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FRONT END LOWERING KIT INSTALLATION INSTRUCTIONS

The Front End Lowering Kit (FELK) is a safe and easy way to lower the bike's center of gravity for quicker ET's. The FELK preloads the front suspension to help eliminate wheelies during launches and should be used to level the bike to match the rear lowering link setting.

Check Package Contents:

The Package Contents Include:

1. Front End Lowering Strap Kit

- a. One (1) Tie Down Strap
 - b. Two (2) Reusable Cable Ties
- 2. Radial Mount Bracket Kit
 - a. Two (2) Radial Mount Brackets
 - b. Two (2) Bracket Bolts
 - c. Two (2) Lock Washers
 - d. Four (4) 1mm Shims*
- 3. Strap End Kit*
 - a. One (1) Strap End
 - b. One (1) M6x45mm Bolt
 - c. One (1) M10x25mm Bolt
 - d. One (1) Nylock Nut
 - e. One (1) Small Lock Washer
 - f. One (1) Large Lock Washer
- 4. Caliper Bolt Kit*
 - a. Four (4) M10 Caliper Bolts
 - b. Four (4) 1.5mm Shims*
- 5. Tank Spacer Kit*
 - a. Two (2) M6 Washers
- 6. Bracket Spacer Kit*
 - a. Four (4) 1/2" Black Anodized Spacers

*Items are not required for all models. See <u>Brocksperformance.com</u> for details.

If your package contents differ, please contact Brock's Performance at 937-912-0054.

Installation Notes:

- Before beginning installation, see bike-specific instructions (page 4) for details that may apply to your model.
- For additional installation support please refer to the OEM service manual.
- An <u>adjustable kickstand</u> is required on some models. See Brocksperformance.com for details.
- If removing a brake caliper while running the FELK, <u>Caliper Delete Spacers</u> are required.





Installation Instructions:

- 1. Support the bike using a wheel stand or lift.
- 2. See bike-specific instructions (page 4) for details that may apply to your model.
- 3. Remove OEM caliper mounting bolts.
- 4. Install the Radial Mount Brackets (2A) with the notched area facing the caliper (Fig 1).
- 5. Reinstall caliper mounting bolts, or if supplied, the M10 caliper bolts (4A) and shims (2D or 4B) (Fig 1).
- 6. Torque caliper mounting bolts to manufacture torque spec.
- 7. If supplied, install the Strap End Kit to the Tie Down Strap.
 - a. Cut off the short end of the tie down strap attached to the buckle (Fig 2).
 - b. Install the Strap End (3A), M6x45mm Bolt (3B), Small Lock Washer (3E), and Nylock Nut (3D) to the Tie Down Strap (Fig 3).
 - c. Tighten until Small Lock Washer is snug. Do not overtighten or the tie down strap release button may become jammed.



Note: The M10x25mm bolt (3C) supplied with the Strap End Kit will be used to secure the strap end instead of the bolt (2B) supplied with the Radial Mount Bracket Kit.

- 8. Install the Tie Down Strap/Strap End to the left Radial Mount Bracket hand tight.
 - a. Secure the Tie Down Strap to the Radial Mount Bracket using the Lock Washer (2C) and Bracket Bolt (2B) (Fig 4a).
 - b. Secure the Strap End to the Radial Mount Bracket using the Lock Washer (3F) and M10x25mm Bolt (3C) (Fig 4b).



9. Route the Tie Down Strap over the frame (Fig 5).

Caution: Always route the Tie Down Strap <u>UNDER</u> any cables and/or wires to prevent pinching or damage. Do NOT allow the strap to twist.

- 10. Secure the Tie Down Strap to the right side Radial Mount Bracket using the Lock Washer (2C) and Bracket Bolt (2B) hand tight.
- 11. Pull on the Tie Down Strap to remove any slack and torque the mounting bolts to 28 lb-ft (38 N·m).
- 12. Secure the Tie Down Strap handle using the supplied Reusable Cable Tie (1B) (Fig 6).
- 13. Check that the Tie Down Strap is properly secured and cannot interfere with any moving parts.

How to Adjust Ride Height:

Warning: Assure good footing and a level ground while lowering/raising the bike. The bike may become unbalanced and fall over. After making any adjustments to ride height, check that the strap handle is secured using the supplied reusable cable ties. Failure to properly secure can allow the Tie Down Strap to get stuck in the front wheel or brakes resulting in serious injury or death.

- 1. While pulling on the handle of the Tie Down Strap roll the bike forward.
- 2. Apply the front brake causing the front forks to compress while simultaneously pulling on the strap handle.
- 3. Repeat steps 1 & 2 until the desired height is achieved.
- Secure the strap handle using the reusable cable ties (Fig 6).
 Test for full steering travel. The front end should travel stop
- to stop just as the bike would without the FELK. Additional steering tension will be noticed while lowered.
- 6. To raise the bike, press in on the Tie Down Strap release button while supporting the bike (Fig 7).







WARNING: Chassis adjustments can alter the handling characteristics of any machine, and a lowered vehicle is more likely to experience obstacle and/or cornering clearance contact problems.

Bike Specific Instructions:

Hayabusa (08-25) - Remove the metal cable tie to prevent damage or binding to the strap. Replace with a reusable cable tie (Fig 8).

Hayabusa (22-25) - Use the supplied Caliper Bolt kit (4A) to secure the Radial Mount Brackets. OEM bolts are no longer required. Install four (4) 1.5mm shims (4B) and four (4) 1mm shims (2D) <u>between</u> the caliper and Radial Mount Brackets (Fig 10). **Using one (1) 1.5mm shim and one (1) 1mm shim** <u>per bolt</u> for a combined shim height of 2.5mm.

GSX-R1000 (12-16) - Preinstall the Tie Down Strap to the inside of the Radial Mount Brackets and secure with the Bracket Bolts and Lock Washers (Fig 9).

GSX-R1000 (17-25) – The lower bracket cover must be trimmed. See <u>Lower Bracket Cover Trim Instructions</u> (Document # 997465).

ZX-14 (06-11) - Install four (4) 1mm shims (2D) between the caliper and Radial Mount Brackets (Fig 10).

ZX-14R (12-25) - Use the supplied Caliper Bolt kit (4A) to secure the Radial Mount Brackets. OEM bolts are no longer required. Install four (4) 1.5mm shims (4B) <u>between</u> the caliper and Radial Mount Brackets (Fig 10).

Ninja H2/SX/SE - Use the supplied Caliper Bolt Kit (4A) to secure the Radial Mount Brackets. OEM bolts are no longer required.

S1000RR - On equipped models, reroute the wheel speed sensor to the top of the radial mount bracket (Fig 11).

Energica (17-23) – Refer to service manual for lifting tank cover. Install one M6 washer (5-A) over each of the front mounting holes (Fig 12). Reinstall tank cover according to the service manual. When routing the strap over the frame, the wiring harness should be tucked into the frame and the strap routed behind the right-side brake lines (Fig 13).

R1 (15-24) - Using the supplied Bracket Spacers (6A), install one spacer between OEM caliper and the Radial Mount Strap Brackets (2A) in all four (4) locations (Fig 14). This will provide clearance between the bracket and OEM brake line.











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