
5.2 Configuration Pages

NOTE

The configuration descriptions given in this section reflect software version 3.05.

Holding down the FUNC key and pressing the ON key provides access to the configuration pages. The FUNC key sequences forward through the configuration pages. The START/STOP key reverses through the pages, stopping at the Menu page. The CRSR key highlights selectable fields on each page. When a field is highlighted, the 0 – 9 keys enter numeric data and the 8 or 9 keys move through list selections. Press the CRSR key to accept changes. When a field is highlighted, pressing the FUNC key moves to the next configuration page without saving the changes.

Changes made through the configuration pages are stored in EEPROM memory. To exit the configuration pages, turn the power off. Then turn on again (without holding the FUNC key) for normal operation.

The configuration page sequence is as follows (menu categories are listed in parentheses):

- 'Jump To' Menu
- Audio and Messages #1
- Audio and Messages #2
- Traffic Messages
- Display Mode
- Display Backlight
- Key Backlight
- Contrast
- ARINC 429 Input #1 (First I/O Configuration page)
- ARINC 429 Input #2 (Second I/O Configuration page)
- ARINC 429 Output
- RS-232 Input Output
- Operation Configuration #1 (First Aircraft Configuration page)
- Operation Configuration #2 (Second Aircraft Configuration page)
- Temperature
- Aircraft Address
- Flight ID
- Aircraft Type
- Gray Code Input
- External Switch State
- Analog Input
- RS-232 Input Display
- ARINC 429 Input Display #1
- ARINC 429 Input Display #2

5.2.1 Configuration Menu Page

JUMP TO DIAGNOSTICS

CONFIGURATION MENU

CONFIGURATION MENU Page

The JUMP TO menu page provides the capability to select a configuration mode starting page without having to step through all of the pages. Press the CRSR key and sequence through to the desired section with the 8 and 9 keys. Jump to the selection by pressing the CRSR key again with the desired selection highlighted.

The FUNC key steps to the next configuration page, after which the START/STOP key reverses until stopping at the JUMP TO menu page.

SELECTION	DESCRIPTION
DIAGNOSTICS	Jumps to Gray Code Input page.
DISPLAY/AUDIO	Jumps to Audio Volume page.
I/O CONFIG	Jumps to ARINC 429 INPUT #1 page.
ACFT CONFIG	Jumps to Operation Configuration #1 page.

5.2.2 Audio Mode Pages

VOICE and VOLUME

Select desired VOICE. The choice of OFF is not available for traffic (TIS) audio. Make sure the volume level is sufficient for the aircraft environment involved.

MESSAGE

Message is used as a test function only. Message 0 is a continuous tone. Message 1 is a short tone and 2 through 5 are voice messages. Choose each selection to listen to the message.



SELECTION	DESCRIPTION
VOICE (MALE/FEMALE)	Sets the voice to male or female. Default is male voice.
VOLUME	Volume is adjusted from 0 (default) to maximum with the 8 or 9 key.
MESSAGE (0-9)	Selected audio tones and messages: 0 = Toggles a continuous tone on and off. 1 = Attention Tone, precedes voice messages to attract the pilot's attention. 2 = "Leaving Altitude," when altitude monitor is active and the altitude deviation is exceeded. 3 = "Traffic," when a TIS traffic alert is received (similar to a "Traffic Advisory" in TCAS terms). 4 = "Timer Expired," when the countdown timer expires. 5 = "Traffic Not Available," when TIS service is not available or out of range of an operating TIS Mode S site. 6 through 9 are not used at this time.
ALTITUDE MONITOR	Off, tone or message
COUNT DOWN TIMER	Off, tone or message
PAGE CHANGE	Enables/Disables Altitude Monitor sub page when altitude deviation is exceeded.

5.2.3 Traffic Information Page

TRAFFIC MESSAGES

Sets the Traffic Messages to either Tone or Message. Traffic Information Service (TIS) provides notification of close proximity traffic.

TRAFFIC MESSAGES TONE

TRAFFIC INFORMATION Page

5.2.4 Display Mode Page

DISPLAY MODE **AUTO** LEVEL **75**

DISPLAY MODE

DISPLAY MODE Page

SELECTION	DESCRIPTION
AUTO (Automatic)	DEFAULT. Display automatically changes between Positive mode (during the day) and Negative mode (at night), depending on ambient light level received by the photocell.
NGTV (Negative)	Display always has light characters on a black background, regardless of ambient lighting.
PSTV (Positive)	Display always has black characters on a light background, regardless of ambient lighting.

LEVEL

Sets the ambient light level for AUTO mode to change between negative and positive display. The higher the number, the brighter the ambient light level to change over. This field has a range of 0 (zero) to 99, with the default set to 75.

5.2.5 Display Backlight Page

BKLT AUTO LVL 624 RSP TIME 4 MIN 08

BKLT SRCE PHOTO SLOPE 50 OFFSET 50

DISPLAY BACKLIGHT Page

BKLT (Backlight)

SELECTION	DESCRIPTION
AUTO (Automatic)	DEFAULT. Display backlighting is automatically controlled, based on the parameters entered on this configuration page. When AUTO is selected, the DISPLAY page does not appear to the pilot.
MAN (Manual)	Display backlighting is controlled manually by the pilot on the GTX 330 DISPLAY page. No backlight parameters can be entered when the manual mode is selected.

LVL (Level)

Shows the current level of display backlighting, based on the lighting input source (lighting bus voltage, or the ambient light if the source is PHOTO) and the settings on this configuration page. This field has a range of 0 (zero) to 999. The level is set by pressing the 8 and 9 keys when MAN mode is selected. When in AUTO mode, the field is for display only.

RSP TIME (Response Time)

Sets the speed with which the brightness responds to ambient light changes (only for AUTO backlight mode). The higher the number, the slower the display responds. This field has a range of 0 to 7, with the default set to 4.

MIN (Minimum) (Auto Only)

Sets the minimum brightness of the display. The higher the number, the brighter the minimum brightness. Display minimum brightness has a range of 0 (zero) to 99, with the default set to 8. It is prudent to verify that display lighting characteristics match those of other equipment in the panel under night lighting conditions.

BKLT SRCE (Backlight Source)

SELECTION	DESCRIPTION
PHOTO (Photocell)	DEFAULT. Backlight level is determined by the ambient light level as measured by the photocell on the GTX 330.
14V	Backlight level tracks a 14 volt DC aircraft lighting bus.
28V	Backlight level tracks a 28 volt DC aircraft lighting bus.
5V	Backlight level tracks a 5 volt DC aircraft lighting bus.

NOTE

If a lighting bus (any selection other than PHOTO) is selected, and the lighting bus control is turned to its minimum (daytime) setting, the display brightness tracks the GTX 330 photocell.

SLOPE (Auto Only)

Sets the sensitivity of the display brightness to changes in the input level. The higher the number, the brighter the display for a given increase in the input level. This field has a range of 0 (zero) to 99, with the default set to 50.

OFFSET (Auto Only)

Adjusts the lighting level up or down for any given input level. This field has a range of 0 (zero) to 99, and is set to 50 at the factory. This may also be used to match lighting curves with other equipment in the panel.

5.2.6 Key Lighting Page

The key lighting mode is always the same as the display backlight mode, so the mode must be changed on the Display Backlight configuration page. If the lighting mode is AUTO, then the key lighting parameters can be edited on this page.

KEY AUTO LVL 624 RSP TIME 4 MIN 08
KEY SRCE PHOTO SLOPE 50 OFFSET 50
KEY LIGHTING Page

KEY (Key Lighting)

SELECTION	DESCRIPTION
AUTO (Automatic)	Key lighting is automatically controlled based on the parameters entered on this configuration page.
MAN (Manual)	Key lighting is controlled manually by the pilot on the GTX 330 DISPLAY page.

LVL (Level)

Shows the current level of key lighting, based on the lighting input source (lighting bus voltage, or the ambient light if the source is PHOTO) and the settings on this configuration page. This field has a range of 0 (zero) to 999, but is not a user-entered field (display only).

RSP TIME (Response Time)

Sets the speed with which the brightness responds to ambient light changes (only for AUTO key lighting mode). The higher the number, the slower the key lighting responds. This field has a range of 0 to 7, and is set to 4 at the factory.

MIN (Minimum) (Auto Only)

Sets the minimum brightness of the key lighting. The higher the number, the brighter the minimum brightness. Key lighting minimum brightness has a range of 0 (zero) to 99, and is set to 8 at the factory. It is prudent to verify that key lighting characteristics match those of other equipment in the aircraft panel under night lighting conditions.

KEY SRCE (Key Lighting Source) (Auto Only)

SELECTION	DESCRIPTION
PHOTO (Photocell)	DEFAULT. Key lighting level is determined by the ambient light level as measured by the photocell on the GTX 330.
14V	Backlight level tracks a 14 volt DC aircraft lighting bus.
28V	Backlight level tracks a 28 volt DC aircraft lighting bus.
5V	Backlight level tracks a 5 volt DC aircraft lighting bus.

SLOPE (Auto Only)

Sets the sensitivity of the key lighting brightness to changes in the input level. The higher the number, the brighter the key lighting for a given increase in the input level. This field has a range of 0 (zero) to 99, and is set to 50 at the factory.

OFFSET (Auto Only)

Adjusts the key lighting level up or down for any given input level. This field has a range of 0 (zero) to 99, and is set to 50 at the factory. This may also be used to match lighting curves with other equipment in the panel.

5.2.7 Contrast Configuration Page

CONTRAST MODE AUTO

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CONTRAST CONFIGURATION Page

CONTRAST MODE

SELECTION	DESCRIPTION
AUTO (Automatic)	DEFAULT. Display contrast is automatically compensated for LCD temperature and other factors. An offset can be entered in the contrast level adjustment described below.
MAN (Manual)	Display contrast is manually adjusted either here or by the pilot using the GTX 330 CONTRAST page.

CONTRAST LEVEL ADJUSTMENT

This is a "slider" bar graph control. Use the 8 key to move the graph to the left, decreasing the numbers and contrast level. Use the 9 key to move it to the right, increasing the numbers and contrast level. In manual contrast mode, this is a direct adjustment of the display contrast. In automatic contrast mode, this adjusts the offset to the automatically compensated contrast, with the default set to an offset of 50.

5.2.8 ARINC 429 Configuration Pages

ARINC 429 INPUT

The ARINC 429 INPUT Pages configure the ARINC 429 input ports. Each port can be configured independently for the desired function(s). The ARINC 429 IN 1 INPUT allows automated start and stop of the flight timer and places the transponder in ground (GND) mode upon landing. The same input data source cannot be selected for multiple input channels 1 through 3. ADLP is included for future use.

429 INPUT	SPEED	DATA
CHANNEL 1	LOW	OFF
CHANNEL 2	LOW	OFF

ARINC 429 INPUT (First) Page

429 INPUT	SPEED	DATA
CHANNEL 3	LOW	OFF
CHANNEL 4	LOW	OFF

ARINC 429 INPUT (Second) Page

SPEED (Channel 1 – 3)

SELECTION	DESCRIPTION
Low	Standard low-speed ARINC 429 (nominally 12.5 kilobits per second)
High	High-speed ARINC 429 (nominally 100 kilobits per second)

DATA (Channel 1 – 4)

CHANNEL	SELECTION	DESCRIPTION
All	OFF	No unit connected to this ARINC 429 input
1 through 3	GPS	Selected waypoint information and GPS ground speed recognition.
	ADC NO ALT	Temperature and speed information
	ADC W/ALT	Altitude, temperature and speed information
	AHRS	Attitude and heading information
	EF/AD NO ALT	Selected course, heading, temperature, joystick waypoint and speed information
	EF/AD W/ALT	Selected course, heading, temperature, joystick waypoint and speed information plus altitude data
4	ADLP	Airborne Data Link Processor. ADLP is available only on channel 4.

ARINC 429 OUTPUT

429 OUTPUT
CHANNEL 1
CHANNEL 2

DATA
OFF
GARMIN W/TIS

ARINC 429 OUTPUT Page

The GTX 330 can be configured to include GPS, Airdata, AHRS, EFIS/Airdata, and ADLP ARINC 429 inputs, functioning as an ARINC 429 data concentrator. Refer to Section 4.6 SERIAL DATA ELECTRICAL CHARACTERISTICS for details. The ARINC 429 OUTPUT Pages configure the ARINC 429 output ports. Each port can be configured independently for the desired function(s). Both ARINC 429 outputs send high speed ARINC 429 data.

SELECTION	DESCRIPTION
CHANNEL 1 (DATA)	DATA SOURCE: OFF, ADLP, GARMIN or GARMIN W/TIS. DEFAULTS to OFF. ARINC 429 input channel 4 sets the ARINC 429 output channel 1 to the same selection.
CHANNEL 2 (DATA)	DATA SOURCE: OFF, GARMIN or GARMIN W/TIS. DEFAULTS to GARMIN W/TIS. (See Figure C-5, Note 2 for description of Garmin format.) Do not select GARMIN W/TIS if the aircraft contains another traffic detection system.

In aircraft having multiple traffic systems and multiple 400/500 Series units, configure ARINC 429 output CHANNEL 1 for GARMIN W/TIS and ARINC 429 output CHANNEL 2 for GARMIN. TIS is then enabled over CHANNEL 1.

The Garmin format is a data concentration function. The following data is sent out at specified intervals using high speed ARINC 429 (100 kHz). The transmit data labels and their rates are as follows:

LABEL	DATA	RATE
100	SELECTED COURSE (degrees)	200 ms
203	PRESSURE ALTITUDE [in feet set to 29.92" Hg (1013.25 mb)]	100 ms
204	BAROMETRIC CORRECTED ALTITUDE (feet)	100 ms
206	INDICATED AIR SPEED (knots)	100 ms
210	TRUE AIR SPEED (knots)	100 ms
211	TOTAL AIR TEMPERATURE (degrees)	100 ms
213	STATIC AIR TEMPERATURE (degrees)	100 ms
306	JOYSTICK LAT	500 ms
307	JOYSTICK LON	500 ms
314	TRUE HEADING	100 ms
320	MAGNETIC HEADING (degrees)	100 ms
371	GA Equipment Identifier	500 ms
377	Equipment Identifier	500 ms

5.2.9 RS-232 Input and Output Page

RS232 INPUT OUTPUT
CHNL 1 OFF ICARUS
CHNL 2 OFF OFF

RS-232 INPUT (Altitude Source, GPS Data)

RS-232 INPUT-OUTPUT Page

This is the electrical source for the GTX 330 altitude and GPS data input. Refer to Section 4.4.4 for altimeter data selection priority.

SELECTION	DESCRIPTION
OFF	DEFAULT. The altitude code input is not from an RS-232 source.
GPS	RS-232 ground speed from a GPS device.
ICARUS ALT	RS-232 serial altitude from an Icarus Instruments 3000 or Garmin GAE 43.
ICRS ALT 25ft	Reports Icarus Instruments or Garmin GAE 43 altitude in 25 foot increments.
ADC NO ALT	RS-232 serial air data information from Shadin ADC 200, 200+, 2000.
ADC W/ALT	RS-232 serial air data information from Shadin ADC 200, 200+, 2000 plus altitude data.
SHADIN ALT	RS-232 serial altitude from Shadin 8800T, 9000T, 9200T.
SHDN ALT 25ft	Reports Shadin altitude in 25 foot increments
FADC NO ALT	RS-232 serial air data from Shadin 9628XX-X family of Air Data Computers and Fuel/Air Data Computers.
FADC W/ALT	RS-232 serial air data from Shadin 9628XX-X family of Air Data Computers and Fuel/Air Data Computers plus altitude data.
REMOTE	RS-232 serial input remote data. Reserved for future use.

RS-232 OUTPUT (Altitude Source)

SELECTION	DESCRIPTION
OFF	DEFAULT for channel 2. No unit is connected to output of this channel.
ICARUS ALT	DEFAULT for channel 1. RS-232 serial altitude from an Icarus Instruments 3000.
REMOTE	RS-232 serial output remote data. Reserved for future use.
REMOTE + TIS	RS-232 serial output remote data with TIS.

5.2.10 Operation Configuration Pages

VS RATE 0100ft/min FORMAT FLIGHT LVL
VFR ID 1200 ALT ALRT DEV 200ft

VS RATE (Vertical Speed Rate)

First CONFIGURATION Page

This field is the typical vertical speed for climb/descent of the aircraft. The settable number determines the rate of climb the GTX 330 assumes as liftoff for starting the flight timer and operational functions. The range is 100 feet per minute to 9999 feet per minute, and is set to 500 fpm at the factory.