

STOP RIGHT THERE! *Aircraft Brake Tech Explained*

KITPLANES

YOUR HOMEBUILT AIRCRAFT AUTHORITY[®]

MUSCLE CUB

MAX POWER + MIN WEIGHT =
CARBON CUB EX

May 2010

PONDERING PROPS

The Case for a Fixed Pitch

LINE ART

New Ways to Plumb Your Pitot-Static

UP IN THE AIR

The Future of Residential Airparks

Have a Plan:
*Flight-Testing
Your Homebuilt*





PS Engineering PMA5000EX

A new low-cost audio panel shakes up the status quo.

BY MARC COOK

Product Review

Long a standard-setter in the field of intercoms and audio panels, PS Engineering's latest, the PMA5000EX, is its second Experimental-only audio unit. Homebuilders are looking for different features than the certified buyer, so both the PMA5000EX and Garmin's similarly priced GMA 240 omit the marker-beacon receiver and forgo testing for TSO (Technical Standard Order) approval. Audio panels for homebuilts are also less likely to need connection to, say an ADF or DME, though other external inputs such as engine-monitor or EFIS warnings are becoming common.

The Basics

At the heart, PSE's 5000EX is a four-place stereo intercom inside an audio panel supporting two coms, two navs, two switched auxiliary inputs, five unswitched auxiliary inputs and two music inputs plus a front-panel input for either a music source (overriding one of the hardwired music inputs) or a cell phone. It features PSE's IntelliVox digital intercom squelch circuitry, so there are no external VOX controls to set, though there is an internal switch that can be thrown to adapt the unit for high-noise environments.

As with its other PMA-series devices, with the press of a button, the pilot can be isolated from the copilot and passengers—or from the passengers as part of the “crew.” The GMA 240's pilot-isolation mode is managed by an internal switch, and is by default set to separate the pilot from everyone else when the

mode is activated. The PMA5000EX can run split coms so that the pilot can speak on Number 1 while the copilot uses Number 2 at the same time; the GMA 240 cannot. Both panels have a Monitor mode where traffic on the Number 2 com radio is muted when a transmission is received on Number 1.

Music Maker

Managing entertainment channels has become important in new audio panels. The PMA5000EX has two stereo music inputs whose function is determined by an optional external switch—the standard setup has Music Number 1 going to the crew with Music 2 going to the passengers only. An alternate setup allows everyone to hear Music 1 unless the intercom is in Crew mode, then the crew hears Music 1 while the passengers hear Music 2. Pilots can adjust music volume through two buttons on the front face. Press both at once, and the music is turned off. Neat. Music muting can be set to one of four modes: Mute when there's intercom traffic, radio traffic, either of these, or not mute at all.

PS Engineering adds a unique twist to handling of the Aux inputs. Push the button once to enable an Aux input, and the light will turn on. You can connect the Aux channel to your EFIS or GPS, and then when the terrain warning continues to bleat while you're staring at that mountain a couple of miles ahead of you on the base leg, press and briefly hold the Aux button. This begins a 60-second mute feature, after which the circuit resets.

In Use

Flying with the PMA5000EX proves that its lower price has not resulted in diminished performance. My airplane is on the border of too loud for the baseline IntelliVox settings, but not far enough over to warrant a reset. The new music-handling features are superb, and a late software update increased music gain so that even weak-kneed input devices can be heard clearly. Finally, the clever aux-input timed muting scheme will have you rethinking how you connect your EFIS to the audio panel.

Suggested retail price is \$995, just \$100 more than the GMA 240. Looks like choosing a low-cost audio panel just got harder. ✚

For more information, contact PS Engineering at www.ps-engineering.com or call 800-ICS-AERO. Find a direct link at www.kitplanes.com.