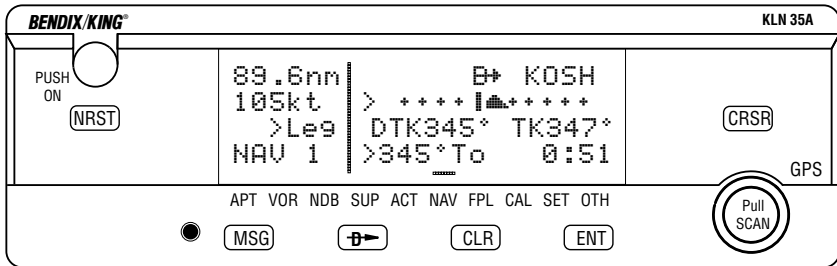


Global Positioning System

These simplified operating instructions are only to familiarize you with the KLN 35A. For detailed operating instructions, please refer to the KLN 35A Pilot's Guide P/N 006-08791-0000.



The two concentric knobs and **CRSR** button on the right are used to control the GPS functions of the KLN 35A. The right inner knob can be pulled out, but for now it should be pushed in.

When the cursor is off, the right outer knob changes the page type (APT to VOR to NDB, etc.) and the right inner knob changes the page number (APT 1 to APT 2). When the cursor is on, the right outer knob moves the cursor and the right inner knob changes the data under the cursor.

To change a cyclic field:

1. Turn on the cursor (by pressing the **CRSR** button) and place it over a cyclic field, which is always preceded by a carat (>).
2. Press the **CLR** button to change the cyclic field. One example is the NAV 1 page, which can display a D-bar (Figure 1) or numerical course deviation (Figure 2).

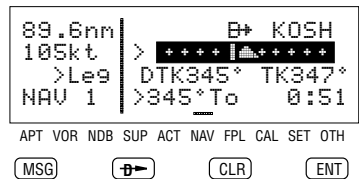


Figure 1

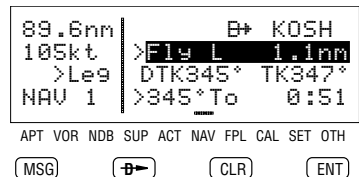







Figure 2




To display the Nearest Airport:

1. Press **NRST** then press **ENT**.
2. The waypoint page for the nearest airport will now be displayed on the screen. The right inner knob (in the "pulled out" position), may be used in the normal manner to scan the other nearest airports. With the right inner knob in the "in" position, you may view all four airport pages for a specific airport.


 To go Direct To a waypoint:

1. Press the  button. The Direct To (DIR) page will be displayed with a waypoint field.
2. Enter desired waypoint using right concentric knobs.
3. Press  to view waypoint information. Press  again to confirm. This initiates the Direct To—your D-bar will be centered, and you're on your way!
4. Alternatively, display desired waypoint on APT, VOR, NDB or SUP page, or move the cursor over desired waypoint in the active flight plan, then press , then press  to confirm.

To initialize the position from the SET 1 page:

1. Press the  button to bring the cursor on the page over the **INIT POS:** field.
2. Using the right inner and outer knobs, enter the identifier for the airport where you are presently located or the identifier of a navaid or other airport which is close to your present position.
3. Once you have entered the complete identifier, press . The display will change to the waypoint page for the waypoint you entered.
4. If this is the waypoint you intended to enter, press  again. The display will change back to the SET 1 page.

NOTE: As an alternative, you can also enter the approximate latitude and longitude of your present position directly on the SET 1 page instead of entering a waypoint.

5. With the right inner knob, position the cursor over **Ok?**, if it is not already there, and press .

NAV 4 (Moving Map) Page Tips

To change the map scale factor:

1. Press the **CRSR** button. The cursor comes up over the map scale in the lower left corner of the map display.
2. Use the right inner knob to change between scale factors (figure 3).
3. For terminal area operations select AUTO scale factor.

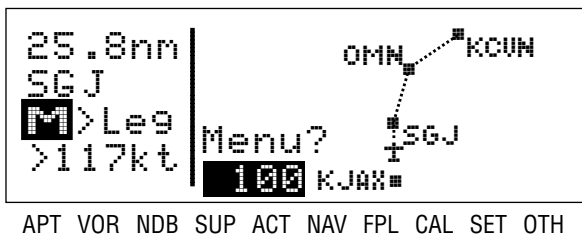


Figure 3

To change what information is displayed on the map:

1. Press the **CRSR** button, select **Menu?** and press the **ENT** button to bring up a pop-up menu (figure 4).

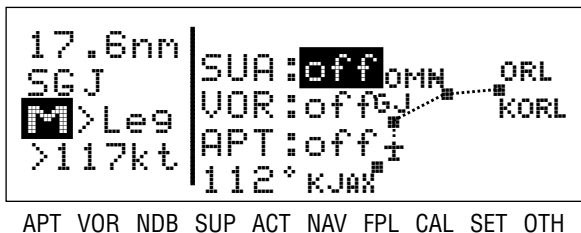


Figure 4

- Line 1: Display 5 nearest special use airspaces (SUAs), on or off
 - Line 2: Display 9 nearest VORs; on or off
 - Line 3: Display 9 nearest airports; on or off
 - Line 4: Map orientation; N↑=North up, DTK↑=Desired track up, TK↑ = Actual track up (when groundspeed > 2 kts)
2. Use the right outer knob to select the desired item, and the right inner knob to change the setting.

To change the navigation info displayed in the lower left corner:

1. Press the **CRSR** button.
2. Use the right outer knob to move the cursor to the cyclic field in the lower left corner.
3. Press **CLR** to change between the choices, which are:
 - Groundspeed (figure 5),

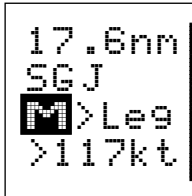


Figure 5

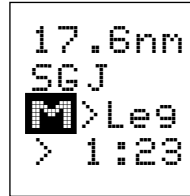


Figure 6

- Estimated Time En route (ETE) to the active waypoint (figure 6),
- Crosstrack correction (figure 7), or
- Magnetic Desired Track (DTK) (figure 8).

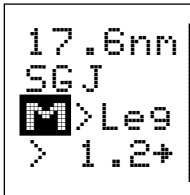


Figure 7

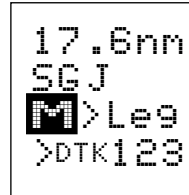
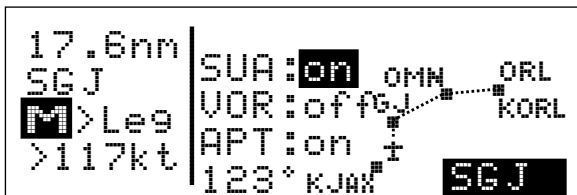


Figure 8

To scan through the active flight plan waypoints:

1. Pull out and turn the right inner knob (figure 9).
2. With desired waypoint displayed in scanning window, press **→** to go direct-to the selected waypoint.



APT VOR NDB SUP ACT NAV FPL CAL SET OTH

Figure 9

To create a Flight Plan:

1. Select the active Flight Plan (FPL 0) or one of the stored Flight Plans (FPL 1 through FPL 9) on the screen.
2. Delete existing waypoints from the Flight Plan as necessary by placing the cursor (**CRSR**) over the identifier, pressing **CLR**, and then pressing **ENT**.
3. If you wish to insert a waypoint identifier between two other waypoints, place the cursor (**CRSR**) over the waypoint you wish for the new waypoint to precede.
4. With the cursor on, enter the desired waypoint identifier and press **ENT**.
5. The waypoint page for the selected identifier will be displayed. If this is the waypoint you intended to enter, press **ENT** again.
6. Repeat the waypoint entry process as needed for your Flight Plan.

To use a stored Flight Plan:

1. Select the desired Flight Plan page (FPL 1 through FPL 9)
2. Press the **CRSR** button to turn on the cursor over **Use?**.
3. If you wish to use the Flight Plan in the order displayed, press **ENT**. If you wish to reverse the Flight Plan and use it, rotate the right outer knob one stop clockwise, putting the cursor over **Use? Inverted?** and press **ENT**. The FPL 0 page will be displayed with your selected Flight Plan.

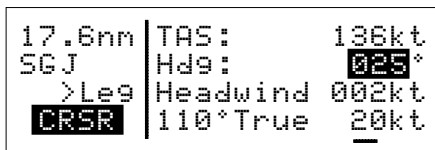
To create a user-defined waypoint at your present position:

1. Go to a Supplemental page (SUP 1, 2, or 3) and turn on the cursor (**CRSR**).
2. Spell out the name of your new user-defined waypoint on the top line, using the right outer and right inner knobs.
3. Move the cursor to the bottom line of the screen, over **Present Pos?** and press **ENT**.

To calculate the winds aloft:

1. Use the CAL 3 page to calculate the present pressure altitude.
2. Use the CAL 5 page to calculate the present true airspeed (TAS).

3. Turn to the CAL 6 page and enter the present aircraft heading. The headwind or tailwind component of the wind, and the wind vector (direction and speed) will be displayed on the last two lines of the CAL 6 page (figure 10).



APT VOR NDB SUP ACT NAV FPL CAL SET OTH

Figure 10

Finding your way around:

There are ten types of pages that may be displayed on the right side of the screen. Each has multiple page numbers:

Airport (APT) Pages

- 1 Airport identifier, elevation, name, city, state/province/country, use type (if military or private-use)
- 2 Latitude/longitude, bearing/radial and distance relative to present position
- 3 Runway numbers, length, surface, lighting
- 4 Airport communication frequencies
- 5 Airport remarks

VOR Pages

- 1 VOR identifier, frequency, name, latitude/longitude
- 2 Magnetic station declination, bearing/radial, distance relative to present position

NDB Pages

- 1 NDB identifier, frequency, name, latitude/longitude
- 2 Bearing/radial and distance relative to present position

Supplemental (SUP) Pages

- 0 Used to choose method of user-defined waypoint creation
- 1 Latitude/Longitude, bearing/radial and distance relative to present position
- 2 Reference waypoint (default is nearby VOR), radial and distance from reference
- 3 User-defined waypoint remarks

Active Waypoint (ACT) Pages

Waypoint pages for the active waypoint and the waypoints in FPL 0

Navigation (NAV) Pages

- 1 Active waypoint/leg, CDI/crosstrack distance, desired track, actual track, bearing, time to active waypoint
- 2 Present position (latitude/longitude or radial/distance)
- 3 Present time, departure time, ETA at destination, elapsed flight time
- 4 Moving map

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Flight Plan (FPL) Pages

- 0 Active flight plan
- 1-9 Stored (numbered) flight plans

Calculator (CAL) Pages

- 1 Trip calculations for distance, bearing, and ETE
- 2 Trip calculations for fuel requirements
- 3 Pressure altitude
- 4 Density altitude
- 5 True airspeed (TAS)
- 6 Winds aloft

Setup (SET) Pages

- 1 Position initialization for GPS receiver
- 2 Date, time, and time zone initialization
- 3 Data base update
- 4 Turn anticipation enable/disable
- 5 Default first waypoint character
- 6 Nearest airport criteria
- 7 SUA alert enable/disable
- 8 Baro set, indicated altitude, baro set units

Other (OTH) Pages

- 1 GPS receiver state, estimated position error
- 2 GPS satellite signal status
- 3 List of user-defined waypoints
- 4 List of airports and user-defined waypoints with stored remarks
- 5 Software versions, total hours of operation, total power cycles