03 / VEHICLE READINESS

Arrive ready to tune.

Pre-dyno and road-tuning preparation | Owner / workshop checklist

Vehicle / registration _____

Date / mileage / checked by _____

- ☐ **Intake tract sealed.** Have the intake and charge system smoke/pressure tested using a regulated, vehicle-appropriate procedure. Check couplers, intercooler, clamps, bypass valve and vacuum/PCV connections. Repair leaks and retest. Do not use unrestricted shop air or a guessed test pressure.
- ☐ **Ignition service current.** Verify the correct spark-plug part number and heat range; inspect age, mileage and condition. Confirm gap for this engine, boost and plug design with Keith or the engine builder. No universal Subaru plug gap is specified here. Inspect coils and connections; resolve misfires.
- ☐ **Oil and cooling healthy.** Oil level and specification correct, service current, with no known fuel dilution, coolant contamination or abnormal consumption. Color alone does not establish oil condition. Coolant level, fans, hoses and belts checked; investigate overheating or contamination before tuning.
- ☐ **Battery and electrical supply sound.** Battery load-tested where needed, terminals/grounds secure, charging system healthy. It must support several minutes key-on/engine-off and restart reliably. Use the flashing-tool maker's specified stable battery support; a jump pack or small maintainer is not automatically suitable.
- ☐ **Correct, clean fuel.** Use fresh fuel from a reliable source matching the octane and ethanol blend communicated to Keith. State AKI or RON if uncertain. Bring enough fuel for the session and confirm the facility's requirement. Disclose old/unknown fuel, additives and recent blend changes.
- ☐ **No hazardous leaks.** No fuel, oil or other fluid leaks onto hot parts, wiring, tires or the dyno. Resolve fuel odors, wet fittings, loose hoses and exhaust leaks that affect sensor readings. Do not run a vehicle with a suspected fire hazard.

03 / FINAL CHECKS

The whole car matters.

Complete before travel, before flashing and again before the test.

- ☐ **Tires, wheels and brakes ready.** No exposed cords, bulges, cracking, puncture damage or inadequate tread. Check date codes and the tire/vehicle maker's age limits; tread alone does not prove fitness. Verify suitable pressures, load/speed rating, wheel fasteners, brakes and steering. A dyno operator must approve the vehicle.
- ☐ **Driver area clear.** Remove loose objects and unsecured or stacked mats. Confirm unrestricted pedal travel, throttle return, secure seat and working seat belt. Secure cables and logger so they cannot obstruct feet, steering, shifter or visibility.
- ☐ **Mechanical condition disclosed.** Report fault codes, misfires, smoke, fluid consumption, clutch slip, drivetrain noise and previous engine damage. Complete compression/leak-down or other diagnosis when symptoms, build history or Keith's review call for it. Do not clear codes or reset learning to hide a fault.
- ☐ **Configuration confirmed.** Installed parts, boost-control plumbing, sensor calibration, current map and fuel match the approved plan. Bring the tuning device, cables, requested logs and any locking/unlock information. Check wideband operation and required logging inputs before the session.
- ☐ **Safe test plan agreed.** Road checks must stay within traffic laws and suitable conditions; no public-road full-load pulls. Use a suitable dyno or controlled closed course for load testing. Configure the logger while stopped and follow the operator's instructions. Never test through a new fault.

> **If any item fails, pause and tell Keith.** Tuning does not repair mechanical defects. Correct the problem and confirm readiness before flashing or adding load. This checklist supports preparation; it does not certify roadworthiness or replace a workshop inspection.

Outstanding issues / repairs _____

Fuel / octane / ethanol content _____

References: COBB flashing power guidance; NHTSA tire condition and aging guidance. Consult vehicle, component and flashing-tool instructions for exact specifications.

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