

SAINTS GLOBAL

# ACTIVITY PLAN

## AUTOMOTIVE MAINTENANCE

### INTELLECTUAL CORE

Version 2026.1



Companion to the BRC: a series of one-hour activity sessions for use on weekly activity night or at home. Each session declares which requirements it contributes to.

#### THE CULMINATING EVENT

### The roadside-ready check

Between Sessions 3 and 4, each saint performs his chosen roadside procedure — a safe jumper-cable connection or a jack-and-tire change — on a family vehicle, under the supervision of a parent or licensed adult. He runs the safety checks aloud, completes the procedure in correct order, and brings the photo or note back to Session 4. This is where requirement 3e is earned on a real vehicle, not a classroom mock-up.

OFF-MEETING — DRIVEWAY OR CHURCH PARKING LOT WITH A REAL VEHICLE, PARENT OR LICENSED ADULT SUPERVISING

## SESSION 1 · INTELLECTUAL CORE

⌚ 60 min target

# Hazards, the manual, and the road

*Know the hazards and what the owner's manual tells you before touching a vehicle.*

**SESSION AIM**

Run Step 1 end to end — the real hazards of vehicle work and the safety rules that prevent them, the owner's manual as a working document, state registration and inspection rules, and the conservative limits around high-voltage systems. Saints leave with Step 1 marked on the BRC.

**🎯 WALK AWAY WITH**

- Can name the main hazards of vehicle maintenance and the safety rule that prevents each
- Can find the maintenance schedule, warning indicators, and restraint section in an owner's manual
- Can summarize state registration and inspection requirements for a family vehicle
- Can state the high-voltage refusal rule plainly

**📦 BRING / SET UP**

- A family vehicle parked in the lot (hood unlatched, key with a parent or leader)
- The owner's manual for that vehicle, plus one or two extras to pass around
- A printout of the state's registration and safety/emissions inspection page
- Eye protection, gloves, and a fire extinguisher to show
- BRC printouts and pens

**🕒 THE HOUR****BLOCK 1 · DISCUSSION Opener — Vehicle stories**

⌚ 5 min

Ask the group: "What is the closest call you have seen around a car — a dropped hood, a slipping jack, a fluid burn, a battery that sparked?" Take three or four short answers. The goal is to put real hazards on the table before the group walks up to the vehicle, not after.

## SESSION 1 · HAZARDS, THE MANUAL, AND THE ROAD (PAGE 2 OF 3)

## THE HOUR — CONTINUED

BLOCK 2 · SKILL PRACTICE **Walk the hazards on a real vehicle**

⌚ 18 min

1. Walk up to the parked vehicle together. The engine has been off long enough to be cool — name that rule out loud before anyone leans in.
2. Each youth calls out one hazard zone he sees: hot engine and exhaust, the cooling fan that can start without warning, belts and pulleys, the battery, jack points and where a jack alone is not enough.
3. Lay out the safety set on the hood: eye protection, gloves, a fire extinguisher. Each youth puts on eye protection and gloves, says when each is used, and takes them off again.
4. Run three quick scenarios, one line each: a coolant overflow sprays when a hot cap is opened; a jack starts to tip while a saint is under the bumper; battery acid splashes on a hand during a jumpstart. For each, the group gives the prevention rule first and the response second.
5. Name the stop-and-ask rule plainly: stop and ask is a safety skill, not weakness. Each youth states one situation in which he will stop and ask before continuing.

## REQ 1A

BLOCK 3 · SKILL PRACTICE **Read the owner's manual**

⌚ 18 min

1. Hand a manual to each youth or pair. He locates the maintenance schedule and reads aloud one interval — engine oil, tire rotation, brake fluid — and what the interval means.
2. Each youth finds the warning indicators page. He names one indicator and the action it requires: stop and shut down, service soon, or check at next opportunity.
3. Locate the seatbelt and passive-restraint section. The group reads the limits in their own words — restraints reduce harm, they do not remove the risk of speed or impact.
4. Each youth names one reminder in the manual he would not ignore on his family's vehicle, and why.

## REQ 1B

## SESSION 1 · HAZARDS, THE MANUAL, AND THE ROAD (PAGE 3 OF 3)

## THE HOUR — CONTINUED

BLOCK 4 · DISCUSSION **Registration, inspection, and motor types**

⌚ 14 min

1. On the state page, walk through what is required to keep a vehicle on the road in this state — registration renewal, safety inspection, emissions inspection if applicable — and the cost and timing of each.
2. Each youth states the annual renewal fee for a family vehicle, or a sample one, and one consequence of letting registration lapse — a citation, a tow, a denied insurance claim after an accident.
3. Name the four motor types in plain terms: gasoline (spark ignition), diesel (compression ignition), hybrid (gasoline plus electric), electric (battery only). One sentence each on what is different.
4. State the high-voltage refusal rule plainly: orange cables and the high-voltage battery on a hybrid or EV are not the saint's to service. Two rules each youth will always follow — do not cut, pull, or pierce an orange cable, and do not service the high-voltage battery.

REQ 1C

REQ 1D

BLOCK 5 · REFLECTION **Close — Step 1 marked**

⌚ 5 min

1. Confirm on each saint's BRC: 1a, 1b, 1c, and 1d are marked. Step 1 completes in-session.
2. Each youth takes home one assignment: bring his family's owner's manual to Session 2, or the closest matching one if his family does not have its own copy.
3. Next week the group assembles a maintenance kit and writes a real preventive maintenance checklist for one vehicle.

## AT THE CLOSE · DEBRIEF

1. Which hazard on the vehicle today would have been easy to miss without the walk-around?
2. What is one reminder in the owner's manual that you did not know was there?
3. Say your high-voltage rule aloud — is it short enough to remember at a roadside?

☑ Mark 1a, 1b, 1c, and 1d on each saint's BRC after this session. Note any saint who could not bring a manual so the leader can pair him at Session 2.

## SESSION 2 · INTELLECTUAL CORE

🕒 60 min target

## Build the kit, write the checklist

*A complete kit and a vehicle-specific checklist make every later inspection faster.*

**SESSION AIM**

Saints assemble a real maintenance and roadside-readiness kit, match each item to a scenario, then use a family vehicle's owner's manual to write a preventive-maintenance checklist prioritized by safety. Saints leave with a packed kit, a vehicle-specific checklist, and a fluid walk-around to complete on the family car before Session 3.

**🎯 WALK AWAY WITH**

- Has assembled a maintenance and roadside-readiness kit and can name when each item is used
- Has written a preventive-maintenance checklist for a specific family vehicle from its manual
- Has the home fluid walk-around assigned and the form in hand

**📦 BRING / SET UP**

- PPE: eye protection and gloves (one set per saint)
- Basic hand tools to pass around: screwdriver, pliers, socket/wrench, tire iron
- Roadside items: tire gauge, flashlight, reflective triangle, jumper cables, first-aid kit
- Three or four owner's manuals (saints bring their family's; have extras on hand)
- Printed preventive-maintenance checklist worksheet (one per saint)
- Printed home fluid walk-around card (one per saint)

**🕒 THE HOUR****BLOCK 1 · DISCUSSION Opener — One thing from last week**

🕒 5 min

Round the room, under thirty seconds per saint: "What is one thing from the manual last week you went home and looked up again?" If a saint did not, he says so without hedging — he will start fresh tonight. The aim is to check that last week's manual reading carried home, not to chase a perfect answer.

## SESSION 2 · BUILD THE KIT, WRITE THE CHECKLIST (PAGE 2 OF 3)

## THE HOUR — CONTINUED

## BLOCK 2 · SKILL PRACTICE Assemble the kit, match item to scenario

⌚ 17 min

1. Spread the kit items on the table: PPE, hand tools, roadside items, owner's manual. Each youth picks one item, names it, and says when it is used.
2. Run four scenarios, one line each: a low tire on the way to school; a dead battery in a parking lot at night; a small fluid leak you spot in the driveway; a wreck on the shoulder you stop to help with. For each, the group pulls the items from the kit that the saint would actually reach for.
3. Discuss what makes a tool unsafe to use — wrong size for the fastener, damaged jaws or handle, the wrong tool for the job. Show one example of each if you have them.
4. Each youth packs his own kit so the items he would reach for first — flashlight, tire gauge, first-aid, the manual — are accessible at the top, not buried under tools.
5. Name the limit out loud: having a kit does not make a saint ready to service the vehicle alone. Any procedure beyond a check is done with a parent or a licensed adult.

## REQ 2A

## BLOCK 3 · CREATIVE Write the preventive maintenance checklist

⌚ 25 min

1. Each youth picks a specific family vehicle and pulls its owner's manual. He writes the make, model, year, and mileage at the top of the checklist worksheet.
2. From the maintenance schedule, he lists the next four service items that are due or coming due — engine oil, tire rotation, brake inspection, cabin air filter — with the interval and the page number from the manual.
3. From the vehicle's specs (door jamb sticker or manual), he writes the tire pressure for front and rear, the engine oil type, and the coolant type. These are vehicle-specific — guessing them is what gets the wrong fluid in.
4. He prioritizes the checklist into a pre-trip block: tires, brakes, lights, fluids, wipers. The pre-trip block is what he runs before any long drive — read it back to a partner.
5. Each youth pairs and trades worksheets. Each partner finds one item the other missed — a specified fluid, a coming-due interval, a tire spec — and writes it in.
6. Leader confirms 2b: each checklist is vehicle-specific, prioritizes safety-critical items, and is sourced from the manual, not from memory.

## REQ 2B

## SESSION 2 · BUILD THE KIT, WRITE THE CHECKLIST (PAGE 3 OF 3)

## THE HOUR — CONTINUED

BLOCK 4 · DISCUSSION **Assign the home fluid walk-around**

⌚ 8 min

1. Hand out the home fluid walk-around card. Each youth runs the under-hood half on his family vehicle this week, with a parent — locate the dipstick and the coolant, brake-fluid, and washer reservoirs, and check levels against the manual.
2. Walk the safety rule one more time: engine off, vehicle on level ground, parking brake set, engine cool before the radiator cap is touched.
3. If the family vehicle is a hybrid or EV, the saint runs only the items his manual marks as owner-checkable. The high-voltage refusal rule from last week still holds — orange cables and the HV battery are not his.
4. Each youth writes on the card: the date he will run it, and the parent or adult who will be with him.

BLOCK 5 · REFLECTION **Close — Kit packed, checklist home**

⌚ 5 min

1. Each youth shows his packed kit and his checklist to the leader before he leaves. Anything missing gets a note on the BRC for follow-up at Session 3.
2. Confirm on each saint's BRC: 2a and 2b are marked.
3. Next week is the hands-on under-hood and walk-around inspection. Bring the kit, the manual, and the completed walk-around card.

## AT THE CLOSE · DEBRIEF

1. Which scenario today made you reach for a tool you did not have packed?
2. What is one number from your vehicle's manual you wrote down for the first time tonight?
3. Who is the adult who will be with you when you run the home walk-around this week?

📝 *Mark 2a and 2b after this session. Record the home walk-around date for each saint — it is rolled forward into Session 3, not its own BRC line.*

## SESSION 3 · INTELLECTUAL CORE

⌚ 60 min target

# Hands-on inspection and roadside-readiness practice

*Practice the inspection and the roadside procedure on a real vehicle before it matters.*

**SESSION AIM**

The hands-on hour. Saints run a full under-hood and walk-around inspection — fluids, battery, belts, hoses, filters, lights, fuses, tires, brakes — and rehearse the roadside-readiness procedure each will perform off-meeting with a parent. Saints leave with most of Step 3 marked and the roadside-ready date locked.

**🎯 WALK AWAY WITH**

- Has run a full under-hood fluid and battery inspection on a real vehicle and named what each fluid does
- Has inspected belts, hoses, filters, and lights and produced a clear recommendation list
- Has identified a fuse and run a correct tire-pressure and tread check
- Has rehearsed the roadside-readiness procedure he will perform with a parent before Session 4

**📦 BRING / SET UP**

- A family vehicle parked in the lot, cool, with a charged battery (key with a parent or leader)
- A second vehicle if available, for the jumpstart and tire-change rehearsal
- Owner's manual for each vehicle and the walk-around inspection card from Session 2
- Tire gauge, tread-depth gauge or a quarter, jumper cables, jack and jack stands, lug wrench, wheel chocks
- A pulled fuse from the fuse box (or a spare fuse kit) and the fuse-box diagram
- Eye protection and gloves for every saint
- Printed roadside-emergency card (one per saint)

**🕒 THE HOUR****BLOCK 1 · DISCUSSION Opener — Home walk-around report**

⌚ 5 min

Round the room: one finding each from the home fluid walk-around. A low fluid, a battery terminal with corrosion, a cracked cap, a manual page that was confusing. Take the findings without correcting — they go on the recommendation list later in the hour. Any saint who has not run the walk-around yet says so and runs it before Session 4.

## SESSION 3 · HANDS-ON INSPECTION AND ROADSIDE-READINESS PRACTICE (PAGE 2 OF 4)

## THE HOUR — CONTINUED

## BLOCK 2 · SKILL PRACTICE Under-hood fluids, battery, belts, hoses, lights

⌚ 20 min

1. Confirm the safety set before anyone leans in: engine off, cool to the touch, parking brake set, eye protection and gloves on. State the rule out loud; no one starts until everyone is set.
2. Each youth, in turn at the front: pull the engine-oil dipstick, wipe, reseal, pull, read. Name what the level should be from the manual and what "too low" could cause — accelerated wear, oil starvation, engine damage.
3. Walk the rest of the under-hood checks in pairs: coolant level against the cool-engine line (cap stays on a hot engine — full stop), brake fluid against MIN/MAX, washer fluid, power steering or transmission fluid if accessible per the manual.
4. Inspect the battery: terminals for corrosion (powdery white or blue-green), cables for tightness, case for cracks. Name the safe-handling rule — battery acid burns and gloves and eye protection stay on.
5. Walk the belts and hoses: look for cracks, fraying, leaks, or loose fit. Each youth picks one item and gives the recommendation — monitor, service soon, or do not drive until a mechanic looks at it.
6. Test the lights with a partner — headlights low and high, brake lights, turn signals, reverse, plate light. Write any failure on the recommendation list. A failed light is a citation and a safety hazard at night, so it goes on the list to fix before the next drive.
7. Leader confirms 3a and 3b: under-hood inspection completed safely, belts/hoses/filters/lights inspected, and a clear written recommendation list produced.

REQ 3A

REQ 3B

## SESSION 3 · HANDS-ON INSPECTION AND ROADSIDE-READINESS PRACTICE (PAGE 3 OF 4)

## THE HOUR — CONTINUED

BLOCK 3 · SKILL PRACTICE **Fuses and tires**

⌚ 15 min

1. At the fuse box (under the hood or under the dash, per the manual): each youth locates the fuse panel and finds one fuse in the diagram by label and position — headlight, wiper, radio, cigarette/12-volt.
2. Name the amperage rule plainly: a fuse protects the circuit. The replacement amperage must match the rating on the diagram — a higher-amp fuse lets too much current through and can melt wiring or start a fire.
3. Each youth removes a fuse with the correct puller (or demonstrates on a spare), reads the rating, and replaces it. Walk through diagnosing why a fuse blew — a short, a failed component, a wet connector — not just replacing it.
4. Move to the tires. Each youth finds the tire-pressure spec on the door jamb sticker, checks each tire with the gauge, and writes the readings. Inflate or note which tires need a top-off later.
5. Tread check: a quarter, Washington's head down, into the deepest groove. If you can see the top of his head, the tread is low and the tire is due for replacement. Walk the wear indicators in the grooves — when they are flush, the tire is done.
6. Pop the spare and walk the change tools — jack, jack stand, lug wrench — and where they are stored. Confirm the spare is inflated and present. Two sentences each on alignment: toe, camber, caster set how the tires meet the road; a pull to one side or uneven tread wear means the alignment is off.
7. Leader confirms 3c and 3d: a fuse identified, rated, and replaced correctly; a tire inspection completed with pressure, tread, and spare readiness covered.

REQ 3C

REQ 3D

## SESSION 3 · HANDS-ON INSPECTION AND ROADSIDE-READINESS PRACTICE (PAGE 4 OF 4)

## THE HOUR — CONTINUED

## BLOCK 4 · ROLEPLAY Rehearse the roadside-ready procedure

🕒 15 min

1. Each youth picks his procedure for the off-meeting roadside-ready event: (A) a safe jumper-cable connection or (B) jack placement and a tire change. He says it out loud now so the leader and parent can plan.
2. Run the safety checks aloud as a group, in order: vehicle on level ground, parking brake set, wheels chocked, hazards on, bystanders clear. Eye protection and gloves on.
3. For jumpstart: walk the clamp order in the air — positive on the dead, positive on the donor, negative on the donor, negative to a grounded metal point on the dead vehicle (not the dead battery's negative terminal). Reverse the order to disconnect. Why: a spark near the battery and venting hydrogen gas is what causes a battery to rupture.
4. For jack and tire change: locate the jack points on the manual (pinch weld, frame point — never the oil pan or a suspension arm). Loosen the lugs in a star pattern before lifting. Lift to a jack stand — a jack alone is not enough to go under or around. Tighten lugs in a star pattern by hand, then to spec with the wrench.
5. Each youth walks his procedure once at the front of the group, narrating each step. The group catches any out-of-order step before he leaves the room.
6. Lock in the off-meeting roadside-ready event: each youth writes the date, the vehicle, the procedure, and the parent or licensed adult who will be with him. The leader keeps a copy.

## BY TIER

## ENTRY

Run a jumper-cable connection on the cool, parked vehicle with a parent walking through each clamp aloud. Off-meeting, repeat with the parent's car and the family's. The goal is the correct order and the safety rule, not speed.

## ESTABLISHED

Run a full jack-and-tire change at the rehearsal — jack point, star pattern, jack stand, torque pattern. Off-meeting, the parent watches; the saint runs each step without prompting.

## MENTOR

Run the jack-and-tire change at the rehearsal and coach one entry-tier saint through the jumpstart sequence. Off-meeting, the saint runs the procedure on the family vehicle and one other — a sibling's, a neighbor's, or the church van — with the licensed adult watching.

## BLOCK 5 · REFLECTION Close — Roadside-ready date set

🕒 5 min

1. On the roadside-emergency card, in pen: date, vehicle, procedure (A or B), parent or licensed adult name and phone. Every line filled before the saint leaves.
2. Each youth confirms his recommendation list from Block 2 is in his kit — it goes home with him for the family vehicle.
3. Confirm rides and adult supervision for the off-meeting event. The procedure does not run without a licensed adult present, no exceptions.

## AT THE CLOSE · DEBRIEF

1. Which fluid check on the real vehicle today did you get wrong on the first try, and what did you change?
2. Which step of your roadside procedure are you least sure of when you say it out loud?
3. Who is your supervising adult for the off-meeting event, and what is the date?

📝 Mark 3a, 3b, 3c, and 3d after this session. Do not mark 3e or 3f now — 3e is earned at the off-meeting roadside-ready event and 3f (brakes) is completed in Session 4. Confirm every saint's event date is written on his card and the leader has a copy.

## SESSION 4 · INTELLECTUAL CORE

⌚ 60 min target

## Field report, brakes, stewardship, and BRC sign-off

*Review the roadside-ready event, finish brakes, and close the badge on a real habit.*

**SESSION AIM**

The review session after the roadside-ready event. Each saint demonstrates the procedure he performed on the family vehicle, points to the safety items on a real vehicle, and earns 3e. The hour also closes brakes (3g), stewardship (4a), and a career pathway (4b), and the BRC is signed off.

**🎯 WALK AWAY WITH**

- Has demonstrated the roadside-ready procedure on a real vehicle for the leader
- Can explain how brakes work and produce a sensible recommendation from a basic check
- Has named one maintenance habit he will keep and one career pathway with a next step
- Has a signed BRC

**📦 BRING / SET UP**

- A family vehicle parked in the lot, with a wheel and jack accessible (key with a parent or leader)
- Jumper cables and a jack-and-tire-change set
- Each saint's roadside-emergency card and his recommendation list from Session 3
- Owner's manuals (for the brake-warning-light lookup)
- BRC printouts (final review) and pens
- Half-sheets for the keep/drop reflection in the Close block

**🔧 THE HOUR****BLOCK 1 · DISCUSSION Opener — One thing that went wrong**

⌚ 5 min

Round the room: one thing that did not go as planned at the off-meeting roadside-ready event. A stuck lug, a clamp that wouldn't reach, a chock that slipped, a parent who corrected an order. Take answers without commentary — they are evidence the saint did the real work, not a polished version of it.

## SESSION 4 · FIELD REPORT, BRAKES, STEWARDSHIP, AND BRC SIGN-OFF (PAGE 2 OF 3)

## THE HOUR — CONTINUED

BLOCK 2 · SKILL PRACTICE **Demonstrate the roadside procedure**

⌚ 18 min

1. Each youth, in turn at the parked vehicle, runs his procedure: he names the safety checks (parking brake, chocks, hazards, eye protection), points to the jack points or the battery terminals on this vehicle, and walks the steps in order with hands on the tools.
2. He explains what could have gone wrong and how he prevented it — a slipping jack, a clamp that arcs against metal, a fuse that does not match the rating, lugs left loose. Calm, correct sequencing is what is being looked for, not speed.
3. If a saint did not run the procedure off-meeting because of a missed date or absent supervisor, he runs it here with the leader and a parent present. No penalty, no shortcut — the requirement is the procedure on a real vehicle.
4. Leader marks 3e per saint against what was actually demonstrated and reported. A saint who cannot demonstrate one of the procedures gets a dated deadline on the BRC and a re-do with a parent — sign-off completes when the procedure is real.

REQ 3E

BLOCK 3 · SKILL PRACTICE **Brakes — what they do, what to watch**

⌚ 14 min

1. Two sentences each on the brake types: disc — a caliper squeezes pads against a rotor; drum — shoes press out against the inside of a drum. Most modern passenger cars are disc front, disc or drum rear.
2. Name the symptoms of a brake problem: a soft pedal, a pull to one side, a grinding or squealing noise, a vibration through the pedal, the brake warning light on the dash. Each youth picks one and says what it could mean.
3. Where it is accessible without removing a wheel, look at the visible brake pad and rotor on the parked vehicle — name what a thin pad or a scored rotor looks like. Check the brake-fluid reservoir level against MIN/MAX.
4. Name the rule plainly: brakes are safety-critical. When a symptom shows up, the conservative recommendation is to monitor briefly, service soon, or stop driving and have it inspected — not to guess past what is observed.
5. Each youth writes on his recommendation list one brake-related item: a finding from his family vehicle, or a check he will run in the next month. Leader confirms 3f.

REQ 3F

## SESSION 4 · FIELD REPORT, BRAKES, STEWARDSHIP, AND BRC SIGN-OFF (PAGE 3 OF 3)

## THE HOUR — CONTINUED

## BLOCK 4 · CREATIVE Stewardship habit and a career pathway

⌚ 18 min

1. Each youth picks one habit he will keep — checking tire pressure once a month, looking under the hood before a long drive, running the walk-around before any family road trip — and writes it on his BRC margin in his own handwriting.
2. One saint at a time: name one moment in the last four weeks when an inspection actually changed a decision he or his family made — a tire topped off before a drive, a fluid low enough to refill, a light that was burned out. Keep answers short and concrete.
3. Walk five career pathways briefly: technician, service advisor, automotive engineer, body repair, EV specialist. One sentence each on what training each requires — trade school and ASE certifications, a four-year engineering degree, body-shop apprenticeship, hybrid/EV certifications on top of a technician base.
4. Each youth picks one pathway and writes the training required, two character strengths it asks for (honesty, patience, precision, safety mindset), and one next step he could take this year — a shop visit, an interview with a mechanic, a small-engine class.
5. Leader confirms 4a and 4b: the stewardship habit is concrete and the pathway is described with a real next step.

REQ 4A

REQ 4B

## BLOCK 5 · REFLECTION Close — BRC sign-off

⌚ 5 min

1. Walk the BRC with each saint, requirement by requirement. Mark what is done. Note anything outstanding with a concrete deadline before the Board of Review.
2. Each saint, one line: one habit of careful vehicle care he plans to keep, and one shortcut or guess he plans to drop.
3. Leader gives one short, specific note to each saint by name: one thing he did well on the roadside-ready event or in the inspection blocks that earned the badge.

## AT THE CLOSE · DEBRIEF

1. What is one step in your roadside procedure you would do differently next time?
2. Which brake symptom would you actually notice on your family's vehicle this month?
3. Name your monthly habit aloud — is it specific enough that you will actually do it?

☑ Mark 3e after the demonstrations in Block 2, 3f after Block 3, and 4a and 4b after Block 4. Anything outstanding gets a dated deadline on the BRC; final sign-off completes when the remaining demonstration or written piece is submitted.

## HANDOUT 1 OF 2

## FROM SESSION 2 — WRITE THE PREVENTIVE MAINTENANCE CHECKLIST

# Walk-Around Inspection Card

Use as a checklist for the home fluid walk-around and again on Session 3 before the under-hood work block. Engine off and cool before any cap comes off.

## AUTOMOTIVE · FIELD CARD

## Walk the vehicle before you drive it.

Engine off and cool before any cap comes off. Eye protection and gloves for fluid work.

1

### Under the hood

engine off · cool · parking brake set

## CHECK

#### Engine oil

Pull dipstick, wipe, reseal, pull. Between MIN and MAX, amber to light brown.

#### Coolant

Reservoir line — never open hot. At the cool-engine line. Color matches the manual.

#### Brake fluid

Reservoir on master cylinder. Between MIN and MAX. Clear to light amber.

## NORMAL

## WATCH FOR

#### Battery

Powder on terminals, swollen case, loose cables. Acid burns — gloves on.

#### Belts and hoses

Cracks, fraying, soft spots, leaks, loose fit. Note for the recommendation list.

#### Washer fluid

Top off if low. Never water in winter.

2

### Around the vehicle

walk clockwise · one full loop

## TIRES

Pressure against the door-jamb spec — check cold. Tread above the wear bar. Sidewalls free of bulges or cuts.

## WIPERS

Streaking, torn rubber → replace.

## LIGHTS — TEST WITH A PARTNER

Headlights low and high. Brake lights. Turn signals front and rear. Reverse. Plate light. Any failure goes on the list.

## UNDER THE VEHICLE

Look for fresh fluid on the ground.

3

### Inside the cabin

key on, engine running

## WARNING LIGHTS

All bulbs come on, then go out as the engine starts. Anything still lit goes on the list — look it up in the manual.

## RESTRAINTS

Belts retract and latch on every seat.

## SPARE TIRE AND TOOLS

Spare is present and inflated. Jack, jack stand, lug wrench in their place. Owner's manual in the glove box.

## ROADSIDE KIT

Triangle, flashlight, gauge, first aid.

Run the walk-around before any long drive — anything off goes on the list before the next trip.

Print this handout for in-person reference during session 2 — write the preventive maintenance checklist.

## HANDOUT 2 OF 2

## FROM SESSION 3 — FUSES AND TIRES

# Tire Pressure & Tread

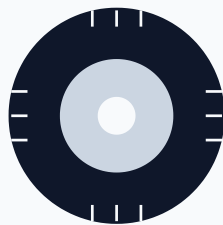
Use at home and on the roadside. Pressure is checked cold — before the vehicle has been driven more than a mile.

## AUTOMOTIVE · FIELD CARD

## Check pressure cold and tread before the trip.

Inflate to the door-jamb spec, not the sidewall number. The sidewall is the tire's maximum.

### READ THE SIDEWALL



**P225 / 60 R17 98H**

**WIDTH (mm)** **SPECT** **RIM (in)** **LOAD** **SPEED**  
 225 mm tread width. Sidewall is 60% of 7 in. wheel. 98 = 1653 lb max. 130 mph rated.

**SPEC** Inflate to the number on the driver's door jamb sticker, not the maximum stamped on the sidewall.

### CHECK PRESSURE & TREAD

#### **P** Pressure — cold

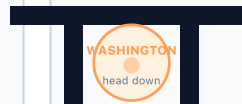
before driving more than a mile

1. Find the spec on the driver's door jamb sticker — front and rear may differ.
2. Press the gauge straight onto the valve until the hiss stops.
3. Read in PSI. Inflate or release to the spec, not the sidewall max.
4. Replace the valve cap.

#### **T** Tread — the quarter test

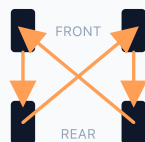
if you can see the top of the head, replace

Put a quarter in the deepest groove, Washington head down.  
**Top of head shows → replace.**  
 Wear bars flush with the tread mean the tire is done.



### ROTATION & LOAD

#### Rotate every 5–8k miles



Front-wheel drive: fronts go straight back; rears cross forward.  
 Rear-wheel drive: reverse the pattern.  
 Even wear extends tire life by half a set on most vehicles.

#### Heavy load? Check the spec.

Some door-jamb stickers list a higher pressure for a fully loaded vehicle — a road trip with luggage, or a truck bed full. Use that number when the load is on, then return to the normal spec when it is off.

**ALIGNMENT** uneven wear or a steady pull = service

Check pressure on the first of the month — cold, before the drive, against the door-jamb spec.

Print this handout for in-person reference during session 3 — fuses and tires.