



**RIVA RACING**  
PERFORMANCE PRODUCTS & ACCESSORIES

**Sea-Doo Pro-Series Steering System**

RS20190-COLOR



**Applications:** Sea-Doo 2021~23 RXP (except Apex) / 2020+ GTR

**Approximate Installation Time:** 1 HOUR

**Recommended Specialty Tools:**

Star Hex Bit Set

**Part #**

[RS35187](#)

**Required Materials:**

Red Loctite

Aftermarket Handlebars

Aftermarket Grips

**Part #**

N/A

See page 7

See page 7



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## **Sea-Doo Pro-Series Steering System**

*RS20190-COLOR*

### **NOTES & PRECAUTIONS**

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 \*\*\***

**CAUTION:** Whenever using electric or battery operated tools inside the hull be sure it is well ventilated and no fumes are present. Failure to do so could result in a fire, or explosion and serious personal injury or death.

### **COMPONENT LIST**

ITEM	DESCRIPTION	PART #	QTY
A	RIVA BILLET STEERING SHAFT	RS20190-U	1
B	RIVA BILLET HANDLEBAR CLAMP		1
C	RIVA BILLET STEERING ARM		1
D	RIVA BILLET STEERING ARM CLAMP		1
E	M8 X 25 SHCS	.8C30SCHS	4
F	M8 X 25 SHCS	.8C25SCHS	2
G	M8 FLAT WASHER	.8NWTFS	2

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@rivaracing.com](mailto:tech_support@rivaracing.com).

# Installation Instructions

## OEM STEERING REMOVAL

Remove stock steering pad (1 Torx screw). (See Figure 1)



Figure 1

Remove switch (control pad) covers on both sides by prying out and up at designated locations at lower edge on each cover. Set covers aside. **TIP:** Insert small, flat screwdriver behind tab and pry upward. (See Figure 2)

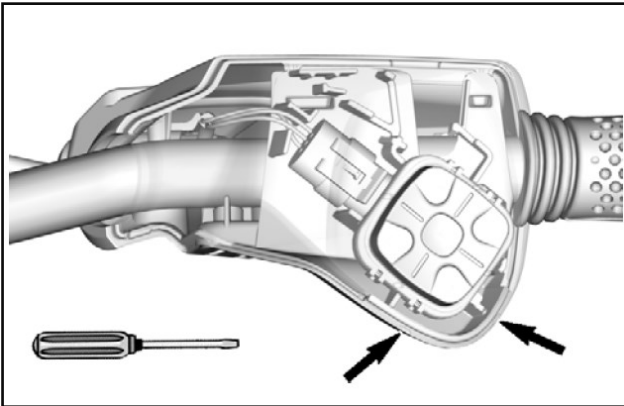


Figure 2

Remove throttle & iBR lever covers by releasing tabs at underside of control housings and set aside. **TIP:** Insert small, flat screwdriver behind tab and pry towards bow of craft. (See Figure 3)

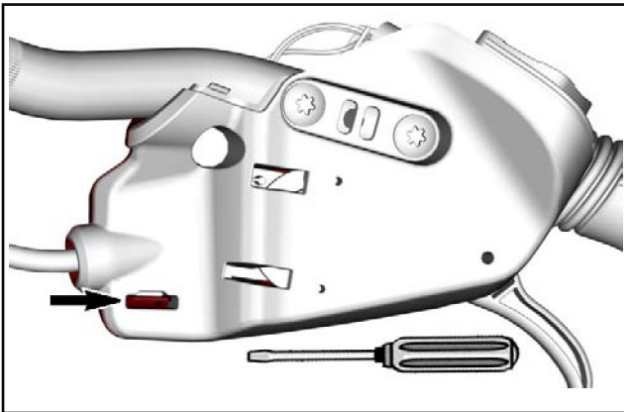


Figure 3

Remove switches (control pads) from control housings (2 left side / 1 right side). (See Figure 4)

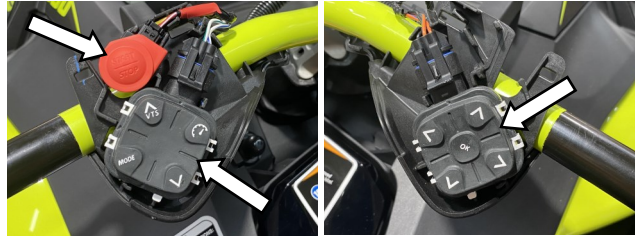


Figure 4

Remove control housings from handlebars (2 Torx screws each side). Save hardware for use later. (See Figure 5)



Figure 5

Remove Torx screws (2) securing console cover. Remove console cover by lifting up at front edge and then pulling forward. (See Figure 6)

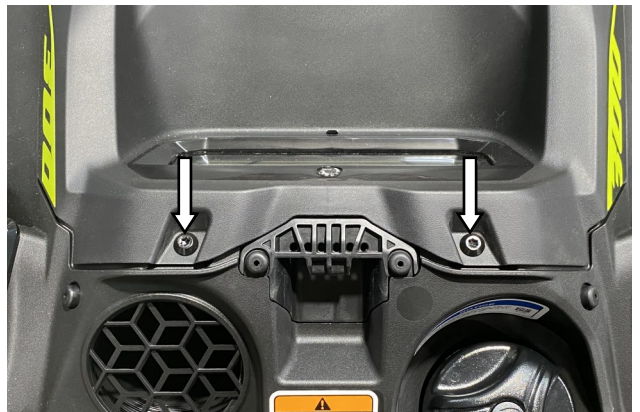


Figure 6

Disconnect D.E.S.S. post electrical connector and set aside steering column cover. (See Figure 7)

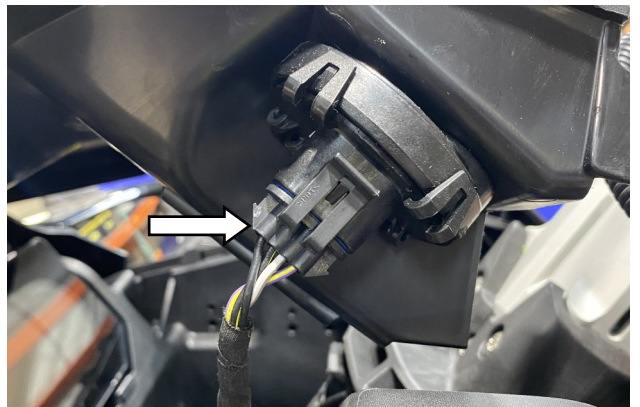


Figure 7

## Installation Instructions

Disconnect steering cable from steering arm. (See Figure 8) Save all hardware for use later.

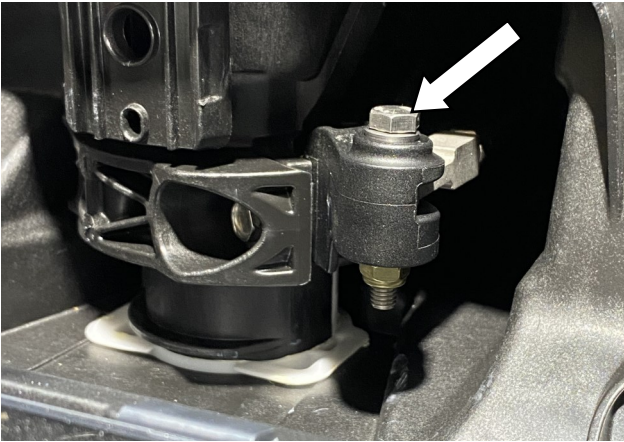


Figure 8

Remove bolts (2) securing steering shaft clamp and discard. Remove steering shaft clamp and discard. (See Figure 9)

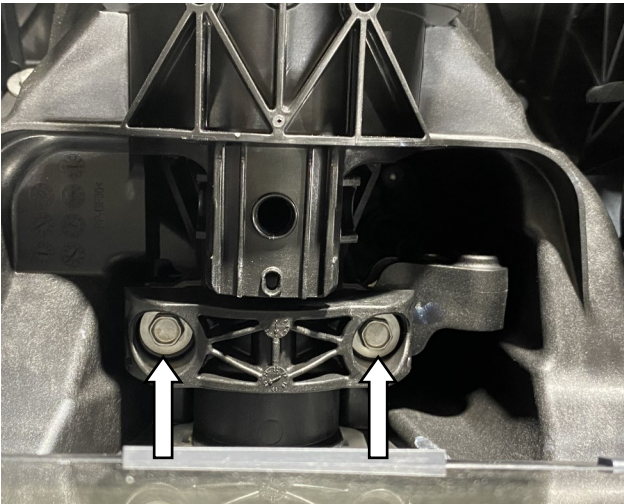


Figure 9

Cut zip ties (3) securing control wiring harness to steering. (See Figure 10)

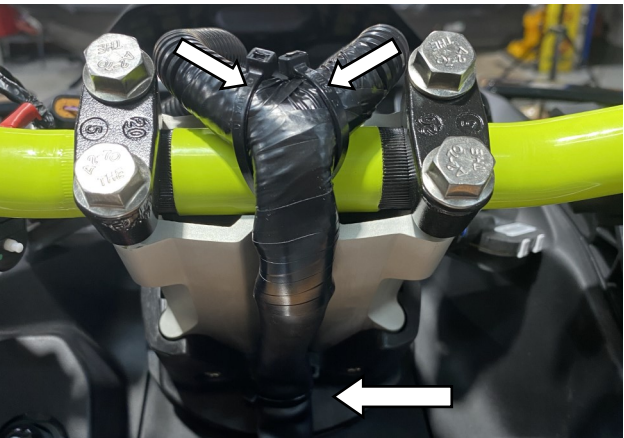


Figure 10

Place controls back, over top of glove box. Center steering/handlebars and completely remove assembly by pulling up. (See Figure 11)

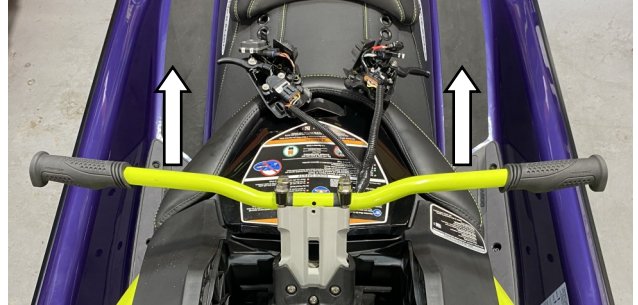


Figure 11

Remove plastic OEM steering arm from steering column support and discard. Install supplied billet steering arm directly in its place. (See Figure 12) **NOTE: Coat friction surfaces of billet steering arm with waterproof grease.**

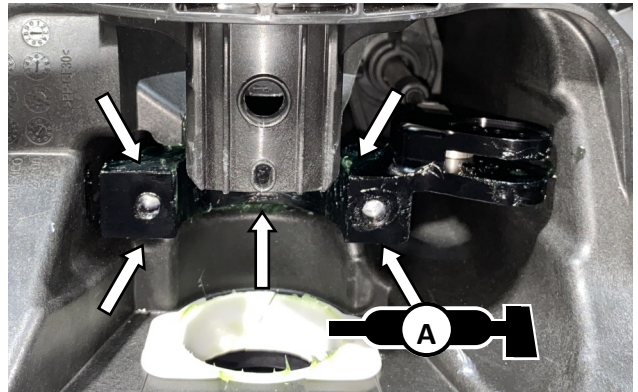


Figure 12

Transfer upper steering shaft bushing from OEM steering shaft to supplied billet steering shaft. (See Figure 13) **NOTE: Bushing fits only one way (same as on OEM steering shaft).**

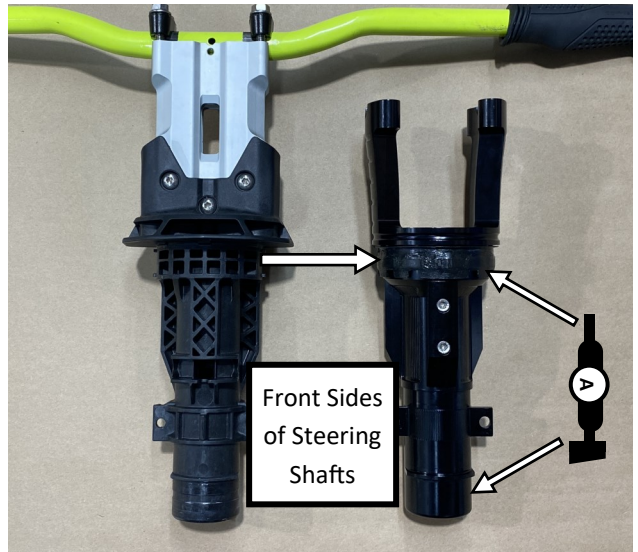


Figure 13

## Installation Instructions

Apply water proof grease to outside of upper steering shaft bushing and to lower steering shaft bushing friction surfaces. (See Figure 13, previous page.)

### RIVA STEERING INSTALLATION

Insert billet steering shaft into steering column support until end of steering shaft is seated completely into lower steering shaft bushing (A). (See Figure 14) **NOTE: Steering shaft fits only one way in steering column.**

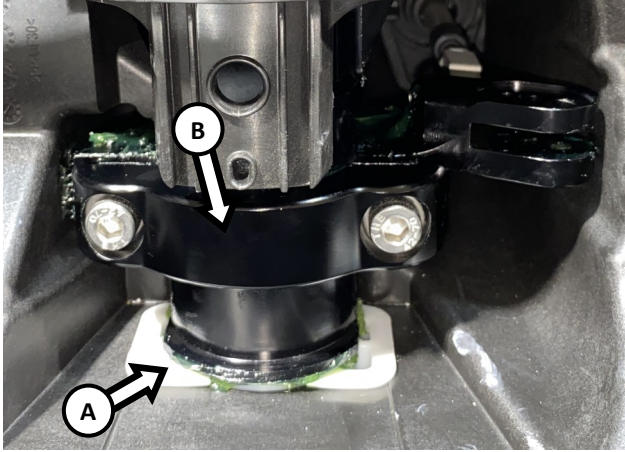


Figure 14

Secure billet steering shaft in steering column support with supplied billet steering clamp (B) and M8x25 SHCS & M8 flat washers (2 each). (See Figure 14) **NOTE: Apply red Loctite to threads. Torque to 15lb-ft/20N-m.**

Rotate steering shaft to right completely. At jet pump, move steering nozzle to right completely to fully expose end of steering cable at billet steering arm. (See Figure 15)



Figure 15

Secure steering cable to billet steering arm using hardware previously removed (one M6 bolt, two M6 flat washers and one M6 nylock nut). (See Figure 16)

**NOTE: Tighten bolt until snug. Do not overtighten.**



Figure 16

**TIP: Three positions are provided for installation. Center position duplicates OEM steering rate. Installing bolt closer to steering shaft enables faster steering response with less leverage. Installing bolt farther away from steering shaft enables slower steering response with more leverage.**

Replace steering column cover in reverse order of removal process. **NOTE: Do not apply thread locking agent to Torx screws. Do not overtighten.**

Place controls forward over dash display so that main trunk of wiring harness is between handlebar cradles of billet steering shaft. (See Figure 17)



Figure 17

## Installation Instructions

Set aftermarket handlebars in place and supplied billet handlebar clamp over handlebars. Center handlebars side to side and place crossbar directly above handlebar clamp. Secure handlebars using supplied M8x25 SHCS (4). (See Figure 19) **NOTE: Apply red Loctite to threads. Torque evenly in a crisscross pattern to 15lb-ft/20N-m.**



Figure 19

Remove (snip) locating tabs on control housings. (See Figure 20)

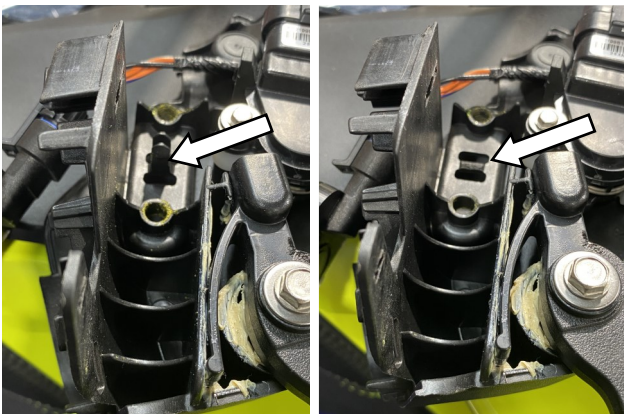


Figure 20

Secure control housings to aftermarket handlebars using hardware previously removed. **NOTE: Apply red Loctite to threads. Torque to 18lb-in/2N-m. Do not overtighten.**

Replace switches (control pads) and control housing covers in reverse order of removal. **NOTE: Take care not to pinch wires between control housing covers and control housings. Be sure all pieces are properly aligned before snapping together. Do not force together!**

Feed excess control wiring harness into steering column support. (See Figure 21)

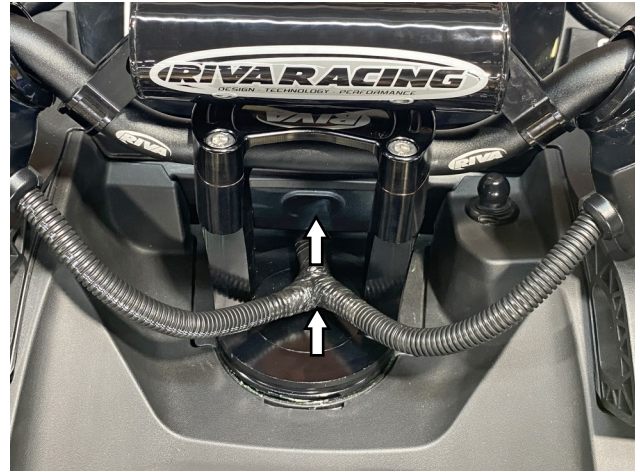


Figure 21

Install aftermarket grips. (See Figure 22)



Figure 22

Installation of your RIVA Pro-Series Steering System is now complete.

Run craft on flush kit no more than 1 minute to check for normal operation.

See next page for Control Options.

## **CONTROL OPTIONS**

### **RIVA Racing Handlebar Option:**

RIVA Sea-Doo PRO-BAR 30" Runabout Bars

Item #: [RY207BK-BAR-2](#)

### **RIVA Racing Grip Options:**

ODI Rogue Lock-On Grips, 130mm, No Flange, Black

Item #: [L31RGB-S](#)

ODI Ruffian Lock-On Grips, 130mm, No Flange, Black

Item #: [L32RFB-S](#)

RIVA ODI Grip End Cap & Clamp Kits

Item #: [RY206-COLOR](#)

### **RIVA Racing Control Lever Option:**

RIVA Sea-Doo Billet iControl Levers

Item #: [RS24090-ICL](#)

***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@rivaracing.com](mailto:tech_support@rivaracing.com).

### **Limited Warranty**

RIVA 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.