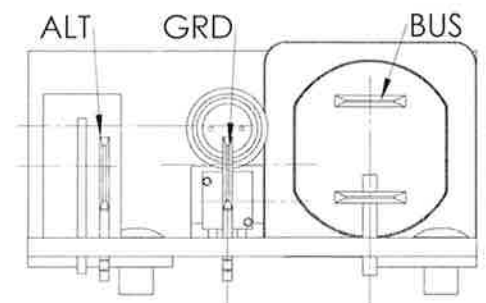
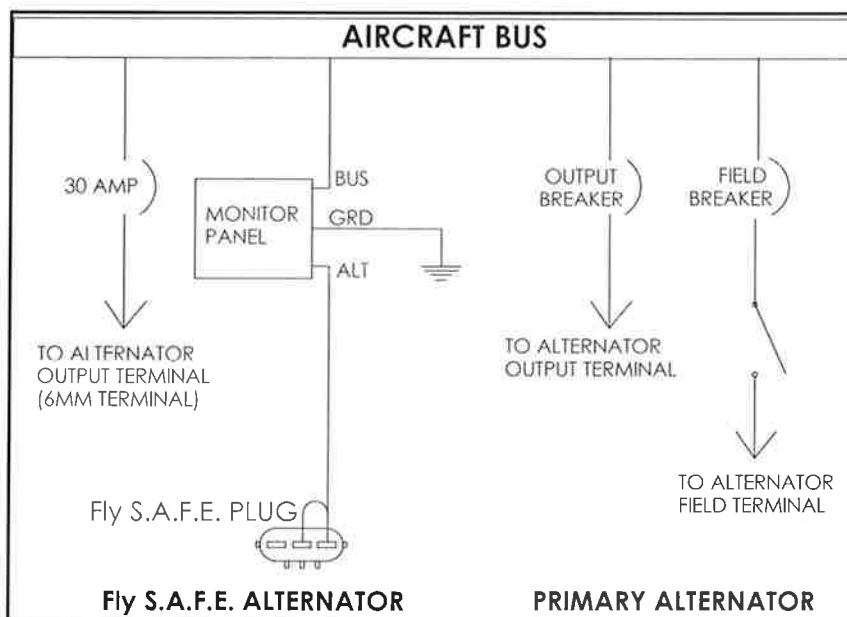


flyS.A.F.E. FS1-14 / FS1-28 INSTALLATION INSTRUCTIONS

READ AND THOROUGHLY UNDERSTAND ALL OF THE INSTALLATION INSTRUCTIONS BEFORE BEGINNING INSTALLATION OF THIS KIT.

1. Clear and clean the surface of the engine vacuum pad base where the alternator is to be mounted. Retain the 4 sets of washers and nuts.
2. Mount the alternator with attached drive coupling and supplied gasket # MS9134-01 to the engine.
3. Ensure the alternator drive coupling spline meshes with the AND 20000 drive spline without forcing or binding.
4. Ensure the alternator base mounts flush to the engine mount area.
5. Install 4 flat washers, the new lock washers and the nuts that were removed in step 1.
6. Hand tighten nuts evenly and check that the alternator fits flush against the pad without any force or binding.
7. Tighten the mounting nuts to the torque specified by the engine manufacturer.
8. Install Monitor Panel and label appropriately.
9. Refer to the Wiring Diagram below:
 - a. Install output wire and torque to 50 inch Lbs. Ensure that the output wire is of sufficient size to carry more than 30 amps and that it is connected to the aircraft bus through a 30 amp circuit protection device. Refer to AC43.13-1B for acceptable methods, techniques and practices if needed.
 - b. Connect the "ALT" spade on the Monitor panel to the alternator field (red) plug wire.
 - c. Connect the "GRD" spade on the Monitor panel to a suitable aircraft ground.
 - d. Connect the "BUS" spade on the Monitor panel to the aircraft bus.
10. Check the security of all wiring and ensure that there is no interference with any control movement.
11. Start the engine and check for any oil leaks or abnormal sounds. Stop the engine immediately if any are noticed and correct the condition before proceeding.
12. With engine running at 1700 RPM, disable the primary alternator. Verify that the LED illuminates Green. Turn on a landing light and verify that the voltage remains within limits (FS1-14; 13.6 +/- .3 volts) (FS1-28; 27.6 +/- .3 volts).
13. Complete: Log Book Entries. Alternator weight = 6.0 LBS.



Maintenance Instructions

Every 25 hours:

1. Perform an operational status check:
 - a. Engine at 1700 rpm.
 - b. Disable the primary alternator.
 - c. Verify the Green LED illuminated.

Annual/100 hour Inspection:

1. Visually inspect for damage & clean the surface.
2. Check regulated voltage is within limits.

1000-Hour Intervals:

1. Repeat: Annual / 100 Hour Inspection
2. Remove Field Brush assembly and inspect brushes for excess wear. Replace the brush assembly if brushes extend less than .250" from the edge of the brush holder.
3. Replace the shear coupling.

Operating Instructions

The Fly S.A.F.E. system is fully automatic in operation and capable of delivering 30 amps at cruise engine rpm.

Monitor Panel: 5 amp circuit breaker, auto dimming cell, multi-colored LED status annunciator and On/Off switch.

With the panel switch On, Fly S.A.F.E. is ready for operation.

No Monitor panel light illuminated: the system is active but not providing power.

LED Green: the system is providing power and is within its output capability.

LED Amber: the system is providing power but is not capable of meeting demand. Load reduction must be accomplished until the LED turns Green.

LED Red: field current to the alternator rotor has been lost. Field brush failure, broken field wire, internal failure, etc. The FS1 is inoperative.

Note: a sheared drive coupling will not give a Red LED indication.

Anytime the LED is illuminated green or amber this indicates a failure or overload of the primary alternator. Monitor electrical loads and bus voltage. Reduce load as necessary.