EXPERIMENTAL AVIATION SOLUTIONS

SOLUTIONS FOR EXPERIMENTAL/AMATEUR-BUILT AND LIGHT SPORT AIRCRAFT (LSA)

EXPERIMENTAL

GET THE PERFECT PACKAGE FOR YOUR AIRPLANE. WITH FEATURES AND CAPABILITIES THAT FIT YOUR PANEL AND BUDGET.

Today you have even more choices, capabilities and screen sizes to configure the ideal avionics package for your experimental/amateur-built or light sport aircraft.

And when you choose Garmin, you reap the rewards of our tireless research, thousands of installations and millions of flight hours, which all ensure you're flying with the leader in aviation technology.

From a single electronic flight instrument to a complete integrated panel installation, our experimental avionics support a wide spectrum of plug-and-play growth possibilities. That means we can help you create a system that perfectly fits your panel, your priorities and your price range.

EXPLORE THE POSSIBILITIES.

Garmin Flight Display Configurations

The integration and versatility provided by Garmin avionics make it easy to customize the ideal panel layout for your aircraft. You can start with an electronic flight instrument or a single flight display. Or you can opt for a dual-screen G3X Touch™ configuration with separate PFD and MFD – or even a 4-screen system, if that best suits your needs. Garmin avionics work like building blocks, allowing you to grow your system to fit your airplane and your budget.

Maximum Awareness. Combine 2 10.6" G3X Touch panels as PFDs, a single 7" display as an MFD and a GTN 650 touchscreen navigator for GPS/nav/comm functions. Then add a G5 electronic flight instrument for backup, an optional GMC 307 autopilot controller for dedicated autopilot operation and a GTR 200 as a second Comm radio. Behind the scenes, mount a GTX 45R all-in-one ADS-B transponder, for ADS-B "Out" and dual-link ADS-B "In," as well as a 2-axis autopilot with GSA 28 autopilot servos and a GAP 26 angle of attack probe. And, finally, include a GMA™ 245 audio panel for advanced audio functions, including aural alerts, intercom, Bluetooth® connectivity and passenger entertainment.

NOTE: The 10.6" and 7" G3X Touch and original 7" G3X™ displays are not mix-and-match interchangeable. To add G3X Touch displays to your panel, you'll need to replace existing G3X units with the G3X Touch format.

En Route IFR. A single 10.6" G3X Touch serves as a PFD, MFD and EIS, while a GTN 625 offers GPS nav functions. A G5 electronic flight instrument and optional GMC 307 autopilot controller supply backup capabilities, a GTR 200 provides Comm and intercom functionality, while a GTX 45R all-in-one ADS-B transponder delivers ADS-B "Out" and "In."

PFD/MFD VFR. Twin 7" portrait G3X Touch displays provide all your primary flight information, moving map and engine information. A G5 electronic flight instrument and optional GMC 307 autopilot controller provide backup autopilot operation, a GTX 45R all-in-one ADS-B transponder offers ADS-B "Out" and "In," and a GTR 200 delivers VHF communication, including automatic frequency ident, and two-place stereo intercom.

Compact VFR. Get the most from a small space with 2 G5 electronic flight instruments, an aera® 660 portable navigator and a GMC 307 autopilot controller, which combine to provide coupled autopilot. And with a GTX™ 345 all-in-one ADS-B transponder, you get ADS-B "Out" and "In," for subscription-free weather and traffic on your portable, while a GTR 200 offers VHF communication, advanced audio features, inputs for audio alerts and two-place stereo intercom.

G3X TOUCH™:

Discover the Possibilities

With our G3X Touch series glass flight decks, you'll experience a whole new level of situational awareness in an affordable, easy-to-install package. The G3X Touch system is scalable for growth from single- to dual- to 4-screen cockpit layouts, and the technology is so intuitively cool and forward looking, it's enough to make you want to build an airplane just to have a platform for these amazing displays.

G3X Touch is built from the ground up with a native infrared touchscreen interface that is seamlessly blended with familiar buttons and knobs so virtually everything you'd ever need to fly in today's airspace can be accessed right from the display. Large onscreen touch points and familiar graphical icons simplify all your data entry and menu selections – and if you're flying in turbulence, the bezel design offers added support for easy operation.

Combining full primary flight display (PFD) attitude/directional guidance with detailed moving-map multifunction display (MFD) capabilities, each G3X Touch series display comes with a built-in VFR WAAS GPS receiver. You can choose among 10.6" and 7" landscape and 7" portrait formats – or mix and match – so you have even more control options at your fingertips and less clutter in your limited panel space. In fact, if your installation includes a separate PFD and MFD, you'll have additional reversionary capabilities should either display go offline. In reversionary mode, the remaining display combines critical flight instrumentation with engine readouts and navigation information in a single, consolidated presentation.

From there, G3X Touch flight displays seamlessly integrate with our family of experimental radios, transponders, audio panels, ADS-B and SiriusXM® datalinks, mobile devices via Connext® and more. And you even can easily add an affordable Garmin G3X autopilot system just by adding Garmin GSA 28 servos.

The Garmin G3X Touch: It's all about rethinking what's possible in your cockpit.

THE BUILDING BLOCKS OF YOUR G3X TOUCH SYSTEM.

G3X Touch Flight Displays

Featuring big, bright, high-resolution touchscreens, these easy-to-read, easy-to-use flight displays provide a whole new perspective on situational awareness with standard GPS navigation, ADAHRS, terrain/obstacles alerting, wireless connectivity, video input and more.

G3X Touch even comes preloaded with Garmin FliteCharts®, for IFR approach plates and terminal procedures for airports throughout the U.S., Canada and Europe, plus an option for Jeppesen charts for complete worldwide database coverage. And Garmin SafeTaxi® diagrams identify runways, taxiways, FBOs and hangars as well as your aircraft's exact location on the field for airports throughout the U.S., Canada and Europe.

GSU 25 or GSU 25B ADAHRS

The GPS-aided, digital GSU 25 ADAHRS provides highly accurate and reliable referencing of your aircraft position, rate, vector and acceleration data. And the complete sensor package takes up just a fraction of the space and weight previously required by conventional gyro-based instrument systems.

The GSU 25B ADAHRS offers the same functionality for higher-performance aircraft flying at indicated airspeeds over 300 knots. Both also include an angle of attack (AOA) port.

GEA 24 Engine Indication System (EIS)

This user-configurable EIS module enables aircraft-specific tailoring of displays for engine gauges, color bands, alerts, fuel, flaps, trim and other vital sensor data. Sensor kits are available for most popular engine configurations used in experimental/amateur-built aircraft, or you can manually configure gauges with any electrically compatible sensor (see installation manual for details). A single GEA 24 can support piston engines of up to 6 cylinders and turbine applications, while a second GEA 24 allows owners to monitor engine operation for up to 12 cylinders, including radials and twin-engine applications. It even works with CAN bus interfaces for compatible FADEC engines, such as the Rotax 912 iS.

GMU Series Magnetometers

GMU series remote-mount, solid-state, tri-axial magnetometers use magnetic field measurements to create electronically stabilized heading references. The GMU 11 interfaces with a Garmin GSU 25 ADAHRS to provide flight attitude and heading data, while the GMU 22 interfaces with GSU 25B ADAHRS for high-performance aircraft flying faster than 300 KIAS.

GTP 59 Temperature Probe

GTP 59 is an outside air temperature (OAT) probe that provides ambient sensor data to the G3X Touch air data computer for true airspeed, density altitude and other essential flight calculations.

G3X TOUCH™:

Advanced Capabilities for Your Experimental/LSA

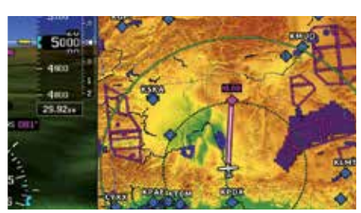
G3X Touch flight displays come standard with our exclusive SVX™ synthetic vision technology. Seamlessly integrated with your aircraft's flight attitude, airspeed, climb rate, altitude and course/heading reference, the database-generated 3-D landscape provides a lifelike perspective view of terrain features, airport environments, obstacles, towers and more – all shown in relative proximity to your aircraft. Also, with a compatible ADS-B "In" receiver, such as the GTX™ 45R all-in-one remote-mount transponder, or active traffic system, such as GTS™ 800, SVX will also display traffic targets in context, making it easier to gauge how high and how close they are.

Dual-link ADS-B[1] enables advanced traffic features such as TargetTrend™ relative motion and TerminalTraffic™ technologies so you can see other ADS-B equipped aircraft without dependence on a ground station.

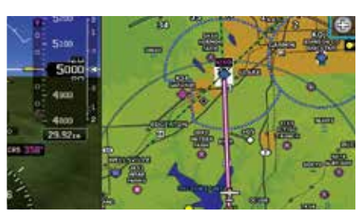
Choice of AOPA Airport Directory for the U.S. – or AC-U-KWIK worldwide directory – offers detailed information on thousands of airport facilities and services.

Garmin SafeTaxi® data provides detailed taxiway diagrams and position information.

Optional Sirius XM® Radio support lets you enjoy 170+ channels of audio entertainment[2].

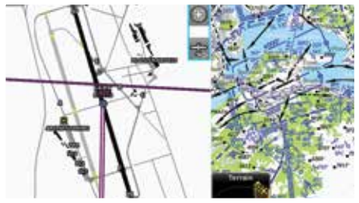


How far can you go? Graphical fuel range rings are based on real-time fuel flow calculations.

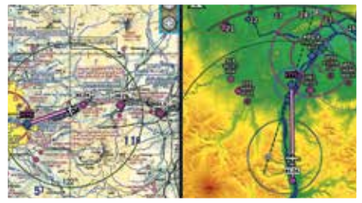


Glide range ring displays estimated area the aircraft can reach in best-glide speed (Vg) configuration.

Garmin Synthetic Vision



Worldwide Charting



Advanced Moving Map

Terrain and Obstacle Alerting

Advanced Avionics Integration

Garmin Autopilot with ESP-X

Engine Instruments

SiriusXM and ADS-B Weather Options

[1]ADS-B datalink receiver sold separately.
[2]SiriusXM subscription required (sold separately).

CHOOSE YOUR DISPLAYS

7" Portrait

GDU 470*
$2,995**

7" Landscape

GDU 450*
$2,995**

GDU 455 (Integrated SiriusXM)
$3,495**

10.6" Landscape

GDU 460*
$3,895**

GDU 465 (Integrated SiriusXM)
$4,395**

CHOOSE YOUR INSTALLATION KIT

Standard kit

GSU 25 ADAHRS
GMU 11 Magnetometer
GTP 59 Temperature Probe
Configuration Module

$1,500**

High Performance Kit
(Typically required for aircraft exceeding 300 KIAS)

GSU 25B ADAHRS
GMU 22 Magnetometer
GTP 59 Temperature Probe
Configuration Module

$2,599**

GEA 24

Add the GEA 24 engine indication system (EIS) for an additional $600**. Two GEA 24 units are required for more than 6 cylinders or twin engine applications.

SUPPLEMENTAL ADAHRS

For enhanced G3X Touch system redundancy, add an extra GSU 25 ADAHRS unit or a GSU 25B ADAHRS for high-performance aircraft flying over 300 knots indicated airspeed. Both are also compatible backup options for existing G3X™ systems, which utilize the Garmin GSU 73 ADAHRS module as the primary sensor. $799**

NAVIGATION DATABASES AND UPDATES

Choose a bundled pricing program for all essential databases and update information on your G3X Touch system. The bundled database option allows you to purchase annual subscriptions for multiple databases at a reduced price – starting at $49.99 a year – including combinations of navigation, obstacles, SafeTaxi®, and terrain databases.

And with Garmin OnePak™ options, you can purchase annual subscriptions for multiple databases for all of your aircraft's avionics at a single, reduced price, including those for panel-mount GPS units such as GNS™ 530W/430W and GTN™ 750/650 series, your G3X Touch and 1 portable device. OnePak subscriptions also provide Garmin Pilot™ subscribers an upgrade to Garmin Pilot IFR Premium at no additional cost. See flyGarmin.com for more information, availability and bundle pricing.

*Optional remote-mount SiriusXM receiver sold separately.
**Reflects manufacturer's minimum advertised price.

G5 ELECTRONIC FLIGHT DISPLAY

By combining visual cues and data readouts once scattered across a myriad of mechanical instruments, the Garmin G5 electronic flight instrument makes flight information easier to scan in a small, affordable package. The complete G5 unit fits into a single 3-1/8" standard instrument cutout, but it efficiently consolidates aircraft attitude, vertical speed, altitude, airspeed, slip/skid and baro setting, altitude and track/heading bug settings. Plus, a built-in GPS receiver and antenna provide a highly accurate ground speed and ground track readout.

DIRECTIONAL GUIDANCE

To provide even more situational awareness, you can install a G5 as a dedicated directional gyro (DG) or horizontal situation indicator (HSI). When paired with a GMU 11 magnetometer and select VHF Nav/Comms and GPS navigators, G5 will serve as your primary reference source for magnetic heading, GPS/VOR/LOC guidance and GPS course guidance – as well as providing distance and groundspeed indications.

And by installing dual G5 displays in your panel, you also gain the advantages of backup redundancy, with dual ADAHRS and reversionary display capability. In the unlikely event of a failure in the primary attitude indicator, a secondary G5 can revert to display attitude information, and for added "get home" protection, it's available with a backup lithium-ion battery, which can provide up to 4 hours of emergency operation in case of an aircraft electrical outage. And if you use one of our aera® series aviation portables, you can fly with battery-powered moving-map navigation guidance, to make that aircraft electronics outage virtually a non-event.

STANDALONE AUTOPILOT

G5 integrates with autopilot and flight director functions when accompanied by a GMC 305 or GMC 307 autopilot control panel and up to 3 GSA 28 smart servos. By adding a Garmin portable GPS, such as the aera 660/795/796, you enable the autopilot to couple laterally to the flight plan and vertically to support VNAV descents to pattern altitude. Adding a GTN™ navigator and GAD™ 29 digital interface even permits coupled GPS approaches along with lateral and vertical guidance for all approach types.

THE ULTIMATE G3X TOUCH™ BACKUP

The G5 even integrates with G3X Touch systems to provide even more backup display capability. Reversionary display features include primary flight information, flight-director cues, autopilot-mode annunciation, flight director, autopilot control (with a GMC 305 or GMC 307), approach lateral/vertical guidance and more. In the unlikely event that your G3X Touch system's primary ADAHRS reference becomes unavailable, G5 will provide backup ADAHRS information to those displays as well. And G5's barometric pressure setting syncs with G3X Touch so you have a single, dedicated knob to adjust your entire system.

G3X™ AUTOPILOT

Now, it's easy to add full autopilot capability to your G3X Touch™ system. All it takes is the addition of our affordable GSA 28 "smart" servos to give your system a range of autopilot capabilities similar to those provided by the high-end GFC™ 700 systems found on thousands of certified aircraft. You have the option of purchasing a 1-, 2- or 3-axis configuration (roll servo only, or pitch+roll, or pitch+roll+yaw) to add the level of capability you want. Even better, the Garmin system includes automatic trim functionality and automatic speed scheduling at no additional cost, and all of these advanced functions can be accessed directly from your G3X Touch display.

But for added redundancy and convenience, you can opt for standalone autopilot operation when you install an optional GMC 305 or GMC 307 control panel. A control wheel integrated into the panels allows easier pitch, vertical speed and airspeed adjustments, and GMC 307 adds dedicated knobs for altitude and heading selection. Plus, for added safety, both panels have an advanced LVL mode button, which commands the autopilot to help restore the aircraft to straight-and-level flight. Installation of the system is simple and straightforward, with industry-standard servo mounting kits available – as well as airframe-specific versions for Van's RV series (RV-4/6/7/8/9/10 models).

AUTOPILOT OPTIONS FOR YOUR G3X:

GSA 28 Servos

A typical Garmin autopilot installation includes 2 GSA 28 servos for pitch and roll, while roll-only and pitch-roll-yaw options are available. Auto-trim capability is included. $750*

Optional GMC 305 Control Panel

Add a separate autopilot control panel for dedicated mode selection as well as access to additional autopilot modes including indicated airspeed hold (IAS), level recovery (LVL), yaw damper (YD) and flight director (FD). Note: G3X Touch offers access to these modes using the display alone. $750*

Optional GMC 307 Control Panel

Similar to GMC 305, but with a taller footprint, this panel adds a separate autopilot control panel for dedicated mode selection as well as dedicated altitude and heading knobs. Note: G3X Touch offers altitude and heading controls using the display alone. $1,099*

*Reflects manufacturer's minimum advertised price.

GARMIN ELECTRONIC STABILITY AND PROTECTION (ESP-X)

With installation of the G3X autopilot, you'll also obtain Garmin ESP-X to provide assistance in maintaining the aircraft in stable flight. When you exceed user-selected pitch, roll or airspeed limitations while hand-flying the aircraft, ESP-X provides gentle nudges on the flight controls to lessen the aircraft's pitch attitude or bank angle – and that correcting force grows stronger as those exceedances increase. In addition, you'll see visual cues on the G3X Touch display indicating that ESP-X is engaged; yellow chevrons provide visual pitch guidance, and configurable roll-limit indicators show where ESP-X engages to provide bank guidance.

As you take corrective action, ESP-X fades, and it turns off when you return to normal flight. Conversely, if the system activates for more than 15 seconds – for example, if you become incapacitated – the autopilot engages with the flight director in level mode, bringing the aircraft to level flight until you command otherwise. While ESP-X will not recover an aircraft in all in-flight situations, the system does provide your experimental and light sport aircraft an extra safeguard.

But ESP-X goes beyond providing pitch and bank envelope protection to also offer high- and low-airspeed protection. In a high-airspeed situation, ESP-X engages the G3X autopilot servos to increase your pitch attitude, while built-in parameters further prevent the aircraft from exceeding G-limit load factors. In low-airspeed situations, ESP-X engages to provide a gentle pitch-down force to reduce the likelihood of a stall – and ESP-X automatically disables when the aircraft is operating within 200' of the ground. In addition, pitch, roll and airspeed envelope protection parameters are all customizable, and for flight training or aerobatics, you can easily inhibit Garmin ESP-X within the automatic flight control system menu of the G3X Touch or with an optional switch in the panel.

ADDITIONAL AVIONICS OPTIONS TO CONSIDER:

AOA Probe

AOA probes, such as the Garmin GAP 26, provide accurate, real-time information on airfoil flight dynamics and stall characteristics to help you maintain optimum safety, efficiency and performance when combined with a GSU 25/25B ADAHRS. Unheated probe version. $199*

Heated AOA Probe

For added protection against in-flight icing, a Garmin GAP 26 AOA probe with a pilot-controllable heater is also available. $299*

Heated AOA Probe with Regulator

To keep the unit ice-free, while efficiently controlling power usage, a Garmin GAP 26 AOA probe with automatically regulated probe heat is also available. $449*

GI 260 AOA Indictor

To enhance safety during critical phases of flight, this bright, easy-to-read AOA standalone indicator offers accurate visual cues (with aural alerting) when wing AOA is approaching a critical AOA. $249*

GAD™ 29 Navigation Data Adapter

This compact module provides an ARINC 429 data interface between your G3X Touch™ system and various IFR-capable GPS navigators such as GTN™ 750/650 or GNS™ 530W/430W series. When paired with these certified GPS receivers, GAD 29 enables your G3X Touch to incorporate such advanced features as GPS steering, WAAS LPV vertical approach guidance and more. $475*

GAD 27 Electronic Adapter Unit

This small, lightweight solid-state controller replaces multiple adapter modules to bring additional inputs and systems integration to your G3X Touch system. Key functions run the gamut from electronic flap position control and configurable dimming for lighting circuits to 3-axis aircraft trim mixing, "wig-wag" exterior lighting control, configurable discrete inputs and voltage bus stabilization to keep all essential avionics online during engine startup. $499*

GMA™ 245 Series Bluetooth® Audio Panel

Featuring Bluetooth wireless connectivity, 3D Audio processing, clearance playback and impressive audio distribution, mixing and audio effects features – including bass boost and equalizer presets – the non-TSO'd GMA 245 panel-mount unit interfaces with G3X Touch onscreen inputs, offering the most versatile and most advanced audio control technology we've ever produced for experimental and light sport aircraft. It includes a USB port to power your smartphone, tablet, music player or other device, a 6-place intercom and support for dual Nav/Comm and multiple aux receivers, totaling up to 7 radios in all. A remote-mount version is also available. $1,325*

GTR 20 Remote-mount Comm Radio

Designed to save space in your panel by enabling onscreen control via your G3X Touch flight display, this remote-mount VHF Comm transceiver provides full 760-channel capability (with 25 kHz spacing) and a robust 10 W of transmit power. Features include automatic frequency ident to display facility name and type (supplied by your G3X Touch database) plus storage and recall of most-used frequencies, standby frequency monitoring, auto squelch, 2-place stereo intercom with 3D Audio and more. $995*

*Reflects manufacturer's minimum advertised price.

GTR 200 Comm Radio

Powerful 10 W, all-digital VHF comm transceiver provides full 760-channel capability (with 25 kHz spacing) in a compact 1.35" high unit. It also features automatic frequency ident (using your G3X Touch database) to verify whom you're talking to as well as standby Comm monitoring, auto squelch, 2-place stereo intercom with 3D Audio input separation and much more. $1,199*

GTR 225 Comm Radio

A TSO'd Comm option for your panel, GTR 225 offers versions with 25 kHz or 8.33 kHz channel spacing for European "Single Sky" compliance. Available with either 10 or 16 W of transmitter output, GTR 225 includes a 2-place intercom, flip-flop frequency entry and a built-in frequency lookup database. $1,995*

GNC® 255 Nav/Comm

This fully certified 1.65"-high unit combines a powerful 10 W VHF Comm transceiver with 200-channel VOR/LOC/GS Nav receiver. (A 16 W version is also optionally available – and both versions offer 8.33 kHz frequency spacing for European compliance.) The radio's built-in frequency database lets you look up the frequencies for a given airport (tower, ground, ATIS, clearance delivery, etc.) just by entering the identifier. Also, automatic ident is provided for any Comm frequency you select, so you'll always know with whom you're talking. Other highlights include storage and recall of most used frequencies, standby frequency monitoring and more. $4,495*

GDL® 39R Dual-link ADS-B Receiver

This remote-mount ADS-B receiver offers dual-link capability for the most complete ADS-B traffic picture with or without connection to an ADS-B ground station. Additionally, it connects with the FAA's uplink network for subscription-free U.S. weather and more traffic information. A noncertified, receive-only product, GDL 39R provides your flight displays with both visual and audible traffic alerting as well as access to NEXRAD imagery, METARs, TAFs, winds and temperatures aloft, PIREPS, NOTAMs and other weather information. And it enables display of TargetTrend™ relative motion traffic and TerminalTraffic™ technology on SafeTaxi® runway diagrams. GDL 39R can be wired to a G3X Touch display while providing 2 simultaneous Bluetooth connections to devices, such as an additional display, mobile device or compatible Garmin portable. $799*

GTX™ 45R ADS-B Transponder

The GTX 45R ADS-B transponder pairs with G3X Touch flight displays for remote operation, including squawk code entry. It offers 1090 MHz Extended Squitter ADS-B "Out" when paired with Garmin GTN 750/650 series, GPS 400W, GNC 420W/420AW, GNS 430W/530W or GPS 500W/530W/530AW navigators or a GPS 20A ADS-B position source plus a dual-link ADS-B receiver for ADS-B "In" traffic and weather on G3X Touch flight displays, GTN 650/750 series navigators and GNS navigators with a single, behind-the-scenes installation. And when integrated into the aircraft's audio panel, it provides ATC-like audible alerts, such as "Traffic: 10 o'Clock, same altitude, 2 miles," to help you keep your eyes outside the cockpit when looking for traffic. Plus, with built-in Connext® technology, GTX 45R allows you to wirelessly stream ADS-B "In" benefits, including advanced traffic and weather, to Garmin GPS portables such as aera® 660/796/795, as well as the most popular apps in the industry, Garmin Pilot™ and ForeFlight Mobile. $3,499*

GTX 35R ADS-B Transponder

The GTX 35R transponder offers a simple, remote-mount ADS-B "Out" solution for G3X™ series flight displays for remote operation, including squawk code entry. It meets worldwide requirements for flight at any altitude when paired with Garmin GTN 750/650 series, GPS 400W, GNC 420W/420AW, GNS 430W/530W or GPS 500W/530W/530AW navigators or a GPS 20A ADS-B position source, so you can satisfy equipage rules as quickly and cost effectively as possible. $2,199*

GPS 20A ADS-B GPS

Get TSO-certified GPS position performance at a non-TSO'd price. Pair this receiver with a GTX 35R or GTX 45R transponder to meet ADS-B "Out" requirements while adding an additional GPS source for your G3X Touch displays. Or use with compatible third-party Mode S ES transponders designed for experimental aircraft to provide ADS-B "Out." $845* plus antenna

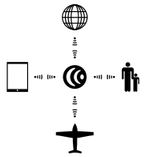
GTN Series 750/650 touchscreen

This all-in-one GPS/Nav/Comm solution with touchscreen interface and built-in SBAS/WAAS navigation capabilities meets ADS-B "high integrity" position source requirements. And it's approved to fly LPV glidepath approaches into thousands of airports without an ILS. Starting at $11,600*

VIRB® Ultra 30 Aviation Video Bundle

This easy-to-use combo makes it easy to record and integrate cockpit video on your G3X Touch displays. The compact VIRB Ultra 30 is a true ultra HD 4K/30fps action camera with 3-axis stabilization and G-Metrix™ sensors. It mounts easily in your aircraft, providing a continuous video feed to your display, even while recording. Built-in connectivity via Garmin Connext lets you start/stop recording, capture still shots, view elapsed time and other functions via wireless remote and the G3X Touch display, and Bluetooth connectivity allows you to wirelessly record intercom and radio audio in high-resolution from a GMA 245 or GMA 245R audio panel. Bundle includes headset audio cable, prop filter, cage mount, microSD™ card and a free trial of the Garmin Pilot app as standard accessories. $499.99*

ADVANCED COCKPIT CONNECTIVITY



Your G3X Touch™ comes equipped to take advantage of Connext®, our network link and in-cockpit wireless connectivity system. With a built-in Flight Stream gateway, it makes your mobile tablet – running the Garmin Pilot™ app – a true cockpit interface. Use it to create a flight plan in the comfort of your home, office or pilot lounge, and then transfer it to your G3X Touch with a tap or 2 – waypoints, airways, arrivals and all. That leaves you more time to focus on preflight activities once you arrive at the airport. Adding last-minute or en route flight plan amendments from ATC is just as easy. Simply make them on the tablet, and sync again. There's no duplication of effort, which brings greater efficiency and work-saving convenience to managing your cockpit.

You can also wirelessly stream flight information to your tablet, including GPS and attitude information and graphically depicted ADS-B traffic and weather with a Garmin GDL® 39R datalink or GTX™ 45R transponder. You can even wirelessly control VIRB® action cameras to view what your remotely mounted camera is seeing, view elapsed time, start and stop recording as you desire, capture still photos and more.

SPECIFICATIONS

GTX 35R

Physical Dimensions (unit, rack, connectors):	1.65"x 6.30"x9.9" (42x160x224mm)
Weight (unit, rack, connectors):	2.5/2.6lbs (1.13/1.18kg)
Voltage range:	14/28VDC (15/17W Max)
Transmit power:	200W minimum
Tempertaure:	-45°C to +70°C
Operating altitude:	To 55,000ft (16,800m)
Environmental Compliance (TSO Approved):	DO-160G
Software compliance (TSO Approved):	DO-178 Levels B, C, D
Hardware compliance (TSO Approved):	DO-254 Level C
TSO compliance (Approved):	TSO-C88b (w/opt. alt. encoder); TSO-C112e (Class 1, Level 2els); TSO-C166b (Class B1S)
Mount type:	Remote
Transponder type:	Mode A/C, S and ES
Squawk code selection:	Remote entry via G3X Touch display
Traffic Information Services (TIS) alerts compatible:	Yes
Transponder Features:	
Solid state transmitter (more efficient, longer life):	Yes
Aural alerts:	Yes
Automtatic ALT/GND mode:	Yes
1090 MHz ADS-B Out:	Yes

GTX 45R

Physical Dimensions (unit, rack, connectors):	1.65"x6.30"x9.9" (42x160x224mm)
Weight (unit, rack, connectors):	2.8/2.9lbs (1.27/1.32kg)
Voltage range:	14/28VDC (18/20W Max)
Transmit power:	200W minimum
Tempertaure:	-45°C to +70°C
Operating altitude:	To 55,000ft (16,800m)
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:	Remote
Transponder type:	Mode A/C, S and ES
Squawk code selection:	Remote entry via G3X Touch display
Traffic Information Services (TIS) alerts compatible:	Yes
Transponder Features:	
Solid state transmitter (more efficient, longer life):	Yes
Aural alerts:	Yes
Automtatic ALT/GND mode:	Yes
1090 MHz ADS-B Out:	Yes

GDU 450/455 Display Unit

This product holds no TSO certification

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 30 W typical Dual isolated power inputs
Size:	7.99"W x 5.93"H x 3.57" D (20.30 x 15.50 x 9.07 cm)
Weight:	GDU 450, 2.69 lb (1.22 kg) GDU 455, 2.82 lb (1.29 kg) Weight does not include nut plate and connector
GPS Receiver:	Non-certified, high-sensitivity GPS receiver with WAAS position accuracy and 5 Hz update rate
Interfaces:	Six RS232 ports per display, supporting NMEA 0183, GTR 225/GNC 255 series comm frequency tuning, Aviation format data from panel-mounted GPS, and GTX 330 TIS data.
GPS/XM Antennas:	In-cabin and externally mounted options available

GDU 460/465 Display Unit

This product holds no TSO certification

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 typical Dual isolated power inputs
Size:	10.85"W x 7.82"H x 3.57" D (27.56 x 19.86 x 9.07 cm)
Weight:	GDU 460, 4.6 lb (2.09 kg) GDU 465, 4.82 lb (2.15 kg) Weight does not include nut plate and connector
GPS Receiver:	Non-certified, high-sensitivity GPS receiver with WAAS position accuracy and 5 Hz update rate.
Interfaces:	Six RS232 ports per display, supporting NMEA 0183, GTR 225/GNC 255 series comm frequency tuning, Aviation format data from panel-mounted GPS, and GDL 39R traffic and weather data.
GPS/XM Antennas:	In-cabin and externally mounted options available

GDU 470 Display Unit

This product holds no TSO certification

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 30 W typical Dual isolated power inputs
Size:	6.01"W x 7.82"H x 3.68" D (15.3 x 19.9 x 9.07 cm)
Weight:	GDU 470, 2.65 lb (1.20 kg) Weight does not include nut plate and connector
GPS Receiver:	Non-certified, high-sensitivity GPS receiver with WAAS position accuracy and 5 Hz update rate
Interfaces:	Six RS232 ports per display, supporting NMEA 0183, GTR 225/GNC 255 series comm frequency tuning, Aviation format data from panel-mounted GPS, and GDL 39R traffic and weather data.
GPS Antenna:	In-cabin and externally mounted options available

GSU 25 ADAHRS Unit

This product holds no TSO certification

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
Aircraft airspeed range:	0 - 300 kts IAS
Operating temperature range:	-45°C to +70°C

GEA 24 Engine Indication (EIS) Unit

This product holds no TSO certification

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 or turbine engine configurations used in experimental/amateur-built aircraft. See installation manual or contact g3xpert@garmin.com for details.

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)

GMU 11 Magnetometer Unit

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

GMU 22 Magnetometer Unit

Electrical:	Powered through GSU 25
Size:	2.10"H x 3.35" in diameter (5.33 x 8.51 cm)
Weight:	GMU 22, 0.35 lb (158.8 g) Weight does not include mounting hardware and connector

GI 260 AOA Indicator

Electrical:	14 or 28 VDC systems
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 AOA Probe

Electrical:	Unheated versions of the GAP 26 do not require power. Supply voltage for heated pitot is 14 VDC
Optional Control Box Size:	2.25"W x 1.11"H x 4.55" D (5.72 x 2.82 x 11.56 cm)
AOA Probe 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)

GSA 28 Autopilot Servo

GSA28 is used to drive a flight-control axis (pitch, roll, yaw) of the aircraft in order to stabilize the aircraft in pitch, roll, and/or heading.

Electrical:	14 or 28 VDC systems
Size:	2.5"W x 4.00"H x 3.00" D (6.35 x 10.16 x 7.62 cm)
Weight:	1.42 lb (644.1g)
Torque:	60 inch-lbs (maximum rated)

GMC 305 Autopilot Control Panel

Electrical:	14 or 28 VDC systems
Size:	6.25"W x 1.85"H x 3.30" D (15.88 x .4.7 x 8.38 cm)
Weight:	0.5 lb (226.8 g)

G5 Electronic Flight Display

This product holds no TSO certification

Electrical:	14 or 28 VDC systems
Size:	3.4"W x 3.6"H x 3.6"D (86.9 x 91.4 x 91.4 mm)
Weight:	10.0 oz.(283.5g) unit 5.0 oz. (141.8 g) battery (optional)
Display:	3.5" diagonal (88.9 mm diagonal)
Environmental:	
Aircraft pressure altitude range:	-1,400 - +30,000 ft
Vertical speed:	± 20,000 fpm
Pitch roll range:	±360°

GMA 245 Audio Panel

Electrical:	14 or 28 VDC systems
Size:	6.3"W x 1.33"H x 8.09"D (160 x 34 x 205 mm) includes mounting rack and connectors
Weight:	1.78 lbs. (807.4g) includes rack, backplate and connectors
Environmental:	
Temperature:	-20° C to +55° C (Operating)
Altitude range:	to +55,000 ft. MSL unpressurized

GTR 200 Comm Radio

This product holds no TSO certification

Electrical:	14 or 28 VDC systems
Size:	1.35"H x 6.25"W x 7.98"D (3.43 x 15.88 x 20.2692 cm)
Weight:	1.34 lbs (0.61 kg) unit only; 1.91 lbs (0.87 kg) with mounting rack
Depth:	9.39 inches (23.85 cm) behind panel, including mounting rack and connectors

GTR 20 Comm Radio

This product holds no TSO certification

Electrical:	14 or 28 VDC systems
Size:	1.28"H x 6.15"W x 8.80"D (3.24 x 15.62 x 22.35 cm)
Weight:	1.19 lbs (0.54 kg) unit only; without mounting hardware and connectors
Depth:	10.22 inches (25.95 cm) behind panel, including mounting rack and connectors

GTR 225 Comm Radio

Electrical:	14 or 28 VDC systems
Size:	1.65"H x 6.25"W x 10.4"D (4.19 x 15.88 x 26.42 cm)
Weight:	2.30 lbs (1.04 kg) unit only; 3.06 lbs (1.38 kg) with mounting rack
Depth:	11.23 inches (28.52 cm) behind panel including mounting rack and connectors

GNC 255 Nav/Comm Radio

Electrical:	14 or 28 VDC systems (Accepts 9 to 33 VDC input)
Size:	1.65"H x 5.25"W x 10.4"D (4.19 x 15.88 x 26.42 cm)
Weight:	3.02 lbs (1.37 kg) unit only; 3.46 lbs (1.57 kg) with mounting rack 1.91 lbs (0.87 kg) with mounting rack
Depth:	11.23 inches (28.52 cm) behind panel, including mounting rack and connectors

GDL 39R ADS-B Datalink

Electrical:	14 or 28 VDC systems (Accepts 10 to 32 VDC input)
Size:	1.00"H x 3.5"W x 6.0"D (2.54 x 8.89 x 15.24 cm)
Weight:	1.1 lbs (0.50 kg) unit only

GTS 800 Active Traffic System

Unit Size:	6.25"W x 2.7"H x 12.7"D (15.87 x 6.86 x 32.25 cm)
Weight:	11.3 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 W max. (GTS 800)
Cooling Input:	Integrated

G3X Accessories

Standard:	Free single database update (includes one update for navigation, FliteCharts®, SafeTaxi®, obstacles and towers), Quick reference guide
Optional:	GA 26 In-cabin GPS antenna GA 26XM In-cabin XM antenna GA 57X External XM/GPS combo antenna GA 56 External GPS antenna GA 55 External XM antenna

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M02-10189-00 0317