subject: strobe light system maintenance

aircraft applicability: all single engine and skymaster series aircraft equipped with wing tip strobe lights

reason for letter:

to aid field personnel in servicing and maintaining wing tip strobe light systems, the following service information is being provided.

1. troubleshooting

   a strobe system troubleshooting procedure is attached for use by service personnel and should be utilized during the initial check out of inoperative strobe light systems.

2. power supply identification

   for ease of identification, 28 volt strobe light power supplies (part number c622007-0103) installed in production aircraft are now black in color; 12 volt power supplies (part number c622007-0101) will remain non-colored. this color identification will also be phased into future power supplies sold for spares.

3. storage capacitors

   the strobe light storage capacitors, located inside the power supply, may deteriorate during long periods (over 6 months) of non-use. to maintain these capacitors in optimum condition it is recommended that ...

   a. strobe light systems installed in aircraft be operated a minimum of 2 hours per month.

   b. strobe light power supplies held in storage be "reformed" every 6 months as described in the attached strobe power supply reforming procedure.

   proper utilization of this information will assist service facilities in maintaining strobe light systems in top operating condition as well as reducing unnecessary returns of strobe light components.

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   (owner notification system - no. 1)
STROBE LIGHT TROUBLESHOOTING

A. Both Strobe Lights Will Not Operate

1. Check the strobe light circuit breaker and reset. If breaker continues to open proceed with step 2.

2. Disconnect red wire between aircraft power (battery/external power) supply and strobe power supplies, one at a time. If circuit breaker opens on one power supply, replace power supply. If circuit breaker opens on both power supplies, proceed with step 3. If circuit breaker does not open, proceed with step 4.

3. Check aircraft wiring and repair as necessary.

4. Inspect power supply ground wires for good electrical contact with aircraft structure.

B. One Strobe Light Will Not Operate

1. Check for proper aircraft voltage at the red wire between aircraft power supply and strobe power supply. If OK proceed with step 2. If not, check aircraft power (battery/external power).

2. Replace flash tube with known good flash tube (tube from opposite wing may be used for check).

CAUTION

The anti-collision strobe system is a high voltage device. Do not touch tube assembly while in operation. Wait at least 5 minutes after system is shut off before starting work.

Extreme care should be taken when exchanging flash tubes. They are fragile and can easily be cracked where it will not be obvious visually. Ascertain that the tube is seated properly on the light assembly and is centered in the dome.

3. If strobe light still does not operate, replace strobe power supply with known good unit (supply from opposite wing may be used for check).

STROBE POWER SUPPLY REFORMING PROCEDURE

1. Connect the strobe power supply (both 14 and 28 volt units) to a 6 volt DC source with the strobe tube disconnected.

2. Turn on 6 volt DC source and note current draw after one minute. If less than 1.0 ampere, continue operation for 24 hours.

3. Turn off DC source and connect strobe power supply to 14 or 28 volt DC source as applicable. Connect strobe tube to strobe power supply and allow to operate, flashing, for 15 minutes.

CAUTION

The anti-collision strobe system is a high voltage device. Do not touch tube assembly while in operation. Wait at least 5 minutes after system is shut off before starting work.

4. Remove strobe tube and operate strobe power supply at 14 or 28 volt DC, as applicable, and note current draw after one minute. If less than 0.5 ampere, continue operation for 6 hours. If greater than 0.5 ampere, reject unit.