

1. Simple: Remove OEM parts and Install RB Racing 00-6007 parts.

2. Complex:

Download pdf shop manual from RB Racing's website <http://www.rbracing-rsr.com/blackhole/bmwr1100exhausts.html>

Study this get busy.



Poor Ducatiesque R1100S high pipe bike. All show no go. 86 lousy horsepower.

If you want to perk up your Beemer, and get rid of a bunch of weight then the 00-6007 Kit frees up your inlet and exhaust and gives you a true racing, merge collector, exhaust and a revised fuel system. Pump more air and you make more power...The real benefit is gains in rpm per second i.e. goose it, and you get point to point quicker. Those 60-80 times need to get into the low 4 second range if you are going to eat the opposition in the canyons. Stock 60-80 times are 5 seconds. These are the real gains we are after. Nothing is going to get you 150hp.

Nothing you are going to do is going to whip a Hayabusa unless you get one of our 240 hp turbo Kits. Your stock bike has about 86 hp...A Hayabusa has double that.
<http://www.rbracing-rsr.com/bmwR1100.html>

RB Racing's LSR 2-1 Black Hole Exhaust and Revised inlet and fuel system is the only logical performance development for the R1100S....short of a turbo.



This is the thing you may be getting rid of. It's not a performance part.

You have to remove the oem exhaust and the tail light assembly which is part of the rear muffler section. Please note that you are going to have to loosen the left rear quarter panel which has the usual hidden screws so the wiring harness that goes to the tail light can be unplugged. Also, the O2 sensor can be unscrewed using an 7/8" open end wrench. The wires will twist about three turns in the process. When you reinstall the sensor in its new location just twist it 3.5 times ccw and screw it back into its new location.

You do not have to unplug the O2 sensor up under the tank nor unwind any of the wiring by cutting plastic tie wraps. The O2 signal wire is black.

Special Note



Special Note:

The left rear turn signal is held on by a screw that protrudes WITH A SHARP POINT inside the fender area. You must grind this screw to a flat point or it WILL SCRATCH YOUR BLACK HOLE MUFFLER while you are wiggling it onto the rubber socketed dowel under the tail section.



When you get around to Installing the RSR Air Fuel Ratio Gauge, cut the O2 wiring sheath back and either use Scotch Lock the Green Wire from RSR meter to the black signal wire. Installation instructions for the RSR Air Fuel Ratio Gauge are downloadable from RB Racing's website rbracing-rsr.com:

http://www.rbracing-rsr.com/downloads/RSR_O2_install.pdf

Some people have "chips". Whether you do or don't you set the fuel pressure to 46.5 psi (3.2 Bar). Wind the bike out to warp drive in high gear and adjust the fuel pressure so w.o.t. is in the last orange light. First red light under initial hard loading.

Gas Tank Removal



There are two fuel lines on the right side of the tank leading to the airbox where the fuel pressure regulator hides. You can remove the plastic guide that held the oem hard lines. The top hose is feed from pump (will not leak). The lower one is the return or bypass line from the regulator and it will leak. You have to clamp off or plug the return line or you will get a steady stream of gasoline all over the place.



Air Box Removal:

The air box has to go. Refer to the pdf manual for removal of this item. Suffice to say BMW put the air box on, then installed the rear subframe. The only item we retain is the air snorkel on the right side of the above picture. It will direct cool air to the area under the seat.

The bike has to be supported underneath and the rear wheel has to be removed.

You do not have to unbolt the swingarm pivot but you do have to slide the whole subframe back which entails unplugging all electrics, wire ties, and detaching hard brake lines so the subframe can move back and up.

If you pull the subframe back too far, the drive shaft will slip off it's spline at the differential.

The crude method is to get out the hammer and chisel and hack the air box out without removing anything. This also works.

In any case, don't forget to unscrew the air temp sensor from the airbox. The O-Rings on the throttle bodies can be stored away with the rest of the parts you are removing and we supply newer, fatter ones for our Zero Restriction Inlet System. The air temp sensor simply gets plastic tie wrapped out of the way so it can sense ambient temperature.

The oem airbox has 8mm studs inside the upper frame rails. These studs will be used to hold the new powder coated brackets that hold the new induction tubes.



The fuel lines and injectors can be removed along with the oem regulator assembly. Leave the lines attached to the injector feed caps as we are going to replace all these lines.

LSR 2-1 Black Hole Exhaust



The RB Racing LSR 2-1 Black Hole exhaust simply sockets into the front ports (reuse the oem gasket)....and it sockets or slides onto the dowels under the tail section. Springs are provided for the left side slip and for the muffler.



Springs are provided for the left connector tube and for the “Y Pipe / Collector to the Black Hole Muffler section.

License Plate Assembly



We provide a new license plate bracket that sockets onto the 2nd dowel under the tail section. The flat tab of the license plate bracket bolts on top of the mating flat plate on the exhaust cannister. A 5/16 x 18 x 1 bolt holds the two together.

We provide a L.E.D. license plate light that has spade connectors that mate to the oem harness.

Fuel System...Right Throttle Body Fuel Rail



The new injectors are held in place by a pivoting laser cut stainless steel plate circlipped to two new cnc machined (blue) injector feeds (left and right) and supported by stainless dowels. 5mm x 35mm stainless socket head cap screws are provided.

The left and right injector caps each have two ports. The fuel goes from the fuel pump to the 45 degree fitting on the right injector cap. Screw clamps (7mm hex) are provided for all hose to fitting connections. The straight fitting on the right injector cap connects via a 5/16" (8mm) efi hose to a 5/16" 45 degree fitting on the left injector cap.

We provide new, fatter, O-Rings for the throttle bodies.

Left Throttle Body Fuel Rail



The left injector cap has a 45 degree 3/8" (10mm) fitting for the return line which connects to the RB Racing Billet Bosch Regulator. The fuel does not "dead head" like the oem system. Fuel is constantly bypassed in the fuel rails.

Vacuum Lines



A vacuum line connects the two throttle bodies to the top of the Bosch Billet Fuel Regulator. Two clamps are provided for the hose to throttle body connections. No clamps are needed on the tee. Manifold pressure will track fuel pressure 1:1 unlike the oem system which will slightly lower fuel under vacuum and raise fuel delivery under low vacuum (full throttle) compared to the non-referenced oem regulator.

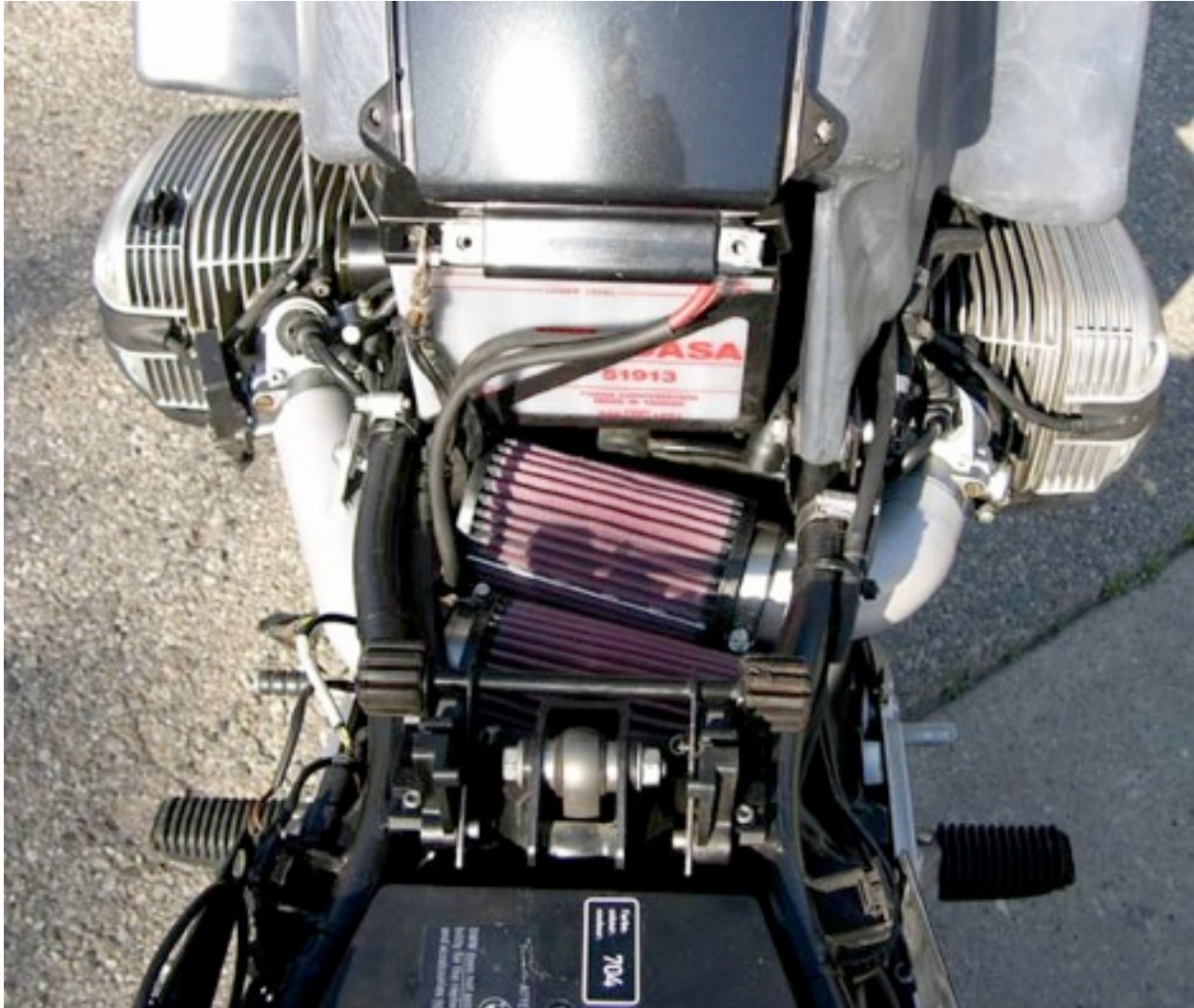
Installer must set fuel pressure to 46.5 psi. Stock Fuel pressure is 43.5.

Mounting the Connector Tubes



Right Zero Restriction tube is the shorter of the two. Powder coated brackets provided bolt to the inside of the frame rail on the oem 8mm studs. The tubes bolt to the outside of these black brackets with the stainless steel button head screws provided.

Air Cleaner Positioning



The two large K&N air cleaners clamp to the tubes. Note that the air cleaners have an angled mount. Rotate the cleaners so they are parallel to each other. Here the cleaners are shown on a 2000 R1100RT which we also offer a Black Hole exhaust and Zero restriction inlet system.

Bosch Billet Fuel Regulator



Regulator mounts on right side of transmission just above the new O2 sensor location. The return port next to the 12mm mounting nut faces forward. It must be set to 46.5 psi (3.2 Bar). Oem Pressure is 43.5. To adjust pressure remove acorn nut, loosen lock nut and use screwdriver. CCW to lessen. CW to increase. Fiber seal washers under both jam and acorn nut.

Return or Bypass Fuel



The 1/4 return line goes from base of regulator (12mm nut end) to tank return line. Use 1/4 x 5/16 machined reducer/coupler. Note the clamps are two sizes, one for 1/4 and one for 5/16.

An Adel clamp is provided to hold the return line to the frame. Care must be taken to insure the return line does not interfere with the throttle pulley. Rotate the throttle and position the return hose so it cannot touch the rotating mechanism.

We also provide a breather hose which inserts into the oem breather machined connector. Route the hose to the rear of the bike and secure with the plastic ties provided.

Test fuel system and check for any leaks. Make sure all clamps are tightened.

Put all the zillion screws and bodywork back on and go riding.

In case you need an extra 100 or so horsepower there is always a turbo.

