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BMW S1000RR (20-25) FULLY ADJUSTABLE WINDOW LINK INSTALLATION INSTRUCTIONS

REV 1: Please note as of 7/28/2021 this document has been revised to mandate the relocation of the voltage regulator, main fuse, fuse box, and modification of the battery tray for <u>any configuration</u> of this link that <u>lowers the bike</u>.

Thank you for purchasing the Brock's Performance Fully Adjustable Window Link (P/N: 240851) for the BMW S1000RR (K67). 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 K67 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 **Setups (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:

Note: For all configurations, ensure that the wrench flats of the adjustment rod are centered between the link ends.

- Setup 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
- Setup B: Install the Fully Adjustable Window Link and relocate voltage regulator, main fuse, fuse box, and modify battery tray (rear carrier in repair manual) to lower seat height approximately -1" (-25.4mm).
 Use Link Configuration #1
- Setup C: Perform Setup A and Setup B to lower seat height approximately -3.00" (-76.2mm) max. Use Link Configuration #2
- Setup D: Perform Setup A and Setup B 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).
 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 <u>Billet Adjustable BrockSTANDs</u> are available at BrocksPerformance.com.

Setup 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 Setup 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)
- 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) <u>Adjustable DDC Leveling Rod #903873</u> is suggested.
- 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 DDC 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.





Disengaging cable for spring strut

- · Remove the cable straps (arrows).
- · Disconnect plug connection (1) for spring strut and release
- Release the cable (2) downwards and from holders (3) and (4).



- 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.

NOTE: If performing Setup B skip steps 19-22 and jump to step 23.

- 19. Lengthen center-to-center of link to raise seat height. (FIG 3) Note: See (FIG 14) 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 <u>Billet Adjustable BrockSTAND Black Road</u> <u>Style S1000RR (15-25)</u> kickstand suggested.
- 22. Assembly is in reverse of disassembly.

Setup B (Follow all instructions in A before beginning B):

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 #1.**

- 23. Remove battery from bike.
- 24. Loosen two top rear section screws mounting one full turn.
- 25. Remove two lower rear section screws and remove.
- 26. 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 4**)
- 27. To lower the seat height from this point requires modifying the battery tray to allow clearance for the shock reservoir. **(FIG 5)**
- 28. 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 6)
- 29. 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 7**)
- 30. Using a Dremel tool with abrasive cut-off wheel (or equivalent) cut and remove the shape. **(FIG 8)**
- 31. Smooth rough edges with a file or sanding roll in the Dremel. **(FIG 9)**
- 32. Remove any excess debris from the battery tray and clean around the bike.
- 33. Lower rear section back down. Apply Loctite blue to all 4 screws and torque to 28 ft-lb. (38 Nm).







- 34. Disconnect voltage regulator from bike.
- 35. 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 10)** to release locking tabs.
- 36. Reinstall battery. OEM battery holder will not be reused.
- 37. Relocate voltage regulator, 40-amp fuse, and small fuse box as shown. (**FIG 11**)
- Please note: the wire lengths to perform this modification are sufficient – additional slack can be produced by removing and/or relocating the zip ties used to secure the wires in and around the harness.
- 39. Note: Shorten center to center of link to lower bike. (FIG 12)

NOTE: If performing **Setup C** skip steps 40 and 41 and jump to step 42.

NOTE: If performing **Setup D** skip steps 40-45 and jump to step 46.

- 40. Adjust link shorter until -1" seat height is achieved. Ensure there is a <u>minimum of 1mm clearance</u> between shock and any framework or body components of bike. Please note: Shock moves away from tail section under compression. Adjust link and tighten jam nuts accordingly to make sure shock does not contact any surrounding components. Compress and raise rear of bike to verify clearance.
- 41. Assembly is in reverse of disassembly.

Setup C (Follow all instructions in A and B before beginning C):

- 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. **Use link Configuration #2.**
- 43. Please note: Due to the use of configuration #2 the upper jam nut must be tightened before installation of the gas tank. (FIG 13) 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 <u>Billet Adjustable BrockSTAND Black Track</u> <u>Style S1000RR (15-25)</u> kickstand suggested.















Setup D (Follow all instructions in A and B before beginning D):

- 46. The addition of a shortened aftermarket drag shock must be handled in the same manner as listed in setups A and B 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. Ensure there is a <u>minimum of 1mm clearance</u> between shock and any framework or body components of bike. **Use link Configuration #2.**
- 47. Please note: Due to the use of configuration #2 the upper jam nut must be tightened before installation of the gas tank. **(FIG 13)** upper jam nut is left hand thread so tightening is to the left. Torque to 62 ft-lb. (84 Nm).
- 48. Assembly is in reverse of disassembly.
- 49. Brock's Performance Billet Adjustable BrockSTAND Black Track Style S1000RR (15-25) kickstand suggested.

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. <u>Adjustable DDC Leveling Rod #903873</u> is suggested for use with this product.



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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