

KEEP THIS IN YOUR GLOVEBOX

THE 10-MINUTE CAR CHECK

Twelve things to look at once a month. What a good one looks like, what a bad one looks like, and exactly what to do about it.

Ten minutes, once a month.
Engine off, car cold, flat ground.

No garage tools.
A tire gauge, flashlight, rag, penny and quarter.

You can't break anything.
Mostly looking. Nothing here is risky.

THREE RULES YOU DON'T BREAK

ENGINE OFF, KEYS OUT

Every check in this guide is done with the engine off and the car parked on flat ground with the parking brake on.

NEVER OPEN A HOT ENGINE

The cooling system is under pressure. Opening a hot cap sprays scalding coolant. Wait until it's cool enough to touch.

NEVER CRAWL UNDER A JACK

A jack lifts a car. It does not hold one. Nothing in this guide asks you to go underneath, and you shouldn't.

WHAT THE COLORS MEAN

ALL GOOD

Nothing to do. Write down what you saw so you can compare next month.

FIX IT SOON

Not an emergency. Schedule it, or fix it yourself in the next week or two.

STOP NOW

Don't drive it. Call a shop, a tow, or roadside assistance before you go anywhere.

STOP DRIVING AND CALL FOR HELP IF...

- The brake pedal sinks, feels soft, or goes to the floor
- You hear grinding or scraping when you brake
- The red oil pressure or brake warning light comes on
- The temperature gauge climbs into the red
- You can smell fuel, or burning plastic
- Any tire has a bulge, or shows cords or wire
- The steering suddenly feels loose or heavy
- Steam or smoke from under the hood, or a **flashing** check engine light
- You feel dizzy or headachy — open the windows, pull over, get out

MONTHLY TICK SHEET

☐ 01-02 Tire pressure, all four + spare	☐ 07 Brake & washer fluid
☐ 03 Tread depth	☐ 08 Battery posts and clamps
☐ 04 Tire damage, both sides	☐ 09 All lights
☐ 05 Engine oil level	☐ 10 Wipers, washers, glass
☐ 06 Coolant level	☐ 11-12 Drips underneath, dash lights

My tire pressures: front _____ PSI · rear _____ PSI · spare _____ PSI My oil: _____ My shop: _____

WILL C. VOGEL

Quick Guide — companion to *Basic Automotive Maintenance for Beginners*

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TIRES & WHEELS

The four checks that matter most. Do these first, every time.

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01 FIND YOUR NUMBER



Open the driver's door and look at the edge of the door or the post beside it. There's a sticker with the right tire pressure for your car.

- The number is in **PSI**. Front and rear are sometimes different.
- The number on the tire itself is **not** your number. That one is the tire's maximum.
- Snap a photo of the sticker so it's on your phone forever.

ONCE Do this once. Write the numbers on this guide and you'll never look again.

02 CHECK THE PRESSURE



Unscrew the little cap from the valve stem — the short rubber stub poking out of the wheel — then press the gauge on straight until the hissing stops, and read it. Do all four tires and the spare.

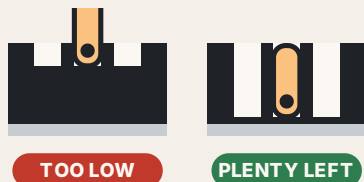
- Check them **cold** — parked three hours, or driven less than a mile.
- Low by a few PSI is normal over a month. Top it up at any gas station.
- Tires lose about **1 PSI for every 10°F** the weather drops.

OK Within a couple of PSI of the sticker. Screw the caps back on.

SOON More than 5 PSI low, or one tire always lower than the rest: get it checked for a slow leak.

STOP Flat, or so low the tire looks squashed. Don't drive on it. Call roadside assistance — only fit the spare if you know how and you are well clear of traffic.

03 CHECK THE TREAD



Push a penny into a tread groove with Lincoln's head pointing down. The tread should cover the top of his head.

- Check the **outside, middle and inside** of each tire.
- If one edge is much more worn than the other, the wheels need aligning.
- Replace tires **6 years** after the date on the sidewall, 10 years at the very most. The last four digits of the DOT code give it: 3421 means week 34 of 2021.

OK The tread covers the top of Lincoln's head. Plenty of grip.

SOON Try a quarter instead. If the tread only just reaches the top of Washington's head, you're down to 4/32 of an inch. Start pricing tires.

STOP You can see the top of Lincoln's head on a penny, or smooth bars across the grooves. Replace before driving in rain.

04 LOOK FOR DAMAGE



Run a gloved hand around both sides of every tire and look closely at the rubber. Turn the wheel to see the inside face.

- A **bulge** means the tire's inner cords have snapped. It can burst at speed.
- A nail in the flat part can often be repaired. A nail in the side cannot.
- Fine cracks all over the rubber mean the tire has dried out with age.

OK Smooth rubber, no lumps, nothing stuck in it.

SOON A nail or screw in the tread with the tire still holding air: get it plugged this week.

STOP Any bulge, deep cut, or cords or wire showing. Don't drive on it.

05 ENGINE OIL



Pull the dipstick (the loop-handled stick, often yellow), **wipe it clean**, **push it all the way back in**, then pull it out and read the tip.

- The oil should sit **between the two marks**, nearer the top one.
- Dark oil is normal. Oil the color of a coffee milkshake is not.
- Oil goes in through the separate cap on top of the engine marked with an oil-can symbol — never down the dipstick tube. Half a quart at a time, then re-check.

OK Between the marks, brown and slippery.

SOON At or below the bottom mark: top it up, and if it's low again next month, get it looked at.

STOP Milky or creamy oil, or the red oil light comes on while driving. Stop and switch off.

06 COOLANT



Find the plastic tank with MIN and MAX lines on the side. Read the level straight through the plastic. Don't open anything.

- Coolant is bright — orange, pink, green or blue — and it smells sweet.
- A sealed system shouldn't use coolant, so a dropping level means a leak.
- It's poisonous to pets. Soak spills up with cat litter or rags and bin them — never hose it into the street.

OK Between MIN and MAX with the engine cold.

SOON A little below MIN, or rusty and cloudy: book a cooling system check.

STOP Empty, or the temperature gauge climbs while driving. Pull over and let it cool.

07 BRAKE & WASHER FLUID



Look, don't open. Both are see-through tanks. Brake fluid sits near the back of the engine bay; washer fluid has a windshield symbol on the cap.

- Brake fluid should be **clear to light honey**. Dark brown means it's old.
- Brake fluid drops slowly as the brake pads wear down. That part is normal.
- Washer fluid is the one thing you can top up freely. Use winter mix in the cold.

OK Brake fluid between the marks and light in color.

SOON Brake fluid near MIN, or dark: have the brakes measured and the fluid changed.

STOP A soft or sinking brake pedal, **or** fluid below MIN. Either one on its own means do not drive. Call for a tow.

08 BATTERY



Look at the two posts on top of the battery. Wear glasses, keep rings off, and don't put a tool across both posts.

- White, blue or green crust on a post is corrosion. It stops the battery working properly.
- Grab each cable clamp and try to wiggle it. It shouldn't move at all.
- Most batteries last **three to five years**. Write the date on yours.

OK Clean metal posts, tight clamps, flat sides on the case.

SOON Crusty posts, or slow lazy cranking on a cold morning: get it tested free at a parts store.

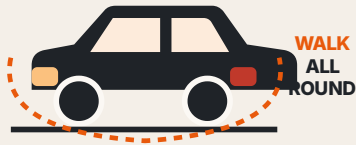
STOP A swollen or split case, or a smell like rotten eggs. Don't jump-start it. Get it replaced.

AROUND & INSIDE

The last four checks. Your tick sheet and the stop-now list are on page 1.

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09 LIGHTS



Park facing a wall or a garage door at dusk, switch everything on, and walk right around the car. You can do this on your own.

- Check headlights, tail lights, both turn signals, hazards and the license plate light.
- For brake lights, park with the **back** of the car near a wall, parking brake on, and press the pedal. Look for the red glow in your mirror.
- A turn signal that **blinks fast** means a bulb on that side has blown. Cars with LED signals show a dashboard message instead.

OK Every lamp lights up, both sides equally bright.

SOON A blown bulb or a foggy, yellowed headlight. Bulbs are cheap and often clip in from behind.

STOP No brake lights at all. Nobody behind you knows you're slowing. Fix before you drive at night.

10 WIPERS & GLASS

FEEL THE RUBBER EDGE
SMOOTH AND BENDY = GOOD



Lift each blade and run a fingertip along the rubber edge. Then spray the washers and watch one full wipe.

- Good rubber is smooth and bendy. Bad rubber is hard, split or curled.
- Streaks, smears or a chattering noise all mean it's time for new blades.
- A chip smaller than a quarter can usually be filled cheaply — before it spreads.

OK Clean sweep, clear glass, both washer jets landing on the screen.

SOON Streaking or juddering: new blades take five minutes and cost very little.

STOP A crack across your line of sight, or wipers that won't clear rain. Don't drive in bad weather.

11 LOOK UNDERNEATH



Slide a sheet of cardboard under the car overnight. In the morning, look at where the drips landed, not just what color they are.

- Front and center is usually **engine oil** (dark and slick) or **coolant** (bright and sweet).
- Clear water under the passenger side after using the A/C is **normal**.
- Take a photo of the cardboard. It tells a mechanic a lot.

OK Dry cardboard, or clear water only.

SOON A small dark spot that comes back each night: book a leak check.

STOP A puddle, a smell of fuel, or any wet patch near a wheel. Don't drive it.

12 DASHBOARD LIGHTS



Turn the key to ON without starting. Every warning lamp lights up for a second. Take a photo — that's every light your car can show you.

- After starting, they should all go out. Any that stay on is telling you something.
- Red means stop. Amber means book it in. Green or blue just means switched on.
- Never ignore the **red oil** or **red temperature** light, even for one more mile.

OK All lamps come on at key-on, then go out once running.

SOON A steady amber light, including the check engine light. Get the code read free at a parts store.

STOP Any red light while driving, or a flashing check engine light. Pull over safely and switch off.