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BMW S1000RR (2020) FULLY ADJUSTABLE WINDOW LINK INSTALLATION INSTRUCTIONS

Thank you for purchasing the Brock's Performance Fully Adjustable Window Link (P/N: 240851) for the BMW S1000RR (2020). As longtime drag racers, we understand the importance of 100% ground clearance adjustability as well as the ability to raise the bike to enhance cornering clearance and sharpen handling. The 2020 S1000RR poses some challenges when lowering the bike due to the design of the rear suspension and various component placements. **As a result, we recommend the purchase of a genuine BMW Repair Manual for S Models K67 (BMW Part Number: 0159983186/Brock's SKU: 998171) to help the installer understand BMW's installation and removal techniques in fine detail.**

These instructions will guide you through the various **Steps (A-D)** of installing and adjusting the Brock's Performance Fully Adjustable Window Link to raise and/or lower the bike while navigating various obstacles and obstructions:

- **A.** Install the Fully Adjustable Window Link with no other mods and adjust to **raise seat height +2" (+50.8mm)** or more. **Use Link Configuration #1**
- **B.** Install the Fully Adjustable Window Link with no other mods and adjust to 1mm clearance from the voltage regulator electrical connector obstruction to **lower seat height approximately -1" (-25.4mm). Use Link Configuration #1**
- **C.** Install the Fully Adjustable Window Link, relocate voltage regulator, main fuse and fuse box, and modify battery tray (rear carrier in repair manual) to **lower seat height approximately -3.00" (-76.2mm)** max. **Use Link Configuration #2**
- **D.** Perform C above in conjunction with a 2" shorter drag shock and inner fender (rear wheel cover) removal or modification to **lower seat height approximately – 4.5" (-114.3mm)** or more. **Use Link Configuration #2**

Tools Required: rear stand (and spools), front stand or bike lift with front wheel clamp, scissor jack, Torx bits (T25, T30, T50), 10mm socket and open end wrench, 16mm, 19mm (or 5/8 and 3/4) open end wrenches, 5mm Allen wrench, 19mm socket and torque wrench, Sharpie marker, safety glasses, Dremel tool with cut-off wheel and sanding roll, hand file, flashlight, motorcycle tie down strap… a 12 pack of beer and the patience of a saint!

Installation Notes:

- Brock's Performance Fully Adjustable Window Link installs using OEM nuts, bolts, and bushings.
- Bike must be properly supported before installation to prevent personal injury or damage to the machine.
- Adjustable kickstand required - Billet Adjustable BrockSTANDs are available at BrocksPerformance.com.

Step A:

Follow instructions in BMW Service Manual (33 54 005 Replacing Link Strut):

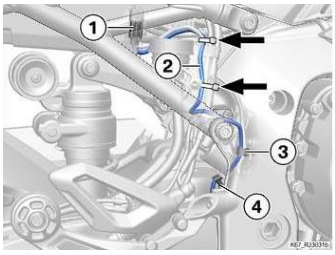
Preparatory work

=> Removing and installing the rear-wheel stand special tool

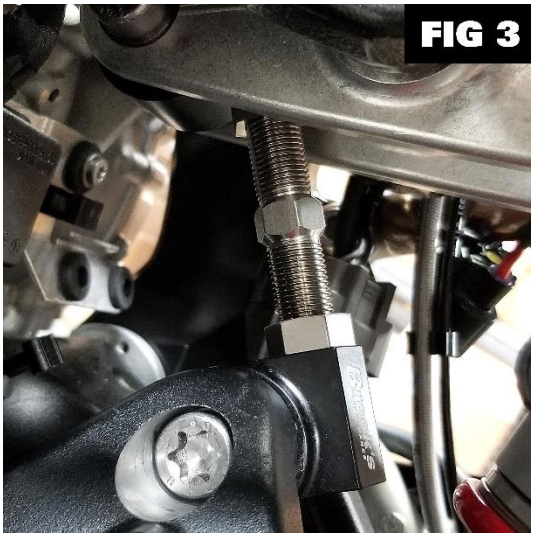
Removing tail-hump cover
Removing rider's seat
Removing complete fuel-tank cover
Removing fuel tank
Remove the left and right engine spoilers
Removing bracket for engine spoiler on right and left
Installing engine lifter
Releasing brake-fluid reservoir, rear
Removing height sensor, rear
Disengaging and lifting rear frame
Releasing spring strut
Removing chain guard
Disengaging link strut

Brock's abbreviated version of Step A:

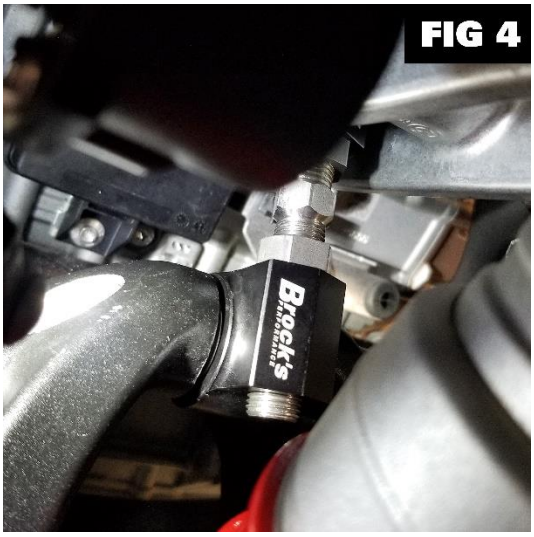
(to view a video of these steps, click here)



1. Secure front wheel in wheel clamp or with front stand. Bike must be secure!
2. Raise rear wheel with rear stand and spools.
3. Remove left and right engine spoilers. (Torx T25)
4. Remove chain guard. (M5 Allen)
5. Mark angle of rear ride height sensor by placing a straight edge along the side of the lever and making a mark on the battery tray. This mark may be used later to recalibrate the DDC after lowering bike. **(FIG 1)**
6. Remove rear height sensor from swingarm (10mm open end) and tie wrap up out of the way.
7. Locate scissor jack under engine.
8. Raise jack a bit to remove shock spring compression. (Do not allow spools to raise out of rear stand)
9. Disconnect DTC wire from clamps to allow slack. **(FIG 2)**
10. Remove lower shock bolt.
11. Raise scissor jack to enhance ability to remove link strut mounting bolts.

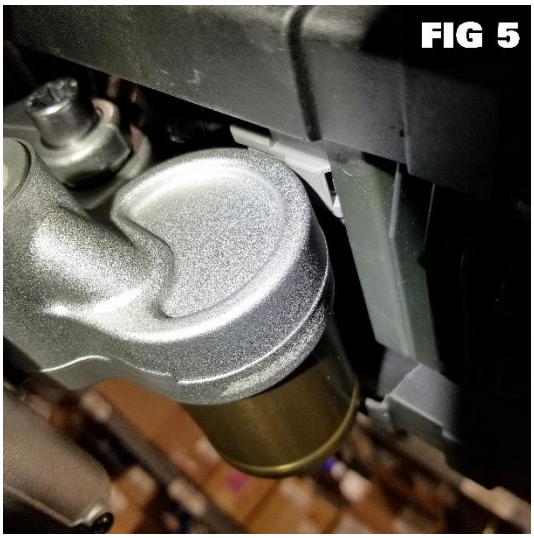


12. Remove link strut mounting bolts M12x75. (Torx T50)
13. Remove OEM link strut.
14. Lubricate with bearing grease and install OEM link strut bushings into the Fully Adjustable Window Link.
15. Install the Fully Adjustable Window Link oriented as shown. **(FIG 3)**
16. Apply blue thread locker and apply to M12x75 threads.
17. Reinstall and torque to 100 Nm (73.75 ft-lb.)
18. Loosen jam nuts on Brock's Performance Fully Adjustable Window link adjustment rod and move toward center of link. Note: forward nut is left hand thread, rear nut is right hand thread.
19. Lengthen center-to-center of link to raise bike. **(FIG 3)** ***Note:*** *See FIG 15 for safe thread engagement measurement*
20. Tighten jam nuts (3/4") against the window link bodies to lock the height adjustment.



21. Brock's Performance Billet Adjustable BrockSTAND Black Road Style S1000RR (15-20) kickstand suggested.
22. Assembly is in reverse of disassembly.

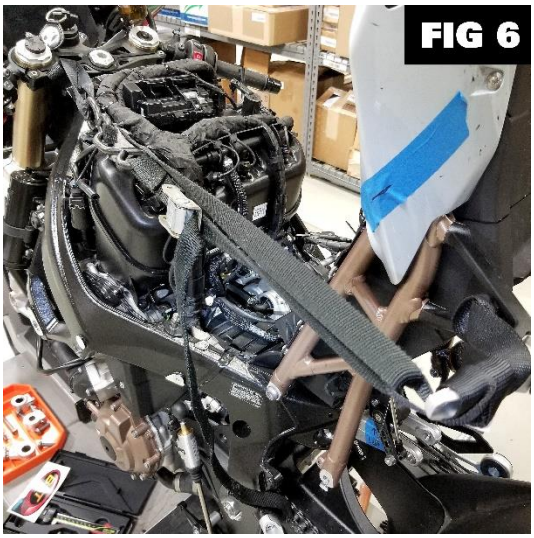
Step B (skip directly to Step C if maximum lowering with OEM shock is desired):



23. Note: Shorten center to center of link to lower bike. **(FIG 4)**
24. Adjust link shorter until the top of the stock shock reservoir nearly touches (@ 1mm clearance required) the voltage regulator connectors. Please note: the shock moves AWAY from the connectors under compression. Adjust link and tighten jam nuts accordingly to make sure shock does not contact connector or wires. Compress and raise rear of bike to verify clearance. **(FIG 5)**
25. Assembly is in reverse of disassembly.

Step C:

In these steps, we assume that you have followed BMW Repair Manual (33 54 005 Replacing Link Strut) noted above to address all of the mechanical disassembly required to lift the tail section of the bike to make room to perform our suggested mods. We will continue from disengaging and lifting rear frame in the manual. **Use link Configuration #2.**



26. Loosen two top rear section bolts mounting one full turn.
27. Remove two lower rear section bolts and remove.
28. Remove battery from bike.
29. Disconnect voltage regulator from bike.
30. Carefully lift the rear section of the bike upward and hold it securely in place using a motorcycle tie down strap to expose bottom of inner fender/battery tray. **(FIG 6)**
31. To lower the bike more from this point requires relocating the voltage regulator as well and modifying the battery tray to allow additional clearance for the shock reservoir. **(FIG 7)**
32. Using a marker, mark the battery tray for clearancing as shown to create an opening approximately 1.18 x 3.14 (30mm x 80mm). **(FIG 8)**

33. Make sure any/all wires are moved out of the way on the opposite side of the battery tray next to the ABS unit, pipe side. **(FIG 9)**
34. Using a Dremel tool with abrasive cut-off wheel (or equivalent) cut and remove the shape. **(FIG 10)**
35. Smooth rough edges with a file or sanding roll in the Dremel. **(FIG 11)**
36. Remove any excess debris from the battery tray and clean around the bike.
37. Lower rear section back down and secure with previous bolts and Loctite blue.
38. Remove voltage regulator mounting plate (it will not be reused), unplug the main 40-amp fuse holder and small fuse box holder from the frame **(FIG 12)** to release locking tabs.
39. Reinstall battery. OEM battery holder will not be reused.
40. Relocate voltage regulator, 40-amp fuse, and small fuse box as shown. **(FIG 13)**
41. Please note: the wire lengths to perform this modification are sufficient – additional slack can be produced by removing and/or relocation the zip ties used to secure the wires in and around the harness.
42. Adjust Brock's Performance Fully Adjustable Window Link shorter until the OEM shock reservoir almost touches the bottom of the battery tray. Allow @1mm clearance and verify clearance with shock compressed as well as unloaded. Clearance between the top of the deflection lever and the bottom of the battery tray and wires should be inspected and any wires that could interfere with moving parts should be zip tied out of the way.
43. Please note: Due to the use of configuration #2 the upper jam nut must be tightened before installation of the gas tank **(FIG 14)** upper jam nut is left hand thread so tightening is to the left. Torque to 62 ft-lb. (84 Nm).
44. Assembly is in reverse of disassembly.
45. Brock's Performance Billet Adjustable BrockSTAND Black Track Style S1000RR (15-20) kickstand suggested.

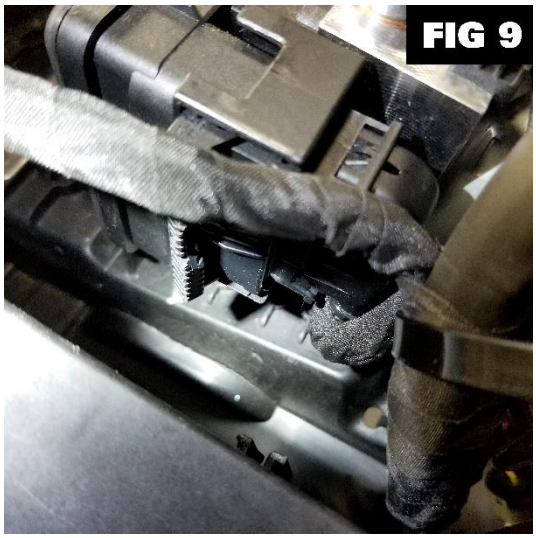



FIG 11

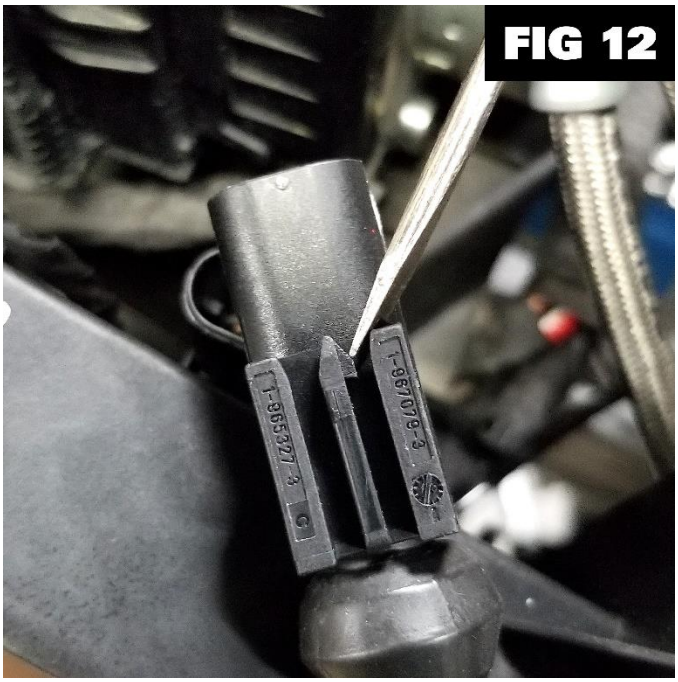


FIG 12

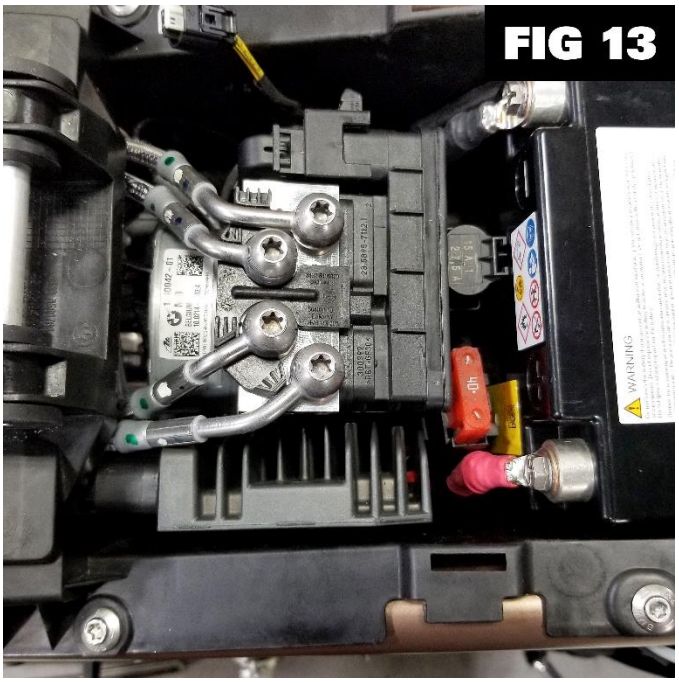


FIG 13


FIG 14

Step D:

The addition of a shortened aftermarket drag shock must be handled in the same manner as listed in Steps A-C above. If shock is short enough and has a remote reservoir, the voltage regulator may not need to be moved and the battery tray may not need to be modified. That said, this must be verified by addressing the steps above. **Use link Configuration #2.** (Note M2 shock part numbers, length settings, etc.)

Final Notes:

- Once the rear of the bike is dropped, the front forks can be lowered in the top clamps to level ride height. Max 3" drop (76.2mm).
- Due to the modified ride height in Steps A-D, the rear DDC shock settings may need to be recalibrated in the dash. See Riders Manual.

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.

CONGRATULATIONS! INSTALLATION IS COMPLETE.

ALL BROCK'S PERFORMANCE PRODUCTS ARE DESIGNED FOR CLOSED-COURSE RACETRACK USE ONLY!

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