GTR 225/GNC 255 SERIES SOFTWARE VERSION 2.10 UPGRADE SUPPLEMENT

The Pilot's Guides have been revised for Software Version 2.10. This supplement provides information regarding new features of Software Version 2.10 for the GTR 225/GNC 255 Series units.

- GTR 225/225A/225B Pilot's Guide (Garmin P/N 190-01182-00) Rev B
- GNC 255A/255B Pilot's Guide (Garmin P/N 190-01182-01) Rev B

***NOTE**: The combination of the following documents is equivalent to the Pilot's Guide revisions listed above.*

- GTR 225/GNC 255 Series Software Version 2.10 Upgrade Supplement

and either

- GTR 225/225A/225B Pilot's Guide (Garmin P/N 190-01182-00) Rev A

or

- GNC 255A/255B Pilot's Guide (Garmin P/N 190-01182-01) Rev A

Current documents are available at https://fly.garmin.com/fly-garmin/support/ for free download. Printed copies may be purchased by contacting Garmin Customer Support.

***NOTE**: Depending on which version of software is installed and how it is configured, the actual features and screen images may differ from what is shown. Refer to the GTR 225/225A/225B Pilot's Guide, P/N 190-01182-00, or GNC 255A/255B Pilot's Guide, P/N 190-01182-01, for more information regarding feature availability for specific software versions.*

***NOTE**: All sections are applicable to Rev A Pilot's Guides. Sections designated "SW Version 2.10" are applicable to Rev B Pilot's Guides.*

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This manual reflects the operation of System Software version 2.10, or later. Some differences in operation may be observed when comparing the information in this manual to later software versions.

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1 GETTING STARTED

1.3 USB Port

GNC 255A/255B - Page 1-4, GTR 225/225A/225B - Page 1-4
Added the following note.

NOTE: *For updating the databases, Garmin recommends the use of a USB 2.0 compatible flash drive. The flash drive must be formatted as FAT32.*

2 BASIC OPERATION

2.2.1 Selecting a COM Frequency

GNC 255A/255B – Page 2-1, GTR225/225A/225B – Page 2-1
Added information about behavior when connected to a position source.

New frequencies are first selected as a standby frequency and then toggled to the active side with the **FLIP/FLOP** key. While viewing the standby frequency display, use the outer and inner knobs on the right side of the unit to select the desired frequency.

COM Frequency Selection

1. Press **COM (C/N)**, if necessary, to reach the COM radio function. The COM annunciator on the top line of the display will show.
2. Turn the outer knob to change the values in one MHz increments. The MHz selection range is between 118 and 136 in one MHz steps.
3. Turn the inner knob to change the values in 25 kHz or 8.33 kHz increments. The kHz selection range is between 000 and 975 kHz in 25 kHz steps or 000 and 990 kHz in 8.33 kHz steps.
4. Turn the outer and inner knobs clockwise to increase and counterclockwise to decrease the frequency values. Standby frequency selection is not inhibited during transmit.

5. When connected to a position source, the nearest station identifier will be shown for the selected frequency. Frequencies with multiple types will have an asterisk next to the identifier.
6. Press and release the **FLIP/FLOP** key to toggle the standby frequency to the active frequency.

2.2.5 (2.2.7) Frequency Database Reverse Look-Up

GNC 255A/255B – Page 2-4, GTR 225/225A/225B – Page 2-5
Added information about behavior when connected to a position source.

When the unit is receiving a valid position input, the identifier and frequency type will show for COM and NAV frequencies for the nearest facilities. Waypoint types with a "+" sign will have more frequencies for the same type.

Frequency Database Reverse Look-Up

2.4 OBS Mode

GNC 255A/255B – Page 2-8
Added information about OBS Mode.

There are four different CDI configurations, which allow the installer to configure the GNC 255 to the type of CDI indicator that is connected. The installer-set CDI configuration will determine the operation of the OBS Mode.

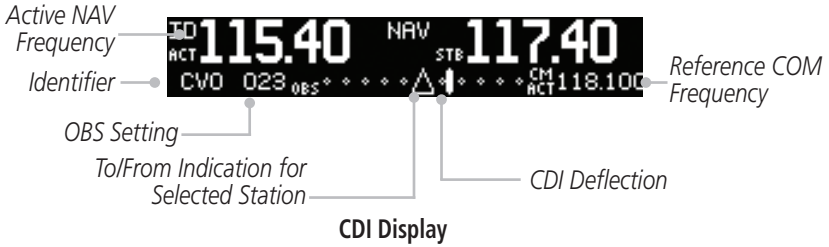
If the system is configured with an analog or digital external CDI/HSI, the OBS radial of the remote display will be decoded and displayed on the screen of the GNC 255.

Press the **OBS** key to see the current OBS setting and graphic CDI.

***NOTE:** The Identifier is the decoded NAV identifier from the Morse code broadcast by the station.*

If the system is configured with a composite external indicator, the OBS mode will be unavailable. If there is no external CDI/HSI providing OBS control, the outer and inner knobs can be used to change the displayed OBS value.

The GNC 255 graphic CDI is shown as a graph of five dots right or left of the triangle icon. Each dot indicates two degrees deflection with ten degrees full deflection to each side. Fly towards the bar to be on-course.



CDI Display

2.5 Distance/Speed/Time (DST) Display

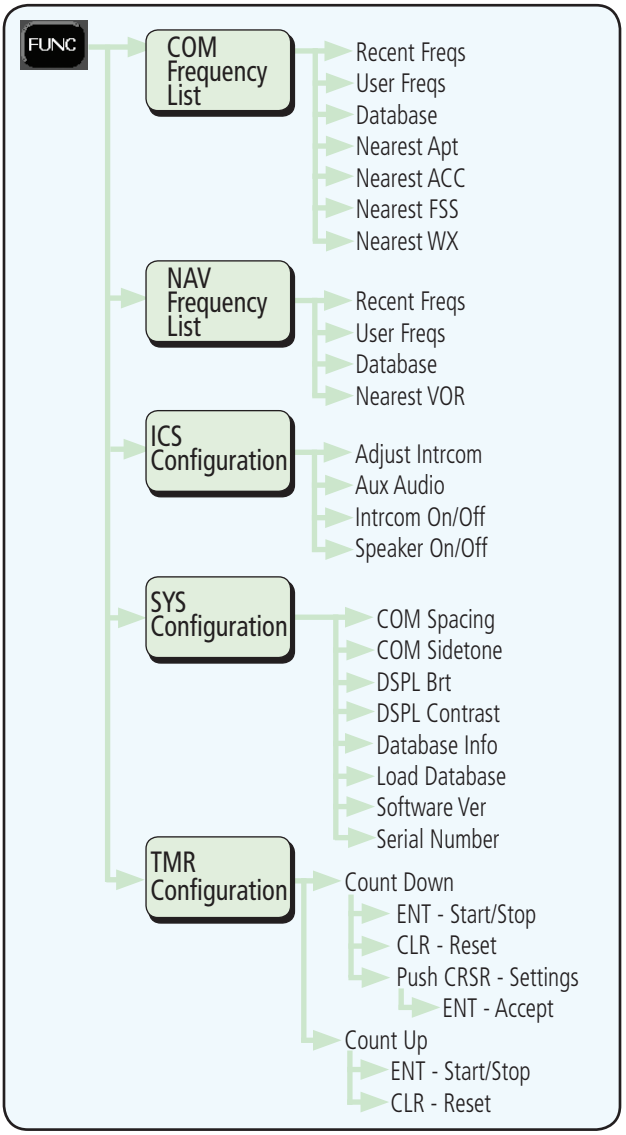
GNC 255A/255B – Page 2-9
Added the following note.

NOTE: *DST information will only be displayed for stations that are within 200 NM.*

3 FUNCTIONS

3.1 Functions Description

GNC 255A/255B – Page 3-1, GTR 225/225A/225B – Page 3-1
Added COM Sidetone.



3.2 COM Frequencies

3.2.3 COM Database Frequencies

GNC 255A/255B – Page 3-5, GTR 225/225A/225B – Page 3-5
Added the following note.

NOTE: *The nearest station identifier for the selected frequency will be shown below the active or standby frequency, when connected to a GPS position source.*

3.4 (3.3) ICS Configuration

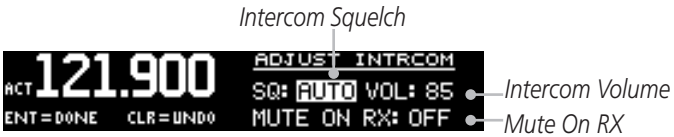
GNC 255A/255B – Page 3-15, GTR 225/225A/225B – Page 3-9
Added ICS auto squelch, ICS mute on RX, and AUX mute on RX.

ICS Configuration adjusts the intercom, sets the NAV/AUX volume, turns the intercom and speaker on or off.

3.4.1 (3.3.1) Adjust Intercom

The Adjust Intercom function sets the values for the intercom squelch, intercom volume, and sets the intercom audio to mute when COM transmissions are received. The Intercom On/Off function must be set to ON to make the Adjust Intercom function available.

NOTE: *To enable ICS auto squelch, turn the knob one click counterclockwise past 0. When squelch is set to auto, the squelch sensitivity adjusts automatically. When squelch is set to 0, squelch is usually open. When squelch is set to 100, squelch is usually closed. ICS auto squelch is available with software v2.10 or later.*



Adjust Intercom Settings

1. Press **FUNC**.
2. Turn the outer knob to ICS CONFIGURATION.
3. Turn the inner knob to ADJUST INTRCOM.
4. Press **ENT.**
5. Turn the inner knob to set the ICS squelch (SQ) value.
6. Turn the outer knob to move to ICS volume (VOL) field.
7. Turn the inner knob to set the ICS volume level.
8. Turn outer knob to MUTE ON RX (software v2.10 or later).
9. Turn inner knob to ON or OFF. To mute when a radio transmission is received, select ON.
10. Press **ENT** to save changes.
    Press **CLR** to cancel the changes.

3.4.2 (3.3.2) AUX Audio

The AUX Audio function turns AUX Audio on or off, sets the AUX volume level, and sets the AUX audio to mute when a COM radio transmission is received.

Adjust AUX Audio

1. Press **FUNC**.
2. Turn the outer knob to ICS CONFIGURATION.
3. Turn the inner knob to AUX AUDIO.
4. Press **ENT**.
5. Turn the inner knob to turn the AUX audio ON or OFF.
6. Turn the outer knob to VOL.
7. Turn the inner knob to set the AUX volume level.
8. Turn the outer knob to MUTE ON RX (available with software v2.10 or later).
9. Turn the inner knob to ON or OFF. To mute the AUX audio when a radio transmission is received, select ON.
10. Press **ENT** to save new values.
    Press **CLR** to cancel the changes.

3.4.3 (3.3.3) Intercom On/Off

The Intercom On/Off function toggles the intercom on and off. If installed with a remote switch, the intercom can also be remotely toggled on or off. The Intercom On/Off function must be set to ON to make the Adjust Intercom function available.

Intercom On/Off

1. Press **FUNC**.
2. Turn the outer knob to ICS CONFIGURATION.
3. Turn the inner knob to INTRCOM ON/OFF.
4. Press **ENT**.
5. Turn the inner knob to set the Intercom ON or OFF.
6. Press **ENT** to save the selected value.
   Press **CLR** to cancel the change.

3.4.4 (3.3.4) Speaker On/Off

The Speaker On/Off function toggles the speaker output on and off.

Speaker On/Off

1. Press **FUNC**.
2. Turn the outer knob to ICS CONFIGURATION.
3. Turn the inner knob to SPEAKER ON/OFF.
4. Press **ENT**.
5. Turn the inner knob to set the speaker output ON or OFF.
6. Press **ENT** to save the selected value.
   Press **CLR** to cancel the change.

3.5 (3.4) Systems Configuration

3.5.2 (3.4.2) COM Sidetone Section (Software v2.10 or later)

GNC 255A/255B – Page 3-18, GTR 225/225A/225B – Page 3-12
Added COM Sidetone offset.

COM sidetone is the audio spoken into the COM microphone. This setting affects the volume of the sidetone in the headsets for the COM during PTT. The COM Sidetone Offset adjusts the amount that the COM sidetone volume level is offset from the COM receiver volume level. The range can be adjusted from -10 (lowest) to 10 (highest), with 0 as the default.

***NOTE:** COM Sidetone pilot control must be enabled by the installer.*

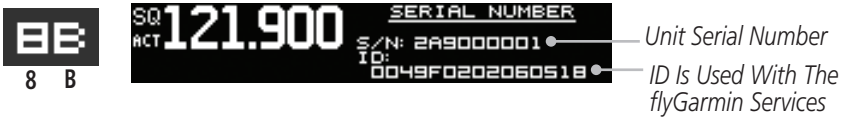
COM Sidetone Page

1. Press **FUNC**.
2. Turn the outer knob to SYS CONFIGURATION.
3. Turn the inner knob to COM SIDETONE.
4. Press **ENT**.
5. Turn the inner knob to set mode of COM sidetone.
   OFFSET: COM sidetone volume changes with adjustments of the COM volume knob.
   FIXED: COM sidetone volume is at level set at installation.
6. If offset mode is selected, turn the outer knob to OFFSET.
7. Turn the inner knob to set the offset value.
8. Press **ENT** to save selected values.
   Press **CLR** to cancel the changes.

3.5.7 (3.4.7) Serial Number

GNC 255A/255B – Page 3-22, GTR 225/225A/225B – Page 3-16
Added information to distinguish the number 8 from the letter B.

NOTE: *The ID consists of a combination of numbers 0-9 and letters A-F. The number 8 and the letter B are distinguishable as depicted in the Serial Number screenshot.*



Serial Number Page

1. Press **FUNC**.
2. Turn the outer knob to SYS CONFIGURATION.
3. Turn the inner knob to SERIAL NUMBER.
4. Press **ENT**.
5. Press **FUNC** to return to the main menu.

4 APPENDIX

4.2 Updating the Frequency Database

4.2.1 Downloading the Frequency Database

GNC 255A/255B – Page 4-3, GTR 225/225A/225B – Page 4-3
Added note about system ID.

NOTE: *The unit's system ID is required when downloading the Frequency database. See section 3.5.7 (3.4.7) for details on the system ID.*

The Garmin databases can be updated by following the instructions on *https://fly.garmin.com/fly-garmin*. The frequency database is updated on a 28-day cycle.

4.3 Messages

GNC 255A/255B – Page 4-4, GTR 225/225A/225B – Page 4-4
Added the following messages to the Message section.

Message	Description	Action
FEATURE UNLOCK FAILURE	The database on the USB flash drive is corrupt or the system ID in the database does not match the unit's system ID.	Verify that the correct system ID is entered into flyGarmin.com when downloading the database. Contact Garmin Customer Support if this message persists.
NO UNLOCK FILE	The USB flash drive is missing the feature unlock file for the frequency database.	Verify the correct system ID is entered on flyGarmin.com and the frequency database is downloaded onto the USB flash drive. Contact Garmin Customer Support if this message persists.

NOTE: *The unit's system ID is required when downloading the frequency database.*

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