

# CRF/XR50 ALUMINUM FRAME KIT

## ALUMINUM TWIN-SPAR PERIMETER FRAME KIT



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## Tools Required:

- 4mm allen wrench
- 5mm allen wrench
- 6mm allen wrench
- 8mm allen wrench
- 3/8 ratchet
- 3/8 2" extension
- 12mm socket 3/8 drive
- 13mm socket 3/8 drive
- 14mm socket 3/8 drive
- 17mm socket 3/8 drive

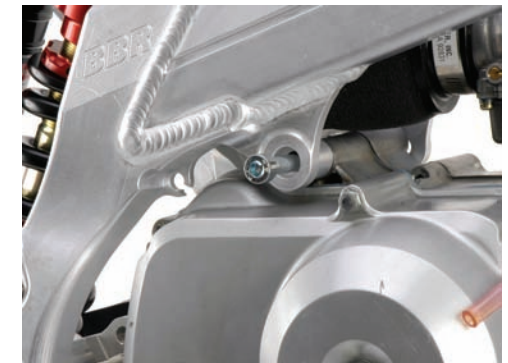


**Disclaimer:** It is up to you to determine if you have the skills necessary to install this kit. If you are not confident in your abilities, please contact a professional mechanic. This kit installs exactly like the OEM Honda components with the exceptions noted here. You should refer to the OEM Honda Service Manual for any questions regarding disassembly or reassembly of your motorcycle. Because BBR Motorsports, Inc. cannot control the assembly of this kit, no guarantees are made as to performance, reliability, or usability. It is entirely up to the individual doing the installation to determine the fitness of this product and its usability. All liabilities are the responsibility of this individual (both consequential and incidental).

1. Remove the lower engine mounting plate from the frame (it is assembled for shipment) and loosen the swingarm bolt. Grease all bolts: (4)CS M8, (1)CS M10, (2)Footpeg brackets and bolts. The frame at the right is shown with mounting plate removed.



2. Install engine into frame by installing the top engine bolt first and the lower bolt second. The top engine bolt is shown partially inserted in the photo at the right. The bolt head should be on the right side of the motor (kickstarter side). Do not tighten all the way.

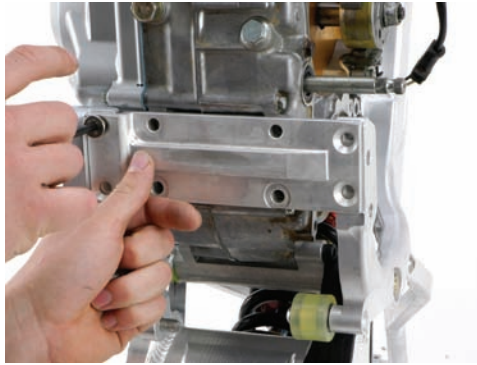


# BBR

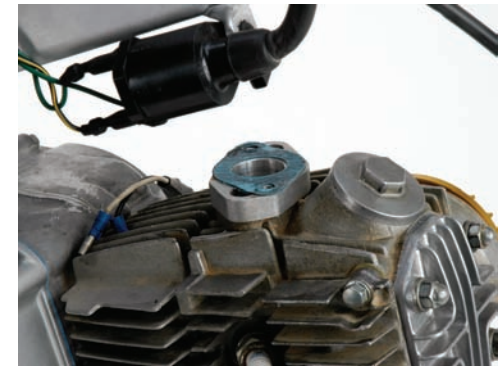
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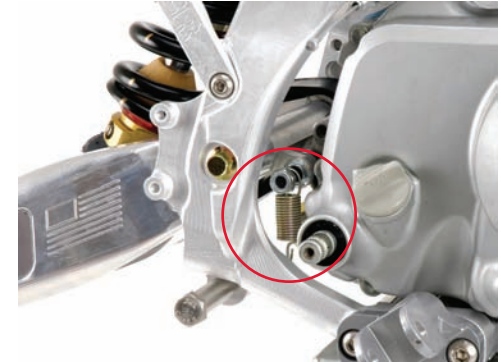
**3.** Install the lower engine bolt. This bolt inserts from the left side through the special rear motor mount located at the swingarm pivot. The bolt is slightly longer than necessary for use as the stock rear brake spring upper mount. This bolt is shown in place in the photo at the right. Do NOT tighten all the way.



**5.** Carb Installation. The stock carb and manifold bolt on directly with no modifications. BBR has provided a manifold adapter for use with aftermarket carbs and manifolds. The adapter centers the carb on the engine allowing it to clear the perimeter frame tubes. Because there are dozens of different combinations of carbs and manifolds available, some custom modification (and/or fabrication) may be necessary for your particular setup.



**6.** When using the stock rear wheel and brake pedal, install the brake rod adapter to lengthen the brake rod. The brake pedal return spring mounts on the lower rear motor mount bolt.



**7.** The front mounting holes of the tank shrouds, mounts to the bottom edge of the BBR gas tank. Use supplied bolts. Note that this differs from the stock Honda tank where the tank shrouds attach to the top side. See photo at right.



8. Be certain to ground the ignition system by placing the ground wire under the coil mounting bolt. Make sure to route all remaining harness wires away from exhaust pipe.



9. If you are using the Takegawa manual clutch, we have incorporated a cable mount on the frame as shown at right. Run cable up the inside left frame spar through the front tank mount to clutch lever.



*Note that the swingarm pivot bearings have already been greased by BBR. It is not necessary to disassemble the swingarm pivot. It is necessary to torque the swingarm bolt to specs once the bike is assembled. If you have any other questions about the assembly of your BBR Aluminum Perimeter Frame Kit, please feel free to call us at 1-888-MOTO-BBR.*

*Please continue to next page for suspension set-up.*

## Setting the rear suspension sag:

1. Support your bike on a work stand with the rear wheel off of the ground.
2. Measure from the rear axle to a fixed point on the rear fender. Note this measurement.
3. Remove the work stand. While standing on the foot pegs (in full riding gear), have an assistant balance the motorcycle while measuring between the same two points as step 2.
4. The sag is the difference between the two measurements (from steps 2 and 3).



Adjust spring preload to achieve about 2.5" of sag. Decreasing the race sag (example: 2"), improves turning ability for tight terrain at the cost of slightly reduced straight line stability. Increasing the sag (example: 3"), may improve stability on faster tracks, but will reduce turning performance.

Rebound adjuster is on the bottom of the shock (clockwise is slower rebound). Compression adjuster is on the reservoir (clockwise is stiffer).

Standard spring is 1100 lbs. for a 165 lb rider. Optional softer and stiffer springs are available.

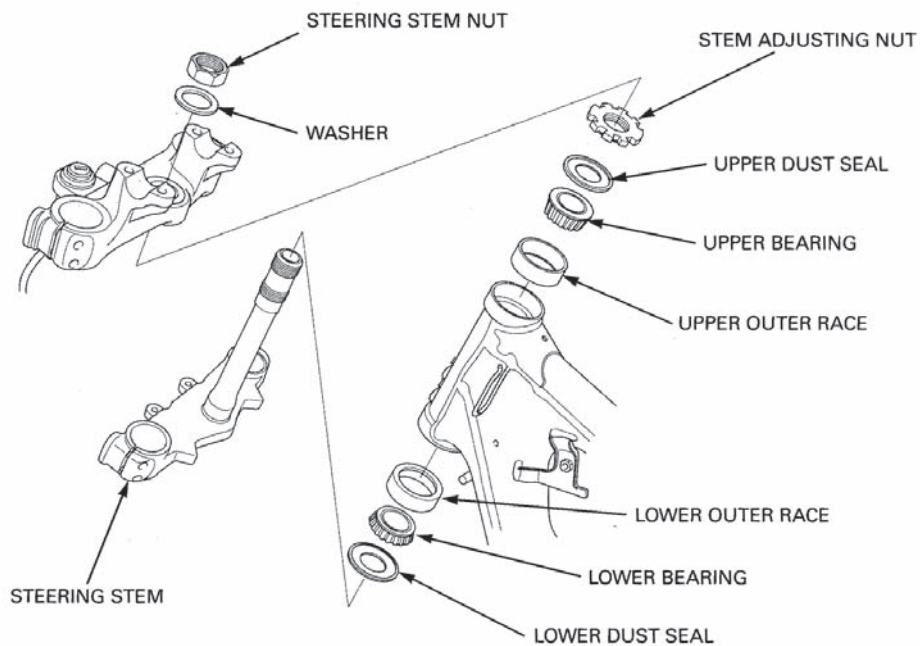
- 660-HXR-1007** Stiffer Spring for riders over 175 lbs.
- 660-HXR-1005** Softer Spring for riders under 125 lbs.

## Reference Material:

### Basic Torque for Common Bolt Sizes:

5mm	30-43 in. lbs.
6mm	52-69 in. lbs.
8mm	10-13.5 ft. lbs.
10mm	19-25 ft. lbs.
12mm	33-45 ft. lbs.
14mm	54-72 ft. lbs.
16mm	83-115 ft. lbs.
18mm	125-165 ft. lbs.
20mm	165-240 ft. lbs.

Swingarm bolt	25 lbs.
Top motor mount bolts	20 lbs.
Bottom motor mount bolts	15 lbs.
Foot peg mounts	20 lbs.
Shock bolts	29 lbs.



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