COPY

US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No. 2120-0020 11/30/2007	Electronic Tracking Number
For FAA Use Only	

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9. Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark: N2007N	Serial No.: 12243	
	Make: Cessna	Model: 140	Series:
2. Owner	Name *(As shown on registration certificate)*: JB Flying Club	Address *(As shown on registration certificate)*: Address 21 King Oak Terr; City Weymouth; State Ma.; Zip 02189-1060; Country USA	

3. For FAA Use Only

"The technical data identified herein has been found to comply with applicable airworthiness requirements and is hereby approved for use only on the above described aircraft, subject to conformity inspection by a person authorized in FAR 43.7."

Joe B. Taylor
Principal Avionics Inspector
Boston FSDO, EA-61
Date: JUL 24 2007

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☑	AIRFRAME		*(As described in Item 1 above)*	
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency		
Name Joseph A. Mortland	✓	U. S. Certificated Mechanic	☐ Manufacturer
Address 21 King Oak Terr	☐	Foreign Certificated Mechanic	C. Certificate No.
City weymouth State ma	☐	Certificated Repair Station	1866495
Zip 02189-1060 Country USA	☐	Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B ☐	Signature/Date of Authorized Individual	
	Joseph A Mortland	9 Apr 2007

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☐ Approved ☐ Rejected

BY								
	☐	FAA Flt. Standards Inspector	☐	Manufacturer	☐	Maintenance Organization	☐	Persons Approved by Canadian Department of Transport
	☐	FAA Designee	☐	Repair Station	X	Inspection Authorization		Other *(Specify)*

Certificate or Designation No.	Signature/Date of Authorized Individual
1866495	Joseph A Mortland

FAA Form 337 (10-06)

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with ell previous alterations to assure continued conformity with the applicable airworthiness requirements.

8, Description of Work Accomplished
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N2007N — Nationality and Registration Mark
9 Apr 07 — Date

Installed Whelen flashing beacon #70509, TSO C96a approved, and meets requirements set forth in FAR 23.1401 & 25.1401. Installation was i/a/w Whelen installation instructions and AC43.13-1B. Chapter 4, Sec. 4, and Chapter 11. Sec. 5,6,7,& 8. Location of flasher is at Station 80, Butt line 0. on external skin of fuselage, on top of aircraft fuselage. A doubler plate, 6" round, x .032", zinc-chromated , 2024-T3 aluminum was riveted to the inside fuselage skin for strength & stability, at station 80, butt line 0. using 4-3 Cherry Max rivets. A 5-amp FAA/PMA-approved Potter-Brumfield circuit breaker, #W58XC4C12A-5, was installed, as per Whelen Installation instructions, in the circuit breaker panel, for circuit protection. Aviation hook-up wire, Mii-W-22759/20, was used for the circuit wiring, as per AC43.13-1B, Fig. 11-2, 11-3, & Table 11-9. Operational checks were performed i/a/w AC43.13-1B, Sec. 8, for EMI interference to other equipment, and results were that no EMI interference exists. Weight & balance, and equipment list was revised to reflect the installation, as per 43.13-1B. Chapter 10.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

1. Introduction- These instructions contain necessary information for on-going inspection & maintenance.
2. Description- Proper installation of FAA-approved Whelen flashing beacon.
3. Operation- Contained in Whelen's instructions referring to FAR23.1401 & FAR 25.1401.
4. Servicing- Replace burned-out bulbs with Whelen's approved replacement bulbs.
5. Maintenance- None; this is a sealed unit, and cannot be repaired.
6. Troubleshooting- Use standard t/s techniques.
7. Removal & replacement- Using approved maintenance techniques & practices for removal, and Whelen's installation instructions & AC43.13-1B for installation.
8. Diagrams- None available.
9. Special inspections- None specified.
10. Protective treatments- None specified
11. Data- Whelen installation guide. AC43.13-1B, & previously-approved field approval.
12. Special tools- None specified.
13. For commuter aircraft- N/A
14. Recommended overhaul periods- None specified
15. Airworthiness limitations- Locate beacon where it's light will not impair the flight crew's vision or detract from the conspicuity of the position lights.
16. Revisions- This document may be revised by submitting a letter to the local FSDO with revised FAA form 337 & revised instructions for continued airworthiness.

X ADDITIONAL SHEETS ARE ATTACHED

WHELEN®

ENGINEERING COMPANY INC.

ROUTE 145, WINTHROP ROAD
CHESTER, CONNECTICUT 06412-0684
TELEPHONE: (860) 526-9504
FAX: (860) 526-4078

Installation Guide for Model 70509 Flasher

Bought frm A/C SPRUCE

P/N 01-0770509-02

Model 70509 Flasher

TSO-C96A Approved

14 VDC

EQUIPMENT LIMITATIONS

The Model 70509 Flasher meets the requirements of FAR 23.1401 and 25.1401. "If certification for night operations is requested, the airplane must have an anti-collision light system that consists of one or more approved anti-collision lights located so that their light will not impair the flight crew members vision or detract from the conspicuity of the position lights."

OPERATING INSTRUCTIONS

14V INPUT VOLTAGE13V ±20%

UNIT INPUT CURRENT(PEAK)8 AMPS @ 10ms ±20%
INPUT CURRENT(LAMP ON)2.7 AMPS @ 600ms ±20%
INPUT CURRENT(AVERAGE)1.3 AMPS @ ±20%

28V INPUT VOLTAGE26V ±20%

UNIT INPUT CURRENT(PEAK)4 AMPS @ 10ms ±20%
INPUT CURRENT(LAMP ON)1.3 AMPS @ 600ms ±20%
INPUT CURRENT(AVERAGE).65 AMPS @ ±20%

FLASH RATE 50 ±5 FPM

LAMP 35W HALOGEN

DUTY CYCLE 50% ±10%

.27 LBS

INSTALLATION PROCEDURES

The following information is to assist you in installing a Whelen flashing anti-collision light system.

1) Choose an appropriate Model 70509 flashing anti-collision light assembly (14V or 28V) which is applicable to your aircraft.

2) The installation procedure described in the following text will be confined to a single light installation, but is identical for multiple light installation if required.

3) Remove old anti-collision light and flasher assembly. Locate and save existing applicable +14VDC or +28VDC lead and (-) ground lead. Clean and prep lead ends as required.

4) Connect existing +14VDC or +28 VDC lead to the (red or white) lead on the light assembly and connect existing (-) ground lead to the (black) lead on the light assembly. Both leads must be connected by an approved aircraft connection.

5) Breaker Requirements
14VDC System- Make sure existing system is equipped with a maximum 5 amp breaker for one light and a maximum 10 amp breaker for a two light system.

   28VDC System- Make sure existing system is equipped with a maximum 2.5 amp breaker for one light and a maximum 5 amp breaker for a two light system.

6) Install light assembly and insure that all leads are clear of any obstructions and ty-rap as required. Secure light assembly, use lock washers and/or thread locker on all threaded fasteners.

7) Check all avionics systems for interference from this installation.

8) A flight check should be performed by a properly certified pilot.

9) When necessary, waterproof the flasher base assembly to aircraft. Apply single part silicone (RTV) or equivalent around any open area where water could get in.

10) Update aircraft records and complete Form 337.

11) Obtain FAA field approval for installation.

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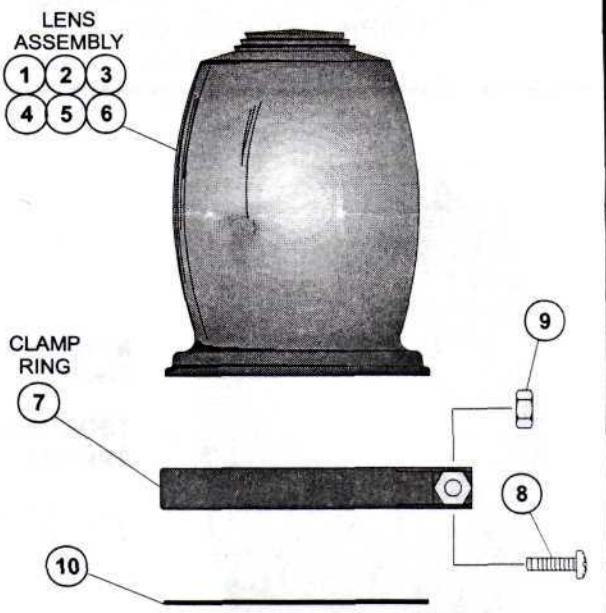
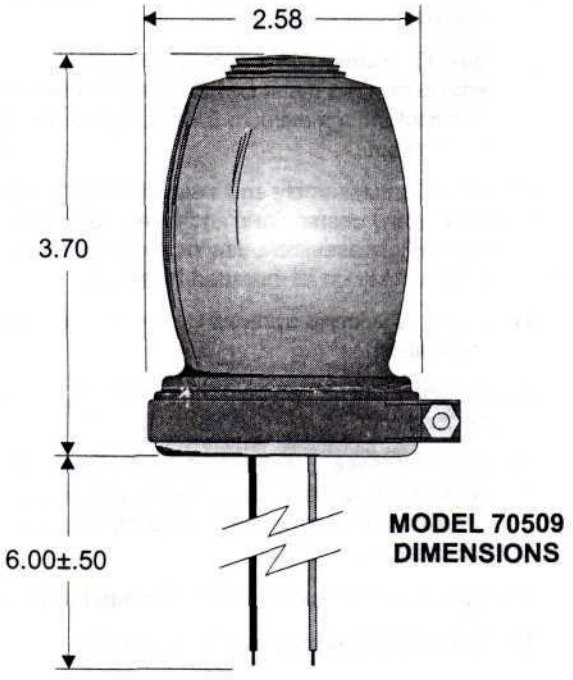
Form No.13215B (081397)

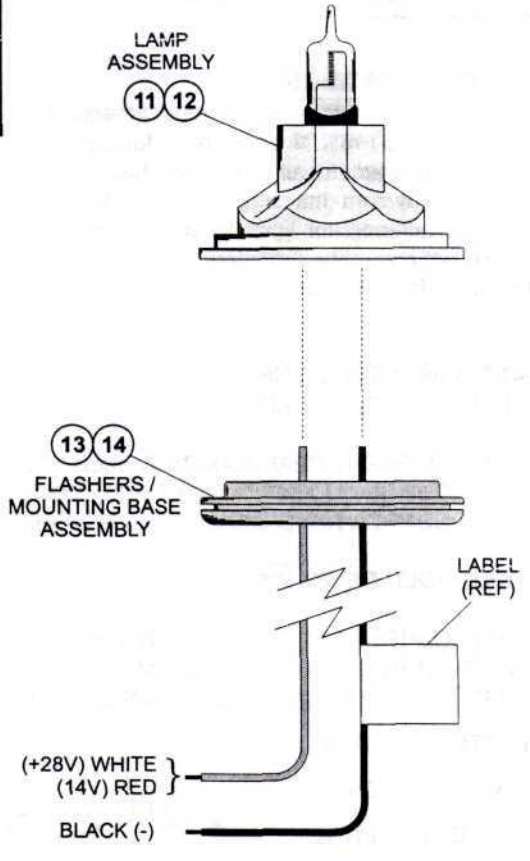
MODEL 70509 REPLACEMENT PARTS

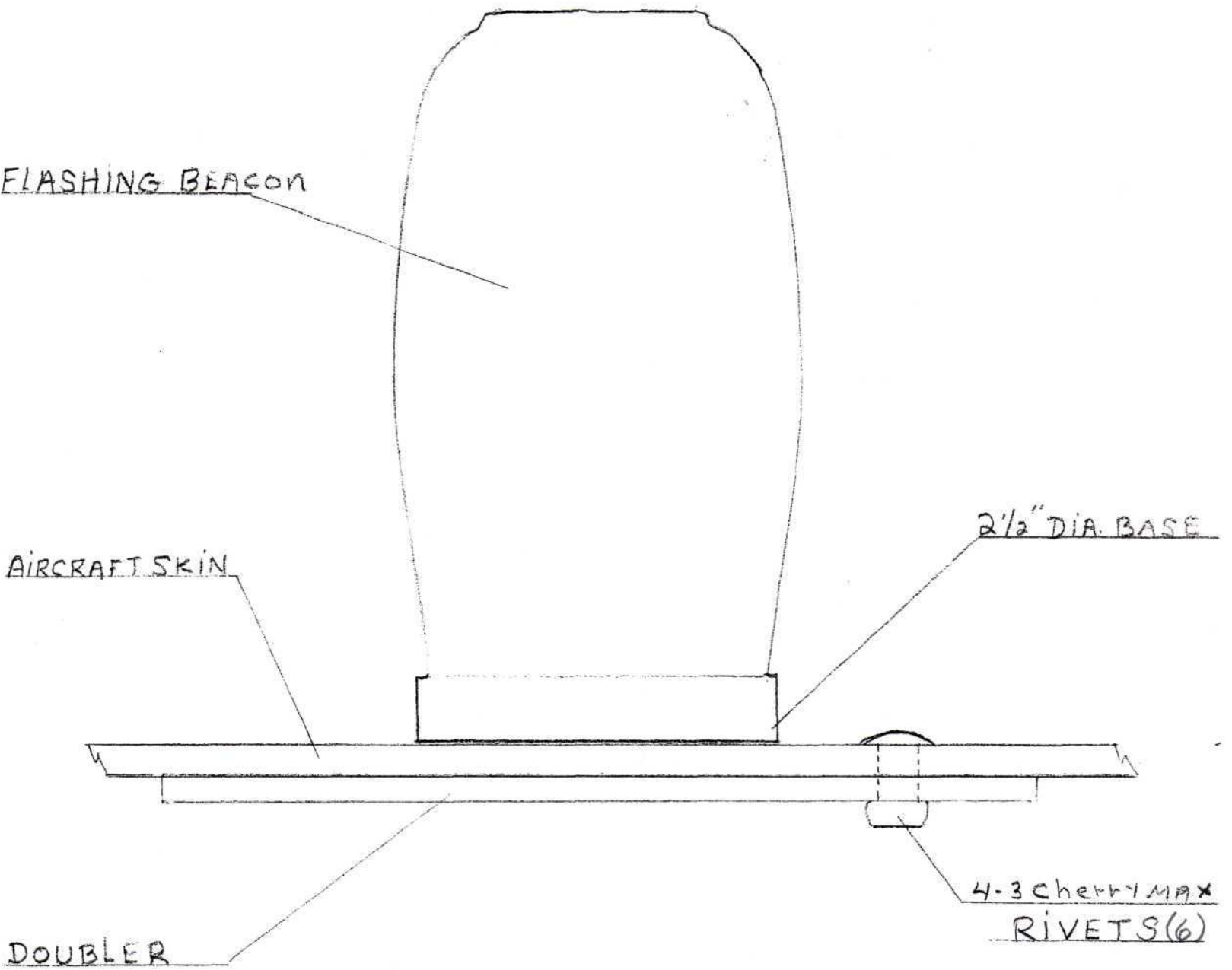
ITEM	DESCRIPTION	PART NUMBER
-	14V FLASHER ASSY. (RED)	01-0770509-00
-	14V FLASHER ASSY. (WHITE)	01-0770509-01
-	14V FLASHER ASSY. (RED / WHITE)	01-0770509-02
-	28V FLASHER ASSY. (RED)	01-0770509-03
-	28V FLASHER ASSY. (WHITE)	01-0770509-04
-	28V FLASHER ASSY. (RED / WHITE)	01-0770509-05
-	14V FLASHER ASSY. (RED) W/HOLE	01-0770509-10
-	14V FLASHER ASSY. (WHITE) W/HOLE	01-0770509-11
-	14V FLASHER ASSY. (RED / WHITE) W/HOLE	01-0770509-12
-	28V FLASHER ASSY. (RED) W/HOLE	01-0770509-13
-	28V FLASHER ASSY. (WHITE) W/HOLE	01-0770509-14
-	28V FLASHER ASSY. (RED / WHITE) W/HOLE	01-0770509-15
1	LENS ASSY. (RED)	68-2170504-50
2	LENS ASSY. (WHITE)	68-2170504-30
3	LENS ASSY. (RED/WHITE)	68-2170504-60
4	LENS ASSY. (RED) W/HOLE	68-2170504-58
5	LENS ASSY. (WHITE) W/HOLE	68-2170504-38
6	LENS ASSY. (RED/WHITE) W/HOLE	68-2170504-68
7	CLAMP RING ø250	19-262353-000
8	#6-32 X ½ PHILLIPS PHMS	14-0050503-30
9	#6-32 X 5/16 S.S. HEX NUT	13-0050513-64
10	GASKET	38-0230840-00
11	LAMP ASSY. 14V	02-0350433-00
12	LAMP ASSY. 28V	02-0350433-01
13	FLASHER BASE ASSY. 14V	02-0250627-00
14	FLASHER BASE ASSY. 28V	02-0250627-01





MODEL 70509 DIMENSIONS




FLASHING BEACON
2½" DIA. BASE
AIRCRAFT SKIN
4-3 Cherry Max RIVETS (6)
DOUBLER
6" DIA. x .032" 2024-T3, zinc-chromated