

TITLE

NAVIGATION - GARMIN G1000 NXI SYNTHETIC VISION INSTALLATION

EFFECTIVITY

The following airplanes equipped with the Garmin G1000 NXI System:

MODEL	SERIAL NUMBERS
208	20800601 and On
208B	208B2197, 208B5401 and On

REASON

To provide enabling instructions for the Garmin G1000 NXI System's Synthetic Vision Technology (SVT) option (currently without Pathways functionality). Synthetic Vision Technology (SVT) provides a three-dimensional forward view of terrain, obstacle and traffic features on both PFDs and on the MFD in reversionary mode. The imagery shows the pilot's view of relevant features in relation to the aircraft altitude and attitude. Throughout this document, the Garmin Pilot Guide and Cockpit Reference Guide, SVT may also be referred to as Synthetic Vision System (SVS).

DESCRIPTION

This service bulletin provides parts and instructions to enable the Garmin G1000 System's Synthetic Vision Technology (SVT) option.

COMPLIANCE

OPTIONAL. This service document can be accomplished at the discretion of the owner.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

- 1) The mechanic must complete all of the instructions in the service document, including the intent therein.
- 2) The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation can substitute parts or rebuilt parts be used to replace new parts.
- 3) The mechanic or airplane owner must use the technical data in the service document only as approved and published.
- 4) The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
- 5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

APPROVAL

Textron Aviation received FAA approval for the technical data in this publication that changes the airplane type design.

FLIGHT CREW OPERATIONS

No change.

CONSUMABLE MATERIAL

No specialized consumable materials are required to complete this service document.

TOOLING

No specialized tooling is required to complete this service document.

WEIGHT AND BALANCE INFORMATION

Negligible

REFERENCES

Cessna Model 208 Series Maintenance Manual.

The following document is available for download from www.txtavsupport.com and Cessna Authorized Service Facilities can view it at www.garmin.com:

Garmin G1000 Caravan Line Maintenance Manual, Part Number 190-00869-00, Rev. G or later.

NOTE: To make sure all publications used are complete and current, refer to www.txtavsupport.com.

PUBLICATIONS AFFECTED

Pilot's Operating Handbook and FAA approved Airplane Flight Manual.

ACCOMPLISHMENT INSTRUCTIONS

NOTE: For airplanes that will install SVT for the first time, go to Step 1.

NOTE: For airplanes that have previously installed SVT and need to install it again, go to Step 3.

1. Connect external electrical power to the airplane.
2. Make sure that an approved system software version is installed on your airplane:
 - A. Make sure that all of the necessary circuit breakers are pushed in for normal mode start up of the G1000 System.
 - B. Make sure that the EXTERNAL POWER switch is set to BUS and the AVIONICS 1 and 2 switches are set to ON.
 - C. On the Multifunction Display (MFD) start up (splash) screen, make sure that the system software version shown in the upper right corner of the screen is version 2499.02 or later.

NOTE: You can also find the system software version if you turn the large and the small FMS knobs on the MFD to go to the AUX-SYSTEM STATUS page after normal startup.
 - D. Find and record the SYSTEM ID NUMBER.
 - (1) Turn the large FMS knob on the MFD to go to the AUX page.
 - (2) Turn the small FMS knob to go to the AUX-SYSTEM STATUS page.
 - (3) Find the AIRFRAME display box in the upper right corner of the screen and record the SYSTEM ID NUMBER.
 - E. Make sure that you have the 190-02139-00 (or later) Cockpit Reference Guide.

3. Do the SVT option upload to the G1000 NXI Avionics system as follows:
 - A. If not done previously, connect external electrical power to the airplane.
 - B. Disengage the PFD1, PFD2, and MFD circuit breakers.
 - C. Make sure that the EXTERNAL POWER switch is set to BUS and the AVIONICS 1 and 2 switches are set to ON.
 - D. Push and hold the ENT key on the PFD2 and engage the PFD2 circuit breaker.
 - E. Release the PFD2 ENT key when the message that follows appears: **INITIALIZING SYSTEM**.
 - F. Push and hold the ENT key on the MFD and engage the MFD circuit breaker.
 - G. Release the MFD ENT key when the message that follows appears: **INITIALIZING SYSTEM**.
 - H. Install the 010-00330-55 SVS Unlock Card in the PFD1 top slot.
 - I. Push and hold the ENT key on the PFD1 display and engage the PFD1 circuit breaker.
 - J. Release the PFD1 ENT key when the message that follows appears: **INITIALIZING SYSTEM**.
 - K. Turn the small FMS knob on the PFD1 to go to the SYSTEM UPLOAD page. Push the small FMS knob to activate the cursor and turn the small FMS knob to highlight the CONFIGURATION FILE in the GROUP field.

NOTE: Do not use the DISABLE SVS function. Synthetic Vision Display is pilot controlled ON or OFF through the use of the soft key selection on the PFDs.
 - L. Push the ENT key.
 - M. Turn the small FMS knob to expand the drop down menu and highlight ENABLE SVS DUAL PFD in the ITEM field and push the ENT key of the PFD.
 - N. Push the LOAD soft key.
 - O. Monitor the status of the upload.
 - P. When the UPDATE COMPLETED dialog box appears, push the ENT key to acknowledge it.
 - Q. Do Steps 3K through 3P again if the summary field shows not completed. Do not cancel an upload before it successfully loads or fails. Wait until a successful load or fail shows in the summary field before you begin Steps 3K through 3P again.

NOTE: You can do Steps 3K through 3P up to a maximum of four times because of a failed or cancelled upload prompt message. If system does not upload after the fourth attempt, correct the hardware failure and start the configuration upload again. (Refer to Garmin Line Maintenance Manual, 190-00869-00 Revision C or latest revision.)
 - R. Push the UPDT CFG soft key, select YES, and then push the ENT key to update the PFD1 configuration module.
 - S. When the UPDATE CONFIG COMPLETE dialog box appears, push the ENT key to acknowledge it.
 - T. Put the EXTERNAL POWER and the AVIONICS 1 and 2 switches to the OFF position to remove power from the system.
 - U. Remove the SVS Unlock Card from the PFD1 top slot.
 - V. Keep the SVS Unlock Card in the blue aircraft software sleeve in the Pilot's Operating Handbook.
4. Remove external electrical power from the airplane.
5. Make sure that the airplane is outside the hangar with a clear view of the sky or inside a hangar with a global positioning system (GPS) repeater system.

NOTE: An insufficient GPS positional fix can negatively affect the integrity of the SVT display after it is enabled.

6. Make sure that you have done the SVT upload to the Garmin G1000 NXI Avionics system correctly as follows:
 - A. Put the BATTERY and the AVIONICS 1 and 2 switches to the ON position to apply power to the system and allow the system to power on in normal mode.
 - B. Push the ENT key on the MFD to clear the start up (splash) screen.
 - C. Push the "PFD Opt" soft key on the PFD1 display.
 - D. Make sure that SVT soft key shows on the PFD screen.
 - E. Push the SVT soft key.
 - F. Push the "TERRAIN" soft key.
 - G. Make sure that the "PATHWAYS", "HDG LBL", and "APT Sign" soft keys show activated on the SVT sub menu.
7. Do the SVT field of view activation as follows:
 - A. Turn the large FMS knob on the MFD to go to the MAP group.
 - B. Push the MENU key on the MFD.
 - C. Use the FMS knobs to highlight map settings.
 - D. Push the ENT key.
 - E. Turn the small FMS knob to expand the drop down menu and select MAP in the group field.
 - F. Push the ENT key.
 - G. Turn the large FMS knob to scroll through the map group options to the FIELD OF VIEW option.
 - H. Turn the small FMS knob to select ON in the FIELD OF VIEW option.
 - I. Push the small FMS knob to return to the navigation map page on the MFD.
8. Put the BATTERY and the AVIONICS 1 and 2 switches to the OFF position to remove power from the system.
9. Incorporate the applicable Garmin G1000 NXI Synthetic Vision Supplement to the POH.
10. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.
 - A. Make a copy of the logbook entry, fill out the Certification of Installation form that is included with the 010-00330-55 SVS Unlock Card, and send the completed form and copy of the logbook entry to Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277-7706. This step must be completed at the time of installation in order for the airplane to be eligible for subsequent SVS unlock card loss/replacement assistance.

NOTE: Textron Aviation recommends that compliance with all service documents is reported to a maintenance tracking system provider.

- Complete a record of compliance. (Maintenance Transaction Report, Log Book Entry, or other record of compliance.)
- Put a copy of the completed record of compliance in the airplane logbook.
- Send a copy of the completed record of compliance to the maintenance tracking system provider used.

MATERIAL INFORMATION

Order the part below to install this modification.

NOTE: The 010-00330-55 SVS Unlock Card is available from Cessna Customer Service at Telephone: 316-517-5800 or Fax: 316-517-7271. Orders should be placed by **completing and returning the attached** SVT Order Form.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
010-00330-55	1	SVS Unlock Card	None	
208BPHCUS-S4-02	As Necessary	Pilot's Operating Handbook And FAA Approved Airplane Flight Manual Cessna Model 208B 867 SHP - GARMIN G1000 Supplement S4 Garmin G1000 Synthetic Vision Technology (SVT)	N/A	
208BPHDUS-S4-02	As Necessary	Pilot's Operating Handbook And FAA Approved Airplane Flight Manual Cessna Model 208B 867 SHP - GARMIN G1000 With Fairing Supplement S4 Garmin G1000 Synthetic Vision Technology (SVT)	N/A	
208PHBUS-S21-04	As Necessary	Pilot's Operating Handbook And FAA Approved Airplane Flight Manual Cessna Model 208 675 SHP - GARMIN G1000 Supplement S1 Garmin G1000 Synthetic Vision Technology (SVT)	N/A	

* Please contact Textron Aviation Parts Distribution for current cost and availability of parts listed in this service document. Phone at 1-800-835-4000 (Domestic) or 1-316-517-5603 (International). Send email to: parts@txtav.com.

Based on availability and lead times, parts may require advanced scheduling.

CARAVAN MODEL 208/208B SVT FORM

PART NO. DESCRIPTION

010-00330-55 Synthetic Vision Technology Enablement SD Card for Model 208/208B (Includes the POH Supplement)

NOTE: SVT WILL BE FAA APPROVED AND MAY NOT BE IMMEDIATELY APPROVED FOR USE IN ALL INTERNATIONAL COUNTRIES/CAA JURISDICTIONS. (CALL CESSNA CUSTOMER SERVICE FOR CURRENT STATUS)

*THIS FORM MAY BE COMPLETED AND SUBMITTED BY A CESSNA CARAVAN OR PROPJET SERVICE STATION OR AN INDIVIDUAL AIRPLANE OWNER. Please complete the following:

Service Station Information:

Airplane Serial Number: _____
 Service Station Name: _____
 Contact Name: _____
 Shipping Address: _____
 City: _____ State: _____
 Postal Code: _____ Country: _____
 Phone Number: _____
 Fax Number: _____

Owner Information:

System ID Number: _____
 Owner/Company Name: _____
 Contact Name: _____
 Mailing Address: _____
 City: _____ State: _____
 Postal Code: _____ Country: _____
 Phone Number: _____
 Fax Number: _____

Payment Information:

NOTE: If paying by credit card, please contact your bank to make sure that the authorization for the transaction amount will clear PRIOR to submitting this form.

(Circle One) VISA, MasterCard, American Express Name on the Card: _____
 Card Number _____ Expiration Date: ____/____/____
 Cessna Customer Account Number: _____

Wire Transfer: Please submit order form prior to sending wire information. JP Morgan Chase Bank 1 Chase Manhattan Plaza New York, New York, 10081 USA. Account Number 910-1-209543, ABA Routing Number 0210-00021 Swift code Chasus33.

Customer Signature: _____ Date: ____/____/____

By signing this order form the customer agrees that, upon shipment to the customer, this purchase is non-refundable. Customer also understands that SVT will require compliance with a Cessna Service Bulletin and may only be installed by a Cessna Authorized Service Station.

Fax Number: (316) 517-7271
 Textron Aviation Inc.
 Dept. 751/P.O. Box 7706
 Wichita, Kansas 67277-7706
 Phone Number: (316) 517-5800

SPECIAL NOTE: Orders are shipped premium carrier within 3-5 business days. **All orders will be charged sales tax unless a copy of your tax exemption form is included with this order.

TITLE

NAVIGATION - GARMIN G1000 NXI SYNTHETIC VISION INSTALLATION

TO:

Cessna Model 208 and 208B Aircraft Owner

REASON

To provide enabling instructions for the Garmin G1000 NXI System's Synthetic Vision Technology (SVT) option (currently without Pathways functionality). Synthetic Vision Technology (SVT) provides a three-dimensional forward view of terrain, obstacle and traffic features on both PFDs and on the MFD in reversionary mode. The imagery shows the pilot's view of relevant features in relation to the aircraft altitude and attitude. Throughout this document, the Garmin Pilot Guide and Cockpit Reference Guide, SVT may also be referred to as Synthetic Vision System (SVS).

COMPLIANCE

OPTIONAL: This service document can be accomplished at the discretion of the owner.

LABOR HOURS**WORK PHASE**

Modification

LABOR-HOURS

As Required

MATERIAL AVAILABILITY

PART NUMBER	AVAILABILITY	COST
010-00330-55	*	*
208BPHCUS-S4-02	*	*
208BPHDUS-S4-02	*	*
208BPHBUS-S21-04	*	*

* Please contact Textron Aviation Parts Distribution for current cost and availability of parts listed in this service document. Phone at 1-800-835-4000 (Domestic) or 1-316-517-5603 (International). Send email to: parts@txtav.com.

Based on availability and lead times, parts may require advanced scheduling.

WARRANTY

None

NOTE: As a convenience, service documents are now available online to all our customers through a simple, free-of-charge registration process. If you would like to sign up, please visit the Customer Access link at www.txtavsupport.com to register.

February 08, 2022

CAB-34-09
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Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

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