

SERVICE INFORMATION NO. SI 40-066

NOTE: SI's are used **only**:

1) To distribute information from DAI to our customers.

2) To distribute applicable information / documents from our suppliers to our customers with additional information.

Typically there is no revision service for SI's. Each new information or change of that will be send along with a new SI.

I. TECHNICAL DETAILS

1.1 Airplanes affected:

All DA 40 aircraft equipped with GARMIN G1000 System.

All DA 40F aircraft equipped with GARMIN G1000 System.

1.2 Subject:

GARMIN: Service Bulletin No. 0738 Rev. B

ATA-Code: 34-00

1.3 Reason:

GARMIN has issued a Service Bulletin which contains information about the replacement of failed Transient Voltage Suppressors.

1.4 Information:

For detailed technical information see GARMIN Service Bulletin No. 0738 Rev. B.

II. OTHERS

The GARMIN Service Bulletin No. 0738 Rev. B is attached to this SI.

In case of doubt contact GARMIN.



**** MANDATORY ****
SERVICE BULLETIN

NO.: 0738 Revision B

TO: Diamond Aircraft Industries Inc., Canada
DATE: 31 October 2007
SUBJECT: Transient Voltage Suppressor
REVISION B: Added TVS part number and adjusted text based on coordination with Diamond

PURPOSE

Garmin has become aware of an issue regarding failed Transient Voltage Suppressors (TVS) installed in G1000 equipped DA 40/DA 40F airplanes. A failed TVS can result in momentary smoke in the cockpit and/or a loud popping sound.

NOTE

This service bulletin is written against the TVS component installed under STC SA01254WI and STC SA01389WI in the Diamond DA40/DA 40F aircraft.

DESCRIPTION

This service bulletin contains instructions on how to identify and remove/replace the suspected faulty Transient Voltage Suppressors. A one time inspection is required for all G1000 equipped Diamond DA 40/DA 40F airplanes.

NOTE

The table in Appendix A must be completed and returned to Diamond Aircraft Industries Inc., Canada for all G1000 equipped DA 40/DA 40F airplanes whether or not any TVS components have been replaced.

PRODUCT AFFECTED

Replace all TVS components within the following date code range:

- 0543 through 0611

NOTE

The date code can be read without removing the TVS (see Figure 1).

Replace all TVS components (regardless of the date code) that show any signs of heat damage, heat stress, or if the associated inline fuse is blown. See Figure 1 for an example of a failed TVS.

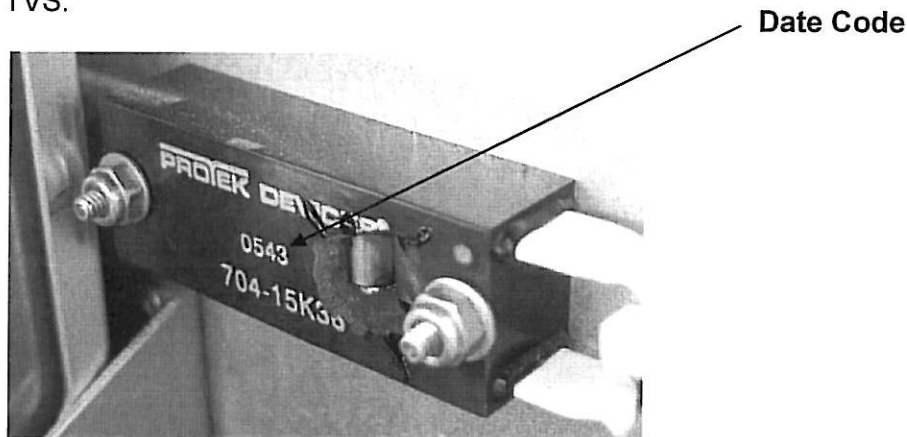


Figure 1 Failed TVS

COMPLIANCE

Mandatory, within the next 60 days.

REFERENCES

G1000 Install In Diamond DA 40/DA 40F, Garmin Part Number 005-00304-00
G1000/DA 40 Voltage Suppressor Install, Garmin Part Number 005-00336-22

WARRANTY INFORMATION

For warranty information contact Diamond Aircraft Industries Inc., Canada.

Diamond Aircraft Industries Inc., Canada

Phone: 1-519-457-4041

Fax: 1-519-457-4045

E-Mail: custsupp@diamondair.com

INSTRUCTIONS

NOTE

This section contains general guidance on how to gain access, inspect, and replace the faulty Transient Voltage Suppressors. For more detailed instructions, refer to the G1000 Install in Diamond DA 40/DA 40F (Garmin part number 005-00304-00) and the G1000/DA 40 Voltage Suppressor Install (Garmin part number 005-00336-22) documents.

Alternator, Essential Bus (Battery), GMA, and Standby Attitude Indicator TVS

NOTE

The GMA and Standby Attitude Indicator TVS are only installed with the GFC 700.

The Alternator, Essential Bus (Battery), GMA, and Standby Attitude Indicator TVS components are mounted on the back of the MFD mounting rack. Refer to the G1000 Install in Diamond DA 40/DA 40F (Garmin part number 005-00304-00) and the G1000/DA 40 Voltage Suppressor Install (Garmin part number 005-00336-22) for exact location and installation details.

1. Remove the Glare Shield to gain access to the Alternator and Essential Bus (Battery) TVS.
2. Inspect the Alternator, Essential Bus (Battery), GMA, and Standby Attitude Indicator TVS components:
 - If date codes match those listed in the Product Affected Section, remove and replace.
 - Inspect and replace any TVS with any sign of heat damage or heat stress.
 - Inspect the associated in-line fuse (if applicable). If fuse is blown replace the associated TVS and fuse.

NOTE

To ensure proper warranty reimbursement, return all removed TVS components to Diamond Aircraft Industries Inc., Canada.

3. If a TVS needs to be replaced, proceed to Step 4 for instructions on removing the MFD, otherwise proceed to the next section.
4. Using a 3/32 hex tool, rotate all four MFD ¼-turn fasteners counter-clockwise until they reach their stops.
5. Carefully remove the MFD from the panel.
6. While supporting the MFD, disconnect the connector.
7. Refer to the G1000 Install in Diamond DA 40/DA 40F (Garmin part number 005-00304-00) and the G1000/DA 40 Voltage Suppressor Install (Garmin part number 005-00336-22) for exact TVS location and removal/installation details.

AHRS #1, GIA #1, and GIA #2 TVS

The AHRS #1, GIA #1, and GIA #2 TVS components are mounted on the front of the remote avionics box. Refer to the G1000 Install in Diamond DA 40/DA 40F (Garmin part number 005-00304-00) for exact location and installation details.

1. Remove the rear seat belt inertia harness.
2. Remove the baggage tube or bulkhead cover, per DA40 AMM or applicable AMM-TR.
3. Remove screws securing the upper remote avionics box the base.
4. If the splice option is not used, disconnect P900 from the remote avionics box. If the splice option is used, cut the applicable tie wraps securing the wiring harness.
5. Pull the upper remote avionics box upward, exposing the TVS mount plate on forward end of remote avionics box.
 - If date codes match those listed in the Product Affected Section, remove and replace.
 - Inspect and replace all TVS components with any signs of heat damage or heat stress.
 - Inspect the associated in-line fuse (if applicable). If fuse is blown replace the associated TVS and fuse.

NOTE

To ensure proper warranty reimbursement return all replaced TVS components to Diamond Aircraft Industries Inc., Canada.

6. If it is determined that a TVS needs to be removed and replaced refer to the G1000 Install in Diamond DA 40/DA 40F (Garmin part number 005-00304-00) for exact location and installation details.

NOTE

If a TVS needs to be replaced the GIA #1 and the GTX 33 will require removal from the remote avionics box for access to the TVS plate mounting hardware. For instructions on how to remove G1000 LRU's refer to the applicable airframe specific G1000 maintenance manual.

MATERIAL INFORMATION

QTY	Diamond Aircraft Industries, Inc. Part Number	Description
As Required	704-15K36 (equivalent to Garmin part number 682-00002-00)	High Power TVS

APPENDIX A

To receive warranty credit, completed Diamond warranty claim form and this inspection report must be submitted to Diamond Aircraft Industries Inc., Canada via fax at 1-519-457-4045 or via email to custsupp@diamondair.com.

All replaced TVS components must also be returned to Diamond Aircraft Industries Inc., Canada.

NOTE

This table must be completed and returned to Diamond Aircraft Industries Inc., Canada for all G1000 equipped DA 40/DA 40F airplanes whether or not any TVS components have been replaced.

Aircraft Serial Number: _____

Registration Number: _____

Total Time Since New: _____ Hours

	Failed or Damaged (Y/N)	TVS Date Code (required if replaced or not)	Was In-Line Fuse Blown (Y/N)
Alternator			
Essential Bus (Battery)			
AHRS #1			
GIA #1			
GIA #2			
GMA*			N/A
Standby Attitude Indicator*			N/A

* Only installed with the GFC 700.

Service Bulletin carried out on (date): _____

Service Bulletin carried out by (shop name): _____

Signature: _____