

Garmin G3X™

ELECTRONIC FLIGHT DISPLAY SYSTEM FOR EXPERIMENTAL AND LIGHT SPORT AIRCRAFT



Single screen with engine instruments, PFD and MFD information

Garmin G3X™ specifications

GDU 370/375 Display Unit

This product holds no TSO certification

Display: 7" diag. (17.78 cm) 480 x 800 pixels, color sunlight readable WVGA TFT with adjustable backlighting. Optional lighting bus voltage input available for automatic backlight control.

Electrical: 10-29 VDC
10 watts typical
Dual isolated power inputs

Size: 6.04"W x 7.83"H x 3.41" D
(15.34 x 19.88 x 8.67 cm)

Weight: GDU 370, 1.56 lb (706g)
GDU 375, 1.65 lb (746g)
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: Three RS232 ports per display, supporting NMEA 0183, SL 30/40 frequency tuning, Aviation or MapMX format data from panel-mounted GPS, and GTX 330 TIS data. Autopilot mode selection capability supported for select autopilots.

- RS-232 output provides altitude encoder data to a Garmin transponder
- Two ARINC 429 transmit ports are provided for use with GNS 4xx/5xx or external autopilot
- Four ARINC 429 receive ports are provided for use with GNS 4xx/5xx

GPS/XM Antennas: In-cabin and externally mounted options available

Navigation Features:

- Jeppesen aviation database
- Built-in worldwide land basemap
- Terrain and obstacle databases
- Pre-loaded Garmin FliteCharts®
- SafeTaxi™ airport diagrams for 950+ U.S. airports
- AOPA Airport Directory

GSU 73 ADAHRS+EIS Unit

This product holds no TSO certification

AHRS:

- Provides accurate digital output and referencing of aircraft position, rate, vector and acceleration data
- Leverages solid-state sensors and sophisticated attitude determination and integrity monitoring algorithms used in Garmin's high-end AHRS units
- Capable of in-flight dynamic restarts
- Capable of maneuvers through a range of 360° in bank and pitch.
- Rotation rate: Up to 200°/sec
- Has an RS-232 output to provide altitude encoder data to a Garmin transponder, two ARINC 429 transmit ports for use with a GNS 4xx/5xx or external autopilot, and four ARINC 429 receive ports for use with a GNS 4xx/5xx

Electrical: 10-29 VDC
12 watts typical; 25 watts maximum (based on maximum powered transducer usage)
Dual isolated power inputs

Size: 5.50"W x 3.96"H x 7.33" D (13.98 x 10.06 x 18.62 cm)

Weight: GSU 73, 3.1 lb (1410g)
Weight does not include mounting hardware and connector

Air Data:

Aircraft pressure altitude range: -1,400 ft. to 50,000 ft.
Aircraft vertical speed range: -20,00 to +20,000 fpm
Aircraft airspeed range: 0 - 450 kts
Aircraft mach range: <1.00 Mach

Engine/Airframe interfaces:

Support is provided for sensors commonly used on Lycoming, Continental, Rotax, and Jabiru engines. Sensor kits are now available for popular light sport and experimental aircraft engines.

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

- Amps (Ammeter Shunt or Hall Effect)
- Monitor EGT and CHT on up to 6 cylinders and 2 turbo inlet temps
- Aircraft bus voltages
- Oil temperature
- Carburetor temperature
- Oil pressure
- Manifold pressure
- Fuel pressure
- Coolant pressure
- RPM (mechanical, mag bleed port, electronic ignition, Jabiru, Rotax)
- Fuel quantity (capacitive and resistive measurements)
- Elevator/rudder/aileron trim
- Flap position
- Fuel Flow (single or differential)
- Discrete Inputs (allow up to 4 configurable discrete annunciations)
- Discrete Outputs (provide master caution and master warning annunciation capability)

Communication interfaces:

- ARINC 429
- RS-232
- Serial Altitude Encoder Output

GMU 44 Magnetometer Unit

Electrical: Powered through GSU 73

Size: 2.10"H x 3.35" in diameter
(5.33 x 8.51 cm)

Weight: GMU 44, 0.35 lb (158.8 g)
Weight does not include mounting hardware and connector

Accessories

Standard: Free single database update (includes one update for navigation, FliteCharts®, SafeTaxi®, obstacles and towers), Owner's manual, Quick reference guide

Optional: GA 26 In-cabin GPS antenna
GA 26X In-cabin XM antenna
GA 57X External XM/GPS combo antenna
GA 56 External GPS antenna
GA 55 External XM antenna

Now G3X™ comes with SVX™ 3-D Synthetic Vision capability.

Providing an affordable and customizable “glass cockpit” option for experimental, kitplane and light sport aircraft (LSA) panels, the Garmin G3X is a real navigation breakthrough. And now, with the addition of standard SVX synthetic vision, G3X owners can experience a whole new level of situational awareness based on graphical 3-D “virtual reality” flight reference. Instead of a flat blue-over-brown instrument display, pilots flying with SVX will now see a database-generated landscape of realistic terrain features rising into the distance. The GDU 370/375 series integrated display unit, around which the G3X system is designed, features a big 7” high-definition WVGA screen, built-in GPS receiver, rotary joystick cursor control for data entry, and softkeys for mode selection. Combining full primary flight display (PFD) attitude/directional guidance with electronic engine monitoring (EIS) and detailed moving-map multifunction display (MFD) capabilities, the G3X system can be networked with up to three interlinked displays in the panel for growth and system flexibility. In single-screen installations, a split-screen mode enables PFD instrumentation to be viewed on the display’s top half, while MFD information is presented on the lower half. GPS-aided digital ADAHRS ensures ultra-precise electronic attitude/heading reference. And

advanced autopilot modes (if installed¹) can be operated right from the PFD. Customizable EIS software capability allows aircraft-specific tailoring of gauges, scaling, color bands, and audible/visual alerts. Also, on the MFD, Garmin FliteCharts® and SafeTaxi® come pre-installed, along with database-driven terrain and obstacle alerting. There’s support for NEXRAD imaging and all the other great XM WX® satellite weather capabilities (subscription required). Plus, all interlinked G3X displays in the panel offer full reversionary backup for added safety and redundancy. With Garmin SVX synthetic vision capability, the G3X flight presentation offers a clear depiction of ground, sky and water features with realistic shading and textures, similar to those used on most sectional charts. Obstacles and airports (with identifier sign-posts and runway designations) are shown in relative proximity to the aircraft. And with a Garmin GTX 330 transponder or other compatible

traffic receiver installed, the SVX will display TIS targets in 3-D perspective, so pilots can visually gauge how high and how close they are to other transponder-equipped aircraft. SVX synthetic vision is one of the most useful and valuable safety-enhancing features ever offered in this class of equipment. And Garmin is proud to include it as standard on all G3X flight display packages.



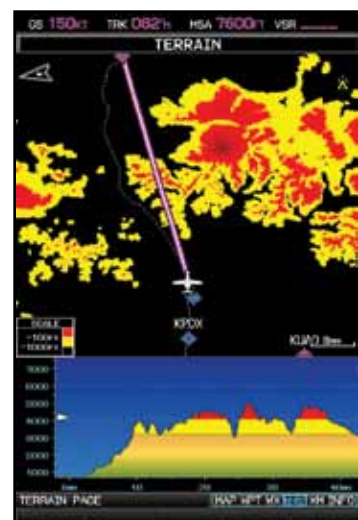
SVX uses yellow or red highlights to indicate potential terrain conflicts



SVX shows runway surfaces, numbers and thresholds in virtual 3-D



As traffic or towers get closer, their symbols grow larger on SVX display



Terrain page offers overhead and vertical profile views



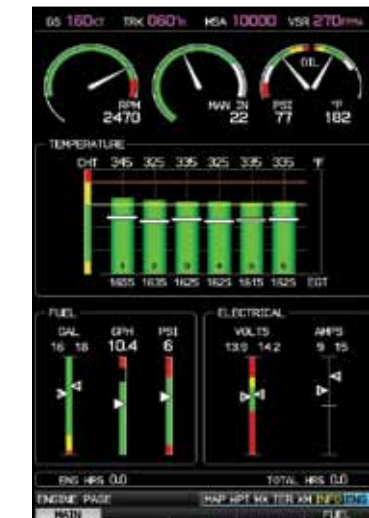
How far can you go? Graphical range rings are based on real-time fuel flow calculations



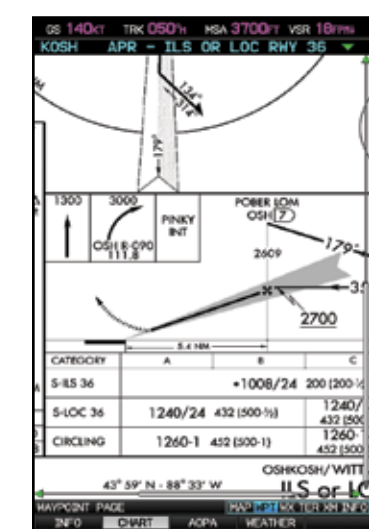
Possible configurations



Available XM WX® data includes NEXRAD, satellite mosaic, Airmets, Sigmet and frontal boundaries²



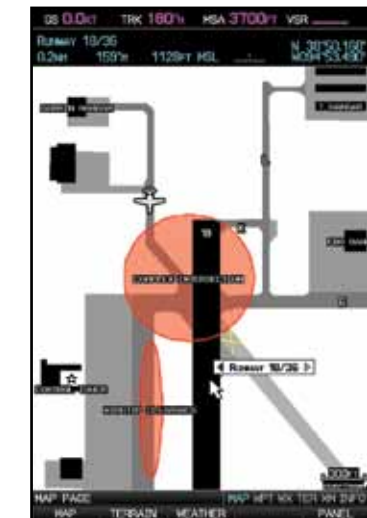
Detailed Engine Indication System (EIS) readouts can be viewed by selecting the ENG page



Users can pan and zoom to focus on specific chart details



XM Radio support lets you enjoy 170+ audio channels²



Taxiway diagrams for 950+ U.S. airports with “Hot Spots”



IFR map mode shows high and low enroute airways

Key product features:

- Panel-mount unit features 7-inch WVGA screen and dual redundant power inputs.
- Offers full primary flight (PFD) and multifunction (MFD) display capability – plus electronic engine gauges and monitoring
- Standard SVX™ synthetic vision renders terrain-alerting data into realistic 3-D virtual landscape on the G3X flight display
- GPS-aided ADAHRS (Air Data and Attitude Heading and Reference Systems) use solid-state sensors to provide flight attitude, heading and rate information.
- Garmin FliteCharts® offer AeroNav-format IFR approach plates and terminal procedures for airports throughout the U.S.
- Garmin SafeTaxi® data provides detailed taxiway diagrams and position information for over 950 U.S. airports.
- Color-keyed terrain page offers both overhead and vertical profile views of potentially hazardous terrain along your route of flight.
- AOPA Airport Directory data offers detailed information on over 7,400 U.S. airports, along with airports of entry for Canada, Mexico and the Caribbean. Includes names and phone numbers of FBOs and fuel/service facilities, plus ground transportation, ATC data, and more.
- IFR map mode displays Victor airways and Jet routes, derived from the navigation database.
- EIS monitoring software supports a wide range of sensors for engine, fuel, electrical and other critical data inputs.
- Automatic fuel calculations, based on real-time fuel flow, support graphical range ring display
- Traffic Information Service (TIS) alerts are supported via Garmin GTX 330 Mode S Transponder interface.
- GDU 375 supports XM WX® satellite weather data and audio entertainment²
- Front-loading SD card slot for expansion memory and updates
- Optional GMA 240 audio panel (sold separately) provides compatible selection for intercom, communication radios, and music.
- Additional features include: Weight & balance calculator, checklists and SD card data logging

¹Optional GX Pilot autopilot sold separately by TruTrak Flight Systems.
²XM subscription required (sold separately).

