

PBK15BT™
Two-way Powered Sound Reinforcement Enclosure

Operating
Manual



PBK15BT™

Two-way Powered Sound Reinforcement Enclosure

- 15" heavy-duty woofer
- 14Ti™ compression driver, with 1.4" titanium diaphragm
- 450W peak available power
- Bass & Treble controls for adjusting lows and highs
- Horn loaded compression driver tweeter for crystalline highs
- Line Input is via a female XLR with balanced input and RCA phono jacks
- Mic Input is via a female XLR with balanced input and 1/4" phone jack
- Line output is via a male XLR and 1/4" phone jack
- USB/SD/FM/BLUETOOTH input port for MP3 file playback
- Durable plastic injection-molded enclosure
- Heavy-duty perforated steel grille, with powder coat finish
- Pole mount molded-in for 1 3/8" diameter poles

DESCRIPTION

The PBK15BT™ is a two-way sound reinforcement system based on a heavy-duty 15" woofer and a 14Ti™ titanium diaphragm dynamic compression driver mounted on a medium coverage horn. It's sleek modern appearance coupled with excellent performance offer an outstanding package.

The lightweight yet rugged injection-molded plastic enclosure with molded-in stand mount cup facilitates portable use for live music or PA sound. The rounded profile cabinet has three handles for ease of portability. A black powder coated perforated steel grille provides woofer protection and a professional appearance.

The PBK15BT speaker system power amplifier is a low-distortion reliable passive air-cooled unit providing 450W peak available power for the system.

Cooling is provided via a large heat sink for low-noise and reliable operation under any conditions.

Line Input is via a female XLR with balanced input and two RCA phono jacks to the preamp/EQ electronics, and a level control. Mic input is via a female XLR with balanced input, and a 1/4" phone jack. A Line Output has a male XLR and a 1/4" phone jack connector. These outputs allow linking of additional speaker systems, or feed of the signal to a powered subwoofer, etc.

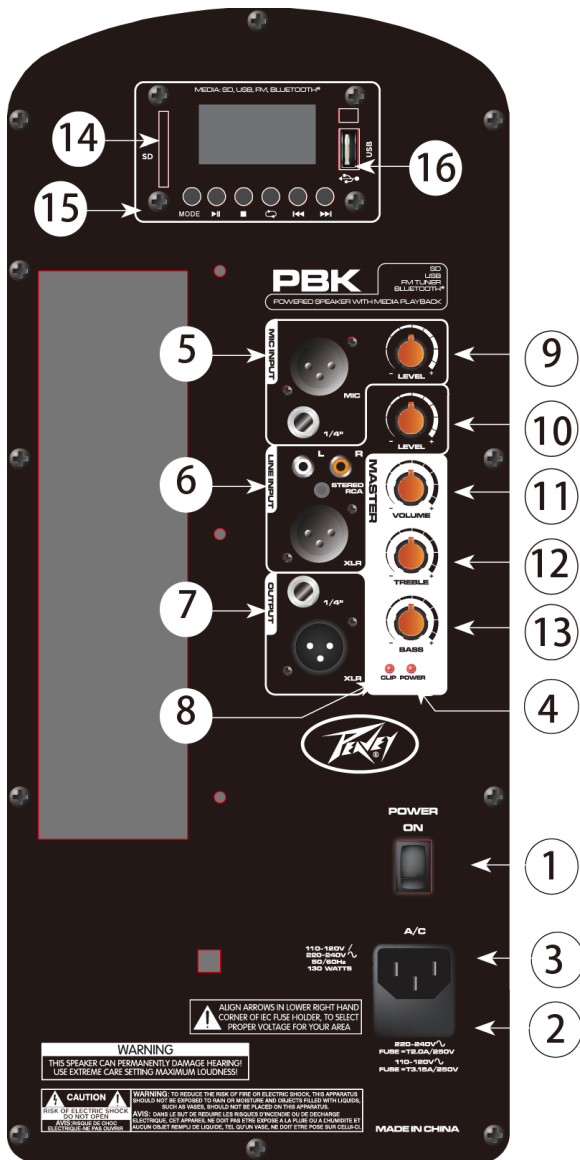
Additionally, a USB/SD/FM/BLUETOOTH input port is provided to allow playback of MP3 files via a USB thumb drive.

APPLICATIONS

The Peavey PBK15BT has a variety of applications such as sound reinforcement, public address, side fill system, karaoke or musical playback.

A typical signal source for the line-level inputs of the Peavey PBK15BT would be a sound reinforcement mixing console (mixer) or the output from a CD player, MP3 player or tape deck. A dynamic microphone can be connected to the Mic Input and used as well.

REAR PANEL



VOLTAGE SELECTION PROCESS

CAUTION: Always disconnect AC power cord from unit, or AC power source before attempting to change fuse/voltage selector position!



WARNING! Before AC power is applied to this device, always insure proper operating voltage selection is engaged to match AC power source being used.

Fuse holder tray (2) may select 110-120V AC or 220-240V AC by aligning the arrow on bottom right of the IEC jack assembly with the fuse holder arrow of the proper voltage range. To change voltage range selection, remove fuse tray and flip tray over 180 degrees and re-insert into fuse holder. The fuse tray can be removed by inserting a small flat blade screw-driver near the top center edge of the fuse tray, and gently lever the fuse tray out. The fuse tray will push outward and be sticking out approximately 1/4", then grasp the tray and pull it out all the way.

The fuse should be changed to the correct amperage rating. For an input power voltage range of from 110VAC to 120VAC, use a 3.15 amp rated, 250V 5 x 20 mm cartridge type time-delay fuse, which conforms to the international fuse classification "T3.15A". For an input power voltage range of from 220VAC to 240VAC, use a 2.0 amp rated, 250V 5 x 20 mm cartridge type time-delay fuse, which conforms to the international fuse classification "T2.0A".

The IEC power cord that is correct for your locale can now be plugged into the IEC receptacle (3), and the Power switch (1) activated to turn on the powered PBK15BT speaker system.

ON-OFF SWITCH (1)

This rocker switch supplies AC power to the PBK15BT™ when switched to the ON position. The ON position is with the top side of the switch pushed "in" or nearly flush with the rear panel.

FUSE (2)



The unit is AC power line fuse protected from overloads and fault conditions with a slow-blow 5 x 20mm 250V fuse. This fuse is located within the base of the IEC power cord connector (2), just below the IEC connector blades. If the fuse fails, **THE FUSE MUST BE REPLACED WITH THE SAME TYPE AND VALUE IN ORDER TO AVOID DAMAGE TO THE EQUIPMENT AND TO PREVENT VOIDING THE WARRANTY!**

The fuse in the Peavey PBK15BT can be replaced with a time-delay type 5 x 20mm size 250V rated fuse.

For 110-120VAC operation, a fuse rated at 3.15 amps and 250V should be used, which conforms to the international fuse classification "T3.15A".

For 220-240VAC operation, a fuse rated at 2.0 amps and 250V should be used, which conforms to the international fuse classification "T2.0A".

If the unit continues to blow replacement fuses, do not keep replacing them, it should be taken to a qualified service center for repair.

To replace the fuse, be sure to remove the IEC power cord from the IEC socket. The fuse holder tray is located beneath the IEC socket cavity. Pry the fuse holder tray out with a small flat blade screwdriver placed under the center of the top edge of the fuse tray, and gently lever the fuse tray out. The fuse is held in a clip in the fuse tray, and should be removed and replaced with a fresh 5 X 20mm 250V type fuse of the appropriate current rating.

Then, once the fresh fuse has been put in place, re-insert the fuse tray into the IEC connector assembly, making sure that the voltage range selection is correct (see above section) and make sure it is fully seated and flush with the outside of the IEC connector assembly.

IEC POWER CORD CONNECTION (3)



This receptacle is for the IEC line cord (supplied) that provides AC power to the unit. It is very important that you ensure the PBK15BT™ has the proper AC line voltage supplied. You can change the voltage for your PBK15BT by following the instructions above under the section VOLTAGE SELECTION PROCESS.



Please read this guide carefully to ensure your personal safety as well as the safety of your equipment. Never break off the ground pin on any equipment. It is provided for your safety. If the outlet used does not have a ground pin, a suitable grounding adapter should be used and the third wire should be grounded properly. To prevent the risk of shock or fire hazard, always be sure that the mixer and all other associated equipment are properly grounded.

POWER LED (4)

Illuminates green when the power switch is on and power is present

MIC INPUT (5)

The Mic level input is of the low impedance type. The jacks are a female XLR and a 1/4" phone connector. Gain is much higher than the line level inputs.

THIS INPUT SHOULD NOT BE USED FOR LINE LEVEL SIGNAL INPUT, AS IT WILL OVERLOAD AND DISTORT, DESPITE THE MASTER VOLUME CONTROL OR THE MIC GAIN CONTROL BEING TURNED DOWN !

LINE LEVEL INPUTS (6)

The line-level inputs are of the medium impedance type. The female XLR jack is a balanced type, and a pair of RCA phono connectors is available. Note the RCA jacks do not denote stereo operation, the signal from both jacks is summed together into one signal that is fed to the speakers.

LINE OUT jacks (7)

These jacks are intended for the use of linking multiple PBK15BT in a line or to provide a feed to a powered subwoofer, or other electronics that needs to receive a full range version of the input signal. The connectors available are a male XLR jack, and a 1 / 4" phone jack.

CLIP LED (8)

It turns Red when the power amp clips or overloads.

MIC GAIN (9)

Controls the gain for the microphone inputs.

LINE IN LEVEL (10)

Controls the gain or output level of the line level input signal.

MASTER VOLUME CONTROL (11)

It is used to directly set the system output level for a given set of input channel input signals.

TREBLE CONTROL (12)

The Treble control provides a boost or cut of higher frequency content, such as cymbals, so that the tonal balance can be adjusted depending on the signal source. Do not use excessive boost when playing sound at loud levels, as the boost is not needed then.

BASS CONTROL (13)

The Bass control provides a boost or cut of lower frequency content, such as bass guitar, so that the tonal balance can be adjusted depending on the signal source. Do not use excessive boost when playing sound at loud levels, as the boost is not needed then.

USB CONTROL PANEL (14)

Controls the playback of MP3 files through the USB port

DISPLAY (15)

Digital display for USB MP3 functions

USB PORT (16)

For connection of a USB thumb drive for MP3 file playback.

DO NOT PLUG A USB CABLE FROM A COMPUTER INTO THIS PORT!

The PBK15BT™ USB MP3 input, and/or the computer USB output can be damaged as a result.



SPECIFICATIONS

Frequency Range:

1 m on-axis, swept-sine in 1/2 Space environment, +/- 6dB:

54 Hz to 20 kHz

Nominal sensitivity (1W @1m, swept sine input in anechoic environment):

98 dB (average)

Maximum Sound Pressure Level (1 meter):

122 dB SPL peak with music

Transducer Complement:

Heavy-duty 15" woofer

14Ti™ 1.4" titanium diaphragm dynamic compression driver, mounted on a semi-exponential horn.

Nominal Coverage Pattern:

60 degrees horizontal by 45 degrees vertical

Electroacoustic crossover frequency:

2,700 Hz

Crossover type:

Internal passive two-way crossover with driver EQ, and level matching,

Crossover Slopes:

12 dB/octave (2nd order) low pass, 12dB/octave (2nd order) high pass, both with staggered poles and driver EQ.

Input Connections:

Line Level: One female XLR providing balanced line-level operation, and a pair of RCA phono jacks.

Mic Level: One female XLR and one 1/4" phone jack

USB Input Port: For connection of a USB thumb drive/memory stick for playback of MP3 music files.

DO NOT PLUG A USB CABLE FROM A COMPUTER INTO THIS PORT!

The PBK15BT USB MP3 input, and/or the computer USB output can be damaged as a result.

Output Connections:

One male XLR and one 1/4" phone jack. The Line Out jacks are intended for the use of linking multiple PBK15BT in a line or to provide a feed to a powered subwoofer, or other electronics that needs to receive a full range version of the input signal.

Enclosure Materials & Finish:

Black ABS plastic with textured surface, black powder-coated perforated grille.

Mounting or Suspension: Molded-in 1 3/8" pole-mount cup for stand mounting, four rubber feet for floor use.

NOTE: This unit is not designed for overhead suspension!



Overall Dimensions (H x W x D):

27.56" x 17.90" x 13.80"

(700mm x 455mm x 350mm)

Net Weight:

47 Lbs. (21.0 kg)

ELECTRONICS AND AMPLIFIER SPECIFICATIONS:**Internal power amplifier (@120 VAC line):**

450 watts peak available power

Continuous Power: 225 watts @ less than 3% THD

Electronic Input Impedance (Nominal):

Line: 22 k ohms balanced (XLR), 10 k ohms unbalanced RCA

Mic: 2.2 k ohms balanced (XLR) No phantom power available.

Input Sensitivity for Full Output (Level full CW):

Line Level – 0.36 V RMS

Mic Level – 0.02 V RMS

Tone Control Corner & Range:

Bass: +/- 12 dB, corner @ 550 Hz, Treble: +/- 12 dB, corner @ 1.0 kHz

Nominal Amplifier Frequency Response (before EQ):

+1, -3 dB from 20 Hz to 20 kHz

Hum and Noise:

Greater than 90 dB below rated power

THD and IM:

Typically less than 1 %

Power requirements of Peavey PBK15BT™ System:

Nominal 130 Watts, 100-120 VAC 50-60 Hz

Fuse Type :

For 110-120 VAC USE: International fuse classification T3.15A cartridge-style 5 x 20 mm size fuses with a 250V rating can be used.

For 220-240VAC USE: International fuse classification T2.0A . This is a cartridge style 5 x 20 mm size time-delay fuse with a 2.0 amp 250V rating.

Features and specifications are subject to change without notice.

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Logo referenced in Directive 2002/96/EC Annex IV
(OJ(L)37/36,13.02.03 and defined in EN 50419: 2005
The bar is the symbol for marking of new waste and
is applied only to equipment manufactured after
13 August 2005