4 0 0
S E R I E S

(G P S   4 0 0 ,   G N C   4 2 0 ,   a n d   G N S   4 3 0)

A d d e n d u m   t o
P i l o t ' s   G u i d e

f o r   O p e r a t i n g   S o f t w a r e   V e r s i o n   2 . 1 1   o r   a b o v e

See Inside for
New Features
not in the
Pilot's Guide.

GARMIN®

This addendum is written for Main System Software version 2.11 or above, and is not suitable for earlier software versions. Software 2.11 supports the display interface for traffic and weather data as well as enhancements in the crossfill function and fuel planning pages.

This addendum describes the enhancements to crossfill and fuel management. This addendum is not intended to replace the documentation that is supplied with the applicable GARMIN 400 Series Unit or the fuel management system. For traffic and weather data information refer to 400 series pilot's guide addendum, Garmin P/N 190-00140-10.

The screen display examples shown in this addendum are taken from the GNS 430. Operation is the same for the GPS 400, GNC 420, and GNS 430.

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Crossfill

Crossfill allows the pilot to transfer the active flight plan, any stored flight plan, a user waypoint or all user waypoints between two 400 Series GARMIN units (GNS 430/GNC 420/GPS 400) in a dual-unit installation either automatically or manually.

Automatic Operation: If both units are set to automatic, a change in the active flight plan of one unit will also be seen in the other. Initiating a direct-to to a waypoint on one unit will also initiate a direct-to to the same waypoint on the other unit.

If one unit is set for automatic crossfill and the other is set for manual crossfill, then only the auto unit will automatically send data to the manual unit. In this configuration, the auto unit could be thought of as the master unit.

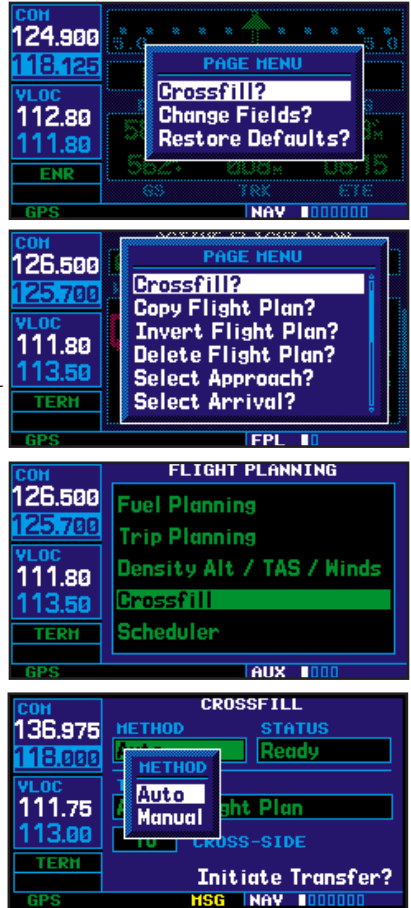### NOTE
When a unit is configured for automatic transfer, a manual transfer can also be done on command.

Manual Operation: If manual operation is desired, the pilot must invoke all transfers from that unit.

NOTE
If either of the messages "data transfer error" or "data transfer cancelled" are received during an automatic or manual transfer, the pilot must force another transfer.

Select *Crossfill?* from the Default Nav page or Flight Plan page by pressing the MENU key or while on the Flight Planning page by scrolling down to *Crossfill* and pressing ENT.

To transfer flight plans or user waypoints to/from a second 400-Series unit:

1. Select "Crossfill" from the flight planning page.

2. The flashing cursor highlights the transfer data option (TRANSFER) field. Rotate the small right knob (🔘) to display a window of available data options:

- **Active Flight Plan**—transfer the active flight plan or the active direct-to to/from a second 400 Series unit (GNS 430/GNC 420/GPS 400) in a dual unit installation. This option is the default when selecting "Crossfill" from the *flight planning page*.

- **Flight Plan**—transfer any stored flight plan to/from a second 400 Series unit, by selecting the flight plan by number. This option is the default when selecting "Crossfill" from the *flight plan catalog*.

- **User Waypoints (all)**—transfer all stored user waypoints to/from a second 400 Series unit.

- **User Waypoint**—transfer the specified user waypoint to a second 400 Series unit.

3. Continue rotating the small right knob (🔘) to select the desired data option. Press ENT when finished.

4. For a stored flight plan ("Flight Plan" data option), the flight plan number field is highlighted. Rotate the small right knob (🔘) to select the desired flight plan and press ENT .

5. For a specified user waypoint ("User Waypoint" data option), the waypoint identifier field is highlighted. Use the small (🔘) and large (⭕) right knobs to enter the identifier of the desired user waypoint. Press ENT when finished.

6. The flashing cursor moves to the "CROSS-SIDE" field. Rotate the small right knob (🔘) to select "To" or "From" and press ENT .

7. The flashing cursor moves to the "Initiate Transfer?" confirmation field. Press ENT to transfer the selected data.

Fuel Management

The GARMIN GPS 400, GNC 420, and GNS 430 provide the display interface for ARNAV and Shadin Fuel Management Systems.

The interface capability allows fuel flow information to be computed by the unit and to be shown on the GARMIN color display giving you the ability to quickly observe your aircraft fuel situation. Data fields are now configurable on the fuel planning page. The default fuel planning page settings are shown here.
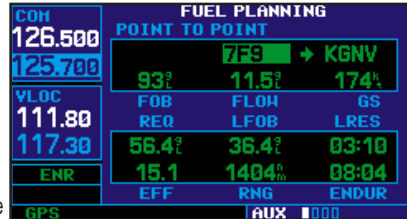

To perform fuel planning operations:

1. Select "Fuel Planning" from the flight planning page.

2. The current fuel planning "mode" is displayed at the top of the page: "POINT TO POINT" or "FPL" (for a flight plan). To change the mode, press MENU to display an options window for the other mode, then press ENT to accept the other mode.
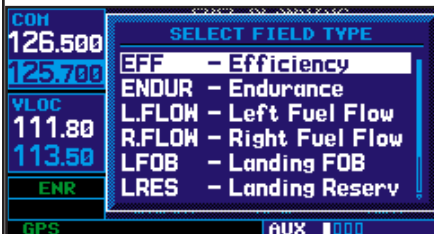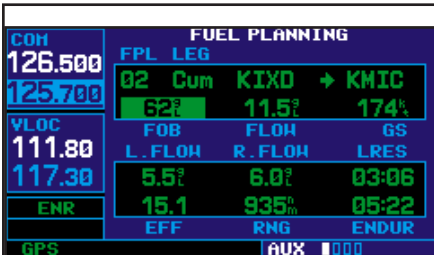
3a. For point-to-point fuel planning, rotate the small ( ) and large ( ) right knobs to enter the identifier of the "from" waypoint. Once the waypoint's identifier is entered, press ENT to accept the waypoint. The flashing cursor moves to the "to" waypoint. Again, rotate the small ( ) and large ( ) right knobs to enter the identifier of the "to" waypoint and press ENT to accept the waypoint. *OR,*

3b. For flight plan fuel planning, rotate the small right knob ( ) to select the desired flight plan by number (already stored in memory. 00 is the active flight plan.) Rotate the large right knob ( ) to highlight the "LEG" field and rotate the small right knob ( ) to select the desired leg of the flight plan, or select "Cum" to apply fuel planning calculations to the entire flight plan.
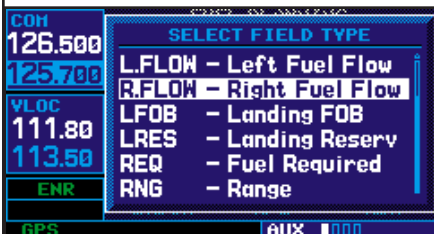
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4. If your fuel management system does not enter the data automatically, rotate the large right knob (⊚) to highlight the fuel on board (FOB) field.

5. Use the small (⊚) and large (⊚) right knobs to enter the amount of fuel on board. Press ENT when finished.

6. The flashing cursor moves to the fuel flow (FF) field. Use the small (⊚) and large (⊚) right knobs to enter the fuel flow rate. Press ENT when finished. Note that if a fuel system is providing current fuel flow, the fuel flow field will default to this value.

7. The flashing cursor moves to the ground speed (GS) field. Use the small (⊚) and large (⊚) right knobs to enter the ground speed. Press ENT when finished.

8. With all variables entered, the following information will be provided:

- REQ—   Quantity of fuel required
- LFOB—   Leftover fuel on board
- L.FLOW— Left engine fuel flow
- R.FLOW— Right engine fuel flow
- LRES—   Left-over fuel reserve time
- EFF—   Efficiency, expressed in distance per fuel units (e.g. nautical miles per gallon)
- RNG—   Range (distance)
- ENDUR—   Flight endurance, or total available flight time

Refer to the appropriate 400 series pilot guide Aux pages for additional information.

9. To reconfigure the data fields press MENU to display the options window. Rotate the small right knob (⊚) to highlight the "change fields?" option. Press ENT to reconfigure the data fields. Rotate the large right knob (⊚) to select the desired field. Rotate the small right knob (⊚) to highlight the desired data. Press ENT to seledct the data configuration.

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