INSTALLATION INSTRUCTIONS

COMPU-FIRE DISTRIBUTORLESS IGNITION SYSTEM

(For Bosch® 009 Distributors)

Part # 11100-B & 11100-Y

CONGRATULATIONS! You have just purchased the highest performance ingition system available for VW engines equipped with the Bosch 009 Distributor.

NOTE: READ THESE INSTRUCTIONS COMPLETELY BEFORE BEGINNING INSTALLATION!

Check the contents of the kit:

DIS-IX Control Module (Blue Cap)	P/N 22511
DIS-IX Coil Pack	P/N 30320
DIS-IX Trigger Rotor	P/N 51102
DIS-IX Spark Plug Wires	P/N 41100-B (Blue) or 41100-Y (Yellow)
DIS-IX Coil Pack Bracket	
DIS-IX Hardware Kit	

Includes: 4ea. 10-32x3/8” Socket head screw
4ea. Spark plug threaded tops
1ea. Insulated ¼” female spade connector

PRE-INSTALLATION:

NOTE: Before proceeding with the installation, you MUST verify the correct orientation of the distributor to the engine.

CAUTION: Always disconnect the battery cables before performing any electrical systems repairs or installation. This will prevent damage to the electrical system components or accidental starting of the engine in case of an electrical arc caused by shorting the battery power to ground.

WARNING: Severe damage to the electrical system or personal injury may occur by not following the above safety instruction.

ORIENTAION OF THE DISTRIBUTOR TO THE ENGINE

To verify the distributor orientation, remove the distributor cap. Note the location of the notch in the distributor body, which identifies the number One spark plug wire terminal. Refer to **Fig. 1**. Rotate the engine to align the TDC mark on the pulley with the split in the engine case. Refer to **Fig. 2**. **CAUTION:** Block the rear wheels to prevent the car from rolling, put the transmission in neutral and disconnect the battery cables before rotating the engine. In this engine position, the tip of the distributor rotor must point to the groove on the distributor body which identifies number One cylinder as indicated by the solid line drawing in **Fig. 1**. If the rotor does not line up with the groove, loosen the distributor hold down clamp and rotate the distributor body until the rotor is lined up. Secure the distributor by tightening the hold down bolt.

Rotor must be oriented in one of the two positions indicated by the solid lines when timing mark is aligned as in Fig-2.

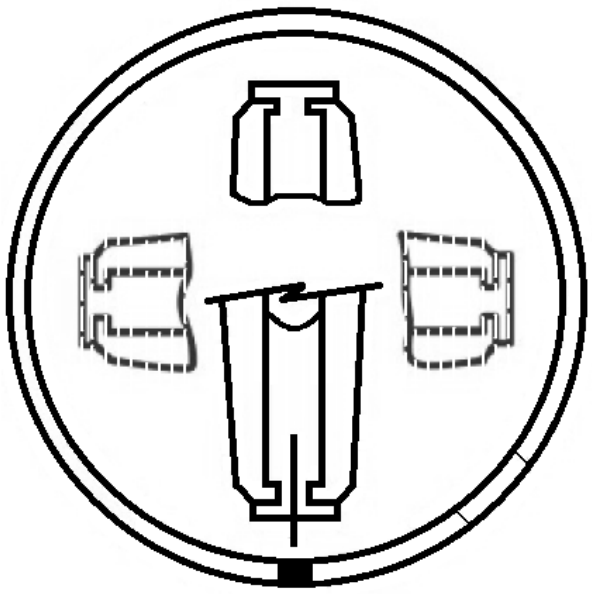


FIG-1

INSTALLATION:

1. Remove and set aside the distributor cap, spark plug wires, coil high voltage wire, ignition coil, and the wire from the distributor to the coil. Identify and remove the wire from the ignition switch (B+) to the coil positive terminal. If a second wire is present, it usually powers the electrical choke. Remove the high voltage rotor, points, and condenser from the distributor. Refer to **Fig. 3**.
2. Verify the mechanical advance mechanism is operating freely by reinstalling the rotor and rotating the distributor shaft back and forth against the stops. The rotor should snap back to the original position if the mechanical advance is operating freely and the springs are in good condition. Clean and lubricate the mechanical advance if needed and replace the springs as necessary.

Alignment of timing mark to crankcase, use to verify correct distributor orientation as shown in Fig-1.

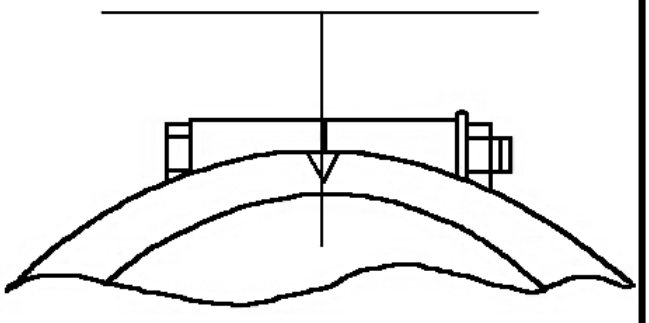


FIG-2

3. Install the DIS-IX coil-pack mounting bracket to the fan shroud using the original mounting bolts. See **Fig. 4**. **NOTE:** If the coil-pack will be remotely mounted, do not attach it to a surface that cannot withstand 350° degrees and do not mount it in a location where it will receive heat from exhaust system of the engine. Use Extension Cable P/N 41101 if required. **CAUTION:** Be careful if drilling holes into the fan shroud. Do not damage the oil cooler.
4. Install the Compu-Fire trigger rotor on the distributor shaft. Refer to **Fig. 5** & **Fig. 6**. Orient the trigger rotor with the 'dot" aligned with the notch in the distributor shaft. Make sure the flats of the cam lobes are aligned with the flats inside the trigger rotor. Use the original high voltage rotor as a tool to push the trigger rotor down until it is fully seated. VERIFY THE COMPU-FIRE ROTOR IS FULLY SEATED, refer to **FIG 6**. Use the Compu-Fire control module (blue cap) as a height gauge to verify the trigger rotor is fully seated. Under no conditions should the top of the trigger rotor disk be higher than the outer ridge of the control module as this will allow the trigger rotor to rub on the underside of the of the control module and the mechanical advance mechanism in the distributor will not operate properly. **NOTE:** The Compu-Fire control module (blue cap) makes electrical ground by contacting the top of the distributor body. This surface must be clean and free of any dirt or grease.
5. Install the Compu-Fire onto the distributor and secure it with the distributor cap clamps. Make sure the two small drive pins in the control module are engaged with the notch in the top surface of the distributor body. See **Fig 7**.

Disassembly and removal of parts from stock distributor.

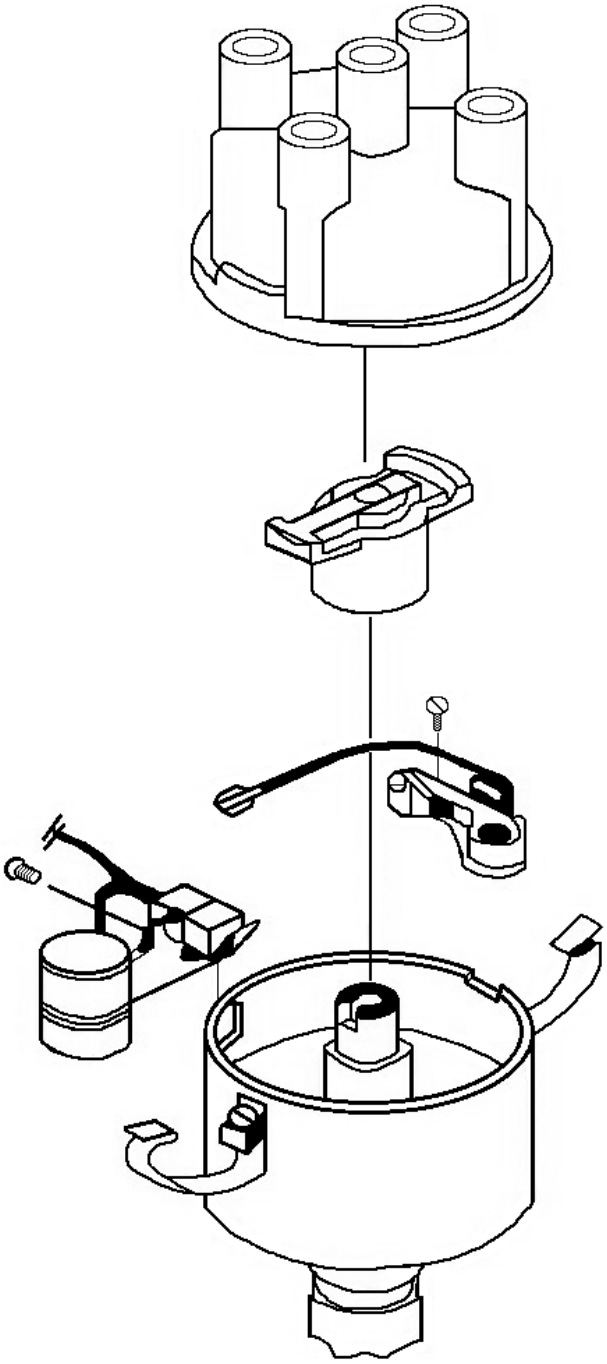


FIG-3

6. Install the spark plug wires. **NOTE:** If the spark plugs have threaded tops, use the screw on spark plug adapters supplied with your kit. There are two long and two short plug wires supplied. The long ones go to cylinder #1 & #2 (passenger side of engine) and the short ones go to cylinder #3 & #4 (driver side of engine). Connect the spark plug wires to the coil-pack using the decals to identify each coil tower. **NOTE:** The spark plugs must be in good condition. For optimum performance, increase the spark plug gaps to .045” - .050”.

Installation of coil-pack to fan housing using coil-pack mounting bracket, original coil mounting hardware and 10-32 x 3/8" socket button head screws.

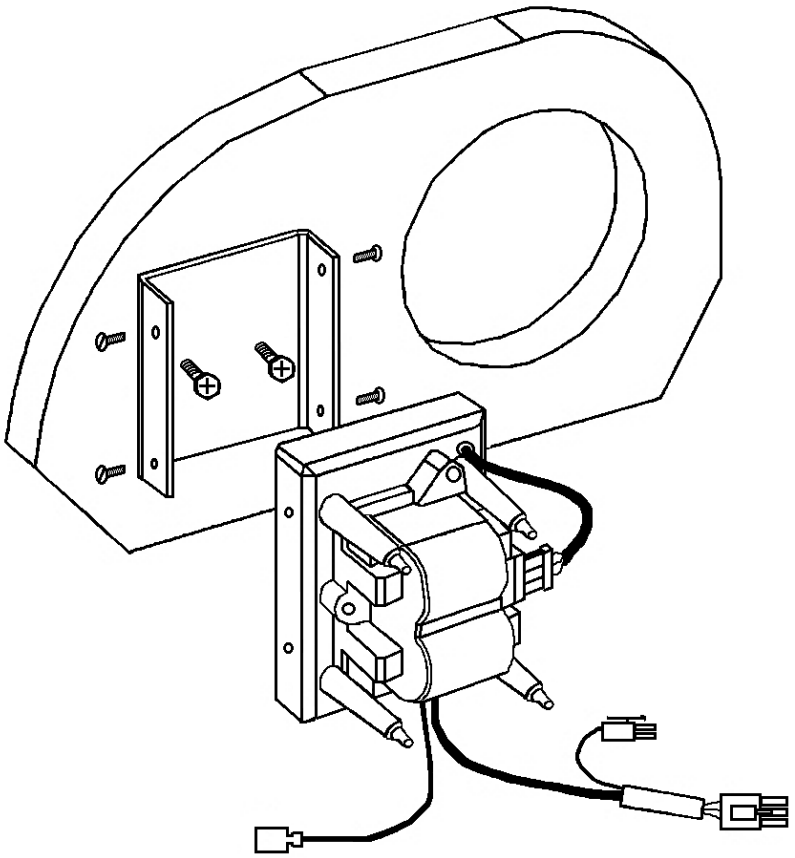


FIG-4

Installation of Compu-Fire trigger rotor: Use original rotor as tool to drive it onto the cam lobes. Dot in trigger rotor must line up with the notch in distributor shaft.

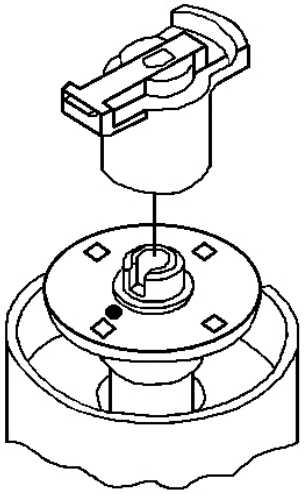


FIG-5

Verification that Compu-Fire trigger rotor is fully seated using Compu-Fire control module as a gauge.

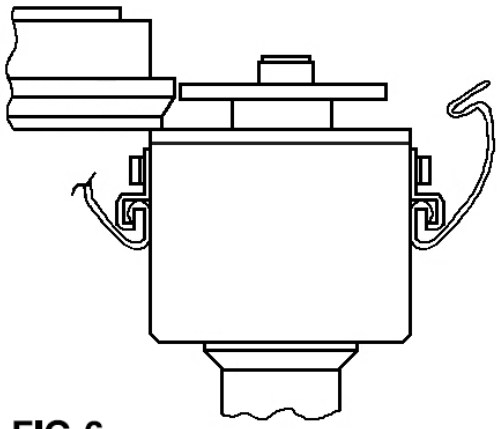
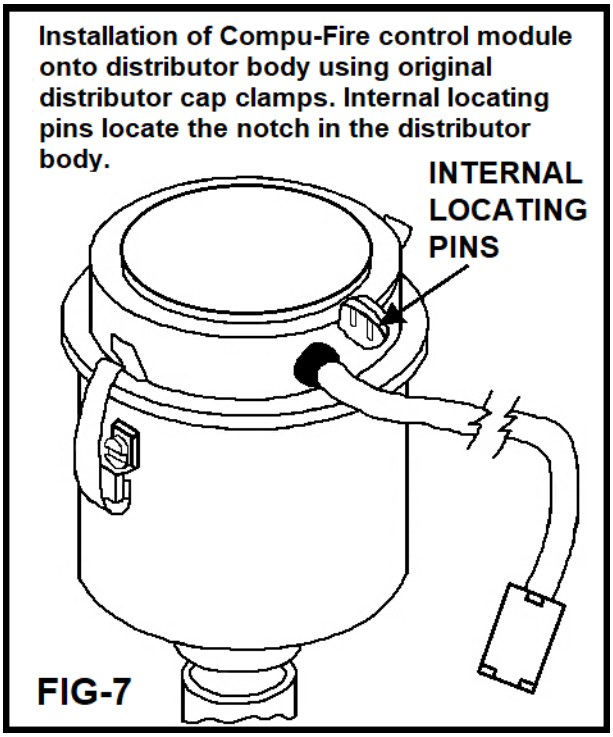


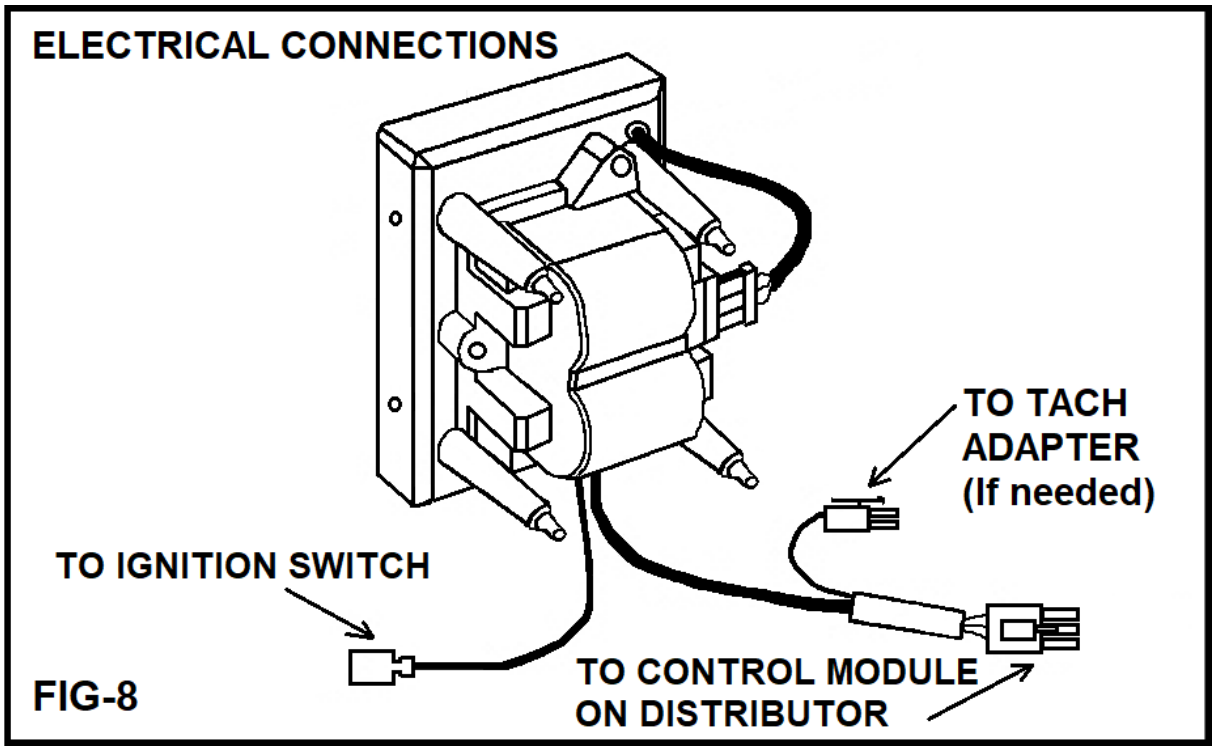
FIG-6

ELECTRICAL CONNECTIONS

Connect the three terminal connector from the Compu-Fire control module (blue cap) to the mating connector from the coil-pack. NOTE: The connector is polarized and will mate only one way. Route the cable from the Compu-Fire control module to the coil-pack so it cannot rub on the crank pulley, alternator belt, or lay against hot engine parts or spark plug wires.



1. Attach the B+ wire from the ignition switch (identified in step 1 under installation heading) to the red wire from the coil-pack using the ¼" female spade connector supplied. See **Fig 8**.
2. Connect the wire from the electric choke on the carburetor (if equipped) to the wire from the ignition switch using a proper electrical splice or crimp connector.
3. If the vehicle has an electrical tachometer, a Compu-Fire tach adapter must be used. Use Compu-Fire P/N 51105-V. The tach adapter plugs into the two-wire connector at the coil-pack. The pink wire from the tach adapter connects to the tach sensor wire.



SETTING THE IGNITION TIMING

NOTE: Since there are no exposed connections at the coil, an inductive timing light must be used. A “dial-back” timing light may be used with the dial back degree delay set at ZERO. This is because each cylinder fires twice per each engine revolution (once on the compression stroke and once on the exhaust stroke).
CAUTION: Do not attempt to statically time the engine, as the Compu-Fire DIS-IX will fire down to zero RPM. Do not attempt to check for spark with a spark plug wire disconnected.
WARNING: The Compu-Fire DIS-IX ignition is a ***HIGH-VOLTAGE*** output system and severe electrical shock may occur if personal contact is made with the spark.

1. Re-connect the battery cables. Attached the pickup from the inductive timing light to the spark plug from cylinder #1. Make sure the orientation of the pickup on the spark plug wire is correct. Make sure the transmission is in neutral.
2. Start the engine and time the ignition in the conventional manner with the timing light. **NOTE:** If the procedure to orientate the distributor to the engine was done correctly, the ignition timing will be close enough to start the engine. For maximum performance, the engine should be timed at full advance.
3. The installation is now complete.

TROUBLESHOOTING

THE ENGINE WILL NOT STARTER

1. Check for 12 volts at the B+ connection at the coil-pack with the key in the “ON” position.
2. Verify that the terminals in the three terminal connector housings are fully seated and the connector is fully engaged. Make sure the locking tab has fully engaged.
3. Check that the Compu-Fire control module (blue cap) is fully seated onto the distributor body and the mating surfaces of both the control module and distributor body are clean.
4. Listen for any noise from the distributor when the engine is cranking. The Compu-Fire trigger rotor rubbing on the underside of the control module may cause this. Verify the trigger rotor installed height in **Fig. 6**.

THE ENGINE BACKFIRES OR MISSFIRES

1. The spark plug wires are not connected to the proper cylinders. Make sure the spark plug wires are connected to the cylinders as identified by the decal on the coil-pack and in step 6 above. (Page 4)
2. Check the trigger rotor orientation onto the distributor shaft. See **Fig. 5** & **Fig. 6**.
3. Make sure the spark plug and coil terminals are fully connected and the boots are fully seated.
4. Make sure the control module is positioned correctly on the distributor body and the locating pins are properly engaged into the notch on the mating surface of the control module to the distributor body.

THE ENGINE RUNS POORLY OR THE IGNITION DOES NOT ADVANCE

1. The ignition advance curve is a function of the mechanical advancer in the distributor. If the engine runs poorly or the ignition timing will not advance, check the mechanical advancer under the breaker plate in the distributor.

2. Verify that the trigger rotor is not rubbing on the underside of the control module by looking for rubbing marks on the decal. The mechanical advancer will not operate freely if the rotor is rubbing. Re-set the installed height of the trigger rotor as in **Fig. 6**.

NOTE: A dwell meter is not used with an electronic ignition. The dwell meter measures the length of time the point are open by sensing battery voltage and ground. An electronic ignition has electrical current constantly flowing to keep the module powered up and the meter would never see ZERO volts, therefore showing an erroneous meter reading.
CAUTION: Do not check to see if the system is firing by disconnecting a spark plug wire and holding it next to ground and cranking the engine. The Compu-Fire system produces ***HIGH VOLTAGE***, which may damage the insulation of the coils from open circuit firing of cause severe personal injury from ***ELECTRICAL SHOCK***. Use an ***In-Line Ignition Spark Checker*** available at any local auto parts store.

NOT LEGAL FOR USE IN CALIFORNIA OR POLLUTION CONTROLLED VEHICLES

For technical assistance call 909/547-9058

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PERTRONIX PERFORMANCE PRODUCTS

LIMITED WARRANTY

PerTronix, LLC. Warrants to the original Purchaser of its (product) shall be free from defects in material and workmanship for a period of (12) months from the date of purchase.

If within the period of the foregoing warranty PerTronix finds, after inspection, that the product or any component thereof is defective, PerTronix will, at its option, repair such products or component or replace them with identical or similar parts PROVIDED that within such period Purchaser Promptly Notifies PerTronix, in writing, of such defects.