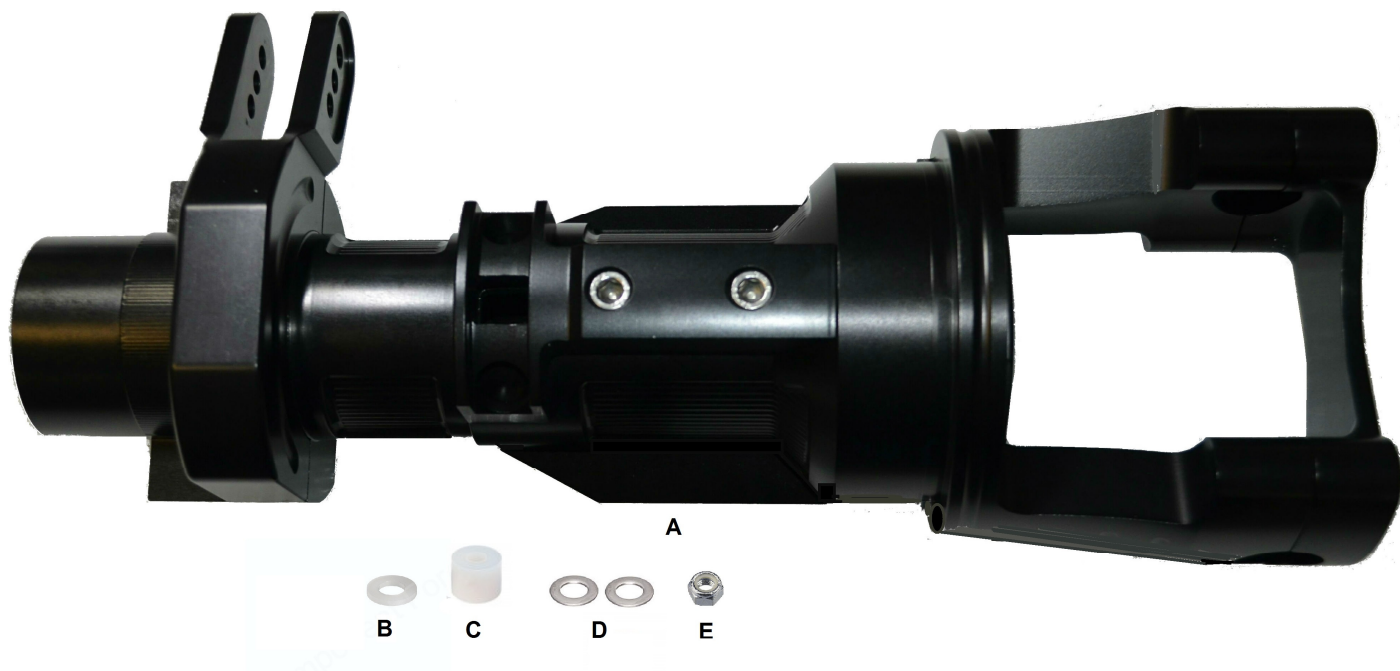




RIVA RACING
PERFORMANCE PRODUCTS & ACCESSORIES

Spark Steering System

PART# - RS20130



Applications: Sea-Doo Spark 2up and 3up models

Approximate Installation Time: .5 hrs.

Required Materials:

Blue Loctite

Black Electrical Tape

Part #

N/A

Note: Requires replacement 7/8" handlebar and control housings

We strongly recommend the use of a service manual to familiarize yourself with the various components and procedures involved with this installation. Please note that some of the original hardware removed in the disassembly process will be used in the installation process. These instructions have been written in step-by-step format and refer to illustrations. Read through instructions entirely before performing installation. Please follow these step-by-step instructions and illustrations carefully.

***** ALLOW ENGINE TO COOL COMPLETELY BEFORE PERFORMING INSTALLATION *****

***** NO SMOKING *** NO SMOKING *** NO SMOKING *****



RIVA RACING
PERFORMANCE PRODUCTS & ACCESSORIES

RS20130

COMPONENT LIST

	Item	Quantity	Part Number	Description
<input type="checkbox"/>	A	1		Steering assy.
<input type="checkbox"/>	B	1	95610A570	Nylon Washer
<input type="checkbox"/>	C	1	93657A408	Nylon Spacer
<input type="checkbox"/>	D	2	410.6.18	Stainless Steel Washer
<input type="checkbox"/>	E	2	561030SS	Nyloc Nut

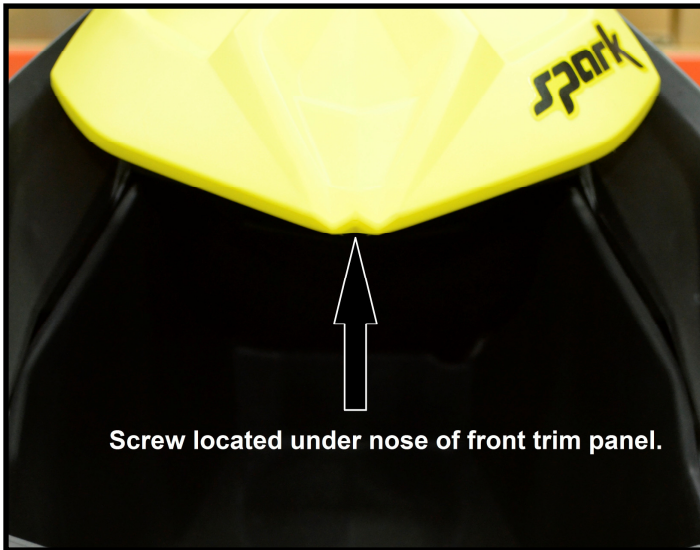
Packed with pride by: _____

Your kit was inspected and verified before being carefully packaged by our staff. Please check package contents before beginning assembly. If you have a question about missing or damaged items please contact RIVA Technical Support directly at (954) 247-0705 or by e-mail at tech_support@rivamotorsports.com

- INSTALLATION INSTRUCTIONS -

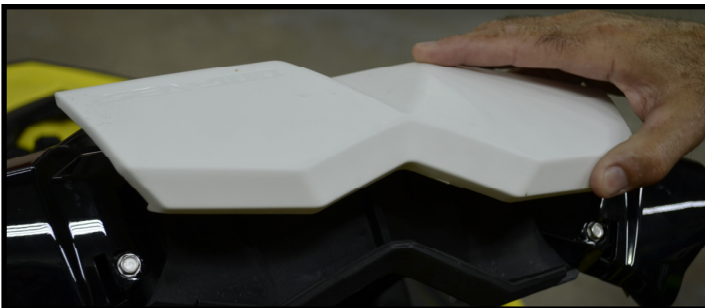
Remove the screw under the front trim panel and pull it forward off the ski. (Figure 1)

Figure 1



Pull out on the bottom rear of the Steering Wear Pad and rotate it up and off the steering column. (Figure 2)

Figure 2



Remove the 2 bolts in the tops and the 2 screws in the bottoms of the R & L switch covers. Lift rear of switch covers and rotate up to remove. Remove red rubber button cover from left switch cover and set aside for re-use. (Figures 3 and 4)

Figure 3

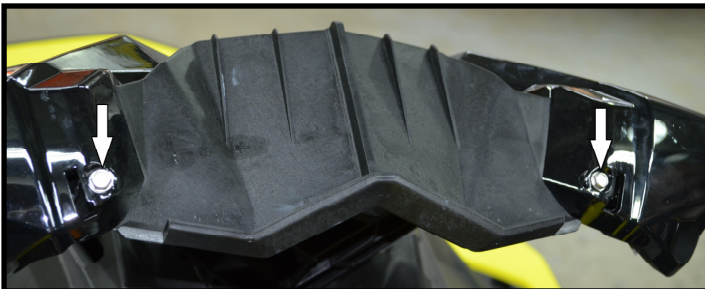
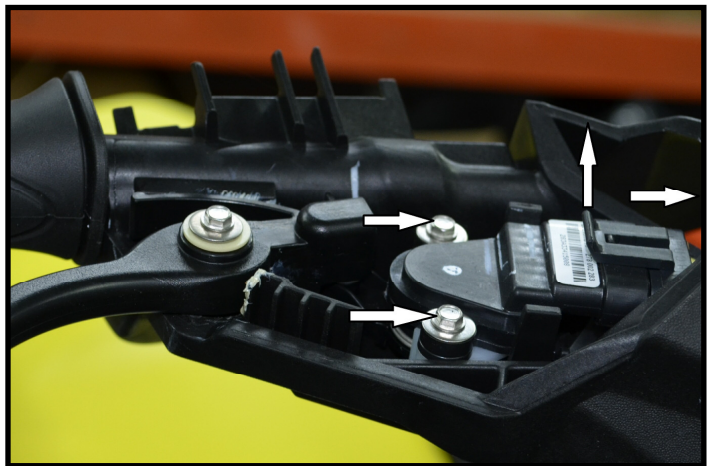


Figure 4

Unplug throttle and brake sensors by lifting lock tab and pushing plug toward center of steering. Remove screws holding throttle and brake sensors and remove sensors. **Note: Some models do not have screws.** If the sensors are held by lock tabs pull the lock tabs outward to release the levers. Set sensors aside for re-use. (Figure 5)

Figure 5



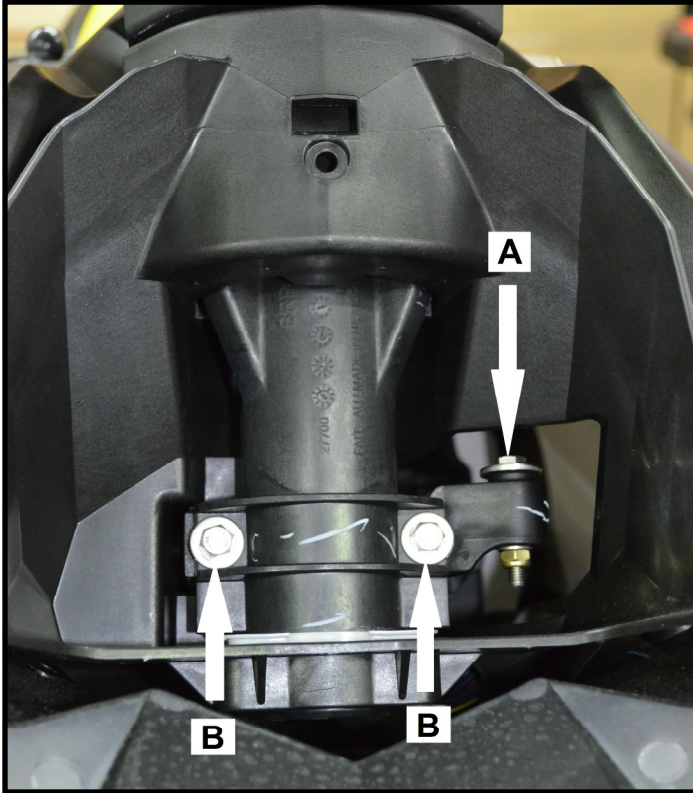
Unplug and remove start/stop switch and set aside for re-use. Free wires from handlebar assembly by moving them to the back and cut zip tie securing wire harness to steering column. (At rear of handlebar assy. where wires go down through steering column.)

- INSTALLATION INSTRUCTIONS -

Remove the bolt (A) holding the steering cable to the steering arm. (Figure 6)

Remove the two bolts (B) holding the steering arm. (Figure 6) **Note: do not attempt to remove the steering arm at this time.**

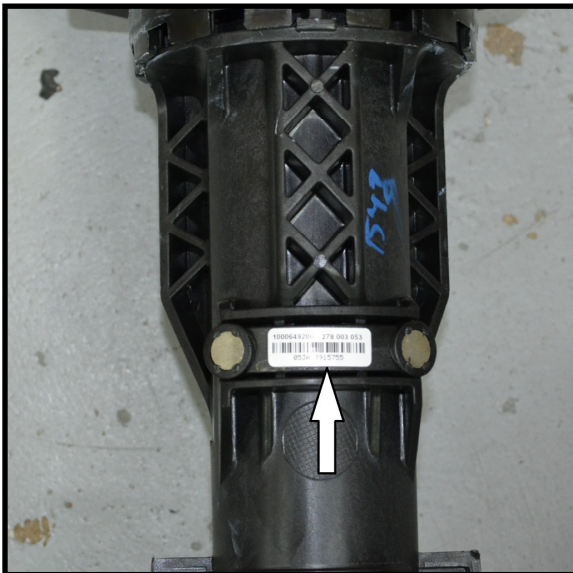
Figure 6



Pull steering column up and out of ski. **Note: Take care not to damage OTAS magnets, harness connectors, and OTAS sensor while removing steering column.**

Remove OTAS magnets from steering column by prying out with a thin bladed screwdriver. and set aside for re-use. (Figure 7)

Figure 7



Remove steering arm from supplied RIVA billet steering system.

Install OEM OTAS magnets, previously saved, into RIVA steering column. (Figure 8) **Note: Be sure magnets are fully seated into column. It may be necessary to seat magnets with a soft mallet**

Figure 8



Remove OEM Plastic Bushing from OEM Steering. (Figure 9)

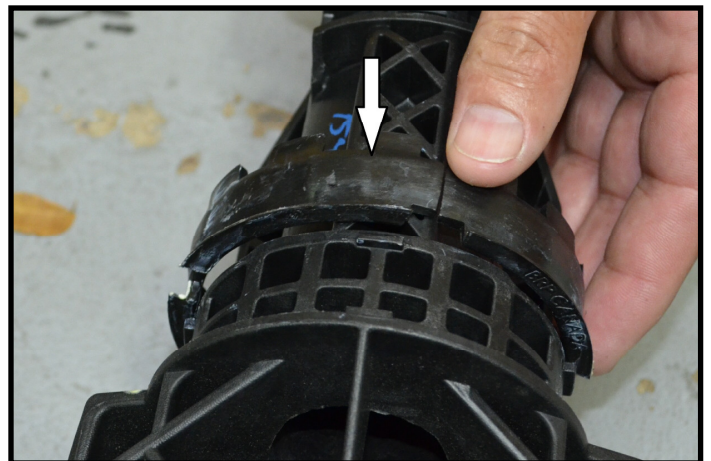
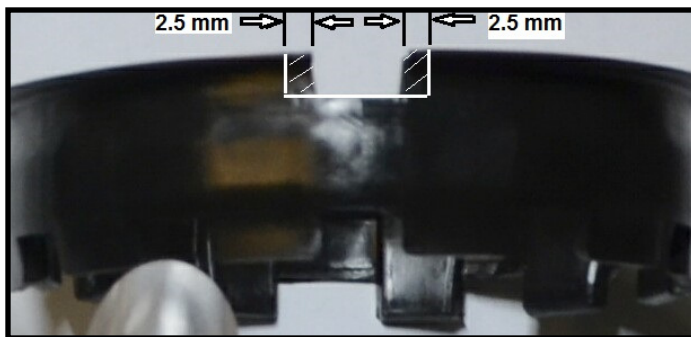


Figure 9

The steering bushing has three notches in the top edge that fit onto the steering column. On the OEM Spark steering bushing one of these notches is narrower than the others. Locate the narrow notch and using a sharp utility knife widen each side of the notch by 2.5mm (0.098"). (Figure 10). **Note: The material of the bushing is very soft so be careful not to cut too deeply.**

- INSTALLATION INSTRUCTIONS -

Figure 10



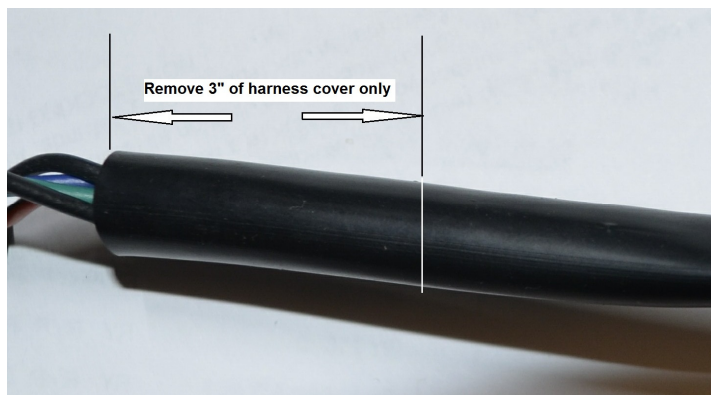
Remove left side cover of ski and cut zip tie securing wire harness. (Figure 11)

Figure 11



Modify OEM steering wire harness cover by removing three inches from harness cover at forward end. (Figure 12) Reseal the cut end of the harness cover with electrical tape. **Note: Do not cut the harness wires.**

Figure 12



Remove OEM steering arm from ski and replace with supplied billet steering arm.

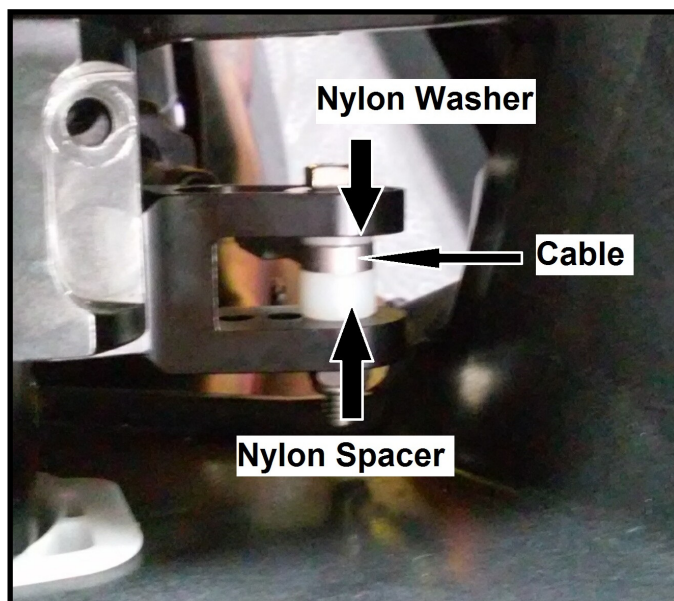
Remove rubber grommet from top of supplied steering column. Thread steering harness up through steering column from the bottom.

Install modified bushing onto supplied steering shaft and align with tabs in notches. Lubricate upper and lower steering bushings with salt water proof grease. Slide steering column into place. **Note: Make sure the top bushing stays aligned on the locator tabs.**

Install two supplied bolts into steering column to hold steering arm. **Note: Use blue Loctite. Do not over tighten bolts.** Hold steering cable to one side and check for free rotation of steering column.

Attach steering cable to steering arm, using one of the bolts previously removed from the OEM steering arm and supplied nylon washer, nylon spacer, and nyloc nut. There are three sets of mounting holes in the arm. The center set is closest to OEM steering. Holes closer to the steering column give quicker steering but require more steering effort. Holes farther away from the steering column provide slower steering but require less effort. **Note: Do not over tighten nut.** (Figure 13)

Figure 13



Install your preferred handlebar and controls following the instructions for those items.

After installation of handlebars and controls is complete insert wires into proper hole(s) in supplied rubber grommet and install grommet into top of steering column. Fill holes with silicone sealer to prevent water entry.

Test steering and adjust centering using cable adjusters.

Re-install items removed to allow access for installation.

***Remember, the water belongs to everyone.
Please ride responsibly and respect the environment!***

Technical Support

For answers to questions regarding installation or trouble shooting RIVA Performance Products contact:

RIVA Technical Support directly at (954) 247-0705 or by e-mail at tech_support@rivamotorsports.com.

Limited Warranty

RIVA Billet Steering Systems carry a 1 year limited warranty to the original purchaser. They are warranted to be free of defects in materials and workmanship under normal use and service. Customer modified components will be void of warranty. This warranty is limited to defects in the primary components only. Finish and/or wear marks in or on primary components are not covered under this warranty.

RIVA Racing's liability is expressly limited to the repair or replacement of the components contained within or associated with this kit. RIVA Racing agrees to repair or at RIVA's option, replace any defective unit without charge, if product is returned to RIVA Racing freight prepaid within the warranty period. Any equipment returned which, in RIVA's opinion, has been subjected to misuse, abuse, overheating or accident shall not be covered by this warranty.

RIVA Racing shall have no liability for special, incidental or consequential damages or injury to persons or property from any cause arising from the sale, installation or use of this product.

No other warranty, express or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose, applies. Various states do not allow for the limitation of incidental or consequential damages and therefore the above exclusion or limitation may not apply to you.

Warranty does not include the expenses related to freight or transportation of parts or compensation for any inconvenience or loss of use while being repaired. A copy of the original invoice and a Return Authorization Number (RA#) must accompany all warranty claims.

Warranted replacement parts will be returned freight collect.

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