

FURNACE -Electronic Ignition Model

TROUBLE SHOOTING GUIDE

Effective: 8/10/98

Guides are only intended for use on Atwood[®] products by service technicians who have successfully completed Atwood[®] training. This guide should be used in conjunction with the appropriate Instruction Manual provided with the product and any applicable Industry Standards. This is not intended to be a complete list. Please direct questions concerning service of Atwood[®] products to 866-869-3118 option 5 before proceeding.

CAUSE	SOLUTION
BURNER FAILS TO IGNITE AND - BLOWER FAILS TO RUN	
No electrical power to the furnace -----	Reconnect or replace power source.*
Thermostat defective -----	Replace thermostat
Thermostat wires broken or shorted -----	Replace wire or wires*
Current overload protector device -----	Reset circuit breaker. Check amp draw from motor
Defective or tripped (circuit breaker). -----	According to furnace's specifications.
Blower relay defective -----	Replace relay
Wire off motor -----	Reconnect wire
Wire off relay -----	Reconnect wire
Improper ground -----	Clean and secure grounds*
Blower motor defective -----	Replace motor
BLOWER RUNS - BUT FAILS TO IGNITE	
Low Voltage/High Voltage -----	Correct Power Supply*
Gas pressure incorrect -----	Set pressure to a minimum of 11" W.C. with all appliances running. (Replace regulator if not obtainable).*
Furnace grounding wires not secure -----	Clean and secure grounds established*
Air intake restricted -----	Clean air intake.*
12 volt polarity reversed -----	Correct polarity*
Motor running slow -----	Check voltage first. If 12 VDC while running, replace motor.
Exhaust blocked -----	Clean exhaust.*
Combustion air wheel loose -----	Reposition and tighten.
Sail switch defective or wire off -----	Reconnect wire or replace.
Limit switch defective or wire off -----	Reconnect wire or replace.
Edge connector on circuit board dirty -----	Clean with pencil eraser*
Circuit Board defective -----	Clean plug contacts. If still defective, replace. (check on board tester when possible).
Gas valve defective -----	Replace valve or valve coil, depending on problem encountered.
Main burner orifice blocked -----	Clean main burner orifice or replace.
High tension lead wire defective -----	Replace wire
Electrode out of adjustment -----	Adjust electrode (take care not to damage porcelain).
Electrode defective -----	Replace
Obstructed burner head -----	Clean burner head*
BURNER IGNITES BUT IGNITION SYSTEM "LOCKS OUT" AND TURNS BURNER OFF	
Low gas pressure -----	Set pressure to a minimum of 11" W.C. with all appliances running. Replace regulator if not obtainable.*
Exhaust blocked -----	Clean exhaust.*
Combustion air wheel loose -----	Reposition wheel and tighten
Electrodes out of adjustment -----	Adjust electrode according to furnace specifications.
Electrode defective -----	Replace electrode.
Circuit Board defective -----	Clean plug contacts. If still defective, replace. (Check on board tester when possible).
Flame sensor wire between electrode -----	Replace wire
and circuit board defective	
Air leakage at gaskets -----	Replace gasket
Defective heat exchanger -----	Replace heat exchanger

*indicates NOT covered under warranty.

continued backside

CAUSE	SOLUTION
SOOTING (caused by lazy yellow flame)	
Low gas pressure -----	*Set pressure to a minimum of 11" W.C. with all appliances running. Replace regulator if not obtainable.
Low voltage -----	Correct power supply*
Air leakage at gaskets -----	Replace gaskets
Combustion wheel installed backwards or loose -----	Reposition wheel and tighten.
Blockage in heating chamber or burner head -----	Clean or replace
Faulty motor -----	Replace motor
Wrong vent kit or draft cap -----	Replace with correct vent kit or draft cap
FAN RUNS CONTINUOUSLY WITH THERMOSTAT "OFF"	
Defective thermostat -----	Replace thermostat
Shorted thermostat leads -----	*Replace wire or wires
Defective relay -----	Replace relay
LIMITING = BURNER CYCLING ON AND OFF - BLOWER RUNS CONSTANTLY WITH THERMOSTAT ON	
Restricted or insufficient discharge ducting -----	a. Ducting must meet furnace's minimum requirements.* b. No excess ducting or unnecessary bends.* c. All closeable registers must be fully open and unrestricted.*
Furnace over fired -----	Set gas pressure to a minimum of 11" W.C. with all appliances running replace regulator, if not obtainable. Also, check main burner orifice, it must comply with furnace's specifications.*
Restricted return air supply -----	Make sure return air meets furnace minimum requirements.*
Defective limit switch -----	Replace limit switch
BLOWER SHUTS OFF AT SAME TIME BURNER SHUTS OFF	
Wired wrong -----	*Correct wiring
Faulty relay -----	Replace relay.
BLOWER VIBRATES OR IS NOISY	
Motor mount loose -----	Tighten motor mounting bracket a. Ducting must meet furnace's minimum requirements* b. No excess ducting or unnecessary bends.* c. All closeable registers must be fully open and unrestricted.
Damaged blower wheel -----	Replace blower wheel.
Motor shaft bent -----	Replace motor
INSUFFICIENT HEAT	
Furnace under fired -----	1. Set gas pressure to 11" W.C. with all appliances running, replace regulator if not obtainable. Also, check main burner orifice, it must comply with furnace's specifications. 2. Check ducting and return air according to furnaces specifications.*
Furnace improperly sized for coach/or conditions -----	Replace furnace with proper size.

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Over the years of running a mobile RV repair service, having a dedicated place to access service manuals for all the different appliances and components found on RVs was something that I always had a desire to create.

I hope this resource makes your RV repairs easier, as it has mine, but please be careful and follow proper safety practices when attempting to repair your own RV.

If in doubt, please consult with a professional RV technician!



DARREN KOEPP - OWNER, MY RV WORKS, INC.

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