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# AVIATION SERVICE DOCUMENT NOTIFICATION

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| **TO:** | G500(H)/G600/G700 TXi Owners and Operators |
| **DATE:** | June 3, 2024 |
| **SUBJECT:** | G500(H)/G600/G700 TXi Main Software Version 3.62 |
| **CERTIFICATION AUTHORIZATION:** | TSO Authorization |

**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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## COMPLIANCE

For installations with G500/G600 TXi Main Software Version 3.61 installed in aircraft with only one GDU, or with an EIS Only GDU, Garmin recommends incorporation of this TSO Service Bulletin as soon as practical.

For all other installations, Garmin recommends the incorporation of this TSO Service Bulletin at the next scheduled service interval.

## PURPOSE

G500(H)/G600/G700 TXi Main Software Version 3.62:

**New and Updated Features**

- Added support for Turbofan Engine EIS, including new gauge types, display layout configurations, and functions
- Added Low Speed Warning and Approach Speed Cue indications with a compatible AoA computer interface
- Added support for Triangle and Dot EIS gauge markings
- Added support for two ADF interfaces simultaneously
- Added support for two DME interfaces simultaneously
- EIS gauges can now be configured for dynamic minimum and maximum range values
- Added support for FLC modes when interfaced with a compatible GFC 600 system
- Added the option to set the speed bug using selected Mach
- Added N1 and Torque gauge reference indicators
- Added computed N1 references for various thrust setting modes of the Cessna 525 and 525A
- Added support for Inertial-Aided Airspeed Trend when enabled by configuration
- Added Fuel Temperature Indications for Turbine EIS configurations
- Added support for display of ADC/AHRS data sourced from GI 275 standby indicator



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- Added support for enhanced miscompare annunciations and automatic ADC/AHRS sensor reversion when there are three sensors available
- Added an outside air temperature gauge for EIS configurations
- Added jet-aircraft oriented airspeed reference indications and controls, as well as aural callouts for V1, Vr, and V2
- Added Stabilized Approach alerting when enabled by configuration
- Added engine time in service counters for Turbofan engines
- Added engine cycle tracking for Williams FJ44 engines
- Added a gear aural warning inhibit output
- Added support for discrete inputs to control the active video input on MFDs with multiple video input channels
- Added support for Selected Side (XFR) control and indication
- Added support for Maintenance Timers, which can be configured to track time when a discrete input to a display or GEA is active
- Added support for Twin Engine Turboprop EIS on the GDU 1060 in 20% strip format
- Added support for Twin Engine Turboprop automatic display backup reversion
- EIS gauge can now be configured to have non-linear ranges
- Added zero fuel weight entry to support Current Aircraft Weight and Weight at Destination fuel computer functions

**Software Fixes**

- Fixed a fuel computer issue described in Garmin Service Advisory 24048, where in single GDU installations with G500/G600/G700 TXi Main Software Version 3.61 only. This includes range to empty and fuel remaining at destination.
- Fixed a GPS/WAAS boot up issue
- Fixed an issue EIS gauge needles could jump between nearby values rather than moving smoothly
- Fixed an issue where TXi could display a radar fault on power up with the RDR 2100
- Fixed an issue where certain settings were not included in the configuration summary
- Fixed an issue that could cause ESP row markers to be hidden
- Fixed an issue where VNAV guidance could override GS guidance on the VDI incorrectly
- Fixed an issue where the display could get stuck on ‘waiting for SYNC’ on startup when interfaced to a unit with DB SYNC disabled
- Fixed an issue where the system summary could include a blank section in the fuel quantity markings
- Fixed an issue where a GWX weather radar could not be exercised during a Mag Interference check. The GWX is now controllable during the Mag Interference check.
- Fixed an issue where an engine caution could be displayed with no engine gauge showing a caution due to uncleared background configurations
- Fixed an issue where a erroneous menu button could appear on a PFD in display backup when a FlightStream 510 is present
- Fixed an issue where the WX altitude control would not reposition itself when an MFD is resized on the GDU 1060
- Fixed an issue were AHRS and ADC source control discrete states were erronously cross-filled between pilot and copilot displays
- Fixed an issue where the Mach readout would declutter during extreme attitude declutter

- Fixed an issue where the TIS/TAS STBY discrete output would not function properly for KTA 870/KMH 820 or KTA 970/KMH 920 configurations
- Fixed an issue where part of the system configuration could be lost during GDU replacement
- Fixed an issue where the default airspeed reference values could not be applied when interfaced with a GI 275
- Fixed an issue where the Scaler to HDG button title could change to GPSS erroneously during autopilot interface configuration
- Fixed an issue where certain prompt pop-ups would not accept knob press input
- Fixed an issue where the ground awareness band could appear from behind terrain when flying at high altitudes

**General Updates**

- Turbine EIS has been updated to increase readout sizes, improve readability, and support additional layout configurations
- Displays on the HSDB network will now coordinate flashing elements to flash in sync
- Displays on the HSDB network will now coordinate alerting pop-ups and share acknowledgment
- Improved the speed of GSU flight data log downloads
- VNAV altitudes in the active flight plan will now be included when adjusting the selected altitude using the knob
- The PFD Engine annunciator will no longer activate for non-alerting EIS caution conditions
- EIS user select gauges will now offer a UTC and local time clock option
- EIS user select gauges will now sort into functional groups when selecting the displayed function
- The Starter cooldown timer display delay can now be configured
- The Starter Timer can now be configured to be suppressed when the associated engine is running
- Added support for TCAS II RA display on the Arc VSI presentation
- The Arc VSI scale is now matched to the standard VSI scale for fixed wing aircraft
- The display will now provide additional information when an EIS sensor fails to load
- The display will now synchronize the wind calculation with other HSDB connected GDUs and GTNs
- The display will now synchronize heading units (True/Magnetic) with interfaced GTNs
- The Approach Minimums setting menu has been simplified to improve usability
- Added a shortcut to the minimums setting menu by tapping on the lower part of the altimeter tape
- Approach minimums will now clear when the approach in the flight plan is changed
- All EIS discrete inputs will now be logged in the flight data log at 1Hz
- EIS bar gauges with exceedances configured will now display a timer while in a time limited range
- Fuel Flow indications now support Value Lock configurations
- The Estimated Fuel Remaining menu will now hide the Tabs option if Tab quantity is not configured
- Turbofan, Turbojet, and Turboshaft engine type selections are now available
- EIS sensors will now display the configured port in the system summary
- The system summary will now include a discrete name map to link discrete output state data in the flight data log to the configured function
- The airspeed trend indicator can now be configured for 10 second look ahead time
- The Default PFD knob selection can now be configured to BARO instead of HDG
- Exceedance Timers have been relabeled to Exceedances in EIS Advanced Gauge settings
- EIS interfaces will now display an information window when EIS interfaces are not available due to other configurations of the system

- Generic Engine discrete inputs can now be used for advanced EIS functions such as dynamic markings, automatic ignition, value lock, and others
- The system can now be configured for Flap Position inputs
- The system can now support GPT formatted SD/FlightStream 510 cards
- The default VSI range with TCAS II enable is now set to 6000 FPM
- The PFD altitude bug knob can now be configured to support coarse/fine tuning with a knob hold action
- Engine Advisories have been renamed to Advisories in the menu on EIS units and the MFD engine page
- The system can now support up to 4 weight on wheels discrete inputs and will manage them for miscompare situations
- Airspeed Switch outputs configured for Overspeed Warning (Vne/Vmo/Mmo) can now be configured to have a Overspeed Test discrete input that will activate the output as well as an activation offset
- Airspeed exceedance recorded can now be disabled, and the activation and deactivation criteria are configurable
- The system will now undim the screen if airspeed or ground speed increase during a Remote Aircraft Status request
- The Low Speed Warning band will now be suppressed until the airspeed has exceeded the maximum value of the band at least once for aircraft that do not have a weight on wheels input
- Added a shortcut to the airspeed reference menu by tapping on the airspeed tape.
- Added additional data sources as options for EIS dynamic markings in Piston enigne configurations
- Turbine EIS configurations can now disable the Hobbs and Flight Hours timers
- The airspeed tape range can now be configured separately from the vertical speed indicator range
- Oil pressure sensors can now be calibrated for a 0 pressure offset
- Smart glide will now only automatically set the speed bug to best glide speed for single engine configurations
- The display will now coordinate fuel computer rounding with interfaced GTN Xi units
- GFC 500 and GFC 600 MINSPD and MAXSPD annunciations will no longer flash
- The system will now provide an alert when the SD card is nearly full
- Flight Dynamics monitors will no longer run in systems with more than one primary AHRS interface, reducing the number of erroneous miscompares observed during uncoordinated or aerobatic flight
- ADC and AHRS annunciations for non-standard source selection are now amber in all configurations
- The altitude alerter background when approaching the selected altitude has changed from white to cyan
- Improved the speed of the AHRS log download through the GDU
- The PFD Menu Terrain SVT button will now reflect the TAWS configuration
- TAWS-B configurations will not inhibit Mode 1 and Mode 3 alerts when TAWS Inhibit is active

**New Interfaces**

- Added interface support for the GWX 8000 Weather Radar (Does not apply to the G500H TXi)
- Added interface support for the GTR 205 and GNC 215
- Added interfaces support for SafeFlight C-12406-3, C12406-5, C-13206-1 AoA computers
- Added support for the Collins ALT-4000 Radar Altimeter
- Added support for the Collins RTA-800 Weather Radar
- Added support for ISS AIU RS-232 output format
- Added support for AHRS GPS aiding RS-232 output format
- Added a GDC/GSU airspeed configuration for the Kollsman 586CK-0187 airspeed indicator used with the Cessna 190/195
- Added interface support for the WX-1000 Stormscope
- Added interface support for the GCU 485 -06 and -16 part numbers
- Added multiple new EIS sensor interface configurations

**NOTE**

Database sync routing is affected by this change. Systems with GTN (v6.72 or earlier) or GPS 175/GNC® 355/GNX™ 375 (v3.11 or earlier) interfaced to G500(H)/G600/G700 TXi (v3.50 or later) or GI 275 (v2.60 or later) no longer support database sync. Databases will need to be loaded onto each GTN and GPS 175/GNC 355/GNX 375 unit. This has been fixed in GTN software v6.73. This limitation will be fixed in future GPS 175/GNC 355/GNX 375 software versions.

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## PRODUCTS AFFECTED

**Table 1. Products Affected**

| System | Model | Appliance P/N |
|---|---|---|
| G500H TXi | GDU™ 700P | 011-03306-20, -30<br>011-03306-22, -32 |
| | GDU 700L | 011-03307-20, -30<br>011-03307-22, -32 |
| | GDU 1060 | 011-03308-20, -30<br>011-03308-22, -32 |
| G500 TXi | GDU 700P | 011-03306-20, -30<br>011-03306-22, -32 |
| | GDU 700L | 011-03307-20, -30<br>011-03307-22, -32 |
| | GDU 1060 | 011-03308-20, -30<br>011-03308-22, -32 |
| G600 TXi | GDU 700P | 011-03306-60, -70, -80, -A0<br>011-03306-62, -72, -82, -A2 |
| | GDU 700L | 011-03307-60, -70, -80, -A0<br>011-03307-62, -72, -82, -A2 |
| | GDU 1060 | 011-03308-60, -70, -80, -A0<br>011-03308-62, -72, -82, -A2 |
| G700 TXi | GDU 700P | 011-03306-B0, -C0<br>011-03306-B2, -C2 |
| | GDU 700L | 011-03307-B0, -C0<br>011-03307-B2, -C2 |
| | GDU 1060 | 011-03308-B0, -C0<br>011-03308-B2, -C2 |
| EIS TXi | GDU 700P | 011-03306-00, -10<br>011-03306-02, -12 |
| | GDU 700L | 011-03307-00, -10<br>011-03307-02, -12 |

## WARRANTY INFORMATION

This Service Bulletin is warranty reimbursable with a deadline of December 31, 2024.

## DOCUMENTATION CONSIDERATIONS

The G500(H)/G600/G700 TXi Pilot's Guide (190-01717-10) Rev P is to be provided to the owner/operator if not already provided.

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