



GTX™ 327

Mode A/C Transponder



pilot's guide



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GARMIN International, Inc.
1200 East 151st Street, Olathe, Kansas 66062, U.S.A.

GARMIN (Europe) Ltd.
Unit 5, The Quadrangle, Abbey Park Industrial Estate, Romsey, SO51 9AQ, U.K.

GARMIN Corporation
No. 68, Jangshu 2nd Road, Shijr, Taipei County, Taiwan

www.garmin.com

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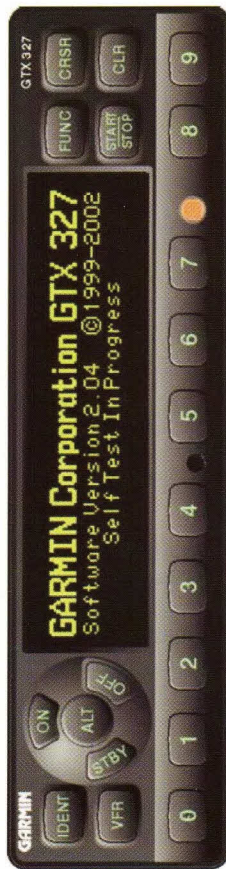
GARMIN International, Inc.	GARMIN (Europe) Ltd.
1200 East 151st Street	Unit 4, The Quadrangle, Abbey Park
Olathe, Kansas 66062, U.S.A.	Industrial Estate, Romsey, SO51 9AQ, U.K.
Phone: 913/397.8200	Phone: 44/1794.519944
FAX: 913/397.0836	FAX: 44/1794.519222



NOTE: The GTX 327 owner accepts all responsibility for obtaining the proper licensing before using the transponder.

NOTE: The coverage you can expect 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.

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



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**. (See your GARMIN dealer for software upgrades.)

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. The new code is not activated until 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. You may press the **CLR** key 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, contrast and display brightness, and data selection in the Configuration Mode.



Important Codes:

1200— The VFR code for any altitude in the US (Refer to ICAO standards elsewhere)

7000— The VFR code commonly used in Europe (Refer to ICAO standards)

7500— Hijack code (Aircraft is subject to unlawful interference)

7600— Loss of communications

7700— Emergency

7777— Military interceptor operations (Never squawk this code)

0000— Military use (Not enterable)

Avoid selecting code 7500 and all codes in the 7600-7777 range. These codes trigger special indicators in automated facilities. An aircraft's transponder code is used for ATC tracking purposes, therefore exercise care when making routine code changes.

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 while the IDENT mode is active.



VFR— Sets the transponder code to the pre-programmed VFR code selected in Configuration Mode (this is set to 1200 at the factory). Pressing the **VFR** key again restores the previous identification code.



FUNC— Changes the page shown on the right side of the display. Display includes Pressure Altitude, Flight Time, Count Up and Count Down timers. In Configuration Mode, steps through the configuration pages.



START/STOP— Starts and stops the Count Up, Count Down and Flight timers. In Configuration Mode, steps through configuration pages in reverse.



CRSR— Initiates starting time entry for the Count Down timer and cancels transponder code entry. Selects changeable fields in Configuration Mode.



CLR— Resets the Count Up, Count Down and Flight timers. Cancels the previous keypad during code selection and Count Down entry. Returns cursor to the fourth code digit within five seconds after entry. Used in Configuration Mode.



8— Reduces Contrast and Display Brightness when the respective fields are displayed and enters the number eight into the Count Down timer. Used in Configuration Mode.



9— Increases Contrast and Display Brightness when the respective fields are displayed and enters the number nine into the Count Down timer. Used in Configuration Mode.

Function Display

PRESSURE ALT
FL 123

FLIGHT TIME
00:00:13

COUNT UP
00:01:05

COUNT DOWN
00:03:25

CONTRAST


DISPLAY


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

FLIGHT TIME: Displays the Flight Time, controlled by the **START/STOP** and **CLR** keys when Flight Timer is configured as manual. Under Automated Airborne Determination control, the timer begins when liftoff is sensed.

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 in Configuration Mode. Contrast is controlled by the **8** and **9** keys.

DISPLAY: This page is only displayed if manual backlighting mode is selected in Configuration Mode. Backlighting is controlled by the **8** and **9** keys.

GTX 327 Configuration Mode

The GTX 327's configuration is normally set at time of installation. To view or change any of the GTX 327 configuration parameters, you must access the GTX 327 Configuration Mode. Use caution when changing configuration. When in doubt, contact your authorized GARMIN Aviation Service Center. Your GARMIN dealer can assist in configuration changes. The Configuration Mode should not be used during flight.

To use the GTX 327 Configuration Mode:

1. Press and hold the **FUNC** key while powering on the unit using the **STBY**, **ON**, or **ALT** key (or using an avionics master switch).
2. Press the **FUNC** key to sequence through the configuration pages. Press the **START/STOP** key to sequence in reverse. Reverse sequence stops on the Display Mode page.
3. Use the **CRSR** key to highlight selectable fields on each page.
4. When a field is highlighted, use the **8** or **9** keys to select changeable fields or the **0 - 9** keys to enter numeric data.
5. Press the **CRSR** key to confirm list selections.

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 rate of climb/descent. The sensitivity of these arrows is set using the GTX 327 Configuration Mode vertical speed rate.

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, you may 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 count 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** to count 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.

Automatic ALT/STBY Mode Switching

If the GTX 327 is configured with Automated Airborne Determination, ALT mode selection occurs when liftoff 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 in the Configuration Mode, the GTX 327 waits this additional length of time after landing before changing to STBY mode.