



# PBK12FM

Two-way Powered Sound Reinforcement Enclosure

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Operating  
Manual





# PBK12FM

## Two-way Powered Sound Reinforcement Enclosure

- 12" heavy-duty woofer
- 14Ti™ compression driver, with 1.4" titanium diaphragm
- 60W peak available power
- Bass & Treble controls for adjusting lows and highs
- Horn loaded compression driver tweeter for crystalline highs
- Unit can operate on either the internal battery or other external 12V power source
- Line Input is via a female RCA phono jacks input
- Mic Input is via a female XLR with balanced input , 1/4" phone jack and two wireless microphones input
- Line output is via RCA phone jack
- USB/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 PBK12FM is a two-way sound reinforcement system based on a heavy-duty 12" 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 PBK12FM speaker system power amplifier is a low-distortion reliable passive air-cooled unit providing 100W 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 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 two RCA phone jack connector. These outputs allow linking of additional speaker systems, or feed of the signal to a powered subwoofer, etc.

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

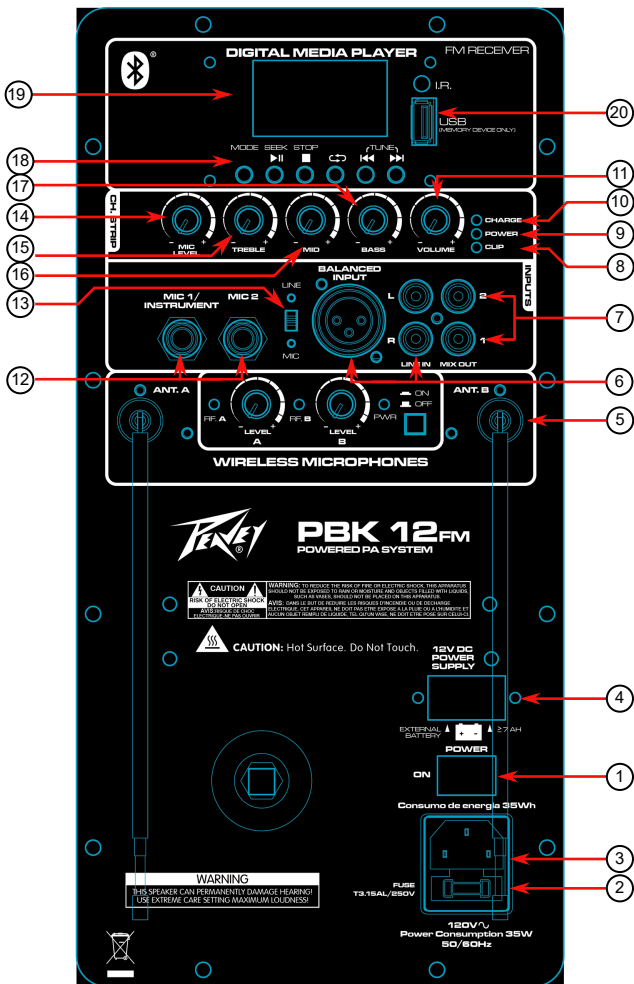
The PBK12FM can operate on its internal battery. It can also be operated on an external 12V power source (e.g. car battery).

### APPLICATIONS

The Peavey PBK12FM 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 PBK12FM 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




Unit shown is 120V

The IEC power cord that is correct for your locale should be included with your unit. There are 2 available units, one for 120V operation and another for 240V operation. Please note proper voltage operation for your unit and locale.

### ON-OFF SWITCH (1)

This rocker switch supplies AC power to the PBK12FM 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 PBK12FM can be replaced with a time-delay type 5 x 20 mm 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 "T3.15AL".

For the 220-240VAC unit, a fuse rated at 1.6 amps and 250V should be used, which conforms to the international fuse classification "T1.6AL".

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 PBK12FM has the proper AC line voltage supplied.

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.



**External power (4)**

External battery supply 12VDC (such as a car battery).

**WIRELESS MICROPHONES(5)**

Press ON/OFF switch, PWR indicator light , The wireless receiver module is working.

**LINE LEVEL INPUTS (6)**

The line-level inputs are of the medium impedance type. 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.

**MIX OUT (7)**

These RCA jacks are intended for the use of linking multiple PBK12FM 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 RCA jack.

**CLIP(8)**

It turns Red when the power amp clips or overloads.

**POWER LED (9)**

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

**CHARGE LED(10)**

Illuminates red when battery charging.

**LINE IN LEVEL CONTROL (11)**

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

**MIC INPUT (12)**

The Mic level input is of the low impedance type. The jacks are 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 !

**SIGNAL INPUT SELECTOR SWITCH (13)**

Signal input selection. You can select line input and MIC input.

**MIC GAIN (14)**

Controls the gain for the microphone inputs

**TREBLE CONTROL (15)**

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.

**MID CONTROL (16)**

The MID control provides a boost or cut of middle frequency content, such as 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.

**BASS CONTROL (17)**

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.

## Media Playback Buttons (18)

**MODE:** A short press of the MODE button will toggle between the USB input, FM Radio and Bluetooth. A long press of the MODE button will enter the setting menu for whichever source is selected. In the settings menu, you can select things like the pre-programmed EQ modes and the repeat functions. In the FM Radio settings, you can Auto search for stations, delete stations or delete all the stations. There are no settings available for the Bluetooth.

**PLAY/PAUSE:** A short press of the PLAY/PAUSE button causes the operation to change from PLAY to PAUSE or from PAUSE back to PLAY.

**STOP:** Press the STOP button to stop a file that is playing.

**REPEAT:** Pressing the REPEAT button toggles the function between ALL, REPEAT ONE, REPEAT FOLDER, NORMAL, RANDOM and BROWSE.

ALL: Repeats all songs.

REPEAT ONE: Repeats a single song.

REPEAT FOLDER: Repeats all the songs in a single folder.

NORMAL: Plays all songs in order.

RANDOM: Plays all songs in a random order.

BROWSE: Plays the first 10 seconds of each song.

**TRACK SKIP:** In playback mode the TRACK SKIP buttons let you select the track to play. A short press skips to the next track. A long press allows you to fast forward/rewind through a song. Hold the button down until the desired playback point is found. Release the button and the song will start playing. The TRACK SKIP buttons are used to increment/decrement through the options in the menu.

## DISPLAY (19)

Digital display for USB MP3 functions

## USB PORT (20)

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

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

The PBK12FM USB MP3 input, and/or the computer USB output can be damaged as a result.



## Bluetooth® Player

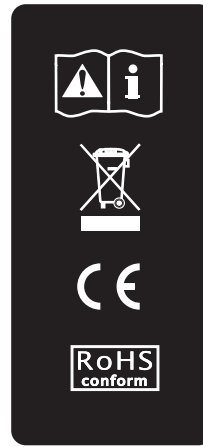
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To listen to your music via Bluetooth wireless connection, you need to pair (link) your PBK 12FM with your Bluetooth phone and/or music device.

1. Turn off any Bluetooth devices previously paired with your PBK 12FM
2. Turn on the Bluetooth feature on your phone or music device.
3. Press the mode button until the Bluetooth symbol appears in the upper left hand corner of the LCD display.
4. Place your phone or music device in Bluetooth search mode.
5. Select Bluetooth audio from search results on your phone or music device.
6. Select OK or YES to pair your speaker system with your phone or music device.

When your PBK 12FM successfully pairs and connects with your phone or music device, the LCD display will indicate the name of the device connected. You will now be able to play music from your connected music source through your PBK 15FM. The level can either be adjusted from the connected source or by the MP3 Volume control. \* Wireless range can vary depending on Bluetooth class of source device, and be subject to interference from obstructions such as walls or other electronic devices.

## Remote Control



NOTE: For proper use, do not block the IR Receiver.

PLAY/PAUSE: A short press of the PLAY/PAUSE button causes the operation to change from PLAY to PAUSE or from PAUSE back to PLAY

CH- / CH+: Channel adjustment buttons.

EQ: EQ Preset adjustment button.

- / +: Volume adjustment buttons.

I<< / >>I: Track skip buttons let you select the track to play.

0-9: Directly access tracks.

PICK SONG: N/A on this model

ENTER: Enters the settings menu.

MODE: Toggles between the USB input, FM radio and Bluetooth.

For ease of use and convenience, a remote control comes with the PBK 12FM (battery included). To replace the battery, push in left tab and pull out. Use only a CR2025 model battery as a replacement.

### WARNING

Do not ingest the battery. Chemical Burn Hazard.

(The remote control supplied with) This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children.

If the battery compartment does not close securely, stop using the product and keep it away from children.

If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.



## 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 12" 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: two RCA phono jacks.

Mic Level: One female XLR, one 1/4" phone jack and two wireless microphones.

**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 PBK12FM USB MP3 input, and/or the computer USB output can be damaged as a result.

### Output Connections:

two RCA phone jack. The Line Out jacks are intended for the use of linking multiple PBK12FM 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):

23.23" x 14.57" x 12.60"

(590mm x 370mm x 320mm) Net

Weight:

33 Lbs. (15.0 kg)

### **ELECTRONICS AND AMPLIFIER SPECIFICATIONS:**

#### **Internal power amplifier (@120 VAC line):**

60 watts peak available power

Continuous Power: 30 watts @ less than 3% THD

#### **Electronic Input Impedance (Nominal):**

Line: 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 @ 100 Hz, Mid: +/- 12 dB, corner @ 1kHz Treble: +/- 12 dB, corner @ 10kHz

#### **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 PBK12FM System:**

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

#### **Fuse Type :**

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

For 220-240VAC USE: International fuse classification T1.6AL . 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.*

Peavey Electronics Corporation • 5022 Hartley Peavey Drive • Meridian • MS • 39305  
(601) 483-5365 • FAX (601) 486-1278 • www.peavey.com • ©2013 • EX000181





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Peavey Electronics Corporation 5022 Hartley Peavey Drive Meridian, MS 39305 (601) 483-5365 FAX (601) 486-1278



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