RV Electrical Problems Checklist

“When Electrical Problems Seem Relentless” – Quick Diagnosis Guide

Tools to Keep in the RV

- ✅ Multimeter (preferred)
- ✅ Plug-in 120V outlet tester (3-light style)
- ✅ Spare fuses (12V blade fuses + any specialty fuses your rig uses)
- ✅ Spare inline 12V breaker (if your trailer has one near the tongue/front compartment)
- ✅ Small flashlight + screwdriver set

Step 1: Identify Which System You’re Troubleshooting

If these are acting weird, it’s usually 12V

- Lights dim/flicker
- Water pump slow
- Furnace fan slow / furnace quits after a few minutes
- Fridge control panel dead (even if fridge is propane/electric)
- Touch panels / control boards glitchy

If these are the problem, it’s usually 120V

- Wall outlets not working
- Microwave dead
- Residential-style fridge dead (120V compressor type)
- Air conditioner not working on shore power
- “No shore power” symptoms

A) 12V SYSTEM CHECKLIST (Battery / Converter / Charging)

A1 — Quick Symptom Check

- ☐ Do problems happen **when NOT plugged into shore power**?
  - If yes → strongly points to **battery/12V system**
- ☐ Do symptoms improve after driving or plugging in?
  - If yes → likely **battery low** or **charging issue**

A2 — Battery Basics (Start Here)

- ☐ Battery disconnect switch is **ON**
- ☐ Battery terminals tight + clean (no green/white corrosion)
- ☐ Battery case not swollen/cracked/leaking

A3 — Multimeter Battery Voltage Check (12V DC)

(Measure at the battery terminals)

- ☐ RV unplugged / no charging:
  - **~12.6V** = fully charged (lead-acid)
  - **~12.2V** = about half
  - **~12.0V or less** = very low (expect weird behavior)
- ☐ Plug into shore power (or generator on): voltage should **rise**
  - Often **~13.5V** (maintain)
  - Can be **~13.8–14.4V** while charging

✅ If voltage **does not rise** when plugged in → go to A4.

A4 — If Batteries Aren't Charging

- ☐ Check 120V breaker feeding the converter (in your RV breaker panel)
- ☐ Check 12V fuses at the converter/fuse panel (especially "reverse polarity" fuses if present)
- ☐ Check the inline 12V breaker/fuse between converter and battery (common on trailers)
- ☐ Check for loose/dirty ground connection at battery frame ground

✅ If all checks pass but still no charging:

- ☐ Converter may be failing (or incompatible with battery type in some setups)

A5 — The "Don't Guess" Rule

Before buying parts:

- ☐ Verify battery health (load test if possible)
- ☐ Verify converter is actually charging with a meter
- ☐ Don't replace batteries "because it seems like batteries" without confirming

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B) 120V SYSTEM CHECKLIST (Shore Power / Outlets / GFCI)

B1 — Start at the Power Source (Pedestal)

- ☐ Confirm pedestal breaker is ON

- ☐ Use 120V outlet tester: correct wiring/no open ground/reverse polarity
- ☐ If 50A RV: remember you have **two 120V legs**—one leg can be dead and half the coach won't work

B2 — Inside the RV: Breaker Panel

- ☐ Main breaker ON (cycle OFF then ON firmly)
- ☐ Branch breakers ON (cycle the suspect one OFF then ON)

B3 — The #1 Cause: GFCI Outlet

- ☐ Locate the GFCI (often bathroom/kitchen/basement/outside)
- ☐ Press **RESET** (press TEST then RESET if needed)
- ☐ Check downstream outlets on that same circuit

✅ If GFCI won't reset:

- ☐ Unplug everything on that circuit and try again
- ☐ If still won't reset → GFCI outlet may be bad

B4 — If You Have NO 120V Power Anywhere in the RV

- ☐ Confirm power is reaching RV shore cord inlet
- ☐ If RV has a generator: transfer switch could be failing
- ☐ If RV has an inverter/charger: verify it is not stuck in fault/transfer issue

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C) Quick "Gremlins" Decision Guide

- **Multiple weird 12V symptoms** (dim lights + furnace quits + pump slow)
  ✅ Start with **battery voltage + charging**
- **Some outlets dead, others fine**
  ✅ Find/reset **GFCI**
- **Nothing works on shore power**
  ✅ Check **pedestal → shore cord → breaker panel → transfer switch (if equipped)**

Notes for Your Specific RV (Fill This In Once)

- GFCI location(s): _____
- Converter location: _____
- Inline 12V breaker location: _____
- Battery disconnect location: _____
- Fuse panel location: _____