

# YOSHIMURA

RESEARCH&DEVELOPMENT OF AMERICA, INC.

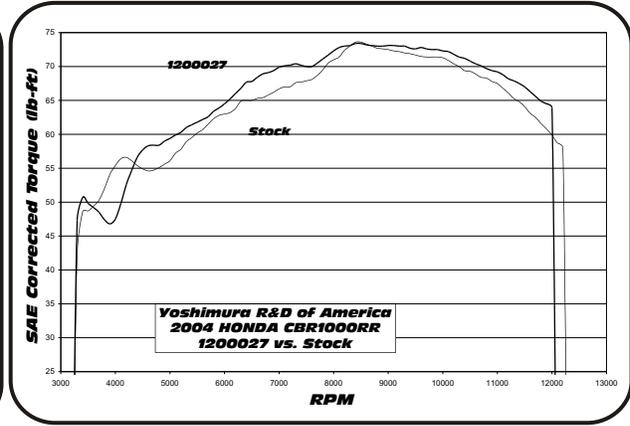
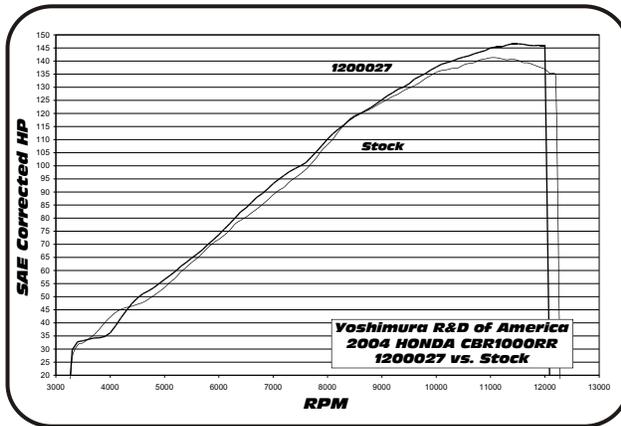
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[www.yoshimura-rd.com](http://www.yoshimura-rd.com)

## RS-5 PERFORMANCE EXHAUST SYSTEM

**HONDA  
2004-2007  
CBR1000RR**

<b>120002(2,5,7)</b>	RACE ONLY STAINLESS STEEL FULL SYSTEM
<b>120007(2,5,7)</b>	RACE ONLY STAINLESS STEEL FULL SYSTEM WITH CONE ENDCAP
<b>120012(2,7)</b>	RACE ONLY TITANIUM FULL SYSTEM
<b>1200172</b>	RACE ONLY TITANIUM FULL SYSTEM WITH CONE ENDCAP



Note: Dyno graphs are for comparison use only. Actual results may vary depending on operating and motorcycle condition.



**THIS PRODUCT IS DESIGNED FOR USE IN CLOSED COURSE RACING AND IS NOT INTENDED FOR HIGHWAY USE.**



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

**Caution:** Exhaust system can be extremely hot. Let motorcycle cool down before beginning installation.

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

## Tools Needed:

8mm, 11mm, 12mm, 13mm sockets	Ratchet Wrench
12mm wrench	5mm, 8mm Allen wrench
Phillips screwdriver	Torque wrench
Sharp Scissors & Pen	

## Installation Steps:

- 1 Remove rider seat (2 bolts under rear edges of seat) and passenger seat.
- 2 Remove rear cowling: Remove 4 bolts (See Fig. 1), pull cowling toward rear of bike and up (inner taillight bolts seat into rubber grommets on rear of subframe). Carefully pry right side of cowling over frame, then left side. Disconnect tail light connector (located in trunk) and remove cowling.
- 3 Unbolt and remove rear turn signal and fender assembly: rear turn signal connectors (on left rear side) must be disconnected prior to removing fender assembly. (Fig. 2)
- 4 Disconnect Tailpipe exhaust valve cables (Fig.3) (See Service Manual for complete removal of cables or you may simply zip tie cables to a secure location) Note: do not disconnect Servo motor from ECU.
- 5 Remove right side passenger foot peg, then black plastic heatshield, right side footpeg assembly, and tailpipe heat shield. (Fig. 4)
- 6 Loosen muffler mounting bolts (do not remove). Loosen stock chassis mount bolt (do not remove). Loosen tailpipe to header collector clamp. While supporting muffler/tailpipe assembly (it's heavy) remove chassis mount bolt then muffler support bracket bolt and nut. Remove stock tailpipe, muffler, stock tailpipe gasket, and clamp ring. (Fig.5)
- 7 Remove stock under tail heatshield (Fig.6)
- 8 Remove Left, Right, and Lower Cowling (Fig.7)
- 9 Remove lower radiator bracket and tilt radiator forward.
- 10 Remove tailpipe, header and exhaust port gaskets.



Fig. 1

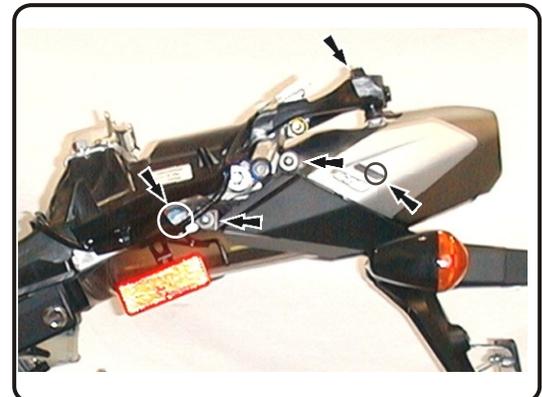


Fig. 2



Fig. 3



Fig. 4



Fig. 5

- 11 Install new exhaust port gaskets (not supplied).
- 12 Remove rubber grommet from stock header and install onto Yoshimura Header.
- 13 Install adhesive heatshield to rear under tail section. (See Page 4 for instructions)
- 14 Install Yoshimura header. Make sure that the exhaust flanges are oriented correctly with the flat sides up (see Fig. 8). Hold header from bottom to seat manifold high up in the exhaust port, then tighten.

**NOTE:** To ease installation of header, remove the springs that hold the header together. Pull the header apart slightly before installing. After all bolts are installed, reinstall springs and tap the header lightly with a rubber mallet to seat each leg into the collectors.

- 15 Install Yoshimura tailpipe.  
**2006 AND NEWER MODELS ONLY:** In order to use the supplied 8mm bolt and washer for the tailpipe mount on 2006 and newer models, the rubber grommet and steel insert must be moved from the stock muffler mount location replacing the stock 6mm chassis mount rubber grommet and steel insert (See Fig. 9 for grommet and insert locations). Once the rubber grommet and steel insert are switched, use the supplied 8mm x 40mm bolt, washer and nut to install the tailpipe. The stock muffler mounting points will NOT be used to mount the Yoshimura muffler.

- 16 Install supplied muffler clamp heatshield to inside of muffler clamp. Slide muffler clamp onto muffler and line up muffler clamp ears with central mounting location shown in Figure 10. Install stock nut and bolt on clamp - leave loose at this time. Check alignment of exhaust.

- 17 Torque header bolts to 14 lb-ft (18.96 Nm)

- 18 Torque chassis mount bolt to 18 lb-ft (24.38 Nm) .

- 19 Torque muffler clamp bolt and nut to 18 lb-ft (24.38 Nm).

- 20 Re-install bodywork, rear fender, seat cowling, foot peg and seat in reverse order of disassembly. Check for proper operation of tail light, brake light, and turn signals before completion.

- 21 Check clearance between header and bodywork. If header is installed correctly, header will NOT touch bodywork. Possible causes for header touching bodywork is incorrect flange orientation. The flat side of the exhaust flange **MUST** be on top for all flanges. If header still touches bodywork, loosen all header and tailpipe bolts and adjust exhaust system until header does not touch bodywork.

- 22 Cut the extra adhesive foil heatshield in half and apply to the inside of the bodywork on both sides of the bike where the header comes closest to the bodywork when the bodywork is installed.

- 23 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.

- 24 Check for proper clearance between new exhaust system and motorcycle. (i.e. Swing-arm, body work, etc.) If any problem is found, please carefully follow through the installation steps again. If problem still persists, please call Yoshimura technical department at (800)634-9166 or (909)628-4722 in California. Note: After starting motorcycle, it is normal for new exhaust system and muffler to smoke until oil residue burns off.



Fig. 6



Fig. 7

**Correct Flange Orientation:  
Flat side of flanges face up.**

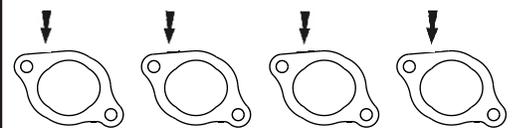
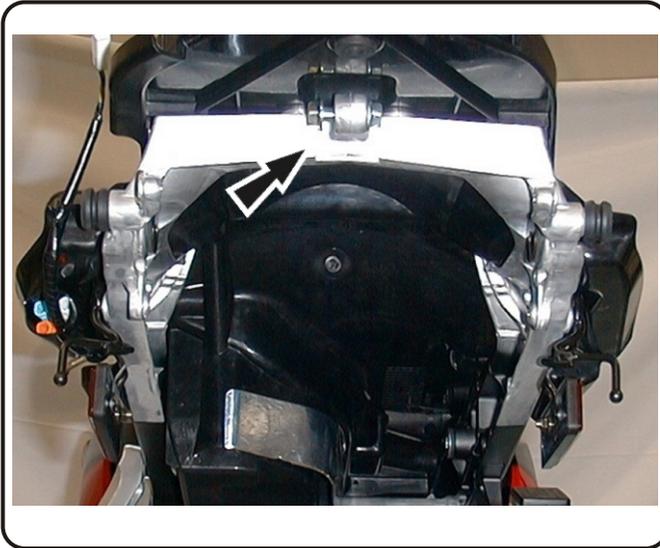


Fig. 8



Fig. 9

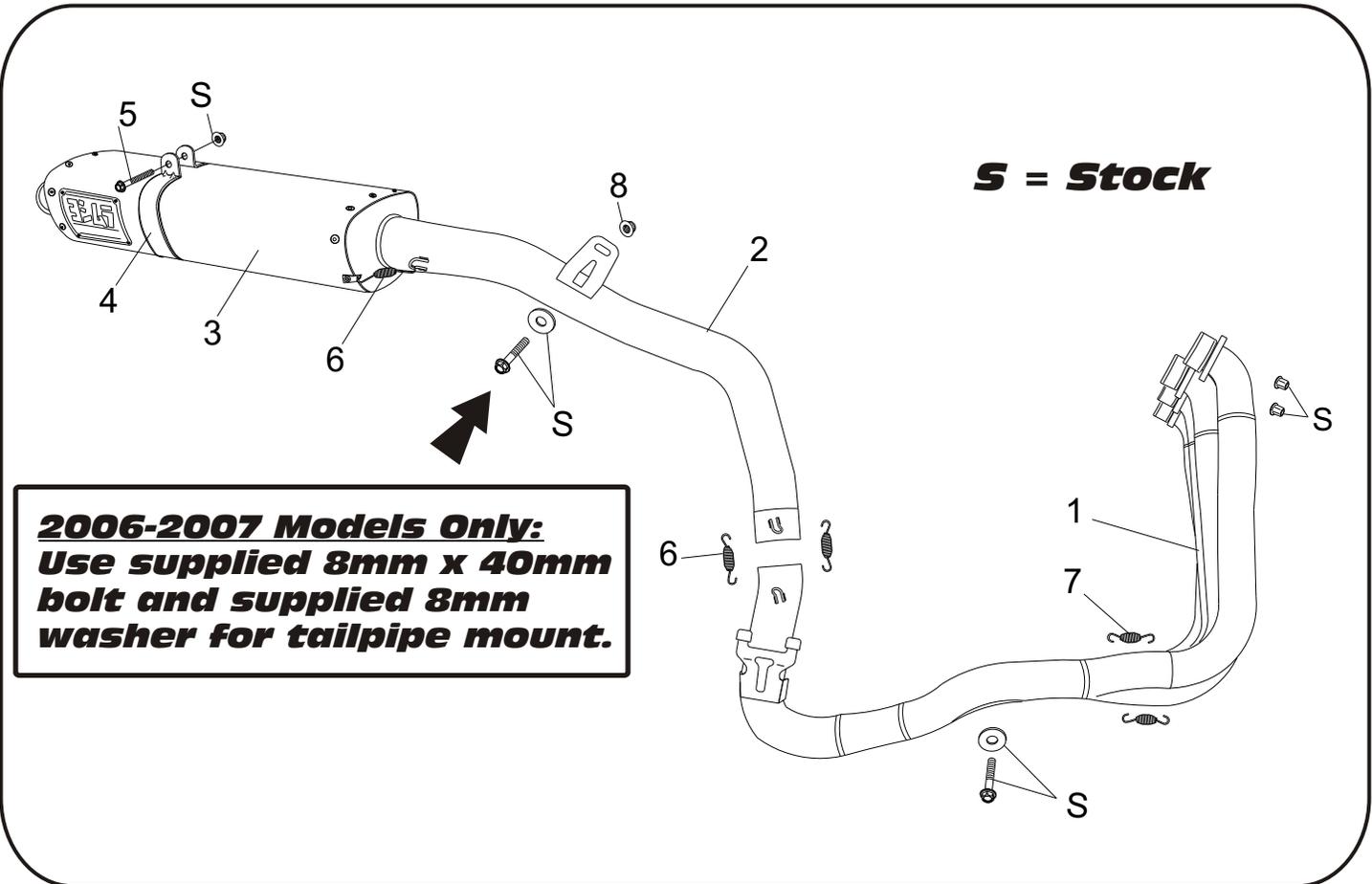
**Fig. 10****Fig. 11**

- 1 *Cut out supplied template #1 (mark template side as up in accordance with diagram).*
- 2 *Tape or firmly hold template to adhesive side (not foil side) of heatshield.*
- 3 *Trace outline of template on heatshield*
- 4 *Use scissors to cut heatshield to outline. When cutting, keep excess trimmings in one piece - the extra piece will be used later.*
- 5 *Use rubbing alcohol to clean area where heatshield will be applied.*
- 6 *Remove adhesive backing and apply to underside of rear fender assembly.*

*Note: Start by installing right side of the heatshield all the way forward. Then work to the left ensuring no air bubbles exist.*

- 7 *Cut out supplied Template #2 and repeat process.*
- 8 *After both pieces of the heatshield are installed, use remainder of heatshield to patch or cover any open areas.*

**#120002(5,7) / 120007(2,5,7) / 120012(2,7) / 1200172**



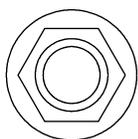
Parts Diagram

NO.	DESCRIPTION	QTY	PART #
1	Yoshimura Header Stainless Steel Race Duplex Titanium Race Duplex	1	1200-401 1200-701
2	Yoshimura Tailpipe Stainless Steel Race Titanium Race	1	1200-419 1200-719
3	RS-5 Race Muffler	1	**
4	Stainless Steel Muffler Clamp Muffler Clamp for SS/Ti Muffler Clamp for CF	1	CHS500S8ASX CHS500S8AS
5	8mm Bolt	1	M8X30H

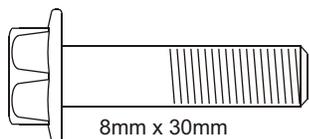
NO.	DESCRIPTION	QTY	PART #
6	2.5" Race Springs	4	RACE-SPS
7	2.0" Race Springs	4	RACE-SPX
8	8mm Flange Nut	1	8MMNUT
**	Adhesive Back Foil Heatshield (8" X 21")	2	1200-00-01
**	Muffler Clamp Heat Insulator	1	HT SHLD5
**	Yoshimura Vinyl Sticker	1	17029
**	Foil Heatshield Template	1	**
**	8mm x 40mm Bolt for 06-07 Models Only	1	M8X40H
**	8mm Washer for 06-07 Models Only	1	8MMWASHERL
**	Yoshimura Spring Puller	1	ST-200

**Nuts and Bolts Guide (Actual Size):**

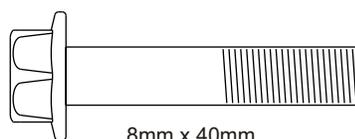
**For 2006 Models Only**



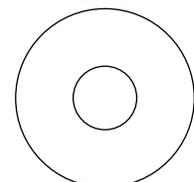
8mm Flange Nut



8mm x 30mm  
Flange Hex Bolt



8mm x 40mm  
Flange Hex Bolt



8mm Large Washer

Dear Yoshimura Customer,

Congratulations and thank you for purchasing a Yoshimura Exhaust System. Over six 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 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 clamps, bolts and other fasteners tight. Carbon Fiber is very susceptible to vibration damage.
2. Keep all chemicals and solvents away from the carbon fiber, as they will damage the finish.
3. 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.
4. 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; but 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 a year.

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, or other signs of wear 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 maximum performance.

Yoshimura offers a 3-5 day turn around (plus transit time) to inspect and refurbish used and damaged mufflers.

**For more information on muffler repacking please visit our website at:** <https://www.yoshimura-rd.com/pages/repack-and-insert-chart>

**\*\*\*PRO TIP\*\*\*** Before you install your new muffler for the first-time log the weight in your Owner's or Service manual along with the current hours or mileage on your vehicle. When you are performing periodic maintenance on your vehicle (like a tire change, or an oil change) you can remove your Yoshimura muffler from the vehicle and weigh it again. Over time, the packing material inside your muffler will burn off with use, and the muffler will need to be repacked. When the weight loses approximately 100 grams of the original weight, you should consider getting your Yoshimura muffler repacked. You can order repacking kit or the parts to repack the muffler from the Yoshimura website, or your local dealer. You can also contact the Yoshimura sales office and arrange to send in your muffler for the repacking service too.

### IMPORTANT TECHNICAL NOTE

Yoshimura recommends on all race exhaust systems, that all spring joints be safety wired. Recommended wire type 304/316 stainless steel with a .032" diameter should be used.

## YOSHIMURA EXHAUST LIMITED WARRANTY

All Yoshimura R&D of America, Inc., 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. Abuse, misuse, improper installation and/or modifications
2. Custom applications
3. No proof of purchase at the time of warranty. Claimant must provide proof of purchase (original receipt or invoice) and a warranty authorization number (RMA) obtained from Yoshimura.
4. 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.
5. International grey-market product purchased through a dealer/distributor not authorized for your country will not be supported by this warranty.

### EXTENT OF WARRANTY:

Any defective exhaust system properly returned to Yoshimura will be repaired or replaced by Yoshimura. Yoshimura is not responsible for any other expense incurred by the customer under the terms of this limited warranty, nor is Yoshimura responsible for any damages either consequential, incidental, special, contingent or otherwise; or expenses or injury arising directly or indirectly from the use of the exhaust system. Any exhaust system returned to Yoshimura must be sent at the customer's expense along with the proof of purchase and warranty authorization (RMA). Yoshimura reserves the right to determine whether the terms of the warranty, set out above, have been properly followed. In the event that the terms are not followed this warranty is void. Yoshimura is the sole determiner of abuse, misuse,

installation errors and modifications—should any of these be found, this warranty is void. The duration of any and all implied warranties are 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, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages 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 trouble shooting guide first:**

1. Reference your instruction sheet and double-check all drawings and instructions
2. Make sure muffler clamps are installed correctly (refer to instructions diagram). 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. Always take time to examine problems in detail.
5. When all else fails, call our technical support line at (909) 628-4722. The technical line is open 9:00am – 4:30pm Monday through Friday, Pacific Time. Please have the following information handy: Year/Make/Model of motorcycle, date of purchase, place of purchase, batch dates and part numbers (found on header and tail-pipe components).
6. Also, feel free to ask through online e-mail at [sales@yoshimura-rd.com](mailto:sales@yoshimura-rd.com), or fax your question/problems to (909) 591-2198.

**To obtain technical information directly from Yoshimura, call (909) 628-4722.**