

## User Manual



# MONITOR SPEAKERS MS16

High-Performance, Active 16-Watt Personal Monitor System

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### Thank you

Thank you very much for expressing your confidence in us by purchasing the BEHRINGER MONITOR SPEAKERS MS16. The MS16 are active loudspeakers that can be used in a variety of applications, e.g. for your computer setup, MIDI studio or to monitor your keyboards and playbacks. For utmost flexibility, the MS16 feature a broad range of connection options. Two stereo inputs enable you to connect two sound sources. Additionally, we have equipped the MS16 with headphones and microphone connectors so you will enjoy the allround features of your monitor speakers.

## EN Important Safety Instructions



Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock. Use only high-quality professional speaker cables with ¼" TS or twist-locking 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.
2. Keep these instructions.
3. Heed all warnings.
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 injury from tip-over.

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

14. Refer all servicing to qualified 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

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P.O. Box 146, Road Town, Tortola,  
British Virgin Islands

## LIMITED WARRANTY

### § 1 Warranty

① This limited warranty is valid only if you purchased the product from a MUSIC Group Authorized Reseller in the country of purchase. A list of authorized resellers can be found on BEHRINGER's website behringer.com under "Where to Buy", or you can contact the MUSIC Group 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 quicker and more efficiently. Thank you for your cooperation!

### § 3 Return materials authorization

① To obtain warranty service, please contact the retailer from whom the equipment was purchased. Should your MUSIC Group Authorized Reseller not be located in your vicinity, you may contact the MUSIC Group Authorized Fulfiller 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

① 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.

③ 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.

④ This limited warranty is invalid if the factory-applied serial number has been altered or removed from the product.

⑤ 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.

⑥ 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.

⑦ Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the limited warranty.

⑧ 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.

⑨ 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 MUSIC Group Authorized Resellers 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 reseller) and is not transferable to anyone who may subsequently purchase this product. No other person (reseller, 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

① 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.

③ 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](http://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

### 1.1 Shipment

The MS16 were carefully packed at the assembly plant to assure secure transport. Should the condition of the cardboard box suggest that damage may have taken place, please inspect the unit immediately and look for physical indications of damage.

- ◇ **Damaged units should NEVER be sent directly to us. Please inform the dealer from whom you acquired the unit immediately as well as the transportation company from which you took delivery of the unit. Otherwise, all claims for replacement/repair may be rendered invalid.**

### 1.2 Initial operation

Please make sure the unit is provided with sufficient ventilation, and never place the MS16 on top of an amplifier or in the vicinity of a heater to avoid the risk of overheating.

- ◇ **Before plugging the unit into a power socket, please make sure that the voltage corresponds to the voltage stated on the label on the backside of your MS16.**

Power is delivered via the cable attached to the unit. All required safety precautions have been adhered to.

### 1.3 Warranty

Please take a few minutes and send us the completely filled out warranty card within 14 days of the date of purchase. You may also register online at behringer.com. The serial number needed for the registration is located on the rear of the unit. Failure to register your product may void future warranty claims.

### 1.4 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.

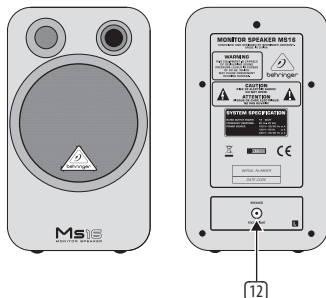
Thank you for your cooperation!

### Attention!

- ◇ **The MS16 loudspeakers are capable of producing extreme volumes. Please bear in mind, that high sound pressures do not only temporarily damage your sense of hearing, but can also cause permanent damage. Be careful to select a suitable volume.**

## 2. Control Elements and Connections

Left Speaker



Right Speaker

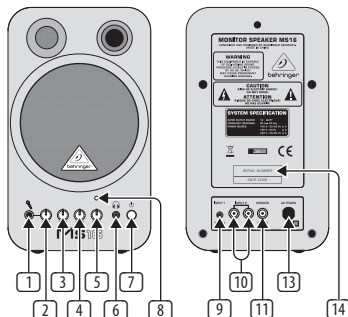


Fig. 2.1: Control elements and connections

- 1 **MICROPHONE INPUT** (¼" TRS). This connector allows you to connect your dynamic microphone.
  - 2 Turn the **MIC LEVEL** control to adjust the volume of your microphone. This control should be set fully counterclockwise when connecting a microphone. When all connections are made, slowly start raising gain.
  - 3 **BASS** control. Turn the bass control to adjust the bass level.
  - 4 **TREBLE** control. Turn the treble control to adjust the treble level.
  - 5 Turn the **VOLUME** control to adjust the volume level of the devices connected to your MS16.
- ◇ **We would like to bring your attention to the fact that high volume levels may damage your hearing and/or your headphones. Please turn the VOLUME CONTROL all the way to**

the left before powering up the unit. Please always pay keen attention to an appropriate volume level.

- 6 Connect your headphones via the **PHONES** output (1/8" TRS) to monitor any of the input devices. When headphones are connected, the internal loudspeakers are automatically switched off.
- 7 The **POWER** switch turns the unit on or off. The **POWER** switch should always be in the "Off" position when you are about to connect your unit to the mains.
- ◇ Please note that the **POWER** switch does not disconnect the device from the mains. If the device is not in use for a long period of time, please disconnect it from the mains by unplugging the power cord from the power socket.
- 8 The **POWER LED** lights up when power is switched on.
- 9 **INPUT 1** (1/8" TRS) allows you to connect audio equipment such as CD/MD players.
- 10 Use **INPUT 2** (RCA) to connect your soundcard, keyboard or expander.
- ◇ You can play back various signals by using both stereo inputs simultaneously.
- 11 **SPEAKER TO LEFT** connector. Connect both speakers by using the speaker cable included in this package. As soon as both speakers are properly connected, they will function as a stereo speaker system.
- 12 **SPEAKER FROM RIGHT** connector. Insert the speaker cable from the SPEAKER TO LEFT connector.
- 13 **AC POWER** input. Connects your MS16 to the power source. Before you connect the unit to the power source make sure that the power switch is turned off and the volume control is turned to the far left position to avoid any damage to speakers or any other device.
- 14 **SERIAL NUMBER**. Please take the time to fill in and return the warranty card within 14 days after the date of purchase, so as to benefit from our extended warranty. Or register online at ([behringer.com](http://behringer.com)).

### 3. Wiring and Application Example

The MONITOR SPEAKERS MS16 are designed to accommodate a variety of different connector types for almost any situation you may encounter.

You will find all audio inputs on the right speaker. The left speaker only has one audio input which is fed from the right speaker.

First of all, you should connect the left to the right speaker by wiring the attached speaker cable from the right speakers' SPEAKER TO LEFT connector to the SPEAKER FROM RIGHT connector of the left speaker.

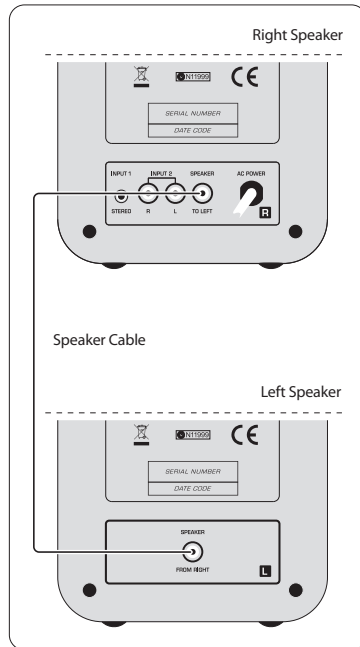


Fig. 3.1: Wiring of left and right loudspeaker

Connect your soundcards' speaker outputs to the MS16 stereo input. Of course, you can also connect your keyboard or mixer to this input. If you own an additional sound source—such as CD or MD player—simply connect it to the second stereo input. Both input signals are mixed in the MS16 which enables you to monitor two different sound sources simultaneously.

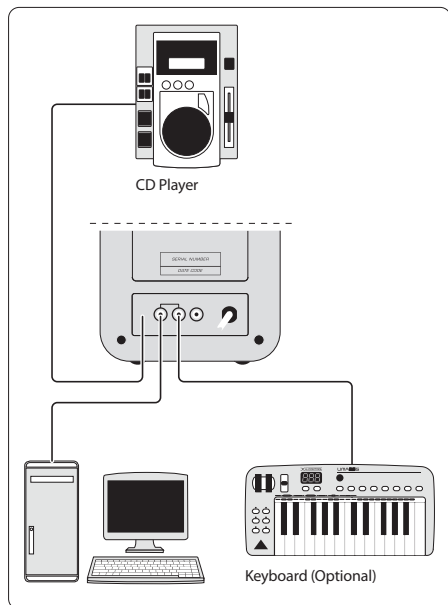


Fig. 3.2: Computer/keyboard setup

The MS16 are magnetically shielded which allows you to place them near your computer monitor without causing interference or damage.

Do not place your MS16 near power amps to avoid induced hum. To avoid feedback noise, do not get too close to the speakers with a microphone. In case of feedback, change the position of the microphone relative to the speakers or reduce the volume level.

## 4. Specifications

### Loudspeaker

Tweeter	Ø 38 mm (1.5"), 4 Ω
Woofer	Ø 100 mm (4"), 4 Ω

### Audio Inputs

Input 1	1/8" TRS stereo, input level -10 dBm, 10 kΩ
Input 2	2 RCA stereo, input level -10 dBm, 10 kΩ
Mic	1/4" TRS, input level -50 dBm, 50 Ω

### System Specifications

Output power	2 x 8 Watts
Frequency response	80 Hz to 20 kHz

### Power Supply

#### Mains Voltages

USA/Canada	120 V~, 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	0.14 x 0.28 x 0.33 A 230 x 120 x 100 V

### Physical

Dimensions (H x W x D)	9.5 x 5.5 x 6" 241 x 140 x 150 mm
Weight	4 kg

BEHRINGER is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or illustrated.





We Hear You