



# INSTALLATION INSTRUCTIONS for SINGLE FIRE IGNITION COIL

Part Number 8-3001

**CAUTION: READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION.**

## INTRODUCTION

The Crane Cams Single Fire Ignition Coil part number 8-3001 is intended for Harley-Davidson® applications with aftermarket single fire ignitions such as the Crane HI-4 series that require a 3 ohm resistance coil. The 8-3001 is molded in solid epoxy to eliminate vibration and arcing damage. The coil windings are computer designed to give increased energy, longer spark duration and higher current at the spark plug.

**WARNING: Do not perform any work or disconnect any part of the ignition system without first disconnecting the battery ground cable.**

**WARNING: Do not come into contact with the coil primary wires or the secondary plug wires while the engine is running. Do not connect a timing light or other test equipment to any coil terminal while the engine is running. Never crank the engine with any coil high voltage terminal disconnected.**

## INSTALLATION

Depending on your particular motorcycle model, the coil is mounted in one of five possible locations:

- Under the fuel tank or in front of motor on frame down tube
- Below fuel tank near frame down tube
- Between cylinders
- Below seat on left

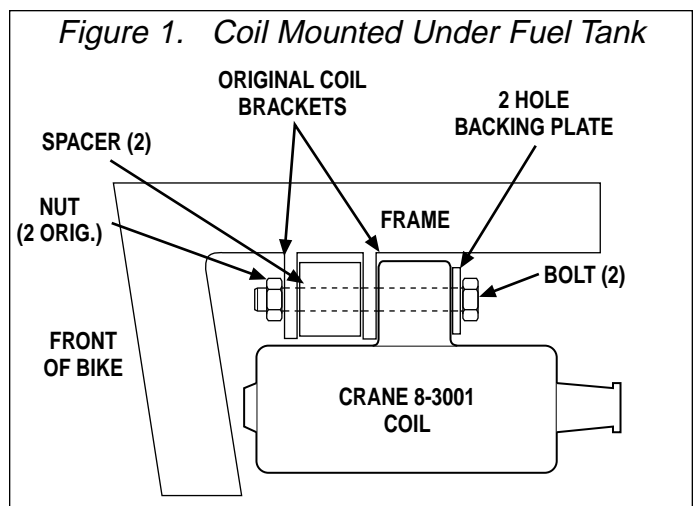
Examine your motorcycle to determine the mounting location and then refer to the appropriate section in these instructions.

## SPARK PLUG AND WIRE CONSIDERATIONS

Crane FireWire spiral core spark plug wires or equivalent suppression wires are recommended for best performance. Do not use non-suppression solid core spark plug wires; they may cause interference with your ignition system and accessories. Use resistor (suppression type) spark plugs. Non-resistor spark plugs may cause interference with the computer in the ignition system.

## COIL MOUNTED UNDER FUEL TANK OR AT FRONT OF MOTOR ON FRAME DOWN TUBE

1. Refer to Figure 1 for coil mounted under fuel tank or Figure 2 for coil mounted on frame down tube.
2. Disconnect the negative cable from the battery.
3. Refer to your shop manual for procedure to remove the fuel tank and any other accessories that may limit access to the coil.
4. Disconnect the original equipment (OE) wire harness going to the coil. Next, remove the OE coil.
5. Install the new coil as shown in Figure 1 or 2.



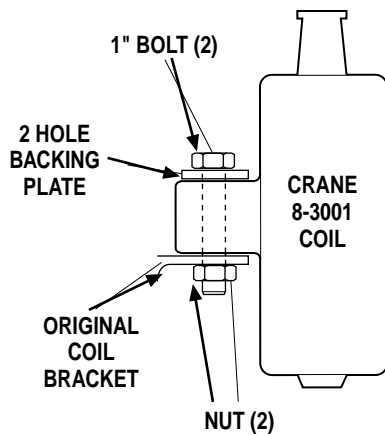
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**Figure 2. Coil Mounted at Front of Motor on Frame Down Tube**



6. Refer to Figure 7 or 8 for coil primary hookup details. Route the spark plug wires to the spark plugs. Make sure that the plug wires have the proper terminals and tight fitting boots. Apply a small amount of silicone dielectric grease to the terminals to prevent corrosion and arcing.

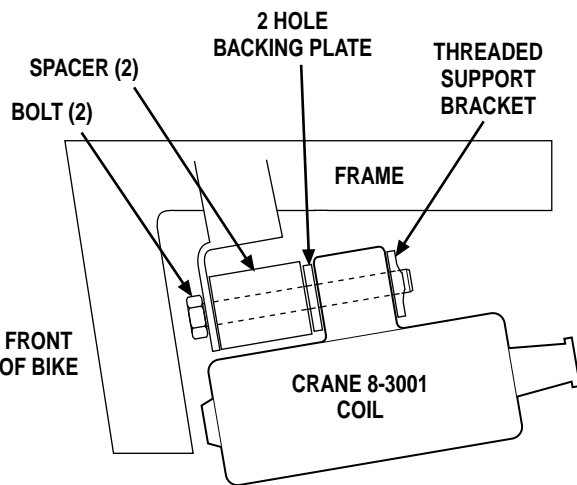
7. Replace the fuel tank and accessories.

8. Reconnect the negative cable to the battery.

### **COIL MOUNTED BELOW THE FUEL TANK NEAR THE FRAME DOWN TUBE**

1. Refer to Figure 3.
2. Disconnect the negative cable from the battery.
3. Disconnect the original equipment (OE) wire harness going to the coil. Next, remove the OE coil.
4. Install the new Crane coil as shown in Figure 3.

**Figure 3. Coil Mounted Below the Fuel Tank Near Frame Down Tube**



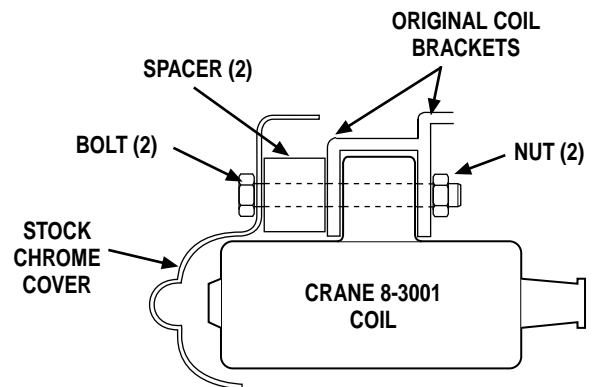
5. Refer to Figures 7 or 8 for coil primary hookup details. Route the spark plug wires to the spark plugs. Make sure that the plug wires have the proper terminals and tight fitting boots. Apply a small amount of silicone dielectric grease to the terminals to prevent corrosion and arcing.

6. Reconnect the negative cable to the battery.

### **COIL MOUNTED BETWEEN THE CYLINDERS**

1. Refer to Figure 4.
2. Disconnect the negative cable from the battery.
3. Disconnect the original equipment (OE) wire harness going to the coil. Next, remove the OE coil.
4. Install the new Crane coil as shown in Figure 4.
5. Refer to Figure 7 or 8 for coil primary hookup details. Route the spark plug wires to the spark plugs. Make sure that the plug wires have the proper terminals and tight fitting boots. Apply a small amount of silicone dielectric grease to the terminals to prevent corrosion and arcing.
6. Reconnect the negative cable to the battery.

**Figure 4. Coil Mounted Between Cylinders**



### **COIL MOUNTED BELOW LEFT OF SEAT**

1. If the coil cover is attached to a side cover, refer to Figure 5. If the coil cover is used alone, refer to Figure 6.
2. Disconnect the negative cable from the battery.
3. For models with the coil cover attached to a side cover, refer to your shop manual for procedure to

Figure 5. Coil Mounted Below Left of Seat  
Coil Cover Attached to Side Cover

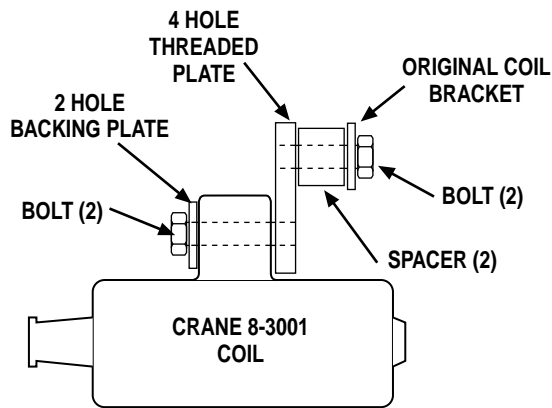
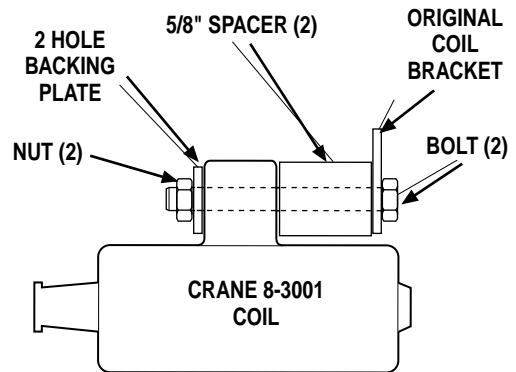


Figure 6. Coil Mounted Below Left of Seat  
Coil Cover Only



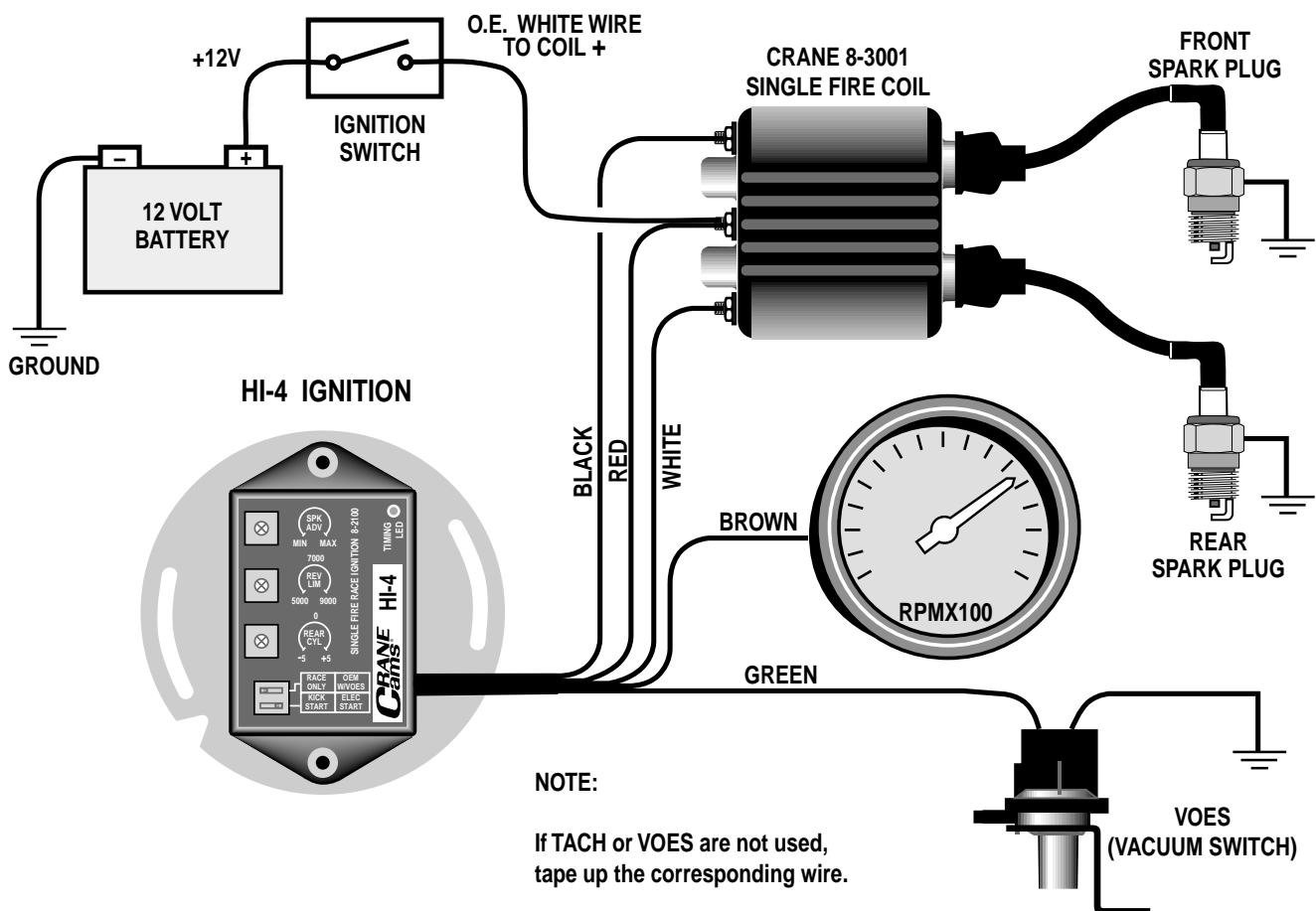
remove the seat, battery, and side cover in order to gain access to the two bolts that secure the original equipment (OE) coil. For other models, remove the coil cover.

4. Disconnect the OE wire harness going to the coil. Next, remove the OE coil.

5. Install the new Crane coil as shown in Figure 5 or 6. If your model has a coil cover attached to a side cover, remove the three screws holding the coil cover. Discard the three small plastic spacers and reattach the coil cover to the side cover.

6. Refer to Figure 7 or 8 for coil primary hookup details. Route the spark plug wires to the spark

Figure 7. HI-4 Hookup



plugs. Make sure that the plug wires have the proper terminals and tight fitting boots. Apply a small amount of silicone dielectric grease to the terminals to prevent corrosion and arcing.

7. If you removed these items, replace the the seat, battery, and side cover.
8. Reconnect the negative cable to the battery.

Figure 8. HI-4E Hookup

