

**HARLEY-DAVIDSON® SOFTAIL**  
**LONG SYSTEM INSTALLATION INSTRUCTIONS**  
**PART# 6020-6120**



Thank you for purchasing **RUSH**. We strive for excellence and take pride in making the best exhaust for your Harley-Davidson®. We take our full systems to an all new level in the exhaust industry! Our full systems come standard with ceramic coating on both the inside and outside of the head pipe, providing superior heat reduction and quality looks for years to come.

## EXHAUST SYSTEM REMOVAL

### READ ALL INSTRUCTIONS BEFORE BEGINNING

1. Remove seat and disconnect battery. Under the oil tank on the right hand side, locate the rear O<sup>2</sup> sensor connector. Unplug sensor and feed wire through the frame; freeing it from motorcycle. **NOTE: Pay attention to wire routing for re-installation.**
2. Open the plastic cover above the rectifier on front of the frame to gain access to the front O<sup>2</sup> sensor connector. Unplug sensor from harness. Remove zip strip holding wire to frame and feed the wire through; freeing it from motorcycle.
3. On floorboard equipped models, loosen the right hand floorboard mounting bolts to gain clearance for exhaust removal and installation.
4. Loosen the heat shield clamps on both front and rear exhaust pipes.
5. Remove the mounting nuts from each head pipe, located at the cylinder head.
6. Remove the nuts attaching the exhaust mount bracket to the frame.
7. On FLSTD and FLSTF models, you will need to remove the right side passenger foot peg and hanger, as this is attached to the exhaust mount bracket. Replace the passenger foot peg assembly using the BOLT #14 allen bolt.
8. Remove the entire exhaust system and set it aside.
9. Remove the two lower mounting studs from the frame. **See Figure 1.** Recommended replacement exhaust port gaskets, H-D P/N: 65324-83A.
10. Carefully remove exhaust port flanges and circlips from the stock exhaust system using snap ring pliers. **See Figure 2. NOTE: Replace bent or damaged circlips.** Check exhaust port gasket condition.
11. Remove O<sup>2</sup> sensors from stock head pipe and set aside for reinstallation on your new RUSH exhaust.

RUSH RACING PRODUCTS EXHAUST  
SYSTEM INSTALLATION P/N 6020-6120**BEFORE INSTALLATION PLEASE READ ALL INSTRUCTIONS**

1. Remove header and heat shields from protective packaging. Place each heat shield on a non-abrasive surface such as a blanket or carpet. Using a felt tip pen, mark outside edge of each heat shield to show location of mounting clips that hose clamps will loop through. **See Figure 3.**
2. Apply a small amount of anti-seize compound to the threads of the O<sup>2</sup> sensors and install them into the new head pipe. **NOTE: Be careful not to get any anti-seize on the head of the sensor as it may cause the sensor to malfunction.**
3. Install circlips and flanges from stock system onto the new head pipe. **NOTE: Replace circlips if bent or damaged. See Figure 2.**
4. Install mounting BRKT-011 to frame using two BOLT #12 flange bolts with LOCTITE and tighten to factory specs. **See Figure 1.**
5. Install head pipes into exhaust ports. Use stock flange nuts, **Do not tighten.**
6. Slide BRKT-008 inside brackets that are welded to the backside of each muffler and attach with four BOLT #11 with LOCTITE. **Do not tighten.** Use procedure for both upper and lower muffler mounting positions. **See Figure 5.**
7. Tighten cylinder port exhaust flange nuts on front and rear cylinders. Now tighten the BOLT #11 flange head bolts to BRKT-011. **See Figure 1.**
8. Install each CLAMP-001 and CLAMP-004 by feeding tail end of clamps into heat shield clips. Use CLAMP-001 on head pipes and CLAMP-004 on muffler body. Screw head must be accessible for adjustment purposes.
9. Slide header into heat shields tail end first.
10. Feed wire for the front O<sup>2</sup> sensor through the frame and into the plastic holder on the frame. Plug the sensor into the stock wiring connector. Snap the plastic holder closed to hold the connector in place.
11. Feed connector for the rear O<sup>2</sup> sensor through the frame under the oil tank on the right hand side. Plug sensor into the stock wiring connector.
12. Install new ZIP STRIP to hold wires onto frame in the original location.
13. Retighten floor board mounting bolts on models if equipped.
14. Be sure to tighten all hardware before starting motorcycle.
15. After installation is done and before starting your motorcycle, clean your new exhaust thoroughly with a soft cloth and a cleaning solvent that doesn't leave any residue. Any oily residue, like fingerprints, will burn into the chrome.



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## REFERENCE PICTURES

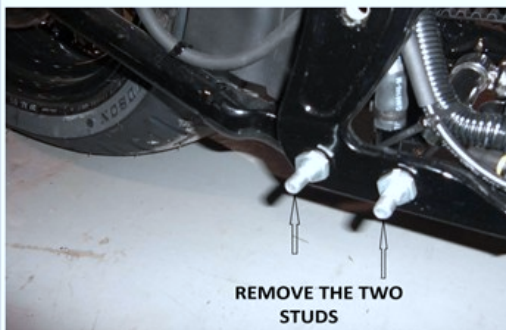


FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4



FIGURE 5

## TOOLS REQUIRED

1. Flat blade screwdriver
2. 5/16" nut driver
3. 1/2", 9/16" and 14mm combination wrenches
4. 1/4", 3/16" and 5/16" allen wrenches
5. Snap ring pliers
6. Ft./Lb. torque wrench
7. 3/8" ratchet & extensions
8. 1/2" socket and 1/2", 9/16" & 5/8" deep well sockets

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PACKING LIST



PARTS LISTING

4 - BOLT #11	1 - BRKT-011	1 - LOCTITE
2 - BRKT-008	6 - CLAMP-001	
2 - BOLT #12	2 - BOLT #1	
1 - BOLT #13	2 - ZIP STRIP	
1 - BOLT #14	2 - CLAMP-004	