How to Level an RV, Camper, or Trailer With a Phone Bubble Level

A crooked RV ruins sleep, stops your absorption fridge from cooling, and throws off your slide-outs. Here's the complete step-by-step guide to leveling any RV, camper, or trailer using nothing but your phone.

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Why Leveling Your RV Actually Matters

Most campers know a lopsided RV is annoying, but the consequences go far beyond mild discomfort. Here's what's actually at stake when your rig sits off-level:

- **Absorption refrigerators** — Unlike residential compressor fridges, RV absorption fridges rely on gravity-driven circulation of ammonia and hydrogen gas. Manufacturers specify a maximum tilt of roughly ±3° in any direction. Exceed that and the cooling cycle stalls, sometimes permanently damaging the unit.
- **Sleep quality** — Even a 1–2° slope is enough to feel like you're sliding off the mattress over the course of a night.
- **Cooking and showering** — Pots slide off burners, water pools in the corner of the shower pan, and your morning coffee pours unevenly.
- **Slide-outs and awnings** — Many manufacturers require the coach to be within a tolerance before extending a slide, because the gears and seals are designed for a level plane.

Two Axes, Two Different Priorities

Leveling an RV is a two-axis problem, and it's important to tackle them in the right order.

Side-to-side (lateral) is the most critical axis. This is the one that kills your fridge and ruins your sleep. The target tolerance is tight: aim for **1° or less**. You fix this by driving wheels up onto leveling blocks or an automatic leveling pad.

Front-to-back (longitudinal) is less critical for the fridge but matters for drainage — sinks and shower trays drain better with a very slight nose-down pitch. A tolerance of **2–3°** is generally acceptable here. You fix this with the tongue jack (on a trailer) or the front stabilizer jacks (on a motorhome).

Step-by-Step: Leveling Your RV With a Phone

1. **Park on the most level ground available.** Walk the site first and pick a spot where the existing slope is gentle. Every degree you can avoid dealing with is one less block to carry.
2. **Check side-to-side with horizontal mode.** Open Bubble Level & Angle Gauge, switch to horizontal mode, and lay your phone across a known-flat surface inside the RV — the countertop, a fridge shelf, or the floor. Note the angle and which side is low.
3. **Use the Hold function before you step outside.** Tap Hold to freeze the current reading on screen. You can now walk outside, set down your blocks, and drive the low-side wheels onto them — all while the app retains the exact angle you measured. No need for a second person to relay numbers.
4. **Calculate block height with the mm/m unit.** The app's mm/m readout makes the math effortless: 17.5 mm/m equals exactly 1°. If your RV is 1.5 m wide axle-to-axle and you're reading 2° of tilt, you need a block roughly 2 × 17.5 × 1.5 = **52 mm thick** under the low wheel. Standard RV leveling blocks are 25 mm (1 inch) each, so two blocks gets you very close.
5. **Drive up and recheck.** Pull forward onto the blocks, shut off the engine, and re-measure with the app. Repeat until you're within 1°. The tolerance bands (OK / NEAR / OUT) and confidence bar give you an instant green-light confirmation.
6. **Chock the wheels.** Once level, place wheel chocks on both sides of the drive axle before unhitching or extending anything.
7. **Fix front-to-back.** Switch to Bubble Level & Angle Gauge's bullseye mode to watch both axes simultaneously. Crank the tongue jack or front stabilizer jacks until the longitudinal axis is within 2–3°. The bullseye bubble gives you real-time feedback as you wind the jack handle.
8. **Lower stabilizer jacks.** These do not level — they stabilize. Lower them until they just touch the ground, then give each a quarter-turn snug. Over-tightening lifts wheels and destroys the level you just achieved.

Where to Place Your Phone Inside the RV

Placement consistency matters. The best spots are surfaces that are structurally tied to the

chassis: a built-in countertop near the center of the coach, a fixed fridge shelf, or the floor directly over the frame. Avoid foldable tables, cushions, or any surface that flexes. Once you find your preferred spot, remember it — you'll use it every trip.

Get the App

Bubble Level & Angle Gauge is free, runs without ads, and works entirely offline — no signal needed in the middle of a forest campground. Download it for iOS or Android and level your rig with confidence on every trip.

Frequently Asked Questions

How level is level enough for an RV fridge?

Absorption fridges typically tolerate about 3 degrees side-to-side and 6 degrees front-to-back. Beyond that, the ammonia coolant pools instead of circulating, and running the fridge off-level for even half a day can permanently damage the cooling unit. Aim for under 1 degree anyway — sleeping comfort and drainage benefit too.

Should I level side-to-side or front-to-back first?

Side-to-side first, because you fix it by driving onto blocks or ramps under the low-side wheels. Then unhitch a trailer or use the jacks to fine-tune front-to-back with the tongue jack or landing gear. Re-check both axes at the end — adjusting one usually shifts the other slightly.

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