# **Powered Mixers**

# EUROPOWER PMP6000/PMP4000 PMP1680S

1600-Watt 10/16/20-Channel Powered Mixer with Multi-FX Processor and FBQ Feedback Detection System

- Ultra-compact 2 x 800-Watt stereo powered mixers (1600 Watt bridged mode)
- Revolutionary Class-D amplifier technology: enormous power, incredible sonic performance and super-light weight
- Ultra-compact design at nearly half the weight of conventional powered mixers
- PMP6000: 20-channel mixer section features 12 mono and 4 stereo channels plus separate CD/Tape input/output
- PMP4000: 16-channel mixer section features 8 mono and 4 stereo channels plus separate CD/Tape input/output
- PMP1680S: 10-channel mixer section features 6 mono and 2 stereo channels plus separate CD/Tape input/output
- PMP6000, PMP1680S: Dual studiograde 24-bit stereo FX processors with 100 awesome presets including reverb, chorus, flanger, delay, pitch shifter and various multi-effects
- PMP4000: Studio-grade 24-bit stereo FX processor with 100 awesome presets including reverb, chorus, flanger, delay, pitch shifter and various multi-effects
- Revolutionary FBQ Feedback
   Detection system instantly reveals
   critical frequencies for easy
   feedback removal
- 12/8 high-quality Mic Preamps with switchable +48 V phantom power for condenser microphones



The new BEHRINGER PMP Powered Mixers (2 x 800-Watt stereo, 1600-Watt bridged mode) produce even more power than their predecessors while maintaining a famously low weight and high efficiency. These mixers employ Class-D technology including a new switch-mode power supply, significantly reducing weight and heat. The 20-channel PMP6000 features 12 built-in XENYX preamps, the 16-channel PMP4000 features 8 built-in XENYX mic preamps, and the 10-Channel PMP1680S features 8 high-quality built-in mic preamps. All three models feature 24-bit FX processors, stereo 7-band graphic EQ and our renowned FBQ Feedback Detection System.

### What is Class-D Technology?

Instead of operating relatively continuously like Class AB circuits, Class-D amps switch on and off thousands of times per second, delivering power only when needed. In other words, the amplifier is either fully on or fully off, which significantly reduces power losses from the output devices given off as heat. Less heat means our amps don't need massive heat sinks, and that means we can make them lighter. Our no-compromise design means the new PMP mixers will deliver full power with incredible fidelity all night long, without the need for lengthy rest cycles.

When used in conjunction with switching-mode power supplies, which don't require huge and heavy transformers, our Class-D amplifiers provide tremendous dynamic punch and superior fidelity. The resulting speaker systems are much lighter, making them easy to transport and set up.

## **Massive Mono or Stunning Stereo**

Our latest PMP give you the choice of 2 x 800-Watt stereo, 2 x 800-Watt dual mono mode (giving you a mono version





- Effective, extremely musical 3-band EQ, switchable Low cut filter, and Clip LEDs on all mono channels
- PMP4000 and PMP6000: Stereo
   7-band graphic EQ allows precise
   frequency correction of monitor or
   main outputs
- PMP1680S: Stereo 7-band graphic EQ allows precise frequency correction of monitor and main outputs
- Voice Canceller function removes singer's voice from recordings for karaoke applications
- Selectable stereo (main L/R), double mono (main/monitor) or bridged mono amplifier operation mode
- PMP6000 and PMP1680S: Speaker Processing function adjusts frequency response to match professional speaker systems like BEHRINGER EUROLIVE series, etc.
- PMP6000 and PMP1680S: Standby switch mutes all mic input channels during breaks while background music is provided via CD/Tape input
- PMP6000: Breathtaking XPQ 3D stereo surround effect for more vitality and enhanced stereo image
- Adjustable stereo 2-Track input for connecting external line sources
- Multi-functional stereo Preamp outputs for added flexibility
- Internal switch-mode power supply, noise-free audio, superior transient response and very low power consumption
- High-quality components and exceptionally rugged construction ensure long life
- Conceived and designed by BEHRINGER Germany

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of the main signal through one powered output plus a mono version of monitor send signals through the second powered output) or 1,600-Watt bridged mono sound. Whether the center of attention happens to be a folk trio, a speech, or a synth-rock band with mind-boggling stereo patches, PMP mixers can accommodate. This sonic versatility also makes it an excellent choice for churches, where vocals and stereo recordings often share face time.

## Classic Control, State-of-the-Art Sound

Leave the mic preamps at home, because the quality of sound that was

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once only available in the studio is ready to go wherever you do. Built-in, boutique-caliber mic preamps with switchable +48 V phantom power make it possible to use either dynamic or condenser mics with the PMP Series. The PMP6000 gives you 12 mic inputs while the PMP4000 and PMP1680S each give you 8 mic inputs.

### **Built-in Digital Effects Processor**

The new generation of PMP mixers come equipped with 24-bit FX processors, giving you 100 mind-blowing digital effect presets such as delay, chorus and reverb. Apply them to any channel, as well as to the monitors and main output. In case you're pulling double duty as sound engineer and performer, the FX processors features a footswitch jack for remote on/off. Of course, if you have treasured outboard gear you've grown attached to, these mixers can integrate them into the mix while leaving out the built-in FX processor.

### **Changing the Channels**

The PMP Series gives you excellent flexibility to accommodate whatever a performance requires. You get 12 (PMP6000) or 8 (PMP4000 and PMP1680S) channels for mics, guitars and other mono instruments. Stereo channels 13-20 (PMP6000), 9-16 (PMP4000) and 7-10 (PMP1680S) are designed to work in pairs as stereo channels, or independently for more mono instruments. All mono channels have 3-band EQ, switchable Low cut filter for eliminating infrasonics, and Clip LEDs to indicate when the input signal is too hot.

A STANDBY switch (PMP6000 and PMP1680S) mutes all mic channels during breaks, preventing the microphones from picking up noise or interference. You can leave all faders untouched while you play a CD via the CD/TAPE inputs.



The FBQ Feedback Detection system automatically shows you which frequencies are causing feedback. Just touch the FBQ button and watch the red LEDs on the 7-band graphic EQ pinpoint show you which frequencies to adjust for optimized sound, without the feedback.

## The Ins and Outs

Use the CD/TAPE IN RCA inputs to feed in external stereo signals from CD players or tape decks. The VOICE CANCELLER switch eliminates the vocals from pre-recorded music for instant karaoke applications.

CD/TAPE OUT RCA outputs send line-level signals from the mixer to a recording device. The left and right main outputs can be used for a variety of purposes, including connecting more power amps. Connect monitor power amps or active monitor speakers to the MON SEND output. Powered outputs on these mixers are available in professional Speakon-compatible format for secure operation.

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### Small, Simple, Superb

Medium-sized events call for a lightweight (PMP6000: 13.1 kg/28.9 lbs; PMP4000: 0.4 kg/22.9 lbs; PMP1680S: 9.9 kg/28.8 lbs), easy-to-use powered mixer. BEHRINGER powered mixers are the most efficient, affordable mixers for the job, and are even suitable for use as pure analog mixers or as pure power amplfiers. With new technological advantages and incredible built-in features, it's easier than ever to lend exceptional sound quality to all kinds of public performances.



# Setup in Stereo Mode



# Setup in Mon/Mono Mode



#### **MICROPHONE INPUTS**

MICROPHONE INPUTS	
PMP6000/PMP4000	
Туре	XLR, electronically balanced input circuit
Mic E.I.N. (20 Hz - 20 kHz)	
PMP6000/PMP4000	
@ 0 Ohm source resistance	-134 dB/136 dB A-weighted
@ 50 Ohm source resistance	-131.5 dB/134 dB A-weighted
@ 150 Ohm source resistance	-129 dB/155 dB A-weighted
Frequency response	< 10 Hz - 200 kHz (-1 dB) < 10 Hz - > 200 kHz (-3 dB)
Gain	+10 dB, +60 dB
Max. input level	+12 dBu @ +10 dB gain
Impedance	approx. 2.6 k Ohm balanced/ 1.3 k Ohm unbalanced
Signal-to-noise ratio	109 dB/112 dB A-weighted (0 dBu In @ +10 dB gain)
Noise (THD + N)	0.002%/0.0018% A-weighted
MONO LINE INPUTS	
PMP6000/PMP4000	
Туре	1/4" TS connectors, balanced
Impedance	approx. 20 k Ohm
Max. input level	+21 dBu
STEREO LINE INPUTS	
PMP6000/PMP4000	
Туре	1/4" TRS connectors, unbalanced
Impedance	> 3.6 k Ohm
Max. input level	+22 dBu

## EQUALIZER

PMP6000/PMP4000	
Low	80 Hz/+/-15 dB
PMP4000	
Mid	2.5 kHz/+/-15 dB
PMP6000	
Mid	100 Hz - 8 kHz/+/-15 dB
PMP6000/PMP4000	
High	12 kHz/+/-15 dB
2 TRACK INPUT	
PMP6000/PMP4000	
Туре	RCA
Impedance	approx. 3.6 k Ohm

#### PREAMP OUTPUTS

## PMP6000/PMP4000

MAIN	
Туре	1/4" TRS connectors, unbalanced
Impedance	approx. 150 Ohm, unbalanced
Max. output level	+21 dBu
MONITOR	
PMP6000/PMP4000	
Туре	1/4" TRS connectors, unbalanced
Impedance	approx. 150 Ohm, unbalanced

Impedance	approx. 150 Ohm, unbalanced
Max. output level	+21 dBu

## STEREO OUTPUTS

## PMP6000/PMP4000

Туре	1/4" TRS connectors, unbalanced
Impedance	approx. 150 Ohm, unbalanced
Max. input level	+21 dBu
Туре	RCA
Impedance	approx. 1 kOhm
Max. input level	+21 dBu

# LOUDSPEAKER OUTPUTS

## PMP6000/PMP4000

Professional locking connector
4 - 8 Ohm
4 - 8 Ohm
4 - 8 Ohm
8 - 16 Ohm

## DSP

## PMP6000/PMP4000

Converter	24-bit Delta-Sigma, 64/128-times oversampling
Dynamics D/A	90 dB
Sampling rate	46.875 kHz
Delay Time	max. 5 secs
Signal run time	approx. 1.5 ms (Line In > Line Out)
DISPLAY	

# PMP4000 Type 2-digit, 7-segment LED PMP6000 2 x 2-digit, 7-segment LED

#### **OUTPUT POWER**

RMS @ 1% THD, both chanı	nels driven:
PMP6000	
8 Ohm per channel	300 W
4 Ohm per channel	600 W
RMS @ 1% THD, bridged m	ode:
PMP6000/PMP4000	
8 Ohm	1,200 W
Peak Power, both channels	s driven:
PMP6000/PMP4000/	PMP1680S
8 Ohm per channel	400 W
4 Ohm per channel	800 W
Peak Power, bridged mode	2:
PMP6000/PMP4000	
8 Ohm	1,600 W
POWER SUPPLY	
Mains voltage	
PMP6000/PMP4000	
USA/Canada	120 V~, 60 Hz
China/Korea	220 V~, 50/60 Hz
Europe/Australia	230 V~, 50 Hz
Japan	100 V~, 50 - 60 Hz
Fuse 100 - 120 V~	T 10 A H 250 V
Fuse 220 - 240 V~	T 6.3 A H 250 V
POWER CONSUMPTION	
PMP6000/PMP4000	
Power consumption	1,050 W
Mains connector	IEC standard receptacle
DIMENSIONS/WEIGHT	
PMP4000	
Dimensions (H x W x D)	4 <sup>7</sup> / <sub>8</sub> x 18 <sup>3</sup> / <sub>4</sub> x 18 <sup>1</sup> / <sub>8</sub> " 122 x 476 x 460 mm
PMP6000	
Dimensions (H x W x D)	4 <sup>7</sup> /8 x 23 <sup>1</sup> / <sub>2</sub> x 19 <sup>1</sup> / <sub>2</sub> " 122 x 596 x 496 mm
PMP4000	
Weight	22.9 lbs/10.38 kg
PMP6000	
Weight	28.9 lbs/13.1 kg

#### **PMP1680S**

MICROPHONE INPUTS	
Туре	XLR, electronically balanced input circuit
Mic E.I.N. (20 Hz - 20 kHz)	
@ 0 Ohm source resistance	-112 dB/114 dB A-weighted
@ 50 Ohm source resistance	-112 dB/114 dB A-weighted
@ 150 Ohm source resistance	-112 dB/114 dB A-weighted
Frequency response	< 10 Hz - 200 kHz (-1 dB) < 10 Hz - > 200 kHz (-3 dB)
Gain	+30 dB, $+10$ dB with pad
Max. input level	+12 dBu @ +10 dB gain
Impedance	approx. 2.2 kOhm balanced/ 1.1 k Ohm unbalanced
Signal-to-noise ratio	110 dB/114 dB A-weighted (0 dBu In @ +10 dB gain)
Noise (THD + N)	0.001%/0.0007% A-weighted
MONO LINE INPUTS	
Туре	1/4" TS connectors, balanced
Impedance	approx. 20 kOhm, balanced
Max. input level	+21 dBu
STEREO LINE INPUTS	
Туре	1/4" TRS connectors, unbalanced
Impedance unbalanced	approx. 100 kOhm,
Max. input level	+21 dBu
EQUALIZER	
Low	80 Hz/+/-15 dB
Mid	2.5 kHz/+/-15 dB
High	12 kHz/+/-15 dB
CD/TAPE INPUT	
Туре	RCA
Impedance	approx. 10 k Ohm

#### PREAMP OUTPUTS

MAIN	
Туре	1/4" TS connectors, unbalanced
Impedance	approx. 150 Ohm, unbalanced
Max. output level	+21 dBu
MONITOR	
Туре	1/4" TS connectors, unbalanced
Impedance	approx. 150 Ohm, unbalanced
Max. output level	+21 dBu
STEREO OUTPUTS	
Type unbalanced	1/4" TRS connectors,
Impedance	approx. 150 Ohm, unbalanced
Max. input level	+21 dBu
Туре	RCA
Impedance	approx. 1 kOhm
Max. input level	+21 dBu
LOUDSPEAKER OUTPUTS	
Туре	Twist-lock professional speaker connector
Load impedance:	
MAIN L/R	4 - 8 0hm
MONITOR/MAIN MONO	4 - 8 Ohm
MAIN MONO/MAIN MONO	4 - 8 0hm
BRIDGE	8 - 16 Ohm
DSP	
Converter	24-bit Delta-Sigma, 64/128-times oversampling
Dynamics D/A	90 dB
Sampling rate	40 kHz
Delay Time	max. 5 secs
Signal run time	approx. 1.5 ms (Line In > Line Out)

#### DISPLAY 2 x 2-digit, 7-segment LED Туре **OUTPUT POWER** RMS @ 1% THD, both channels driven: 8 Ohm per channel 300 W 4 Ohm per channel 600 W RMS @ 1% THD, bridged mode: 8 0hm 1200 W Peak Power, both channels driven: 8 Ohm per channel 400 W 4 0hm per channel 800 W Peak Power, bridged mode: 1600 W 8 0hm **POWER SUPPLY Mains voltage** USA/Canada 120 V~, 60 Hz China/Korea 220 V~, 50/60 Hz Europe/Australia 230 V~, 50 Hz Japan 100 V~, 50 - 60 Hz Fuse 100 - 120 V~ T 10 A H 250 V Fuse 220 - 240 V~ T 6.3 A H 250 V **POWER CONSUMPTION** Power consumption 1050 W Mains connector IEC standard receptacle DIMENSIONS/WEIGHT Dimensions (H x W x D) 12 <sup>2</sup>/<sub>5</sub> x 18 <sup>1</sup>/<sub>10</sub> x 8 <sup>3</sup>/<sub>5</sub>" 315 x 460 x 220 mm 21.8 lbs/9.9 kg Weight Please note these specifications are preliminary and conceptual in nature,

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