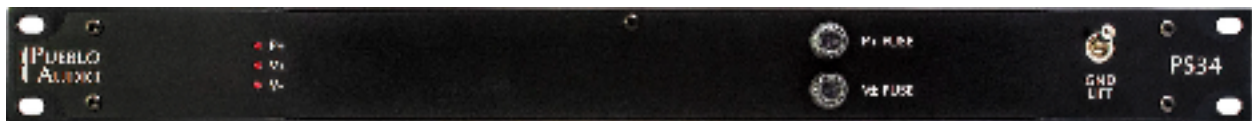


PUEBLO AUDIO

User's Manual for models PS34, P4, JR4 & JR2/2



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The Microphone Preamplifier System (Models: PS34, P4, JR4, and JR2/2) meets the Class B specification limits defined by Code of Federal Regulations Title 47, Part 15.

WARNINGS

CAUTION: To reduce the risk of electrical shock, do not remove the cover. No user serviceable parts inside; refer servicing to qualified personnel.

WARNING: To reduce the risk of fire or electrical shock, do not expose this equipment to rain or moisture.

POWER WARNING: AC voltage ratings for electrical power vary from region to region. Severe damage to your unit is possible if your unit is not configured for local power. The equipment should be connected only to a power source of the same voltage and frequency as that listed on the rear panel, near the power cord entry point.

- CAUTION: Slide/rail mounted equipment is not to be used as a shelf or workspace.
- Never touch the AC plug with wet hands.
- Do not use this equipment in damp areas or near water.
- Avoid damaging the AC plug or cord and potentially causing a shock hazard.
- If liquids spill into or onto the unit, disconnect the power and return for service.
- Power cords should be arranged so they do not interfere with the movement of objects in the room: people, fan blades, utility carts, etc.
- Do not defeat or modify the grounding or polarization of the AC cord.
- Unplug the AC cord when the unit is unused for long periods of time.
- To avoid potential damage to your unit, only use in areas where proper ventilation and moderate temperatures are assured
- The user should not attempt to service the equipment. Refer to qualified service personnel.

PS34 • Central Power Supply Unit



INTRODUCTION: The Pueblo Audio PS34 power supply provides 160 watts of linearly regulated DC power. It can power from one to four Pueblo Audio products (16 channels max.). It will operate reliably under significant ac service voltage sag due to brown outs.

LOCATION: The PS34 is an external, centralized power source. This beneficial arrangement allows heat, vibration, and residual emi of the power supply to be placed at a distance from sensitive audio circuits. It is recommended that the PS34 be located as far away from other audio devices as is practical.

The PS34 is a high power unit, much like a speaker power amplifier. The same thermal precautions taken with power amplifier operation should be adopted. Heat dissipation relies on convection cooling. Care should be taken to insure the unit is kept in a well-ventilated environment to avoid overheating. At least one rack space should be kept free above and below the unit when installed in a rack.

AC INPUT (US): 115Vac, 50-60Hz, 0.50A.

AC INPUT (EU): 230Vac, 50-60Hz, 0.25A

DC OUTPUT: Four 5-pin female XLR connectors are located on the rear panel. Used in conjunction with Pueblo Audio DC power cables, connects DC power to individual Pueblo Audio products (P4, JR4, JR2/2, and GM2).

WARNING: Never connect more than four products to the PS34 or the power capacity may be exceeded. Do not modify or make dc power cords that split, mult, or 'y' power distribution. Do not power other third-party products, damage may occur. Only designed for use with Pueblo Audio products.

POWER INDICATOR LEDs: Three light emitting diodes indicate power status:

P+ indicates the positive high voltage is on for the precision phantom networks.

V+ indicates the positive bipolar voltage is on for amplifier powering.

V- indicates the negative bipolar voltage is on for amplifier powering.

FUSES: Two 20x5mm, 1Amp slo-blo fuses (F1, 250 V, 20 A, F) on front panel.

CAUTION: for continuous protection against fire, replace with same type and rating fuse.

P+ fuse for the independent precision phantom network supply.

V± fuse for the independent bipolar amplifier supply.

GROUND LIFT: A toggle switch on the front panel connects/disconnects the DC common/signal ground from the PS34's AC Safety Ground. This may alleviate ground 'loop' problems under certain interconnect configurations. The DC common is 'lifted' when the switch is in the up position.

Please note that the PS34's chassis is always connected to the third pin safety ground of the AC plug. If the PS34 is mounted in the same rack with other devices, their chassis grounds will be connected via the rack rails, defeating the ground lift switch's function.

P4 • Quad Precision Phantom Network



INTRODUCTION: The 4 channel Precision Phantom Network™ renders power for unimpaird microphone operation. Each channel of the P4 has a stable, high current, independently regulated supply. This eliminates signal cross-coupling, improving channel isolation and imaging. Precision matched componentry maintains tight impedance balance for greatest signal yield and lowest noise.

The P4 is the perfect companion product to our JR4 dc-coupled mic preamp. However, the P4 can be used with any mic preamp for improved audio fidelity. This is because it is the *microphone's* performance, rather than the preamp, which benefits from the P4. This improvement then flows through the remaining signal chain. Please try for yourself!

DC POWER INPUT: A single 5-pin male XLR connector is located on the rear panel. Use in conjunction with a Pueblo Audio DC power cable to connect to the PS34 power supply.

WARNING: Do not modify or make dc power cords that split, mult, or 'y' power distribution. Do not power from third-party products, damage may occur. Only designed for use with Pueblo Audio products.

POWER INDICATOR LED: Light emitting diode on left of front panel indicates unit power status:

PHANTOM POWER ON /OFF SWITCH: Energizes each channel's phantom power voltage regulator. Note that this switch is not in the audio signal path. The regulation circuit output is always in-circuit. When using non-phantom powered devices, please patch around the phantom channel and connect directly to the preamp input.

PHANTOM POWER ON /OFF LED: Light emitting diode indicates on/off status for each channel.

***NOTE:** The above P4 information also applies to the Precision Phantom Network channels of the JR2/2. Since each channel is an independent module, short xlr interconnects are required to connect to a preamplifier channel.

JR4 • Quad Microphone Preamplifier



INTRODUCTION: Four DC-Coupled, transformerless preamplifiers. Ideal for ribbon, dynamic and tube microphones. Also useful as DI preamp, Passive EQ/Compressor gain make-up, etc. Outstanding imaging and ambiance retrieval. Ultra-Low noise. Virtually overload proof. All unnecessary features and components omitted for signal path purity.

DC POWER INPUT: A single 5-pin male XLR connector is located on the rear panel. Use in conjunction with a Pueblo Audio DC power cable to connect the PS34 power supply.

WARNING: Do not modify or make dc power cords that split, mult, or 'y' power distribution. Do not power from third-party products, damage may occur. Only designed for use with Pueblo Audio products.

MICROPHONE INPUT: Female XLR. DC-coupled, 3,000 Ω balanced input. Protected against phantom power faults. Capable of accepting line level signals. The input is virtually overload proof, eliminating the need for pads. Pin 2 is non-inverting (+/hot), Pin 3 is inverting (-/cold).

MAIN OUTPUT: Male XLR. DC coupled, 100 Ω balanced output. Symmetrical signal drive. Capable of driving a 10,000 Ω load to +29dBu, or 600 Ω to +27dBu, before distortion rises. Will drive hundreds of feet of cable. Pin 2 is non-inverting (+/hot), Pin 3 is inverting (-/cold).

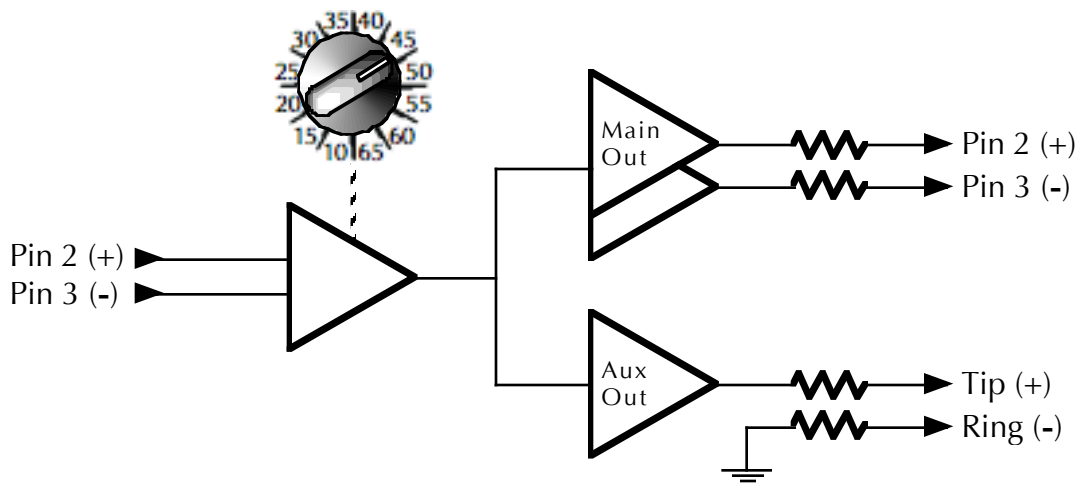
AUXILIARY OUTPUT: 1/4" TRS jack. DC coupled, 100 Ω impedance-balanced (aka quasi-balanced). Single-ended drive on TIP of jack. 6dB less gain than the Main Output. This is an independently buffered output, not a 'mult' from the Main output.

If a Tip-Ring-Sleeve (TRS) 1/4" plug is inserted, an impedance balanced connection is formed. This allows the common mode rejection (CMR) of a differential receiver to reject noise and emi. If a Tip-Sleeve (aka TS or mono) plug is inserted, then a traditional unbalanced connection is formed.

POWER INDICATOR LED: Light emitting diode on left of front panel indicates unit power status:

GAIN: 24-Position rotary switch (2.5dB per step) for exact, resettable gain.

- Minimum Gain: +7.5dB (6 o'clock position)
- Maximum Gain: +65dB
- Gain Settings: +7.5, 10, 12.5, 15, 17.5, 20, 22.5, 25, 27.5, 30, 37.5, 40, 42.5, 45, 47.5, 50, 52.5, 55, 57.5, 60, 62.5, 65dB.
- Interchannel Matching: ± 0.1 dB (any channel, any box, any gain setting)



BLOCK DIAGRAM

***NOTE:** The above JR4 information also applies to the mic preamp channels of the JR2/2.

LIMITED WARRANTY

Subject to the conditions set forth below, for three years after the original purchase date of the product, Pueblo Audio, Inc. will repair the product free of charge in the United States & Canada in the event of a defect in materials or workmanship. Pueblo Audio, Inc. may exchange new or rebuilt parts for defective parts.

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