



Piper Aircraft Corporation
Vero Beach, Florida, U.S.A.

SERVICE BULLETIN

No. 795A

PIPER CONSIDERS
COMPLIANCE MANDATORY.

FAA Approved

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(Service Bulletin No. 795A supersedes and voids Service Bulletin No. 795, dated January 4, 1985)

SUBJECT: Electrical Connector Improvement

REASON FOR REVISION: To revise models affected and clarify instructions.

MODELS AFFECTED: (per Instruction I)

PA-31T1 Cheyenne I
PA-31T Cheyenne/Cheyenne II

SERIAL NUMBERS AFFECTED:

31T-7804001 through 31T-8104073
31T-7400002 through 31T-8120104

MODELS AFFECTED: (per Instruction II)

PA-31T1 Cheyenne I
PA-31T Cheyenne/Cheyenne II
PA-31T2 Cheyenne IIXL

SERIAL NUMBERS AFFECTED:

31T-7804001 through 31T-8104073
31T-7400002 through 31T-8120104
31T-8166001 through 31T-8166076

COMPLIANCE TIME: Within next one hundred (100) hours of operation or at the next scheduled event, whichever occurs first.

PURPOSE: Field reports have indicated that a possibility exists of overheating or melting the black plastic "Amp" type connectors in the propeller deice system.

Left uncorrected, short circuits may develop between overheated or melted points, causing partial or total engine deice system disability. This Service Release provides a means for correcting or preventing the Service difficulty described.

INSTRUCTION I:

- A. Remove both left and right side access panels from nose area. Locate relay box which should be mounted overhead in the nose on Co-pilot's side. If the relay box has three 15 pin connectors on the harness coming out of the box, no further action is necessary. If there are two 37 pin connectors on the harness, continue with this instruction.
- B. The two 37 pin connectors, regardless of apparent condition, must be replaced. Order connectors and terminals (as required) from the attached parts list.

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ATA: 2430

- C. The two 37 pin connectors are labeled E461 and E462. To alleviate the overheating in the connectors, locate and repair as follows: first, examine connectors, if melting and damage has already occurred, it will be necessary to repair the wiring by cutting off burned portion and, if required, splicing in new wire*. Second, locate the 16 gauge wires that pass through the connectors E461 pins 18 and 19, and E462 pins 1, 2, 13, and 14. Extract these wires. (Be sure to mark in some fashion, each wire for reinsertion.) Cut off the terminal from each wire and splice onto those wires, two each three inch pieces of the same gauge wire. On the appropriate harness, crimp or solder new pins and sockets. You now have two wires with appropriate terminals for each position previously extracted. Reinsert one leg of each wire into it's original position and insert the remaining legs as follows: in E461, pin 18 shares with pin 34 and pin 19 shares with pin 35; in E462, pin 1 shares with pin 34, pin 2 shares with pin 35, pin 13 shares with pin 36 and pin 14 shares with pin 37.

Finally, make sure each connector pin is clean and straight and will not push back out of the connector shell. Coat all terminals lightly with contact lubricant, Piper Part Number 764-657, before mating the connectors. No other contact lube/cleaner is approved.

INSTRUCTION II:

- A. Remove cowling from both left and right engines.
- B. Inspect engine lower cowl air intake lip deicer boot connectors.
- C. If connectors are size 11-4 (four round pins), replace them with size 17-3 (three flat pins) connectors and silver plated terminals. Be sure you mark wires in some fashion as you extract them to make certain wires will be properly reinserted.
- D. See attached list for replacement part numbers.
- E. Extraction tool Part Number 764-509 is not necessary if you insert terminals properly on first try.

INSTRUCTION III:

- A. Make appropriate logbook entry of compliance with this Service Release.

*Note: Use only aircraft quality splices. Amp contact lubricant/cleaner may be used on all types of amp terminals to make installation easier and also to clean and protect terminals from general and fretting type corrosion.

MATERIAL REQUIRED:

- A. One can (8oz.) Contact Lubricant.
- B. One of each type extractor.
- C. Replacement parts as required per instructions.
- D. Part number reference for above A., B. and C. may be found on the attached parts list.

AVAILABILITY OF PARTS: Your Piper Cheyenne Service Center or local AMP Connector Dealer.

EFFECTIVITY DATE: This Service Release is effective upon receipt.

SUMMARY: Please contact your Cheyenne Service Center to arrange for compliance with this Service Release.

Any applicable Factory Participation will be in effect for a period of time not to exceed 180 days from the date of this Service Release.

If you are no longer in possession of this aircraft, please forward this information to the present owner.

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Round Black 37 Pin Connector
and Terminals: (Instruction I)

<u>Qty</u>	<u>Piper P/N</u>	<u>AMP P/N</u>	<u>Name</u>	<u>Use</u>
2	555-984	206151-2	Receptical	To replace
2	555-810	206369-1	Plug	E461, E462
2	555-845	206138-1	Clamp	Connector Bodies
12	480-804	66099-2	Pin (16 awg)	To add or
12	487-109	66101-2	Socket (16 awg)	replace
12	480-807	66359-6	Pin (14 awg)	terminals
12	487-057	66358-6	Socket (14 awg)	as required.
1	764-508	305183	Extractor	To extract terminals.

Round Black 3 Pin Heavy Current
Connector and Terminals: (Instruction II)

<u>Qty</u>	<u>Piper P/N</u>	<u>AMP P/N</u>	<u>Name</u>	<u>Use</u>
2	556-991	206207-1	Receptical	To replace
2	556-988	206037-2	Plug	Deice Lip
2	554-613	206070-1	Clamp	Boot Connector
6	556-987	66261-1	Terminal-Male	To replace
6	556-986	66258-1	Terminal-Female	terminals.
1	764-509	91019-3	Extractor	To extract terminals. (Optional)
1	764-657	561232-1	Contact Lubricant 8 oz. spray can	For treating Amp terminals.