

Revision Transmittal

February 8, 2022

TO: Cessna Distributors, Single Engine Authorized Service Facilities, and CPC's

SUBJECT: Service Bulletin CAB09-7 Revision 1, Garmin G1000 Synthetic Vision Installation For Airplanes Not Equipped With NXI

REASON FOR REVISION

Update EFFECTIVITY section

Minor editorial changes throughout the document.

Updates the Pilots Operating Handbooks required.

Removes pricing information from the attachment.

REQUIRED ACTION

Please replace any copy of CAB09-7 with the attached copy of CAB09-7 Revision 1, which is printed its entirety.

LOG OF EFFECTIVE PAGES

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Service Bulletin

February 8, 2022

CAB09-7
Revision 1

TITLE

GARMIN G1000 SYNTHETIC VISION INSTALLATION FOR AIRPLANES NOT EQUIPPED WITH NXI

EFFECTIVITY

The following airplanes equipped with the Garmin G1000 System:

<u>Model</u>	<u>Serial Numbers</u>
208	20800416, 20800500 thru 20800600
208B	208B1190, 208B1216, 208B2000 thru 208B2073, 208B2075 thru 208B2087, 208B2089 thru 208B2196, 208B2198 thru 208B5400

PURPOSE

To provide enabling instructions for the Garmin G1000 System's Synthetic Vision Technology (SVT) option (currently without Pathways functionality) for airplanes not equipped with NXI. 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: may be accomplished if desired.

NOTE: For 208 model airplanes with serial numbers 20800500 thru 20800513 and 208B model airplanes with serial numbers 208B1190, 208B1216, and 208B2000 thru 208B2118, Service Bulletin CAB09-6, Garmin G1000 System Software Upgrade to Version 767.04 shall be accomplished before installation of the SVT option.

APPROVAL

FAA approval has been obtained on technical data in this publication that affects airplane type design.

Original Issue: August 24, 2009

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To obtain satisfactory results, procedures specified in this publication must be accomplished in accordance with accepted methods and prevailing government regulations. Cessna Aircraft Company cannot be responsible for the quality of work performed in accomplishing the requirements of this publication.

Cessna Aircraft Company, Customer Service, P.O. Box 7706, Wichita, Kansas 67277, U.S.A. (316) 517-5800, Facsimile (316) 517-7271
www.cessnasupport.com

MAN-HOURS

Approximately 0.3 man-hour to do the enabling for SVT.

If necessary, approximately 0.5 man-hour to update the 010-00330-43 GDU Supplemental Database SD Cards for airplanes equipped with Chartview.

MATERIAL

The parts listed below are available from Textron Aviation Customer Service through an appropriate Textron Aviation Service Station

TABLE 1

Model	Serial Effectivity
208	20800500 thru 20800517
208B	208B1190, 208B1216, 208B2000 thru 208B2151

For the airplanes in TABLE 1, the following parts are available and can be ordered from Textron Aviation Customer Service by completing the attached Model 208/208B SVT Order Form.

*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.

<u>Part Number</u>	<u>Description</u>	<u>Qty/Airplane</u>
010-00330-43	GDU Supplemental Database SD Card	3
010-00330-55	SVS Unlock Card	1

See NOTE 1 below

TABLE 2

Model	Serial Effectivity
208	20800518 and On
208B	208B2152 and On

For the airplanes in TABLE 2, the following part is available and can be ordered from Textron Aviation Customer Service by completing the attached Model 208/208B SVT Order Form and sending it to the contact below:

<u>Part Number</u>	<u>Description</u>	<u>Qty/Airplane</u>
010-00330-55	SVS Unlock Card	1
See NOTE 1 below		

*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.

NOTE 1: In addition to the above parts, you must also have one of the Pilot's Operating Handbook supplements that follow as applicable:

NEW P/N	QUANTITY	DESCRIPTION
208PHBUS-S21-04	1	Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Cessna Model 208B G1000, Serials 20800416 and 20800500 and On Supplement S21 Garmin G1000 Synthetic Vision Technology (SVT)
208BPHBUS-S21-02	1	Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Cessna Model 208B G1000, non EX Supplement S21 Garmin G1000 Synthetic Vision Technology (SVT)
208BPHCUS-S4-02	1	Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Cessna Model 208B 867 SHP - G1000,EX Without Fairing Serials 208B2197 and 208B5000 and On Supplement S4 Garmin G1000 Synthetic Vision Technology (SVT)
208BPHDUS-S4-02	1	Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Cessna Model 208B 867 SHP - G1000, With Fairing Serials 208B2197 and 208B5000 and On Supplement S4 Garmin G1000 Synthetic Vision Technology (SVT)

ACCOMPLISHMENT INSTRUCTIONS

Change In Weight And Balance

Negligible

1. Connect external electrical power to the airplane.
 - A. For airplanes that will install SVT for the first time, go to Step 2.
 - B. For airplanes that have previously installed SVT and need to install it again, go to Step 3.
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 0767.04 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.

 - (1) If the software version is not 0767.04 or later, put the EXTERNAL POWER switch and the AVIONICS 1 and 2 switches to the off position, load the correct software per Cessna Service Bulletin CAB09-6, and then do Step 2 again.
 - (2) If the software version is 0767.04 or later, go to Step 2D.
 - 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. Put the EXTERNAL POWER switch and the AVIONICS 1 and 2 switches to the off position.
 - F. Make sure that you have the 190-00748-01 (or later) Cockpit Reference Guide.
3. Do the SVT option upload to the G1000 Avionics system as follows:
 - A. Remove the GDU Supplemental Database SD Cards from the bottom slots of the three flight displays.
 - B. If the GDU Supplemental Database SD Cards are not 010-00330-43 SD Cards, make sure that you have 010-00330-43 SD Cards ready for installation for the completion of this Service Bulletin.
 - C. If not done previously, connect external electrical power to the airplane.

NOTE: If you will replace the existing GDU Supplemental Database SD Cards with new 010-00330-43 SD Cards, you must update the new 010-00330-43 SD Cards with the latest database cycles from Garmin before you install them in the flight displays to make sure that no error messages will display. Also, if the airplane has Chartview by Jeppesen installed, the latest Jeppesen update will be necessary for you to continue to use Chartview.
 - D. Disengage the PFD1, PFD2, and MFD circuit breakers.
 - E. Make sure that the EXTERNAL POWER switch is set to BUS and the AVIONICS 1 and 2 switches are set to ON.
 - F. Push and hold the ENT key on the PFD2 and engage the PFD2 circuit breaker.

- G. Release the PFD2 ENT key when the message that follows appears: **INITIALIZING SYSTEM**.
- H. Push and hold the ENT key on the MFD and engage the MFD circuit breaker.
- I. Release the MFD ENT key when the message that follows appears: **INITIALIZING SYSTEM**.
- J. Install the 010-00330-55 SVS Unlock Card in the PFD1 top slot.
- K. Push and hold the ENT key on the PFD1 display and engage the PFD1 circuit breaker.
- L. Release the PFD1 ENT key when the message that follows appears: **INITIALIZING SYSTEM**.
- M. 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 AIRFRAME 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.
- N. Push the ENT key.
- O. Turn the small FMS knob to expand the drop down menu and highlight ENABLE SVS DUAL PFD in the FILE field and push the ENT key of the PFD.
- P. Push the LOAD soft key.
- Q. Monitor the status of the upload.
- R. When the UPDATE COMPLETED dialog box appears, push the ENT key to acknowledge it.
- S. Do Steps 3M through 3R again if the summary field shows NOT COMPETED. 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 3M through 3R again.

NOTE: You can do Steps 3M through 3R again for 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.)
- T. Push the UPDT CFG soft key, select YES, and then push the ENT key to update the PFD1 configuration module.
- U. Monitor the status of the configuration module update.
- V. When the UPDATE CONFIG COMPLETE dialog box appears, push the ENT key to acknowledge it.
- W. Put the EXTERNAL POWER and the AVIONICS 1 and 2 switches to the OFF position to remove power from the system.
- X. Remove the SVS Unlock Card from the PFD1 top slot.
- Y. Keep the SVS Unlock Card in the blue aircraft software sleeve in the Pilot's Operating Handbook.
- Z. Insert the three GDU Supplemental Database SD Cards into the bottom slots of the three flight displays. Make sure that they are 010-00330-43 GDU Supplemental Database SD Cards.

- 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 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 soft key on the PFD1 display.
 - D. Make sure that SYN VIS soft key shows on the PFD screen.
 - E. Push the SYN VIS soft key.
 - F. Push the SYN TERR soft key.

NOTE: If this is the first initialization (enablement) of the 010-00300-43 GDU Supplemental Database SD Card, it can take up to five minutes before SVT enables and shows on the screen.

- G. Make sure that the SYN TERR, HRZN HDG, and APTSIGNS 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. Turn the small FMS knob to highlight the MAP SETUP option.
 - 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 aviation 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. Make sure to incorporate the applicable Garmin G1000 Synthetic Vision Supplement to the POH.

10. Make a logbook entry stating compliance with this Service Bulletin. 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, Dept 751C, 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: This information shall be considered an amendment to the Cessna Manufacturer's Service/Maintenance Manual.

*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.

CREDIT

Not applicable

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ATTACHMENT

CARAVAN

MODEL 208/208B SVT ORDER FORM

CAB09-7

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)

010-00330-43* GDU Supplemental Database SD Cards (3 each per airplane)

*NOT REQUIRED FOR AIRPLANE SERIAL NUMBERS 20800518 and On and 208B2152 and On. THE 010-00330-43 GDU SUPPLEMENTAL DATABASE SD CARDS WERE FACTORY INSTALLED ON THOSE AIRPLANES. PRICE IS FOR 3 SD CARDS.

*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.

THIS FORM MAY BE COMPLETED AND SUBMITTED BY A TEXTRON AVIATION 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.

Owner Advisory

February 08, 2022

CAB09-7

Dear Cessna Owner:

This Owner Advisory is to inform you that Service Bulletin CAB09-7R1 has been issued to provide enabling instructions for the Garmin G1000 System Synthetic Vision (SVT) for airplanes not equipped with NXI, currently without Pathways functionality.

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.

Compliance is optional: may be accomplished if desired.

NOTE: For 208 model airplanes with serial numbers 20800500 thru 20800513 and 208B model airplanes with serial numbers 208B1190, 208B1216, and 208B2000 thru 208B2118, Cessna Service Bulletin CAB09-6, Garmin G1000 System Software Upgrade to Version 767.04 shall be accomplished before installation of the SVT option.

NOTE: SVT installation will require the completion and submittal of a Certification of Installation Form that is included with the 010-00330-55 SVS Unlock Card. In the event a replacement SVT unlock card is needed, it will be necessary that the Certification of Installation Form has been submitted to and on record at Cessna.

Garmin G1000 System SVT is obtained through the attached order form.

The information contained in the referenced Cessna Service Bulletin shall be considered an amendment to the Cessna Manufacturer's Service/Maintenance Manual.

Please contact a Cessna Caravan or Propjet Service Station for detailed information and arrange to have Cessna Service Bulletin CAB09-7 accomplished on your airplane.