KX155 and KX165

Bendix/King TSO'DNAV/COMM Systems

It always pays to plan ahead. And with the Bendix/King KX 155 and KX 165 NAV/COMMs, "stay ahead" frequency pre-planning is push button simple.

Both NAV and COMM frequency displays on these units incorporate the popular "flip-flop" preselect feature. So, you can set up en route or approach frequency changeovers well in advance of your actual transition point or ATC handoff sequence for true "stay ahead" flight management.

Just select your upcoming NAV or COMM frequency in the "standby" (STBY) display, and you're all set to "flip-flop" it into "active" status at the press of a button. This function may also be controlled from an optional remote mounted switch.

Both "active" and "standby" frequencies are displayed simultaneously, so you never have to worry about what's being stored. And there's no chance of inadvertently erasing a frequency just when you need it most.

An innovative non-volatile memory circuit holds all the displayed frequencies in storage—through aircraft shutdowns or momentary power interruptions—without the need for battery power of any kind.

Large, self-dimming, microprocessor-controlled gas discharge readouts and solid-state electronic tuning provide fast, accurate selection of all 200 NAV and 760 COMM frequencies— and both the KX 155 and KX 165 feature a built-in 40-channel glideslope receiver. (As an option, they're also available without the glideslope.)

On the COMM side, both the KX 155 and KX 165 systems give you 10 watts minimum transmitter power for maximum range and clarity.

And on the NAV side, the KX 165's useful "Radial" feature offers you an instant readout of the radial you're on (from the "active" VORTAC station), digitally displayed in the "standby" NAV frequency window. This Radial readout doesn't interfere with either your "active" or "standby" NAV frequencies. (However, the NAV "standby" frequency does go into nondisplayed storage, and the "active" frequency then becomes linked for direct tuning through the frequency selector knobs.) Thus, with both "active" and "standby" frequencies continuously available, it's easy to perform a quick crossfix check by simply pressing the "flip-flop" button and noting the displayed radial from each of the two selected VORTACs.

The lower-cost KX 155 system is virtually identical in appearance to the KX 165; however, it doesn't include the digital Radial readout feature. Also, the KX 155 requires an external VOR/LOC converter (usually included In the appropriate Bendix/King NAV indicator) while the KX 165 comes with a built-in VOR/LOC converter designed to interface directly with any ARINC standard CDI or HSI display.

Each of these NAV/COMM units weighs less than 6 lbs. and stands just over 2 inches high in your Silver Crown stack—making them the smallest, most space-efficient TSO'd NAV/COMM packages you can buy anywhere. Both are available in either 14 or 28 volt DC configurations for easy installation in any aircraft.

Specifications

TSO COMPLIANCE:
COMM Transmit:
C37b (DO-157, Class 4)
COMM Receiver:
C38b (DO-156, Class C and D), C38b (DO-156, Class A), 50 kHz Selectivity

NAV Receiver:
C40a (DO-153, Cat A and B), C36c (DO-131, Class D)

ENVIRONMENTAL CATEGORIES:
DO-160, A1D1/A/KPS/XXXXXXZBAAA

PHYSICAL DIMENSIONS:
Width: 6.25 inches (15.88 cm),
Height: 2.05 inches (5.21 cm),
Depth: 10.16 inches (25.81 cm) including connector

WEIGHT:
KX 165 with GS–5.65 lbs. (2.56 kg), KX 165 without GS – 5.10 lbs.,
KX 165 without GS – (2.31 kg), KX 155 with GS–5.30 lbs. (2.40 kg),
KX 155 without GS – 4.75 lbs., KX 155 without GS – (2.15 kg),
KX 155 with Audio Amp. without, GS – 4.95 lbs. (2.24 kg),
KX 155 with GS and Audio Amp. 5.5 lbs. (2.49 kg)

POWER REQUIREMENTS:
KX 165 (27.5VDC) Receive – .4 A.Transmit – 6.0 A,
KX 165 (13.75VDC) Receive – .7 A. Transmit – 8.5 A,
KX 155 (27.5VDC) Receive – .4 A. Transmit – 6.0 A,
KX 155 (13.75VDC) Receive – .7 A. Transmit – 8.5 A

FREQUENCY RANGE:
118.000 MHz to 136.975 MHz in
25 kHz increments

FREQUENCY STABILITY:
±0.0015% COMM TRANSMITTER

POWER OUTPUT:
KX 115/165 – 10 watts minimum

SIDETONE OUTPUT:
Adjustable up to 100mW into
500 ohms headphones.

MICROPHONE:
Standard carbon or dynamic mike containing transistorized pre-amp. (Must provide 100mV RMS into 100 ohm load.)

COMM RECEIVER RECEIVER SENSITIVITY:
2μV (hard) or less (typically 1μV) for
6dB (S + N)/N with 1,000 Hz tone modulated 30%
RECEIVER SELECTIVITY
KX 155/165 25 kHz SEL:
6dB bandwidth ± 8.1 kHz
60dB bandwidth ± 20.0 kHz
KX 155/165 50 kHz SEL:
6dB bandwidth ± 14.5 kHz
60dB bandwidth ± 43 kHz

RECEIVER AUDIO OUTPUT:
100mW into 500 ohms minimum
Audio leveling circuit attacks at less than 15% modulation.

SQUELCH:
Automatic squelch with manual override.

RECEIVER FREQUENCY RANGE:
108.00 MHz to 117.95 MHz in 50 kHz increments
FREQUENCY STABILITY:
0.0015%
VOR/LOC SENSITIVITY:
1/2 flag sensitivity 2μV (hard) or less (typically 1μV) on all channels

ACCURACY (KX 165 only):
VOR – Typical bearing error of less than 0.5° with precision track selector (2° max. error) LOC – Typical centering error of less than 3μA (7μA max. error).

RECEIVER SELECTIVITY:
6dB at 34.8 kHz minimum
80dB at 84.0 kHz maximum

AUDIO OUTPUT:
With a 1 kHz tone 30% modulation at least 100mW output into 500 ohm loads.

NUMBER OF CHANNELS
40 (150 kHz spacing)

FREQUENCY RANGE
329.15 MHz to 335.00 MHz

AUDIO AMP
(Optional on KX155, N/A on KX165)
4 OHM OUTPUT:
4 watts minimum (13.75VDC)
8 watts minimum (27.5VDC)
INPUTS:
Two (2) 500 ohm auxiliary inputs