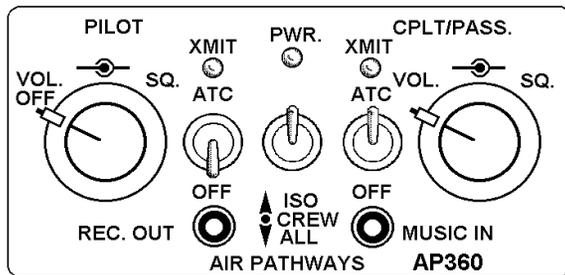


AIR PATHWAYS



AP340 OWNERS MANUAL

Made in U.S.A.

7617 Ridgeway Ave. • Fort Worth, TX 76180
Ph (817) 498-7226 • Fax (817) 428-9335

VII WARRANTY/ SERVICE

AIR PATHWAYS warrants this product to be free from defect in materials and workmanship for a period of two years from the date of installation to the original purchaser of the equipment. Upon receipt of a completed warranty registration card accompanied by a copy of an approved FAA form 337 AIR PATHWAYS will extend this warranty to five years from the date of installation. During the warranty period if this unit ever fails to perform as designed AIR PATHWAYS, at it's option, will repair or replace this unit at no charge.

This warranty shall be void if the purchaser or others not authorized by AIR PATHWAYS attempt to repair, service or alter the unit for any reason or if the unit shows evidence of misuse, abuse or tampering.

This warranty is none transferable. This warranty is in lieu of all other warranties expressed or implied and AIR PATHWAYS shall not be held liable for any incidental or consequential damages.

This warranty gives you specific legal rights and you may have other rights which vary from state to state.

For service or repair, you may return the unit postage paid to an authorized dealer or agent with and explanation of the problem, or you may return the unit to AIR PATHWAYS. In some cases the problem may be resolved by calling AIR PATHWAYS and consulting a technician.

Ship the unit to or call: AIR PATHWAYS
7617 Ridgeway Ave.
Fort Worth, TX 76180
Ph (817) 498-7226

SN

VIII SPECIFICATIONS

- Dimensions 1.4" x 2.85" x 5.9"
 - Power Requirements 11- 38Vdc @ 200mA
 - Total Power Output 1.8W
 - Horizontal or Vertical mounting in panel or bracket
 - Aux stereo input
 - Recorder output
 - Weight 12.7oz.
- 5 Year Limited Warranty

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INTRODUCTION

Congratulations on your purchase of the AP340 intercom. AIR PATHWAYS uses the latest state-of-the-art computer technology in its design and manufacturing to provide the most advanced intercom available to general aviation pilots today. The AP340 provides ultra-quiet communications for the pilot, copilot and passengers while giving the pilot and copilot the freedom and flexibility that is required in today's flying environment.

I UNPACKING

Your AP340 comes with the following items, please check that all items are included in the container. Please notify your dealer or call AIR PATHWAYS should any item be missing:

- 1ea. AP340 intercom
- 1ea. Owners manual
- 1ea. 25 pin D-sub connector & backshell (female)
- 1ea. 3.5mm Stereo plug (for music input)
- 1ea. 1/8" Mono plug (for recorder output)

Your AP340 is packed in an anti-static wrapping to ensure that the unit is not damaged in shipment due to the effects of static build-up. The AP340 comes from the factory with the internal jumpers set for mono headsets. If you have stereo headsets you will need to change these jumper settings. See the following section on setting options.

You may install the system for stereo headsets and place external switches (not supplied) to interrupt the right channel at the headphone

- 1) PILOT TRANSMIT INDICATOR
- 2) POWER INDICATOR
- 3) COPILOT TRANSMIT INDICATOR
- 4) PILOT VOLUME AND SQUELCH
- 5) PILOT MUSIC CONTROL SWITCH
- 6) RECORDER OUTPUT
- 7) ISOLATE/ CREW/ ALL CONTROL SWITCH
- 8) STEREO INPUT
- 9) COPILOT MUSIC CONTROL SWITCH
- 10) COPILOT/ PASSENGER VOLUME AND SQUELCH

The PILOT TRANSMIT INDICATOR illuminates when the pilot's transmit key is depressed. (this can also be used to trouble shoot a stuck mic key on the pilot's circuit).

The POWER INDICATOR will be lighted when ever the intercom is turned on indicating that the internal power circuit is energized.

The COPILOT'S TRANSMIT INDICATOR works in the same fashion as the pilots transmit indicator.

The PILOT'S SQUELCH CONTROL is the outer knob and controls the level at which the voice activated mic operates. This control can be turned fully clockwise for a open mic (HOT MIC). The volume control is the inner knob. This controls the volume of the voices in the cabin and does not affect the volume of the radios or the input music. The com radio or music volume should be controlled by their respective volume controls.

The PILOT'S MUSIC CONTROL SWITCH controls the external stereo input for the pilot only. In the ATC position the music is muted by com radio reception. In the OFF position the external stereo will be muted continuously.

Note:

The Music is muted by a COM radio detector. This detector is level sensitive so you may reduce the volume of the com radio thereby defeating the muting function. This will enable you to monitor the com radio without interrupting the music.

You will find this feature most handy on long cross countries where the need for radio communications is sparse but you are still interested in monitoring the com radios without interrupting the music. This feature may take some getting used to but after some use you will find that area in the com radio volume control where this muting vs. no muting takes place. After that it will become second nature.

The RECORDER OUTPUT jack may be used with a cassette recorder and outputs exactly what the pilot hears. This can be used for training, as a flight recorder or it can be useful for instrument clearance deliveries and other functions. This output is monoral.

The ISOLATE/ CREW/ ALL switch allows the pilot to isolate himself from cabin conversation in the ISO position. This places the copilot on a party line with the passengers and allows them to converse and listen to stereo programming without interfering with the pilots concentration. The ISO position also isolates the copilot and passengers from com radio reception. In the CREW position the pilot and copilot are isolated from the passengers allowing them to work as a team while the passengers can talk and listen to music. In this position only the passengers are isolated from com radio reception. In the ALL position all occupants can converse, listen to music and monitor com radio reception. In this position the music is muted for the passengers and crew on ATC reception while the crew can still eliminate the music with their music control switches if desired.

The TRUE STEREO MUSIC INPUT jack allows you to pipe in stereo from a cassette player, Compact disc player or you may even monitor a hand held radio if desired. This input is a true stereo input and may be jumpered for combined stereo or true stereo for mono or stereo headsets respectively, according to the table in section II. This is a line level input and should be connected to the headphone output of the cassette player or other device. This input also overrides the rear stereo input connection.

The COPILOT'S MUSIC CONTROL SWITCH operates exactly like the pilot's music control switch. When the ISO/ CREW/ ALL switch is in the CREW and ALL position the copilot's music is interrupted by ATC reception. In the ISO position the copilot is on a party line with the passengers and his music will not be interrupted by Com radio traffic.

jack for mono headsets. Caution should be taken NOT to plug mono headsets into a active stereo jack as this may cause damage to the unit.

II SETTING OPTIONS

Refer to an authorized dealer or repair station.

Your AP340 has several internal jumpers to enable you to set different options. The following table shows these options and the factory settings.

JP1 Pilot Music	Monoral * JP1-1&2	Stereo JP1-2&3
JP2 Copilot Music	Monoral * JP2-1&2	Stereo JP1-2&3
JP3 Passenger Music	Monoral * JP3-1&2	Stereo JP3-2&3
JP4 Passenger to Pilot/ Pilot to Passenger muting on ATC	Muting * JP4-1&2	NONE JP4-2&3
JP5 Pilot to Copilot/ Copilot to Pilot Muting on ATC	Muting JP5-1&2	NONE * JP5-2&3

* Factory setting

- To set the pilot's output for stereo remove the jumper on JP1-1&2 and place it on JP1-2&3. For the copilot's output change JP2-1&2 to JP2-2&3 and for the passenger outputs change JP3-1&2 to JP3-2&3.

Note:

JP1, 2 & 3 have Jumper plugs and may be moved by hand. JP4 & 5 are soldered jumpers.

III FEATURES / OPERATION

The AP340 is a four place panel mount or bracket mount intercom (expandable to six places) designed to fill the need for a affordable full featured intercom. The following is the description of front panel controls and features of the AP340 (see fig. 2):

The COPILOT'S SQUELCH CONTROL is the outer knob and controls the copilot's and the passengers VOX level. The copilot's VOLUME control is the inner knob and controls the copilot's and passengers volume level. As with the pilot's volume control the copilot's volume does not affect the volume of the com radios or the Stereo.

The CONSTANT FAIL-SAFE system will, in the event of failure, automatically switch pilot communications directly to the audio control panel effectively disconnecting the unit and allowing the pilot to use **all** communications radios and navigational radios on hand.

The PRIORITY TRANSMISSION OVERRIDE system allows the pilot to override the copilot's transmissions. This feature can be useful in the flight training environment as well.

INDEPENDENT VOX circuits insure that only the individual actually speaking has an active mic thereby reducing background noise and providing the quietest system.

IV INSTALLATION

This unit is designed to mount easily into any instrument panel vertically or horizontally or in a 3" instrument hole. Refer to the faceplate template (see fig. 3) and select a location in the instrument panel for the AP340.

- Using the template as a guide drill 3ea. .128" (#30) holes for the LED's, 3ea. .250" holes for the switches, 2ea. .370" ("U") holes for the volume and squelch pots, 2ea. .250" holes for the recorder and music jacks and 4ea. .116" (#32) holes for the faceplate mounting screws.
- With the intercom faceplate removed, place the unit into the instrument panel (from behind the panel) and place the desired faceplate (vertical or horizontal) over the switches, pots, LED's and jacks.
- Place the four corner mounting screws and tighten to 8 in./lbs.
- Place the remaining nuts, washers and knobs in place taking care not to scratch the front panel and silk screening.

- Refer to the wiring diagram (see fig. 4) and wire the aircraft as desired using shielded wire and the proper mic and headphone jacks (not supplied) for your type headsets.

Shielded wire and jacks are available from AIR PATHWAYS if required. Refer to enclosed price sheets.

VI TESTING

The following is an abbreviated test that any owner may perform.

Tools required: None

MODE	Pilot audio	Copilot audio	Passenger audio
ISOLATE	A/C Radio Pilot sidetone * Stereo	Copilot sidetone Passengers * Stereo	Passenger sidetone Passengers Copilot Stereo
CREW	A/C Radio Pilot sidetone ** Copilot * Stereo	A/C Radio Copilot sidetone ** Pilot * Stereo	Passenger sidetone Passengers Stereo
ALL	A/C Radio Pilot sidetone ** Copilot ** Passengers * Stereo	A/C Radio Copilot sidetone ** Pilot Passengers * Stereo	A/C Radio Passenger sidetone ** Pilot Copilot ** Passengers * Stereo

* = muted by ATC

** = Jumper selectable ATC muting.

For complete test and adjustments refer to maintenance manual.

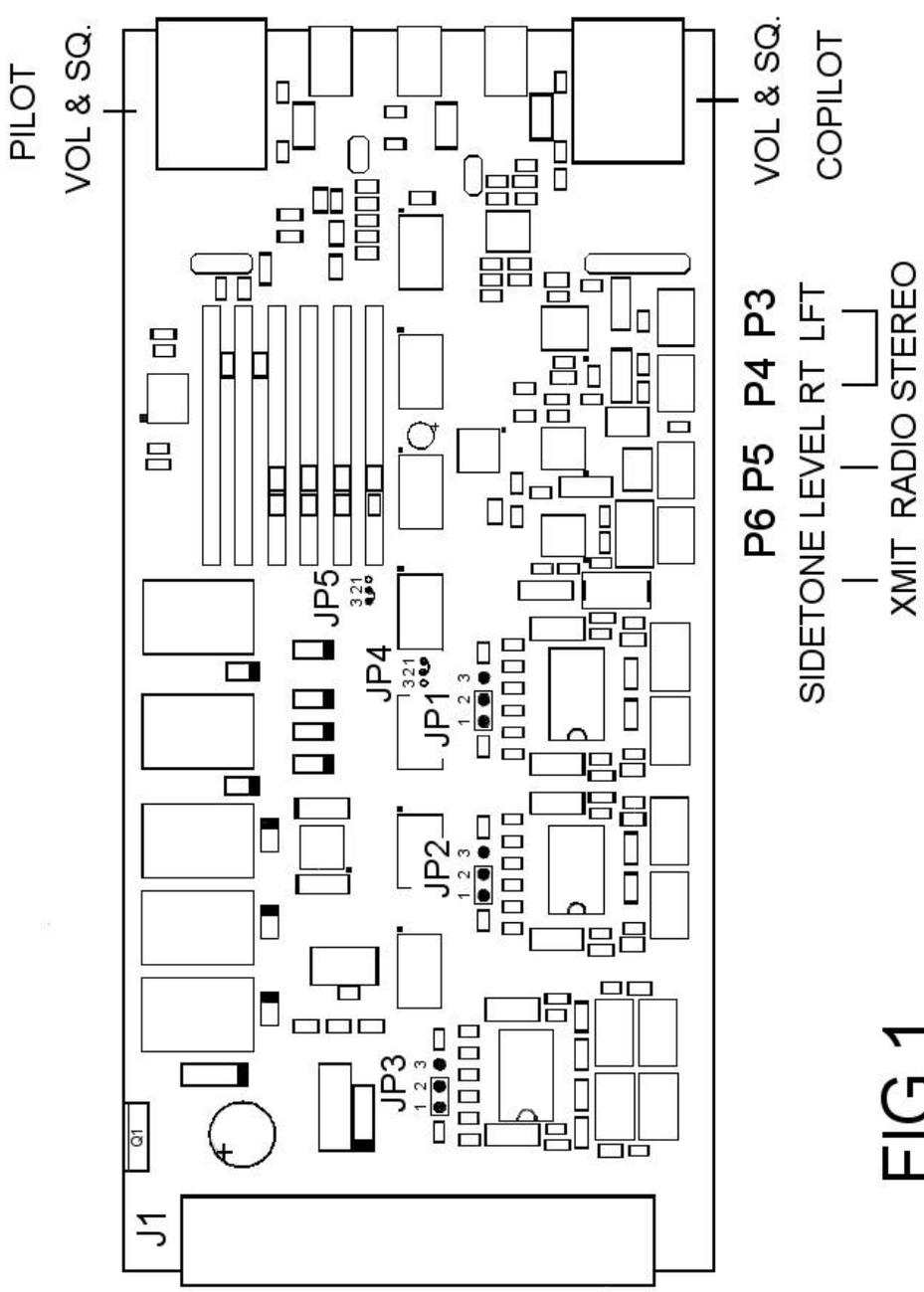


FIG 1.

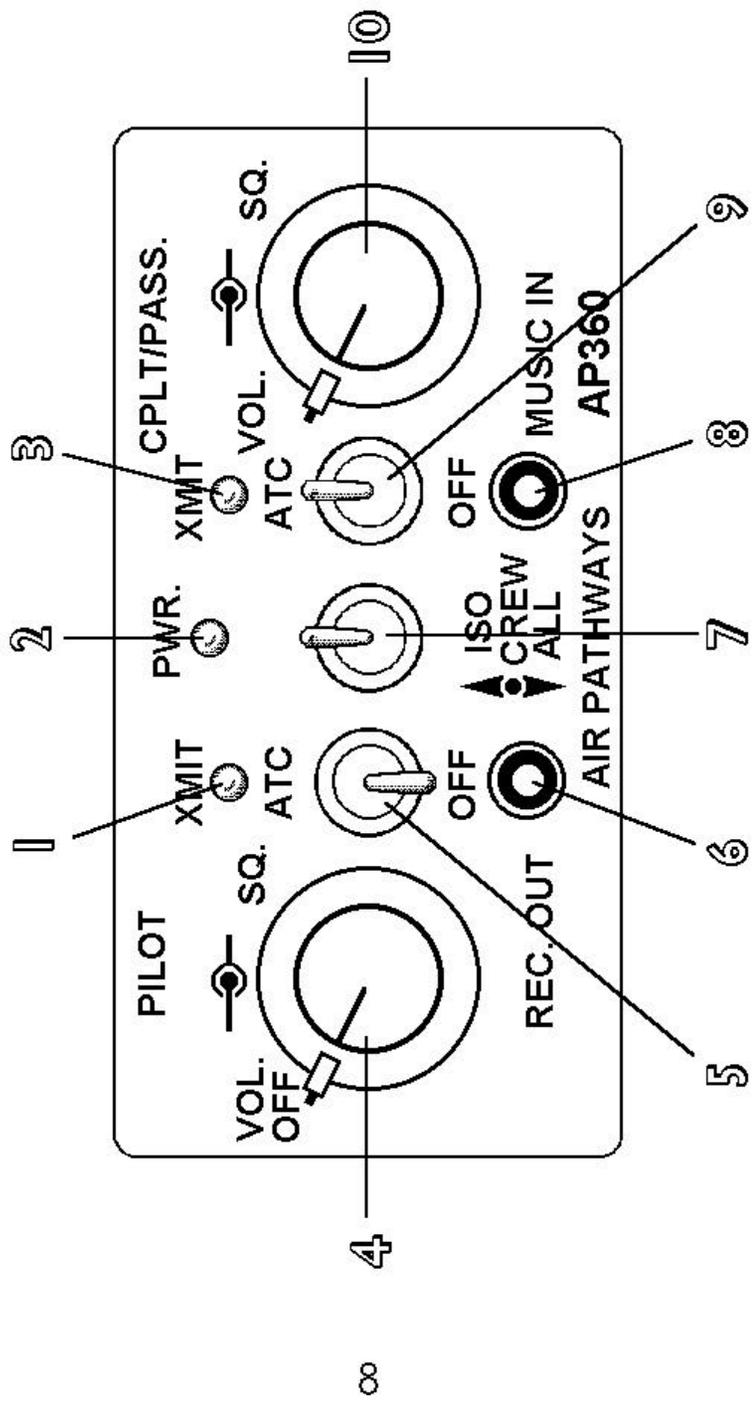


Fig. 2

AIR PATHWAYS AP300 Series Record only
 FACEPLATE DIMS. NOT a Template

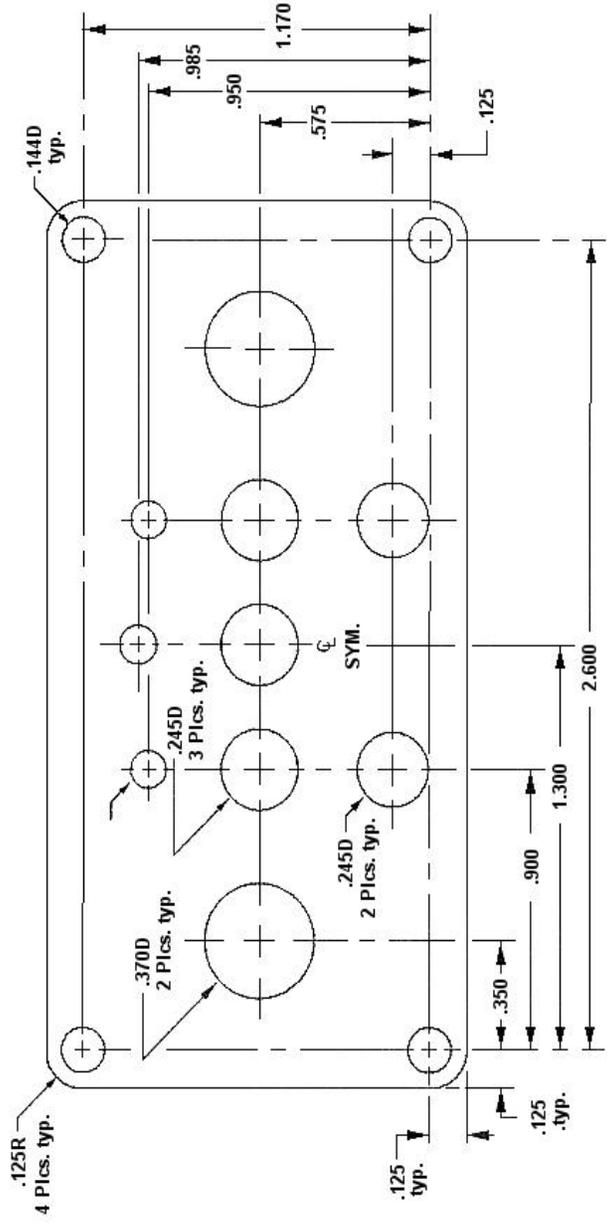


Fig. 3

AIR PATHWAYS

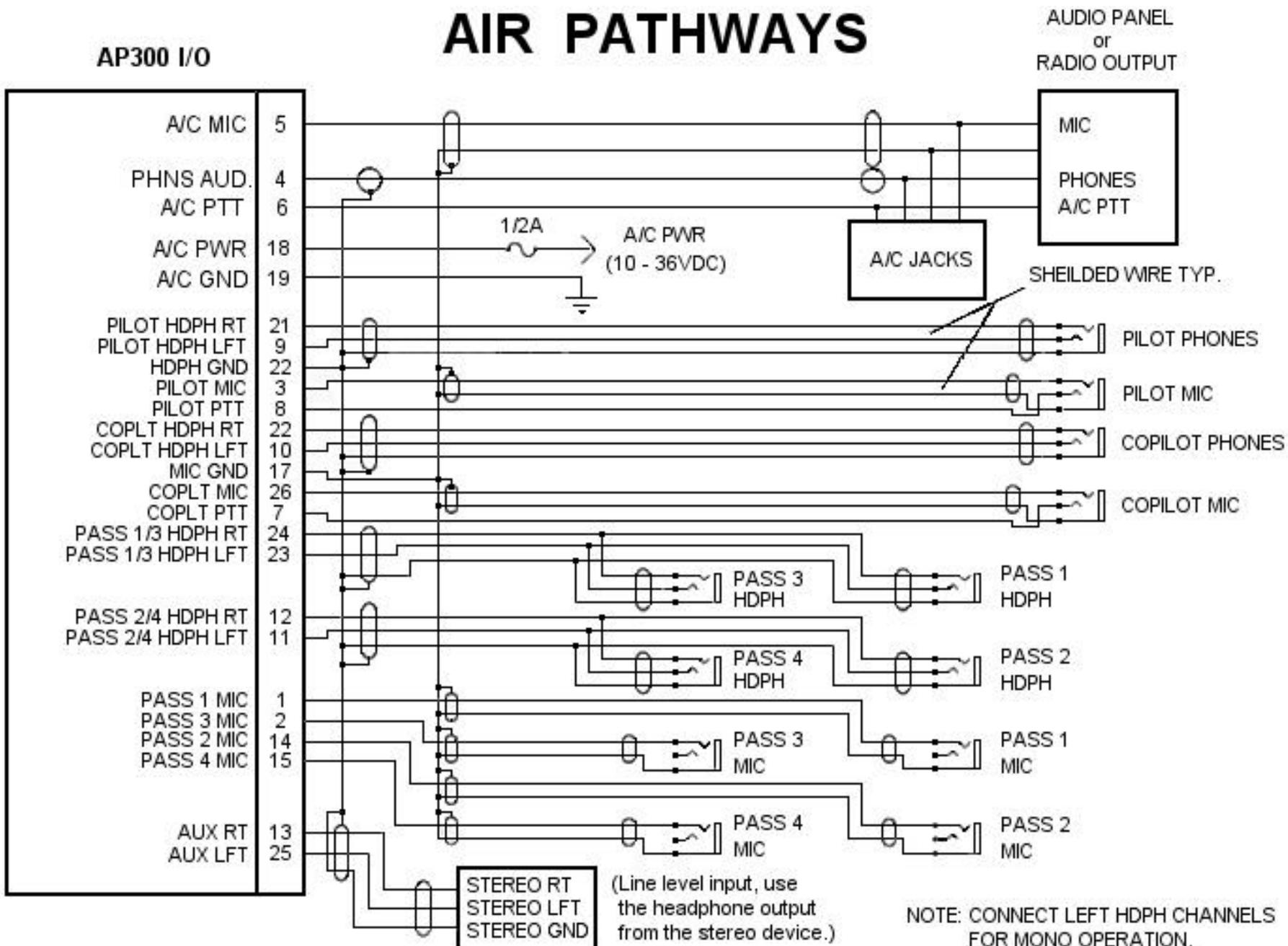


Fig. 4
AP300 Series Wiring

REV 01
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