

PAC24 AUDIO CONTROLLER/INTERCOM SYSTEM



PAC24 Features

- Five Transceiver capability
- Split transmit capability
- Intellivox® intercom
- Powerful 120mW phones amplifier
- 5-place intercom
- Dual-system configurable
- Expandable to 10 places
- Music input with SoftMute™
- Tray and pin compatible with KMA24H (-71)
- Swap™ Mode
- Duplex telephone mode
- Stuck Mic detector
- Optional radio recorder
- Dual volume controls
- 3rd Transmit Seat capability in dual audio panel config.
- FAA-TSO approved

Now PS Engineering brings that level of expertise where it is needed most, professionally flown aircraft. The PAC24 was designed from the bottom up as a powerful audio system to meet the needs of airborne law enforcement, EMS, forestry, and special mission aircraft.

Best yet, the revolutionary PAC24 is designed to be easily retrofit compatible into the same installation as a King KMA24H (-71). This makes adding modern, flexible, audio control and a high performance intercom into aircraft with aging audio panels easy and cost effective.

The PAC24 contains PS Engineering's legendary Intellivox® intercom, which eliminates squelch controls by using digital circuitry to sample each microphone independently, and distinguish between noise and voice. Proven in the harshest audio environments, like helicopters, it just plain works flawlessly.

The headphone amplifier is the most powerful and cleanest in its class, delivering 120mW of punch to overcome the loudest cockpit environments.

The PAC24 has all of the same features you expect from PS Engineering, like Swap™ mode (change radios by a push of a remote button), split mode (pilot and copilot on different radios), and a 3-year warranty. Designed from the beginning as a dual-capable system, the PAC24 offers outstanding flexibility for crew member and passenger communications. In a dual configuration, the pilot audio panel has command of the ships' audio if necessary, while the copilot side is able to handle any necessary audio chores.

In cases where the crew wants extra control, the PAC24 can be switched to PTT-ICS mode. This prevents the intercom from activating until a discrete push to talk switch is activated.

An "Observer" version of the PAC24 is also available. This unit allows radio transmission capabilities for a third person when configured as a special mission dual audio panel system. One audio panel provides Pilot and Copilot dual audio radio control, while the other audio control panel gives radio control to an Observer position. The transceiver controls are coordinated to prevent inadvertent transmissions, thus if the Pilot and Copilot are in Split mode (Pilot on COM 1 while Copilot is on COM 2), the system prevents the Observer from having access to COM 1 or COM 2, while allowing observer complete access to COM 3, COM 4 and COM 5.

COM 5 has special properties in the PAC24. It can be configured as either a conventional Com 5 transceiver, or as a cellular telephone input. It provides full duplex telephone capability along with distribution of the telephone call. This allows either private or party line phone calls. And for those who are replacing order Bendix/King KMA-24H, the PAC24 is a slide in replacement. There is no rewiring unless additional capability is desired.



GENERAL INFORMATION

The PAC24 represents the finest in high-performance cockpit audio control and intercommunications. Using proprietary IntelliVox® design, this unit eliminates the requirements for intercomsquench adjustments. The unit is designed for outstanding ergonomics and visually defined mode annunciation and selection.

The PAC24 was designed to be a dual audio panel, offering convenience and utility for two-pilot crews, in installations where a single panel is not practical. Before installing and/or using this product, please read the manual completely. This will ensure that you will take full advantage of all the advanced features in the PAC24.

EQUIPMENT DESCRIPTION

The PAC24-series is a state of the art audio isolation amplifier and audio selector that contains an automatic voice activated (VOX) intercom system. It can switch up to five transceivers (Com 1, Com 2, Com 3, Com 4 and Com 5) and 4 receivers (Nav 1, Nav 2, AUX and MKR).

The Duplex Telephone mode allows the PAC24 to act as an audio interface between aircraft headphone and microphones and specific aircraft approved (FAA/FCC) cellular telephone equipment.

There are two unswitched inputs, for autopilot disconnect, and/or radar altimeter warning. Push buttons select the receiver audio source provided to the headphones. A SPR switch allows the user to listen to the receiver(s) selected on the cabin speaker. Except for the unswitched inputs, all speaker audio is muted during transmit.

Push button switches select the communication transceivers in use for the pilot and copilot position, and allow radio transmission. In "Split Mode" the PAC24 has the ability to allow the pilot and copilot to operate different transceivers independently. The Com 5/TEL mode (selected at installation) allows the pilot to use the audio panel for duplex operation, such as with aviation-specific cellular telephones. A fail-safe mode connects the pilot headphone and microphone to COM 1 if power is removed for any reason, or if the power switch is placed in the Off (Fail-safe) position.

A voice activated (VOX) intercom is included in the PAC24. This system has PS Engineering exclusive IntelliVox® circuitry that eliminates manual adjustments. The system contains six separate VOX mic circuits, and only opens the specific microphone channel in use.

The intercom system incorporates pilot isolate and crew modes, a monaural music input with "Soft Mute," and LED indicators transmit indications. Intercom control is through front-panel-mounted knob and 3 position mode level switch. A single volume controls intercom level for the pilot and copilot. Passenger headphone volume is factory set, and adjusted in flight with headset-mounted volume controls. Passenger volume control is further adjustable through screwdriver access in the top of the unit. Intercom squelch is automatic.

Technical Specifications

Certification Documents:	RTCA DO-214 DO-160D, DO-178B
Intercom:	5-place
Transceivers:	5 (Com 1, Com 2, Com 3, Com 4, Com 5)
Audio Inputs:	4 (Nav 1, Nav 2, ADF, DME)
Un-switched audio inputs:	2
Power Required:	11-33 VDC, 1.5 A
Power consumption:	Speaker on, 600mA typ. 1A peak; Speaker off 350 mA
Output power:	Speaker 10 W at 28 Vdc; 3W at 13.8Vdc into 4 load
Headphone:	50 mW into 150, <1% THD; 120 mW into 150, <10% THD
Audio Frequency Response:	3dB, 350Hz-6,000Hz
Entertainment Frequency Response:	±3dB, 30 Hz-18,000 Hz
Weight:	0.8 lb.
Dimensions:	6.25" W x 1.3" H x 6.8" deep behind instrument panel
Environmental Conditions:	DO-160D B1CABGMXXXXXXZBBATMXXE2XXX
Temperature Range:	-20 C to +70, with brief operation at +85 C
Altitude:	25,000 feet, unpressurized