

KLN 94

Matching the Bendix/King Silver Crown and Silver Crown Plus avionics, the new TSO'd KLN 94 Navigation System features a pilot-friendly, color, five-line display and moving map graphics, enhancing its ability to perform IFR-certified GPS approaches.



Mapping The World In Flying Colors

An affordable new development in the evolution of panel-mounted avionics, the compact new Bendix/King KLN 94 color GPS navigator/moving map display brings color—and a host of enhanced capabilities—to your cockpit. Incorporating aeronautical and cartographic map data, the KLN 94 simplifies everything from tuning your radios to shooting approaches.

As a result, the new KLN 94 also reduces workload for IFR pilots while providing a higher level of situational awareness. Designed to save on installation costs—it fits in the same panel space as most popular current GPS and Loran receivers—the mark-width KLN 94 lets you upgrade to color while maintaining your panel's integrity and consistency. It's even a direct plug-in replacement for our popular KLN 89B.

But that's just the beginning of how much value and performance we've packed into the new KLN 94.

Living Color

Perhaps the first thing that draws you to the KLN 94 is its bright, colorful screen. Highly readable—even in direct sunlight—its big liquid crystal display gives your cockpit an immediate upgrade.

But all this beauty isn't only for show. By incorporating a color display, the KLN 94 helps identify and organize the information you need, conveying it in a way that speeds your recognition of critical navigation data and reduces fatigue.

And by enabling you to concentrate more fully on each task, the KLN 94's color presentation enhances safety by allowing you to spend more time looking outside the cockpit and less time looking down at the screen.

For many pilots, the most common means of becoming established on

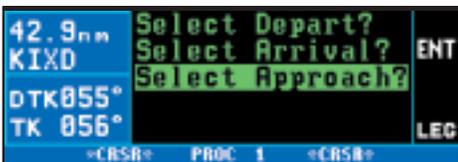
an instrument approach is via radar vectors received from Air

Traffic Control. Here's how the

KLN 94's Procedure button (PROC)

is used to load an approach using

radar vectors:



1. An initial press of the "PROC" button displays a menu. This allows you to select a departure, arrival, or approach.



2. When "Approach" is chosen from the menu, the KLN 94 displays a list of airports in the active flight plan, along with other airports having approaches that are close to the aircraft's current position.



4. When radar vectors are to be provided by ATC, choose "Vectors" in place of a published initial approach fix to intercept the inbound course to the final approach fix. This loads approach waypoints into the active flight plan, beginning with the final approach fix (FAF).



3. Approaches for the selected airport are then displayed. Approaches approved for GPS are designated with a GPS identifier. Alternate approaches are included to help monitor situational awareness while other navigation equipment provides actual navigational guidance.



5. When the controller begins providing vectors, press the "PROC" button to display the FAF (JIKLA) and its course (354°). Press the "ENT" button, and the KLN 94 activates vectors and makes JIKLA the active waypoint and 354° (the course to it.) That's all there is to it!

Picture Yourself On A Map ...

While panel-mounted GPS with integral NAV mapping isn't a new idea—we pioneered the concept in 1992 with our KLN 90—the KLN 94 takes this useful capability to new heights. Featuring a comprehensive list of Jeppesen® aeronautical information, the KLN 94 also gives you a full complement of cartographic map data.

This means that, in addition to airports, VORs, NDBs, intersections, special-use airspace and the like, you can view such land-based reference points as rivers, roads, lakes, cities, railroad tracks, boundaries and towers. You can also display terminal and approach holding patterns and procedure turns to provide you with an unprecedented amount of awareness as to your aircraft's position—and trend—in relation to its surroundings.

Thus, with the KLN 94's capability to overlay your course with a wide range of selected aeronautical and cartographic information, you get the greatest degree of situational awareness ever available to general aviation operators.

And the KLN 94 makes all this power easy to access and use, too. Its streamlined operating system, complemented by

dedicated buttons for range and map menus, make changing pages and initiating procedures a simply intuitive experience.

Smooth Operator

The KLN 94 also offers a number of features aimed at reducing pilot workload. For example, there's a dedicated 'Procedure' button which makes it easier to load approach, departure (DP) and arrival (STAR) procedures.

The 'Procedure' button also supports a 'Vector to Final' feature which permits activation of your final approach fix (and its associated inbound course) without switching between 'OBS' and 'Leg' modes. (See the illustration above for further details.)

The KLN 94 also supports our handy QuickTune™ function, which streamlines the entry of communication and navigation frequencies in your aircraft's KX 155A or KX 165A NAV/COMM. Providing a 'scroll and select' menu, QuickTune lets you load these frequencies into the standby position of your KX 155A or KX 165A—saving both time and effort.

In addition, the KLN 94 offers three types of trip planning

to help you check the distance, bearing, fuel requirements and estimated time en route: (1) Between any two waypoints; (2) Between your aircraft's present position and any other waypoint; and (3) For any of the pilot-programmable flight plans.

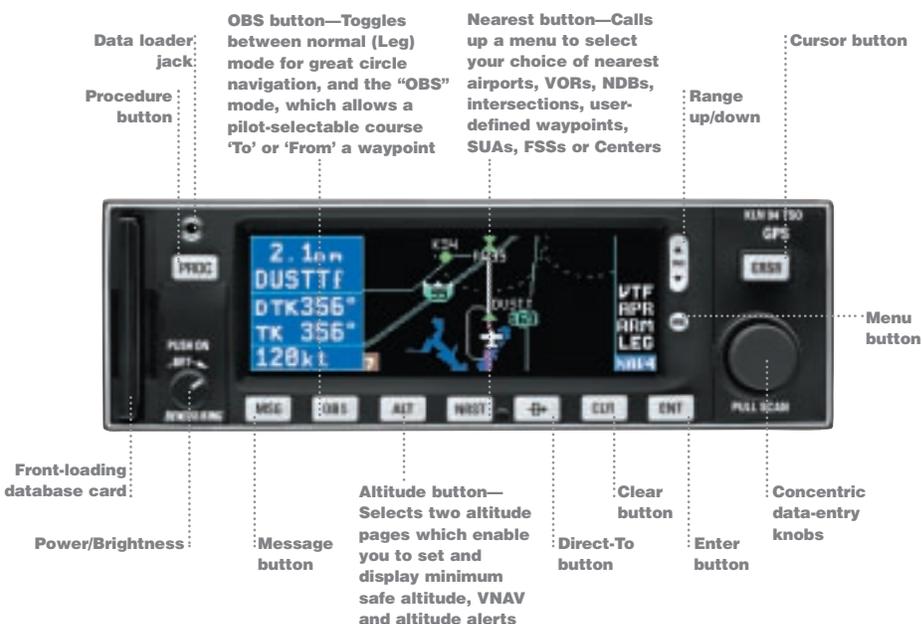
Other useful functions include the KLN 94's built-in flight calculator, which handles a number of useful manual input computations, including true airspeed, pressure altitude, density altitude, actual winds aloft (including headwind and tailwind components), an alarm timer and sunrise/sunset times for any day and location you select.

The high-resolution display (240 pixels wide by 80 pixels high) presents up to five lines of large, easy-to-read text characters at a time. And thoughtful touches, such as a full-time simultaneous display of desired track (DTK) and actual track (TK), confirm that the KLN 94 is another in our long line of panel-mounted systems designed by pilots, for pilots.

A Better Approach: The KLN 94 Database

In addition to its cartographic data, the system offers a choice of three database options (utilizing Jeppesen® NavData information) which cover the Americas, Atlantic and Pacific regions. Database elements now include ILS, LOC, SDF and LDA approach frequencies. Also included are the DME locations associated with LOC-type approaches, allowing the KLN 94 to be used in lieu of a DME on most U.S. LOC/DME-type approaches. Terminal NDBs are included too, enabling the unit to provide guidance to U.S. NDBs, which serve as IAFs and missed approach holding fixes on non-GPS approaches.

Also handy is a dedicated 'Nearest' button, which provides quick access to the 20 nearest airports, VORs, NDBs, intersections and user waypoints, as well as the 10 nearest SUAs, two nearest points of communication with FSSs, and the nearest center (ARTCC/FIR). Each database also includes



Feature Summary

- Color IFR GPS (TSO C129a A1), with capability for en route, terminal and non-precision approaches
- Compact size (2" H x 6.31" W x 10.80" D)
- QuickTune™ feature loads frequencies into KX 155A and KX 165A NAV/COMMs
- Powerful cartographic database includes rivers, roads, lakes, cities, railroad tracks, boundaries and towers
- Comprehensive aeronautical database includes airports, VORs, NDBs, intersections and special-use airspace
- Automatic "Vector to Final" approach capability
- Dedicated "Range" and "Map Menu" buttons facilitate map access and reduce page changes
- Dedicated "Procedures" button simplifies loading of approaches and arrival/departure procedures
- Self-contained MSG, WPT and GPS APPR/GPS ARM annunciators reduce installation cost in many installations
- Includes ILS, localizer and other non-GPS approved approaches for greater situational awareness
- Depicts holding patterns and procedure turns associated with most instrument approach procedures
- Includes built-in front panel data loader jack for convenient database updates
- Offers capability for full-time display of desired track (DTK) and actual track (TK)
- Five lines of big, easy-to-read characters helps reduce page turning
- Incorporates most terminal NDBs and most DMEs associated with ILS/LOC, eliminating the need for separate DME and ADF units in most U.S. approach operations

room for up to 500 user-defined waypoints.

Here's a list of what the KLN 94's database includes:

- Airport data—Includes identifier, name, city/state/county, time relative to UTC, radar environment indicator, runway length/surface/lighting, instrument approach availability and types of fuel
- Communication and navigation frequencies—Includes ATIS, clearance, ground control, tower, CTAF, unicom, multicom, approach, departure, AWOS, ASOS, AAS, ARTCC/FIR, FSS, Class B, Class C, arrival, CTA, TMA, director, radar, AFIS, ATE, ME, pilot-controlled lighting and ILS/LOC frequencies
- Non-precision GPS approaches
- Other precision and non-precision approaches (monitoring capability)
- Departure Procedures (DPs) and Standard Terminal Arrival Routes (STARs)
- Capability to automatically load selected LOC-type approach frequencies into the Bendix/King KX 155A/165A
- VOR and NDB information
- Intersection information—Includes data about low altitude, high altitude, approach and DP/STAR intersections with outer markers
- Minimum Safe Altitudes (MSA)
- Special-Use Airspace (SUA)—Includes boundaries for Class B, Class C, CTA, TMA, prohibited, restricted, warning, alert, caution, danger, training and Military Operations Areas (MOA)

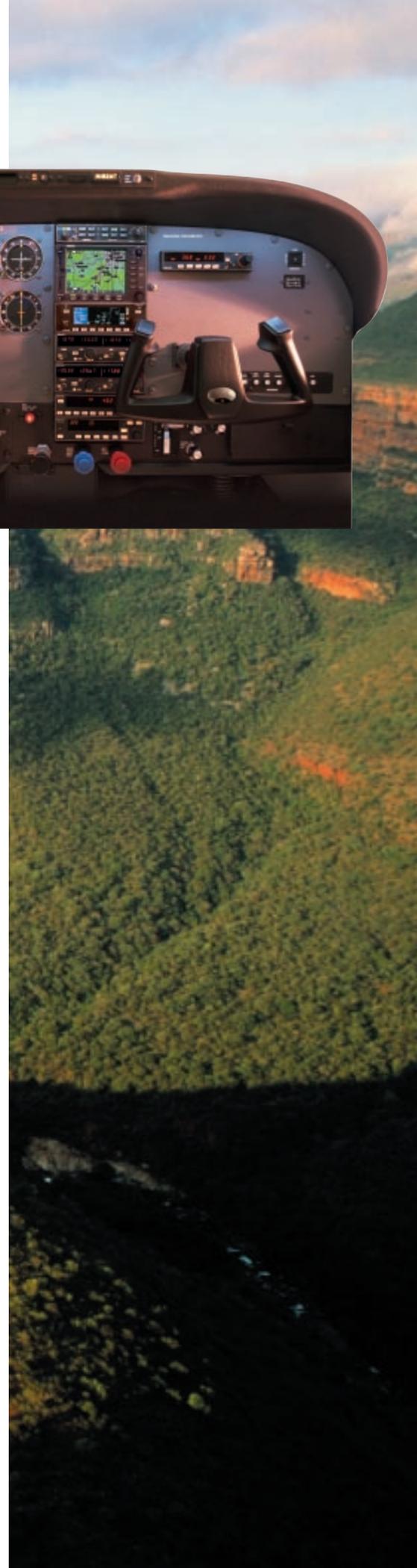
For convenience, your KLN 94's navigation database can be kept current in several ways. Updates can be performed by exchanging the front-mounted data card; or by connecting the unit to a compatible personal computer and updating with a 3.5-inch floppy diskette; or by using a personal computer and an internet connection. 'Rivers and roads' cartographic data is updated via the front-mounted data card.

Installing The KLN 94: A Perfect Fit

Packing an incredible amount of performance into its standard, mark-width size, the KLN 94 is the ideal upgrade for many panels. Requiring just two inches of vertical space, the KLN 94 can replace other Loran or GPS units—including our popular KLN 89B—with a minimal amount of installation time and cost.

And the compact, modular KLN 94 provides even greater capability when matched with our other avionics systems. For example, as part of a stack with dual Bendix/King KX 155A or KX 165A NAV/COMMs, our KMA 28 audio panel and a KT 76C transponder, the KLN 94 provides a complete basic IFR capability.

Add our new KMD 550 and KMD 850 color multifunction display systems, and you have virtually unlimited IFR situational awareness, along with the ability to show traffic, terrain, lightning and weather information. For an even more cost-effective display enhancement, the KLN 94 can be complemented by our affordable KMD 150 multifunction display.



The Best Systems, The Best Support

Like our other panel-mounted avionics, the KLN 94 is backed by our comprehensive Bendix/King two-year “no hassle” warranty. And this premier system is supported by more than 800 authorized service centers worldwide—the most extensive and capable such network in general aviation.

KLN 94 Specifications

Receiver Dimensions

Width: 6.31 in. (16.03 cm)
Height: 2.00 in (5.08 cm)
Length: 10.80 in. (27.43 cm)
Weight (with mounting rack): 3.60 lbs. (1.63 kg)

Receiver Operational Characteristics

Temperature Range: -20 C. to +55 C.
Altitude Range: Up to 35,000 ft.
Power Inputs: 11 to 33 VDC at 3.0 A Max.
13.75 VDC @ 2.5 A Nominal
27.5 VDC @ 1.25 A Nominal

TSO: C129a Class A1 (en route, terminal, approach)

Environmental Qualifications: DO 160D [(A1)(F1)V]BAB[SBM]XXXXXXZ[BZ]A[BZ]A[RRR]M[A3E3]1BXA

Note: Vibration was also tested to DO 160C vibration categories Y and N.

Computer Requirements For Database Updates: Most IBM®-compatible personal computers containing a 3.5-in floppy disk drive reading 1.44 megabyte diskettes and having an RS-232 serial port. Updates over the Internet require Windows® 95 (or later) or Windows NT 3.51 (or later). Internet updates are available at <http://www.gpsdatabase.com>.



KA 92 Antenna

Width: 2.70 in. (6.86 cm)
Height: 0.70 in. (1.78 cm)
Length: 4.30 in. (10.92 cm)
Weight: 0.30 lbs. (0.14 kg)
Airspeed Rating: 600 kts TAS
Environmental Qualifications: DO 160C [A2F2]-AC[CLMY]XRFXXSZ[AB][AB][ABZ]ARA[XXE3]1BC



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Policy Notice: Avionics installations require special skills, tools and test equipment. Our limited warranty is valid only for equipment installed in accordance with our sales and service policies. In keeping with our policy of continual product improvement, designs and specifications may be altered without notice.

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KLN 94

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Color IFR

GPS Receiver

