

RESEARCH&DEVELOPMENT OF AMERICA, INC.

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RACE SERIES

KTM RC390 163902H220 (CF/CF) 163902H320 (AL/CF) RS9 Stainless Steel Slip-On





Race Series systems are:

- NOT CARB/EPA tail-pipe emissions compliant.
- NOT street legal.
- For "Closed Course Competition" use only.

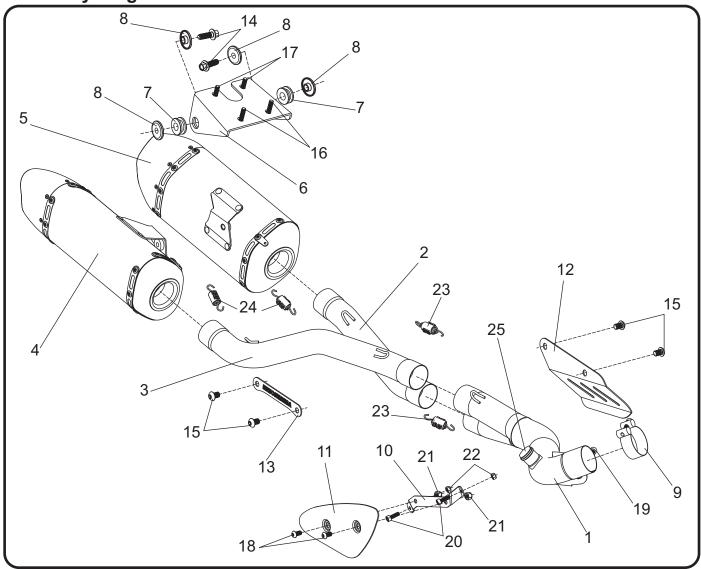




You must know how to remove and replace your stock exhaust in order to install this product otherwise have it installed by a professional mechanic. Keep all stock parts from your existing system as some components may be necessary to install your new Yoshimura exhaust depending on the application. Read 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.



Assembly Diagram



No.	ltem	Description	Qty.
1	16390-410	Front Pipe	1
2	16390-412	Left Tailpipe	1
3	16390-413	Right Tailpipe	1
4	163902H220-RMA	CF/CF Muffler Assembly, Right	1
	163902H320-RMA	SS/CF Muffler Assembly, Right	
5	163902H220-LMA	CF/CF Muffler Assembly, Left	1
5	163902H320-LMA	SS/CF Muffler Assembly, Left	ı
6	16390-MBRKT	Muffler Mount Bracket	1
7	Z1023	Rubber Grommet	2
8	ALS-043	Aluminum Spacer	4
9	27-58M	Exhaust Clamp	1
10	16390-EXBLK-BKT	Exhaust Blockoff Bracket	1
11	16390-EXBLK	Exhaust Blockoff Plate	1
12	16390-HS-1	Heatshield	1
13	16390AB-PLT	Passenger Peg Plate	1

No.	Item	Description	Qty.
14	M8X25H	8mm x 25mm Flanged Hex Head Bolt	2
15	M8X12BHS	8mm x 12mm Button Head Screw	4
16	M6X25BHS	6mm x 25mm Button Head Screw	2
17	M6X20BHS	6mm x 20mm Button Head Screw	2
18	M6X12BHS	6mm x 12mm Button Head Screw	2
19	M6X12	6mm x 12mm Socket Head Cap Screw	1
20	M5X16	5mm x 16mm Socket Head Cap Screw	2
21	6MMLN	6mm Lock Nut	2
22	5MMLN-U	5mm Lock Nut	2
23	RACE-SPS-1	Medium Exhaust Spring	2
24	RACE-SPX-1	Small Exhaust Spring	2
25	M18X13PLG	O2 Bung Plug	1
**	INS-RS9B-K	Low Volume Sound Insert	2
**	ST-200	Spring Puller	1
**	17029	Sticker Sheet	1

^{**} Not shown on diagram.

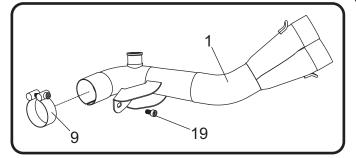
Removal

- 1. Remove rider seat.
- 2. Remove passenger seat bolt and slide passenger seat forward to remove.
- 3. Locate and disconnect license plate light and turn signal connectors.
- 4. While supporting the stock fender assembly, remove the four nuts securing the fender assembly to the frame. Carefully remove the stock fender assembly making sure not to damage connectors during removal.
- 5. Remove the left, right, and lower fairings as per Factory Service/Owners Manual.
- 6. Loosen exhaust clamp between the silencer and header.
- 7. Remove the O2 sensor from the stock header and carefully remove header by removing the two header nuts.
- 8. While securely supporting the stock silencer, remove the three bolts securing the stock silencer to frame. Carefully remove silencer toward the bottom
- Remove left and right passenger footpeg brackets and rubber footpeg bracket pads from frame.

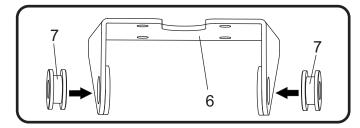
Installation

- Re-install O2 sensor into stock header and reinstall header using the stock header nuts. Do not torque at this time.
- 2. Install (No. 9) 27-58M, exhaust clamp onto (No. 1) 16390-410, front pipe. Slide front pipe over the stock header outlet and secure to chassis mount using (No. 19) M6X12, 6mm bolt. Do not torque at this time.

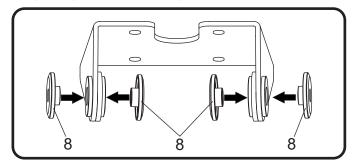
Note: Additional O2 sensor bung is located on the front pipe for aftermarket closed course racing fuel mapping options. Install supplied O2 sensor plug prior to installation if it will not be used.



3. Install (No. 7) *Z1023*, rubber grommet into (No. 6) *16390-MBRKT*, muffler mount bracket as shown.



4. Install (No. 8) *ALS-043*, aluminum spacer into (No. 7) *Z1023*, rubber grommet as shown.

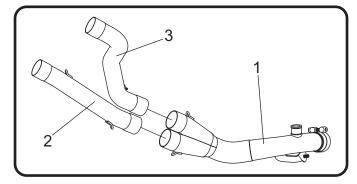


5a. If the stock fender is not re-installed, install (No. 6) 16390-MBRKT, muffler mount bracket to where the stock fender assembly was previously removed using (No. 16,17) 6mm button head screws as shown on the diagram. Secure using the stock fender mounting nuts. Do not torque at this time.

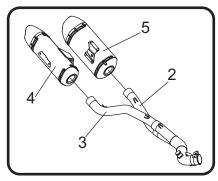
Note: The cutout on the muffler mount bracket is toward the rear of the vehicle to accommodate license plate light and turn signal wires.

5b. If re-installing the stock fender assembly, install (No. 6) 16390-MBRKT, muffler mount bracket between the stock fender assembly and frame using the stock fender mounting nuts. Do not torque at this time.

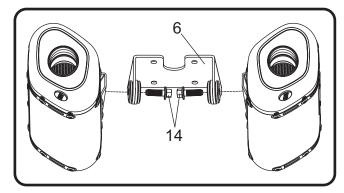
6. Install (No. 2,3) 16390-412/3, left and right tailpipe onto (No. 1) 16390-410, front pipe as shown.



7. Install (No. 4,5) left and right muffler onto (No. 2,3) 16390-412/3, left and right tailpipe.

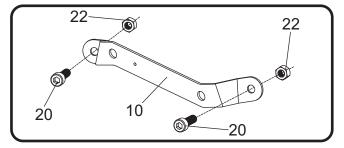


8. Align and secure left and right muffler to (No. 6) 16390-MBRKT, muffler mount bracket using (No. 14) M8X25H, 8mm bolts. Torque muffler mount bolts to 32.5 Nm (3.3 kg-m, 25 ft-lb).

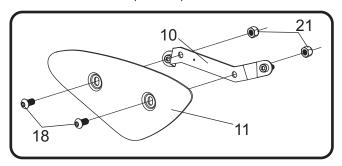


- 9. Torque the stock fender nuts to factory specification.
- 10. Torque (No. 19) *M6X12*, 6mm front pipe chassis mount bolt to 16 Nm (1.6 kg-m, 12 ft-lb).
- 11. Torque (No. 9) *27-58M*, exhaust clamp to 8.5 Nm (0.86 kg-m, 6 ft-lb).
- 12. Install (No. 23) *RACE-SPS-1*, medium exhaust spring between tailpipe and front pipe.

- 13. Install (No. 24) *RACE-SPX-1*, small exhaust spring between muffler and tailpipe.
- 14. Install (No. 13) 16390AB-PLT, passenger peg plate using (No. 15) M8X12BHS, 8mm screws on the right side passenger footpeg mount.
- 15. Install (No. 12) *16390-HS*, heatshield using (No. 15) *M8X12BHS*, 8mm screws on the left side passenger footpeg mount.
- 16. Remove the stock exhaust outlet heatshield from the right side lower fairing and install (No. 10) 16390-EXBLK-BKT, exhaust block off bracket. using (No. 20) M5X16, 5mm bolt and (No. 22) 5MMLN-U, 5mm locknut.



17. Install (No. 11) 16390-EXBLK, exhaust block off plate onto (No. 10) 16390-EXBLK-BKT, exhaust block off bracket using (No 18) M6X12BHS, 6mm screw and (No. 21) 6MMLN, 6mm locknut.



- 18. Re-install the left, right, and lower fairings using the reverse steps of removal.
- 19. Re-connect license plate light and turn signal connectors if the stock fender assembly is re-installed.
- 20. Re-install rider seat.
- 21. Re-install passenger seat and secure using the stock seat bolt.

22. Before starting vehicle, check for proper clearance between new exhaust system and rear suspension (i.e. tire, swingarm, 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.	
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 function of license plate light and turn signals prior to riding.	