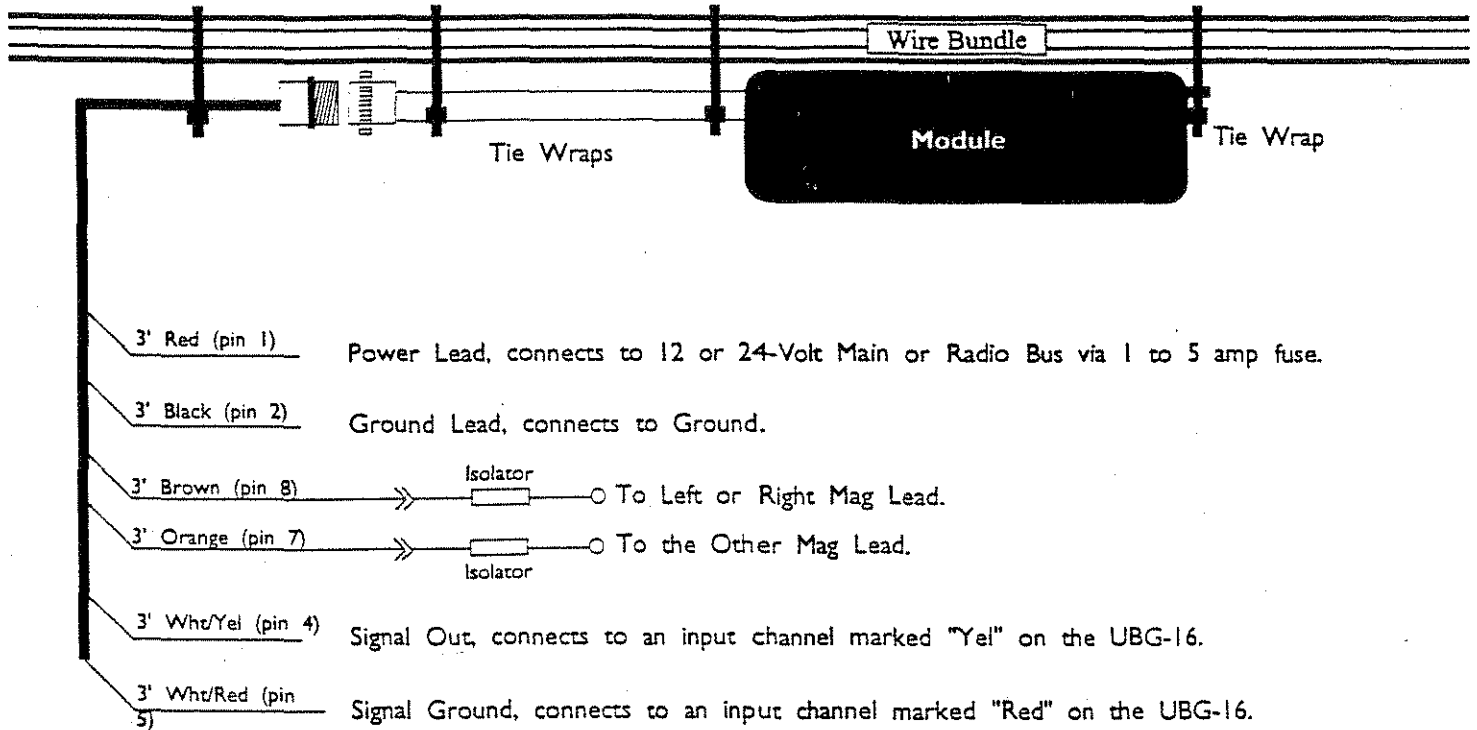


RPM Functional Module (FM-RPM) Installation Instructions and Wiring Diagram

1109981

II 1119981 Supplement

11/9/98



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

Tie wrap the FM-RPM Module to a wire bundle under the aircraft instrument panel. Connect the 9-Pin Wire Harness to the Module. Note: A FM-RPM-4 should be used on a 4-cylinder engine and a FM-RPM-6 should be used on a 6-cylinder engine.

2. 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.**

3. Install the Isolators:

There are a number of lugs on the back of the mag switch. Locate the two lugs connected to the left and right mag leads (P leads). Connect the two isolators supplied with the kit to these lugs (see wiring diagram). When installing these isolators do not remove the existing mag leads (P leads). These isolators should not be changed, lengthened or altered in any way. There is another set of isolators in the instrument. These isolators insure safe operation while providing an easy and simple installation free of mechanical cables and pick ups. **Make sure the mag lead screws are tight and the connectors are not interfering with or shorting to any other terminals on the mag switch.**

4. Route the Mag Pick up Wires:

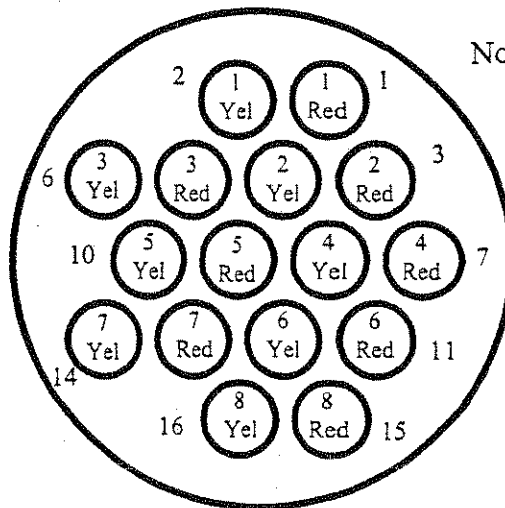
Route the orange wire and the brown wire from the wire harness to the isolators. Cut to length and install a male slip-on connector on each wire. Double over the stripped wire before inserting it into the male connector. Double crimp the connector making sure the crimping tool closes completely. Now mate the orange wire and the brown wire to the female connectors on the isolators. Either wire may connect to either isolator. Be sure the connectors mate properly. If the tab in the male connector gets bent, it can wedge itself between the red nylon and the female metal receptacle. This can result in an intermittent connec-

tion after about a month or more. If the connectors are removed several times, the female connector can become loose. If this happens, use a pair of needle nose pliers and tighten the metal receptacle inside the female connector. Tie wrap these wires so they do not obstruct the freedom of travel of any controls.

5. Route the Signal Wires to the UBG-16:

Route the White/Yellow wire to the appropriate left or right channel marked "Yel" on the UBG. Route and connect the White/Red wire to the appropriate channel marked "Red" 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-RPM (RPM Functional Module)

Case Dimensions:

3" x 2" x 1"

Weight:

Module Only: 2.8 Oz.

Environmental:

Meets TSO C49a

Power Requirements:

7.5 to 35 Volts, 1/10 Amp.

Accuracy:

1% or better in accordance with TSO C49a.

Resolution:

10 RPM

Max Range:

4300 RPM