



SERVICE BULLETIN

No. 562

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

"Modification DOA EA-1 Approved"

October 4, 1977 M

Subject: Annunciator Panel Oil Temperature Indicator System Modification

Models Affected: Serial Numbers Affected:

PA-31T Cheyenne.....31T-7400002 to 31T-7720049 inclusive*

*NOTE:

This Service Bulletin consists of four (4) parts, containing different modification procedures for different affected aircraft (identified by specific aircraft serial numbers).

Compliance Time: At the next continuous Inspection Event, not to exceed the next one hundred (100) hours of operation.

Purpose: A condition is possible on the aircraft referenced above wherein the annunciator panel oil temperature warning light and/or the master caution light may illuminate, and the master caution horn will sound when the pilot and/or copilot's microphone is activated. This condition may not reflect related system difficulty, but may be indicative of a need to modify the annunciator panel/oil temperature indicating system.

This Service Release provides instruction and announces material (if necessary) to modify the subject system to prevent occurrence of the above described condition (see NOTE, above).

PART I

Serial Numbers Affected:.....31T-7400002 to 31T-7620011 inclusive.

Action: Insure that proper configuration annunciator panel and oil temperature indicators are installed, and adjust annunciator panel.

Instructions:

1. Inspect annunciator panel and oil temperature gauges to insure that Annunciator Panel, Piper Part No. 51179-00 (Mfr. part number IAI 500B0001-002) and Oil Temperature Indicator Gauges, Piper Part No. 550 410 (Keystone part number K1013) are installed (part numbers stamped on parts).
2. If above components are installed, proceed with "Annunciator Panel Adjustment Procedure", attached.

(continued)

Instructions: (Continued)

3. If above components reflect part numbers other than those stated in Instructions No. 1, above, replace appropriate component, then proceed with "Annunciator Panel Adjustment Procedure", attached.

Material Required: One (1) each Annunciator Panel Assembly, Piper Part No. 51179-00 and/or (Max.) two (2) each Oil Temperature Indicator Gauge(s), Piper Part No. 550 410, if required per Instructions No. 3, above.

PART II

Serial Numbers Affected:.....31T-7620012 to 31T-7720010 inclusive.

Action: Rewiring (modification) of annunciator panel system.

Instructions: Modification instructions and material contained in Piper Kit No. 761 146, Annunciator System Wiring Modification.

Material Required: One (1) each Piper Kit No. 761 146, Annunciator System Wiring Modification.

PART III

Serial Numbers Affected:.....31T-7720011 to 31T-7720018 inclusive,
31T-7720020 to 31T-7720022 inclusive and
31T-7720024 to 31T-7720028 inclusive.

Action: Rewiring (modification) of Annunciator Panel System.

Instructions: Modification instructions and material contained in Piper Kit No. 761 145, Annunciator System Wiring Modification.

Material Required: One (1) each Piper Kit No. 761 145, Annunciator System Wiring Modification.

PART IV

Serial Numbers Affected:.....31T-7720019, 31T-7720023, 31T-7720029 to
31T-7720049 inclusive.

Action: Adjust annunciator panel (oil temperature "indicators).

Instructions: Refer to "Annunciator Panel Adjustment Procedure", attached.

Material Required: None

Availability of Parts:

Your Piper Field Service Facility.

Effectivity Date:

This Service Bulletin is effective upon receipt.

(continued)

Summary:

Please contact your Piper Field Service Facility to make arrangements for compliance with the provisions of this Service Release in accordance with Compliance Time, above. Reimbursement for replacement/modification material costs (Sections I, II, and III) and labor expense - see table, below - is available through your Piper Field Service Facility for a period of time not to exceed twelve months from the above issue date in accordance with their respective material/labor allowance credit application procedures.

LABOR ALLOWANCE

Section	Hours per A/C	Action
I.	two (2)	Annunciator Panel Adjustment
I.	one (1)	Gauge replacement; max. two per aircraft
II.	eight (8)	Installation of Kit 760 146
III.	six (6)	Installation of Kit 760 145
IV.	two (2)	Annunciator panel adjustment

ANNUNCIATOR PANEL (OIL TEMPERATURE INDICATOR) ADJUSTMENT PROCEDURE

1. Remove upper and lower cowlings from both engines.

NOTE

The adjustment screws are recessed in the annunciator panel directly above the indicator lights. They are labeled: left oil temperature and right oil temperature.

- a. The oil temperature probes are located on the lower aft right side of both the left and right engine.
- b. Locate and remove electrical connectors E116 from the left oil temperature probe and E217 from the right oil temperature probe.
- c. Place a resistive load of 128 ohms across pin A and B of electrical harness connectors E116 and E217. Use a locally fabricated test box. (See Sketch at bottom of page for Test Box Schematic).
- d. Ascertain the left fuel flow, left oil temperature, right fuel flow, right oil temperature and the annunciator panel circuit breakers are pushed in to their ON position.
- e. Place the radio master switch in the OFF position.
- f. Remove annunciator panel face plate by removing appropriate screws.
- g. Apply power to the annunciator panel by placing the master switch in the ON position. Observe needle on both the left and right oil temperature gauges should be deflected to the red line near the 100° position on the gauge.
- h. With a small slot-head screwdriver, adjust the left channel by turning the left oil temperature adjusting screw clockwise to illuminate the left oil temperature annunciator light. Then turn the adjusting screw counterclockwise slowly until the left oil temperature annunciator light extinguishes. Then turn the adjusting screw clockwise very slowly to illuminate the left oil temperature annunciator light.
- i. Adjust the right channel by turning the right oil temperature adjusting screw clockwise to illuminate the right oil temperature annunciator light. Then turn the adjusting screw counterclockwise slowly until the right oil temperature annunciator light extinguishes. Then turn the adjusting screw clockwise very slowly to illuminate the right oil temperature annunciator light.

NOTE

In order to properly calibrate both channels, it may be necessary to reaccomplish steps g and h several times to achieve simultaneous activation of the oil temperature lights.

- j. Upon completion of adjustment procedure decrease the resistive load on the left oil temperature probe harness connector E116 by 3 ohms by pressing the switch on the test box. The left oil temperature annunciator panel light should extinguish. Repeat the same change in resistive load for the right oil temperature probe harness connector E217 and the right oil temperature annunciator light should extinguish.
 - k. This completes the annunciator panel adjustment procedure.
 - l. Place the aircraft master switch in the OFF position and remove the resistive load from both the left and right oil temperature probe electrical harness connectors. Connect electrical connector E116 to the left oil temperature probe and electrical connector E217 to the right oil temperature probe.
 - m. Install and secure annunciator panel face plate.
2. Install the left and right engine cowlings and secure.
 3. Make proper logbook entry of Service Bulletin 562 compliance.

