SERVICE INFORMATION LETTER NO. SIL20C1-015

NOTE: Service information letters (SILs) are used only:

1.   To distribute information from Diamond Aircraft Industries Inc. to our customers.

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

NOTE: Typically there is no revision service for SILs. Changes or new information will be sent along with a new SIL.

1.   TECHNICAL DETAILS

1.1   Aircraft Affected

All DA 20-C1 aircraft with GTN Xi Software Versions 20.10 through 20.23 installed.

1.2   Subject

Garmin Service Bulletin No. 22071.

1.3   Reason

GPS Antenna Height Above Ground configuration issue fix.

1.4   Information

Garmin has issued service bulletin no. 22071 to address an issue with the "GPS Antenna Height Above Ground" configuration. For detailed technical information, refer to the latest appropriate issue of Garmin Service Bulletin No. 22071, which is applicable without any further additions or restrictions.

Garmin Service Bulletin No. 22071 Rev A is attached to this service information letter. In case of doubt, contact Garmin.

2.   OTHER DETAILS

To obtain satisfactory results, procedures specified in this service information letter must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service information letter. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this service information letter if it is not incorporated. If you no longer own the aircraft to which this service information letter applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries Inc. at the address below.

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GARMIN.

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SERVICE BULLETIN
NO.: 22071 Rev A

TO: All Garmin Aviation Service Centers

DATE: August 8, 2022

SUBJECT: GTN™ Xi Main Software Version 20.24, GPS/WAAS Version 8.2, COM Version 2.02, NAV Version 2.04, and GMA™ 35/c Audio ARC DB Version 4.22C

**CERTIFICATION
AUTHORIZATION:**   TSO Authorization (see Approval section for details)

TSO authorization does not provide installation airworthiness approval. Separate installation airworthiness approval is required for type certified aircraft. Notification of revision to any Garmin STC(s) will be provided under a separate service bulletin.

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PRODUCTS AFFECTED

The following units are affected:

Table 1. Products Affected

Model	Appliance P/N
GTN 625Xi	011-04629-00
GTN 635Xi	011-04630-00
GTN 650Xi	011-04631-( )
GTN 725Xi	011-04632-00
GTN 750Xi	011-04634-( )
GMA 35	011-02299-2( )
GMA 35c	011-02299-4( )

PURPOSE

GTN Xi Series Main Software Version 20.24 fixes an issue with the use of the GPS Antenna Height Above Ground configuration setting (Service Letter 22070). This setting is used to determine the GPS altitude of the airplane by compensating for the mounting height of the GPS antenna on the aircraft.

Refer to the Previous Software Change List at the end of this bulletin for a list of software changes associated with previous software versions.

DESCRIPTION

This modification consists of accessing the Dealer Resource Center of the Garmin website and uploading GTN Xi Main Software Version 20.24 and other software versions listed above.

MATERIAL INFORMATION

- GTN Xi Series System Software Version Image V3191.0C (006-B3191-0C)
  (available on the Dealer Resource Center https://dealers.garmin.com)
- GTN Downloadable Software Data Card (010-01000-00)

Use the instructions in the GTN Xi Series TSO Installation Manual (Section 6.16) to make a loader card.

As an alternative, a pre-programmed software loader card (Garmin P/N 010-02130-0C containing V3191.0C) may be purchased from Garmin.

Printed pilots guides can be ordered through Garmin Order Administration (contact your account rep for current pricing) or downloaded for at no charge from www.garmin.com.

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COMPLIANCE

Recommended: Compliance with this Service Bulletin is recommended at the next scheduled maintenance interval for installations with Main Software Version 20.10 through 20.23.

For all other installations this service bulletin is optional.

APPROVAL

TSO authorization does not provide installation airworthiness approval. Separate installation airworthiness approval is required for type certified aircraft. Notification of revision to any Garmin STC(s) will be provided under a separate service bulletin.

GTN Xi Main software version 20.24, GPS/WAAS software version 8.2, COM software version 2.02, NAV software version 2.04 are TSO approved. Refer to the applicable GTN Xi Series Installation Manual (190-02327-02) for additional approvals. The changes from GTN Xi Main software version 20.01, GPS/WAAS software version 8.1, COM software version 2.00, and NAV software version 2.03 are minor per 14 CFR 21.619.

GMA 35/35c software versions listed in Table 9 are TSO approved.

DOCUMENTATION CONSIDERATIONS

The GTN Xi Series Pilot's Guide (Garmin P/N 190-02327-03) Rev. D, has been updated to reflect the changes associated with GTN Xi Series Main software version 20.24.

REFERENCES

Table 2. References

Document Number	Revision (or later)	Description
190-00858-11	K	GMA 35/35c TSO Installation Manual
190-02327-02	7	GTN Xi Series TSO Installation Manual
190-02327-03	D	GTN Xi Series Pilot's Guide
190-01007-50	B	GTN 6XX/7XX Telligence™ Voice Command Guide
190-02327-11	A	GTN Xi Series Software v20.20 Upgrade Supplement
190-02327-10	A	GTN Xi Series Software v20.10 Upgrade Supplement

Referenced documents are available on https://dealers.garmin.com.

Revision B of the Pilot's Guide taken together with the GTN Xi Series Software Upgrade Supplements listed in Table 2 provide equivalent instructions to the latest revision of the Pilot's Guide.

MANPOWER

One (1) hour labor per aircraft for single/dual GTN Xi installations (including installations that include a GMA 35 Audio ARC DB update).

WARRANTY INFORMATION

For GTN Xi installations with Main Software Versions 20.10 through 20.23, this modification is warranty reimbursable with a deadline of August 31, 2023 for the manpower listed above. When completing the Garmin aviation warranty claim, be sure to include the following:

- aircraft serial number
- aircraft registration number
- previous GTN Xi software version(s)
- GTN Xi serial number(s)

For all other installations this service bulletin is not warranty reimbursable.

SOFTWARE INSTALLATION AND VERIFICATION INSTRUCTIONS

These instructions explain how to:

- Upgrade GTN Xi Main software to version 20.24
- Upgrade GPS/WAAS software to version 8.2
- Upgrade COM software to version 2.02
- Upgrade NAV software to version 2.04
- Upgrade GMA 35/35c software to the versions listed in Table 9

The following GTN Xi loader card contains GTN Xi and GMA 35/35c software noted above:

Table 3. Software

Loader Software (Loader Card)	Software Included

006-B3191-0C (010-02130-0C)	• GTN Xi
	  ◦ Main Software Version 20.24
	  ◦ Touch Software Version 2.01
	  ◦ WAAS Software Version 8.2
	  ◦ COM Software Version 2.02
	  ◦ NAV Software Version 2.04
	• GMA™ 35 P/N 011-02299-0( )
	  ◦ Software Version 4.20A
	  ◦ ASR Grammar Version 4.20 (006-D3034-33)
	  ◦ Other GMA software listed in Part Three of this section
	• GMA 35 P/N 011-02299-2( ) and GMA 35c P/N 011-02299-4( )
	  ◦ Software Version 4.21C
	  ◦ ASR Grammar Version 4.20 (006-D3034-33)
	  ◦ Audio Configuration v4.22C
	  ◦ Other GMA software listed in Part Three of this section

NOTE

For installations with GMA 35 P/N 011-02299-0( ), GMA Audio Software Version 4.20A is required for compatibility with GTN Xi Software Version 20.24. The Loader Card identified above can be used to update newer versions of GMA 35 Audio Software to Software Version 4.20A.

NOTE

For installations with GMA 35 P/N 011-02299-2( ) and GMA 35c P/N 011-02299-4( ), GMA Audio Software Version 4.21C is required for compatibility with GTN Xi Software Version 20.24. The Loader Card identified in this section can be used to update newer versions of GMA 35 Audio Software to Software Version 4.21C.

NOTE

For installations with GDL® 88, GTN Xi Main Software Version 20.24 is compatible with GDL 88 Software Version 2.05 and later.

NOTE

For dual GTN Xi installations, both GTN Xi units must be updated to the GTN Xi Main Software Version 20.24. The software can be installed simultaneously using two update cards.

Part One: GTN Xi Software Installation

1. Attach the aircraft to ground power.

   🔷 **NOTE**
   Take steps to prevent accidental power disruptions to the unit during the software loading process.

2. Touch and hold the "Home" key and energize the GTN Xi to enter Configuration Mode.
3. Release the "Home" key when the display activates and the Garmin logo shows fully illuminated on the display.
4. Make sure that all avionics are powered on.
5. Record all system configuration settings (including the Discrete Input and Output configuration settings).

   🔷 **NOTE**
   The GTN Xi system configuration settings **will** need to be entered if loading GTN Xi software v20.24 from a newer GTN Xi software version.

6. For GMA 35s that have GMA Software Version 4.21C, record all GMA 35 configuration settings before installing new software on the GTN and GMA.

   🔷 **NOTE**
   The configuration settings may need to be entered after the software update to make sure the system is properly configured.

   🔷 **NOTE**
   GMA 35 and GMA 35c software versions 4.20/4.21c are compatible with GTN Xi Main software version 20.24. If compatible GMA 35 software is not installed, then install compatible GMA 35 software per Service Bulletin 2025 before installing GTN Xi Main Software v20.24.

7. If loading from a newer version of GTN Xi Main Software to software v20.24, then continue with the following steps.

   🔷 **NOTE**
   Before loading GTN Xi Main Software v20.24 from a newer software version, it is recommended to set the system configuration settings to the default values. The system configuration settings will then need to be entered after loading software v20.24. Make sure that there is a record of all system configuration settings before proceeding.

   a. On the GTN Xi Configuration Mode page, touch **GTN Diagnostics.**

   b. Touch **Clear Config Settings.**

   c. Touch **OK** to confirm.

8. Stop power to the GTN Xi.

9. Put the GTN Xi Software Loader Card into the SD Card slot.

⚠️ **NOTE**

Not loading GTN Xi Main software after energizing the unit using a loader card that contains different GTN Xi Main software may corrupt the GTN Xi configuration settings. If GTN Xi configuration settings become corrupt, the GTN Xi configuration settings must be cleared and entered.

10. Energize the GTN Xi. The Configuration Mode home page will show.
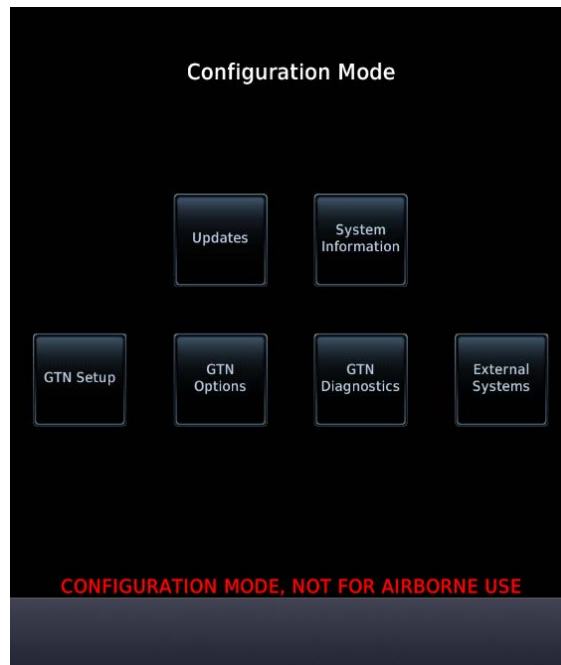
Figure 1. Configuration Mode Home Page

11. Touch **Updates** to show the software updates that are available.

Figure 2. Software Updates Page

12. Make sure the software version is shown for "On Card" for each of the following:

Table 4. On Card

Software	"On Card" Version Displayed
Main Board Software	20.24
COM Board Software	2.02
NAV Board Software	2.04
WAAS Board Software	8.2

13. Touch the software items identified below to be uploaded for the specified model. A green check mark will appear next to each software item that is selected.

Table 5. Software

Software	GTN 625Xi	GTN 635Xi	GTN 650Xi	GTN 725Xi	GTN 750Xi
Main Board Software	**Select**	**Select**	**Select**	**Select**	**Select**
COM Board Software	-	**Select**	**Select**	-	**Select**
NAV Board Software	-	-	**Select**	-	**Select**
WAAS Board Software	**Select**	**Select**	**Select**	**Select**	**Select**

NOTE

Select only if the version displayed for "On Card" does not match the version displayed for "Installed." This is generally applicable for loading a previous software version.

14. Touch **Update** on the bottom of the display to update GTN Xi Software.
15. The GTN Xi will show the prompt "Start GTN Software Updates?" Touch **OK** to proceed with the software update.
16. When the update is complete the GTN Xi will display "Update Complete!"
17. If GTN Xi Main Software was loaded to software v20.24 from a newer software version, continue with the following steps.

    a. Once the update is complete, stop power to the GTN Xi.

    b. Energize the GTN Xi. The Configuration Mode home page will show.

    c. Touch **GTN Setup** on the Configuration Mode home page.

    d. Enter the configuration settings recorded in Part One, Step 5.

    e. Touch **GTN Options** on the Configuration Mode home page.

    f. Enter the configuration settings recorded in Part One, Step 5.

18. Stop power to the GTN Xi.
19. Remove the software loader card.

20. Put the database card into the SD card slot.
21. Continue to Part Two: GTN Xi Software Verification Procedure.

![NOTE icon] **NOTE**

If a GMA 35 is installed, do Part Two before updating the GMA 35 Software.

Part Two: GTN Xi Software Verification Procedure

1. With the GTN Xi off, touch and hold the "Home" key and energize the GTN Xi to enter Configuration Mode.
2. Release the "Home" key when the display activates and the Garmin logo shows fully illuminated on the display.
3. Touch **System Information** on the Configuration Mode page.
4. On the System Information page for the GTN Xi, make sure:

Table 6. Software

Software	Version
Main Board Software Version	20.24
Main Board FPGA Version	2.0
Display FPGA Version	2.0
Touch Controller Board Software Version	2.01
GPS/WAAS Board Software	8.2
COM Board Software Version	2.02
COM Board FPGA Version	2.0
NAV Board Software	2.04
NAV Board FPGA Version	2.0

5. Use the configuration settings recorded in Part One, to make sure that all of the configuration settings (including the Discrete Input and Output configuration settings) were retained through the software upgrade. Correct as necessary.

![NOTE icon] **NOTE**

If Smart Glide™ was previously installed, verify Smart Glide configuration settings after updating to software v20.24.

Part Three: GMA 35/35c Software Installation

If a GMA 35/35c listed in Table 7 is installed, the following GMA 35 software updated is recommneded.

> **NOTE**
> If GMA 35 Audio ARC DB (Audio Configuration) v4.22C is already loaded on the GMA 35, go to the Return to Service Test Procedure.

1. Stop power to the GTN Xi and GMA 35.
2. Put the GTN Xi Software Loader Card into the GTN Xi SD Card slot.
3. Energize the GTN Xi and GMA 35. The Configuration Mode home page will show.
4. Touch **Updates** to show the software updates that are available.
5. Touch the **GTN Software Updates** key on the top left corner of the display.
6. Select **GMA 35 Software Updates**.
7. Make sure the software version shows for "On Card" for each of the following:

Table 7. GMA Software Updates Page

Software	Version for P/N 011-02299-2( ) P/N 011-02299-4( )
GMA Region List	4.10C
GMA System Code	4.21C
Audio Configuration	4.22C
GMA Configuration	N/A
GMA AUX Region List	4.10C
GMA AUX System Code	4.21C
GMA AUX Audio Data	4.20C
GMA Voice Command Grammars	4.20
GMA Voice Command Language	2.00
GMA Voice Command DDG2P	2.00
GMA TTS Audio Data	N/A
GMA TTS Grammars	4.10

8. Touch the software items identified below to be uploaded. A green check mark will appear next to each software item that is selected.

Table 8. GMA Software

Software	Action
GMA Region List	(See Note 1)
GMA System Code	(See Note 1)
Audio Configuration	**Select** (See Note 1)
GMA AUX Region List	(See Note 1)
GMA AUX System Code	(See Note 1)
GMA AUX Audio Data	(See Note 1)
GMA Voice Command Grammars	(See Note 1)
GMA Voice Command Language	(See Note 2)
GMA Voice Command DDG2P	(See Note 2)
GMA TTS Audio Data	(See Notes 2 and 3)
GMA TTS Grammars	(See Notes 2 and 3)

NOTE
Note 1: GMA software does not need to be selected if the GMA software version displayed for "Installed" matches the versions displayed for "On Card."

NOTE
Note 2: Select only if the version displayed for "On Card" does not match the version displayed for "Installed", or if there is no version displayed for "Installed". This is generally applicable for loading software from a newer version.

NOTE
Note 3: Select only if the installation uses Telligence Voice Commands. Updating the TTS files can take approximately 30 minutes.

9. Touch the **Update** key on the bottom of the display.
10. The GTN Xi will show the prompt "Start GMA 35 Software Updates?"
11. Touch **OK** to proceed with the software update.
12. Once the update has been completed, stop power to the GMA 35 and GTN Xi.
13. Remove the software loader card.
14. Put the database card into the GTN Xi SD Card slot.
15. Continue to Part Four: GMA 35/35c Software Verification Procedure.

Part Four: GMA 35/35c Software Verification

1. With the GTN Xi off, touch and hold the "Home" key.
2. Energize the GTN Xi to enter Configuration Mode.
3. Release the "Home" key when the display activates and the Garmin logo shows fully illuminated on the display.
4. Make sure that the GMA 35 is energized.
5. Touch **System Information** on the Configuration Mode page.
6. Touch **GTN**.
7. Select GMA 35 in the Select LRU Type list. On the System Information page for the GMA 35, make sure:

Table 9. GMA Software Systems Information Page

Software	Version for P/N 011-02299-2( ) P/N 011-02299-4( )
Audio Main Software Version	4.21C
Audio Boot Software Version	4.20C
Audio Region List Version	4.10C
Audio ARC DB Version	4.22C
Configuration File	4.20C
Auxiliary Main Software Version	4.21C
Auxiliary Boot Software Version	4.20C
Auxiliary Region List Version	4.10C
Auxiliary Audio Database Version	4.20C
Auxiliary ASR Grammar Version	4.20
Auxiliary ASR Language Version	2.00
Auxiliary ASR DDG2P Version	2.00
Auxiliary TTS Audio Data	4.10
Auxiliary TTS Grammar	4.10

8. Touch **External Systems** on the Configuration Mode page.
9. Touch **Audio Panel**.
10. Touch **Configure**.
11. Make sure the GMA 35 configuration settings match those from Part One, step 6. Correct as necessary.

MODIFICATION INSTRUCTIONS FOR LOADING PREVIOUS SOFTWARE VERSIONS

⚠️ **NOTE**

Refer to the corresponding Garmin service bulletin in the table below for instructions on loading to older software versions.

⚠️ **NOTE**

When loading older GTN Xi software versions, make sure all corresponding GMA software versions are also loaded as specified in the applicable Garmin service bulletin.

Table 10. Previous Software Versions

Previous Software Version	Corresponding Garmin Service Bulletin
GTN Xi Main 20.01 GTN Xi Main FPGA 2.0 GTN Xi Display FPGA 2.0 GTN Xi Touch v2.01 **GTN Xi WAAS 8.1** GTN Xi COM 2.00 GTN Xi COM FPGA 2.0 GTN Xi NAV v2.03 GTN Xi NAV FPGA 2.0 GMA 35 System 4.20A GMA 35 System 4.21C and associated software	2081
GTN Xi Main 20.01 GTN Xi Main FPGA 2.0 GTN Xi Display FPGA 2.0 GTN Xi Touch v2.01 GTN Xi WAAS 8.0 GTN Xi COM 2.00 GTN Xi COM FPGA 2.0 **GTN Xi NAV v2.03** GTN Xi NAV FPGA 2.0 GMA 35 System 4.20A GMA 35 System 4.21C and associated software	2036

Table 10. Previous Software Versions

Previous Software Version	Corresponding Garmin Service Bulletin
GTN Xi Main 20.01 GTN Xi Main FPGA 2.0 GTN Xi Display FPGA 2.0 GTN Xi Touch v2.01 GTN Xi WAAS 8.0 GTN Xi COM 2.00 GTN Xi COM FPGA 2.0 **GTN Xi NAV v2.02** GTN Xi NAV FPGA 2.0 GMA 35 System 4.20A GMA 35 System 4.21C and associated software	2026
GTN Xi Main 20.01 GTN Xi Main FPGA 2.0 GTN Xi Display FPGA 2.0 GTN Xi Touch v2.01 GTN Xi WAAS 8.0 GTN Xi COM 2.00 GTN Xi COM FPGA 2.0 GTN Xi NAV v2.01 GTN Xi NAV FPGA 2.0 GMA 35 System 4.20A GMA 35 System 4.21C and associated software	2025

RETURN TO SERVICE TEST PROCEDURE

Successful completion of Part Two of this bulletin is adequate to return the GTN Xi to service.

Successful completion of Part Four of this bulletin is adequate to return the GMA to service after the software modification.

Installers that are not applying the Garmin STC should refer to appropriate test procedures for GTN Xi installation return to service. Successful completion of the applicable ground checks per Section 6.10 and Section 6.11 of the GTN Xi Series TSO Installation Manual (or appropriate STC data) may be adequate to return the GTN Xi installation to service.

Installers that are applying the Garmin STC should refer to the appropriate STC Service Bulletin for installation return to service test procedures.

PREVIOUS SOFTWARE CHANGE LIST

Main Software Version 20.23:

- Fixed the roll steering issue identified in Garmin Service Advisory 21109. Roll steering is now provided for the autopilot to follow the Smart Glide route to the destination airport when Smart Glide is activated while in OBS mode
- Fixed an issue where tuning of NAV frequency was not allowed in G500, G600, G700 TXi (v3.30)

Main Software Version 20.21:

- Added Top and Bottom of Descent to MapMX Format 2 for G3X™ Touch™ v8.91 or later.
- Fixed an issue related to the display of runway dimensions on the Smart Glide alternate airports page

NOTE

Airports with no runway dimensions now display underscores to indicate the dimensions are unavailable.

Main Software Version 20.20:

- Added Smart Glide, a safety-enhancing feature that reduces pilot workload in the event of loss of engine power

NOTE

The Smart Glide feature is compatible with the following Garmin LRUs:

- ◦ G500 TXi/G600 TXi/G700 TXi (v3.30)
- ◦ GI 275/GFC 500 (v2.40)
- ◦ GFC 600 (v2.80)

Smart Glide support for G500/G600, G3X, and G5 will be available in future software releases.

NOTE

This feature requires settings to be entered in configuration mode: GTN Setup > Navigation Features > Smart Glide Settings. This settings page has replaced "Glide Range Ring Settings" in previous versions of software. Glide Range Ring may be enabled without Smart Glide.

- Improved database acknowledgment process in installations with multiple GTN Xi / G500(H)/ G600/G700 TXi (sw v.3.30) LRUs. GTN #1 analyzes all databases from the other LRUs and provides a single point for acknowledgment when all are valid and current

NOTE

The other LRUs only stop for database confirmation if a problem exists that the pilot needs to acknowledge. The acknowledgment process for single GTN Xi installations remains the same.

NOTE

SD cards containing databases must be removed from the second GTN Xi series navigator and/or GDU™ TXi unit(s). If SD cards are desired to be retained, databases must be erased from the SD cards.

- Added option to allow the Instrument Self-test page to be bypassed at startup for cockpits where it is not needed

NOTE

This setting can be enabled in configuration mode: GTN Setup > Main System > Self-test Page.

- Fixed an issue with GMA Recorder playback volume not retaining value set by pilot during flight
- Added ARINC Output GAMA Format 9 for OEM installations
- Changed label of "Enable ES" button on transponder menu to "ADS-B Out" to better reflect functionality

NOTE

When "ADS-B Out" is enabled, shown by green bar, the unit commands the transponder to send ADS-B out data.

Main Software Version 20.12:
- Fixed QWERTY and ABC Keyboards described in Garmin Service Advisory 2112
- Fixed the Top of Descent aural annunciation so that it will only activate on one GTN in a dual GTN installation

Main Software Version 20.11:
- Fixed ADS-B out function described in Garmin Service Advisory 20140

Main Software Version 20.10:
- Added Glide Range Ring display on map page

NOTE

This feature requires settings to be entered in configuration mode: GTN Setup > Navigation Features > Glide Range Ring Settings.

- Added Remote Radio control, which allows a GTN Xi to control the COM and NAV radios on another GTN Xi

> **NOTE**
>
> This feature can be enabled in configuration mode: GTN Setup > Main System Configuration > Remote Radio Control.

- Added page navigation via knob, which allows pilot to navigate to 9 different selectable pages via the knob. Knobs can also be used for scrolling pages or zooming on maps

> **NOTE**
>
> The knob control default has changed to page navigation. To change knob control default setting, in normal mode select System > Setup > COM/NAV > Knob Control Default to change from Page Navigation to COM Radio control.

- Added pilot selectable startup page which allows the pilot to select which page the GTN Xi starts on after acknowledging the instrument test page
- Added support to sync databases with GPS 175, GNX™ 375, or GNC® 355
- Added config option to disable visual approaches
- Added config option to adjust COM headphone volume
- Added new user fields for time with seconds, distance and bearing from a selected waypoint, current position displayed in lat/lon format based on position units, and Flight ID
- ILS/GPS approach annunciate logic has been updated to help address issues with older autopilots while transitioning to approach mode during turns

> **NOTE**
>
> When GPS select is configured for prompt, ILS/GPS approach discrete output will not activate until the message is acknowledged on the GTN Xi, allowing the pilot to turn onto final and then trigger approach mode coupling to the autopilot. This change will only apply to systems using the ILS/GPS approach discrete output.

- Fixed a problem with flight data logs from multiple flights being merged into one larger log
- Added ARINC GDU Format 2 interface for G3X software v8.80 which includes fuel flow and fuel quantity inputs
- Added shortcut to view Charts from airports and procedures on the flight plan page
- Added an auto scroll to the active leg after 10 seconds of inactivity on the flight plan page
- Added controls for inhibiting terrain alerts to the terrain pop-ups
- Added controls to mute the current traffic alert from a GTX™ 345

> **NOTE**
>
> Controls to mute the current traffic alert requires GTX 345 ADS-B software version 3.20 and later.

- Fixed the SMS text message send issue described in Garmin Service Advisory 2077
- Added an Emergency Descent Mode (EDM) activation key

> **NOTE**
>
> Applicable only to aircraft equipped with EDM, a GFC 600, and TXi v3.12 or later.

GPS/WAAS software version 8.2 addresses the MSAS range rate corrections issue identified in Garmin Service Advisory 20109 and restores MSAS to the set of allowed SBAS service providers.

> **NOTE**
>
> If MSAS was disabled by the user under Garmin Service Advisory 20109, it will need to be enabled after installing GPS/WAAS software v8.2. Refer to the applicable pilot's guide for instruction on how to enable MSAS.

GTN Xi Series COM software version 2.02 adds robustness improvement.

NAV software version 2.04 decreases the default NAV audio volume level.

GMA 35/35c Audio ARC DB version 4.22C improves support for low impedance headset adapters.