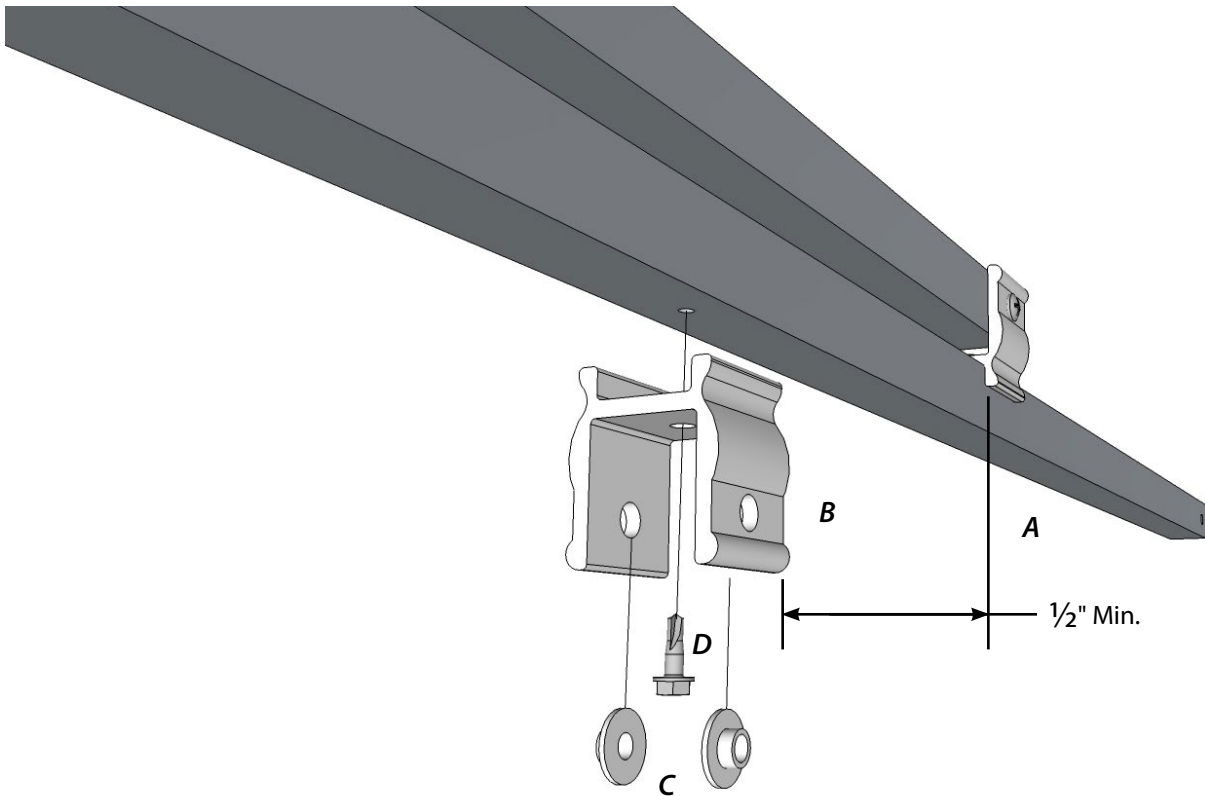
1. Cordless or electric drill or screw gun
2. 3/8" drive bit

### PARTS REQUIRED:

- A. Rear strut assembly
- B. H-bracket
- C. Nylon bushing
- D. Self-tapping screw

Position the H-bracket (B) on rear strut assembly (A) such that the bracket is positioned 1/2" minimum behind the middle strut's H-bracket (towards the rear of the strut) and over a straight, flat area of the side railing. The final position of the rear strut H-bracket must be such that it does not interfere with the operation of the bimini top with the boot installed. Use an electric drill with a 3/8" nut-driver bit and the included 1/4" self-tapping screw (D) to fasten the assembly.

Install both nylon bushings (C) into the pre-drilled holes in H-bracket as shown.



## STEP 7 – STAND-OFF

### TOOLS REQUIRED:

1. (2) Phillips screwdrivers

### PARTS REQUIRED:

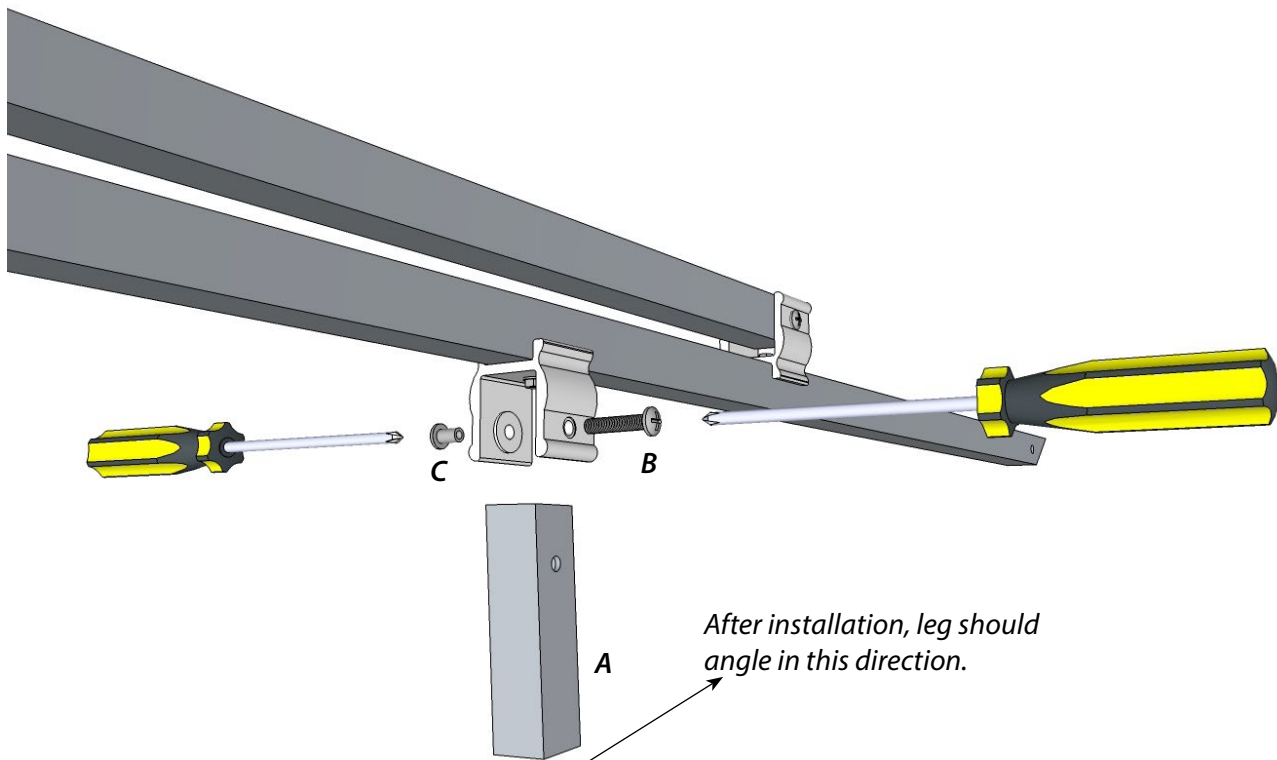
- A. Stand-off leg
- B. 1/4" x 1-1/2" Phillips screw
- C. 1/4" Phillips nut

Align pre-drilled holes in stand-off leg (A) with holes in the already installed nylon bushings.

### NOTICE

*Stand-off leg has a slight miter that should angle towards the mitered end of the rear strut assembly.*

Next, align Phillips screw (B) with Phillips nut (C) and tighten using two Phillips screwdrivers.



**REPEAT STEPS 6-7 FOR THE SECOND ASSEMBLY**



## STEP 8 – LOCATE LEFT

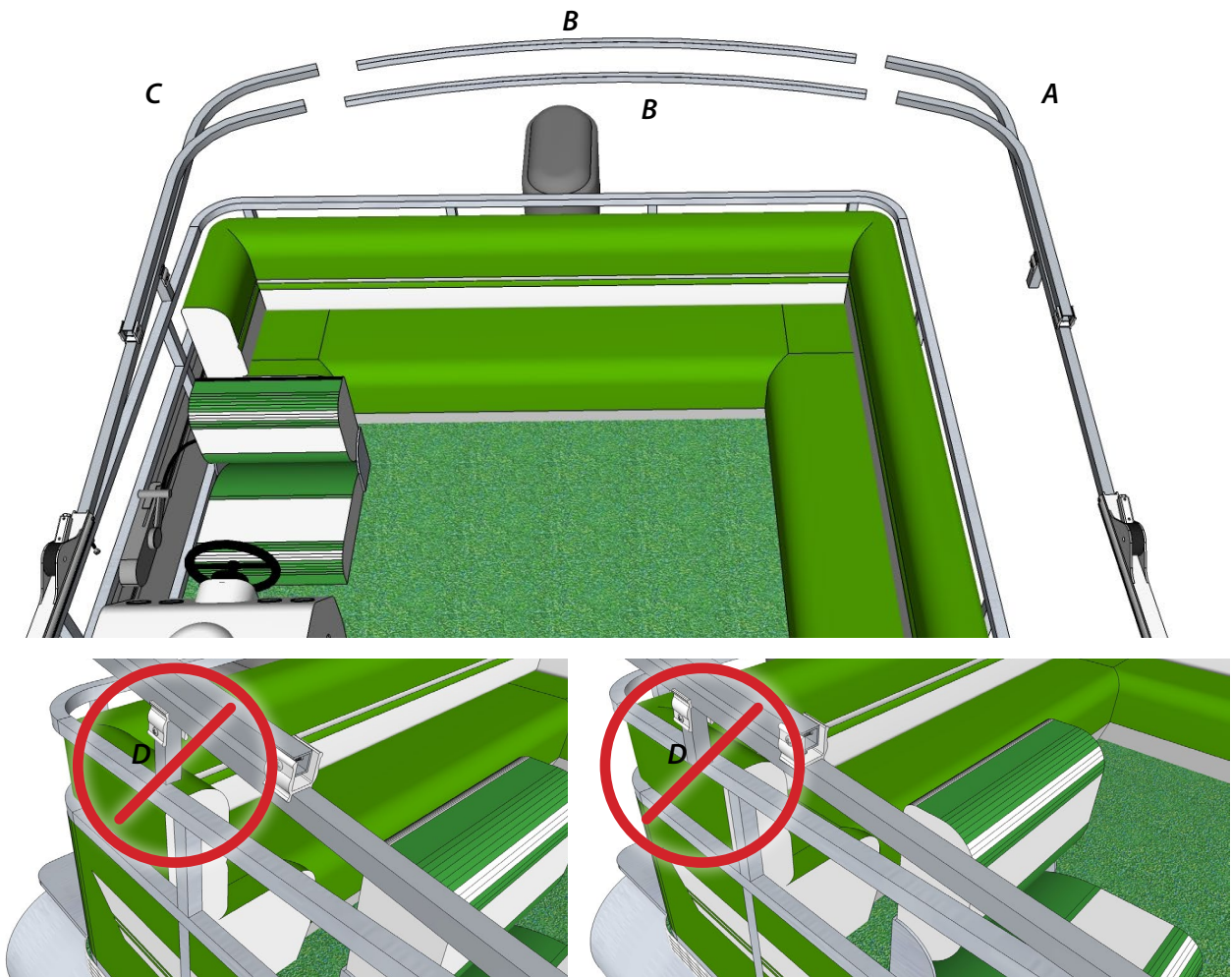
### TOOLS REQUIRED:

1. Pencil

### PARTS REQUIRED:

- Rear strut/actuator assembly
- Center bow

Begin by inserting center bows (B) into the already mounted actuator assembly (C), about an inch for now. Next, insert the center bows (B) into the other actuator assembly (A) until the bimini width matches the boat's rear frame width until the stand-off legs (D) rests as near the center of the side rail as possible. Now, move assembly (A) forward and aft until the left actuator is in line with the right actuator. Mark the bows' position and repeat Steps 3-5.



# INSTALLATION

**NOTE:** A helm switch and RF Remote Control are provided, but both do not need to be installed for the system to operate. If the helm switch and the RF Remote Control are both installed, refer to the wiring diagram in that section.

## STEP 9 – WIRE SWITCH

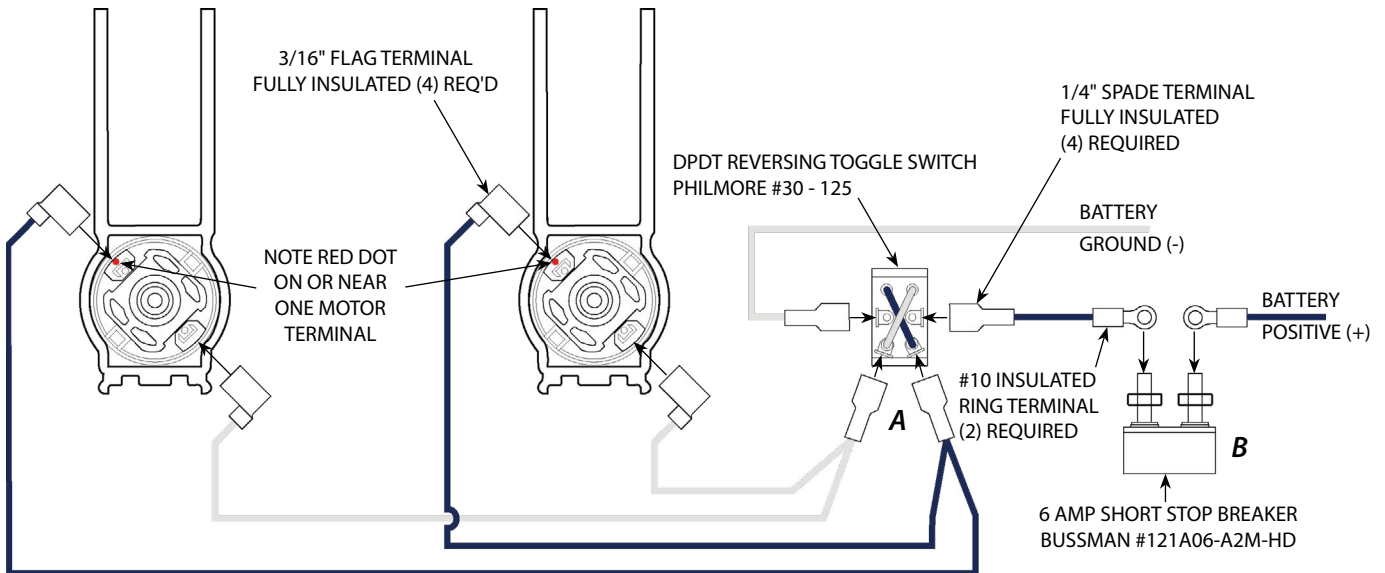
### TOOLS REQUIRED:

1. Wire cutter/stripper
2. Wire crimper
3. Cordless or electric drill or screw gun
4. 1/2" drill bit

### PARTS REQUIRED:

- A. Control switch
- B. Breaker
- C. Wire terminals

Locate where on the helm you want the control switch and drill 1/2" hole. Trim excess wire length and connect the white wire from each actuator to one side of the switch (A) and the dark blue wires to the other side of the switch (A). Connect positive and negative battery leads and breaker (B) as shown using excess wire trimmed earlier.



NOTE: ALL WIRES TO BE 16 GAUGE

## STEP 10 – FINAL STRUT

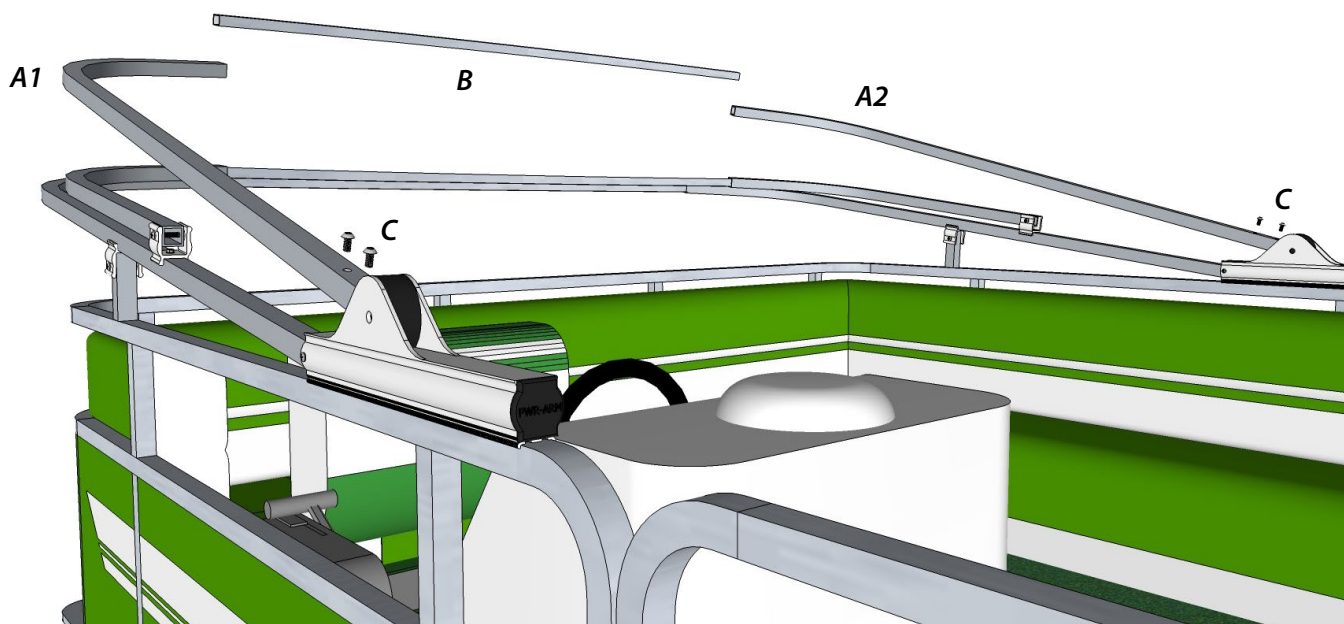
### TOOLS REQUIRED:

1. 5/32" hex wrench

### PARTS REQUIRED:

- A. Front struts
- B. Center bow
- C. 1/4" hex cap screws

Slide the first front strut (A1) over actuator receiver handle. Insert center bow (B). Insert second front strut (A2) over center bow (B) and then over actuator receiver handle. Secure both front struts using 1/4" hex cap screws (C), tighten with 5/32" hex wrench.



**CAUTION: Do not power actuators to the full open position without canvas installed. Damage may occur.**

## STEP 11 – FINAL ASSEMBLY

### TOOLS REQUIRED:

1. Cordless or electric drill or screw gun
2. Phillips drive bit

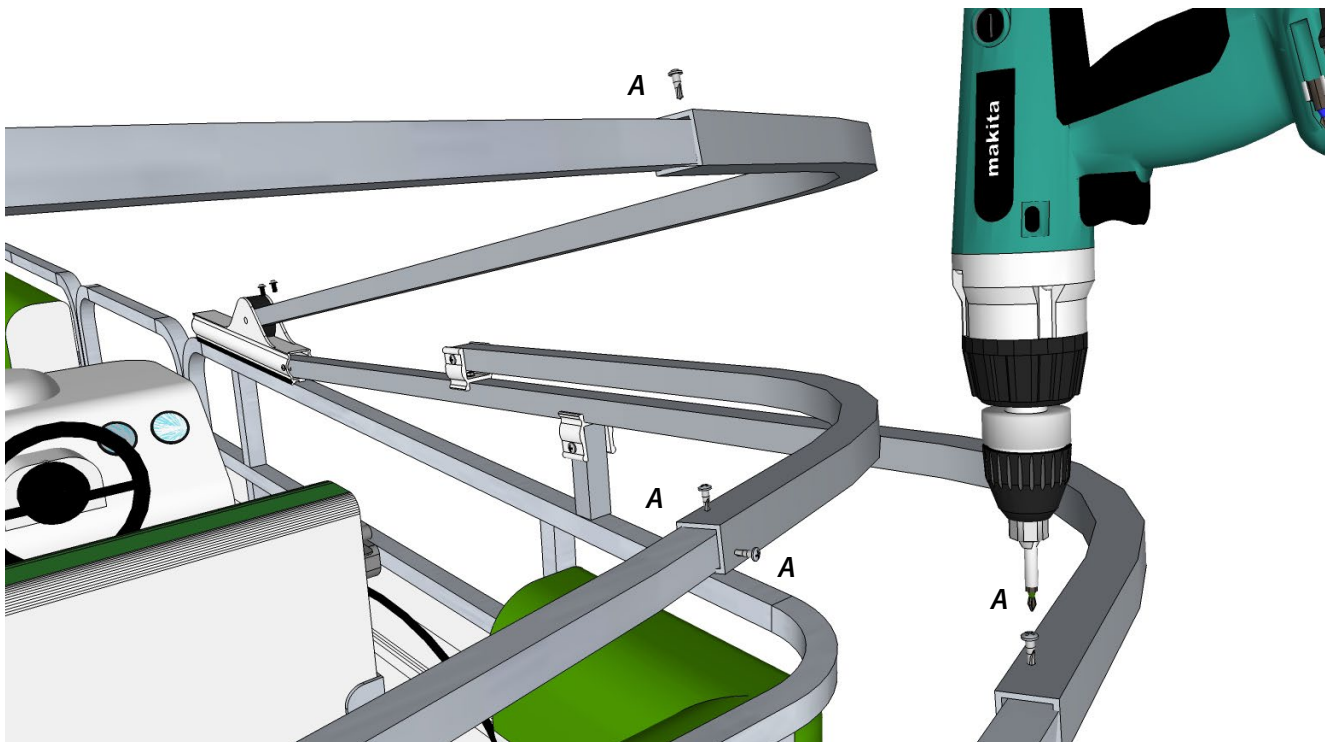
### PARTS REQUIRED:

- A. #10 x 3/4" self-drilling Phillips screw**

Use a cordless or electric drill or screw gun and the #10 self-drilling Phillips screws (A) to fasten all struts and bows together.

Note that the middle strut assembly gets two screws as shown. Repeat this process for both sides.

Complete the installation by attaching the canvas to the completed framework. The canvas end with the notch goes on to the rear strut.



## HELM-MOUNTED CONTROL SWITCH

### TOOLS REQUIRED:

1. None

### PARTS REQUIRED:

- A. Control switch
- B. SureShade Power Bimini
- C. Bimini top (canvas)
- D. Boot (bimini top)

The SureShade Power Bimini top can be operated in four different positions.



#### Full Open Position

Remove protective boot. Press and hold the switch until motors turn off—do not release switch until both actuator motors turn off.

**Note:** Maximum speed limit is 25 MPH.



#### Vari-pitch Position

Remove protective boot. Press and hold the switch until desired position is reached, then release switch.

**Note:** Maximum speed limit is 5 MPH.



#### Radar Position

Install protective boot. Press and hold the switch until motors turn off—do not release switch until both actuator motors turn off.

**Note:** Maximum speed limit is 50 MPH.



#### Full Down Position

Install protective boot. Press and hold the switch until motors turn off—do not release switch until both actuator motors turn off.

**Note:** Maximum speed limit with boot installed is 65 MPH.

**Note:** Maximum speed limit without boot installed is 5 MPH.

**NOTE:** The RF Remote Control is an optional control, but not required to be installed for the system to operate.

## OPTIONAL RF REMOTE CONTROL STEP 1 – RF RECEIVER

### TOOLS REQUIRED:

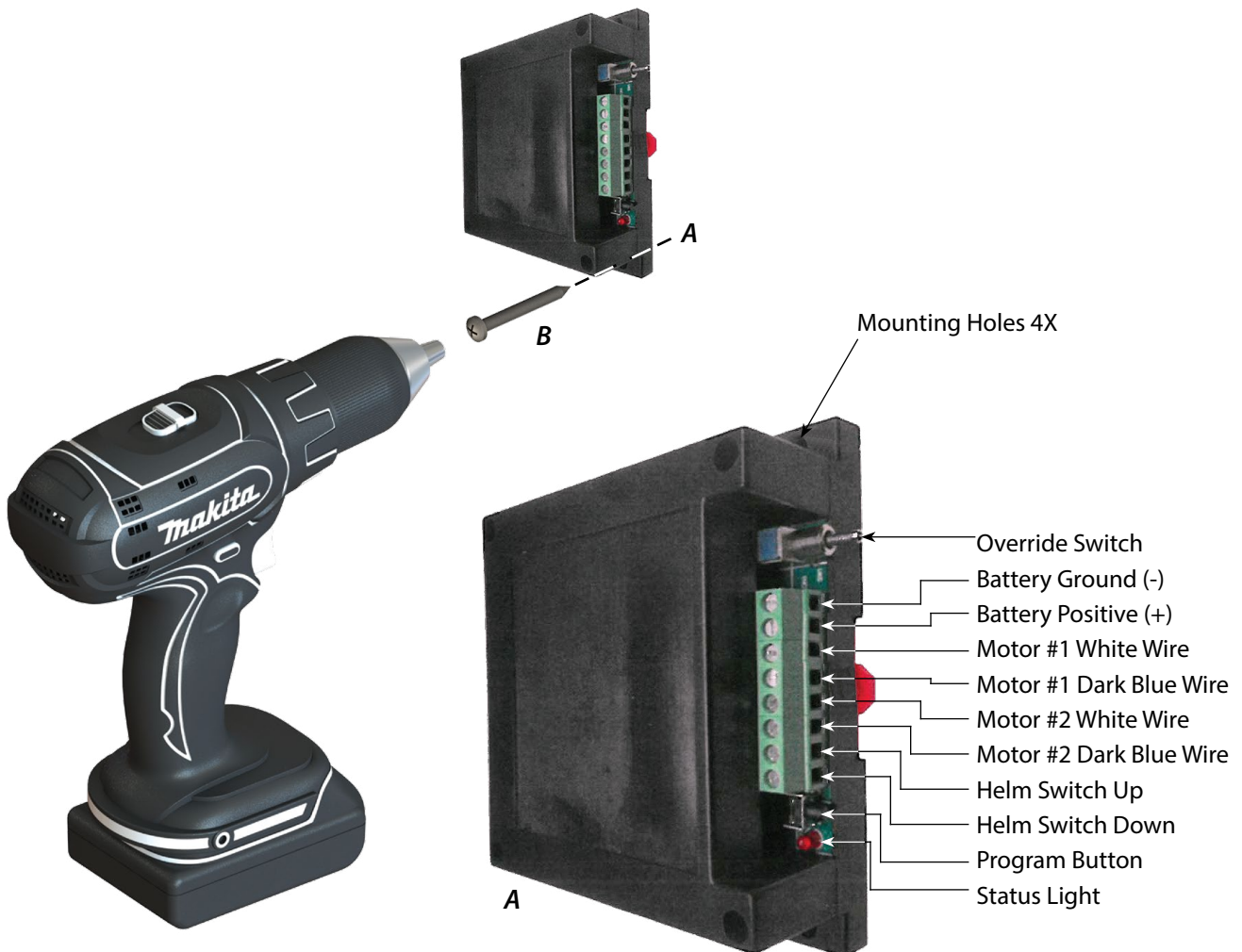
1. Cordless or electric drill or screw gun
2. Appropriate drive bit

### PARTS REQUIRED:

- A. RF receiver
- B. Self-drilling wood screw (not supplied)

Select a protected location on the boat to mount the RF receiver (A), usually inside the helm. Use an electric drill and four wood screws (B) to secure the RF receiver.

Connect the battery and motor wires according to the schematic diagram shown. If a helm-mounted switch is installed, connect it to the RF receiver as shown in the schematic.



## OPTIONAL RF REMOTE CONTROL STEP 2 – WIRE RF RECEIVER

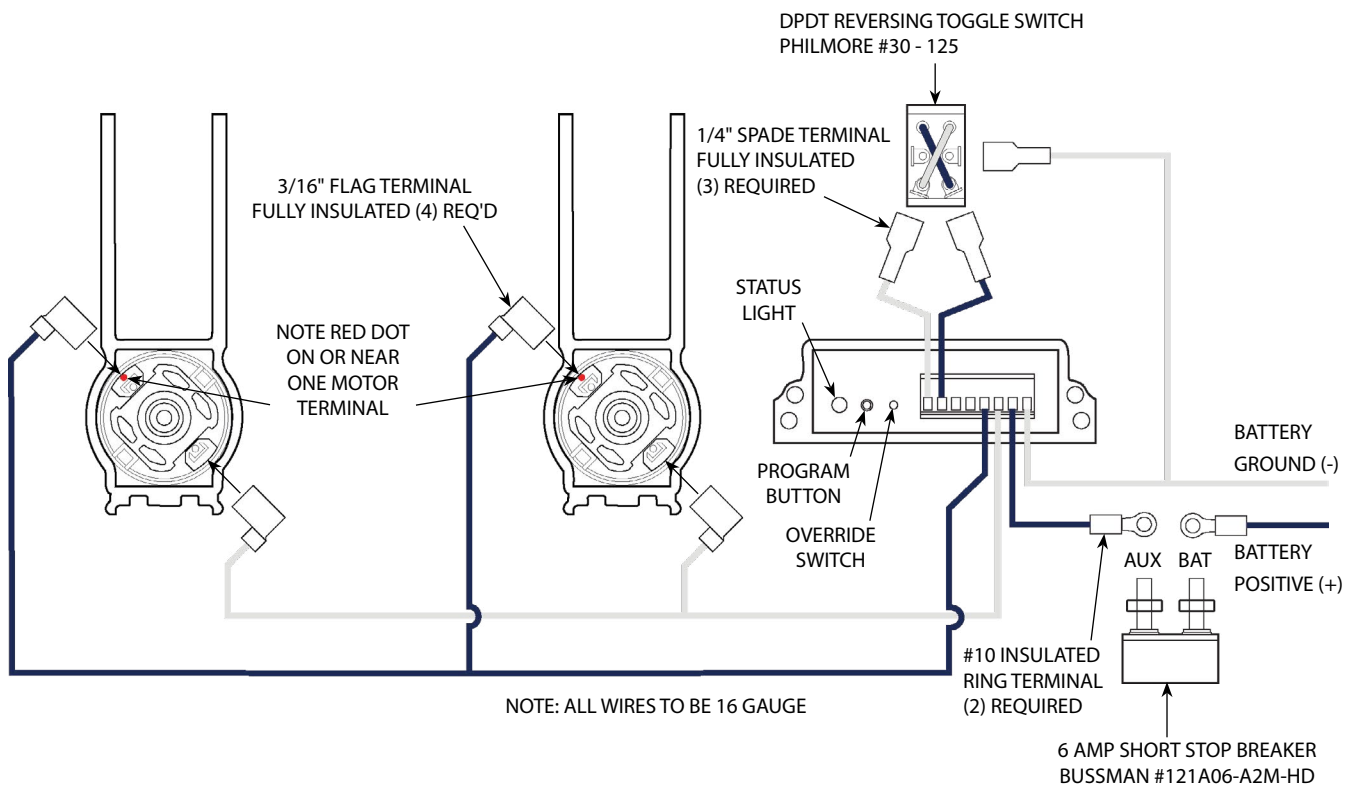
### TOOLS REQUIRED:

1. None

### PARTS REQUIRED:

- A. Actuator motors**
- B. RF receiver**
- C. 6 Amp short stop breaker**
- D. DPDT reversing toggle switch (if not previously installed)**
- E. 3/16" insulated flag spade terminal**
- F. 1/4" insulated spade terminal**
- G. #10 insulated ring terminal**

Connect the battery and motor wires according to the schematic diagram shown. If a helm-mounted switch is installed, connect it to the RF receiver as shown in the schematic.



## OPTIONAL RF REMOTE CONTROL STEP 1 – KEY-FOB REMOTE

### TOOLS REQUIRED:

1. None

### PARTS REQUIRED:

- A. Key-Fob remote

**⚠ WARNING**

**BEFORE OPERATING THE POWER BIMINI TOP, THOROUGHLY INSPECT THE AREA AROUND THE ENTIRE BIMINI ASSEMBLY. VERIFY THAT ALL PASSENGERS ARE IN A SAFE POSITION AND THAT NOBODY IS IN AN AREA THAT WILL INTERFERE WITH THE MOTION OF THE BIMINI. SERIOUS INJURY COULD RESULT.**

The up and down motion of the actuator is controlled by the key-fob remote (A). The Open and Close buttons are latching, meaning once pressed, motion will automatically continue until the commanded position is reached.

While in motion, pressing either button will immediately stop all motion.

**Note:** Always keep the key-fob remote in your hand and be prepared to stop motion if needed.

After desired position is reached and motion has stopped, slide the Safety Cover up to cover buttons to prevent any unintended transmissions.





## OPTIONAL RF REMOTE CONTROL STEP 2 – KEY-FOB REMOTE CONTROL

### TOOLS REQUIRED:

1. None

### PARTS REQUIRED:

- A. Key-Fob remote
- B. SureShade Power Bimini
- C. Bimini top (canvas)
- D. Boot (bimini top)

The SureShade Power Bimini top can be operated in four different positions.



#### Full Open Position

Remove protective boot. Press the Open button on the key-fob until motion begins and then release. Motion will continue and motors will automatically turn off.

**Note:** Maximum speed limit is 25 MPH.

**Note:** Do not open in excessively high winds.



#### Vari-pitch Position

Remove protective boot. Press the Open button on the key-fob until motion begins and then release. When desired position is reached, press either button to stop motion.

**Note:** Maximum speed limit is 5 MPH.

**Note:** Do not open in excessively high winds.



#### Radar Position

Install protective boot. Press the Open button on the key-fob until motion begins and then release. Motion will continue and motors will automatically turn off.

**Note:** Maximum speed limit is 50 MPH.



#### Full Down Position

Install protective boot. Press the Close button on the key-fob until motion begins and then release. Motion will continue and motors will automatically turn off.

**Note:** Maximum speed limit with boot installed is 65 MPH.

**Note:** Maximum speed limit without boot installed is 5 MPH.

## SECURING STRAPS STEP 1 – SELF-TAPPING MALE SNAPS

### TOOLS REQUIRED:

1. Pencil

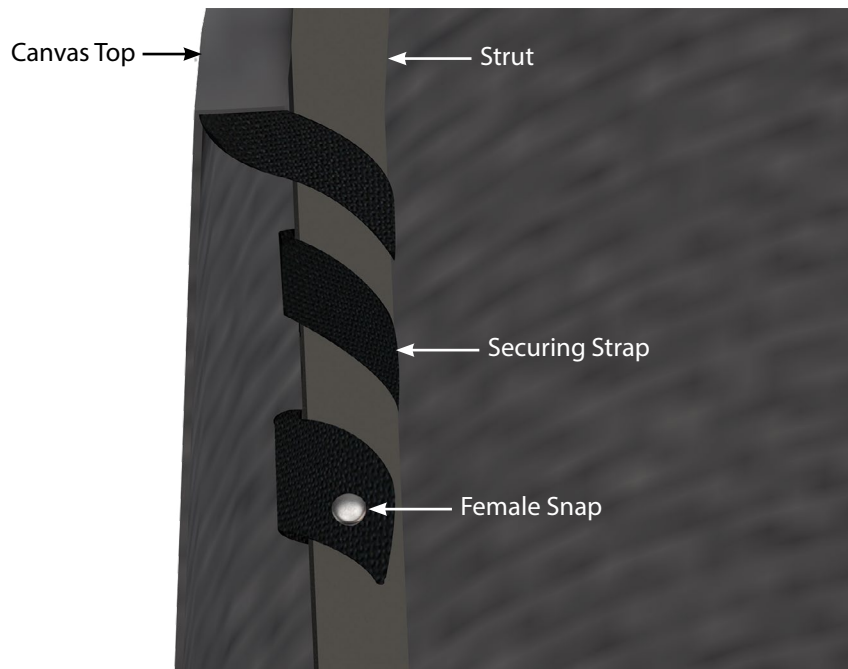
### PARTS REQUIRED:

- A. SureShade Power Bimini
- B. Bimini top (canvas)

**NOTE:** The male snaps with self-tapping screws are provided by the bimini top (canvas) manufacturer. If male snaps did not come with the canvas, contact the canvas manufacturer.

Install the canvas top onto the power bimini top. The canvas top has securing straps with female snaps located at the bow port and starboard corners and aft port and starboard corners. Securing straps prevent undue billowing of the top when installing the boot.

Starting at one canvas corner, tightly pull and wrap the securing strap around the bimini top strut. Mark the location of the female snap on the strut. Repeat procedure for each securing strap.



## SECURING STRAPS STEP 2 – SELF-TAPPING MALE SNAPS

### TOOLS REQUIRED:

1. Cordless or electric drill or screw gun
2. Appropriate drive bit

### PARTS REQUIRED:

- A. Male snaps with self-tapping screws
- B. SureShade Power Bimini
- C. Bimini top (canvas)

**NOTE:** The male snaps with self-tapping screws are provided by the bimini top (canvas) manufacturer. If male snaps did not come with the canvas, contact the canvas manufacturer.

Locate the previously marked location for the male snap. Position the self-tapping screw of the male snap over the mark and use a drill or screw gun to install the male snap into the strut.

Wrap the securing strap around the strut as before then snap the strap in-place. Repeat procedure for each securing strap.



## MANUAL OVERRIDE

### TOOLS REQUIRED:

1. 1-2 people, depending on task.
2. 5/32" hex wrench (supplied)
3. Zip ties, hook-and-loop strips or rope

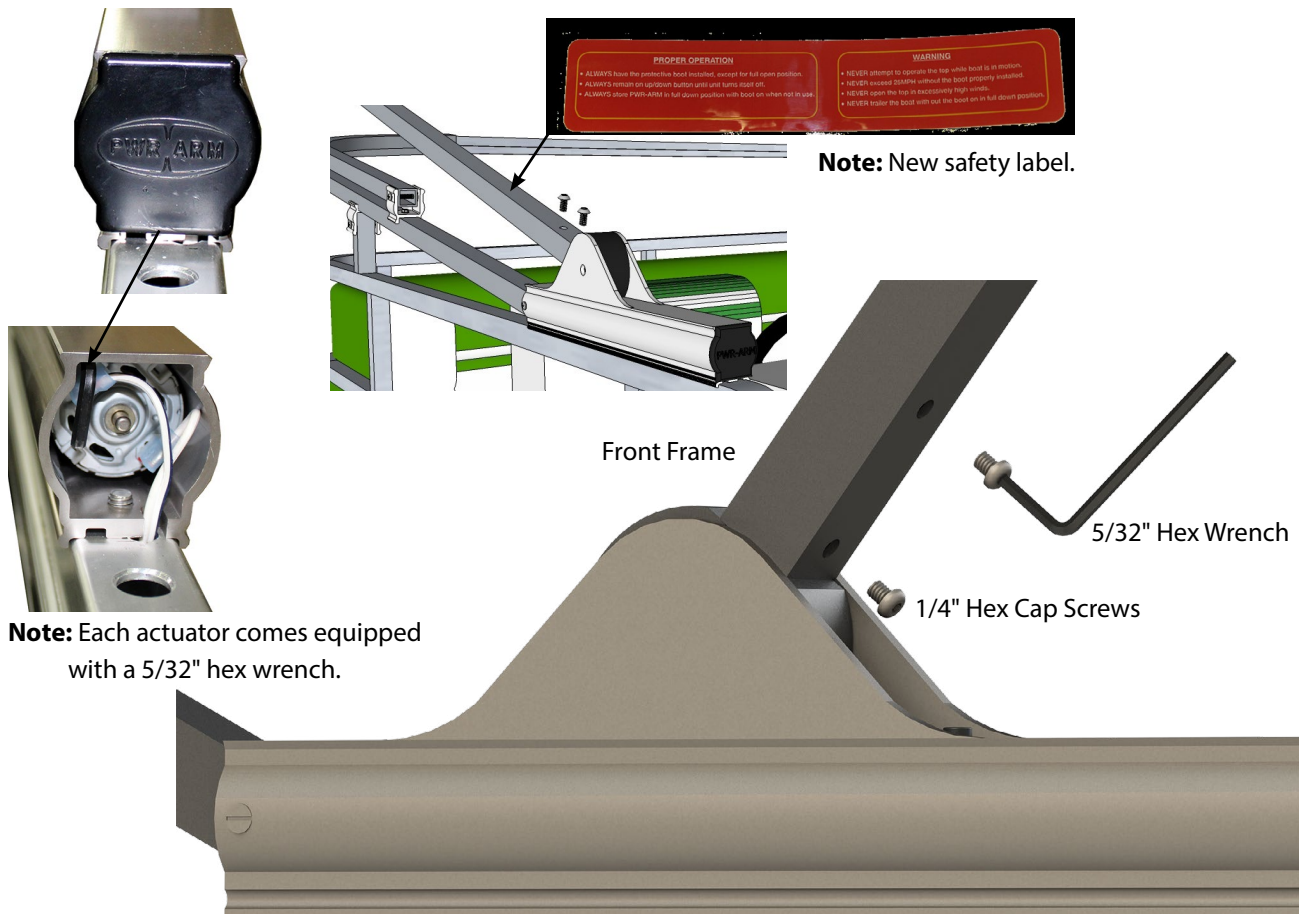
### PARTS REQUIRED:

- A. None

If the power bimini top will not close (retract) a manual override of the power bimini top must be done before putting the pontoon underway.

Unzip the front pocket of the bimini canvas. Have a second person push forward on the rear frame to relieve some pressure off the canvas and hold up the rear and middle frames when the canvas is unzipped. Lower the rear frame and canvas fully down. Use the provided 5/32" hex wrench—located behind the actuator's end cap—to remove the two 1/4" hex cap screws located at the bottom of the front frame on both sides. Lift the front frame off of the gear handles and place the front frame on top of the rear frame.

Zip the front canvas pockets over the loose front frame to help hold it in-place. Secure the remainder of the front frame in-place with zip ties, hook-and-loop strips or with some other type of cordage.



## FABRIC CARE

### TOOLS REQUIRED:

1. Garden hose
2. Large bucket to hold five gallons of water
3. Mild dish soap
4. Soft bristle brush

### PARTS REQUIRED:

#### A. None

Use clear water to consistently hose off the bimini top fabric during the boating season. If necessary, do a deeper clean of the bimini top fabric as follows:

If necessary, remove the boot and fully open (extend) the bimini top. If the top was stored wet, allow the bimini top and boot to dry. Remove any loose dirt and debris from the bimini top and boot.

Hose down the bimini top and boot fabric. Prepare a mixture of 1/4 cup of mild dish soap and five gallons of warm water. **Do not use harsh detergents.** Use a soft bristle brush to apply the soapy water to the bimini top and boot fabric to remove stains and embedded dirt.

Allow the solution time to soak completely into the fabric. Hose off the bimini top and boot fabric with fresh water. Repeat if necessary.

Allow bimini top and boot to dry before closing the top and installing the protective boot. Zip the front canvas pockets over the loose front frame to help hold it in-place. Secure the remainder of the front frame in-place with zip ties, hook-and-loop strips or with some other type of cordage.



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