

KMA 26

AUDIO AMPLIFIER/INTERCOM/
MARKER BEACON RECEIVER

PILOT'S GUIDE



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OPERATING THE KMA 26 AUDIO CONTROL SYSTEM

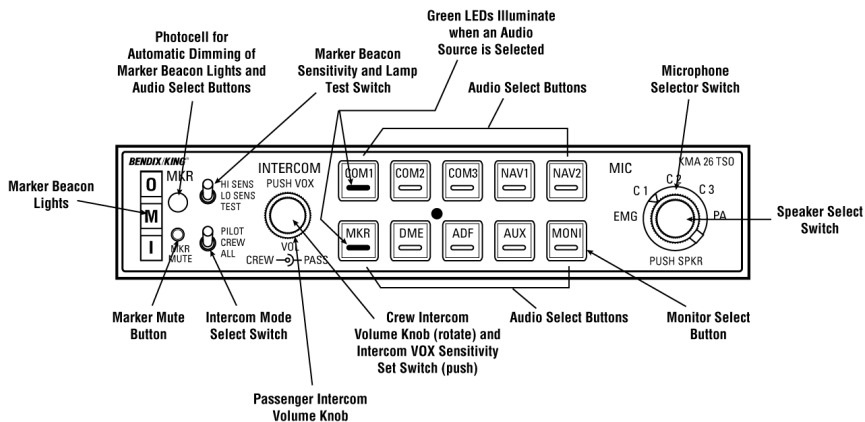


FIGURE 1
KMA 26 CONTROL FUNCTION

TRANSMITTER AND AUTOMATIC RECEIVER SELECTION

The Microphone Selector Switch is a rotary switch used to select the desired transmitter for the cockpit microphones. The "C1", "C2", and "C3" positions are for transmitting on the Com 1, Com 2, and Com 3 communications transceivers, respectively. The "EMG" (emergency) position is used to bypass the KMA 26's audio amplifier and directly connects Com 1 to the pilot's microphone and headphones. This provides a fail-safe method of communication should the unit fail. The "PA" position may be selected when the aircraft is configured with a passenger address capability.

The KMA 26 has an "Auto Com" feature which always provides automatic headphone audio selection to match the Com transmitter in use. Thus, you may change the Microphone Selector Switch without having to reselect the corresponding Com receiver button in order to hear the receiver. For example if "C1" is selected on the Microphone Selector Switch, you will receive transmissions on Com 1 through headphones and also transmit on Com 1 when you key the mic. Notice that as you rotate the Microphone Selector Switch from "C1" to "C2" to "C3", the bottom of the respective Audio Select Button displays a green illumination to show that the corresponding receiver has been selected. To add speaker audio simply push the Speaker Select Switch (inner right knob) to the "in" position. Pulling the switch to the "out" position removes speaker audio.

ADDITIONAL RECEIVER SELECTION

In addition to the receiver selected by the “Auto Com” feature described above, other receivers may be selected by pushing the corresponding Audio Select Buttons. Push button audio selection is available for three Communications receivers (“COM1”, “COM2”, and “COM3”), two Navigation receivers (“NAV1” and “NAV2”), the internal Marker Beacon receiver (“MKR”), one DME, one ADF, and one additional auxiliary receiver (“AUX”). The “AUX” position could be used, for example, for a second DME or ADF. When a receiver’s audio is selected, the green annunciator illuminates at the bottom of the button. Push the button again to deselect the receiver’s audio. Volume for receivers is adjusted from the individual receiver itself, not from the KMA 26. Note that some receivers such as DME and marker beacon (“MKR”) may not have volume adjustments available to the pilot but these radios usually may be adjusted at an AlliedSignal Sales and Service Center.

MONITOR FUNCTION

With the Monitor (“MONI” button) function activated, if Com 1 is selected on the Microphone Selector Switch then Com 2 audio is automatically routed to the speaker. Or if Com 2 is selected on the Microphone Selector Switch then Com 1 audio is routed to the speaker. This feature may be used, for example, if you are listening to ATC on Com 1 through the headphones and wish to monitor ATIS information from Com 2 in the background through the speaker. With the Microphone Selector Switch in the Com 1 position for ATC communications, pressing the “MONI” button routes Com 2 (tuned to ATIS) audio through the speaker. Pressing the “MONI” button again will disable the feature.

When the Monitor function is initially selected, the green annunciators in the “MONI” button and in the button for the Com being monitored flash for approximately five seconds. At the end of this time the “MONI” annunciation remains on steady while the Com annunciation returns to its previous state (usually off). The Monitor function is only usable when Com 1 or Com 2 is selected on the Microphone Selector Switch.

MARKER BEACON RECEIVER

The complete TSO’d three-light marker beacon receiver built into the KMA 26 gives you an accurate visual and aural signal when you pass over a 75 MHz beacon. The blue, amber, and white lights on the faceplate, as well as the audio tones, identify the beacon type (outer,

middle, or inner/airway marker, respectively).

The "MKR" Audio Select button must be pushed so that the green annunciator is illuminated for the marker beacon receiver to provide an audio signal at beacon passage. The toggle switch on the upper left side on the faceplate provides the choice of two receiver sensitivities. When the switch is in the "HI SENS" (upper) position the high sensitivity is selected which permits you to hear the outer marker tone about a mile out. At this point you may select the "LO SENS" (middle) position to temporarily silence the tone. It will start to sound again when you are closer to the marker, giving you a more precise indication of its location. Many pilots choose to leave the switch in the low sensitivity position.

Holding the toggle switch in the "TEST" position simply applies voltage to all three marker lamps in the unit and any external marker lights. The "TEST" position is spring loaded so that when the toggle switch is released it returned to the "LO SENS" position.

The photocell in the faceplate automatically dims the marker lights as well as the green annunciators in the Audio Select Buttons for night operation.

When marker audio is heard, the pilot may momentarily push the Marker Mute Button, if desired, to silence the marker audio while the aircraft is passing over this marker beacon . The marker audio will automatically be reset so that it will be heard when passing over the next marker beacon. The Marker Mute Button has no effect on the Marker Beacon Lamps.

INTERCOM

The KMA 26 contains a very versatile built-in six station intercom. Intercom operation may be voice activated (VOX), where the intercom becomes active automatically when a crew member or passenger begins to speak; or keyed activation, where a separate microphone switch must be keyed to activate the intercom.

In order to set the proper VOX sensitivity, momentarily press and release the left inner knob when no one is speaking into their microphones. The VOX sensitivity should be set if a background hissing sound is heard in the headphones or if communications are "clipped", i.e. the first syllable of words begin to be lost during intercom operation.

The VOX sensitivity may need to be reset when there is a large change in the noise level in the cockpit or cabin. The VOX level should also be reset each time power is applied to the KMA 26.

Note: To properly set the VOX sensitivity make sure that no one is speaking into the microphone. The pilot may wish to put the intercom in the "ALL" position to ensure that there is no microphone activity before momentarily pushing the left inner knob. In addition, make sure that none of the microphones are in a position to pick up extraneous noise such as wind noise from an open window/vent or vibration from laying on a instrument panel or against a window. It is highly recommended that any unused headsets be unplugged.

The intercom has three modes "ALL", "CREW", and "PILOT" which are selected with the toggle switch on the lower left side on the faceplate. In the "ALL" position the pilot, copilot and passengers are all on the same intercom "loop" and everyone hears the radios. In the "CREW" position the pilot and copilot are on one intercom loop and can hear the radios while the passengers have their own dedicated intercom and do not hear the radios. In the "PILOT" mode the pilot hears the radios but is isolated from the intercom while the copilot and passengers are on the same intercom loop and do not hear the radios.

When either the "ALL" and "CREW" intercom modes are selected, the pilot's and copilot's intercom volume is controlled by rotating the Crew Intercom Volume Knob (left inner knob) while the passenger's volume is controlled by rotating the Passenger Intercom Volume Knob (left outer knob). When the "PILOT" intercom mode is selected, the copilot's and passenger's volume is controlled with the Passenger Intercom Volume Knob. Remember, the volume knobs on the KMA 26 control intercom volume only, not the receivers' volume.

AUXILIARY MUSIC INPUTS

The KMA 26 can accommodate two music inputs for the listening enjoyment of crew and passengers. The music input is muted quickly when radio communications are received and then has a gradual recovery. The KMA 26 can also be configured at the time of installation to either have or not have the music be muted by intercom conversation. Table 1 outlines music input operation during the three intercom modes for a system having two music inputs. If there is only one music source it is usually installed as music 1 but it may be wired as either

music 1 or music 2.

INTERCOM MODE	PILOT HEARS	COPILOT HEARS	PASSENGERS HEAR
PILOT	NO MUSIC	MUSIC #1	MUSIC #1
CREW	MUSIC #2	MUSIC #2	MUSIC #1
ALL	MUSIC #1	MUSIC #1	MUSIC #1

*TABLE 1
INTERCOM MODE*

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