



# Motor Vehicle Care Tips

Keeping up with your car maintenance goes a long way in saving money and avoiding unexpected travel delays. Knowing how your vehicle works and how to identify common car problems will keep you on the road and out of the repair shop.

## Heading off problems

The more you know about your vehicle, the more likely you will be able to head off repair problems. You can detect many common vehicle problems by using your senses: eyeballing the area around your vehicle, listening for strange noises, sensing a difference in the way your vehicle handles, or even noticing unusual odors.

## Looks like trouble

Small stains or an occasional drop of fluid under your vehicle may not mean much. But wet spots deserve attention; check puddles immediately.

You can identify fluids by their color and consistency:

- Yellowish green, pastel blue, or florescent orange colors indicate an overheated engine or an antifreeze leak caused by a bad hose, water pump, or leaking radiator.
- A dark brown or black oily fluid means the engine is leaking oil. A bad seal or gasket could cause the leak.
- A red oily spot indicates a transmission or power steering fluid leak.
- A puddle of clear water usually is no problem. It may be normal condensation from your vehicle's air conditioner.

## Smells like trouble

Some problems are under your nose. You can detect them by their odor:

- The smell of burned toast – a light, sharp odor – often signals an electrical short and burning insulation. To be safe, try not to drive the vehicle until the problem is diagnosed.



- The smell of rotten eggs – a continuous burning-sulfur smell – usually indicates a problem in the catalytic converter or other emission control devices. Do not delay diagnosis and repair.
- A thick, acrid odor usually means burning oil. Look for sign of a leak.
- The smell of gasoline vapors after a failed start may mean you have flooded the engine. Wait a few minutes before trying again. If the odor persists, chances are there is a leak in the fuel system – a potentially dangerous problem that needs immediate attention.
- Burning resin or an acrid chemical odor may signal overheated brakes or clutch. Check the parking brake. Stop. Allow the brakes to cool after repeated hard braking on mountain roads. Light smoke coming from a wheel indicates a stuck brake. The vehicle should be towed for repair.
- A sweet, steamy odor indicates a coolant leak. If the temperature gauge or warning light does not indicate over-heating, drive carefully to the nearest service station, keeping an eye on your gauges. If the odor is accompanied by a hot, metallic scent and steam from under the hood, your engine has overheated. Pull over immediately. Continued driving could cause severe

engine damage. The vehicle should be towed for repair.

### **Sounds like trouble**

Squeaks, squeals, rattles, rumbles, and other sounds provide valuable clues about problems and maintenance needs. Here are some common noises and what they may mean.

**Squeal** – A shrill, sharp noise, usually related to engine speed:

- Loose or worn power steering, fan or air conditioning belt.

**Click** – A slight sharp noise, related to either engine speed or vehicle speed:

- Loose wheel cover.
- Loose or bent fan blade.
- Stuck valve lifter or low engine oil.

**Screech** – A high-pitched, piercing metallic sound; usually occurs while the vehicle is in motion:

- Caused by brake wear indicators to let you know it is time for maintenance.

**Rumble** – A low-pitched rhythmic sound.

- Defective exhaust pipe, converter or muffler.
- Worn universal joint or other drive-line component.

**Ping** – A high-pitched metallic tapping sound, related to engine speed:

- Usually caused by using gas with a lower octane rating than recommended. Check your owner's manual for the proper octane rating. If the problem persists, engine ignition timing could be at fault.

**Heavy Knock** – A rhythmic pounding sound:

- Worn crankshaft or connecting rod bearings.
- Loose transmission torque converter.

**Clunk** – A random thumping sound:

- Loose shock absorber or other suspension component.
- Loose exhaust pipe or muffler.

### **Feels like trouble**

Difficult handling, a rough ride, vibration and poor performance are symptoms you can feel and almost always indicate a problem.

### **Steering:**

- Misaligned front wheels and/or worn steering components, such as the idler or ball joint, can cause wandering or difficulty steering in a straight line.
- Pulling – the vehicle's tendency to steer to the left or right – can be caused by something as routine as under-inflated tires, or as serious as a damaged or misaligned front end.

### **Ride and handling:**

- Worn shock absorbers or other suspension components – or improper tire inflation – can contribute to poor cornering.
- While there is no hard and fast rule about when to replace shock absorbers or struts, try this test: Bounce the vehicle up and down hard at each wheel and then let go. See how many times the vehicle bounces. Weak shocks will allow the vehicle to bounce twice or more.
- Springs do not normally wear out and do not need replacement unless one corner of the vehicle is lower than the others. Overloading your vehicle can damage the springs.
- Balance tires properly. An unbalanced or improperly balanced tire causes a vehicle to vibrate and may wear steering and suspension components prematurely.

### **Brakes:**

Brake problems have several symptoms. Schedule diagnosis and repair if:

- The vehicle pulls to one side when the brakes are applied.
- The brake pedal sinks to the floor when pressure is maintained.
- You hear or feel scraping or grinding during braking.
- The "brake" light on the instrument panel is lit.

## Engine:

The following symptoms indicate engine trouble. Get a diagnosis and schedule the repair.

- Difficulty starting the engine.
- The “check engine” light on the instrument panel is lit.
- Rough idling or stalling.
- Poor acceleration.
- Poor fuel economy.
- Excessive oil use (more than one quart between changes).
- Engine continues running after the key is removed.

## Transmission:

Poor transmission performance may come from actual component failure or a simple disconnected hose or plugged filter. Make sure the technician checks the simple items first; transmission repairs normally are expensive. Some of the most common symptoms of transmission problems are:

- Abrupt or hard shifts between gears.
- Delayed or no response when shifting from neutral to drive or reverse.
- Failure to shift during normal acceleration.
- Slippage during acceleration. The engine speeds up, but the vehicle does not respond.

## Preventive maintenance

- Many parts on your vehicle are interrelated. Ignoring maintenance can lead to trouble: specific parts or an entire system can fail. Neglecting even simple routine maintenance, such as changing the oil or checking the coolant, can lead to poor fuel economy, unreliability, or costly breakdowns. It also may invalidate your warranty.
- Follow the manufacturer’s maintenance schedule in your owner’s manual for your type of driving.
- Some repair shops create their own maintenance schedules, which call for more frequent servicing than the manufacturer’s recommendations. Compare shop maintenance schedules with those recommended in your owner’s manual. Ask the

repair shop to explain – and make sure you understand – why it recommends service beyond the recommended schedule.

## Trouble shooting

Car trouble does not always mean major repairs. Here are some common causes of trouble and techniques to help you and your technician find and fix problems.

- **Alternator** – Loose wiring can make your alternator appear defective. Your technician should check for loose connections and perform an output test before replacing the alternator.
- **Battery** – Corroded or loose battery terminals can make the battery appear dead or defective. Your technician should clean the terminals and test battery function before replacing the battery.
- **Starter** – What appears to be a defective starter actually may be a dead battery or poor connection. Ask your technician to check all connections and test the battery before repairing the starter.
- **Muffler** – A loud rumbling noise under your vehicle indicates a need for a new muffler or exhaust pipe.
- **Tune-up** – The old-fashioned “tune-up” may not be relevant to your vehicle. Fewer parts, other than belts, spark plugs, hoses and filters, need to be replaced on newer vehicles. Follow the recommendations in your owner’s manual.

## Rustproofing

Road salt on icy roads helps keep driving conditions safe for Wisconsin motorists, but what does it do to cars? Concerns about salt damage prompt many consumers to purchase vehicle rustproofing. However, differences in rustproofing contracts can create a blizzard of confusion for consumers.

## Law protects consumers

Wisconsin’s rustproofing law, Wis. Stat. § 100.205, protects consumers from unfair and worthless warranties.

The law requires rustproofing contract terms to be clearly spelled out. Contracts must provide information about the length and type of coverage, liability limits, transfer requirements and consumer responsibilities.

Rustproofers can no longer use the term “lifetime” in their warranties if they require periodic inspections. Warranties must be limited to the time preceding inspections if inspections are required to keep a contract valid. For example, if an inspection is required on a yearly basis, the warranty may be issued for a one-year-term, but annually renewable for the life of the car.

The law also requires warranties to be transferable from one car owner to another, and companies must specifically state what is or is not covered. Most companies exclude exhaust systems, chrome, surface rust, and rust caused by abrasion, collision or paint failure.

Rustproofers are required to be licensed with the Wisconsin Office of the Commissioner of Insurance. To check if a company is licensed, contact:

**Office of the Commissioner of Insurance**  
125 South Webster Street  
Madison WI 53703  
(800) 236-8517  
(608) 266-3585

*For more information or to file a complaint, visit our website or contact:*

Wisconsin Department of Agriculture,  
Trade and Consumer Protection  
*Bureau of Consumer Protection*  
2811 Agriculture Drive, PO Box 8911  
Madison, WI 53708-8911

Email: [DATCPHotline@wi.gov](mailto:DATCPHotline@wi.gov)

Website: [datcp.wi.gov](http://datcp.wi.gov)

(800) 422-7128      TTY: (608) 224-5058

(Information taken from “Auto Repair Basics”, by the Federal Trade Commission, August 2012 <http://www.consumer.ftc.gov/articles/0211-auto-repair-basics>)

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