Fuel System Upgrade Checklist

1. Define the Mission

- ☐ Horsepower target set — crank or wheel HP.
- ☐ Usage nailed down — street, street/strip, or race.
- ☐ Fuel type decided — pump gas, E85, race gas.
- ☐ Induction type — carb, TBI, multi-port EFI, boosted.

2. Baseline the Existing System

- ☐ Verify pump type and model.
- ☐ Record line sizes (feed/return/material).
- ☐ Check filter locations.
- ☐ Measure fuel pressure at idle & snap throttle.
- ☐ Inspect tank condition (rust, varnish, debris).
- ☐ Inspect electrical feed (gauge, relay, ground).

3. Plan the New System

- ☐ Pump sized for HP with 20–30% headroom.
- ☐ Correct pump style chosen (in-tank/external).
- ☐ Feed line sized for flow & future power.
- ☐ Return line sized to avoid restriction.
- ☐ Filters chosen (coarse pre-pump, fine post-pump).
- ☐ Regulator matched to carb/EFI.
- ☐ Injector size calculated (<80% duty).
- ☐ Safety devices planned (inertia/oil-pressure).

4. Parts Checklist – Core Components

- ☐ New fuel pump.
- ☐ Mounting hardware.
- ☐ Feed and return lines.
- ☐ Pre- and post-pump filters.
- ☐ Fuel pressure regulator.

- [ ] Carb/EFI components.
- [ ] Tank/cell parts (sump/hanger/hat).
- [ ] Heat/abrasion protection.

5. Electrical & Control Checklist

- [ ] Dedicated fuel pump relay.
- [ ] Correct wire gauge selected.
- [ ] Proper fuse or breaker installed.
- [ ] Clean ground path.
- [ ] Trigger source chosen.
- [ ] Safety interlock wired in.
- [ ] Voltage-drop check planned.

6. Install Prep Checklist

- [ ] Car safely supported.
- [ ] Battery disconnected.
- [ ] Fuel drained or pressure relieved.
- [ ] Line routing planned.
- [ ] Bulkhead/grommet locations marked.
- [ ] Fire extinguisher ready.
- [ ] Proper tools on hand.

7. Startup & Verification

- [ ] System pre-primed.
- [ ] No leaks at any connection.
- [ ] Base pressure set correctly.
- [ ] Pressure stable under load.
- [ ] Voltage at pump within spec.
- [ ] Return flow verified.
- [ ] Fuel trims/plugs checked.

8. When to Reassess

- [ ] Pressure drop at RPM.

- [ ] Pump noise change.
- [ ] Evidence of tank contamination.
- [ ] Hot electrical components.
- [ ] Fuel smell in cabin.