



SKI-DOO E-Tec Engine Misfire Top Ten Causes - 33030 [Printable Version](#)

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Summary:

TOP TEN CAUSES FOR E-TEC ENGINE MISFIRE

Type:

General

TST Detail:

Engine misfire could be caused by any one of the items listed here. It is important to consider the following:

1. MECHANICAL CONDITION OF ENGINE

- a. Check cylinder compression.
- b. Listen and feel for any obvious engine damage.

2. CVT TRANSMISSION OPERATION

- a. Check drive belt.
- b. Check drive and driven pulleys for smooth operation.
- c. Check calibration components versus specifications.
- d. Adjust TRA screws for proper shift RPM.

3. COOLING SYSTEM OPERATION

- a. Overheating causes needed ECM protection action.
- b. Check entire cooling system, and do NOT modify.

4. SPARK PLUG CONDITION

- a. Check gap.
- b. Check for cracked insulator.
- c. Check and clean plug cap ensuring good fit and no spark "leaks" or cap fouling.
- d. Replace plugs, wires, and caps if suspect.
- e. Make sure spark plugs are properly indexed.

5. FUEL QUALITY AND DELIVERY

- a. Check for fresh fuel of proper octane (fuel deteriorates quickly).
- b. Ensure no higher than E-10 fuel is used (10% alcohol).

c. Check fuel pressure from pump.

6. IGNITION TIMING

a. Two stroke basics. Timing is critical to performance.

b. See **SHOP MANUAL**.

7. RAVE VALVE OPERATION

a. Engine off = Valves at mid position.

b. Engine idle to approximately 6600 RPM = Closed position. c.

Approximately 6600 to 7700 RPM = Mid position. d. Above

approximately 7700 RPM = Full open position. e. Check RAVE

Position Sensor (RPS) setting and reset if suspect. f. Check all air

lines and RAVE Solenoid for leaks. 8. EXHAUST

OVERHEATING

a. Check for exhaust leaks.

b. Check for exhaust obstructions.

9. CAPACITOR AND CHARGING SYSTEM CONDITION

a. Check for low or unstable 55/60 volts using B.U.D.S. I.

Check stator specifications.

II. Check coils for signs of overheating or shorts.

III. Check capacitor and all connections.

10. INJECTOR OPERATION

a. Check operation with B.U.D.S.

b. Ensure calibration coefficients match injectors.

c. Use known good injector as test if needed.

Attachment:

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