Owner's Manual

POWER PLUS 100 IGNITION PERFORMANCE PACKAGE P/N ASM5010 & ASM5014

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MANUAL P/N EI5010
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CHAPTER 1 INTRODUCTION

1.1 General Information

Your Power Plus 100 Ignition Performance Package is designed to increase torque and horsepower by using a more aggressive ignition curve. This also results in better "drivability". These kits include a single point ignition module, coil, and programming software. ASM5014 adds the ASM2100C interface cable

Note: ASM5010 does not *include the ASM2100C interface cable, as it is designed for dealers and installers that already have a cable).*

Note: Your ignition system is shipped from the factory with a performance ignition program already loaded into the ignition module. Use of the software for operation is not required. However, the software may be used to make adjustments to the program if desired.

Note: This kit is designed for Indian Chief w/Indian Motorcycle PP100 engine only.

1.2 Tools Required

The installation of the ignition performance package can be completed with these basic hand tools:

- small thin blade screwdriver
- 5/32" Allen wrench
- 3/16" Allen wrench
- 7/16" open end/box end wrench
- 10mm open end/box end wrench
- inch-lb torque wrench

CHAPTER 2 SYSTEM INSTALLATION

2.1 Factory Ignition Coil Removal

1. Remove the seat.
2. Disconnect the negative battery cable from the battery
3. Remove both halves of the ignition switch center fairing from under the seat.
4. Remove the dash/console assembly (unplug the two connectors to completely remove it).
5. Remove the stock coil cover, coil (including the stock coil harness and 4-socket connector—see Figure 7), and spark plug wires.

2.2 Performance Ignition Coil Installation

1. Locate the new coil on the new coil cover, aligning the bolt holes.
2. Insert the 1/4-20 x 2-1/4" socket-head cap screws through the coil cover, spacer strap, and coil.

Note: Due to manufacturing tolerances, you may need to enlarge the coil mounting holes slightly for proper bolt alignment.

3. Using the supplied Loctite® packet, apply Loctite® to the threads of the 1/4-20 x 2-1/4" socket-head cap screws.
4. Start the bolts into the motor mount, and torque them securely to 120 in-lbs.
5. Route the new spark plug wires between the cylinders to the correct spark plug.

*Note: As installed on the bike, the **front** wire connects to the **front** cylinder, and the **rear** wire connects to the **rear** cylinder.*

6. Ensure that all the spark plug connections are "snapped" securely in place.
7. Ensure that there is adequate clearance between the coil, spark plug wires, wiring, and surrounding parts.

2.3 Factory Ignition Module Removal

1. Remove the stock ignition module mounting and ground wire bolts.
2. Unplug the 6-pin Deustch connector.

3. Remove the factory ignition module.

2.4 Performance Ignition Module Installation

1. Using the supplied Loctite® packet, apply Loctite® to the threads of the 1/4-20 hex-head cap screws.

2. Place the Performance Ignition Module against the frame mounting plate, and align the bolt holes.

Note: If the mounting holes in the ignition module are threaded, drill them out with a 1/4" drill.

3. Insert the 1/4-20 hex-head cap screws, and torque them securely to 120 in-lbs.

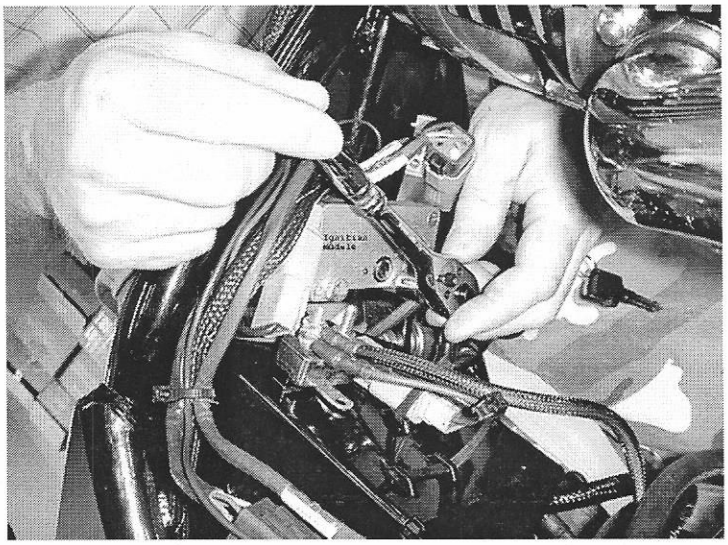


Figure 1—Ignition Module Installation

4. Reconnect the factory ground wire in the original location.

2.5 Performance Ignition Module Electrical Connections

1. Locate the ignition harness connector on the main wire harness (on the right side of the bike) from Section 2.3, step 2.

2. Insert a small, thin-blade screwdriver between the orange face and the black housing of the connector, and pry out gently. The outer wedge lock should disengage from the housing.

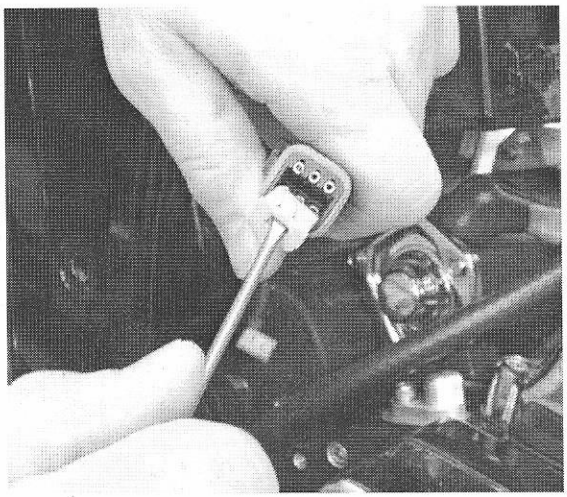


Figure 2—Connector Wedge Lock Removal

3. With the wedge lock removed, look into the black housing. Five (5) pin sockets, and one white block-off pin will be visible.

4. Turn the connector over, and look at the back (wire side). Each terminal is identified with a number. The block-off pin should be in location "6."

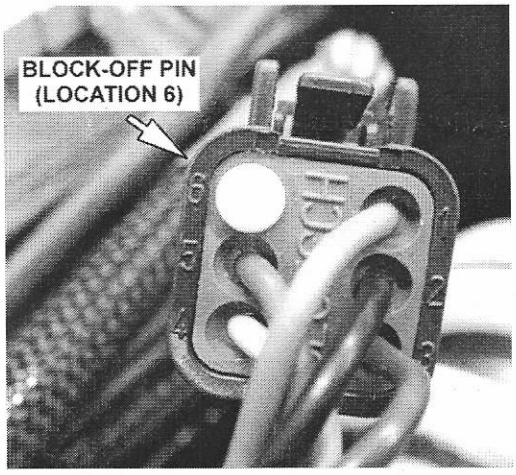


Figure 3—Block-Off Pin Location

5. Push the white block-off pin out of the connector (towards the wire side of the connector).

6. Replace the block-off pin with the socket of the blue wire (supplied) at location "6", and push it into the housing until it "snaps" into place.

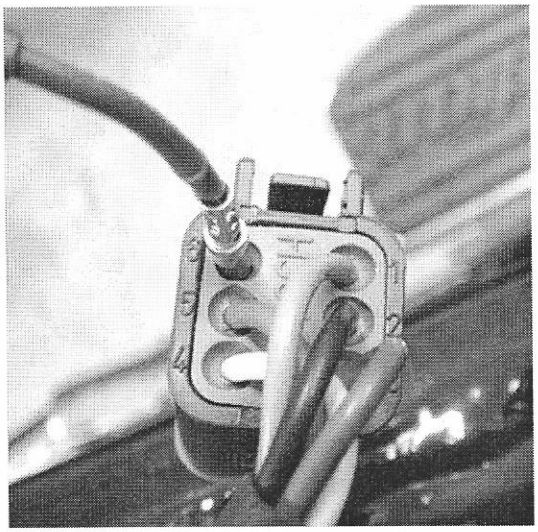


Figure 4—Blue Wire Installation

7. Turn the switch over and look into the housing. Verify that the installation is correct by comparing the blue wire's socket to the other installed sockets.

8. Align the outer orange wedge lock, and snap it back into place.

9. Connect the ignition module connector into the ignition harness connector on the main wiring harness.

Note: If your bike is equipped with a VOES (vacuum operated electrical switch), the orange wire will need to be connected to it. If not, seal the wire up, as it is not used.

WARNING! FAILURE TO EFFECTIVELY SEAL UP THE ORANGE WIRE MAY CAUSE ERRATIC IGNITION PERFORMANCE IF IT CONTACTS ANY OTHER SURFACE.

2.6 Performance Ignition Coil Electrical Connections

1. Locate the ignition coil wire 4-socket connector on the main wire harness (between the tanks).

2. Disconnect the factory ignition coil-to-harness connector, and remove the factory ignition coil harness from the bike.

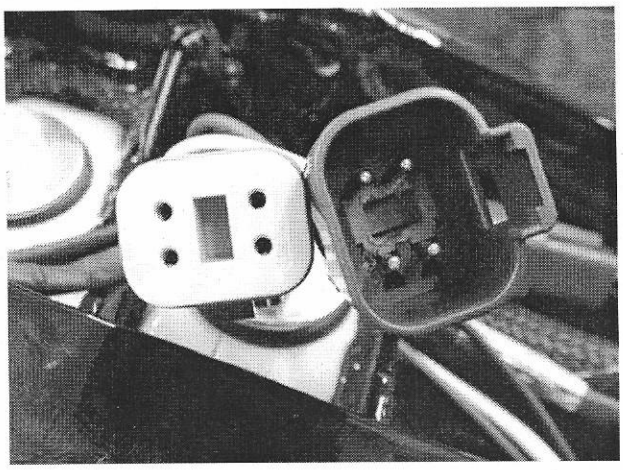


Figure 5—Disconnect and Remove Coil Harness

3. Thread the bare leads of the (supplied) Performance Ignition Coil harness up between the tank and frame, near the main harness ignition coil wire (4-pin) harness connector.

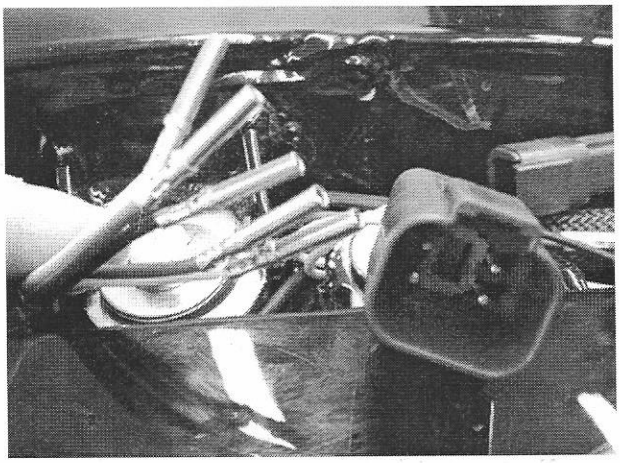
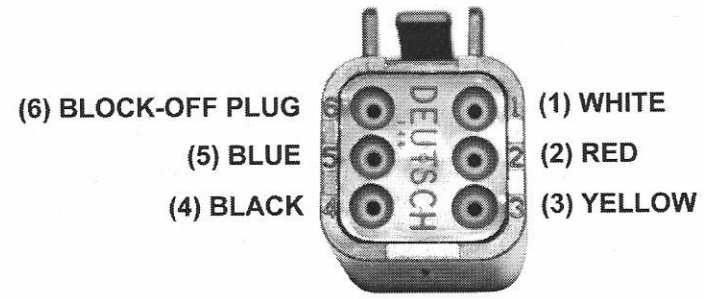


Figure 6—Thread New Coil Harness Near Factory Connector

4. The new coil harness wires are now ready to be installed in the new socket housing (supplied). From the rubber seal (numbered side), insert the socket of the new coil harness wire (supplied) into the housing seal at each specified location. Push them in until they "snap" into place:



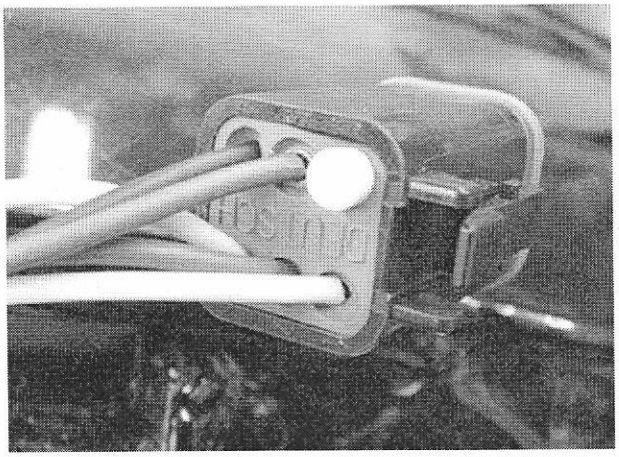


Figure 7—Finished Coil Harness Connector

5. Align the wedge lock with the sockets in the connector housing, and press it into the housing until it "snaps" into place.

6. Connect the end of the harness with the #10 ring lugs to the coil as shown:

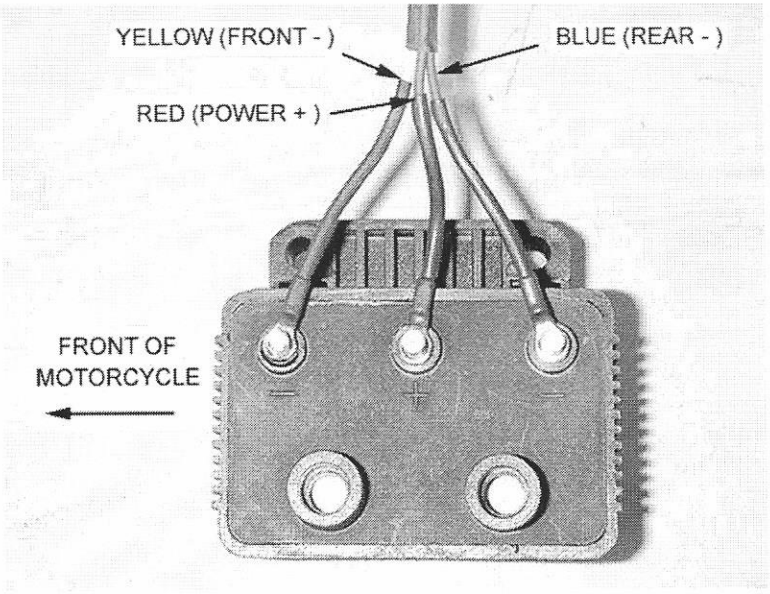


Figure 8—Coil Harness Connection to Coil

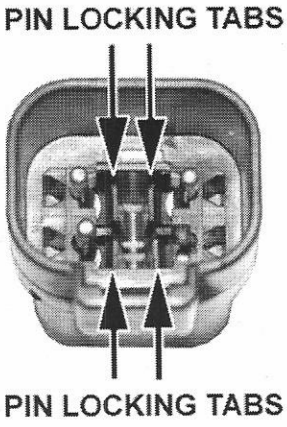
7. Apply a drop of "red" threadlocker to the threads of the (included) 1/4-20 x 1.75" chrome bolts. Install the spacer block, coil, and coil cover using the bolts. Tighten secerely.

Note: Due to production variances in hole patterns, you may need to enlarge the coil holes with a 9/32 drill.

8. Locate the remaining factory ignition coil 4-pin harness connector on the main harness (between the tanks) from Step 1 from this section.

9. Insert a small, thin-blade screwdriver between the orange face and the black housing of the connector, and pry out gently. The outer wedge lock should disengage from the housing. See Figure 2.

10. Looking inside the connector, you will see four plastic tabs that lock the pins in place. With the small screwdriver, lightly push the tabs toward the center of the connector to disengage the pins.

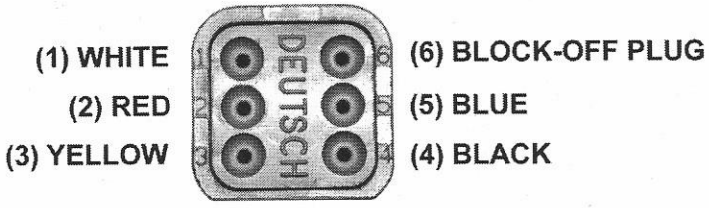


11. Push the pin and wire completely out of the connector. Repeat for the remaining three pins.

12. Route the previously installed blue wire (from Section 2.5, Step 6) up to the location of the main harness coil wires.

Note: If care is taken, this wire can be threaded inside the factory harness nylon loom cover.

13. The main harness ignition coil wires are now ready to be installed in the new pin housing (supplied). From the rubber seal (numbered side), insert the pin of each main harness coil wire (including the additional blue wire from this section's step 11) into the housing seal at each specified location. Push them in until they "snap" into place:



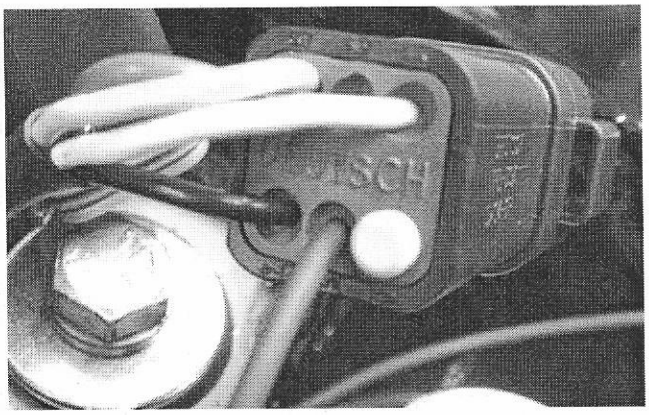


Figure 9—Finished Main Harness Connector

14. Join the connectors.

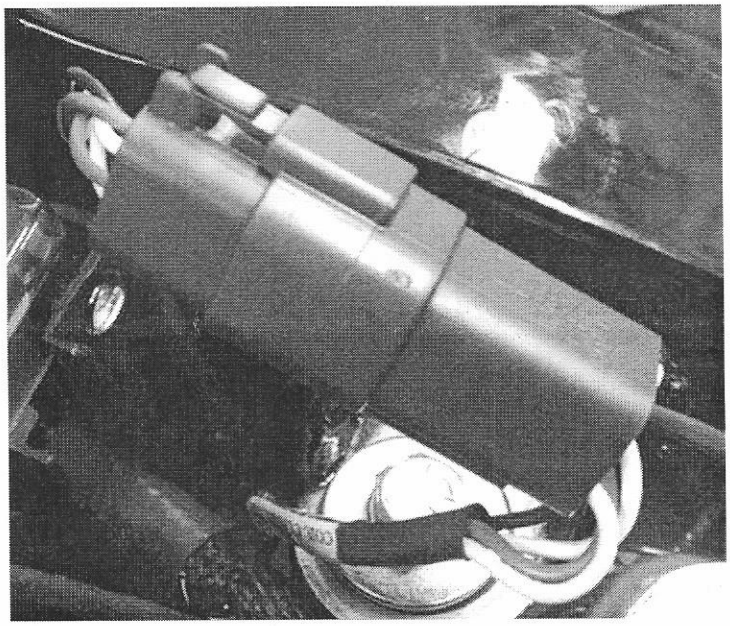


Figure 10—Finished Main Harness Connection

15. After you join the connectors, take time to look at each wire to see that as it passes through the connector, it connects to the same color on the other side.

WARNING! LOOK OVER YOUR WIRING TO ENSURE THAT ALL THE WIRES DO NOT INTERFERE WITH THE OPERATION OF ANY OTHER COMPONENT OF YOUR MOTORCYCLE.

2.7 Hooking Up an Aftermarket Tachometer

When going from a dual-fire ignition system to a single-fire system, the connections for the tachometer change. Refer to the installation instructions for your aftermarket tachometer for details of how to hook it up.

2.8 Preparation for Operation

1. Reconnect the negative battery cable to the battery.
2. Install the dash/console assembly.
3. Start the engine, and make sure it runs correctly.
4. Install both halves of the ignition switch center fairing under the seat.
5. Install the seat.
6. Enjoy your Power Plus 100's newfound horsepower!