GTN series

Garmin touchscreen avionics are redefining what it means to fly with your fingertips.
What began back in 1998 with the debut of Garmin’s best-selling GNS 430/530 series of GPS/Nav/Comm products is now evolved to a whole new level in the GTN series of next-generation avionics.

Combining the latest in multi-function display (MFD) features with touchscreen data entry and integrated radio tuning – as well as optional remote transponder and audio panel control – the GTN series offers amazing, yet simple-to-use, technology that once again promises to redirect the course of General Aviation electronics.

A new graphical user interface with icon-identified onscreen touchkeys makes functions easy to locate and access on the units’ large, high-resolution TFT displays. Page navigation is more intuitive than ever, with a “shallower” menu structure that greatly simplifies operational sequences. In fact, you’re rarely more than two taps away from all primary pages and functions. You can quickly pan across the map display by simply swiping your finger across the screen. And integration capability for a wide array of avionics and sensors not only simplifies tuning and mode selection – but, in effect, lets pilots utilize the GTN touchscreen as a virtual flight management system.
There's no place like "Home".
Familiar icon-style graphical interface on the GTN "Home" page makes all operational functions easy to access. A quick tap of the dedicated HOME key on the bezel takes you back to the desktop from any page in any data sequence.

Land with a plan.
Garmin SafeTaxi® airport diagrams come pre-installed on all the new GTN models. Plus, on the GTN 750 series, you also get preloaded electronic FliteCharts® that incorporate over 11,000 approaches for some 2,900 U.S. airports.

Terrain made plain.
With its built-in elevation database, your Garmin GTN system provides an extra margin of safety in visualizing terrain/obstacle conflict situations. For added protection against hazardous topography, audible terrain alerts and visual pop-ups are supported with optional TAWS-B functionality.

Optional satellite weather.
With available XM™ WX Satellite Weather link, your GTN unit can access graphical NEXRAD imaging, as well as the latest METARs, TAFs, lightning, and other up-to-the-minute meteorological data. (Requires GDL 69 receiver and XM subscription, sold separately.)

Integrate your approach plate.
With optional Garmin ChartView® installed on your GTN 750 series unit, a graphical view of your Jeppesen-format approach plate can be overlaid on the moving map for geo-referenced guidance through the procedure.

Easy audio integration.
The large-format GTN 750 series can be used as a touchscreen control head to integrate the audio and intercom functions for your aircraft. Garmin’s remote GMA 35 audio system (sold separately) helps streamline cockpit communications with record/playback capability for copying clearances.

Graphical flight planning.
Onscreen flight plan editing makes it easy to add waypoints or modify your route. And with handy "rubber band" feature, you can even stretch a flight plan leg to detour or amend your routing.

Get a grip.
Raised grips on each side of the bezel, plus a shelf across the lower edge of the display, serve as anchor points to keep your hand securely in position while entering onscreen data in turbulent air.

1XM and the XM logos are trademarks of XM Satellite Radio Inc.
2Requires Jeppesen JeppView™ subscription (sold separately).
Five flavors to choose from.
The new GTN multi-capability units are offered in two sizes and a variety of configurations. All GTN 650 series products are contained in a 2.64-inch tall package that replicates the in-stack form factor of our popular GNS 430W design. (Note: the glass area on the GTN 650 series is over 50 percent larger than its GNS 430W series predecessor — while the GTN 750 series screen is nearly 100 percent larger than that of the GNS 530W.) The larger GTN 750 series bezel stands 6 inches tall (compared to 4.6 inches for the similar GNS 530); however, to save space in your avionics stack, both the GTN 650 and 750 systems can provide onscreen code selection and ident for optional remote-mount Garmin transponders (sold separately). In addition, the larger-format GTN 750 screen can optionally be used as your control panel for a new Garmin remote-mount audio processing unit. The ability to remotely tune both audio/intercom system and transponder functions from the 750 series means you can position those products behind your panel — and thus accommodate the larger screen in less total stack height.

The optional GMA 35 remote audio control unit (sold separately) works with the GTN 750 series to streamline cockpit communications. Its work-saving features include a new high-precision automatic squelch function, as well as record/playback capability for help in copying clearances and verifying ATC instructions. Future software upgrades will enable the GMA 35 to incorporate even higher levels of automation, including digital voice activation and other auto-adjustment features (requires pre-wired push-to-command button, sold separately).

Simplicity is paramount in every aspect of the GTN cockpit interface. There are only four mechanical controls on the bezel of each panel-mount unit: 1) A volume/squelch knob located in the upper lefthand corner; 2) a HOME key on the upper righthand side that returns the display to the icon-style main menu interface; 3) a Direct-To key on the right-side bezel that allows a direct GPS course to be entered for any selected waypoint; and 4) a set of multi-purpose concentric tuning knobs, in the lower right corner, that diehard knob-twiddlers can use in lieu of the units’ touchscreen keypads to enter frequencies, codes or numerical data. All other GTN system capabilities are accessed directly from the graphical touchscreen display.

The GTN product line begins with two standalone GPS-only options: The GTN 625 and 725. These units both feature a robust 15-channel WAAS-certified...
Then, looking beyond standalone GPS capability, Garmin’s new GTN 635 GPS/Comm includes all the navigation features of the GTN 625/725, plus a 2280-channel capable VHF communications transceiver (with standard 10-watt or optional 16-watt power output). System settings allow users to select between 8.33 and 25 kHz channel spacing. And the familiar “flip-flop” frequency selection scheme allows comm channels to be entered in a standby window, and then activated with a touch of the display. In addition, a handy comm monitor function effectively lets you monitor two separate frequencies from the same radio at once (with the active comm channel always taking priority on incoming calls.)

Finally, for the pilot who wants a comprehensive “all-in-one” solution, Garmin offers two choices: The GTN 650 and 750 models. These top-of-the-line units include all the GPS/Comm features of the 635, plus a complete package of VHF omni navigation capabilities, including 200-channel VOR/ILS with Localizer and Glideslope receivers. As a useful backup to one’s primary flight instruments, all GTN units feature an electronic CDI display with digital track-error indication. And the detailed moving map presentation makes for easy viewing of the aircraft’s current position in relation to ground features, nav aids, flight plan routings, approach procedures and more.

**Flight planning made simple.**
Every model in the new GTN product family offers graphical flight planning capability: A unique keystroke-saving feature that allows the pilot to preview a flight plan routing on the map and easily enter new waypoints or modify the sequence with a few taps of the screen. In addition, airway segments can be similarly loaded, selected and displayed for enroute routings. A handy “rubber band” feature lets you grab any flight plan leg on the screen, and then stretch or move it to accommodate a deviation or ATC amendment to your flight plan.

By referencing built-in terrain, mapping and obstacles databases, the new GTN units provide a clear MFD-like presentation of the visual landscape beneath your aircraft—including topography features, cities, airports, terminal areas, SUAs, and more. For added safety, there’s a built-in elevation database that provides color-coded terrain page reference and moving map overlays to indicate those areas where potential ground proximity hazards may exist. Full Class B TAWS alerting is available as an option for voice and visual pop-up alerts. And precise course deviation and roll steering outputs can be coupled to many compatible GA autopilots, enabling virtually all IFR flight procedures to be flown automatically. Then, once you’ve landed, geo-referenced SafeTaxi® diagrams automatically provide easy directional orientation on nearly 1,000 U.S. airports.

**Ready, set, grow.**
Each model in the GTN lineup can support a wide array of optional weather, lightning and traffic system inputs for overlay on the moving map. Optional XM WX® Satellite Weather, with graphical NEXRAD, METARs, and more, can be accessed through Garmin’s GDL 69 data link receiver (sold separately). And you’ll find room on the GTN 750 series’ 6.9-inch diagonal touchscreen to allow display of your airway charts and approach plates—which come pre-installed on these units in the form of standard Garmin FliteCharts®. Or, if you prefer the Jeppesen format, you can elect to go with optional ChartView™ electronic charts instead. With ChartView™ installed, a helpful Garmin geo-referencing feature enables a graphical view of your approach plate to be overlaid on the GTN 750 series moving map for real-time visual guidance cues in flying the procedure.

Making flight easier by making avionics smarter: That’s what the GTN touchscreen series is all about. To find out more, see your Garmin dealer. Or visit our website at www.garmin.com/gtn.

**Electronic Garmin FliteCharts® come pre-loaded on the larger-format GTN 750 series units.**
GDU 620 Display features

• Dual 6.5 inch diagonal color LCD
• RGB backlighting technology
• High resolution 640x480 VGA (921,600 RGB dots)
• 65,536 simultaneous colors
• Direct sunlight readable
• Auto, manual or lighting bus inputs for dimming

Physical - GDU 620 display

• 6.7 inches high
• 10.0 inches wide
• 3.25 inches deep
• 6.4 lbs.

System Architecture

• Position source: External GPS via RS-232
• GPS interface for Garmin 400W series and 500W series
• Nav radio interfaces: GNS 430W/530W/480 or SL30
• 8 bi-directional high speed RS-232 ports
• 2 bi-directional high speed RS-422/485 ports
• 8 ARINC 429 high/low speed inputs and 4 outputs
• ADF DC Sin/Cos input
• Radar interface:
  - GWX 68 (LRU sold separately)
  - Optional interface required for G500; standard interface included for G600
  - ARINC 708 support is optionally available for select GA radars
  - Optional interface required for G500 and G600
  - Check with your Garmin dealer for radar compatibility
• Autopilot interfaces
  - Heading/course error outputs
  - Analog lateral and vertical deviation outputs
  - ARINC 429 digital roll steering support
  - RS-485 digital altitude capture
  - Analog flight director input
  - Selected autopilot flight directors
• GAD 43 adapter (standard on G600; optional on G500) enables AHRS to drive select autopilot systems. Supports the following gyro emulation:
  - Approved gyro replacement for:
    - King KI-256 (or equivalent) used on KAP 100, KAP/KFC 150, KAP/KFC 200, KFC 225, and KFC 275
    - Collins 332D-11T used on select APS-65 installations
    - King KVG 350 used on KFC 250, KFC 300, KFC 325 (non-EFIS)
  - Evaluating for future approval:
    - Cessna/ARC G519 used on Cessna 300B, 400B and 800B
    - Sperry VG-14A used on SPZ-200, SPZ-500

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
• Display equipment tested to 55,000 feet max altitude
• internal cooling, external cooling not required

Certification Criteria

• STC via Approved Model List (AML) for nearly 800 airframes with G600 and nearly 600 airframes with G500
• G500 is approved for Class 1/Class 2 aircraft (under 6,000 lbs).
• G600 is approved for Class 1, Class 2 and Class 3 aircraft (including piston and turbine aircraft between 6,000 lbs and 12,500 lbs MTOW).
• TSO-C2d, TSO-C3d, TSO-C4c, TSO-C6d, TSO-C8d, TSO-C10b, TSO-C34e, TSO-C36e, TSO-C40c, TSO-C41d, TSO-C43c, TSO-C52b, TSO-C63c, TSO-C87, TSO-C113, TSO-C147, TSO-C151b (G600 only)

Price, features and specifications subject to change without notice. Some listed features will require Version 5.0 software upgrade, available Q4, 2010

www.garmin.com

Follow the leader.