

# **MSD** **IGNITION** **INSTALLATION INSTRUCTIONS**

## **MSD SB6 Programmable Ignition for the Hayabusa GSXR1300 PN 4227**

### **Parts Included:**

1 - Ignition

1 - Wiring Harness

1 - Parts Bag

1 - CD ROM

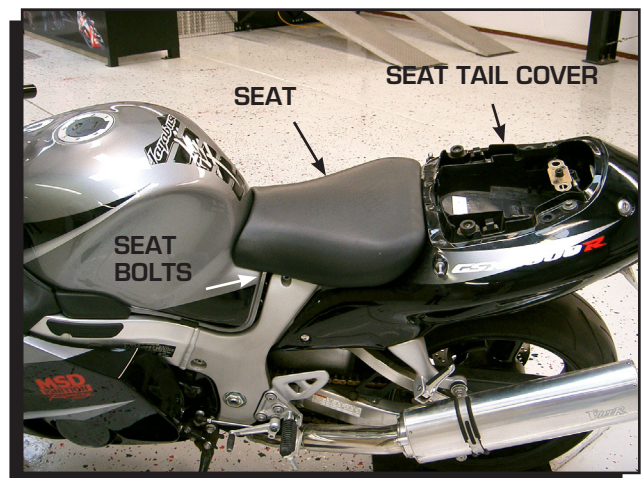
**WARNING:** When installing the SB6, disconnect the battery cables. When disconnecting, always remove the negative cable first and re-install it last.

**Note:** It is recommended to have the Service Manual available to verify correct panel removal and wiring since models can vary by year. It is recommended to contact the MSD Technical Help Desk for programming questions at 888-258-3835. The software is also available on the website at [www.msdpowersports.com](http://www.msdpowersports.com).

These instructions detail the installation and wiring process of the ignition. Details in programming the SB6 Ignition are provided on the supplied CD in the Help menu or with the Programming Instructions.

### **DISASSEMBLY**

1. Remove the seat tail cover and remove the seat bolts to lift the seat (Figure 1).



**Figure 1 Removing the Seat and Tail Cover.**

2. Remove the two 4mm Allen head bolts at the front of the gas tank. Lift the tank from the front and prop it up (Figure 2). Note that the tank does not need to be removed.



**Figure 2 Propping the Fuel Tank.**

3. Remove the two 4mm screws from the center dash (A) and from the side dash (B) as shown in Figure 3.

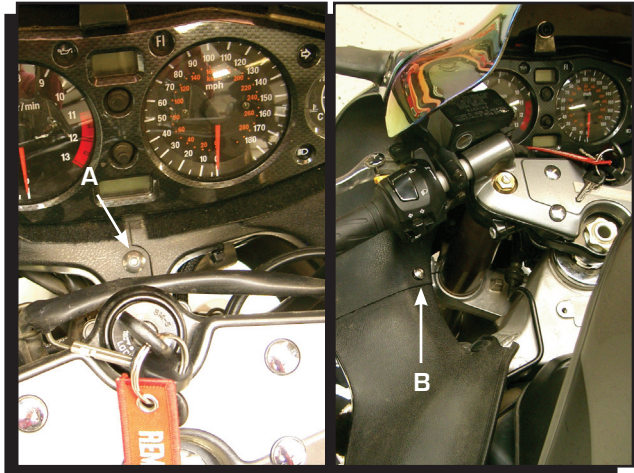


Figure 3 Dash Screw Removal.

4. Remove left panel fastener located under the nose, near the radiator (Figure 4).

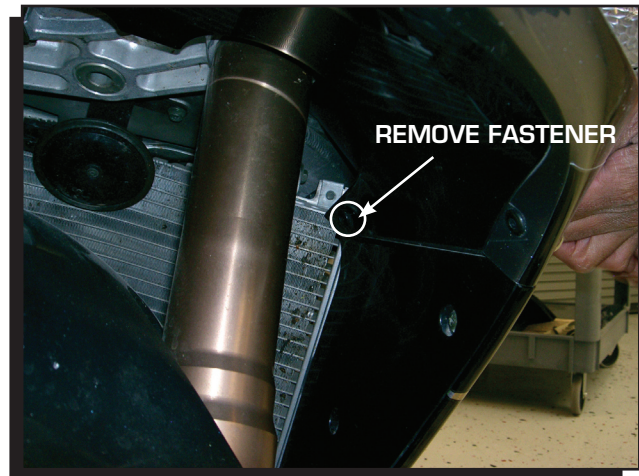


Figure 4 Left Panel Lower Fastener.

5. Remove the bolts identified in Figure 5. There is also a pin that secures the panel. Slide the panel and remove from the bike.

**Note:** There are nine socket head screws and two plastic pins.

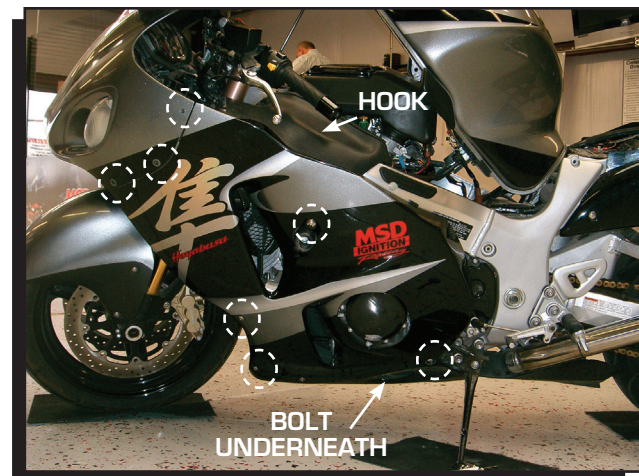


Figure 5 Left Side Panel Removal.

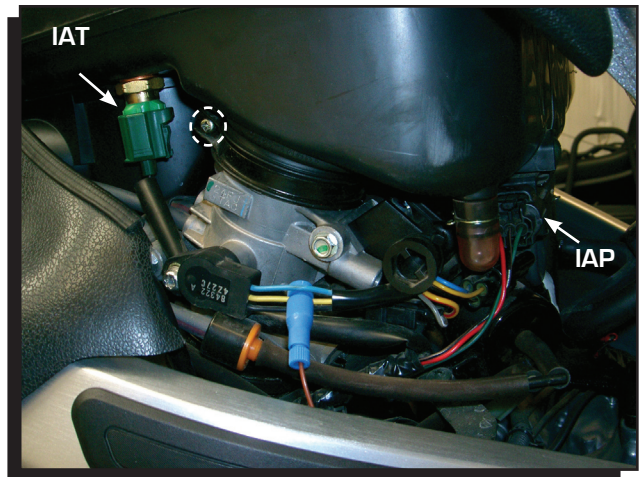


6. Remove the plastic rivet from the left side of the windshield by pushing in the center pin and gently prying it out with a small screwdriver. (Figure 6).



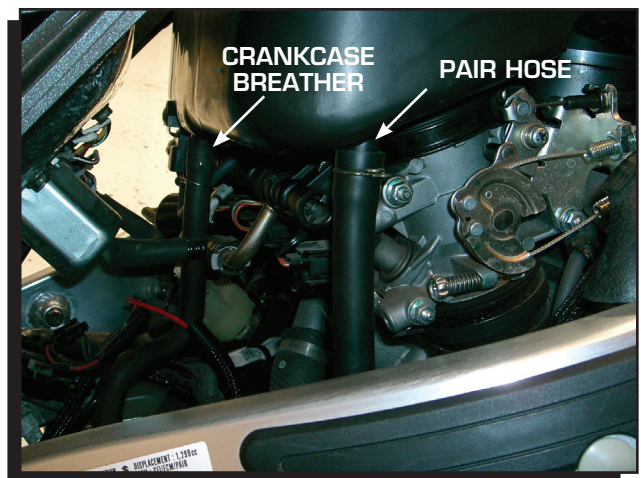
**Figure 6 Removing the Windshield Rivet.**

7. Loosen the throttle body clamps on both sides of the bike and remove the 10mm bolt on top of the air box. Disconnect IAT sensor and IAP sensor (Figure 7).



**Figure 7 Disconnect IAT sensor and IAP sensor.**

8. Disconnect the crankcase breather hose and PAIR hose (Figure 8). Carefully lift the air box to disconnect the two vacuum hoses from the intake control valve actuator then remove air box.



**Figure 8 Removing the Air Box.**

PIN LOCATION		WIRING			
Black	11	Connect to Ground.			
Red/Black	16	Splice to the factory speed sensor Pink wire.			
<b>Crank Sensor Connectors, 2-pin</b>					
Green	1	Crankshaft Sensor reference.			
Violet	14	Crankshaft Sensor signal.			
<b>Input</b>		<b>Coil Connectors, Four 2-Pin Connectors</b>		<b>Output</b>	
Green	2	Coil 1 input.	Black/Orange	25	Coil 1 Trigger.
White	7	Coil 2 input.	Black/White	26	Coil 2 Trigger.
Yellow	4	Coil 3 input.	Black/Yellow	13	Coil 3 Trigger.
Violet	20	Coil 4 input.	Black/Red	9	Coil 4 Trigger.
Red Jumper		12 volts.			
<b>Accessories</b>					
Blue	17	2-Step. Activates the MSD launch rpm setting when grounded. Connects to the clutch switch Yellow/Black wire.			
Brown	15	Step Retard. When connected to 12 volts, the timing will retard.			
Orange	3	Shift Light. Provides 12 volts to activate a shift light.			
Yellow/Black	18	Shift Kill. When connected to ground the ignition output is disabled.			
Red	5	0-5 Volt Sensor Input. Connect to any sensor that outputs a 0-5 volt signal.			

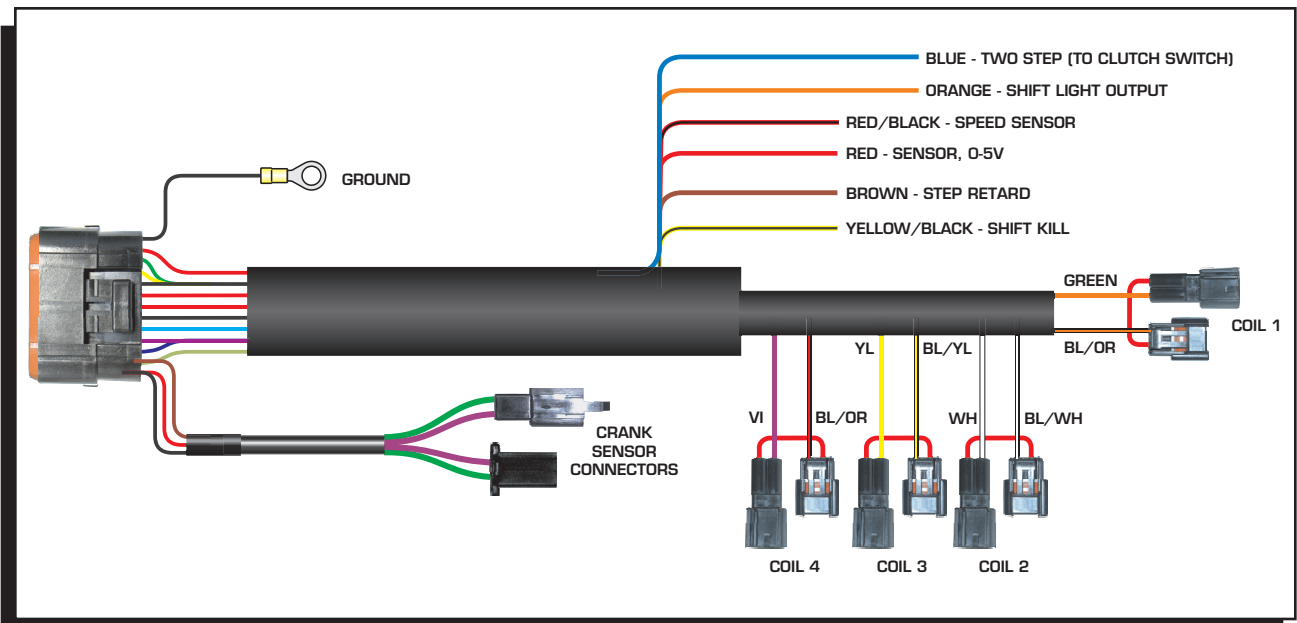
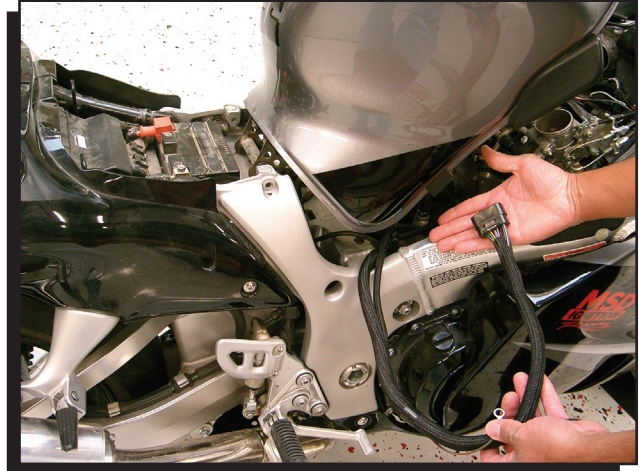


Figure 9 Wiring of the SB6 for the Hayabusa GSXR1300.



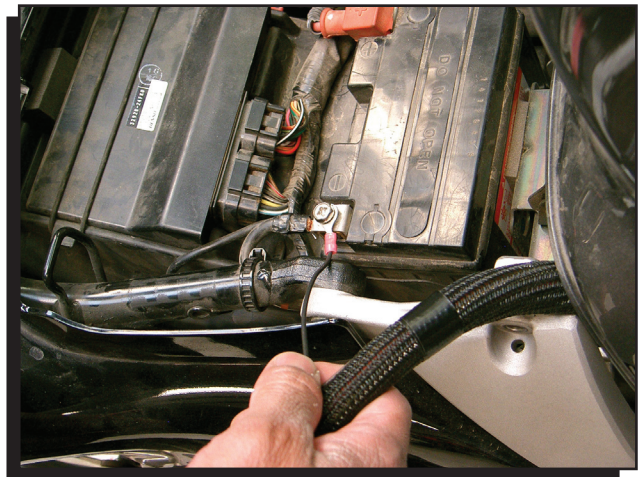
**INSTALLATION**

1. For easy access, the SB6 can be secured under the seat with a strap or Velcro®. Route the MSD harness on the right side of the bike, allowing the coil end of the harness to reach the furthest coil (Figure 10). Route the harness towards the rear under the tank and past the battery.



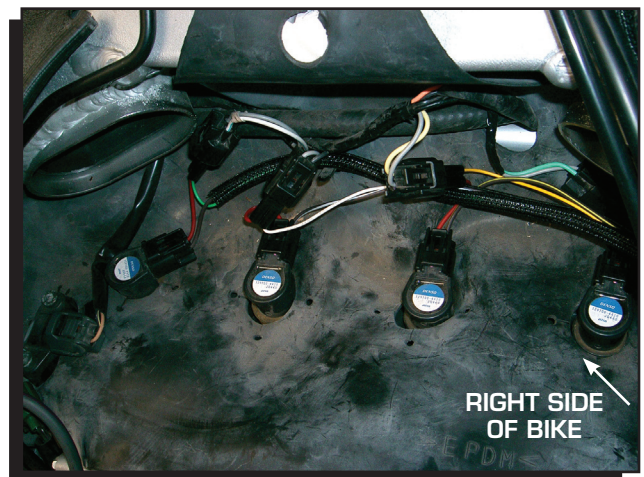
**Figure 10 Routing the Harness.**

2. Install the MSD Black wire to the negative side of the battery terminal (Figure 11).



**Figure 11 Grounding the SB6.**

3. Disconnect the OEM coil connectors and plug the MSD harness into the coils. Then plug the OEM connectors that were unplugged from the MSD harness. The harness is cut to length and numbered. (Figure 12).



**Figure 12 Coil Connections.**

4. Locate the black 2-pin Crank connectors under the tank and plug the MSD harness inline (Figure 13).

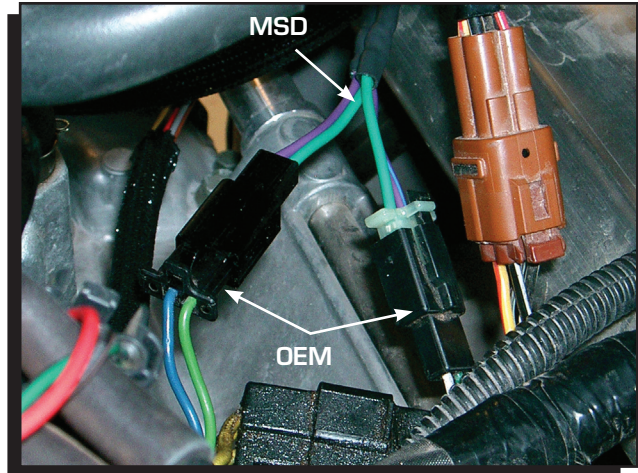


Figure 13 Crank Sensor Connections.

5. Locate the black 3-pin Speed sensor connector on the left side of the bike. Splice the OEM Pink wire with the MSD Red/Black wire using the supplied tap (Figure 14).

**Note:** See Figure 16 for proper use of the supplied Wire Taps.

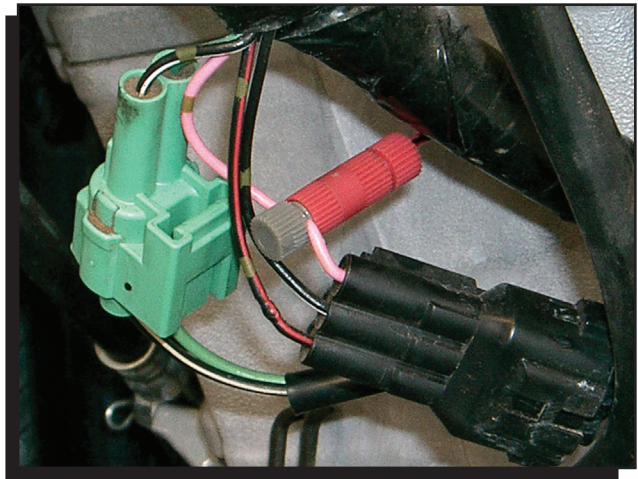


Figure 14 Speed Sensor Splice.

6. Locate the yellow 12-pin connector under the left side of the dash. Tap the OEM Yellow/Black clutch wire with the MSD Blue wire (Figure 15).

This completes the wiring and installation of the SB6. To start the engine, it is recommended to position the rotary switch to position 0.

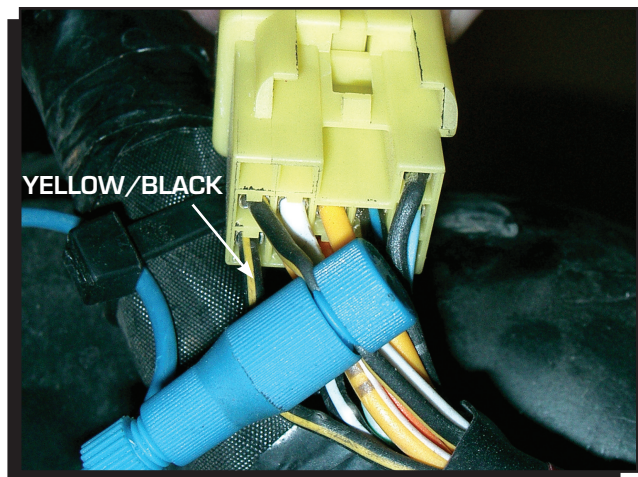


Figure 15 Splicing into the Clutch Switch.







# INSTALLATION INSTRUCTIONS

## TECH NOTES

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### Service

In case of malfunction, this MSD component will be repaired free of charge according to the terms of the warranty. When returning MSD components for warranty service, **Proof of Purchase** must be supplied for verification. After the warranty period has expired, repair service is based on a minimum and maximum fee.

**All returns must have a Return Material Authorization (RMA) number** issued to them before being returned. To obtain an RMA number please contact MSD Customer Service at 1 (888) MSD-7859 or visit [www.msddignition.com/rma](http://www.msddignition.com/rma) to automatically obtain a number and shipping information.

When returning the unit for repair, leave all wires at the length in which you have them installed. Be sure to include a detailed account of any problems experienced, and what components and accessories are installed on the vehicle. The repaired unit will be returned as soon as possible using Ground shipping methods (ground shipping is covered by warranty). For more information, call MSD Powersports at (915) 858-3365. MSD Powersports technicians are available from 8:00 a.m. to 5:00 p.m. Monday - Friday (mountain time).

### Limited Warranty

MSD IGNITION warrants this product to be free from defects in material and workmanship under its intended normal use\*, when properly installed and purchased from an authorized MSD dealer, for a period of one year from the date of the original purchase. This warranty is void for any new products purchased through auction websites. If found to be defective as mentioned above, it will be repaired or replaced at the option of MSD Ignition. Any item that is covered under this warranty will be returned free of charge using Ground shipping methods.

This shall constitute the sole remedy of the purchaser and the sole liability of MSD Ignition. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representation whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall MSD Ignition or its suppliers be liable for special or consequential damages.

\*Intended normal use means that this item is being used as was originally intended and for the original application as sold by MSD Ignition. Any modifications to this item or if it is used on an application other than what MSD Ignition markets the product, the warranty will be void. It is the sole responsibility of the customer to determine that this item will work for the application they are intending. MSD Ignition will accept no liability for custom applications.