



Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, FL, U.S.A. 32960

SERVICE NO. 1428 BULLETIN

PIPER CONSIDERS COMPLIANCE MANDATORY

Date: September 29, 2025

(S) (M)

SUBJECT:

PERIODIC INSPECTION OF DIODE COOLER ASSEMBLY

MODELS AFFECTED:

PA-28-140 Cherokee 140
PA-28-180 Cherokee 180

PA-28-151 Cherokee Warrior
PA-28-161 Cherokee Warrior II

PA-28-181 Archer II

PA-28-201T Turbo Dakota
PA-28-235 Cherokee 235
PA-28-236 Dakota
PA-28R-200 Arrow II
PA-28R-201 Arrow III
PA-28R-201T Turbo Arrow III
PA-28RT-201 Arrow IV
PA-28RT-201T Turbo Arrow IV
PA-32-260 Cherokee Six
PA-32-300 Cherokee Six
PA-32-301 Saratoga
PA-32-301T Turbo Saratoga
PA-32-301FT 6X
PA-32-301XTC 6XT
PA-32R-300 Lance
PA-32R-301 Saratoga SP
PA-32R-301 Saratoga II HP
PA-32R-301T Turbo Saratoga SP
PA-32R-301T Saratoga II TC
PA-32RT-300 Lance II
PA-32RT-300T Turbo Lance II
PA-38-112 Tomahawk

SERIAL NUMBERS AFFECTED:

28-7525001 thru 28-7725290
28-7105001 thru 28-7205318,
28-7505001 thru 28-7505260
28-7515001 thru 28-7715314
28-7716001 thru 28-8616057,
2816001 thru 2816109
28-7690001 thru 28-8690056, 28-8690061, 28-8690062,
2890001 thru 2890205
28-7921001 thru 28-7921095
28-7510001 thru 28-7710089
28-7911001 thru 28-8611008, 2811001 thru 2811050
28R-7535001 thru 28R-7635545
28R-7737001 thru 28R-7837317
28R-7703001 thru 28R-7803373
28R-7918001 thru 28R-8218026
28R-7931001 thru 28R-8631004, 2831001 thru 2831038
32-7500001 thru 32-7800008
32-7540001 thru 32-7940290
32-8006001 thru 32-8606023
32-8024001 thru 32-8424002
3232001 thru 3232067
3255001 thru 3255051
32R-7680001 thru 32R-7880068
32R-8013001 thru 32R-8313030, 3213001 thru 3213108
3246001 thru 3246237
32R-8029001 thru 32R-8329040, 3229001 thru 3229003
3257001 thru 3257410
32R-7885001 thru 32R-7985106
32R-7887001 thru 32R-7987126
38-78A0001 thru 38-78A0800

ATA/JASC: 2430

(OVER)

COMPLIANCE TIME: Initial compliance must coincide with the next regularly scheduled maintenance event, but must not exceed the next 50 hours time in service (TIS). Thereafter, recurring compliance must be accomplished during each regularly scheduled maintenance event or each 100 hours TIS, whichever occurs first.

APPROVAL: The content of this service document has been reviewed and determined to already comply with applicable Federal Aviation Regulations.

PURPOSE: It has been determined that a short circuit can possibly occur between the diode cooler assembly and the attachment hardware caused by wear of the insulating washers (i.e., Delrin insulators) or the diode cooler assembly may have been accidentally struck or contaminated with a ferrous residue during maintenance. This service bulletin mandates the recurring inspection and, on condition, replacement of the insulators and attachment hardware.

INSTRUCTIONS:

NOTE: The inspections described herein shall be accomplished using a 10X magnifier, a mirror, and a suitable light source or other equipment capable of providing equal or better resolution.

1. Locate and disconnect the battery.
2. Locate and gain access to the diode cooler assembly.

NOTE: The location of the diode cooler assembly varies between aircraft models. For PA-28-140/151/161 models, the diode cooler is located under the rear seats floorboard. For PA-28-180/181/235 and PA-28R-200/201/201T models, the diode cooler is typically located on the battery shelf aft of the rear cabin bulkhead closeout. For all other models, refer to the applicable Piper airplane maintenance manual for the location of the diode cooler.

3. Visually inspect the diode cooler assembly, including wiring and insulators, for condition/damage (cracks, wear, deterioration, evidence of overheating, electrical shorts, ferrous or other residue), improper installation including insufficient/excessive insulator screw torque, etc. See Figure 1.

- If one or more of the insulators show signs of damage, replace all 4 of the insulating washers, Piper part number (P/N) 467-067, and, on condition, the fastener hardware (screws, washers, nuts, etc. as applicable to the current installation). Take great care to avoid over-torquing during installation to prevent damaging the insulators. See Figure 2 for examples of fastener hardware and stackup.

NOTE: There are two typical configurations for fastener hardware securing the diode cooler assembly; Configuration A uses a screw and nut and Configuration B uses a screw and nutplate (i.e. anchor nut). Certain configurations will also use a washer under the screw head. The exact hardware will vary between each aircraft model. Take note of what fastener hardware in the existing installation before discarding and replacing any fastener hardware.

- If evidence of overheating or electrical shorts is discovered, inspect the electrical power distribution system for condition/damage (including wiring) and replace components as required. Refer to the applicable Piper illustrated parts catalog (IPC) for P/Ns.
- If ferrous or other residue is discovered, clean the diode cooler assembly and the surfaces local to the assembly when installed in the aircraft. If required, remove the assembly from the aircraft to clean.

WARNING: ENSURE THE FASTENER HARDWARE, IN PARTICULAR THE WASHER (IF INSTALLED), DOES NOT INTERFERE WITH THE ELECTRICAL ISOLATION OF THE DIODE COOLER. IMPROPER INSULATION RISKS THE POSSIBILITY OF AN ELECTRICAL SHORT BETWEEN THE DIODE COOLER AND THE AIRFRAME, RESULTING IN FAILURE OF THE ELECTRICAL SYSTEM AND/OR FIRE.

4. Reconnect the battery and perform a functional check of the aircraft's electrical system by alternator functionality, including alternator inoperative warning annunciation, must be verified in accordance with the applicable Alternator and Annunciator System Test Procedures in the aircraft Maintenance Manual.
5. Make a logbook entry documenting compliance with this service bulletin. Include a description of any conditions that were discovered during the inspection and servicing that was performed.

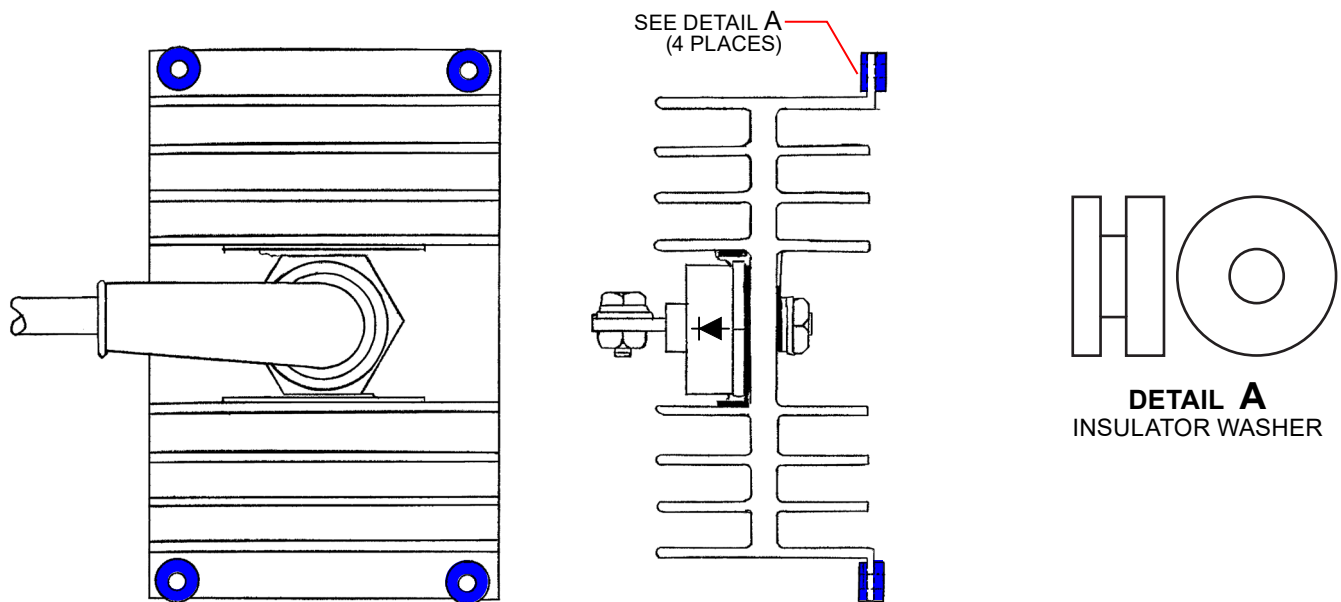
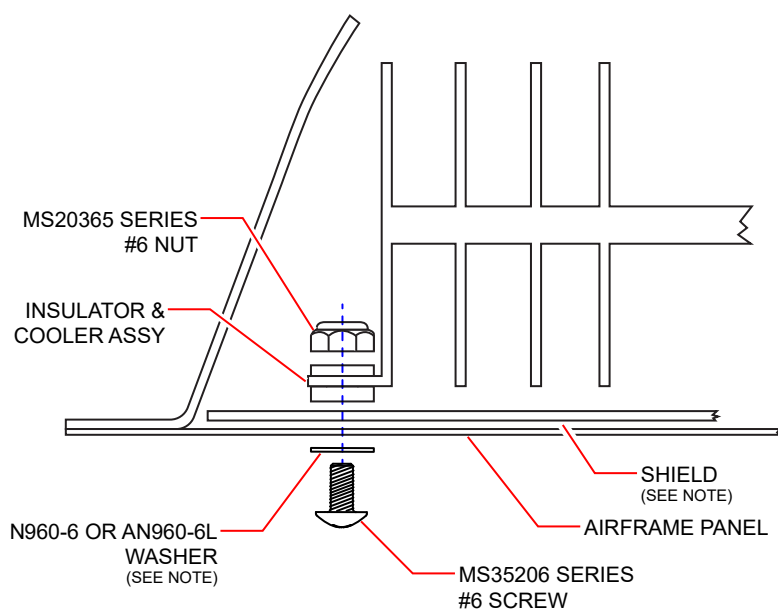
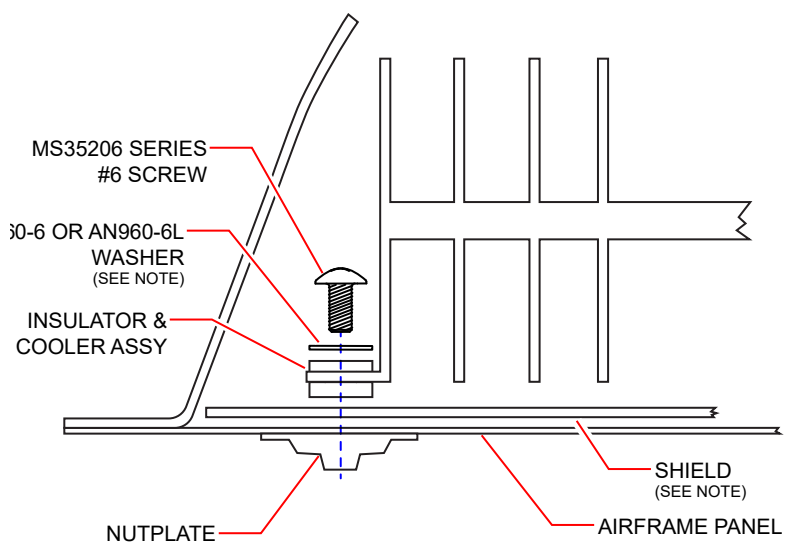


Figure 1
Diode Cooler Assembly (Typical)



NOTE: WASHER IS ONLY APPLICABLE TO SELECT AIRCRAFT MODELS. WHEN INSTALLED, ENSURE THE WASHER HAS CLEARANCE AND DOES NOT COME IN CONTACT WITH THE DIODE COOLER ASSEMBLY.



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Figure 2
Diode Cooler Installation (Typical)

MATERIAL REQUIRED: Per aircraft, on condition and as applicable:

Procure from your General Aviation Supplier:

- Four (4) each, MS35206 Series #6 Screw
- Four (4) each, AN960-6 or AN960-6L Washer
- Four (4) each, MS20365 Series #6 Nut

Procure from Piper Aircraft, Inc. :

- Four (4) each, Insulators, Piper P/N 467-067

NOTE: When replacing additional components of the electrical power distribution system, refer to the applicable Piper IPC for P/Ns.

AVAILABILITY OF PARTS: As identified in Material Required, procure parts from your General Aviation Supplier and your Piper Approved Service Center – Find your local service center at <https://www.piper.com/>.

EFFECTIVITY DATE: This service bulletin is effective on September 30, 2025.

SUMMARY: Please contact your Piper Approved Service Center to make arrangements for compliance with this service bulletin in accordance with the compliance time indicated.

NOTE: Please notify the factory of any address/ownership corrections. Changes should include aircraft model, serial number, and current owner's name and address.

Corrections and/or changes should be directed to:

PIPER AIRCRAFT, INC.

Attn: Customer Service

2926 Piper Drive

Vero Beach, FL 32960

or:

CustomerService@piper.com

Please include in subject line: "Aircraft ownership update"