

GTX 320A

Mode A/C Transponder

pilot's guide



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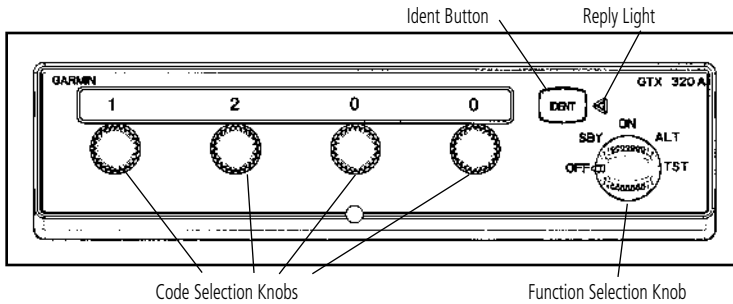
NOTE: The GTX 320A owner accepts all responsibility for obtaining the proper licensing before using the transponder.



NOTE: The coverage you can expect from the GTX 320A 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 320A should be turned off before starting or shutting down aircraft engine(s).



Function Selector Switch:

The function selector switch is a five position rotary switch. The five positions are:

OFF-Turns off all power to the GTX 320A (the unit should be turned off before starting aircraft engine(s)).

SBY-Turns the transponder on, but when in SBY the unit will not reply to any interrogations.

ON-The transponder transmits the aircraft's identification code (Mode A) but does not include altitude information.

ALT- The transponder transmits the aircraft's identification code, in Mode A and pressure altitude (29.92 inches Hg) information in Mode C provided the aircraft is equipped with an optional altitude encoder. The unit is normally operated in the ALT position at all times unless otherwise directed by ATC.

TST-Moving the switch to the TST position tests the reply light. The function selector is spring loaded and must be held in TST position. When released, it automatically returns to the ALT position.

Any time the function switch is in the ON or ALT position 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 Selector

The code selector consists of four, eight-position switches that provide 4,096 active identification codes. The code selected should be either a VFR code or a code assigned by ATC. Regulations require that aircraft equipped with a transponder must operate the transponder, including Mode C equipment unless otherwise directed by ATC.

When making routine code changes, you should avoid inadvertent selection of codes 7500, 7600, or 7700 causing momentary false alarms at ground facilities. For example when switching from code 2700 to code 7200, switch first to 2200 then 7200, NOT to 7700 and then 7200.

This procedure applies to nondiscrete code 7500 and all discrete codes in the 7600 and 7700 series (i.e., 7600 to 7677, 7700 to 7777) which trigger special indicators in automated facilities. Only nondiscrete code 7500 will be decoded as the hijack code. An aircraft's transponder code is utilized for ATC tracking capability, therefore you should not turn the GTX 320A to SBY when making routine code changes.

Important Codes

1200-The United States VFR Code for any altitude.

7600-Loss of Communications.

7500-Hijacking (Never assigned by ATC without prior notification of the pilot that the aircraft is subject to unlawful interference).

7700-Emergency.

0000-Military use. Never squawk this Code.

See the Aeronautical Information Manual (AIM) for an explanation and uses of identification codes.

IDENT Button

On occasion, a controller will request "SQUAWK IDENT" to identify your transponder return from other aircraft. Respond by momentarily pressing the **IDENT** button, activating the Special Position Identification for approximately 20 seconds.

Reply Light

The reply light will blink each time the transponder replies to an interrogation. The reply light remains illuminated during the IDENT time interval and during **TST** function.

GTX 320A TRANSPONDER SPECIFICATIONS

| | |
|---|---|
| TSO Compliance: | TSO C74c Class 1A |
| Temperature Range | -20°C to +55°C (Continuous Operation) |
| Installed weight with rack & connectors | 2.9 lbs. (1.3 kg) |
| Physical dimensions: | |
| Bezel height | 1.63 in. (41 mm) |
| Bezel width | 6.25 in. (159 mm) |
| Depth behind panel incl. connectors | 8.76 in. (223 mm) |
| Power Requirements | 11.0 to 33.0 Vdc; Max Power Input: 12 Watts @ 500 prf |
| Humidity | 95% @ +55°C for 16 Hours; 85% @ +38°C for 32 Hours |
| Altitude | 50,000 Feet |
| Transmitter Frequency | 1090 MHz |
| Transmitter Power | 200 Watts Nominal |
| Receiver Frequency | 1030 MHz |
| Receiver Sensitivity | -74dBm Nominal for 90% replies |
| Mode A Capability | 4096 Identification Codes |
| Mode C Capability | 100 Foot Increments from -1000 to 63,000 feet |
| External Suppression | Input - Low 0.5V; High 8V Output 18V Pulse |



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Part Number 190-00133-09 Rev. A

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