



Brock's Performance Products • 4064 East Patterson Road • Dayton, OH 45430 • Phone: 937-912-0054 • Fax: 937-912-0062

Installation Instructions For BMW S 1000 RR (2010-12) Air Shifter Cylinder Kit

The Brock's Performance Air Shifter Cylinder Mounting Kit is designed to bolt on to the S 1000 RR OEM shift lever with no modifications required. This mounting kit is designed to function with the optional OEM shift assistant in standard pull configuration. Without the OEM shift assistant, an aftermarket engine kill will be necessary.

PACKAGE CONTENTS

1. One (1) Lever Bracket Assembly
2. One (1) Cylinder Mount Assembly
3. One (1) Cylinder Mount Adapter Nut
4. One (1) M10 Flat Washer



INSTALL CYLINDER MOUNT

While supporting the upper rear engine mount bolt on the right side, remove nut from the left side. See figure 1.

Install the M10 flat washer and adapter nut, torque to 41.3 ft-lb (56 Nm). See figure 2. Be sure to support the bolt from the opposite side, the bolt head must remain in the slot.

Insert the bushing onto the bolt and slide into the cylinder mount. Apply a drop of red Loctite to secure the bolt. See figure 3.

Install the cylinder mount onto the adapter nut and tighten to 50 in-lb (4.2 ft-lb). DO NOT OVERTIGHTEN. The mount will spin freely when installed. See figure 4.

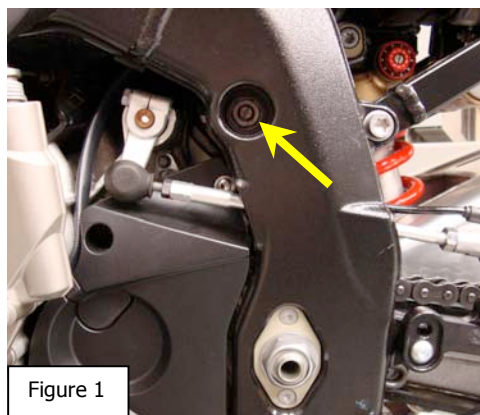


Figure 1

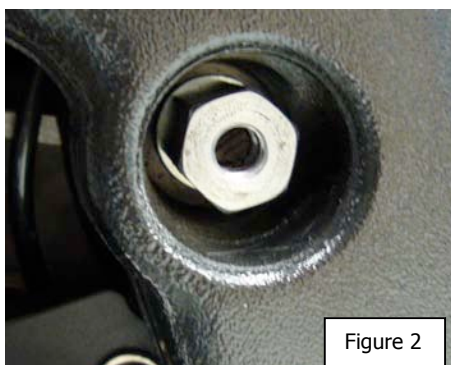


Figure 2



Figure 3



Figure 4

INSTALL LEVER BRACKET

Place the lever bracket over the end of the shift lever. Slide the lock plate behind the rubber cover, secure the lock plate with the (2) flat head screws using a light removable thread locker. See figure 5.

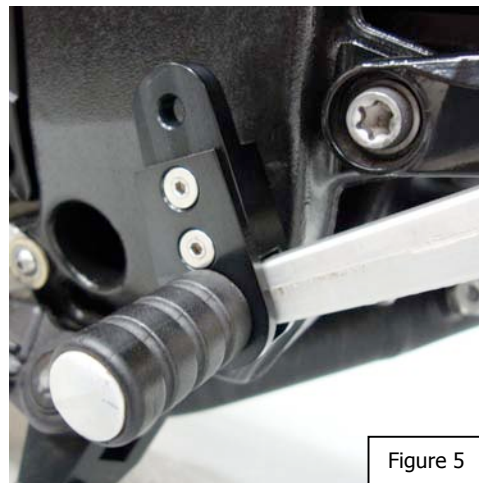


Figure 5

INSTALL AIR CYLINDER

Install the cylinder, slide the pin into the bracket, tighten the (2) button head screws, and secure using a light removable thread locker. See figure 6.

Connect the clevis to the lever bracket with the pin and retaining clips. See figure 7.



Figure 6



Figure 7

FINAL CHECK AND TESTING

Perform a final verification of the proper shift lever travel. We recommend 3/16 – 1/4 inch away from bottoming out the shift cylinder throughout the entire gear range (up and down). With the engine off and the rear wheel elevated, rock the rear wheel back and forth with your right hand while manually operating the shifter with your left to verify. See figure 8.

If there is a loss of travel or bind, investigate the problem - DO NOT OPERATE the machine until resolved.

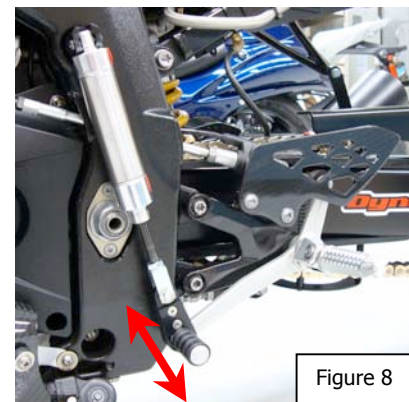
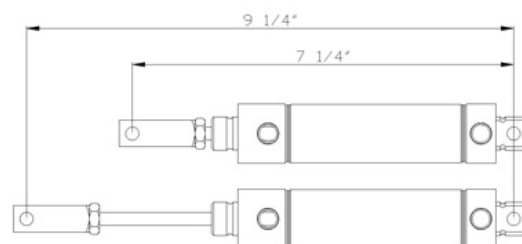


Figure 8

NOTE ABOUT AIR CYLINDER SIZE

This kit is designed for a 2 inch stroke air cylinder with a mounted length of 8 1/4 inches. Cylinder lengths would be 7 1/4 inches retracted to 9 1/4 inches extended, centering the stroke of the cylinder with the shift lever at rest. The position of the shift lever may need to be adjusted to obtain these dimensions, consult a service manual for shift lever adjustment procedure.

Contact Brock's Performance to obtain the correct size air cylinder.



Reference for Air Shifter Cylinder Measurement

Brocks Performance Products are designed for Closed-Course Race Track use ONLY.
 Brocks Performance Products policies and warranty information: www.BrocksPerformance.com
 For additional information: Check our [Information Forum](http://www.BrocksPerformance.com) at www.BrocksPerformance.com
 E-mail advice@BrocksPerformance.com or call the Order Line 937-912-0054.