

# \*MANDATORY SERVICE BULLETIN\*

**NUMBER:** SB-027 **REVISION:** A **DATE:** 01/26/2010

SUBJECT: ELECTRICAL SYSTEM; Main and Essential Bus Fuse Inspection

#### EFFECTIVITY:

KODIAK 100 Series Aircraft Serial Numbers:

• 100-0001 through 100-0032

#### SUMMARY:

The possibility exists on the aircraft identified above that the main bus fuses (*P/N ANL-050 and P/N ANL-80*) (located in the control pedestal behind the main circuit breaker panel) were inadvertently swapped on installation. If the fuses were swapped, there is a possibility that wiring in the circuit could experience current above its rating, resulting in overheating.

### ACTION:

Quest Aircraft Company LLC mandates a one-time inspection to check the fuses for proper configuration. If the fuses were NOT installed properly, Quest requires the fuse locations be switched and the wiring be checked for proper wiring configuration.

#### AFFECTED PARTS:

- 50 AMP, Essential Feed fuse (P/N ANL-050)
- 80 AMP, Alternator fuse (P/N ANL-80)

### FAA APPROVED:

If required, the resultant alteration to the fuses described in this Service Bulletin has shown compliance with the applicable Federal Aviation Regulations and is FAA Approved.

### COMPLIANCE:

This mandatory inspection must be completed on or before the next 100 hr, Annual Inspection, or scheduled maintenance, whichever comes first.

### INDUSTRY SUPPORT INFORMATION:

N/A

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### WEIGHT AND BALANCE:

The procedure contained in this Service Bulletin does not alter the weight and balance of the aircraft.

### MANPOWER:

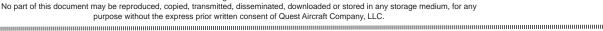
The instructions contained in this Service Bulletin will take approximately:

- 0.25 hours (for inspection)
- 0.25 hours (for fuse switch, if required)

### CONTINUED ON NEXT PAGE...

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### **CREDIT and WARRANTY INFORMATION:**

Quest Aircraft Company LLC will reimburse for the cost of this inspection for up to \$75.00 an hour for the man-hours listed in the Manpower section (0.50 hours, if fuse switch required) of this Service Bulletin for aircraft still under Factory Warranty. For reimbursement, send Quest Aircraft Company LLC a copy of maintenance records indicating the modification and the N-number of the aircraft on which the modification was accomplished. Send the information in attention to:

#### Quest Customer Service Service Notification Compliance Feedback 1200 Turbine Dr. Sandpoint ID, 83864

**COMPLETION:** Update the KODIAK 100 Maintenance Log Books.

#### **ACCOMPLISHMENT INSTRUCTIONS:**

Accomplishment Instructions are listed in the next section of this Service Bulletin.

### LOG OF CHANGES

<b>Revision:</b>	Date:	Description of Change:
А	01/26/2010	Initial Release

### ATTACHED DOCUMENTS

Document #:	Date:	Document Title:
N/A	N/A	N/A

### SPECIAL SAFETY INSTRUCTIONS

**WARNING:** All power to the airplane should be off for this procedure.

### PARTS, TOOLS, AND EQUIPMENT

The following parts, tools, and equipment are listed below in order to complete the instructions contained within.

### Parts and Tools Included in this Service Kit:

Part Number	Description	Quantity
N/A	N/A	N/A

### Special Tools Required that are NOT Provided in this Service Kit:

Tool Name	Tool Duty
None	None





# **1. IDENTIFY FUSES**

**NOTE:** A flashlight and inspection mirror may be required for this step.

Locate the fuse box (*P/N 100-210-5420*) behind the circuit breaker panel console in the main cabin. Identify the two sighting holes that allow a view into the box (circled below).

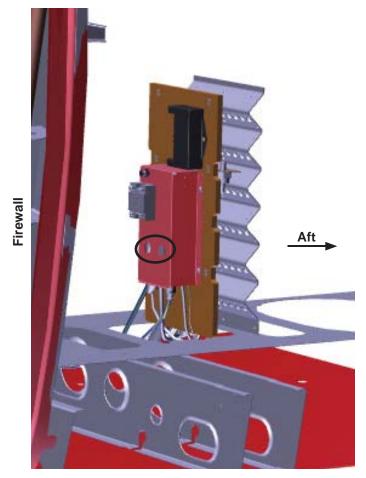


Figure 1-1: Fuse Sighting Holes

Circuit Breaker Console



Figure 1-2: Finding the Fuse Sighting Holes



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### **1.1 IDENTIFY FUSE NUMBERS**

Looking through the sight holes on the fuse box (*P/N 100-210-5420*), identify the fuse AMP number in each hole. Facing aft, the fuse on the right hand, or pilot's side, should be the 50 AMP, Essential Feed fuse (*P/N ANL-050*). The fuse on the left hand, or copilot's side, should be the 80 AMP, Alternator fuse (*P/N ANL-80*).

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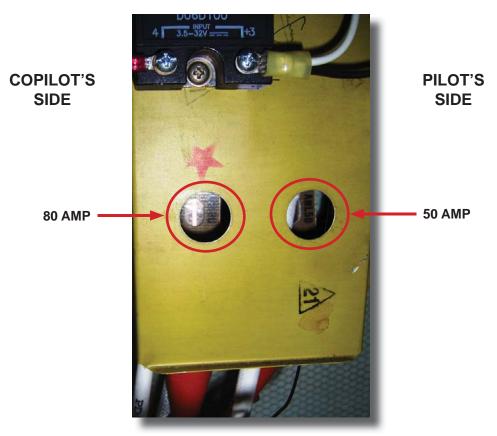


Figure 1-3: Proper Fuse Position, Facing Aft

If the fuses are found to be in the proper locations, no further action needs to be taken. If the fuses are found to be switched, proceed to **Step 2** of these instructions.







# 2. SWITCH FUSES (IF REQUIRED)

If the fuses are found to be in the incorrect positions and need to be switched, the following instructions are applicable.

**WARNING:** All power to the airplane should be turned off by disconnecting both batteries for the following steps.

# 2.1 REMOVE ACCESS PANEL ON PEDESTAL

Take off the Access Panel on the Pilot's Side of the airplane by removing the outer screws (Access Panel circled below), to gain access to the fuse box.

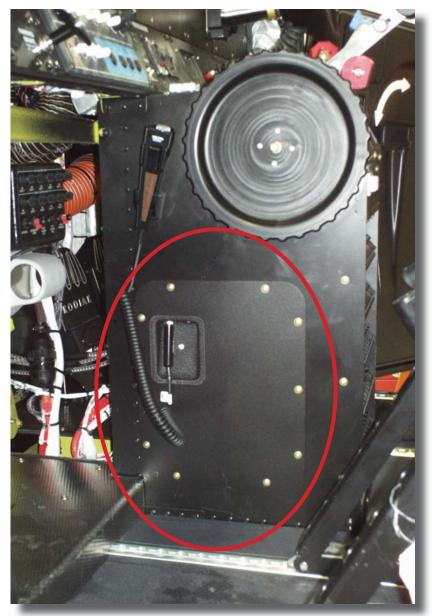


Figure 2-1: Access Panel



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## 2.2 REMOVE FUSE BOX COVER

Take off the fuse box cover (*P/N 100-210-5420*) by removing the pan head screws (*P/N MS35206-241*) and washers (*P/N NAS1149FN832P*), circled in the diagram below.

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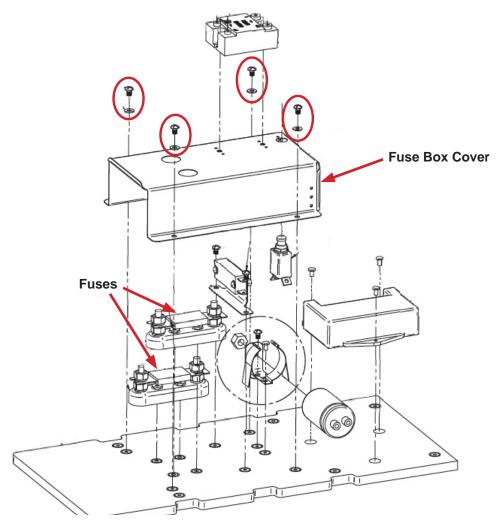


Figure 2-2: Disassembling the Fuse Box





## 2.3 SWITCH FUSES

Remove the fuses by taking off the fuse wire leads and unscrewing the locknuts, circled below. Switch the fuses plates and reassemble.

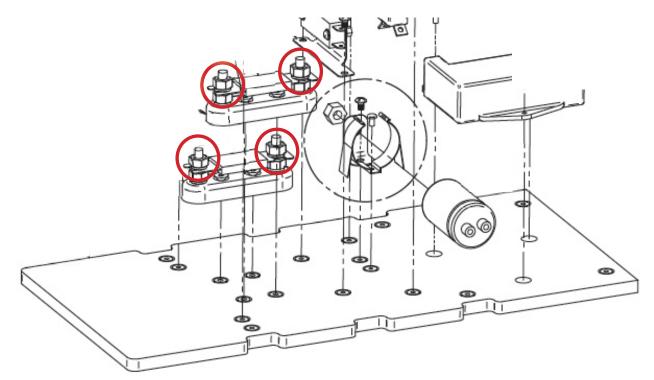


Figure 2-3: Switching the Fuse Plates



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# **3. FINAL PRODUCT**

Once reassembled, the fuses and wiring should appear as below.

**CAUTION:** When reconnecting the wires to the fuses, it is imperative that the wiring is reconnected as shown below in **Figure 3-1**. If the fuses were in the incorrect positions, there is a possibility that the wiring is as well.

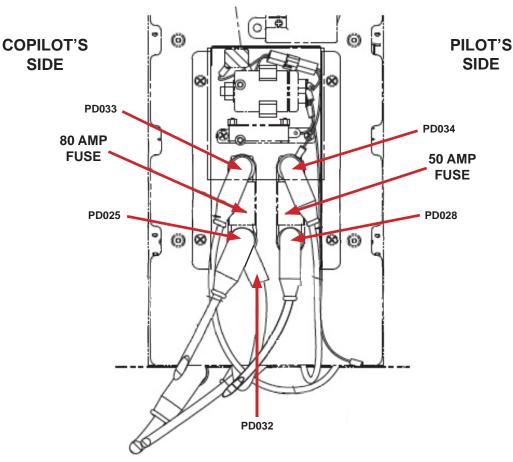


Figure 3-1: Proper Fuse and Wire Assembly

# 3.1 REASSEMBLE THE FUSE BOX COVER

After the proper fuse location has been verified and the fuse wires have been reconnected as shown above, reinstall the fuse box cover (*P/N 100-210-5420*).

# 3.2 OPERATIONAL TEST

Once the fuse box has been correctly reassembled, power on the airplane and ensure all electrical systems are operating normally.

# 3.3 ANNOTATE WORK PERFORMED IN KODIAK LOG BOOKS

Upon completion, annotate all work performed in the appropriate KODIAK Log Books.



