

TITLE

NAVIGATION - G1000 NXI SOFTWARE UPDATE TO V2499.12

EFFECTIVITY

MODEL	SERIAL NUMBERS
208	20800651 thru 20800700
208B	208B5501 thru 208B5772

The equivalent of this service document has been incorporated on production airplanes 20800701 and On and 208B5773 and On.

REASON

To update the G1000 NXi software from v2499.08 or v2499.10 to v2499.12.

DESCRIPTION

This service document provides parts and instructions to upgrade the Garmin G1000 Software Version from 2449.08 or 2499.10 to 2449.12.

COMPLIANCE

RECOMMENDED. This service document should be accomplished at a scheduled maintenance period or inspection.

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.

August 06, 2024

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FLIGHT CREW OPERATIONS

No Changes

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 can be viewed by Textron Aviation Authorized Service Facilities by going to www.garmin.com:

Garmin G1000 NXi Integrated Avionics System Line Maintenance Manual, Part Number 190-02135-00 Rev 3 (or later)

NOTE: Make sure all publications used are complete and current.

PUBLICATIONS AFFECTED

None

ACCOMPLISHMENT INSTRUCTIONS

1. Make sure that the current software version is at least v2499.08.
2. Prepare the airplane for software update.
 - A. Make sure that the airplane is electrically grounded.
 - B. Make sure all switches are in the OFF/NORM position.
 - C. Connect external power.

CAUTION: Do not rely on the aircraft battery to load software. Do not use a battery charger as an external power source due to electrical noise it may inject in the G1000 system. Power loss during a software upgrade may cause an LRU to become corrupted and unresponsive requiring replacement. Remove power only when told to do so in the procedure.

3. Put all avionics and power switches to the ON position.
4. Put the displays into Config Mode.

NOTE: Putting the displays into Config Mode, the ENT softkey must be held while the displays are powering up.
5. On the PFD, turn the large FMS knob to go to the SYSTEM Page group. Turn the small FMS knob to go to the AIRCRAFT CONFIGURATION page and record the information in the Table 1.

Table 1

AIRCRAFT REGISTRATION	
ICAO ADDRESS	
ICAO REGION	
VFR CODE	

6. On the PFD1 or PFD2, turn the large FMS knob to the SYSTEM page. Turn the small FMS knob to the TRANSACTION LOG.

A. Record the options that are loaded.

NOTE: This recorded information will be used when loading options software after the Baseline Configuration is loaded. One quick method of recording the information is to take a picture.

NOTE: Table 2 represents applicable options available in the software loader card pull down menu. Use this table to help create a list of installed options in the aircraft by identifying the installed options. This information will be used again to confirm all options are loaded after the baseline software is loaded.

TABLE 2 CARAVAN INSTALLED OPTIONS

INSTALLED OPTIONS	208/208B AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	ARTEX ELT Configuration
	300 AMP Starter Gen. Configuration
	GWX-70 Weather Radar Configuration
	KR-87 ADF Configuration
	BETA Configuration
	Flight Stream 510 Configuration
	TRAFFIC/XPDR Configuration NOTE: Aircraft is equipped with a single GTX345 XPDR and a GTS825 TAS.
	SVT Enable Configuration NOTE: SVT Enablement configuration requires the 010-00330-55 SD Card that was provided with the aircraft as loose equipment at delivery.
	TAWS-B Configuration NOTE: TAWS-B Configuration requires the 010-00330-51 SD Card that was provided with the aircraft as loose equipment at delivery.
	Jeppesen Chartview Configuration NOTE: Jeppesen Chartview configuration requires the 010-00330-50 SD Card that was provided with the aircraft as loose equipment at delivery.
	Cessna 208B PT6A-140 – GIA 64/ GEA 71B
	Cessna 208 PT6A-114A – GIA 64/ GEA 71B
	Cessna 208B PT6A-140 – Default Fuel Calibration
	Cessna 208 PT6A-114A – Default Fuel Calibration
	Disable E-AFCS - Cessna 208 PT6A-114A
	Disable E-AFCS - Cessna 208B PT6A-140
	E-AFCS - Cessna 208 PT6A-114A
	E-AFCS - Cessna 208B PT6A-140
	FDR / CVR Installation Option
	GDL 69A SXM Installation Option

INSTALLED OPTIONS	208/208B AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	Gen/Alt Overheat Installation Option
	GSR 56 Installation Option
	GWX 75 Installation Option
	KRA 405B Installation Option
	NiCd Battery Installation Option
	TKS Installation Option
	TKS Low Profile Tank Installation Option
	WX 500 Installation Option
	ADF with Dual GMA 1360 Installation Option
	HF/COM3 with Dual GMA 1360 Installation Option
	GTX 345() Installation Option
	GTX 335 + GTX 335 Installation Option
	GTX 345() + GTX 335 Installation Option
	GTX 335 + GTS 825 Installation Option
	GTX 345() + GTS 825 Installation Option
	GTX 335 + GTX 335 + GTS 825 Installation Option
	GTX 345() + GTX 335 + GTS 825 Installation Option
	Prop Heat Installation Option NOTE: This option is only available for the Cessna Model 208.
	Enhanced SAR Enablement
	TD GCS Enablement
	E-AFCS Enablement
	SurfaceWatch Enablement
	TAWS-A Enablement
	Aux Video Enablement

7. Load the GDU (PFD1, MFD, and PFD2) software as follows:
- A. Put all avionics and power switches to the OFF position.
 - B. Pull the PFD1 and MFD Circuit Breakers.
 - C. If the FS510 Card is installed into the top slot of the MFD, remove and keep the FS510 Card from the top slot of the MFD.
NOTE: The FS510 Card will be installed after the G1000 Software has been loaded.
 - D. Install the 010-01666-12 G1000 Software SD Loader Card into the top slot of the PFD2 Display Unit.
 - E. Press and hold the ENT Button down on the PFD2 Display.
 - F. Put the avionics and power switches to the ON Position.
NOTE: The ENT Button may be released once INITIALIZING SYSTEM appears.

- G. Press YES to update system files and then press YES if prompted to update key region.
- H. After loading has completed, remove the 010-01666-12 G1000 Software SD Loader Card from the PFD2 Display.
- I. Install the 010-01666-12 G1000 Software SD Loader Card into the top slot of the MFD.
- J. Press and hold the ENT Button down on the MFD Display, and at the same time push the MFD Circuit Breaker.
- NOTE:** The ENT Button may be released once INITIALIZING SYSTEM appears.
- K. Press YES to update system files and then press YES if prompted to update key region.
- L. After loading has completed, remove the 010-01666-12 G1000 Software SD Loader Card from the MFD Display.
- M. Install the 010-01666-12 G1000 Software SD Loader Card into the top slot of the PFD1.
- N. Press and hold the ENT Button down on the PFD1 Display, and at the same time push the PFD1 Circuit Breaker.
- NOTE:** The ENT Button may be released once INITIALIZING SYSTEM appears.
- O. Press YES to update system files and then press YES if prompted to update key region.
8. Load the G1000 Baseline Software Load as follows:
- A. Using the FMS Knob and ENT Button on PFD1, scroll to the SYSTEM UPLOAD PAGE.
- B. On the GROUP FIELD, select the CARAVAN BASELINE LOADS.
- C. Select the appropriate ITEM to Load per the listed below.
- ITEM**
- Cessna 208B PT6A-140 - GIA 64/GEA 71B
 - Cessna 208 PT6A-114A - GIA 64/GEA 71B
- D. Press the LOAD Softkey.
- E. After the upload process, press the ENT Button.
- F. Press the UPDT CFG and ENT Softkeys to update the PFD1 CONFIG MODULE.
- G. Once the update process is completed, press the ENT Button.
9. Depending upon the options installed from Table 2 (or picture), make sure all items have been loaded. (Refer to the Garmin G1000 NXi Integrated Avionics System Line Maintenance Manual, Part Number 190-02135-00 Rev 3 (or later))
10. Configure the transponder as follows:
- A. On the PFD, turn the large FMS knob to go to the SYSTEM page group. Turn the small FMS knob to go to the AIRCRAFT CONFIGURATION page.
- B. Verify aircraft registration, ICAO address, ICAO REGION, and VFR code are correct in the AIRCRAFT CONFIGURATION window. Verify that GTX1 3x5 #1, GTX 335 #2, and GTS (if installed) are checked green in the LRU CONFIGURATION STATUS window. If all are correct, go to Step 13.
- C. Activate the cursor to highlight and enter the aircraft registration, ICAO address, and VFR code using the FMS knob. Press the ENT key after each entry.
- D. Press the SET GTX1 3x5 #1 Softkey, then select "OK".
- (1) Make sure GTX1 is checked green.
- E. Push the UPDATE CFG Soft Key.
- F. Push the ENT Key to select OK.

- G. (If Installed.) Press the SET GTX 335 # 2 softkey, then select "OK".
 - (1) Make sure GTS is checked green.
 - (2) Push the UPDATE CFG Soft Key.
 - (3) Push the ENT Key to select OK.
- H. (If Installed.) Press the SET GTS softkey, then select "OK".
 - (1) Make sure GTS is checked green.
 - (2) Push the UPDATE CFG Soft Key.
 - (3) Push the ENT Key to select OK.
- 11. Put all avionics and power switches to the OFF position.
- 12. Remove and keep the 010-01666-12 G1000 SD Loader Card from the PFD1 top SD slot.
- 13. Put all avionics and power switches to the ON position.
- 14. Do the system checks as follows:
 - A. Pull the PFD1, MFD, and the PFD2 Circuit Breakers.
 - B. Push and hold the CLR Button on the PFD2, then push in the PFD2 Circuit Breaker.
 - (1) Release the CLR Button once INITIALIZING SYSTEM appears.
 - (2) Push YES to clear user settings.
 - C. Repeat Step 16. B. (1) through Step 16. B. (2) for the MFD and PFD1 Displays.
 - D. Do the manifest configuration verification as follows:
 - (1) On the PFD, turn the large FMS knob to go to the SYSTEM group. Turn the small FMS knob to go to the MANIFEST CONFIGURATION page.
 - (2) Make sure that the software and version shown in TABLE 3 is shown in the SYSTEM field window at the top of the screen.

TABLE

MODEL	SOFTWARE PART NUMBER	FILE VERSION
208/208B	006-B2499-12	2499.12

- E. Pull the MFD, PFD1, and PFD 2 circuit breakers.
- F. If applicable, install the Electronic Checklist SD Card in the top slot on the MFD.
- G. Push in the MFD, PFD1, and PFD 2 circuit breakers.
- H. Make sure that no failure related G1000 NXI System messages, alerts, annunciations, or Red X's are shown on the MFD, PFD1, and PFD2 on the AUX-System Status page.

NOTE: GTX may show a red X if there is no GPS data. If hanger does not have a GPS repeater, move airplane outside for clear satellite reception.

NOTE: Reference the Garmin G1000 NXi Integrated Avionics System Line Maintenance Manual, Part Number 190-02135-00 Rev 3 (or later) for troubleshooting instructions.
- I. In the AUX > SYSTEM SETUP page, on the MFD, use the FMS knobs and ENT button to change the date/time format to UTC.

NOTE: For European registered aircraft, change the COMM Spacing to 8.33 KHZ.
- 15. Turn off avionics and electrical power.
- 16. Remove external electrical power.

17. (After this service bulletin is complete.) Remove, destroy, and discard the old Caravan G1000 NXI Installation Software SD Card v2499.08 from the sleeve in the Pilot's Operating Handbook (POH).
18. Put the 010-01666-12 Software Loader Card into the sleeve the POH.
19. Remove and discard the 190-02139-01 G1000 NXi Cockpit Reference Guide (CRG).
20. Install the 190-02139-02 Caravan G1000 NXI CRG.
21. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

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.

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
010-01666-12	1	G1000 Software Loader Card (Version 2499.12)	010-01666-08 010-01666-10	Discard old. Install new.
190-02139-02	1	Garmin G1000 NXi Cockpit Reference Guide (System Software Version 2499.12 or later)	190-02139-01	Discard old. Install new.

* Please contact your Regional Textron Aviation Parts Distribution Customer Support Team 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).

For more information, please visit the TAPD Support & Aftermarket Account Management website at <https://ww2.txtav.com/Parts/Promos/TAPD>.

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

TITLE

NAVIGATION - G1000 NXI SOFTWARE UPDATE TO V2499.12

TO:

Cessna Model 208 and 208B Aircraft Owner

REASON

To update the G1000 NXi software from v2499.08 or v2499.10 to v2499.12.

COMPLIANCE

RECOMMENDED. This service document should be accomplished at a scheduled maintenance period or inspection.

LABOR HOURS

WORK PHASE	LABOR-HOURS
Modification	4

MATERIAL AVAILABILITY

PART NUMBER	AVAILABILITY	COST
010-01666-12	*	*
190-02139-02	*	*

* Please contact your Regional Textron Aviation Parts Distribution Customer Support Team 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).

For more information, please visit the TAPD Support & Aftermarket Account Management website at <https://ww2.txtav.com/Parts/Promos/TAPD>.

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

WARRANTY

This service document is *recommended*. Eligible airplanes may qualify for parts and labor coverage to the extent noted in the *Labor Hours* and *Material Availability* sections of this document.

August 06, 2024

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This document contains technical data and is subject to U.S. export regulations. This information has been exported from the United States in accordance with export administration regulations. Diversion contrary to U.S. law is prohibited. ECCN: 9E991

Eligibility: Airplanes identified within the serial number effectivity of this service document must have active Airframe warranty coverage on the original issue date of this document and the coverage must be active on the day the work is accomplished.

Parts Coverage: Textron Aviation-owned and Textron Aviation-authorized Service Facilities, operators, or other maintenance facilities may submit a claim for the parts required to accomplish this service document as defined in the *Material Availability* section of this document.

Labor Coverage: Textron Aviation-owned and Textron Aviation-authorized Service Facilities rated to perform maintenance on the specific model of Cessna Aircraft may submit a claim for the labor necessary to accomplish this service document as defined in the *Labor Hours* section of this document.

Credit Application: After this service document has been accomplished, a claim must be submitted to Textron Aviation within 30 days of the service document completion. Claims for compliance of this service document are to be filed as a W4 type claim.

Please submit your claim form online at ww2.txtav.com/Parts or email the completed Textron Aviation Claim Form to warranty@txtav.com. If submitted on-line a Return Authorization will be provided. If a paper claim is submitted your claim will be entered into the system and a Return Authorization will be sent to you.

The Return Authorization must accompany any required return parts (see *Material Availability*), to the point of purchase.

Parts to be returned to Textron Aviation Parts Distribution should be forwarded to:

TEXTRON AVIATION PARTS DISTRIBUTION
WARRANTY ADMINISTRATION
BLDG P43 DOCK R5
7123 SW BLVD
Wichita, KS 67215

Expiration: August 06, 2026 (after this date the owner/operator assumes the responsibility for compliance costs)

Textron Aviation reserves the right to void continued airplane warranty coverage for the parts affected by this service document until the service document is accomplished.

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 support.txtav.com to register.