



DATE:
NAME:
YEAR/MODEL:
MILEAGE:
DOM:

PRE-PURCHASE INSPECTION CHECKLIST

Service Description

- Road test car for initial driving impressions. Check for proper engine performance, handling characteristics and transmission engagement. Test brake system for proper ABS engagement and absence of pulling or shimmy. Check for road noises, suspension vibration, squeaks and rattles. Check basic operation of cruise control.
- Perform complete electronic diagnostic systems test. Interrogate and read out any existing faults in DME (*digital motor electronics*), EGS (*electronic transmission control*), EWS (*electronic drive-away protection*), ABS/ASC/DSC (*anti-lock braking system/all season traction/dynamic stability control*), ZKE (*central body electronics*), IKE/KOM (*instrument cluster*), IHKA (*automatic heating and air conditioning*) and SRS/MRS (*airbag/multiple restraint system*), etc.
- Perform body and rust perforation inspection.
- Perform preliminary inspection of under-carriage for signs on flooding (i.e. debris trapped on top of fuel tank, carpet removal or displaced body plugs).
- Inspect engine seals and gaskets for oil seepage.
- Inspect transmission seals and gaskets for seepage (automatic and manual); clean and determine source of leaks as needed.
- Inspect transfer case and forward differential for seal leakage (X models only).
- Inspect rear driveshaft U-joints/CV joints for wear.
- Inspect condition of rear driveshaft center bearing for sagging and correct preload.
- Inspect condition of forward driveshaft including drive flanges and fasteners (X models only).
- Examine condition of rear axle mount and inspect for signs of cracking in differential mounting body at cross frame support.
- Examine rear axle shaft seals for gear oil seepage.
- Examine rear stub axle seals for grease seepage.
- Inspect condition of inner and outer CV joints and boots on rear half shafts. Report signs of cracking or seepage (grease).
- Inspect front half shaft inner and outer CV joints for wear and boots for cracking or leakage (X models only).
- Inspect condition of rear crossmember mounts for sagging or splitting.
- Test upper and lower rear control arm joints and bushings for wear.
- Test trailing arm pivot joints for wear, if applicable to model.

- Test condition of rear shocks for proper compression and rebound. Inspect for external leaks or internal leak down. Check condition of shock tower mounts. Inspect body tower area for split rubber, cracking, or metal fatigue.
- Test rear suspension link arms for play which may affect alignment settings.
- Examine front suspension for split seals, worn bushings, and bent or damaged components which may affect handling and/or alignment.
- Check condition of front suspension/steering ball joints including sway bar linkage joints, thrust arms, control arms, tie rods, and center link.
- Inspect steering shaft U-joint connection clamping bolts and steering gear mounting. Check for play in U-joints and condition of hardy disc.
- Measure front wheel bearings for play. If evident, check bearings for signs of water contamination.
- Measure lateral and radial runout in each wheel.
- Test operation of RDW system (*low tire pressure warning*), if equipped.
- Check condition of tires and tread for uneven wear or punctures.
- Test operation of M-Mobility unit, if equipped.
- Check for proper installation of jack/lug wrench and account for proper tools and supplies in tool kit, if equipped.
- Test condition of front shocks for proper compression and rebound. Inspect for external leaks or internal leak down. Check condition of shock tower mounts for split/collapsed rubber or worn/binding pivot bearing.
- Test springs for fatigue. Includes measure ride height:
Left front: _____ Right front: _____
Left rear: _____ Right rear: _____
- Check power steering fluid reservoir level and check fluid for burnt or poor condition.
- Inspect power steering system hose clamps and fittings. Inspect for any leaking seal rings, hoses, pump, and steering gear.
- Inspect engine mounts and check condition of rubber for cracking or sagging.
- Inspect exhaust system bolts and sealing flanges; check condition, position, and mounting of exhaust system; and check rubber hanger for cracking or sagging.
- Visually inspect clutch master cylinder, slave cylinder, hoses, and lines for leaks (manual).
- Check operation of shifting, inspect for wear in cable (automatic) or linkage (manual).
- Test SMG function and adaptation with GT1, if equipped.
- Check level of brake and clutch fluid in reservoir. Flush is advised every year in Houston due to the high humidity levels.
- Examine brake lines/hoses and connection for seepage, damage, or distortion.
- Check parking brake for proper engagement.
- Visually inspect brake calipers for worn slider pins and/or split piston seals.

- Measure thickness of brake pads remaining:
Front: _____ mm (_____) % worn Rear: _____ mm (_____) % worn
- Measure thickness of brake rotors (if pads are worn more than 80%):
Front: _____ (____ Minimum spec) Rear: _____ (____ Minimum spec)
- Examine engine belts for cracking. Inspect tensioning adjustment pulleys for wear and tensioner pistons for correct preload on belts.
- Visually inspect fuel tank, lines, and connections for seepage or under-carriage damage. Report hoses older than 7 years or visually cracking.
- Inspect fuel line connections at fuel pump and pick up units. Includes removal and installation of back seat and/or fuel pump access hatch. Report seepage around pick up unit/gasket.
- Inspect fuel line clamps under car and connection in engine compartment.
- Visually inspect injection rail, injectors, and fuel pressure regulator for seepage.
- Inspect condition of vacuum hose to remote fuel pressure regulator.
- Inspect engine cooling system aluminum flanges under hose connection for signs of corrosion or hose damage.
- Check all engine cooling system plastic hose connections and flanges for signs of seepage due to embrittlement. Advise of age and condition of parts for future attention as needed.
- Pressure test engine cooling system and all connections, and inspect for seepage concentration.
- Test efficiency of engine cooling system including test radiator heat dissipation, thermostat operation, and proper flow through system. Flush is required every three years to prevent corrosion damage.
- Test engine fan clutch for proper operating engagement at operating temperature to provide adequate air flow through radiator. Test for disengagement at higher RPM to prevent excessive drag on engine.
- Test auxiliary fan with engine at operating temperature at idle for proper operation of normal and high speeds. Includes bypass temperature switch to simulate overheat situation and engage air conditioning system to test auxiliary fan based on system pressures.
- Check battery terminals and battery posts for corrosion.
- Visually inspect battery condition and fitment. Verify vent tube function.
Battery type: _____ Battery brand: _____ Battery date: _____
- Perform electrical system/load tests:
Alternator: amp ____ V ____ Starter: amp ____ V ____ Battery: V ____ sec. ____
- Check operation of windshield washer system (front and rear, if equipped). Includes inspect reservoir and hoses for leaks, and nozzles for proper spray pattern and position.
- Check wiper blades (front and rear, if equipped) for proper cleaning and condition.
- Check for signs of oil seepage into spark plug holes around valve cover gaskets.

- Check engine compression at operating temperature with wide open throttle (fuel and ignition systems disabled):
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|-----|-----|-----|------|------|------|
| #1: | #2: | #3: | #4: | #5: | #6: |
| #7: | #8: | #9: | #10: | #11: | #12: |
- Test function of VANOS system (1993 and newer) and assess engine timing chains for wear.
- Electronically test synchronization of MDK unit and throttle sensor (1999 and newer).
- Inspect intake boot, engine breather hoses, and crankcase breather system for proper sealing or signs of cracking, splitting, or brittle plastic components.
- Inspect air filter(s) and fuel filter(s) for clogging/age.
- Verify proper secondary air injection system function including inspect vacuum and pressure hoses for cracking or leakage. Test operation of air limit valve for signs of sticking (due to carbon buildup).
- Electronically test function of oxygen sensors including pre-catalytic converter and post catalytic converter sensor operation.
- Scope engine including read out live engine data for nominal specs and adaptive fuel trim.
- Test fuel evaporation control system for proper operation and saturation levels.
- Check engine adaptation values for OBDII cars:
Additive: _____ / Multiplicative: _____
- Measure fuel injection system emission output from exhaust (for cars 1995 and older):
Bank 1: CO% ___ HCppm ___ CO2% ___ O2 ___ NOX ___ AF Ratio ___
Bank 2: CO% ___ HCppm ___ CO2% ___ O2 ___ NOX ___ AF Ratio ___
- Check operation of lighting equipment including headlights, fog lights, turn signals, taillights, side marker lights, and parking lights.
- Check stalk control for proper turn signal and headlight flash.
- Test operation of ALC (*automatic light control system – 9/01 and newer*), if equipped.
- Check operation of both horns.
- Check headlight function, aiming tension rods and proper adjustment.
- Check instrument cluster and dash illumination.
- Test operation and illumination of all standard dash warning systems and check control system.
- Test function of OBC (*on-board computer*) including stalk controls.
- Test operation of MFL (*multi-function steering wheel*) controls.
- Test operation of PDC system (*park distance control*), if equipped.
- Perform navigation system function test, if equipped.
- Check operation of interior dome, glove box, map, flashlight, rear reading, vanity mirrors, and luggage compartment lights.
- Check function of cup holders, if equipped.

- Test operation of windshield wipers (rear, if equipped), heater and air conditioner blowers and controls, and rear window defroster. Check stalk control, sliders, switches, and vents for proper operation.
- Inspect all weatherstripping for tears and proper door/window contact.
- Check operation of sunroof including height adjustment, cable timing, and one-touch feature.
- Inspect paint and finish quality. Measure thickness of paint if body work is suspected.
- Check doors, hood, and trunk for proper closing tension, and check function of internal and external release mechanisms for faulty operation.
- Check fitment of doors, hood, and trunk. Measure gaps for fitment issues if body work is suspected.
- Operate and test function of locking system. Check function of all interlocking actuators in doors, trunk, fuel filler door, and check for third position dead bolt operation.
- Test function of DWA (*alarm system*).
- Test operation of electric and manual seat adjustments including test operation of seat memory feature, if equipped. Advise if seat material repair or conditioner is needed.
- Check operation of seat heater, if equipped.
- Examine condition and operation of seatbelts.
- Check headliner and partial shelf material for sagging and for secure mounting of A, B, & C pillar trim.
- Visually inspect SRS/MRS air bag units for worn covers or damaged trim.
- Check operation of electric mirrors including check motors for binding or popping. Test function of passenger side reverse drop-down feature, if equipped, and mirror memory function, if equipped.
- Check operation of manual and electric windows. Report any window regulator abnormal function or noises.
- Check operation of side and rear window shades, if equipped.
- Inspect external microfilters and check for debris in cowling.
- Check internal IHKA microfilters for clogging, if equipped.
- Check air conditioner charge, and visually inspect all hose connection and components for signs of seepage.
- Inspect air conditioner hoses and compressor for proper mounting to prevent chafing or vibration.
- Test actual air conditioning system pressures during operating conditions:
High: _____ Low: _____ Ambient temperature: _____
- Test IHKA temperature output during operating conditions:
A/C at idle: _____ A/C at 55 mph: _____
Heat at idle: _____ Heat at 55 mph: _____
- Test audio function including radio, CD, cassette, and speakers.

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