

PS ENGINEERING® INCORPORATED

Sound Quality. Sound Engineering.

- Audio Panel
- Aviation Radio
- Hi-Fi Stereo Intercom
- Bluetooth® Enabled Interface

Integrated Audio Panel and Radio



PAR200



FAA Approved

For over a quarter century, PS Engineering, Inc.® has been known as a premier innovator of intercommunications for crew and passengers. Now, the company has added a new dimension to their communications vision, a VHF communication radio fully integrated with the audio control panel.

The PAR200 is an FAA Approved system that combines an audio control panel, 4-place stereo IntelliVox® intercom with Bluetooth®, and a remote mounted, 760-channel VHF aviation communications transceiver. Never before has there been so much communication capability controlled in such a small footprint.

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

The PAR200's low price makes it attractive for the aircraft that is used primarily for VFR missions or as an audio panel/back-up com to the more advanced navigation systems. The elimination of one panel mounted radio saves valuable panel space.

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

The right half of the PAR200 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 set.

The left half has all of the audio panel controls for radio selection, intercom and music volume, intercom modes, and PS Engineering's multiple music mute mode control. The PAR200 has two independent music inputs. The functions of the PAR200 are electrically independent, including the power supply, so even in fail safe on the audio panel, the VHF radio can still be used.

The PAR200 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 PAR200 includes a cockpit speaker amplifier for additional flexibility.

An integrated Bluetooth® system allows the PAR200 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.

PAR200 Audio Panel and Radio - FAA - TSO	
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:	Up to 35,000 feet in an non-pressurized area
WEIGHT	
PAR200 Unit	1.1 lb. (0.49 kg)
Rack with connectors	0.51 lb. (0.24 kg)
AUDIO PANEL POWER REQUIREMENTS (Including Internal Lighting):	
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, Aux 1, Aux 2)
Unswitched Inputs:	4
Transmitter Selections:	3 (Com 1, Com 2, Com1/2)
Headphone Impedance:	150 – 1000 Ω
Headphone Output:	30 mW each headset, no clipping <1% THD typical into 150Ω)
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 places (with individual IntelliVox® circuits)
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
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 xH-48mm x D-160 (plus 35mm for harness)
Weight	0.77 lbs (0.350 k)
FCC ID:	VZI00882