

SUPPLEMENT A6
TO THE AIRPLANE FLIGHT MANUAL DA 40
GPS
KLN 94
VFR OPERATION
BENDIX/KING

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1. GENERAL

This Supplement supplies information necessary for the efficient operation of the
% airplane when the GPS KLN 94 in VFR configuration is installed. The information
contained within this Supplement is to be used in conjunction with the complete
Manual.

This Supplement is a permanent part of this Manual and must remain in this Manual
% as long as the GPS KLN 94 in VFR configuration is installed.

2. OPERATING LIMITATIONS

The KLN 94 GPS is limited to VFR use.

The following limitation placard is
installed in the pilot's view:

GPS limited to VFR use only

3. EMERGENCY PROCEDURES

No change.

4A. NORMAL OPERATING PROCEDURES

No change.

4B. ABNORMAL OPERATING PROCEDURES

No change.

5. PERFORMANCE

No change.

6. MASS AND BALANCE

Upon removal or installation of the GPS the change of empty mass and corresponding center of gravity of the airplane must be recorded according to Chapter 6 of the Airplane Flight Manual.

7. DESCRIPTION OF THE AIRPLANE AND ITS SYSTEMS

7.14 AVIONICS

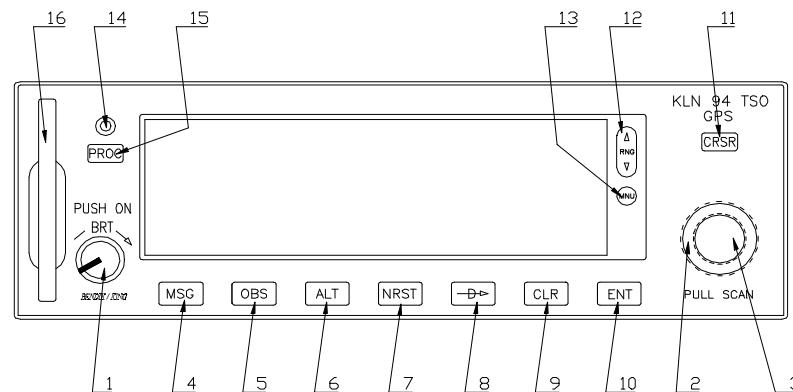
GENERAL

The KLN 94 GPS panel mounted unit contains the GPS sensor, the navigation computer, a color LCD display, and all controls required to operate the unit. It also houses the data base card which plugs directly into the front of the unit.

The data base card is an electronic memory containing information on airports (and airfields), nav aids, intersections, DPs, STARs, instrument approaches, special use airspace, land data (roads, bodies of water, cities, obstacles, railroad tracks), and other items of value to the pilot.

DATA BASE

Every 28 days, Bendix/King receives new aeronautical data base information from Jeppesen Sanderson. This information is processed and downloaded onto the data base cards. Bendix/King makes these data base card updates available to KLN 94 GPS users. Use the KLN 94 Database Update Service Order Form which is part of the KLN 94 Pilot's Guide to order the service.



1. On/Off/Brightness knob - Used to turn the unit on and off and adjust display brightness.
2. Right outer knob - When the cursor is off, used to select the page type (e.g., APT, NAV, FPL, etc.). When the cursor is on, used to move the cursor from one position to another on the display.
3. Right inner knob - When the cursor is off, used to select the specific page number for a page type (e.g., APT 1, APT 2, APT 3, etc.). When the cursor is on, used to select alphanumerics or other applicable data for the field the cursor is on.
4. Message button - Used to view messages.
5. OBS button - Used to select between LEG mode and OBS modes.
6. Altitude button - Used to select the two Altitude pages where baro settings are made and VNAV operation is set up.

7. Nearest button - Used to bring up a menu of nearest functions (Airports, VORs, NDBs, Intersections, etc.) that may be selected.
8. Direct To button - Used to initiate Direct To operation.
9. Clear button - Used to delete data from a data field. Also used to back up to a previous step in some instances such as selecting approaches/STARs/DPs
10. Enter button - Used to approve or acknowledge data.
11. Cursor button - Used to turn the cursor on and off.
12. Range button - Used to change the map scale if the map page (Nav 4) page is being displayed. Used to select the map page if it is not already on the map page.
13. Menu button - Used to display the map menu if the map page (Nav 4) page is being displayed. The map menu is used to initiate changing what is displayed on the map as well as select the map orientation. Used to select the map page if it is not already on the map page.
14. Data loader jack - Used when updating the Aeronautical database from a computer.
15. Procedure button - Used to initiate the loading of approaches, arrival procedures, and departure procedures. Also used to activate vector-to-final (VTF) for approaches when an approach with 'Vectors' has been loaded into the active flight plan.
16. Data card - Contains the KLN 94 database.

OPERATION**NOTE**

Detailed operating procedures are outlined in the KLN 94 GPS Pilot's Guide.

Turn on and initialize the KLN 94

1. Turn on the KLN 94 by pushing in the On/Off/Brightness knob. For the first few seconds a single color Power-On page is displayed at a fixed brightness. When the screen changes to full color, rotate the knob to adjust display brightness to the desired level. After an additional few seconds, the operational revision status (ORS) level number is displayed on the Power-On page. The ORS level displayed should match the ORS level indicated on the cover of the Pilot's Guide.

NOTE

If the temperature is very cold when the KLN 94 is turned on, a Warm Up screen is displayed after the Power-On screen. Line 4 will display the approximate time the Warm Up screen will be displayed prior to automatically changing to the Power-On screen. The **CLR** button may be pressed to bypass the Warm Up screen but the display may be extremely sluggish until it warms up.

When an extensive internal test is complete, the Power-On page will automatically be replaced by the Self Test page.

NOTE

If the KLN 94 is operating in the Take-Home Mode, the Take Home Warning Page is displayed first and must be acknowledged by pressing **ENT**.

2. Use the right inner knob to enter the current altimeter setting into the 'Baro' field and then press the **ENT** button.
3. If the KLN 94 has passed the internal self test, the bottom of the Self Test page will display **Pass**. If instead **Fail** is displayed, recycle power to the KLN 94. If the Self Test page still displays **Fail**, the KLN 94 requires repair.
4. Use the right outer knob to position the cursor over **Ok?** if it is not already there. When you are ready to approve the Self-test page, press the **ENT** button.
5. The next page displayed will be the Initialization page. Verify that the date displayed in the top left corner of the Initialization page is correct. If the date is incorrect, rotate the right outer knob counterclockwise until the cursor is over the entire date field. Rotate the right inner knob until the correct day of the month is displayed. Then, move the cursor to the month field by rotating the outer knob one click clockwise and change the month as necessary. Use the same methods to select the correct year. When the date is correct, press **ENT**.
6. Verify that the time displayed in the upper right corner of the Initialization page is correct to within ten minutes of the actual time. Once the KLN 94 receives the first satellite, it will automatically be very accurately updated by the satellite to the correct time.

However, you are responsible for assuring the desired time zone is selected on the KLN 94. If it is necessary to reset the time, position the cursor over the time zone field and select the desired time zone. Once you have selected the desired time zone, position the cursor over the entire time field and select the correct hour with the right inner knob. Now move the cursor to the tens of minutes position and select the desired value, and repeat this process for the last digit of the time field. When the correct time has been entered, press **ENT** to start the clock running.

7. To aid the GPS receiver in acquiring your position, it helps to have a reasonable idea of where you are, and the Initialization page is where you have the chance to set this initial position. Check to see if the displayed initial position is where you actually are.
8. When all information on the Initialization page is correct, move the cursor to **Ok?** using the right outer knob and press **ENT** to move on.
9. The GPS is for VFR use only, the VFR page will be displayed to notify you of this. Press **ENT** to acknowledge this information.
10. The Database page will now be displayed with the cursor over **Acknowledge?**. Line 1 indicates whether an Americans, Atlantic International, or Pacific International database is being used. If the aeronautical database (airports, nav aids, etc.) is current, line 2 will show the date when the aeronautical database expires. If the aeronautical database is out of date, line 2 shows the date that it expired. The KLN 94 will still function with an out-of-date aeronautical database; however, you must exercise extreme caution and always verify that the database information is correct before using information from an out-of-date aeronautical database. Line 4 displays the date that the land database (roads, rivers, etc.) was created.

The land database has no expiration date and new data is available approximately once a year. Press **ENT** to acknowledge the information on the Database page.

MESSAGE PAGE

Whenever the KLN 94 wants to get your attention, the message prompt (a large yellow "M" on the right side of the screen) begins flashing. You should view the message at your earliest opportunity because the unit may be alerting you to some situation of immediate concern to its condition or to your flight. A description of each possible message is included in Appendix B of the GPS KLN 94 Pilot's Guide.

To view a message:

1. Press the **MSG** button. The MSG page will appear and show the new message.

NOTE

It is possible that several messages are displayed at one time on the Message page. The newest message appears first and then the rest in reverse chronological order.

2. After reading the message, press **MSG** again to return to the page previously in view. If all of the messages cannot be displayed on one Message page, repeated presses of **MSG** will show the other messages before returning to normal operation. If a message condition exists which requires a specific action by the pilot, the message prompt will remain on but will not flash.

SCRATCHPAD MESSAGES

The lower left corner of the display can also display short operational messages to the user called 'scratchpad messages'. These messages are displayed for approximately five seconds, then this area returns to a display of the page type and number. A complete listing of scratchpad messages is available in Appendix C of the GPS KLN 94 Pilot's Guide.

NEAREST FUNCTIONS



At any time, you can have access to the nearest airports (or airfields), waypoints, Special Use Airspace (SUA), Flight Service Station (FSS) frequencies, and Center frequencies to your position. The 'nearest' function is activated by pressing the **NRST** button. When you first press the **NRST** button, a page is displayed asking which nearest function you would like to select.



The choices are:

APT	Airports (or airfields)
VOR	VOR's
NDB	NDB's
INT	Intersections
USR	User-defined waypoints
SUA	Special Use Airspace
FSS	Flight Service Station Frequencies
CTR	Center Frequencies


To select the desired nearest function, use the right inner knob to move the cursor to the desired selection and press **ENT**. Notice that the cursor is initially over APT field, so you may press **NRST** then press **ENT** immediately to access the nearest airports (or airfields).

DIRECT TO OPERATION

The  button is used to initiate Direct To operation (navigation from your present position direct to your destination). When  is pressed, the Direct To page will be displayed with a flashing cursor over a waypoint identifier. The waypoint identifier which appears on the Direct To page is chosen by the KLN 94 according to the following rules:

1. If the Flight Plan 0 (FPL 0) page is displayed on the screen and the cursor is over one of the waypoint identifiers in FPL 0 when  is pressed, then that waypoint identifier will appear on the DIR page.
2. If the KLN 94 is displaying the NAV 4 page and the right inner knob is in the 'out' position, then the waypoint highlighted in the lower right hand corner of the NAV 4 map display will be the default waypoint.
3. If there is any waypoint page (APT, VOR, NDB, INT, USR, or ACT page) in view when  is pressed, then the DIR page will contain the identifier for the waypoint just viewed.




If none of the conditions above are occurring, then:

4. When  is pressed, the waypoint identifier for the current active waypoint will be displayed.

If there is no active waypoint when  is pressed, then:

5. The Direct To page displays blanks in the waypoint identifier field. In order for there not to be an active waypoint, there is no Direct To waypoint and there are no waypoints in Flight Plan 0.

FLY DIRECT TO A WAYPOINT

1. Press . The Direct To page is displayed. The cursor will already be on. A waypoint identifier may or may not be displayed, it does not matter at this point.
2. Rotate the right inner knob to select the first character of the desired waypoint's identifier.
3. Turn the right outer knob one click clockwise to move the flashing portion of the cursor over the second character position.
4. Rotate the right inner knob to select the second character of the identifier.
5. Use the right outer and inner knobs as in the previous steps until the desired identifier is completely displayed.
6. Press  to display the waypoint page for the selected waypoint.
7. Press  again to approve the displayed waypoint page. The screen will change to the NAV 1 page, and the selected waypoint will now be the active Direct To waypoint.

8. AIRPLANE HANDLING, CARE AND MAINTENANCE

No change.