Specifications

TECHNICAL CHARACTERISTICS:

COMMUNICATION SECTION

Frequency Range: 108.00 MHz to 137.975 MHz to 20 kHz increments

Frequency Stability: ±0.0015%

COMM TRANSMITTER

Power Output: KX 115/165 – 10 watts minimum

Sidetone Output: Adjusted up to 100mW into 500 ohm 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

Audio Output: 100mW into 500 ohm minimum

Squelch: Automatic squelch with manual override.

NAVIGATION SECTION

NAV 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

VOR/LOC Converter

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

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

DME CHANNELING: Serial DME channeling provided for KN 62/62A, KN 63, KN 64, KDM 706/706A DMEs. Slip code and 2x5 DME channeling available using KA 120 channeling adapter.

GLIDESLOPE RECEIVER

Number of Channels: 40 (150 kHz spacing)

Frequency Range: 329.15 MHz to 335.00 MHz

Audio Amp

4 OHM OUTPUT: 4 watts minimum (13.77VAC)

6 watts minimum (7.75VAC)

INPUTS: Two (2) 500 ohm auxiliary inputs.
Innovative "flip-flop" digital displays bring you push button frequency preselection for both NAV and COMM.

As you can see, this feature makes it easy installation in any aircraft. Each of these NAV/COMM units is both the number one and number two NAV/COMM in this configuration. Long-range navigation is provided by the KX 155 VHF NAV/COMM and a KFC 150 Flight Director/Autopilot makes this the most complete avionics package available from one manufacturer.

On the KX 165 model, a digital readout of the radial you're on (from the "active" VOR station) is displayed in the "standby" NAV frequency window whenever the smaller NAV frequency selector knob is pulled out.

Just select your upcoming NAV transfer button COMM frequency or COMM frequencyCOMM frequency and you're all set to 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.

This package features dual KX 155s as the numbers one and two NAV/COMM, with DME channeling for the KN 62A DME receiver. GPS information comes from the KLN 89B GPS receiver. A complete package for the sophisticated panel.

The KX 165 is both the number one and number two NAV/COMM in this configuration. Long-range navigation is provided by the KX 155 VHF NAV/COMM and a KFC 150 Flight Director/Autopilot makes this the most complete avionics package available from one manufacturer.

A complete package for the sophisticated panel. Easy installation in any aircraft.

Each of these NAV/COMM units incorporates 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.

The KX 165 model has a digital readout of the radial you're on (from the "active" VOR station) displayed in the "standby" NAV frequency window whenever the smaller NAV frequency selector knob is pulled out.

This feature makes it easy to select your upcoming NAV transfer button COMM frequency or COMM frequencyCOMM frequency. Just press the transfer button and note the displayed radial from each of the two selected VORTACs. Use these features to check your current position and set up future en route or approach frequencies.

The KX 165 model also has a push-button automatic squelch for audio test, or to aid in receiving a distant station, simply pull the volume control knob out and rotate to the desired listening level. Push the knob back in to activate the automatic squelch.
Innovative “flip-flop” digital displays bring you push button frequency preselection for both NAV and COMM.

It always pays to plan ahead. And with the Beechcraft/KX 155 and KX 165, frequency pre-planning is as simple as pressing a button. This function may “flip-flop” it into “active” status at the touch of the “active” (USE) and “standby” (STBY) frequencies during power shutdown. So, when turned on, the “USE” and “STBY” windows will display the same frequencies that were selected before shutdown.

Both NAV and COMM frequency displays on these units incorporate the popular “flip-flop” preselect feature. So, you can set up route or approach frequency changes well in advance of your actual transition or engine start-up. And select your upcoming NAV or COMM frequency by pulling the concentric NAV frequency selector knob either clockwise or counterclock-wise, the desired operating frequency can be selected from any displayed frequency number, while a counterclockwise rotation will decrease it. The outer, larger selector knob is used to select the desired frequency just when you need it.

An innovative non-volatile memory circuit stores all the displayed frequencies in storage—through aircraft shutdowns or momentary power interruptions—without the need for battery power or any kind of automatic dimming of all readouts. Photocell (remote mounted switch) is being depressed when lighted “T” indicates mike button for automatic squelch for audio test, or to aid in receiving a distant station, simply pull the volume control knob out and rotate to the desired listening level. Push the knob back in to activate the automatic squelch.

An innovative non-volatile memory circuit stores all the displayed frequencies in storage—through aircraft shutdowns or momentary power interruptions—without the need for battery power or any kind of automatic dimming of all readouts. Photocell (remote mounted switch) is being depressed when lighted “T” indicates mike button for automatic dimming of all readouts.

By rotating the concentric COMM frequency selector knob either clockwise or counterclock-wise, the desired operating frequency can be selected from any displayed frequency number, while a counterclockwise rotation will decrease it. The outer, larger selector knob is used to select the desired frequency just when you need it.

On the KX 155 model, a digital readout of the radio’s receiver select frequency is displayed in the designated “USE” and “STBY” frequencies during power shutdown. So, when turned on, the “USE” and “STBY” windows will display the same frequencies that were selected before shutdown.

The lower-cost KX 155 system is virtually identical in appearance to the KX 165, however, (it) includes only the NAV receivers. The KX 155 requires an internal VOR/LOC converter (KLN 89B) and steady-state DME (KLN 899A) and includes a built-in VOR/LOC converter designed to interface directly with an ARINC standard CSE or HS101 display. Each of these NAV/COMM radio units weighs less than 2 pounds and is available in 12 volt or 14 or 28 volt DC configurations for easy installation in any aircraft.

14 or 28 volt DC configurations for easy installation in any aircraft.

An innovative non-volatile memory circuit stores all the displayed frequencies in storage—through aircraft shutdowns or momentary power interruptions—without the need for battery power or any kind of automatic dimming of all readouts. Photocell (remote mounted switch) is being depressed when lighted “T” indicates mike button for automatic dimming of all readouts.

The NAV “IDENT” knob is activated by pulling it outward, so that both voice and ident can be heard. When this knob is pushed in, the ident tone is muted. Volume of voice/ident can be adjusted by turning this knob—clockwise to increase, counterclockwise to decrease.

If you ever have to worry about what’s being selected, there’s a built-in check feature to verify the selected frequency. Simply depress the frequency “flip-flop” button, and the frequency selected on the “T” indicator will change to match the displayed frequency on the unit. Press the button again, and the frequency will flip-flop back to its original state.

“Flip-flop” it’s an “active” status of the NAV frequency operation is displayed simultaneously by a strobe light while both the “USE” and “STBY” windows are flashing—yet another feature to ensure you are always working with the correct frequency.

The NAV/COMM package is available without the glideslope. (As an option, they’re also available in kits for easy installation in any aircraft.)

As you can see, this feature makes it easy to operate the KX 155 and KX 165 VHF NAV/COMM.

See how the KX 155 and KX 165 can help build more capability into your new Silver Crown panel.
Innovative "flip-flop" digital displays bring you push button frequency preselection for both NAV and COMM.

The lower-cost KX 155 system is virtually identical in operation to the KX 165 (however, it doesn't include the "flip-flop" feature). The KX 155 requires an internal VOR/LOC converter (similar to the KI 208A VOR/LOC converter) and the KX 165 uses a built-in VOR/LOC converter designed to interface directly with any ARINC standard CSE or HSI display. Either of these KX/COM systems may be used in either of the two selected VORTACs.

TWO D NAV Indicators for use with the KX 155 and KX 165:

On the KX 155 model, digital readout of the "active" (USE) and "standby" (STBY) frequencies during power shutdown is possible to display two COMM frequencies— one each in the "USE" and "STBY" displays—and then switch back and forth between them just by pressing the transfer button. An additional transfer button may also be remotely mounted in the aircraft.

As you can see, this feature makes it possible to display two COMM frequencies at the same time in the "active" and "standby" modes. The KX 155 and KX 165 VHF NAV/COMMs are teamed with the KR 87 and KT 76A transponder to provide a basic IFR package in a minimum of panel space. Add the KN 64 panel-mounted transponder, and our KT 76C serves as the DME receiver, and our KLN 89B GPS serves as the GPS receiver, and our KI 203 serves as the VOR/LOC converter for use with the KX 155. The KI 209A VOR/LOC/GS/GPS Indicator, similar to the KI 208, is a self-contained VOR/LOC converter for use with the KX 165 without glide-slope or other NAV systems which contain their own VOR/LOC converters. The KI 209A VOR/LOC/GS/GPS Indicator provides glide-slope deviation display plus course and heading outputs for Autopilots and Flight Directors.
Specifications

**PILOT’S GUIDE**

**KX 155 and KX 165**

**Bendix/King TSO’D NAV/COMM Systems**

**TECHNICAL CHARACTERISTICS:**

**COMPLIANCE:**

KX 155/165, Class A

**COMM Transmit:**

C37b (DO-157, Class 4)

**COMM Receiver:**

C38b (DO-156, Class C and D) C38b (DO-156, Class A)

**NAV Receiver:**

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

**ENVIRONMENTAL CATEGORIES:**

DO-160A1D1/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. (2.31 kg)

KX 155 with GS – 5.30 lbs. (2.40 kg) KX 155 without GS – 4.75 lbs. (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

**COMMUNICATION SECTION**

**FREQUENCY RANGE:**

118.00 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.

**NAVIGATION SECTION**

**VOR/LOC FREQUENCY RANGE:**

108.00 MHz to 117.95 MHz in 50 kHz increments

**VOR/LOC SENSITIVITY:**

1/2 flag sensitivity 2µV (hard) or less (typically 1µV) on all channels

**VOR/LOC CONVERTER**

**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 ohms.

**DME CHANNELING**

Serial DME channeling provided for KN 62/62A, KN 63, KN 64, KDM 706/706A DMEs.

Slip code and 2x5 DME channeling available using KA 120 channeling adapter.

**GLIDESLOPE RECEIVER**

**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 2500 microvolt auxiliary inputs

**NAVIGATION SECTION**

**FREQUENCY RANGE:**

118.00 MHz to 136.975 MHz in 25 kHz increments

**FREQUENCY STABILITY:**

±0.0015%

**VOR/LOC SENSITIVITY:**

1/2 flag sensitivity 2µV (hard) or less (typically 1µV) on all channels

**VOR/LOC CONVERTER**

**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 ohms.

**DME CHANNELING**

Serial DME channeling provided for KN 62/62A, KN 63, KN 64, KDM 706/706A DMEs.

Slip code and 2x5 DME channeling available using KA 120 channeling adapter.

**GLIDESLOPE RECEIVER**

**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 2500 microvolt auxiliary inputs

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23500 W. 105th Street, Olathe, KS 66061-1950
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BENDIX/KING

KX 155 and KX 165 Bendix/King TSO’D NAV/COMM Systems

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BENDIX/KING
Specifications

**TECHNICAL CHARACTERISTICS:**

**COMPATIBILITY:**
- KX 155/165
- Bendix/King TSO'D NAV/COMM Systems

**SPECIFICATIONS:**

**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-160A1D1/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. (2.31 kg)
- KX 155 with GS – 5.30 lbs. (2.40 kg)
- KX 155 without GS – 4.75 lbs. (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

**COMMUNICATION SECTION**

**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.

**NAVIGATION SECTION**

**FREQUENCY RANGE:**
- 108.000 MHz to 117.95 MHz in 50 kHz increments
- VOR/LOC SENSITIVITY:
  - 1/2 flag sensitivity 2µV (hard) or less (typically 1µV) on all channels

**VOR/LOC CONVERTER**
- ACCURACY (KX 115 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:
    - 1 kHz tone 30% modulation at least 100mW output into 500 ohm loads.

**DME CHANNELING**
- Serial DME channeling provided for KN 62/62A, KN 63, KN 64, KDM 706/706A DMEs.
- Slip code and 2x5 DME channeling available using KA 120 channeling adapter.

**GLIDESLOPE RECEIVER**
- 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 (1370VDC)
  - 8 watts minimum (775VDC)
  - INPUTS:
    - Two 2500 ohm auxiliary inputs

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**BENDIX/KING**

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KX 155 and KX 165

Bendix/King TSO’D NAV/COMM Systems