THE PROOF SERIES

A PLAYFUL GUIDE TO BASIC CAR MAINTENANCE

Car Proof

Oil, tires, batteries, warning lights, and everything under the hood — in plain language, with big type and a few laughs.



John Marshall

PROUDLY CANADIAN



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Car Proof: A Playful Guide to Basic Car Maintenance

FREE SAMPLE CHAPTER

By John Marshall

www.buyproof.ca

KNOW YOUR OIL

Your Engine's Lifeblood

Engine oil is the quiet hero under your hood: it lubricates, cools, and cleans the engine's moving parts. Understand it and you understand half of car maintenance.

Lubricates parts › Carries heat away › Traps dirt › Gets tired

1. Oil lubricates — Hundreds of metal parts slide past each other inside your engine thousands of times a minute. Oil coats them so they glide instead of grind.

2. Oil cools — As it circulates, oil carries heat away from hot spots the coolant cannot reach, like the pistons and bearings.

3. Oil cleans — Good oil traps soot and tiny metal flakes and carries them to the filter, the way a river carries silt downstream.

4. Oil wears out — Heat, moisture, and time break oil down. Old oil gets thin and dirty, and dirty oil stops protecting — that is why we change it.

TALE

E STORY

Doug, 71, drove the same sedan for eighteen years and swore it was luck.

His mechanic said the real luck was that Doug never once skipped an oil change.

! Your owner's manual names the exact oil your engine needs, like 5W-30. That number is a recipe, not a suggestion.

Take care: Running an engine with almost no oil can destroy it in minutes. If the oil light ever comes on, stop the car and sort it out before driving on.



KNOW YOUR OIL

Check Your Oil Level

Checking your oil takes three minutes, costs nothing, and tells you more about your engine's health than any dashboard. Here is the dipstick routine.

Park it level › **Pull and wipe** › **Dip and read** › **Top up if low**

1. Park on level ground — An oil reading on a hill lies to you. Park somewhere flat and wait a few minutes after turning the engine off so the oil settles.

2. Find the dipstick — Open the hood and look for a bright ring or T-shaped handle, often yellow or orange. Your owner's manual shows its exact spot.

3. Pull, wipe, dip, read — Pull the dipstick out, wipe it clean with a rag, push it all the way back in, then pull it out again. Read the second pull — the first one lies.

4. Read the marks — Look for two dots, lines, or a crosshatched zone. Oil between the marks means you are fine. Below the low mark means add oil soon.

TALE

E STORY

Ruth, 68, checked her oil for the first time in a church parking lot and felt like a surgeon.
She now checks it monthly, rain or shine, and tells everyone.

!

Check the oil colour while you are there: honey-amber is healthy, dark brown means it is working hard, and milky beige can mean coolant is leaking in — see a mechanic.

Take care: Never overfill. Too much oil is as bad as too little and can foam up and damage seals. Add a little, wait a minute, and re-check.

KNOW YOUR OIL

When to Change the Oil

The old 3,000-kilometre rule is mostly retired. Your car's real schedule lives in the owner's manual, and following it is the cheapest insurance you own.

Read the manual › Mind the months › Trust the monitor › Keep a record

1. Read your manual — Most modern cars ask for an oil change every 8,000 to 12,000 kilometres, or once a year — whichever comes first. Your manual's number beats every rumour.

2. Mind the calendar too — Oil ages even when the car sits. A car driven only 3,000 kilometres a year still needs fresh oil annually because moisture and acids build up.

3. Trust the oil-life monitor — Many cars show an oil-life percentage on the dashboard. It counts your actual driving conditions, not just kilometres — believe it.

4. Write it down — Note the date and kilometres on the receipt and in your car notebook. Memory fades; a written record keeps the next change on schedule.

TALE

E STORY

Earl, 76, changed his oil every 3,000 kilometres for forty years until his grandson read the manual aloud: 12,000. Earl framed the savings as a fishing-trip fund.

!

Short trips are hard on oil. If most of your drives are under ten minutes, the engine never fully warms up — that counts as severe service, so change a little earlier.

Take care: Skipping oil changes to save money is the most expensive saving there is. A seized engine costs thousands; an oil change costs a fraction of one tank of fuel.

KNOW YOUR OIL

At the Quick-Lube Shop

A quick-lube visit is the easiest maintenance you will ever buy. Know what to expect, what to ask, and which extras to politely decline.

Book the visit › State your oil › Decline the upsell › Check the receipt

1. Book or drive in — Most quick-lube shops take drive-ins, but a mid-morning weekday appointment means no line. The job takes about twenty minutes.

2. State your oil type — Tell them what the manual says — conventional, synthetic blend, or full synthetic. Using the wrong weight is worse than using a cheaper brand of the right one.

3. Handle the upsell calmly — You may hear about engine flushes, fuel additives, and premium filters. A polite “just the oil change today, thanks” is a complete sentence.

4. Check the receipt — Before you leave, confirm the oil weight on the invoice matches your manual, and glance at the sticker on the windshield for the next due date.

TALE

E STORY

Margaret, 74, was offered a ninety-dollar engine flush at a quick-lube.

She asked, “Is that in my manual?” The clerk paused and said, “Honestly? No.” She tipped her hat to her own manual.

!

Full synthetic oil costs more per change but often doubles the interval, so the yearly cost can be similar — and it protects better in bitter Canadian cold.

Take care: Never let a shop talk you into an oil weight different from the manual. Thicker is not better; it is just thicker, and modern engines are built for thin oil.

KNOW YOUR OIL

Top Up Between Changes

Engines sip a little oil between changes, especially as they age. Topping up a low engine is a two-minute job anyone can do — no appointment needed.

Buy the right oil › Open the cap › Pour slowly › Re-check the level

1. Buy the right oil — Match the weight in your owner's manual exactly, like 5W-30. A one-litre bottle from a parts store or gas station costs a few dollars.

2. Open the oil cap — With the engine off and cool, twist off the cap on top of the engine — it usually shows a little oil-can symbol. Set it somewhere clean.

3. Pour a little at a time — Add about a quarter litre, wait a minute for it to drain down, then re-check the dipstick. Small sips beat one big glug.

4. Stop at the top mark — Bring the level up to the top dot, not above it. Wipe the cap area clean, twist the cap back on firmly, and you are done.

TALE

E STORY

Harold, 79, carried a litre of oil in his trunk for years — until his daughter pointed out the trunk in July.
He now keeps it in the garage and tops up at home.

!

If you are adding more than a litre between changes, mention it at your next service. Steady oil drinking can signal worn seals worth watching.

Take care: Do not mix wildly different oil weights in a panic. A small top-up with the manual's weight is always the right move; keep the bottle in the garage, not a hot trunk.

KNOW YOUR OIL

Oil Myths That Cost Money

Garage folklore is strong, and some of it empties wallets. Here are the oil myths to retire — and the truths to keep.

Myth: darker = bad › Myth: thicker = better › Myth: brand loyalty › Truth: the manual

1. Dark oil is not dead oil — Oil darkens as it does its job, trapping soot. Colour alone does not mean it is worn out — kilometres and months decide that.

2. Thicker is not better — Modern engines are machined for thin oils like 0W-20. Thicker oil flows slower on cold starts, exactly when wear happens fastest.

3. Brand matters less than spec — Any reputable brand meeting your manual's specification protects your engine. Pay for the right weight and certification, not the fanciest label.

4. The manual is the referee — When a neighbour, a forum, and a commercial disagree, the owner's manual wins. It was written by the people who built your engine.

TALE

E STORY

An urban tale says a mechanic can tell your oil is bad by rubbing it between his fingers.

He cannot — but a lab test can, and fleet companies use them instead of finger-rubbing.

!

High-mileage oils contain seal conditioners that can slow small leaks in older engines. If your car has passed 150,000 kilometres, ask about one at your next change.

Take care: Never use cooking oil, gear oil, or any “household alternative” in an engine — an old joke that has genuinely destroyed engines. Only motor oil goes in the motor.

KNOW YOUR OIL

The Oil Change Habit

Everything on this page becomes one calm routine: check monthly, change on schedule, and keep the records. Your engine will thank you in years, not words.

First of the month › Glove-box log › Sticker check › Never skip

1. Pick a monthly moment — Tie the oil check to something you already do — the first Saturday, pension day, or garbage day. Habits beat reminders.

2. Keep a glove-box log — A small notebook with dates and kilometres turns “I think it was changed” into “it was changed on March 4 at 112,300 km.”

3. Read the windshield sticker — The little sticker from your last change lists the next due date or kilometres. Glance at it when you fill up with fuel.

4. Never skip, never stretch far — Life happens and a change may slip a few weeks — that is fine. What kills engines is stretching 12,000 kilometres into 25,000.

TALE

E STORY

Irene, 82, has kept a car log since 1974 — forty-one oil changes on her current car, every one noted.
Her mechanic calls it “the most boring and most beautiful record I have ever seen.”

!

Pair the oil check with a tire walkaround and a light check, and your monthly ten minutes covers the three things most likely to strand you.

Take care: Used oil is toxic and must never go down a drain or into the soil. Every quick-lube and most parts stores take used oil for free — ask, and they will point you to the tank.

UNDER THE HOOD

Meet Your Five Fluids

Beyond oil, your car drinks four more fluids that keep it cool, stopping, shifting, and seeing. Meet them all — none of them bite.

Coolant › Transmission fluid › Brake fluid › Washer fluid

1. Coolant — Carries engine heat to the radiator and stops the system freezing in winter. Bright green, orange, or pink — check it in its see-through reservoir.

2. Transmission fluid — Keeps the gearbox shifting smoothly. On many cars it is checked with a second dipstick; on others it is sealed and shop-checked.

3. Brake fluid — Carries your foot's push to the brakes. It lives in a small reservoir on the driver's side of the firewall — the level should sit between the marks.

4. Washer fluid — Cleans the windshield. The one fluid you can — and should — top up yourself any time, with the jug from any gas station.

TALE

E STORY

Norman, 73, opened his hood and counted five mysterious caps.

He labelled each with masking tape and a marker. His mechanic laughed — then admitted it was brilliant.

!

A bonus fifth fluid: power-steering fluid helps you turn the wheel easily, and low levels make steering groan. Many newer cars use electric steering and skip it entirely.

Take care: Never open the coolant reservoir when the engine is hot. The system is pressurized and can spit scalding liquid. Cold engine, then look.

UNDER THE HOOD

Coolant: The Engine's Sweater

Coolant keeps your engine from boiling in July and freezing in January. A thirty-second glance at its reservoir each month is all it asks.

Find the reservoir › Read the level › Check the colour › Top up correctly

1. Find the reservoir — Look for a translucent plastic tank near the radiator, marked with FULL and LOW lines. You read it through the plastic — no cap removal needed.

2. Read the level cold — Check with the engine cold. The level should sit between the marks. A slow drop over months is normal; a sudden drop is a leak talking.

3. Note the colour — Healthy coolant is bright — green, orange, or pink depending on the type. Rusty brown or oily-looking coolant needs a professional flush.

4. Top up with the right mix — If low, add a 50/50 premix of the coolant type your manual names. Never mix green and orange types; when unsure, ask the parts counter.

TALE

TRUE STORY

Betty, 70, topped up her coolant with plain water — twice — before a neighbour asked why her "antifreeze" froze. The premix jug now lives in her garage, labelled in big letters.

!

Your car's temperature gauge is coolant's report card. If it climbs toward the red in traffic, the cooling system is struggling — see the warning-lights section.

Take care: Coolant is sweet-tasting and poisonous to pets and children. Wipe up spills and store the jug sealed and out of reach.

UNDER THE HOOD

Transmission Fluid Basics

The transmission shifts your gears; its fluid keeps those shifts silky. You mostly need to know how to check it — and when to hand it to a pro.

Know your type › Check if you can › Read colour, smell › Change on schedule

1. Know your transmission type — Automatics have fluid to check or change; many modern ones are “sealed for life” with no dipstick. Manuals use gear oil, changed rarely. Your manual says which you have.

2. Check it if you can — If you have a transmission dipstick, check with the engine warm and running, in Park. The fluid should be pinkish-red and reach the marked zone.

3. Read colour and smell — Healthy fluid is translucent red-pink. Dark brown or black with a burnt-toast smell means it is overdue — book a change, not a flush debate.

4. Follow the schedule — Many cars ask for a transmission service around 100,000 kilometres. It is one of the most-skipped services and one of the most expensive to skip.

TALE

E STORY

An urban tale claims transmission fluid never needs changing because it is “sealed.” Sealed means no dipstick, not immortal — heat still wears it out, just more slowly.

!

A transmission flush versus a drain-and-fill is a shop debate. For most cars, a simple drain-and-fill on the manual's schedule is the safe, sensible choice.

Take care: If the transmission slips, clunks, or hesitates between gears, do not keep driving “hopefully.” Low or burnt fluid damages expensive parts fast — get it checked promptly.

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