

No fire or Intermittent on One Cylinder:

1. If the cylinders are only misfiring above an idle, connect an inductive Tachometer to all cylinders and try to isolate the problem cylinders.
2. Using a set of piercing probes, check the trigger DVA output as given below:

Wire Color	Check To (Wire Color)	Resistance	DVA Reading
Brown wire	White wire	800-1400	3V or more
White wire	Engine GND	Open	1V or more
Brown wire	Engine GND	Open	1V or more

3. If # 1 is not firing, swap the White/Green and Green White stator wire and retest. If the problem moves to the #2 cylinder, the stator is likely bad. If no change, swap locations with #2 and see if the problem moves. If it does, the module is bad. A continued no fire symptom on the same cylinder indicates a bad trigger.
4. Check the resistance of the CDM as follows:

	Red Meter Lead	Black Meter Lead	Reading
CDM Pin #	A	C	700-1300 Ohms
CDM Pin #	D	A	DIODE*
CDM Pin #	D	B	DIODE*
CDM Pin #	A	B	DIODE*
	High Tension Lead	A	700-1300 Ohms

NOTE: Diode readings are to be read one way, then reverse the leads and read again. You should get a low reading in one direction and a higher reading in the other.

High Speed Miss:

1. Connect an inductive Tachometer to each cylinder in turn and try to isolate the problem. A high variance in RPM on one cylinder usually indicates a problem in the trigger or CDM module.
2. Perform a high-speed shutdown and read the spark plugs. Check for water. A crack in the block can cause a miss at high speed when the water pressure gets high, but a normal shutdown will mask the problem.
3. Remove the flywheel and check the triggering and charge coil flywheel magnets for cracks or broken magnets.

Three Cylinder Engines

1976-1997

Three Cylinder Engines Using a Single Switch Box and Three Ignition Coils**No Fire At All:**

1. Disconnect the black/yellow kill wire AT THE PACK and retest. If the engine's ignition fires, the kill circuit has a fault-check the key switch, harness and shift switch.
2. Disconnect the yellow wires from the stator to the rectifier and retest. If the engine fires, replace the rectifier.
3. Check the cranking RPM. A cranking speed less than 250-RPM will not allow the system to fire properly.
4. Check the stator resistance and DVA output as given below:

Flex-plate Flywheel

WIRE	Read To	OEM RESISTANCE	CDI RESISTANCE	DVA
Blue	Engine GND	5800-7000	2200-2400	180V or more
Red	Engine GND	135-165	45-55	25V or more

Cast, Vented Flywheel

WIRE	Read To	OEM RESISTANCE	CDI RESISTANCE	DVA
Blue	Engine GND	3250-3650	500-600	180V or more
Red	Engine GND	75-90	28-32	25V or more

Red Stator

WIRE	Read To	OEM RESISTANCE	CDI RESISTANCE	DVA
White/Green	Green/White	500-700	500-600	180V or more

Red Stator Adapter (Not Available from CDI)

WIRE	Read To	OEM RESISTANCE	DVA
Blue	Engine GND	OPEN	180V or more

No fire or Intermittent on One or More Cylinders:

1. If the cylinders are only misfiring above an idle, connect an inductive Tachometer to all cylinders and try to isolate the problem cylinders.
2. Check the trigger resistance and DVA output as given below:

Wire Color	Check to Wire Color	Resistance	DVA Reading
Brown wire	White/Black	800-1400	4V or more Connected
White wire	White/Black	800-1400	4V or more Connected
Purple wire	White/Black	800-1400	4V or more Connected
Brown wire	Engine GND	Open	1V or more (*)
White wire	Engine GND	Open	1V or more (*)
Purple wire	Engine GND	Open	1V or more (*)

(*) This reading can be used to determine if a pack has a problem in the triggering circuit. For instance, if you have no fire on one cylinder and the DVA trigger reading for that cylinder is low – disconnect the trigger wire and recheck the DVA output to ground from the trigger wire. If the reading stays low – the trigger is bad.

3. Check the DVA output on the green wires from the switch box while connected to the ignition coils. Check the reading on the switch box terminal AND on the ignition coil terminal. You should have a reading of at least 150V or more at both terminals. If the reading is low on one cylinder, disconnect the green wire from the ignition coil for that cylinder and reconnect it to a load resistor. Retest. If the reading is now good, the ignition coil is likely bad. A continued low reading symptom indicates a bad power pack.

Engine will not rev beyond 3000-4000 RPM:

1. Connect an inductive Tachometer to all cylinders and try to isolate the problem. A single cylinder dropping fire will likely be the switch box or ignition coil. All cylinders misfiring usually indicate a bad stator.
2. Connect a DVA meter to the stator's blue wire and do a running test. The DVA voltage should jump up to well over 200V and stabilize. A drop in voltage right before the problem occurs indicates a bad stator. (blue to engine ground if the engine has a red stator kit installed).
3. Connect a DVA meter to the red wire. The DVA voltage should show a smooth climb in voltage and remain high through the RPM range. A reading lower than the reading on the blue wire indicates a bad stator.

High Speed Miss:

1. Connect an inductive Tachometer to all cylinders and try to isolate the problem. A high variance in RPM on one cylinder indicates a problem usually in the switch box or ignition coil. Occasionally a trigger will cause this same problem. Check the trigger as described above under "*No fire or Intermittent on One or More Cylinders*".
2. Perform a high-speed shutdown and read the spark plugs. Check for water. A crack in the block can cause a miss at high speed when the water pressure gets high, but a normal shutdown will mask the problem.
3. Remove the flywheel and check the triggering and charge coil flywheel magnets for cracks or broken magnets.

Three Cylinder Engines**1996-2000****Three Cylinder Engines Using a Combination Switch Box and Ignition Coil (CDM Modules)****No Fire At All:**

1. Disconnect the black/yellow kill wires from the harness and retest. If the engine's ignition fires, the kill circuit has a fault-possibly the key switch, harness or shift switch.
2. Disconnect one CDM module at a time and see if the other CDM starts firing. If they do, the CDM you just unplugged is bad.
3. If the bottom two cylinders are not firing, swap the connection between the top and middle cylinder. If the middle cylinder starts firing, replace the top CDM module.
4. Disconnect the yellow wires from the stator to the rectifier and retest. If the engine fires, replace the rectifier.
5. Check the cranking RPM. A cranking speed less than 250-RPM will not allow the system to fire properly.
6. Check the stator resistance and DVA output as given below:

WIRE	Read To	OEM RESISTANCE	CDI RESISTANCE	DVA
White/Green	Green/White	500-700	500-600	180V or more