

1. Existing lamp is a GE4509 100 Watt  
Load is 7.30 amps requiring a 10 amp fuse to protect the circuit per AA5B MM 24-0-1 Page 6 (ref)

2. HID minimum breaker size is 10 amps for 14V systems per XeVision Installation and Operation Manual (ref), primarily due to initial inrush currents. Normal loading is below 4 amps at 14V.

3. Due to lower current requirements, the fuse and circuits for the GE4509 100 Watt bulb are adequate for the HID installation.

==XeVision proprietary cable assembly

(1) Outer insulation: Teflon® (FEP)

(2) Shield: Tinned copper braid (85% shielding)  
(3) Aluminum foil - polyester coating (100% shielding)

(4) Conductor insulation: Teflon® (FEP)

(5) Conductors: Tinned copper 18 AWG



## CABLE PHYSICAL CHARACTERISTICS DATA

### COMPLIANCE:

NEC/(UL) Specification, QP CEC/C(UL) Specification QP EU CE Mark, EU RoHS Compliant, EU RoHS

### Conductor:

Number of Conductors 3

Total Number of Conductors 3

AWG 18

Stranding 19x30

Conductor Material TC - Tinned Copper

### Insulation:

Insulation Material FEP - Fluorinated Ethylene Propylene

Min. Insulation Wall Thickness .007 in.

### Overall cabling:

color code lead 1 black

color code lead 2 white

color code lead 3 red

### Outer shield materials:

inner layer Al foil with polyester, 100% shield

outer layer Tinned Copper braid, 85% shield

### Outer jacket materials:

insulation layer blue FEP (Fluorinated Ethylene Propylene)

### Mechanical:

overall diameter 0.18 in.

min. bend radius 1.87 in.

operating temperature range - 70°C to 200°C

flame test UL Flame Test NFPA 262 C(UL) Flame Test FT6

# Electrical Load Analysis and Cable Specifications

Drawn By	James Grieco
Layout By	
Group Lead	
Date	04/27/2007

Grumman AA5B	
XeVision HID Landing Light Installation	
AA5B-0083-003	-
Scale: None	Sheet 3

This installation procedure is copied from the XeVision Installation and Operation Manual (ref), except exact installation steps are specified.

1. Mount the Ballast on the firewall using Click-Bond studs (3/16) with self locking nuts. Refer to Click Bond Fastener Installation Procedure. Locate as shown on sheet 2.
2. Remove existing lamp and 51LC2 circuit wire back to firewall. Leave sufficient length for new connection.
3. Using provided connector, splice +14V into 51LC2 circuit, and attach ground wire to firewall or other suitable ground point.
4. Route shielded cable outboard to the cowl, then down and forward along the cowl LH side under front baffle and exit through the landing light hole in the front engine cowl. Secure the cable to cowl with cable ties and adhesive cable tie mounts or other suitable method. Leave sufficient length of cable at each end for service loop.
5. Install (2) foam vibration isolator rings followed by a retainer. See sheet 2.
6. Attach cable to light and install light with connector oriented upward.
7. Install Lamp Retainer with (3) screws and adjust light with screw torque. Assure proper clearance to cowl and baffling. See sheet 2.
8. Install plastic Outer Lens with (4) screws. See sheet 2.

# Installation Instructions

Grumman AA5B

XeVision HID Landing Light Installation

AA5B-0083-003

Scale: None

Sheet 4

Drawn By	James Grieco
Layout By	
Group Lead	
Date	04/27/2007

OCT 17 2006



U.S. Department of  
Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 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. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act 1958).

1. Aircraft	Make Grumman American AVN.	Model AA-5B
	Serial No. AA5B-0221	Nationality and Registration Mark N7441B
2. Owner	Name (As shown on registration certificate) Rubino, Daniel A.	Address (As shown on registration certificate) 977 Royal Glen Lane Carol Stream, IL 60188

The data identified for FAA Use Only, with the applicable airworthiness requirements and is approved for the above described aircraft, subject to continuing inspection by a person authorized on FAA Form 43, Section 45.7

SAFESOC 10-18-06

Date

Signature of FAA Inspector

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

## 6. Conformity Statement

A. Agency's Name and Address John Sjaardema 2326 W. Clark Street Rensselaer, IN 47976	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certified Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. 2100539
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I, certify that the repair and/or alteration made to the unit(s) identified in Item 4 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.

Date 11-24-2006	Signature of Authorized Individual John Sjaardema
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## 7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in Item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ APPROVED ☐ REJECTED

BY	FAA FR Standards Inspector	Manufacturer	Inspection Authorizer	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 11-24-2006	Certificate or Designation No. 2100539	Signature of Authorized Individual John Sjaardema		

## NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all 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.)

Removed existing PAR 36 landing light from the cowl. Installed XeVision High Intensity Discharge (HID) light assembly (kit # XV-36-SL) into the vacated position. The ballast was mounted on the firewall. The existing switches, wiring, and circuit protection were reused. The provided HID wire harness from the ballast to the light was routed directly and secured for chafe protection. All work was performed in accordance with AC43.13-1B CH. 11 (SEC 3) PAR 11-31, 32, 37 (SEC 4) PAR 11-48 and XeVision installation instructions. Amended aircraft Weight & Balance and Equipment List.

The following are instructions for continued airworthiness for this altered airframe:

1. **INTRODUCTION:** This installation was accomplished to increase landing light illumination and to increase the service life of the landing light.
2. **DESCRIPTION:** Removed existing landing light and installed XeVision HID light.
3. **CONTROL OPERATION:** The light is controlled with the existing aircraft landing light switch. There are no special procedures.
4. **SERVICING INFORMATION:** The components are not field repairable and must be replaced with approved components.
5. **MAINTENANCE INSTRUCTIONS:** This lighting system is to be maintained in accordance with FAR part 43.13. Inspections are to be performed in accordance with FAR part 43.15.
6. **TROUBLESHOOTING INFORMATION:** If the circuit breaker pops, replace the ballast unit. If the light does not illuminate, remove the lamp or ballast, verify function and replace as required. Bench testing must be done in accordance with the XeVision installation and operation instructions with contain warnings for bench testing.
7. **REMOVAL AND REPLACEMENT INFORMATION:** The HID lamp is removed and replaced in the same manner as the original lamp. The ballast is attached to the firewall using standard procedures and hardware. The wire harness between the ballast and the lamp shall be removed in accordance with the XeVision installation and operation instructions.
8. **DIAGRAMS:** Access is through the removal of the cowl. No diagrams are required.
9. **SPECIAL INSPECTION REQUIREMENTS:** N/A
10. **APPLICATION OF PROTECTIVE TREATMENTS:** N/A
11. **SPECIAL HARDWARE:** N/A
12. **SPECIAL TOOLS:** N/A
13. **COMMUTER CATEGORY AIRCRAFT:** N/A
14. **RECOMMENDED OVERHAUL PERIODS:** N/A
15. **AIRWORTHINESS LIMITATIONS:** There are no additional airworthiness limitations.
16. **REVISIONS:** To revise these instructions for continued airworthiness, a letter will be submitted to the local Flight Standards District Office with a copy of the revised FORM 337 and revised ICA.
17. **IMPLEMENTATION AND RECORD KEEPING:** These instructions for continued airworthiness are to be placed in the aircraft permanent records and referred to during aircraft systems inspections and maintenance.

\*\*\*\*\*NOTHING FOLLOWS\*\*\*\*\*