Beechcraft

CLASS II

SERVICE INSTRUCTIONS

76

No. 1091
ATA Code 33-40

SUBJECT: **LIGHTS - GROUNDING THE SHIELD ON THE STROBE LIGHT WIRING**

EFFECTIVITY: PART I

The following airplanes which have factory installed Collins DME-451:
BEECHCRAFT Duchess 76, serials ME-35, ME-66, ME-68, ME-73, ME-76, ME-78, ME-79, ME-86, ME-89, ME-91, ME-92, ME-95, ME-96, ME-100, ME-101, ME-104, ME-108, ME-112, ME-113, ME-115, ME-120, ME-121, ME-124, ME-127, ME-128, ME-131, ME-134, ME-136, ME-137, ME-139, ME-142, ME-144, ME-145, ME-149, ME-151, ME-153, ME-157, ME-161, ME-164, ME-166, ME-169, ME-170, ME-172, ME-173, ME-175, ME-179, ME-183, ME-185, ME-189, ME-190, ME-196, ME-199, ME-202, ME-212, ME-216 through ME-219, ME-240 and any other Duchess 76 airplane having a field installed Collins DME-451.

PART II

BEECHCRAFT Duchess 76, serials ME-1 through ME-135.

REASON: To reduce the possibility of interference with Collins DME equipment.

COMPLIANCE: At the owner's/operator's discretion, however Beech Aircraft Corporation recommends that this modification be accomplished at the next scheduled inspection.

NOTE

In order to avoid excessive man-hour costs and reduce down time, it is recommended that these Service Instructions be accomplished in conjunction with the Wingtip Strobe Light Mounting Plate Installation. See Service Instructions No. 1035.

APPROVAL: FAA Approved - DOA CE-2.

MANPOWER: The following information is for planning purposes only:

Estimated man-hours for Part I only: 1 hour per airplane.
Estimated man-hours for Part II only: 1 hour per airplane.
Estimated man-hours for Part I and Part II combined: 2 hours per airplane.
Suggested number of men: 1 man.

DB-125
1179 II

98-34238D

CLASS II

MATERIAL:

The following parts required for this modification may be ordered through BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers. The value of the parts required to incorporate these Service Instructions on one airplane is to be advised. Prices, when issued, will be subject to change without notice.

PART I

PART NUMBER	DESCRIPTION	QUANTITY
*1 5KE51CA	Transzorb	2 per airplane
320559	Connector	4 per airplane
**106242E08-00600	Sleeving	1 per airplane

PART II

MS21980-232	Ferrule	2 per airplane
MS21980-287	Ferrule	2 per airplane
MIL-W5086/7 16 GA	Wire	12 in. per airplane
MS25036-108	Terminal	2 per airplane
60619-4	Socket	6 per airplane

*Part number 1 5KE51CA may also be identified as 1.5KE51CA.
**PVC no heat shrink .25 inch I.D. tubing rated to 220°F (105°C) or B130-20 sleeve (P/N of Burnbach, Freeport, N.Y.) may be obtained locally in lieu of 106242E08-00600 sleeving.

WARRANTY:

BEECHCRAFT Warranty on a new airplane is 180 days from delivery or 180 days from the date noted on the Owner Warranty Card. Warranty credit for parts and labor to the extent noted under MATERIAL and MANPOWER will be allowed on BEECHCRAFTS within warranty at the time these Service Instructions are released.

Warranty credit for Part I to the extent noted under MATERIAL and MANPOWER will be allowed only on airplanes that have factory installed Collins DME-451 units.

All warranty reimbursements are handled through franchised BEECHCRAFT outlets. Owners and operators may arrange with these outlets to perform the work and submit the standard Beech Aircraft Corporation warranty claim form to the Commercial Service Department, Beech Aircraft Corporation, Wichita, Kansas 67201.

SPECIAL TOOLS:

None.

WEIGHT AND BALANCE:

None.

REFERENCES:

BEECHCRAFT Service Instructions No. 1035 or subsequent issue.

PUBLICATIONS AFFECTED:

It is recommended that a note to "See Service Instructions No. 1091" be made in all Duchess 76 Wiring Diagram Manuals, P/N 105-590000-15 or subsequent, Chapter 33-44.

ACCOMPLISHMENT INSTRUCTIONS:

These Service Instructions may be accomplished as follows:

PART I

NOTE

Part I and Part II should be accomplished simultaneously on affected airplane serials.

1. Turn off and/or disconnect all external electrical power and the battery.
2. Remove both wing tips.

WARNING

Although a bleed-off resistor is incorporated into the power supply circuit, high voltage is involved in the circuit between the power supply and the light assemblies. For this reason, at least 10 minutes should be allowed after the strobe lights have been turned off before disconnecting the strobe light wiring or handling any of the strobe light units. To further avoid the chance of shock through contact with the wiring at the light assembly, pins A and B of the connector should be shorted to pin C (ground) to dissipate any residual charge left in the condenser after the system has been turned off.

3. Disconnect the wires to the nav lights by unscrewing the connector at the nav light base and disconnect the pin connectors to the strobe lights.
4. On one wing, cut the nav light ground wire (black) approximately 1½ inches from the base connector. Strip both ends of the wire and crimp a P/N 320559 connector on one of the stripped ends.
5. Cut off a short piece of the sleeving insulation and slip it over one lead of a P/N 1 5KE51CA transzorb.
6. Insert the other end of the black nav light ground wire and the insulated lead of the transzorb in the open end of the P/N 320559 connector and crimp the connector.
7. Cut the nav light positive (red) wire about 1½ inches from the base connector and insulate and install the other lead of the transzorb to the red wire in the same manner as described in steps 4 through 6.
8. Repeat the above steps on the opposite wing.
9. Proceed to Part II.

PART II

1. Accomplish the following if Part I is not being accomplished:

   a. Turn off and/or disconnect all electrical power and the battery.
   b. Remove both wing tips.

WARNING

Although a bleed-off resistor is incorporated into the power supply circuit, high voltage is involved in the circuit between the power supply and the light assemblies. For this reason, at least 10 minutes should be allowed after the strobe lights have been turned off before disconnecting the strobe light wiring or handling any of the strobe light units. To further avoid the chance of shock through contact with the wiring at the light assembly, pins A and B of the connector should be shorted to pin C (ground) to dissipate any residual charge left in the condenser after the system has been turned off