



## Backstroke Start System

# INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL



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## **INTRODUCTION**

**The Backstroke Start System is designed and manufactured for installation and use on competition swimming pools only.**

**Check inside all boxes and packaging materials for parts. Before beginning assembly, read all instructions and identify parts using the figures and parts listed in this document.**

## **MAINTENANCE INSTRUCTIONS**

1. To clean, use a multi-purpose cleaner and scrub lightly with a nylon scrubby or brush.
2. If using the pool mount kit, check straps and retighten as necessary before use.



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# BACKSTROKE START SYSTEM BASE UNIT LAYOUT (PN BSS1000)

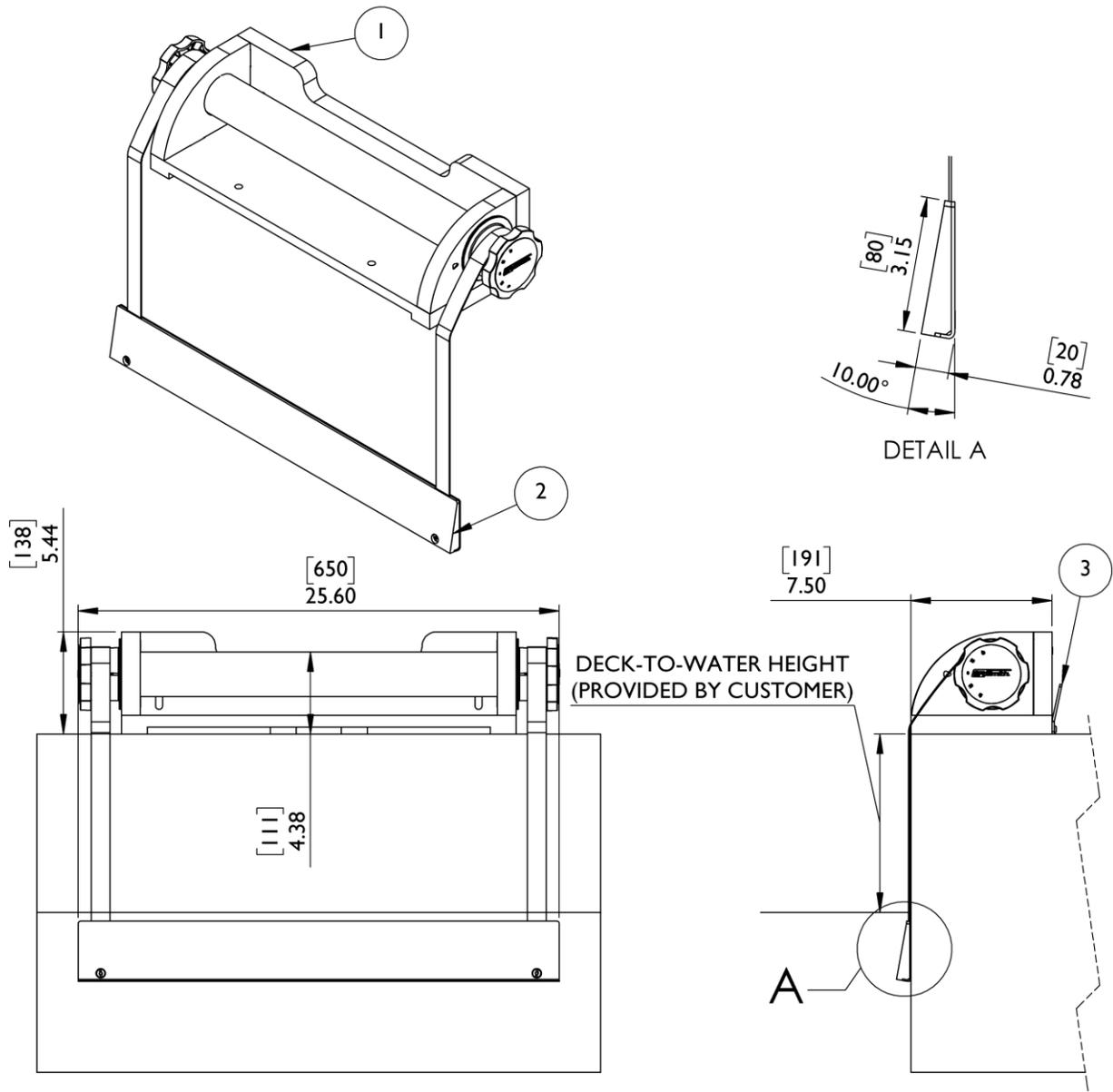


Figure A

## ANCHOR MOUNTING INSTRUCTIONS

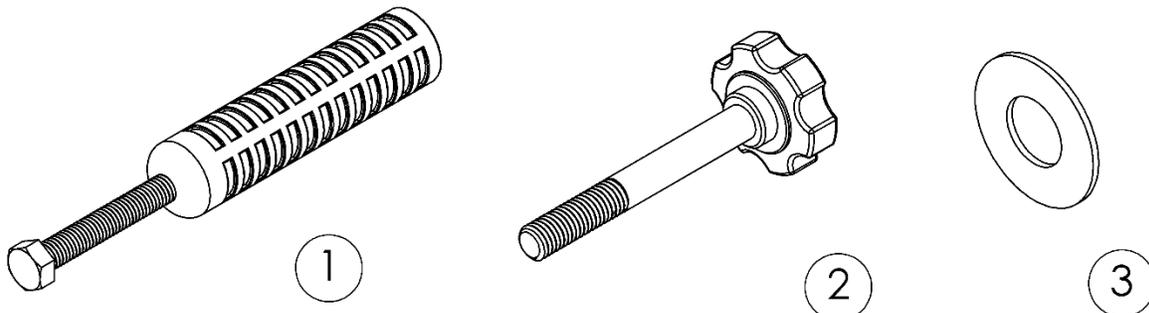
When unpackaging this kit (S.R. Smith Part Number 13-600), ensure the contents below are not damaged. Refer to the Part Numbers in the table if in need of a replacement.

### Parts List

Item Number	S.R. Smith Part No.	Description	Quantity
1	17-61-009	PLASTIC CHEMSET ANCHOR W/50MM BOLT	2
2	05-33-130	M8-80 Plastic-Head Thumb Screw	2
3	05-145-MG	3/8" Flat Washer, Marine-Grade Stainless Steel	2

### Tools Required

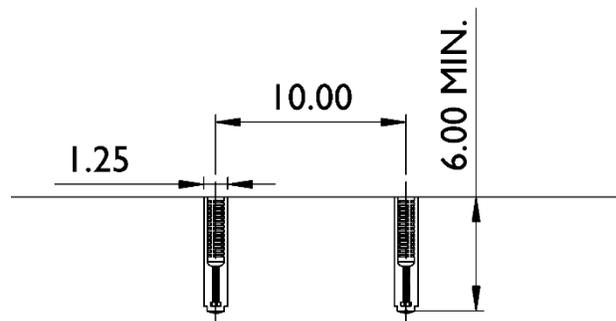
- **Anti-Seize compound**
- **Epoxy adhesive**
- **Tape measure/Ruler**



**Figure B**

### Installation Instructions

1. Position the backstroke start system assembly centered in the diving lane. Ensure the Backstroke start system is parallel to the pool wall. Mark the deck through the two holes on the base.
2. Drill a 1 1/4" dia. hole 6" deep on each hole mark. Clean the holes of debris, as dust and debris will reduce the holding capacity of the anchors.



**Figure C**

3. Fill hole with anchoring epoxy (min. 3500psi pull-out strength). Wipe off excess epoxy. Allow epoxy to cure per manufacturer's instructions.
4. Fasten the backstroke start system with the thumb screws and washers provided.

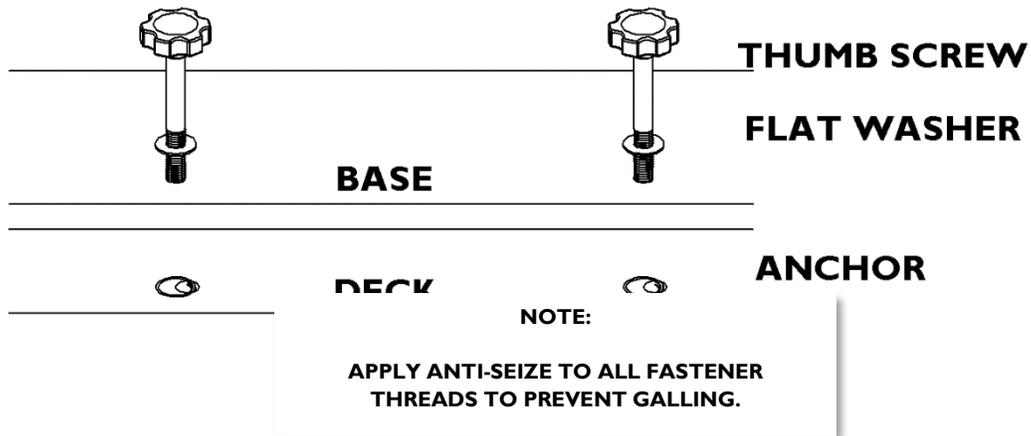


Figure D

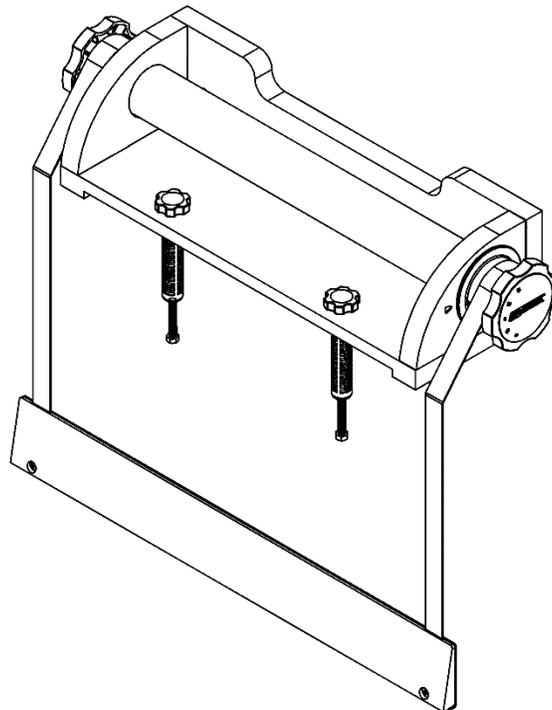


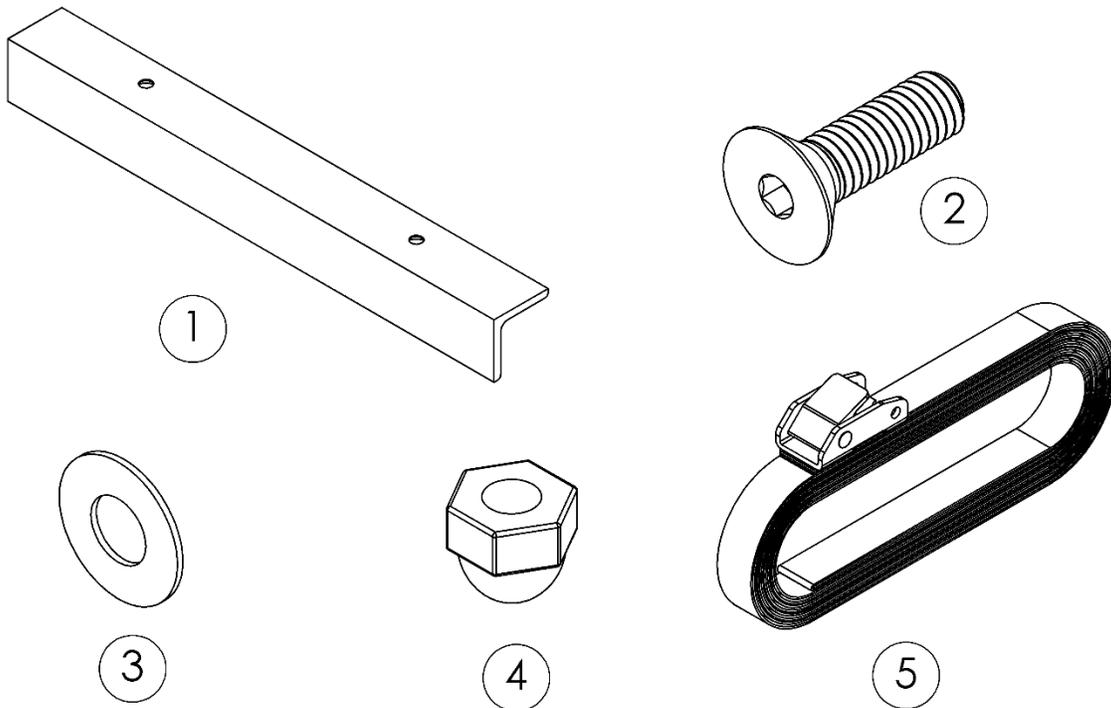
Figure E

## **POOL-EDGE AND STRAP MOUNTING INSTRUCTIONS**

When opening Pool Edge and Strap Mounting Kit (S.R. Smith Part Number 13-601), ensure the contents below are not damaged. Refer to the S.R. Smith Part Numbers in the table if in need of a replacement.

### *Parts List*

<b>Item Number</b>	<b>S.R. Smith Part No.</b>	<b>Description</b>	<b>Quantity</b>
<b>1</b>	<b>4-180-VV</b>	<b>Vinyl Coated Aluminum Angle Bracket</b>	<b>1</b>
<b>2</b>	<b>05-33-129</b>	<b>3/8"-16 x 1.25" Socket Head Cap Screw</b>	<b>2</b>
<b>3</b>	<b>05-145-MG</b>	<b>3/8" Flat Washer</b>	<b>2</b>
<b>4</b>	<b>5-156</b>	<b>3/8-16 Acorn Nut</b>	<b>2</b>
<b>5</b>	<b>8-551</b>	<b>10' Polyester Strap with Stainless Steel Cam Buckle</b>	<b>1</b>



**Figure F**

### **Tools Required**

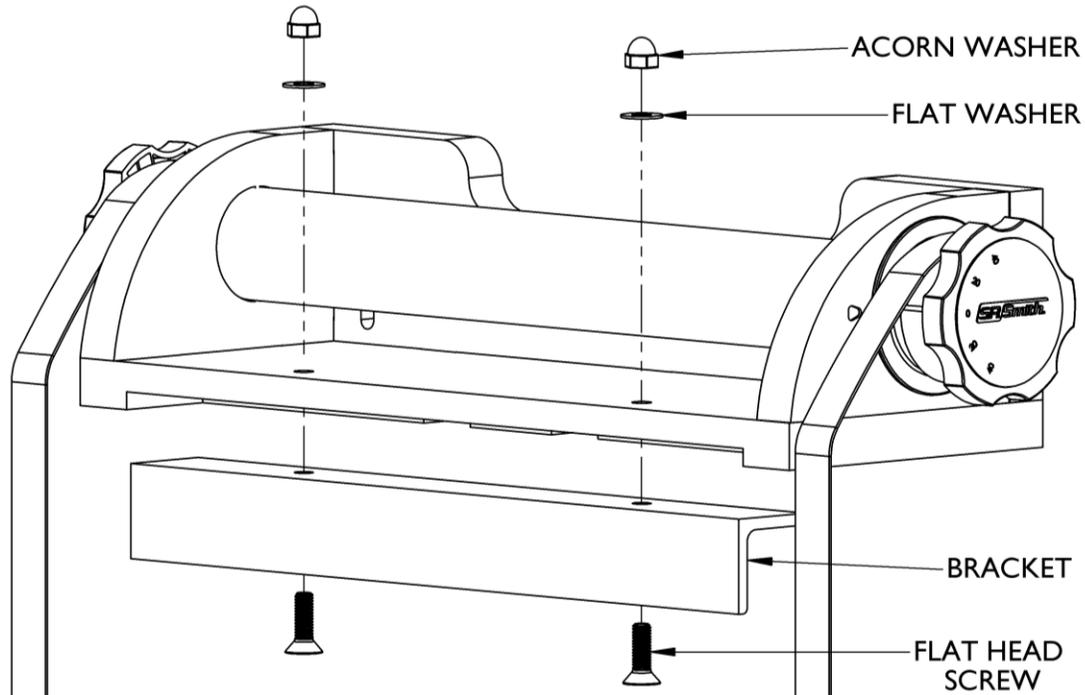
- **Anti-Seize compound**
- **5/8" wrench or socket**
- **7/32" Allen Wrench**

## Installation Instructions

- I. Fasten the bracket to the Backstroke Start System.
  - a. Align the bracket holes to the two holes on the base of the backstroke start system. Orient the bracket's other face flush with the front edge of the backstroke start system. Refer to the Backstroke Start System Layout.
  - b. Insert provided flat head screws through the bottom of the bracket and the base of the backstroke start system.
  - c. Fasten with the provided flat washer and acorn nut. Tighten with a 5/8" wrench while holding the screw in place with a 7/32" hex key.

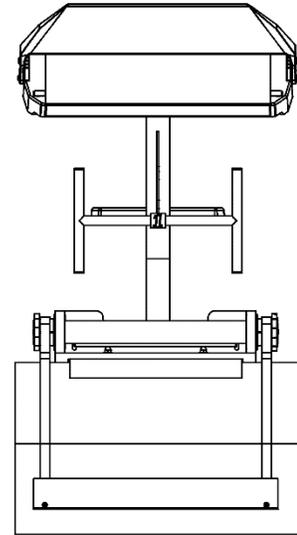
**NOTE:**

**BE SURE TO APPLY ANTI-SEIZE TO ALL FASTENERS TO PREVENT GALLING.**

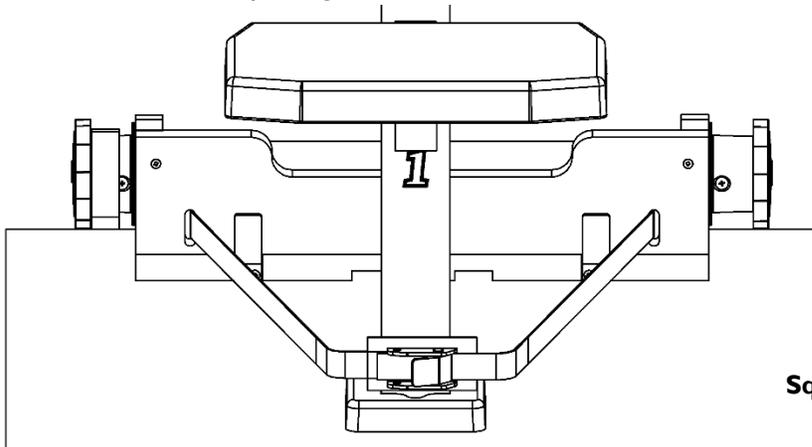


**Figure G**

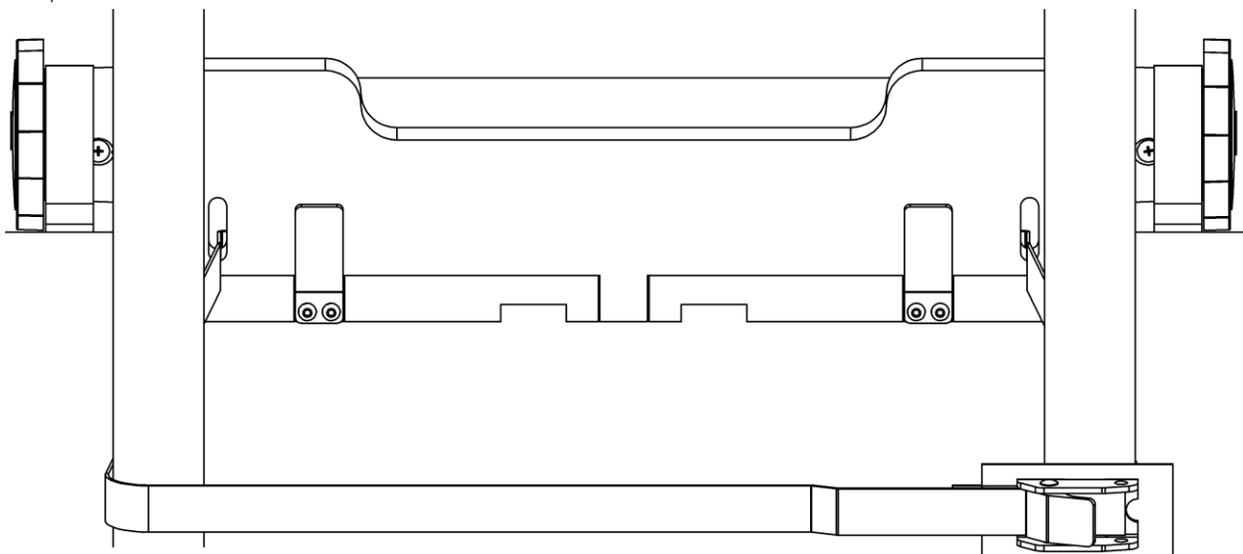
2. Position bracket over the edge of the deck so it's centered beneath the backstroke support bar. Refer to Figure H.
3. Tighten strap around starting block.
  - a. Pull end of strap without buckle through slot on the back of the backstroke start system toward the pool.
  - b. Pull through the other slot toward the starting block post and to the back of the starting block post. Keep the strap from twisting, as it can affect the tension when the strap is secured.
  - c. Place the cam buckle on the starting block post as shown in Figures I and J.
  - d. Pull the end of the strap through the cam buckle until the strap is tight.



**Figure H**



**Figure I**  
**Square Post Strap Attachment**



**Figure J | Dual Post/Velocity VR Strap Attachment**

## **PLATFORM POST MOUNT INSTRUCTIONS**

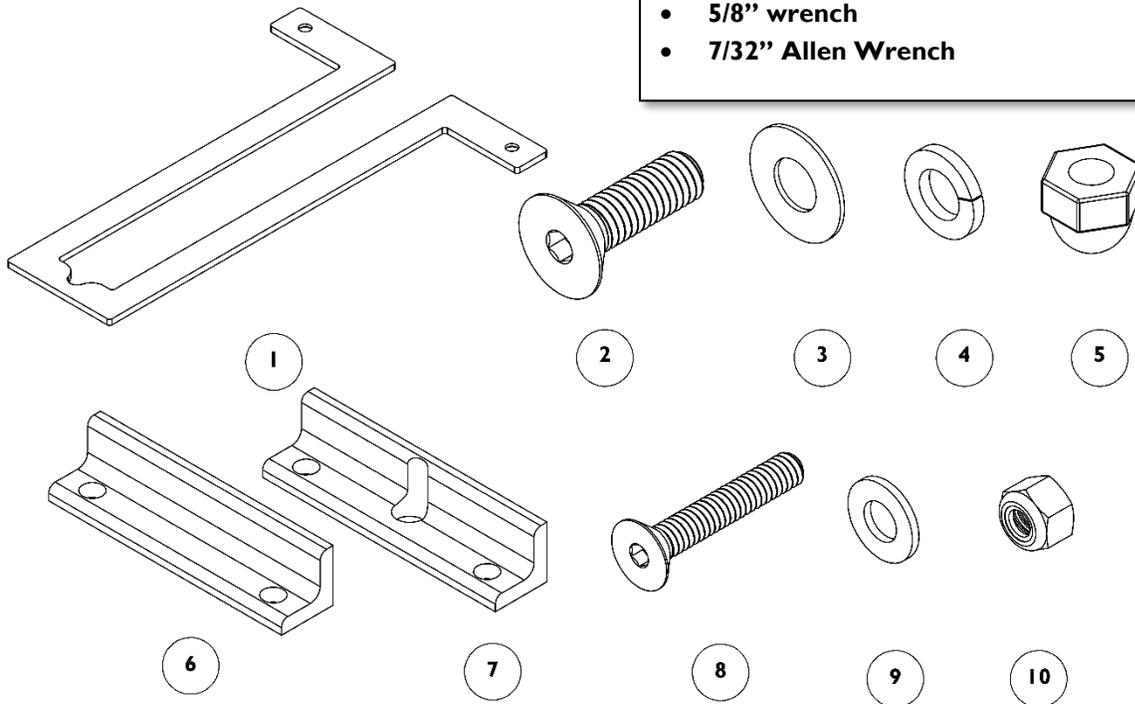
When opening Platform Mounting Kit (S.R. Smith Part Number 13-603), ensure the contents below are not damaged. Refer to the S.R. Smith Part Numbers in the table if in need of a replacement.

**THIS ANCHORING KIT ONLY FITS SQUARE POST STARTING PLATFORMS.**

<b>Item Number</b>	<b>S.R. Smith Part No.</b>	<b>Description</b>	<b>Quantity</b>
<b>1</b>	4-184	Mounting Plate	1
<b>2</b>	5-33-129	3/8-16 x 1.25" Socket Head Cap Screw	2
<b>3</b>	5-145-MG	3/8" Flat Washer	2
<b>4</b>	5-151-MG	3/8" Lock Washer	2
<b>5</b>	5-156	3/8-16 Acorn Nut	2
<b>6</b>	4-185F	Front Bracket	1
<b>7</b>	4-185B	Back Bracket	1
<b>8</b>	5-14-820	1/4"-20 x 1" Flat Head Screw	4
<b>9</b>	05-14-111	1/4" Flat Washer	4
<b>10</b>	05-33-123	1/4" Lock Nut	4

### ***Tools Required***

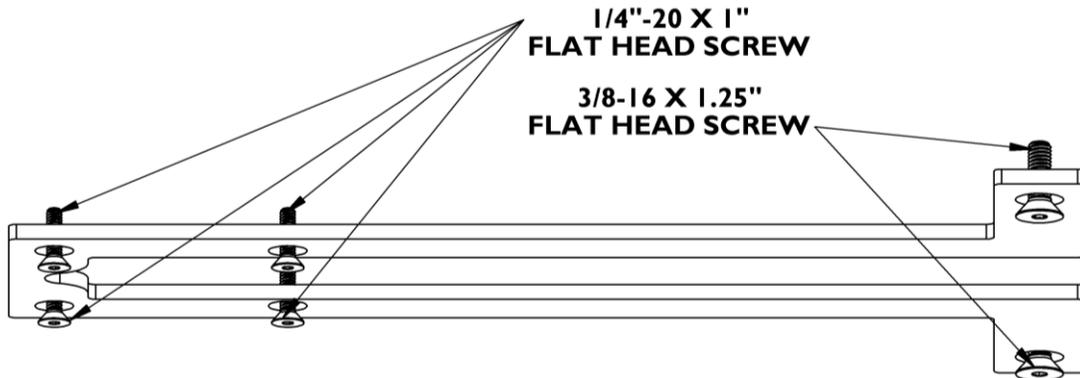
- **Anti-Seize compound (included)**
- **5/8" wrench**
- **7/32" Allen Wrench**



**Figure K | Platform Post Mounting Kit Parts**

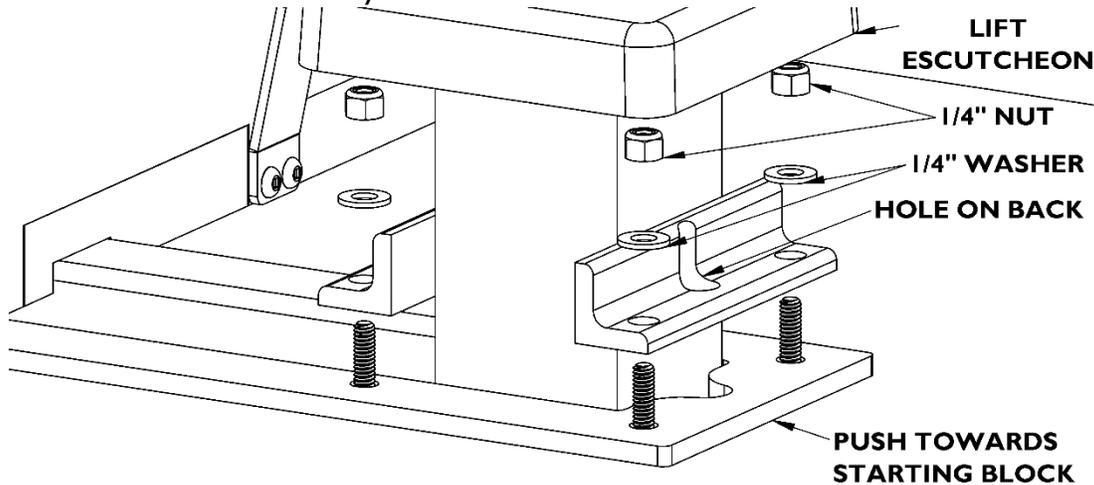
*Installation Instructions*

1. Press bolts through countersunk holes of plate. Apply anti-seize to the screw threads.



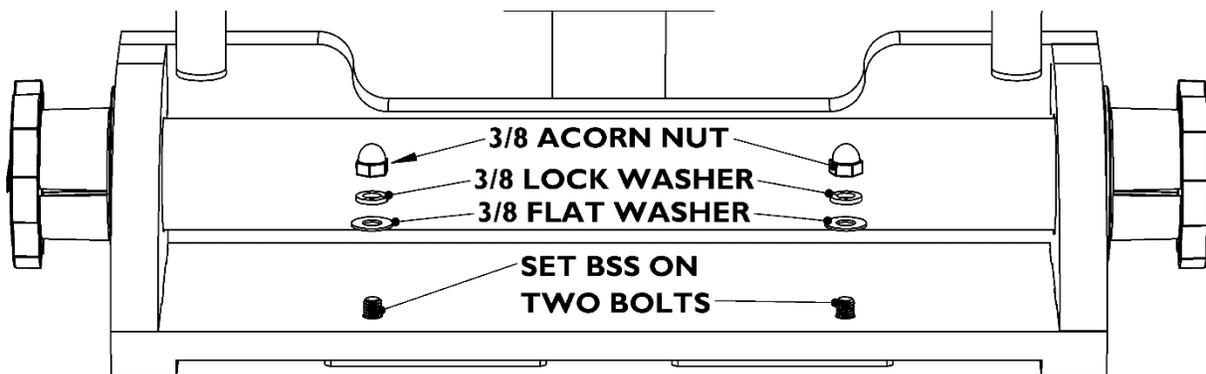
**Figure L**

2. Place on deck behind the starting platform with screw threads facing up.
3. Lift escutcheon. Slide plate into starting block. Slide in angles and fasten with 1/4" washer and 1/4" lock nut. Ensure Allen Key slot in RockSolid Anchor is visible.



**Figure M**

4. Set backstroke start system on the front 3/8"-16 bolts. Fasten with provided 3/8-16 nuts.



**Figure N**

## **LEDGE PLACEMENT INSTRUCTIONS**

1. Ensure the contents of the BSS1000 below are not damaged. Refer to the S.R. Smith Part Numbers in the table if in need of a replacement.

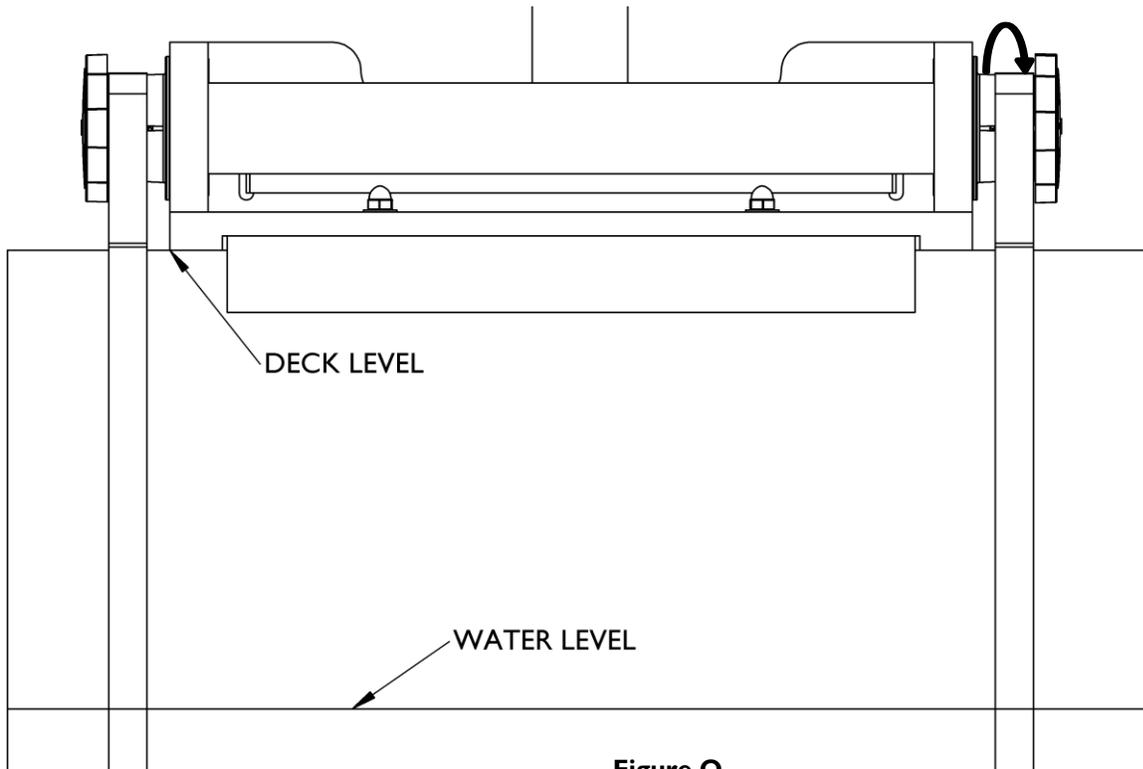
Item Number	S.R. Smith Part No.	Description	Quantity
1	BSS1000-1*	Backstroke Start System w/Spools And Straps	1
2	5-537	1/4" Binding Post w/#10 Internal Thread	3
3	03-650	Backstroke Ledge	1
4	8-654-VW	Cover Plate	1
5	5-536	#10-24 Flat Head Screw	3

\*Refer to appendix for more information.

2. Mount the backstroke start system using the instructions above.
  - Backstroke system set at 0.
  - Straps loop behind the spool and over the top.

### **Tools Required**

- Flat head screwdriver
- 1/8" Allen key
- Heat knife (or scissors)



**Figure O**

3. Adjust strap to water level.

a. Pull strap tight to the water. Mark where the strap hits water with tape.

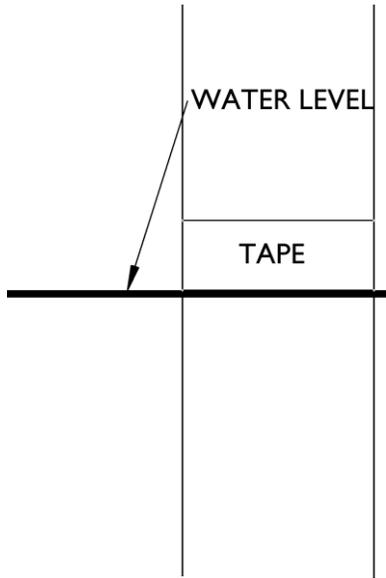


Figure P

b. Remove from pool. Cut the strap 4.5" below the tape. Use a heat knife or burn the strap to seal it. This prevents fraying.

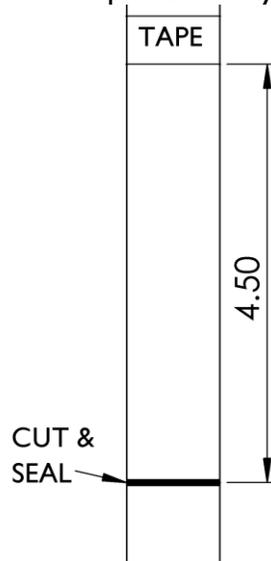


Figure Q

c. Pull strap through the top slot. Start with a corner.

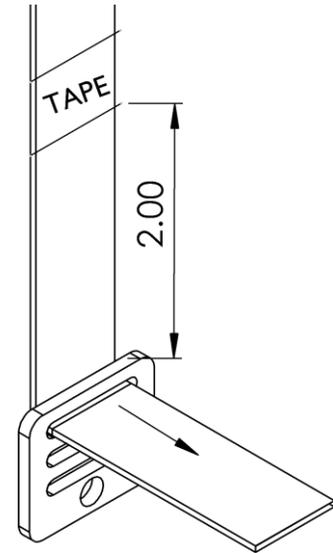


Figure R

d. Pull strap back through the middle slot.

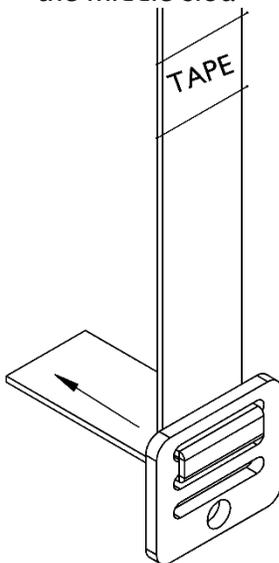


Figure T

e. Pull strap through the bottom slot.

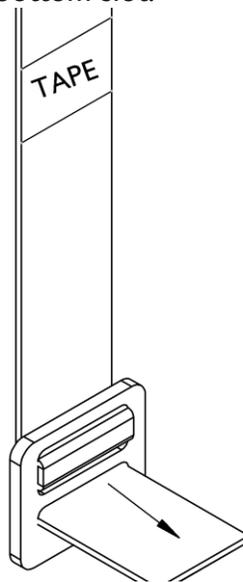


Figure U

f. Pull strap back through the top slot and up.

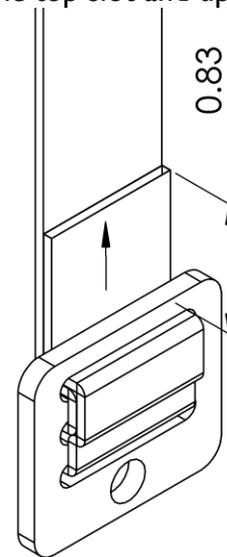
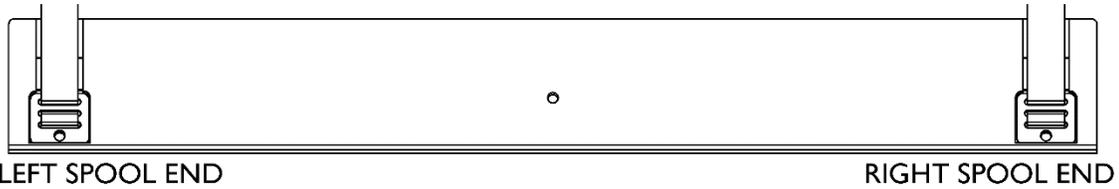


Figure S

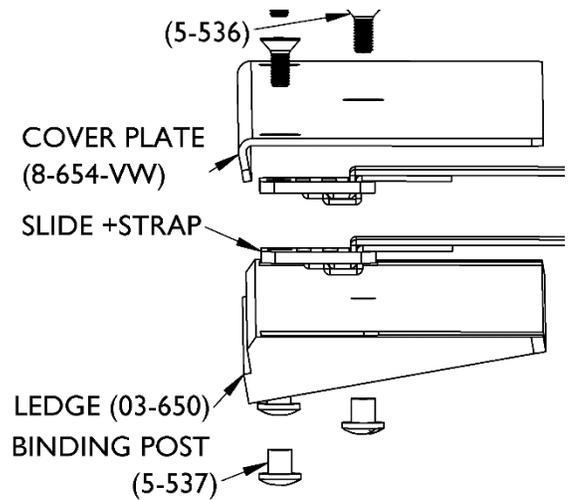
g. Repeat 3a. through 3f. for the other strap.

4. Install the backstroke ledge.
  - a. Nest slide into ledge with the short end on bottom. Ensure there are no twists in the straps and the slides are placed on the correct side.

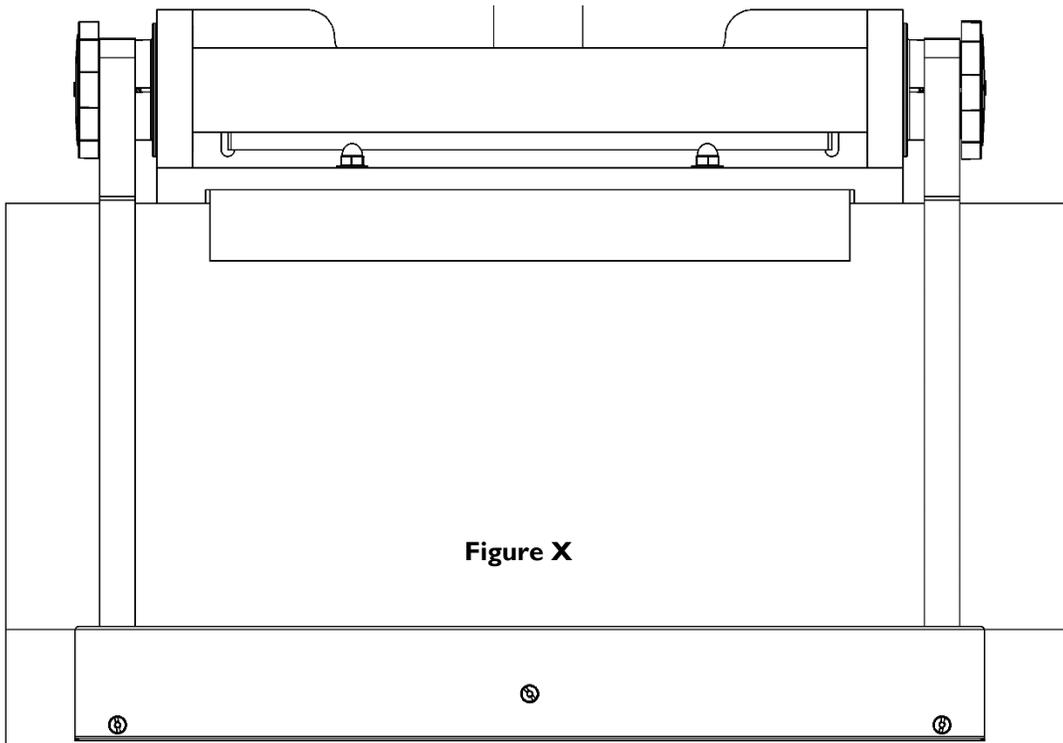


**Figure V**

- b. Push 3 binding posts into holes on the textured surface of the ledge.
- c. Place cover plate over ledge, covering the slide.
- d. Fasten cover plate to ledge with three flat head screws. Drive with 1/8" Allen wrench. Hold binding post with a flat head screwdriver.
- e. Place the backstroke ledge into the pool and ensure the top of the ledge is water level.



**Figure W**

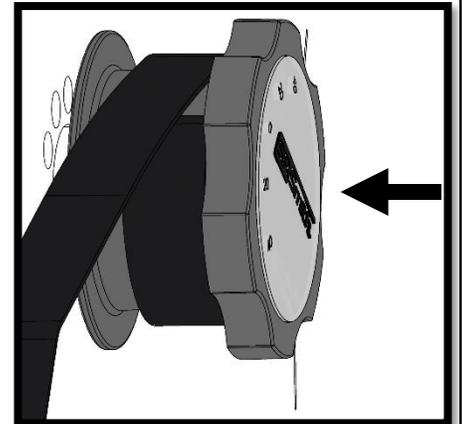
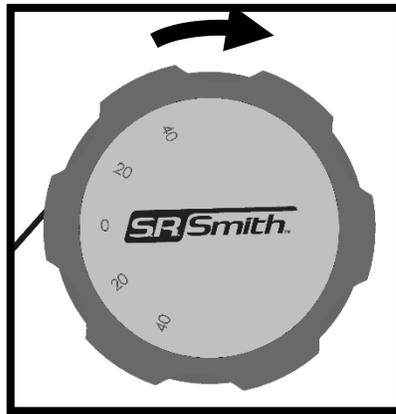
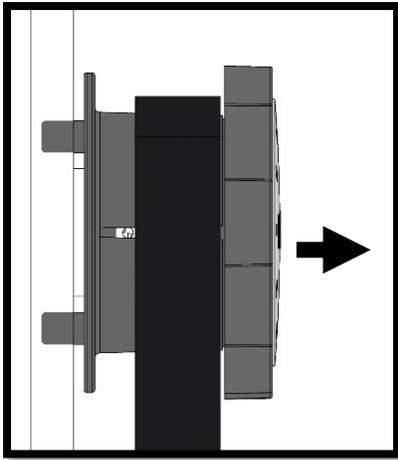


**Figure X**

## **BACKSTROKE LEDGE USE**

The backstroke ledge can be adjusted 40mm (1.6") above or below the water level in increments of 20mm (5 positions). To adjust the height, follow these instructions:

1. Pull on the left spool cap until the pins are clear of the holes in the frame. The left spool cap is marked with numbers.
2. Rotate the spool to the desired depth. Rotating clockwise will raise the backstroke ledge above water level. Rotating counter-clockwise will lower the backstroke ledge.
3. Align the pins with corresponding holes in the frame and push the left spool cap back in.



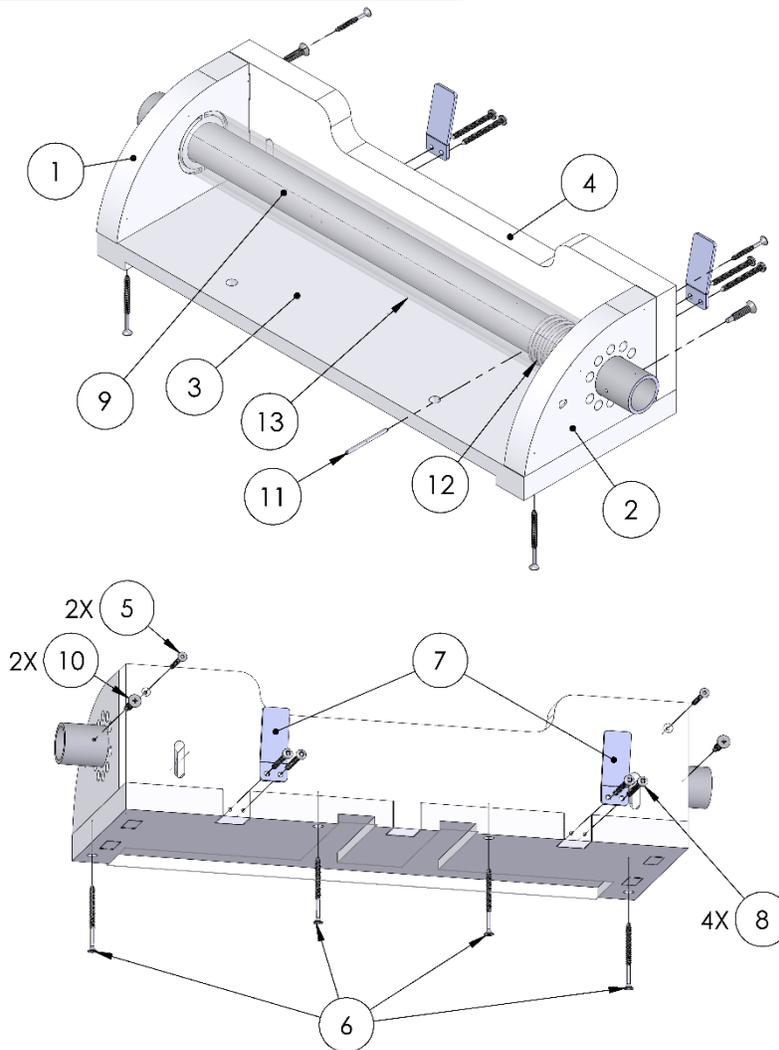
**Figure Y | Backstroke Ledge Adjustment**

## APPENDIX

### Backstroke Housing Parts List

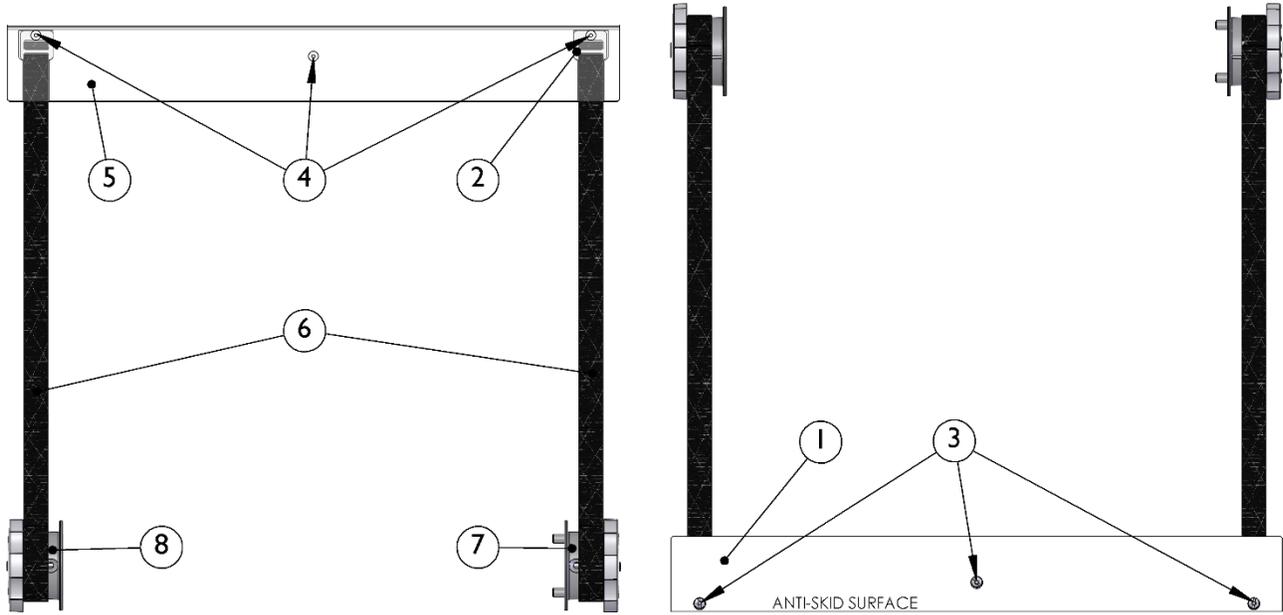
Item No.	S.R. Smith No.	Description	Qty.
1	03-701	HOUSING LEFT SIDE	1
2	03-702	HOUSING RIGHT SIDE	1
3	03-703	HOUSING BASE	1
4	03-704	HOUSING BACKK	1
5	5-535	#8 X 1 5/8" SQUARE DRIVE SCREW	2
6	5-530	#10 x 2.5" SQUARE DRIVE SCREW	4
7	4-179-VW	HOLDING CLIP	2
8	5-533	#10 X 2" BUTTON HEAD CAP SCREW	4
9	09-239-2	SPOOL SHAFT	1
10	05-14-118	1/4" X 1.25" FLAT HEAD SCREW	2
11	05-14-120	1/8" X 2" LONG SPRING PIN	1
12	8-123	SPRING	1
13	6-135	SHAFT COVER	1

Visit [srsmith.com](http://srsmith.com) for hardware kit and replacement part information.



### Backstroke Ledge Assembly Parts List

Item No.	S.R. Smith No.	Description	Qty.
1	03-650	BACKSTROKE LEDGE	1
2	4-182	STRAP SLIDE	2
3	5-537	1/4" X 1/4" BINDING BARREL	3
4	5-536	#10-24 X 1/2" FLAT HEAD SCREW	3
5	08-654-VW	COVER PLATE	1
6	8-549*	STRAP	2
7	05-700L	LEFT SPOOL	1
8	05-700R	RIGHTR SPOOL	1
9	05-14-134	STRAP PIN	2



(Item 5 shown as transparent)

