General Aviation Audio Control Panel Capability List

Function	PMA4000	PMA6000B	PMA7000M	PMA7000B	PMA7000BT	PMA7000H	PMA 7000H-BT	PMA8000B	PMA8000BT	PMA8000C	PMA8000G	PMA450B
Number of Intercom Stations	4	4	6	6	6	10	10	6	6	6	6	6
Number of Coms	2	2	3	3	3	3	3	2	2	3	2	2
Number of Switched Inputs	2	6	5	5	5	6	6	5	5	5	3	5
Number of Unswitched Inputs	4	2	4	4	4	4	4	4	4	4	4	4 (6)
Automatic VOX	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Music Mute Modes	ALL/OFF	ALL/OFF	ALL/OFF	ALL/OFF	ALL/OFF	ALL/OFF	ALL/OFF	3 Modes	3 Modes	3 Modes	3 Modes	9 Modes
Stereo Music			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mono Music	✓	✓	✓									
Music Distribution			2 Modes	1 Mode	2 Modes	2 Modes	2 Modes	3 Modes	3 Modes	3 Modes	3 Modes	27 Modes
Passenger Music Muting Selection			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Alternate Intercom Function			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bluetooth® Modules			✓ - One		✓ - One		✓ - One		✓ - One	✓ - One	✓ - One	✓ - Two
Stream Out to Digital Video Camera											✓	✓
Front Panel Phone Control								✓	✓		✓	✓ w/ Display
Comm Monitor Function								✓	✓	✓	✓	✓
Digital Playback Recorder								✓	✓	✓	✓	✓ w/ Display
Pilot Music While in ISO Mode								✓	✓	✓	✓	✓ w/ Display
Front Panel Music Volume								✓	✓	✓	✓	✓
IntelliAudio® Dimensional Sound											✓	✓
Flightmate® Aural Alerts											✓	✓
USB Charging Port											✓ - 10W	✓ - 15W
Music ON/OFF Switch for Pilot											✓	✓
Countdown/up Timer												✓
Configure Copilot as Passenger												✓
Plug & Play w/GMA340								✓	✓	✓	✓	✓
Pin Compatible w/KMA 24			✓	✓	✓	✓	✓					
Warranty (years)	1	1	2	2	2	2	2	3	3	3	3	2

PS ENGINEERING® INCORPORATED
Sound Quality. Sound Engineering.

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PS ENGINEERING® INCORPORATED
Sound Quality. Sound Engineering.

State of the Art Aircraft Audio Control Systems

Radio-ICS
Entertainment
IntelliAudio-Timer

PMA450B

Flying Never Sounded So Good®

While we may not have many floors in our buildings, we have one great story. 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 design, build, and support their world acclaimed audio selector panels and intercoms. As a result, PS Engineering was recognized by the Aircraft Electronics Association (AEA) for the second time, as their Associate Member of the Year. Awarded in 1997 and most recently in 2014.

In 1985, two electrical engineers, one a pilot the other a circuit designer, found themselves wondering when the revolution would come to the field of audio control. At the time, aircraft intercoms and audio panels had seen virtually no improvements in over a decade. With new digital circuitry and technologies, they believed it was time for the revolution to begin.

If these two guys hadn't founded PS Engineering, 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 approved stereo audio panel with intercom and marker beacons, all in the same unit*
- *First to fully integrate music with Soft Mute technology, 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 playback of aircraft radio receptions*
- *First to introduce AMP™, (Active Microphone Processor) a system that removes noise from the microphone*
- *First to provide Bluetooth® integration, allowing phone calls and music to seamlessly connect to audio panel*
- *First and only company to commercially implement USAF patented technology for True Dimensional Sound Patent no. 7,391,877*

When you see innovation in audio, chances are, it is from PS Engineering.

Flying Never Sounded So Good®

AUDIO PANELS

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.

Certified

PAR200A – World's first audio selector panel that functions as a hi-fi stereo intercom with Bluetooth® and controls a remote mounted Com radio.

PMA450B – A slide-in replacement for the GARMIN* GMA340 and the PMA8000 Series. This Digital Audio Selector Panel provides IntelliAudio® Dimensional Sound, Graphics Display Control User Interface, 6-place IntelliVox® and hi-fi stereo with Bluetooth® interface.

PMA4000 – A small form-factor was the design goal for this little jewel. Capable of being panel mounted like an intercom or in a 2¼" round instrument hole, the PMA4000 also provides a four-place mono intercom with IntelliVox® and speaker amplifier.

PMA6000B – Low cost solution. This is the only audio panel we know that includes an intercom and a marker beacon receiver selling for less than $1095.

PMA7000 Series – Pin-compatible to the KMA24, these audio panels incorporate IntelliVox® and enhanced capabilities such as full duplex wireless telephone, and audiophile stereo music inputs. Three systems to choose from.

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

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

PAC45 – This all digital audio controller is well suited for the demanding cockpits where many radios may be heard simultaneously. MultiTalker™ allows the pilot to place these Coms in unique positions within the stereo headset. Add Bluetooth®, audio alerts, and AMS pin compatibility, the PAC45 bring an unprecedented amount of capability at a very low cost.

PAR200A
PMA450B
PMA4000
PMA6000B
PMA7000 Series
PMA8000 Series
PAC24
PAC45
PDA360EX

Experimental

PDA360EX – The fundamental advantage of the PDA360EX over conventional audio panels for the homebuilt aircraft is that is uses the same technology as its big brother, the PMA450B.

IntelliVox®	IntelliAudio®	ProSupport™
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.	All of our audio panels include PS Engineering's ProSupport Warranty. Depending upon the audio panel installed, the unit will come with either a 1, 2, or 3 year guarantee that if the unit was installed by an authorized PS Engineering Dealer or a custom wire harness was purchased from PS Engineering, a warranty exchange unit will be shipped the same day of the issuance of an RMA.

Remote Mounted Radio

The Aviation Consumer.
September 2014 "Impresses"

TECHNICAL SPECIFICATIONS

PAR200A Audio Panel and Radio -	FAA - TSO - EASA - ETSO
Audio Selector/Intercom	FAA TSO-C139
Communications Transceiver	FAA TSO-C169a (PARTIAL)
Environmental Qualification DO-160G	A1C1BAESRXXXXXXZ B(XX) ABATTBXXA2E2 XXX
Operating Temperature Range:	-20° C to 55°C , short term -40°C to +70°C
Altitude:	35,000 feet
PAR200A Unit Weight	1.1 lb. (0.49 kg)
Rack with connectors	0.51 lb. (0.24 kg)
Voltage:	11-33 VDC
Maximum Current:	2.5 Amp (Externally protected by a 3A pull-type breaker)

AUDIO SELECTOR SPECIFICATIONS

Audio selector panel input impedance:	510 Ω
Input Isolation:	-60 dB (min.)
Receiver Inputs:	4 (Com 1, Com 2, Nav 1, Nav 2)
Unswitched Inputs:	4
Transmitter Selections:	3 (Com 1, Com 2, Com 1/2)
Headphone Impedance:	150 – 1000 Ω
Headphone Output:	30 mW each headset, no clipping <1% THD typical into 150 Ω)

Speaker Output (into 4 Ω) with no clipping

14 VDC: 3 Watts (min.)	28 VDC: 10 Watts (min.)
Microphone Impedance:	150 - 600 Ω
Intercom Positions:	4-place IntelliVox® ICS
Music Inputs:	2 (Independent, Stereo)
Distortion:	<1% THD @ 30 mW into 150Ω
Mic Freq. Response, 3 dB:	300 Hz - 6000 Hz
Music Freq. Response, 3 dB:	20 Hz - 20 KHz

COM RADIO TRIG TY91

Channels (Transmit & receive)	760 channels, 25 KHz spacing
	2280 channels, 8.33 KHz spacing
	118.000 – 136.992 MHz
Power consumption Receive (no signal)	2.8W @ 14VDC
Transmit	3.2A
Input Voltage	11-33 VDC 5A Circuit Breaker.
Power output	6 watts (nominal) VSWR Tolerance < 2:1 for best operation (5:1 without damage)
Receiver sensitivity	-6dB SINAD @ 5µV (1KHz audio with 70% modulation)
Temperature range	-20 to +70 degrees Celsius
Dimensions	W-2.5" x H-1.9" x D6.3" (plus 1.5" for harness) W-66mm H-48mm x D-160 (plus 35mm for harness)
Weight	0.77 lbs (0.350 k)
FCC ID:	VZI00882

The PAR200A is an FAA Approved system that combines an audio control panel, 4-place stereo IntelliVox® intercom with Bluetooth®, and a remote mounted, 760/2280-channel VHF aviation communications transceiver.

This system saves cockpit space, weight, and money over stand-alone independent systems while providing the most sought after functionality.

The PAR200A is attractive for the aircraft that is used primarily for VFR missions or as an audio panel/back-up com to more advanced systems. The elimination of one panel mounted radio saves valuable panel space.

Seamless integration between the audio panel and the radio was the goal for the best user experience possible, while keeping the system costs to a minimum.

The right half of the PAR200A is dedicated to the communication radio, with an easy to read LCD display that shows the frequencies, which are controlled through a concentric knob. This radio has active and standby frequencies, and a standby frequency monitor mode that permits listening to both active and standby frequencies.

The Pilot can store up to 5 frequencies in non-volatile memory so he can easily tune to his frequently used channels. The radio also has autosquelch, so you will always have optimal radio sensitivity.

The left half controls the audio panel for radio selection, intercom and music volume, intercom modes, and multiple music mute mode control. The PAR200A has two independent music inputs. Independent power supplies assure operation in failsafe on the audio panel; the VHF radio can still be used.

The PAR200A can be configured as stand alone, as COM 1, or as COM 2. This provides flexibility to allow the aircraft owner to decide if a second radio will be used and in what position. The PAR200A includes a cockpit speaker amplifier for additional flexibility.

An integrated Bluetooth® system allows the PAR200A to interface with cellular telephones, giving the aircraft occupants ready access to their telephones. In addition, the Bluetooth® will stream music from compatible devices like iPads, and smart phones.

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.

PAR200A Audio Panel, Stereo Intercom, Com Radio......................................050-228-0200

Warranty: 2-Year Pro Support Exchange Program, when installed by an authorized PS Engineering Dealer.

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 IntelliAudio®, gives the pilot the capability to pay attention to the radio that is important to their flight at any instant in time. Consider the 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 tochange the Bluetooth 2 from a streamer for listening to music to an output device for use with Bluetooth® digital video recorders or Bluetooth® enabled other audio dongles. Recording your audio flight experience has never been easier.

This audio panel is Plug 'N Play with GARMIN's GMA340, so making the upgrade, as easy as 1-2-3. The existing wire harness and tray that is installed for the GMA340 is complete and there is nothing to add or change. Get all of the new capabilities by simply removing and replacing. A simple log book entry is all that is required.

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

CHECKLIST OF CAPABILITIES:

- Com 1, Com 2, Nav 1, Nav 2, Aux 1, Aux 2 (Aux switched inputs can be labeled)
- IntelliAudio® provides dimensional sound for easy discernment of simultaneous radio sources
- 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 limitless distribution capability and 3 music mute modes.
- USB-C charger for portable devices including iPhones® or iPads®.
- Adjustable volume levels for Speaker, Music 1, 2, and Bluetooth" 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.

TECHNICAL SPECIFICATIONS

Approval Basis	FAA TSO C139a, C35d, C71
Certification Documents	RTCA, Inc. DO-143, DO-160G, DO-214A, DO-178C, DO-254
Intercom	6-place Stereo
Transmitter Selections	4 (Com 1, Com 2, Com 1/2 Split, Bluetooth TEL)
Switched Receiver Inputs	6 (Nav 1, Nav 2, MKR, AUX 1, AUX 2, AUX 3)
Portable Electronic Device Charging Port	+5.0 VDC, 15 Watts from USB-C connector
Unswitched Inputs	4-configurable
Power Requirements	11-33 VDC, 3.5 Amps
Audio Output Power Speaker:	3 Watts (14V), 10 Watts (28V)
Headphone:	35mW each headset, no clipping <1% distortion typical
Audio Frequency Response	+/- 3db, 300 Hz to 6000 KHz
Entertainment Frequency Response	+/- 3db, 20 Hz to 16 KHz
Music Inputs	3 (independent and user configurable)
Weight	1.5 lbs (with tray & installation kit)
Dimensions	Height: 1.3 in. (3.3cm)
	Weight: 6.25 in. (16.9cm)
	Depth: 7.15 in. (18.16cm)
Environmental Qualifications	RTCA DO-160G
Temperature Range	Operating -20° to +55°C, Short Term Operating -40° to +70°
Altitude	35,000 feet
Available Marker Receiver	75 MHz, Crystal Controlled, receiver and indicator
External Marker Outputs	Lights and MM sense output

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

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 pushbutton.

The PMA4000 has PS Engineering's revolutionary IntelliVox® intercom squelch protocol. A mode switch allows the Pilot to select either ISO or ALL intercom modes.

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 mounted in another location. The volume controls only the intercom, the radio volume is adjusted by the radio controls.

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

Shown actual size

TECHNICAL SPECIFICATIONS

Approval Basis	FAA-TSO C50c (11942)
Input power	12-28 Volts Current Drain: < 250 mA
Headphone Impedance	150-1000 Typical
Audio Distortion	<1% THD @ 38 mW into 150
Speaker Output	3 Watts @ 14 Vdc 10 Watts @ 28 Vdc
Aircraft Radio Impedance	510
±3 dB Music Freq. Response	200 Hz-18 Khz

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

2¼" round mounting plate...575-004-0001
Allows installation in a standard 2¼-inch instrument hole.

Warranty: 1-Year Pro Support Exchange Program, when installed by an authorized PS Engineering Dealer
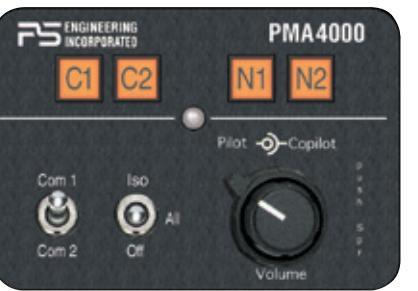
The PMA6000B has been given the benefit of PS Engineering's years of audio panel control design and manufacturing experience. It offers a low cost alternative to the more capable audio panel product line that the industry has come to expect from such a focused and driven company.

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.

ORDERING INFORMATION   PART NO.

PMA6000B Audio Selector w/ 4-place intercom and Marker Beacon 050-604-0300
PMA6000B No Marker Beacon...050-604-0100

Warranty: 1-Year Pro Support Exchange Program, when installed by an authorized PS Engineering Dealer

TECHNICAL SPECIFICATIONS

Approval Basis	FAA-TSO C50c, C35d
	EASA ETSO C50c, C35d
Certification Documents	RTCA DO-160B, DO-178B, DO-143
Intercom	4-place Mono
Transceivers	2 (Com 1, Com 2)
Receiver Inputs	6 (Nav 1, Nav 2, ADF, DME, AUX, MKR)
Marker Beacon	Internal (optional)
Unswitched inputs	2
Power Required	11-33 VDC, 1.5 A
Power consumption	Speaker ON: 600mA OFF: 350 mA
Output power Speaker:	3 W into 4Ω
Headphone:	50 mW into 150Ω, <1% THD
Audio Frequency Response	±3dB, 350Hz-6,000Hz
Entertainment Frequency Response	±3dB, 200Hz-15,000 Hz
Weight	0.8 lb.
Dimensions	6.25" W x 1.3" H x 7.15"
Environmental Conditions	DO-160B
	A1D1/CAMXXXXXXBBBBAAX
Temperature Range	-20 C to +55 , with brief
	operation at +70 C
Altitude	50,000 feet, unpressurized
Marker Receiver	75 MHz crystal controlled with external
	marker lights and MM sense output

Bluetooth™

PMA7000BT

The Advantage of the PMA7000 Series
The PMA7000 series lends itself to many types of aircraft installations as well as providing an inexpensive path to upgrading from either our legacy audio panels or the Bendix/King KMA24.

The PMA7000B and PMA7000BT are 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.

For owners of the Bendix/King KMA24 audio panels, PMA7000 series is less expensive to install when compared to other audio panels. The PMA7000 series re-uses the KMA24 connector, thus making the installation process considerably easier.

And with the various models, you can pick and choose the PMA7000 that best meets your specific flight mission.

PMA7000B

PMA7000B
This IntelliVox® enabled 6-place hi-fi stereo intercom makes adjusting VOX a thing of the past. 3-Com capability connects either a HF/VHF radio or can be connected to a full duplex telephone. Alternate Intercom Mode allows the passengers to be on the intercom but won't hear any radio activity and when the radio does become active, the crew will not hear the passenger. Split mode allows the pilot to be on one Com while the copilot on another, enjoy the benefit of off-loading some radio work to your copilot.

PMA7000BT
This unit adds integrated Bluetooth® capability. Bluetooth® provides the ability to pair other Bluetooth® enabled devices providing wireless connections to Bluetooth® enabled telephones and music devices. What a great tool to get your IFR clearance when you are in the airplane.

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.

PMA7000B Audio Selector with 6-place intercom and Marker Beacon.....050-781-0203
PMA7000B No Marker Beacon...050-781-0103
PMA7000BT Audio Selector with Bluetooth® and Marker Beacon.............050-781-0204
(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

TECHNICAL SPECIFICATIONS

Approval Basis	FAA-TSO C35d, C50c
	EASA ETSO C50c, C35d
Certification Documents	RTCA DO-160C, DO-178B,
	DO-143, DO-214
Intercom	6-place Stereo
Transceivers	3 - Com 1, Com 2, Com 3
	(or Tel Duplex)
Receiver Inputs	5 - Nav 1, Nav 2, ADF, AUX, DME
Marker Beacon	Internal
Unswitched inputs	4
Power Required	11-33 VDC, 1.5 A
Power consumption	Speaker on, 600mA typical.
	1A peak
	Speaker off, 350 mA
Output power	
Speaker:	3W into 4Ω (14V) 10W into 4Ω (28V)
Headphone:	50 mW into 150Ω w/o clipping
	38 mW into 150Ω, <1% distortion
Audio Frequency Response	±3dB, 300Hz-6,000Hz
Entertainment Frequency Response	±3dB, 20Hz-18,000 Hz
Weight	1.5 lb.
Dimensions	6.25" W x 1.3" H x 6.8" deep behind
	instrument panel
Environmental Conditions	DO-160C
	A1D1/CA(MN)XXXXXXBBBBTBKXX
Temperature Range	-15 C to +55 , with brief operation at
	+70 C
Altitude	50,000 feet, unpressurized
Marker Receiver	75 MHz crystal controlled receiver
External Marker	Lights and MM sense output

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"

This expanded version of the PMA7000B includes a 10-place intercom and an optional 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.

PMA7000H

TECHNICAL SPECIFICATIONS

Approval Basis	FAA-TSO C35d, C50c EASA ETSO C50c, C35d	Output power	
Certification Docs	RTCA DO-160C, DO-178B, DO-143, DO-214	Speaker: Headphone:	3W into 4Ω (14V) 10W into 4Ω (28V) 50 mW into 150Ω w/o clipping 38 mW into 150Ω, <1% distortion
Intercom	10-place Stereo	Audio Freq. Response	±3dB, 300Hz-6,000Hz
Transceivers	3 - Com 1, Com 2, Com 3 (or Tel Duplex)	Music Freq. Response Weight	±3dB, 20Hz-18,000 Hz 1.5 lb.
Receiver Inputs	5 - Nav 1, Nav 2, ADF, AUX, DME	Dimensions	6.25" W x 1.3" H x 6.8" D
Marker Beacon	Internal	Environmental	DO-160C
Unswitched inputs	4		A1D1/CA(MN)XXXXXXBBBBTBKXX
Power Required	11-33 VDC, 1.5 A	Temperature Range	-15 C to +55 , with brief ops at +70 C
Power consumption	Speaker on, 600mA typical. 1A peak Speaker off, 350 mA	Altitude Marker Receiver	50,000 feet, unpressurized 75 MHz crystal controlled receiver

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

June 2011 "Does It All"

PMA8000B

The PMA8000 Series Audio Selector Panel is the original GARMIN GMA340* Plug 'N Play audio panel. This makes upgrading for the aircraft owner who owns the GMA340 to the more capable PMA8000 as easy is sliding one out and sliding one back in.

For pilot's who need more from their audio panel to meet their mission, there are several models to choose from, starting with the PMA8000B all the way up to the PMA8000E, a true dual audio panel system.

There are several advanced functions that can be accessed by the front panel pushbuttons.

- Alternate Intercom Function places everyone on the intercom but the passengers will hear no aircraft radio and when the aircraft radio is active, the crew will not hear the passengers.

- Music Distribution allows front panel selection on how music 1 and music 2 will be distributed within the aircraft. There is also front panel control of music volume

- The Monitor Function allows the primary radio to mute the secondary radio, making it easier to catch ATC calls when you are listening to ATIS

TECHNICAL SPECIFICATIONS

Approval Basis	FAA TSO C35d, C50c EASA ETSO C50c, C35d
Certification Documents	RTCA/DO-214 RTCA/DO-143 RTCA/DO-160D RTCA/DO-178B DO-254
Intercom	6-place Stereo
Transmitter Selections	4 (Com 1, Com 2, Com 1/2, TEL)
Receiver Inputs	6 (Nav 1, Nav 2, ADF, DME, MKR, AUX)
Marker Beacon	Internal
Unswitched Inputs	5 - including front panel jack
Power Requirements	11 to 33 VDC , 2.5 Amp
Output Power Speaker Output:	3 Watts (14V), 10 Watts (28V.)
Headphones:	38 mW each headset, no clipping <1% distortion typical
Audio Frequency Response	± 3 dB, 300 Hz - 6000 Hz
Entertainment Frequency Response	± 3 dB 20 Hz - 18 kHz
Weight	1.85 lb.
Dimensions	Height: 1.3 in. (3.3 cm) Width: 6.25 in. (16.9 cm) Depth: 7.15 in. (18.16 cm)
Environmental Qualification	RTCA DO-160D, A1D1CABSMXXXXXXZBABATBXXE2XXX
Temperature Range	-15° C to 55°C
Altitude	50,000 feet, unpressurized
Marker Receiver	75 MHz, Crystal Controlled
External Marker Outputs	Lights and MM sense output

CHECKLIST OF CAPABILITIES:

- IntelliVox® automatic VOX system with individually gated microphones
- Split mode for independent transmit capability
- 6-Place hi-fi stereo intercom with Selectable Muting Modes
- Monitor Function which allows automatic muting of the non-primary radio
- 4 - Music Mute mode: Mute On, Mute Off, Radio Mute, Intercom Mute
- Dedicated front panel music volume control
- Built-in Marker Beacon Receiver
- Cellular telephone input with "DuTel™" telephone distribution
- Easy front panel control for telephone sidetone on/off
- Continuous Loop Digital Aircraft Radio Recorder
- Front panel jack for phone, iPod, or unswitched audio warnings
- 2 - Hi-fidelity stereo music inputs (no ground loop noise)
- 3 - Isolation modes - Pilot Isolate, All, and Crew
- 5 - Unswitched inputs, including front panel jack
- Selectable Music Distribution
- Selectable Intercom Mode with special "Alternate Intercom Function"
- RAM (Radio Active Mute) eliminates constant background noise

PMA8000B-VRT

ORDERING INFORMATION	PART NO.
PMA8000B Audio Panel, Marker Beacon, stereo intercom	050-890-0202
PMA8000B Vertically Mounted Audio Panel	050-890-0502

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

The PMA8000G marks another major milestone in the company's innovative history. This audio panel has significant advancement 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 programed 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 enough power for iPads that are running the most demanding applications and still be trickle charging the iPad battery.

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

ORDERING INFORMATION — PART NO.

PMA8000G Audio Panel with IntelliAudio®, 6-Place IntelliVox® stereo intercom, Bluetooth®, IntelliAudio®, and USB charger 050-890-0912
With BT Streaming...050-890-0913

TECHNICAL SPECIFICATIONS

Approval Basis	FAA TSO C35d, C50c EASA ETSO C50c, C35d
Certification Documents	RTCA/DO-214 RTCA/DO-143 RTCA/DO-160D RTCA/DO-178B DO-254
Intercom	6-place Stereo (8000E up to 14-place)
Transmitter Selections	3 (Com 1, Com 2, Com 3)
Receiver Inputs	6 (Nav 1, Nav 2, ADF, DME, MKR, AUX)
Marker Beacon	Internal
Unswitched Inputs	5 - including front panel jack
Power Requirements	11 to 33 VDC , 2.5 Amp
Output Power Speaker Output:	3 Watts (14V), 10 Watts (28V.)
Headphones:	38 mW each headset, no clipping <1% distortion typical
Audio Frequency Response	± 3 dB, 300 Hz - 6000 Hz
Entertainment Frequency Response	± 3 dB 20 Hz - 18 kHz
Weight	1.85 lb.
Dimensions	Height: 1.3 in. (3.3 cm) Width: 6.25 in. (16.9 cm) Depth: 7.15 in. (18.16 cm)
Environmental Qualification	RTCA DO-160D, A1D1CABSMXXXXXXZBABATBXXE2XXX
Temperature Range	-15° C to 55°C
Altitude	50,000 feet, unpressurized
Marker Receiver	75 MHz, Crystal Controlled
External Marker Outputs	Lights and MM sense output

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.

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 be 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.

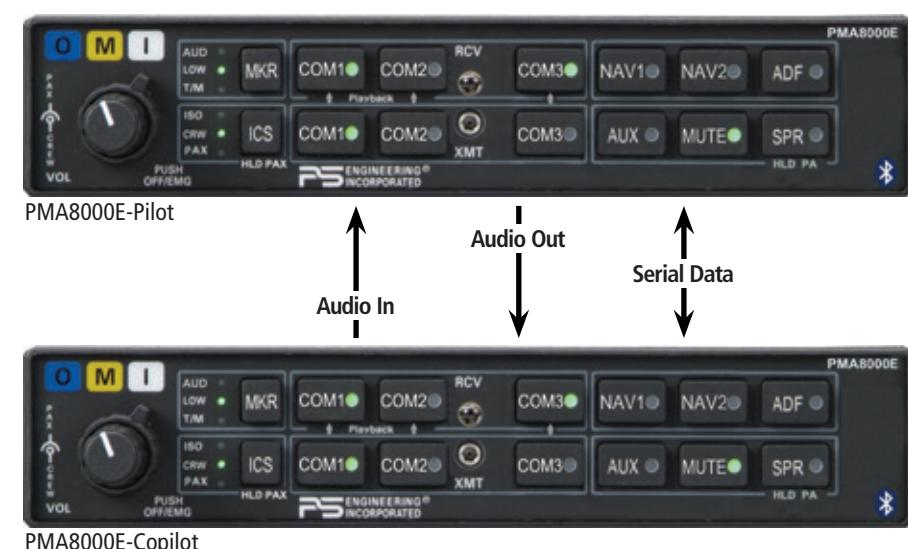**WARRANTY**
3-year Pro-Support exchange program, when installed by an authorized PS Engineering Dealer. After the warranty expires, a fixed repair fee will cover any repair. See Warranty Information in Installation manual.

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PMA8000C

TECHNICAL SPECIFICATIONS

Approval Basis	FAA TSO C35d, C50c EASA ETSO C50c, C35d
Certification Documents	RTCA/DO-214 RTCA/DO-143 RTCA/DO-160D RTCA/DO-178B DO-254
Intercom	6-place Stereo (8000E up to 14-place)
Transmitter Selections	3 (Com 1, Com 2, Com 3)
Receiver Inputs	6 (Nav 1, Nav 2, ADF, DME, MKR, AUX)
Marker Beacon	Internal
Unswitched Inputs	5 - including front panel jack
Power Requirements	11 to 33 VDC , 2.5 Amp
Output Power Speaker Output:	3 Watts (14V), 10 Watts (28V.)
Headphones:	38 mW each headset, no clipping <1% distortion typical
Audio Frequency Response	± 3 dB, 300 Hz - 6000 Hz
Entertainment Frequency Response	± 3 dB 20 Hz - 18 kHz
Weight	1.85 lb.
Dimensions	Height: 1.3 in. (3.3 cm) Width: 6.25 in. (16.9 cm) Depth: 7.15 in. (18.16 cm)
Environmental Qualification	RTCA DO-160D, A1D1CABSMXXXXXXZBABATBXXE2XXX
Temperature Range	-15° C to 55°C
Altitude	50,000 feet, unpressurized
Marker Receiver	75 MHz, Crystal Controlled
External Marker Outputs	Lights and MM sense output

PMA8000E-Pilot

Audio Out
Serial Data
Audio In

PMA8000E-Copilot

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
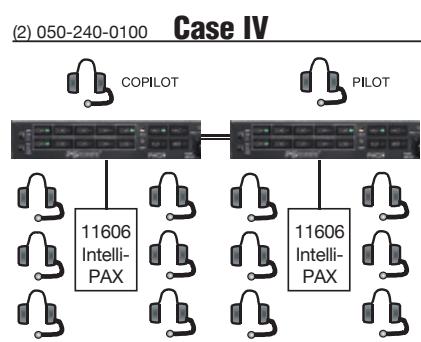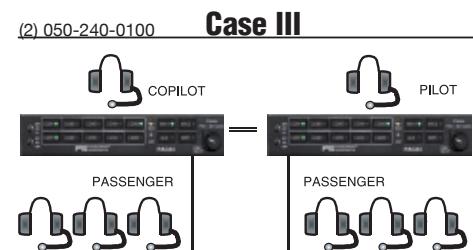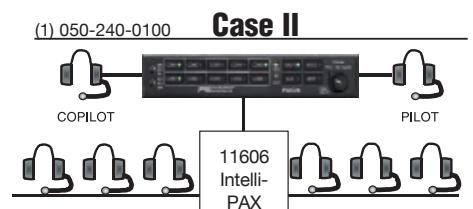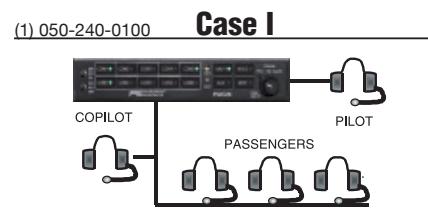
PAC24

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 retrofit into the same installation as a King KMA24H (-71). 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 3-year warranty. Designed from the beginning as a dual-capable system, the PAC24 offers outstanding flexibility for crew member and passenger communications. The dual configuration, the Pilot's audio panel has command of the ships' 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.

(1) 050-240-0100 Case I

(1) 050-240-0100 Case II

(2) 050-240-0100 Case III

(2) 050-240-0100 Case IV

(2) 050-240-0400 Case V

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 B1CABGMXXXXXXZBBATMXXE2XXX
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
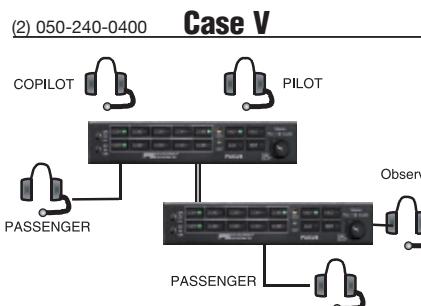
ORDERING INFO	PART NO.
PAC24	050-240-0100

Audio Selector Panel
PAC24 Vertical Version 050-240-0500
Audio Selector Panel
PAC24 Observer 050-240-0400
Audio Selector Panel for dual/Observer install
Tactical Radio Adapter 12100

MultiTalker™ Bluetooth™

PAC45

Special Mission Audio Controller

For the special mission pilot, where hearing many radios all at the same time is part of the job, and differentiating specific radio calls is not an easy task. That is until now.

MultiTalker™ offers this unique capability to the special mission pilot, the ability to pay attention to the radio call that is important at any one instant in time. MultiTalker™ allows the pilot to place 6 individual com radio traffic, up to nine unique positions within a stereo headsets.

The PAC45 is pin compatible with the NAT AMS series making upgrading replacing legacy systems easier.

CHECKLIST OF CAPABILITIES:

- Six (6) Com radio interfaces with True Dimensional Spatial Processing
- Up to 3 individual control heads via RS-422
- Custom legends are quick and easy to order for professional tailored form and function
- Satellite Radio interface with full duplex phone
- Seven-place intercom with Auto and PTT-ICS VOX
- flightmate® field recordable audio alerts system
- Six (6) switched inputs Note: AUX switches 3 inputs
- Bluetooth interface for wireless phone and A2DP
- 1.88" DZUS mount backward compatible NAT AMS
- Night Vision compliant to ANVIS III
- Radio volume controls with pop-out switches
- Public Address Output
- FAA TSO C139a

ORDERING INFORMATION	PART NO.

Call PS Engineering at (800) 427-2376 for ordering details

For Experimental Aircraft Only

Bluetooth™

PDA360EX

The little brother to the PMA450B, this audio panel packs a tremendous amount of capability in a non-certified setting, eliminating the high costs of certifying a software based audio panel.

IntelliAudio® is probably the most important new function that has been brought to the pilot community in the last decade. The pilot can place Com 1 in one position in their stereo headset and Com 2 in another. This allows the pilot to take advantage of the "cocktail party effect," paying attention to the radio that is most important at any one instant in time.

The 10-Watt USB charger will come in handy when your iPad battery becomes low. This USB charger will not only operate the iPad but will trickle charge it at the same time.

PDA360EX packs a tremendous amount of capability in a Plug 'N Play configuration with GARMIN's GMA340 or GMA240.

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
- 4-Place hi-fi stereo IntelliVox® Intercom with Soft Mute™
- Bluetooth® enabled allows connection of iPhone, iPads and PED
- 3-Softkey User Interface with integrated Graphics Display
- Monitor Mode allows automatic muting of non-primary radio
- 3 - music mute modes: Mute On, Mute Off, Radio Mute
- Volume controls for Intercom, Un-switched Inputs, Telephone, and Music Inputs
- Cellular telephone input with front panel control for volume
- Digital aircraft radio recorder (IRS™)
- USB Charging port with Auto-Protect, provides up to 10 Watts
- Split mode for dual audio panel capability
- 2 - Differential, hi-fidelity stereo music source inputs
- 3 - Intercom modes - Pilot ISO, All, Crew and "Alternate Intercom Mode"
- Selectable music distribution for Pilot, Copilot and passengers

ORDERING INFORMATION	PART NO.

**PDA360EX Audio Panel with IntelliAudio®, 4-Place IntelliVox®
stereo intercom and Bluetooth®** 050-360-0200
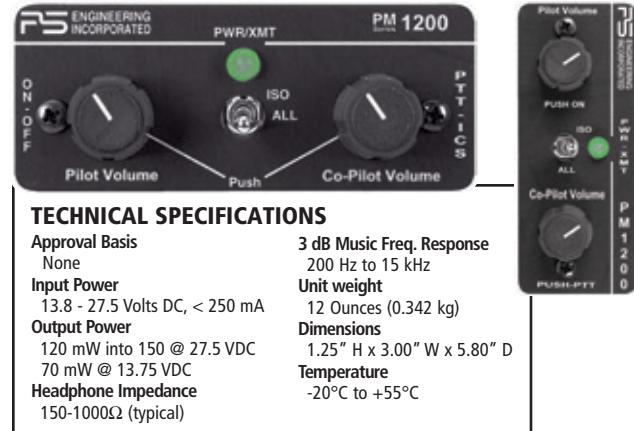
*GARMIN GMA240 and GMA340 are trademarks of Garmin International, Inc. PS Engineering, Inc. is not associated or affiliated with Garmin International, Inc. in any way.

INTERCOMS

PM1200

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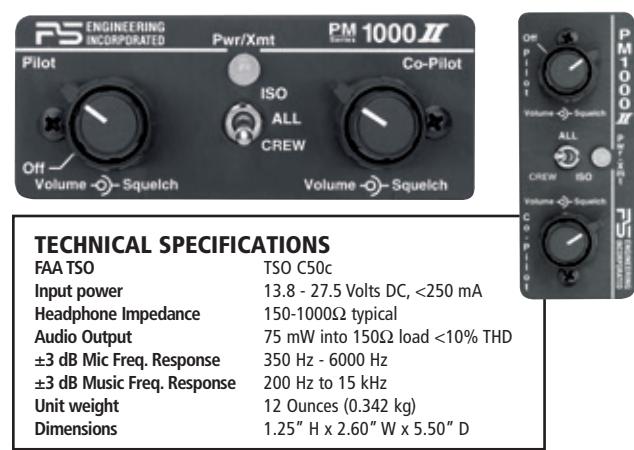
The PM1200 provides both our IntelliVox® auto-squelch and Push-to-talk intercom (PTT-ICS) so that when the cockpit noise is too high for VOX operation, a press of the Copilot's volume control places the PM1200 into PTT-ICS mode.

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!

TECHNICAL SPECIFICATIONS

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

ORDERING INFORMATION	PART NO.

PM1200 2-place high performance intercom 11960
With AMP™ and IntelliVox®, specifically designed for high noise environment. Includes jack kit.
PM1200 for blind mounting 11961
Designed for remote mount, to keep classic panels looking original. Includes jack kit.

PM1000II

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.
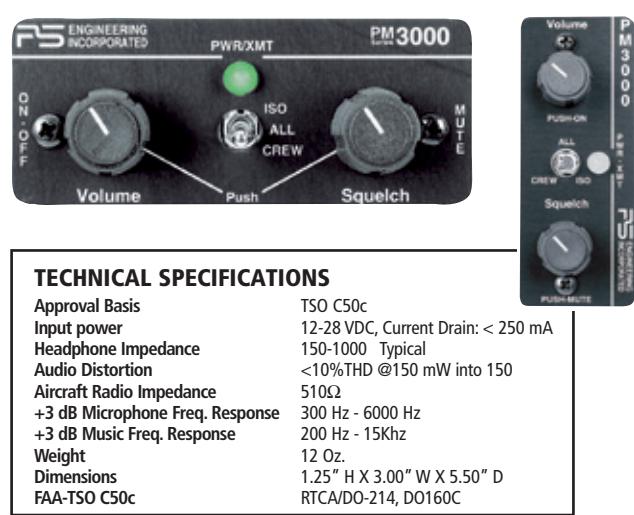
The standard PM1000II (11922) provides Pilot Isolate and All modes. The PM1000II with Crew (11920) has the additional capability of separating the passengers from the crew.

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.

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

ORDERING INFORMATION	PART NO.

PM1000II 4-Place Intercom, FAA-TSO 11922
Panel intercom with ISO and ALL, music input. Installation hardware included.
Same as above with 1-minute digital recorder (non-TSO)...11906
6-Place Expansion Unit 11616
PM1000II 4-Place Intercom with Crew, FAA-TSO 11920
Panel intercom with ISO, CREW and ALL, dual music input. Installation hardware included.
Same as above with 1-minute digital recorder (non-TSO)...11908

PM3000

The PM3000 has its roots in the first available stereo intercom, the PM2000. 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 while the PM3000 (11932) provides the additional function of Crew mode. In this setting, the passengers are on one intercom while the crew on another.

TECHNICAL SPECIFICATIONS

Approval Basis	TSO C50c
Input power	12-28 VDC, Current Drain: < 250 mA
Headphone Impedance	150-1000 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, DO160C

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.
Same as above with 1-minute digital recorder (non-TSO)......................................11933A

PM3000 6-Place Stereo Intercom with Crew, FAA-TSO..11932
Intercom with ISO, CREW and ALL modes, dual music input. Installation hardware included.
Same as above with 1-minute digital recorder (non-TSO)...11934

If you have one of these...
you could Plug 'N Play
with one of these!

PMA6000

SL-10

PMA7000M
- Lowers cost of installation when upgrading from a PMA6000M
- 6-Place IntelliVox® mono intercom with muting
- 4 - unswitched unmuted inputs for additional aural alerts
- Full duplex telephone input with DuTel™ telephone distribution

KMA-28

SL-15

PMA7000MS

PMA7000B and PMA7000BT
- Lowers cost of installation when upgrading from a KMA24
- 6-Place IntelliVox® mono intercom with muting
- 4 - unswitched unmuted inputs for additional aural alerts
- Full duplex telephone input with DuTel™ telephone distribution

GMA340

PMA8000G with *flightmate*®
- IntelliAudio® True Dimensional Sound for clear com reception
- *flightmate*® Pilot recorded messages for checklists, memos, etc.
- Bluetooth® for wireless telephone and music streamers
- USB charge for continuous 10 watts of charging power

The PMA450B – Dual Bluetooth® Capability
- IntelliAudio® 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

Flying Never Sounded So Good®