MSD SB6 Programmable Ignition for the Kawasaki ZX-14 PN 4219

Parts Included:

1 - Ignition 1 - Wiring Harness 1 - Parts Bag 1 - CD ROM

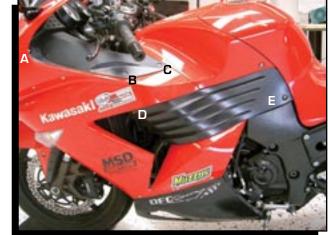
WARNING: When installing the SB6, disconnect the battery cables. When disconnecting, always remove the negative cable first and re-install it last.

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 when programming, 888-258-3835. The software is also available on the website at 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 dash screws A, B and C on left and right side of the bike then remove dash cover assembly (Figure 1).
- 2. Remove panel's screws D and E on left and right side of bike. Gently remove the side covers (Figure 1).



3. Use care to remove the tank cover. Carefully lift the front tabs on both sides and slide the cover forward. Once the tabs have cleared, lift the cover off (Figure 2).

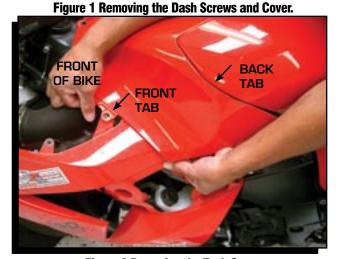


Figure 2 Removing the Tank Cover.

4. Remove the plastic rivet located on the bottom cover behind the front wheel (Figure 3). This will loosen the left and right side panels. Then remove the two plastic rivets under the headlight to remove the panels (Figure 4).



Figure 3 Bottom Cover.



Figure 4 Removing the Headlight Panels.

5. Lift the panel tab over the boss to release panel (Figure 5).



Figure 5 Panel Removal.

6. Before removing the side panels, disconnect the turn signal connector (Figure 6). Slide the panels down to remove.



Figure 6 Disconnecting the Turn Signal.

7. The front of the gas tank needs to be propped up to access wiring. Remove the four 10mm bolts (Figure 7). Note that the tank does not have to be removed. It can be propped up to gain access to the harness.

With the panels removed and the tank propped up, the installation can begin. Page 4 shows all of the wiring of the MSD SB6. The unit can be mounted with Velcro or secured under the seat.

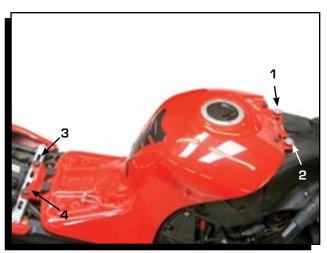


Figure 7 Prop the Gas Tank Up.

PIN WIRING						
Black	11	Connect to Ground.				
Red/Black	16	Connect to the factory speed Sensor Yellow wire.				
Gray	22	Gear Position Sensor wire. Splice into the factory Red/Green wire.				
Crank Sensor Connectors, 2-pin						
Red	1	Crankshaft Sensor positive.				
Black	14	Crankshaft Sensor negative.				
Input Coil Connectors, 6-Pin Output						
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	8	12 volts.	Red	8	12 volts.	
Accessories						
Blue	17	2-Step. Activates the MSD launch rpm setting when grounded. Connects to the clutch switch 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.				

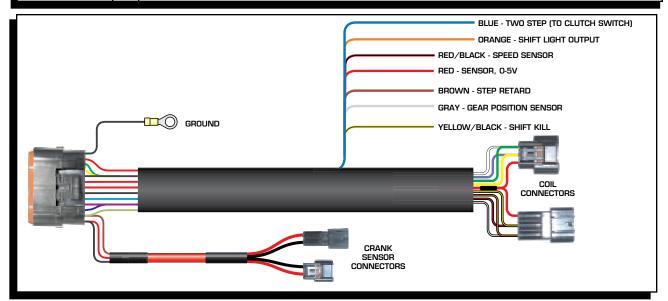


Figure 8 Wiring of the SB6 for the Kawasaki ZX-14.

INSTALLATION

1. The MSD unit can be secured with a strap or Velcro® under the seat for easy access. Route the harness below the tank support bracket. Connect the ground eyelet to the bracket (Figure 9).



Figure 9 Grounding.

2. Locate the OEM Crank connectors on the right side of the bike, behind the throttle bodies (parallel to the ground bolt). Connect the MSD harness inline (Figure 10).

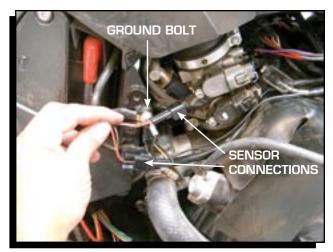


Figure 10 Crank Position Connection.

 Locate the OEM 6-pin connectors on the left side of the bike. Remove the bracket bolt to access the connectors. Plug the MSD harness inline to the connectors (Figure 11 and 12). Reinstall the coil connector bolt.



Figure 11 Coil Connector Location.

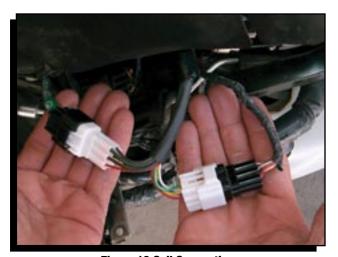


Figure 12 Coil Connections.

4. Locate the Gray 4-pin connector on the left side of the bike. Using the supplied splice connector, splice the Gray MSD wire into the Red/Green wire of the factory Gear Position Sensor (Figure 13).

See how to properly use the Wire Taps in Figure 15.



Figure 13 Splicing into the Gear Position Sensor.

 Locate the 3-pin Black connector of the Speed Sensor on the left side of the bike. Splice the Red/Black wire of the MSD to Yellow factory wire (Figure 14).

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 14 Splicing into the Speed Sensor Wiring.

WIRE TAP INSTALLATION

- 1. Insert male end cup into wire to be spliced.
- 3. Hand tighten barrel into male end cup.
- 3. Strip wire approximately 3/8" (10mm).
- 4. Insert wire into male end exposing only bare wire.
- 5. Hand tighten male end to barrel.

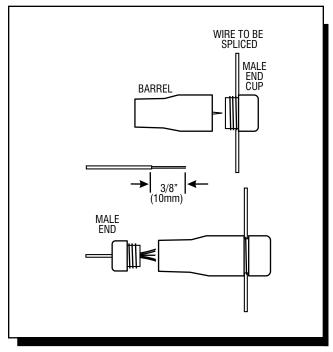


Figure 15 Wire Tap.

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.msdignition.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.