



**Installation  
Instructions**

**1986-2013 SOFTAIL CROSS BACKS  
EXHAUST SYSTEM**

**Rev 9-23-2014**

**items Supplied**

Description	Part #	Qty
Front Header		1
Rear Header		1
Front Heat Shield		1
Rear Heat Shield		1
Mounting Bracket	25-00410	1
5/16-18 x 3/4" Bolt	35-00003	4
5/16" Flat Washer	35-00007	4
5/16" Nylok Nut	35-00005	4
3/8" Flat Washer	35-00037	2
3/8-16 x 3/4 Hex Head Bolt	35-00030	2
3/8-16 x 1" Hex Head Bolt	35-00031	2
3/8-16 x 1 1/4 Hex Head Bolt	35-00032	2
3/8-16 x 2 3/4 SHCS	25-00307	1
1/4" Alum Spacer	29-00303	2
3/4" Alum Spacer	29-00306	2
2 1/4" Stainless Steel Clamp	16-00285	7
O2 Sensor 18mm Bung Plug	35-00084BA	1
James Exhaust Gaskets	20-00003	1pr
Installation Instructions		1

Thank you for buying a Rinehart Racing exhaust system. We are committed to providing premium products that with proper installation and care will last for many years to come.

**Please be sure to read the instructions fully and inspect all components of your new system before installation.** If you do not have an understanding of how to remove your stock mufflers, or how to install the Rinehart Racing exhaust system you should seek the advice and/or skill of a professional mechanic. Please keep all OEM parts as some may be used for the installation of the Rinehart Racing exhaust system. If you are installing the system and are not the owner, please return these instructions to the owner as they contain important information that may be required at a later date.

If you have questions pertaining to the installation, please contact our technical service department: 1.877.264.8282 or [www.rinehartracing.com](http://www.rinehartracing.com)

**INSTALLATION INSTRUCTIONS**

1. If applicable, unplug rear the OEM O2 sensor located under the oil tank on right side of the bike. Feed wire through frame. Note the wire routing it will be reinstalled later.
2. If applicable, unplug front OEM O2 sensor. Remove the nylon tie holding the wire to the frame.
3. On all models with floor boards, loosen the floor board mounting bolts. This will provide better access to the exhaust system.
4. Remove the OEM exhaust system along with the stock rear mounting bracket.
5. Remove the OEM exhaust flanges and cir-clips. Be careful as both the exhaust flanges and the cir-clips will be reused (replace damaged cir-clips). We recommend the use of snap ring pliers.
6. Install the OEM exhaust flanges and cir-clips on Rinehart system.
7. Install the new mounting bracket (supplied) using (2) 3/18-16 x 3/4" hex bolts and 3/8" flat washers (supplied) finger tighten. NOTE: On earlier model Softails (1986-1998) use the (2) 1/4" spacers (supplied), with these spacers use (2) 3/8-16 x 1" hex bolts (supplied). Standard models (2007-2008) use 1/2" spacers between the frame and the mounting bracket, use (2) 3/8-16 x 1 1/4" bolts. (2009-2011) use 3/4" spacers between the frame and the mounting bracket, use (2) 3/8-16 x 1 1/2" bolts.
8. If applicable, remove OEM O2 sensors from the front and rear OEM exhaust and install in you new system. Hint: apply a small amount of anti-seize to the threads on the sensors before installing. Torque to manufacturer specifications.
9. Install the rear header and (2) OEM flange nuts finger tight.
10. Slide (2) 5/16-18 x 3/4" bolts assembly (supplied) into the mount tab of rear pipe. Align bolts with frame mount bracket (supplied). Insert bolts through the bracket and install 5/16" flat washers and 5/16" lock nuts (supplied) finger tight.
11. If applicable, re-connect the OEM rear O2 sensor under oil tank on right hand side of bike.
12. Install front header and (2) OEM flange nuts finger tight. Note: On 1986-1999 models it might be necessary to remove the reflector from the front frame rail.
13. Slide (2) 5/16-18 x 3/4" hex bolts assembly (supplied) into the mount tab of front pipe. Align the bolts with frame mounting bracket.
14. Insert the bolts through bracket and install 5/16" flat washers and 5/16" lock nuts (supplied) finger tight.
15. Align both pipes so they are parallel with each other and parallel to the lower frame rail.
16. Tighten both the front and rear OEM exhaust flange nuts. Torque to 8-10ft. lbs.
17. Tighten the 5/16-18 pipe mounting Nylok nuts (supplied). Torque 13-15ft. lbs.

**DISCOLORATION & TUNING**

Discoloration of exhaust is generally a result of fuel calibration tuning. In addition, discoloration can be the result of electrical issues or engine malfunction. Discoloration is not a warrantable item. CATALYST EQUIPPED MOTORCYCLES: Adjusting the fuel calibration and/or timing of an engine that is equipped with a catalyst equipped exhaust is likely to result in discoloration of Rinehart Racing slip on mufflers and will not be warranted. As such, Rinehart Racing discourages altering or adjusting the OEM stock fuel calibration and/or timing of an engine that is equipped with a catalyst equipped exhaust.

**EMISSIONS NOTICE**

The State of California does not permit the use of aftermarket exhaust systems that remove original equipment catalysts unless a California Air Resources Board (CARB) Executive Order has been issued. Exhaust systems that remove original equipment catalysts are legal in California for racing use only.

18. Tighten the 3/18-16 mounting bracket bolts. Torque 15-18ft. lbs.
19. Install heat shield clamps (supplied) in both front and rear (2) heat shields. Install heat shields and tighten all heat shield clamps. Be sure to position the clamps so the bolts are hidden from view.
20. Tighten the floorboard mounting bolts if so equipped.

**Important! Failure to remove residues, fingerprints, oils or any other foreign substance prior to starting the engine will result in permanent etching and discoloration of the finish and will not be warrantied. Check all mounting fasteners after first ride and again at all service intervals.**

### Returns

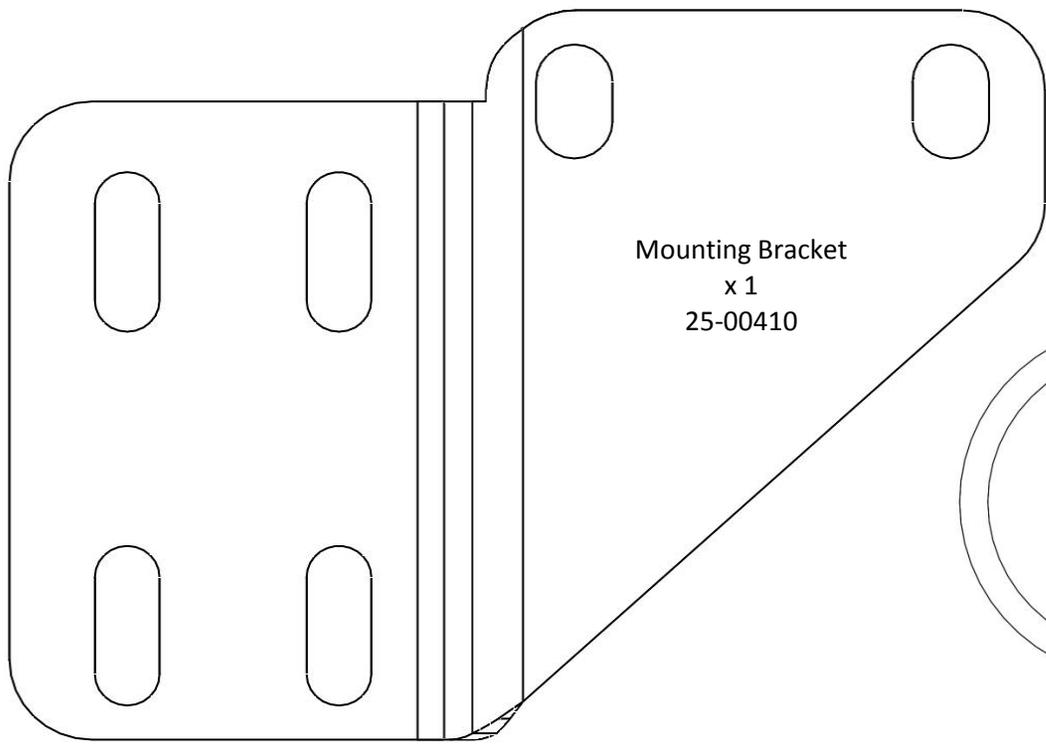
No return of merchandise will be accepted without first securing a Return Merchandise Authorization ("RMA") number provided by Rinehart Racing. Buyer must submit, in writing, evidence of purchase date, copy of invoice indicating goods purchased, reason for return, exchange or refund, and RMA number. At its sole discretion, Rinehart Racing may accept or deny the claim for return, exchange or damage. If accepted and if the goods have not be used and are in a resalable condition, Company shall provide refund within 30 days of purchase; subject to a fifteen percent (15%) restocking fee. If the product has been installed, no refund, return or exchange shall be allowed. No refund, return or exchange is allowed after 45 days from the date of invoice. Buyer is responsible for return freight, and must include all original packaging, materials, manuals, hardware and copy of invoice. All products returned must be securely packed and delivered to Company in an undamaged condition. Rinehart Racing may refuse or reject returned product for failure to follow the conditions set forth herein.

### Warranty

**This Limited Warranty contains the sole express warranty made by Rinehart Racing ("Company") in connection with exhaust products sold by Company ("Product"). BY PURCHASING OR ACCEPTING THE PRODUCT, THE BUYER ACKNOWLEDGES THAT THE LIMITATION OF LIABILITY IS PART OF THE TERMS OF SALE, CONSTITUTES A BINDING AGREEMENT, AND MAY BE ENFORCED AGAINST YOU BY COMPANY. Any warranties, if separately provided in writing, are extended only to the Buyer whose name is shown on Company's invoice.**

**Rinehart Racing exhaust products are warranted against defects in material or workmanship for a period of 18 months from the date of the original invoice. This does not cover finishes such as plating or painted surfaces with discoloration or rust. Discoloration is not a warrantable item and is a result of improper fuel calibration. This warranty shall be limited to the repair or replacement of the defective part, which may be proven defective under normal use. Rinehart Racing will not warranty any product that has been abused, misused, improperly installed, or modified. Any part that is repaired or replaced under this warranty will, itself, be warrantied only for the remainder of the warranty period of the original product being repaired or replaced. This warranty is non-transferable and is limited to the original retail purchaser.**

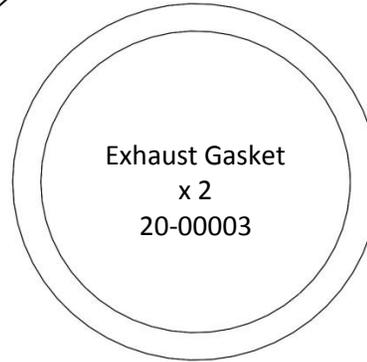
**BUYER'S SOLE AND EXCLUSIVE REMEDY AND RINEHART RACING'S SOLE LIABILITY FOR LOSS OR DAMAGE ARISING FROM PURCHASE OR USE OF THE PRODUCT SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PART AT COMPANY'S SOLE DISCRETION. IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY LOSS OF USE, REVENUES, OR ANTICIPATORY PROFIT, OR FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR CONNECTED WITH THE SALE, USE, OPERATION, OR INABILITY TO USE OF PRODUCTS PURCHASED FROM COMPANY TO THE EXTENT PERMITTED BY LAW, COMPANY MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL SUCH WARRANTIES ARE EXPRESSLY DISCLAIMED. IN NO EVENT SHALL COMPANY'S LIABILITY EXCEED THE AMOUNT OF THE PARTICULAR DEFECTIVE PRODUCT PAID BY THE PURCHASER. THIS LIMITATION OF LIABILITY SHALL BE APPLICABLE TO ANY CLAIM PRESENTED, WHETHER THE LEGAL THEORY FORMING THE BASIS OF SUCH CLAIM INVOLVES CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, STATUTE, REGULATION, CONSUMER PROTECTION LAWS OR OTHERWISE.**



Mounting Bracket  
x 1  
25-00410



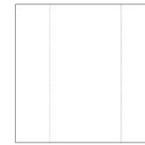
2-1/4" Stainless Steel Clamp  
x 7  
16-00285



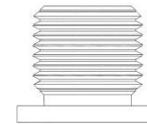
Exhaust Gasket  
x 2  
20-00003



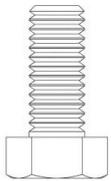
1/4"  
Aluminum  
Spacer  
x 2  
29-00303



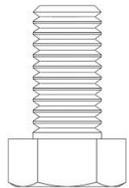
3/4"  
Aluminum Spacer  
x 2  
29-00306



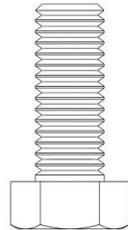
18 mm  
O2 Bung Plug  
x 2  
35-00084BA



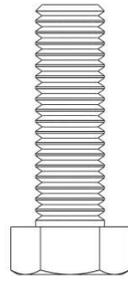
5/16" x 3/4"  
Hex Bolt  
x 4  
35-00003



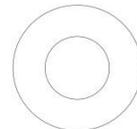
3/8" x 3/4"  
Hex Bolt  
x 2  
35-00030



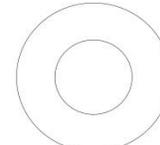
3/8" x 1"  
Hex Bolt  
x 2  
35-00031



3/8" x 1-1/4"  
Hex Bolt  
x 2  
35-00032



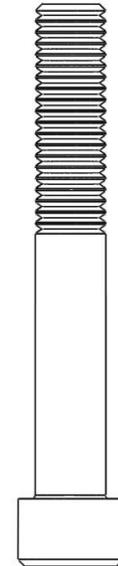
5/16"  
Flat Washer  
x 4  
35-00007



3/8"  
Flat Washer  
x 2  
35-00037



5/16"  
Locking Nut  
x 4  
35-00005



3/8" x 2-3/4"  
Socket Head Cap Screw  
x 1  
25-00307