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DA7000 Voltage Diagnostic

This documentation can be used as a guide when inspecting and diagnosing failure associated with the AC voltage output on the DA7000 series generator.

Use of an accurate multi-meter is necessary when inspecting the generator.



Safety precautions should be followed at all times when servicing this equipment. Consult operations manual for more safety information.



Component Identification and Location

To access components to be inspected remove control panel, (4) Phillip head screws.

Screws



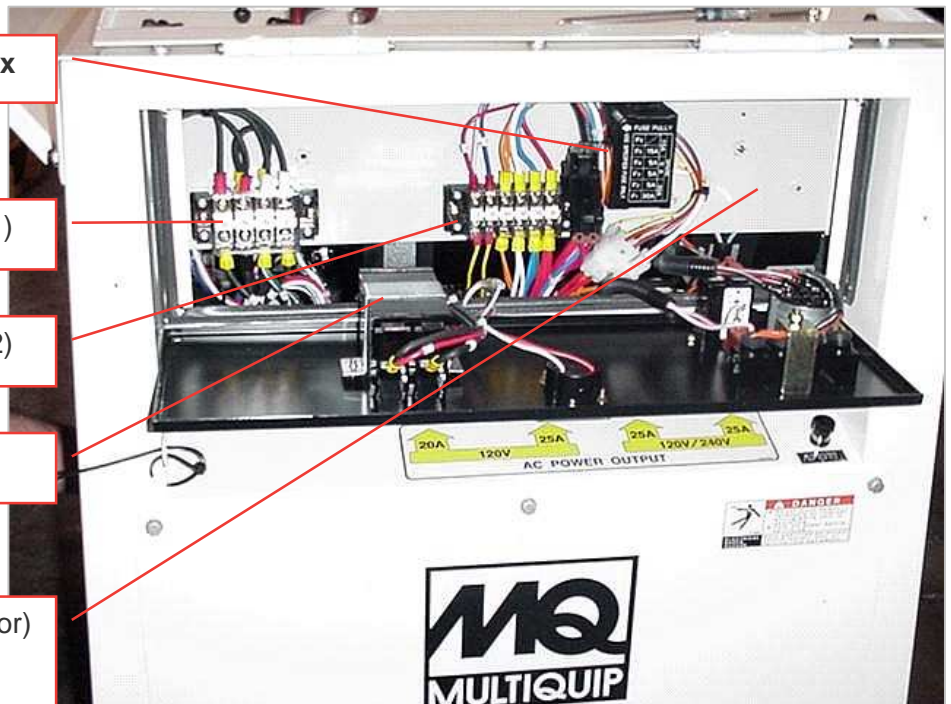
Fuse Box

TB1 (terminal board 1)

TB2 (terminal board 2)

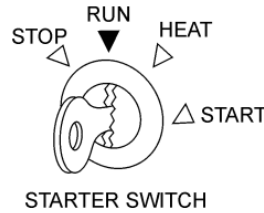
CB (circuit breaker)

RE1 (diode rectifier) R (resistor)
Mounted behind panel



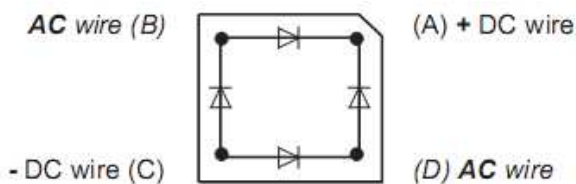
Check the following with the engine off!

- Inspect F4 fuse, (see page 3).
- Inspect (J) terminal on TB2 for **12V DC** when starter switch key is in the run position, (see page 3).



Starter Switch
(MQ part#)
3741059110

- Inspect for loose wires, contacts, or damaged receptacles, starter switch, & circuit breakers.
- Remove J-K bottom yellow wires from TB2 (stator excitation windings) perform a resistance test, (see page 3).
Resistance specification: 1.63 ohms
- Perform a resistance test between stator windings wires U1 to V1 and U2 to V2
Resistance specification: .16 ohms (located at TB1)
- **NOTE:** Before performing resistance test always disconnect and isolate the wires to be tested. Resistance (nominal reading $\pm 10\%$) When checking resistance also check each wire for continuity to ground for open circuits.
- Perform a resistance test on the 'R' resistor - **Resistance specification: 10 ohms** (see page 4)
- Inspect RE1 diode rectifier for continuity/no continuity as shown below.
(Disconnect the leads to properly check the rectifier & resistor)



A (+) to B (-)----- No Continuity
 B (+) to A (-)----- Continuity
 A (+) to D (-) ----- No Continuity
 D (+) to A (-) ----- Continuity
 C (+) to B (-) ----- Continuity
 B (+) to C (-) ----- No Continuity
 C (+) to D (-) ----- Continuity
 D (+) to C (-) ----- No Continuity

- Excitation & Output Windings – Pg. 3
- Resistor & Rectifier – Pg. 4
- Engine Diagram – Pg. 5
- Generator Diagram – Pg. 6

NOTE: The above readings conform with an analog type (needle indicator) ohmmeter, some digital type ohmmeters may show opposite polarity continuity.

TB2 and Fuse Box

J & K



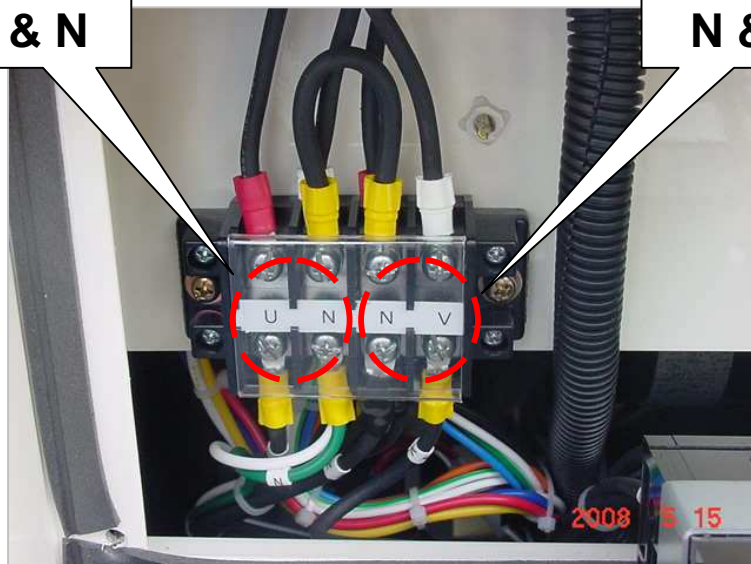
F4 – 5amp
(MQ part#)
0601806642

Inspect fuse with multi-meter, ensure inside filament is intact.



TB1

U & N

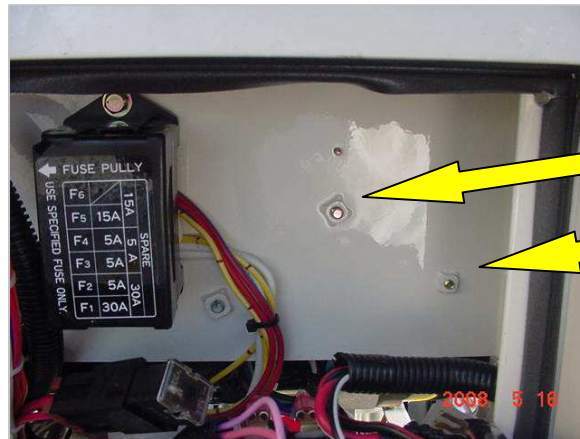


N & V

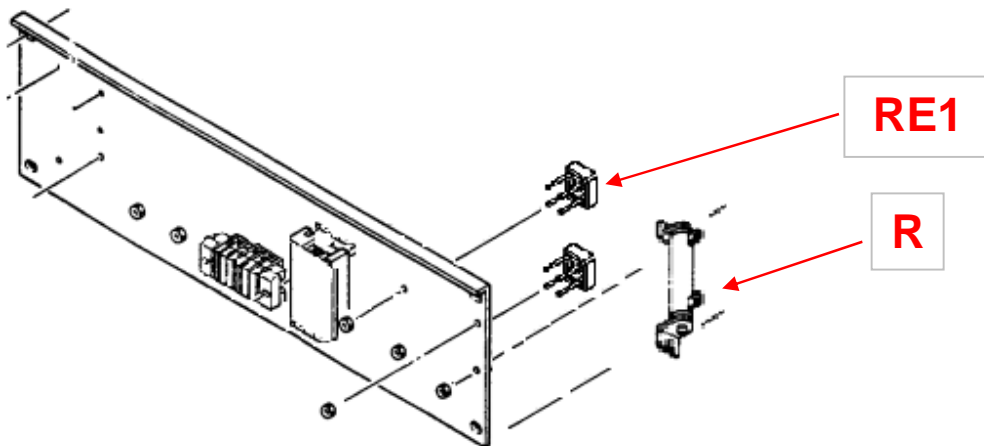
U & N provides 120V AC to the receptacles

N & V provides 120V AC to the receptacles

RE1 & R



RE1 & R is mounted behind the panel by machined screws



There are two rectifiers at this location, the top one **RE1** is for excitation.

RE1 (Diode Rectifier) (*MQ part# 0601823204*) prevents voltage spikes or back feed in the circuit.

R (Resistor) (*MQ part# 0601842463*) opposes the electrical current by producing a voltage drop between it's terminals in proportion to the current. (controls the flow of electrical current)

