EDUCATION

# Rv Generator Troubleshooting Guide Flight Systems Inc

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## Introduction: Keeping the Power On When You're Off the Grid

There is a unique peace that comes with unhooking from shore power, backing into a secluded campsite, and listening to the quiet hum of nature. For RV owners, that freedom is almost entirely dependent on one crucial piece of equipment: the generator. Whether you are running the air conditioning on a hot afternoon, brewing coffee before sunrise, or keeping the batteries topped off for an evening of boondocking, your generator is the heart of your mobile power system. When it refuses to start, sputters under load, or shuts down unexpectedly, the adventure can come to an abrupt halt. This is where a reliable **Rv Generator Troubleshooting Guide Flight Systems Inc** approach becomes invaluable. **Flight Systems Inc**has long been a trusted name in the world of generator repair and replacement parts, offering expertise that helps RVers diagnose issues quickly and get back to enjoying the journey. In this comprehensive guide, we will walk through the most common generator problems, how to troubleshoot them step by step, and how Flight Systems Inc components and knowledge can save you time, money, and frustration.

## Understanding Your RV Generator System

Before diving into troubleshooting, it helps to understand the basic components of an RV generator. Most RV generators are internal combustion engines—typically running on gasoline, diesel, or propane—that drive an alternator to produce AC power. The system includes fuel delivery components, a battery for starting, a control module, voltage regulators, and various safety sensors. **Flight Systems Inc**specializes in manufacturing and supplying replacement control boards, voltage regulators, and other electronic components for generators from brands like Onan, Cummins, Generac, and Kohler. Having a working knowledge of these parts allows you to communicate effectively when ordering parts or seeking advice.

### Key Components at a Glance

- Control Board: The brains of the generator. It manages starting sequences, safety shutdowns, and voltage regulation.
- Starter Motor and Battery: Provides the initial cranking power. A weak battery is one of the most common failure points.
- Fuel System: Includes the fuel pump, carburetor or fuel injectors, fuel lines, and filters. Contaminated fuel is a frequent culprit.
- Alternator (Generator End): Produces the AC electricity. Issues here often manifest as no power output or fluctuating voltage.
- Voltage Regulator: Maintains stable voltage output. Flight Systems Inc is renowned for their high-quality replacement voltage regulators.
- Safety Sensors: Monitor oil pressure, temperature, and exhaust. These sensors trigger automatic

shutdowns to prevent engine damage.

## Common RV Generator Problems and Symptoms

Knowing what symptom points to which system is half the battle. When you follow an **Rv Generator Troubleshooting Guide Flight Systems Inc**methodology, you learn to listen to what your generator is telling you. Below are the most frequent issues RV owners face.

### Generator Cranks but Won't Start

This is one of the most frustrating scenarios. You turn the switch, hear the starter engage, but the engine never fires up. Common causes include:

- Fuel supply issues (empty tank, clogged filter, bad fuel pump, stale fuel).
- Faulty spark plug or ignition system.
- Air in the fuel lines (common after running out of fuel).
- Choke mechanism not functioning properly.
- Control board not sending the correct start signal.

### Generator Starts but Won't Stay Running

If the generator fires up for a few seconds and then dies, it is often a safety shutdown issue. The control board detects a problem and cuts the engine. Possible reasons include:

- Low oil pressure or low oil level.
- Overheating (blocked cooling vents, low coolant, failing fan).
- Faulty oil pressure sensor or temperature sensor.
- Exhaust restriction or backpressure.

### Generator Runs but Produces No Power

This is a classic generator end or voltage regulator problem. The engine sounds fine, but your RV's appliances don't receive electricity. Causes include:

- Failed voltage regulator (a specialty of Flight Systems Inc replacement parts).
- Burnt or open windings in the alternator.
- Tripped circuit breaker on the generator itself.
- Faulty brush assembly (in older generators).

### Generator Runs Rough or Surges

If the generator hunts or surges under load, the issue is usually fuel-related or a failing governor. Check for:

- Dirty carburetor or fuel injectors.
- Water or debris in the fuel.
- Faulty governor mechanism or linkage.
- Vacuum leak in the fuel line.
- Clogged fuel vent.

## The Flight Systems Inc Advantage in Generator Troubleshooting

When you are deep into troubleshooting, the quality of the replacement parts you choose matters. **Flight Systems Inc** has been a leader in the generator electronics industry for decades. They manufacture control modules, voltage regulators, and ignition components that are often more robust than the original equipment manufacturer (OEM) parts. One of the key advantages of using Flight Systems Inc components is their rigorous testing and quality assurance. Many RV owners and repair shops turn to them because their parts are designed to withstand the harsh conditions of mobile use—vibration, temperature extremes, and voltage spikes. In any

Service plan, having access to their technical support team is a game changer. Their experts can help you confirm a diagnosis before you order a part, saving you the headache of replacing components unnecessarily. This blend of DIY troubleshooting backed by professional-grade support is why Flight Systems Inc has earned a loyal following in the RV community.

## Step-by-Step RV Generator Troubleshooting Guide

Let us now walk through a systematic approach to diagnosing and resolving generator problems. This guide is designed to be followed in order, moving from the simplest checks to more complex component testing.

### Step 1: Check the Basics First

It sounds obvious, but many troubleshooting sessions start with an overlooked detail. Begin by checking:

1. Fuel level: Not just the RV's main tank gauge, but also the generator's fuel pickup. Some generators have a separate draw tube that can be clogged.
2. Battery condition: Measure voltage at the battery terminals with a multimeter. It should be at least 12.4 volts for a 12V system. Clean the battery terminals if corroded.
3. Oil level: Most generators have a low-oil shutdown sensor. Top off if needed, but also check for leaks.
4. Circuit breakers: Locate the generator's AC output breaker and reset it if tripped. Also check breakers on the RV's main panel.
5. Air filter: A clogged air filter can cause hard starting and rough running.

### Step 2: Listen and Observe the Start Sequence

When you attempt to start the generator, pay close attention to the sounds. Does the starter crank slowly? That points to a weak battery or poor connection. Does the engine fire briefly and then die? That suggests a safety shutdown or fuel issue. Does it crank strongly but never catch? That points to fuel or ignition. Write down what you observe. This information is gold when you call a supplier like Flight Systems Inc for technical advice.

### Step 3: Check for Error Codes

Many modern generators have LED indicator lights or digital displays that flash error codes. Consult your owner's manual to decode these flashes. For Onan generators, for example, a flashing red light can indicate specific fault conditions like over-crank, overspeed, or high temperature. If your generator's control board is malfunctioning, Flight Systems Inc offers replacement boards that restore factory functionality.

### Step 4: Test the Fuel System

Fuel problems are the single most common cause of generator issues in RVs. Here is how to test:

- Verify fuel flow: Disconnect the fuel line at the carburetor (if safe and accessible) and crank the engine briefly to see if fuel pumps out. Use a container to catch the fuel. If no fuel flows, the pump, filter, or pickup tube is likely blocked.
- Check for stale fuel: Gasoline older than 30 days can degrade and gum up the carburetor. If the fuel smells sour or looks cloudy, drain the system and refill with fresh fuel.
- Inspect the fuel filter: Replace it if you cannot see through it or if it has not been changed in the last season.
- Test the fuel pump: Using a multimeter, check for voltage at the pump during cranking. If voltage is present but the pump does not run, the pump likely needs replacement.

### Step 5: Inspect the Ignition System

For gasoline and propane generators, a weak spark is a common culprit. Remove the spark plug, connect it to the plug wire, and ground the metal base against the engine block while cranking. You should see a strong blue spark. If the spark is weak or absent, replace the spark plug first. If the problem persists, the ignition coil or control module may be failing. Flight Systems Inc offers ignition components that are direct replacements for

many popular generator brands.

### Step 6: Evaluate the Voltage Regulator

If the generator runs well but produces no power or erratic voltage, the voltage regulator is a prime suspect. This is where Flight Systems Inc truly shines. Their replacement voltage regulators are engineered to handle load fluctuations better than many OEM units. To test:

1. Start the generator and let it warm up.
2. Measure AC voltage at the generator's output terminals (or at a convenient outlet).
3. No-load voltage should typically be around 120-130 volts for a standard 120V generator. If voltage is zero, very low, or swings wildly, the regulator is likely faulty.
4. Check for any burnt smell or visible damage on the regulator. Flight Systems Inc regulators often include additional protection against overvoltage and short circuits.

### Step 7: Examine Safety Sensors

If the generator starts then shuts down after a few seconds, the safety sensors are worth testing. The oil pressure sensor and temperature sensor can be checked with a multimeter for continuity. If they are out of specification, replace them. A faulty sensor can fool the control board into thinking there is a problem when none exists.

## When to Call a Professional vs. DIY

While an **Rv Generator Troubleshooting Guide Flight Systems Inc** empowers you to handle many issues yourself, there are times when professional help is warranted. If you have checked all the basics, replaced common wear items, and the generator still refuses to cooperate, the problem may lie deep inside the alternator or control board. Replacing a voltage regulator or control board is a task many DIYers can handle, but testing and repairing internal windings requires specialized knowledge and tools. Furthermore, safety is paramount. Generators produce high voltage and involve flammable fuels. If you are uncomfortable with electrical testing or if the generator shows signs of internal damage (burning smell, smoke, visible arcing), it is best to consult a certified RV technician. Flight Systems Inc customer support can often help you determine whether a repair is within your skill level or if you should seek professional service.

## Maintenance Tips to Prevent Generator Issues

The best troubleshooting guide is one you rarely need to use. Regular maintenance dramatically reduces the likelihood of generator failures on the road. Follow these best practices:


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