

# VacuSeal<sup>®</sup> MODEL VSLS400

## INSTALLATION MANUAL



### IMPORTANT FOR SWIM SPAS ONLY

Installing the VacuSeal System on Swim Spas includes multiple covers and 2 lifters. The installation is no different than a VacuSeal System on a traditional hot tub but requires you to follow these steps.

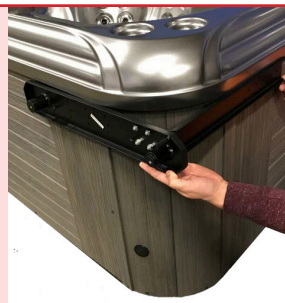
1. Place both covers on the spa with each corner square and the cover pushed tightly together.
2. Install one VacuSeal Lifter & Cover on one side of the swim spa before installing the second Lifter.
3. After the first Cover is installed push the second cover firmly against it during the final positioning process to prevent a gap between the two covers each time you open and close the cover. A properly installed VacuSeal System keeps both covers returning to the exact position where they were installed.

### SPAS NOT SUITABLE FOR INSTALLATION

1. Flush Mounted spas that do not have a minimum of 4" of clearance on the cabinet below the shell coping to install the Mounting Bracket. See Fig 2
2. Spas that are longer than 96" (8') on both the length and the width. Larger spa covers can be installed but require extension arms. See "Optional Accessories" on the last page.
3. Swim Spas longer than 264" (22')
4. Round spas, or those with a corner radius larger than 17". To determine radius, see Figure 1.

### IMPORTANT: SPAS WITH A RADIUS ABOVE 12"

If your spa has a radius corner over 12" and up to 17" you must install the optional VacuSeal Extended Bracket System Part #VSLAESA. See "Optional Accessories" It includes 2 brackets that add support to the primary Mounting Brackets. This is an optional part that comes independently packaged for large radius spas.



### CAUTION

Do not use the VacuSeal in high wind conditions. Injury from the spa cover being blown over and impacting the spa user can occur.

The VacuSeal Trademark along with US Patent Nos. 8,468,617, 8,479,325, 8,516,625, and 8,516,626, plus other US & Foreign Patents Pending are owned by Hot Tub Products LLC

Figure 1

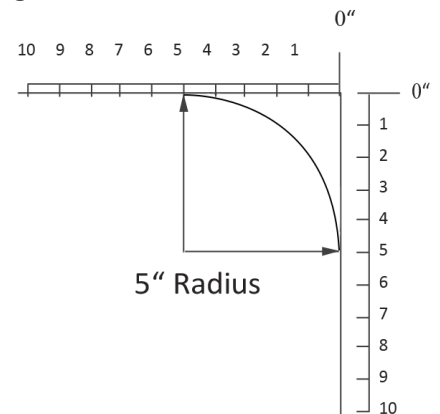
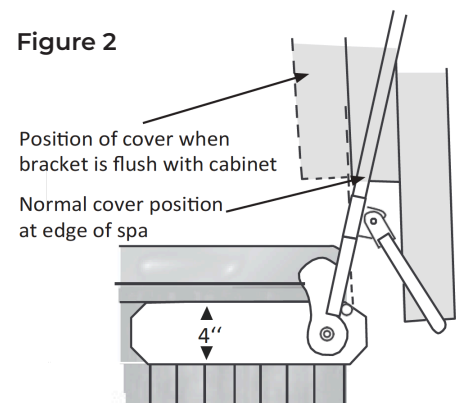
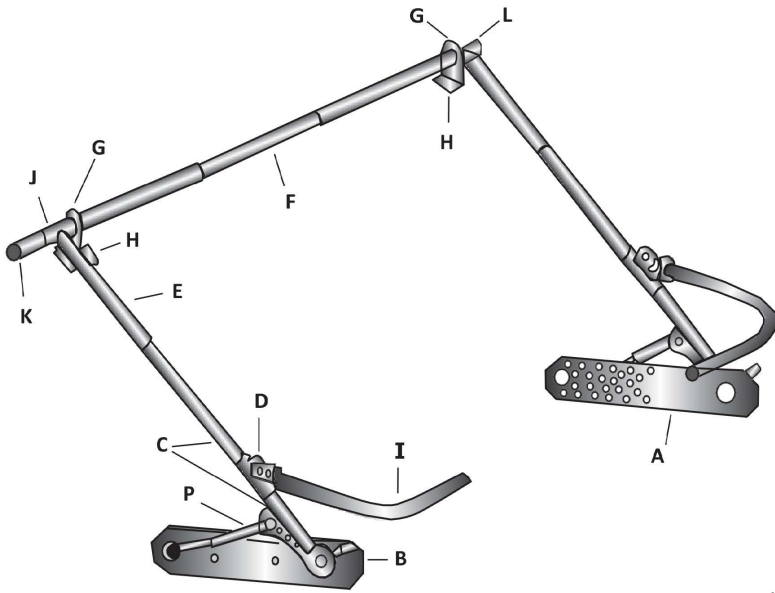


Figure 2



If you have any questions, please call us at 860 469 2580

# VacuSeal Parts List



























## TOOLS REQUIRED

- Screw Gun
- Wrenches:
  - 1/2"
  - 7/16"
- Drill Bits:
  - 9/64"
- Tape Measure
- Phillip's Screwdriver
- Wood Clamp

## Optional:

Tube Cutter may be required to cut aluminum tube on smaller spas.

<b>A) Mounting Bracket(2) L/R</b> PART #VS128 	<b>B) Cover Plate(2) L/R</b> PART #VS133 
<b>C) Swing Arm(2)</b> PART #VS129 	<b>D) Adjustable Bracket(2)</b> PART #VS134 
<b>E) Crossover Bar(2)</b> PART #VS130 	<b>F) Extension Tube(1)</b> PART #VS135 
<b>G) Upper Clamp(2)</b> PART #VS131 	<b>H) Lower Clamp(2)</b> PART #VS136 
<b>I) Rear Support Bar(2)</b> PART #VS132 	<b>J &amp; K) Handle Bar w/Foam Grip</b> PART #VS137, #VS110 
<b>L) Plastic Plug(3) 1-Large 2-Small</b> PART #VS119	<b>M) Black Fender Washer(2)</b> PART #VS119 
<b>N) Lock Washer(2)</b> PART #VS125 	<b>O) Ball Studs 5/16"-18(2)</b> PART #VS116 
<b>P) Gas Springs(2)</b> PART #VS115 	<b>Q) Hex Bolts 1/4"- 20x1/2"(4)</b> PART #VS121 
<b>R) Nylon Lock Nuts 1/4" - 20(8)</b> PART #VS122 	<b>S) Hex Bolts 5/16"-18(2)</b> PART #VS124 
<b>T) Nylon Lock Nuts 5/16" - 18(2)</b> PART #VS123 	<b>U) Wood Screws #12x2(28)</b> PART #VS120 
<b>V) Self-Tapping Screws #10x5/8"(20)</b> PART #VS113 	<b>W) Machine Screws #10-32x1/2"(4)</b> PART #VS120 
<b>X) Screw Caps(30)(2-Lg 8-Med 20-Sm)</b> PART #VS111, #VS118, #VS117 	<b>Y) Rubber Safety Stop(2)</b>  <b>Z) Teflon Washers(4)</b> 

# VACUSEAL INSTALLATION INSTRUCTIONS

## CLEARANCE REQUIREMENTS:

Requires a 9" clearance at the rear of the spa for the cover to open (See fig 3). This may be lessened to 7" by installing the Mounting Bracket flush with the cabinet but this will also position the cover to sit 1 to 2 inches over the spa's coping. (See fig 2)

The height required above the spa (A) is the length of the short side of the cover + 3". The distance (C) the cover goes downward behind the spa is measured by (B) the length of the long side of the cover minus (A). (See Fig 4)

## CHECK SPACING ON FACE OF CABINET

If the furthest point of the spa (either the shell coping or the top rail) extends more than 1 ¼" from the face of the cabinet where the mounting bracket is to be mounted (see fig 5) then you must install a wooden spacer behind the mounting bracket to keep it within 1 ¼"

## CHECK FOR ADEQUATE SUPPORT

The Mounting Bracket requires a secure attachment to the cabinet. If the panel siding of the spa is thin, make certain the screws attach to the spas interior frame. If you are uncertain if the spa has a frame (wood or steel) positioned to meet the screws, then remove cabinet panel to inspect and install a wood support (usually a short 2"x 4" stud) behind panel secured to the spa frame.

## FOLLOW STEPS IN PROPER SEQUENCE

### STEP 1 – "MOUNTING BRACKET"

First, measure 22" back from the furthest point at the rear of the spa shell coping and mark with a pencil (See Fig 6).

**ON TRI-FOLD COVERS ONLY:** To keep the 3rd panel from infringing on the shell coping (if necessary) position the Bracket 20" back from rear of spa shell. This will reduce the maximum radius for installation to 10" not 12" which then would require our optional Extension Bracket.

**NOTE:** Mounting Brackets are installed on each side and to the rear of the spa, where the cover will be positioned when opened.

Then position the Mounting Bracket at the pencil mark. Make certain to use the bracket that positions the "Safety Stop" at the rear of the spa (See Fig 6). Hold Mounting Bracket at this position and pre-drill into two of the holes using the ¼" drill bit. Then secure the Mounting Bracket by screwing in the Wood Screws U with a #3 Phillips head bit (See Fig 7). Repeat this procedure so that you have a minimum of 8 screws securing the mounting bracket to the cabinet, though more is always better. Pre-drilling holes is important to prevent splitting of the cabinet panel or interior frame.

**NOTE:** Make certain both Mounting Brackets are positioned evenly.

**IMPORTANT : Mounting Bracket Must Sit Flush on Cabinet** - If your spa has a trim strip preventing the Bracket from sitting flush on the cabinet then use a wood spacer, the thickness of the trim strip, behind bracket allowing it to sit flush.

**NOTE:** On spas with STEEL FRAMES use a Metal Bit and then the enclosed screws will work fine!

Figure 3

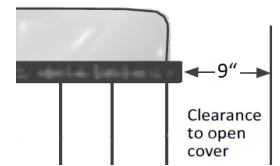


Figure 4

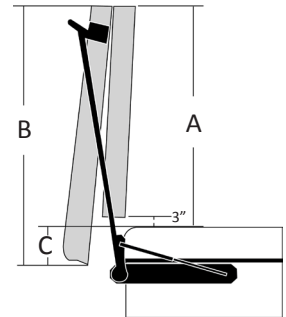


Figure 5

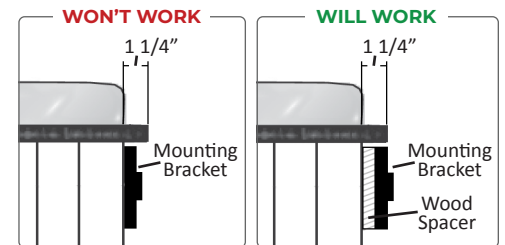


Figure 6

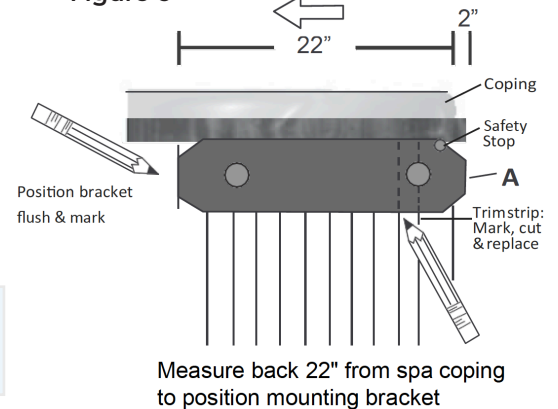
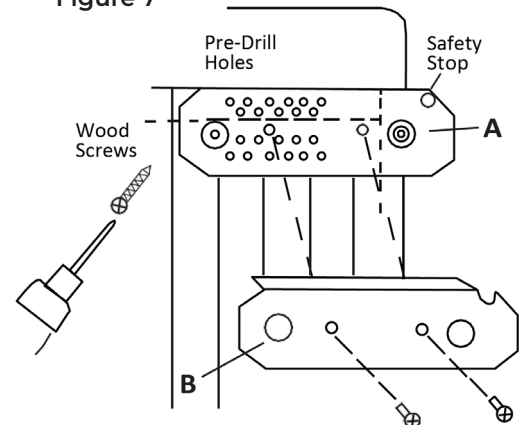


Figure 7



## STEP 2 – INSTALL “COVER PLATE” (See Fig 6B)

Position Cover Plate over the Mounting Bracket and with a Phillips handheld screwdriver and secure the Machine Screws into the 2 center holes. Then install the Rubber Sleeve onto the Safety Stop.

REPEAT STEPS 1 THROUGH 2 ON THE OTHER SIDE

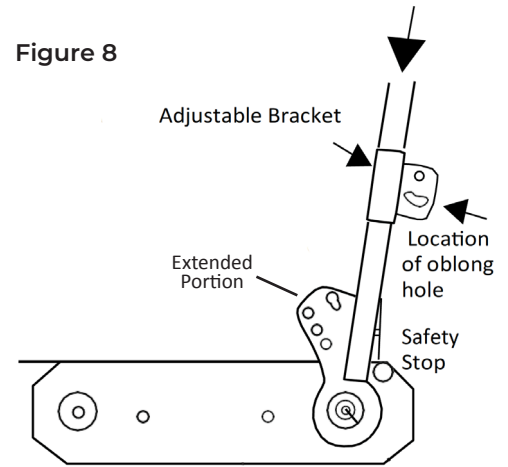
## STEP 3 – POSITION COVER ON THE SPA

Position all four corners of the Cover squarely on the Spa.

## STEP 4 – INSTALL “ SWING ARM”

Position a Teflon Washer over the “Boss” closest to the rear of the spa and below the “Safety Stop”. Then Position the Swing Arm on the Boss. Make certain the extended portion of the Swing Arm is positioned towards the interior of the spa (See Fig 8).

Then over the center hole position place a 2nd Teflon Washer, followed by a Machined Washer, then a Lock Washer, and secure with ½ Hex Bolt. Tighten until the Lock Washer is compressed. see Fig 8B



Z) Teflon Washer



M) Black Fender Washer



N) Lock Washer



S) Hex Bolt



**IMPORTANT :** If length of the cover on the fold side is less than 78” you may have to cut Swing Arm using a tube cutter. This can be determined by following instructions in Step 8 (position “Cross Over-Bar and “Upper Clamp” over cover slit and slide in the “Swing Arm”). If cutting is required, make certain to measure and allow at least 4” of the Swing Arm to pass into the Crossover Bar so that it is visible through all of the pre-drilled holes.

Figure 8B

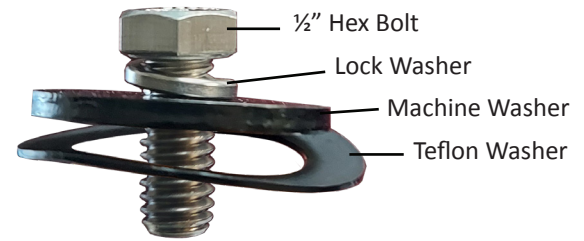
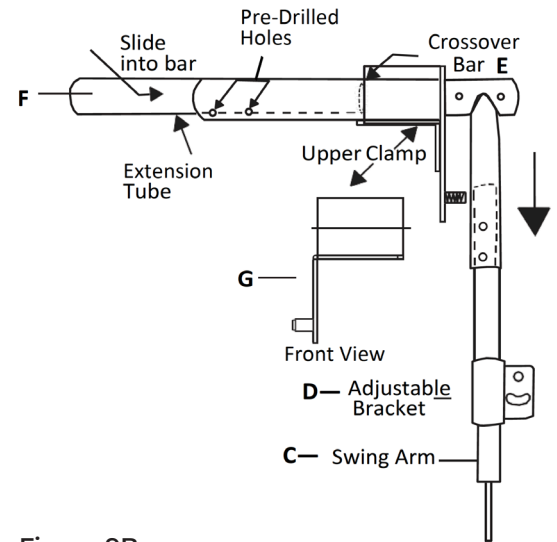


Figure 9



## STEP 5 – SLIDE ON “ADJUSTABLE BRACKET”

Slide the Adjustable Bracket onto the Swing Arm (See Fig 8) making certain the larger oblong hole is positioned toward the bottom and towards the rear of the spa when the Swing Arm is in the up position.

NOTE: Leave Adjustable Bracket Unsecured.

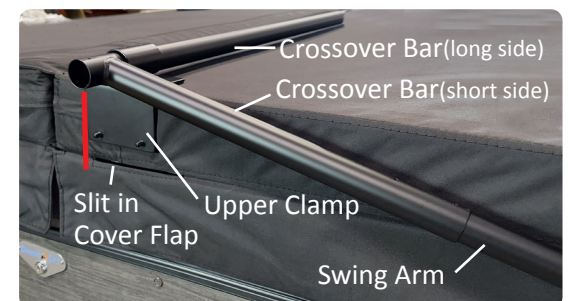
## STEP 6 – POSITION “CROSS OVER BAR” & UPPER CLAMP

Slide the longer side of the “Crossover Bar” through the Upper Clamp then slide the shorter side of the “Crossover Bar” into the Swing Arm (See fig 9, 9B) with the Adjustable Bracket on it. Position the Clamp on top of the cover above the slit and as close to the cover fold as possible.

NOTE: Leave both the Swing Arm and “Crossover Bar unsecured.

**IMPORTANT :** If the width of the cover is less than 66”, than it will require cutting both sides of the Crossover Bars equally to accommodate the short width, along with shortening the Extension Tube if necessary.

Figure 9B



## STEP 7 – POSITION “EXTENSION TUBE”

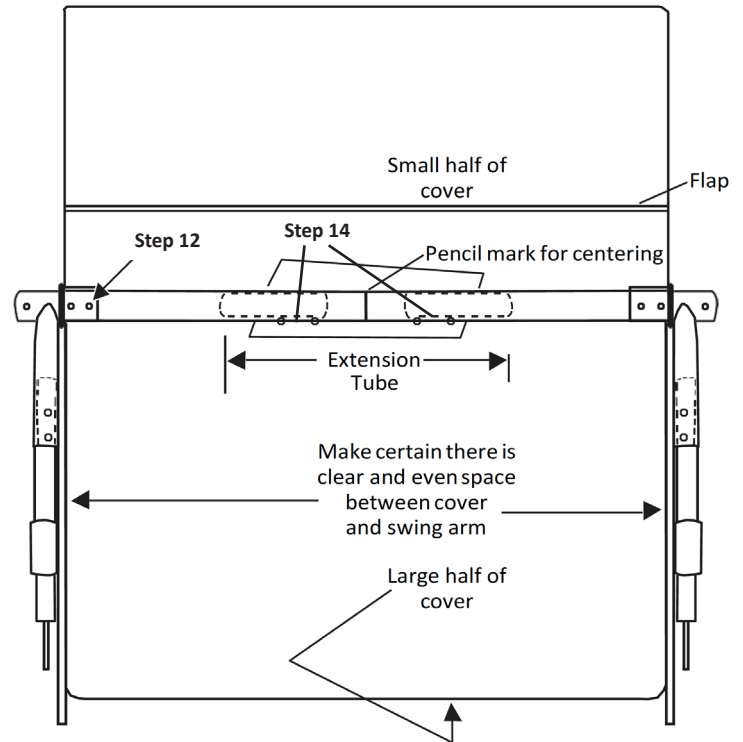
Put a pencil mark at the center of the Extension Tube and slide it partially into the previously installed Crossover Bar. Leave it unsecured and resting on the cover. The pencil mark will assist you later in positioning the Extension Tube equally between both sides (See fig 10)

## STEP 8 – POSITION 2ND “CROSSOVER BAR” ON OPPOSITE SIDE

Move to opposite side of spa and slide the longer side of the 2nd Crossover Bar through the 2nd Upper Clamp. Then slide it over the other side of Extension Tube. Have the pencil mark on the Extension Tube equally distanced on both sides (See Fig 10). Leave all parts unsecured.

**NOTE:** It is important to make certain the pre-drilled holes in each of the Crossover Bars are covered underneath by the Extension Tube.

Figure 10



## STEP 9 – INSTALL 2ND SWING ARM

Slide the 2nd Adjustable Bracket onto the 2nd Swing Arm, again making certain that the larger oblong hole faces up and towards the rear of the spa. Then slide the Swing Arm tube into the Crossover Bar and position the opposite side of the Swing Arm onto the Boss on the Mounting Bracket closest to the rear of the spa (See Fig 11). Secure the Swing Arm just as it was done on the other side, see Fig 9.

Again, make certain to install both Teflon Washers, the Machined Washer before tightening the Hex Bolt until the Lock Washer is compressed.

## STEP 10 – INSTALL “BOTTOM CLAMPS”

Slightly lift the cover at the fold, then slide the bottom half of the Lower Clamp into the Slit on the Cover with the slotted holes over the Bolts on the Upper Clamp. Do not center the Clamps on the slit. (See Fig 11) Position them as close to the cover fold as possible. Install and hand tighten the 1/4” Nylon Lock Nuts on the Upper Clamp. It is recommended to use a Wood Clamp (See Fig 11B) to squeeze the Upper and Lower Clamps before securely tightening the Nylon Lock Nuts with a wrench securely on the Cover. Hand squeezing the two clamps may suffice, but it may loosen over time requiring you to retighten them.

## REPEAT ON THE OTHER SIDE

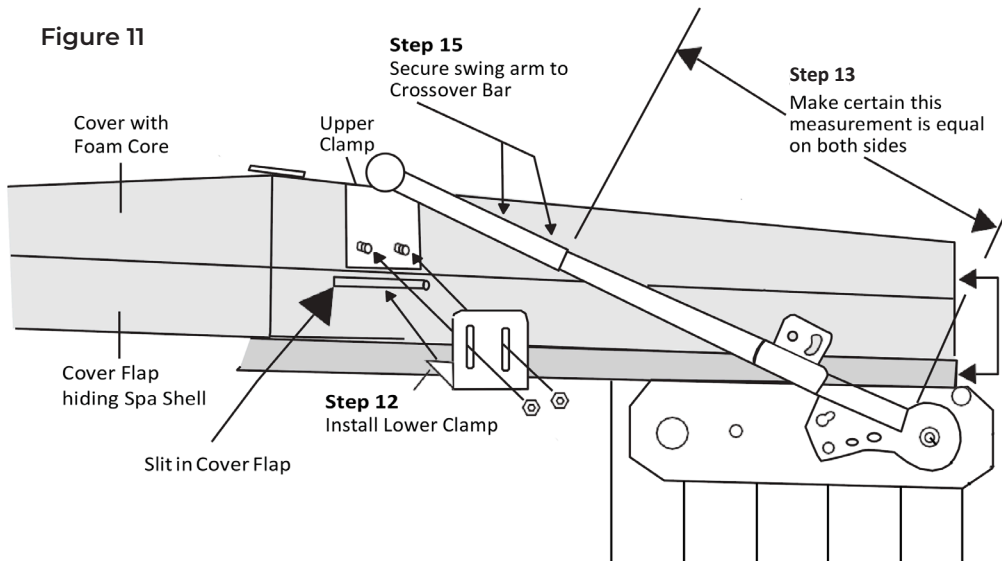


Figure 11B



**Reminder:** Position Lower Clamp in the slit as close as possible to the center of the spa where the cover folds.

## STEP 11 – INSTALL HANDLE

First determine which side you wish to have the Handle positioned on and then slide the handle fully into the Crossover Bar on that side (See figure 12). The handle can later be detached and installed on the opposite side if you change your mind or you can order an additional handle for the opposite side.

## STEP 12 – SECURE UPPER CLAMP TO CROSSOVER BAR & HANDLE

**NOTE:** Make certain the Swing Arm is running parallel to the cover and that there is clear even space between the Swing Arm and the Cover. This will allow Swing Arm to raise the Cover without any obstruction.

Using a  $\frac{9}{64}$ " drill bit, pre-drill into the holes on the Upper Clamp as shown in Fig 10 and then install Self Taping Screws.

**REPEAT ON THE OTHER SIDE WITH NO HANDLE**

## STEP 13 – SECURE “SWING ARMS” TO “CROSSOVER BARS”

**NOTE:** Make certain the Cover is square on the spa.

Measure the distance from where the Swing Arm is visible on the Crossover to the point where the Swing Arm ends. Then make certain both sides are equally distanced. (See Fig 11) This is important so both sides open evenly.

Using a  $\frac{9}{64}$ " drill bit, pre-drill holes into the Crossover Bar and then secure it to the Swing Arm with Self Taping Screws.

**REPEAT ON OTHER SIDE**

## STEP 14 – SECURE “CROSSOVER BAR” TO “EXTENSION TUBE”

Using a  $\frac{9}{64}$ " bit drill holes into all pre-existing holes on the long side of each Crossover Bar making certain the Extension Tube is visible, then install Self Taping Screws (See Fig 10). This attachment can be done when the cover is in the up or down position. **MAKE CERTAIN TO PROTECT THE COVER!**

## STEP 15 – INSTALL “REAR SUPPORT BAR” TO COVER

1. Slide the rounded side of the Rear Support Bar into the back sleeve of the cover until it is parallel with the Swing Arm and flat against the rear of the Cover (See Fig 13).
2. Slide the flat end of the Rear Support Bar so that it aligns with the holes in the Adjustable Bracket then secure the hole closest to the center of spa using a  $\frac{1}{4}$ " Hex Bolt and a Nylon Lock Nut with 2 wrenches.
3. Then check to make certain the Rear Support Bar is still sitting flush and level with the rear of the spa then secure the second hole just as you did the first.

## STEP 16 – ATTACH TO “ADJUSTABLE BRACKET”

Using a  $\frac{5}{64}$ " drill bit pre-drill a hole into the one accessible pre-existing hole on the top of the Adjustable Bracket and then secure with a Self-Tapping Screw. The non-accessible pre-drilled hole will not require a screw (See Fig 14). The bottom holes will be secured later.

**REPEAT STEPS 15 & 16 ON THE OTHER SIDE**

Figure 12

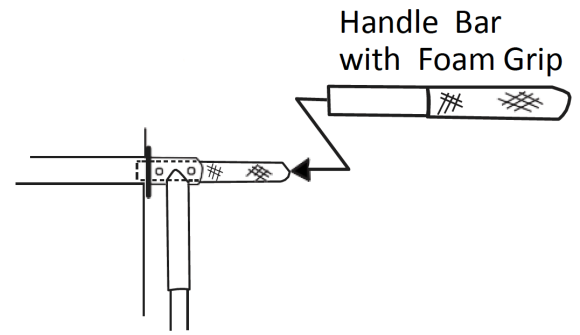
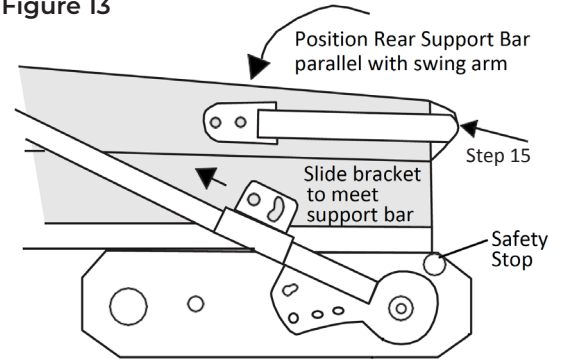


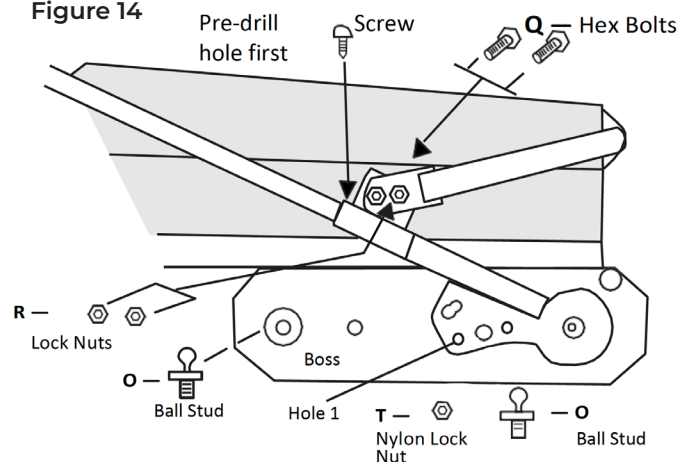
Figure 13



**IMPORTANT :** Be sure to place a piece of rigid material to protect the cover while you are installing the screws. Damage to the cover during installation is not covered in the warranty.



Figure 14



## STEP 17 – INSTALL “BALL STUDS”

With Cover in the closed position hand screw one of the Ball Studs facing outward onto the open interior Boss on the Mounting Bracket and securely tighten with wrench. Then install the 2nd Ball Stud on Hole #1 of the Swing Arm and secure it with a Nylon Lock Nut utilizing two wrenches (See Fig 14).

**NOTE:** Hole # 1 is most preferred because it requires the least amount of pressure to raise the cover. Hole #3 requires the least amount of pressure to close the cover. Moving from one hole to the other can easily be done later. Also, the Lower Hole you use the further back the cover will sit.

## STEP 18 – INSTALL GAS SPRINGS

Lift the cover into the open position (this will require some effort since the gas springs have yet been installed) and install the large barrel of a Gas Spring into the Ball Stud on the Swing Arm and the narrow barrel into the Ball Stud on the Mounting Bracket (See Fig 15).

Gas springs should snap onto Ball Studs.

## STEP 19 – SECURE “ADJUSTABLE BRACKET”

With the Cover in the open position use the  $\frac{3}{4}$ " bit to pre-drill into the two bottom holes on the Adjustable Bracket and then secure with two Self Taping Screws (See Fig 15)

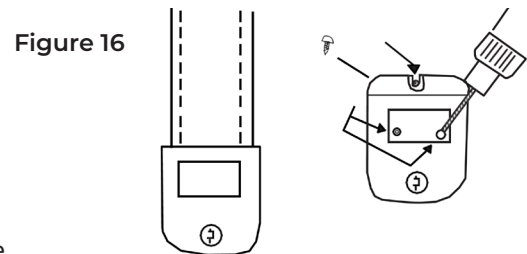
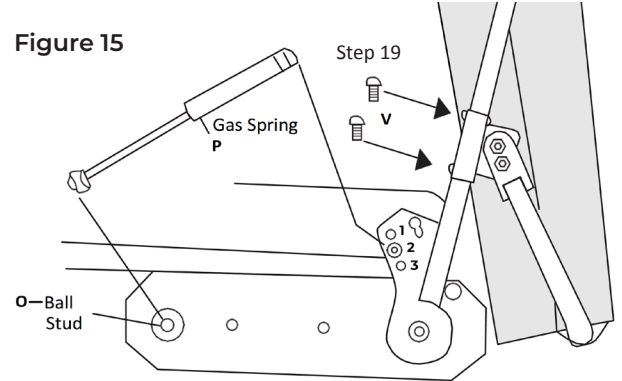
## STEP 20 – INSTALL “PLASTIC COVERS”

Install all Small Plastic Covers on all the Self Taping Screws, Medium Plastic Covers on the bolts to the Clamping Brackets and Adjustable Brackets, Large Plastic Covers on the Swing Arm Bolts.

Install Large Plastic Plug L into the side of the Crossover Bar that does not have the Handle. Install the other Plastic Plugs on the open ends of the Rear Support Bars if they extend beyond the pocket of the Cover.

## STEP 21 – INSTALL LOCKING STRAPS

Install the female part to the Locking Straps to the Hot Tub Cabinet making certain that they each match up with the extended Male Part (See Fig 16). **Your Installation is Complete!** See Optional Accessories on the Following Page.



## THERE ARE 3 WAYS TO OPEN A VACUSEAL COVER

### 1. Using the 2 Side Handles



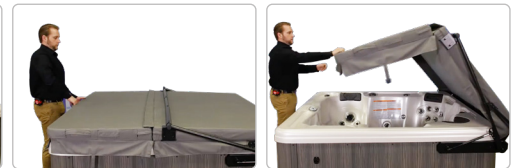
1. Gripping the two handles on the cover side lift upwards, once it is half open, let it go.

### 2. With Cover and Lifter Handle



2. Slightly raising the cover with one hand and pushing up on the steel foam covered handle.

### 3. From the Front of Spa



3. Raising the center cover handle up to a point and then lightly pushing down.

## THERE ARE 3 WAYS TO CLOSE A VACUSEAL COVER

### 1. Using Bottom Cover Handle



1. Facing the back of the spa, grabbing the bottom handle on the cover, and walking backwards, once it is halfway closed let it go.

### 2. From Either Side



2. Face the spa from the side, one hand guiding the small side of cover out and soon after with the other hand pull down on the steel foam covered handle.

### 3. As You Exit Spa



3. As you exit the spa water grab the center handle and pull the cover closed.

**IMPORTANT:** Do not attempt simply pulling down on the steel handle. The shorter side of the cover needs to be gently pulled away from the rear of the spa first.

# UPGRADE TO A **CONVERTALIFT**® SYSTEM

## Convert Your VacuSeal into an Automatic Push Button Operating System



### CONVENIENCE

Open Your Cover at the *Touch of a Button* from in Your Home!

**Or**  
with the Simple Turn of a Key on Your Spa Cabinet.



### SAFETY

The ConvertALift Automatically Locks Your Cover Prohibiting Anyone from Using Your Spa Without Permission. Ideal for those with children or when spas are installed at Vacation Homes or Rental Properties.

To learn more visit [ConvertALift.com](http://ConvertALift.com) and watch our 5-minute video.

## OPTIONAL ACCESSORIES



### Convert Your Cover into a Canopy

Provides Protection from the Sun, Inclement Weather, along with a Little More Privacy. Our Optional Canopy Arm takes only seconds to attach and is available on all VacuSeal Covers.

To View in operation go to our website and click on "VACUSEAL"

### Extension Bracket Package

For hot tubs that have a radius corner larger than 12" and less than 17" the Extension Bracket is essential to install the Mounting Brackets. It includes two brackets that attach to the rear cabinet panel and bolt to the Mounting Bracket along with an extension arm the ties both sides together. It provides structural support to both Mounting Brackets. It comes in a separate box with an easy to follow manual.



### Extended Center Bar

Essential when the length of the cover at the fold is greater than 96". The Extended Center Bar replaces the standard Extension Tube allowing the attachment of both Crossover Bars.

**Hot Tub Products, LLC**

To order a ConvertALift System or any accessories visit [HotTubProducts.com](http://HotTubProducts.com) and click on "FIND A DEALER"