

1 System at a Glance

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Overview

Two series of panel mount navigators comprise the GTN Xi Series. The primary difference between these displays is the size of the screen.



4.9" GTN 650Xi Series

- GTN 625Xi
- GTN 635Xi
- GTN 650Xi

6.9" GTN 750Xi Series

- GTN 725Xi
- GTN 750Xi

Due to its large-format display, the GTN 750Xi Series comes loaded with terminal procedure charts, including departure, arrival, and approach plates.

Unit Configurations

GTN 625Xi



GPS/MFD

GTN 635Xi



GPS/MFD/COM

GTN 650Xi



GPS/MFD/COM/NAV

GTN 725Xi



GPS/MFD

GTN 750Xi



GPS/MFD/COM/NAV

COMPARISON TABLE

GTN Xi	GPS/MFD	COM Radio	NAV Radio	Chart Display	Weather Radar	Remote Audio Panel
625	•					
635	•	•				
650	•	•	•			
725	•			•	•	•
750	•	•	•	•	•	•

Apps & Features

COMMON FEATURES
Airways
Arrivals
Approaches
CDI
Checklists
Database Concierge Access ¹
Datalink Weather ²
Departures
Flight Plan
Graphical Flight Planning
Iridium Phone/SMS ²
Moving Map
Waypoints (includes user-generated and nearest waypoint info)
Remote Transponder Control ²
SafeTaxi
SiriusXM Music ²
Stormscope ²
TAWS/HTAWS ²
Telligence Voice Command ²
Traffic ²
VNAV Descent ²

While features vary depending on model and unit configuration, all models share many of the same features.

¹ Requires Wi-Fi connection via Flight Stream 510.

² Optional. Function availability dependent upon aircraft interfaces or enablement.

Pilot Interface

Bezel

The bezel provides a combination of mechanical knobs and push-keys. Active touch areas on the display screen allow access to unit features and apps.



- 1 Bezel**

Ledges provide hand stability when performing data entry and making selections.
- 2 SD Card Slot**

Interface for loading database, exporting log files, and updating software. Compatibility with Flight Stream 510 allows wireless database transfer from the Garmin Pilot app via Database Concierge.
- 3 Home Key**

Provides direct access to the Home page.
- 4 Direct To Key**

Opens the Direct To function for immediate course setting.
- 5 Volume/Squelch Knob**

Allows audio volume adjustment for the active COM radio, NAV receiver, or connected external audio panel. COM squelch and NAV ident functionality accessible via knob push.
- 6 Inner & Outer Knobs**

Multipurpose dual concentric knob allows data entry, list scrolling, map range control, page navigation, and NAV/COM frequency tuning.
- 7 Photocell**

Measures cockpit ambient light level to automatically adjust display brightness for day and night.

Home Key Shortcuts



GTN 650Xi Series: Pushing and holding the **Home** key provides direct access to Default Navigation features.

GTN 750Xi Series: Pushing and holding the **Home** key provides direct access to the moving map.

SD Card Slot



NOTE

Do not remove or insert an SD card while in flight. Always verify the system is powered off before inserting or removing an SD card.

FEATURE LIMITATIONS

- SD card in the FAT32 format, with memory capacity between 8 GB and 32 GB

The navigator requires an SD card for the following tasks.

- Exporting data logs
- Capturing screen images
- Upgrading software
- Enabling Flight Stream connectivity
- Updating databases

INSERT AN SD CARD

When inserting an SD card:

1. Verify unit power is off and the slot is empty.
2. Hold card such that label faces left edge of display screen.
3. Ensure back edge of card is flush with display bezel after insertion.

EJECT AN SD CARD

1. Power off the unit.
2. Release the spring latch by pressing lightly on exposed edge of card.

Touchscreen

A multi-touch color display provides onscreen controls for unit operation.

Gestures

TAP



Touching the screen briefly with a single finger.

Use this gesture for:

- Opening a page or menu
- Activating a command key or data entry field
- Displaying map feature information
- Selecting an option within an application

TAP AND HOLD



Certain momentary controls (e.g., directional arrow keys) provide a secondary tap and hold function.

Tap the key and hold your finger in place until the desired action occurs.

Use this gesture for:

- Scrolling with arrow keys
- Increasing/decreasing values continuously

SWIPE



A smooth motion that involves touching an object, then sliding your finger across the screen and lifting up.

Use this gesture for:

- Accessing multiple panes (right or left swipes)
- Viewing and scrolling lists
- Panning across a map display

FLICK



Swiping the screen in a quick upward or downward motion. Information moves at a fast speed (faster than if holding the arrow key), then slows to a stop.

Use this gesture for scrolling an item list.

PINCH & STRETCH



Touch any map with two fingers at the same time, then bring the fingers close together (pinch) or spread them apart (stretch). Just remember: stretch to zoom in and pinch to zoom out.

Use this gesture for magnifying map features.

Keys

COMMON COMMANDS



Open the system messages list.
A flashing icon indicates unread messages.



Open a context menu.



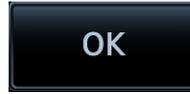
Cancel an active function without inputting data.



Return to the previous page.



Select the corresponding item (e.g., database update).
A checkmark confirms selection.



Confirm the requested action (e.g., removing a flight plan waypoint)



Move the cursor back a single space at a time.



Input a specified value.



Zoom Control & Scale

Change the current magnification by tapping **In** or **Out**.



Directional Keys

Increment or decrement setting values by tapping these directional keys. Tap and hold to increase or decrease the value continuously.

FUNCTION KEYS

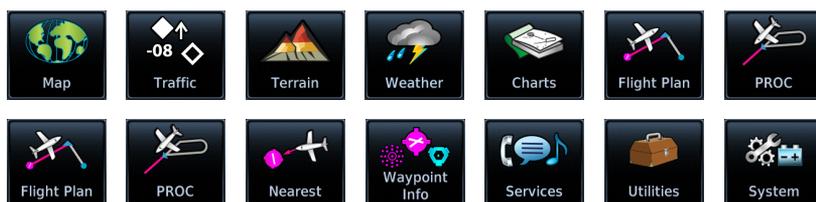


Toggle keys turn a specific function on or off. The current state of the function is indicated below the key label.

APP ICONS

Tapping one of these icons opens the corresponding application. Some apps provide additional icons for accessing functions on subpages (e.g., System, Utilities).

Home Page Apps¹



Optional Apps



Additional icons are available when certain optional features are installed and the associated functions are enabled (e.g., Music, Phone, SXM Weather).

¹ Actual icons dependent upon model type and configuration.

Menus

Menu group related controls into an expandable pane, allowing access to multiple functions on a single page. Depending on the number of available functions, a menu may comprise more than one pane.

POP-UP MENU



Pop-up menu open to the default or previously selected value.

Default or Current Setting

SLIDE OVER MENUS

These menus slide out from the bottom or sides of the display when an object or menu item is selected on the underlying page.



Underlying Page Hidden

LISTS

Scrollable lists group control keys related to a single function (e.g., selectable range options). Toggle keys either enable or disable list items.



Scroll Bar

In some cases, **Settings** or **Range** keys provide access to selectable setting options.

When scrolling, all keys in the list are inactive.

Tabs

Tabs group information into individual panes. Content includes scrolling lists, data fields, function keys, or a combination of controls.

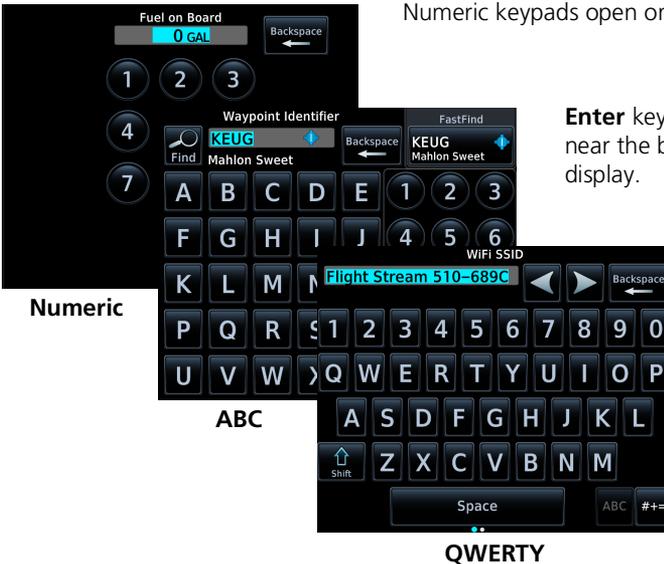
Tabs are located along the left and right sides of a pane.



Keyboards

The navigator employs multiple keyboard types to serve specific settings and functions.

GTN 750Xi Series



Numeric keypads open on a single pane.

Enter keys always appear near the bottom of the display.

GTN 650Xi SERIES

Alphanumeric keyboards comprise multiple keysets that are accessible by way of swipe or key selection.

ABC keysets, GTN 650Xi Series



Active Keyset

An indicator shows which keyset is active. Keys **A** through **M** are active by default.

For convenience, GTN 650Xi Series navigators provide a slider, allowing you to quickly select a group of five keys at any given time.

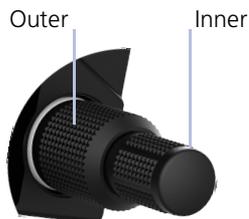
Slider, GTN 650Xi Series



Swiping the key selector left or right scrolls through all available keys.

Alphanumeric keyboards are customizable. You may select a keyboard type from the System Setup app. For more about this option, read *Keyboard Type* in section 2.

Control Knobs



Dual Concentric Knob

Inner and outer control knobs offer an alternative method for selecting and modifying data without the use of touch keys.



Volume/Squelch Knob

A single volume knob controls audio volume for the selected COM radio, NAV receiver, and/or external audio input devices (e.g., remote audio panel).

Depending on configuration, pushing these knobs momentarily performs additional XPDR, COM, and/or NAV related functions.

VOLUME/SQUELCH KNOB FUNCTIONS

Knob Turn

- Adjusting COM radio volume¹
- Adjusting NAV radio volume²

Knob Push

- Disabling the COM automatic squelch function¹
- Enabling/disabling the ident tone for the NAV radio²

DUAL CONCENTRIC KNOB FUNCTIONS

Outer Knob Turn

- Moving cursor forward or backward within data field
- Selecting a page shortcut
- Tuning major frequency digits¹

Inner Knob Turn

- Modifying individual characters in data entry field
- Scrolling lists
- Tuning minor frequency digits¹
- Zooming map displays

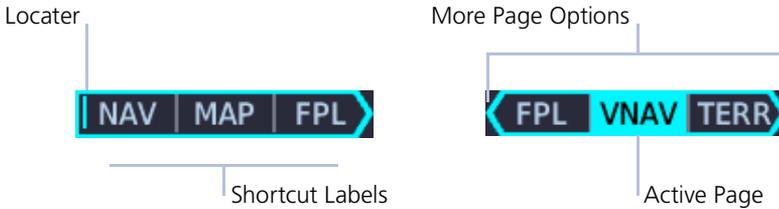
Knob Push

- Entering current or specified numerical value
- Toggling between radio and page navigation functions¹
- Initiating active/standby frequency flip-flop¹

¹ GTN 635Xi/GTN 650Xi/GTN 750Xi only. ² GTN 650Xi/GTN 750Xi only.

Page Navigation Labels

A locator bar works in conjunction with the outer control knob, providing quick access to the indicated page. Selectable page options are dependent upon configuration.



Turning the outer knob clockwise or counter-clockwise moves the locator through available page options.

A cyan background and border indicate active page and knob focus. Directional arrows show when more options are available.

Customizable Page Slots

GTN Xi series navigators allow you to customize up to seven slots on the locator bar.

First and last slots are dedicated page shortcuts. Depending on unit type, slot 1 may open Map¹ or Default Navigation features². Slot 9, the last slot, opens the Nearest Airport menu.

¹ GTN 750Xi Series only.

² GTN 650Xi Series only.

For more about customizable page slots, read *Page Shortcuts* in section 2.

Knob Function Indicators

Icons to the right of the bar indicate available knob functions. Indications include, but are not limited to:

Map Active



Available functions:

- Map zoom
- Set knob focus to COM standby frequency

Flight Plan Active



Available functions:

- Flight plan scrolling
- Set knob focus to COM standby frequency

Home Page Active

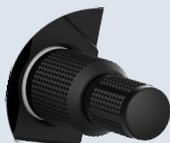


Available functions:

- Multiple pane scrolling (GTN 650Xi Series only)
- Set knob focus to COM standby frequency

Dual Concentric Knob Shortcuts

GTN 650Xi/750Xi



For convenience, a three-way toggle function allows you to access radio controls quickly via knob push. A cyan border indicates changes in knob focus. This shortcut is useful when transitioning through the different control modes.

Customization options allow you to set knob functionality according to preference. By default:

- Pushing once enables standby COM frequency tuning.
- Pushing twice enables standby NAV frequency tuning.
- Pushing again returns to page navigation mode.

On some dual GTN Xi installations, more complex knob functions allow you to tune radio frequencies on both units from a single navigator. For more about the remote radio control feature, read *Remote Radio Control* in section 2.

When GTN is not in page navigation mode, the available dual concentric knob functions announce at the bottom of the display.

COM Standby Frequency Active**Com Freq / Psh Nav**

Available functions:

- Set knob focus to NAV standby frequency
- Frequency tuning

Numeric Keypad Active**Num Entry / Psh Enter**

Available functions:

- Numeric data entry

Waypoint Identifier Keypad Active**Wpt Ident / Psh Enter**

Available functions:

- Waypoint identifier entry

Direct To Window Active**Edit Wpt / Psh Activate**

Available functions:

- Direct-to waypoint editing
- Activate direct-to course

Dual concentric knob control is set to Page Navigation by default. You may change this setting so that COM standby frequency control is the default knob function. For steps, read *Revert Knob Function to Radio Control* in section 2.

Screen Captures

FEATURE REQUIREMENTS

- SD card in the FAT32 format, with memory capacity between 8 GB and 32 GB

Save images to an SD card at any time using a screen capture.

1. Verify unit power is off and the card slot is empty.
2. Insert an SD card into the slot.
3. Power on the unit and go to the page of interest.
4. Push and hold the control knob.
5. With the knob depressed, push and release the **Home** key.

A camera icon momentarily shows in the annunciator bar indicating whether or not the screen capture is successful.



Screen Capture Successful

Image automatically saves to the *print* folder in the SD card root directory.

To view saved images, remove the SD card and open the *print* folder on a computer.



Screen Capture Failed

Failures can occur if the SD card is:

- Full
- Not present or fully seated
- Corrupt and needs reformatting
- Damaged

Color Conventions

**Red**

- Warning conditions

**Yellow**

- Cautionary conditions

**Green**

- Safe operating conditions
- Engaged modes
- Active COM frequency

**White**

- Scales and markings
- Current data and values

**Magenta**

- GPS data
- Active flight plan legs

**Cyan**

- Pilot-selectable references
- Glide range and best glide airport indications
- Standby frequencies

**Gray**

- Missing or expired data
- Product unavailable

**Blue**

- Water

Compatible Equipment

Line Replaceable Units

OPTIONAL LRUs
ADC
AHRS
Autopilot
DME
Flight Stream 210/510
G3X Touch
G5
G500/G600
G500(H)/G600/G700 TXi
GAD 42 Adapter
GDL 69/69A SiriusXM Datalink
GDL 88/GTX 345 ADS-B Transceiver
GI 275
GMA 35/350
GMX 200
GSR 56 Satellite Datalink
GTX Transponders
MX20
Radar Altimeter
Remote GTN
Stormscope
TAS/TCAS
OPTIONAL INTERFACES
TCAS II
Airborne Weather Radar (GTN 750Xi Series only)

The system consists of multiple LRUs, which are installed behind the instrument panel or in a separate avionics bay. Their modular design aids system maintenance and unit replacement.

Optional LRUs may include compatible equipment from either Garmin or a third party manufacturer. These vary by unit and installation type (VFR or IFR).

Some LRUs provide features that require registration and/or enablement prior to activation.

Compatible LRUs are not limited to the devices shown here.