

# whirlwind

## PW-1

### PERSONAL WEDGE HEADPHONE AMP WITH ADJUSTABLE LIMITER



#### FEATURES

- Balanced XLR inputs for easy mixer connections
- Additional 3.5mm stereo input for personal music sources
- Stereo/Mono switch feeds XLR inputs to both ears
- Brick Wall Limiter with adjustable threshold sets max level
- Signal LED indicates adequate input level
- Drives all types of earbuds and headphones from 16 to 600 Ohms

#### SPECIFICATIONS

- Frequency Response:** +/- 1.65 dBV 20 Hz to 20 kHz
- THD+noise:** < .04% 31 Hz to 20 kHz no limiting; .14% at 1 kHz with 20 dB of limiting
- Total Gain:** 20 dBV
- Input Impedance:** 10 kOhms
- Maximum Input level:** +17 dBV
- Maximum output level:** 6.7 dBV 16 Ohms; 16.9 dBV no load
- Signal present LED:** -15 dBV threshold
- Headphone Impedance:** 16 to 600 Ohms
- Noise at unity gain:** -95 dBV 16 Ohms
- Power consumption:** 210 mA DC full clean power 16 Ohms
- Output drive power:** 2.0 VAC RMS into 16 Ohms = 250 mW 3.0 VAC RMS into 30 Ohms = 300 mW
- Short circuit protection:** Withstands shorted output at full level indefinitely

#### Warranty

This product is guaranteed for 2 years from the date of purchase against manufacturing defects. For warranty service, return the unit, along with the original sales receipt, to: whirlwind, 99 Ling Road, Rochester, NY 14612, postage prepaid. We will repair or replace the unit at our option and pay the return postage.

whirlwind

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**CAUTION: LISTENING AT LOUD VOLUME CAN CAUSE HEARING DAMAGE**

## WHIRLWIND PW-1

## PERSONAL WEDGE HEADPHONE AMP

The PW-1 is a high powered stereo headphone driver for use with on stage in-ear monitoring systems. The PW-1 is a hardwired beltpack unit that has left and right balanced, analog, line level inputs. Standard female XLR connectors allow simple interface to the mixer through mic cables. The headphones can be fed two line level signals for stereo input or a mono line signal can be routed to both ears via the Stereo/Mono switch. A third input is provided through a 3.5mm stereo mini jack. Headphone level is controlled with a single volume control.

The PW-1 has protective limiting circuitry, which can be adjusted by the user to set a maximum volume level for comfortable listening. An adjustable Threshold control determines the point at which signal limiting begins to take place. Used in combination with the Volume control, safe listening levels can be set for any style earbud or headphone. Both 1/4" and 3.5mm headphone jacks are provided for convenience, but only one jack should be used at a time.

The PW-1 will drive headphone impedances from 16 Ohm ear buds to 600 Ohm closed cup styles. Power requirements are met by an included PS24VDC500MA power adapter. Output power is 250 mW into 16 Ohms with low distortion and wide frequency response.

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#### CONTROLS

Threshold control sets the point at which the protective limiting of the headphone signal will begin.

Red Limit LED indicates limiting activity

Yellow Signal LED indicates minimum optimal input signal level (-15 dBV)

Green Power LED indicates the unit is operational

Stereo/Mono switch determines how the balanced XLR inputs are delivered to the headphones. In Mono, both the left and right XLR inputs are summed together and fed to both ears. The 3.5mm TRS input is not controlled by this switch. Tip is always left and Ring is always right.

Volume control adjusts the level delivered to both left and right earpieces.

#### RECOMMENDED SETUP FOR OPTIMAL OPERATION

Turn the Threshold control full clockwise

Turn the Volume controls full counterclockwise

Adjust the mixer output so that the yellow Signal LED illuminates

Turn up the Volume control to a desired listening level

Turn the Threshold control counterclockwise until the red Limit LED just starts to blink on and off

#### CONNECTIONS

Left and Right female XLR inputs are balanced line level analog audio jacks with Pin 2 positive and Pin 3 negative. These inputs are controlled by the Stereo/ Mono switch for routing.

3.5mm TRS input jack accepts signals from portable music players, etc. Tip is always assigned to the left ear and Ring is always sent to the right ear. The Stereo/Mono switch does not affect this input.

Power jack is a 2.1mm barrel type with center pin positive. Power requirements are 24 VDC at 300 mA. A Whirlwind PS24VDC500MA power adapter is included with the PW-1.

#### CLAMP ATTACHMENT KIT

A mounting clamp accessory is available that allows the PW-1 to be attached directly to a mic stand or drum hardware. It replaces the included belt clip and can be user installed. The part number is PW-1CLAMP and can be ordered through your dealer.