

FS ENGINEERING[®]
INCORPORATED
Sound Quality. Sound Engineering.

General Aviation
USAF Jet Trainers • Acrobatic
Corporate Jets • Helicopters

Aircraft Audio Control



Flying Never Sounded So Good[®]

Audio control has been our only business since 1985 – we are single-minded in the pursuit of audio control perfection

It's no wonder why PS Engineering has brought more audio control innovations to GA than any other company....period.

PS Engineering's team is dedicated to designing, building, and supporting their world acclaimed audio selector panels and intercoms. As a result, PS Engineering has been recognized twice by the Aircraft Electronics Association (AEA) as their Associate Member of the Year, first in 1997 and again in 2014.

In 1985, aircraft intercoms and audio panels had seen virtually no improvements in over a decade. With new digital circuitry and technologies, it was time for the revolution to begin.



The airplane that started it all!

If PS Engineering hadn't founded, the community of pilots would probably still be waiting for the revolution to begin.

- **First to provide individually adjustable VOX circuitry**
- **First to introduce an FAA-TSO stereo audio panel with built-in intercom and marker beacon**
- **First to Integrate music with Soft Mute™, allowing flexible music control - Patent no. 4,941,187**
- **First to provide Swap capability, Patent no. 5,903,227; 6,160,496**
- **First to provide true hands-free VOX system, the IntelliVox® Patent no. 6,493,450**
- **First to provide an integrated aural warning system into an audio panel**
- **First to use digital signal processing to record aircraft radio, allowing instant playback of transmission**
- **First to introduce AMP™ (Active Microphone Processor) removing background noise in intercom**
- **First to provide Bluetooth® integration, allows phone and music streaming**
- **First and only company to commercially implement USAF-patented technology for True Dimensional Sound - Patent no. 7,391,877**



Our audio control systems are designed and manufactured in the USA.

www.ps-engineering.com



Why so many audio panels?

The reason we designed all these audio panels wasn't to confuse our customers; but rather to provide solutions to match our customers' needs. We recognized early on that one size does not fit all.

PAR200B – World's only audio selector panel that includes built-in control head for remote mounted TRIG Transceiver. In addition to Bluetooth®, recent upgrades include OLED screen and IntelliAudio® true dimensional sound.

PMA450B – A slide-in replacement for the GARMIN* GMA340 and GMA345, this DSP based audio panel provides IntelliAudio® 3D sound, OLED graphics display, Dual Bluetooth® modules for unprecedented flexibility.

PMA450C – Lower cost version of PMA450B without *flightmate*®, two versus nine IntelliAudio® locations, and no streaming out for video cameras or countdown timer.

PMA4000 – A small form-factor was the design goal for this little jewel. Capable of being panel mounted like an intercom or in a 2 1/4" round instrument hole, the PMA4000 also provides a four-place mono intercom with IntelliVox® and speaker amplifier.

PMA6000B – Low cost solution. Provides the basic functions that pilots need for airplanes that require quality audio control but with a minimalist approach but with same quality audio.

PMA7000 Series – These audio panels incorporate IntelliVox® and enhanced capabilities such as full duplex wireless telephone, and audiophile stereo music inputs. Two of which are Plug 'N Play for our legacy audio panels and from UPS-AT and Bendix King.

PMA8000 Series – Designed as Plug 'N Play with the GARMIN* GMA340/345, these audio panels include a complete feature set with IntelliVox® digital recorder, front panel configuration control, monitor mode, with Bluetooth® and IntelliAudio®.

PAC24 – This specialty audio panel is suitable for special mission use, such as police/rescue/fire patrol, and provisions for observer position. Single and dual systems available.

PAC45 Series – Digital audio controllers are versatile systems that are DZUS-mounted and well suited for the demanding cockpits. With the USAF patented technology, MultiTalker® allows a more effective way to listen to multiple radios simultaneously. Up to four control heads positions (pilot, copilot, observer 1 and 2) can be connected allowing each individual station to hear and transmit on the radios of their choice. Customizable audio alerts and Bluetooth® capabilities with integrated Bluetooth are just some of the capabilities of these audio controllers. Some are even Plug 'N Play with the AMS controllers.

- PAR200B**
- PMA450 Series**
- PMA4000**
- PMA6000B**
- PMA7000 Series**
- PMA8000 Series**
- PAC24**
- PAC45 Series**



Using USAF patented technologies, MultiTalker® allows the placement of com audio in 9 unique positions. Especially useful when listening to more than two radios at a time. PMA450B and all PAC45 series use MultiTalker.



PS Engineering's revolutionary IntelliVox® intercom squelch protocol harnesses the computational power of microprocessors, and eliminates complicated squelch adjustments. In addition, by using independent, automatic microphone squelch circuits, extraneous cabin noise is minimized. IntelliVox® means that the system will always be optimized, tailoring itself for different microphones, as well as variations in voice and sound levels in the cockpit. With IntelliVox® you'll have seamless and clear communications.



Using patented technology licensed from the Air Force Research Laboratory at Wright Patterson AFB, IntelliAudio® places multiple audio sources in positions within stereo headsets. These dimensional sound locations allow the Pilot to more easily focus on a particular radio conversation of interest. IntelliAudio® is implemented in the PMA8000G, PMA450C, and PAR200B.

*GARMIN GMA240/GMA245/GMA340/GMA342/GMA345 are trademarks of Garmin Int'l, Inc. PSEngineering, Inc. is not associated or affiliated with Garmin Int'l, Inc. in any way.



This four discrete input system allows connection to devices that will trigger specific audio alerts. Using the pilot's headset microphone, the installer can create specific call-outs relating to the condition that had just occurred. *flightmate*® uses four unused pins of the GMA340/345 and requires form 337. Now the pilot can be alerted to specific out-of-condition parameters audibly.

PMA4000

The PMA4000 is an audio panel that provides switching of two Coms and two Navs. It has a 4-place mono IntelliVox® intercom, and can be configured for PTT intercom. Four unswitched inputs are available.

Includes a built-in speaker amplifier. Hear aircraft radio audio through the headsets or over the cabin speaker by a press of a button.

The PMA4000 takes advantage of PS Engineering's revolutionary IntelliVox® intercom squelch protocol. A three-position mode switch allows the Pilot to select either ISO or ALL intercom modes. This switch also functions as the on/off switch.

The PMA4000 has Independent intercom volume controls for the Pilot and the Copilot. Because this system can be mounted in another location, the volume controls only the intercom, the radio volume is adjusted by the radio controls.

Both pilot and copilot have transmit capability. The selected com LED shows amber when selected, and flashes during radio transmissions. The transceiver switching is automatic. When the microphone toggle switch selector is in Com 1 position, the pushbutton selector controls receive audio and can be used to select multiple Com receivers.

The PMA4000 provides a monaural entertainment input. With our SoftMute™, the music mutes, allowing undistracted communications.



Shown actual size



CHECKLIST OF CAPABILITIES:

- IntelliVox automatic VOX circuit with individually gated mics
- PTT-ICS for open cockpit or higher than normal cockpit noise
- 4-place intercom
- Mono music inputs with muting
- Built-in speaker amplifier
- Remote switched Karaoke mode (no music muting)



About Squelch

Squelch is the circuitry that prevents the intercom from passing noise to headsets. This allows the wearer of a headset the advantage of the noise canceling that the headset provides. The "squelch" setting, as used in the intercom, is the level that is set so that when someone speaks into their microphone, they are heard on the intercom.

While all our systems use "voice-activated" (or VOX) squelch, some are manual, some are automatic, and some have PTT-ICS.

PTT-ICS stands for Push-To-Talk Intercom System and is required for open cockpit aircraft where the direct wind hits the microphone. This will trip any manual VOX circuits. PTT-ICS provides the ability to keep the microphone turned off (regardless of wind noise or extreme background noise) until someone presses their PTT-ICS button. Eliminating hearing noise when no one is speaking

Manual VOX intercoms use a squelch control that governs the amount of voice it takes to open the microphone for the intercom. PS Engineering was the first company to introduce individually gated VOX circuits, significantly reducing the amount of background noise heard when any one individual speaks on the intercom.

IntelliVox® was patented in 1997 and was the first, completely automatic, VOX circuit that eliminated the need for a "squelch knob". Each microphone has a computer that "listens" to the background noise and opens that microphone the moment a person speaks. IntelliVox® works flawlessly for the last 32 years.

The PM1000II, PM3000A, and PMA6000B all use Manual VOX circuits.

Our PM1200, PM4000, PMA7000H series and all PAC series have both PTT-ICS and IntelliVox® capability.

All other audio panels have IntelliVox®.

ORDERING INFORMATION PART NO.

PMA4000 4-Place Intercom	11942
Audio panel with 4-place intercom with Isolate and ALL modes, single music input, FAA-TSO	
Weight: 15 ounces Dimensions: 1.70" H X 2.43" W X 6.50" D	
2 1/4" round mounting plate	575-004-0001
Allows installation in a standard 2 1/4-inch instrument hole.	

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



PMA6000B

The PMA6000B has been given the benefit of PS Engineering's 30 years of audio panel control design and manufacturing experiences. It offers a low cost alternative to the more capable audio panel product line that the industry has become to expect from such a focused driven company.

This audio selector panel has our original "Set it and Forget it" manually adjusted VOX intercom and a slew of features to enhance versatility and utility.

Swap function allows selection of Com 1 or Com 2 from remote pushbutton. Fail-safe feature automatically hard-wires the pilot to Com 1 in the case of an outage. Uses a single 44-pin connector making installation easier.

The PMA6000B holds FAA TSO and EASA ETSO and was designed to be made easier to install using a single 44-pin Sub-d connector.

CHECKLIST OF FEATURES:

- 4-place mono intercom PS Engineering's "Set-it and Forget-it" manual VOX
- Optional built-in marker beacon receiver
- Split mode for dual audio panel capability
- Two Com capability
- Three Intercom Isolation modes - Pilot Isolate, All, and Crew
- Two Music inputs with Soft Mute™
- Two Unswitched inputs
- 6 Switched inputs
- A patented "swap" function allows selection of Com 1 or Com 2 from remote push button
- Fail-safe feature automatically hard-wires the pilot to Com 1 in the case of an outage
- Uses a single 44-pin connector making installation easier

Audio Integration

PS Engineering pioneered and perfected the science of audio control panel integration. By bringing the radio audio together with pilot, copilot and passengers' audio, the audio panel provides a new level of crew resource management. The copilot can be on a different radio than the pilot, who continues to receive navaid identification. Plus, the crew or passengers can be on an airborne telephone, in addition to logical distribution of music on demand. The end effect is a logical and seamless combination of all the aircraft audio, we've done our work, so you don't get lost in a maze of switches and knobs.

WARRANTY

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

ORDERING INFORMATION

PART NO.

PMA6000B Audio Selector w/ 4-place intercom050-604-0300
 Remove Internal Marker Beacon Receiver050-604-0100



Have one of these? Plug 'N Play with ease!

PS ENGINEERING INCORPORATED
Sound Quality. Sound Engineering.

We have more experience and a wider range of General Aviation audio panels than any other company. Select the audio panel that fits your mission and aircraft capabilities. Our audio panel will make a world of difference.



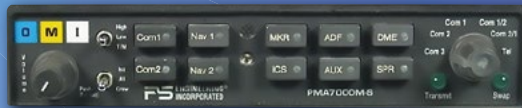
Bendix/King KMA-28



GARMIN GMA340



UPS-AT SL15



PS Engineering PMA7000M-S



PMA8000G with Bluetooth® and flightmate®

- IntelliAudio® Dimensional Sound for clear com reception
- flightmate® Pilot Recordable Audio Alerts and Messages
- Bluetooth® for Wireless Telephone and Music Streaming
- Continuous 10 watts of charging power from USB port



PMA7000BT

- Available with or without Bluetooth® wireless connectivity
- 6-Place IntelliVox® Hi-Fi Stereo Intercom with muting
- Split Mode transmit capability for pilot and copilot
- 4 - unswitched unmuted inputs for additional aural alerts



The PMA450B – Dual Bluetooth® Capability

- MultiTalker® True Dimensional Sound for clear com reception
- flightmate® Pilot Recordable Audio Alerts and Messages
- Unprecedented music distribution and streaming capability
- Continuous 15 watts of charging power from USB-C port



PMA6000M



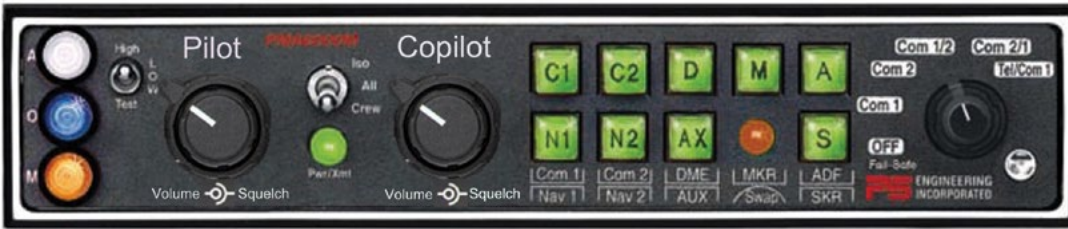
7000M-BT Mono Intercom

- 6-Place IntelliVox® Bluetooth® Intercom with muting
- Split Mode transmit capability for pilot and copilot
- 4 - unswitched unmuted inputs for additional aural alerts

Slide In - Slide Out ... No Harness Changes



PMA7000 Series



PMA6000

If you have this old one...

You can have this new one.



PMA7000M

If you have installed our original mid-1990's PMA6000 series audio panel in your avionics stack, this Plug 'N Play audio panel will provide a tremendous upgrade for those panels without any rewiring at all. The only thing that is required for installation is a 3/32" Allen Wrench.

Having all of the capabilities of the PMA7000BT with the exception that the music is monaural not stereo, this upgrade will provide IntelliVox®, a significantly improved user interface, and the ability to make phone calls and streaming music via Bluetooth®.

CHECKLIST OF CAPABILITIES:

- IntelliVox® automatic VOX system with individually gated microphones
- 6-Place monaural intercom with Soft Mute™
- Two music mute modes: Mute On and Mute Off
- Improved built-in Marker Beacon Receiver
- Cellular telephone input and music streaming (Bluetooth®)
- Split mode for dual transmit capability
- Three Isolation modes - Pilot Isolate, All, and Crew
- Four unswitched inputs
- Selectable special intercom mode with "Alternate Intercom Mode"

*No install kit provided



PMA7000H-BT



The PMA7000H includes a 10-place intercom and a Cockpit Voice Recorder (CVR) output. For environments where having a Hot Mic is beneficial, the PMA7000H not only has IntelliVox® but also has provisions for Push-To-Talk Intercom. This capability is especially useful when there may be direct wind noise on the microphones or the cockpit din is just too high for any VOX circuit to work. Now available with wireless Bluetooth® capability.

CHECKLIST OF CAPABILITIES:

- 10-place IntelliVox® intercom (automatic VOX) with individually gated microphones
- Push-to-Talk Intercom Capability for Crew
- CVR output
- Optional built-in Marker Beacon Receiver
- Com 3 can act as Cellular telephone input with "DuTel™" telephone distribution
- Split mode for dual audio panel capability
- 2 hi-fidelity stereo music source inputs
- Front panel music mute modes - Mute On or Mute off (ICS button)
- 4 unswitched inputs
- Selectable special intercom mode with "Alternate Intercom Mode"
- Optional Bluetooth Module for telephone and audio streaming

WARRANTY

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

ORDERING INFORMATION

PART NO.

PMA7000M Mono Audio Selector with 6-place intercom and Marker Beacon.....	050-781-0604
PMA7000H 10-place hi-fi stereo intercom	050-781-0300
PMA7000H Same as PMA7000H with CVR.....	050-781-0287
PMA7000H-BT Same as PMA7000H with Bluetooth®	050-781-0404
PMA7000H Same as the PMA7000H-BT but with No Marker.....	050-781-0403

PMA7000 Series



If you have one of these...



You can plug and play one of these.



PMA7000BT

The Advantage of the PMA7000 Series

The PMA7000 series offers a Plug 'N Play alternative for aircraft that have legacy audio panels. No installation is required, but rather, a simple slide out and slide in with a log book entry performed by an A & P is all that is required to complete the installation.

The PMA7000BT is Plug 'N Play with our legacy PMA7000M-S as well as with the Apollo SL-15 and the Bendix/King KMA28. It is as simple as 1-2-3 to install.

An obvious improvement is the removal of the mic selector knob and the replacement of the momentary push buttons with rubber membrane, tactile feel switches.

The addition of Bluetooth®, it is now possible for the pilot/crew to pair phones and iPads to hear music or audio alerts from aviation applications, such as Foreflight.

COM 3 has been added that provides a full duplex interface if the aircraft is equipped with a satellite phone system.

With a Bluetooth® device connected, it is possible for passengers will hear Bluetooth® music with all others otherwise they will hear music 2

WARRANTY

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

ORDERING INFORMATION

PART NO.

PMA7000BT Audio Selector with Bluetooth® and Marker Beacon050-781-0204
(PMA7000BT requires install kit if new install)

CHECKLIST OF CAPABILITIES:

- IntelliVox® automatic VOX system with individually gated microphones
- 6-Place hi-fi stereo intercom with Soft Mute™
- Two music mute modes: Mute On and Mute Off
- Built-in Marker Beacon Receiver
- Cellular telephone input with dedicated On/Off hook switches for unprecedented flexibility
- Split mode for dual audio panel capability
- Two hi-fidelity stereo music source inputs
- Three Isolation modes - Pilot Isolate, All, and Crew
- Four unswitched inputs
- Selectable music muting for passengers
- Selectable special intercom mode with "Alternate Intercom Mode"
- RAM (Radio Active Mute) eliminates constant back ground noise from unswitched inputs





PMA8000 Series



PMA8000C



The PMA8000C provides for an additional communications transceiver. While most aircraft have two Com radios, there are cases where a third transceiver is required. The PMA8000C not only allows the connection of three radios, it also provides 3 unique split transmit modes.

- Pilot Com 1 - Copilot Com 2
- Pilot Com 1 - Copilot Com 3
- Pilot Com 2 - Copilot Com 3

This is particularly helpful when there are special missions required. As an example, Com 3 could be a HF or UHF radio. Unlike the GMA340 where only Pilot Com 1 - Copilot Com 2 is offered, the PMA8000C adds this additional flexibility.

CHECKLIST OF CAPABILITIES:

- IntelliVox® automatic VOX system with individually gated mics
- Bluetooth® enabled
- 3 Com capability
- 6 Place hi-fi stereo intercom with Soft Mute™
- Monitor Mode allows automatic muting of non-primary radio
- 4 music mute modes: Mute On/Off, Radio Mute, ICS Mute
- Dedicated front panel music volume control
- Built-in Marker Beacon Receiver
- Cellular telephone Bluetooth connection
- Easy front panel control for telephone side tone on/off
- Front panel utility jack for iPod, iPad or unswitched audio warnings
- Split mode for dual audio panel capability
- 2 Differential, hi-fidelity stereo music source inputs (no ground loop noise)
- 3 Isolation modes - Pilot Isolate, All, and Crew
- 5 - unswitched inputs, with front panel unswitched input
- Selectable music distribution for passengers
- Selectable intercom mode with special "Alternate Intercom Mode"

The PMA8000E is a system that consists of two interconnected audio panels. This provides the Pilot and Copilot their own audio selector panel. With the intelligent digital interface control, the Pilot has command of the entire audio panel system yet can easily offload some of the radio work to the Copilot.

Intercom configurations allow the Pilot undisturbed radio communications while permitting the Copilot and passengers to communicate.

"Strange States" are a thing of the past thanks to the PMA8000E's built-in intelligence. This system prevents the Copilot from over-riding the Pilot's audio panel configurations, or interrupting the Pilot's radio communications. Because of this intelligent approach, the Pilot and Copilot will treat their respective audio panels as their very own, never second guessing what configuration the other person has his audio panel in.

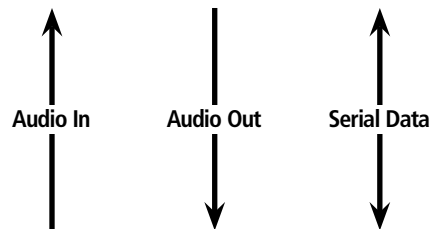
Each audio panel is Bluetooth® enabled. They can be used privately by the Pilot or Copilot or shared with each other. The Copilot's Bluetooth interface can also be shared with the passengers.

Through the use of expansion units, it is possible to have up to 12 passengers connected to the system.

*GARMIN GMA240, GMA342 and GMA340/345 are trademarks of Garmin International, Inc. PS Engineering, Inc. is not associated or affiliated with Garmin International, Inc. in any way.



PMA8000E-Pilot



PMA8000E-Copilot

WARRANTY

2-year Pro-Support exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee will cover any repair. See Warranty Information in Installation manual.

ORDERING INFORMATION

PART NO.

- PMA8000C - Audio Panel, Marker Beacon, Bluetooth®, stereo intercom.....050-890-0303
- Same as above but with intercom expansion capability.....050-890-0313
- PMA8000E - Dual Audio Panel System with Digital Interface Call for Part Numbers
- 6-Channel Expansion Unit - For PMA8000C and PMA8000E only..... 11636R

PMA8000 Series



PMA8000G

The PMA8000G marks another major milestone in the company's innovative history. This audio panel has significant advancements in audio panel technologies. It will fit pilots who expect more from their audio panel while not adding any additional workload or complex set of push button sequences. The PMA8000G is a natural choice for pilots who demand ease of use with a deep set of audio panel capabilities.

Introducing **flightmate**® the first system ever to be available in an audio selector panel. The pilot can create checklists, emergency procedures, just about anything that pilot can say, he can store into non-volatile memory, making those checklist chores a bit easier.

IntelliAudio® is another standard capability that will make listening to multiple radio calls manageable. With Com 1 in the 10 o'clock position and Com 2 in the 2 o'clock position, pilots can pay attention to the radio that is most important at any one instant of time.

Bluetooth® Interconnectivity allows the pilot to have access to his Bluetooth® enable telephone or entertainment device. The ability to contact ATC by way of the telephone with the engines running and radios tuned and set at an uncontrolled airfield makes getting into the air under IFR condition much easier.

Pilot programmable aural alert annunciations can be programmed right from the front panel of the audio panel while using the pilot's headset microphone to record them. Now you can take up to 4 discrete inputs and have them associated with pre-recorded messages, making it easier to determine exactly what condition needs to be addressed.

And we have included a USB charging port that is rated at 10 watts. This charger provides power for iPads and iPhones or other devices that use a USB charging port.

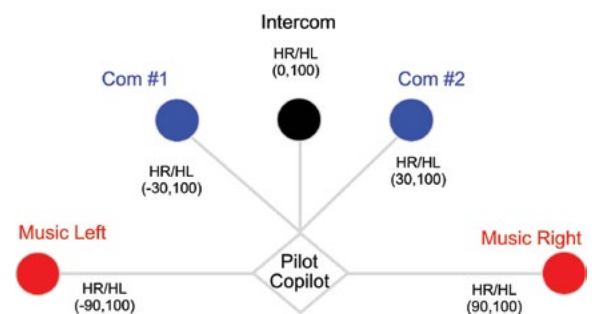
Finally, ease of use. We took a fresh approach to the user interface, making access to the advanced functions much easier than in past iterations of the PMA8000 series.

CHECKLIST OF CAPABILITIES:

- Com 1, Com 2, Nav 1, Nav 2 capability
- IntelliAudio® True Dimensional Sound gives Pilots the ability to discern important radio calls
- 6-Place hi-fi stereo IntelliVox® Intercom with Soft Mute™
- Bluetooth® enabled allows connection of iPhone, iPads and other PDAs for both music streaming and telephone.
- Monitor Mode allows automatic muting of non-primary radio
- 3 - music mute modes: Mute On, Mute Off, Radio Mute
- **flightmate**®
- Cellular telephone input with front panel control of side tone
- Digital aircraft radio recorder (IRS™)
- USB Charging port with Auto-Protect, provides up to 10 Watts of power for iPhones, iPads and other PDA Accessories.
- Split mode for dual audio panel capability
- 2 - Differential, hi-fidelity stereo music source inputs (no ground loop noise)
- 3 - Isolation modes - Pilot Isolate, All, and Crew with "Alternate Intercom Mode"
- Selectable music distribution for Pilot, Copilot and passengers

IntelliAudio®

Used in PMA8000G, PAR200B, PMA450C



WARRANTY

2-year Pro-Support exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee will cover any repair. See Warranty Information in Installation manual.

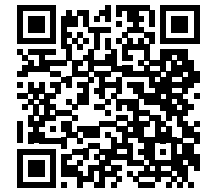
ORDERING INFORMATION

PART NO.

PMA8000G Audio Panel	050-890-0912
PMA8000G without marker.....	050-890-0917



PMA450 Series



The PMA450B is the third-generation, digitally based, top tier audio panel that uses the same patented technology that the United States Air Force has implemented in their fighter jets. Not only does the PMA450B significantly enhance radio communications, it provides an unprecedented amount of intra-cockpit communication flexibility as well.

The true dimensional sound, called MultiTalker®, gives the pilot the capability to pay attention to the radio that is important to their flight at any instant in time. Consider Com 1 coming from the 10 o'clock position while Com 2 is coming from the 2 o'clock position. Just like being at a cocktail party, you are able to pay attention to the person who is telling you something important, while ignoring the other conversations around you.

Another leap forward is the multiple Bluetooth® modules built-in the PMA450B. Now the pilot can connect to a Bluetooth® enabled telephone, and their Bluetooth® enabled tablet, giving the pilot the ability to hear alerts, music, and phone calls, at the same time. And with the easy to use user interface, setting priorities has never been easier. Now hear alerts from Foreflight® audio while hearing your entertainment or checklists and still being connected to your phone.

Deep capability does not mean having a difficult audio panel to use. In fact, with our OLED technology and soft key approach, the PMA450B is our easiest to use audio panel that we sell today. The large display not only makes it possible to view the display from any angle, it makes for a great way to display caller ID, display what radio message is being played back, or use as a count-down/count-up timer with audio alerts.

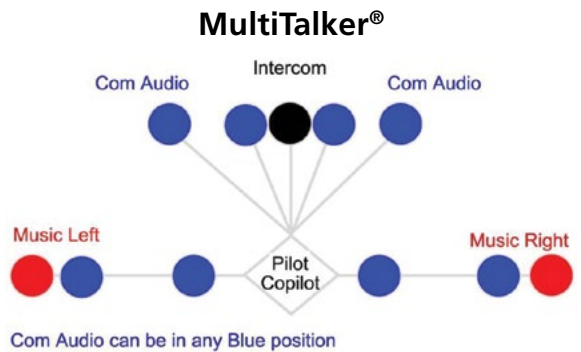
The new USB-C standard also brings more power to the pilot. This USB is for powering devices up to 15 Watts, 33% more powerful than the original USB standard. And more and more devices are demanding more power for computational demands.

In addition to the dual Bluetooth® modules, the pilot has the ability to change the Bluetooth 2 from a streamer for listening to music to an output device for use with Bluetooth® digital video recorders or Bluetooth® enabled audio dongles. Recording your audio flight experience has never been easier.

This audio panel is Plug 'N Play with GARMIN's GMA340/345, makes the upgrade easy. Except for flightmate®, get all of the capabilities by simply removing and replacing.

CHECKLIST OF CAPABILITIES:

- Com 1, Com 2, Nav 1, Nav 2, ADF, DME
- MultiTalker® True Dimensional Sound
- Dual Bluetooth® Modules
- Optional Marker Beacon Receiver
- Volume light bar indicates various volume Levels
- 3 Customizable switched inputs. Pilot creates custom labels to fit specific aircraft equipment list.
- 6-place hi-fi stereo intercom with many distribution capabilities and 3 music mute modes.
- USB-C charger for portable devices including iPhones® or iPads®.
- Adjustable volume levels for Speaker, Music 1, 2, BT1, and BT2 inputs, unswitched inputs and the optional Marker Beacon Receiver
- Two hardwired music inputs as well as two Bluetooth® music inputs
- Audiophile intercom, aircraft radio and music fidelity.
- Extremely quiet digital intercom system.
- No computer programming required, front panel configurable.



PMA450C



A lower-cost version of the PMA450B – IntelliAudio® places Com 1 at the 10 o'clock position and Com 2 at the 2 o'clock position. Does not include: flightmate®, count-down/count-up timer with audio alerts, and BT2 does not have streaming out to a digital video camera.

ORDERING INFORMATION	PART NO.
PMA450C with Marker Beacon	050-450-0801
PMA450C w/o Marker Beacon	050-450-0901

WARRANTY	
2-year Pro-Support exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee will cover any report. See Warranty information in the Installation Manual.	

ORDERING INFORMATION	PART NO.
PMA450B Audio Panel with IntelliAudio®, 6-Place IntelliVox® stereo intercom, Dual Bluetooth® and Marker Beacon	050-450-0601
PMA450B (same as above but without Marker Beacon Receiver)	050-450-0701

*GARMIN GMA240 and GMA342/345 are trademarks of Garmin International, Inc. PS Engineering, Inc. is not associated or affiliated with Garmin International, Inc. in any way.

PAR200B



Remote Mounted Radio



The PAR200B is a TSO'd audio control system that combines an audio control panel, a 4-place hi-fi stereo intercom with IntelliVox® and Bluetooth®, along with a remote mounted, 760/2280-channel VHF Aviation Communications Transceiver.

This combination of traditional stand-alone systems saves panel space, weight, and costs when compared to stand-alone units. All while providing state of the art functionality.

The user interface has seen a complete overhaul when compared to the previous versions of the PAR200 system. A large OLED display with softkeys makes operation easy and intuitive. The volume and frequency knobs have very distinct detents making frequency selection easy to accomplish, even in the choppiest of air.

The right half of the PAR200B is dedicated to the communication radio. Using the three softkeys to the left of the OLED displays allows the pilot to easily enter in radio frequencies. Pressing the bottom softkey swaps the standby into the active radio frequency.

Using the improved user interface, storing up to 5 unique frequencies for later recall has never been easier. And the large OLED display uses very large text making reading the frequencies from across the cockpit and at any angle easy to do.

The concentric knob on the left-hand side of the audio panel has two functions. If the OLED displays "Frq" then the small knob controls the KHZ selection while the large knob controls the MHZ selection. If the OLED displays "Vol", then the small knob controls the intercom volume while the large knob controls the TRIG aircraft radio volume.

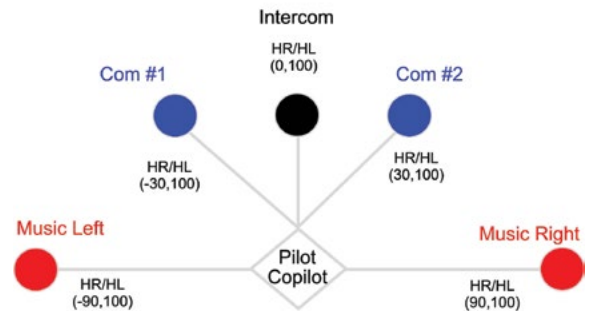
The refinements of the PAR200B didn't stop at the user interface, we added a great deal of music distribution, muting types, and individual volume flexibility. Crafted from our top of line PMA450B, the pilot can easily configure the entertainment that best fits their inflight entertainment needs.

The PAR200B has a built-in Speaker Amplifier as well as the Monitor function. But most importantly, the PAR200B now includes IntelliAudio®. This technology was developed by the USAF Wright Patterson Airforce Laboratory. When activated, COM 1 will appear to be coming from the 10 o'clock position in their stereo headset while COM 2 will appear to be coming from the 2 o'clock, making listening to the radio that is important at any instant in time much easier.

An integrated Bluetooth® module allows the connection of both a telephone and a streaming device, such as an iPad. Pilots will appreciate the reduced workload that comes with being able to tune their radio while using their phone to talk to ATC from an uncontrolled field, all while their engine is running.

IntelliAudio®

Used in PMA8000G, PAR200B, PMA450B



CHECKLIST OF CAPABILITIES:

- IntelliVox® automatic VOX circuit with individually gated mics
- IntelliAudio® true dimensional com audio
- 4 place hi-fi stereo intercom with flexible music distribution
- Ability to adjust Bluetooth and Music 1 and Music volumes
- Built-in speaker amplifier
- Easy to store and recall radio frequencies, up to five
- Remote mount Trig TY91L with minimum 6 watts of rated output
- Monitor function, listen to both active and standby at same time
- Failsafe available regardless of the Trig TY91L is Com 1 or Com 2
- Flexibility where the Com is mounted, making coax runs shorter
- Lower weight when compared to individual units
- Large OLED display with Rotary Encoder makes entering freq easy

WARRANTY

2-year Pro-Support exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee will cover any report. See Warranty information in the Installation Manual.

ORDERING INFORMATION

PART NO.

PAR200B Audio Panel, IntelliAudio, Com Radio.....	050-228-0300
PAR200B with Expansion.....	050-228-0302



Special Mission Audio Controllers



PAC45

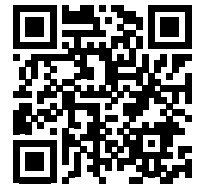
Plug 'N Play with AMS43



PAC45D

Plug 'N Play with AMS42 and AMS44





The PAC24 was designed as a versatile audio system that meets the needs of airborne law enforcement, EMS, forestry, and special mission aircraft.

Best yet, the recently updated PAC24 is designed to be easily retrofitted into the same installation as a King KMA24H-71 (050-240-0100) and the KMA24H-70 (050-240-0700). This makes adding modern, flexible, audio control and a high-performance intercom easy and cost-effective into aircraft with aging audio panels.

The PAC24 contains PS Engineering's legendary IntelliVox® intercom and 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 the features you expect from PS Engineering, like swap™, split mode, duplex mode, and a 3-year warranty. Designed from the beginning as a dual-capable system, the PAC24

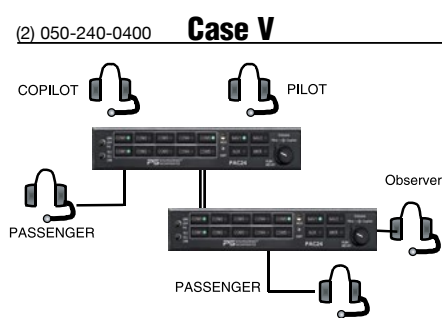
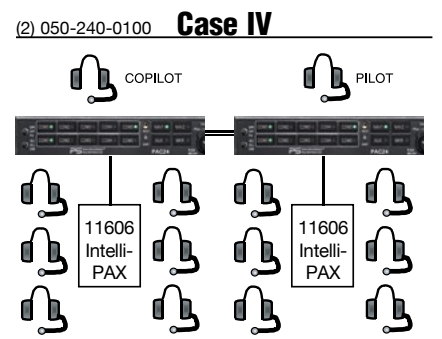
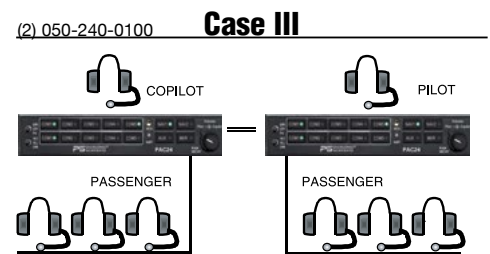
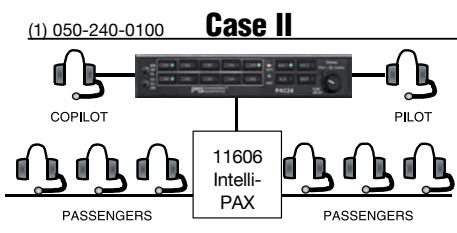
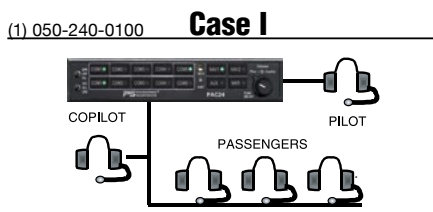
offers outstanding flexibility for crew member and passenger communications. In the dual configuration, the Pilot's audio panel has command of the ship's intercom if necessary, while the Copilot side is able to handle any necessary audio chores.

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 dedicated push to talk switch is activated.

COM 5 has special properties in the PAC24. It can be configured as either a conventional Com 5 transceiver, or as a full duplex telephone.

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 system.

For non-aviation HF and UHF radios, a tactical radio adapter is required.



TECHNICAL SPECIFICATIONS	
Approval Basis	FAA-TSO C50c EASA ETSO C50c, C35d
Certification Documents	RTCA DO-214 DO-160D, DO-178B
Intercom	5-place
Transceivers	5 (Com 1, 2, 3, 4, 5)
Audio Inputs	4 (Nav 1, Nav 2, ADF, DME)
Unswitched 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 4Ω load
Headphone	50 mW into 150, <1% THD; 120 mW into 150, <10% THD
Audio Frequency Response	±3dB, 350Hz-6,000Hz
Weight	0.8 lb.
Dimensions	6.25" W x 1.3" H x 6.8" deep
Environmental Conditions	DO-160D B1CABGMXXXXXZBBATMXXE2XXX
Temperature Range	-20 C to +70, with brief operation at +85 C
Altitude	25,000 feet, unpressurized

Case	PAC24	Expansion Unit	Pass	Crew Mode
I	Single	No	3	No
II	Single	Yes	6 or 8	Yes
III	Dual	No	6 (3+3)	No
IV	Dual	Yes	14	Yes
V	Observer	No	2	No

WARRANTY
2-year Pro-Support exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee will cover any repair. See Warranty Information in Installation manual.



All Digital::: FAA-TSO

Our FAA TSO'd audio controllers provide a price/performance ratio that sets new standards. With 38 years of dedication to designing and manufacturing best in class of aircraft audio systems, gave the unique tool set to solve the demanding requirements of special mission aircraft. The all-digital hub system makes installation of multiple control heads much easier than old analog systems.

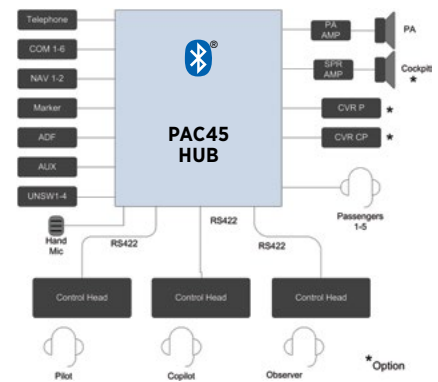
True dimensional sound, known as MultiTalker®, is exclusively licensed to PS Engineering by the USAF. By placing various COM audio in unique positions within a stereo headset, the pilot can pay attention to the radio that is important at any instant in time. The Wright Patterson Air Force Laboratory invested years in perfecting this technology. PS Engineering is now making it available to special mission aircraft.

Backward and Pin-Compatible with AMS43.

CHECKLIST OF CAPABILITIES:

- Supports six (6) Com radio interfaces
- MultiTalker® True Dimensional 3D Sound – 9-Field selectable locations
- Up to three (3) control heads via RS-422
- Eight (8) place IntelliVox® intercom built in with ICS PTT & high noise (tighten squelch) configuration, expandable to fourteen (14) intercom stations
- flightmate® with IntelliStore™ - provides three (3) customizable audio alerts
- Bluetooth® interface for wireless phone and music
- Master Radio Volume (optional)
- Custom legends are quick and easy to order for professional tailored form and function
- Satellite Radio interface with full duplex phone
- Bluetooth® interface for wireless phone and music
- Six (6) switched inputs (Note: MKR switches 3 inputs)
- Optional Night Vision compliant to ANVIS III
- 1.88" DZUS mount connector compatible with industry standard
- Remote ICS (ISO/ALL/Crew) Control
- Public Address Output
- SWAP – only swaps the Coms you're monitoring pilot side
- Radio Receive Indicator (RXI)
- Intercom call feature
- High noise configuration
- Reversionary mode
- No computers or custom software programs required
- Music mute control (Soft-Mute™)
- Dual CVR outs or single CVR w/ Speaker output
- 2-Year PS Engineering's Pro-Support Warranty™

See website for TSO Compliance Data.



The FAA TSO'd PAC45A can connect up to 8 Com radios, up to 4 independent control heads, and has an integrated 9 channel audio alert system.

Included in the PAC45A system is Receive Audio Indicator (RXI), TXI (intercom remains active during transmissions), two built-in 10 Watt speaker amplifiers, along with Bluetooth® interconnectivity are some of the enhancements that PAC45A offers.

IntelliStore™ has 9 customizable audio alerts that can be recorded using the front panel controls, eliminating the need to connect to a computer.

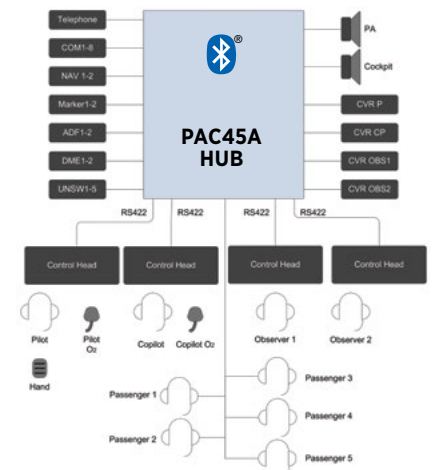
Additionally, the extensive use of configuration DIP switches, it is easy to customize the specific installation without the use of a computer.

CHECKLIST OF CAPABILITIES:

- Supports eight (8) Com radio interfaces
- MultiTalker® True Dimensional 3D Sound – 9 selectable locations
- Up to four (4) control heads via RS-422
- Nine (9) place IntelliVox® intercom built in with ICS PTT & high noise (tighten squelch) configuration, expandable to fourteen (14) intercom stations
- flightmate® with IntelliStore™ - provides nine (9) customizable audio alerts
- Two (2) built-in 10-watt speaker amplifiers
- Bluetooth® for cellphone and music inputs with Soft-Mute™ override
- Radio Receive Indicator (RXI)
- 4 independent CVR outputs
- Radio Mute Function (external switch)
- Independent and Master Radio Volume Controls
- High noise configuration (low mic gain)
- Field configurable volume controls for unswitched & alerts
- Offside Com allows monitoring other Coms when transmitting
- Optional Night Vision compliant to ANVIS III
- PIC (Pilot In Command) transmit override
- Pilot swap mode, only swaps on the Coms you're monitoring
- Remote Intercom (ISO/ALL/CREW) Selector switch
- 35 second stuck PTT disconnect
- Field configurable switched settings – No computer necessary
- 5VDC to 28VDC lighting with field adjustable settings
- CALL feature
- Reversionary mode
- 2-Year PS Engineering's Pro-Support Warranty™



All Digital::: FAA-TSO





PAC45D SPECIAL MISSION



All Digital :: FAA-TSO

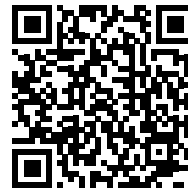
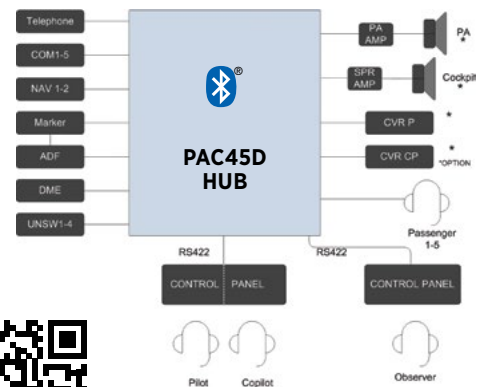
Based upon the PAC45, the PAC45D provides dual audio control capability in a single control head. The Hub can be mounted to the control head or mounted remotely. An Observer control head can be added. The built-in stereo intercom will provide clean 200mW of audio power.

The built-in audio alert system provides 3-audio alerts in addition to the existing aircraft alert system. Bluetooth® allows the interface to a cellphone or stream audio alerts into the audio system.

Pin compatible with AMS42 and AMS44.

CHECKLIST OF CAPABILITIES:

- Supports five (5) Com radio interfaces
- MultiTalker® True Dimensional 3D Sound – 9-Field selectable locations
- One Observer control head via RS-422
- Eight (8) place IntelliVox® intercom built in with ICS PTT & high noise (tighten squelch) configuration, expandable to 12 intercom stations
- Three (3) preprogrammed aural alerts, discrete high or low trigger
- Bluetooth® interface for wireless phone and music
- PIC – Pilot In Command override
- Fully DSP digital audio controller
- Comm Monitor function (primary mutes offside comms)
- RXI – Radio Traffic Active Indicator
- Custom configurable decals
- Offside Radio Audio Selectable (mute or active)
- Pilot isolation, Crew isolation and 4 transmit locations
- Bluetooth® & Hardwire stereo music input with Soft-Mute™ and Soft-Mute™ override
- Crew CALL function when observer control head is installed
- NVG optional w/backlight leveling adjustments
- Custom configurable pilot right or left seat
- Master Radio volume for each side
- Stuck PTT indicator with 35 second shutoff
- Four unswitched inputs with independent volume controls
- Dual CVR outs or single CVR w/speaker output
- Pilot (Com1, Nav1, Unsw1, Alerts) & copilot (Com 2) failsafe
- Plug and play with industry standard legacy audio controllers
- Pilot “hands on stick/yoke” comm swap mode (foot switch)
- Pilot “hands on stick/yoke” intercom ICS selection (foot switch)
- 2-Year PS Engineering’s Pro-Support Warranty™



See website for TSO Compliance Data.



PAC45J SPECIAL MISSION BUSINESS AVIATION

Based upon the PAC45A Hub, the PAC45J provides the functionality pilots who fly jet aircraft require. With the same capability as the PAC45A (reference PAC45A Checklist of Capabilities) this new FAA approved audio controller will set the new standard for jet and special mission aircraft.

CHECKLIST OF CAPABILITIES: (In addition to all the PAC45A)

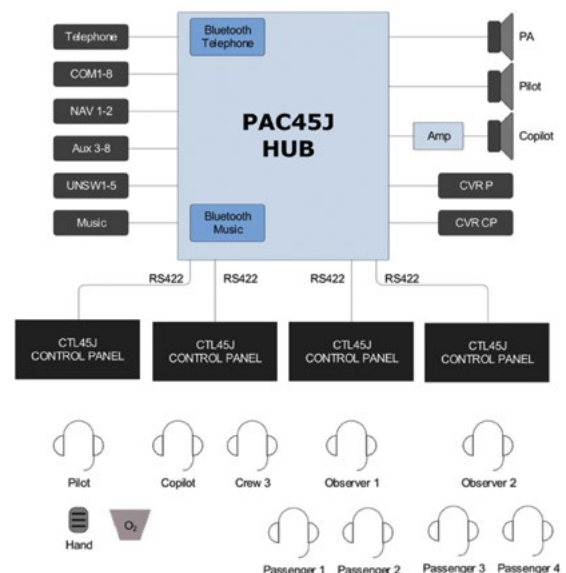
- Supports eight (8) switched inputs with volume control
- Navigation Voice Identification (VOC)
- Oxygen Mask Microphone Selection (OXY)
- Versions for both Jet and Special Mission Aircraft
- Available in Jet Grey or Black
- 2.62" DZUS mount



All Digital ::

FAA-TSO

PAC 45J Fixed Wing



See website for TSO Compliance Data.



All Digital

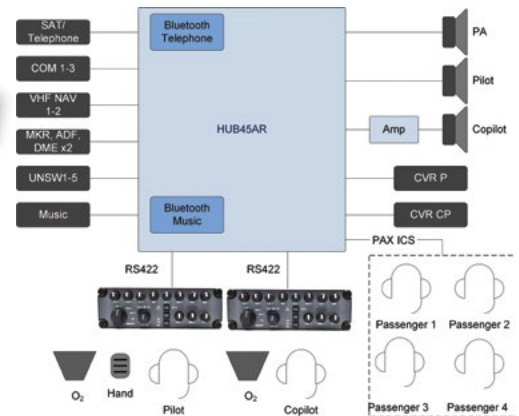
FAA-TSO

Leveraging the success of the PAC45 series, PS Engineering's PAC45L is a standalone digital audio system specifically designed for Business Aviation. The business market has been neglected long enough and PS Engineering has the solution.

The PAC45L, Part 23/25 compliant, is a true state of the art audio integration management system from a company with 38 years of experience in audio system design and engineering. This experience allows functionality and redundancy never seen before in Business Aviation, enhancing crew safety and utility.

CHECKLIST OF CAPABILITIES:

- Supports 3 Com radio interfaces + Satellite Phone
- Supports 6 switched inputs with volume controls
- Front panel selectable Navigation Voice Identification Filter (VOC)
- Front panel selectable Oxygen Mask Microphone (OXY)
- Bluetooth – telephone and EFB audio
- MultiTalker dimensional audio
- Defaults to crew intercom mode at powerup
- Supports pilot & copilot control heads
- Black or gray bezels available
- Horizontal or vertical control heads available
- FAA-TSOA, Part 23/25 compliant, DAL C



HUB45A

ACCESSORIES

Marker Beacon Receiver (MB10/MB10R)

The MB10 is a 75 MHz Marker Beacon receiver with 3-lamp indications for ILS Systems. Also available as a remote-mounted unit - MB10R.



Tactical Radio Adapter (12100)

Headphone and microphone signals from non-General Aviation applications are not compatible with FAA compliant audio device design standards. The use of the 12100 converts these non-GA radios into the appropriate inputs and outputs so they will work with GA audio systems.



The 12100 audio input can be configured for inputs of either a 150 Ω or 8 Ω speaker while the microphone output will change non-carbon mic equivalent types to carbon mic equivalent.

The 12100 also provides the required mic bias source, if required. The 12100 is capable of providing side tone during transmissions.

Dual Speaker Amplifier (PSA210)

The PSA210 is a remote-mounted dual speaker amplifier that is capable of driving two 4 Ω speakers independently at 10 Watts each. This is a compact solution for providing clean audio output to cockpit, cabin, or public address speakers.



FAA-TSO

IntelliPax™ Expansion Unit (116X6)

The IntelliPax™ is a 6-channel, hi-fi stereo expansion unit that can add 6 additional stereo headset intercom positions to PS Engineering's intercoms and audio panels. A single shielded cable is connected between the device to be expanded and to the specific IntelliPax™ unit. IntelliPax™ has our much lauded IntelliVox®, an automatic VOX that eliminates any VOX adjustments.



PRD60 Audio Alert Unit

The PRD60 contains six stored messages. An outside annunciator, such as an electronic engine instrument, can trigger these messages. When there is an announcement, it will be repeated every two seconds until the remote mounted ACK button is pushed. This stops the played announcement until the next announcement is triggered (the next falling edge). For an additional fee, custom messages can be created.



GA to Mil Headset Adapter (HSA13)

The HSA13 is a remote-mounted low impedance to high impedance adapter for adapting military-style headsets to civil aviation audio systems. It is a direct replacement for the DB Systems DB213 microphone amplifier, and can also serve to convert high impedance headphone audio to low impedance signals.



FAA-TSO

Special Mission & Jet Audio Systems Comparison List

Function	PAC45	PAC45D	PAC45A	PAC45J	PAC45L
Aviation Market	Special Mission	Special Mission	Special Mission	Special Mission & Business	Jet & Turboprop
FAA-TSOA	TSO C139a, Design Assurance Level D for Software & Complex Electronic Hardware	TSO C139a, Design Assurance Level D for Software & Complex Electronic Hardware	TSO C139a, Design Assurance Level C for Software & Complex Electronic Hardware	TSO C139a, Design Assurance Level C for Software & Complex Electronic Hardware	TSO C139a, Design Assurance Level C for Software & Complex Electronic Hardware
CTL45 Control Head Mechanical	H 1.88" x W 5.75" x L 3.75" (w/Connector)	H 1.88" x W 5.75" x L 3.75" (w/Connector)	H 1.88" x W 5.75" x L 3.75" (w/Connector)	H 2.62" x W 5.75" x L 3.75" (w/Connector)	H 1.88" x W 5.75" x L 3.75" (w/Connector)
Remote HUB Mechanical see pictures bottom of page	H 1.91" x W 5.88" x L 7.22" (w/Connectors)	H 1.91" x W 5.88" x L 7.22" (w/Connectors)	H 1.91" x W 5.88" x L 12.00" (w/Connectors)	H 1.91" x W 5.88" x L 12.00" (w/Connectors)	H 1.91" x W 5.88" x L 12.00" (w/Connectors)
Fully DSP Digital Audio System- RS422	✓	✓	✓	✓	✓
Number of control heads you can interface- pilot, copilot & observers (AFT)	3	2	4	4	2
Communication Transmit Ports	6 comms + PA + Simulcast (for push-pull version)	5 comms + PA	8 comms + PA	8 comms + PA	3 comms + PA
Stereo (Hi-Fi) Headset outputs for all headset locations- 200mW per channel- High Impedance	8	8	9	9	9
Comm Transmit Seats	4	4	4	4	2
Individual Volume Controls for all switched inputs (comms, navs)	✓		✓	✓	✓
Master Radio Volume Control (also affects audio to cockpit speaker)	✓ (for push-pull version)	✓	✓	✓	✓
Front Panel Individual Switched/Volume Controls (NAVs)	4	5	2	8	6
Unswitched Audio Inputs (Directs)	4	4	5	5	5
Field Programmable Aural Alerts w/ IntelliStore™	3	3 (fixed)	9	9	9
MultiTalker™ 3D Deminsional Sound (HRTF on front panel)	✓	✓	✓	✓	✓
Off Side Comm Monitoring- Listening to other comms while transmitting on another comm-HUB configurable	✓	✓	✓	✓	✓
Comm Monitor Mode - Turns off other comms when transmit select comm is active	✓ (Replaces HRTF)	✓	✓ (Replaces HRTF)	✓ (Replaces HRTF)	✓ (Replaces HRTF)
Simulcast Multi-Transmit- MOD #4	✓ (only for push-pull pots)				
Pilot "hands free" SWAP comm feature - foot pedal PTT	✓	✓	✓	✓	✓

INTERCOMS

PM1200 EXPERIMENTAL



TECHNICAL SPECIFICATIONS

Approval Basis	3 dB Music Freq. Response
None	200 Hz to 15 kHz
Input Power	Unit weight
13.8 - 27.5 Volts DC, < 250 mA	12 Ounces (0.342 kg)
Output Power	Dimensions
120 mW into 150 @ 27.5 VDC	1.25" H x 3.00" W x 5.80" D
70 mW @ 13.75 VDC	Temperature
Headphone Impedance	-20°C to +55°C
150-1000Ω (typical)	

The PM1200 is designed for the noisiest of aircraft, including open cockpit and warbird aircraft. The Active Microphone Processor (AMP) uses emphasis and de-emphasis to strip much of the background noise out of the intercom audio.

The PM1200 provides both our IntelliVox® auto-squelch and Push-to-talk intercom (PTT-ICS) so that when the cockpit noise is too high for VOX operation, a press of the Copilot's volume control places the PM1200 into PTT-ICS mode.

And for those pilots who like to wear ear plugs while wearing headsets, the PM1200 has the ability, when connected to a 24 volt system, of providing up to 120mW! Now that's a lot of audio punch!



ORDERING INFORMATION

PART NO.

PM1200 2-place high performance intercom	11960
With AMP™ and IntelliVox®, specifically designed for high noise environment. Includes jack kit.	
6-Place Expansion Unit	11616

PM1000II TSO'd



TECHNICAL SPECIFICATIONS

FAA TSO	TSO C50c
Input power	13.8 - 27.5 Volts DC, <250 mA
Headphone Impedance	150-1000Ω typical
Audio Output	75 mW into 150Ω load <10% THD
±3 dB Mic Freq. Response	350 Hz - 6000 Hz
±3 dB Music Freq. Response	200 Hz to 15 kHz
Unit weight	12 Ounces (0.342 kg)
Dimensions	1.25" H x 2.60" W x 5.50" D

The PM1000II is a 4-place panel mounted intercom with VOX. Individual volume and squelch controls for the crew reduces the number of microphones that are on at any one time, reducing the din of the cockpit.

The PM1000II (11922) provides Pilot Isolate and All modes.

This design makes it easy to balance intercom, radio and music volume levels. And with Soft Mute®, the Pilot will never miss a radio call because the monaural music is automatically muted.



ORDERING INFORMATION

PART NO.

PM1000II 4-Place Intercom, FAA-TSO	11922
Panel intercom with ISO and ALL, music input. Installation hardware included.	
6-Place Expansion Unit	11616

PM3000 TSO'd



TECHNICAL SPECIFICATIONS

Approval Basis	TSO C50c
Input power	12-28 VDC, Current Drain: < 250 mA
Headphone Impedance	150-1000 Ω Typical
Audio Distortion	<10%THD @150 mW into 150
Aircraft Radio Impedance	510Ω
+3 dB Microphone Freq. Response	300 Hz - 6000 Hz
+3 dB Music Freq. Response	200 Hz - 15Khz
Weight	12 Oz.
Dimensions	1.25" H X 3.00" W X 5.50" D
FAA-TSO C50c	RTCA/DO-214, D0160C

With audiophile stereo music sound, this panel mount provides high-quality intercom and aircraft radio audio, while Soft Mute® provides the Pilot the ability to select having the muting function turned on or off. This eliminates the need for constant changes in the stereo music when the aircraft radio becomes active.

The VOX in the PM3000 earned the reputation "Set it-Forget it, it's the most forgettable intercom you'll ever use." The single VOX control sets the trip level for the Pilot, Copilot, and passengers microphones, reducing the number of microphones that are on at any one time.

The PM3000A (11931A) has 2-unswitched audio inputs.



ORDERING INFORMATION

PART NO.

PM3000A 4-Place Stereo Intercom, FAA-TSO	11931A
Intercom with ISO and ALL, differential music input, two unswitched inputs. Installation hardware included.	

WARRANTY

1-year Pro-Support exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee will cover any report. See Warranty information in the Installation Manual.