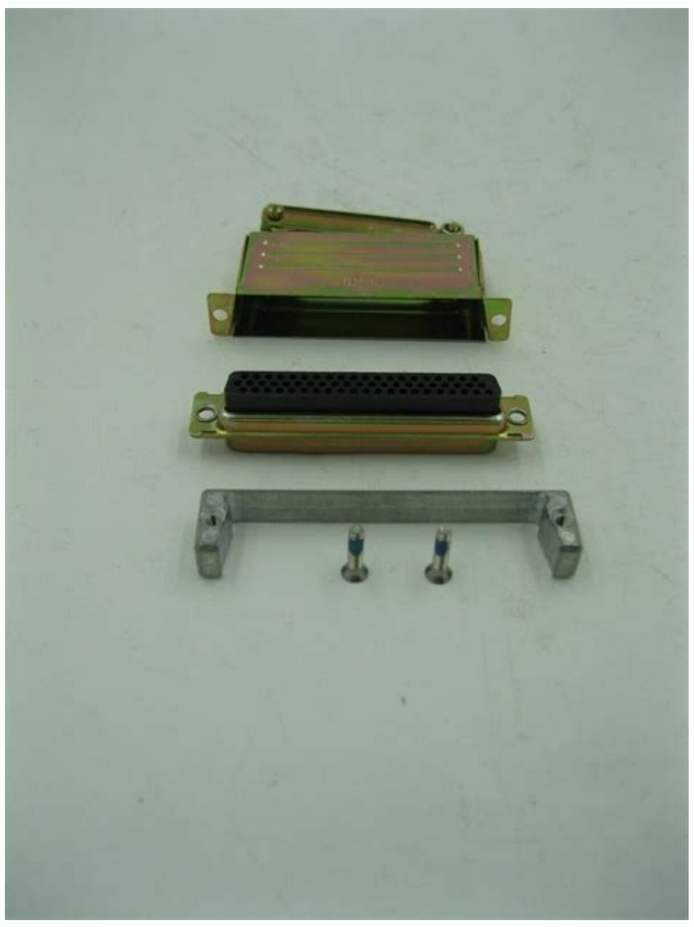


Continue

Garmin gtx 330d installation manual

Garmin gtx 330 transponder installation manual. Garmin gtx 330 installation manual. Gtx 330 installation manual.

Aircraft make, model, registration number, and serial number and accompanying STC configuration information in Appendix A must be completed and saved with aircraft permanent records. Page 2 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page i© 2021 Garmin International or its subsidiariesAll Rights ReservedExcept as expressly provided herein, no part of this manual may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Garmin.



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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.Function DisplayPRESSURE ALT Displays the altitude data supplied to the GTX 330 in feet, hundreds of feet (flight level), or meters, depending on configuration.FLIGHT TIME Displays the flight time, controlled by the START/STOP key or by one of four airborne sources (squat switch, GPS ground speed recognition, air data airspeed recognition, or altitude increase) as configured during installation. The timer begins when the GTX 330 determines that the aircraft is airborne.ALT MONITOR Controlled by START/STOP key.



Aircraft make, model, registration number, and serial number and accompanying STC configuration information in Appendix A must be completed and saved with aircraft permanent records. Page 2 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page i© 2021 Garmin International or its subsidiariesAll Rights ReservedExcept as expressly provided herein, no part of this manual may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Garmin. Garmin hereby grants permission to download a single copy of this manual and of any revision to this manual onto a hard drive or other electronic storage medium to be viewed and to print one copy of this manual or of any revision hereto, provided that such electronic or printed copy of this manual or revision must contain the complete text of this copyright notice and provided further that any unauthorized commercial distribution of this manual or any revision hereto is strictly prohibited.Garmin® is a registered trademark of Garmin International or its subsidiaries. GDU™ and GTN™ are trademarks of Garmin International or its subsidiaries. These trademarks may not be used without the express permission of Garmin.Adobe® is a registered trademark of Adobe Systems Incorporated. All rights reserved.The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Garmin is under license. Other trademarks and trade names are those of their respective owners.At Garmin, we value your opinion. For comments about this guide, please e-mail Techpubs.Salem@garmin.comFor comments about Garmin aviation products, email Avionics@garmin.com.Garmin International, Inc.1200 E. 151st StreetOlathe, KS 66062 USATelephone: (913) 397-8200www.garmin.comGarmin (Europe) Ltd.Liberty House, Bulls Copse RoadHounsdown Business ParkSouthampton, SO40 9LR, UKPhone: +44 (0) 23 8052 4000Fax: +44 (0) 23 8052 4004Garmin AT, Inc.2345 Turner Rd., SESalem, OR 97302 USATelephone: (503) 581-8101Page 3 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 2-4GTX 33/33D units are remote mounted and require a display/control interface as provided by the GTN 6XX/7XX or GNS 480 in order to be installed in accordance with this STC. Basic transponder functions of the GTX 33/33D are identical to the GTX 330/330D.
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During the IDENT period, the word "IDENT" appears in the upper left corner of the display.VFR Sets the transponder code to the pre-programmed VFR code selected in Configuration mode (Set to 1200 at the factory). Pressing the VFR key again restores the previous identification code.NOTEThe VFR key is on (functional) by default, but can be disabled in configuration mode.FUNC Changes the page shown on the right side of the display. Display data includes pressure altitude, flight time, altitude monitor, count up, and count down timers. In the Configuration mode, steps through the function pages.Page 6 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-3START/STOP Starts and stops the altitude monitor, count up, count down, and flight timers.CRSR Initiates entry of the starting time for the count down timer and cancels transponder code entry. Selects changeable fields in Configuration mode. If using software v8.02 or later, holding the CRSR key during power on will place the unit into a Ground Test mode that forces the aircraft into an airborne status for testing purposes.CLR Resets the count up, count down, and flight timers. Cancels the previous key press during code selection and count down 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.Code SelectionCode selection is entered 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.Function DisplayPRESSURE ALT Displays the altitude data supplied to the GTX 330 in feet, hundreds of feet (flight level), or meters, depending on configuration.FLIGHT TIME Displays the flight time, controlled by the START/STOP key or by one of four airborne sources (squat switch, GPS ground speed recognition, air data airspeed recognition, or altitude increase) as configured during installation. The timer begins when the GTX 330 determines that the aircraft is airborne.ALT MONITOR Controlled by START/STOP key. Activates a voice alarm and warning annunciator when altitude limit is exceeded.OAT/DALT Displayed when the GTX 330 is configured with temperature input. Displays outside air temperature and density altitude.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.ADS-B TX Controlled by START/STOP key. Starts/stops extended squitter function.FLIGHT ID If the GTX 33X is using software v8.02 or later and the system is configured to allow the pilot to edit the flight ID, then the flight ID may be entered using the CRSR key. Otherwise the flight ID is set in configuration mode and cannot be changed during normal operation.Page 7 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-4Figure 3-2 GTX 335/335D/345/345D Front PanelFunction Selection KeysThe function selection keys are:OFF Powers off the GTX 3X5. STBY Selects the Standby mode.
Pressing the STBY key when the GTX 3X5 is powered off automatically powers the unit on in standby mode. When in Standby mode, the transponder does not reply to interrogations but new codes can be entered and a SBY indication appears on the display.ON Selects the On mode, which generates Mode A and Mode S replies, but Mode C altitude reporting is inhibited. Pressing the ON key when the GTX 3X5 is powered off automatically powers on the unit in Mode A and will transmit a squawk code when interrogated. ADS-B Out will not return barometric altitude as it switches to GPS altitude in this mode. Interrogations are indicated by the reply symbol (®). The replies do not include altitude information.NOTEIf the transponder is in the ON or ALT operating mode, the transponder becomes an active part of the Air Traffic Control Radar Beacon System (ATCRBS). The transponder responds to interrogations from TCAS equipped aircraft. ALT Altitude mode is automatically selected when the aircraft becomes airborne using the unit's air/ground logic or when the ALT key is pressed. Pressing the ALT key when the GTX 3X5 is powered off automatically powers on the unit in altitude reporting mode. While the aircraft is on the ground and in ALT mode, the transponder does not allow Mode A and Mode C replies, but it does permit acquisition squitter and replies to Mode S interrogations.While the aircraft is in ALT mode and airborne, it will generate Mode A, Mode C and Mode S replies as well as transmit acquisition and extended squitter, including ADS-B Out.All transponder interrogations are indicated by the reply symbol (®). IDENT Pressing the IDENT key activates the Special Position Identification (SPI) Pulse for 18 seconds, identifying the transponder return from others on an air traffic controller's screen. During the IDENT period, the word "IDENT" appears in the upper left corner of the display.VFR Sets the transponder code to the pre-programmed VFR code selected in Configuration mode (Set to 1200 at the factory).
Pressing the VFR key again restores the previous identification code.Page 8 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-5FUNC In normal mode, pressing the FUNC key changes the subpage group shown on the right side of the display. Subpages include flight ID, pressure altitude, flight time, altitude monitor, system count up, and count down timers. In the Configuration mode, steps through the function pages.ENT Confirms entry for selected item and moves the cursor to the next editable item, or function selection, in configuration and normal operation. Starts and stops the altitude monitor, count up, count down, and flight timers.CRSR Selects changeable fields in configuration and normal operation. Initiates entry of the starting time for the count down timer and cancels transponder code entry. Holding the CRSR key during power on will place the unit into a Ground Test mode that forces the aircraft into an airborne status for testing purposes.CLR Resets the count up, count down and flight timers. Cancels the previous key press during code selection, count down entry, or flight ID entry. Used in Configuration mode to scroll through the function pages.8 Used as a scroll-up key to navigate through page groups in normal and configuration mode.9 Used as a scroll-down key to navigate through page groups in normal and configuration mode.Code SelectionCode selection is entered 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. The numbers 8 and 9 are not used for code entry, only for flight ID entry, count down time, aircraft tail number entry, and data selection in Configuration and Normal mode.Configuration ModeTo enter configuration mode, press and hold the ENT key, then energize the unit. To exit configuration mode, press and hold the OFF key until the unit de-energizes. To cycle through the pages, press the FUNC key To access items on the page, press the CRSR key To cycle through the selections of an item on the page, press the 8 or 9 key To scroll up or down on the page when nothing is selected, press the 8 or 9 key To move within the page, press the ENT key To move to previous selection on the page, press the CLR key To exit the page, press the FUNC keyGTX 3X5 units may also be configured using the GTX 3X5 Install Tool. For configuration using the GTX 3X5 Install Tool, refer to Section 3.5.Page 9 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-6Function DisplayFLIGHT ID If ALLOW PILOT TO EDIT FLT ID is configured to YES, the FLIGHT ID can be changed by the pilot at any time in normal mode. This allows the pilot/crew to enter the specific flight ID for transmission to ATC interrogations.UP COUNTER Timer controlled by ENT and CLR keys.DOWN COUNTER Timer controlled by ENT, CLR, and CRSR keys. The initial count down time is entered with the 0 – 9 keys.FLIGHT TIMER Displays the Flight Time, controlled by the ENT key or by one of four airborne sources (squat switch, GPS ground speed recognition, air data airspeed recognition, or altitude increase) as configured during installation. The timer begins when the GTX 3X5 determines that the aircraft is airborne.TRIP TIMER Timer controlled by ENT and CLR keys.PRESSURE ALT Displays the altitude data supplied to the GTX 3X5 in feet, hundreds of feet (flight level), or meters, depending on configuration.ALT MONITOR Controlled by ENT key.
Activates a voice alarm and warning annunciator when altitude limit is exceeded.SAT/DALT Displayed when the GTX 3X5 is configured with temperature input. Displays Static Air Temperature and Density Altitude.CONTRAST/OFFSET Contrast is controlled by the 8 and 9 keys.BACKLIGHT/OFFSET This page is only displayed if photocell backlighting mode is selected in Configuration mode.
Backlighting is controlled by the 8 and 9 keys.MESSAGES Alerts crew of transponder faults, fails and advisory messages.
MSG appears when a message is generated. CRSR and ENT keys access messages for acknowledgment and viewing.BLUETOOTH This page is only displayed on the GTX 345/345D when configured for Bluetooth at installation. When enabled, allows PED pairing to the GTX 345/345D and device management for display of ADS-B In data.INTERNAL GPS This page displays Lat/Long accuracy, number of connected satellites, horizontal figure of merit, whether the unit is using internal GPS, and overall status.1090ES TX CTRL This is only displayed when the unit is configured for 1090ES OUT CONTROL in Configuration mode to be PILOT SET. Once configured, this can be highlighted by the CRSR key, changed by the 8 and 9 keys, and selected by ENT key. Turns the extended squitter function on or off.Page 10 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-7Figure 3-3, Figure 3-4, Figure 3-5, and Figure 3-6 show the GTX control pages associated with the GTN 6XX/7XX, GNS 480, and GI 275. Refer to the specific pilot guide and cockpit reference guide for details regarding control and function. Part numbers for these documents are listed in Table 1-1.Figure 3-3 GTN 7XX Transponder Control Figure 3-4 GTN 6XX Transponder ControlFigure 3-5 GNS 480 Transponder Control Figure 3-6 GI 275 Transponder Control Page 11 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-8With specific installations, the GDU 1XXX (of the G1000 system) provides control and operation of the remote mounted GTX 335R/335DR/345R/345DR units. Figure 3-7 and Figure 3-8 display screen shots of the GTX control pages associated with the G1000 system.
Refer to the specific aircrafts pilot guide for generic G1000 transponder control and functionality. In addition to the generic transponder operation, functionality has changed to incorporate the GTX 3X5 interface as follows.Functions:GND The GND soft key is unavailable with the GTX 3X5 transponders. "XPDR GND UNAVL" will annunciate any time the GND soft key is pressed and the unit will revert to the previous mode the unit was in prior to the GND soft key being pressed. ADS-B TX The transmission of the ADS-B information is enabled/disabled by pressing the ADS-B TX soft key. ADS-B transmission defaults to enabled at each power cycle. In older GDU 1XXX software versions, the ADS-B TX soft key is not available; this function defaults to enabled. Do not disable ADS-B transmission unless requested by ATC. Annunciations:ADS-B Fail Any time the ADS-B Out system fails or the GPS signal is degraded, an ADS-B Fail message will annunciate.XPDR GND UNAVL Any time the GND soft key is pressed the advisory message will annunciate to alert the ground mode is no longer available. Page 12 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-9Figure 3-7 G1000 Transponder ControlFigure 3-8 G1000 Transponder Control Page 13 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-10NOTEIf the GTX 3X5 is configured to interface with a display control unit, the display control unit must be turned off or in configuration mode prior to running the GTX 3X5 Install Tool.NOTEThe GTX 3X5 Install Tool pages shown within this manual may reflect older GTX 3X5 Install Tool versions. Some differences in operation may be observed when comparing information in this manual to later versions of the install tool.The GTX 3X5 Install Tool is available for download from the Garmin Dealer Resource Center. The GTX 3X5 Install Tool requires a computer with available USB 2.0 ports and Microsoft Windows XP or later.A USB A-to-B cable is required to interface between a computer and the GTX 3X5. For additional details, refer to Figure 3-9. To use the GTX 3X5 Install Tool, remove power from the GTX 3X5. Remove power from the display control unit or verify it is in configuration mode. Connect the USB cable between the GTX 3X5 and the computer. Energize the GTX 3X5 and then run the GTX 3X5 Install Tool.Figure 3-9 USB A and USB B ConnectorsThe install tool is used to check equipment status, load software, and configure the unit.
To put a GTX 3X5 unit in configuration mode, change "Normal Mode" to "Configuration Mode" in the unit mode window. Click the Set key to enter configuration mode.Green boxes indicate a function operating correctly. Red boxes indicated a failure. Yellow boxes indicate a fault or warning. Gray boxes indicate the presence of a pilot alert.The bottom of the install tool displays unit information such as software version, connection status, and unit mode. The tool will also annunciate if alerts, faults, failures, or warnings exist. The menu bar at the top of the install tool has a GTX key and a Help key. The GTX key provides the following options: • Save configuration• Load configuration• Reset configuration• Push configuration from install tool to configuration module• ExitThe Help key provides the following information:• Part number• Version number• Copyright statement• Software license agreements.Page 14 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-113.5.1 State PageThe State page of the GTX 3X5 Install Tool reports the current mode of the GTX 3X5, Flight ID, Squawk Code, and Pressure Altitude. This page allows selection of Ground Test and Traffic Test modes. This page also allows selection of Standby or Operate TCAS Modes.Figure 3-10 GTX 3X5 State Page Page 15 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 2-2GTX 330/330D units are stand alone, panel mounted units that operate through the integrated display.
GTX 330/330D units can be controlled by an external control unit such as the GTN 6XX/7XX or the GNS 480.
They can display TIS-A information on an approved display unit, via an RS-232 digital interface. GTX 330/330D units provide the following features. Mode S transponder ADS-B Out capability Entry and display of squawk code and flight ID Display of pressure altitude Display of density altitude Display of outside air temp Display of flight timers Audio output TIS-A traffic output to a compatible displayThe transponder annunciates when the unit has an ADS-B Out failure to alert the crew that the unit has a degraded ADS-B system.GTX 330/330D units communicate through the following interfaces. ARINC 429 RS-232 Gray code Discrete I/OPower is provided by the aircraft's existing avionics bus. Non-diversity GTX 330 units interface with a transponder antenna mounted to the bottom of the fuselage. GTX 330D diversity units interface to a transponder antenna mounted to the top of the fuselage as well as the antenna mounted to the bottom. Figure 2-1 provides a summary of the interfaces provided for the GTX 330 or GTX 330D. Refer to GTX 3XX Part 23 AML STC Installation Manual for interfaces allowed under this STC. Page 16 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 2-12.1 GTX 330/330D .....2-22.2 GTX 33/33D .....2-42.3 GTX 335/335D/335R/335DR.....2-62.4 GTX 345/345D/345R/345DR.....2-82.5 GTX 335R/335DR/345R/345DR with Legacy G1000.....2-102.6 Electrical Load Information.....2-11Garmin GTX 33X and GTX 3X5 units operate on radar frequencies, receiving ground radar or TCAS interrogations. The GTX transmits a coded response of pulses to ground-based radar on a frequency of 1090 MHz. Each unit has IDENT capability and replies to ATCRBS Mode A, Mode C and Mode S All-Call interrogation. The GTX 345/345D/345R/345DR units include ADS-B In which provides TIS-B and FIS-B data via UAT and 1090 MHz. The GTX 3X5 units offer an optional Garmin altitude encoder to meet the required barometric pressure altitude source and an optional internal GPS/SBAS source to meet the required GNSS position source integrity for ADS-B Out. The Garmin transponders approved by this STC are in the family of GTX 33X and GTX 3X5 transponders. The ES option of the GTX 33X units provides ADS-B extended squitter functionality.The GTX 33X models include: GTX 33 GTX 330 GTX 33D GTX 330DThe GTX 3X5 units all provide ADS-B Out functionality. GTX 345/345R units provide ADS-B In. The GTX 3X5 models include: GTX 335 GTX 335D GTX 345 GTX 345D GTX 335R GTX 335DR GTX 345R GTX 345DRADS-B technology improves situational awareness and flight safety. A Garmin transponder with ADS-B capabilities will automatically transmit position, velocity, and heading information to other aircraft and ground stations. The current air traffic control system depends on a transponder request for pertinent aircraft information, whereas ADS-B provides automatic transmission of aircraft information without a request. Page 17 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 1-41.6.1 TerminologyExcept where specifically noted, references made to "GTX 33X" or "GTX 3X5" will apply to the GTX 330/330D/33/33D or GTX 335/335D/335R/335DR/345/345D/345R/345DR, respectively. ADS-B or ADS-B Out refers to version 2 ADS-B Out only. ADS-B In refers to TIS-B traffic and FIS-B weather received from ground stations over UAT as well as ADS-B and ADS-R traffic targets received directly over 1090 MHz or UAT.Throughout this document references will be made to metallic aircraft. For the purposes of this manual, metallic aircraft will be those with an aluminum skin. Nonmetallic aircraft refers to all other aircraft (e.g., wooden aircraft, aircraft with composite skin, or aircraft with tube and fabric construction).Unless otherwise stated, all units of measure are US standard units.The term squitter refers to a burst or broadcast of aircraft-tracking data that is transmitted periodically by a Mode S transponder without interrogation from a controller's radar.1.6.2 AcronymsAC: Advisory Circular ICA: Instructions for Continued AirworthinessADC: Air Data Computer ICAO: International Civil Aviation OrganizationADS-B: Automatic Dependent Surveillance - BroadcastI/O: Input/OutputAHRS: Attitude Heading Reference System MFD: Multifunction DisplayAML:

Approved Model List PED: Portable Electronic DeviceATC: Air Traffic Control SBAS: Satellite-Based Augmentation SystemATCRBS: Air Traffic Control Radar Beacon System SPI: Special Position IdentifierEGNOS: European Geostationary Navigation Overlay ServiceSRM: Structural Repair ManualES: Extended Squitter STC: Supplemental Type CertificateFAA: Federal Aviation Administration TAS: Traffic Advisory SystemFIS-B: Flight Information System-Broadcast TCAS: Traffic Alert and Collision Avoidance SystemGAE: Garmin Altitude Encoder TIS: Traffic Information ServiceGNS: Garmin Navigation System TSO: Technical Standard OrderGNSS: Global Navigation Satellite System UAT: Universal Access TransceiverGPS: Global Positioning System VSWR: Voltage Standing Wave RatioGTN: Garmin Touchscreen Navigator WAAS: Wide Area Augmentation SystemGTX: Garmin TransponderPage 18 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 1-3This document applies to all aircraft with either the GTX 33X or the GTX 3X5 installed in accordance with STC SA01714WI. Modification of an aircraft by this Supplemental Type Certificate (STC) obligates the aircraft operator to include the maintenance information provided by this document in the operator's Aircraft Maintenance Manual and the operator's Aircraft Scheduled Maintenance Program.In addition to this manual, the following documents are recommended to perform maintenance based on the installed and interfaced equipment. It is the responsibility of the owner/operator to ensure the latest applicable versions of these documents are used during operation, servicing, or maintenance of the airplane.Table 1-1 Reference Documentation This document is required for maintaining the continued airworthiness of the aircraft.
Garmin Dealers may obtain the latest revision of this document at the Garmin Dealer Resource Center, website. Dealers are notified of manual revision changes via a Garmin Service Bulletin.Owner and operators may obtain the latest revision of this document at www.flyGarmin.com or by contacting a Garmin dealer. Garmin contact information is available at www.flyGarmin.com.Document Garmin Part NumberGTX 33X and GTX 3X5 ADS-B AML STC Equipment List 005-00734-05GTN 625/635/650 Pilot's Guide 190-01004-03AFMS, GTX 33X and GTX 3X5 AML STC 190-00734-15GTN 725/750 Pilot's Guide 190-01007-03GNS 400W Series Installation Manual 190-00356-08GNS 500W Series Installation Manual 190-00357-08GNS 480 (CNX80) Color GPS/NAV/COM Installation Manual 560-0982-01GNS 480 Pilot's Guide 190-00502-00G1000 System Installation Manual 190-00303-00GTN 6XX/7XX Part 23 AML STC Installation Manual 190-01007-A3GTX 3XX Part 23 AML STC Installation Manual 190-00734-10GI 275 Pilot's Guide 190-02246-01GI 275 Part 23 AML STC Installation Manual 190-02246-10Page 19 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 1-2This document provides Instructions for Continued Airworthiness (ICA) of the GTX 33X and GTX 3X5 with ADS-B functionality installed and compliant to ADS-B Out version 2, under AML STC SA01714WI. This document satisfies the requirements for continued airworthiness as defined by 14 CFR Part 23.1529 and Appendix G. Information in this document is required to maintain the continued airworthiness of the GTX 33X and GTX 3X5.The following outline briefly describes the organization of this manual.Section 2: System OverviewProvides a description of the GTX 33X and GTX 3X5 equipment installed by this STC.Section 3: Control and OperationProvides basic control and operation information specifically tailored to maintenance practices.
Section 4: Instructions for Continued AirworthinessProvides instructions for continued airworthiness of the GTX 33X and GTX 3X5 ADS-B units.Section 5: TroubleshootingProvides troubleshooting information to aid in diagnosing and resolving problems with GTX 33X and GTX 3X5 system equipment.Section 6: Unit Removal and Reinstallation Provides instructions for the removal and replacement of GTX 33X and GTX 3X5 ADS-B units.Section 7: SoftwareProvides instructions for loading software on GTX 33X and GTX 3X5 ADS-B units.Section 8: System Configuration and CheckoutProvides instructions for configuring and testing of GTX 33X and GTX 3X5 system equipment.Section 9: System Return to Service ProcedureSpecifies return-to-service procedures to be performed upon completion of maintenance to GTX 33X and GTX 3X5 system equipment.Appendix A: Aircraft Specific InformationProvides a template to record aircraft specific installation and configuration data for GTX 33X and GTX 3X5 system equipment.Appendix B: Special Bonding ProceduresProvides instructions for achieving an electrical bond with GTX 33X and GTX 3X5 system equipment.Page 20 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 1-11.1 Content, Scope, Purpose ..... 1-21.2 Organization..... 1-21.3 Applicability ..... 1-31.4 Publications..... 1-31.5 Revision and Distribution ..... 1-31.6 Reference ..... 1-41.6.1 Terminology ..... 1-41.6.2 Acronyms ..... 1-4 Page 21 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page xiiTable 1-1 Reference Documentation ..... 1-3Table 2-1 GTX Electrical Load ..... 2-11Table 4-1 Maintenance Intervals ..... 4-4Table 5-1 GTX 33X Pinout ..... 5-11Table 5-2 GTX 33X Encoded Altitude Pin Assignments ..... 5-13Table 5-3 GTX 33/330 Discrete Outputs ..... 5-13Table 5-4 GTX 33/330 Discrete Inputs ..... 5-14Table 5-5 GTX 33/330 RS-232 Connections ..... 5-14Table 5-6 J3251 Pinout ..... 5-15Table 5-7 J3252 Pinout ..... 5-17Table 5-8 GTX 3X5/3X5R Encoded Altitude Pin Assignments ..... 5-18Table 5-9 GTX 3X5/3X5R Discrete Outputs ..... 5-19Table 5-10 GTX 3X5/3X5R Configurable Output Pins ..... 5-19Table 5-11 GTX 3X5/3X5R Discrete Inputs ..... 5-20Table 5-12 GTX 3X5/3X5R Configurable Input Pins ..... 5-20Table 5-13 GTX 3X5/3X5R RS-232 Connections ..... 5-21Table 5-14 GTX 3X5/3X5R ARINC 429 Connections ..... 5-21Table 5-15 GTX 345/345R RS-422 Connections ..... 5-21Table 5-16 GTX 345/345R HSDB Connections ..... 5-22Table 6-1 GTX 3X5 Connector Kit Hardware ..... 6-5Table 6-2 Standard/G1000 Mount Back Plate Hardware ..... 6-5Table 6-3 Vertical Mount Back Plate Hardware ..... 6-7Table 6-4 Standard and G1000 Mount Backplate Hardware ..... 6-9Table 6-5 Vertical Mount Backplate Hardware ..... 6-10Table 6-6 Garmin Altitude Encoder Kit - P/N 011-03080-00 ..... 6-18Table 8-1 Ramp Test Pressure Altitude Check Scenario ..... 8-9Table B-1 Ground Plane Definitions and Ground Path Resistance Requirements ..... 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Information such as whether there is a configuration module present is also displayed.Figure 3-11 GTX 3X5 Status Page Page 26 190-00734-11 GTX 33X and GTX 3X5 ADS-B Maintenance ManualRev. 8 Page 3-133.5.3 Configuration GroupThe Configuration group contains the following pages: Aircraft page - configuration of basic aircraft configuration and flight ID settings Airframe page - configuration of basic airframe configuration and operational options settings Unit page - configuration of identification code, unit options, and display options Interfaces page - configuration of serial, A429, discretes, and HSDB settings Sensors page - configuration of Garmin altitude encoder, GPS, internal AHRS, and additional sensors Audio page - configuration of audio options and alerts Display page - configuration of display and key backlight, photocell and lighting bus curves, and default offsetsAll configurable settings must match GTX System Configuration Log retained in the aircraft permanent records.Figure 3-12 GTX 3X5 Configuration Group