

4-PLACE AUDIO SELECTOR/INTERCOM

The PMA4000 is a panel mounted audio selector panel with the added capability of a 4-station intercom. Provisions for switching two communications transceivers and navigation receivers, as well as providing a speaker amplifier are all part of this integrated, compact unit. The intercom features PS Engineering's exclusive IntelliVox™ with individual volume controls for both the pilot and copilot.

A multi-position mode switch allows the pilot to select one of two intercom modes.

The ISO mode isolates the pilot from the intercom, and connects their headset directly to the aircraft radios. The copilot and passengers are free to converse and enjoy entertainment without radio interruption. The pilot is not distracted by passenger intercom use and has control over the radio communications.

The "ALL" mode places everybody on a party line. Each person hears all intercom conversation and aircraft radio reception. Everyone hears the entertainment source as well.

The "Off" mode is part of the automatic fail-safe interconnect to the aircraft systems. If power to the intercom is disrupted, the pilot's headset is automatically connected to the aircraft radio. This permits continuous radio communications.

The PMA4000 has independent intercom volume controls for the pilot and the copilot. Because this system was designed with the tandem cockpit in mind, the copilot volume can be remote-mounted in another location. Because the pilot and copilot volume control does not affect the aircraft radio volume, balance between the intercom and radio audio is easily achieved. For instance, by reducing the pilot's intercom volume, the aircraft radio volume will be in the foreground, while the intercom will be at a background level.

The PMA4000 takes advantage of PS Engineering's revolutionary IntelliVox™ intercom squelch system. By harnessing the computational power of microprocessors, the PMA4000 eliminates complicated squelch adjustments. In addition, by using independent microphone circuits unwanted noise is kept out of the audio. Since only the microphone being spoken into is open, extraneous cabin noise is minimized. Individual squelch circuits mean that the system can be tailored to different microphones, as well as variations in voice levels in the cockpit.

The PMA4000 has two switched com transceiver inputs and two switched navigation receiver inputs. In addition, there are four non-switched audio inputs that can be used for other receivers or audio warnings, such as

autopilot disconnect or GPS alerts.

There is a built-in speaker amplifier in the unit. Pushing the volume control will place all selected audio, or any unswitched audio present, over a cabin speaker.

With the PMA4000 installed, both pilot and copilot have transmit capability over the aircraft radios. Only the person who presses the PTT is heard over the radio. The selected com LED shows amber when selected, and flashes during radio transmissions. This feature acts as a stuck microphone indication.

The Communications transceiver switching is automatic. When the microphone toggle switch selector is in Com 1 position, the receive audio and microphone signals are routed to Com 1. The push button selector controls receive audio only and can be used to select multiple Com receivers.

The PMA4000 provides a monaural entertainment input. When the intercom or aircraft becomes active, the music will automatically mute, allowing communications without distraction. When the activity cases, the SoftMute™ circuit gradually returns the music to the original volume. A slight delay prevents lost syllables and choppy conversation. This function can be inhibited to place the pilot in karaoke mode.

An optional internal digital recorder (p/n 11941) can provide up to one minute of stored aircraft radio reception. This device is a continuous loop recorder that automatically starts recording the instant a radio transmission is received, with no dead air time recorded. By pressing a momentary switch, the last recorded messages will be replayed. Up to 16 messages (or 1 minute) can be stored.



Shown actual size

TECHNICAL SPECIFICATIONS

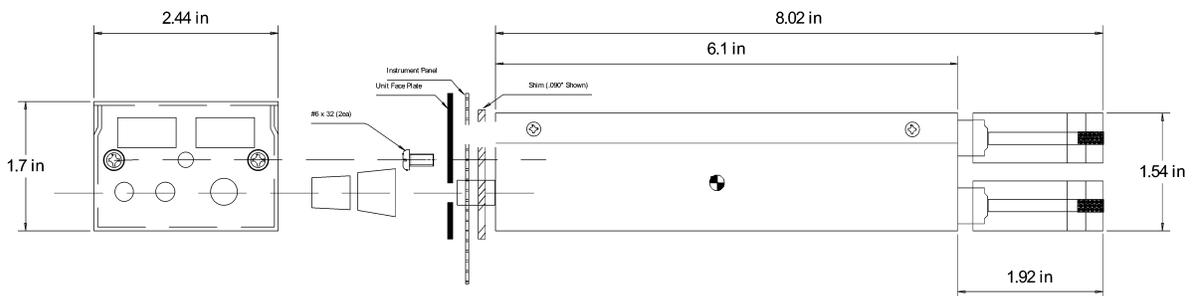
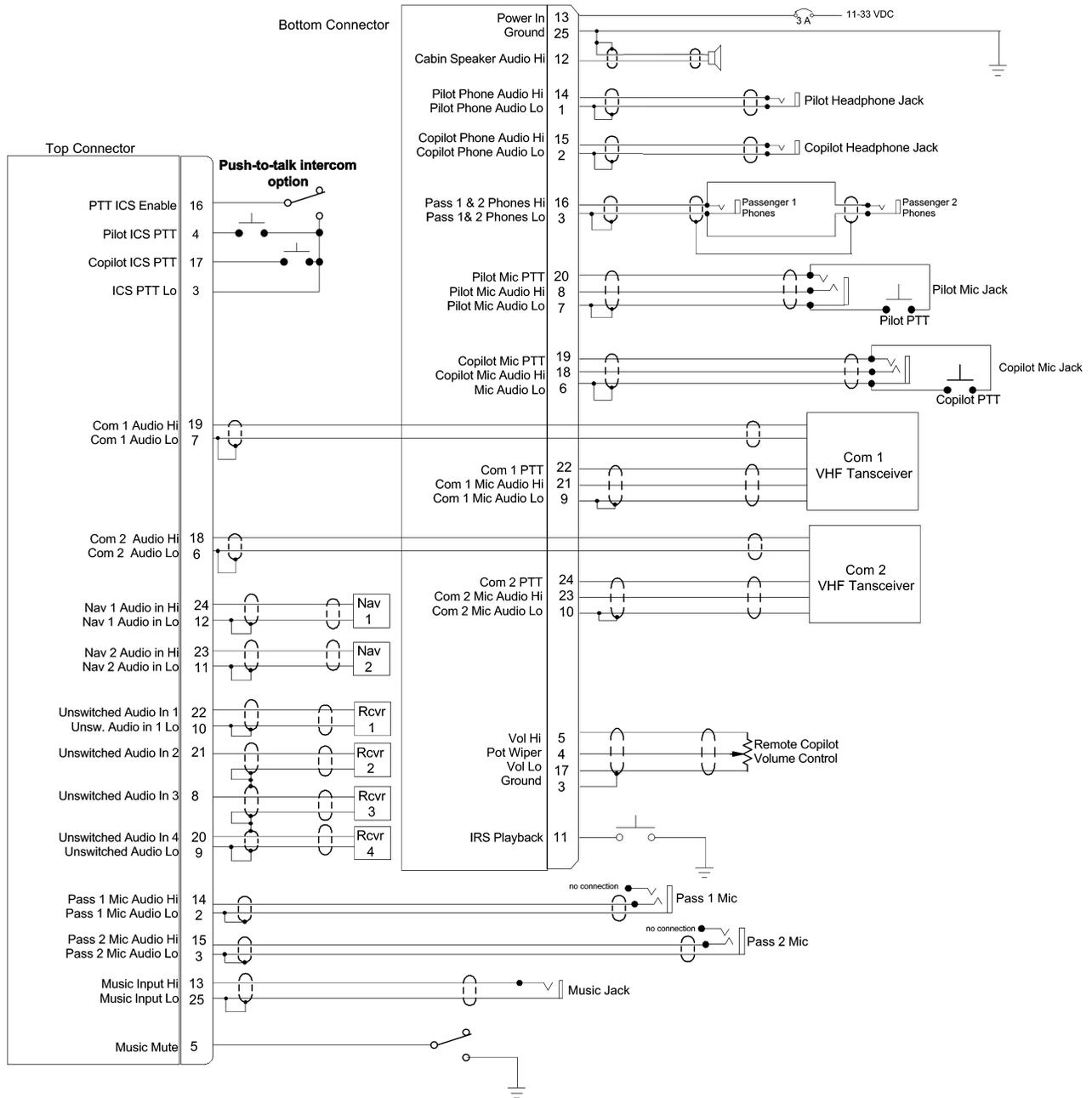
- Input power:** 12-28 Volts Current Drain: < 250 mA
- Headphone Impedance:** 150-1000Ω Typical
- Audio Distortion:** <1% THD @ 38 mW into 150Ω
- Speaker Output:** 3 Watts @ 14 Vdc 10 Watts @ 28 Vdc
- Aircraft Radio Impedance:** 510Ω
- ±3 dB Mic Freq. Response:** 300 Hz-6000 Hz
- ±3 dB Music Freq. Response:** 200 Hz-18 KHz
- Weight:** 15 Ounces
- Dimensions:** 1.70" H X 2.435" W X 6.50" D

Warranty
1-year hassle free exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee of \$49.95 will cover any repair. See Warranty Information in Installation manual for full details.

ORDERING INFORMATION

- PMA4000 4-Place Intercom**.....P/N 11940
Comm selector panel with 4-place panel mount intercom with Isolate and ALL modes, single music input.
Installation hardware includes metal mounting plate, connectors.
- Same as above with 1-minute digital recorder**.....P/N 11941
- PM2CREW** to expand to 6 places, adds crew mode, Stereo music source.....P/N 11919
- 2 1/4-inch round mounting plate**.....P/N 575-004-0001
Allows installation in a standard 2 1/4-inch instrument hole.

PMA4000 Wiring Diagram



PS Engineering, Inc. • 9800 Martel Road • Lenoir City, TN 37772

Phone (865) 988-9800 • FAX (865) 988-6619 • Internet www.ps-engineering.com