

Johnson/Evinrude Troubleshooting Alternator Driven CD Ignitions 1978-2006 Two Stroke/Except Direct Injected Engines

Two Cylinder Engines

NO SPARK ON ANY CYLINDER:

1. Disconnect the black/yellow stop wire and retest. If the engine's ignition has spark, the stop circuit has a fault-check the key switch, harness and shift switch.
2. Check the stator and trigger resistance and DVA output as given below:

Wire Color	Check to Wire Color	Resistance	DVA Reading
Brown wire	Brown/Yellow wire	450-550	150V or more Connected
Black/White wire	White/Black wire	15-42	0.6V or more Connected
Some engines use the following wiring on the trigger:			
White wire	Blue wire	15-42	0.6V or more Connected
White wire	Green wire	15-42	0.6V or more Connected
3. Check the cranking RPM. A cranking speed of less than 250-RPM will not allow the system to spark properly.
4. Check the DVA output on the orange wires from the power pack while connected to the ignition coils. You should have a reading of at least 150V or more. If the readings are low, disconnect the orange wires from the ignition coils and reconnect them to a load resistor. Retest. If the reading is now good, the ignition coil is likely bad. A continued low reading indicates a bad power pack.

NO SPARK ON ONE CYLINDER:

Either a faulty power pack or ignition coil normally causes this problem. Rare cases include a weak trigger magnet in the flywheel or a timer base.

WILL NOT ACCELERATE BEYOND 3000 RPM:

1. Check the DVA output on the orange wires from the power pack while connected to the ignition coils. You should have a reading of at least 150V or more, increasing with engine RPM until it reaches 300-400 volts. A sharp drop in voltage right before the miss becomes apparent will normally be caused by a bad stator. A drop on only one orange wire will normally be the power pack.
2. Check the stator resistance. If it reads approximately 900 ohms, replace it with the 500 ohm design.

Engines with S.L.O.W.

ENGINE WILL NOT ACCELERATE BEYOND 2500 RPM:

1. Use a temperature probe and verify that the engine is not overheating.
2. Disconnect the tan temperature wire from the pack and retest. If the engine now performs properly, replace the temperature switch.
3. Make sure the tan temperature switch wire is not located next to a spark plug wire.
4. Check the stator resistance. If it reads approximately 900 ohms, replace it with the 500 ohm design.

Three Cylinder Engines (Except Quick Start Models)

NO SPARK ON ANY CYLINDER:

1. Disconnect the black/yellow stop wire and retest. If the engine's ignition has spark, the stop circuit has a fault-check the key switch, harness and shift switch.
2. Disconnect the yellow wires from the rectifier and retest. If the ignition now has spark, replace the rectifier.
3. Check the stator and trigger resistance and DVA output as given below:

Wire Color	Check to Wire Color	Resistance	DVA Reading
Brown wire	Brown/Yellow wire	450-550	150V or more Connected
White wire	Purple	38-42	0.6V or more Connected
White wire	Blue wire	38-42	0.6V or more Connected
White wire	Green wire	38-42	0.6V or more Connected
4. Check the cranking RPM. A cranking speed of less than 250-RPM will not allow the system to spark properly.

NO SPARK OR INTERMITTENT ON ONE OR MORE CYLINDERS:

1. Check the trigger resistance and DVA output as given below:

Wire Color	Check to Wire Color	Resistance	DVA Reading
White wire	Purple	38-42	0.6V or more Connected
White wire	Blue wire	38-42	0.6V or more Connected
White wire	Green wire	38-42	0.6V or more Connected
2. Check the DVA output on the orange wires from the power pack while connected to the ignition coils. You should have a reading of at least 150V or more. If the reading is low on one cylinder, disconnect the orange 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 indicates a bad power pack.