



*The New Piper Aircraft, Inc.*  
2926 Piper Drive  
Vero Beach, Florida, U.S.A. 32960

# SERVICE No. 991A BULLETIN

## PIPER CONSIDERS COMPLIANCE MANDATORY

DATE: January 29, 1996

(S/M)

(Service Bulletin No. 991A supercedes and voids Service Bulletin No. 991 dated January 10, 1996)

### **REASON FOR REVISION:**

To correct a typographical error on page 3 item 3. Piper P/N 461-623 should be P/N 461-643.

### **SUBJECT:**

**Replacement or Modification of the  
Alternator Out Light Fuse**

### **MODELS AFFECTED:**

PA-23 - 250/250(6) Aztec  
PA-28-161 Cadet  
PA-28R-201 Arrow & Arrow III  
PA-28R-201T Turbo Arrow III  
PA-31, 300, 325 Navajo & Navajo CR  
PA-31-350 Chieftain

PA-31-350 T1020  
PA-31P Pressurized Navajo

PA-38-112 Tomahawk

### **SERIAL NUMBERS AFFECTED:**

27 - 4794 through 27-8154030  
2841001 through 2841365  
2837001 through 2837061 & 2844001  
2803001 through 2803015  
31-793 through 8312019  
31-7305005 through 7405497 and  
31-7552001 through 8452021  
31-8253001 through 8553002  
31P-3 through 31P-80 and 31P-7300110  
through 7730012  
38-78A0801 through 82A0124

### **COMPLIANCE TIME:**

At the next regularly scheduled inspection event, but not to exceed the next one hundred (100) hours time in service.

### **APPROVAL:**

The technical contents of this Service Bulletin have been approved by the F.A.A.

### **PURPOSE:**

Reports indicate that a condition may exist where smoke may enter the cockpit and cabin, should the alternator out light solid state switch fail. This condition is caused by an increasing electrical current drawn by the failed solid state device, heating the device and aircraft wiring. Although most of the affected aircraft are protected by an inline fuse installation, these fuses are rated at a value to protect wiring and not the the solid state device. In addition some aircraft do not have fuse protection. Left uncorrected, smoke may be released from the failed solid state device and/or over heated aircraft wiring.

This Service Bulletin provides the necessary instructions to alter the fuse protecting the solid state alternator out light switch in some aircraft and mandate the installation of a new fuse and an inline fuse holder kit in others.

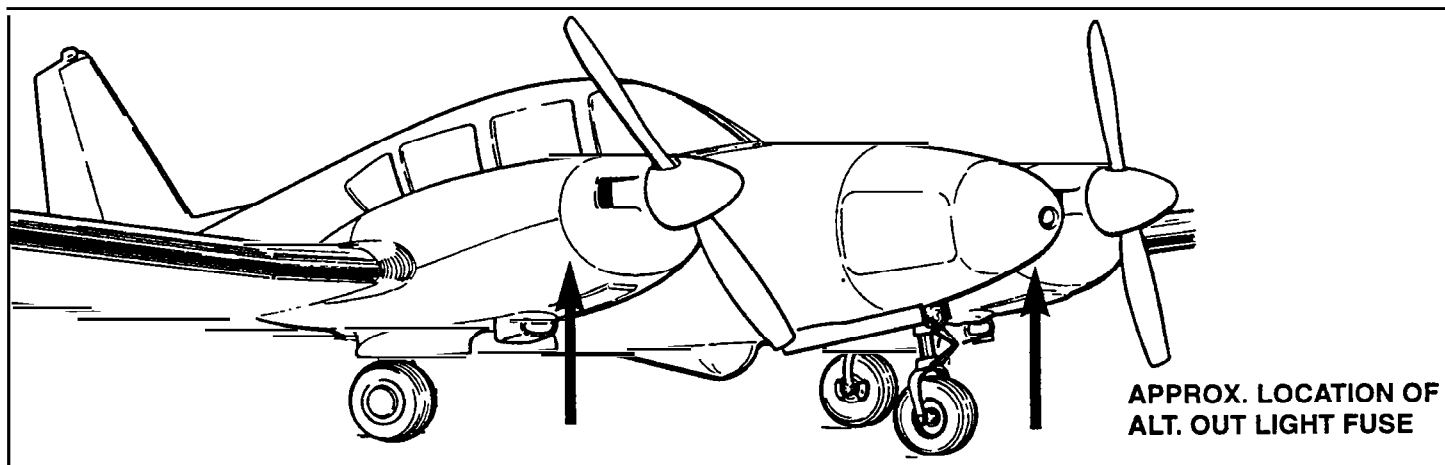
### **INSTRUCTIONS:**

1. The necessary instructions are listed by model. Proceed to the appropriate instruction as determined by the model and serial number as listed in Model Affected above.
2. Upon successful completion of the applicable instruction, make an appropriate Logbook entry of compliance with this Service Bulletin.

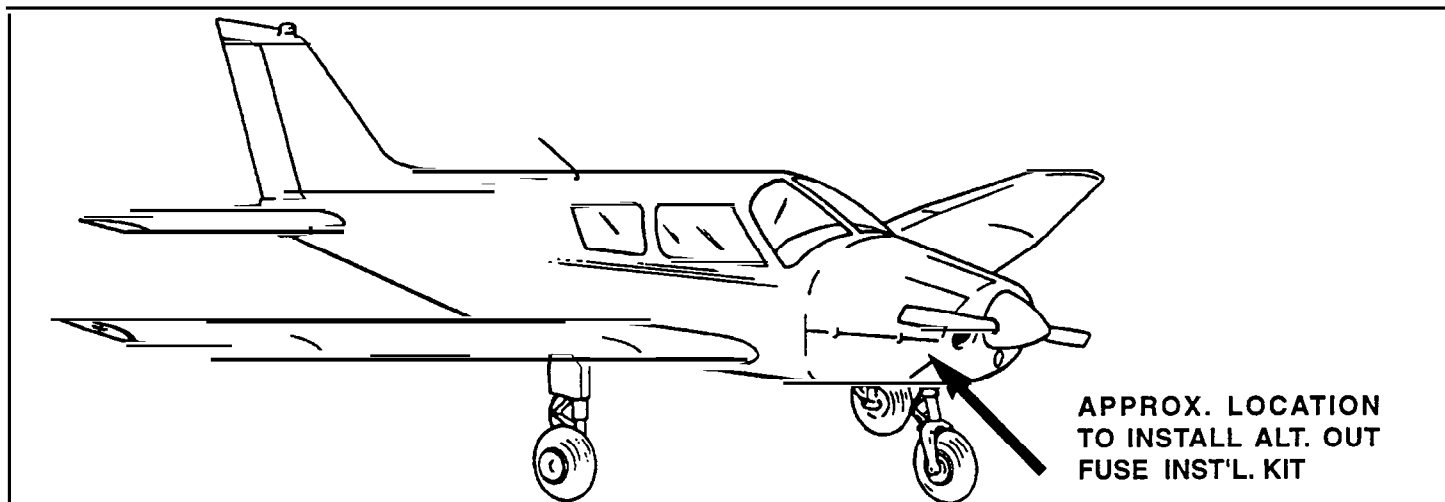
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**INSTRUCTIONS: (cont'd)****PA-23-250 (AZTEC SERIES)**  
(Refer to the Service Manual as necessary.)

1. Remove the engine cowlings and nose bowls as necessary to gain access to the rear of the alternators.
2. Locate the AUX terminal wire on the left alternator and on the right alternator.
3. Follow the wires from the alternator to the inline fuse holder.
4. Remove the existing fuse and install fuse Part Number 461-643, secure the wire and holder after installation. *NOTE: Inspect condition of the existing fuse holder and replace as required.*
5. Perform run up and functional check.
6. Reinstall the nose bowls and cowlings.

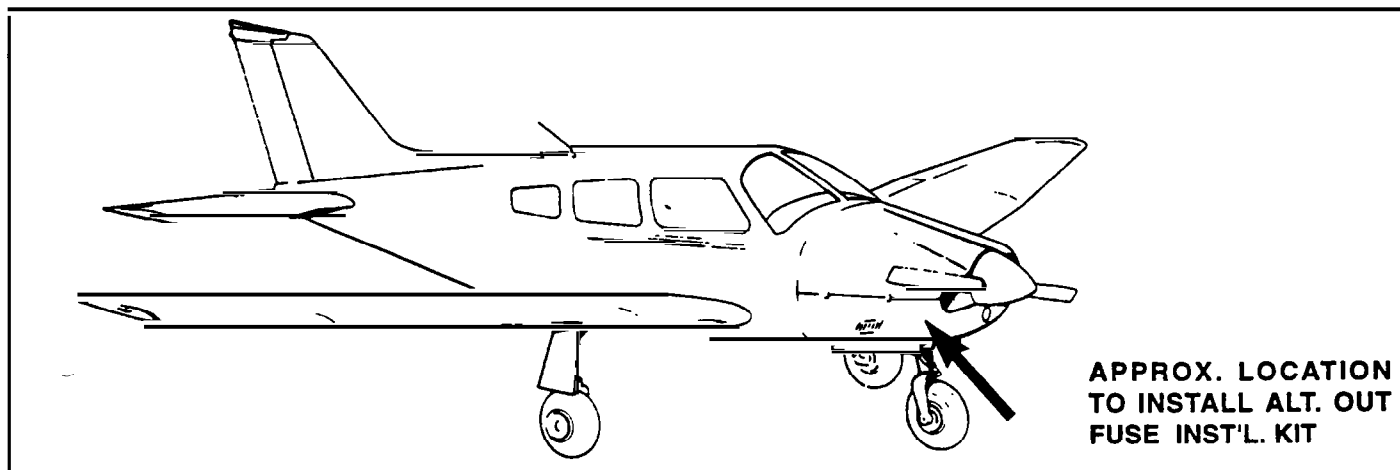
**PA-28-161 (CADET)**  
(Refer to the Maintenance Manual as necessary.)

1. Remove the engine cowlings.
2. Locate the alternator AUX terminal.
3. Remove the existing wire from the alternator AUX terminal and install the Alt Out Fuse Installation Kit Piper Part Number 766-293 per kit instruction.
4. Secure the fuse holder with a Ty-rap.
5. Perform run up and functional check.
6. Reinstall the engine cowlings.



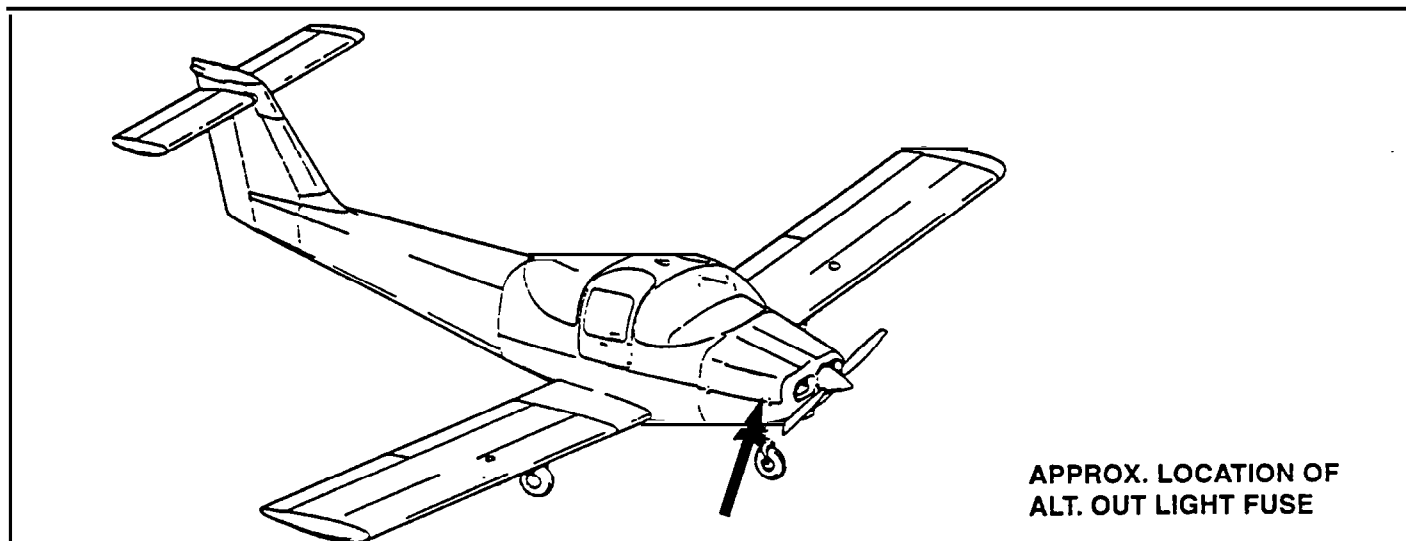
**PA-28R-201 (ARROW)  
PA-28R-201T (TURBO ARROW)**

1. Remove the engine cowling. (Arrow shown as typical.)
2. Locate the alternator AUX terminal.
3. Remove the existing wire from the alternator AUX terminal and install the Alt Out Fuse Installation Kit Piper Part Number 766-293 per kit instruction.
4. Secure the fuse holder with a Ty-rap.
5. Perform run up and functional check.
6. Reinstall the engine cowling.



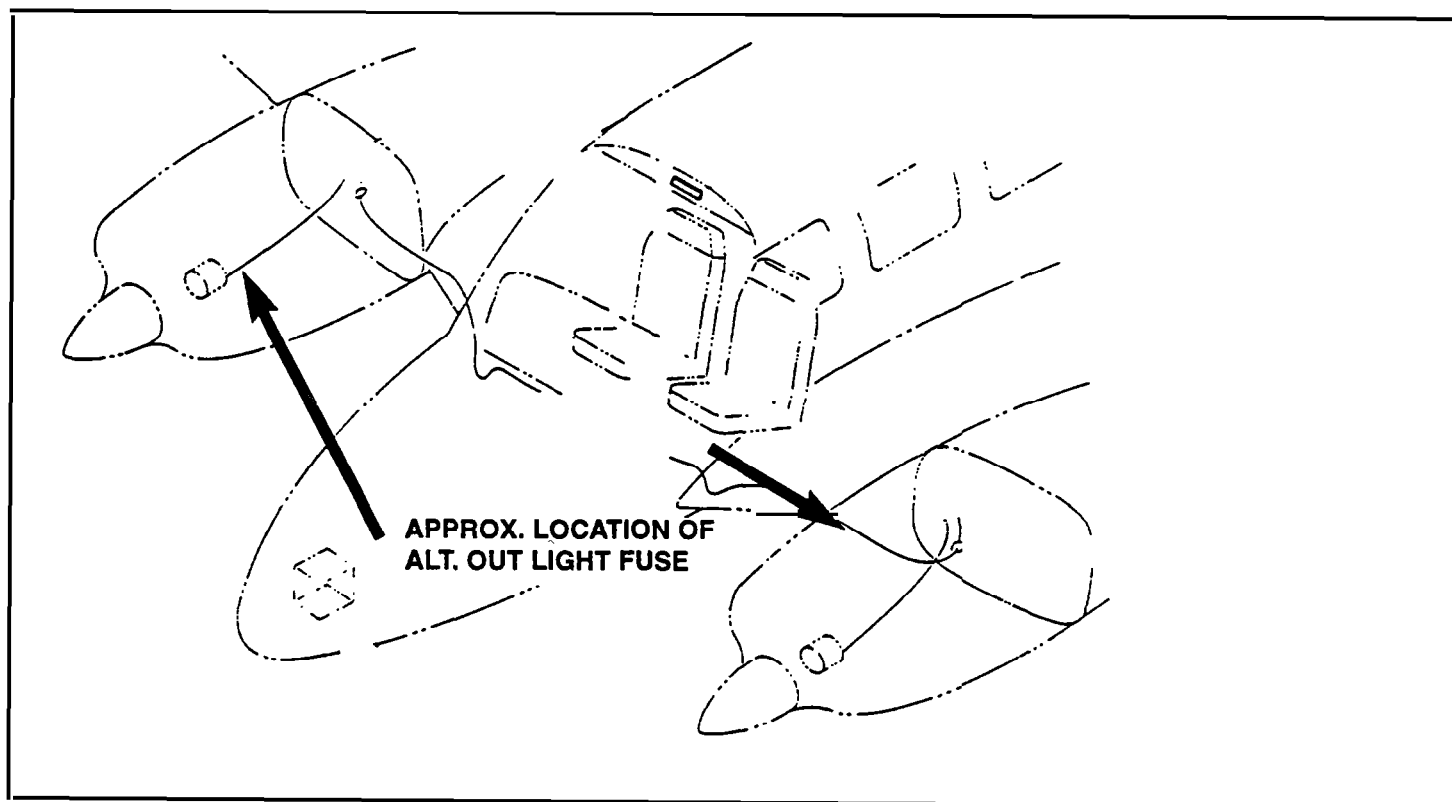
**PA-38-112 (TOMAHAWK)**

1. Remove the engine cowling to gain access to the alternator.
2. Locate the alternator AUX terminal and follow the wiring to the fuse holder between wire (WIC20) and (WID20).
3. Remove the existing fuse and install new fuse part number 461-643. *NOTE: Inspect condition of the existing fuse holder and replace as required.*
4. Perform run-up and functional check.
5. Reinstall the cowlings.



**PA-31, 31-325 (NAVAJO, NAVAJO C/R)  
PA-31-350 (CHIEFTAIN & T1020)  
PA-31P (PRESSURIZED NAVAJO)**

1. Remove the upper and lower engine cowlings to gain access to the alternators.
2. Locate the alternator AUX wire on the left and the right alternator.
3. Follow the wire to the fuse holder.
4. Remove the existing fuse and install fuse part number 461-643, secure wires and fuse holders after installation. *NOTE: Inspect condition of the existing fuse holder and replace as required.*
5. Perform run-up and functional check.
6. Reinstall the cowlings.



**MATERIAL REQUIRED:** As required by model, One (1) or Two (2) each fuse, Piper Part Number 461-643 or One (1) each Alt. Out Fuse Inst'l. Kit, Piper Part Number 766-293.

**AVAILABILITY OF PARTS:** Your Piper Field Service Facility.

**EFFECTIVE DATE:** This Service Bulletin is effective upon receipt.

**SUMMARY:** Applicable factory participation is limited to **aircraft in warranty only** and will remain in effect for a period of time **not to exceed 180 days** from the date of this Service Bulletin.

Please contact your Factory Authorized Piper Service Facility to make arrangements for compliance with this Service Bulletin in accordance with the Compliance Time indicated and to obtain information concerning any applicable factory participation.

**NOTE:** If you are no longer in possession of this aircraft, please forward this information to the present Owner/Operator and notify the factory of address/ownership corrections. Changes should include aircraft model, serial number, and current owner's name and address.

Correction/changes should be directed to:

THE NEW PIPER AIRCRAFT, INC.  
ATTN: Customer Service  
2926 Piper Drive  
Vero Beach, FL 32960