YOSHIMURA
RESEARCH&DEVELOPMENT OF AMERICA, INC.
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**www.yoshimura-rd.com**

# RACE SERIES

**Qualified Manufacturer Declared "Modified Part"**

## 2017 ~ 2025
## Suzuki V-Strom 650
## 11621C0520 (SS/SS)

## Works Finish
## R-77 Stainless Steel 3/4 System

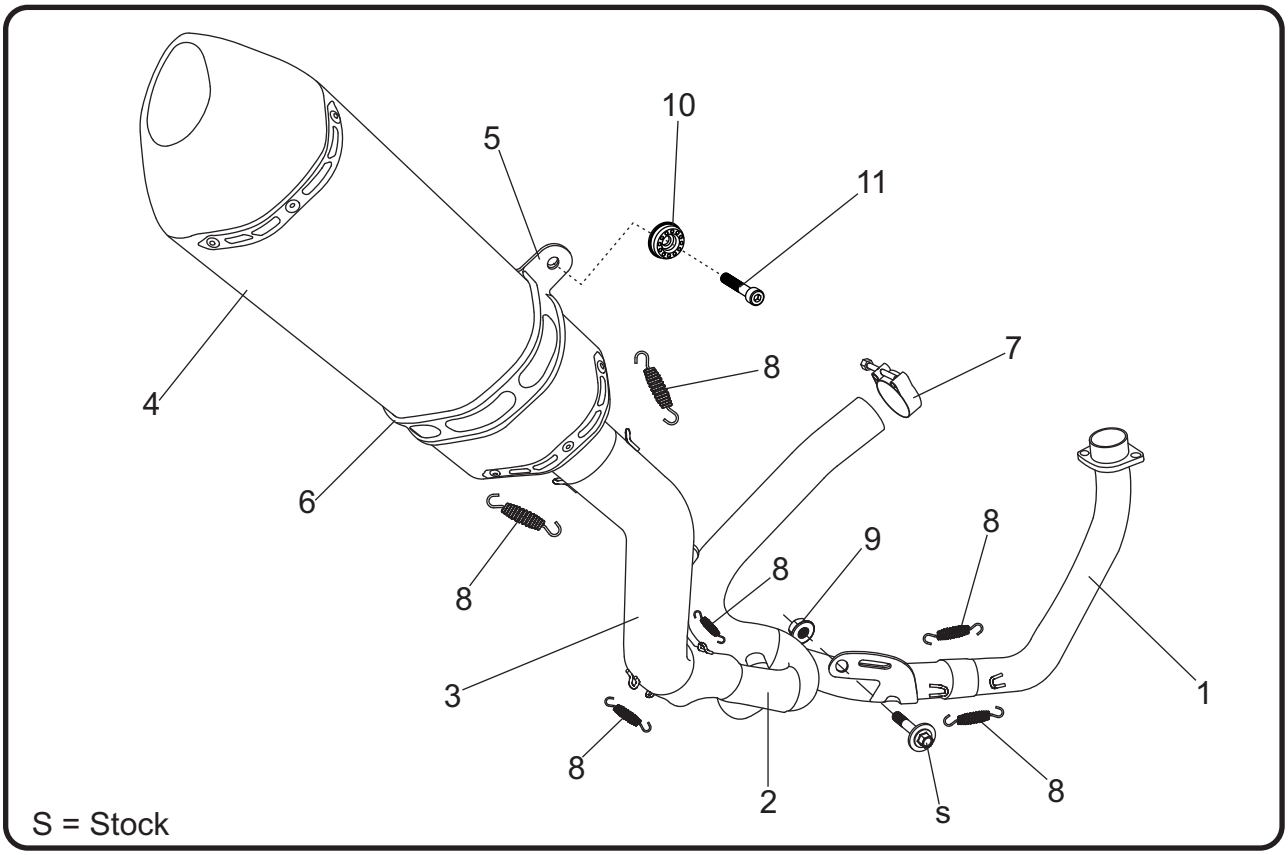
**FOR CLOSED COURSE COMPETITION ONLY; NOT INTENDED FOR STREET USE**

Race Series systems are:
- NOT CARB/EPA tail-pipe emissions compliant.
- NOT street legal.
- For "Closed Course Competition" use only.

*You must know how to remove and replace your stock exhaust in order to install this product otherwise have it installed by a professional mechanic. Keep all stock parts from your existing system as some components may be necessary to install your new Yoshimura exhaust depending on the application. Read through all instructions before beginning installation. Exhaust system can be extremely hot. Let motorcycle cool down before beginning installation. Always wear hand and eye protection and take precautionary measures to avoid injury.*

NOTE: IN THE STATE OF CALIFORNIA, IT IS ILLEGAL TO MODIFY THE EMISSION CONTROL SYSTEM, WHICH INCLUDES THE CARBURETORS OF ANY

## Assembly Diagram




| No. | Item | Description | Qty. |
|---|---|---|---|
| 1 | 11621-401D | Yoshimura Front Header | 1 |
| 2 | 11621-415D | Yoshimura Midpipe | 1 |
| 3 | 11621-419D | Yoshimura Tailpipe | 1 |
| 4 | 11621C0520-RMA | Yoshimura Muffler | 1 |
| 5 | 1121-MPCRX | Muffler Clamp | 1 |
| 6 | HT SHLDR77 | Muffler Clamp Heat Insulator | 1 |
| 7 | 03019127 | Exhaust Clamp | 1 |
| 8 | RACE-SPS-1 | Medium Exhaust Spring | 6 |
| 9 | 8MMNUT | 8mm Flange Nut | 1 |
| 10 | M8ALCSW-00 | Aluminum Counter Sink Washer | 1 |
| 11 | M8X45 | 8mm x 45mm Socket Head Cap Screw | 1 |
| ** | ST-200 | Spring Puller Tool | 1 |
| ** | 17100 | Sticker Kit Sheet | 1 |
| **Service Parts & Accessories** | | | |
| REPACK-R77-ADV | | R77 Premium Muffler Repack Kit | |
| R77-NB001 | | R77 Muffler Name Badge | |
| GRMT | | Endcap Insert Grommet | |
| INS-27-K | | Sound Insert Kit | |
| YM9-CFC-R-1-K-1 | | Endcap Kit | |

** Not shown on diagram.

**CAUTION: Exhaust system can be extremely hot. Let motorcycle cool down before beginning installation. Always wear hand and eye protection and take precautionary measures to avoid injury.**

**WARNING: Always properly support vehicle with a stand and/or lift when servicing or performing any work. Unstable vehicles may present dangerous conditions and may cause property damage and/or personal injury.**

**NOTE: Read through all instructions before beginning installation.**

## Removal

1. Remove the right passenger foot peg bracket assembly to allow more clearance for muffler removal. For XT models, remove lower cowling.
2. Remove muffler heatshield.
3. Remove the O2 sensor from the stock muffler assembly.
4. Loosen front and rear header exhaust clamps.
5. Loosen front header flange bolts to allow for adjustment when removing the muffler assembly.
6. Remove forward muffler chassis mount bolt.
7. While securely supporting the stock muffler assembly, remove muffler mount bolt and carefully remove the stock muffler assembly off of front and rear header.

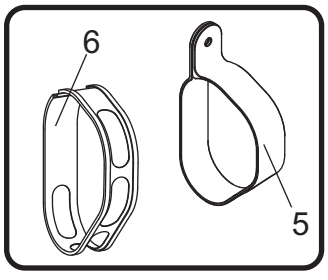
   Note[1]: The muffler exhaust gasket will not be re-used with the Yoshimura system. Remove gasket off of rear header.

   Note[2]: The short stock rear header will be re-used with the Yoshimura 3/4 system. Do not remove.
8. Remove front header flange bolts and remove stock front header.

   Note: The stock exhaust port gaskets will be re-used with the Yoshimura exhaust system. Inspect and replace if necessary.

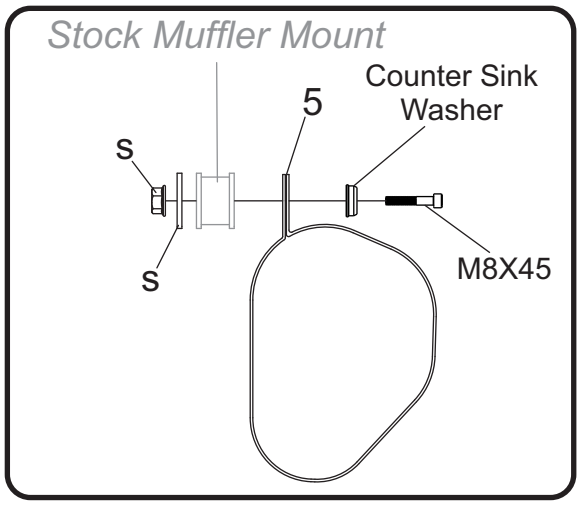
## Installation

1. Install (No. 7) *03019127,* exhaust clamp onto (No. 2) *11621-415D,* midpipe inlet as shown on the assembly diagram.
2. Install (No. 1) *11621-401D,* front header into (No. 2) *11621-415D,* midpipe.
3. Carefully align and install (No. 1) *11621-401D*, header into front exhaust port and (No. 2) *11621-415D,* midpipe onto stock rear header simultaneously and align midpipe chassis mount bolt to the backside of chassis mount. Secure using the stock chassis mount bolt, washer, and supplied (No. 9) *8MMNUT,* 8mm flange nut. Do not torque at this time.
4. Install (No. 3) *11621-419D,* tailpipe inlet onto (No. 2) *11621-415D,* midpipe outlet.
5. Install (No. 6) *HT SHLDR77,* muffler clamp heat insulator onto (No. 5) *1121-MPCRX,* muffler clamp and trim the excess heat insulator.




6. Install (No. 4) *11621C0520-RMA,* muffler assembly onto (No. 3) *11621-419D,* tailpipe outlet.
7. Slide (No. 5) *1121-MPCRX,* muffler clamp over (No. 4) *11621C0520-RMA,* muffler and align to frontside of stock muffler mount. Secure using *M8X45*, Cap Screw, *M8ALCSW-00*, Counter Sink Washer, stock washer, and stock nut. Torque muffler mount bolt to factory specification.

   Note: It may be necessary to rotate the tailpipe and/or the muffler independently until proper alignment is achieved.



8. Re-install the stock O2 sensor into (No. 3) *11621-419D,* tailpipe. Torque to factory specification.

9. Torque chassis mount bolt and front header bolts to factory specification.

10. Torque (No. 7) *03019127,* exhaust clamp on rear header to 8.5 Nm (0.86 kg-m, 6 ft-lb).

11. Using *ST-200,* spring puller tool supplied in the kit, install (No. 8) *RACE-SPS-1,* medium exhaust springs between muffler to tailpipe, tailpipe to midpipe, and midpipe to front header.

12. Re-install right passenger foot peg bracket. Re-install lower cowling for XT models.

13. Before starting motorcycle, check for proper clearance between new exhaust system and rear suspension (i.e. tire, swing arm, brakes, rear shock, and etc.) If any problem is found, please carefully follow through the installation steps again. If problem still persists, please call Yoshimura Tech Department at (800) 634-9166 / in CA (909) 628-4722.

14. It is recommended that the muffler and tailpipe be wiped down with rubbing alcohol to remove oil and fingerprints. This will help prevent tarnishing of the finish after the exhaust is heated up.

    Note: After starting motorcycle, it is normal for new exhaust system and muffler to emit smoke until oil residue burns off.

# Works Finish Care & Maintenance

Before starting vehicle, clean pipe thoroughly using a soft cloth and rubbing alcohol to remove any oil and finger prints.

The color of the exhaust will change once the system has gone through a heat cycle of 15 minutes or more. Color will vary depending on lean/rich conditions.

Clean using a soft cloth and soap. Do not use abrasive materials as it will scratch the surface.

Surface reconditioning services are available to remove scratches and undesirable discoloration due to extreme heat. Contact Yoshimura Tech Department at (800) 634-9166 / in CA (909) 628-4722 for more information.

YOSHIMURA®
RESEARCH AND DEVELOPMENT OF AMERICA, INC.

Dear Customer,

Thank you for purchasing a Yoshimura R&D of America Exhaust System. Over seven decades of experience in research and development, state-of-the-art machinery, materials and craftsmanship of the highest quality all come together in a product of exceptional quality and performance—in other words, this is the best thing you can put on your bike.
We strive to provide you with a product perfect in fit and finish. However, if you have any problems, please give us a call. We have found that most fitment issues can be easily resolved by a conversation with one of our knowledgeable and friendly staff. If the issue cannot be resolved this way, our warranty evaluation program may be the answer. Please take a moment to review our recommendations for the care of your exhaust and our warranty information.

**PLEASE NOTE:** If you have any doubts about your exhaust: **DO NOT START THE MOTORCYCLE! ONCE AN EXHAUST HAS BEEN USED OR MODIFIED, IT CANNOT BE RETURNED FOR CREDIT OR EXCHANGE.**

## EXHAUST SYSTEM MAINTENANCE

Yoshimura R&D of America Exhaust Systems require very little care and maintenance; here are a few tips:

1. Use mild car/motorcycle soap to clean the exhaust system—do not use any abrasives or degreasers.
2. Clean your exhaust with metal/stainless polish every 1-2 months to retain the luster and remove dirt and grime. (DO NOT USE POLISH ON “WORKS FINISH” SYSTEMS)
3. Avoid contaminating exhaust surfaces when hot.
4. Your exhaust system will change color (blue, magenta, purple, and/or gold) due to heat; this is normal.
5. Keep all clamps, bolts and other fasteners tight as exhaust systems are susceptible to vibration damage.
6. If you ride in coastal regions or areas that use salt to control ice and snow, wipe the exhaust down after it cools to remove any possible salt residue, which can result in rusting.
7. If you are storing your motorcycle for the season, wipe the exhaust system down with rubbing alcohol before storage.
8. Head pipes glowing (visible in normal light) may indicate an excessively lean condition that must be corrected.

## CARBON FIBER:

Carbon fiber equipped exhaust components require special attention. The following addresses wear issues directly related to carbon fiber:

1. Keep all chemicals and solvents away from the carbon fiber, as they will damage the finish.
2. High temperatures will cause the resin in the carbon fiber to break down. Visual signs such as an amber hue in the resin may be early signs of heat damage to carbon fiber.
3. Upon seeing amber-colored resin, discontinue use. The exhaust system needs to be inspected by a representative from Yoshimura, for repack, and/or repair. Continued use will cause component failure.

## STAINLESS STEEL:

Stainless steel is not rust-proof but is less prone to rusting, staining and pitting; it is prone to oxidation like all metals.

## WORKS FINISH:

1. Works Finish exhaust systems should never be cleaned with abrasives or polishes.
2. Yoshimura recommends using “Bar Keepers Friend” cleaner to remove minor stains.
3. Surface reconditioning services are available to remove scratches and undesirable discoloration due to extreme heat. Contact Yoshimura Tech Department at (800) 634-9166 / in CA (909) 628-4722 for more information.

## RE-PACKING TIPS

To maintain maximum sound and engine performance the muffler packing will need to be replaced at some time during the muffler's life. Yoshimura recommends repacking your muffler at least once per year. However, depending on your riding style and motorcycle, more frequent packing may be necessary. Failure to maintain the muffler packing may cause damage to the muffler and/or void the warranty. Regularly inspect the muffler body for discoloration, cracks, rattling, increased sound levels, or other signs of wear, all of which may be caused by depleted muffler packing. If muffler packing is determined to be depleted or worn, a Yoshimura muffler re-pack kit is highly recommended to restore the muffler to optimum performance. Yoshimura offers a 3-5 day turnaround (plus transit time) to inspect and refurbish used and damaged mufflers. **For more information on muffler repacking please visit our website at:** http://www.yoshimura-rd.com/muffler-repacking

## YOSHIMURA R&D OF AMERICA EXHAUST LIMITED WARRANTY

All Yoshimura R&D of America exhaust systems carry a one-year limited warranty against defects in workmanship and/or materials.

### WHO IS COVERED?

This warranty is provided to the original purchaser of the exhaust system.

### WHAT VOIDS THE WARRANTY?

1. Custom applications, abuse, misuse, improper installation and/or modifications
2. No proof of purchase at the time of warranty.
3. Finishes such as plating or painted surfaces with discoloration or rust due to inclement weather conditions, exposure to salt, exposure to chemicals, or lack of maintenance by the customer are not covered.
4. International grey-market products purchased from an unauthorized dealer/distributor are not directly supported.

### EXTENT OF WARRANTY:

Any defective product properly returned to Yoshimura R&D of America will be repaired or replaced at their discretion. Yoshimura R&D of America is not responsible for any other expenses incurred by the customer under the terms of this limited warranty, nor are they responsible for any damages either consequential, incidental, special, contingent or otherwise; or expenses or injury arising directly or indirectly from the use of the product. Any product returned to Yoshimura R&D of America must be sent at the customer's expense and accompanied by a Returned Merchandise Authorization (RMA). Yoshimura R&D of America reserves the right to determine whether the terms of the warranty have been properly followed. If these terms are not followed, this warranty is void. Yoshimura R&D of America reserves the sole right to determine whether a warranty claim involves abuse, misuse, improper installation, or modification. The duration of all implied warranties is limited to the duration of the express warranty. All incidental or consequential damages are hereby excluded. The warranty gives you specific legal rights, and you may have other rights. Some states do not allow the exclusion or limitation of incidental or consequential damage or limitations on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you.

**If you have a fitment or other problem, or are missing a part, please double-check this troubleshooting guide first:**

1. Review your instruction sheet's drawings to verify you have the correct header, tailpipe, and muffler part numbers.
2. Make sure muffler clamps are installed correctly. On many models, there is a right and wrong way to install. Also verify part numbers on headers and tail pipe.
3. Always make sure to install spring-mounted manifolds and flanges on cylinder head prior to installing headers.
4. When all else fails, call our technical support line at (909) 628-4722. The technical line is open 8:00 AM – 5:00 PM Monday through Friday, Pacific Time.
5. Please have the following information handy: Year/Make/Model of the motorcycle, date of purchase, place of purchase, batch dates and part numbers (found on header and tail-pipe components).
6. You can also e-mail sales@yoshimura-rd.com, or text your question to (909) 206-4477.