This warranty is void if there is any attempt to disassemble this product without factory authorization. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusions may not apply to you.

Factory Service

The PM1200 is covered by a one-year limited warranty. See warranty information.

Call PS Engineering, Inc. at (865) 988-9800 before you return the unit. This will allow the service technician to provide any other suggestions for identifying the problem and recommend possible solutions.

After discussing the problem with the technician and you obtain a Return Authorization Number, ship product to:

PS Engineering, Inc.
Attn: Service Department
9800 Martel Road
Lenoir City, TN 37772
(865) 988-9800 FAX (865) 988-6619.
Www.ps-engineering.com/support.shtml

NOTE: PS Engineering is not responsible for units shipped US Mail.

If no method of payment is provided, the units will be returned COD. If no RMA or description of problem is present, the shipment will be refused.

Warranty and Service

Warranty

In order for the factory warranty to be valid, the installations in a certified aircraft must be accomplished by an FAA-certified avionics shop and authorized PS Engineering dealer. If the unit is being installed by a non-certified individual in an experimental aircraft, a factory-made harness must be used for the warranty to be valid.

PS Engineering, Inc. warrants this product to be free from defect in material and workmanship for a period of one year from the date of installation. During this one year warranty period, PS Engineering, Inc., at its option, will send a replacement unit to the PS Engineering dealer, if the unit should be determined to be defective after consultation with a factory technician. PS Engineering will not ship to the end user under warranty, unless authorized by the dealer.

This warranty is not transferable. Any implied warranties expire at the expiration date of this warranty. PS Engineering SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. This warranty does not cover a defect that has resulted from improper or unreasonable use or maintenance as determined by us.

www.ps-engineering.com/support.shtml
General Information

Introduction

The PM1200 is a panel, or blind mounted, 2-place (expandable with IntelliPAX) monaural intercom system (ICS) designed specifically for high-noise aircraft.

In addition to IntelliVOX® (PS Engineering’s proprietary intercom squelch protocol), the PM1200 includes Active Microphone Processing (AMP): This signal processing is specifically designed to improve the intelligibility of human speech, so don’t expect the PM1200 to sound like a normal intercom. All of the intercom audio power of the unit is focused in the voice range, while the music fidelity remains unaffected.

Please read this manual completely to become familiar with all the features.

Scope

This manual contains operational instructions for the following PS Engineering units:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>11960</td>
<td>Push to talk intercom for use in noisy cockpits</td>
</tr>
<tr>
<td>11961</td>
<td>Same as above but remote (blind) mounting</td>
</tr>
</tbody>
</table>

Description

The PM1200 is a 2-place (unless expanded), panel-mounted intercom with PS Engineering’s proprietary IntelliVOX® intercom protocol. The audio has been further enhanced with extra audio filtering for the microphones, and added headphone audio power.

The unit can be used as either voice-activated, or push to talk intercommunications, by simply pushing a front panel switch. A front panel mode switch allows the pilot to select multiple intercom configurations:

- The PM1200 has an automatic fail-safe interconnect to the aircraft radio. If power to the intercom is disrupted, an internal relay will connect the pilot's headset to the aircraft radio. This allows continuous radio communications. Note: The copilot will no longer hear aircraft radio when power is removed.
- An entertainment input is provided, allowing the users to listen to music during flight. During intercom or aircraft radio activity, this music is automatically muted to allow communications without distraction. When the activity ceases, the Soft Mute circuit gradually returns the music to the original volume.
- Both pilot and copilot have transmit capabilities over the radio. The PM1200 allows only the person who presses their radio PTT to be heard over the aircraft radio. If both pilot and copilot press the PTT at the same time, the pilot will over-ride.

Approval Basis ‘None’

The PM1200, 11960 or 11961, are NOT FAA Approved. It is the installers responsibility to determine suitability for use.

Specifications

| Input power | 13.8 - 27.5 Volts DC |
| Current Drain | < 250 mA (Externally fused at 1 Amp) |
| Output | 120 mW into 150Ω @ 27.5 VDC |
| 70 mW @ 13.75 VDC |
| Headphone Impedance | 150-1000 ohms typical |
| Aircraft Radio Impedance | 500 - 1000 Ω typical |
| dB Music Frequency Response | 200 Hz to 15 kHz |
| Unit weight | 12 Ounces (0.35 kg) |
| Dimensions | 1.25” H x 3.00” W x 5.80” D |
| Temperature | (3.2 x 7.6 x 14.7) cm |
| Altitude | -20°C to +50°C |
| OPERATIONS |

With the installation complete, turn the PM1200 on by pressing the pilot’s volume knob. This also engages the automatic fail-safe system. The pilot’s volume control does not control the volume of the aircraft radio, allowing an additional degree of aircraft radio listening flexibility. NOTE: Blind mounted units will have same features, but the controls will be located on the panel. Consult your installer for details.

On/Off and Volume

Press the left hand knob to turn the unit on and off. This is also the fail-safe position. Whenever the unit is off, or power removed, the pilot’s headset is connected directly to the aircraft audio system.

The pilot volume control knob adjusts the loudness of the intercom and music for the pilot’s headset only. It has no effect on aircraft radio volume level. The copilot volume control adjusts the intercom volume for the copilot.

The green LED will illuminate when power is on, and red when muted.

Squelch

The PM1200 incorporates both a Push to Talk intercom, and PS Engineering’s revolutionary Intelli Vox™. No adjustment of the squelch control is required. Through individual signal processors, the ambient noise appearing in both microphones is constantly being sampled. Non-voice signals are blocked. When someone speaks, only their microphone circuit opens, placing their voice on the intercom.

NOTE:
The headset microphone must be placed within ¾ inch of your lips, preferably against them. It is also a good idea to keep the microphone out of a direct wind path. Moving your head through a vent air stream may cause the IntelliVox™ to open momentarily. This is normal.

For optimum microphone performance, PS Engineering, Inc. recommends installation of a Microphone Muff Kit from Oregon Aero (1-800-888-6910). This will not only optimize VOX performance, but will improve the overall clarity of all your communications.

Push-to-Talk Intercom

Under extremely high noise conditions, it may be desirable to have a push to talk (PTT) intercom mode, instead of relying on voice-activation (VOX). In the PM1200 the PTT intercom capability is user selectable.

To activate the PTT-ICS Mode, push the PTT-ICS override switch on the copilot volume control. Using the separate ICS PTT (not the radio PTT) button for pilot and one for the copilot will allow their voice on the intercom.

Intercom Mode Select

The center switch is a mode control that allows the pilot to tailor the intercom function to suit flight conditions. Regardless of configuration, the pilot will always hear the aircraft radio. NOTE: If there is a power failure to the PM1200, or if the power switch is turned off, the copilot will not hear the aircraft radio. Only the pilot is connected directly to the aircraft radio.

ISO (Up Position): The pilot is isolated from the intercom and is connected only to the aircraft radios. He will hear the aircraft radio.