

**TRADE TIPS.  
CHECK THE BASICS FIRST!!!**

Always check injector pulse, spark and fuel supply EVEN if you have a scan tool.  
 If you have no injector pulse, spark or fuel supply, check you have Power to these items.  
 If running rough, check cam timing and make sure piston is at TDC as pulleys and cam gears move.  
 If no performance, make sure air intake or exhaust, (cat), is not blocked. To check cat remove O2 sensor and exhaust will flow.  
 Check fuel flow and pressure with LB291 equipment.  
 Remember, fuel flow is more important than fuel pressure. If you do not have LB291 equipment you must have a good return of fuel out of the regulator. Same symptom as carby with low float level.

Cam and Crank sensors: Will not start or runs on 2 cylinders, cam or crank timing out.  
 Signal has to be at ECU from both sensors at exact time.  
 Check cam and crank drives.

Spark Plugs: Make sure you have the right plugs and gap.  
 Wrong length plugs and too small a gap cause misfire or no start!

Vehicle Make	Problem	Fault	Remedy
Chrysler Neon	Cutting out, will not rev.	Cam sensor connector full of oil.	Replace cam sensor.
Chrysler Jeep Cherokee & Wrangler 1994 - 2000	Cutting out, will not start.	Faulty crank sensor.	Replace crank sensor on flywheel.
Daewoo Cielo	Runs rough on 3 cylinders	Exhaust cam lobes worn out due to lack of oil.	Replace cam and clean oil screen on pump.
Daewoo Lanos, Nubira	No spark, runs rough or no injector pulse	Faulty coil pack which is a common fault.	Replace coil pack.
Daewoo Nubira	High idle.	Idle motor fault which is common.	Fit new idle motor which has to be programmed by Daewoo.
Daihatsu - most models	Surging, cutting out & runs rough.	Water leaking on ECU wiring loom in front of centre console.	Stop water leaking on ECU loom.
Daihatsu Charade, Feroza	Cuts out, hard to start.	Faulty coolant temperature switch.	Replace faulty switch.
Daihatsu Sirion	Will not start, no injector pulse or no spark.	Wrong engine oil.	Change to correct engine oil.
Ford Courier, Bravo	Runs on two cylinders.	Faulty ECU (injector drive).	Replace ECU.
Ford Falcon EA, ED	Rough idle runs rich.	Split map sensor vacuum hose at manifold or fuel pressure regulator blocked or leaking.	Find vacuum leaking and repair. Use your LB291/2F machine to reseal pressure regulator if leaking.
Ford Falcon EA, EL	No spark but has injector pulse.	Either distributor or coil fault.	To check distributor put injector noid light in coil plug and if it pulses it is okay. Replace the coil.
Ford Falcon EA, EL	No power.	Cat blocked, injectors, low fuel flow or cam timing out one tooth, (common fault).	Do a check on faults to fix the problem. Use Lb291/2F machine to check fuel pressure and flow tests.

Ford Falcon EA, EL 6 cyl	Surging, pinging and no power.	Check timing.	If moving, remove distributor and check distributor drive gear on distributor cam. If worn remove and replace timing chain and replace distributor cam. Major job but common fault.
Ford Falcon EA, EL V8	Misfire.	H/Bal has moved causing vibration. ECU then cuts out cylinders to compensate.	Check piston TDC to mark on pulley.
Ford Falcon EBII, EL	Will not start.	No power supply to smart lock.	Check interior light is on and tailgate light on wagons, as this is power supply for smarty lock. Replace faulty light bulb.
Ford Falcon EBII, EL	Immobiliser signal.		Check pin 4 at ECU with scope, key on. Will be square wave pattern.
Ford Falcon EF	Stalling, erratic idle.	Computer faulty.	Replace faulty computer.
Ford Falcon EF, AU1	Cuts out and hard to start.	Crank sensor at H/Bal dirty or H/Bal loose and hitting crank.	Check for oil leak on crank sensor and make sure H/Bal is not loose.
Ford Falcon AU	Runs rough and rich.	Fuel pressure regulator is blocked. Due to internal rusting in fuel rail.	Clean out or replace fuel rail. With aid of LB291/2F unit try and unblock pressure regulator. If unsuccessful fit new pressure regulator.
Ford Falcon BA	Misfire.	Faulty Coils	Replace coils.
Ford Explorer	Stalling, lean, O2 sensor fault codes.	Intake manifold warped and sucking air into all intake ports.	Replace bottom intake manifold which is a common problem.
Ford Laser KC, KA	Surging, cutting out & runs rough.	Water leaking on ECU wiring loom in front of centre console.	Stop water leaking on ECU loom.
Ford Laser 1.6 ltr 1998 - 2001	Misfire, no codes.	Faulty coil.	Change both coils and leads.
Ford Laser 1.6 ltr 1998 - 2001	Runs rough, no power or fault code.	Faulty airflow meter.	Disconnect and drive to verify.
Ford Mondeo	High rough idle.	Vacuum leak.	Check for split vacuum hose under coils.
Ford Mondeo	Cutting out and hard to start.	Melted wiring loom at back of engine.	Wiring loom loose and wires melted to EGR pipes. Repair loom and secure loom.
Ford Telstar 2.5 ltr	No spark.	Distributor faulty.	Replace distributor which is a common fault. Also check fault codes. If crank sensor code, beware as some have separate crank sensor on front of engine (replace). If O2 sensor codes replace both.
Ford Telstar 2.5 ltr	Surging and stalling.	O2 sensors faulty.	Check codes O2 sensors and replace both. Common fault.

Ford Transit	Diagnostic Plug.	Where is it?	Hidden in fuse box behind fuses LH top side. Pull out separate fuse panel.
Ford Transit Diesel	Runs rough and no power.	Usually injector pump problems.	Don't bother. Send to Ford dealer for repairs
Ford Transit Petrol	Stalling, high idle and surging.	Usually air flow, air intake tubes or EGR valve leaking.	Find and fix leak or replace leaking EGR valve. Common fault.
Ford Transit Petrol	O2 code and surging.	O2 fuse and O2 sensor problems.	Check O2 fuse in separate fuse box RHF chassis rail, plus replace O2 sensor.
Holden Astra 1999 on	Airflow codes keep coming up.	Bad earth wire to airflow meter.	Replace airflow and extra earth wire.
Holden Astra 1999 on	Goes to idle when driving.	Faulty throttle body assembly, faulty wiring loom or computer.	Check and replace or repair faulty unit as mentioned.
Holden Astra - Vectra	Cutting out, misfire with no fault codes.	Faulty wiring loom to crank sensor or faulty coil pack.	Check and repair wiring loom to crank sensor or replace faulty coil pack.
Holden Barina - Combo 2000 on	Stalling and stops on road.	EGR valve faulty.	Replace EGR valve which is a common fault.
Holden Skyline VL	Hard to start cold.	No signal from starter to pin 9.	Must see 8 volts plus at ECU, otherwise it won't advance or richen. Common fault.
Holden Skyline VL	Cuts out.	Bad connection to distributor.	Do wiggle test. Replace plug and distributor as moisture has gone into crank sensor. Common fault.
Holden Commodore VN, VX, V6	Cuts out.	Faulty coil pack.	Check codes. If cam and crank appear, it is a faulty coil pack. As this supplies voltage to both sensors, replace coil pack and crank sensor.
Holden Commodore VP, VR	Runs rough and hard to start.	Faulty fuel pressure regulator.	Test fuel pressure regulator with LB291/2F unit. Faulty regulator sucking vapours and fuel into vacuum hose.
Holden Commodore VS, VT, V6	Right hand O2 code even after fitting new O2 sensor.	Bad or faulty earth.	Check earth circuit for both O2s at ECU pins D14 and D16. Bridge a wire to both earth outputs to rectify.
Holden Commodore VT, VY 5.7 Gen III	Misfire.	Faulty coils.	Replace faulty coils which is a common fault.
Holden Commodore VT, VY 5.7 Gen III	O2 sensor codes.	New extractors fitted?	If new extractors fitted O2s will fail in 2 days due to paint and sealant.
Holden Commodore VT, VZ	Dash lights on, fans on sometimes.	Faulty ABS module.	Replace ABS module.
Holden Commodore VT, VZ	Cuts out and hard to start.	Faulty wiring in fuel tank.	Replace fuel pump assembly or if losing spark replace coil pack assembly.

Holden Jackaroo 3.2, 3.5 ltr	Surging and runs rich.	Check airflow meter and O2 sensor. Usually O2 sensor is faulty.	Replace O2 sensor. Some O2 sensors cost around \$500.
Holden Jackaroo 3.0 ltr	Runs rough and no power.	Check codes.	If TPS don't touch, send to dealer. \$14,000 for new engine.
Holden Jackaroo 3.0 ltr Turbo Diesel	Won't start after fitting new clutch assembly.	Flywheel is in wrong position for crank sensor.	You must mark flywheel first as it fits on eight ways. Common fault.
Holden Rodeo 2.6 ltr	Hard to start and no fuel pressure.	Voltage or relay problem.	Check voltage to pump connector near fuel filter. Also check main brown relay under bonnet.
Holden Rodeo 2.6 ltr	No spark and hard to start.	Voltage problem.	Check voltage to coil on crank and check brown relay. Check fuse 9 under dash for bad connection. Common fault.
Holden Rodeo 3.2 V6	Hard to start but cranks ok	Battery fault.	Replace battery. Losing voltage
Honda - most models	No fuel pressure or spark.	No voltage, 8 pin plug fault.	Check 12 volts to pump and distributor. If no voltage check main relay, 8 pin plug under dash for fault. Resolder board or replace. Common fault.
Hyundai Excel Series 1 & 2	Runs rough, no fault codes.	Faulty computer.	Replace computer.
Hyundai Excel Series 3	Cuts out, hard to start with no fault codes.	Faulty crank angle plug connector.	Replace plug kit and crank sensor.
Hyundai Excel Series 3 Single Cam	Runs rough and rich.	Airflow meter incorrectly fitted.	Airflow meter on back to front. Common fault.
Hyundai Excel Series 3 Twin Cam	Runs rough and surging.	Faulty TPS or map sensor.	Replace faulty TPS or map sensor.
Hyundai 4 cyl & V6	Runs rough. Crank sensor code sometimes but not always.	Timing out, crank sensor or CAS disc plate fault.	Timing belt out 1 tooth or crank sensor oil soaked. Problem could be CAS disc plate loose behind crank timing belt pulley. Common fault.
Hyundai Grandeur V6	Surging, no power.	Airflow meter fault.	Airflow meter faulty, disconnect to verify.
Hyunda Lantra 1.6 & 1.8 DOHC	Running rough, bad idle and no power.	Cam timing fault.	Cam timing may appear right, but use a straight edge on cam marks. Tensioner not set right.
Kia Sportage	Cutting out.	Melted wiring loom at back of engine.	Wiring loom loose and wires melted to EGR pipes. Repair loom and secure loom.
Kia Sportage	No injector pulse.		Power to smart lock, check tail light fuse.

Mazda V6	No spark.	Distributor faulty.	Replace distributor which is a common fault. Also check fault codes. If crank sensor code, beware as some have separate crank sensor on front of engine (replace). If O2 sensor codes replace both.
Mazda V6	Surging and stalling.	O2 sensors faulty.	Check codes O2 sensors and replace both. Common fault.
Mazda 323 1.6 ltr 1998 - 2001	Misfire, no codes.	Faulty coil.	Change both coils and leads.
Mazda 323 1.6 ltr 1998 - 2001	Runs rough, no power or fault code.	Faulty airflow meter.	Disconnect and drive to verify.
Mitsubishi - all models 1996 on	Will not start. Immobiliser code.	Usually worn key.	Try spare key. Common fault.
Mitsubishi - late model	Runs rough. Crank sensor code sometimes but not always.	Timing out, crank sensor or CAS disc plate fault.	Timing belt out 1 tooth or crank sensor oil soaked. Problem could be CAS disc plate loose behind crank timing belt pulley. Common fault.
Mitsubishi Magna TR, TS	Bad idle.	ISC motor, computer or airflow meter fault.	Replace faulty unit as mentioned.
Mitsubishi Magna TR, TS	Auto transmission stuck in 3rd gear, limp mode.	Transmission ECU faulty.	Replace Transmission ECU.
Mitsubishi Magna TR, TS	TPS code stuck.	Green wire pulled out of end of ECU plug.	Check green wire on end of ECU plug as it pulls out when pulling on ECU plug to change ECU.
Mitsubishi Magna TR, TS 4cyl	Cuts out, bad connection to distributor.	Faulty plug and distributor.	Do wriggle test. Replace plug and distributor. Check plug to TPS.
Mitsubishi Magna TS	No spark but has injector pulse.	Late TS has immobiliser fitted behind ECU. Stops ignitor.	To rectify rewire.
Mitsubishi Magna, Pajero V6	Runs rough, surging and intermittent with no codes.	O2 sensors faulty.	Replace O2 sensors.
Mitsubishi Triton L300 2.4 ltr with distributor on cam cover.	Surging and no power.	Worn distributor drive plate on front of cam. Only wears 3mm but changes timing 20 degrees both ways on cruise.	Replace worn distributor drive plate.
Nissan Bluebird	Runs rough and cutting out.	Oil in distributor.	Replace distributor.
Nissan Exa 1.6, 1.8 ltr	Misfire on 1 cylinder.	Faulty ignition module.	Replace faulty ignition module.
Nissan Maxima V6	Runs rough, cuts out and surging.	Water leaking on ECU wiring loom in front of centre console.	Stop water leaking on ECU.
Nissan Patrol Turbo Diesel EFI	Will not rev.	Airflow meter faulty.	Disconnect to verify airflow meter is faulty and replace.

Nissan Pulsar N14, 15, 16	Hard to start cold.	No signal from starter motor to ECU. Will not advance or richen.	Must see 8 volts plus at starter pin in ECU. Check start fuse in fuse panel. Common fault.
Toyota Camry SVD10 4 Cyl	Cuts out and is hard to start.	Plug in distributor faulty.	To rectify replace distributor.
Toyota Camry V6 1996 - 2001	Surging and stalling.	EGR valve incorrectly switching.	Replace switch under cover that has vacuum hose going to EGR.
Toyota Camry, Corolla, Rav 4 with coil over plugs.	Won't start, runs rough and stalling.	Short in one coil sends voltage down earth wires to ECU.	Disconnect one coil at a time to find faulty coil and replace.
Subaru 1998 on	Won't start and no injector pulse.	Worn key. Common fault.	Use spare key.
Subaru Late	Will not rev.	Airflow meter faulty.	Disconnect airflow meter to verify.
VW, Seat	Cutting out and no spark.	Faulty coil.	Test signal out of distributor. Always replace pickup in distributor and coil.









age to ECU.