Peavey Assisted Listening System

Wireless

Assisted Listening System

INTRODUCTION

Thank you for choosing the Peavey Wireless Assisted Listening System . The system is designed to be very easy to use and requires no installation.

In addition to its ease of use, the Peavey Assisted Listening System provides outstanding sound quality. The system consists of one wireless transmitter and one or more pre-tuned portable wireless receivers. The receivers are single channel units that operate on one of three channels in the 72-76 MHz band with wide band modulation for quality audio.

Unlike infrared listening systems, the Peavey Assisted Listening System can be used outdoors and indoors in bright light without affecting performance.

This system is perfect for virtually any application, from a small meeting room to a mid-sized house of worship, the Peavey Assisted Listening System provides high quality hearing assistance to any number of audience members, without seating restrictions.

The Peavey Assisted Listening System has a wireless operating range of 300 feet. The transmitter connects to the line out or tape out from a venue's existing sound system, and broadcasts the audio as an FM radio signal. The transmitter can also be used with an optional microphone.

Audience members who desire listening assistance use a pocket size Peavey Assisted Listening System receiver with adjustable volume control and ergonomic, high performance earphones. The Peavey Assisted Listening System is expandable – one transmitter will provide audio to a limitless number of receivers.

PEAVEY ASSISTED LISTENING SYSTEM - TRANSMITTER

Compact RF Transmitter operating within the 72 – 76 MHz band designated for auditory assistance frequencies by the FCC.

- Three factory switchable channels

- Input for line level audio
- Input for microphone
- Audio input gain control
- Automatic level control
- Extendible antenna
- AC/DC regulated power supply adapter supplied
- LED power on and audio modulation indicators

Setting Up the Transmitter

Your Peavey Assisted Listening System requires minimum installation Simply place the transmitter on any flat surface, connect your missing board to the transmitters back panel input (See connecting Audio input below), connect the included power supply (as explained below), and the transmitter is ready to broadcast to any number of Peavey Assisted Listening System receivers operating on the same channel

Powering the Transmitter

Connect the AC adapter provided into the 9V DC JACK (1) on the back panel of the transmitter. Plug the other end into an AC wall socket. Press POWER SWITCH (2) the POWER ON LED (3) will illuminate.

Antenna

Extend ANTENNA (4) fully and position 90 degrees from top of the transmitter

Connecting Audio Input

The LINE IN JACK (5) on the rear panel lets you connect the Peavey Assisted Listening System to your mixing console. This ¼” mono phone jack accepts an unbalanced line level audio source at zero dBm nominal signal level. If your mixer has XLR outputs only, you will need an XLR-to-phone plug adapter, available from most music equipment stores or sound contractors.

Using a Microphone

The MIC JACK (7) on the front panel allows wireless cueing of on stage performers.

IMPORTANT: This ¼" mono phone jack is designed for an electric condenser microphone, and 9V DC power is present at the input jack. If you wish to use a conventional dynamic microphone, at least 20 dB more gain is required, and a preamp should be used. If a preamp is used, be sure to have a blocking capacitor (1mdf) between the preamp output and the mic input. If a dynamic mic is plugged into the mic input by mistake, there should be no damage because the current islimited to 1.0 mA.

Audio Input Gain Adjustment

You can quickly adjust the transmitter to obtain optimum performance with the INPUT GAIN CONTROL (8). The audio modulation indictor LED, marked SIG (6) will increase in brightness as the control is turned clockwise, and decrease in brightness as the control is turned counterclockwise. When the "SIG" LED is flashing during transmission, the transmitter is broadcasting properly. (If the LED stays off continuously or barely flashed at all, the input gain needs to be increased. If the LED stays on continuously and does not flash during operation, the input is overloading and needs to be decreased.) You will also need to test the transmitter in use with a Peavey Assisted Listening System receiver. This procedure is easy to do, and is explained in the receiver instructions, which follow.

PEAVEY ASSISTED LISTENING SYSTEM - INSTALLATION

The transmitter's SIG LED (6) will flash when a microphone or line level signal is broadcast by the transmitter. If "SIG" is flashing, the transmitter is broadcasting properly. Test the transmitter with Peavey Assisted Listening Receiver. This procedure is explained in the receiver instructions.

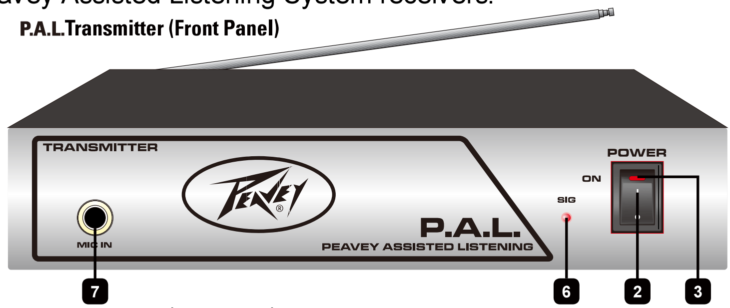
Note: For the best performance, and to minimize the possibility of interference from another source, we suggest you experiment to find the minimal height the antenna must be extended in order to perform well in your particular environment.

Using More Than One Peavey Assisted Listening System

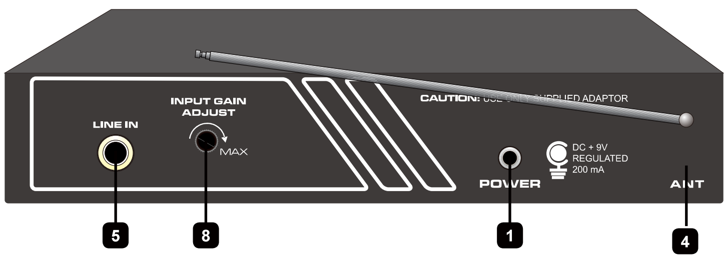
You may operate up to three Peavey Assisted Listening Systems in the same location.

Locate the transmitters ten feet or more away from the users wearing the Peavey Assisted Listening System receivers.

P.A.L.Transmitter (Front Panel)



P.A.L.Transmitter (Rear Panel)



PEAVEY ASSISTED LISTENING SYSTEM – OPERATING

Pocket-sized RF receiver for personal listening assistance.

- Any number of Peavey Assisted Listening receivers can be used with a single Peavey Assisted Listening transmitter
- Ultra compact and lightweight
- Preset to one of three auditory assistance channels
- Provides up to 130 dB SPL for hearing assistance
- Volume control adjust
- Antenna integral with earphone cord
- Mini Binaural ear bud earphones include
- LED “power on” indicator
- Accepts standard 2 AA batteries

Powering the Receiver

Install 2) AA batteries in BATTERY COMPARTMENT (1), observing polarity. To preserve battery life always turn the Peavey Assisted Listening Receiver off when it is not in use. When the sound becomes weak or distorted, replace the battery. The number of hours of operation per battery is as follows: carbon zinc type battery: 10-12; alkaline battery (recommended): 17-20 hours.

Using the Peavey Assisted Listening Systems Earphones

Plug the include earphones into the EARPHONE JACK (2) on top of the receiver. The ear pads can be ordered separately. However they can be replaced and reused after being washed in a mild detergent, rinsed and air dried.

Operating the Receiver

While wearing your earphones, turn the receiver on by rotating the OFF/ON/VOLUME WHEEL (3). The POWER ON INDICATOR (4) will go on. (To turn the receiver off, rotate the OFF/ON/VOLUME WHEEL (3) until it clicks, and the “Power On” indicator will go out.) Listen for your program source, and adjust receiver volume to a comfortable listening level.

Note: A slight buzzing may be heard if the receiver is used within six feet of the transmitter. This normal and does not affect performance. For best performance, keep the receiver and the transmitter at least ten feet apart.

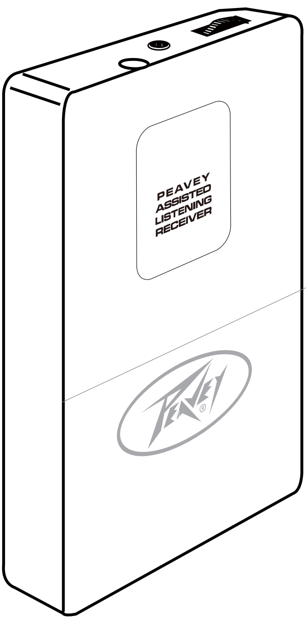
Adjusting Earphones Volume

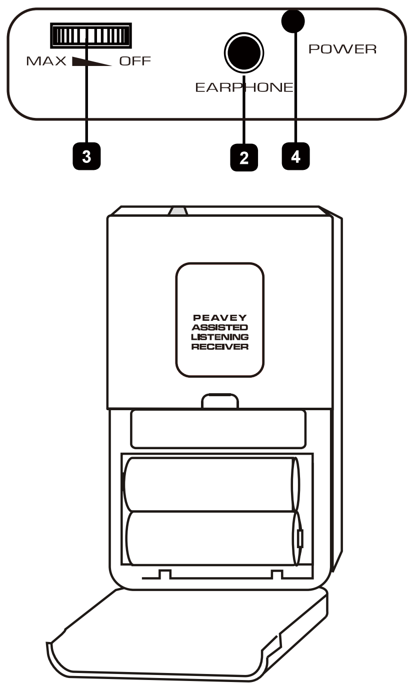
Listen for your program source, and adjust receiver volume to a comfortable listening level.

Note: A slight buzzing may be heard if the receiver is used within six feet of the transmitter. This is normal and does not affect performance.

Testing Receiver Range

Wearing your receiver and earphones, walk around your seating area and listen for audio quality. In certain areas of the room audio may disappear or “drop out.” This is normal occurrence whenever radio signals are transmitted inside a building. If you step away from the “drop out” zone, the audio will return.





ARCHITECTS AND ENGINEERING SPECIFICATIONS

PEAVEY Assisted Listening Transmitter

The transmitter operates on the 72-76 MHz auditory assistance frequencies. Transmitted field strength shall not exceed 8000 uV/m at 30 meters.

Maximum FM deviation should not exceed 75 KHz. Transmitter signal per-emphasis is 75 uS. Frequency stability is controlled by a phase locked loop synthesizer with crystal reference and accurate within +/- .0005% over 0-50 degrees C. The transmitter provides a permanently mounted telescoping whip antenna.

The FCC approved transmitter is powered by a UL and CSA listed AC wall transformer providing 9V DC input to the transmitter via a 3.5mm DC jack. The transmitter includes a ¼" line-in jack, mounted on the rear panel and ¼" electric condenser microphone jack with 9V DC power (at 1.0 mA), and mounted on the front panel. Also include, is an adjustable audio level control and a red LED "Power On" indicator.

PEAVEY Assisted Listening Receiver

The receiver operates on a single frequency in the 72-76 MHz auditory assistance band. Frequency stability is controlled by a phase locked loop synthesizer with crystal reference and accurate within +-.005% over 0-50 degrees C. The receiver de-emphasis is 75 uS. The receiver provides a 3.5 mm headphone output jack mounted on the top panel.

The receiver is powered by a 2) AA batteries. The receiver has an OFF/ON/VOLUME control mounted on the top panel, LED lamp to indicate battery strength, and an antenna shall be integral to the earphone/ear bud cord.

SPECIFICATIONS

- Frequency Response 100Hz – 15 KHz, +/- 3dB
- Signal-to- Noise Ratio 60dB
- Total Harmonic Distortion <0.5%
- RF Carrier Frequencies between 72-76 MHz
- Frequency Stability +/- 0.005%
- Modulation FM +/- 75KHz max
- Operating Range Up to 300 ft. line of sight

TRANSMITTERS

- Mic Input – Connector: ¼" phone jack, Impedance: low impedance, unbalanced, with 9V DC at 1 mA for condenser mic.
- Line Input – Connector: ¼" phone jack, Impedance: 100 K, unbalanced.
- Power Output – 80,000 uV @ 3 meters.
- Controls – Power ON/OFF, audio input gain adjust
- Indicators – Power ON LED, Audio Modulation LED
- Antenna – Permanently mounted telescoping whip
- Power Requirement – 9V DC, regulated @ 200 mA, AC/DC adapter provided
- Dimensions – 220 x 121 x 43mm
- Weight – 19.5 oz (600g)

RECEIVER

- Controls – Combination VOLUME/ON-OFF wheel
- Audio Output – 250 mW max into 16 ohms
- Connectors – 3.5mm mini jack for earphone output
- Earphones – Mini binaural ear buds
- Antenna – Integral with earphone cord
- Indicators – LED power on indicator
- Sensitivity – 2 uV for 12 dB Sinad with squelch defeated, Squelches at 10 uV for min. 50 dB S-N ratio
- Mute Threshold – 8-10 uV
- Power Requirement – 2 x 1.5V AA
- Battery Life – 17-20 hours with alkaline battery
- Dimensions – 110 x 60 x 20 mm
- Weight 2.75 oz without battery (80g)

Specifications and features subject to change without notice

NOTES

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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