

User Manual



EUROPOWER PMP518M

Ultra-Compact 180-Watt 5-Channel Powered Mixer with Multi-FX Processor and FBQ Feedback Detection System



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Thank you

Congratulations! With the PMP518M you have acquired a state-of-the-art power mixer that sets new standards.

Important Safety Instructions



Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock. Use only high-quality commercially-available speaker cables with 1/4" TS plugs pre-installed. All other installation or modification should be performed only by qualified personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.

This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.



Caution

To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.

Caution To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Caution These service instructions are for use

by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

- 1. Read these instructions.
- Keep these instructions. 2.
- Heed all warnings. 3.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Use only attachments/accessories specified by the manufacturer.



12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid

iniury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to gualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.



Legal Disclaimer

Technical specifications and appearance are subject to change without notice. The information contained herein is correct at the time of printing. All trademarks are the property of their respective owners. MUSIC Group accepts no liability for any loss which may be suffered by any person who relies either wholly or in part upon any description, photograph or statement contained herein. Colors and specifications may vary slightly from product, BEHRINGER products are sold through authorized dealers only. Distributors and dealers are not agents of MUSIC Group and have absolutely no authority to bind MUSIC Group by any express or implied undertaking or representation. This manual is copyrighted. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording of any kind, for any purpose, without the express written permission of Red Chip Company Ltd.

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Limited Warranty § 1 Warranty

1 This limited warranty is valid only if you purchased the product from a BEHRINGER authorized dealer in the country of purchase. A list of authorized dealers can be found on BEHRINGER's website behringer.com under "Where to Buy", or you can contact the BEHRINGER office closest to you.

2 MUSIC Group* warrants the mechanical and electronic components of this product to be free of defects in material and workmanship if used under normal operating conditions for a period of one (1) year from the original date of purchase (see the Limited Warranty terms in § 4 below), unless a longer minimum warranty period is mandated by applicable local laws. If the product shows any defects within the specified warranty period and that defect is not excluded under § 4, MUSIC Group shall, at its discretion, either replace or repair the product using suitable new or reconditioned product or parts. In case MUSIC Group decides to replace the entire product, this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e., one (1) year (or otherwise applicable minimum warranty period) from the date of purchase of the original product.

3 Upon validation of the warranty claim, the repaired or replacement product will be returned to the user freight prepaid by MUSIC Group.

4 Warranty claims other than those indicated above are expressly excluded.

PLEASE RETAIN YOUR SALES RECEIPT. IT IS YOUR PROOF OF PURCHASE COVERING YOUR LIMITED WARRANTY. THIS LIMITED WARRANTY IS VOID WITHOUT SUCH PROOF OF PURCHASE.

§ 2 Online registration

Please do remember to register your new BEHRINGER equipment right after your purchase at behringer.com under "Support" and kindly read the terms and conditions of our limited warranty carefully. Registering your purchase and equipment with us helps us process your repair claims guicker and more efficiently. Thank you for your cooperation!

§ 3 Return materials authorization

To obtain warranty service, please contact the retailer from whom the equipment was purchased. Should your BEHRINGER dealer not be located in your vicinity, you may contact the BEHRINGER distributor for your country listed under "Support" at behringer.com. If your country is not listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at behringer.com. Alternatively, please submit an online warranty claim at behringer.com BEFORE returning the product. All inquiries must be accompanied by a description of the problem and the serial number of the product. After verifying the product's warranty eligibility with the original sales receipt, MUSIC Group will then issue a Return Materials Authorization ("RMA") number.

2 Subsequently, the product must be returned in its original shipping carton, together with the return authorization number to the address indicated by MUSIC Group.

3 Shipments without freight prepaid will not be accepted.

§ 4 Warranty Exclusions

This limited warranty does not cover consumable parts including, but not limited to, fuses and batteries. Where applicable, MUSIC Group warrants the valves or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase.

2 This limited warranty does not cover the product if it has been electronically or mechanically modified in any way. If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country which is not the country for which the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship. This limited warranty does not cover any such modification/adaptation, regardless of whether it was carried out properly or not. Under the terms of this limited warranty, MUSIC Group shall not be held responsible for any cost resulting from such a modification/adaptation.

This limited warranty covers only the product hardware. It does not cover technical assistance for hardware or software usage and it does not cover any software products whether or not contained in the product. Any such software is provided "AS IS" unless expressly provided for in any enclosed software limited warranty.

It is limited warranty is invalid if the factoryapplied serial number has been altered or removed from the product.

S Free inspections and maintenance/repair work are expressly excluded from this limited warranty, in particular, if caused by improper handling of the product by the user. This also applies to defects caused by normal wear and tear, in particular, of faders, crossfaders, potentiometers, keys/buttons, guitar strings, illuminants and similar parts.

 Damage/defects caused by the following conditions are not covered by this limited warranty:

- improper handling, neglect or failure to operate the unit in compliance with the instructions given in BEHRINGER user or service manuals;
- connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used;
- damage/defects caused by acts of God/Nature (accident, fire, flood, etc) or any other condition that is beyond the control of MUSIC Group.

Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the limited warranty.

If an inspection of the product by MUSIC Group shows that the defect in question is not covered by the limited warranty, the inspection costs are payable by the customer.

Products which do not meet the terms of this limited warranty will be repaired exclusively at the buyer's expense. MUSIC Group or its authorized service center will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 6 weeks after notification, MUSIC Group will return the unit C.O.D. with a separate invoice for freight and packing. Such costs will also be invoiced separately when the buyer has sent in a written repair order.

10 Authorized BEHRINGER dealers do not sell new products directly in online auctions. Purchases made through an online auction are on a "buyer beware" basis. Online auction confirmations or sales receipts are not accepted for warranty verification and MUSIC Group will not repair or replace any product purchased through an online auction.

§ 5 Warranty transferability

This limited warranty is extended exclusively to the original buyer (customer of authorized retail dealer) and is not transferable to anyone who may subsequently purchase this product. No other person (retail dealer, etc.) shall be entitled to give any warranty promise on behalf of MUSIC Group.

§ 6 Claim for damage

Subject only to the operation of mandatory applicable local laws, MUSIC Group shall have no liability to the buyer under this warranty for any consequential or indirect loss or damage of any kind. In no event shall the liability of MUSIC Group under this limited warranty exceed the invoiced value of the product.

§7 Limitation of liability

This limited warranty is the complete and exclusive warranty between you and MUSIC Group. It supersedes all other written or oral communications related to this product. MUSIC Group provides no other warranties for this product.

§ 8 Other warranty rights and national law

This limited warranty does not exclude or limit the buyer's statutory rights as a consumer in any way.

2 The limited warranty regulations mentioned herein are applicable unless they constitute an infringement of applicable mandatory local laws.

This warranty does not detract from the seller's obligations in regard to any lack of conformity of the product and any hidden defect.

§9 Amendment

Warranty service conditions are subject to change without notice. For the latest warranty terms and conditions and additional information regarding MUSIC Group's limited warranty, please see complete details online at behringer.com.

* MUSIC Group Macao Commercial Offshore Limited of Rue de Pequim No. 202-A, Macau Finance Centre 9/J, Macau, including all MUSIC Group companies

1. Introduction

Right from the very start it has been our goal to design a revolutionary unit that can be used for a wide variety of applications. And indeed, this overwhelming power mixer gives you plenty of functionality and a broad range of connection and expansion options.

1.1 Before you get started

1.1.1 Shipment

Your EUROPOWER was carefully packed at the factory and the packaging is designed to protect the unit from rough handling. Nevertheless, we recommend that you carefully examine the packaging and its contents for any signs of physical damage which may have occurred during transit.

- If the unit is damaged, please do NOT return it to BEHRINGER, but notify your dealer and the shipping company immediately. Otherwise, claims for damage or replacement may not be granted.
- We recommend that you use a flight case, so as to give your power mixer optimum protection during use or transport.
- Always use the original packing carton to prevent damage during storage or transport.
- Make sure that children cannot play unsupervised with the device or its packaging.
- Please ensure proper disposal of all packing materials.

1.1.2 Initial operation

Be sure that there is enough air space around the unit for cooling and, to avoid overheating, please do not place the EUROPOWER near radiators, etc.

Blown fuses must be replaced by fuses of the same type and rating! Please refer to the "Specifications" for details.

The mains connection is made using the enclosed power cord and a standard IEC receptacle. It meets all of the international safety certification requirements.

- Please make sure that all units have proper ground connection. For your own safety, never remove or disable the ground conductor from the unit or on the AC power cord.
- The sound quality may diminish within the range of powerful broadcasting stations and high-frequency sources. Increase the distance between the transmitter and the device and use shielded cables for all connections.

1.1.3 Online registration

Please register your new BEHRINGER equipment right after your purchase by visiting http://behringer.com and read the terms and conditions of our warranty carefully.

Should your BEHRINGER product malfunction, it is our intention to have it repaired as quickly as possible. To arrange for warranty service, please contact the BEHRINGER retailer from whom the equipment was purchased. Should your BEHRINGER dealer not be located in your vicinity, you may directly contact one of our subsidiaries. Corresponding contact information is included in the original equipment packaging (Global Contact Information/European Contact Information). Should your country not be listed, please contact the distributor nearest you. A list of distributors can be found in the support area of our website (http://behringer.com).

Registering your purchase and equipment with us helps us process your repair claims more quickly and efficiently.

Thank you for your cooperation!

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2. Control Elements



Fig. 2.1: Front panel control elements and connectors

2.1 Input channels

- The **HIGH** control in the EQ section governs the high-frequency range of the respective channel.
- 2 The LOW control allows you too boost/cut the low-frequency range.
- 3 The **FX** control determines the signal level sent from each channel to the built-in effects processor.
- Please note that the effects processor signal will be inaudible when the FX LEVEL control (15) is set fully counter-clockwise.
- 4 The **LEVEL** control adjusts the channel signal level in the main mix.
- **I** The **CLIP LED** is very useful to control the input gain. It should never be constantly illuminated (only with signal peaks).
- The PAD switch reduces the input sensitivity of the channel by approx.
 30 dB, to connect for example line-level signals.
- The balanced **LINE IN** input (1/4" TRS) can be used for line-level signal sources, e.g. keyboards.
- 8 Each channel has a balanced **MIC** microphone input with XLR connectors.
- Please remember to use either the microphone or the line input of a channel at a time, but never both at the same time!

2.2 Effects section

- Be sure that the CLIP LED illuminates for signal peaks only. If it is illuminated all the time, it is a sign that the effects processor is overloading and hence producing unpleasant distortion. The SIG LED below illuminates when the effects processor receives an input signal.
- 10 The **EFFECT** display shows the currently selected preset.
- Turn the **PROGRAM** control to select an effects preset (preset number starts flashing). Push the control briefly to confirm your selection.
- 12 Press the **FX IN** button to activate the effects processor.

2.3 Main section

- Image: The second sec
- Press the FBQ IN switch to activate the FBQ Feedback Detection System. The frequencies causing feedback are shown by the brightly lit fader LEDs. Simply lower the level of the respective frequency range until feedback disappears and the LED goes out.
- II Turn the **FX LEVEL** control to add effect to the main mix. When it is fully counterclockwise, no effect signal is added.
- ¹⁶ The **CD/TAPE IN** control adjusts the volume of the CD/TAPE IN signal (see ¹⁹).
- ☑ Use this 5-digit LED meter to control the output level of the main signal. The upper LIM LED illuminates when the internal amp protection circuit responds to output levels that are too high.
- **The MASTER** control is used to adjust the main output volume.

2.3.1 Connectors

- The CD/TAPE IN connector (RCA) allows you to feed in external stereo signals, e.g. from a CD player, tape deck or other line-level source.
- Determine The **REC OUT** (RCA) provides line-level signals from the power mixer to a DAT recorder, for example (two identical mono signals).
- If the REC OUT signal is connected to a recorder whose output signal is returned to the CD/TAPE IN, feedback can occur when you activate the record function. So, disconnect the CD/TAPE IN from the recorder, before you start recording!
- The PMP518M features an AMP INSERT connector for different applications. You can use just the power stage of the mixer for connecting a preamp for example. For this application you can use a ¼" TS connector where the signal is sent over the tip of the plug. Additionally you can use the AMP INSERT as output, so you can use just the mixer section and connect a separate power amp here. For this application you have to use a ¼" TRS connector, because the signal is send over the ring of the plug.
- 22 Use the **POWER** switch to put the unit into operation. The POWER switch should always be in the "Off" position when you are about to connect the unit to the mains.
- Please note: The POWER switch does not fully disconnect the unit from the mains. Unplug the power cord completely when the unit is not used for prolonged periods of time.



Fig. 2.2: Rear panel control elements and connectors

2.4 Rear panel

- Image: The mains connection is on a standard IEC receptacle. An appropriate power cord is supplied with the unit.
- **EVALUATE:** FUSE HOLDER. Before connecting the unit to the mains, ensure that the voltage setting matches your local voltage. Blown fuses should only be replaced by fuses of the same type and rating. Please also read the information given in chapter 6 "Specifications".
- The three PARALLEL SPEAKER OUTPUTs provide the mono main signal on a Neutrik Speakon-compatible connector (pins 1+/1- and 2+/2-) and on two ¼" TS connectors.
- Solution The impedance of the loudspeaker connected must not fall below 4 Ω.
- Information on how to properly connect your speaker with regard to polarity can be found on the rear of the mixer (PINOUTs).
- ²⁶ This is the cooling fan of the unit.
- **27** SERIAL NUMBER.

3. Digital Effects Processor

100 FIRST-CLASS EFFECTS

The PMP518M features a built-in digital effects processor. This effects processor offers a large number of standard effects such as Hall, Chorus, Flanger, Delay and various combination effects. Using the FX control, you can feed signals into the effects processor. The integrated effects module has the advantage of requiring no wiring. This way, the danger of creating ground loops or uneven signal levels is eliminated at the outset, completely simplifying the handling.

Presets 00 - 09:	Hall
Presets 10 - 19:	Room
Presets 20 - 29:	Plate
Presets 30 - 39:	Gated/Reverse
Presets 40 - 49:	Early Reflections
Presets 50 - 59:	Delay
Presets 60 - 69:	Chorus
Presets 70 - 79:	Phase/Pitch
Presets 80 - 89:	Multi 1
Presets 90 - 99:	Multi 2

4. Installation

4.1 Mains connection

Blown fuses must be replaced by fuses of the same type and rating.

The mains connection is made using the enclosed power cord and a standard IEC receptacle. It meets all of the international safety certification requirements.

Please make sure that all units have a proper ground connection. For your own safety, never remove or disable the ground conductor from the unit or of the AC power cord.

4.2 Audio connections

The inputs and outputs of the BEHRINGER EUROPOWER are unbalanced ¼" TS connectors — except for the balanced mono line inputs and the balanced XLR inputs. Of course, all inputs and outputs work with both balanced and unbalanced connectors. The Tape Ins and Outs are on RCA connectors.

• Please ensure that only qualified personnel install and operate the power mixer. During installation and operation, the user must have sufficient electrical contact to earth. Electrostatic charges might affect the operation of the unit.



Fig. 4.1: ¼" TS connector



Fig. 4.2: ¼" TRS connector

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Fig. 4.3: XLR connectors



Fig. 4.4: RCA cable

4.3 Loudspeaker connection

Your EUROPOWER is equipped with high-quality Neutrik Speakon-compatible loudspeaker connectors, which ensure safe and trouble-free operation. The Speakon connector was especially developed for high-power loudspeakers. Once it is plugged in, it safely locks into position and cannot be accidentally disengaged. It prevents the occurrence of electrical shock and ensures the correct polarity. Each of the connectors carries only the assigned single signal (see tab. 4.1/fig. 4.5 and the information on the rear panel of the power mixer).



Fig. 4.5: Loudspeaker connector

Please be sure to only use commercial Speakon cables (type NL4FC) for connecting your loudspeakers to the mixer. Please check the pin connections of your loudspeakers and cables depending on the EUROPOWER speaker output you choose.

EUROPOWER PMP518M				
OUTPUT	1+	1-	2+	2-
MAIN MONO	POS	NEG	POS	NEG

Tab. 4.1: Pin connections of the professional loudspeaker connector

5. Applications

This illustration shows just one example of how the channels of your power mixer can be used, including the connection of mono and stereo sources, and the tape ins and outs recording the mix signal or playing back external signals.

The following illustration shows a live application with the PMP518M as monitor mixer and a BEHRINGER EURODESK SL2442FX-PRO that provides the FOH main mix signal. The PMP518M receives the Aux Send signal of the EURODESK that is used for the monitor mix on stage.



Fig. 5.1: Standard set-up



Fig. 5.2: Setup with PMP518M as monitor mixer

6. Specifications

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Туре	XLR, electronically balanced
ic E.I.N. (20 Hz - 20 kHz)	
@ 0 Ω source resistance	-122 dB / -125 dB A-weighted
@ 50 Ω source resistance	-122 dB / -125 dB A-weighted
@ 150 Ω source resistance	-121 dB / -124 dB A-weighted
Frequency response	< 10 Hz - 100 kHz (-1 dB), < 10 Hz - 200 kHz (-3 dB)
Gain	+33 dB, +8 dB with pad
Max. input level	+12 dBu @ 10 dB gain
Impedance	approx. 2.2 k Ω balanced, 1.1 k Ω unbalanced
Signal-to-noise ratio	110 dB/114 dB A-weighted (-11 dBu in @ +33 dB gain)
Distortion (THD+N)	0.001% / 0.0008% A-weighted

Mono Line Inputs

Туре	1/4" TRS connector, balanced
Impedance	approx. 80 kΩ balanced, 40 kΩ unbalanced
Max. input level	+30 dBu

EQ

Low	80 Hz / ±15 dB	
High	12 kHz / ±15 dB	

Main Mix System Data

Main mix @ -∞, Channel fader -∞	-106 dB / -110 dB A-weighted
Main mix @ 0 dB, Channel fader -oo	-87 dB / -90 dB A-weighted
Main Mix @ 0 dB, Channel fader @ 0 dB	-80 dB / -82 dB A-weighted
dspeaker Outputs	
Туре	Neutrik Speakon-compatible,

1/4" TS connectors Load impedance 4-16 Ω

Converter	24-bit Sigma-Delta,
Sampling rate	40 kHz
play	
Туре	2-digit, 7-segment LED
plifier	
Output power (RMS @ 1 % THD (sine wave))	62 W (8 Ω), 105 W (4 Ω)
Output power (Peak Power)	100 W (8 Ω), 180 W (4 Ω)
ver Supply	
lains voltages	
U.S./Canada	120 V~, 60 Hz
China/Korea	220 V~, 50/60 Hz
Europe/U.K./Australia	230 V~, 50 Hz
Japan	100 V~, 50 - 60 Hz
General export model	120/230 V~, 50 - 60 Hz
Power consumption	max. 290 W
Fuse	100 - 120 V~: T 6.3 A H 250 V 220 - 240 V~: T 3.15 A H 250 V
Mains connection	Standard IEC receptacle
rsical / Weight	
-	
Dimensions (H x W x D)	approx. 4

Weight (net)

FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION



Responsible party name:	MUSIC Group Services USA, Inc.
Address:	18912 North Creek Parkway, Suite 200 Bothell, WA 98011, USA

Phone/Fax No.:

Phone: +1 425 672 0816 Fax: +1 425 673 7647

EUROPOWER PMP518M

complies with the FCC rules as mentioned in the following paragraph:

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.

Important information:

Changes or modifications to the equipment not expressly approved by MUSIC Group can void the user's authority to use the equipment.



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