

Vehicle Make	Problem	Fault	Remedy
Alfa Romeo 156 2001	Jump Starting a fully discharged battery, engine runs rough.	Possible fault with engine ECU located in the engine compartment.	Disconnect the engine ECU for 10 seconds and then reconnect. Restart the engine and check idle quality.
Alfa Romeo 156 2001	When selecting gears with the selespeed gear selector there is no drive, i.e. the same as if the clutch was not engaging. Power windows do not work.	Blown power window fuse located below the steering column to the drivers side.	Replace the fuse and check for correct operation.
Audi A3 1997	Overheating whilst driving and idling.	The original water pump has a plastic impeller that cranks and separates from the drive boss	Replace the water pump with a revised unit which has a larger modified boss and impeller.
Audi A4 2000	The gear selector will not shift out of park	The stop light circuit may be inoperative.	Check the stop light fuse. If the fuse is ok check the stop light switch. Bypass the switch if it is found faulty as this circuit powers up a shift solenoid located in the centre console.
Audi A4 1996	Engine runs for a few seconds and then stalls.	Possible electrical interference.	Push vehicle a short distance away from the area and start the vehicle.
Audi A4 1995	After the battery had been disconnected or run flat, the idle quality became poor.	Erased memory from the ECU	1. Switch ignition on. Move gear selector through all gears & back to park. Switch ignition off & then start vehicle. 2. Switch ignition on. Apply and release the accelerator pedal & then the brake pedal. Move the gear selector through all gears and back to park. Switch the ignition off & then start the vehicle.
Audi A4 Cabrio 1996	No Crank with key in crank position and dash lights become dim. Battery static voltage ok. Jump starting unsuccessful.	There is an earth post located below the dash near the fuse box securing 4 brown earth wires. There was a poor connection at the earth post.	Check and clean connection points and resecure earth post.
Audi A6 1999	No Start. Engine cranks but does not start.	Low engine oil level.	Top up engine oil level.
BMW 316i 2 Door	Engine will not start. Engine immobiliser preventing engine cranking.	The doors had been locked and unlocked several times (inside and out) from each side of the vehicle and the rear hatch had been locked and unlocked separately. After all this locking and unlocking the central locking had become unsynchronised and apparently the immobiliser considers this a threat and immobilises the engine.	Go to all the doors and operate all the locks individually until all the door locks do the same thing through the central locking. The engine will now start with no problems.
BMW 318i 1998	Overheating.	Cooling system was not bled correctly.	Bleed the system. The bleed screw is located next to the radiator.
BMW 323i	Idle fluctuating up to 3000 rpm.	Vehicle was driven down a hill whilst in neutral with engine running at a speed of about 40 kph. Non compatible input signals to the ECU.	Disconnecting the battery to reset the ECM did not work. The vehicle was left to cool down overnight and when restarted, idle returned to normal.

BMW 535i 1986	Vehicle would not run very well.	Low fuel system pressure (140kpa). Pump output checked out okay. In tank lift-pump not working.	Fit new intank lift pump.
Chrysler Jeep Cherokee	The vehicle starts, runs for a few seconds and then cuts out.	The body control module does not recognise the ignition key transponder signal and needs to be reset	Remove the 50 Amp encapsulated fuse for 30 seconds. The fuse is located in the engine compartment fuse box and identified as MUX/T-TOW. Refit the fuse and start the vehicle.
Chrysler Jeep Cherokee	The engine will not idle after a battery boost or replacement.	The discharged battery caused the ECU to lose the memory of the base idle setting.	Disconnect the idle speed motor harness plug & start the engine. Allow the engine to run above idle speed for a few minutes. Switch off the engine & reconnect the idle speed harness plug. Restart the engine & check idle performance.
Chrysler Jeep Wrangler TJ Up to Dec 2001	Product recall - ignition switch.	No ignition switch functions. An electrical short circuit may result if water or impurities enter the ignition switch.	Return the vehicle to the dealer for repairs or phone (03) 9566 9192 for more information.
Chrysler Neon 2001-02	Poor braking performance and increased idle speed.	Oil leaking onto the brake booster hose from an engine oil leak causes the hose to swell and detach from its fitting.	Chrysler have recalled all vehicles built prior to March 2001 for checking and rectification.
Chrysler Voyager	Unable to turn the ignition barrel with the ignition key.	Possibly a sticky ignition barrel.	Lightly tap the head of the key whilst inserted in the ignition barrel and attempt to turn the key.
Daewoo 2001 (ALL)	Door not locking/unlocking on models with keyless remote.	Faulty battery within the keyless remote.	Replace battery in keyless remote. Part No CR1620 3.0v
Daewoo Cielo 1996-98	Engine cuts out whilst driving & does not restart. No injector pulse & no voltage supply at fuel pump. Oil pressure light on.	Faulty oil pressure switch or no oil pressure.	Disconnect the oil pressure switch harness plug and the engine should run. NOTE: Ensure that the engine has oil pressure.
Daewoo Nubira 2001	Fuel leaking from the fuel filter and fuel feed tube area.	Crack in the fuel feed tube at the 90 degree bend. Fuel feed tube not flexing during engine torque movement.	Replace fuel filter and fuel feed tube. Daewoo has instigated a voluntary safety recall.
Daewoo Lanos 1997	No start, no spark or power to the ignition coil.	Blown fuse No 15 labelled DIS.	Replace fuse and check wiring for any shortages.
Daewoo Lanos 2001	No start, no injector pulse.	The injector/engine sensor/alternator fuse (No 14) is blown. The fuse is located below the passenger side dash.	Replace the blown fuse and inspect for an electrical short if the fuse blows.
Daewoo Lanos 2001	Engine will not crank. Dash warning lights not operating. Immobiliser warning light flashing.	Owner has removed a cylindrical tag from the key ring. The tag is the transponder for the security system and is required to be on the key ring in close proximity of the ignition barrel when starting the vehicle.	No override available. Refit tag to key ring.
Daewoo Lanos 2002	No start and the engine does not crank.	It was found that the immobiliser wand was wet and when grasped in a person's hand, this caused the immobiliser chip not to communicate with the immobiliser aerial.	Dry the immobiliser wand and recheck the operation. Advise the member that the immobiliser wand needs to be free on the key ring.

Daewoo Lanos Limited 2002	Engine cuts out. No spark or pulse from coil and no ignition lights with the ignition switched on.	Vehicle fitted with a factory alarm. Poor connection at a harness plug located below the passenger side dash in a plastic case.	Remove the screws securing the case to access the harness plug. Repair poor connection.
Daewoo Lanos	No start. Engine cranks but has no spark. No 15 DIS (direct ignition system) fuse has blown. The fuse is located behind the driver side kick panel.	Pink wire in ECU main harness has worn through on sharp edge of floor pan. The ECU is located behind the driver side kickpanel.	Repair wiring and route away from sharp edges. Make a very detailed inspection of wiring.
Daewoo Lanos	No start. No spark, no fuel pump or injector operation.	Faulty wiring at central locking unit.	Repair wiring at central locking unit.
Daewoo Cielo 2000	No crank. Will not crank when parked in the sun for lengthy periods. No power to starter motor solenoid.	Faulty ignition switch.	Turn the ignition switch all the way to the crank position. While holding in the crank position, move the key up and down and the vehicle should start.
Daewoo Matiz 2002	Engine running rough. Odometer ticking over and speedo giving a reading whilst the vehicle is in park and idling.	Faulty speedo sensor, incorporated with the speedo assembly.	Replace the speedo assembly.
Daewoo Musso 2000	Unable to shift gear selector out of Park.	Faulty brake light switch.	Remove the brake light switch harness plug and temporarily bridge the two wires and shift the selector.
Daihatsu Charade 1996	No Start, no fuel pump operation. Good spark and fuel injector operation.	Poor connection to the fuel pump relay earth. The earth is secured to the inlet manifold stud.	Repair the poor earth connection.
Daihatsu Terios 4WD Manual 1998	Engine lacks power. Engine idles ok but lacks power when accelerating. The check engine light come on and the speedo is inoperative.	Speedo cable comes undone at the gearbox due to being insufficiently tensioned.	Refit and tighten the speedo cable to the gearbox.
Ford Laser 1996	The engine has a misfire.	The spark plug leads are shorting to earth at the engine. The bakerlite material on the lead at the spark plug has deteriorated allowing the spark to jump to ground.	Replace the spark plug leads.

Ford Laser (Meteor) KA to KE	Faulty ignition switch.	The failure seems to relate to general wear. The symptoms are not always the same. Most times the vehicle has an intermittent no crank condition but the other related faults can vary. Different circuits and systems that are switched 'on' through the ignition switch can fail to operate either all the time or intermittently. Of particular concern is the engine cooling fan circuit. On a Laser that displayed a no crank condition, a mechanic had isolated the fault to the ignition switch. To mobilise the vehicle he bypassed the switch to start the car, all seemed well. Unfortunately the engine cooling fan circuit was not operating correctly and the engine overheated.	Replacement of the ignition switch solved the cooling fan problem. Be aware, when attending these vehicles with similar symptoms, of the likelihood of further intermittent problems in related circuits. Pay particular attention to confirm the correct operation of the cooling fan circuit and repair or replace the ignition switch.
Ford Laser KJ /KL with automatic (built prior to March 1998)	Incorrect shift points, excessive shift shock or excessive select shock from Neutral to Drive or Neutral to Reverse.	Faulty wiring in the transmission temperature sensor circuit.	return to vehicle to Ford dealer. Normal warranty applies.
Ford Laser Auto 2000	Key stuck in ignition barrel. Engine will not crank. Unable to remove key from ignition barrel(not turning fully to Lock position) Key is bent from being forced.	Park has not been engaged properly with the transmission gear selector.	Depress the brake pedal and push the gear selector into Park. Turn the key to the lock position and remove the key. Check the key for damage.
Ford F250 2002	Engine stopped. Vehicle cuts out whilst driving. No dash lights or ignition power. Blown main ignition fuse located in the engine compartment. Fuse blew when replaced.	Main ignition wire from the ignition switch rubbed through on steering column under dash. Caused by an incorrectly fitted retaining plug.	Use tie wire to secure the wiring harness away from the steering column. Replace the blown fuse.
Ford Fairlane NL 1996	Horn staying on and continuously sounding.	Two plates in the horn switch, located under the steering wheel cover, cause a short in the circuit when the insulating foam wears away.	Fit suitable insulating material between the plates.
Ford Falcon EA	Transmission goes into limp mode, locked in 3rd gear whilst driving. Speedo reading was erratic. When the engine was switched off and then restarted, the transmission would operate normally.	Faulty speed sensor.	Replace speed sensor.
Ford Falcon EA	Engine stalled while driving, starts intermittently. Intermittent backfire while starting, intermittent high tension spark.	Intermittent short circuit between the "Tacho" wire (Pink/Blue) at the right firewall area. The plastic tie securing the wiring had rubbed through the wiring insulation.	Repair and relocate the wiring.

Ford Falcon EA to ED (fitted with ABS)	ABS warning light illuminates and stays on. This can occur when the vehicle has displayed a discharged battery and may have been jump started or the vehicle battery has been replaced.	This is identified as either a faulty ABS circuit diode located under the dash, taped into the wiring loom to the left of the steering column or a faulty ABS Control Module. These faults may be caused by an Open Circuit battery causing a voltage spike when the vehicle is being started. It can be caused by poor earth connections at the battery negative terminal and Bus Bar. Incorrect jump starting procedures ie; removing the jumper leads too quickly after jump starting. Leaving the ignition switch in the on position when disconnecting the battery terminals.	Determine if the vehicle is equipped with ABS. Ask the driver if the ABS warning light has been illuminated. Follow the recommended battery testing and jump starting procedures. Check for open circuit battery. Check earth connections at battery negative terminals and Bus Bar. If jump starting ensure jumper leads are connected for a minimum of 5 minutes before disconnecting.
Ford EB on with Multipoint Fuel Injection	No or low idle speed after a battery change. Auto models stall when put into gear.	Faulty earth points.	Check all points, not just at the battery. There should be less than 0.5 volts drop across any earth point.
Ford Falcon EB 1992	No spark, injector pulse or fuel pump operation. Engine cranks but will not start. Main relay (Brown) clicks.	Faulty main relay.	Replace main relay.
Ford Falcon EB 1992	No start, engine will not crank. Same symptom as dirty or loose battery terminal connection. Clicking noise from starter motor.	The bolt securing the driver side engine mount also secures the earth cable. The bolt has become loose.	Tighten the engine mount bolt.
Ford Falcon EB 1992	Smartlock not operating. Smartlock light flashes continuously with key turned in the ON position and a clicking noise may be heard under the dash.	The Smartlock Module (located below the dash near the handbrake assembly) has condensation built up inside causing a relay to be activated in the module.	Remove the Smartlock Module and attempt to dry it with compressed air. If unsuccessful, replace the module. Advise owner of the possibility of water entering the passenger compartment and further repairs are required.
Ford Falcon EB / ED	Vehicle would not crank and the Smart-Lock indicator light was flashing a code "5" when the ignition was switched on .	Voltage surges caused by a loose alternator drive belt.	Remove the interior light fuse for a few seconds and attempt to start the engine. If unsuccessful the vehicle has a 30 minute timed over-ride.
Ford Falcon EF 1994	Engine will not start. Smartlock light not flashing, vehicles remote not working and no ignition pulse.	Radio was fitted, signal return to smartlock wire cut and used as radio power.	Rectify wiring problem.
Ford Falcon EF 1995	Uneven idle and engine running very rich.	Vacuum hose to MAP sensor has fallen off.	Check hose for splits and refit to MAP sensor.
Ford Falcon EF	Coolant leak. Coolant dripping off the transmission bell housing. Leak appears to be from the top of the engine.	Loose hose clamp on the engine end of the bottom radiator hose. Coolant dripped onto the alternator support bracket, then onto the engine block and runs down channel to the rear of the engine block, where it drips off the bell housing.	Tighten the hose clamp.

Ford Falcon EF	Engine stopped while driving. Would not restart.	Faulty air con compressor clutch causing the 30 amp engine fuse located in the engine compartment fuse box to blow.	Replace the fuse. Disconnect the harness plug to the air con compressor clutch to prevent the driver switching the air con system on until problem is rectified.
Ford Falcon EF	Ignition switch spins in the barrel but does not start the vehicle.	The ignition switch on the back of the ignition barrel has fallen off.	Reposition the switch and gently tap around the flange to secure the switch to the barrel.
Ford Falcon EF Station Wagon	Engine fails to start. Engine cranks, high tension spark and injector pulsing ok, fuel pump operative.	High resistance at the fuel pump earthing connection located in the spare wheel compartment.	Clean and tighten the fuel pump earth connection.
Ford Falcon EF	Engine will not crank. The 30 amp engine fusible link had blown.	The wiring loom had chafed and shorted out where it passed over the radiator shroud.	Repair and relocate the loom.
Ford Falcon EL	No up shifts in automatic transmission. Speedo not working and has poor acceleration(feels like starting off in 3rd gear).	Speedo transducer faulty.	Replace speedo transducer.
Ford Falcon EF & EL	1. Blown 30 amp engine fusible link. 2. Engine fails to crank as if attempting to start with a faulty starter motor.	Both of the above symptoms were caused by seized air conditioner compressors.	Remove serpentine belt to confirm the seized compressor.
Ford Falcon EF-EL Variants	Brake clonk / knock. Evaluate the vehicle for brake knock by simultaneously braking and turning into a 90 degree corner from approximately 15 kph. The knock can be heard either in mid corner or as the vehicle comes to rest. It is not necessarily to carry this out in an aggressive fashion. Turning into a driveway from a quiet suburban street is the typical driving condition that provokes the brake knock.	Movement of the brake calliper.	Re-work procedure of the calliper slide.
Ford Falcon EL 1996	Rough running and excessive fuel consumption. Vehicle would start and run but idle rough. The instruments would fluctuate intermittently.	Engine running rich. Main harness plug at the rear of the engine near the number 5 cylinder is loose.	Main harness plug has a centre bolt to secure it. The harness plug can pull apart if the bolt is not correctly tightened.
Ford Falcon AU	Fuel leak from the sender area of the fuel tank when the tank is full.	Split seal under the sender unit.	Remove the cover to gain access to the sender unit,. Remove the sender unit and replace the seal.
Ford Falcon AU (LPG)	Vehicle stalls after startup. Sometimes backfires during cranking.	OEM spark plugs not compatible to LPG fuel.	Replace original spark plugs with 1 stage hotter spark plugs.
Ford Falcon AU 11	Engine does not crank. Smartshield light on.	Fault with Smartshield module.	Turn the ignition key in the "on" position. Push the vehicle 1-3 metres. The smartshield light should extinguish and engine should start.
Ford Falcon AU Built after 6/1999	The vehicle will not start and the security warning light (a hand with a car symbol) is flashing continuously on the dash.	The glass encapsulated microchip transponder may have fallen out of the key.	If possible find the transponder microchip and insert it back into the key as temporary repair. Order a new key from Ford dealer.

Ford Falcon AU S/Wagon 1999	Engine stalls when the brakes are applied or reverse gear is selected. The engine may also run rough.	Bad earth to the fuel pump located at the drivers side inner guard area. The fuel pump shares the same earth point as the brake and reverse lights. The fuel pump back feeds through the brake and reverse light circuit.	Locate and repair the earth point or supply an alternative earth to the fuel pump connector.
Ford Falcon BA 2002	Noise in drivers side rear wheel when driving. Clicking noise from the rear wheel when driving at slow speeds.	Incorrectly secured rear brake flexible hose, causing the hose to rub on the wheel weight and causing damage to the hose.	Secure the hose away from the wheel.
Ford Falcon BA 2003	Engine running rough. Engine splutters as if running on 4 cylinders. Fault occurred after hard acceleration	Faulty variable cam mechanism. System activated on acceleration but failed to return to the rest position due to a blocked oil gallery.	Tow vehicle workshop for repairs.
Ford Explorer	Battery runs flat with ignition off.	The rear electric window in the tailgate is operated by turning the key in the tailgate lock. The key was not returned to the vertical position before removing causing the motor to continuously operate.	insert the key into the tailgate lock and return the lock to the vertical position before removing the key.
Ford Explorer Sep '96 - Mar '98	Risk of damaging the fuel line when jump starting vehicle.	Ford Motor Company has initiated a recall of Ford Explorers built between Sep '96 and Mar '98 fitted with the 4.0 SOHC engine. If you connect the negative cable of your jump leads to the fuel line bracket near the alternator you run the risk of damaging the fuel line. The results of this damage range from the owner reporting odours, up to a fuel leak which ignites during the jump start procedure.	Do not use this bracket as an attachment point during jump starts. Ford are modifying this bracket.
Ford Explorer (5 speed auto pre Jan '98)	Erratic gear change operation.	Faulty overdrive speed sensor. The sensor is located high on the left side of the transmission towards the converter housing.	Ford Dealers are deleting the sensor and insulating the connections. To confirm the problem on an inspection disconnect the sensor and re-evaluate transmission operation
Ford Explorer XLT	The headlights will not go off. The auto sensor circuit was still active with the ignition turned off.	Remove the wiring loom to the rear view mirror and the lights will turn off.	Return the vehicle to Ford dealer for repairs
Ford Festiva	No start, no fuel pump operation. The fuel pump has power during crank but no earth.	Open circuit in fuel pump earth wire located below the base of the rear seat.	Remove the base of the rear seat and the fuel pump access cover in the floorpan. Locate the Black wire or make a temporary earth for the fuel pump and advise the drive further repairs are required.
Ford Festiva 1995	Precaution when testing fuel pump operation., due to pump inoperative.	A diagnostic connector is located on the passenger side of the engine compartment. Do not supply power to the FP (fuel pump) terminal as this will cause damage to the ECU.	To test fuel pump operation supply an earth to the FP terminal.

Ford Festiva 1996	No start, no dash lights or accessories.	Below the battery between the battery carrier and the inner guard are the main fusible links with 3 to 4 main wiring connectors. One of these was damaged by battery acid.	Repair and clean the wiring loom connector and test the circuit. Make sure to check all connectors for possible acid damage.
Ford Festiva KA	Product recall - Brake hose.	Wear marks on the front brake hose. The brake hose detached from the retaining clip and rubbed against the wheel rim or tyre.	Return the vehicle to Ford dealer for repairs
Ford Festiva 1997 - 99	No fuel pump operation. Fuel pump does not operate. Pump has power when engine cranking.	Poor connection to fuel pump earth located below the rear seat.	Remove the rear seat base and fuel pump cover plate in the floor pan. Locate the black earth wire for the fuel pump and repair or make a new earth for the fuel pump.
Ford Mondeo (All)	Horn staying on and continuously sounding.	Two plates in the horn switch, located under the steering wheel cover, cause a short in the circuit when the insulating foam wears away.	Fit suitable insulating material between the plates.
Ford Mondeo 1998	No start, engine has spark but no fuel.	Fuel pump not working. Terminals spread open at the fuel pump assembly harness plug located at the fuel tank and causing a poor connection.	Tighten the terminals to make a good connection.
Ford Taurus	No start, the fuel pump does not operate.	The fuel pump wiring in the fuel tank had rubbed through and earthed to ground causing the fuel pump fuse to blow.	Rectify the faulty fuel pump wiring.
Ford Taurus	Engine cuts out while running and will not restart.	Due to a blown fuse. Fuse number 10 (20A) located in the distribution box in the engine bay.	Check the fuse. If the fuse is damaged it would indicate a fuel pump circuit problem.
Ford Taurus	The malfunction indicator lamp (MIL) remains illuminated and a diagnostic trouble code (DTC) P0303 (a cylinder misfire detected) is logged. The engine doesn't misfire and the DTC can be cleared.	Intermittent fuel or electrical problem. If the DTC is logged again indicating another misfire it may be a fuel quality related problem.	Instruct the owner to drive the vehicle through two tanks of good quality fuel with a bottle of Interjectron added to the tank.
Ford Transit	No crank. Good battery voltage when tested across battery terminals. No voltage when the engine was used as an earth	Poor connection at the main earth causing a large voltage drop. The main earth is located on the starter motor mounting bolt.	Remove, clean and refit main earth wire.
Ford Transit Van (Diesel-Built between Oct '96 to Feb '98)	Water trap light stays on and or fuse No 7 blows.	The wiring loom running to the water trap can chafe on the starter motor brush connection terminal.	Repair the loom as required and secure the loom away from the terminal with an appropriately placed cable tie.
Ford Transit (Automatic)	ECM light coming on around 100kph. After stopping and restarting the engine there is no drive from the transmission. Cycling the key on & off a number of times, start the vehicle and drive until transmission returns to normal.	The kickdown cable was incorrectly adjusted and had no free travel. This caused the transmission ECM to receive incorrect input.	The kickdown cable requires adjustment to the correct specification.

Ford Transit 2001	Engine does not crank or is slow to crank. Passenger side battery tests ok. Drivers side battery test low. No alternator voltage output to drivers side battery after jump starting.	Large moulded plastic plug on positive terminal on the drivers side battery had a bad connection.	Secure the connection.
Ford Transit 2000	No throttle operation.	Engine starts but does not rev when depressing the accelerator pedal. Pedal position sensor and the throttle motor are out of sync.	Switch the ignition on. Slowly depress the accelerator pedal to its full travel and then release slowly. The accelerator operation should now be restored.
Ford Transit 2002	No start, no crank. The vehicle starts when jumper leads are attached to the battery with the jumper lead earth to the chassis. When the jumper leads are removed the vehicle stalls.	Blown 350amp fusible link on the negative battery lead. The fusible link is located near the battery behind the drivers seat in a white plastic cover.	Renew the fusible link.
Ford Transit Diesel	Engine starts but no acceleration. Vehicle equipped with a FLY-by wire.	Unknown	Remove fuse located below the drivers side dash and identified by a key symbol. Depress the brake pedal. Refit the fuse and restart the vehicle.
Holden Astra TS 1998	Ignition barrel does not turn.	When the vehicle is left in the sun the excessive heat may cause the ignition barrel to stick.	Apply compressed air around the ignition barrel to cool the barrel down. Advise driver to have a revised unit fitted.
Holden Astra TS	Remote pad not working. Door locks etc.	The remote key may be out of synchronisation.	Switch the ignition ON and within 30 seconds briefly press any button on the key whilst it is in the ignition. The central locking system will lock and unlock to show that the remote control unit has been resynchronised. If the remote key still does not work after performing this procedure, further fault diagnosis will be required.
Holden Astra TS	The engine cooling diagnostic light is illuminated.	No 8 fuse (20 amp) is blown in the fuse box.	Replace the 20 amp fuse with a 30 amp fuse as under certain conditions the radiator cooling fans draw more than 20 amps.
Holden Astra TS	Intermittent no start whilst cranking. Fault codes P1612 or P1613 stored in the ECU.	Intermittent signal failure between the immobiliser and the ECU.	Installation of revised ECU software required.
Holden Astra 2000	Driver door will not open after a new battery has been fitted.	It was found that the door lock electrical locking mechanism had jammed.	With the key in the lock barrel and turned to the open position, thump next to the lock and open the door handle.
Holden Astra 2000	The ignition key will not turn in the ignition barrel.	Heat can affect the ignition lock mechanism and cause the lock to jam.	Blow cool air into the ignition lock and gently tap around the lock.
Holden Astra TS 2000	Jerky gear changes. Poor acceleration from a standing start, especially during high ambient temperatures.	Incorrect ECU calibration.	Calibration of the ECU to be performed by servicing dealer.
Holden Astra 2001	Engine does not start. No spark available.	Coil wiring not soldered correctly.	Resolder wiring to coil pack.
Holden Astra 2001	Engine cranks but does not start.	Immobiliser fault.	Remove battery terminals to reset.
Holden Astra 2001	Cooling fans staying on.	Faulty cooling fan control module, located forward of the passenger side front wheel.	Replace cooling fan control module.

Holden Astra 2001	Flat battery, cooling fans continue to operate.	Faulty coolant temp sensor.	Fit new coolant temp sensor.
Holden Astra 2002	Vehicle cranks but does not start. Power windows not working and no fuel pump operation.	No 46 15amp fuse blown. The fuse powers the fuel pump and power windows.	Replace the fuse. If the fuse blows again check for a short in the wiring.
Holden Astra	Engine starts and runs ok but unable to move gear selector out of park even when depressing the brake pedal. Brake lights not working.	Faulty brake light switch. Also check the brake light fuse and circuit wiring.	Check and replace brake light switch / fuse or repair faulty wiring.
Holden Astra	IMPORTANT PRECAUTION when disconnecting power supply to ECU.	After disconnecting the power supply (battery or harness plug) to the ECU, the ECU starts an internal learning process. One of the following procedures must be used (depending on the engine management system) after the power supply is restored.	MOTRONIC - switch the ignition ON and wait 20 seconds before starting the engine. GMPT E-15 - switch the ignition ON and OFF 3 times before starting the engine. The engine will crank but not start if the procedures are not used.
Holden Barina 1996	Vehicle stalling. Vehicle stops whilst driving. Has dash lights and restarts OK.	There are 3 earth leads at the battery negative post. One of the leads has broken due to corrosion on the lead and fallen behind the battery.	Repair the earth lead.
Holden Barina SB	Engine misfires and runs rough.	Spark at distributor arching onto the foil type lining on the distributor protective cover. Evidence of arching can be seen on the cover.	Remove the cover and the engine should run ok. Rectify this ignition system problem.
Holden Barina SB	When carrying out a brake inspection on the rear brakes, care must be taken when refitting the bearing hub nut.	The following information has been received from GMH. Investigation into premature rear wheel bearing failure on the SB Barina has pinpointed the cause as over tensioned spindle nut torque.	The SB Barina rear wheel spindle assembly utilises a tapered roller bearing. The rear wheel spindle nut should be tightened to 25 Nm while turning the hub at the same time. The earlier MB to MH series rear wheel assembly does not utilise tapered roller bearings and the torque specification for the wheel spindle nut is 80 to 120 Nm.
Holden Barina XC 2001	Hard starting. Long periods of cranking before engine starts.	Faulty crank angle sensor.	The engine management system uses the cam angle sensor as a reference when the crank angle sensor fails. The engine will need to be cranked over for an extended time period for the signal to be recognised. After the first start up the engine will restart normally.
Holden Barina XC	Remote pad not working. Door locks etc.	The remote key may be out of synchronisation.	Switch the ignition ON and within 30 seconds briefly press any button on the key whilst it is in the ignition. The central locking system will lock and unlock to show that the remote control unit has been resynchronised. If the remote key still does not work after performing this procedure, further fault diagnosis will be required.

Holden Barina XC	Keyless remote pad inoperable. Will not unlock the vehicle when pressing the button.	The keyless remote pad may be out of synchronisation with the vehicles security system.	Switch the ignition on and press any key on the remote pad. The central locking system will lock and unlock the vehicle, indicating the keyless remote pad has been synchronised. If this fails please contact a Holden dealer.
Holden Commodore VL	Vehicle stopped but wouldn't restart. Engine cranks. Has spark & fuel pump operation. The injectors have power but pulsing intermittently.	The fusible link at the battery that supplies power to the ECU has poor connection.	Repair fusible link at the battery.
Holden Commodore VL	Engine will idle but not rev pass 2000 rpm. Had similar symptoms to blocked fuel filter.	The orange wire terminal in the air flow meter harness plug had been pushed back into the harness plug causing a bad connection.	Remove the harness plug and check the terminal securing device is not damaged. If so the terminal may need to be supported from the back of the harness plug when refitting the harness plug.
Holden Commodore VL	Hard start, vehicle blowing black smoke when running.	Vacuum leak at brake booster.	Rectify the leak at the brake booster.
Holden Commodore VN	No start. Has spark and fuel operation. Injection pulse ok. Engine tries to fire but kick backs similar to incorrect firing order.	Harmonic balancer keyway has sheared off.	Keyway to be replaced.
Holden Commodore VN	No fuel pump operation. Blown fuel pump fuse. After replacing the fuel pump fuse the engine started and ran okay but when the ignition was turned "OFF" the fuse failed again.	A Faulty engine oil pressure switch. The fuel pump received a back-up current supply through the oil pressure switch when the engine is running. This circuit was earthing out during the operation of the faulty switch and causing the fuse to blow. Note, this fuse has been known to blow if there is a leak at the oil pressure switch and the oil gets into the wiring loom.	Confirm the fault by disconnecting the oil pressure switch and then replace the switch.
Holden Commodore VN	Smoke coming from under the bonnet. Coil pack melted.	Faulty ignition module.	Replace coil pack and ignition module.
Holden Commodore VP 1993 (Automatic)	Smoke from the rear of the vehicle. The under body and exhaust system are coated in transmission fluid. Transmission fluid level low. No visible leaks from transmission or cooler pipes.	Front oil pump bush in the auto transmission has spun in it's housing. The fault does not appear until the transmission is hot and fluid under high pressure. Oil will not leak at idle.	Repair oil pump bush.
Holden Commodore VR	Above normal engine noises and miss fire.	The possible cause could be that the valley cover has corroded between the water jacket and an oil gallery. The contaminated oil causes a hydraulic lifter to seize and hold the valve off its seat. The spark plugs may also become fouled.	Tow the vehicle to workshop for repairs.
Holden Commodore VR 1994	Engine will not crank. Ignition key turns accessories on and turns all the way with no resistance.	Die cast barrel locator has broken in the ignition switch causing the complete barrel to turn.	Separate the ignition switch from the key barrel and start with a screwdriver. Fit new ignition switch.

Holden Commodore VR/VS	VR/VS vehicles experiencing damage due to ingesting water in the intake system.	The windscreen washer hose and the vacuum supply line to the vacuum reservoir for the cabin ventilation controls (located in front of the left front wheel) are the same colour and the same size. They both run through the same grommet in the front corner of the left inner guard. In the process of accident repairs to this area the hoses were inadvertently swapped during reassembly. The engine vacuum can suck the windscreen washer fluid past the electric pump and / or operation of the windscreen washer pumps water into the inlet manifold.	Be aware of this. Needless to say the windscreen washers do not work even though the electric motor operates.
Holden Commodore VS	Interior fan stays on with the ignition off. Vehicle fitted with climate control.	The fan rheostat is faulty.	Replace the rheostat, which is located below the air intake cover below the wiper arms, between the windscreen and air intake.
Holden Commodore VS 1995	Engine stalled. Blown ignition fuse (7.5 amp)	Ignition relay has been replaced with early configuration relay which has a different pin allocation. (cheap after market relay)	Swap with the headlamp relay (correct pin configuration). Vehicle should start and run OK.
Holden Commodore VS 1997	Buzzing sound from BCM. Doors unable to unlock, no headlights, no central locking, will not start.	Possible radio wave or magnetic field interference.	Disconnect the main earth cable for 10 seconds. Reconnect and vehicle should start and other functions operate.
Holden Commodore VS	Engine overheating due to inoperative cooling fans. Fans only operate when air conditioning is on.	A bad earth located at the drivers side inner guard above the battery compartment, the PCM is unable to earth out the cooling fan relay.	Remove the earth leads from the securing bolt and clean the contact areas. Refit the leads and test the circuit.
Holden Commodore VS	Internal climate control fan stays on with the ignition off eventually discharging the battery.	The fan speed control resistor shorts out. The unit is mounted in the plenum chamber under the plastic shield with the wiper motor and linkages.	Disconnect the control resistor in the plenum chamber and safety secure the wires.
Holden Commodore VT, V6 & A/T (LPG)	Intermittent hard starting on LPG system.	Safety shut down of the LPG solenoids if the engine stalls when starting on LPG.	It is a characteristic of the LPG system that if the engine stalls during an LPG start, the solenoids will close after 3 seconds (as a safety precaution) and will not open again unless the ignition is cycled off and on. Without cycling the ignition switch the engine will not start, no matter how long it is cranked.

Holden Commodore VT BCM Fault	Central locking inoperative and the engine starts and then stops (similar to ballast resistor) on the first attempt, and will not crank on the second attempt.	The Body Control Module (BCM) has "locked-up" disabling the central locking, starter motor and fuel injection operation.	Using a multimeter on volts, measure the voltage at terminal 9 of the data link connector. Note Terminal 5 is Earth. The reading should be approximately 4.5 volts. This voltage is the serial data communication between the BCM and the Power Train Control Module (PCM). If no voltage is present the BCM has "lock-up" and no communication is taking place. Disconnect the battery for a minimum of 1 minute. If the vehicle will not start and there is no voltage at terminal 9 have the vehicle towed for further inspection. Disconnecting the battery will require the resetting of any preset vehicle memory functions such as radio security codes.
Holden Commodore VT 1998	Cooling fan does not turn off. Fan keeps running even after the key has been removed and the engine is below operating temperature.	Cooling fan relay contacts pitted and stuck together.	Replace cooling fan relay. (A firm tap on top of the relay can sometimes free contacts for a temporary fix)
Holden Commodore VT 1998	Engine has poor hard starting and runs rough after start up. Excessive crank time when engine hot and autos may display harsh shifting on light to medium throttle.	Calibration of Desired Shift Time (DST) and Shift Energy Management (SEM) not correct.	Take vehicle to dealer for correct calibration.
Holden Commodore VT 1998	Engine cranks but will not start and run. No ignition spark, no injector pulse or fuel pump operation.	No voltage to EFI fuse (located near the battery). Possible fault in wiring loom.	Supply voltage to the EFI fuse and the engine should start and run.
Holden Commodore VT 1999	Vehicle sitting for 3 weeks and keyless remote would not unlock doors only the boot.	Flat battery.	Open boot and supply power to boot light. Open passenger door with key and then open bonnet to access battery.
Holden Commodore VT	Flat battery due to cooling fans staying on at all times.	Possible faulty cooling fan relay.	Remove and refit the negative battery cable to reset the BCM and fans should work normally.
Holden Commodore VT	Engine stalls while driving.	Possible fuel hose in the fuel tank after the fuel pump is leaking or has disconnected.	Repair fuel hose.
Holden Commodore VT	Engine has rough idle and a hissing sound under the bonnet.	Vacuum hose has come off at the throttle body, possibly from a backfire.	Refit the vacuum hose and investigate the possible cause of the backfire.
Holden Commodore VT	Immobiliser override.		No override available on VT Commodores built during or after July/August 1998.
Holden Commodore VT	Engine miss fires.	HT leads have rubbed through and shorted on heat shields.	Remove heat shields to temporarily stop shorting. Replace HT leads and refit heat shields.

Holden Commodore VT	Air velocity from particular sections of the demister vents is significantly lower than other sections of the demister.	A section of foam from the crashpad restricts the airflow onto the windscreen. The problem can be identified by inspecting from the outside of the vehicle and looking down through the windscreen.	Remove the grills and trimming the offending pieces of foam.
Holden Commodore VT	Rattle in gear linkages.	Excessive clearance in the pin fittings on the transmission end of the linkages.	GMH has released a modified linkage assembly.
Holden Commodore VT	The internal fan stays on with the ignition in the off position.	Faulty relay located below the dash.	Replace the faulty relay.
Holden Commodore VT	Stalling. Stalls and cuts out in drive.	Split purge hoses.	Replace purge hoses.
Holden Commodore VT	Procedure for extracting fault codes. Codes can be viewed in the display screen in the instrument cluster.	When the Check Engine light illuminates, the engine management system has detected a fault and stored a fault code.	To extract fault codes with the ignition off press the mode and up button simultaneously. While holding the buttons, switch the ignition on. Use the up and down buttons to scroll and the mode button to select DTC mode. To exit, press the up and down buttons simultaneously.
Holden Commodore VT	Headlights would not switch off. Remove the relay and the lights stayed on. The only way to turn off the lights was to remove the fusible link.	The wiring harness to the headlights was caught under the battery and was shorting out the earth circuit from the headlights keeping them on. The lights are powered through the fusible link and earthed by the relay. The short was between the lights and the relay hence removing the relay had no effect.	Remove the battery and repair the wiring harness. This could be a problem that could occur when fitting a new battery.
Holden Commodore VT	Thermo cooling fans staying on after the ignition is turned off.	Fault in the relay.	By pulling out the low speed fan relay (Blue in colour) the fan stops. Replace the relay. Run the engine till the fans cut in, then switch off the engine to confirm correct fan operation.
Holden Commodore VT (V8 Manual)	Oil leak at the rear transmission seal.	The leak may not be from the rear seal. Several cases have found to be a faulty sealing in the slip yoke allowing transmission oil to leak out of the rear end of the yoke. The yokes were modified in August '98.	GMH advise replacement of the entire propeller shaft is required in earlier vehicles.

Holden Commodore VT II	Resetting procedure for the service reminder Function.		(1) Turn the ignition off (2) Hold down the trip computer buttons together. (3) Turn the ignition on while holding down both the buttons. (4) After approx 3 seconds release the buttons. (5) Press the release MODE button once only. The service due screen appears on the display . (6) Press and hold the trip computer buttons down together for approx 3 seconds until a beep is heard. (7) Release both buttons. (8) Turn the ignition off.
Holden Commodore VT II	Engine running rough and misfiring after starting.	Faulty EFI or starter relay. Siemens brand fitted.	Test relay input and output voltages and replace relay if faulty.
Holden Commodore VT/VX	Vehicle has no fuel pump operation.	May be due to a defective fuel pump relay.	Replace relay with upgraded replacement relay. (Genuine Part No. 92107897)
Holden Commodore VT/VX	No low beam headlamp operation.	May be due to a faulty low beam relay.	Replace relay with upgraded replacement relay. (Genuine Part No. 92107897)
Holden Commodore VT/VX	Loss of all security related functions and engine will not start. A buzzing noise may be heard from BCM located below dash near bonnet release lever.	BCM lockup, static voltage discharge has entered BCM internal circuitry and caused BCM to malfunction.	Remove fuse 31 (located in the engine bay fuse/relay box) and press the brake pedal a couple of times. Refit the fuse and the BCM should be reset.
Holden Commodore VT/VX/VU/WH	The vehicle runs out of fuel but the fuel gauge reads a third full	The modular reservoir assembly in the fuel tank can be installed in the wrong position.	Reinstall modular reservoir assembly in the fuel tank in the correct position.
Holden Commodore VT/VX/WH	Remote not working in warm or hot temperature.	GMH investigations have found that one of the capacitors on the circuit board may have failed.	Replace the failed capacitor on the circuit board.
Holden Commodore VT/WH (All)	Engine hard to start and stalling after start up.	Fuel pump failure. Faulty fuel pumps fitted during vehicle assembly.	Take vehicle to dealer for a revised fuel pump and fuel sender unit.
Holden Commodore VT/WH (V8)	Spark plug removal.	The engine must be allowed to cool down completely before removal of the spark plugs to avoid damage to the cylinder head spark plug threads.	
Holden Commodore VT II/VX	Battery keeps going flat when left standing for a period of time with the ignition off.	The power seat switch gets stuck in the down position drawing current from the battery. The same sometimes occurs with the power window switch.	Remove the circuit breaker from the fuse box located under the dash. Repair faulty switch.
Holden Commodore VX	Ignition key turns without resistance.	Sheared tag between the ignition barrel and the ignition switch.	Remove cowling around the steering column, remove ignition switch assembly and insert key in the barrel. Use a flat blade screwdriver to turn the ignition switch and start the vehicle.
Holden Commodore VX 2001	After locking the vehicle with the keyless remote, the vehicle unlocks after a period of 30 seconds.	The actuator located in the drivers front door is not at the correct adjustment.	Take vehicle to dealer for correct adjustment of the actuator

Holden Commodore VX	Battery going flat. Battery going flat for no apparent reason. Vehicle fitted with seat covers.	Seat cover retaining straps were holding the seat adjuster switch in the operate position causing a current drain. Current was intermittent due to the circuit breaker operation.	Reposition the seat cover retaining straps.
Holden Commodore VX	Vehicle locks via remote then unlocks. Horn sounds when locked.	Incorrect adjustment of a snib button causing BCM to think door is open.	Remove fuse 20 to deactivate the auto door locking feature or remove door trim to adjust snib button.
Holden Commodore VX, VU, VU II UTE	Vehicle runs out of fuel when fuel gauge still reading 1/4 full.	Low fuel level in the fuel tank. When the fuel gauge reads 1/4 full, a small amount of impurity in the fuel causes inaccuracy of the fuel sender unit.	Holden have initiated a rework to replace the fuel pump and sender unit on these models.
Holden VX/WH II 2002	Battery going flat prematurely or repeat low battery alert calls from Holden assist.	Excessive current draw from the telematics module.	Holden has revised software for the telematics module to reduce the current draw. Before returning the vehicle to Holden, check that the vehicle has no other faults causing excessive current draw by performing a current draw test.
Holden Statesman VS III	60 amp fuse blows when ignition key in crank position.	Shorted starter motor wire (purple) under battery mount.	Repair and secure wire. Replace fuse.
Holden Statesman WH II	Vehicle runs out of fuel when fuel gauge still reading 1/4 full.	Low fuel level in the fuel tank. When the fuel gauge reads 1/4 full, a small amount of impurity in the fuel causes inaccuracy of the fuel sender unit.	Holden have initiated a rework to replace the fuel pump and sender unit on these models.
Holden Frontera 2001	Vehicle will not crank. The Check Engine light in the dash blinks rapidly.	Fault in the Immobiliser Control Circuit. If the ICU detects an incorrect transponder signal or there is no communication between the components, the ICU will prevent the Starter Motor Relay opening. Fault codes may be stored in control units.	Try using the vehicle's spare key if possible or have vehicle towed to dealer for fault rectification.
Holden Frontera 2001	Vehicle will not crank	Fault in the Immobiliser Control Circuit. If the ICU detects an incorrect transponder signal or there is no communication between the components, the ICU will prevent the Starter Motor Relay operating and the PCM will prevent the engine from running. The check engine lamp in the instrument cluster will blink rapidly and the relevant DTC will be stored in both the ICU and the PCM.	Try using the vehicle's spare key if possible or have vehicle towed to dealer for fault rectification.
Holden Frontera 2002	No crank. The check engine light on the dash was flashing.	The immobilisation module had locked up.	Remove & refit the BCM 20 amp fuse located in the engine compartment fuse/relay box to reset the BCM.
Holden Jackaroo 1999	The keyless entry will not work on the anti theft module.	The interior light fuse is blown.	Fuse No 16 is the interior light fuse which also protects the keyless entry system of the anti theft module.

Holden Jackaroo 1999	The engine will crank but not start.	The 15 amp tail light fuse located in the interior fuse box or the 15 amp or 30 amp fuse in the engine fuse box could be blown.	Check the fuses in both boxes and the appropriate circuits and repair the circuits as necessary.
Holden Jackaroo (Diesel)	Engine cranks but will not start. Pre heat system does not operate.	Faulty trailer wiring causing the 15 amp engine fuse in the passenger compartment to blow. Fuse blows when brake pedal depressed.	Rectify trailer wiring and replace fuse.
Holden Rodeo 1997 Diesel	Excessive diesel knock during cold start and running.	A new coolant switch was introduced in 1997 which keeps the Cold Start Device activated longer than previous models (raised from 3 to 17 degrees C)	GMH maintain that this noise is normal and in no way detrimental to the operation or serviceability of the engine.
Holden Rodeo TF	No start. The engine will not crank.	The vehicle has a blown horn fuse.	Replace the fuse and retest the circuit.
Holden Rodeo TF	Engine starts then stalls after a few seconds. The battery light is on and the fan belt is missing.	Once the ignition key is returned to the on position after cranking, the fuel pump relay is powered by the alternator. When the alternator is not spinning there is no power to the energising side of the relay causing the fuel pump not to work.	Replace the fan belt.
Holden Rodeo (Cab-Chassis-Ute) 1992	No fuel pump operation. Current up to relay, all fuses OK and the relay was operating.	Faulty connector in the wiring loom. The connector is located under the driver seat and is well shrouded and protected. The light Blue wire connection was burnt.	Repair the connector.
Holden Rodeo 2001	Transmission light on dash illuminated. Transmission in limp home mode (gears need to be selected manually).	Possibly due to towing heavy load.	Remove TCM fuse and start the engine. Switch the engine off, refit the fuse and restart the engine. The light should extinguish and the transmission should operate normally.
Holden Rodeo V6 (Dual Fuel) 1998	Will not idle on petrol but runs OK on LPG.	Plastic pintle on idle control motor damaged due to the incompatibility with LPG to the plastic.	Current model IACs (Idle Air Control) have been upgraded.
Holden Rodeo 2000	Engine cranks but does not start for at least 20 seconds. During the no start cranking, the engine had no injector pulse. Low battery volts during cranking.	The vehicle had not been started for about 3 weeks.	Replace battery.
Holden Rodeo	No power to the fuel pump. Check during crank.	The multi pin plug located below the drivers seat has a poor connection or is faulty.	Disconnect the plug to clean and repair bad connection, or replace plug. The blue fuel pump wire can be bypassed.
Holden Suburban	No dash lights, blown main jumbo fuse (40 amp). Replaced with a fusible link because of the non standard physical size. The link blew again as soon as the key was turned to the start position.	An electrical short in the starter motor solenoid.	Repair the starter motor solenoid.

Holden Vectra 2001	IMPORTANT PRECAUTION when disconnecting power supply to ECU.	After disconnecting the power supply (battery or harness plug) to the ECU, the ECU starts an internal learning process. One of the following procedures must be used (depending on the engine management system) after the power supply is restored.	MOTRONIC - switch the ignition ON and wait 20 seconds before starting the engine. GMPT E-15 - switch the ignition ON and OFF 3 times before starting the engine. The engine will crank but not start if the procedures are not used. The engine will crank but not start if the procedures are not used.
Holden Vectra All 1998 - 2000	Gear lever will not move out of park while ignition is on and foot on brake pedal.	A blown stop light fuse or open circuit in the stop light circuit.	If unable to find and repair the open/short circuit, remove the cover plate below the handbrake lever and remove the screws securing the gear lever surround and remove the surround. Push in the yellow lever located on the passenger side of the gear lever.
Holden Vectra 1998	Engine misfires while driving but idles OK. Electrical and fuel systems do not reveal any problems.	Vehicle fitted with Traction Control. One new tyre had been fitted to the front while the other 3 were worn below wear indicates. The different rolling circumference of the new tyre was larger than the worn tyres causing the ECM to retard the ignition.	Replace tyres at the same time with the same size and make. The vehicle should have the ECM re-educated once the tyres have been replaced.
Holden Vectra JS	Remote pad not working. Door locks etc.	The remote key may be out of synchronisation.	Switch the ignition ON and within 30 seconds briefly press any button on the key whilst it is in the ignition. The central locking system will lock and unlock to show that the remote control unit has been resynchronised. If the remote key still does not work after performing this procedure, further fault diagnosis will be required.
Holden Vectra JS	Engine hesitates or stalls when cornering, travelling uphill or driving with full open throttle with 20 litres of fuel or less in the fuel tank.	Possible cause is that a foreign object in the fuel tank has lodged in the inlet of the swirl pot restricting fuel flow under high fuel demand.	Refer owner to a dealer for a more detailed inspection.
Vectra JS	Auto transmission staying in third gear. Check engine, airbag and transmission lights coming on.	Faulty voltage regulator.	Replace voltage regulator.
Holden Vectra ZC 2003	Topping up automatic transmissions.		The transmission filler plug is located next to the transmission range switch on top of the transmission. The filler plug must not be confused with the large Hex bolt (up to serial No 02MV717209, later vehicles have a pentagon bolt) located on top of the transmission and sealed with white paint. Loosening or removing the hex bolt can damage the transmission as this bolt secures the internal transmission bands.

Holden Zafira TT	Remote pad not working. Door locks etc.	The remote key may be out of synchronisation.	Switch the ignition ON and within 30 seconds briefly press any button on the key whilst it is in the ignition. The central locking system will lock and unlock to show that the remote control unit has been resynchronised. If the remote key still does not work after performing this procedure, further fault diagnosis will be required.
Honda Civic (Auto) 1997	PRECAUTION when replacing the battery. When the battery is replaced, the CVT transmission control module must be reprogrammed.	The transmission control module loses its memory when the battery is disconnected. If it is not reprogrammed, damage to the transmission will occur.	After the battery is fitted, the engine must be started and run until operating temperature is reached. Idle in Neutral with foot on the brake for 1 minute then idle in Drive for 2 minutes also with foot on the brake.
Honda Civic (Auto) 1998	Auto transmission incorrect operation (shudder) after the battery has been disconnected. This applies to any Honda fitted with a C.V.T.5 Auto.	When the battery is disconnected the transmission control module loses its memory.	Warm up the engine to operating temperature while in Park. With the foot brake applied, allow the engine to idle in Neutral for 1 minute. Shift to Drive and idle for 2 minutes. Repeat these steps if the transmission still shudders.
Honda Civic 1999	Engine cranks but will not start.	Engine will not start if the learning key supplied with the vehicle is used. This key is used by the Honda dealer to code replacement keys and should not be used to start the vehicle.	The vehicle will need to be taken to a Honda dealer as the original transponder key will not correspond to the immobiliser system.
Honda HRV	The engine will not start, has spark bit no injection pulse.	Incorrect key or improperly coded key is being used in the ignition.	If the immobiliser system warning light starts to blink after inserting the key it means the system does not recognise the coding of the key. Remove the key and retry making sure no other keys are in close proximity. If the light still blinks check that the key is the correct one. If the key is ok consult a Honda dealer.
Hyundai Accent	No crank.	Rubber pad on top of clutch inhibitor switch broken, not allowing the switch to operate.	Glue rubber pad together and refit.
Hyundai Accent 2001	No start. ECM fuse blown.	Wiring harness below the drivers side dash has possibly rubbed through on the sharp edge above the brake pedal bracket.	Repair wiring and redirect away from sharp edges. Replace ECM fuse.
Hyundai Excel (All) 1994	Engine runs rough or stalls, lack of power.	Cooling system had been serviced and the engine coolant temperature sensor connector had been incorrectly fitted to the sensor.	Straighten terminals and reconnect the connector to the sensor.
Hyundai Excel X3 1996	Radiator cooling fans running continuously when cold. During normal operating temperatures the engine hesitates and the fans return to normal operation.	Faulty ECU.	The ECU will need to be replaced.

Hyundai Excel 1997	Engine misses and intermittently runs on 2 cylinders.	Loose connection at ECM harness plug.	Refit harness plug to ECM. A click may be heard.
Hyundai Excel 1998	New location of the fuel pump check connector.		The connector has been moved from the engine bay to the right kick panel. The new location appears to be above a fuse panel attached to the side of the foot well. It is either marked with, or close to a yellow tag.
Hyundai Excel 1999	Loss of engine power. Running rough at idle.	HT spark shorting to ground in the spark plug tube, insulator burnt through.	HT leads require replacement.
Hyundai Elantra 2000	No crank or keyless entry remote operation. Indicator lights flashing.	Fault with the immobiliser/security system.	Switch the ignition on for 10 minutes and vehicle should start.
Hyundai Grandeur XG 2000	Loss of engine power. Surging before the vehicle goes into limp home mode.	Poor connection at ECU and various sensor harness plugs. This is caused by a lack of contact grease during production.	Check harness plug terminals fore corrosion at the ECU and sensors. Apply contact grease to ECU and harness plugs.
Hyundai Lantra 1995	No start. No spark or injector pulse.	Bad connection at the crankshaft position sensor harness plug.	Remove, check and refit the harness plug (located at the front of the engine block near the bell housing).
Hyundai Lantra Wagon '98	Won't start, no fuel pressure.	Faulty earth wire to fuel pump. Earth wire located under the rear seat.	Replace/repair earth wire.
Hyundai Lantra 1999 (ZYLUX Security System)	All Lantra models are now fitted with a new type of immobiliser system.	Features: Level 1 (a) Digital key override function. (b) Remote keyless entry. (c) LED indicator. (1) LED flashing slowly - armed. (2) LED flashing quickly - immobiliser is in arming state and the vehicle can be started. (3) LED off - immobiliser disarmed and ignition on with in 30 seconds. (4) Upgrade to level 2 option. Level 2 - Option Upgrade (a) Siren, shock sensors and bonnet switch.	Over ride method: The digital key is inserted into a socket which is located under the dashboard. The immobiliser is now disarmed and the vehicle can be started .
Hyundai Santa Fe 2000	Wiring short when the accelerator pedal is depressed.	On some models the wiring looms may have been incorrectly routed causing the wiring loom to come in contact with the accelerator pedal assembly when the pedal is depressed. Constant chafing may lead to a short within the wiring loom.	Secure the wiring loom away from the accelerator pedal assembly and repair any damaged wiring.
Hyundai Santa Fe 2002	Engine does not start. No fuel pressure but has fuel pump operation. Fuel gauge indicates there is fuel in the tank.	Fuel tank has two sections with one section containing the fuel pump assembly and the other section containing the gauge sender unit. Fuel is moved from one side of the tank to the over via a vacuum pump. If the vacuum pump fails, only fuel around the fuel pump assembly will be used while the fuel around the sender unit remains trapped and indicating fuel in the tank.	replace the failed vacuum pump.
Hyundai Sonata 2000	Loss of engine power. Surging before the vehicle goes into limp home mode.	Poor connection at ECU and various sensor harness plugs. This is caused by a lack of contact grease during production.	Check harness plug terminals fore corrosion at the ECU and sensors. Apply contact grease to ECU and harness plugs.

Jaguar MY XK8 1997	poor engine driveability after the battery is reconnected.	The learned function (memory) of the ECM may be lost and the module is operating on basic memory.	To speed up the learning process for certain functions within the ECM carry out the following: (1) Engage "P" or "N" and bring the vehicle to operating temperature. (2) Ensure the air conditioning is switched off. (3) Engage "D" with both the Parking and foot brake applied. (4) Allow the engine to idle for one minute. (5) Gently open the throttle raising the engine speed to 950 rpm and hold there for 45 seconds. (6) Raise the engine speed to 1200 rpm and hold there for 45 seconds. (7) Raise the engine speed to 1500 rpm and hold there for 30 seconds. (8) Allow the engine to return to idle speed, engage "P" or "N" and switch off the engine . NOTE: During this procedure do not exceed engine speed or time duration.
Jaguar XK8 2000	Gear lever will not release from park. Can not move transmission gear lever.	Fault in brake light safety circuit.	Remove the torque screws in the console near the gear lever. Insert a thin blade screw driver into the hole and press down. Move the gear into neutral and start the vehicle.
Jaguar S Type	Unable to select gears with T bar. T Bar moves freely, but not selecting gears.	Vehicle parked on hill with Park selected and no handbrake engaged. Driver forced T bar out of park, breaking the plastic linkage.	Remove console to access the cable end. Console in two pieces. Saddle on top pops out from dash board end. The rear of the console pops over the centre glove box hinge. The cable end can be access to move the vehicle out of park.
Jeep Cherokee	The engine starts then stops.	Interference with the security system by high frequency transmission waves is the probable cause.	Shift the vehicle to another location and try to start again.
Jeep Cherokee	Broken engine mounting bolts and possible engine block damage on high mileage vehicles.	Low grade bolts.	Chrysler Jeep are fitting new bolts on a complaint only basis.
Jeep Grand Cherokee ZG 1996 on	No start. Immobiliser inoperative. Drivers side electric windows inoperative. No power to instrument cluster. Keyless entry remote inoperative.	Possible electrical fault in vehicles communication system or one of the driven components.	To reset for temporary use (until correct diagnosis is carried out by dealer), locate the fuse box behind the battery and remove the 50 amp maxi fuse for 5 seconds then reinstall.
Jeep Laredo Grande	Engine cranks but will not start and run. No power supply to ignition coil or injectors while cranking.	Blown 20 amp fuse for ASD (automatic shut down) relay. Fuse replaced and blown as soon as engine cranked. Caused by short circuit in oxygen sensor wiring.	Rectify short circuit in wiring near engine block.

Jeep Renegade	Unable to disarm the alarm/immobiliser system.	Fault unknown.	To override the alarm/immobiliser system, use the vehicle key to lock and unlock passenger side door 20 times or if the vehicle's keyless entry remote is operational, sit in the passenger seat and point the remote towards the floor and press 5 times.
Kia Carnival 2000-2001	Accelerator throttle stuck open and not returning to closed position.	Part of plastic air box broken off and jammed the throttle butterfly.	Remove obstruction from the throttle butterfly and check the air box for other loose objects.
Kia Carnival	The accelerator throttle stuck open. High rpm and not returning to idle.	Honeycomb plastic object the size of a 50 cent piece broken off and lodged in the throttle butterfly.	Remove the object from the throttle throat and check the air cleaner box for any other loose material.
Kia Rio	Engine stalls while driving. Black 80 amp fuse located in the engine compartment fuse/relay box gets very hot.	Loose or dirty connection.	Remove, clean and check terminals for damage.
Kia Sportage 1997	Immobiliser problem. Engine cranks but will not start. No injector pulse or spark.	Alarm remote faulty.	Use override code as per owner's handbook. Override code is last 5 digits of chassis no.
Kia Sportage 1999	Engine cranks but does not start.	Stop light fuse blown. The immobiliser receiver is powered from the stop light circuit. This circuit also powers the energising circuit of the horn relay.	Replace stop light fuse.
Kia Sportage 2000	Immobiliser override procedure when vehicle will not start.	Faulty transponder. A code is required to override the system. The code can be found on the bottom of the keyless remote.	Switch ignition on. Immobiliser indicator light should stay on. Switch ignition off and the indicator light should flash. When the indicator light flashes the same number of times as the first pin no., switch ignition on. Repeat for all pin no's. If a mistake is made wait 20 seconds and start again.
Kia Sportage	Transmission stuck in first gear. This problem present when the air conditioning is switched on. Temperature gauge reads high. The check engine light, hazard light indicator light, demister light and door open indicator light are on.	Short circuit or malfunction in air conditioner cooling fan circuit.	Switch air conditioning off. Further diagnosis required from dealer.
Kia Sportage	The engine would not start.	The stop light was blown. The immobiliser receiver is powered from the stop light fuse.	Replace the stop light fuse & test. Check the circuit as the horn relay is powered from this fuse.
Land Rover Discovery '95	Hard to start, slow to crank. Engine lacks power, blows some black smoke and is noisy under acceleration.	The injector pump is belt driven. The belt has possibly jumped a tooth and advanced the timing.	Remove belt and replace with new one.

Land Rover (Range Rover)	Procedure for jump starting or replacing the battery for vehicles fitted with Satellite Navigation.	Failure to perform this procedure may cause damage to the Sat. Nav. Computer.	When jump starting or replacing the battery, switch the ignition off and wait 1 minute to allow the Sat. Nav. System to shut down. Alternatively there is a red power indicator light on the computer that extinguishes when the system shuts down and is ready to be jump started. The computer is on the driver side of the cargo area.
Land Rover (Range Rover)	No start after battery replacement.	The vehicle's keyless remote may become out of sync with the security system after battery replacement. The keyless remote operates the door locks and arms/disarms the vehicle immobiliser.	Insert the key in the door lock and lock/unlock the vehicle twice. Try and start the vehicle. If this fails, press the unlock button on the keyless remote while cranking.
Lexus IS200 2000	Engine cranks but does not start. Engine has spark and fuel pump operation but no injector pulse. A buzzing noise can be heard from the TPS with the ignition on.	No signal from the ECU to the injectors.	Remove and inspect the ECU IGN 10 amp fuse located in the fuse box in the drivers side kickpanel. The EFI relay is located in the engine compartment fuse/relay box. After refitting the fuse and relay the vehicle started.
Lexus IS200 2001	Ignition barrel will not turn. Key was removed in accessories position.	Faulty ignition barrel.	Tow vehicle for repairs. It is difficult to remove ignition barrel.
Mazda 626 (Auto) 1996	Automatic gear selector will not move out of Park. Release button on the gear lever is inoperative when the ignition is on and the brake pedal is applied.	Fault in the gear selector safety system.	Locate the small slotted button on the driver side of the gear lever on the centre console. Depress the button fully to override the selector safety system.
Mercedes-Benz C180 1998	The steering lock solenoid released and the key would not turn in the lock.	The key lock module is malfunctioning.	If a spare key is not available disconnect the battery terminals for five minutes to allow the key module to reset then reconnect the battery terminals and test.
Mercedes-Benz C200 2000	The ignition key will not turn and the gear lever will not shift out of Park.	Fault with the shift lock mechanism.	Remove the coin box in the centre console. Use a screwdriver to move the lever catch, apply the foot brake and shift the gear selector to the desired position.
Mercedes-Benz C240 1995	Vehicle starts and then stops.	Possibly caused by immobiliser problem if the vehicle has been unlocked overnight.	To reset the immobiliser, lock the vehicle for 3 - 5 minutes, unlock and restart. The vehicle should start and run.
Mercedes-Benz Sprinter	No start. "ERR" is displayed on the dash.	The starter circuit in the main ECU may be faulty or the security circuit may be faulty.	Remove the black side panel of the drivers seat and locate the 40 amp starter relay. Remove the relay and bridge the large female terminals of the relay socket. If the engine starts advise owner to take to repairer for repairs. If the engine does not start, the fault may be with the security circuit. Check that the transponder chip has not dislodged from the key. Try the spare key.

Mercedes-Benz Sprinter	The engine had stopped.	The ECU that is mounted under the glove box on the passengers side and has three plugs fitted to it. The smallest of the three plugs had come loose. There is no retaining clip on the plug to locate the plug to the ECU.	Refit the plug to the ECU and secure in place with tape.
Mercedes-Benz Sprinter	Poor performance and the engine will not rev above 3000rpm.	This may be due to a faulty stop light circuit or blown or incorrect stop light bulbs. This can affect the Sprint Shift control unit.	Check the stop light fuse and brake light switch. Check that the bulbs are working and are the correct specification.
Mitsubishi Magna	Test for coil switching	Using an LED light or a multimeter, insert a probe into the No.3 terminal of the Engine Speed Detection Terminal located on the firewall and crank the engine.	
Mitsubishi Magna	Engine will not idle. The engine will start and run under acceleration but will not idle. The cooling fans run continuously with the ignition on.	Possibly a fault with the coolant temperature sensor or fan relays.	Remove the fan relays for a few seconds and refit. Start the vehicle and check engine operation.
Mitsubishi Magna V6 & 4 Cyl	The engine will not idle correctly after the battery is disconnected or replaced.	The engine base idle position is now lower than the original position before the battery was taken out of the system.	reset the base idle position, ensure that all accessories are switched off, then remove the black plug from the top of the inlet manifold, near the throttle plate. Under this plug is the air bypass screw. By turning this screw the idle will increase or decrease depending on which way it is screwed. The vehicle tacho can be a guide to set the engine idle speed also.
Mitsubishi Magna TE/TF	The "N" lamp in the transmission range indicator is flashing.	This indicates a malfunction in the auto or overheating of the transmission fluid.	If the lamp flashes at a rate of once every second then a fault code check should be performed. When the lamp flashes twice every second then this indicates the transmission fluid is overheating and the engine should be allowed to idle until the lamp extinguishes.
Mitsubishi Magna 1998	Engine misfiring. Engine will not idle, check engine light on.	Engine ECU malfunction.	The ECU needs to be reset.

Mitsubishi Magna 1998 3 & 3.5 Ltr.	No idle. Vehicle battery had been replaced or disconnected. Removing and refitting the ECU fuse can also cause this problem.	Memory loss at the ECU.	In the trip computer display screen, a S for sedan or W for wagon should be displayed. With the ignition on, press the Mode button until a beep is heard. The display screen will show the engine capacity. If the correct capacity is not shown use the trip computer up and down button until the correct capacity is shown. Only a 3.0 or 3.5 litre can be displayed. Once the correct capacity is displayed press the Mode button until a beep is heard and then start the engine. The idle function should be returned to normal.
Mitsubishi Magna TH 2000	Engine cranks but does not fire when at operating temperature or on hot days.	Connector behind ignition switch can have a bad connection when hot. This plug carries the security signal for the ECU.	Unplug and clean connection before refitting.
Mitsubishi Magna TJ 2001	No start (intermittent). Engine cranks and has fuel and spark.	Unknown.	Disconnect the negative battery terminal and momentarily touch it on the positive battery terminal. Reconnect the negative battery terminal and the engine should start.
Mitsubishi Magna TR 2.6	Sticking throttle. When the throttle was released quickly the throttle butterfly would stick.	The idle stop screw has been backed off too far causing the throttle butterfly to fully shut and stick.	Adjust the idle stop screw enough so that the throttle linkage starts to move in the opening direction. Inform the owner that they will need to have the idle reset properly as this is a temporary fix.
Mitsubishi Magna TR 2.6	No start. With the ignition on the injectors are clicking at random. Power relay located under the dash on the driver side is also clicking.	Faulty hall sensor located in the distributor.	Replace the sensor.
Mitsubishi Magna TR/TS	Missing and stalling when engine becomes wet e.g. rainy days or engine wash. Evidence of arcing on the underside of the bonnet near ignition coil.	Ignition coil tracking onto underside of bonnet when wet.	Dry the area around the ignition coil with compressed air.
Mitsubishi Magna TR/TS	Vehicle will not start. No fuel pump operation, spark or injector pulse.	Corroded plug on the distributor crank angle sensor.	Clean and refit electrical connector.
Mitsubishi Lancer 1992 (Carburettor)	Not idling. Engine will only run with a wide open throttle.	Carbon build up in the carburettor blocking various circuits.	Use a carburettor type cleaner to clean off carbon build up in the air venturi, the various port openings and around the throttle shaft. Carburettor needs an overhaul.
Mitsubishi Lancer	No Start. No fuel pump or injector operation.	Incorrect or unauthorised key used to start the vehicle. After 3 attempts the immobiliser system shuts down.	Using the correct key, switch the ignition on for a minimum of 40 minutes. Switch off the ignition for 5 minutes and then restart the vehicle.
Mitsubishi Lancer	No fuel pump operation. Fuel pump testy at the B/W wire on the firewall was OK.	Bad connection on the MPI relay behind glove box.	Repair connection.

Mitsubishi Lancer 1998	Engine cranks but does not start. Spark OK but no injector pulse or fuel pump operation.	The original key had been lost and Mitsubishi had supplied a reprogrammed transponder key. The lost key was found shortly after and used to try and start the vehicle. The original key was no longer compatible with the vehicle security system.	After 3 attempts to start the vehicle, the security system will shut down and go into failsafe mode. Tow the vehicle to a dealer to clear the failsafe mode and reprogram the transponder keys.
Mitsubishi L300 (4G32 - 4G63 Motors)	Engine vibration after timing belt failure. All shafts were correctly timed and the belt was installed correctly.	Several cases of this failure have been reported where a stripped timing belt has been replaced with no other repairs carried out. The engine initially runs fine but then develops vibrations at various rev ranges. Investigation has shown that in all cases the oil level was low and the camshaft bearings were not inspected when the belt was initially replaced. When the oil level was low the camshaft bearings are starved for oil. The camshaft seizes when the engine gets hot and the teeth are stripped off the belt. By the time the vehicle was at the repairer the engine was cold. The camshaft turned freely and was therefore not inspected. However the camshaft bearings were damaged enough that when the engine was put back in service they developed vibrations from the excessive clearance. There was also evidence that rapid camshaft bearing wear/failure had occurred or was under way.	When confronted with a belt failure always check for indications of oil starvation and intermittent seizure at the camshaft bearings.
Nissan Bluebird 1994	Engine will not start. Erratic spark and fuel injector pulse.	Oil leaking over the crank angle sensor and pick up plate.	Clean the oil off the crank angle sensor and further investigate the cause of the oil leak.
Nissan CBK270 from 2001	Product recall. The front pressure fuel line could fail through stress fatigue.	The front pressure fuel line could fail through stress fatigue.	Return the vehicle to a Nissan Dealer for an inspection and repair.
Nissan EXA 1.6 1988	Engine cranks but will not start. Ignition timing retarded 20 degrees. Advanced timing 40 degrees and engine started. Reset timing to spec. Engine did not restart after standing for 30 minutes.	Wear in crank angle sensor allowed massive variation in timing.	Replace crank angle sensor.
Nissan Maxima 2000	Engine cranks but does not start. Has fuel pump operation but no injector pulse. Remote central locking operating.	Transponder chip had fallen out of the ignition key.	If possible locate the immobiliser chip and refit into the key. If unable to locate the chip the transponder keys will need to be replaced.
Nissan Patrol 1998	The engine will start and then run for a few seconds and then cut out.	Low oil level or the vehicle is parked on an uneven surface.	Check the oil level when the vehicle is on an even surface and top up as necessary. An upgrade kit is available which increases the vehicle oil capacity.

Nissan Patrol 1998	Engine cranks but does not start. Engine light flashing.	Nissan supplied owner with a second transponder key. The fault occurred when the original key was used. After several attempts to start the vehicle with the original key the system shut down causing the new key not to work. A different code was used with the new key causing the original key not to be recognised.	Wait about 45 minutes and try to start the vehicle with the new key. When the vehicle was brought new, only one key was supplied.
Nissan Patrol 1998	The engine cranks but does not start. After several attempts, the engine does not even crank with the ignition key in the crank position.	After several attempts of using an unauthorised key or a key where the transponder is missing, the immobilising system shuts down.	Obtain the correct programmed key for the vehicle. Cycle the key 3 times and the immobiliser system will disarm and the engine should start.
Nissan Pulsar 1989-90	The engine cuts out when cornering with a passenger on the rear passenger seat.	The harness plug to the fuel pump which is located under the rear seat, disconnects from the weight of the passenger.	Reconnect the harness plug and secure with electrical tape or cable ties.
Nissan Pulsar N14 1994	No start. No fuel pump operation.	Fuel pump harness plug located below the rear seat was loose and had melted.	Remove and repair harness plug. Clean contact areas and refit the harness plug.
Nissan Pulsar N16	Engine stalling.	Fault with the camshaft or crankshaft position sensors. The affected engine number ranges are QG16DE:200621-210488 and QG18DE:200736-309596.	Nissan have contacted owners of affected vehicles to have both sensors replaced. A completion label should be affixed on the driver side A pillar after the fault has been rectified.
Nissan Skyline RB31	No start. Intermittent spark with ignition on and engine not running when tested with spark tester.	Poor connection at positive terminal of the battery.	Remove and clean battery terminal and post.
Nissan Terrano II 4WD & GU Patrols (Diesel engine)	Like many new diesel, these vehicles use electronically controlled governors in their fuel injection pumps, not the old centrifugal type. These electronic governors rely on electrical contacts and sensors which are immersed in the diesel fuel inside the injection pump. When large amounts of water are taken in with the fuel because of contamination, the water is trapped in pockets in the injector pump housing.	This trapped water starts to corrode the internal components. The electrical contacts and sensors, because of their construction, tend to corrode at a rapid rate. This increased resistance caused by the corrosion gives the ECU an "out of range" reading and will either cause erratic governor control or a limp home mode to be set allowing limited RPM. In extreme cases it will cause the ECU to close the fuel shut-off solenoid and prevent engine operation. If the corrosion in the pump is left for long periods it is agitated whenever the pump is running and causes extensive internal component damage. Please note that other manufactures are moving to electronically controlled diesel injection systems so this problem may appear in other makes of vehicles.	Any diesel engine that has ingested water in the fuel system must have all the water removed. Inter-Ject Diesel Additive will sort this problem out. Make sure that the water trap is also checked and drained. Do not assume that no further action is required just because you have bled the system and the vehicle seems ok. You must completely remove the water from the fuel system and advise the client to use an effective additive like ours to prevent any future problems.

Peugeot 306 1997	Engine stalling. Speedo reading much higher than the speed the vehicle is travelling.	The speedo sensor in the gearbox is located below the battery. Acid has been leaking out of the battery and onto the sensor harness plug and causing corrosion.	Flush the sensor with water and dry with compressed air. The sensor will probably have to be replaced.
Peugeot 406	Engine surging very badly above idle. Possible signs of coolant loss near the transmission bellhousing area.	Coolant leak onto brown 3 pin connector for the crank angle sensor, located on top of the transmission bellhousing next to the engine block.	Repair water leak if possible. Dismantle connector, clean and refit.
Saab 900 Turbo 1995	Could turn ignition on. Ignition switch located in centre console and could not be turned on. Vehicle parked on a hill.	The owner selected park before applying the hand brake. This placed a load on the locking pawl due to the vehicle being parked on a hill and would not allow the ignition switch to turn.	Rock the vehicle to remove the load on the locking pawl whilst someone turns the ignition key.
Saab 1995 - 2000	No start. Engine cranks but does not start. Strong electrical burning smell from under bonnet.	Faulty direct fire ignition module.	Replace module.
Subaru Forester 2001	Engine cranks but does not start during cold weather or first start up in the morning.	The immobiliser control unit (IMM ECM) may be affected by cold weather.	Apply warm air to the IMM ECM if possible (located below the dash on the driver side). Subaru have an IMM ECM and transponder chip upgrade available.
Subaru Forester 2001 (SELF DIAGNOSIS SYSTEM)	<p>The on-board diagnosis system detects & indicates specific faults in the Engine Management system. The check engine malfunction indicator lamp on the instrument cluster indicates the occurrence of a fault. The on-board diagnosis system can be accessed by either the Subaru Select Monitor (refer dealer) or by using the read memory and test mode connectors located below the dash near the steering column and reading the fault codes using the check engine lamp.</p> <p>Read Mode Connectors: Used to read stored fault codes in the memory. To read stored faults codes using the Read Memory mode Connector: 1. Connect the two Black connectors located below the dash near the steering column. 2. Switch the ignition "ON" but do not start. 3. Read the two digit fault codes by counting the number of flashes from the check engine lamp. The number of tens is represented by a flash 1.3 seconds long and the units are represented by a flash 0.2 seconds long.</p> <p>Test Mode Connectors: Used to detect current</p>	<p>Trouble Codes & Components: 11: Crank Angle Sensor. 21: Coolant Temp Sensor. 22: Knock Sensor. 24: Idle air control solenoid valve. 26: Intake Air Temp Sensor. 31: Throttle Position Sensor 32 Oxygen Sensor. 33: Vehicle Speed Sensor. 35: Purge Control Solenoid Valve. 45: Pressure Map Sensor. 51: Neutral Position Switch. 53: Immobiliser System. 54: Intake Air System. 85: Charging System</p>	<p>Fault: 11: The signal is not entered from the crank angle sensor. 21: The signal is emitted from the coolant temp sensor. 22: Abnormal voltage input. 24: Idle air control valve inoperative. 26: Abnormal signal emitted. 31: Abnormal voltage input. 32: Oxygen sensor inoperative. 33: Abnormal voltage input. 35: Solenoid valve inoperative. 45: Abnormal signal emitted. 51: Abnormal signal entered (manual only). 53: Fault with immobiliser system. 54: Intake air leak or faulty/disconnected vacuum hose. 85: Faulty charging system.</p>

Subaru Impreza 1992-1996	No start. Has no fuel pump operation.	Fuel pump connector located behind the driver side of the rear seat becomes hot and melts causing a poor connection.	Remove and inspect the connector. Clean and repair the connector as necessary.
Subaru Impreza WRX 2000	No start. The engine will crank (vehicle battery voltage OK), has spark but no fuel pump operation. Vehicle has not been driven for 2-3 weeks.	Vehicle fitted with CARCOM security system. The security system back up voltage was low. The back up battery voltage drops after 3 days if the vehicle is not driven.	Connect jumper leads to the vehicle battery and the engine should start. The vehicle should be driven for 30 minutes to allow the back up battery to fully charge.
Subaru Impreza WRX 2002	Flat battery. Will not start when jump starting. The vehicle has a flat battery. The vehicle cranks when jump starting but does not start. A security code needs to be entered into the key pad to start the vehicle. After entering the code the vehicle still fails to start.	If the vehicle battery has been flat or disconnected for about two days the back up battery in the security system runs flat. This causes the security system to lose its memory and the system will not accept the original security code.	Contact the dealer. After verifying ownership the dealer will provide a master code to override the system. An upgrade security system is available and fitted to MY03 vehicles. To prevent the battery from going flat, the upgrade system goes into "sleep mode" when not in use until the ignition is switched on or a button is pressed on the key pad.
Subaru Leone	The vehicle will crank but not start.	The fuel and ignition fuse is blown. The purge solenoid wiring loom had shorted out to earth at the carburettor.	Repair and insulate the wiring loom.
Subaru Liberty 1992	Hard starting when cold, will not idle. Good spark. Thermo fans running all the time.	Faulty coolant temperature sensor.	Squirt fuel into the manifold and start the engine. Keep revs above idle to prevent stalling and allow the engine to warm up. Once the engine has warmed up it should idle. The vehicle can then be driven to repairer.
Subaru Outback 1998-1999	Rough idle. After replacing or disconnecting the battery the vehicle idle quality drops.	Idle stepper motor requires resetting.	Connect the two black connectors located below the driver side dash near the steering column. Cycle the ignition key 5 times from the OFF to ON positions. Disconnect the connectors, start the engine and check idle quality.
Subaru Sportswagon L '90	Passenger side front brake locking on when brakes are applied and remaining locked on.	Return spring for the hill holder mechanism fallen off allowing the hill holder to come on but not release.	Replace the spring if available or back off the adjustment for the hill holder until a spring is available.
Suzuki Swift 1994	The engine will crank but not start, there is power to the coil.	The EFI fuse was blown in the engine fuse box.	replace the fuse and check the circuit.
Toyota Camry 1994-1997	When pressing the button on the keyless entry remote to lock the vehicle, two beeps are audible from the horn (one beep should be audible when functioning correctly) and the vehicle will not lock.	The power door locking button located in the centre console (on vehicles without power windows) sticks in the unlock position.	Press the button to the reset position. Clean and lubricate the switch if possible. If the switch continues to stick it will have to be replaced.
Toyota Corolla AE92 1992	Irregular idle, engine misses and has a flat spot.	Earth strap on the manual transmission has vibrated loose. Lock washer is missing from the securing bolt.	Remove the securing bolt and clean the contact areas. Refit the bolt with a lock washer.

Toyota Corolla AE112 2000	Manual override for vehicles equipped with an alarm when the keyless remote fails.		Using the ignition key, unlock the drivers door (the alarm will sound and the indicators will flash). Insert the ignition key in the ignition barrel and cycle the key 10 times from ACC to ON. After the 10th cycle the alarm should disarm.
Toyota Cressida 1989	No start. On a rainy day the spark plug cavities fill with water.	When it rains water runs down the channel at the rear of the bonnet and into the spark plug cavity. The rubber seal at the channel is not effective.	Dry the spark plug cavities and spark plugs with compressed air. Use a flat plastic milk bottle cut to size or similar at the rear of the cylinder head. This is a temporary fix to divert water away until the seal is replaced.
Toyota Echo (Manual) 2000	Gear selector very tight when changing gears.	The linkage between the selector and gearbox is cable operated. The cable can move out of position and contact the exhaust pipe. The heat causes the cable to expand and seize in the outer sleeve.	Secure the cable away from the exhaust. Replacement may be necessary if permanent damage has occurred to the cable and outer sleeve.
Toyota MR2 2001	Battery going flat after the vehicle has been standing for a long period of time e.g. overnight. The fuel pump may be heard operating intermittently.	When the door is opened on the vehicle, the BCM primes the fuel pump. A fault with the central locking circuit or BCM causes the fuel pump to be continuously primed when fuel pressure drops and causing the battery to go flat.	Check serviceability of the battery and charge system. Jump start and have the vehicle checked by a dealer.
Toyota Hilux LN65 2.4 (Diesel)	Engine revving very fast. Blowing excessive white smoke.	Engine overfilled with motor oil. Oil traveled to the intake system via a bypass tube.	Drain excessive motor oil.
Toyota Landcruiser 1995 (80 Series)	Engine stalls while driving. No fuel or spark and main relay clicking.	Main relay fault.	Locate 4 pin main relay in engine compartment and bridge the 2 large copper terminals with a fused wire.
Toyota Landcruiser (100 Series)	Engine stalls while driving. The engine cranks and restarts.	Worn spill valve terminals due to excessive vibration. The spill valve is located on the diesel pump.	Secure harness to minimise movement and return vehicle to a dealer. Toyota have an upgrade kit available consisting of a new harness plug and locking ring.
Toyota Landcruiser (100 Series)	Engine cranks but does not start. Security light on dash staying on.	Confused TDM (theft deterrent module).	Disconnect the battery including the auxiliary battery while the ignition is "on". Reconnect the battery and the vehicle should start.
Toyota Prado (Automatic)	Screeching noise when shifting from reverse to neutral or park. This may occur on vehicles built from June '97 to Oct '97.	Faulty assembly of the valve body.	Return to a dealer for rectification.
Toyota Prado 2001	Keyless entry remote not working.	Possible flat battery in the remote or out of sync with the control module.	Check remote battery (CR2032). If the battery is OK turn the ignition ON and then disconnect the vehicle battery. (Before disconnecting the battery, obtain radio codes). Reconnect battery and retry keyless entry remote.
Toyota RAV 4 1995	Vehicle stalls when indicators, hazard lights or headlights are turned on.	Earth wire behind the grille under the driver side headlamp becomes loose.	Remove the earth wire and clean contact areas. Refit earth wire.