

## TITLE

NAVIGATION - GARMIN G5000 SOFTWARE UPDATE TO GARMIN 4.8, VERSION A2

## EFFECTIVITY

MODEL	SERIAL NUMBERS
680 (Citation Sovereign +)	-0501 thru -0600

**NOTE:** Textron Aviation-owned or Textron Aviation-authorized Service Centers are the only facilities that can complete this service document.

**NOTE:** Service Bulletin 680-34-31, Navigation - Garmin G5000 Software Update to Version 3.2, Revision 1 or later must be completed before or in conjunction with this service bulletin.

**NOTE:** Aircraft -0553 and On, have Garmin 3.2 Software already installed from the factory and it is not necessary to comply with Service Bulletin 680A-34-31, Navigation - Garmin G5000 Software Update to Version 3.2, Revision 1 or later.)

## EFFECTIVITY

## REASON

To update the Garmin G5000 avionics software to 4.8, Version A2.

## DESCRIPTION

This service document provides parts and instructions to update Garmin G5000 software to Garmin 4.8, Version A2 .

**NOTE:** This service bulletin will require the following software and enablement cards as necessary:

- Part Number - 010-00474-52 - Database SD Card (3 Required)
- Part Number - 010-01249-A2 - Garmin 4.8 Version A2 Software Base Loader Card
- Part Number - 010-00330-ED - ACARS Enablement Card - If option was installed (new)
- Part Number - 010-00330-FA - CPDLC Enablement Card, if option was installed (new)
- Part Number - 010-00330-5K - SurfaceWatch Enablement Card, if option was installed (new)
- Part Number - 8931507-33 - Cessna G5000 Default Pilot Profile Card
- Part Number - 8945503-21 - CMC Viewer Card
- Part Number - 8945504-17 - CMC Configuration Card
- Part Number - 6908901-5 - ARES Configuration File

## COMPLIANCE

MANDATORY. This service document must be accomplished within 2 years from the date of receipt.

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.

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- 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.

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

**FLIGHT CREW OPERATIONS**

Refer to the attached *Flight Crew Operations Summary*.

**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 680 Maintenance Manual

Citation Standard Practices Manual

**PUBLICATIONS AFFECTED**

Cessna Model 680 (0501 & On) Wiring Diagram Manual

Cessna Model 680 (Sovereign+) Airplane Flight Manual (0501 and On) (68FMA)

**ACCOMPLISHMENT INSTRUCTIONS**

1. Make sure the aircraft batteries are connected.
2. Connect external electrical power to the aircraft.
3. If necessary, adjust the power unit to 28 VDC ( $\pm .05$ ) VDC.
4. Push and release the L AVN and the R AVN switch on the left switch panel to the ON position.
5. Push and release the EXT PWR switch to the ON position.
6. Push and release the L BATT and R BATT switches to the ON position.
7. Make sure that the BUS TIE switch on the left switch panel shows CLOSED.
8. Make sure that the L ELEC and the R ELEC switch on the left switch panel show NORM.

9. Record the Settings and Options that are currently installed.

**NOTE:** Make sure that the G5000 system is powered up, initialized, and in Normal mode.

- A. Record the empty weight value as follows:

- (1) On the pilot's right Garmin Touch Controller (GTC), do as follows:
  - (a) Push and release Home.
  - (b) Push and release PERF.
  - (c) Push and release Weight and Fuel.
  - (d) Record the airplane's Basic Empty Weight and Crew & Stores weight.

Weight Category	Weight (Indicated by the GTC)
Basic Empty Weight (Aircraft)	
Crew and Stores Weight	

- B. Find the Options that are currently installed as follows:

- (1) Record Installed Options as follows:

- (a) GDR66 (FK632A- VHF Datalink (Datalink/COMM 3)).

- 1 On the Home screen of either MFD GTC 570, touch the AUDIO and RADIOS tab.
- 2 On the AUDIO & RADIOS screen of either MFD GTC 570, if the COM3 or Datalink controls are shown, mark YES. Otherwise mark NO on the Table below.

**NOTE:** The GDR66 datalink will appear as COM3 with frequencies or as Datalink as shown on the right side.

- (b) Single HF (FK632B- Single HF (Full UP)).

- 1 On the Home screen of either MFD GTC 570, touch the AUDIO and RADIOS tab.
- 2 On the AUDIO & RADIOS screen of either MFD GTC 570, if the HF1 is shown, mark YES. Otherwise mark NO on the Table below.

- (c) Dual HF (FK632K - Second HF (Full Up)).

- 1 On the Home screen of either MFD GTC 570, touch the AUDIO and RADIOS tab.
- 2 On the AUDIO & RADIOS screen of either MFD GTC 570, if the HF 2 is shown, mark YES. Otherwise mark NO on the Table below.

- (d) ADF (FK658A - ADF).

- 1 If ADF controls are shown on the AUDIO & RADIOS screen of either MFD GTC 570, mark YES. Otherwise mark NO on the Table below.

- (e) GDL69 (FK632L- SiriusXM (Weather/Music)).

- 1 On the Home screen of either MFD GTC 570, touch the Weather button.
- 2 Touch Weather Selection.
- 3 If a SiriusXM Settings button is shown, mark YES. Otherwise mark NO on the Table below.

- (f) WX-500 Stormscope (FK629R- Lightning Detect).
- 1 On the Home screen of either MFD GTC 570, touch the Services button (if applicable).
  - 2 On the Services page, if the Stormscope button is show, mark YES. Otherwise mark NO on the Table below.
- (g) Extended Range Oxygen (FK66K- Extended Range Oxygen).
- 1 From the Home screen of the MFD GTC 570, touch the Aircraft Systems button.
  - 2 Select the Summary button.
  - 3 If two oxygen pressure gauges are shown, then the extended range option is installed.
- (h) GSR56 (FK676A - Iridium (Voice/Datalink)).
- 1 On the Home screen of either MFD GTC 570, touch the Services button (if applicable).
  - 2 On the Services page, if the Telephone button is shown, mark YES. Otherwise mark NO on the Table below.
- (i) ACARS (FK632X-ACARS).
- 1 On the Home screen of either MFD GTC 570, touch the Services button (if applicable).
  - 2 On the Services page, if the ACARS button is displayed, mark YES. Otherwise mark NO on the Table below.
- (j) CPDLC (FK677A-VHF DataLink (CPDLC/Link 2000+))
- 1 On the Home screen of either MFD GTC 570, if the CPDLC button is displayed, mark YES. Otherwise mark NO on the Table below.

Option Description	Yes	No
FK66K- Extended Range Oxygen		
FK629R- Lightning Detect		
FK632A- VHF Datalink (Datalink/COMM 3)		
FK632B- Single HF (Full UP)		
FK632K - Second HF (Full Up)		
FK632L - Sirius XM (Weather/Music)		
FK658A - ADF		
FK676A - Iridium (Voice/Datalink)		
FK677A-VHF DataLink (CPDLC/Link 2000+)		
Enable SurfaceWatch		
FK632X - ACARS - ARINC Direct ( <b>NOTE 1</b> )		
FK632X - ACARS - Honeywell GDC ( <b>NOTE 1</b> )		

**NOTE 1:** These two options use the same SD Card. There can be only one of the two options installed.

10. Remove all the SD cards from the top and bottom slots of the L Primary Flight Display (PFD), Multifunction Display (MFD) and R PFD.  
**NOTE:** Textron Aviation provided the SD cards in a blue software pouch that was included as loose equipment at the time of aircraft delivery.
11. Discard the SD cards that follow:
  - 010-00474-44 - Database SD Card (3 ea.)
  - 010-01249-58 Garmin V3.2 Base Software Card (if applicable)
  - 010-01249-59 Garmin V3.2 Base Software Card (if applicable)
  - 010-00330-F0 CPDLC Enablement Card - if option was installed
  - 010-00330-5E SurfaceWatch Enablement Card - if option was installed
  - 010-00330-E6 - ACARS Enablement Card - if option is installed
  - 010-00330-G7 - Steep Approach Enablement Card
  - 010-01497-00 - PERF Database Card
  - 010-03719-00 - TOLD Database Card
  - 8931507-29 - Cessna G5000 Default Pilot Profile Card
  - 8945503-9 - CMC Maintenance Card (if applicable)
  - 8945503-13 - CMC Maintenance Card (if applicable)
  - 8945503-17 - CMC Maintenance Card (if applicable)
  - 8945504-5 - CMC Configuration Card (if applicable)
  - 8945504-9 - CMC Configuration Card (if applicable)
  - 8945504-13 - CMC Configuration Card (If applicable)
12. Make sure the cards that follow are available before the software is installed:
  - 010-00474-52 - Database SD Card (3 required) (new)
  - 010-01249-A2 - Garmin 4.8, Version A2 Software Base Loader Card (new)
  - 010-00330-ED - ACARS Enablement Card - if option was installed (new)
  - 010-00330-FA - CPDLC Enablement Card - if the option was installed (new)
  - 010-00330-5K - SurfaceWatch Enablement Card - if option was installed (new)
  - 8945503-21 - CMC Viewer Card (new)
  - 8931507-33 - Cessna G5000 Default Pilot Profile Card (new)
  - 8945504-17 - CMC Configuration Card (new)
13. Prepare the airplane for maintenance.
  - A. Make sure that the airplane is electrically grounded.
  - B. Make sure that all switches are in the OFF/NORM position.
  - C. Disconnect electrical power from the airplane.
    - (1) Disconnect the airplane battery.
    - (2) Disconnect external electrical power.
  - D. Attach maintenance warning tags to the batteries and external power receptacle that have **"DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS"** written on them.
14. (Refer to Figure 1, Sheets 1 and 2.) Do the electrical wiring modifications per wiring diagrams.
15. Remove the maintenance warning tags and connect the airplane batteries.
16. Load the Garmin 4.8 G5000 Integrated Avionics System Base Software (Version A2) with the 010-01249-A2 Base Software Card as follows:
  - A. Put the G5000 system in configuration mode as follows:
    - (1) Disengage the circuit breakers (CB) that follow:
      - L PFD GTC (Left CB Panel - E4)
      - MFD L GTC (Left CB Panel - N3)
      - MFD R GTC (Right CB Panel - MM4)
      - R PFD GTC (Right CB Panel - NN4)

- (2) Turn the L PFD, MFD, and R PFD dimmer knob to the OFF position.
- (3) Connect external electrical power to the aircraft.
- (4) If necessary, adjust the power unit to 28 VDC ( $\pm .05$ ) VDC.
- (5) Push and release the L AVN and the R AVN switch on the left switch panel to the ON position.
- (6) Push and release the EXT PWR switch to the ON position.
- (7) Push and release the L BATT and R BATT switches to the ON position.
- (8) Make sure that the BUS TIE switch on the left switch panel shows CLOSED.
- (9) Make sure that the L ELEC and the R ELEC switch on the left switch panel show NORM.
- (10) Put the 010-01249-A2 Garmin 4.8, Version A2 Software Base Loader Card into the upper slot of R PFD.
- (11) Make sure the L PFD, MFD, R PFD and the Garmin Touch Controllers (GTC) are not on.
- (12) Push and hold the right knob on the pilot's left GTC and engage the L PFD GTC circuit breaker (E4).
  - (a) Release the right knob on the pilot's left GTC when you see INITIALIZING on the GTC screen.
- (13) Push and hold the right knob on the pilot's right GTC and engage the MFD L GTC circuit breaker (N3).
  - (a) Release the right knob on the pilot's right GTC when you see INITIALIZING on the GTC screen.
- (14) Push and hold the right knob on the copilot's left GTC and engage the MFD R GTC circuit breaker (MM4).
  - (a) Release the right knob on the copilot's left GTC when you see INITIALIZING on the GTC screen.
- (15) Push and hold the right knob on the copilot's right GTC and engage the R PFD GTC circuit breaker (NN4).
  - (a) Release the right knob on the copilot's right GTC when you see INITIALIZING on the GTC screen.
- (16) After initialization of the GTCs, make sure all GTCs show the CONFIG MODE screen.
- (17) Turn the R PFD dimmer knob clockwise to the full bright position.
- (18) After the initialization of the R PFD, make sure the INITIALIZING SYSTEM message shows in the top left corner of the R PFD.

**NOTE:** The R PFD will automatically start to load the software. The MFD may reboot after the software load is complete.
- (19) When the software load is complete, the SYSTEM STATUS page will show at the top of R PFD.
- (20) Remove the 010-01249-A2 Garmin 4.8, Version A2 Software Base Loader Card from the upper slot of the R PFD.
- (21) Put the 010-01249-A2 Garmin 4.8, Version A2 Software Base Loader Card into the upper slot of the MFD.
- (22) Turn the MFD dimmer knob to the ON position to power the display on.

- (23) After the initialization of the MFD, make sure the INITIALIZING SYSTEM message shows in the top left corner of the MFD.

**NOTE:** The MFD will automatically start to load the software. The MFD may reboot after the software load is complete.

- (24) When the software load is complete, the SYSTEM STATUS page will show at the top of MFD.

- (25) Remove the 010-01249-A2 Garmin 4.8, Version A2 Software Base Loader Card from the upper slot of the MFD.

- (26) Put the 010-01249-A2 Garmin 4.8, Version A2 Software Base Loader Card into the upper slot of the L PFD.

- (27) Turn the L PFD-GTC DIM knob to the ON position to power the display on.

- (28) After the initialization of the L PFD, make sure the INITIALIZING SYSTEM message shows in the top left corner of the L PFD.

**NOTE:** The L PFD will automatically start to load the software. The MFD may reboot after the software load is complete.

- (29) When the software load is complete, the SYSTEM UPLOAD page will show at the top of L PFD.

B. Do Software and Configuration Loading as follows:

**CAUTION:** The three GDU displays and four GTC touch controllers must be in configuration mode when Garmin G5000 software and configurations are being loaded. Otherwise, the incorrect loading of data will result.

- (1) Push and release the GDU Controls button on the pilot's side GTC Home (Config Mode) screen and make sure the L PFD is selected.
- (2) Push and release the right knob on the pilot's right GTC to activate the cursor.
- (3) Turn the right inner knob on the pilot's right GTC, to drop the menu down and highlight 'Model 680 Base Configuration' in the GROUP field.
- (4) Push and release Enter on the GTC.
- (5) Turn the right inner knob on the pilot's right GTC, to drop the menu down and highlight 'Model 680 Base' in the ITEM field.
- (6) Push and release Enter on the GTC.

**NOTE:** In the PRODUCT window, the LRU's will be listed.

- (7) Using the Left and Right arrows on the pilot's right GTC, highlight CHK ALL at the bottom of the display.
- (8) Push and release, the Select icon on the GTC.
- (9) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
- (10) Push and release the Select icon on the GTC.

**NOTE:** Each of the GTC's will reboot and verification messages will show as each GTC is loaded. Wait until the Software load is complete and the 'Upload and Crossfill Complete' message is shown.

**NOTE:** A full software load will take approximately 6.0 hours.

- (11) Push and release GDU Controls on the pilot's right GTC Home (Config Mode) screen.
- (12) Make sure that L PFD is selected on the GTC to control the pilot's PFD.
- (13) Push and release Enter when the 'Upload and Crossfill Complete' message is shown.

- (14) Using the Left and Right arrows on the pilot's right GTC, highlight UPDT CFG at the bottom of the display.
- (15) Push and release the Select icon on the GTC.  
**NOTE:** The 'Update Configuration Module?' window will show on the PFD.
- (16) Using the Left and Right arrows on the pilot's right GTC, highlight Yes.
- (17) Push and release Enter on the GTC.
- (18) Push and release Enter when all the loading is complete to acknowledge the 'Update Config Complete' window.

C. Do the Transaction Log Verification as follows:

- (1) Push and release the right knob on the pilot's right GTC to activate the cursor.
- (2) Turn the right inner knob on the pilot's right GTC, to the right until the TRANSACTION LOG screen shows.
- (3) Make sure the transaction log shows the following:
  - (a) LOADER IMAGE shows '006-B1590-A2'.
  - (b) GROUP shows 'Model 680 Base Configuration'.
  - (c) ITEM shows 'Model 680 Base'.
  - (d) STATUS shows PASS (in green).
- (4) Turn the right inner knob on the pilot's right GTC, to the left until the SYSTEM UPLOAD screen shows.

D. Load Necessary Options as follows:

**NOTE:** This section will give the steps required to load the options that were previously installed.

- (1) Load the Extended Range Oxygen (FK66K - Extended Range Oxygen) option as follows:  
**NOTE:** If this is the first option to be loaded, start at Step 16.D.(1) (a). Otherwise, start at Step 16.D.(1) (b).
  - (a) If this is the first option to be loaded, do as follows:
    - 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
    - 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
    - 3 Push and release Enter on the GTC. Go to Step 16.D.(1).(b).
  - (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.
  - (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK66K - Extended Range Oxygen' in the ITEM field.
  - (d) Push and release Enter on the GTC.
  - (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
  - (f) Push and release the Select icon on the GTC.
  - (g) Monitor the configuration load.
    - 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (2) Load the WX-500 Stormscope (FK629R- Lightning Detection) option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(2) (a). Otherwise, start at Step 16.D.(2) (b).

- (a) If this is the first option to be loaded, do as follows:

- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
- 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
- 3 Push and release Enter on the GTC. Go to Step 16.D.(2).(b).

- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.
- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK629R - Lightning Detection' in the ITEM field.
- (d) Push and release Enter on the GTC.
- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
- (f) Push and release the Select icon on the GTC.
- (g) Monitor the configuration load.
- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (3) Load the GDR66 (FK632A- VHF Datalink (Datalink/COMM 3)), option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(3) (a). Otherwise, start at Step 16.D.(3) (b).

- (a) If this is the first option to be loaded, do as follows:

- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
- 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
- 3 Push and release Enter on the GTC. Go to Step 16.D.(3) (b).

- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.
- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK632A- VHF Datalink (Datalink/ COMM 3)' in the ITEM field.
- (d) Push and release Enter on the GTC.
- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
- (f) Push and release the Select icon on the GTC.
- (g) Monitor the configuration load.
- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (4) Load the Single HF (FK632B- Single HF (Full Up)), option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(4) (a). Otherwise, start at Step 16.D.(4) (b).

- (a) If this is the first option to be loaded, do as follows:
- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
  - 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
  - 3 Push and release Enter on the GTC. Go to Step 16.D.(4) (b).
- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.
- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK632B- Single HF (Full Up)' in the ITEM field.
- (d) Push and release Enter on the GTC.
- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
- (f) Push and release the Select icon on the GTC.
- (g) Monitor the configuration load.
- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

**CAUTION:** The Dual HF (FK632D- Second HF (Full Up)) option loading only loads for the second HF. If the airplane is equipped with the dual HF option, then both the Single HF (FK632B- Single HF (Full Up)) and Dual HF (FK632D- Second HF (Full Up)) option must be loaded otherwise the single HF system will not operate correctly.

- (5) Load the Dual HF Option (FK632D- Second HF (Full Up)) option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(5) (a). Otherwise, start at Step 16.D.(5) (b).

- (a) If this is the first option to be loaded, do as follows:
- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
  - 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
  - 3 Push and release Enter on the GTC. Go to Step 16.D.(5) (b).
- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.
- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK632D- Second HF (Full Up)' in the ITEM field.
- (d) Push and release Enter on the GTC.
- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
- (f) Push and release the Select icon on the GTC.
- (g) Monitor the configuration load.
- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (6) Load the GDL69 Option (FK632L- Legacy Sirius XM (011-00987-00) option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(6) (a). Otherwise, start at Step 16.D.(6) (b).

**NOTE:** Make sure that to know the part number of the installed Datalink unit, before you continue with the software loading procedures.

- (a) If this is the first option to be loaded, do as follows:

- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
- 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
- 3 Push and release Enter on the GTC. Go to Step 16.D.(6) (b).

- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.

- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK632L- Legacy Sirius XM (011-00987-00)' in the ITEM field.

- (d) Push and release Enter on the GTC.

- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.

- (f) Push and release the Select icon on the GTC.

- (g) Monitor the configuration load.

- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (7) Load the GDL69 Option (FK632L- Sirius SXM (011-03177-10/-15) option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(7) (a). Otherwise, start at Step 16.D.(7) (b).

**NOTE:** Make sure that to know the part number of the installed Datalink unit, before you continue with the software loading procedures.

- (a) If this is the first option to be loaded, do as follows:

- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
- 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
- 3 Push and release Enter on the GTC. Go to Step 16.D.(7) (b).

- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.

- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK632L- Sirius SXM (011-03177-10/-15)' in the ITEM field.

- (d) Push and release Enter on the GTC.

- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.

- (f) Push and release the Select icon on the GTC.

- (g) Monitor the configuration load.

- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (8) Load the ADF Option (FK658A- ADF) option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(8) (a). Otherwise, start at Step 16.D.(8) (b).

- (a) If this is the first option to be loaded, do as follows:
- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
  - 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
  - 3 Push and release Enter on the GTC. Go to Step 16.D.(8) (b).
- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.
- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK658A- ADF' in the ITEM field.
- (d) Push and release Enter on the GTC.
- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
- (f) Push and release the Select icon on the GTC.
- (g) Monitor the configuration load.
- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (9) Load the GSR56 2(FK676A- Iridium Voice/Datalink) option as follows:

**NOTE:** If this is the first option to be loaded, start at Step 16.D.(9) (a). Otherwise, start at Step 16.D.(9) (b).

- (a) If this is the first option to be loaded, do as follows:
- 1 Push and release the right knob on the pilot's right GTC to activate the cursor.
  - 2 Turn the right inner knob on the pilot's right GTC to the right to drop the menu down and highlight 'Options' in the GROUP field.
  - 3 Push and release Enter on the GTC. Go to Step 16.D.(9) (b).
- (b) Turn the right outer knob on the pilot's right GTC to the right until the cursor is in the ITEM field.
- (c) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'FK676A - Iridium Voice/Datalink' in the ITEM field.
- (d) Push and release Enter on the GTC.
- (e) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
- (f) Push and release the Select icon on the GTC.
- (g) Monitor the configuration load.
- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (10) Load the CPDLC (FK677A-VHF Datalink (CPDLC/Link 2000+)) option as follows:

**NOTE:** If this is the first option to be loaded with an enablement SD card, start at Step 16.D.(10)(a). Otherwise, start at Step 16.D.(10)(b).

- (a) If this is the first option to be loaded with an enablement SD card, do as follows:

- 1 Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
- 2 If installed, remove the Software Loader SD card (part number: 010-01249-A2) from the upper slot of the L PFD.

- (b) Put the CPDLC Enablement SD card (part number: 010-00330-FA) into the upper slot of the L PFD.

- (c) Turn the outer knob of the L PFD-GTC DIM knob to the ON position

**NOTE:** The L PFD will start in configuration mode.

**NOTE:** SYSTEM UPLOAD will show at the top of the screen.

- (d) Push and release the right knob on the pilot's right GTC to activate the cursor

- (e) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'Enable\_CP DLC' in the GROUP field.

- (f) Push and release Enter on the GTC.

- (g) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'Enable VHF Datalink (CPDLC/Link 2000+)' in the ITEM field.

- (h) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.

- (i) Push and release the Select icon on the GTC.

- (j) Monitor the configuration load.

- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (k) Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.

- (l) Remove the CPDLC Enablement SD card (part number: 010-00330-FA) from the upper slot of the L PFD.

- (11) Load the SurfaceWatch (FK614A - SurfaceWatch) option as follows:

**NOTE:** If this is the first option to be loaded with an enablement SD card, start at Step 16.D.(11)(a). Otherwise, start at Step 16.D.(11)(b).

- (a) If this is the first option to be loaded with an enablement SD card, do as follows:

- 1 Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
- 2 If installed, remove the Software Loader SD card (part number: 010-01249-A2) from the upper slot of the L PFD.

- (b) Put the SurfaceWatch Enablement SD card (part number: 010-00330-5K) into the upper slot of the L PFD.

- (c) Turn the outer knob of the L PFD-GTC DIM knob to the ON position

**NOTE:** The L PFD will start in configuration mode.

**NOTE:** SYSTEM UPLOAD will show at the top of the screen.

- (d) Push and release the right knob on the pilot's right GTC to activate the cursor

- (e) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'Enable\_SurfaceWatch' in the GROUP field.
  - (f) Push and release Enter on the GTC.
  - (g) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'Enable SurfaceWatch' in the ITEM field.
  - (h) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
  - (i) Push and release the Select icon on the GTC.
  - (j) Monitor the configuration load.
    - 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.
  - (k) Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
  - (l) Remove the SurfaceWatch Enablement SD card (part number: 010-00330-5K from the upper slot of the L PFD.
- (12) If applicable, load the ARINC Direct ACARS (FK632Y-ACARS-ARINC Direct) option as follows:
- NOTE:** If this is the first option to be loaded with an enablement SD card, start at Step 16.D.(12)(a). Otherwise, start at Step 16.D.(12)(b).
- (a) If this is the first option to be loaded with an enablement SD card, do as follows:
    - 1 Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
    - 2 If installed, remove the Software Loader SD card (part number: 010-01249-A2) from the upper slot of the L PFD.
  - (b) Put the ACARS Application Enablement SD card (part number: 010-00330-ED) into the upper slot of the L PFD.
  - (c) Turn the outer knob of the L PFD-GTC DIM knob to the ON position

**NOTE:** The L PFD will start in configuration mode.  
**NOTE:** SYSTEM UPLOAD will show at the top of the screen.
  - (d) Push and release the right knob on the pilot's right GTC to activate the cursor
  - (e) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'Enable\_ACARS' in the GROUP field.
  - (f) Push and release Enter on the GTC.
  - (g) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'ACARS - ARINC DIRECT' in the ITEM field.
  - (h) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
  - (i) Push and release the Select icon on the GTC.
  - (j) Monitor the configuration load.
    - 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.
  - (k) Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
  - (l) Remove the ACARS Application Enablement SD card (part number: 010-00330-ED) from the upper slot of the L PFD.

- (13) If applicable, load the Honeywell GDC ACARS (FK632Y-ACARS-Honeywell GDC) option as follows:

**NOTE:** If this is the first option to be loaded with an enablement SD card, start at Step 16.D.(13)(a). Otherwise, start at Step 16.D.(13)(b).

- (a) If this is the first option to be loaded with an enablement SD card, do as follows:

- 1 Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
- 2 If installed, remove the Software Loader SD card (part number: 010-01249-A2) from the upper slot of the L PFD.

- (b) Put the ACARS Application Enablement SD card (part number: 010-00330-ED) into the upper slot of the L PFD.

- (c) Turn the outer knob of the L PFD-GTC DIM knob to the ON position

**NOTE:** The L PFD will start in configuration mode.

**NOTE:** SYSTEM UPLOAD will show at the top of the screen.

- (d) Push and release the right knob on the pilot's right GTC to activate the cursor

- (e) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'Enable\_ACARS' in the GROUP field.

- (f) Push and release Enter on the GTC.

- (g) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'ACARS - Honeywell GDC' in the ITEM field.

- (h) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.

- (i) Push and release the Select icon on the GTC.

- (j) Monitor the configuration load.

- 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (k) Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.

- (l) Remove the ACARS Application Enablement SD card (part number: 010-00330-ED) from the upper slot of the L PFD.

- (14) If applicable, load the Satcom Direct ACARS (FK632Y-ACARS-Satcom Direct) option as follows:

**NOTE:** If this is the first option to be loaded with an enablement SD card, start at Step 16.D.(14)(a). Otherwise, start at Step 16.D.(14)(b).

- (a) If this is the first option to be loaded with an enablement SD card, do as follows:

- 1 Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
- 2 If installed, remove the Software Loader SD card (part number: 010-01249-A2) from the upper slot of the L PFD.

- (b) Put the ACARS Application Enablement SD card (part number: 010-00330-ED) into the upper slot of the L PFD.

- (c) Turn the outer knob of the L PFD-GTC DIM knob to the ON position

**NOTE:** The L PFD will start in configuration mode.

**NOTE:** SYSTEM UPLOAD will show at the top of the screen.

- (d) Push and release the right knob on the pilot's right GTC to activate the cursor

- (e) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'Enable\_ACARS' in the GROUP field.
  - (f) Push and release Enter on the GTC.
  - (g) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight 'ACARS - Satcom Direct' in the ITEM field.
  - (h) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
  - (i) Push and release the Select icon on the GTC.
  - (j) Monitor the configuration load.
    - 1 Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.
  - (k) Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
  - (l) Remove the ACARS Application Enablement SD card (part number: 010-00330-ED) from the upper slot of the L PFD.
- E. Do the CMC Diagnostic Configuration Upload as follows:
- (1) If the L PFD is still powered on after doing the option loading, do as follows:
    - (a) Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.
    - (b) If installed, remove the Software Loader SD card (part number: 010-01249-A2) from the upper slot of the L PFD.
  - (2) Put the CMC Configuration SD card (part number: 8945504-17) into the upper slot of the L PFD.
  - (3) Turn the outer knob of the L PFD-GTC DIM knob to the ON position  
**NOTE:** The L PFD will start in configuration mode.  
**NOTE:** SYSTEM UPLOAD will show at the top of the screen.
  - (4) Push and release right knob on the pilot's right GTC to activate the cursor.  
**NOTE:** The cursor will flash in the GROUP field
  - (5) Turn the right inner knob on the pilot's right GTC, to drop the menu down and highlight '680 CMC Config' in the GROUP field.
  - (6) Push and release Enter on the GTC.  
**NOTE:** The cursor will move to the ITEM field.
  - (7) Turn the right inner knob on the pilot's right GTC, to drop the menu down and highlight '8945504-17 v4.50' in the ITEM field.
  - (8) Push and release Enter on the GTC.
  - (9) Using the Left and Right arrows on the pilot's right GTC, highlight LOAD at the bottom of the display.
  - (10) Push and release the Select icon on the GTC.
  - (11) Make sure the DETECTED NEW LOG CONFIG window is displayed.
  - (12) Using the Left and Right arrows on the pilot's right GTC, highlight DELETE at the bottom of the display
  - (13) Push and release, the Select icon on the GTC.

- (14) Monitor the configuration load.

**NOTE:** As the load is in process, the card copy line will appear and check itself. It will load itself.

- (a) Push and release Enter when the loading is complete to acknowledge the 'Upload and Crossfill Complete' window.

- (15) Make sure that the CMC Diagnostic Configuration upload was successful as follows:

- (a) Push and release right knob on the pilot's right GTC to deactivate the cursor.  
 (b) Turn the right inner knob on the pilot's right GTC until the TRANSACTION LOG screen shows.

- 1 Make sure that the top of the LOADER IMAGE column shows 'Card-dbbd'.
- 2 Make sure that the top of the GROUP column shows 'Model 680 CMC Config'.
- 3 Make sure that the top of the ITEM column shows '8945504-17 v4.50'.
- 4 Make sure that the top of the STATUS column shows 'NO TRANS ID' in white.
- 5 Make sure that there are no amber or red items in the STATUS column.

a If there are any amber or red items in the STATUS column, please contact Team 680 at 316-517-1695 or team680@txtav.com.

- (c) Using the Left and Right arrows on the pilot's right GTC, highlight DETAIL at the bottom of the display.  
 (d) Push and release, the Select icon on the GTC.  
 (e) Push and release right knob on the pilot's right GTC to activate the cursor.  
 (f) Turn the right inner knob on the pilot's right GTC to drop the menu down and highlight '8945504-17 v4.50'.  
 (g) Push and release Enter on the GTC to expand the entry for '8945504-17 v4.50'.  
 (h) Record the value shown in the TRANSACTION ID column next to each line in table below.
- Logging
  - Phase of Flight Blobs
  - OEM Alerts
  - OEM Blobs

**NOTE:** CLEAR CMC LOG and CLEAR CMC CONFIGURATION do not require verification.

- 1 Make sure that the four TRANSACTION ID values match the expected values.

TRANSACTION ID	Logging	Phase of Flight Blobs	OEM Alerts	OEM Blobs
TRANSACTION ID (Right Column)				
TRANSACTION ID (Expected Value)	<b>0940A6FA</b>	<b>69ED692B</b>	<b>71F539C1</b>	<b>977D3A59</b>

- (i) If the TRANSACTION ID values recorded in table above are not correct, do the CMC Diagnostic Configuration Upload again.

**CAUTION:** If the TRANSACTION ID values are not correct, do not continue. The CMC Diagnostic Configuration Upload is not correct.

- (16) Turn the outer knob of the L PFD-GTC DIM knob to the OFF position.

(17) Remove the CMC configuration SD card (part number: 8945504-17) from the upper slot of the L PFD.

F. Do the Aircraft Configuration Loading as follows:

(1) Set the Fuel and Aircraft Weight Units as follows:

(a) Put the 010-01249-A2 Garmin 4.8, Version A2 Software Base Loader Card into the upper slot of the L PFD.

(b) Turn the outer knob of the L PFD-GTC DIM knob to the ON position

**NOTE:** The L PFD will start in configuration mode.

**NOTE:** SYSTEM UPLOAD will show at the top of the screen.

(2) Make sure that the fuel and aircraft weight are set to the desired units as follows:

(a) Turn the right inner knob on the pilot's right GTC to the right until the SYSTEM SETUP screen shows.

(b) If the fuel and aircraft weight units are not the desired units, do as follows:

1 Push and release right knob on the pilot's right GTC to activate the cursor.

2 Turn the right outer knob on the pilot's right GTC until the cursor is at the FUEL line in the DISPLAY UNITS box.

3 Turn the right inner knob on the pilot's right GTC, to drop the menu down and highlight KILOGRAMS or POUNDS.

4 Push and release Enter on the GTC.

5 Push and release right knob on the pilot's right GTC to deactivate the cursor.

(3) Load the Transponder and TCAS Configuration as follows:

(a) Turn the right inner knob on the pilot's right GTC to the left until the AIRCRAFT CONFIGURATION screen shows.

(b) Make sure that the registration and VFR code are correct. If not, do as follows:

1 Push and release right knob on the pilot's right GTC to activate the cursor.

**NOTE:** The cursor should be on the Aircraft Registration line.

2 Push and release Keyboard on the GTC GDU Controls screen.

3 Enter the aircraft tail number.

**NOTE:** A Hexadecimal code must be entered for non-US registered aircraft.

4 The VFR code must be set to the correct value for the country of registry.

(c) Make sure that the Domain Identifier is correct as follows:

1 Find the correct ISO 3166-1 ALPHA-3 code for the country of registry as follows:

a Access the website [txtavsupport.com](http://txtavsupport.com) and log on with your User Name and Password.

b Under MY MODELS, select 'Citation 680'.

c Under AVIONICS, select 'Domain Identifier'.

d Find the necessary country and the associated three letter Identifier.

**NOTE:** An example of a three letter Identifier is "USA" for the United States.

(d) If the value is not correct, enter the three letter Identifier into the Domain Identifier line with Keyboard on the GTC GDU Controls screen.

- (4) Complete the Transponder and TCAS Configuration as follows:

**NOTE:** These steps are necessary whether changes were made to the TCAS settings or not.

- (a) Using the Left and Right arrows on the pilot's right GTC, highlight SET GTX at the bottom of the display.
- (b) Push and release, the Select icon on the GTC.
- (c) Push and release Enter to select YES.
- (d) Push and release Enter to acknowledge.
- (e) Using the Left and Right arrows on the pilot's right GTC, highlight SET GTS at the bottom of the display.
- (f) Push and release, the Select icon on the GTC.
- (g) Push and release Enter to select YES.
- (h) Push and release Enter to acknowledge.
- (i) Push and release right knob on the pilot's right GTC to deactivate the cursor.

**NOTE:** The AIRCRAFT ID number is kept in the system for later use as a comparison tool, so it is very important to make sure that the system is configured correctly before you confirm the configuration in the steps that follow.

- (5) Confirm the AIRCRAFT ID as follows:

- (a) Turn the right inner knob on the pilot's right GTC to the right until the CONFIGURATION MANAGER screen shows.
- (b) At the top of the screen, make sure that the two AIRCRAFT ID numbers match.

1 If they do not match, do as follows:

- a Using the Left and Right arrows on the pilot's right GTC, highlight CNFRM CFG at the bottom of the display.
- b Push and release, the Select icon on the GTC.

**NOTE:** A window will show that states 'Confirm configuration as expected configuration?'

- c Using the Left and Right arrows on the pilot's right GTC, highlight OK.
- d At the top of the screen, make sure that the two AIRCRAFT ID numbers in the EXPECTED CONFIGURATION ID column and the ACTUAL CONFIGURATION ID column match.

- (6) Make sure that the Configuration Load is correct as follows:

**NOTE:** This is completed while you are still on the CONFIGURATION MANAGER screen.

- (a) Push and release right knob on the pilot's right GTC to activate the cursor.
- (b) Turn the right outer knob on the pilot's right GTC to scroll through the list of LRU's in the CONFIGURATION ITEMS box.
  - 1 Make sure that both columns for each LRU shows Valid (in green) except for GSR1 and GSR2 which if installed, will show 'Status Not Supported' (in gray).

- (7) Do the Transaction ID Verification as follows:

- (a) Push and release right knob on the pilot's right GTC to deactivate the cursor.
- (b) Turn the small knob on the pilot's right GTC until the 'TRANSACTION LOG' page shows.

- (c) Make sure that the bottom entry in the list is labeled as follows:
- 1 LOADER IMAGE shows '006-B1590-A2'.
  - 2 GROUP shows 'Model 680 Base Configuration'.
  - 3 ITEM shows 'Model 680 Base'.
  - 4 STATUS shows PASS (in green).
- (d) Verify the Transaction Logs for Installed Options:
- 1 Make sure that there is a line entry for every loaded option as determined previously in the "Record the Installed Options" section.
  - 2 Make sure that for each of the line entries, there is a PASS (in green) in the STATUS column, except for CMC Config which will show 'No Trans ID' (in white).
  - 3 Make sure that there is not a line entry marked CNFM CFG with 'FLEET ID UPDATED' (in amber) in the STATUS column.
    - a If an amber 'FLEET ID UPDATED' is present, software and configuration must be reloaded.

**NOTE:** A line entry of CNFM CFG with 'AIRCRAFT ID UPDATED' (in white) in the STATUS column or no line entry with CNFM CFG is acceptable.
  - 4 Make sure that there are no entries with an amber or red indication in the STATUS column.

**NOTE:** Green and white are the only acceptable colors for status.
- (8) Do the Crew Profile Loading as follows:
- (a) Turn aircraft electrical power off. (Refer to Cessna Model 680A Maintenance Manual, Chapter 24, External Electrical Power System - Description and Operation..)
  - (b) Remove the 010-01249-A2 Garmin 4.8, Version A2 Software Base Loader Card) from the upper slot of the L PFD.
  - (c) Put the 8931507-33 - Cessna G5000 Default Pilot Profile Card into the upper slot of the MFD.
  - (d) Turn aircraft electrical power on. (Refer to Cessna Model 680 Maintenance Manual, Chapter 24, External Electrical Power System - Description and Operation..)

- (e) On the pilot's right GTC, do as follows:
- 1 Push and release Home.
  - 2 Push and release Aircraft Systems.
  - 3 Push and release Maintenance.
  - 4 Push and release Start Maintenance.
  - 5 Enter the Maintenance Mode password (CACCDMS) when prompted.
  - 6 Push and release Set Default Profile.
  - 7 Push and release Cessna 680 DEFAULT Profile.
  - 8 Push and release OK when prompted.
  - 9 Push and release Home.
  - 10 Push and release Utilities.
  - 11 Push and release Crew Profile.
  - 12 Push and release Restore Defaults.
  - 13 Push and release OK when prompted.
  - 14 In the Default Profile icon, make sure that the Pilot Profile CRC number is listed as D00AAF1C.  
**NOTE:** This CRC number does not apply if using a customer defined default profile.
    - a If the Pilot Profile CRC number is not listed as D00AAF1C, do the Crew Profile Loading again.
    - b Please contact Team 680 at 316-517-1695 or team680@txtav.com if you have any questions about the correct Pilot Profile CRC number.
  - 15 Turn aircraft electrical power off. (Refer to Cessna Model 680A Maintenance Manual, Chapter 24, External Electrical Power System - Description and Operation.)
  - 16 Remove the 8931507-33 - Cessna G5000 Default Pilot Profile Card into the upper slot of the MFD.
- (9) Update G5000 Database as follows:
- (a) Access the website txtavsupport.com and log on with your User Name and Password.
  - (b) Under the MY MODELS section, select 'Citation 680'.
  - (c) Under the AVIONICS section (right side of the screen), select 'G5000 Database Loading Instructions (Post SB680-34-39)'.
  - (d) Update the databases with the procedures from the website, using the 010-00474-52 Database SD Cards to transfer the files to the aircraft.
- (10) Install the CMC Viewer software as follows:
- (a) Turn aircraft electrical power on. (Refer to Cessna Model 680A Maintenance Manual, Chapter 24, External Electrical Power System - Description and Operation.)
  - (b) Turn the outer knob of the MFD DIM knob to the OFF position.
  - (c) Install the 8945503-21 - CMC Viewer Card in the upper slot of the MFD.
  - (d) Turn the outer knob of the MFD DIM knob to the ON position.
  - (e) Set the aircraft parking brake.
    - 1 Make sure the (white) Parking Brake EICAS message shows.

- (f) On the MFD GTC, do as follows:
- 1 Press the AIRCRAFT SYSTEMS tab.
  - 2 On the AIRCRAFT SYSTEMS page, press the MAINTENANCE button.
  - 3 On the MAINTENANCE page, press the CDMS DIAGNOSTIC button.
  - 4 Enter password CACCDMS and press ENTER.
  - 5 Push and release the right inner knob on the MFD GTC to activate the cursor.
  - 6 Turn the right outer knob on the MFD GTC to move the cursor to the PAGE MENU.
  - 7 Turn the right inner knob on the MFD GTC to move the cursor to ABOUT CMC VIEWER.
  - 8 Push ENTER.
    - a Make sure the CMC Viewer Part Number 8445503 and Build Number 6.004 are shown on the MFD.
- (11) Do the Final Verification /Return to Service as follows:
- (a) Configure the Operator's WiFi Settings as follows:
- 1 From the HOME page on the pilot's GTC, press the UTILITIES button
  - 2 On the UTILITIES page, press the SETUP button.
  - 3 On the SET UP page, press the WI-FI SETUP button.
  - 4 On the WI-FI SETUP page, press the FAVORITES tab and then press ADD FAVORITE NETWORK button.
  - 5 Enter the information that follows into the EDIT WI-FI screen.
    - a SSID Field - OEMDIAG
    - b Airport Field - NONE
    - c Security - WPA
    - d Passphrase - CESSNADIAG01
    - e Mode - Infrastructure
    - f Country - United States
  - 6 After two minutes, make sure the entered SSID is connected automatically and provides as signal strength of at least 4.0 to 5.0 bars. If not, press the applicable SSID and then press the CONNECT button.
- (b) Check the Line Replaceable Unit (LRU) Status as follows:
- 1 Push and release Home on the pilot's right GTC.
  - 2 Push and release Utilities.
  - 3 Push and release Setup.
  - 4 Push and release Avionics Status
  - 5 Push and release the LRU Info tab on the left side.
    - a Make sure all the LRU show a green check mark.

- (c) Check the Message Status as follows:
- 1 Push and release the MSG on the pilot's right GTC.
    - a Make sure no DB Mismatch message shows.
    - b Make sure no Manifest message shows.
    - c Make sure no Config message shows.
    - d Make sure the AVIONICS CONFIG or AVIONICS FAULT CAS message does not show.
- (d) If the aircraft is equipped with CPDLC , do as follows:
- 1 Push and release Home on the pilot's right GTC.
  - 2 Make sure there is an ATC Datalink icon in the lower left corner of the GTC screen.
  - 3 Push and release ATC Datalink.
    - a If equipped with CPDLC-Link 2000+, make sure there is a CPDLC tab on the left side of the GTC screen.
- (e) Check the PERF and TOLD Database Installation as follows:
- 1 Push and release Home on the pilot's right GTC.
  - 2 Push and release PERF.
  - 3 Check the installation of the PERF and TOLD databases as follows:
    - a At the top of the screen, the following should show:
      - Cessna Model 680A
      - 006-D5130-01 (TOLD/FAA)
      - 006-D5081-02 (PERF).
- (f) On the PERF screen, check the Weight and Fuel data as follows:
- 1 Push and release Weight and Fuel.
  - 2 If the weight is not shown, do as follows:
    - a Push and release Empty Weight.
    - b Enter the recorded value in Step 9.A.
    - c Push and release Enter.
    - d Push and release Crew and Stores.
    - e Enter the recorded value in Step 9.A.
    - f Push and release Enter.
- (g) Make sure that the AVIONICS CONFIG EICAS message does not show.

- (h) If the aircraft is equipped with GDL 69, GSR 56, ACARS or Stormscope do as follows:
- 1 Push and release Home on the pilot's right GTC.
  - 2 Push and release Weather.
  - 3 Push and release Weather Selection.
    - a Make sure that "Connex Weather" shows if the aircraft is equipped with GSR 56 #2.
    - b Make sure that "Sirius XM Weather" shows if the aircraft is equipped with GDL 69.
    - c Make sure that "ACARS Weather" shows if ACARS option is installed.
    - d Make sure that "Stormscope" shows if the Stormscope option is installed.
- (i) Turn aircraft electrical power off. (Refer to Cessna Model 680A Maintenance Manual, Chapter 24, External Electrical Power System - Description and Operation.)
17. Do the AReS II Recording System Configuration with the 6908901-5 (680-10.4.0.2.cfg) AReS II Configuration File. (Refer to Cessna Model 680 Maintenance Manual, Chapter 31, Aircraft Recording System - Maintenance Practices.)
18. Return the Aircraft to Service as follows:
- A. Start the aircraft engines. (Refer to Model 680 (Sovereign+) Airplane Flight Manual (0501 and On) (68FMA).
    - (1) Make sure the left engine oil pressure and the right engine oil pressure as shown on the MFD EIS strip are not amber dashes (invalid) and shows a normal value during the engine start and while the engine is running.
    - (2) Make sure the BATTERY FAULT CAS message does not show.
  - B. Do the Garmin G5000 Databus and System Message Verification Procedure. (Refer to Cessna Model 680 Maintenance Manual, Chapter 36, Garmin G5000 Electronic Flight Information System (EFIS) - Adjustment/Test (Airplanes -0501 and On)
  - C. Do the Cockpit Voice Recorder (CVR) Functional Check as follows:
    - (1) If the GEA 7100 Engine/Airframe Interface Unit 2 or electrical connector PT407 was removed for the wire modification, do the CVR Power Compliance Check. (Refer to Cessna Model 680 Maintenance Manual, Chapter 23, L3 Communications FA2100 Cockpit Voice Recorder - Adjustment/Test.)
  - D. If a flight data recorder is not installed on the aircraft, go to Step 9.H.
  - E. If a flight data recorder is installed on the aircraft, do the steps that follow:
    - (1) Do the Garmin GEA 7100 Engine/Airframe Interface Unit 2 FDR Test Procedure. (Refer to Cessna Model 680 Maintenance Manual, Chapter 31, Flight Data Recorder System - Adjustment/Test (Airplanes -0501 and On).)  
**NOTE:** No electronic rigging is necessary for the step above, only do the specified sensor test procedure at the end of the referenced maintenance manual section.
    - (2) Do the Garmin GEA Engine/Airframe Interface Unit 3 FDR Test Procedure. (Refer to Cessna Model 680 Maintenance Manual, Chapter 31, Flight Data Recorder System - Adjustment/Test (Airplanes -0501 and On).)  
**NOTE:** No electronic rigging is necessary for the step above, only do the specified sensor test procedure at the end of the referenced maintenance manual section.

19. Update the 680 (Sovereign+) FAA Approved Airplane Flight Manual (68FMA) and Checklists (68CLANP and 68CLAEAP).
  - A. Make sure the 680 (Sovereign+) FAA Approved Airplane Flight Manual (68FMA) is at Revision 3, or later.
  - B. Make sure the 680 (Sovereign+) Normal Procedures Checklist (68CLANP) is at Revision 3, or later.
  - C. Make sure the 680 (Sovereign+) Emergency and Abnormal Procedures Checklist (68CLAEAP) is at Revision 3, or later.
20. Update the Garmin G5000 Integrated Avionics System Pilot's Guide.
  - A. Remove and discard the 190-01581-01 Garmin G5000 Integrated Avionics System Pilot's Guide.
  - B. Put one 190-01581-02 Garmin G5000 Integrated Avionics System Pilot's Guide in the aircraft where it is accessible to the flight crew.

**NOTE:** Garmin G5000 Integrated Avionics System Pilot's Guide is required to carry on the airplane. The customer may elect to download a free copy of the Pilot's Guide from [www.txtavsupport.com](http://www.txtavsupport.com), or they may choose to purchase a printed copy from Textron Aviation. The printed copy will not be free of charge.
21. Make sure the flight crew receives the *Flight Crew Operations Summary*, which shows the operational changes that are a result of the accomplishment of this service bulletin.
22. Remove the maintenance warning tags and connect the airplane battery.
23. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

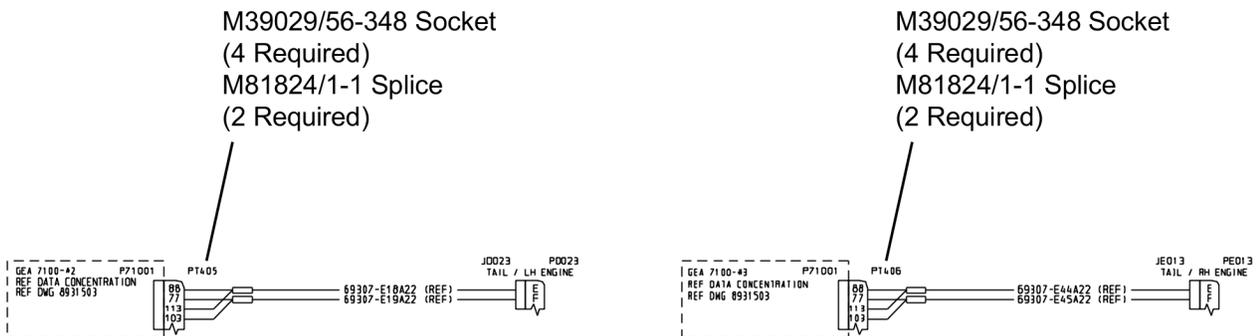
**NOTE:** Textron Aviation recommends that compliance with all service documents is reported to a maintenance tracking system provider.

  - 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.

A110517



Before Modification



M39029/56-348 Socket  
 (4 Required)  
 M81824/1-1 Splice  
 (2 Required)

M39029/56-348 Socket  
 (4 Required)  
 M81824/1-1 Splice  
 (2 Required)

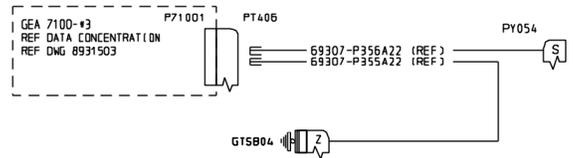
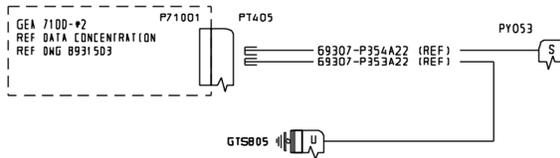
After Modification

Legend	
-----	Existing Wire
————	New Wire

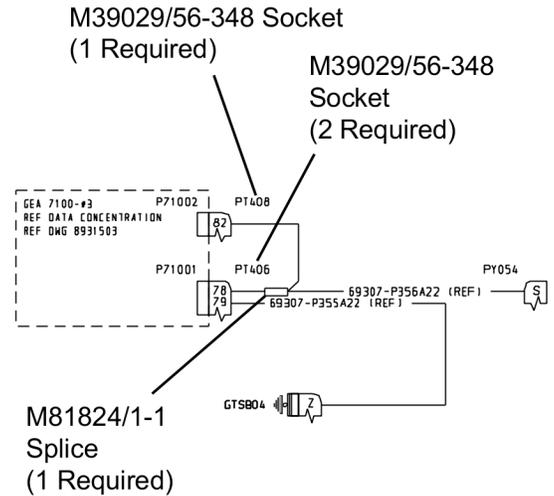
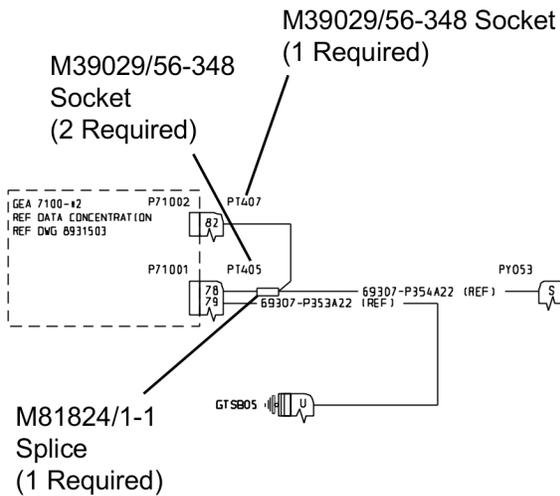
8990087-1

Figure 1. G5000 Garmin 4.8 Avionics Wiring Modification (Sheet 1)

A110518



Before Modification



After Modification

Legend	
-----	Existing Wire
—————	New Wire

8990087-1

Figure 1. G5000 Garmin 4.8 Avionics Wiring Modification (Sheet 2)

**MANDATORY****SB680-34-39****MATERIAL INFORMATION**

The kit below is required to complete this service document.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
<b>SB680-34-39</b>	1	<b>Kit</b> , consisting of the following parts:		
M39029/56-348	14	Sockets		Install
M81044/12-22-9	6.0 Feet	Wire for fabricating Jumper Wires		Install
M81824/1-1	6	Splice		Install
SB680-34-39	1	Instructions		

The software cards below are required to complete this service bulletin.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
010-00330-ED	1	ACARS Enablement Card (if option is already installed)	010-00330-E6	Discard
010-00330-FA	1	CPDLC Enablement Card (If option is already installed)	010-00330-F0	Discard
010-00330-5K	1	SurfaceWatch Enablement Card	010-00330-5E	Discard
010-00474-52	3	Database SD Card	010-00474-44	Discard
010-01249-A2	1	Garmin 4.8, Version A2 Software Base Loader Card	010-01249-58 010-01249-59	Discard
8931507-33	1	Cessna G5000 Default Pilot Profile Card	8931507-29	Discard
8945503-21	1	CMC Viewer Card	8945503-9 8945503-13 8945503-17	Discard
8945504-17	1	CMC Configuration Card	8945504-5 8945504-9 8945504-13	Discard
190-01581-02 (See Note)	1	Garmin G5000 Integrated Avionics System Pilot's Guide	190-01581-01	Discard

**NOTE:** Garmin G5000 Integrated Avionics System Pilot's Guide is required to carry on the airplane. The customer may elect to download a free copy of the Pilot's Guide from [www.txtavsupport.com](http://www.txtavsupport.com), or they may choose to purchase a printed copy from Textron Aviation. The printed copy will not be free of charge.

Download the software below to complete the installation of this service bulletin.

NEW P/N	KEY WORD	LOCATION
6908901-5 (680-10.4.0.2.cfg)	ARes II Configuration File	Download from <a href="http://www.txtavsupport.com">www.txtavsupport.com</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](mailto:parts@txtav.com).

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

## FLIGHT CREW OPERATIONS SUMMARY

SB680A-34-39 - Navigation - Garmin G5000 Software Update to Garmin 4.8, Version A2

This summary provides additional information for the flight crew regarding operational changes as a result of accomplishment of this service bulletin. Please remove this summary from the service bulletin and give it to the flight crew. This summary is *informational only* and does not supersede any information in the FAA-approved airplane flight manual.

- New functionality with Garmin 4.8, Version A2 (Does not include button labeling or graphic changes if functions remain the same. Some functionality may require optional software.)
  - Connex Position Report controls added to Services screen.
  - Added capability for ADS-B IN.
    - ADS-B Status added to Setup screen.
    - ADS-B display options available on Traffic Settings screen.
    - Directional information added to TCAS targets (symbology changed).
    - ADS-B FAIL CAS message changed to ADS-B IN FAIL and ADS-B OUT FAIL CAS message.
  - VRP (Visual Reporting Points) added to Waypoint Info and Nearest screens.
  - QFE baro referencing added.
    - QFE airfield reference can be selected as origin or destination airfield.
    - QNE altitude constraints (below the transition altitude) will be converted to QFE.
  - HSI map capability.
  - Additional information is available from the airport directory.
  - Creating a user waypoint allows using the present position.
  - Visual approach via STRAIGHT or Vectors may be selected as the desired approach.
  - Weather radar color palette has expanded.
  - Expanded range of flight crew selected Callout alerts.
  - SurfaceWatch improvements.
    - Runway highlights based on TOLD runway selection.
    - Improved information Box display.
  - Electronic checklist.
    - Added additional colors, font sizes, and support images to improve navigation.
  - Flight Path Angle Reference Cue available on synthetic vision display.
  - New database management page.
  - RF Legs
  - Adds a button to silence radios during telephone call.
  - Selectable airspace altitude labels.
  - Transition to approach (supports VNAV direct to FAF, instead of a waypoint prior to FAF)
  - Selectable automatic pop up of Trip Stats window after landing.
  - Selectable automatic display of airport chart after landing if chart MFW is active.



**TITLE**

NAVIGATION - GARMIN G5000 SOFTWARE UPDATE TO GARMIN 4.8, VERSION A2

**TO:**

680 (Sovereign+) Aircraft Owner

**REASON**

To update the Garmin G5000 avionics software to 4.8, Version A2 .

**COMPLIANCE**

MANDATORY. This service document must be accomplished within 2 years from the date of receipt.

**LABOR HOURS**

<b>WORK PHASE</b>	<b>LABOR-HOURS</b>
Modification/Test	16.0

**MATERIAL AVAILABILITY**

The parts below are required to complete this service document.

PART NUMBER	AVAILABILITY	COST
SB680-34-39	*	*
6908901-5	*	*
010-00330-ED (See Note)	*	*
010-00330-FA (See Note)	*	*
010-00330-5K (See Note)	*	*
010-00474-52	*	*
010-01249-A2	*	*
8931507-33	*	*
8945503-21	*	*
8945504-17	*	*
190-01581-02 (See Second Note)	*	*

**NOTE:** These cards are only required if the option was previously installed.

**NOTE:** Garmin G5000 Integrated Avionics System Pilot's Guide is required to carry on the airplane. The customer may elect to download a free copy of the Pilot's Guide from [www.txtavsupport.com](http://www.txtavsupport.com), or they may choose to purchase a printed copy from Textron Aviation. The printed copy will not be free of charge.

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

## WARRANTY

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

- Eligibility:** Airplanes identified within the serial number effectivity of this service document.
- 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](http://ww2.txtav.com/Parts) or email the completed Textron Aviation Claim Form to [warranty@txtav.com](mailto: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  
285 South Greenwich Road  
Bldg B89, Docks 1-4  
Wichita, KS 67206  
USA

- Expiration:** April 30, 2023 (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 [www.txtavsupport.com](http://www.txtavsupport.com) to register.