## 1970-1999 H-D SHOVELHEAD, EVOLUTION & SPORTSTERS

## H-D INSTALLATION INSTRUCTIONS

- 1. Remove the point cover.
- 2. Remove the two standoff screws holding the point plate to the engine. Unplug the wire going to the points and remove point/plate assembly.
- 3. Remove the bolt holding the spark advance assembly to the engine and remove the assembly.
- 4. Remove the point cam from the advance assembly.
- 5. Coat the advance assembly shaft lightly with oil. Slip the magnetic rotor over the shaft. Push the rotor down until it engages the weights on the advance assembly (it will only go on one way .

  Ensure that the rotor rotates freely on the shaft as the advance weights move out and back.
- 6. Install your new advance/rotor assembly on the engine making sure the pin on the advance assembly is engaged in the slot on the engine. Install the bolt and tighten. Ensure that the rotor is still free to rotate.
- 7. Remove the wires that connected the points and ignition coil.
- 8. Install the new Rawhide Cycles ignition assembly using the two standoffs previously removed, and tighten. The plate should be oriented so that the large power module is at 12 o'clock or 3 o'clock, depending on the model.
- 9. Route the wiring from the ignition assembly out of the hole in the engine case and over to the ignition coil, being careful to avoid the exhaust system.
- 10. Use the supplied wires with the kit to extend to the coil from the ignition wires if needed.
- 11. The 12 volt wire from the ignition/key switch is connected to one side of the coil.

  Connect the black wire to that same end of the coil.
- 12. Connect the blue wire to the other end of the coil.
- 13. This completes the wiring and installation. Make sure that all connections are secure.

## H-D TIMING INSTRUCTIONS

Do not attempt to set your timing using a dynamic timing light. It will damage the triggers if the ignition plate is loose/loosened while the bike is running. This will cause a ground failure that will short the capacitors inside the triggers. A dynamic timing light may be used to check advance only. If adjustment is necessary, turn power off before making any adjustments or loosening the screws that hold the ignition plate on.

- 1. Remove the timing plug on the left side of the bike.
- 2. Rotate the engine until the advance mark for front cylinder shows in the center of the hole. On most Shovelheads, this is a large horizontal dash. On most Evo's, this is a dot after the dash. On Pre-1986 Sportsters (Ironheads, this is a large horizontal dash. On most Evo Sportsters, this is again a single dot after the dash.
- 3. Plug in a test light with one end to ground, and one to the blue wire going to the coil. This must be connected directly to the coil so that the ignition always remains connected to the coil. Important; Never turn the bike on with the spark plug wires or wires from the ignition unplugged. This can easily cause a short that will burn out the pickup on the ignition.
- 4. With your ignition fully installed, turn the key or power on to your bike.
- 5. The light should be off or very dim with the ignition centered on the stand-off bolts. Rotate the rotor on the advancer with your hand all the way to the left, for full advance. The light should come on at the very end of this rotation. If it comes on earlier, or not at all, turn the key off and adjust the pickup until it comes on exactly at the full advance point. Do NOT adjust it with the power or key turned on.
- 6. Your initial timing is now set. Most bikes will run great with this timing setting and you can fine tune the bike if you want to slightly advance or retard your timing depending on your carb, cam, bore, flywheel etc.
- 7. Fire up the bike and ride it!