GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: February 2002

SUBJECT: Control Panel Sealing Improvement

MODEL AFFECTED: 04270-0, 1, 2 **Serial number range — From 3222192 to 3579950 only**
Installed in Alfa Leisure coaches

PROBLEM: Possibility of water intrusion into the control panel

CORRECTIVE ACTION: Install hour meter gasket and Start/Stop switch gasket. Drill drainage hole in panel box.

1. Use part number 0D9391(Start/Stop switch gasket) and part number 0D9283 (hour meter gasket). Both parts were supplied to the customer.

2. Before working on the generator control panel, disconnect the battery.

3. Remove the four panel screws and pull the panel face assembly out and away.

4. In the bottom right hand corner of the panel box, drill a 1/4" diameter hole for drainage. See Figure 1.

5. Remove hour meter screws and remove hour meter from panel face.

6. Remove two wires from hour meter and slide gasket 0D9283 into place. See Figure 1.

7. Re-install wire number (0) zero to the negative terminal and wire number (14) fourteen to the positive terminal. Re-install hour meter screws.

8. Pull out the Start/Stop switch and remove all wires from the switch.

9. Slide gasket 0D9391 over the switch body and flush with the switches trim bezel. See Figure 1.

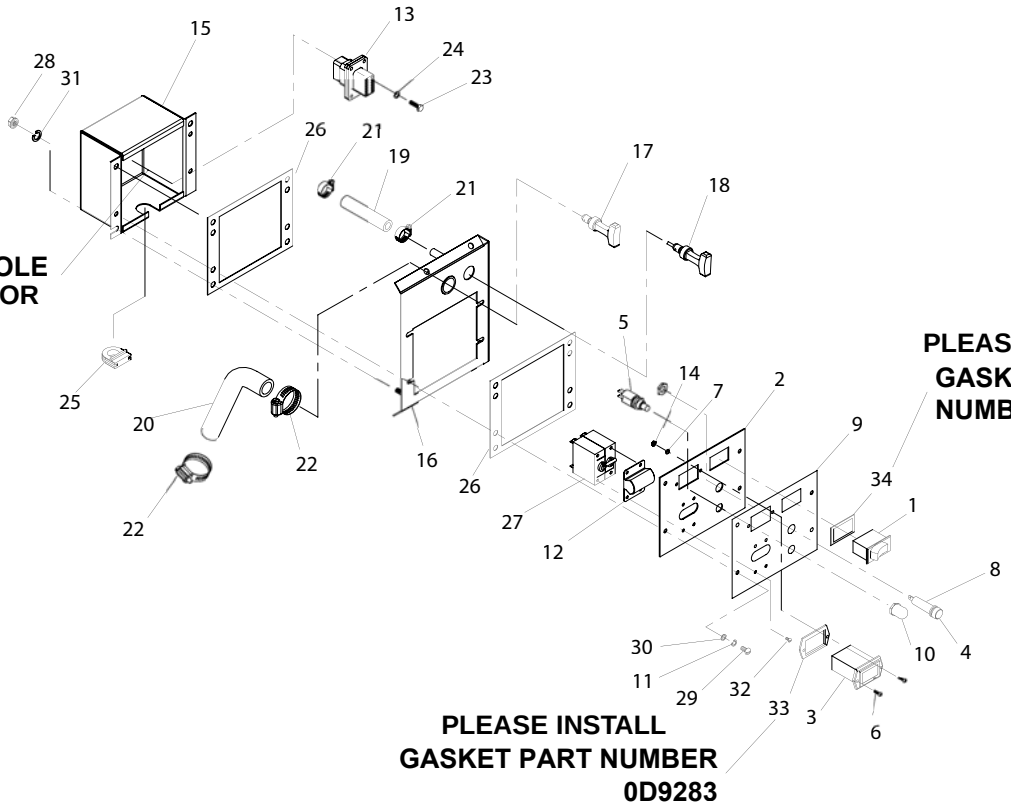
10. Return the wires as removed. When looking at the rear of the Start/Stop switch with the three terminals located toward the top, wire number (17) seventeen (start) is on the left terminal, wire number (0) zero (ground) is on the middle terminal and wire number (18) eighteen (stop) is on the right terminal.

11. Snap the Start/Stop switch back into the panel face, replace the panel face while guiding all wires into the panel box and re-install the four panel screws.

12. Reconnect the battery and test the Start/Stop switch for proper operation.

Warranty: This Product Information Bulletin will expire 12/31/02. It applies only to Alfa Leisure coaches. Reference PIB02-01-M on your warranty repair report form. Payment will be for $25.00 labor. (See coupon on back page).

FIGURE 1



NOTE TO AUTHORIZED GENERAC DEALER: The coupon pictured below may be presented to you by an Alfa coach owner for the redemption of service work as detailed in PIB02-01-M. It is only valid for work relative to this PIB. The generators affected will have serial numbers ranging from 3222192 to 3579950.

GENERAC PRODUCT INFORMATION BULLETIN PIB02-01-M

To be completed by dealer.

Customer Name _____

Address _____

City, State, ZIP _____

Generator Model No. _____

Gen. Serial No. _____

Alfa Coach Serial No. _____

Attach this coupon to Generac Warranty Repair Report for payment by Generac

Expiration Date 12/31/02

Coupon is valid for up to $25.00 for Service Upgrade performed on your Generac QUIETPACT® 75D generator.

Coupon redeemable by Authorized Generac Service Dealer ONLY

I hereby certify that I have completed the tasks identified on Product Information Bulletin.

_____ _____

Dealer Signature **Date**

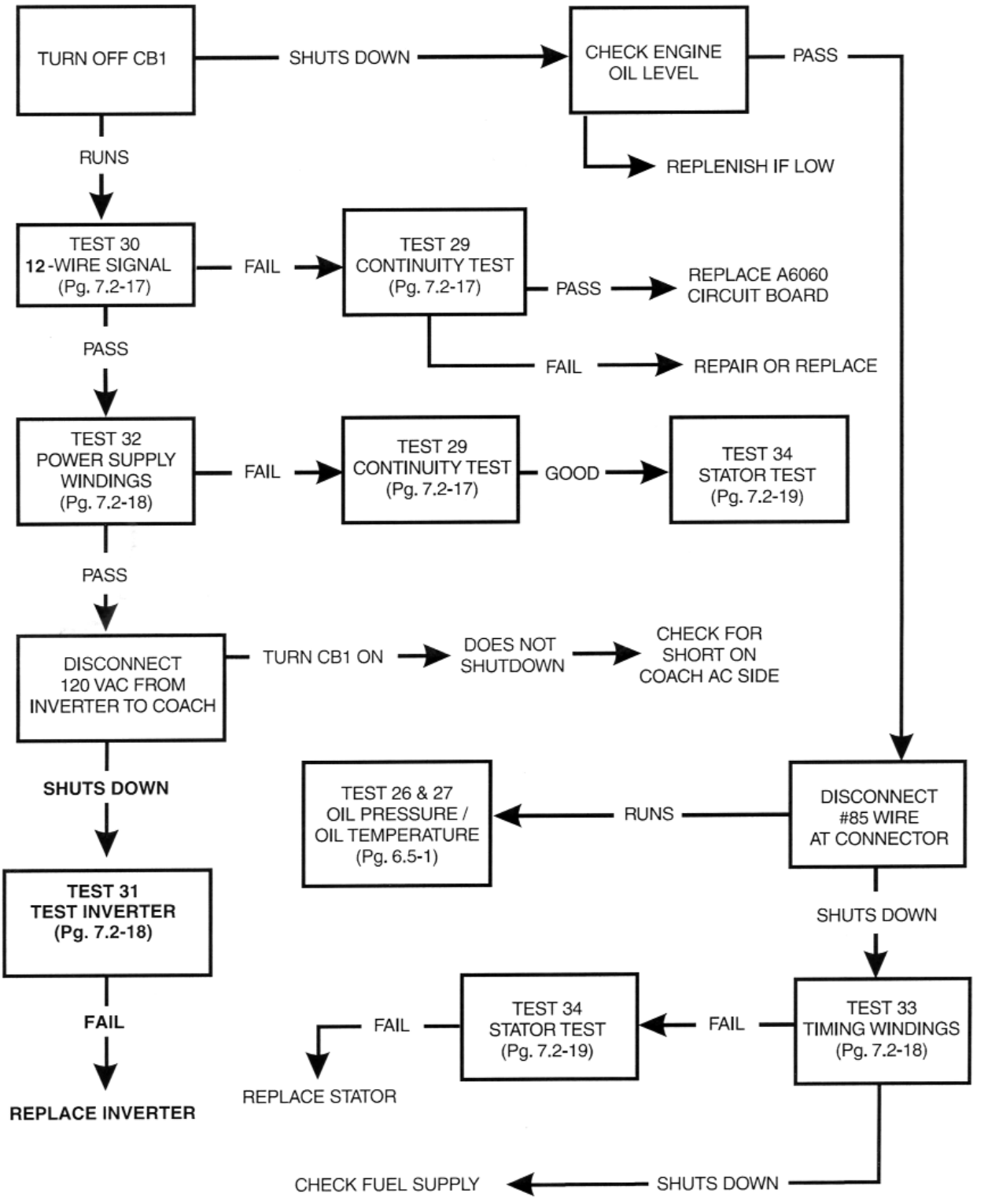
No cash value. Cannot be substituted for goods and/or services not identified on PIB02-01-M

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE:	February 2002
SUBJECT:	12-pin wire harness pin locations for service testing
MODEL AFFECTED:	**940-2, 941-2**
PROBLEM:	Service manual D1752 references a 9-pin and 12 -pin connector. These two separate harnesses connect between the generator and the inverter. **New IMPACT *plus* II units have a single harness with a 12-pin connector**.
CORRECTIVE ACTION:	Use service manual D9057 available on our website at www.generac.com. The provided pages in this PIB are directlyfrom the service manual D9057. Flow Chart problem number 5, test numbers 29, 30, 31, 32 and schematic/wiring diagram are provided.
WARRANTY:	Informative only.

PROBLEM 5 - ENGINE STARTS THEN SHUTS DOWN AFTER A FEW SECONDS



TEST 29 - 12 POSITION HARNESS CONTINUITY TEST

1) Set VOM to measure Resistance.

2. Measure from pin location #1 on one end of the 12 position harness to pin location #1 on the opposite end of the harness. A reading of "Continuity" should be measured. Repeat procedure for each pin position on the 12-wire harness. If an open condition is detected, replace the defective harness as necessary.

3. If needed, check for continuity on the A6060 circuit board wire harness in the control panel. This connection is at location J1 on the circuit board. Follow the same procedure as steps 1 and 2 above.

TEST 30 - 12 POSITION HARNESS SIGNALS TEST

ASSUMPTION:
- Engine runs
- Inverter not connected

TEST PROCEDURE:

1. Disconnect the 12-wire cable from the inverter. Disconnect the Red-Black-Blue-Green DC Link wires from the inverter.

Note: Cap the DC Link wires with a wire nut for safety.

2. On units with A6060 circuit board revision "D" or higher software, jump pin #10 to pin #11 on the 12 position cable previously removed from the inverter. The 12 position cable should be connected to the 12 position socket on the generator control panel. This will enable the generator to run with CB1 turned ON.

3. Turn CB1 to ON position. Start generator. The engine should run at approximately 3300rpm.

4. Set a DVOM to DC volts. Measure from the free end of the 12 position harness according to the chart below. Connect the negative and positive test leads as indicated in the chart.

(Note: Fluke 87 true RMS meter used in test.)

5. Set a DVOM to AC volts. Measure from the free end of the 12 position harness according to the chart below. Connect the negative and posititve test leads as indicated in the chart.

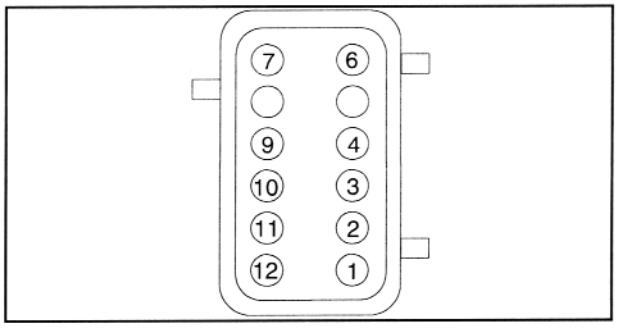


Figure 10 Free End of 12 Position Harness

Test With DVOM Set At DC Volts	Connect negative lead to:	Connect positive lead to:	Reading should be:
Inverter Signals Ground	Pin 9 (0 v)	Pin 2 (En/Com)	≤ 0.10 vdc
Inverter Signal	Pin 2 (En/Com)	Pin 1 (PWM1)	2.5 v ± 0.15 vdc
Inverter Signal	Pin 2 (En/Com)	Pin 3 (PWM2)	2.5 v ± 0.15 vdc
Temperature Voltage	Pin 9 (0 v)	Pin 10 (TEMP)	5.0 v ± 0.1 vdc
Inverter Fan Voltage	Pin 9 (0 v)	Pin 4 (Wire #14)	12 v ± 1.0 vdc
Shield Wire Test for Ground	Pin 12 (SHIELD)	Pin 4 (Wire #14)	12 v ± 1.0 vdc

Test With DVOM Set At AC Volts	Connect negative lead to:	Connect positive lead to:	Reading should be:
Inverter Signal	Pin 2 (En/Com)	Pin 1 (PWM1)	2.5 v ± 2.0 vac*
Inverter Signal	Pin 2 (En/Com)	Pin 3 (PWM2)	2.5 v ± 2.0 vac*

**** Tolerance is large because readings will vary, depending on type of meter used.***

Section 7.2
ENGINE DC CONTROL SYSTEM / AC TROUBLESHOOTING

TEST 31 - STATIC TESTS ON INVERTER

ASSUMPTION:

- Inverter not connected to generator.
- Inverter has been disconnected for at least 5 minutes from running genset to allow capacitors to discharge.

TEST PROCEDURE:

1. Set a DVOM to **DIODE RANGE**. Measure the 12 position connector on the inverter according to the chart below. Connect the negative and positive test leads as indicated in the chart.
2. Set a DVOM to **RESISTANCE RANGE**. Measure the 12 position connector on the inverter according to the chart below. Connect the negative and positive test leads as indicated in the chart.

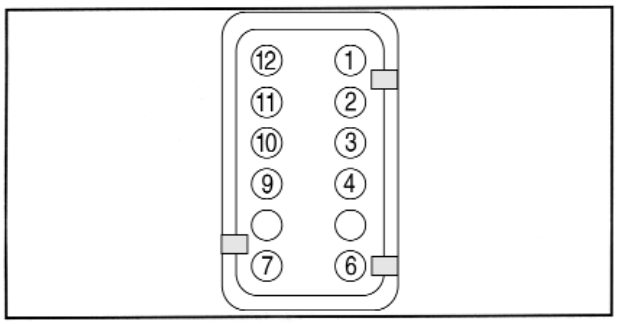


Figure 11. 12 Position Connector on Inverter

STATOR TESTS

TEST 32 - POWER SUPPLY WINDING TEST

1. Disconnect the 12 position cable from the inverter.
2. Start the unit with CB1 in the OFF position.
3. Set a VOM to measure AC. Measure voltage across PS1 (pin location #6) and PS2 (pin location #7). The power supply voltage should be approximately 25-30 VAC at approximately 2700 rpm.
4. Turn CB1 to the ON position.
5. Voltage across the floating power supply should be approximately 30 to 34VAC at approximately 3400rpm.
6. If results are lower, there is a possible stator problem. Proceed to Test 34.

TEST 33 - TIMING WINDING TEST

1. Disconnect the timing winding from receptacle J5 on the A6060 circuit board (orange and grey wires).
2. Disconnect the 12 position harness from the inverter.
3. Two jumper wires with alligator clips are required.
4. Attach a jumper from Wire #15 (located at the fuse holder) to Wire #14 (located at the four tab terminal block in the control panel). This will enable fuel and ignition functions.

1. Test With DVOM Set At Diode Range	**Connect negative lead to:**	**Connect positive lead to:**	**Reading should be:**
Signal Circuit	Pin 2 (En/Com)	Pin 1 (PWM1)	1.25 to 1.5 v
Signal Circuit	Pin 2 (En/Com)	Pin 3 (PWM2)	1.25 to 1.5 v

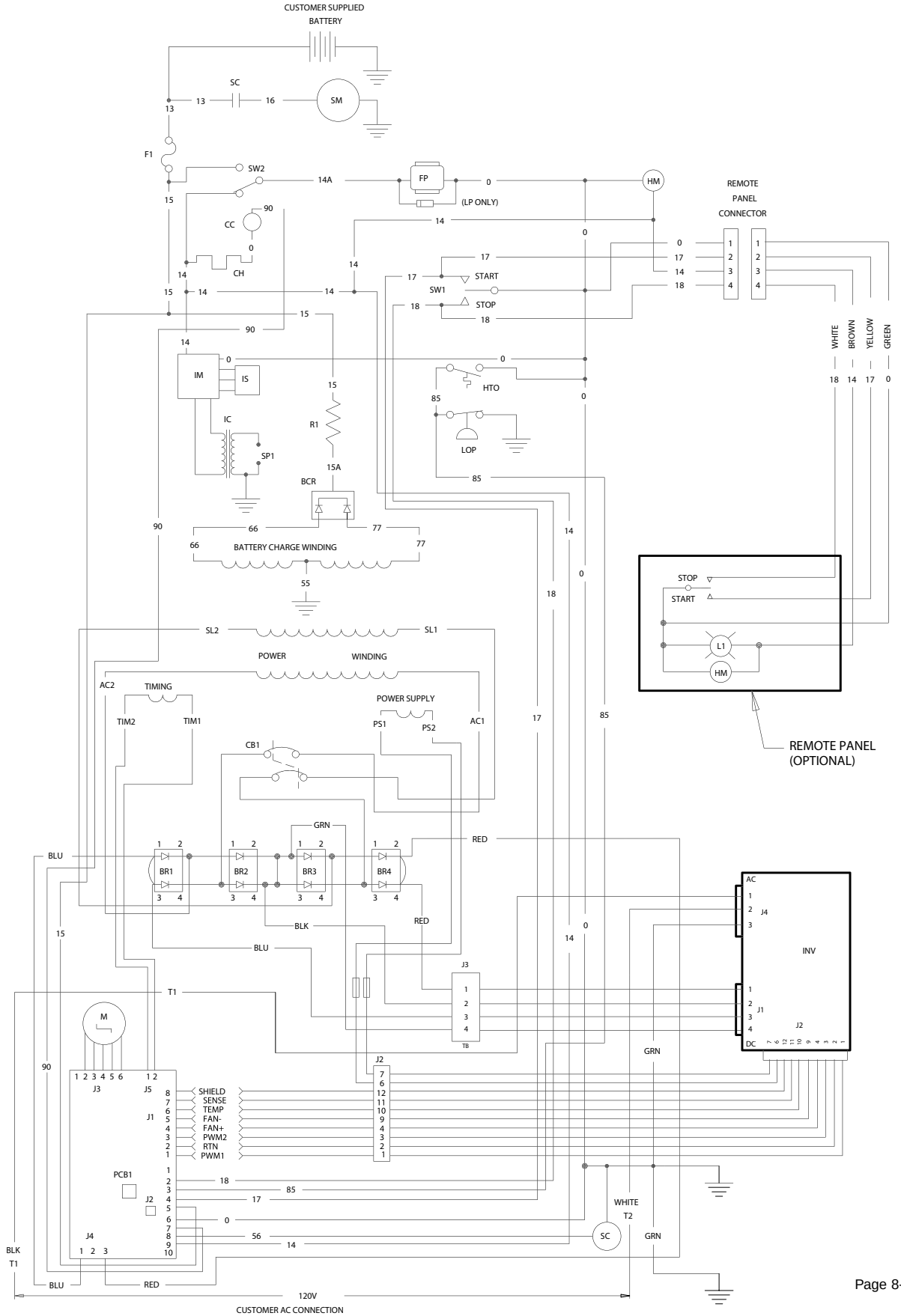
2. Test With DVOM Set At Resistance Range	**Connect negative lead to:**	**Connect positive lead to:**	**Reading should be:**
Temperature Circuit	Pin 9 (0 V)	Pin 10 (TEMP)	*10 kOhm @ 25°C ±500 Ohms
Sense Circuit	Pin 9 (0 V)	Pin 11 (SENSE)	20 kOhm ± 200 Ohm

NTC thermistor; if inverter is hot, resistance may be several kOhm lower. If inverter is cold, resistance may be several kOhm higher

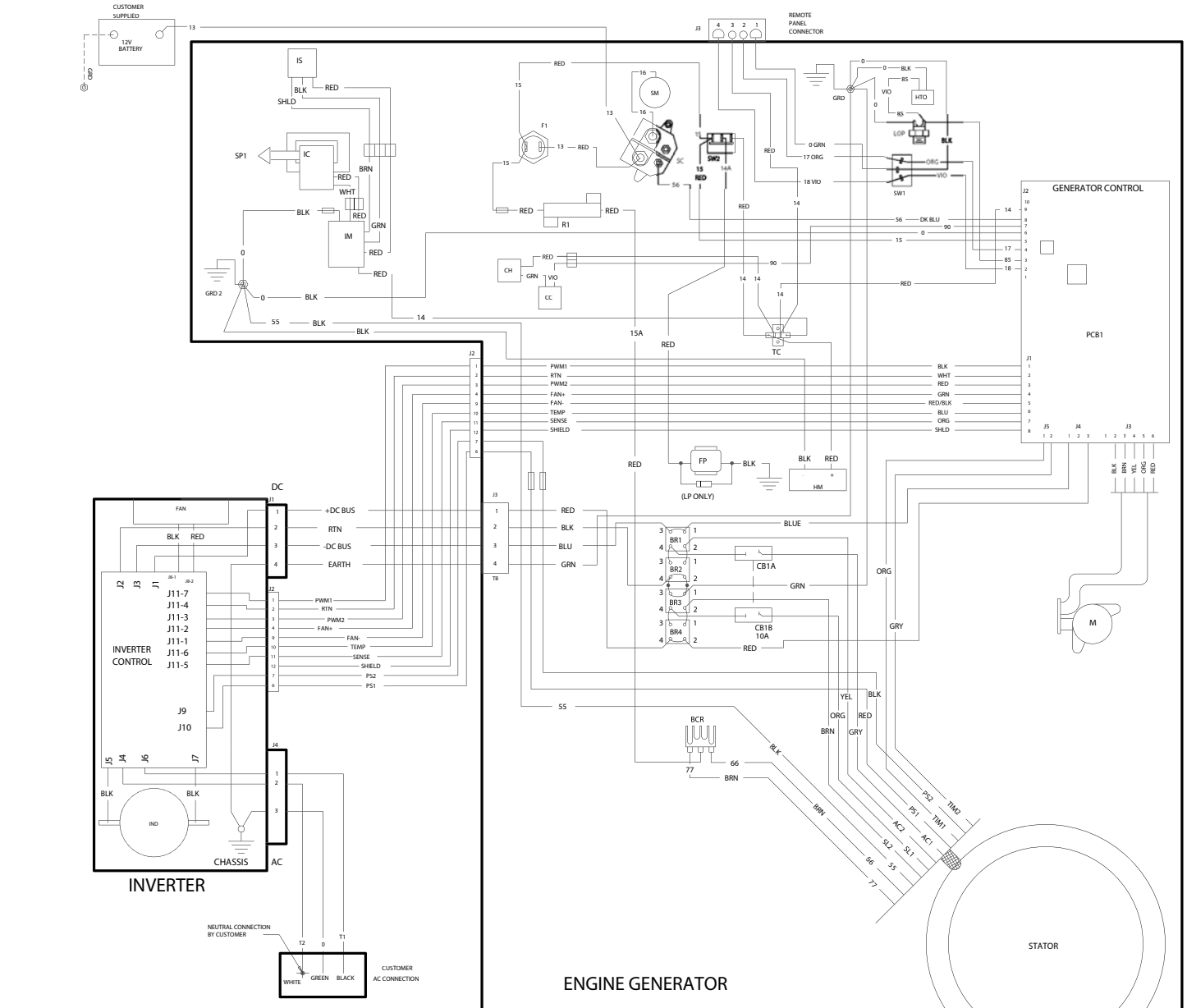
3. Test With DVOM Set At AC Volts	**Connect negative lead to:**	**Connect positive lead to:**	**Reading should be:**
Fan Test	Pin 9 (0 V)	Pin 4 (Wire #14)	See Note

NOTE: Use a ballpoint pen or small screwdriver to spin the blades of the inverter-cooling fan. Momentarily, observe a reading of 10 - 30 mV.

ELECTRICAL SCHEMATIC (DRAWING NO. OD4947-B)
1 OF 2



WIRING DIAGRAM (DRAWING NO. OD4947-B)
2 OF 2



LEGEND

BCR - BATTERY CHARGE RECTIFIER
BR1 - BRIDGE RECTIFIER
BR2 - BRIDGE RECTIFIER
BR3 - BRIDGE RECTIFIER
BR4 - BRIDGE RECTIFIER
CB1 - CIRCUIT BREAKER, 10A, 2-POLE
CC - CHOKE COIL
CH - CHOKE HEATER
F1 - FUSE
FP - FUEL PUMP ON GASOLINE SHUT-OFF VALVE ON L/P
INV - INVERTER BOX
HM - HOUR METER
HTO - SWITCH, HIGH TEMPERATURE OIL (CLOSES ON HIGH TEMPERATURE)
IC - IGNITION COIL
IND - INDUCTOR ASSEMBLY
IM - IGNITION MODULE
IS - IGNITION SENSOR
L1 - LIGHT, RUN (OPTIONAL)
LOP - SWITCH, LOW OIL PRESSURE (CLOSES ON LOW PRESSURE)
M - STEPPER MOTOR THROTTLE CONTROL
PCB1- CONTROL CIRCUIT BOARD
R1 - 1 OHM, 50 WATTS
SC - STARTER CONTACTOR
SM - STARTER MOTOR
SW1 - SWITCH, START/STOP
SW2 - SWITCH, FUEL PUMP PRIME
SP1 - SPARK PLUG
- LUG, BARREL
TC - TERMINAL, CONNECTOR 4 TAB
TB - TERMINAL BLOCK

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: April 2002

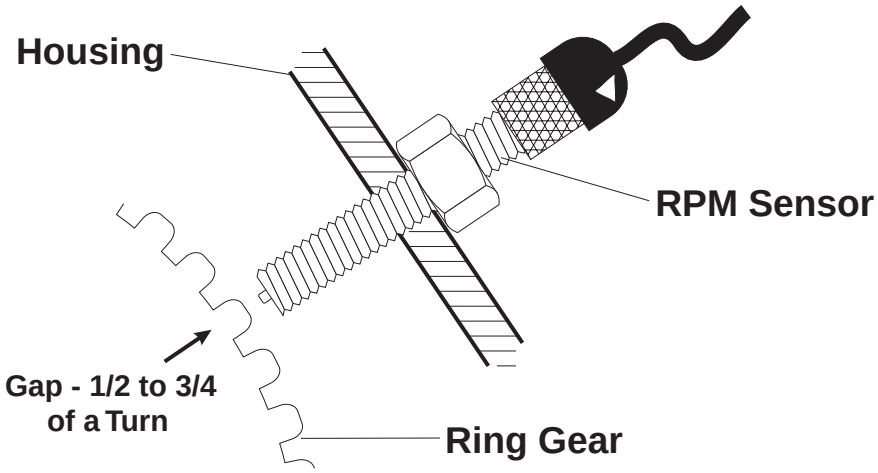
SUBJECT: Magnetic Pick-up Installation and Calibration

MODELS AFFECTED: C, D, and E Panel units or units implementing electronic governors.

CORRECTIVE ACTION: Follow procedure described below.

Installation:
If the magnetic pickup is removed for any reason, it must be installed properly. Rotate the ring gear until a gear tooth face is directly in the center of the tapped hole. Gently turn the magnetic pickup clockwise into the tapped hole until it bottoms on the gear tooth, then back it off **1/2 to 3/4 of a turn** and tighten the jam nut securely.

NOTE: Do NOT use the alternator fan to rotate the engine.



Warranty: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE:	June 2002
SUBJECT:	Generator fuel supply pressure
MODELS AFFECTED:	All GUARDIAN Home Standby Air-cooled Generators
PROBLEM:	Insufficient Natural Gas fuel pressure supplied to the generator.
SYMPTOM:	Hard starting and poor performance.
CORRECTIVE ACTION:	Eleven to fourteen inches of water column pressure must be supplied to the generator fuel inlet. **Refer to the accompanying drawing of a natural gas installation.**
WARRANTY:	**Informative only. No warranty allowance.** If the fuel pressure supplied is not correct the Warranty will be void. Please note the measured fuel pressure at the generator's fuel regulator on any GUARDIAN warranty claim for engine related performance problems. **Claims filed without the fuel pressure listed will be returned to dealer.**

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

HIGH PRIORITY

DATE: May 2002

SUBJECT: 16L Oil Tube Feed Clamps

MODELS AFFECTED: Any 16L unit built prior to Serial Number 2065480.

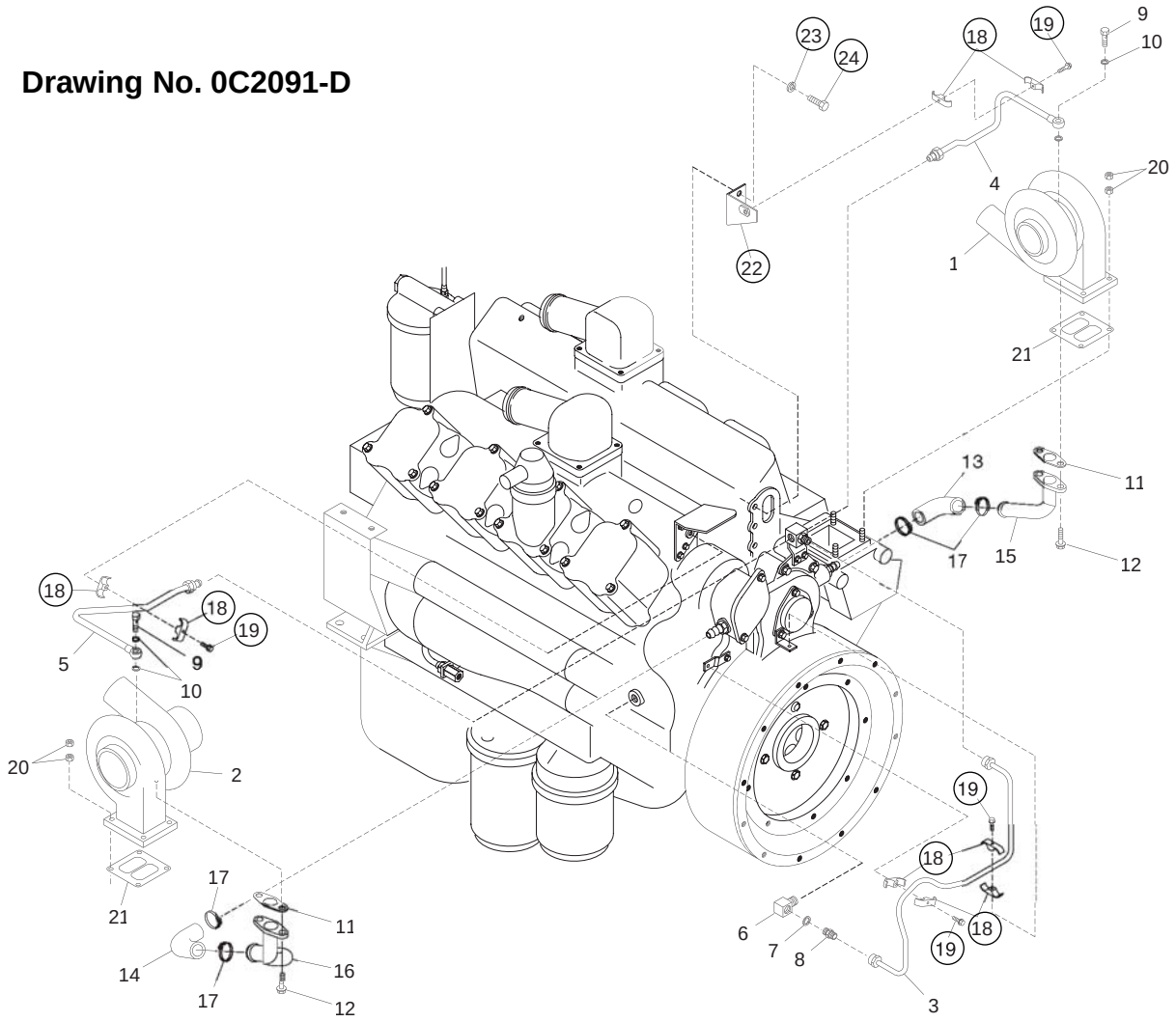
PROBLEM: Possible oil feed tube leakage (turbos).

CORRECTIVE ACTION: Inspect all tubes and fittings for leaks or damage (repair or replace as needed). Install Kit Number 0E1231 per drawing on page 2. This will secure the oil feed tube lines.

WARRANTY: 2 hours will be allowed for this procedure and adjustment.

Reference PIB02-5-S on warranty claim form.

Drawing No. 0C2091-D



ITEM	PART NO.	QTY.	DESCRIPTION
1	0C2366	1	TURBO RH 16L
2	0C2365	1	TURBO LH 16L
3	0D7027	1	TUBE T/C OIL FEED (MIDDLE)16.0
4	0D7028	1	TUBE T/C OIL FEED (RH) 16.0L
5	0D7029	1	TUBE T/C OIL FEED (LH) 16.0
6	0D7030	1	CONNECTOR 90 ENG OIL LINE 16.0
7	0D7031	1	GASKET ENG OIL LINE 16.0
8	0D7032	1	CONNECTOR STR ENG OILLINE 16.0
9	0D7033	2	BOLT EYE ENG OIL LINE 16.0
10	0D7034	4	GASKET ENG OIL LINE 16.0
11	0D7035	2	GASKET T/C OIL RETURN 16.0
12	0D7036	4	BOLT T/C OIL RETURN 16.0
13	0D7037	1	HOSE OIL RETURN RH 16.0
14	0D7038	1	HOSE OIL RETURN LH 16.0
15	0D7039	1	TUBE OIL RETURN RH 16.0
16	0D7040	1	TUBE OIL RETURN LH 16.0
17	0D7041	4	CLAMP OIL RETURN 16.0
18	**0D7042**	**8**	**CLAMP T/C OIL FEED 16.0**
19	**0D7043**	**4**	**BOLT (OIL FEED CLAMP) 16.0**
20	0D7047	16	NUT (TURBO MOUNT) 16.0
21	0C9707	2	GASKET TURBO/EXH
22	**0D8046**	**1**	**BRACKET T/C OIL FEED CLAMP 16L**
23	**022129**	**2**	**WASHER LOCK M8-5/16**
24	**039253**	**2**	**SCREW HHC M8-1.25 X 20 G8.8**

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: June 2002

SUBJECT: Liquid Cooled Guardian PCB, Part # 76009A **Revision F**

MODELS AFFECTED: All replacement circuit boards used for service on the Liquid Cooled Guardian generators will receive the latest revision circuit board part # 76009A **Rev. F**. This board is available from our parts department on any new circuit board part orders.

UPDATED FEATURES: All circuit board functions remain the same. The circuit board part # 76009A **Rev. F** has three LED's added to the board to aid in diagnostic testing.

LED 1 "RED". This LED will be on when utility sensing is **not** available to the circuit board. This LED will function only when the Auto-Off-Manual switch is set in the Auto position

LED 2 "YELLOW". This LED will be on when the circuit board battery charger is on. This LED will cycle on and off with the battery charger, 4.85 hours **ON -** then 4.85 hours **OFF**.

LED 3 "GREEN". This LED will steadily flash when the circuit board has load voltage (load side of the transfer switch) available to it across T1 & T2. When the green LED is flashing, the circuit board is operating its internal clock that controls the battery charge and exercise timers.

WARRANTY: **Informative only.**

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

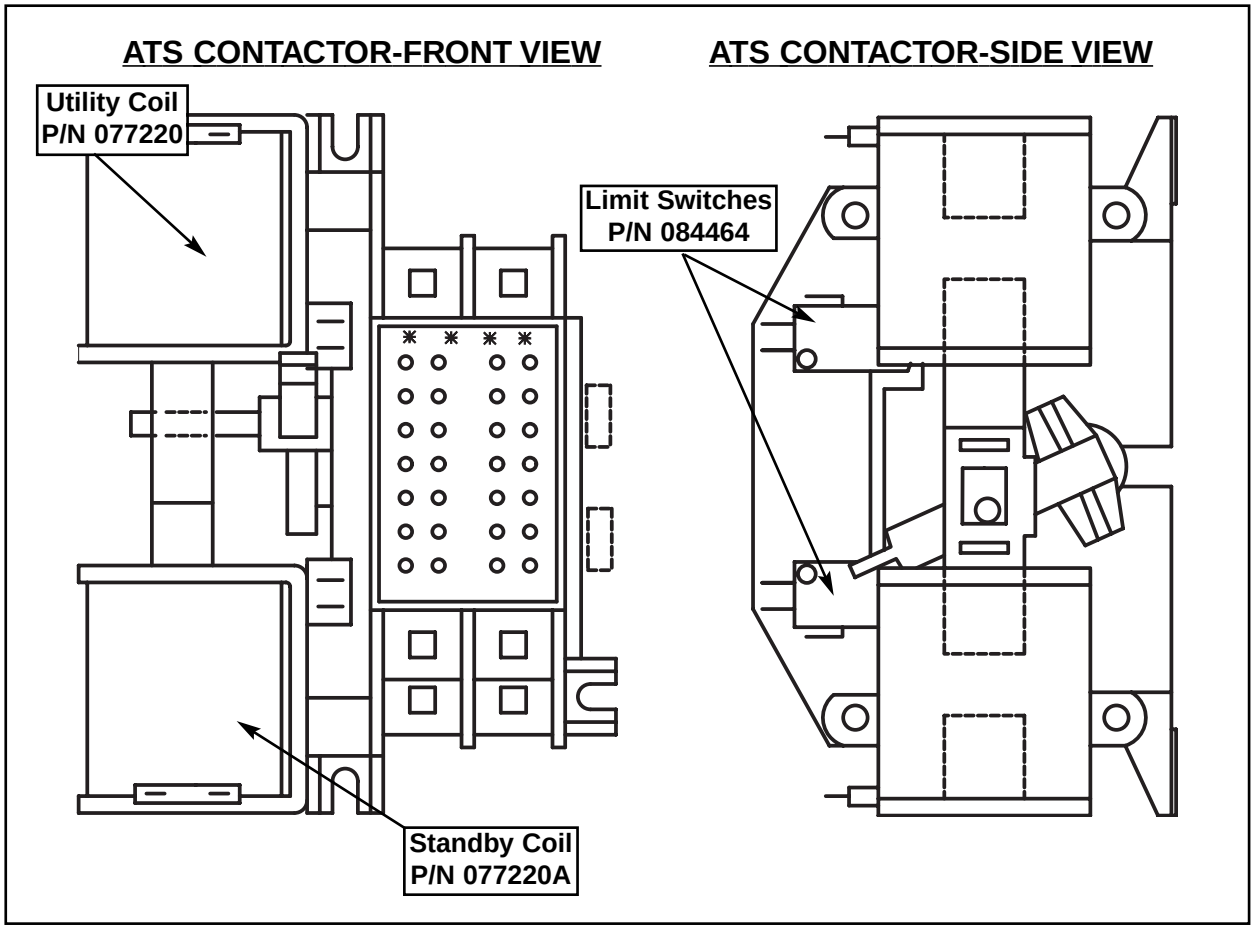
DATE: June 2002

SUBJECT: 100 Amp Transfer Switch

MODELS AFFECTED: All 100 Amp Transfer Switches.

PART AVAILABILITY: Components on the transfer switch can be replaced individually if required. Parts available for the transfer switch include the utility coil, standby coil, and limit switches . Reference the exploded view of available replacement parts for the 100 Amp transfer switch. All other components housed in the enclosure are also available and are referenced in the appropriate owners manual.

WARRANTY: **Informative only. Claims filed for complete transfer switch assemblies when one of the individual components listed could have been replaced, will be paid at the defective component cost only.**



GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: June 2002

SUBJECT: Re-positioning fuel hose between fuel solenoid and fuel regulator on the 1.5 liquid cooled Mitsubishi engine.

MODELS AFFECTED: 907, 908, 909, 910, 911, 4112, 4113, 4114, 4115, 4116, 4117, 4118, 4119, 4090, 4091, 4092, 4093, 4094, 4095, 4096, 4097, 4474, 4124, 4125, 4126, 4127, 4128, 4130, 4131, 4475. **(Includes all dash numbers for each model number)**

PROBLEM: Chaffing of fuel hose on the engine timing belt cover

CORRECTIVE ACTION: Move fuel hose hold down clamp and fuel hose to new position.

1. Remove M8 bolt from clamp located on the side of engine block. See Fig. 1
2. Reposition fuel hose and clamp to new mounting location on timing belt case cover. See Fig. 2
3. Replace M8 bolt and tighten. See Fig. 2

WARRANTY: **15 minutes will be allowed for repositioning the fuel hose, If fuel hose needs replacing .5 hour will be allowed for re-positioning and replacement of fuel hose. This Product Information Bulletin is effective for the original warranty period of the generator.**

Figure 1

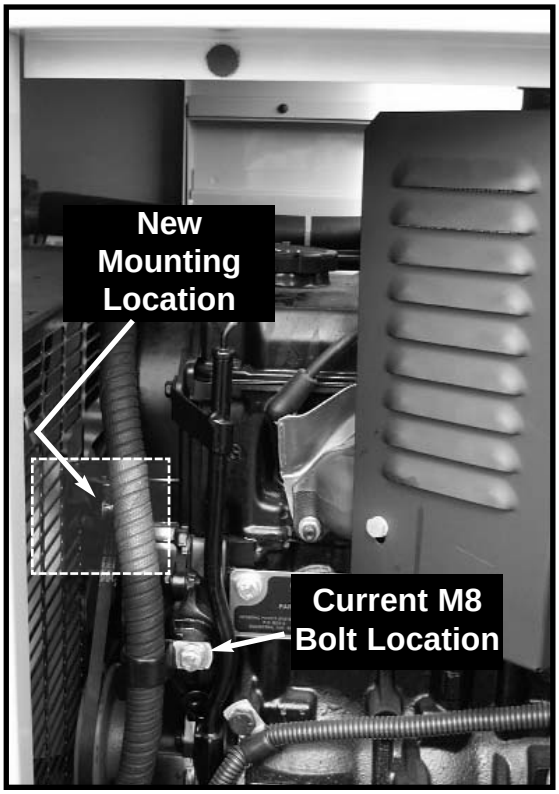


Figure 2

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: July 2002

SUBJECT: C Option Engine Control PCB Adjustment Procedure

MODELS AFFECTED: All generator sets utilizing a C Option control panel.

PROBLEM: Overspeed and starter disengage calibration.

CORRECTIVE ACTION: This adjustment must be done to ensure proper operation. The following adjustment is for setting the engine OVERSPEED shutdown function. This adjustment also serves as the starter disengage speed setpoint. If this adjustment is not properly made it could cause damage to the engine or alternator in an overspeed condition, or to the starter and ring gear if the starter does not properly disengage.

1. Before starting the generator, turn COARSE adjustment pot full COUNTERCLOCKWISE, FINE pot CLOCKWISE.
2. Start engine, make sure engine is up to rated speed.
3. Turn COARSE pot slowly until red LED on PCB board turns on.
4. Turn FINE pot slowly until red LED goes out.
5. Turn FINE pot back slowly until red LED turns back on.
6. Verify proper overspeed shutdown by manually increasing engine speed until engine shuts down. Verify that engine shutdown occurs at 72 Hz. If not, slightly adjust FINE pot to achieve proper shutdown speed. This will also ensure that the starter disengages at approximately 500 rpm.

WARRANTY: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE:	August 2002
SUBJECT:	E-panel Programming
MODELS AFFECTED:	Standby products with an E-panel
PROBLEM:	Unit shuts down and/or receives a fault even though parameter is disabled.
FAULT EXAMPLE:	Unit shuts down on LOW FUEL LEVEL even though the program is DISABLED.
CORRECTIVE ACTION:	Check ALL programming to confirm there is not a DUPLICATE parameter which may have the same VERBIAGE, i.e. LOW FUEL LEVEL.

NOTE: This symptom could apply to any parameter, regardless of the verbiage.

WARRANTY: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: August 2002

SUBJECT: PCB Handling Procedures

MODELS AFFECTED: All

PROBLEM: Electrostatic Discharge (ESD) is a phenomenon which has been shown to cause damage to certain electronic components, especially integrated circuits (ICs). It has been shown that a human body can be charged up to 38,000 volts just by walking across a rug on a low-humidity day. In order for an ESD pulse to be seen, felt, or heard, it must be in the range of 3,000-4,000 volts. Some ICs can be damaged well below this threshold.

CORRECTIVE ACTION: The ICs in the PCBs utilized by Generac Power Systems are protected by a number of factors. Most ICs have protective circuitry built in to protect against ESD, the fact that the ICs are installed in a PCB offers some protection, and the conformal coating over the surfaces of the boards also offers protection. However, it is imperative that certain steps are taken to further guard against damage caused by ESD. Please use the following guidelines when replacing PCBs:

1. Always touch a grounded surface before handling the old and new boards. This will allow any electrostatic charge in the body to be discharged.
2. Avoid touching components on the boards by handling the boards by the edges.
3. If returning the old board for warranty purposes, immediately place the board in the anti-static packaging that the replacement board was removed from.
4. Boards which are not received in anti-static packaging by the warranty department **WILL NOT** be warrantable.

WARRANTY: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

High Priority

DATE: August 2002

SUBJECT: Water Level Switch Mounted in Upper Radiator Tubes

MODELS AFFECTED:
400 kW with Mitsubishi S6B-PTA 14.5L
500 kW with Mitsubishi S6A-PTA 18.5L
800 kW with Mitsubishi S12A-PTA 33.9L
1020 kW with Mitsubishi S12H-PTA 37.0L
1200 kW with Mitsubishi S12R-PTA 49.0L
1350 kW with Mitsubishi S12R-PTA2 49.0L
1500 kW with Mitsubishi S12R-PTAA2 49.0L
1500 kW - 1635 kW with Mitsubishi S16R-PTA 64.5L
1825 kW with Mitsubishi S16R-PTA2 64.5L
2000 kW with Mitsubishi S16R-PTAA2 18.5L
Using Bearward Radiators

500-600 kW with DaeWoo P222LE 22.0L built prior to June 2001.

CORRECTIVE ACTION: Generator sets with the Low Water Level switch mounted in the upper radiator tubes need to have a ground wire attached to the body of the switch to prevent possible failure due to loss of ground from lack of coolant.

This wire must connect to a grounding point on the engine and be attached to the body of the switch in a manner that will allow a definite ground to the switch.

WARRANTY: This repair should be made during a routine maintenance visit and should take approximately 20 minutes to perform.

Reference PIB02-13-S on warranty claim form.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: September 2002

SUBJECT: Stepper Motor #098290B

MODELS AFFECTED: 1.5L, 1.6L, 2.4L, 3.0L Gas, 3.0L Diesel, 4.3L Engines

PROBLEM: Procedure for Proper Adjustment of Stepper Motor

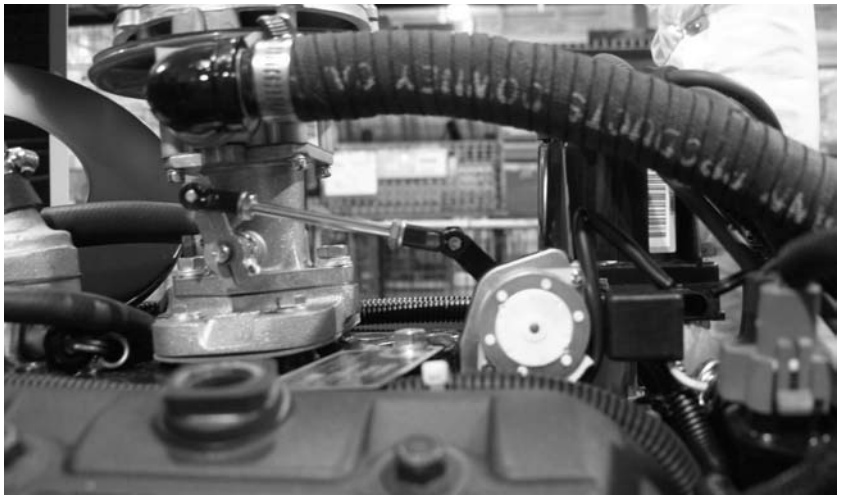
CORRECTIVE ACTION: Check the following items before replacement of the stepper motor.

- Stepper motor mounting bolts tight.

- Alignment, the linkage is a straight line.
- Carburetor linkage rod for loose jam nuts, or pivot studs.
- Stepper motor lever for loose mounting screws.
- Carburetor arm adjustment bolt is tight.
- Communication wire not damaged, or pinched, and has good electrical contact.

- Dip switches set properly per engine requirements.
- Potentiometers set at midpoint.

- Rotate stepper motor lever and linkage back and forth several times for smooth movement. (stripped gears tend to jerk)
- Carburetor butterfly must be in the closed position. Adjust the linkage to allow an additional .125" of travel on the stepper motor before the end of stroke.



- Linkage must not have excessive wear at ball socket.

Procedure to set up the stepper motor.

- Install stepper motor mounting base bolts.
- Linkage must be in straight-line alignment. If not, loosen stepper motor base bolts and adjust.
- Carburetor butterfly must be in the closed position. Adjust the linkage to allow an additional .125" of travel on the stepper motor before the end of stroke.
- Rotate stepper motor lever back and forth several times to ensure smooth operation.

WARRANTY: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

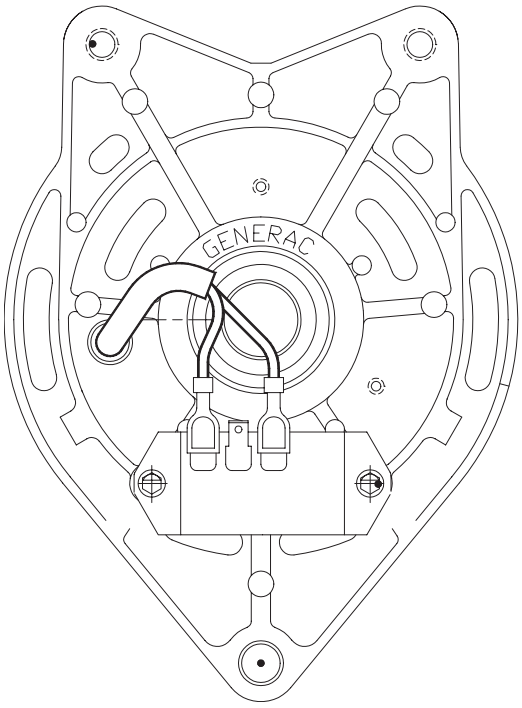
DATE: October 2002

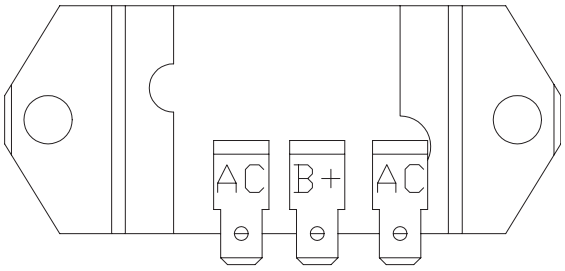
SUBJECT: Voltage Regulator, Generac DC Alternator (Standby product) 12 VDC

MODELS AFFECTED: Any liquid-cooled unit with the Generac DC alternator (12 VDC).

PROBLEM: No DC output.

CORRECTIVE ACTION: Replace regulator assembly part #0A2702.





WARRANTY: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: October 2002

SUBJECT: D, E and F Panel Parameters

MODELS AFFECTED: Any unit with an D, E, or F Panel

CORRECTIVE ACTION: Generac is requiring that D, E, and F **Alarm History** and **Panel Parameters** be forwarded to Generac Technical Service prior to any major warranty decisions being made. These parameters allow us to confirm the settings and aid in the troubleshooting and repair of the unit. If a laptop and GenLink are **not available**, the attached forms should be copied and utilized in the field.

After recording the parameters, contact the technical service department, you will be instructed who to fax the information to. The fax number is: 262-544-5689.

This will be done on a case by case basis.

WARRANTY: Informative only.

Please complete the following information from your unit's control panel and fax/email it back.

Dealer Name _____

E-Panel Settings Site: _____ Date: _____

SYSTEM ALARM MEN U

Settin g Name	Current Val ue
Low fuel shutdown enable	
Low fuel shutdown setpt	
Fuel level low enable	
Fuel level low setpoint	
Fuel level high enable	
Fuel level high setpoint	
Under freq alarm type	
Under freq setpoint	
Over freq alarm type	
Over freq setpoint	
Under voltage alarm type	
Under voltage setpoint	
Over voltage alarm type	
Over voltage setpoint	
Overspeed shutdown setpt	
Underspeed alarm type	
Underspeed alarm setpt	
Battery volts high setpt	
Battery volts low setpt	
Coolant temp low setpt	
Coolant temp shutdn spt	
Coolant temp high setpt	
Oil temp shutdown enable	
Oil temp shutdown setpt	
Oil temp warn enable	
Oil temp warn setpt	
Oil Press shutdown setpt	
Oil Press Warn setpt	

ENGINE PARAMETER MENU

Settin g Name	Current Valu e
RS232 PORT	
Restore all value s	
Voltage Scaling Factor	
Flywheel teeth	
Panel I.D.	
User Password	
Preheat option	
Load accept frequency	
Load accept voltage	
Starter disengage speed	
Number of start attempts	
Generator cool down time	
Generator warm up time	
Alarm hold off time	
Start attempt pause time	
Start timer	
Preheat timer	

DIGITAL I/O MENU	
Setting Name	Current Valu e
Input ch 8 alarm enable & setting	
Input ch 7 alarm enable & settin g	
Input ch 6 alarm enable & setting	
Input ch 5 alarm enable & settin g	
Input ch 4 alarm enable & settin g	
Input ch 3 alarm enable & settin g	
Input ch 2 alarm enable & settin g	
Input ch 1 alarm enable & setting	

Technicians Name _____

Technicians Phone _____

Model Number _____

Serial Numbe r _____

Please complete the following information from your unit's control panel and fax/email it back.

Dealer Name _____

E-Panel Settings Site: _____ Date: _____

ALARM HISTORY - Logged alarm number

1	_____	26	_____
2	_____	27	_____
3	_____	28	_____
4	_____	29	_____
5	_____	30	_____
6	_____	31	_____
7	_____	32	_____
8	_____	33	_____
9	_____	34	_____
10	_____	35	_____
11	_____	36	_____
12	_____	37	_____
13	_____	38	_____
14	_____	39	_____
15	_____	40	_____
16	_____	41	_____
17	_____	42	_____
18	_____	43	_____
19	_____	44	_____
20	_____	45	_____
21	_____	46	_____
22	_____	47	_____
23	_____	48	_____
24	_____	49	_____
25	_____	50	_____

Technicians Name _____ Technicians Phone _____

Model Number _____ Serial Number _____

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: November 2002

SUBJECT: Programming the Three Programmable Relays (E Panel) The E Module has three relays, which can be programmed to any of the functions listed on the “Output Function Table” (found in the E Panel Operators Manual).

MODELS AFFECTED: Any unit with an E panel

EXAMPLE:
1. Scroll to PARAMETER ENTRY - press ENTER.
2. Enter password (if required) - press ENTER.
3. Scroll right or left to DIGITAL I/O MENU.
4. Scroll up (or down) to OUTPUT 1 FUNCTION - press ENTER.
5. At this point you will be scrolling through the parameters listed on the output function table. Scroll to SHUT DOWN DUE TO ALARM - press ENTER.

You have just programmed relay number #1 to trip on any critical alarm.

NOTE: If you chose COMMON ALARM, it will trip on ANY alarm.

You can now utilize the PRG RLY1 Common/Normally Closed/Normally Open contacts for signals rated up to 30 volts AC/DC - maximum 1 amp (anything higher, slave it with a relay of higher ratings).

NOTE: Any of the eight (8) digital channels can be assigned to the programmable relays.

EXAMPLE: While scrolling through the Function Table (step 5 above) you will come to a USER INPUT or DIGITAL INPUT function that has been programmed into the E module. In this instance, it’s been programmed to a main line circuit breaker or MLCB function. Press ENTER. That relay has been programmed to trip on the position of the MLCB (Breaker Tripping or Opened).

Let’s be CREATIVE: Program OUTPUT 1 FUNCTION for COMMON ALARM (steps 1-5 above). At terminal strip (TB2) wire the PRG RLY1 COM to the PRG INPT GND (TB3). Wire the PRG RLY 1 NC (TB2) to PRG INPT 4 (TB3).

Program INPUT CHANNEL 4 as follows:
1. Go to PARAMETER ENTRY - press ENTER.
2. Use the right or left arrow and go to the DIGITAL I/O MENU.
3. Use the up or down arrow to go to INPUT CHANNEL 4 MESSAGE - press ENTER.
4. Use the arrows to spell out the NAME and EMERGENCY PHONE NUMBER of your business - press ENTER. Example: CALL JOES GENERATOR AT 555-555-5555.
5. Use the up arrow to INPUT CHANNEL 4 SETTING - press ENTER.
6. Arrow to OPEN=ALARM - press ENTER.
7. Use the up arrow to INPUT CHANNEL 4 ALARM - press ENTER.
8. Arrow to ALWAYS - press ENTER.
9. Use the up arrow to INPUT CHANNEL 4 ALARM TYPE - press ENTER.
10. Arrow to LATCHING ALARM - press ENTER.

Now every time there is any alarm and the customer goes out an looks at the unit, the call JOES GENERATOR at 555-555-5555 will be flashing at them!! Since we used input 4 the spare light on a 20-Light Remote Annunciator will annunciate. You can still use the PROGRAMMABLE RELAY 1 common (ground) and Normally Open to energize a slave relay (i.e. coil A fused batter voltage - coil B wired to the Normally Open).

NOTE: If PROGRAMMABLE INPUT 1 was used, the BATTERY CHARGE FAILURE LED would annunciate, the same would occur with the LINE AND GEN POWER (Input 2 and 3) LED’s. They would require re-labeling at the 20-Light Remote Annunciator.

NOTE: GENERAC RECOMMENDS USING RELAYS TO **SLAVE** THE OUTPUT RELAY CONTACTS. IF SOMETHING GOES WRONG, i.e. VOLTAGE SPIKE, CROSSED WIRES, LIGHTNING, ETC., IT’S MUCH MORE COST EFFECTIVE TO REPLACE A RELAY THAN THE E MODULE.

WARRANTY: Informative only.

OUTPUT FUNCTION TABLE

Output Function ID	Function Name	Description
00	Output Disabled	Output not in use
01	Common Alarm	Active for all latched, non-latched and shutdown alarms
02	Low Oil Pressure Warning	Active after hold off time
03	Oil Pressure Shutdown	Active after hold off time, low oil pressure
04	High Coolant Temp. Warning	Active after hold off time
05	Coolant Temp. Shutdown	Active after hold off time, high coolant temperature
06	Low Coolant Temp. Alarm	
07	High Oil Temp. Warning	
08	Oil Temp. Shutdown	High oil temperature
09	Low Battery Voltage	Must be below set value for five minutes
10	High Battery Voltage	
11	Overspeed Shutdown	
12	Underspeed Alarm	Active after hold off time
13	Over Voltage Alarm	Active after hold off time
14	Under Voltage Alarm	Active after hold off time
15	Over Frequency Alarm	Active after hold off time
16	Under Frequency Alarm	Active after hold off time
17	High Fuel Alarm	Above the warning set-point
18	Low Fuel Alarm	Below the warning set-point
19	Low Fuel & Shutdown	Below the shutdown set-point
20	Failed to Start Alarm	Overcrank
21	Coolant Level Alarm	Low coolant level
22	RPM Sensor Failed Alarm	Magnetic pickup failure
23	Start Inhibit Alarm	Oil pressure was present at start request
24	Emergency Stop Alarm	Emergency stop active
25	Oil Press. Sense Fault	Sensor is either open or short circuit
26	Oil Temp. Sense Fault	Sensor is either open or short circuit
27	Coolant Temp. Sense Fault	Sensor is either open or short circuit
28	Analog Channel 1 High	Input at user analog channel 1 is above programmed high set-point
29	Analog Channel 1 Low	Input at user analog channel 1 is below programmed low set-point
30	Analog Channel 2 High	Input at user analog channel 2 is above programmed high set-point
31	Analog Channel 2 Low	Input at user analog channel 2 is below programmed low set-point
32	Digital Channel 1 Active	User programmable digital input 1 is active
33	Digital Channel 2 Active	User programmable digital input 2 is active
34	Digital Channel 3 Active	User programmable digital input 3 is active
35	Digital Channel 4 Active	User programmable digital input 4 is active
36	Digital Channel 5 Active	User programmable digital input 5 is active
37	Digital Channel 6 Active	User programmable digital input 6 is active
38	Digital Channel 7 Active	User programmable digital input 7 is active
39	Digital Channel 8 Active	User programmable digital input 8 is active
40	Generator in Auto	Key switch in auto position
41	Generator in Manual	Key switch in manual position
42	Generator Off	Key switch in off position
43	Stopped	Generator stopped
44	Shutdown Due to Alarm	Generator shutdown
45	Stopped Ready to Run	Generator ready to start
46	Running	Generator running
47	Ready to Accept Load	Generator has reached load accept voltage and frequency set-points, and the warm-up timer has expired
48	All Alarms Active	Generator running

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: November 2002

SUBJECT: LP conversion – Air-cooled standby using 992cc V-Twin engine

MODELS AFFECTED: 4456-1, 4390-1, 4759-0, 4760-0, 4674-0 & 4675-0

CONVERSION

To reconfigure the fuel system from NG to LP, follow these steps:

NOTE:
The primary regulator for the propane supply is NOT INCLUDED with the generator. You must supply a fuel pressure of 11 to 14 inches of water column (0.6 psi) to the fuel inlet of the generator.

1. Turn off the main gas supply.
2. Remove the three carburetor fuel hoses from the outlet ports of the demand regulator.
3. Disconnect wire #0 and wire #14 from the gas solenoid located on the top of the demand regulator.
4. Remove the demand regulator from the enclosure by rotating counterclockwise.
5. Remove the small brass hose fitting from the idle circuit port of the regulator housing.
6. Remove the small jet (0D5698A) located in the side of the regulator housing and install it into the small threaded hole in the idle circuit port on the regulator.
7. Refit the brass hose fitting to the idle circuit port of the regulator. Use pipe thread sealant to reseal the threads on the hose fitting.
8. Identify both adjustment screws.

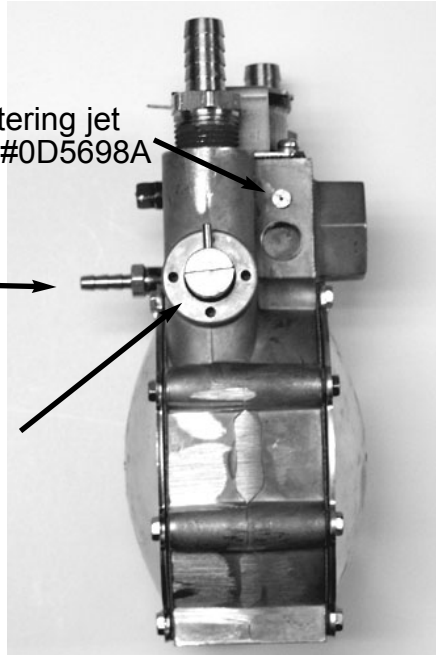
NOTE:
One adjustment screw can be accessed from the front of the unit and the second can be accessed from the back of the unit, (Remove black cap in lower part of enclosure panel).

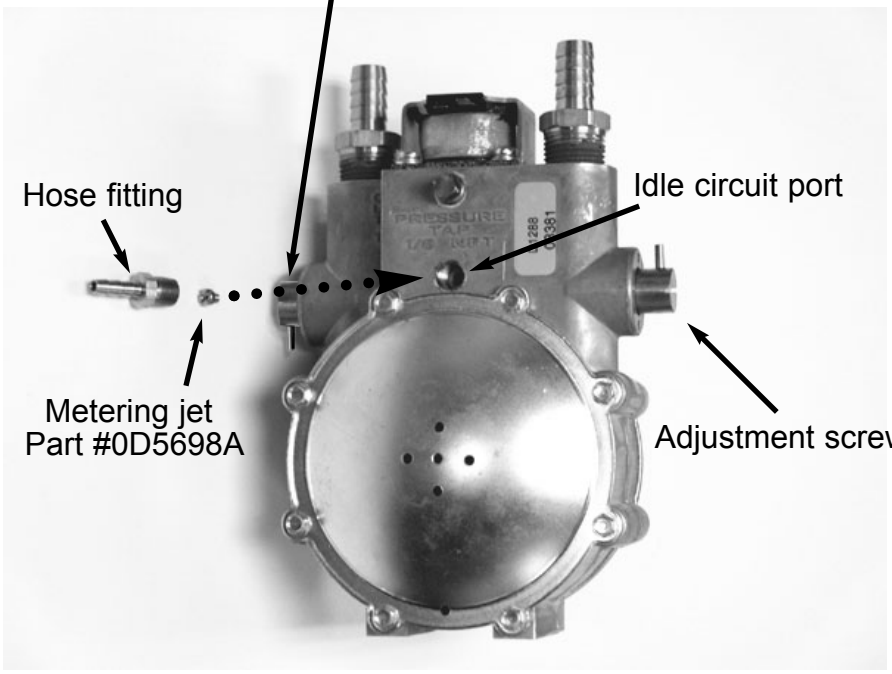
9. Reverse procedure steps 1-4 to reinstall the demand regulator.

10. To adjust the system to run on LP fuel, simply turn the both adjuster screws 1/4 turn clockwise.

11. The fuel system will now allow the engine to run on LP fuel. It may be necessary to make minor adjustments to the preset screw settings to achieve maximum power. If there are problems with the unit producing maximum power, follow the procedure in Section 2.6 of the Owner's Manual "Adjusting the Regulator."

WARRANTY: **Informative only.**





GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE:	November 2002
SUBJECT:	Low Battery Voltage Warning Set Points
MODELS AFFECTED:	Any generator with a D, E, or F Panel
PROBLEM:	Settings are too low for proper low battery voltage monitoring.
CORRECTIVE ACTION:	Reset the parameters on Preventative Maintenance trip.
PROCEDURE:	Either locally or through GenLink, locate the LOW BATTERY VOLTAGE WARNING and reset it to **12 VDC** for 12 volt generator systems and **24 VDC** for 24 volt generator systems.

WARRANTY: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: November 2002

SUBJECT: Approved Oil for the DG 50

MODELS AFFECTED: All models of the DG 50

PROBLEM: Penzoil GEO 15W-40 oil discontinued

CORRECTIVE ACTION: Engineering has approved the replacement of Penzoil with Shell Mysella Ashless. The same grade (15W-40) must be used in any DG 50 application.

WARRANTY: Informative only.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: November 2002

SUBJECT: Disabling Standby Generators for Maintenance

MODELS AFFECTED: All standby units, both air and liquid cooled.

PROBLEM: Units not properly disabled before maintenance is done.

CORRECTIVE ACTION: If the unit is equipped with a D or E Panel, download parameters before disabling unit. In order to ensure that the standby generator is properly disabled before any work is done on it, follow these steps:

1. Disable the generator by putting the AUTO/OFF/MANUAL switch in the OFF position.
2. Disable the automatic transfer switch by placing the MAINTENANCE DISCONNECT switch in the MANUAL position. If a non-Generac transfer switch is being used, disable it by the means provided by that manufacturer.
3. Remove the control panel fuse.
4. Turn OFF the BATTERY CHARGER by whatever means necessary, i.e., open the circuit breaker. DO NOT simply remove the fuse(s). This WILL NOT disable the 120 VAC input to the charger.

NOTE: If this is an air or liquid-cooled Home Standby or Guardian unit, Utility 1 and 2 sensing leads will need to be turned OFF by whatever means necessary.

5. The block heater must be turned off by whatever means necessary.

NOTE: It may be wired separate of the battery charger.

6. Remove the NEGATIVE (-) (black) cable from the battery.

WARRANTY: Informative only.