

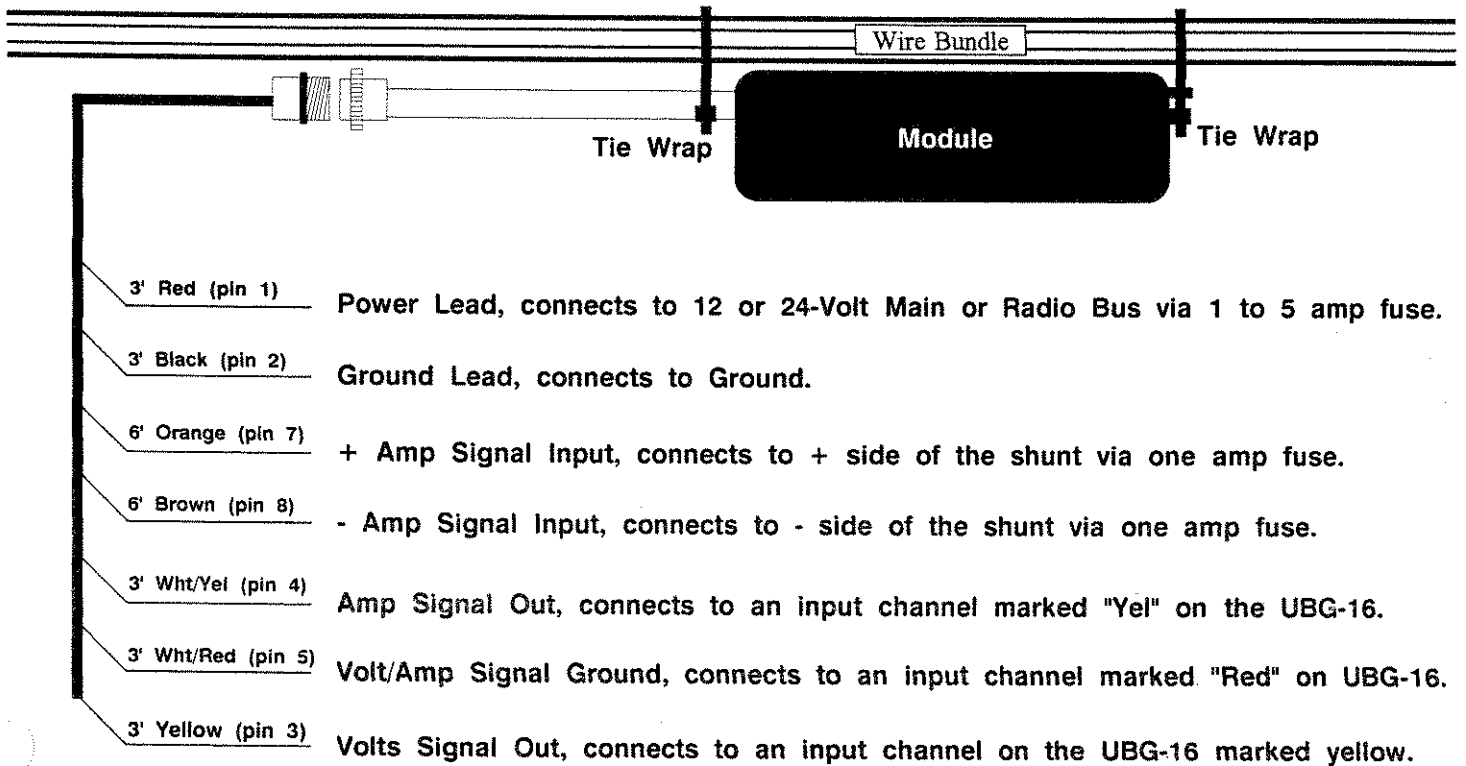
Volt/Amp Functional Module (FM-VA) Installation Instructions and Wiring Diagram

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Note: This Module requires two channels on the UBG. One for Volts and one for Amps. You do not have to connect both.



1. Install the S-50 External Shunt in the Alternator Lead:

The S-50 external shunt should be installed in an appropriate location that minimizes the routing of main cables (refer to figure #1 wiring diagram on page 2). It should also be mounted in a location where inadvertent damage cannot occur. If the shunt can be accessed easily, it should be covered. When mounting the shunt, use self-locking or wired nuts.

2. Mount the Module and Connect the 9-Pin Wire Harness:

Tie wrap the FM-VA Module to a wire bundle under the aircraft instrument panel. Connect the 9-Pin Wire Harness to the Module.

3. Route the Power and Ground Wires:

Route the red wire in the wire harness to the aircraft's 12 or 24-volt radio or main bus as applicable via a 1 to 5 amps fuse. Route the black wire in the wire harness to a good ground. Tie wrap these wires so they do not obstruct the freedom of travel of any controls.

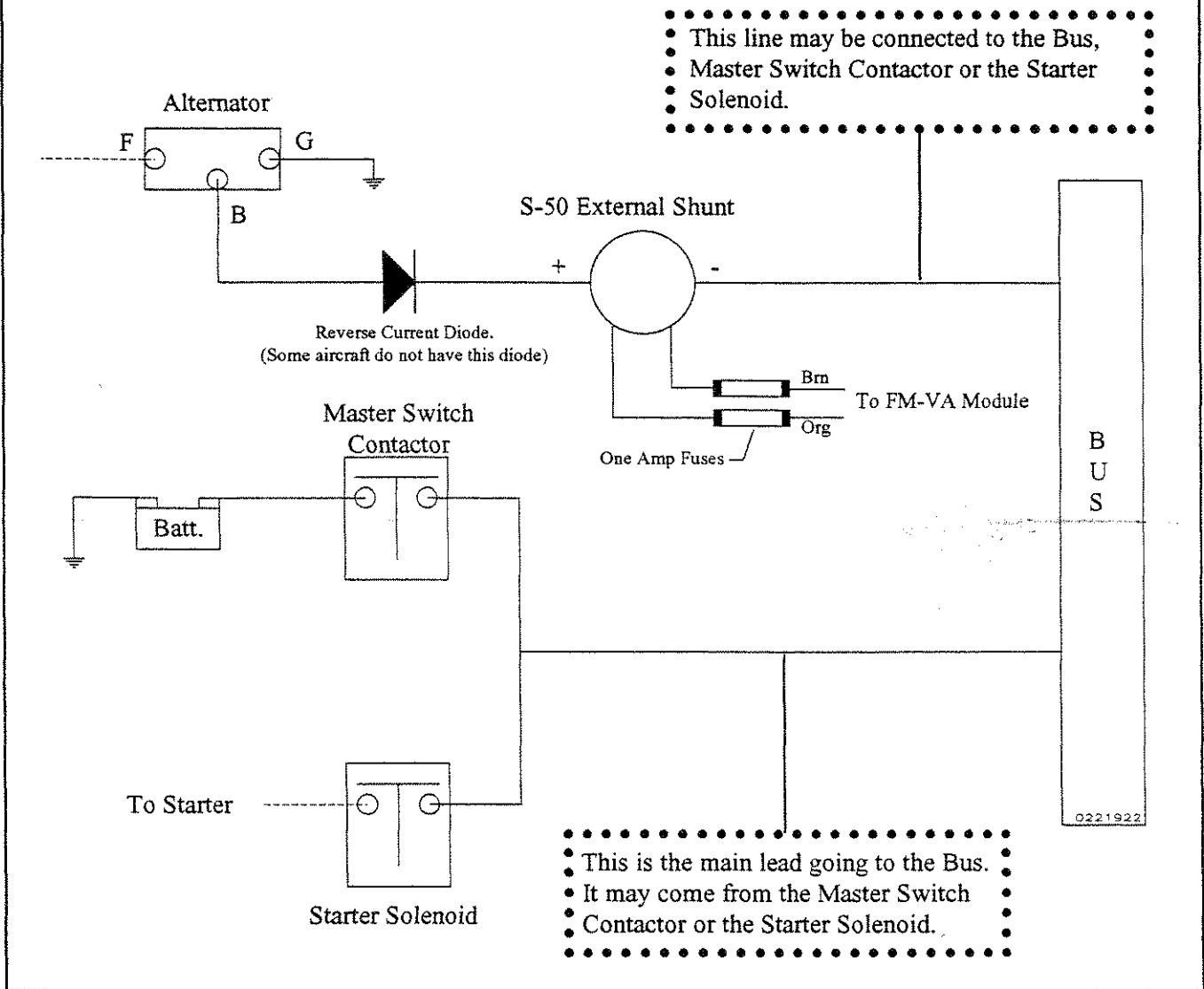
4. Route the Shunt Wires to the S-50 External Shunt:

Route the orange wire to the "+" side of the shunt via a one amp fuse. Connect the brown wire to the "-" side of the shunt via a one amp fuse. The fuses should be located close to the Shunt. You CANNOT use the existing lines to the Ammeter.

5. Route the Amp Signal Out and Ground Wires to the UBG-16:

Route the White/Yellow wire to the appropriate channel marked "Yel" on the UBG-16. Route and connect the White/Red wire to the appropriate channel marked "Red" on the UBG-16.

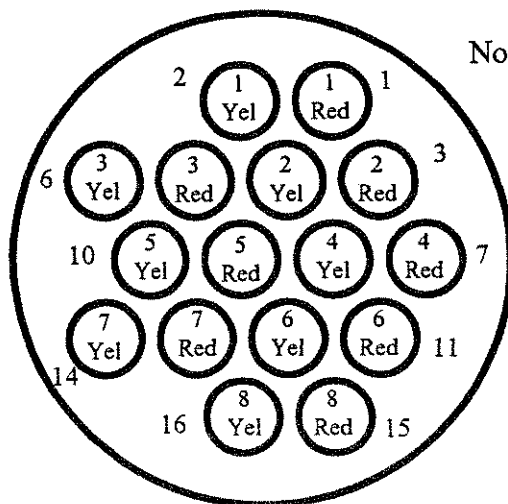
Figure 1: S-50 External Shunt Installed in the Alternator Lead



6. Route the Volts Signal Out Wire to the UBG-16:

Route the Yellow wire to the appropriate channel marked "Yel" on the UBG-16. Tie wrap all wires so they do not obstruct the freedom of travel of any controls.

UBG Extension Cable Harness (Left or Right)
Back View (wire side)



Note: 1 Red = Channel #1 Red wire (Gnd)
1 Yel = Channel #1 Yel wire (Signal)

Specifications and Operating Features

Model:

FM-VA (Volt / Amp Functional Module)

Case Dimensions:

3" x 2" x 1"

Weight:

Module Only: 2.8 Oz.

S-50 Shunt: 3.0 Oz.

Power Requirements:

7.5 to 35 Volts, 1/10 Amp.

Accuracy:

2% or better.

Resolution:

1 Amp and .1 Volts

Max Range for S-50 Shunt:

100 Amps