GENERAL AVIATION SOLUTIONS

SETTING THE COURSE FOR NEXTGEN AIR NAVIGATION



GARMIN®

GENERAL AVIATION

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AVIONICS DESIGNED WITH TOMORROW IN MIND

With our comprehensive lineup of avionics upgrades in the industry, Garmin offers solutions for most any budget and mission, all while providing state-of-the-art capabilities and improving decision-making like never before. We're continually introducing new products and creative technologies that reduce complexity, enhance efficiency, underscore safety, shorten learning curves and vastly simplify cockpit management in all phases of flight.

From the industry's first IFR approach-certified GPS to today's newest touchscreen interfaces and advanced SBAS/WAAS systems that let pilots fly GPS LPV glidepath approaches into airports with no on-field electronic navaids of any kind, Garmin avionics are setting the pace and building toward a future that will take us from today's ground-controlled and radar-supported ATC system to a more space-based, satellite-derived NextGen air traffic management environment.

As this vision takes shape, you can count on Garmin to keep building ever-higher levels of reliability, integration and pilot situational awareness into every panel- and remote-mount avionics system we offer. Our products are designed for pilots by pilots. Plus, they're ready and approved for installation today in hundreds of makes and models of aircraft, including helicopters, by the FAA, Europe's EASA, Canada's TCCA and Brazil's ANAC authorities.

Garmin Avionics. Onboard with the future of flight.



GTN™ 650XI AND GTN™ 750XI SERIES NAVIGATORS

TAP INTO A NEW GENERATION OF FLIGHT NAVIGATION TECHNOLOGY

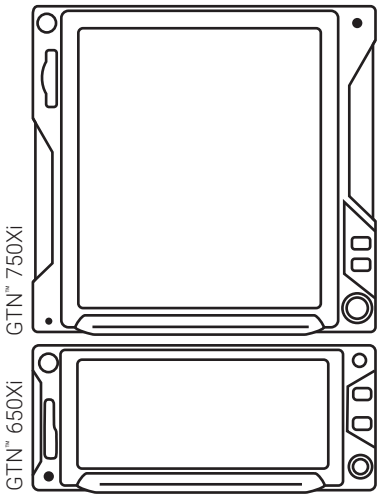
As the first manufacturer to certify touchscreen technology for general aviation cockpits, Garmin now extends its longstanding leadership in integrated flight solutions with the GTN™ 650Xi and GTN™ 750Xi series.

Evolved from thousands of Garmin glass systems, these versatile all-in-one avionics platforms are now even more robust — offering faster, smarter, visually sharper technology that lays the foundation for advanced capabilities of the future. Both the GTN 650Xi and GTN 750Xi models feature crisp, color touchscreens that provide easy access to navigation, radio tuning, multifunction display (MFD) features and more. The compact GTN 650Xi is contained in a 2.65" tall package — while the larger GTN 750Xi bezel stands 6" tall and features a 6.9" diagonal display. Combining full WAAS LPV approach capability with the latest in dynamic mapping, graphical flight planning and vertical navigation (VNAV) guidance to fly complex RNAV procedures, these new-generation avionics bring unprecedented levels of convenience, efficiency and situational awareness to aviation's premier GPS/Nav/Comm/MFD suite.

The GTN Xi series' touch-control interface blends seamlessly with familiar buttons and knobs to put all essential flight information at your fingertips. High-speed processors cut boot-up time by 50% over earlier GTN models — providing fast access to frequencies, flight plan data, database updates and more. The added processing power also supports faster graphics rendering and smoother panning for convenient smartphone-like swipe and pinch-to-zoom gestures to align and scale the map view on the screen. The touchscreen has a wider viewing range due to the super high-resolution display — making it one of the highest-resolution displays ever offered in this class of avionics.

What's more, if you're considering an upgrade from an earlier GTN edition, easy slide-in installation with the newest GTN Xi series keeps downtime and costs to a minimum. Of course, it's all backed by our industry-leading Garmin aviation support team, reinforced with comprehensive web-based training tools, in-person training options and affordable database packages — all of which translate into an industry-leading owner experience.

Standard SBAS/WAAS navigation enables you to fly GPS-guided LPV glidepath approaches down to ILS-comparable minimums, where suitable conditions exist. Also, precise course deviation and roll steering outputs can be coupled to select autopilots, including the GFC™ 500 and GFC™ 600, enabling virtually all IFR flight procedures, such as holds, NextGen radius-to-fix legs and missed approaches, to be flown automatically — with added capability to program visual approaches and fly vertical descent navigation to published altitude constraints on approaches, as well as an optional enablement to add common search and rescue operations, including orbit, parallel line, expanding square and sector search types.




AP
YD
GP
LPV
104°
CRS 104°
VS -700
29.92 IN
CDI
Full
HDG | ALT | VS | IAS | CRS | BARO | Push Sync
GARMIN
COM 118.10 APPROACH
STBY 118.70 KPDX TWR
Audio Panel
Intercom
MIC 1
MON 1
XPDR IDENT
3422 ALT R
NAV IVDG 111.30 IVDG ILS
STBY 116.60 BTG VOR
D-ATIS 128.35 269.9
PORTLAND APP CON 124.35 299.2
PORTLAND TOWER 123.775 251.125
GND CON 121.9 348.6
CLNC DEL 120.125 318.1
BATTLE GROUND BTG
HOGUM
In
Out
Com Freq / Psh Nav
HOME
COM 128.35 KPDX ATIS
STBY 121.90 KPDX GND
XPDR ALT 3422 R
1320 FT
TAWS B
GPS
LVL
ALT
BC
VNV
IAS
VS
DN NOSE UP
TAKEOFF & CLIMB – LEAN AS REQUIRED
DESCENT – ENRICH AS REQUIRED
BEFORE LANDING – FULL RICH OR
AS REQUIRED BY FIELD ELEVATION
PUMP OPERATION







Within the GTN™ Xi ecosystem, you'll find support for a wide array of avionics and sensors — everything from available onboard digital color radar to ADS-B enhanced traffic alerting to worldwide satellite links for weather, phone calls, text/email messaging and more. All are options that can be incorporated, viewed and controlled right from the touchscreen display. You can also integrate GTN Xi with such exclusive industry-leading technologies as Telligence™ voice command and Connext® wireless cockpit connectivity[1] to support data streaming between your avionics, the Garmin Pilot™, ForeFlight and FltPlan Go apps running on your iPad® tablet or other compatible device — essentially giving you an extra control/display in the cockpit.

You can also use the Connext wireless technology to upload flight plans from your mobile device to your avionics — and you can even opt to keep all your avionics databases automatically updated with PlaneSync™ connected aircraft management technology[2]. Plus, for the ultimate in convenience, you can pair your GTN Xi series with a GMA™ 350 series audio panel[3], which gives you access to the power of Telligence™ voice command — allowing you to activate select audio panel and navigation functions by spoken orders, without taking your hands from the controls. And, in dual GTN Xi installations, a remote tuning capability lets you tune frequencies on both units from either navigator. A radios page displays all selectable Comm and Nav frequencies (active and standby) plus their volume levels.

Additional GTN Xi series features include the FastFind function that automatically searches for the nearest identifier as soon as you start typing, so it will likely come up with the station ID even before you've entered all the digits; customizable checklists; fuel range rings; map-track vectors; airspace altitude overlays on the moving map page; and quick access to frequently used data fields, functions, pages and more. Selectable "shortcuts" let you quickly access menu items directly from your moving map page, so you're rarely more than a tap or two away from all primary pages and functions. Or you can use each unit's dual concentric knob controls for quick access to select pages. The outer knob can cycle through as many as nine custom-assigned pages, with the inner knob supporting functions such as zooming or scrolling on the page displayed.

And, in case of an engine power loss situation, GTN Xi series navigators provide Smart Glide™ assistance when paired with compatible Garmin flight displays (sold separately). At the push of a button, this workload-saving system finds a recommended airport for landing — and provides a list of alternative in-range airports you may also select — then creates a route to your preferred airport. Smart Glide[4] can also engage your compatible Garmin autopilot in IAS mode at best glide speed to fly near the airport so









you can land. And it displays information for the airport, automatically loads the airport CTAF frequency into the primary COM standby position on GTN™ Xi and provides a shortcut to enter the 7700 squawk code on a compatible transponder.

Other built-in features for pilot workload reduction include a handy "frequency lookup" function that allows you to enter any navaid or airport identifier and have the GTN Xi look up the frequencies (Tower, Ground, ATIS, Clearance Delivery, etc.) associated with that location. Conversely, if you're given a frequency by ATC, the lookup function will automatically provide the station identifier, so there's never any question who you're calling. Plus, the device will automatically decode a station's Morse code signal to provide a positive identification — and ensure that you've got the right number.

With every model in the GTN Xi series product lineup, graphical flight planning capabilities allow you to preview your route on the map screen and easily enter new waypoints or modify existing ones. Victor airways and high-altitude jet routes can be overlaid on the moving map. And for easy IFR route navigation, airway segments can be selected on screen for instant entry into one's flight plan. What's more, a handy "rubber band" feature lets you grab a flight plan leg on the screen and then stretch or move it to accommodate a deviation or ATC amendment to your flight plan.

You can also simply tap on waypoints, airports, etc., on the display to get more information about each location. And a data "crossfill" function enables your GTN Xi series navigation system to automatically sync flight plan and waypoint information with any earlier-generation GNS™ 430W/530W series navigators you may have in your panel. Thus, there's no duplication of effort between your GTN Xi and your GNS units. On all GTN Xi models, the built-in GPS is certified for primary navigation in all phases of flight — en route, terminal and approach — and can also qualify as an ADS-B compliant position source for NextGen airspace. Additionally, there's a built-in terrain elevation database that is standard on all units that provides color-coded display and alerts overlays when potential terrain conflicts loom ahead. And full Class B or Class A TAWS alerting is also available as an option.

Upon landing at your destination, geo-referenced SafeTaxi® diagrams automatically provide easy directional orientation on hundreds of U.S., Canadian and European airports — including visual identification of airport hot spots that pose increased risk of conflicts. For European pilots, the GTN Xi series even displays visual reporting points on the moving map.

With its large, MFD-capable touchscreen, GTN 750Xi series is ideally sized to accommodate your geo-referenced approach plates and procedures, which come standard with a free initial trial of Garmin FliteCharts®[5] for the U.S., Europe and Canada. Or, if you prefer the Jeppesen format, you can elect to go with optional Garmin ChartView™ electronic charts on your big-screen GTN Xi instead[6].

All the GTN Xi series products can support optional weather, lightning and traffic system inputs for overlay on the moving map. If your flying calls for onboard radar, the larger-format GTN 750Xi series can double as a display for Garmin's Doppler-capable GWX™ 75 digital weather radars[3]. So there's no need to install a separate radar display or MFD in your panel. Similarly, a variety of datalink weather solutions can be used to access animated graphical NEXRAD, METARs, TAFs and more. These options include Sirius XM® satellite weather coverage for North America (using the GDL® 69 datalink receiver)[7], as well as worldwide weather datalink coverage via the GSR 56 satellite receiver[3]. Another GTN Xi series weather solution is provided by the Garmin GTX™ 345 all-in-one ADS-B transponder. It not only satisfies ADS-B "Out" requirements for operation at all altitudes, but also lets you take advantage of ADS-B "In" datalink traffic and subscription-free weather services now available through the FAA's ground-based U.S. network. Even better, the GTN Xi series is capable of advanced ADS-B traffic display features such as TargetTrend™ relative motion tracking, which offers a faster, more intuitive way of judging target trajectories and closure rates in relation to your aircraft's flight path. On the ground, the TerminalTraffic™ feature works with SafeTaxi to overlay on-surface traffic targets onto the airport diagram, enhancing your awareness of any traffic situation on the taxiways. And then, for expanded traffic monitoring and alerting in flight, the GTN Xi series is compatible with active traffic systems such as the GTS™ TAS/TCAS line[3].

To save space in your avionics stack, any GTN Xi unit can provide on-screen control/display for optional remote-mount Garmin transponders[3]. And the larger-format GTN 750Xi screen can also be used as your control panel for an optional GMA™ 35c or GMA™ 35 remote audio/intercom system[3]. With this capability you're able to accommodate more screen area in less total stack height.

The Garmin GTN Xi series: It's what being in touch with smarter technology is all about.

[1]Sold separately. Capabilities such as GPS, attitude, weather, traffic and flight plan transfer, SiriusXM® weather and audio control are limited to the version of Flight Stream, the avionics installed in the aircraft, as well as portable device. Compatibilities continue to grow with more apps and Garmin portables. Check the Flight Stream 510/210/110 page's 'Supported Devices' tab for the latest feature and compatibility information.
[2]Active PlaneSync and database subscriptions required for automatic database updates. Features are available on-ground only and require GDL® 60 to have active LTE or Wi-Fi® connectivity; signal strength and other factors may apply.
[3]Sold separately
[4]See Garmin.com/SGuse/ for Smart Glide system requirements and limitations.
[5]Initial U.S. FliteCharts® will disable when data is more than 180 days past the expiration date. Updates available on single-cycle or annual basis.
[6]Jeppesen subscription required for use with optional Garmin ChartView™ (sold separately). These charts will automatically disable 70 days after their expiration date.
[7]SiriusXM® subscription subscription required (sold separately)
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The customizable checklist feature on your GTN Xi can be used to help ensure that everything is done "by the book" in your cockpit — from preflight and run-up checks to emergency procedures.

Wirelessly link your iPad® to your avionics: By installing a Flight Stream 510 or 210 wireless gateway with your GTN Xi series, you can use Garmin Connext® technology to keep your flight plans in sync and stream weather, traffic, GPS and attitude information to select Connext-capable[1] apps and Garmin portables such as Garmin Pilot™, FltPlan Go and aera® 660.

It's never been easier to keep all your databases in sync. Simply update one GTN Xi wirelessly with Database Concierge via Garmin Pilot and Flight Stream 510, and your other GTN Xi — and your G500TXi/G600TXi flight displays or GI 275 electronic instruments — will sync databases automatically. You can also access individual procedure charts immediately, even if sync isn't complete, and you can opt to preload the next database release cycle in advance, for activation upon its effective date — another real time-saver.

On-screen graphical flight plan editing makes it easy to add waypoints or modify your route. And a handy "rubber band" feature lets you stretch a flight plan leg to divert or amend your routing.

Geo-referenced Garmin FliteCharts® come standard with a free initial trial on the large-format GTN 750Xi series[3]. Optional Jeppesen-format electronic charts are also available with Garmin ChartView™[4]. Both versions of these charts enable graphical overlay of geo-referenced approach plate procedures on your moving map.

Victor Airways and high-altitude Jet Routes can be overlaid on the moving map — and airway segments can be selected on-screen for easy entry into a flight plan.

Advanced ADS-B display capability can be provided via the Garmin GTX™ 345 all-in-one ADS-B transponder (sold separately), allowing you to access the FAA's free uplink of aviation weather and traffic information. On the traffic display, our patented TargetTrend™ relative motion feature offers a faster, more intuitive way to judge direction and closure rate of targets in relation to your flight path.

Sectional-like airspace depictions show altitude limits right on the moving map. And the Smart Airspace™ feature automatically highlights airspace details close to your current altitude, while de-emphasizing less relevant data at other levels.

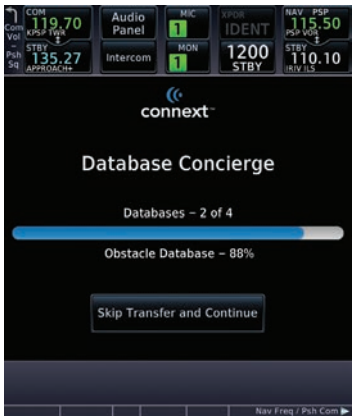
SafeTaxi® airport diagrams come preinstalled on all GTN Xi Series products, providing geo-referenced aircraft guidance on hundreds of U.S., Canadian and European airports and visual identification of hot spots that pose particular risk for traffic conflicts.

A built-in elevation database provides an extra margin of situational awareness in visualizing terrain/obstacle conflict situations. For even more comprehensive audible/visual alerting capability, optional TAWS A and TAWS B functionality is also supported.

A wide range of optional weather solutions can be displayed on your GTN Xi touchscreen — everything from onboard digital radar to SiriusXM® or worldwide satellite datalink products — as well as the subscription-free uplink of graphical and textual weather data via the U.S. ADS-B ground network.

To save vital inches in your stack, any GTN Xi touchscreen can serve as a digital control head for compatible Garmin remote-mount transponders. In addition, the larger GTN 750Xi can also provide on-screen control for Garmin's remote GMA 35 audio/intercom system (sold separately), which features 3-D audio and Telligence™ voice command.









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SPECIFICATIONS

Awareness

Emergency Search:	25 nearest airports, VORs, NDBs, intersections and user waypoints; 5 nearest ARTCC and FSS frequencies
Alarms:	Terrain, TAWS B, TAWS A (optional); airspace messages at 10 minutes, 2nm and inside airspace; arrival timers; customizable reminders for oil changes, required inspections, etc.

Pilot Customization

Waypoints:	1000 user-defined
Flight Plans:	99 reversible; up to 100 waypoints each

Physical

Unit Size	
GTN 650Xi:	2.65"h x 6.25"w x 11.25"d (6.7 x 15.9 x 28.6 cm)
GTN 750Xi:	6.00"h x 6.25"w x 11.25"d (15.2 x 15.9 x 28.6 cm) Depth is behind panel with connectors
Unit Weight	
GTN 650Xi:	7.0 lb
GTN 750Xi:	9.3 lb
Display:	Color TFT LCD; sunlight readable. Optional NVIS-B compatibility
Power:	11-33 VDC

Performance

GPS:	TSO-C146e, Class 3
VOR:	TSO-C40c
LOC:	TSO C36e
GS:	TSO-C34e
VHF COMM:	25 kHz and 8.33 kHz channel spacing Transmitter TSO C169a, Class 3, 4, 5 and 6 Receiver TSO C169a, Class C and E
Comm Transmit Power:	10 or 16 watts (optional)
GPS Receiver:	15 channel, including 3 WAAS
Acquisition Time:	TTFF 1:45 minute typical (cold), 10 second reacquisition
Update Rate:	5 per second
Accuracy:	<2 meters RMS typical with WAAS (horizontal/vertical)
Dynamics:	1000 knots max
Nav Features:	Navigation with flight plans and direct-to waypoints, airway navigation, approach navigation using published approaches, terminal navigation using DPs and STARs, closest point of flight plan, arrival and departure frequencies, turn advisories and arrival annunciations
Planning Features:	Trip and fuel planning, true air speed, density altitude, winds aloft, flight timers, trip statistics, sunrise and sunset, RAIM availability, advisory vertical navigation (VCALC)
Interfaces:	ARINC 429, RS-232, HSDB, CDI/HSI, RMI (digital), altitude input (serial: Icarus, Shadin-Rosetta; fuel sensor, fuel/air data, GDL 69/69A XM, GTX 345, GTX 345R, GTX 335, GTX 335R, GTS 800/825/855, GDL 88, GWX 68/70, GSR 56, G500/G500 TXi/ G600 TXi, L-3 Stormscope, L-3 Skywatch, Avidyne TAS, GAD 42/ GAD 43/ GAD 43e, GRA 5500, GRA 55, GMA 35 and others
Map Datums:	WGS-84

SERIES COMPARISON:	GTN 625Xi	GTN 635Xi	GTN 650Xi	GTN 725Xi	GTN 750Xi
Unit size (height)	2.65"	2.65"	2.65"	6"	6"
Display resolution (pixels)	370 x 834	370 x 834	370 x 834	986 x 834	986 x 834
10-watt comm radio	No	Yes	Yes	No	Yes
16-watt comm radio	No	Optional	Optional	No	Optional
VOR/ILS/GS nav radio	No	No	Yes	No	Yes
Gamma 3 WAAS GPS	Yes	Yes	Yes	Yes	Yes
Hi-res terrain graphics	Yes	Yes	Yes	Yes	Yes
Internal TAWS B/TAWS A terrain alert	Optional	Optional	Optional	Optional	Optional
Free trial of geo-referenced FliteCharts®	NA	NA	NA	Yes	Yes
Jeppesen ChartView™	No	No	No	Optional	Optional
Preloaded SafeTaxi®	Yes	Yes	Yes	Yes	Yes
Sirius XM® Satellite Weather capable[1]	Yes	Yes	Yes	Yes	Yes
Can control remote transponder[2]	Yes	Yes	Yes	Yes	Yes
GWX™ 75 radar interface[3]	No	No	No	Yes	Yes
Third-party digital radar support	No	No	No	Optional	Optional
Can control remote audio processor[4]	No	No	No	Yes	Yes
Traffic system capable[5]	Yes	Yes	Yes	Yes	Yes
Advanced ADS-B traffic and weather[6]	Yes	Yes	Yes	Yes	Yes
Connext wireless link to iPad®/tablets[7]	Yes	Yes	Yes	Yes	Yes

[1]Requires GDL 69 antenna (sold separately); Sirius XM® subscription required
[2]GTX® 335R/345R series remote transponders sold separately
[3]Radar LRU sold separately
[4]GMA 35 remote audio panel sold separately
[5]Requires GTS 800/825/855 or compatible third-party traffic alerting systems
[6]Requires optional GDL 88 datalink, sold separately
[7]Requires additional hardware
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Add touchscreen glass cockpit displays to your aircraft with G500 TXi/G600 TXi/G700 TXi. The G500 TXi system is intended for FAR Part 23 Class I/II aircraft under 6,000 pounds, G600 TXi flight displays are intended for Class III aircraft up to 12,500 pounds, and G700 TXi flight displays meet Level A software assurance levels for Class IV (MTOW more than 12,500 pounds) and Part 25 aircraft.

TXi™ TOUCHSCREEN FLIGHT DISPLAYS

RETROFIT GLASS IS NOW WITHIN YOUR GRASP

If you love the idea of flying a glass cockpit — but hate to think of parting with your current aircraft — this is clearly the retrofit option you've been waiting for. Upgrade your panel with TXi™ touchscreen flight displays. They deliver advanced PFD/MFD/EIS capabilities and provide an all-Garmin modernization path for your aircraft that can grow with your needs without overstretching your budget.

Building on the proven capabilities of our original G500/G600 series glass flight displays, these new-generation TXi versions feature bright, high-resolution LCD touchscreens plus significantly increased processing power to bring you an expanded array of features, options and panel layout possibilities.

Modernize Your Piston, Turboprop or Jet

The TXi series displays meet software-assurance levels required for certification in select Class I/II/III/IV aircraft. G500 TXi/G600 TXi/G700 TXi glass touchscreens integrate with the GTN or GTN Xi touchscreen GPS/Nav/Comm series[1] to provide a fully certified glass suite solution. Available in large 12.1" or 10.6" horizontal formats, as well as in 7" portrait or landscape orientations, the displays can be configured for either dedicated primary flight (PFD) or multifunction (MFD) display capabilities. In a single 12.1" or 10.6" installation, both PFD and MFD can be accommodated via split screen on the same unit – or optional engine, fuel and electrical readouts (EIS) can also be viewed in a vertical strip alongside the PFD/MFD. A second 12.1" or 10.6" display can be split 80/20 to accommodate MFD and EIS functions, allowing the PFD to show full-screen flight data. The 7" portrait format can act as a dedicated PFD (with HSI map), MFD or EIS — or as a split-screen MFD/EIS display2. And the 7" landscape format can be configured to provide dedicated PFD information, EIS or split-screen MFD/EIS2.

Flexible Configuration Options

In configuring your system, you can mix and match up to 4 of the high-resolution touchscreens in your cockpit. Or you can start with a single 7" portrait display serving as your PFD and expand the system's capabilities by adding additional TXi displays over time. The variety of TXi screen sizes and display orientations can support a multitude of approved cockpit configurations. And the 10.6" or 7" displays offer the capability to have a built-in AHRS for reliable attitude/heading reference — along with an air data computer (ADC) module integrated on the back of the display unit. For aircraft already equipped with the original G500/G600 series flight displays, full TXi compatibility with existing system sensors makes for an easy, cost-effective upgrade path.

Stand-alone or Integrated Engine Information

Whether it's integrated in a split-screen view on the larger 12.1" or 10.6" displays or shown on a dedicated 7" display, engine and fuel monitoring data is easy to access and interpret with TXi EIS.

The optional engine indication system (EIS) is compatible with most popular Lycoming or Continental 4- to 6-cylinder engines — as well as select turbine powerplants — and it can provide support for both single- and twin-engine aircraft. The EIS makes it easy to see and analyze critical engine, fuel and electrical parameters. Prominent engine gauges on the display provide real-time indications and support for lean assist mode, pilot advisories, fuel quantities and more — enabling you to optimize fuel economy while maintaining high efficiency and performance from your engine. Bar gauges display numerical values for additional precision. And you can also set caution alerts to advise you of fuel imbalances — or when you are near exceedance limits. Better still, EIS data is automatically logged to an SD™ card and, with Connext® cockpit connectivity, is wirelessly transmitted to the Garmin Pilot® app[1]. This data can then be exported and analyzed by your service team.

State-of-the-art Touchscreen Technology

Leveraging the experience gained in designing and fielding thousands of integrated flight displays, Garmin built the TXi series from the ground up. The displays feature an intuitive menu interface that lets you use familiar knobs and/or touchscreen inputs to quickly access the functions, screen views and other flight information you want to see. Powerful dual-core processors boost the system's graphical display capabilities — with fast zooming, panning and map rendering. Plus, modernized fonts and backlighting offer improved readability and increased display clarity to help lighten your inflight visual workload.

HSI Mapping Helps Focus Your Scan

To provide even more situational awareness, TXi includes HSI mapping capabilities on the 7" portrait and both the 12.1" and 10.6" horizontal display configurations, which put an MFD-like perspective map view within the HSI portion of your PFD. In addition to the geographical map, the HSI map view can also support the overlay of NEXRAD imagery and weather inputs from ADS-B and SiriusXM® datalinks. Additional overlays include SafeTaxi® airport diagrams, traffic, terrain and more. HSI map control and onscreen navigation are a snap, thanks to a Garmin innovation that lets you zoom in or out on the map, using a simple and natural single-finger swipe gesture.










High-level Avionics Integration

TXi flight displays were designed with extensive integration capabilities to provide a simplified, feature-rich upgrade. That includes a wide range of autopilots, such as our digital GFC™ 600, GFC 500 (requires a G5 or GI 275 as standby instrument) and other popular autopilots installed in Class I/II/III aircraft.

You can use TXi touchscreens for control/display of heading, course and navigation source inputs, as well as autopilot mode annunciations and more (with compatible inputs). Plus, the TXi displays allow automatic GPS-to-LOC switching when paired with the GTN 750Xi/GTN 650Xi series navigators, which allow the GFC 500 or GFC 600 autopilot to fly complete ILS approaches. And as an option, separate dedicated PFD controllers are also available in 5 different control layouts for continuity with the specific autopilot system installed in the aircraft. TXi also offers advanced integration capability with GTN Xi series navigators, providing full touchscreen continuity between the navigation, communication and flight display functions in your panel.

Redundancy Adds Assurance

For extra peace of mind in systems where multiple displays are installed, TXi is designed to enter a reversionary mode — allowing a single 7" portrait, 12.1" or 10.6" display to present primary flight instrumentation and engine indications (if EIS-equipped) — in the unlikely event of a display failing or shutting down. The displays have backup GPS receivers built in as well, providing redundancy in the event your system's primary GPS navigator ever fails. Along with your TXi flight display, you can install a GI 275 or G5 electronic flight instrument (with G500 TXi installations) as your standby, for backup capabilities with an all-Garmin panel.

SPECIFICATIONS

Display Features

12.1", 10.6", or 7" diagonal color LCD options
RGB backlighting technology
High resolution
GDU 1260 - 1280 pixels (W) x 800 pixels (H)
GDU 1060 - 1280 pixels (W) x 768 pixels (H)
GDU 700P - 480 pixels (W) x 800 pixels (H)
GDU 700L - 800 pixels (W) x 480 pixels (H)
Direct sunlight readable
Auto, manual, or lighting bus inputs for dimming
Field upgradable software
Available as 12.1" or 10.6" landscape, 7" portrait, or 7" landscape configurations

Physical - GDU 1260

Unit Size	8.86 inches high 11.4 inches wide 3 inches deep 7.19 lbs.

Physical - GDU 1060

Unit Size	7.25 inches high 11.4 inches wide 3 inches deep 6.49 lbs. (without integral ADAHRS), 7.25 lbs. (with integrated ADAHRS)

Physical - GDU 700P

Unit Size	7.25 inches high 5.5 inches wide 3 inches deep 3.99 lbs. (without integral ADAHRS), 4.45 lbs. (with integrated ADAHRS)

Physical - GDU 700L

Unit Size	5.5 inches high 7.25 inches wide 3 inches deep 3.99 lbs. (without integral ADAHRS), 4.45 lbs. (with integrated ADAHRS)

Electrical - GDU 1260

10-40 VDC, reverse polarity protected
70 watts typical

Electrical - GDU 1060

10-40 VDC, reverse polarity protected
70 watts typical

Electrical - GDU 700P

10-40 VDC, reverse polarity protected
42 watts typical

Electrical - GDU 700L

10-40 VDC, reverse polarity protected
42 watts typical

System Architecture

Position Source: Requires external SBAS/WAAS GPS, such as GTN 750Xi/650Xi series, GTN650/750, GNS 480, or 430W/530W series unit

Supported interfaces include: GDL 69/69A XM datalink weather; GRS 56 for global connectivity/WX; GWX 8000, GWX 75, GWX 68 and select third-party radars; GTX 345, GTX 335 transponder; GDL 88 ADS-B datalink, GRA 55, GRA 5500 radar altimeters; various traffic sensors, and more

Supported AHRS	GRS 77, GSU 75, GRS 79, Integral AHRS
Supported ADC	GDC 74, GSU 75, GDC 72, Integral ADC
Electrical	10-40 VDC, reverse polarity protected 55 watts typical

Environmental

-20C to +55C operating temp
-55C to +85C storage temp
2 degrees C per minute temp variation
95% at 50C humidity
35,000 feet max altitude
Internal cooling, external cooling not required

Certification Candidates

STC via Approved Model List (AML) for over 900 aircraft makes/models
TSO-C2d, TSO-C8e, TSO-C10b, TSO-C34e, TSO-C36e, TSO-C40c, TSO-C41d, TSO-C43c, TSO-C44c, TSO-C45b, TSO-C47a, TSO-C49b, TSO-C44a, TSO-C63d, TSO-C87a, TSO-C106, TSO-C110a, TSO-C113a, TSO-C118a, TSO-C147a, TSO-C151c, TSO-C157b, TSO-C165a, TSO-C195b, TSO-C198, TSO-C201

[1]Additional hardware may be required and is sold separately
[2]7" display split-screen MFD/EIS format is available only for single-engine piston aircraft

GI 275 MULTIFUNCTION ELECTRONIC FLIGHT INSTRUMENT

REPLACE ANALOG "SIX PACK" GAUGES WITH RELIABLE ELECTRONIC DISPLAYS

Adaptable to a full range of display formats and functions, the versatile GI 275 electronic flight instrument lets you keep the classic look of your round-dial panel while upgrading its capabilities with modern, reliable glass touchscreen technology.

Approved for STC installation on hundreds of aircraft models, ranging from piston singles to business jets, this cost-effective upgrade solution makes it easy to replace those maintenance-prone, vacuum-driven gauges in your panel with dependable ADAHRS-driven electronics. The instrument is designed to flush-mount in an existing 3-1/8" standard cutout with little or no panel modification required — keeping installation time and expense to a minimum.

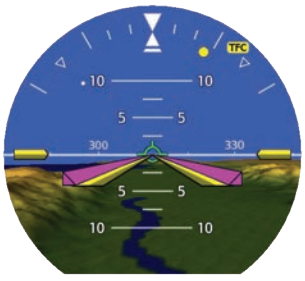
The instrument can be configured as a direct replacement for primary reference for your attitude indicator/ADI, DG/HSI, CDI, EIS, Standby Flight Instrument and radar altimeter display. In virtually all cases, it can provide much more capability than the indicator it replaces. Plus, the modular "building block" design lets you start with one unit, then add additional units providing added functionality and redundancy to your system as your needs evolve.

With the capability to combine attitude, altitude, airspeed, heading and vertical speed reference, the GI 275 makes critical flight information easier and faster to scan. It also supports display of selectable alerts to mark your arrival at a preselected altitude, heading or airspeed — so overshoots can be avoided. To add further situational awareness, your attitude display can optionally incorporate a Garmin SVT™ 3-D synthetic vision landscape with flight path marker integration, enabling you to clearly envision your flight situation in perspective. For added directional reference, appropriate nav inputs let you configure GI 275 as an HSI with course guidance overlaid on a moving map display — showing flight plan legs, terrain, weather, and more. For backup or non-primary nav reference, built-in VFR GPS capability[1] enables convenient Direct-to guidance to selected waypoints, with your position depicted on the moving map display.

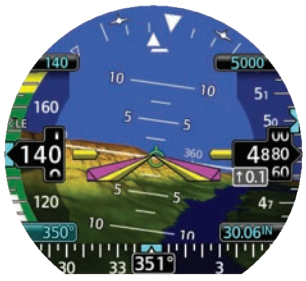
The GI 275 instrument can also be configured to serve as an attitude direction indicator (ADI) capable of driving popular autopilots — including our GFC™ 500 series — with precise attitude information and flight director command bar cues. The GI 275 offers fully coupled LPV/LNAV/ILS approach capability, including missed approach procedures, when paired with an appropriate autopilot and a compatible navigation source, such as the GTN™ Xi series. And in the event of an engine-out emergency, your GI 275 attitude indicator pairs with GTN Xi to enable workload-saving Smart Glide™[2]. The system finds and creates a route to a preferred airport, then engages GFC™ 500 in IAS mode at best glide speed to fly the route to the airport so you can land.

Annunciations for the GFC 500 autopilot and flight director modes are displayed on the GI 275. And, when appropriately equipped, the GI 275 is also able to display OAT/GS/TAS/Wind information just above the heading and autopilot annunciations on the ADI. Additionally, the GI 275 will also now support gyro attitude emulation when paired with select third-party legacy autopilots installed in many popular GA aircraft. This allows the GI 275 to fully replace the maintenance-intensive ADI mechanical instruments previously installed with these systems.

For select aircraft equipped with glass cockpit flight display systems[3], GI 275 can also function as a standby flight instrument with the added ability to provide multifunction display (MFD) capabilities[4] for such functions as moving map, traffic, lightning, weather, terrain and more. It can also drive our GFC 500 series autopilots as a standby instrument for Garmin G500/G600, G3X Touch™ and our TXi™ series of flight deck touchscreen displays. For applications that require precise tracking of aircraft altitude above the terrain, GI 275 can also provide display capability for select radar altimeters[1], including the Garmin GRA™ series. As an MFD, GI 275 allows you to control basic settings — including squawk code, function, IDENT and flight ID — on your GTX™ 345/GTX™ 345R or GTX™ 45R series transponder.



–AI/ADI–



–AI/ADI, Airspeed, Altitude, and Heading–



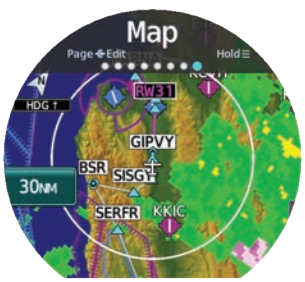
–HSI/CDI–



–EIS–



–Rad Alt–



–MFD–



–MFD–

With the addition of an optional interface module and sensors, the multifunction GI 275 can serve as a primary engine indication system (EIS) display for monitoring EGT/CHT temperatures, percent power, fuel, electrical and other data. An integrated EIS fuel computer tracks fuel flow and GPS information to estimate how much fuel, range and flight time you have left to go at the current configuration. There's also a lean assist mode — accessible by touching the EGT/CHT gauge — that automatically checks the exhaust gas temperature of all cylinders, identifying the preferred rich/lean setting to balance efficiency and performance. Normalized and TIT lean modes are also available. Pilot-selectable EIS fields are available on an auxiliary page to display data fields relevant to each flight, and you can always return to the main page with a touch of the engine RPM gauge. And should exceedances be detected, pilot alerts give color-coded advisories to identify out-of-limit parameters and help maintain optimum engine performance and safety.

The EIS data, as well as flight logs and other aircraft status information, can be streamed in real time to your iPad® or other compatible mobile devices, using the GI 275's built-in Connext® wireless cockpit connectivity. This EIS data is automatically sent for cloud storage on the flyGarmin website, so it can be "played back" on your device or computer for review by you or your maintenance team anytime, anywhere. Other Connext wireless features include the ability to stream traffic, weather, GPS position and ADAHRS reference data from your avionics to your mobile device running with the Garmin Pilot™, ForeFlight or FltPlan Go apps — essentially turning your tablet into a portable navigation display and cockpit interface.

In panel configurations where GI 275 displays[5] are installed as your primary flight instrumentation (or teamed with other glass flight display systems), reversionary backup capability provides extra peace-of-mind redundancy. Should a primary display become unavailable, this functionality enables your remaining operational HSI or MFD to consolidate and present the essential attitude and heading information you need to safely continue the flight.

What's more, should the outage be caused by an aircraft eletrical failure, an optional GI 275 backup battery pack provides up to an hour of "get home" emergency power to the instrument display.

For expanded capability, reduced maintenance cost and improved system reliability, GI 275 is the adaptable instrument upgrade that can bring modern touchscreen technology to the familiar look and feel of your favorite "six-pack" panel layout.



[1]Optional equipment may be required
[2]See Garmin.com/SGuse/ for Smart Glide system requirements and limitations
[3]See available interfaces
[4]Standby flight instrument with HSI or MFD pages is only available for Class I/II aircraft
[5]Both GI 275 units must be ADAHRS versions to support reversionary capability

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GPS 175/GNC® 355/GNX™ 375 NAVIGATORS

GPS NAVIGATORS THAT BRING IFR APPROACHES TO LIGHT AIRCRAFT

Big capabilities come in a small package with the GPS 175, GNC® 355 and GNX™ 375 touchscreen IFR GPS navigators. With their bright, clear, high-resolution touchscreen displays, you can have LPV approach capability to access more airports. You can even add advanced comm radio capabilities with the GNC 355 — or meet the requirements for ADS-B "Out" while experiencing the benefits of ADS-B "In" with the GNX 375. Each navigator's slim 2" height fits neatly into even compact panels — and in retrofit installations, you can keep most course deviation indicators to minimize installation cost.

Entering flight information is a cinch, and accessing every function is fast and easy. The moment you power up these navigators, you'll see a familiar Garmin home page on the 1.5" tall display that puts the most important functions within only a few touches — including hot keys for Direct-to and flight plan access. Swipe left or right to scroll menus. Use your fingers to pan and zoom on the moving map. Enter waypoint data with the on-screen keyboard. And touch the home button to get you back to the main page at any time.

Building and modifying flight plans is simple. As you enter waypoints, our FastFind feature automatically begins searching for the nearest identifier as soon as you start typing, so in most situations, a press or two reveals just what you were thinking. You can also create holds, insert Victor airways and corresponding exit options, and add departures, arrivals and instrument approach procedures. Additionally, you can edit your route using the map screen — a handy "rubber band" feature lets you grab any leg of your flight plan route and move it to accommodate a deviation or ATC amendment to your flight plan.

Meanwhile, a variety of dynamically drawn maps provide situational awareness and context to the flight plan by highlighting visual reporting points, navaids, SafeTaxi® diagrams and such hazards as obstacles, power lines and terrain. Plus, Smart Airspace™ automatically highlights airspace close to your current altitude and de-emphasizes airspace away from the current altitude.

Advanced Approach to IFR

The SBAS/WAAS-certified GPS receiver in these navigators allows you to fly GPS-guided LPV glidepath instrument approaches down to as low as 200', greatly expanding your operational capability. You can also access newer lateral performance and all area navigation approaches. Precise course deviation and roll steering outputs can be coupled to Garmin GFC™ 500 and GFC™ 600 autopilots and select third-party autopilots, so IFR flight procedures such as holds, NextGen radius-to-fix legs and missed approaches may be flown automatically. In addition, you can create and execute custom holding patterns over an existing waypoint or user-defined waypoint.

Plus, when operating in VFR conditions, GPS 175, GNX 375 and GNC 355 can provide advisory vertical approach guidance based on a published glidepath angle or a three-degree approach glideslope from the runway threshold, while considering terrain and obstacle clearance. With this advisory guidance, you're able to fly more consistent and more precise vertical glidepaths into a variety of airfields.

Add ADS-B "Out" and "In"

When paired with dual-link Garmin ADS-B solutions, such as our GTX™ 345 series transponder or GDL® 88 universal access transceiver, the GPS 175 and GNC 355 can display ADS-B traffic targets as well as subscription-free ADS-B weather data in the U.S. Or you can opt for the GNX 375 navigator, which includes a transponder for ADS-B "Out" and "In." For example, you can access animated NEXRAD imagery, METARs, TAFs, winds and temperatures aloft, PIREPs, NOTAMs and more.

Whichever you choose, you can access animated NEXRAD imagery, METARs, TAFs, winds and temperatures aloft, PIREPs, NOTAMs and more. Additionally, our patented TargetTrend™ relative motion technology offers a faster, more intuitive way to judge the direction and closure rate of intruding targets in relation to your aircraft's position. For example, if traffic is ahead of you and traveling along the same track but at a slower rate, the motion vector would point opposite of its indicated direction of flight to show you are overtaking the traffic. Spoken audio alerts call out potential flight path conflicts ("Traffic, 10 o'clock, same altitude, two miles") to get you looking in the right direction. And, at the start or end of each flight, TerminalTraffic™ technology provides a comprehensive picture of ADS-B-equipped aircraft and ground vehicles in the airport environment. ADS-B-equipped aircraft in-flight are easily distinguished from ground vehicles and taxiing aircraft, which are displayed using distinct colors and symbols. All information is presented on a simple, easy-to-understand SafeTaxi® diagram with reference to runways, taxiways, hangar locations and more.

Add Powerful Comm Capabilities

The GNC 355 offers 10 W transmission power with 25 kHz frequency channel spacing or 8.33 kHz channel spacing options (GNC 355A), and it incorporates a number of functions that can save you time and effort. Using the onboard frequency database, airport, weather, center and FSS frequencies are easy to find and can be loaded to standby by simply tapping them from the airport information or flight pages. Recent, nearby and saved frequencies are easy to access, too. And you'll have added confidence knowing you're talking to the desired facility every time with the automatic display of the station's identifier right below the frequency, for example, KIXD ASOS or CHICAGO ACC.



With the standby frequency monitoring feature in the GNC 355, you won't have to worry about missing an ATC call or other critical transmission. The GNC 355 allows you to listen to ATIS without leaving your assigned ATC channel. Swap your active and standby frequencies with a single screen touch. Press and hold the frequency transfer key to automatically set the emergency frequency as your active radio channel.

Cockpit Integration

The GPS 175, GNX 375 and GNC 355 interface with a variety of Garmin flight displays, including G3X Touch™, G5 and G500 TXi/G600 TXi, as well as select third-party displays[1]. Plus, they're compatible with your existing composite CDIs to provide easy, cost-effective installation.

And for even more work-saving convenience, you can use our Connext® connectivity to stream information via BLUETOOTH® wireless technology between your navigator and compatible Garmin portables and mobile devices running the the Garmin Pilot™, ForeFlight or FltPlan Go apps. Create flight plans at home and upload them at the airport. And display GPS data and backup attitude information — as well as traffic and weather from the GNX 375 or another compatible ADS-B source paired to the GPS 175 or GNC 355 — to your mobile device or Garmin portable, making them even more useful cockpit companions.

Plus, our optional Flight Stream 510 installs in the memory card slot of the navigator to enable our Database Concierge database transfer and management capabilities via our Connext gateway. At home you can download selected databases onto your mobile device, using the Garmin Pilot app. Then, once you get to the airport, Flight Stream 510 will automatically establish a wireless connection to the Garmin Pilot app and upload the databases from your device to your navigator in minutes.

Summary Chart of Garmin Integrated GPS Navigation Solutions:

	Display Size	Height	Aircraft Class	GPS Navigation	VHF Navigation	Comm Radio[1]	ADS-B In/Out Transponder	Advanced Navigation[2]
GTN 750Xi	6.9"	6"	All	X	X	X		X
GTN 725Xi	6.9"	6"	All	X				X
GTN 650Xi	4.9"	2.65"	All	X	X	X		X
GTN 635Xi	4.9"	2.65"	All	X		X		X
GNC 355	4.8"	2"	< 6,000 lbs	X		X		
GTN 625Xi	4.9"	2.65"	All	X				X
GPS 175	4.8"	2"	< 6,000 lbs	X				
GNX 375	4.8"	2"	< 6,000 lbs	X			X	

[1]See supported interfaces tab at Garmin.com/aviation to verify compatibility

GPS 175 SPECIFICATIONS

Display size	4.8" (122.5 mm) diagonal
Active area	4.6" (116 mm) (w) x 1.5" (38 mm) (h)
Resolution	732 pixels (w) x 240 pixels (h)
Bezel height	2.02" (51.0 mm)
Bezel width	6.25" (159.0 mm)
Rack height (dimple to dimple)	2.025" (51.0 mm)
Rack width	6.30" (160.0 mm)
Depth behind panel with connectors (measured from face of aircraft panel to rear of connector backshells)	6.58" (167 mm)
Unit weight	1.3 lb (0.83 kg)
Humidity	95% non-condensing
Maximum altitude	35,000 ft
Input voltage range	9 VDC - 33 VDC
Brightness range	0.015 fL - 260 fL
Operating temperature range	-20 degrees C to 55 degrees C (-4 degrees F to 131 degrees F)

Power specifications

14 volt current draw	Typical 0.6 A
	Maximum 0.9 A
28 volt current draw	Typical 0.3 A
	Maximum 0.6 A

BLUETOOTH specifications

BLUETOOTH version	4.2
BLUETOOTH class	2
Maximum transmitter power	+4 dBm
Unimpeded BLUETOOTH range	100 ft

GNX 375 SPECIFICATIONS

Display size	4.8" (122.5 mm) diagonal
Active area	4.6" (116 mm) (w) x 1.5" (38 mm) (h)
Resolution	732 pixels (w) x 240 pixels (h)
Bezel height	2.02" (51.0 mm)
Bezel width	6.25" (159.0 mm)
Rack height (dimple to dimple)	2.025" (51.0 mm)
Rack width	6.30" (160.0 mm)
Depth behind panel with connectors (measured from face of aircraft panel to rear of connector backshells)	10.85" (276 mm)
Unit weight	3.2 lb (1.44 kg)
Humidity	95% non-condensing
Maximum altitude	30,000 ft with optional GAE module 35,000 ft with optional GAE module
Input voltage range	9 VDC - 33 VDC
Brightness range	0.015 fL - 260 fL
Operating temperature range	-20 degrees C to 55 degrees C (-4 degrees F to 131 degrees F)

Power specifications

14 volt current draw	Typical 1.20 A
	Maximum 1.80 A
28 volt current draw	Typical 0.60 A
	Maximum 0.90 A

BLUETOOTH® specifications

BLUETOOTH version	4.2
BLUETOOTH class	2
Maximum transmitter power	+4 dBm
Unimpeded BLUETOOTH range	100 ft

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G3X TOUCH™ FLIGHT

G3X TOUCH: TOUCHSCREEN FLIGHT DISPLAYS FOR SINGLE-ENGINE PISTON AIRCRAFT

This is a game-changer. It's the price/capability breakthrough that owners and pilots of single-engine piston aircraft have been waiting for: G3X Touch flight displays are now approved and available for installation on hundreds of FAR Part 23 Class I certificated aircraft (typically, those weighing less than 6,000 lbs). With supplemental type certification provided under an extensive approved model list, these 10.6" and 7" LCD displays make it easy and affordable to upgrade from legacy mechanical instrumentation to a modern glass cockpit solution.

Offering extensive integration options, the G3X Touch™ displays are available in a variety of panel configurations to fit your needs and budget. Each G3X Touch glass display features a bright, high-resolution screen with infrared touch-control interface that seamlessly blends with familiar buttons and knobs to put all essential flight information at your fingertips. Standard features include our SVX™ synthetic vision display with database-generated terrain features and built-in wireless Connext® cockpit connectivity. Better still, the optional EIS provides display of primary engine instrumentation.

Multiple screen sizes and display formats let you grow your G3X Touch suite as your needs evolve. For space-limited panels, a single 7" display can accommodate either PFD and MFD functionality or MFD and EIS windows within the same unit. The 10.6" display can be set up for either PFD, MFD or PFD/MFD functionality and also include an EIS strip for additional versatility. Or for even more flexibility, you can pair together up to three G3X Touch displays to lay out your preferred arrangement[4] of PFD, MFD and optional EIS displays. And to help simplify installation, the primary display also offers the capability to have an air data computer and attitude/heading reference system module integrated on the back of the display unit.

Streamlined Cockpit Management

Making things easier and better for pilots in the cockpit is what G3X Touch is all about. That is why G3X Touch displays integrate the controls for many popular Garmin avionics. Large on-screen touchpoints and familiar graphic icons help simplify all your data entry and menu selections — allowing you to easily see and control Comm frequency selection as well as transponder settings and code entry. Growth-oriented avionics choices you can use to provide these functions include our GTR 225 Comm transceiver, GNC® 255 Nav/Comm, GTN™ Xi Series GPS/Nav/Comm, GNX™ 375 and GTX™ 345/335 series ADS-B enabled transponders.

Valid for use in VFR- and IFR-capable installations, the certified G3X Touch displays are designed to interface with select autopilots, including our GFC 500 digital autopilot[1]. Fully coupled LPV/LNAV/ILS approach capability — including missed approach procedures — can be accessed when the G3X Touch displays are paired with the GFC™ 500 autopilot and a compatible navigation source, such as the GTN 750Xi/650Xi series. Plus, G3X Touch pairs with GTN Xi series navigators to enable workload-saving Smart Glide™[5] assistance in the event of an engine-out emergency. The system finds and creates a route to an airport and activates your GFC 500 in IAS mode at best glide speed to fly the route to the airport so you can land. G3X Touch can also display ADS-B "In" weather and traffic information when connected with the new GNX 375, GTX 345 transponder or the GDL® 50R/GDL® 52R receiver. This includes our exclusive TargetTrend™ and TerminalTraffic™ technology, giving you a faster, more intuitive way to monitor ADS-B traffic targets. With GDL 51R/GDL 52R, you can also receive and display SiriusXM® aviation weather as well as listen to audio entertainment[3].

With the addition of the optional GEA™ 24 engine interface module and appropriate engine sensors, your G3X Touch can display primary engine information — allowing for the removal of outdated analog gauges. The system can accommodate various engine, fuel and electrical gauges with easy-to-interpret color bands, supporting most popular Lycoming or Continental 4- to 6-cylinder engines. In addition to providing real-time indications, the system also offers a fuel computer, lean assist mode, pilot alerts/advisories and more — enabling you to optimize fuel economy while maintaining high efficiency and performance from your engine. The EIS data can also be logged to an SD™ card in the display and later uploaded to flyGarmin.com® for analysis by your maintenance shop's service team.

Dynamic Maps and Charts

G3X Touch flight displays also incorporate dynamic moving map capability,

enabling you to view terrain features, airports, airspace boundaries, navaids, flight plan routings and more — with an aircraft reference symbol overlaid on your current position. To suit your preference, G3X Touch™ also has the ability to display VFR sectionals and IFR en route charts[2]. Our FliteCharts® database or optional ChartView™ charts from Jeppesen® also offer you georeferenced approach plates and procedures[2]. Plus, when your aircraft touches down, our built-in SafeTaxi® diagrams help you navigate the airport environment safely, with your aircraft's position overlaid onto taxiways, runways, ramps and other accessible locations[2].

Wireless Cockpit Connectivity

For even more capability, G3X Touch flight displays feature built-in wireless Connext cockpit connectivity that lets you stream information between your avionics and select Garmin portables or mobile device apps such as Garmin Pilot™, FltPlan Go and ForeFlight Mobile. This wireless feature makes it easy to use your tablet or smartphone to create flight plans ahead of time in the comfort of your home or office, then quickly upload the data to your avionics while you're preflighting at the airport. You can also use the Connext link to stream GPS position and backup attitude information.

Reliably Reversionary

In configurations where multiple displays are installed, the G3X Touch system offers extra peace of mind. In the unlikely event of a display shutdown or failure, a reversionary mode enables your remaining operational touchscreen to consolidate and present all essential flight information, including EIS data when installed. The displays have backup GPS receivers built in as well, providing extra redundancy. (Note: The GPS receiver built into the display is certified for VFR navigation only.) When installed with an optional GI 275 or G5 electronic flight instrument[1] as backup instrumentation, G3X Touch will automatically sync baro and bug settings as well as provide miscompare alerts. Additionally, the GFC 500 autopilot[1] can even remain operational using only the GI 275 or G5 in the unlikely event of a display failure.

[1]Not available for all aircraft; see authorized Garmin dealer for details
[2]May be limited or unavailable in some areas; see flyGarmin.com for details
[3]Compatible subscription required; SiriusXM® functionality may be limited or unavailable on select mobile apps
[4]Some limitations may apply; see authorized Garmin dealer for details
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[5]See Garmin.com/SGuse for Smart Glide requirements and limitations
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GMU 11 MAGNETOMETER UNIT SPECIFICATIONS

Electrical:	10-32 VDC
Size:	2.74"W x 0.92"H x 3.93"D (7 x 2.3 x 10.0 cm)
Weight:	0.16 lb (0.725 kg) Weight does not include connector

10.6" DISPLAY (GDU 460) UNIT SPECIFICATIONS

Display:	10.6" diagonal (26.92 cm) 1280 x 768 pixels, high-resolution color infrared touchscreen display with adjustable backlighting. Optional lighting bus voltage input available for automatic backlight control
Electrical:	10-32 VDC 30 W max Dual isolated power inputs
Size:	10.85"W x 7.82"H x 3.57"D (198.6H x 275.5W x 90.7D mm)
Weight:	GDU 460, 4.6 lb (2.09 kg) Weight does not include nut plate and connector

7" DISPLAY (GDU 470) UNIT SPECIFICATIONS

Display:	7" diagonal (17.78 cm) 480 x 800 pixels, high-resolution color infrared touchscreen display with adjustable backlighting. Optional lighting bus voltage input available for automatic backlight control
Electrical:	10-32 VDC 20 W max Dual isolated power inputs
Size:	6.0"W x 7.82"H x 3.68"D (198.6H x 152.6W x 93.4D mm)
Weight:	GDU 470, 2.65 lb (1.20 kg) Weight does not include nut plate and connector

GSU 25 ADAHRS UNIT SPECIFICATIONS

AHRS:	Provides accurate digital output and referencing of aircraft attitude, rate, vector and acceleration data Leverages solid-state sensors and sophisticated attitude determination and integrity monitoring algorithms Capable of in-flight dynamic restarts Capable of maneuvers through a range of 360° in bank and pitch Rotation rate: Up to 200°/sec
Electrical:	14-28 VDC
Size:	4.00"W x 2.50"H x 2.12"D (10.16 x 6.35 x 5.38 cm)
Weight:	GSU 25, 0.48 lb (0.217 kg) Weight does not include mounting hardware and connector
Environmental:	
Aircraft pressure altitude range:	-1,400 ft. to 30,000 ft.
Aircraft vertical speed range:	-20,00 to +20,000 fpm to +20,000 fpm
Aircraft airspeed range:	0 - 300 kts IAS
Operating temperature range:	-45°C to +70°C

GEA 24 ENGINE INDICATION (EIS) UNIT SPECIFICATIONS

EIS:	Provides accurate digital monitoring of engine and airframe sensors interfaced with the G3X cockpit displays
Electrical:	14 or 28 VDC systems
Size:	6.50"W x 1.90"H x 3.00"D (16.51 x 4.83 x 7.62 cm)
Weight:	GEA 24, 0.71 lb (0.322 kg) Weight does not include mounting hardware and connector

Engine/Airframe interfaces:

Support is available for most popular piston engine configurations

Configurability of the GSU allows measurement of many different aircraft parameters including but not limited to:

- Ammeters (2)
- Thermocouples (Monitor up to 6 cylinders and 2 turbo inlet temperatures)
- Aircraft bus voltages
- Resistive Sensors (Up to 6)
- Powered Transducers
- Frequency Counter Inputs (Up to 4)
- Discrete I/O (4 In / 2 Out)

G5 ELECTRONIC FLIGHT

IT'S AN ALL-IN-ONE ATTITUDE UPGRADE, CERTIFIED FOR LIGHT PISTON AIRCRAFT

Providing a cost-effective STC'd installation for Class I and II fixed-wing aircraft under 6,000 lbs — the G5 electronic flight instrument is the upgrade solution that thousands of GA pilots have been waiting for.

Approved for VFR and IFR flight operations, this space-saving, electronic flight instrument can serve as a stand-alone primary source for aircraft attitude information or a directional gyro/horizontal situation indicator in your fixed-wing GA aircraft.

• As a primary flight instrument, G5 combines attitude information with secondary information such as altitude, airspeed and vertical speed in a single digital display that makes flight information easier to scan.

• As a replacement DG/HSI, G5 pairs with Garmin GTN 750Xi/650Xi, GTN 750/650, GNS 530W/430W and GNS 530/430 series GPS navigators and GNC® 255 and SL30 VHF NAV/COMMs to serve as a primary instrument for displaying magnetic heading, GPS course guidance and/or VOR/LOC guidance (based on nav source), as well as distance to the next waypoint and ground speed. Plus, it provides heading information to compatible legacy autopilots[1].

Installation of dual G5 electronic flight instruments can eliminate the dependency on failure-prone vacuum systems, and a secondary G5 can revert to attitude display in the unlikely event of a failure in the primary attitude indicator position. The G5 fits easily into a single 3-1/8" standard instrument cutout, taking up just a fraction of the space and weight previously required by conventional gyro-based instrument displays.

The G5 upgrade, now available for more than 600 individual aircraft models, is accomplished via supplemental type certificate (STC) with a comprehensive approved model list (AML). Installation is simple and easy: G5 integrates with your aircraft's existing pitot/static system, power and Garmin GPS[1] and NAV inputs, and it requires only the addition of a magnetometer to display magnetic heading — and a single magnetometer can supply two G5 electronic flight instruments simultaneously.

Within the display bezel, a crisp LCD screen offers brilliant color and easy readability, even in direct sunlight, thanks to its advanced LED backlight design. And in addition to serving as either primary attitude or primary navigation reference, G5 can also augment your existing instruments by consolidating inputs for airspeed, altitude, vertical speed, slip/skid, turn rate, ground track, configurable V-speed references, barometric setting and selected altitude, as well as visual alerts upon arrival at your preselected altitude. A built-in GPS receiver can provide GPS-based track and ground speed information[2], and a dedicated rotary knob allows for easy adjustments to altitude and heading bugs and barometric pressure settings on the display.

And in the event of an engine-out emergency, G5 pairs with GTN Xi series navigators to enable workload-saving Smart Glide™[3] to find and create a route to an airport. When equipped with a GFC™ 500 autopilot, the system engages IAS mode at best glide speed to fly the route to the airport so you can land.

The unit takes up less than 3" behind the panel. And, as part of the STC, it comes with a standard backup battery pack capable of providing up to 4 hours of "get home" emergency power. Available battery power can easily be monitored by referencing the battery status indicator in the upper left-hand corner of the display.

G5 ELECTRONIC FLIGHT INSTRUMENT SPECIFICATIONS

Electrical:	14 or 28 VDC aircraft power
Unit size:	3.4" w x 3.6" h x 2.6" d (86.4 x 91.4 x 66.0 mm)
Weight:	8.8 oz (249.5 g), unit; 4.5 oz (127.6 g) battery (optional)
Display size:	3.5" diagonal (88.9 mm diagonal)
Display resolution:	320 x 240 pixels (QVGA), LED backlit color LCD
Receiver:	High-sensitivity WAAS GPS
Maximum indicated airspeed: 300 kts	
Altitude range:	-1,400 – +30,000 feet
Vertical speed range:	± 20,000 feet/minute
Pitch/roll range:	±360°
Backup battery:	Rechargeable lithium-ion
Battery life:	Up to 4 hours

[1]GPS Navigator input requires installation of a Garmin GAD™ 29B.
[2]Approved installation requires external GPS antenna (sold separately) or input from a compatible navigator.
[3]See Garmin.com/SGuse for Smart Glide system requirements and limitations


GARMIN
GPS | AP | GP
178°
3500
2400
2300
2200
120
GS 120
29.92
AIRSPEED
KNOTS
ALTITUDE
1000 FEET
10000 FEET
GARMIN
178°
DIST NM
3.6
GPS
LNAV
+V
GS KT
120
180°
TURN COORDINATOR
2 MIN
VERTICAL SPEED
100 FEET PER MINUTE
UP
DOWN

TRUSTED, HIGH-PERFORMING RETROFIT AUTOPILOTS



GFC™ 500 AUTOPILOT

FOR CERTIFICATED LIGHT PISTON AIRCRAFT

The Garmin GFC™ 500 is exactly the right product, at the right price, to make a real difference for budget-minded pilots flying popular certified light GA aircraft. Boasting a superior feature set, the GFC 500 incorporates a number of safety-enhancing technologies, including electronic stability and protection (ESP), underspeed and overspeed protection, automatic return-to-level (LVL) mode, flight director (FD) command cues and more.

Incorporating your choice of easy-to-read Garmin G5 or GI 275 electronic instruments[1], the GFC 500 autopilot's scalable architecture lets you select a pitch/roll with an option for pitch-trim and in select installations, yaw damp as an option to support the level of capability you want. The GFC 500 will interface with GNC® 255 and SL 30 Nav/Comm radios, as well as GTN™ 750Xi/650Xi, GTN™ 750/650 and GNS™ 430 and 530 (WAAS and non-WAAS) series navigators (with the addition of an optional GAD™ 29B nav data adapter for the G5 instrument[2]), for full flight director integration — allowing the system to calculate and display the appropriate pitch and roll attitudes required to intercept and maintain a course or approach path. These flight director cues are displayed as command bars on the G5 or GI 275 electronic instruments. The command bars are always in view when the autopilot is doing the flying — and may also be used for visual guidance when you're hand-flying the aircraft as well. With guidance from your GTN or GNS navigation database, the GFC 500 can automatically fly a wide range of precision and non-precision approaches, as well as holds, procedure turns, missed approaches and more. With an optional Takeoff/Go-around (TOGA) button remotely mounted in the cockpit, the flight director can be cued to automatically indicate and capture the correct pitch attitude required to fly a missed approach and then follow the missed approach procedure loaded in your compatible GPS navigator. The GFC 500 also provides flight director and autopilot mode indications on G3X Touch™ and G500 TXi flight displays — and the G5 or GI 275 can provide additional redundancy in the event of a disruption to the flight display. Plus, in the case of an engine-out emergency and activation of Smart Glide™[3], GFC 500 automatically engages in IAS mode at best glide speed to fly to an airport so you can land.

The GFC 500 system employs "smart" servos that are digitally controlled, using ADAHRS reference, to give you ultra-smooth roundouts and intercepts, fail-passive reliability and a comfortable ride. Drawing on patented top-end Garmin flight control technology, the servos are lighter and quicker-responding than those typically used in competitive systems. They also provide virtually no control system friction with the autopilot turned off, decoupling the motor drives so you can easily hand-fly or override the system without fighting the controls. For maximum reliability, the servos incorporate brushless DC motors and electronic torque limiting that eliminates the need for a mechanical slip clutch.

The list of aircraft currently approved for GFC 500 installation is growing quickly. To check the status of your aircraft, visit Garmin.com/GFC500.

[1]GFC 500 requires at least one G5 or GI 275. Sold separately.
[2]GAD 29B not required with GI 275 electronic instrument
[3]See Garmin.com/SGuse for Smart Glide system requirements and limitations

GFC™ 600 AUTOPILOT

GFC 600 ATTITUDE-BASED AUTOPILOT WITH ADVANCED ELECTRONIC STABILITY AND PROTECTION

Designed for aftermarket installation on high-performance single- and twin-engine piston aircraft as well as turboprops and jets, the GFC™ 600 flight control system offers an impressive array of top-level safety and performance features. Leveraging technologies developed for some of the fastest business jets on the market, these sophisticated features include Garmin ESP™, underspeed and overspeed protection, automatic LVL mode, airspeed climb and descent mode, flight director command cues and more.

GFC 600 provides crisp, precise response and optimum performance over the entire airspeed envelope of your aircraft. Rather than depending on failure-prone mechanical gyros, the GFC 600 system is digitally controlled, using solid-state attitude and air data sensor reference — giving you ultra-smooth roundouts, intercepts and more while also enhancing system reliability. Offering a flexible upgrade solution, GFC 600 can be interfaced with a variety of Garmin and third-party instrumentation and navigation sources. The design of the GFC 600 includes environmentally hardened servos, allowing for installation in a wide range of airframes, including harsh operating conditions. The robust hardware used in the GFC 600 autopilot's scalable architecture lets you tailor your system's configuration to support the level of capability you want. Every component has been engineered to work together seamlessly to ensure optimum smoothness and comfort in flight — while helping to reduce pilot workload in the cockpit.

Guidance from a compatible navigation source, such as GTN™ 650Xi/750Xi, lets the GFC 600 system automatically fly a wide range of precision, non-precision and GPS-guided approaches as well as holds, procedure turns, missed approaches and more. GFC 600 also includes built-in GPS roll steering capability, allowing smoother navigation tracking and eliminating the need for external roll steering converters. For installations including a compatible flight display (such as G500 TXi/G600 TXi), flight director cues are displayed as command bars and are always in view when the autopilot is doing the flying — and may also be used for visual guidance when you're hand-flying the aircraft. Better still, with support for a remotely installed Takeoff/Go-around (TOGA) button, the autopilot can be cued to automatically capture the correct pitch attitude required to fly a missed approach and then follow the missed approach procedure loaded in your compatible GPS navigator.

The GMC 605C mode controller comes standard[1] with the system and features a large, sunlight-readable color LCD display for greater visibility of mode annunciations. The mode controller includes backlit keys and an intuitive up/down control wheel on the unit allows for easy and precise adjustment of aircraft pitch, airspeed and vertical speed modes. Plus, the controller is mark-width for easy mounting in your avionics stack.

For installations where the autopilot controller is out of the pilot's primary field of view and a G500 TXi or G600 TXi flight display is not installed for mode annunciation, a stand-alone mode annunciator is available that retains an identical footprint of third-party autopilot annunciators on the market. Support for a remotely installed control wheel steering (CWS) button allows you to temporarily disengage the servos to hand-fly the aircraft. Then, to further enhance operational control in potentially disorienting situations, a dedicated LVL mode button on the autopilot controller lets you command the autopilot to automatically return your aircraft to straight-and-level flight. Integrated "smart" servos linked to the flight control surfaces of your aircraft are used to apply the control inputs as commanded by the autopilot. Digitally controlled speed and torque limits on these inputs allow faster, crisper and more powerful response — enabling your GFC 600 system to track the intended flight path with smooth efficiency. The servos also provide virtually no control system friction with the autopilot turned off, decoupling the motor drives so you can hand-fly with ease.

The list of aircraft currently approved for GFC 600 installation is growing quickly. To check the status of your aircraft, visit Garmin.com/GFC600.



[1]GMC 605C not available for all aircraft. GMC 605C installations require yaw damper, a compatible Garmin flight display and GTN or GTN Xi series navigator.



GTX 345 / GTX 335 SPECIFICATIONS

Unit Size:	1.65" h x 6.30" w x 10.07" d (42 x 160 x 256 mm)
Display type:	Digital
Weight (unit, rack, connectors):	3.1/3.2 lbs (1.41/1.45 kg)
Voltage range:	14/28 VDC (18/20 W Max)
Transmit power:	200 W minimum
Temperature:	-40° C to +70° C
Operating altitude:	To 55,000 ft (16,800 m)
Cooling input:	Not required
Environmental compliance (TSO Approved):	DO-160G
Software compliance (TSO Approved):	DO-178 Levels B, C, D, E
Hardware compliance (TSO Approved):	DO-254 Level C
TSO compliance (Approved):	TSO-C88b (w/opt. alt. encoder; TSO-C112e (Class 1, Level 2els; TSO-C154c (Class A1S); TSO-C157a (Class 1); TSO-C166b (Class A1S); TSO-C195a (Class C1,C2,C3,C4)
Mount type:	Panel
Transponder type:	Mode A/C, S and ES
Squawk code selection:	Push-button

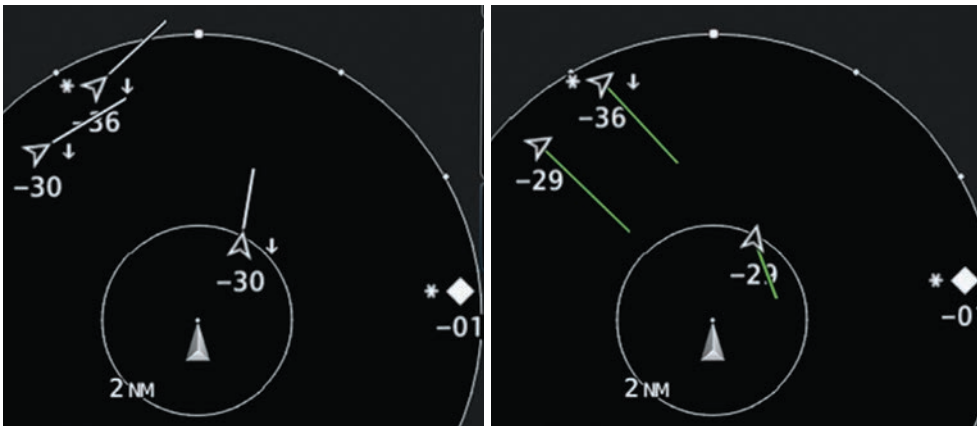
GTX™ SERIES TRANSPONDERS

TECHNOLOGY EVERYONE CAN IDENTIFY WITH

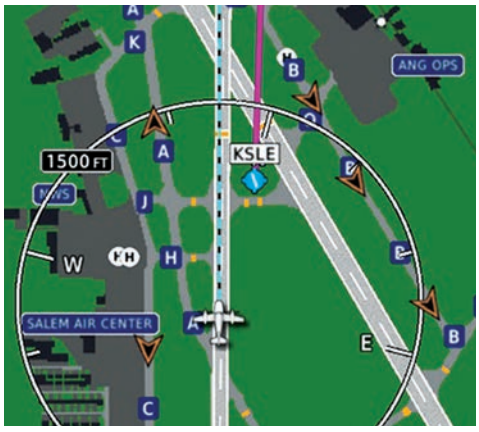
The GTX™ 345 all-in-one ADS-B transponder offers ES ADS-B "Out" with options for built-in WAAS, as well as dual-link ADS-B "In," which unlocks more capabilities for pilots by displaying subscription-free weather[1] and advanced ADS-B traffic, incorporating exclusive features such as TargetTrend™ and TerminalTraffic™, on a variety of current and legacy Garmin displays, including select G1000® Integrated Flight Decks, G500/600 and G500TXi/600 TXi flight displays, GTN 650/750 and GTN 650Xi/750Xi navigators and GNS™ 430W/530W navigators. When paired with an active traffic system, the GTX™ 345 also combines ADS-B traffic targets and active traffic targets to display a comprehensive traffic picture, and it can be integrated into the aircraft's audio panel to provide ATC-like audible alerts, such as "Traffic: 10 o'clock, same altitude, two miles" to help pilots keep their eyes outside the cockpit when looking for traffic. What's more, the GTX 345 provides, via BLUETOOTH® and Connext® wireless technology, ADS-B traffic, weather, GPS position data and back-up attitude information on the Garmin aera® series portables and popular Garmin Pilot™, FltPlan Go and ForeFlight Mobile apps. And the GTX 345 comes in an attractive size and form factor, making it easy to replace the most popular transponders in the industry. Remote-mount options that are controllable with a GTN 750Xi/650Xi series navigator are also available.

The GTX 335 ADS-B transponder offers ES ADS-B "Out" with options for built-in WAAS. It comes in an attractive size and form factor, making it easy to replace the most popular transponders in the industry, and remote-mount options that are controllable with a GTN 750Xi/650Xi series navigator are also available.

For Mode C operation, Garmin offers the affordable GTX™ 325 panel-mount transponder with dedicated push-button keys for code selection.



TargetTrend™ relative motion display helps simplify pilot decision-making with a more dynamic view of one's traffic situation. Compared to the traditional, or absolute, view of traffic (pictured at left), which shows how targets are moving relative to the ground, the TargetTrend display shows how other aircraft are moving in relation to your aircraft's flight path — and which trajectories are most likely to converge with your own.



TerminalTraffic™ Feature is available with SafeTaxi® to enhance the pilot's traffic situational awareness in the airport environment by displaying surface targets for ADS-B-equipped taxiing aircraft and ground vehicles on the airport diagram.



Packed with features to streamline your cockpit workload, the GNC® 215 NAV/COMM radio offers full 200-channel VOR/LOC/GS capability and 10 watts of COMM transmit power — or 16 watts with optional enablement. The companion GTR 205 COMM-only transceiver offers the same choice of VHF power output configurations. And both the GNC and GTR™ radios are available with pilot-selectable 25 or 8.33 kHz spacing.

GNC® 215 AND GTR™ 205 NAV/COMM RADIOS

ALWAYS KNOW WHO YOU'RE TALKING TO

The GNC/GTR series of radios bring convenience to your cockpit management, while also offering a slimline design, intuitive controls and bright, full-color LCD displays.

The units' handy frequency-lookup function allows you to simply enter the navaid or airport identifier to find the frequency (or frequencies) from their built-in worldwide databases. Plus, when paired with a compatible GPS source, they offer reverse frequency lookup to find NAV and COMM frequencies for the nearest stations and automatically display the station identifier and type once you've tuned a frequency (TWR, ATIS, ACC and more) so you can easily verify who you're talking to.

Frequency presets enable you to tune a COMM frequency into the standby display and then activate it via "flip-flop" button. Standby COMM frequency monitoring enables you to listen to ATIS or other transmissions without leaving the active frequency. And compatibility with your G3X Touch™ flight display allows you to remotely tune your radios via the G3X Touch flight display's touchscreen.

Other handy features include a built-in course deviation indicator (CDI), standby VOR frequency monitoring with a display of the received radial, automatic storage for the last 20 COMM frequencies you've called and storage/recall for up to 20 of your most often-used frequencies.

NAVIGATION RADIO SPECIFICATIONS

GNC 215 Series NAV/COMM

200-channel NAV with VOR/localizer and glideslope receivers
Built-in VOR/localizer converter
Database lookup of frequencies using navaid ID
Reverse frequency lookup (with compatible GPS input)
Standby NAV monitoring
VOR receiver displays to/from and radial
Digitally decoded OBS setting
Bright, full-color LCD display
Automatic display of station ID by decoding Morse code
Interfaces to most CDI (w/ resolver), HSI and autopilot systems
TSO: C34e; C36e; C40c
Accepts 9 to 33 VDC input

NAV Frequency Database

Includes 25 nearest VORs; frequency lookup by identifier (with compatible GPS input)

Physical Specifications

Bezel Size:	1.35" h x 6.25" w (3.43 x 15.88 cm)
Weight:	2.3 lbs (1.0 kg) unit only; 3.1 lbs (1.4 kg) with mounting rack and connectors
Depth:	10.32" (26.21 cm) behind panel, including mounting rack and connectors
TSO Compliance:	TSO-C157, DO-267A

COMM RADIO FEATURES

GTR 205 and GNC 215

760 communication channels (w/ 25 kHz spacing); 2,280 channels (w/ 8.33 kHz spacing)
Frequency range 118.000 to 136.992 MHz (w/ 8.33 kHz spacing)
Active and standby flip-flop frequencies
One-touch 121.5 emergency channel tuning
COMM frequency monitoring function
Recall of frequency from database by facility name and type
Frequency reverse lookup by station ID (w/ compatible GPS input or recent list)
Volume control bar graph display
Alphanumeric display of frequency types (ATIS, GRND, TWR, etc.)
Bright, full-color LCD display
Transmit status indicator
Backlit keypad controls
Automatic or manual display brightness control
Frequency memory and recall
Stores/recalls 20 user-defined frequencies
Stores/recalls previous 20 frequencies used
Automatic and manual squelch
Stuck mic time-out

Performance

Transmit power:	10 watts output (16 watts with optional enablement)
Input voltage range:	4 to 33 VDC
Operating temperature range: -20 to +55 C	
Certified TSO:	C169a (transmitting and receiving)
Certified TSO:	C128a (stuck mic)

Physical Specifications

Size:	1.35" h x 6.25" w (3.43 x 15.88 cm)
Weight:	2.2 lbs (1.0 kg) unit only; 2.8 lbs (1.3 kg) with mounting rack
Depth:	10.32" (26.21 cm) behind panel, including mounting rack and connectors

GSB™ 15 USB CHARGING HUB

GSB 15 USB CHARGER



This dual-port USB hub can power and charge two electronic devices in the cockpit or cabin, including tablets and phones. So you can have the power to access flight plans, moving maps, charts, weather data, manuals and more on your mobile device — while your passengers can access entertainment, messaging and all types of productivity apps. The dual USB Type-A hub provides up to 18-watt output to each device, while the dual USB Type-C and USB Type-A/Type-C hubs offer the latest portables — including iPad Pro® tablets from 2018 or later — up to 27-watt output, plus USB Power Delivery technology to provide optimal power for each device. All slimline GSB 15 hubs measure just over 1.5" square and stand less than an inch deep. Two formats are available: either rear or side wiring connections to simplify installation in tight spots. The hub fits in a 1" hole and can be mounted into a standard instrument hole in the panel with an optional 2.25" or 3.125" adapter.

GSB™ 15 HIGH-SPEED USB CHARGER

Charging port types:	Dual USB Type-A USB Type-A/USB Type-C Dual USB Type-C
Input voltage:	14V, 28V
Output voltage:	Dual USB Type-A: 5-12V USB Type-A/USB Type-C: 3.6V-12V / 5-12V Dual USB Type-C: 5-12V
Power consumption:	Max (while charging): 40W (Dual USB Type-A Only), 68W Min (not charging): 500mW
Maximum power output per port:	Dual USB Type-A: 18W USB Type-A/USB Type-C: 27W Dual USB Type-C: 27W
Required circuit breaker size:	28v Input: 5A 14v Input: 5A (Dual USB Type-A Units), 7.5A (USB Type-A/USB Type-C and Dual USB Type-C Units)
Dimensions:	Side Connector: 1.50" x 1.55" x 0.84" Rear Connector: 1.50" x 1.50" x 0.92" Weight: 0.16 lbs
Certifications:	TSO-C71 Qualcomm® Quick Charge™ Technology (USB Type-A Ports Only)

*iPad Pro is a trademark of Apple Inc., registered in the U.S. and other countries.

GDM™ 450R REMOTE-MOUNT DME RADIO

FLY WITH PRECISION DISTANCE MEASUREMENT

Designed for installation in Part 23 general aviation aircraft, the GDM 450R DME works with select Garmin integrated flight decks, flight displays and navigation systems to provide accurate slant-range distance calculations that determine your inflight position relative to DME ground stations.

This modern, all-digital radio can be remotely tuned via the navigation radio. No interface adapter is required for compatible Garmin systems. For added navigation flexibility, the DME "hold" function lets you maintain your active DME distance indication when tuning the associated NAV radio to a different frequency. This function is particularly useful for instrument approaches where it becomes necessary to tune the localizer or other approach aid while needing to retain your NAV's referenced DME information.



GDM 450R SPECIFICATIONS

General	
Operational temperature range:	-45° C to +70° C
Maximum operating altitude:	55,000ft
Physical Specifications	
Installed height (including rack):	1.35" (34.3 mm)
Installed width (including rack):	6.3" (160.0 mm)
Installed depth to connector backshell:	11.62" (295.1 mm)
Weight (unit only):	2.42 lbs (1.1 kg)
Weight (with install rack, connector kit, and configuration module):	3.05 lbs (1.4 kg)
Power Specifications	
14v Typical/Tx:	0.6 A
14v Maximum/Tx:	0.8 A
28v Typical/Tx:	0.3 A
28v Maximum/Tx:	0.4 A
Performance	
Minimum sensitivity level:	-90 dBm
Maximum range (line of sight):	300 nautical miles
DME channels:	5 (with compatible avionics)
Nominal Transmit Power:	250 watts
Interfaces:	RS-232, HSDB, King Serial, Audio Out
Certification	
TSO-C66c DME/N	
ETSO-2C66b DME/N Class 1	



COND SYS MUST BE OFF BEFORE TAKEOFF



GARMIN PLANESYNC™ TECHNOLOGY

PLANESYNC CONNECTED AIRCRAFT MANAGEMENT: THE FLYING LIFE, SIMPLIFIED

Every pilot knows that flying doesn't just start at the runway. It takes time, effort and preparation to keep one's aircraft ready for flight. **PlaneSync™ technology**[1] helps simplify the complexities of aircraft management, allowing aircraft owners and operators to spend more time focused on the task at hand — flying.

Using a 4G LTE cellular or Wi-Fi® connection provided by the GDL® 60 datalink, PlaneSync technology enables impressive avionics connectivity capabilities to streamline an aircraft owner's preflight and postflight activities. LTE connectivity is utilized to remotely check the aircraft's fuel and systems status[2], while LTE and Wi-Fi connectivity can be used to download database updates and upload logged flight and engine data. Compatible with popular Garmin avionics such as the GTN™ Xi series navigators, TXi™ series flight displays, GI 275 electronic flight instruments and select Garmin integrated flight decks, PlaneSync technology is available for a wide array of Garmin-equipped general and business aviation aircraft.

Automate your database updates: With PlaneSync you don't have to lift a finger to manage your avionics database updates — because it's all done automatically via 4G LTE or Wi-Fi connectivity. Forget juggling database update cycles or transferring databases to data cards. With PlaneSync technology, your avionics and databases are kept ready to go whenever you are. You save the time and hassle of updating data cards, and you can even check your system's update status remotely via your Garmin Pilot™ smartphone app.

Remotely check the status of your aircraft: Is your aircraft serviced and ready to go? You can check ahead, using an aircraft dashboard on your Garmin Pilot app[2]. When appropriately equipped, PlaneSync allows you to check active/standby database status, as well as Hobbs, tachometer and flight times, fuel quantity, battery voltage, OAT, oil temperature and aircraft GPS location[3]. Avoid last-minute surprises at the airport by checking things out in advance[4].

Easily access flight and engine data: PlaneSync will also help keep your postflight activities to a minimum. With compatible avionics, PlaneSync will automatically transmit your flight and engine log data to flyGarmin.com®[1]. You can then view the data on flyGarmin.com or your Garmin Pilot app and share it with your maintenance crew for analysis or troubleshooting.

IT'S ALSO A CONNEXT® GATEWAY IN YOUR COCKPIT

I**ntegrate mobile devices with your avionics:** To give you more flexibility in the cockpit, the GDL® 60 datalink with PlaneSync™ technology also includes Connext® device connectivity, enabling information to flow back and forth between your avionics and compatible flight apps. You can stream weather, traffic, attitude information, GPS position reference and other data from your system[3] — and essentially turn your mobile touchscreen into an extra control/display in the cockpit.

Flight plan entry made simple: Save vital time on flight planning by using flight apps such as Garmin Pilot™ and ForeFlight on your mobile device to create and file your flight plan from the comfort of your home or office. Then, once at the airport, the GDL 60 datalink's Connext device connectivity lets you quickly upload the waypoint data from your device to your avionics. In no time, you're ready to activate your flight plan and go flying.

Inflight entertainment options: When a GDL 69A SiriusXM® receiver[5] is added to your Connext onboard network, you and your passengers can select and control SiriusXM audio entertainment channels via the Garmin Pilot app on compatible mobile devices. Select from 100+ channels of SiriusXM music, sports, news and entertainment programming for your in-flight enjoyment.

Global satellite communication: By adding a GSR 56 Iridium® satellite transceiver[6] with Connext satellite services to your GDL 60 datalink-equipped aircraft, you can extend your reach. Use your compatible mobile device and its contacts list to send in-flight text messages or initiate phone calls globally.

With PlaneSync[7] technology, powered by the Garmin GDL 60 datalink, you have a wide range of connectivity options that can save you time, streamline your preflight workload and help you get more value, productivity and enjoyment from your aircraft.

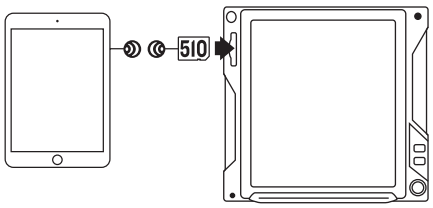


[1]Active PlaneSync and database subscriptions required for automatic database updates. Active PlaneSync subscription plan required for flight log uploading. Features are available on-ground only and requires GDL® 60 to have active LTE or Wi-Fi® connectivity; signal strength and other factors may apply. See Garmin.com/PlaneSyncCoverage for LTE coverage details.
[2]Remote aircraft status requires active PlaneSync subscription. User's smart device must have internet connectivity. Feature is available on-ground only and requires GDL 60 to have LTE connectivity; signal strength and other factors may apply. See Garmin.com/PlaneSyncCoverage for coverage details.
[3]GPS location provided by avionics. Select avionics can provide live location with a compatible GPS antenna; otherwise, location displayed will be based on the avionics last known location. GPS signal strength and other factors may apply.
[4]This information is intended as supplemental information only and is not a substitute for preflight checks
[5]Compatible avionics required
[6]Sold separately; subscription required
[7]Active PlaneSync and database subscriptions required for automatic database updates. Active PlaneSync subscription plan required for flight log uploading. Features are available on-ground only and require GDL® 60 to have active LTE or Wi-Fi® connectivity; signal strength and other factors may apply. See Garmin.com/planesynccoverage for LTE coverage details.

Wi-Fi is a registered trademark of the Wi-Fi Alliance.
Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc.

FLIGHT STREAM 210 AND 510

FLIGHT STREAM GATEWAYS FOR WIRELESS COCKPIT CONNECTIVITY



The Garmin Flight Stream series of BLUETOOTH® gateways provide wireless connectivity between your compatible tablet/mobile device[1] and your avionics. The Flight Stream 510 and 210 work with your GTN™ 750Xi/650Xi, GTN 750/650 or GNS 430/530W series navigators, providing a way to access ADS-B weather/traffic and GPS information on your compatible mobile device, without requiring an in-panel navigation display.

Using Garmin Connext® technology — via one of our Flight Stream series of wireless gateways in the aircraft — pilots can now enjoy more freedom and flexibility in everything from preflight planning and database management to in-flight decision-making and passenger entertainment options.

Designed to seamlessly interface people, devices and information, the Flight Stream datalinks support a whole spectrum of wireless networking solutions. Whether it's enabling an iPad® or smartphone to upload flight plan data into your cockpit avionics — or letting you access quality on-demand weather updates, position reporting, voice/text communications and more — the world of Flight Stream connectivity is simply a smarter, more user-friendly environment for those who fly.

Using BLUETOOTH® link technology, your Flight Stream 510 or 210 gateway lets you take advantage of close-range wireless capabilities already built into many tablet computers and smartphones — enabling information to flow back and forth between those devices and your compatible[1] avionics in the panel. For example, with our Garmin Pilot™ app on your tablet or smart device, it's easy to create and preload your flight plan from the comfort of your home or office. Then, once you arrive at the airport, simply upload the information — waypoints, airway routings and all — into your plane's GTN™ or GNS™ series avionics during preflight. This app-to-avionics interface saves you valuable time and tedious data entry so you can complete your checklist items quicker and get airborne sooner.

Likewise, your Flight Stream device also lets you use your iPad to wirelessly access data from your avionics for display in Garmin Pilot™, FltPlan® Go and ForeFlight Mobile apps, as well as Garmin aera® 660/760/796/795 portables. So you can enhance the device's map and flight displays with graphical weather, traffic, GPS position reference, AHRS for backup attitude and 3D synthetic vision displays — virtually turning your mobile touchscreen into an extra control/display in the cockpit[1].

And with a Flight Stream 510 — our patented multimedia card enabled with WiFi® and BLUETOOTH® technology that installs easily into your GTN™, GTN™ Xi or TXi™ card slot — you get wireless database transfer to and from the avionics and your Garmin Pilot app. Via Database Concierge, you can wirelessly download your new avionics databases to your Apple® mobile device at home, then upload them to your GTN Xi quickly at the airport. And if you have other compatible Garmin avionics, those new databases are synchronized behind the scenes; you even get immediate access to the departure, approach and arrival charts you need for your flight with chart streaming, even while those databases are still synchronizing.

For even more capability, the addition of an Iridium® satellite transceiver and Garmin Connext wireless connectivity can bring worldwide weather access to your flight deck — plus you can add voice calling, text messaging, position reporting, and more — to help you stay fully connected from points all over the globe.

FLIGHT STREAM AND REMOTE CAPABILITIES	FLIGHT STREAM 210	FLIGHT STREAM 510	GTX™ 345
Rock-solid GPS	X	X	X
ADS-B weather and traffic	X	X	X
SXM weather	X	X	
SXM audio remote control	X	X	
Attitude information	X	X	X
Two-way flight plan transfer	X	X	
GNS 430W/530W compatible	X		X
GTN/GTN Xi compatible	X	X	X

[1]Capabilities such as GPS, attitude, weather, traffic and flight plan transfer, SiriusXM® weather and audio control are limited to the version of Flight Stream, the avionics installed in the aircraft as well as portable device. Compatibilities continue to grow with more apps and Garmin portables. Check the Flight Stream 510/210 page's 'Supported Devices' tab for the latest feature and compatibility information.
[2]Subscription required and sold separately. See SiriusXM.com/aviation for details.
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GARMIN
connext
Database Concierge
Databases - 2 of 4
Obstacle Database - 88%
Skip Transfer and Continue
GARMIN
Waypoint Info - Airport
KPSP
Palm Springs Intl
METAR: KPSP Observation
WX Data
NOTAMs
APT DIR
Back
Home
Up
Down
FLAPS



GMA™ 350C SERIES AND GMA™ 345 SERIES AUDIO PANELS

BETTER COMMUNICATION STARTS WITH SMARTER AUDIO CONTROL

The Garmin family of innovative audio panels offers the latest in digital features to help streamline cockpit management, seek to enhance safety of flight, and improve communications between flight crews, ground controllers and passengers.

Our newest top-of-the-line model, the GMA™ 350c, is the most technologically advanced audio switching system we've ever introduced. Featuring built-in BLUETOOTH® wireless connectivity, it can be used with your smartphone (or other compatible devices) to make calls from the ramp or stream great audio entertainment through your cabin headsets. Other audio system highlights include ambient noise level sensing for automatic volume adjustment, enhanced auto-squelch capability, clearance recorder and our unique 3-D audio processing that adjusts audio in the pilot's stereo headset, so it mirrors how the human ear naturally "locates" sound in space. So it's easier to identify and focus on top-priority communications from among the many audio inputs in a busy cockpit. Then, for the crowning touch, there's our patented Telligence™ voice control feature that enables you to activate certain key audio functions by using spoken commands. By simply pressing a switch on the yoke and saying "Comm One" or "Comm Two," you can select the radio you want — without interrupting your visual scan or taking your hands off the controls during those busy times in flight.

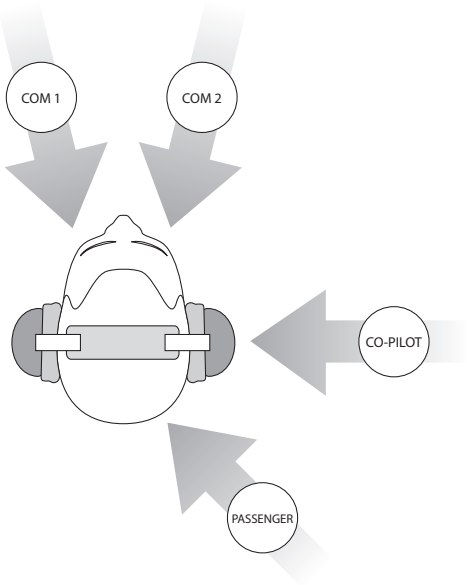
All the same features of the GMA™ 350c are also incorporated in a remote-mount version, called the GMA 35c, which is designed to interface with Garmin GTN™ 750Xi series GPS navigators. The large GTN Xi touchscreen, when doubling as the control panel for your GMA 35c audio system, serves to reduce the total stack height of the avionics in your panel, while streamlining all your cockpit communications. Both the GMA 350c and GMA 35c, as well as our non-BLUETOOTH equipped versions, the GMA 350 and GMA 35, feature 3-D audio, clearance recorder, convenient, LED-illuminated button controls for audio selection, and split comm capability for pilot and co-pilot.

For helicopter cockpits or others that need to address multiple-comm installations, Garmin also offers the GMA 350Hc. It includes the same core features as the standard GMA 350c, plus it offers night vision goggle compatibility with green annunciation and backlighting — as well as three-comm radio support and corresponding split-com modes (1/3 and 2/3) to accommodate a third transceiver.

For superior inflight audio at an affordable price, GMA™ 345 series digital audio panels feature 3-D spatial sound processing, BLUETOOTH connectivity and a USB charging port (GMA 345) or a 3.5 mm audio jack (GMA™ 342), marker beacon receiver, advanced auto squelch, clearance playback, and impressive audio mixing and distribution features. Furthermore, they support either dual-comm or three-comm operations, offer a six-place automatic VOX intercom with three modes of isolation, and provide split-comm mode that lets the pilot and co-pilot broadcast on independent frequencies. Plus, both are easy slide-in upgrades from select third-party audio panels or legacy GMA™ 340 units.

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With Garmin 3-D audio processing, sound reception in your stereo headset can have a directional effect. For example, Comm 1 may sound as if it's coming from your 11 o'clock position; Comm 2 from your 1 o'clock, co-pilot intercom from 3 o'clock, and so on. The 3-D feature can be enabled/disabled to suit pilot's preference. **Experience it at Garmin.com/3Daudio.**

	GMA 342	GMA 345	GMA 35C	GMA 350C
GMA 340 Pin and Rack Compatible	Yes	Yes	No	No
Seat Positions	6	6	6/7	6/7
COMs Receivers Alerts (unstitched)	2 5 4	2/3 5 4	2/3 5/4 4	2/3 5/4 4
Marker Beacon	Yes	Yes	Yes	Yes
BLUETOOTH	No	Yes	Yes	Yes
Intercom Squelch Modes	Keyed Auto	Keyed Auto	Keyed Manual Auto	Keyed Manual Auto
Front Panel Audio Jack	Yes	No	Yes	Yes
USB Power Charger	No	Yes	No	No
Dedicated Music Volume	Yes	Yes	Yes	Yes
Clearance Recorder	60 seconds	60 seconds	150 seconds	150 seconds
3-D Audio	Yes	Yes	Yes	Yes
Speaker	Yes	Yes	Yes	Yes
Auto Speaker Volume	No	No	Yes	Yes
Telligence™	No	No	Yes	Yes

SHARED SPECIFICATIONS

Power input: 11-33 VDC input
Temperature: -20° C to +55° C (operating)
Altitude range: to +55,000 ft. MSL unpressurized
GMA 35 and GMA 350 families highlighted extended environmental capabilities:
Temperature: -45° C to +55° C (normal operating), -55° C to +70° C (short-term operating)
Helicopter Vibration Data Available


CAL
SET
TEST
MUTE

GI-260 ANGLE OF ATTACK SYSTEM

ANGLE OF ATTACK: IT'S A WING THING

Flying with angle of attack (AOA) information provides important potential safety advantages. You can see when the angle between your aircraft's wing and the oncoming airflow becomes too great to support the plane in flight. Or, in other words, you can see when the wing is approaching a stall, at any flight attitude or airspeed. This is vital — and potentially life-saving — information. Thanks to Garmin AOA innovation, this technology has become more easily accessible to General Aviation pilots and their aircraft. Supporting the FAA's recent move to encourage and streamline AOA approvals for GA cockpit installations, the capable-yet-affordable Garmin AOA system is designed to enhance awareness of critical wing airflow characteristics — and alert pilots before a dangerous aerodynamic stall can occur. The Garmin AOA system is comprised of three components: the GI 260 indicator, the GAP 26 AOA probe and the GSU 25 air data computer. Using a combination of colors and chevrons, the Garmin GI 260 AOA indicator offers a quick, at-a-glance indication of trending airflow characteristics during the most critical phases of flight — with audible alerts further compelling pilot attention when things get extra busy in the cockpit. Supplementing traditional airspeed indicators and stall warning systems, the Garmin AOA system provides an instantaneous readout of the wing's stalling margin, giving pilots accurate real-time picture of their aerodynamic situation. When approaching an impending stall, the Garmin AOA indicator provides progressive audible and visual alerts as the aircraft nears the critical angle of attack — with flashing red chevrons pointing down to indicate an imminent loss of lift. Unlike less capable lift reserve indicators, our system uses industry-leading normalized AOA technology to provide superior performance, precision and reliability throughout all phases of flight. Better still, it's an easy system to install – thanks to our universal inspection plate mounting bracket for the GAP 26 under-wing AOA probe.



GI 260 ANGLE-OF-ATTACK (AOA) INDICATOR SPECIFICATIONS

Electrical:	14-28 VDC
Size:	1.36" w x 3.19" h x 2.36" d (3.45 x 8.10 x 6.06 cm)
Weight:	0.27 lb (0.122 kg)

Environmental

Operating temperature range: -45°C to +70°C

GAP 26 ANGLE-OF-ATTACK (AOA) PROBE SPECIFICATIONS

Electrical:	Unheated versions of the GAP 26 do not require power. Supply voltage for heated pitot is 14 VDC.
Size:	0.82" w x 16.00" h x 6.12" d (2.08 x 40.64 x 15.54 cm)
Weight:	Unheated, 0.33 lb (149.7 g) Heated, 0.39 lb (176.9 g)

GSU 25 AIR DATA COMPUTER SPECIFICATIONS

Electrical:	14-28 VDC
Size:	4.00" w x 2.50" h x 2.12" d (10.16 x 6.35 x 5.38 cm)
Weight:	GSU 25, 0.48 lb (0.217 kg) Weight does not include mounting hardware and connector

Environmental

Aircraft pressure altitude range: -1,400 ft. to 30,000 ft
Aircraft vertical speed range: -20,00 to +20,000 fpm
Aircraft airspeed range: 0 - 300 kts IAS
Operating temperature range: -45°C to +70°C

GTS™ 800, GTS™ 825 AND GTS™ 855 TRAFFIC SYSTEMS

SEPARATION SOLUTIONS FOR HIGH-TRAFFIC AIRSPACE

In busy, high-density airspace, pilots need every possible advantage when it comes to "seeing and avoiding" traffic conflicts. That's why Garmin developed the GTS™ family of ADS-B enhanced traffic advisory (TAS) and traffic collision avoidance (TCAS) systems. Featuring exclusive Garmin CLEAR CAS™ technology, these attractively priced systems provide accurate, dynamic surveillance of nearby transponder-equipped aircraft — with spoken audio alerts similar to those given by ATC to help pilots quickly respond to potential flight path encroachments.

The GTS systems use a synthesis of both active and passive surveillance (including 1090 MHz ADS-B "In") to correlate target data and pinpoint traffic threats, so they're able to provide advanced real-time traffic information to the cockpit — and augment reports from radar-based air traffic control.

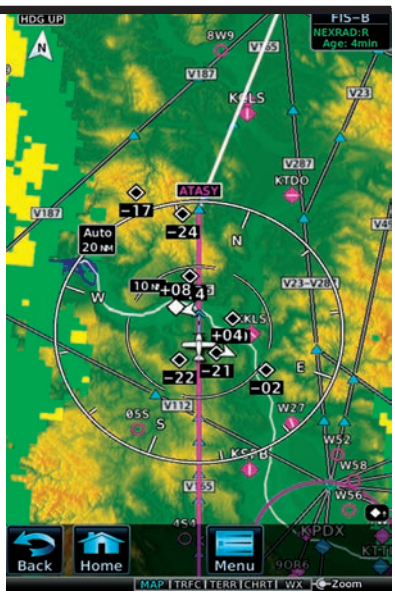
The systems can display traffic symbols and advisories on a variety of compatible navigation or multi-function display products. Passive surveillance with ADS-B "In" capability is available with installation of the GTX™ 335 ES or GTX 345 series of transponders (sold separately) or other compliant ADS-B equipment, such as the GDL 88 Dual-Link (1090/978 Mhz) Transceiver[1]. On compatible displays, the system is able receive and display the target aircraft's flight ID, GPS position, relative altitude and direction of flight. Also, display of course trend vectors and vertical climb or descent information (if available) can be accommodated. Therefore, instead of just seeing random targets, pilots will ultimately be able to identify and track specific aircraft flight trajectories with much greater precision. So, in busy airspace, they'll be able to fly with a much clearer tactical picture of their immediate traffic situation.

All GTS 800/825/855 units will operate to 55,000 ft — so they're not constrained by the much lower altitude limits imposed on some competitive TAS/TCAS systems. The Garmin GTS equipment can track up to 75 traffic targets simultaneously — and display up to 30 intruder threats at a time, depending on the specific capabilities of the display system being used. (There is no dedicated panel instrument for Garmin TAS; it interfaces with your existing navigation displays.) Targets are depicted using familiar TCAS-defined symbology. And selectable horizontal display ranges let pilots configure the presentation to their specific flight requirements.

Instead of the generic "Traffic, traffic" voice alerts of some earlier-generation systems, the GTS series' exclusive CLEAR CAS technology provides for expanded audio messaging in an ATC-like verbal format: "Traffic. One o'clock. High (or Low or Same altitude). Two miles." If surveillance bearing information is not available on the intruder, "Traffic, no bearing" is annunciated.

By vocalizing more specific traffic-spotting information, the GTS 800 series lets pilots know instantly where to look — keeping their "eyes-out" to scan for traffic instead of looking down at a cockpit display. This can save vital split seconds in a fast-converging situation. And sometimes split seconds can mean all the difference.

[1]NOTE: ADS-B correlated traffic target symbology and flight data shown in our brochures may not be available on certain display products. Our compatibility for these features is growing; however, some products will not be upgradeable. See our website or your Garmin dealer for details on display requirements and compatibility.



Integration of traffic and weather on a Garmin moving-map display provides critical situational awareness of potential flight-path conflicts.



With Garmin SVT-capable flight displays, traffic can be depicted in a 3-D format. As targets get closer, the symbols get larger.



GTS series traffic alerts can be displayed on Garmin GTN 750Xi/650Xi series and 430W/530W series avionics

GARMIN TAS/TCAS COMPARISON	GTS 800	GTS 825	GTS 855
Traffic system type	TAS	TAS	TCAS 1
Transmitter power output	40 watt	400 watt	400 watt
Active surveillance range (typical)	12 nm	Up to 40 nm	Up to 80 nm
Number of targets tracked	60	60	60
Number of targets displayed (dependent on display system capability)	30	30	30
Display range	2/6/12	2/6/12/24/40	2/6/12/24/40/80
Range accuracy	+/- .05 nm	+/- .05 nm	+/- .05 nm
Bearing accuracy	5° RMS	5° RMS	5° RMS
Altitude accuracy	+/- 200 ft	+/- 200 ft	+/- 200 ft
Altitude resolution	+/- 100 ft	+/- 100 ft	+/- 100 ft
Max vertical separation	+/- 10,000 ft	+/- 10,000 ft	+/- 10,000 ft
Audible target threat position callouts	Yes	Yes	Yes
1090ES ADS-B receiver*	Yes	Yes	Yes
Correlated display capability	Yes	Yes	Yes
Selective Mode-S interrogation	No	Yes	Yes
Maximum operating atitude	55,000 ft	55,000 ft	55,000 ft

*Requires ADS-B "Out" capability

GTS 800/825/855 PROCESSOR LRU SPECIFICATIONS

Unit Size
- GTS 800: 6.25" w x 2.7" h x 12.7" d (15.87 x 6.86 x 32.25 cm)
- GTS 825/855: 6.25" w x 3.42" h x 12.7" d (15.87 x 8.69 x 32.25 cm)

Weight
- GTS 800: 9 lbs (4.08 kg) LRU
  Vert. Rack 1.05 lbs (0.48 kg)
  Horiz. Rack 1.94 lbs (0.88 kg)
  excludes connectors
- GTS 825/855: 11.30 lb (5.13 kg) LRU
  Vert. Rack 1.35 lb (0.61 kg)
  Horiz. Rack 1.94 lb (0.88 Kg)
  excludes connectors

Temperature: -55°C to +70°C

Operating Altitude: To 55,000 feet

Power Input: 14 or 28 VDC
40 watts max (GTS 800); 84 watts max (GTS 825, 855)

Cooling Input: Integrated

Environmental Compliance: RTCA DO-160E (GTS 800); RTCA-DO-160F (GTS 825, 855)

Software Compliance: RTCA DO-178B Level C (GTS 800); RTCA-DO-254 Level B (GTS 825, 855

Hardware Compliance: RTCA DO-254, Level C (GTS 800); RTCA DO-254 Level B (GTS 825, 855)

TSO Compliance
- GTS 800 TAS: TSO-C147, TSO-C166a, DO-197A, DO-260A
- GTS 825 TAS: TSO-C147, TSO-C166b, RTCA DO-197A, RTCA DO-260B
- GTS 855 TCAS I: TSO-C118, TSOC166b, DO-197A, DO-260B

A 58 DIRECTIONAL ANTENNA SPECIFICATIONS

Unit Size: 4.03" w x 2.97" h x 5.63" d (10.24 x 7.54 x 14.30 cm)

Weight: 0.82 lb (0.37 kg) with QMA connectors
0.85 lb (0.39 kg) with TNC connectors

Omni-Directional Antenna (optional)

Unit Size: 0.98" w x 3.30" h x 4.00" d (2.49 x 8.38 x 10.16 cm)

Weight: 0.24 lb (0.10 kg); excludes connectors

GRA™ 55 RADAR ALTIMETER

TECHNOLOGY FOR KEEPING YOUR HEIGHT IN SIGHT

Utilizing the same patented technology as our higher-end GRA™ 5500 radar altimeter, the affordable GRA 55 system offers a great value in digital AGL measurement for most GA aircraft and helicopters. The GRA 55 will integrate with such popular Garmin flight displays as the G500/G600, TXi and GI 275 systems — as well as other industry-standard compatible displays. Yet, no matter which display option you choose, the GRA 55 conveniently puts your AGL readout right where you need it for optimum visibility in high-workload landing situations. The GRA 55 is designed to work in a full range of demanding environments — allowing you to go from rough terrain to tree canopies, from sand to choppy water, while always knowing precisely how much room you have to maneuver. And thanks to patented self-testing technology that continuously monitors incoming data and system integrity, you can be assured that the altitude provided is highly accurate, even in low-visibility conditions. What's more, in most installations this self-testing technology virtually eliminates the need for pilot input or interaction with the GRA 55 in any way. It simply provides a smooth, reliable, highly accurate altitude readout to help keep your AGL awareness as safe and dependable as you've always wanted it to be.

SPECIFICATIONS

Physical

Unit Size:	3.99" h x 3.02" w x 11.62" d (10.13 x 7.67 x 29.52 cm) includes mounting rack
Mounting:	Mounting rack and hardware supplied
Unit Weight:	3.5 lb. with mounting rack

Environmental

Temperature:	-55° C to +85° C (Operating);
Altitude range:	25,000 ft maximum
Power requirements:	14 or 28 VDC input; 13.75 watts maximum

Other Specifications

Altitude Accuracy:	± 1.5' (3 - 100 ft AGL); ± 2 % (> 100 - 2500 ft AGL)
Altitude Range:	-20 - 2,550' AGL
Horizontal Velocity:	0 - 200 knots maximum
Vertical Velocity:	20 ft/sec maximum (up to 100 ft AGL); 25 ft/sec maximum (above 100 ft AGL)
Pitch Angle:	± 20° maximum
Roll Angle:	± 20° maximum (with published altitude accuracy limits); ± 20° to ± 30° (with ± 20 % altitude accuracy limits throughout entire altitude range)






GARMIN
COM1
118.10
APPROACH
STBY
118.70
KPDX TWR
Com Vol – Psh Sq
DIS
44.2 NM
DTK
006°
BRG
006°
GS
125 KT
TRK
343°
ETE
21:13
NAV1 IVDG
111.30
IVDG ILS
STBY
116.60
BTG VOR
CO Utilities – CO Monitor
Current CO Level
50 PPM
Custom CO Advisory
Inhibit CO Alerts
CO Level
30 PPM
Issue After
5 MIN
Alert Time Elapsed
00:01:30
Sensor Expiration Date
10–FEB–35
Back
MSG
CO LEVEL
TERM
GPS
MAP
FPL
TERR
PshCom
Com Vol
Psh Sq
GARMIN
Terrain
Menu
N
10 NM
5 NM
HDG UP
GSL
1320 FT
COM2
128.35
KPDX ATIS
STBY
121.90
KPDX GND
XPDR
ALT
3422 R
Back



GCO™ 14 CARBON MONOXIDE DETECTOR

BREATHE EASIER WITH CO LEVEL MONITORING IN YOUR AIRCRAFT

You can't taste it, smell it or see it. But excess levels of carbon monoxide (CO) can prove hazardous in an aircraft cabin environment. The Garmin GCO 14 sensor helps protect against this threat, seamlessly integrating CO level monitoring into select Garmin avionics and flight displays for prompt, accurate alerting[1] should hazardous levels be detected.

Monitor and log CO levels: With GCO 14 on board, you can easily view and record cabin CO levels throughout your flight. GCO 14 data can be logged by compatible avionics, so you can track your CO trends over time. And with PlaneSync™ technology[2], this information can also be uploaded to your flyGarmin account automatically.

Peace-of-mind integration: Compatible with Garmin GTN™ Xi navigators, as well as GI 275 digital MFD and EIS instruments, the compact GCO 14 sensor integrates with your avionics and can also leverage our TXi flight displays for CO alerting.

Get visual and aural alerts: When cabin CO levels have increased above preset or user-defined levels, the GCO 14 sensor activates visual alerts on your compatible avionics display. An aural alert[1] can also be triggered when the system is connected to a compatible audio panel.

Easy remote installation: Meeting FAA TSO-C48A for use in certified aircraft, the small, lightweight GCO 14 module fits easily behind your panel. It can be secured to a cable harness or existing avionics units and includes the required wiring for installation.

Long sensor lifespan: You can forget the hassle of constantly checking to see if your CO sensor element is due for replacement. GCO 14 has a sensor life of up to 10 years.

SPECIFICATIONS

Physical	
Unit Size:	1.5"h x 1.2"w x 0.9"d (10.13 x 7.67 x 29.52 cm)
Mounting:	Mounting and wiring hardware supplied
Unit Weight:	~1 ounce (28 grams)
Environmental	
Sensor life:	Up to 10-year lifespan
Other Specifications	
Materials:	Machined aluminum enclosure



[1]Aural CO alerts require connection to a compatible audio panel
[2]Active PlaneSync and database subscriptions required for automatic database updates. Active PlaneSync subscription plan required for flight log uploading. Features are available on-ground only and require GDL® 60 to have active LTE or Wi-Fi® connectivity; signal strength and other factors may apply. See Garmin.com/planesynccoverage for LTE coverage details.



GWX™ 8000 STORMOPTIX™ AND 75 WEATHER RADARS

UNCLOUD YOUR WEATHER WITH GARMIN WEATHER RADAR

Powerful weather avoidance technology meets work-saving automation in the solid-state, Doppler-enabled GWX™ 8000 StormOptix™ and GWX™ 75 weather radars. They combine excellent range and performance with precision target contouring, plus the GWX 8000 features volumetric scanning and StormOptix automatic threat analysis to give you the most accurate, most robust cockpit technology for storm cell detection and interpretation.

With the GWX 8000, you no longer need tedious, time-consuming manual adjustments to get storm cell information. With the StormOptix volumetric auto-scan function, the radar automatically changes tilt and gain settings to help you determine the actual size and shape of hazardous storm cell activity. Simply select auto mode and the range display desired, and the radar does the rest so you can focus on flying the aircraft while getting detailed, real-time weather information at a glance.

With StormOptix auto-scan technology, you're able to quickly analyze storm cells, accurately assess threat potential and then choose the best diversion route or avoidance solution. As a standard capability, the radar will also predict lightning and hail development in thunderstorm cells ahead as well as detecting and alerting you to potentially hazardous turbulence. Predictive windshear detection is also available as an option[1] on select aircraft.

Another advanced feature, enhanced ground clutter suppression, helps take more of the guesswork out of interpreting what you see on your radar display. With this technology, the radar can provide a more consistent, more accurate view of weather at all altitudes and ranges. It identifies clutter from ground and surface features — then applies advanced algorithms in conjunction with an onboard terrain database to eliminate nonweather returns from the display. The result is a cleaner, clearer image that lets you focus on real weather.

Both the GWX 8000 and GWX 75 radars offer our WATCH® feature, which identifies the "shadowing" effects of short-range cell activity — highlighting areas where radar signals are weakened, or attenuated, by intense precipitation (or large areas of lesser precipitation) and that may not fully reflect the "storm behind the storm."

The radar's high-definition color palette can display up to 16 colors – 4 times more than traditional weather radars — providing a far more nuanced interpretation of storm cell dynamics. Plus, this high-definition target contouring combines with exceptional range and adjustable scanning profiles — both horizontal and vertical — to allow you to assess a storm threat more accurately via your compatible flight deck or multifunction display.

The fully stabilized GWX 8000 and GWX 75 both offer horizontal scan angles up to 120 degrees to locate and evaluate convective weather activity. The altitude-compensated tilt feature of the GWX 75 helps streamline your in-flight workload by eliminating the need to reset the antenna tilt after altitude changes. Set it once to the tilt angle you want, and the radar will automatically adjust to that level after any climb or descent. Plus, a handy ground mapping mode lets you use Garmin weather radars to scan terrain features for visual navigation.

With their all-digital design, the GWX 8000 StormOptix and GWX 75 weather radar systems offer lower power consumption and typically have longer service life compared to previous generations of magnetron-based radars. The all-in-one antenna/receiver/transmitter unit is available with a 10, 12 or 14" antenna array, so it can adapt to a wide variety of aircraft radome installations. And, the GWX 75 also offers an 18" antenna array for larger applications. Finally, all GWX 8000 StormOptix weather radars offer full radar stabilization when interfaced with your aircraft's AHRS system.

For GWX 75 customers looking to upgrade to GWX 8000 with auto mode, they can do so via a optional software upgrade on approved aircraft to take full advantage of StormOptix auto-scan technology.

[1]Not available with GTN™ Xi navigators or TXi™ flight displays



GDL® 69/69A SIRIUSXM® DATALINKS

TAKING WEATHER AWARENESS TO NEW HEIGHTS

You can't control the weather. But at least you can stay on top of it — with the help of satellite updates from the GDL 69 datalink receiver.

Supplying graphical and textual weather information to the panel-mount GTN™ 750Xi/650Xi series and GTN 650/750 series avionics, as well as the G500/G600, G500™ TXi/G600 TXi multifunction displays, the GDL 69 helps pilots make timelier and more strategic weather avoidance decisions.

Data uplink service is provided through the SiriusXM Satellite Weather Service, using location-specific SiriusXM information. SiriusXM's powerful S-band geostationary satellites deliver seamless, near real-time coverage at any altitude across the continental United States and parts of Canada[1]. Thus, you're able to receive and view high-resolution color graphics offering detailed NEXRAD and METARs data, as well as current reports on precipitation, lightning, winds-aloft, echo tops, TFRs and more.

For pilots who want the latest in SiriusXM Satellite Radio capability, Garmin offers the sound-enabled GDL 69A. This receiver combines SiriusXM's satellite weather link with a complete digital audio package — so passengers can enjoy more than 170 channels of continuous news, sports, music and entertainment, while flying anywhere in the XM coverage area[2]. The GDL 69A will interface through a variety of Garmin panel-mount cockpit displays. And for even more flexibility, Garmin's optional Flight Stream or GDL 60 gateways can enable wireless remote tuning via iPad® or other compatible mobile devices, so listeners can control their SiriusXM Radio channels and volume from anywhere in the cabin.

SPECIFICATIONS

Physical

Unit Size:	6.15" w 1.05" h x 7.20" d (15.62 x 2.67 x 18.29 cm)
Mounting:	Mounting rack and hardware supplied
Weight:	1.86 lbs. unit (.84 kg), 2.81 lbs (1.27 kg) unit and rack

Environmental

Temperature:	-55° C to +70° C (Operating) -55° C to +85° C (Storage)
Humidity:	95% non-condensing
Altitude range:	-15,000' to +55,000'
Power requirements:	9 to 33 VDC input 4.2 watts maximum

Other Specifications

Satellite receiver frequency: 2332.5 to 2345 MHz
Downlink data rate: 38.4K bits per second
Software Certification: RTCA DO-178B Levels B and D
Environmental Certification: RTCA DO-160D

[1]Display compatibility for Canadian WX support varies by unit. See display product configuration for details.
[2]GPS 400W, GNC 420W, GNS 430W, GPS 500W and GNS 530W units will only display products with Aviator Light Package of XM Subscription and Music.
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GSR 56 SATELLITE DATALINK

GSR 56 GLOBAL VOICE, TEXT, WEATHER AND MORE

An enabling technology for the growing Garmin Connext family of datalink and wireless connectivity solutions in the cockpit, the GSR 56 Iridium datalink brings the benefits of on-demand satellite weather — as well as onboard text/voice communications, aircraft position tracking and more — to aircraft operators worldwide.

Available weather products include meteorological terminal aviation routine weather reports (METARs) that provide current temperature, dew point, precipitation, wind speed and more, as well as terminal aerodrome forecasts (TAFs) that show predicted weather for up to 30 hours in advance. Pilot reports, or PIREPS, allow pilots to share routine or urgent weather observations with each other. And throughout most of Europe, Canada, Australia and the U.S., Garmin Connext can also enable high-resolution radar imagery, which displays in full color on the G1000®, G1000® NXi, G500/G600, G500 TXi/G600 TXi, GTN 750Xi/650Xi series and GTN 750/650 series of displays. Additional radar coverage areas are being added continually[1].

Moreover, for pilots and passengers who want to stay in touch from the far-reaching corners of the earth, Garmin Connext offers a full range of phone and messaging options. Your Garmin Connext datalink may be used to provide two-way text messaging via SMS connection with any compatible mobile phone or two-way text messaging device[2]. You can send and receive text messages while airborne to maintain constant contact with clients, ground support or your team at the home office. Likewise two-way voice calling options, integrated with the aircraft's audio/intercom system, enable you to easily make or receive calls through your headset – or through cabin handsets – while in flight. Efficient and cost-effective, Garmin datalink technology provides the messaging and voice solutions you need to do business in today's competitive, globally connected world.

[1]NOTE: Service levels, areas and rates are subject to change. Contact Garmin for the current service areas and rates.
[2]Coverage subject to network agreements with mobile service providers. All services and capabilities listed may not be available on all Garmin flight deck platforms. Check with Garmin for specific availability.

SPECIFICATIONS

Physical

Unit Size:	6.96"h x 2.08"w x 12.96"d Depth is with connectors
Mounting:	Mounting rack and hardware supplied
Unit Weight:	2.45 lb

Environmental

Temperature:	-15° C to +70° C (Operating); -55° C to +85° C (Storage)
Humidity:	95% non-condensing
Altitude range:	-1,500 ft to +55,000 ft
Power requirements:	14 or 28 VDC input; 16 watts maximum

Other Specifications

Satellite receiver frequency: 1616 to 1626.5 MHz
Downlink data rate: 2.4 kilobits per second
Software Certification: RTCA DO-178B Level E
Environmental Certification: RTCA DO-160E


GARMIN
COM 1 125.800 CENTER
STBY 127.100 APPROACH
XPDR 4532 ALT
IDENT
WPT ATASY
BRG 340°
DIST 19.0
ETE 08:02
COM 2 121.200 KPWT AWOS
STBY 123.050 KPWT UNICOM
Split
Active Flight Plan
DTK / DIST
UBG
ATASY
OLM
KPWT
MENU
BACK
AVIONICS MASTER
PTT
AP DISC
GRUMMAN AMERICAN
VENT
PULL-OPEN
STROBE
FLASH BCN
LDG LT
DIM
BRIGHT
INST LTS
CARB HT
THROTTLE
LEFT FUEL 25.5 GAL





CHARTS AND DIAGRAMS

COCKPIT EFFICIENCY GOES OFF THE CHARTS

A valuable feature of the Garmin G500/G600, G500 TXi/G600 TXi, GTN™ 750, GTN™ 750Xi series and other compatible MFD screens is the ability to display approach plates and airport surface diagrams. Affordable Garmin FliteCharts®, which feature electronic versions of Aeronautical Information Services, NAV CANADA and EUROCONTROL terminal procedures charts, come standard with many Garmin navigators. In addition, Garmin SafeTaxi® airport diagrams are included to help pilots navigate hundreds of U.S., Canadian, Brazilian and European airports with confidence — by clearly depicting their aircraft's exact location on the field. As an alternative, you can select optional Jeppesen electronic charts (subscription required). Both Garmin and Jeppesen formats have the ability to overlay a georeferenced aircraft symbol on the electronic approach chart, providing a visual cross-check of your progress inbound.

With the Garmin G500 TXi, G600 TXi, GTN 750 and GTN 750Xi series navigation displays, FliteCharts and Jeppesen electronic charts take georeferencing even further — enabling a graphical view of your approach plate to be overlaid on the MFD moving map for integrated guidance cues throughout the procedure. Based on the active flight plan, each compatible Garmin MFD automatically loads the approach plates for the destination airport, allowing the pilot to quickly select the ATC-assigned approach procedure. Jeppesen charts can also display the destination airport's surface diagram — a real help at unfamiliar airports. In addition to the airport and approach charts, standard instrument arrival and departure charts (STARs or DPs) are also incorporated. Jeppesen chart functions and updates for the G600/G500, G500 TXi/G600 TXi, GTN 750 and GTN 750Xi series are available through Jeppesen's subscription service.



What could be easier? Computer geniuses and net novices alike will appreciate online database updates. Whether you opt for an annual subscription or individual updates, Garmin offers the system resources you need — to ensure the latest and best in navigation from your GPS. And it all comes to you with the speed and convenience of the internet. Check it out at fly.garmin.com.

FLYGARMIN.COM®

KEEP YOUR DATA CURRENT WITH EASY ONLINE UPDATES

Many of your Garmin panel-mounted avionics come with extensive navigation databases that serve as the mainstay of their moving map capabilities. In addition, other databases found on select Garmin products include Garmin FliteCharts® (electronic terminal procedures charts), Garmin SafeTaxi® (airport taxiway diagrams), VFR sectional/IFR enroute charts, terrain, towers/obstacles and more.

Over time, as information changes, your databases will require updating.

Fortunately, Garmin makes the process easy — by offering updates online — as well as wirelessly for select products — via our website: flyGarmin.com.

To make updating even more affordable, we're offering bundled packages for your entire panel at a cost-effective price. A Garmin OnePak offers every database for your Garmin certified panel-mount avionics in your cockpit — including GTN 650/750 and GTN 750Xi/650Xi series, G500/G600 and G500 TXi/G600 TXi and even Garmin GNS 430W/530W navigators — plus all databases for one qualified Garmin portable aviation device registered to your flyGarmin.com account. Or, if you prefer Jeppesen products, we've teamed up to create PilotPak™. With PilotPak, all the databases within a selected package are provided for a single annual price for Jeppesen electronic charts and/or Garmin FliteCharts®.

Lite, Standard and Standard + Garmin FliteCharts packages can be purchased and downloaded at flygarmin.com, and Lite, Standard and Standard + Jeppesen electronic charts can be purchased and downloaded from Jeppesen's website, www.Jeppesen.com.

Once you've selected your database package, with Database Concierge, you'll streamline the update process for updating your GTN Xi navigator via the Flight Stream 510 WiFi connection. At home, you can select individual databases on the Garmin Pilot app, download them, and store them to your mobile device for later.

When Flight Stream establishes a connection in the airplane, it transfers your up-to-date databases directly to the GTN Xi in minutes, where they'll wait in standby until their effective date. If you have a second GTN Xi, G500/G600 or G500 TXi/G600 TXi glass flight display, you'll enjoy additional benefits from database synchronization. The GTN Xi acts like a computer server to automatically transfer and synchronize your databases to the flight display and navigator, behind the scenes. In the meantime, you can view and use a departure, approach or arrival chart immediately – even if the databases are still synchronizing.

SPECIFICATIONS

Coverage:	Varies by product; navigation database includes Garmin Navigation Database or Jeppesen NavData
Airports:	Identifier, city/state, country, facility name, lat/long, elevation, fuel service, control, approach information
VORs:	Identifier, city/state, country, facility name, lat/long, frequency, co-located DME/TACAN, magnetic variation, weather broadcast
NDBs:	Identifier, city/state, country, facility name, lat/long, frequency, weather broadcast
Intersections:	Identifier, country, lat/long, nearest VOR
Runways:	Designation, length, width, surface, lighting, pilot-controlled lighting freq.
FSS:	Identifier, reference VOR, freq. usage
Frequencies:	Approach, arrival, control area, departure, Class B, Class C, TMA, TRSA with sector, altitude and text usage info; also, ASOS, ATIS, AWOS, center, clearance delivery, ground, pre-taxi, tower, UNICOM, localizer and ILS
ARTCC:	Identifier, freq. usage
MSA:	Minimum safe altitude along and in proximity to active flight plan
Approaches:	Non-precision and precision approaches from FAF to MAP
Airspaces:	Class B and C with sectors, international CTA and TMA with sectors; all special-use airspace, including MOAs, prohibited and restricted areas with controlling agency and airport

	GARMIN NAVIGATION DATA	GARMIN OBSTACLES	GARMIN SAFETAXI	GARMIN TERRAIN	GARMIN AIRPORT DIRECTORY	GARMIN FLITECHARTS	JEPPESEN NAVIGATION DATA	JEPPESEN ELECTRONIC CHARTS
ONEPAK								
Standard	X	X	X	X	X			
Standard w/ Garmin FliteCharts	X	X	X	X	X	X		
PILOTPAKS								
Lite		X	X	X	X	X		
Standard		X	X	X	X		X	
Standard w/ Garmin FliteCharts		X	X	X	X	X	X	
Standard w/ Jeppesen electronic charts		X	X	X	X		X	X

Wi-Fi is a registered trademark of the Wi-Fi Alliance.



FLTPLAN.COM SERVICES

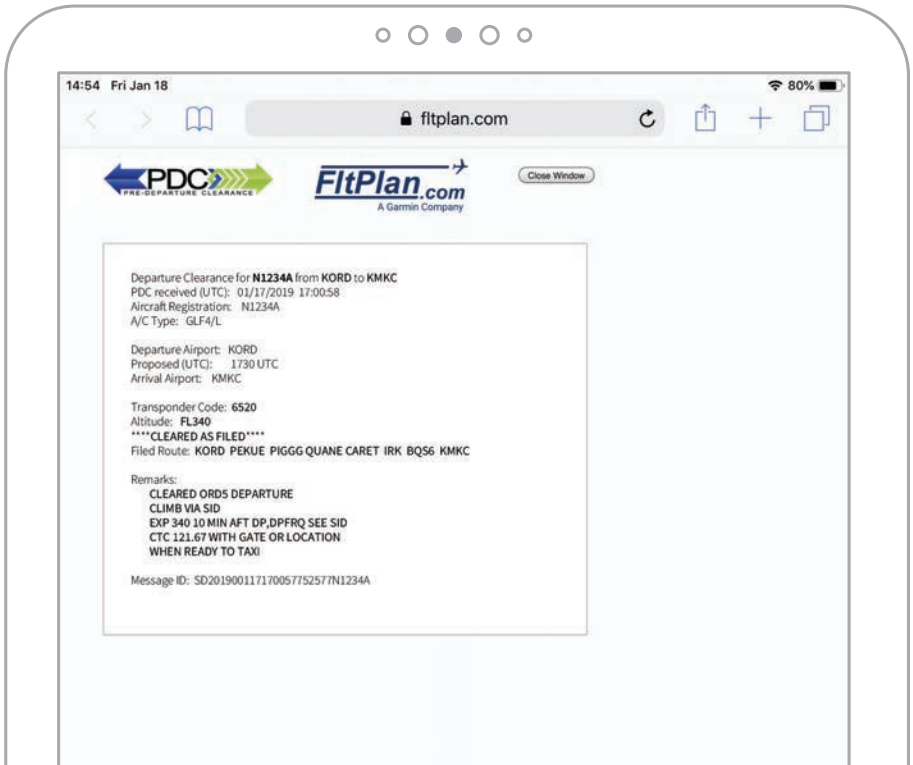
TRIP SUPPORT WITH FLTPLAN.COM

With aviation support services from the industry-leading FltPlan.com team at Garmin, pilots and fleet owners can now streamline their operations with a full suite of web-based logistics solutions. These offerings range from flight planning, filing and predeparture clearances to advanced trip support, flight tracking, airport and FBO information, weather briefings, navigation logs, eAPIS and international handling, and more.

As one of the largest and most trusted electronic flight planning services in the U.S., FltPlan.com files more flight plans per year than any other provider. The FltPlan Go electronic flight bag app is seamlessly integrated and wirelessly integrates with Garmin avionics.

The Garmin Pilot™ app provides additional integration and wireless connectivity. By creating a free FltPlan.com account and syncing it with Garmin Pilot, users can easily create flight plans and routings — then wirelessly transfer the data from their mobile device to their avionics, saving valuable time prior to any flight. To save even more time between filing and takeoff, pilots can also take advantage of FltPlan's FAA-approved pre-departure clearances, which allow them to skip clearance delivery entirely — and receive their flight plan approval wirelessly, approximately 20-30 minutes prior to the filed departure time.

Many countries require advanced notification for entry into their country, typically referred to as eAPIS, and each country has their own system and requirements for notification. The FltPlan team has years of experience handling these complex international trip logistics with the U.S. Customs and Border Protections and similar agencies in Canada, Mexico and Caribbean countries to streamline international travel. Better yet, this system integrates conveniently with FltPlan.com to simplify manifest submissions. For more comprehensive support, let our experts in international flight planning manage your operations from takeoff to touchdown for a single, predictable price without any hidden fees. The FltPlan team has decades of experience working logistics in multiple countries, so we know what to expect to help mitigate operational risks, save time and provide peace of mind during your travels. Our expertise can help you operate confidently while flying between the U.S., Mexico, Central America, and the Caribbean. The service accounts for airspace fees, overflight and landing permits, optimized flight planning, ground handling and much more. International handling integrates seamlessly with FltPlan.com; simply request a quote after adding the proposed flight plan with an eligible destination to get the process started.





AVIONICS TRAINING

GARMIN INSTRUCTOR-LED TRAINING AND E-LEARNING COURSES

To help customers achieve the highest level of confidence while operating their avionics, the Garmin Aviation Training team offers a comprehensive portfolio of instructor-led classes, e-learning courses, seminars and webinars to teach pilots the full capabilities of their systems. Offering insight into the preferred methods of operation and integration, these sessions cover such topics as:

- Primary flight displays and multifunction displays
- Communication, navigation and surveillance equipment operation
- Flight planning
- En route navigation tools, including Direct-to and user-defined holds
- Automatic flight control system operation
- Vertical navigation
- Instrument procedures, including DPs, STARS and IAPs
- Hazard avoidance, including traffic, terrain and weather
- Abnormal operation — i.e., LRU failure and reversionary modes

For more information on all current Garmin training offerings, use the QR code to access the current Pilot Training catalog.

E-LEARNING COURSES

Garmin eLearning courses can be accessed immediately with a two-year subscription. Certificates for free access to eLearning courses are included in the printed materials kit with the purchase of GTN™ Xi or TXi™ displays. Ask your dealer if you have questions. You can use the QR code below to purchase additional eLearning courses.

eLearning Courses	
COURSE	DURATION
GTN™ Essentials 2.0	3 hrs
TXi™ Essentials 2.0	2 hrs
GFC™ 500 Autopilot Essentials	3 hrs
G3X Touch™ Certified Essentials	4 hrs
G3X Touch Experimental Essentials	5 hrs
G1000H™ NXi Fundamentals	3 hrs
G1000H NXi Advanced-IFR	5 hrs
G1000® NXi Fundamentals	3 hrs
G1000 NXi Essentials	5 hrs
G3000® Essentials 2.0	5 hrs
G5000 Essentials 2.0	3 hrs
G5000 Essentials 2.0 PLUS	3 hrs
Aviation Weather Radar 2.0	2 hrs

INSTRUCTOR-LED TRAINING

Our professional and experienced Garmin Aviation Training team leads a series of scheduled and on-demand instructor-led (ILT) in-person and virtual classes — as well as seminars at Oshkosh and other aviation shows. Our ILT classroom training focuses on scenario-based training and incorporates "hands-on" use of the equipment to build on your knowledge from the self-study of the pilot's guides, PC trainer and the eLearning courses. Participating in scenario-based training will develop your method of integrating Garmin avionics capabilities into your flight planning and flying.

Scheduled Classes: Designed for all levels of experience, our classes will provide you with the knowledge to confidently navigate through the national air space system. Classroom training is provided at Garmin headquarters in Olathe, Kansas, a suburb in Kansas City. We are also pleased to provide several regional classes throughout the year, including those at EAA AirVenture Oshkosh, for your convenience. Use the QR code to view our current calendar of live classes and make your reservation for one of our training classes.

Instructor-led Training	
CLASS	DURATION
GTN™ Series (Virtual)	1 day
GTN™/TXi™ and GTN/G3X Touch™	2 days
GTN and Flight Display (Regional)	2 days
G1000® and G1000® NXi	2 days
G1000 and G1000 NXi (Regional)	2 days
Aviation Weather Radar	0.25 days

For additional information, contact the Aviation Training team at: aviation.training@garmin.com


skyhawk II
GIPVY
RW31
5403
TRIP TIMER
01:34:15
WARNING

LOOKING AHEAD, REACHING BEYOND

When you fly with Garmin avionics, you never fly alone.

We're committed to making sure you have a terrific experience with any and every Garmin product you select — whether it's a single component or a complete cockpit retrofit.

That's why you can count on us not just to support you, but also to embrace you: with comprehensive service and technical expertise in virtually every corner of the globe.

To help you get the most from your avionics, we offer a variety of product training and familiarization programs — everything from hands-on, face-to-face road shows and user classes to YouTube videos and webinars that you can easily access online. We make a real effort to provide the answers and the information you need to feel totally confident with the avionics you're flying. Because, we know that it's the total support we put behind every product in our lineup — and every pilot using our equipment — that turns first-time Garmin buyers into loyal, long-term Garmin customers.

Likewise, we back every product in our avionics lineup with a rock-solid Garmin warranty. Then we make that warranty mean even more by attracting and hiring some of the industry's brightest technical minds to serve in our factory support positions. Their troubleshooting expertise is available by phone, fax or online — whenever you have a question or service issue that demands the right answer, right now!

These experts work as a team with hundreds of Garmin Authorized Service Centers around the world. Individually, they are the top shops in the business. Collectively, they form the most professional, comprehensive avionics service network available to support you anywhere you fly.

And we never stop looking for ways to make our team even better.

To see for yourself, we invite you to call or visit your nearby Garmin dealer. You'll be doing your future a favor.

GARMIN



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