

# GTX<sup>™</sup> 327

*Mode A/C Transponder*



pilot's guide

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***CAUTION: The GTX 327 should be turned off before starting or shutting down aircraft engine(s).***

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***NOTE: Contact a Garmin authorized dealer for software updates.***

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## **Limited Warranty**

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To obtain warranty service, contact your local Garmin Authorized Service Center. For assistance in locating a Service Center near you, call Garmin Customer Service at one of the numbers shown below.

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1200 East 151st Street

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***NOTE:*** *It is the responsibility of the GTX 327 owner to obtain proper licensing before using the transponder.*

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***NOTE:*** *The coverage expected from the GTX 327 is limited to line of sight. Low altitude or aircraft antenna shielding by the aircraft itself may result in reduced range. Range can be improved by climbing to a higher altitude. It may be possible to minimize antenna shielding by locating the antenna where dead spots are only noticed during abnormal flight attitudes.*

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The GTX 327 transponder is powered on by pressing the **STBY**, **ALT**, or **ON** keys, or by a remote avionics master switch (if applicable). After power on, a start-up page is displayed while the unit performs a self test. If the unit detects an internal failure, the screen displays **SELF TEST FAILED**.

### Mode Selection Keys

**OFF** — Powers off the GTX 327. Pressing **STBY**, **ON**, or **ALT** key powers on the transponder displaying the last active identification code.

**STBY** — Selects the standby mode. When in standby mode, the transponder will not reply to any interrogations.

**ON** — Selects Mode A. In this mode, the transponder replies to interrogations, as indicated by the Reply Symbol (Ⓜ). Replies do not include altitude information.

**ALT** — Selects Mode A and Mode C. In **ALT** mode, the transponder replies to identification and altitude interrogations as indicated by the Reply Symbol (Ⓜ). Replies to altitude interrogations include the standard pressure altitude received from an external altitude source, which is not adjusted for barometric pressure. The **ALT** mode may be selected in aircraft not equipped with an optional altitude encoder; however, the reply signal will not include altitude information.



Any time the function **ON** or **ALT** is selected the transponder becomes an active part of the Air Traffic Control Radar Beacon System (ATCRBS). The transponder also responds to interrogations from TCAS equipped aircraft.



### Code Selection

Code selection is done with eight keys (**0 – 7**) providing 4,096 active identification codes. Pushing one of these keys begins the code selection sequence. Digits that are not yet entered appear as dashes. The new code is activated when the fourth digit is entered. Pressing the **CLR** key moves the cursor back to the previous digit. Pressing the **CLR** key when the cursor is on the first digit of the code, or pressing the **CRSR** key during code entry, removes the cursor and cancels data entry, restoring the previous code. The **CLR** key may be pressed up to five seconds after code entry is complete to return the cursor to the fourth digit. The numbers 8 and 9 are not used for code entry, only for entering a Count Down time and for adjusting contrast and display brightness.



## **Keys for Other GTX 327 Functions**



**IDENT**— Pressing the **IDENT** key activates the Special Position Identification (SPI) Pulse for 18 seconds, identifying your transponder return from others on the air traffic controller's screen. The word IDENT will appear in the upper left corner of the display during this time.



**VFR**— Sets the transponder code to the pre-programmed VFR code selected during installation configuration (this is set to 1200 at the factory). Pressing the **VFR** key again restores the previous identification code. If the VFR key is pressed when disabled (dependent upon installation configuration) a VFR Key Disabled message appears, to indicate that no operation took place.



**FUNC**— Changes the page shown on the right side of the display. Display includes Pressure Altitude, Flight Time, Count Up, and Count Down timers.



**START/STOP**— Starts and stops the Count Up, Count Down, and Flight timers.



**CRSR**— Initiates starting time entry for the Count Down timer and cancels transponder code entry.



**CLR**— Resets the Count Up, Count Down, and Flight timers. Cancels the previous keypress during code selection and Count Down entry. Returns cursor to the fourth code digit within five seconds after entry.



**8**— Reduces Contrast and Display Brightness when the respective fields are displayed (dependent upon installation configuration) and enters the number eight into the Count Down timer.



**9**— Increases Contrast and Display Brightness when the respective fields are displayed (dependent upon installation configuration) and enters the number nine into the Count Down timer.

## Function Display



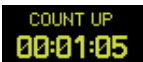
**NOTE:** *Transponder options are normally set at time of installation. For changes to the GTX 327 parameters, contact your Garmin authorized service center.*



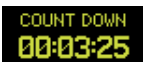
**PRESSURE ALT:** Displays the altitude data supplied to the GTX 327 in feet, hundreds of feet (i.e., flight level), or meters, dependent upon installation configuration.



**FLIGHT TIME:** Displays the Flight Time, configured during installation as MANUAL, CLEAR, or ACCUMULATE (see Timer Operation for details). Timer is controlled by the **START/STOP** and **CLR** keys when configured as Manual.



**COUNT UP TIMER:** Controlled by **START/STOP** and **CLR** keys.



**COUNT DOWN TIMER:** Controlled by **START/STOP**, **CLR**, and **CRSR** keys. The initial Count Down time is entered with the **0 – 9** keys.



**CONTRAST:** This page is only displayed if manual contrast mode is selected during installation configuration. Contrast is controlled by the **8** and **9** keys.



**DISPLAY:** This page is only displayed if manual backlighting mode is selected during installation configuration. Backlighting is controlled by the **8** and **9** keys.

## Altitude Trend Indicator

When the PRESSURE ALT page is displayed, an arrow may be displayed to the right of the altitude, indicating that the altitude is increasing or decreasing. One of two sizes of arrows may be displayed depending on the vertical speed rate. The sensitivity of these arrows is set during transponder installation.

## Automatic ALT/STBY Mode Switching

If the GTX 327 is configured with Automated Airborne Determination, ALT mode selection occurs when lift-off is sensed. When the aircraft is on the ground, the transponder automatically selects and displays STBY. The transponder does not respond to ATCRBS interrogations when STBY is annunciated. When a delay time is set (dependent upon installation configuration), the GTX 327 waits the specified length of time after landing before changing to STBY mode.

## ADS-B Control (GDL 90)

Automatic Dependent Surveillance-Broadcast (ADS-B) technology improves situational awareness and flight safety. With ADS-B capabilities, position, velocity, and heading information are automatically transmitted to other aircraft and ground stations. The GTX 327 provides mode control for the optional GDL 90 Universal Access Transceiver (UAT) datalink. The GDL 90 provides ADS-B capabilities.

## **Timer Operation**

### **To operate the Flight Timer:**

1. Press the **FUNC** key until FLIGHT TIME is displayed.
2. If the GTX 327 Flight Timer is configured as ACCUMULATE or CLEAR, the timer will begin automatically when the unit senses that the aircraft has become airborne. The timer may be reset to zero at every liftoff (CLEAR), continue accumulating time at liftoff (ACCUMULATE), or may be controlled manually (MANUAL).
3. If desired, press **START/STOP** to pause or restart the timer.
4. Press **CLR** to reset the timer to zero.
5. If the timer is configured to start automatically it will pause when the Automated Airborne Determination senses that the aircraft is on the ground.

### **To operate the Count Up timer:**

1. Press the **FUNC** key until COUNT UP is displayed.
2. If necessary, press **CLR** to reset the Count Up timer to zero.
3. Press **START/STOP** to begin counting up.
4. Press **START/STOP** again to pause the timer.
5. Press **CLR** to reset the timer to zero.

### **To operate the Count Down timer:**

1. Press the **FUNC** key until COUNT DOWN is displayed.
2. Press **CRSR** and use the **0 - 9** keys to set the initial time. All digits must be entered (use the **0** key to enter leading zeros).
3. Press **START/STOP** begin to counting down.
4. Press **START/STOP** again to pause the timer.
5. When the Count Down timer expires, the COUNT DOWN banner is replaced with a flashing EXPIRED, and the time begins counting up.
6. Press **CLR** to reset the timer to the initial time value.



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