AOPA Air Safety Foundation
Garmin 430/530 Basic Operations

This printable version of the AOPA Air Safety Foundation Garmin 430/530 course is a quick reference for VFR functions of these units.

The Air Safety Foundation reminds you to always *Keep Your Head Up* when using your GPS in visual conditions. Pilots are always responsible for a safe flight, including avoiding midair collisions.

CONTROLS

GNS 430

COM Power/Volume Knob
COM Flip-flop Key
VLOC Volume Knob
VLOC Flip-flop Key
Large Left Knob
Small Left Knob
CDI Key
Range Key
Direct-To Key
Enter Key
Clear Key
Large Right Knob
Small Right Knob

GNS 530

COM Flip-flop Key
COM Power/Volume Knob
VLOC Flip-flop Key
VLOC Volume Knob
Large Left Knob
Small Left Knob
CDI Key
Range Key
Direct-To Key
Clear Key
Enter Key
Large Right Knob
Small Right Knob

CONTROLS

COM Power/Volume Knob controls unit power and COM volume. Pressing it momentarily disables automatic squelch control.

COM Flip-Flop Key swaps the active and standby COM frequencies. Press and hold it to automatically tune the emergency frequency (121.5).

VLOC Volume Knob controls volume for the VOR/Localizer (VLOC). Pressing it momentarily enables or disables the ident tone.

VLOC Flip-flop Key swaps the active and standby VLOC frequencies.

Large Left Knob (COM/VLOC) tunes megahertz (MHz) values for the standby COM or VLOC frequency.

Small Left Knob (COM/VLOC) tunes the kilohertz (kHz) values for the COM or VLOC frequency. Pressing the small knob momentarily also toggles the tuning cursor between the COM and VLOC frequency fields.

CDI Key toggles the navigation source (GPS or VLOC) going to the external CDI or HSI.

Range Key selects the map scale. The up arrow zooms out showing a larger area. The down arrow zooms in showing a smaller area.

Direct-To Key allows you to enter a destination waypoint and then displays a direct course to it.

Clear Key erases information or cancel an entry. Press and hold CLR to display the Default Navigation Page.

Enter Key approves an operation or completes data entry. It also confirms information, like during power on.

Large Right Knob (GPS) selects between the displayed page groups: NAV, WPT, AUX or NRST. It also allows you to move the cursor about the page.

Small Right Knob (GPS) selects pages within a group listed above. Pressing it momentarily displays the cursor.

POWER ON

The COM power/volume turns the unit on and sets the desired radio volume. The self test screen will display briefly. If the airplane has an Avionics Master switch, turn it on.

Database Confirmation - Database current? Press ENT. AOPA Air Safety Foundation recommends using a current database.

Instrument Panel Self Test - Compare the GPS screen with panel instruments. Everything OK? Press ENT.

Map Page - When the GPS has acquired enough satellites for navigation, the Map page shows your present position.

USING THE VHF COM

All COM controls and indicators are located on the left. The active frequencies are on top, standby on the bottom. Only the standby frequency can be tuned directly. Once tuned, it is transfered to the active position.

Position Entry Cursor - If the tuning cursor is not currently in the COM window, press the small left knob momentarily.

Enter Frequency - The large left knob tunes MHz. Think "big number, big knob". The small left knob tunes kHz.

Activate Frequency - The COM flip-flop key activates the tuned frequency. The standby frequency becomes active, and the active frequency becomes standby.

Adjust Volume - using the power/volume knob. Press it momentarily to disable the automatic squelch.

EMERGENCY FREQUENCY

Press and hold the COM flip-flop key for two seconds to quickly tune 121.5.

USING VLOC

VLOC refers to tuning and navigating with VOR and localizer (LOC) signals. All VLOC controls and indicators are located on the left. The active frequencies are on top, standby on the bottom.

Position Entry Cursor - If the tuning cursor is not currently in the VLOC window, press the small left knob momentarily.

Enter Frequency - The large left knob tunes MHz. Think "big number, big knob". The small left knob tunes kHz.

Activate Frequency - The VLOC flip-flop key activates the tuned frequency. The standby frequency becomes active, and the active frequency becomes standby.

Adjust Volume - using the VLOC volume knob. Press it momentarily to enable and disable the navigation aids ident tone.

SELECT NAV SOURCE

The CDI key toggles between GPS and VLOC outputs for the CDI or HSI. The selected navigation source is displayed just above the CDI key.

CAUTION

Selecting the wrong CDI source is a common but serious problem.

ABOUT GPS

The most frequently used features of any GPS are direct-to, map display, and nearest airport. All the controls and indicators for the GPS are located on the right side of the panel.

SELECT DIRECT-TO

Press the Direct-To key. The direct-to page appears, with the cursor on the waypoint identifier.

GPS Data Entry - Entering waypoints and other data into the GPS is a three step process.

1. Enter identifer letters and numbers

2. Confirm it is the correct waypoint.

3. Activate the waypoint for navigation.

Enter Waypoint Identifier - The large right knob moves the cursor about the page. The small right knob selects individual characters.

If you don't see the cursor, press the small right knob momentarily. The cursor allows you to enter data and/or make a selection from a list of options.

Confirm Waypoint - Press ENT.

Activate Waypoint - Press ENT again. The selected course is displayed as a magenta line, and the CDI indicates the direct course to the waypoint.

GPS MAPS

GNS 430

Display Default NAV Page - On the GNS 430, press and hold the CLR key for two seconds. The default NAV page is displayed.

The default NAV page shows the bearing and distance to the active waypoint, ground speed, and estimated time of arrival at the active waypoint.

Display Map Page - Turn the small right knob one click clockwise. The Map page is displayed. It is the second in the NAV page group as indicated below the map.

The Map page shows the active waypoint identifier, track and distance, and ground speed.

GNS 530

Display Default NAV Page - On the GNS 530, press and hold the CLR key for two seconds. The default NAV page is displayed.

This page shows a simplified map, track, ground speed, and ETE to the active waypoint.

Display Map Page - Turn the small right knob one click clockwise. The Map page is displayed. It is the second in the NAV page group as indicated below the map.

ADJUST RANGE

Use the RNG key to change the map scale . The up arrow zooms out, the down arrow zooms in. The current map scale is shown at the lower left corner of the map.

NEAREST PAGES

Display Nearest Airport Page - Press and hold CLR to display the default NAV page.

Turn the large right knob to select the NRST page group. NRST will appear in the lower right corner of the screen.

The nearest airport page displays airport identifier, bearing, distance, and other information. To scroll through nearby airports, press the small right knob to activate the cursor, then use the large right knob to scroll through the list.

GO DIRECT-TO A NEARBY AIRPORT

With the cursor on the desired airport, press the Direct-To key to display the "select direct-to waypoint" page. The identifier for the previously selected nearby airport should already be entered.

Go Direct-To the Selected Airport - Press ENT to accept the selected airport's identifier. Press ENT again (with "Activate?" highlighted) to navigate to that airport. The Map page will be displayed.

LEARN MORE

You can learn more about GPS safety and operation at the following web sites:

AOPA Air Safety Foundation
http://www.aopa.org/asf

Garmin Aviation
http://www.garmin.com/aviation/

Compliments of the AOPA Air Safety Foundation
800-638-3101
www.aopa.org/asf