12V Outlet Safety Checklist

What your truck's 12V outlet can safely run — and what will blow the fuse, drain the bank, or start a fire. Based on our 12V outlet safety guide.

Limit 1 — the fuse (right now)
Usually 10–15 A (up to 20 A in some heavy-duty trucks). Draw more and the fuse blows. This limit is about **this instant**, engine on or off.

Limit 2 — the batteries (over time)
Parked overnight, every amp-hour comes from the battery bank. Drain starter batteries too far and the truck won't start. This limit is about **time**.

The only math you need: watts ÷ 12 = amps · 120 W pulls 10 A · 180 W pulls 15 A

1 Know your truck's numbers

- [ ] Find the **actual fuse rating** in the owner's manual or fuse panel — "10–15 A" is a range, not your number. Write it down.
- [ ] For continuous loads, stay under **≈80% of the fuse rating** — on a 15 A fuse, roughly 12 A / 144 W.
- [ ] Label your gear: tape near the outlet with each device's amp draw. When you can see the numbers, you stop guessing.

2 What the outlet CAN run

- [ ] **Phone / tablet chargers** — 10–20 W, under 2 A. The lowest-risk thing you can do with the outlet.
- [ ] **Laptop via a ≤150 W plug-in inverter** — ≈70–90 W including losses. The biggest inverter that belongs on a lighter plug.
- [ ] **Dashcam / small cab fan** — under 12 W, negligible drain.
- [ ] **Compressor fridge (40–50 L)** — ≈4 A while running, cycling; set battery protection to **MEDIUM or HIGH** on starter batteries.
- [ ] **12V heated blanket** — 45–60 W, 4–5 A. Use a **timer (2–4 h)** or the low setting overnight.

3 What must NEVER go in the socket

- [ ] **Nothing with a heating element.** Kettles, microwaves, hair dryers, 120 V space heaters pull 60–125 A — the fuse blows instantly.
- [ ] **No 300 W+ plug-in inverter.** 300 W ÷ 12 V = 25 A, nearly double a typical 15 A fuse — blows on the first real load.
- [ ] Big power needs a **large inverter wired directly to the batteries** with correct wire and fusing — installed by a pro.
- [ ] **Never improvise heat** — a 120 V space heater in the cab is a fire risk on top of the electrical one.

4 Fuse rules

- [ ] **Never "fix" a blown fuse with a bigger one.** The fuse protects the wire — a bigger fuse moves the failure into your wiring.
- [ ] A fuse that blows more than once is a **warning, not an annoyance**. Stop and reassess.
- [ ] No bypassed fuses, rewrapped fuse wire, or hardware-store wire tapped to battery cables.
- [ ] Carry **spare fuses of the correct rating** for midnight blow-outs.

5 Don't melt your splitter

- [ ] A **warm plug, melted-looking plastic,** or devices cutting out under load = stop and unplug.
- [ ] Your splitter has its own amp rating — the **total of everything plugged in** must stay under it *and* under the fuse.
- [ ] Don't stack a fridge *and* a blanket on one socket for a parked weekend.
- [ ] **Retire damaged gear:** frayed cords, cracked plugs, worn blankets, an inverter that smells hot.

6 Cold-weather notes

- [ ] Old batteries at −20°C hold far less charge than a new bank in June. Plan around **half the bank's usable capacity**.
- [ ] Run the blanket on a timer or low — it warms **your body**, not the whole cab.
- [ ] When in doubt, **start the truck and recharge** — that's what the alternator is for. Note: most Canadian towns limit idling to 1–3 minutes — check the local bylaw.