

**TELEDYNE CONTINENTAL ® AIRCRAFT ENGINE**

**SERVICE BULLETIN**

Compliance Will Enhance Safety

Category 3

**SB05-11**

**Technical Portions FAA  
Approved**

**SUBJECT: PIPER SERVICE BULLETIN 1157A**

**PURPOSE:** To announce the issuance of Piper Service Bulletin 1157A

**COMPLIANCE:** See Piper Bulletin

**MODELS**

**AFFECTED:** TSIO360RB, LTSIO360RB

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Teledyne Continental Motors recommends compliance with the Piper Mandatory Service Bulletin 1157A. For further information concerning this bulletin interested parties may contact:

The New Piper Aircraft Inc.  
2626 Piper Dr.  
Vero Beach, FL 32960  
1-772-567-4361

Teledyne Continental Motors does not supply internal magneto parts for Slick magnetos. Required parts may be purchased from any Slick magneto distributor. For information concerning Slick magnetos or parts, interested parties may contact:

Unison Industries®  
7575 Bay Meadow Dr.  
Jacksonville, FL 32256  
Piston Help Desk at 1-904-739-4081.  
E-mail: pistonhelp@unison.ae.ge.com

ISSUED			REVISED			 <b>CONTINENTAL MOTORS</b> <small>A Teledyne Technologies Company</small> <small>P.O. BOX 90 MOBILE ALABAMA 36601 • 251-438-3411</small>	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 1 SB05-11	
12	8	2005						



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

# SERVICE No. 1157A BULLETIN

**PIPER CONSIDERS  
COMPLIANCE MANDATORY**

Date: June 20, 2005 (M)

SB 1157 is superseded by SB 1157A. SB 1157A provides warranty clarity.

**SUBJECT:** FIELD UPGRADE OF PRESSURIZED MAGNETOS & TACHOMETER SENSOR ASSEMBLIES

**MODELS AFFECTED:**

PA-34-220T Seneca V

**SERIAL NUMBERS AFFECTED:**

3449001 through 3449303 and 3449305 through 3449310

**COMPLIANCE TIME:** To coincide with next regularly scheduled maintenance event, but not to exceed the next one hundred (100) hours time in service.

**APPROVAL:** The technical content of this Service Bulletin has been shown to comply with the applicable Federal Aviation Regulations and is FAA approved.

**PURPOSE:** The Unison magnetos are pressurized with air from the engine turbocharger. The pressurization system connecting the magnetos to the turbocharger, including all fittings, lines, and filtration devices, is part of the aircraft engine and/or airframe. It is therefore important that, in conjunction with the instructions contained in this bulletin, the engine and aircraft manufacturer's service literature be consulted to ensure the pressurization system is functioning properly.

Note: SB 1157A affects aircraft with the Slick pressurized ignition systems only.

The operation of the Slick pressurized ignition system is similar to conventional magnetos except that, as the aircraft climbs, the air density inside the pressurized magneto decreases at a slower rate. The resulting increased air density at altitude improves the insulation properties of the air inside the magneto to reduce the likelihood of high altitude misfire.

Field service reports for these installations indicate that the magneto pressurization systems installed on the magnetos listed in MODELS AFFECTED may be capable of depositing moisture inside the magnetos when part number 598-881 tachometer sensor is installed on the magneto.

In particular, the models of the aircraft noted in MODELS AFFECTED will have a higher probability of developing moisture in the magnetos when they are flown in rain, fog, or clouds. High altitude flying in such wet weather will increase the probability of moisture contamination and magneto malfunction even further.

(OVER)

ATA: 7414

**PURPOSE: (Continued)**

Two improvements to the sensors, which have eliminated the inadequate air supply flow, are: (1) an increased bleed port from .015 inches to .025 inches; and, (2) removing the filter element from the bleed port. To distinguish between the old and the modified Hall Effect Magneto Sensor Assemblies, Teledyne has identified the new sensor part number as 0402-102 Mod 1.

ALL AGENCIES OR INDIVIDUALS SERVICING ANY COMPONENT MADE BY SLICK AIRCRAFT PRODUCTS MUST HAVE THE MOST CURRENT REVISIONS OF SLICK MASTER SERVICE MANUAL F-1100 BEFORE PERFORMING MAINTENANCE OR OVERHAUL. CONSULT SLICK REGARDING SUBSCRIPTION SERVICE INFORMATION.

**INSTRUCTIONS:**

NOTE: Inspect the affected magneto on both engines.

1. Remove magneto from the engine that has the tachometer sensor installed.
2. Use a T-25 torx bit or flat screwdriver to remove the ignition lead harness from the magneto, and then remove the 4 screws holding the back cover onto the magneto frame. Remove the capacitor spade connector from the contact point assembly.
3. Visually inspect interior of magneto for corrosion. Visually inspect distributor gear under distributor block for obvious discoloration, gummy or soft surface, or excessive gear tooth wear.
4. If these conditions exist, the magneto should be replaced.
5. If the interior of the magneto is clean and free of contaminants, reassemble magneto and reinstall per engine manufacturer's instructions.
6. Check the tachometer sensor assembly for correct part number on the sensor cable, PS 50158-2-2 Rev D Mod 1. See Figures 1 and 2 for identification.
7. Replace the tachometer sensor if the tag does not have Rev D Mod 1 as illustrated in Figure 2.

**Upgrade Program Requirements:**

8. If magneto removed from an aircraft under new aircraft warranty\* shows signs of contamination or corrosion, and has a tachometer sensor that is not labeled PS 50158-2-2 Rev D Mod 1 a replacement magneto and tachometer sensor will be provided free of charge.
9. On all affected aircraft if the tachometer sensor is not labeled PS 50158-2-2 Rev D Mod 1 that tachometer sensor must be replaced with a 598-881 labeled PS 50158-2-2 Rev D Mod 1. Tachometer sensors that require replacement will be replaced free of charge per the limitations of the SUMMARY section of this bulletin.
10. For this service bulletin only, the tachometer sensor and magneto MUST BE RETURNED to Unison Industries, Attn: Steve Carter, 7575 Baymeadows Way, Jacksonville, FL 32256.
11. The form on page 5 must be filled out and returned to Unison Industries with the parts.
12. Make a logbook entry indicating compliance with this Service Bulletin.



Figure 1  
Magneto Sensor Assembly

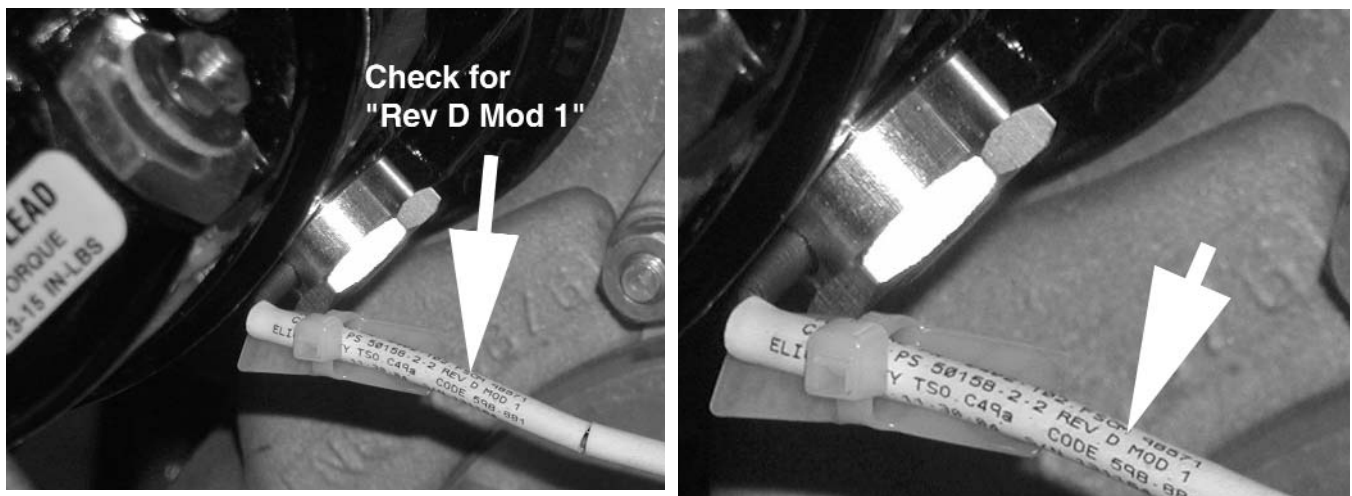


Figure 2  
Correct Sensor Identification

**AVAILABILITY OF PARTS COVERED UNDER WARRANTY:**

**Magneto:** Contact Unison Industries, Attn: Steve Carter, 7575 Baymeadows Way, Jacksonville, Fl. 32256, 904 739-4081.

**Sensor:** Contact your New Piper Parts Dealer.

**AVAILABILITY OF PARTS COVERED "NOT" UNDER WARRANTY:**

**Magneto:** Contact retail aviation parts source for Slick magnetos.

**Sensor:** Contact your New Piper Parts Dealer.

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

**SUMMARY:**

Warranty consideration is as follows:

**Magnetos:**

For units removed from aircraft under new aircraft warranty\* and showing signs of contamination or corrosion as described in item 3 of the Instructions section, a replacement magneto will be provided free of charge from Unison Industries. Warranty consideration will remain in effect for a period of time not to exceed 180 days from the date of release of this bulletin.

**Sensors:**

On aircraft in new aircraft warranty only the 2 each 598-881 tachometer sensor Rev D Mod 1 will be provided to replace sensors that are not labeled as Rev D Mod 1

**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, current owner's name and address.

Corrections and/or changes should be directed to:

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

\* The following aircraft serial numbers are under "new aircraft warranty".

<u>S/N</u>	<u>EXP. Date</u>	<u>S/N</u>	<u>EXP. Date</u>	<u>S/N</u>	<u>EXP. Date</u>
3449251	12/17/05	3449286	06/09/05	3449299	06/02/06
3449252	06/14/05	3449287	03/22/06	3449300	02/20/06
3449269	12/22/05	3449288	07/14/05	3449301	02/04/06
3449273	06/04/06	3449289	05/27/05	3449302	05/07/06
3449276	09/03/05	3449290	02/13/06	3449303	11/11/06
3449277	06/19/05	3449291	06/08/06	3449304	12/23/06
3449279	06/13/06	3449292	05/13/06	3449305	07/22/06
3449280	12/02/05	3449293	12/16/06	3449306	07/30/06
3449281	03/16/06	3449294	08/22/06	3449307	07/13/06
3449282	05/16/05	3449295	09/19/05	3449308	11/17/06
3449283	09/04/05	3449296	11/04/05	3449309	09/16/06
3449284	04/28/06	3449297	12/26/05	3449310	01/18/07
3449285	09/16/05	3449298	04/07/06		

## SB 1157 Field Upgrade Form

Magneto Part Number (circle one):      6320   6324

Aircraft S/N \_\_\_\_\_

Aircraft N # \_\_\_\_\_

Hours in Service \_\_\_\_\_

Magneto Serial Number: \_\_\_\_\_

Print Name and Address : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Daytime Phone: \_\_\_\_\_

Return magneto and tachometer sensor to:

Unison Industries  
Attention: Steve Carter  
7575 Baymeadows Way  
Jacksonville, Fl. 32256