Troubleshooting Guide for all Single Engine Externally Regulated Alternators

NOTE: Perform all tests with:
1. ALTERNATOR SWITCH on
2. Master Switch on
3. Engine off
4. Magnetos turned off or grounded

Additional Considerations:
1. Voltage drop of .5 volts MAX at all points except across the VR.
2. Voltage drop of 1 to 1.5 volts across the actual regulator acceptable.
3. MAX resistance of .2 ohms at ground points, across switches and conductors.
4. MAX of 1 volt AC at ALT B+ Terminal.
5. Engine operating speeds and load requested affect output.

**Record Aircraft Bus Voltage:**

Check and record voltage of Aircraft Bus

Check to be certain ground strap is properly connected at Alternator F2

Check for Bus voltage at Alternator F1

Check for Bus voltage at Regulator FLD

Check for Bus voltage at Regulator ENABLE

Check for Bus voltage at point A

Check for Bus voltage at point B

Check for Bus voltage at point C

Check for Bus voltage at point D

Check for Bus voltage at Alternator B+ OUTPUT

Check for Bus voltage at point E

Check for Bus voltage at point F

Replace wire or connectors from Regulator FLD to Alternator F1

Replace wire or connectors from Regulator ENABLE to point A

Replace ALTERNATOR SWITCH

Replace wire or connectors from point B to point C

Defective or tripped circuit breaker. Replace if defective

Replace wire or connection

Defective or tripped circuit breaker. Replace if defective

Replace wire or connection to Bus

Replace wire or connection to Bus

Properly install ground strap

Defective or tripped circuit breaker. Replace if defective

Set the adjustment pot for proper voltage. Refer to R1224 Installation Instructions and Aircraft Maintenance Manual for proper voltage

Is the R1224 Regulator wired as the diagram shows?

Is the ground wire of the regulator properly connected to a good airframe ground?

Are the 2 voltage jumpers inside the regulator properly set (refer to R1224 installation instructions)?

Correct 2 voltage jumper locations

Correct ground wire issue

Wire regulator as per the wiring diagram

Call or email TECH SUPPORT for further instructions

Note: The following applies to Plane-Power R1224 Voltage Regulators. If another manufacturer’s voltage regulator is installed, refer to their maintenance manual.

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TECH SUPPORT

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