

ESPAR HEATER TROUBLESHOOTING GUIDE

If your bunk heater isn't starting, keeps shutting off, or is showing an error code, don't worry. Espar heaters are extremely reliable, but factors like cold weather, low voltage, fuel issues, and airflow blockages can all cause problems, especially when you need heat the most.

Our Espar heater troubleshooting guide walks you through the most common causes, error codes, as well as quick fixes you can complete safely on the road. Plus, we'll let you know when it's time to call an expert.

ESPAR HEATER ISSUES

Espar diesel heaters need regular maintenance to function efficiently and safely. When you don't keep up with this important piece of equipment, you can negatively affect your truck's performance. Most bunk heater problems fall into three categories:

1. **Power Issues:** This presents as a blown fuse, low battery voltage, or a bad ground connection.
2. **Fuel Issues:** Problems include clogged fuel strainers, air in the fuel lines, or a weakened fuel pump.
3. **Airflow Issues:** These issues include a blocked intake or exhaust, restricted heat outlets, and/or dirty components.

If it's been a while since you've last serviced your heater and you're experiencing any of these problems, don't stress. There are a few common fixes that can help:

- Clearing any fault codes (if possible)
- Cleaning or replacing the glow plug and glow plug screen
- Making sure fuel is properly flowing and priming the system
- Checking the wiring for any loose connections
- Performing a proper reset to get the heater back to normal function

Important Note: Espar error codes and their meanings can vary slightly depending on the heater model, controller type, and ECU version.

COMMON ESPAR HEATER ERROR CODES

014 / 015 / 017 – OVERHEATING OR OVERHEAT SHUTDOWN

What it means: The heater got too hot and shut itself down to prevent any damage.

Common causes:

- Blocked air intake or exhaust
- Blocked or closed heat outlets inside the bunk
- Fan is not moving enough air
- Running the heater in a tight space with poor airflow
- Dirty, clogged, or restricted cabin air filters

Quick fix: Clear any snow, ice, or debris from the intake and exhaust. Make sure heat vents are open, let the heater cool down fully, then restart.

010 / 012 / 018 – NO FLAME / FLAME-OUT / FAILED START

What it means: The heater tried to ignite but couldn't keep a flame going.

Common causes:

- Low battery voltage (most common cause)
- Low fuel level
- Clogged fuel strainer
- Worn-out glow plug
- Fuel pump not pushing out enough fuel

Important note: A consistent flame-out will trigger an ECU lockout, even if the issue is minor.

Quick fix: Check your batteries, fuel levels, and fuel lines for blockages. Then, restart the heater. If this keeps happening, the glow plug or fuel delivery system is most likely the issue.

019 / 020 / 021 – GLOW PLUG PROBLEMS

What it means: The glow plug is not heating correctly, it has shorted out, or was not detected at all.

Common causes:

- A worn-out glow plug
- A broken or clogged glow plug screen
- A loose or damaged plug wiring or connector

Fact: *Glow plug screens are one of the most common – and overlooked – failure points on Espar heaters, specifically Airtronic D2/D4/D5 models.*

Quick fix: If you've got a spare and know how to change it, replace the glow plug. If not, it's best to [schedule a repair](#) at a semi truck service center and have it professionally handled.

005 / 006 – BLOWER MOTOR OR FAN PROBLEMS

What it means: The fan isn't spinning correctly or there's an electrical issue with the blower system.

Common causes:

- Debris stuck in the fan
- Worn-out blower motor or bad bearings
- Damaged or loose wiring
- Voltage issues

Quick fix: Check the intake or fan housing for any signs of debris. Make sure to clean it out if you find anything. If the blower won't spin or doesn't respond at all, semi truck service repairs are usually needed.

007 / 008 / 009 – FUEL PUMP PROBLEMS

What it means: The fuel pump is not operating correctly or has an electrical issue.

Common causes:

- The fuel pump does not click when starting up the heater
- Loose, damaged, or corroded wiring
- A clogged fuel strainer
- [Diesel fuel gelling](#)

Quick fix: Check the wiring and fuel lines first. If you don't hear the pump clicking during startup, chances are it needs to be replaced. For maintenance or replacement parts, [visit our fully-stocked Parts Stores](#).

003 / 004 – SENSOR FAULTS

What it means: The temperature sensor or overheat sensor has failed.

Common causes:

- Damaged wiring
- A bad sensor

Quick fix: Inspect wiring for any visible damage. Typically, most sensor failures require a proper service shop diagnosis and replacement.

011 – VOLTAGE TOO LOW

What it means: The heater is not getting enough voltage.

Common causes:

- Weakened truck batteries
- Corroded or dirty battery connections
- Poor ground connection

Fact: *Most Espar heaters will shut down if the voltage drops below 10.5–11V.*

Quick fix: Clean the connections, start the truck and let it charge the batteries, then fully restart.

013 – VOLTAGE TOO HIGH

What it means: The heater is getting too much voltage.

Common causes:

- Voltage spikes from the charging system
- Bad jump-starting
- Faulty alternator or voltage regulator

Quick fix: Stop using the heater until the truck's charging system is inspected and repaired.

ECU / CONTROL UNIT LOCKOUT (MODEL DEPENDENT)

What it means: The heater shut itself down to stay safe after too many failed starts or a serious fault has occurred.

A lockout fix often requires:

- An Espar diagnostic tool
- Dealer-specific software
- An authorized service center reset

Important note: *On many newer Airtronic heaters, a simple on-off power cycle will not clear the lockout.*

Quick fix: Turn the heater off, wait a minute, then try restarting it. If it locks out again, get an expert's opinion.

STEP-BY-STEP ESPAR HEATER TROUBLESHOOTING CHECKLIST

1. **Take Notes:** Record any symptoms and error codes.
2. **Battery & Fuses:** Measure voltage at the heater's positive (+) terminal during startup.
3. **Fuel Check:** Confirm fuel level, inspect lines, replace inline strainer (if possible).
4. **Air Intake & Exhaust:** Clear debris, snow, ice, etc.; winter blockages are extremely common.
5. **Glow Plug Test:** Check resistance and wiring; replace if anything looks off.
6. **Blower Check:** Make sure the blower spins freely and has power.
7. **Controlled Restart:** Power off, wait 30 seconds, restart; if the code returns, stop and get a proper diagnosis.

EASY EMERGENCY ROADSIDE FIXES FOR AN ESPAR HEATER

If you're on the road and find yourself with an Espar heater issue, there are a few simple fixes you can easily try if you find yourself in an emergency.

- Swap blown fuses with the right amp rating
- Clear blocked intake or exhaust pipes
- Replace a clogged inline fuel strainer (if you carry one)
- Swap a glow plug – only if you have the right part, tools, and experience

WHEN TO STOP TROUBLESHOOTING AND CALL THE SHOP

There comes a time when troubleshooting won't solve your problem. Here are a few signs that it's time to call the shop and get an expert to diagnose the issue:

- If you spot a fuel leak you can't safely isolate
- Constant ignition or flame-out problems
- Error codes point to the control box or ECU
- You don't have the tools, parts, or safe setup
- Electronics need replacing or professional attention

TROUBLESHOOTING YOUR ESPAR HEATER

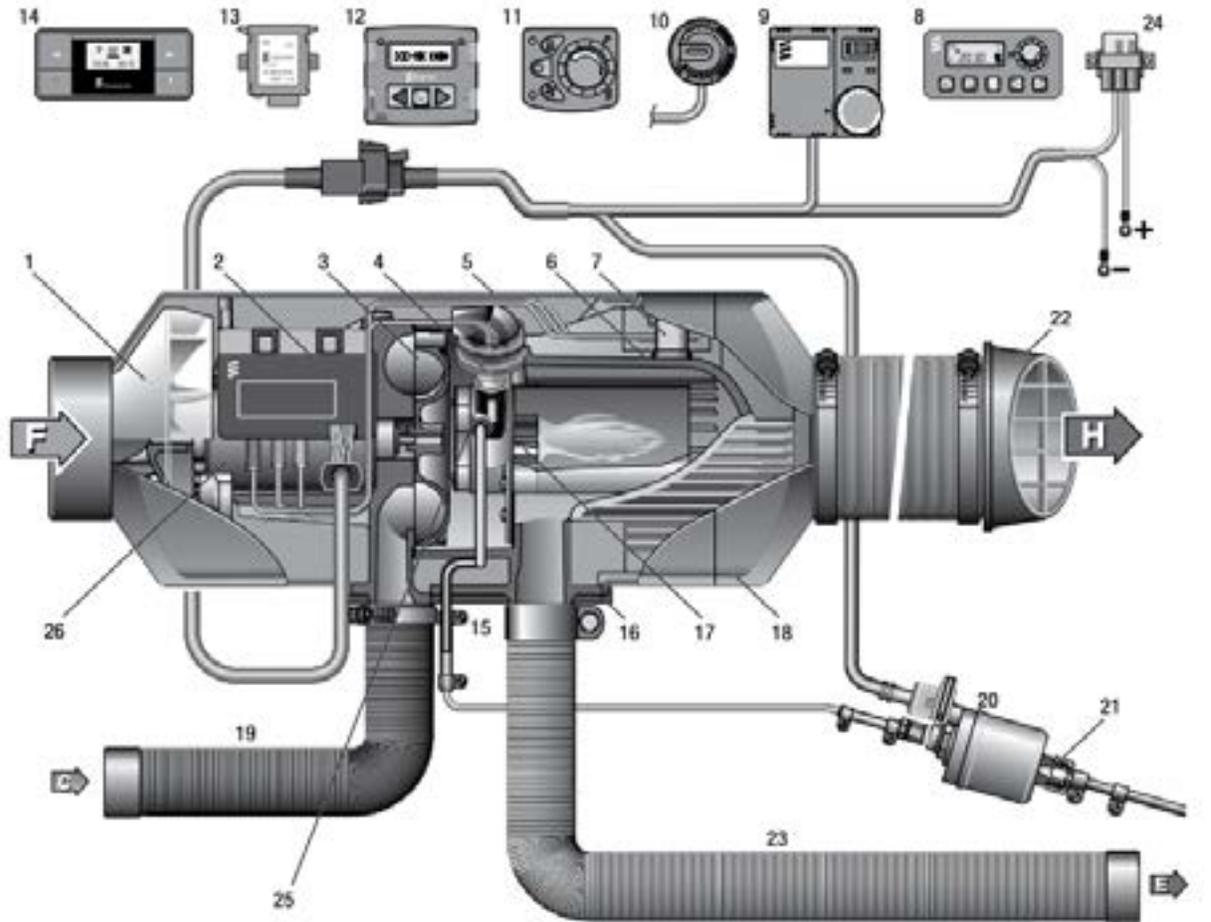
Now that you're familiar with the main causes and error codes of Espar Heaters, you're in a better position to handle any issues that might occur when you're out on the road. It's important to recognize when a problem can be quickly fixed or needs professional diagnosis to avoid further damage to your truck. With regular maintenance and the right troubleshooting practices, your bunk heater will stay reliable, especially on those cold miles when you need it most.

For more information on Espar Heaters, read these blogs:

[Espar Heating System](#)

[5 Benefits of an Espar Heater](#)

[Espar Heater Safety Tips](#)



For illustration purpose only

- 1 Hot Air Blower Wheel
- 2 ECU
- 3 Combustion Air Blower Wheel
- 4 Glow Pin
- 5 Cover
- 6 Heat Exchanger
- 7 Overheat/Flame sensor
- 8 7 Day Timer with Thermostat (optional)
- 9 Operating Unit (Thermostat)
- 10 Operating Unit (Rheostat)
- 11 Mini Controller
- 12 Digi Max
- 13 High Altitude Sensor
- 14 EasyStart Timer

- 15 Fuel Connection
- 16 Flange Seal
- 17 Combustion Chamber (Burner)
- 18 Hot Air Outlet Hood
- 19 Combustion Air Intake Hose
- 20 Fuel Metering Pump
- 21 Fuel Filter built into FMP
- 22 Hot Air Output Deflector
- 23 Flexible Exhaust Pipe
- 24 Main Fuse: -
AIRTRONIC 12 V - 20 A Fuse
AIRTRONIC 24 V - 10 A Fuse
- 25 Vent Hole
- 26 Blower Motor

- C = Combustion Air
D = Fuel Intake from Tank
E = Exhaust
F = Fresh Air Intake
H = Hot Air Output

Image Source: [Vandoit](#)