

Ready for Winter

- **Before you do anything else**, read your owner's manual and follow the manufacturer's recommended service schedules.
- **Get engine performance and drivability problems** — hard starts, rough idling, stalling, diminished power, etc. — corrected at a reputable repair shop that employs ASE-certified repair professionals. Cold weather makes existing problems worse.
- **Replace dirty filters**, such as air, fuel, and PCV. A poorly running engine is less efficient and burns more gasoline.
- **As the temperature drops below freezing, add a bottle of fuel deicer** in your tank once a month to help keep moisture from freezing in the fuel line. Keeping the gas tank filled also helps prevent moisture from forming.
- **Change your oil and oil filter as specified** in your manual — more often if you're driving is mostly stop-and-go or consists of frequent short trips. A poll of ASE Master Auto Technicians revealed that regular oil and filter changes is one of the most frequently neglected services, yet one that is essential to protect your engine.
- **The cooling system should be flushed and refilled** as recommended. The level, condition, and concentration of the coolant should be checked periodically. A 50/50 mix of antifreeze and water is usually recommended. Do-It-Yourselfers: Never remove the radiator cap until the engine has thoroughly cooled! The tightness and condition of drive belts, clamps, and hoses also should be checked regularly by a professional technician.
- **The heater and defroster must be in good working condition** for passenger comfort and driver visibility.
- **Replace old blades regularly**. If your climate is harsh, purchase rubber-clad (winter) blades to fight ice build-up. Stock up on windshield

washer solvent — you'll be surprised how much you use during the winter months. And don't forget to always carry an ice scraper.

- **Have your battery checked.** The only accurate way to detect a weak battery is with professional equipment. However, most motorists can perform routine care: Wear eye protection and protective rubber gloves. Scrape away corrosion from posts and cable connections; clean all surfaces; retighten all connections. If battery caps are removable, check fluid level monthly. A word of caution: Removal of cables can cause damage or loss of data/codes on some newer vehicles, so always check your owner's manual first. Be sure to avoid contact with corrosive deposits and battery acid.
- **Inspect all lights and bulbs.** Replace burned out bulbs; periodically clean road grime from all lenses. To prevent scratching, never use a dry rag. Clouded lenses can be refinished by many service outlets or by using a DIY kit found in major auto parts outlets.
- **Exhaust fumes inside your vehicle's cabin can be deadly.** Have the exhaust system examined for leaks and problems while the vehicle is on a lift. The trunk and floorboards should also be inspected for small holes.
- **Worn tires are dangerous in winter weather.** Examine tires for remaining tread life, uneven wearing, and cupping; check the sidewalls for cuts and nicks. Check tire pressure once a month, letting the tires "cool down" before checking the pressure. Rotate as recommended. Don't forget to check your spare, and be sure the jack is in good working condition. Under-inflated tires or poorly aligned wheels makes your engine work harder and thus use excess gasoline.
- **Have your brakes checked periodically** for safety and to prevent costly repairs that can be caused by neglect.
- **The transmission is often neglected until a major failure.** Routine checks and fluid changes at prescribed intervals can prevent very costly repairs down the line.

- **Always carry an emergency kit with you:** extra gloves, boots and blankets; flares; a small shovel and sand or kitty litter; tire chains; a flashlight and extra batteries; and a cell phone and extra car charger. Put a few “high-energy” snacks in your glove box.