

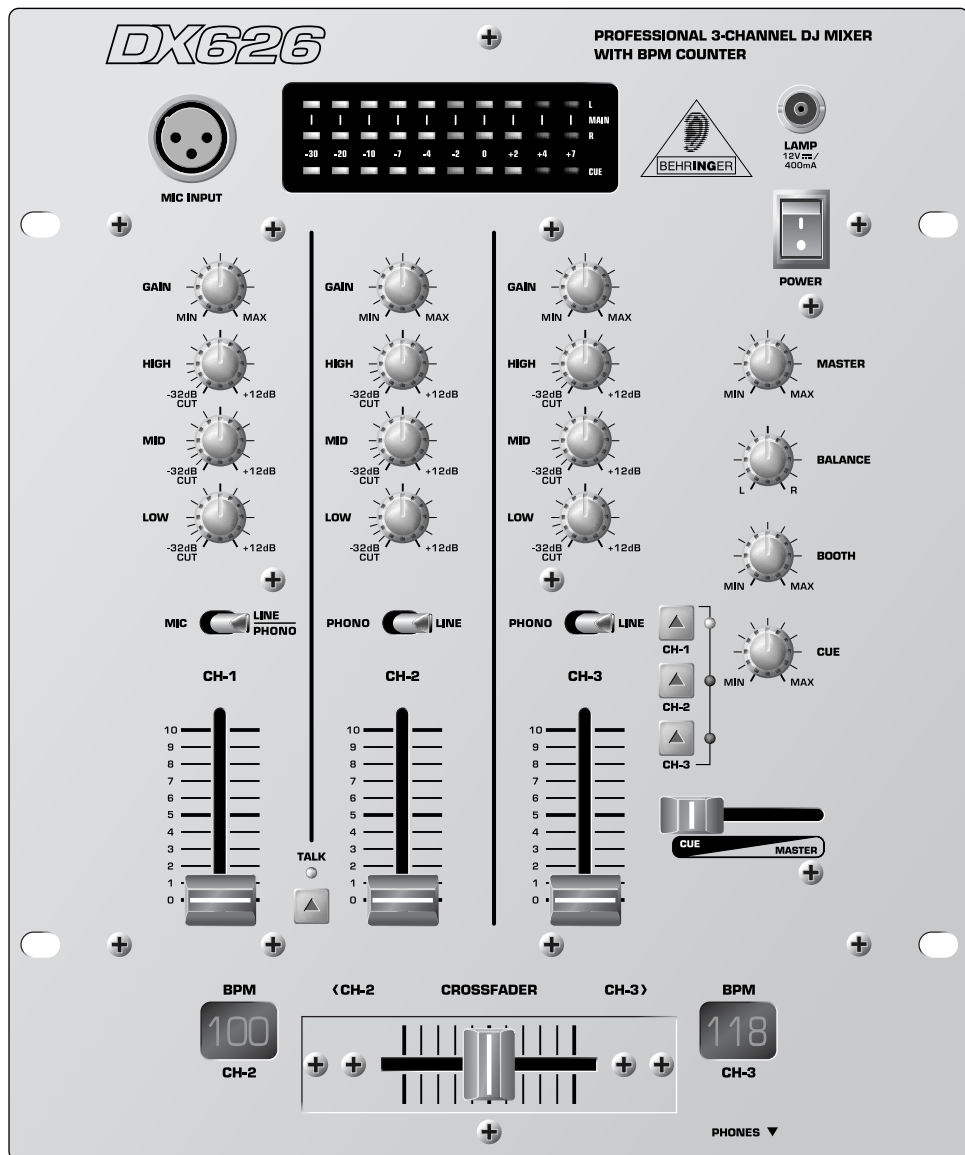
DX626

PRO MIXER

User's Manual

Version 1.0 August 2002

ENGLISH



www.behringer.com

PRO MIXER DX626

SAFETY INSTRUCTIONS



CAUTION: To reduce the risk of electric shock, do not remove the cover (or back). No user serviceable parts inside; refer servicing to qualified personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this device to rain and moisture.



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.

DETAILED SAFETY INSTRUCTIONS:

All the safety and operation instructions should be read before the device is operated.

Retain Instructions:

The safety and operating instructions should be retained for future reference.

Heed Warnings:

All warnings on the device and in the operating instructions should be adhered to.

Follow instructions:

All operation and user instructions should be followed.

Water and Moisture:

The device should not be used near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool etc.).

Ventilation:

The device should be situated so that its location or position does not interfere with its proper ventilation. For example, the device should not be placed on a bed, sofa, rug, or similar surface that may block the ventilation openings, or used in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

Heat:

The device should be situated away from heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.

Power Source:

The device should only be connected to a power supply of the type described in the operating instructions or on the device.

Grounding or Polarization:

This device must be grounded.

Power Cords:

Power cords should be routed so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to cords and plugs, sockets, outlets and the point at which they exit from the device.

Cleaning:

The device should be cleaned only as recommended by the manufacturer.

Non-use Periods:

The power cord of the device should be unplugged from the outlet when left unused for a long period of time.

Debris and Liquid Entry:

Debris and/or liquids should not be allowed to enter the enclosure through openings.

Damage Requiring Service:

The device should be serviced by qualified service personnel when:

- ▲ The power cord or the plug has been damaged; or
- ▲ Debris or liquid has entered the device; or
- ▲ The device has been exposed to rain; or
- ▲ The device does not appear to operate normally or exhibits a pronounced change in performance; or
- ▲ The device has been dropped, or the enclosure damaged.

Servicing:

The user should not attempt to service the device beyond that which is described in the operating instructions. All other servicing should be referred to qualified service personnel.

PRO MIXER

Professional 3-channel DJ Mixer with BPM Counter

- ▲ Intelligent dual auto-BPM counter
- ▲ Super-smooth dual-rail “Ultraglide” crossfader with up to 500,000 life cycles
- ▲ Three dual input stereo channels with gain and 3-band kill EQ (-32 dB)
- ▲ One channel additionally switchable to studio-grade ULN microphone input
- ▲ Manual talkover function
- ▲ PFL function with master/PFL mix option
- ▲ Peak-hold level meter with dedicated PFL bargraph
- ▲ Master, booth and tape outputs
- ▲ BNC gooseneck lamp socket
- ▲ Gold-plated cinch sockets for excellent audio quality
- ▲ Super-rugged construction ensures long life, even under the most demanding conditions
- ▲ Manufactured under ISO9000 certified management system

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FOREWORD



Dear Customer,

Welcome to the team of PRO MIXER users and thank you very much for expressing your confidence in BEHRINGER products by purchasing the DX626. Writing this foreword for you gives me great pleasure, because it represents the culmination of many months of hard work delivered by our engineering team to achieve a very ambitious goal: to design an excellent DJ mixer offering remarkable functions with maximum flexibility and performance. The task of designing our new PRO MIXER

certainly meant a great deal of responsibility which we assumed by focusing on you, the discerning user and DJ. Meeting your expectations also meant a lot of work and effort. But it was fun, too. Developing a product usually brings a lot of people together, and what a great feeling it is when everybody who has participated in such a project can be proud of what they've achieved.

It is our philosophy to share our enjoyment with you, because you are the most important member of the BEHRINGER team. With your highly competent suggestions for new products you've made a significant contribution to shaping our company and making it successful. In return, we guarantee you uncompromising quality (manufactured under ISO9000 certified management system) as well as excellent technical and audio properties at an extremely reasonable price. All of this will enable you to give free rein to your creativity without being hampered by budget constraints.

We are often asked how we manage to produce such high-quality devices at such unbelievably low prices. The answer is quite simple: it's you, our customers! Many satisfied customers mean large sales volumes enabling us to get better purchasing terms for components, etc. So it's only fair to pass this benefit on to you, isn't it? Because we know that your success is our success too!

I would like to thank all of those who have made the PRO MIXER possible. You have all made your own personal contributions, from the developers to the many other employees at this company, and to you, the BEHRINGER user.

My friends, it's been worth the effort!

Thank you very much,

Uli Behringer

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1. INTRODUCTION

Your purchase of the BEHRINGER PRO MIXER DX626 has put you at the forefront of today's trends in DJ mixing consoles. Numerous features such as the talkover function and the beat counter enable you to work in completely new and creative ways. The DX626 is a mixer for professional use, it is extremely easy to operate and it helps you give free rein to your creativity.


Time is tight, and if you don't want to be left in the dust you'd better get moving. To help you along, we have developed an excellent DJ mixing console with the most popular new features and technologies. It is perfectly suited for use in dance clubs or for DJ systems and is sure to deliver tons of pure fun.

Be honest: who really likes to read manuals? We know you want to get started right away, but it is only after reading these instructions that you will fully understand and be able to properly use all the features your DX626 has to offer. Take the time to read everything through!

 **This manual first describes the terminology used, so that you can fully understand the DX626 and its functions. Please read the manual carefully and keep it for future reference.**


1.1 Before you begin

Your DX626 was carefully packed in 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 that 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.**

To avoid overheating, ensure that there is enough space around the unit for cooling and that the device is not placed near other devices giving off heat.

WARNING!

 **We would like to point out that high volume may damage your hearing and/or your headphones. Please turn the MASTER control all the way to the left before turning on the device. Always make sure that the appropriate volume is set.**

2. CONTROL ELEMENTS

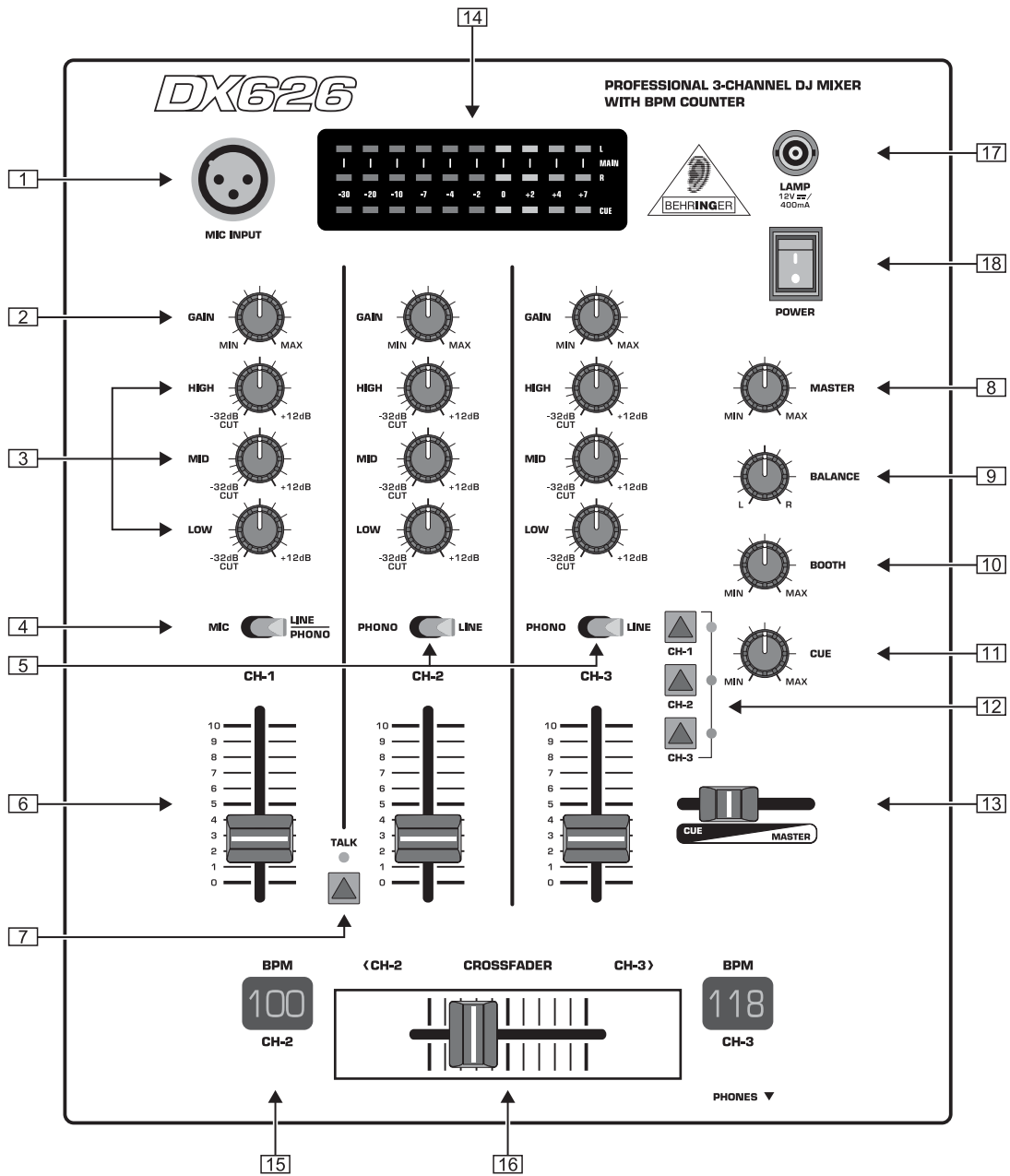


Fig. 2.1: The PRO MIXER DX626's front panel

2.1 Front panel

- 1 The *MIC INPUT* is the balanced XLR connector for your dynamic microphone.
- 2 The *GAIN* control is used to line up the input signal of each channel.
- 3 Each input channel has a 3-band equalizer (*HIGH*, *MID* and *LOW*) with kill characteristic. Thus, the signal can be lowered to a much greater extent (-32 dB) than it can be raised (+12 dB). This function can be very useful when, for example, fading a frequency range out of a music track.
- 4 The total level also depends on the EQ setting. Thus, you should adjust the equalizer before regulating the level with the *GAIN* control.

- 4 The *MIC/LINE-PHONO* switch allows you to choose between the microphone signal and the line or phono signal on channel 1. The position of the rear panel *PHONO/LINE* switch (see 21) determines whether the input is switched to the phono or the line level setting of the right-hand switch position.
- 5 On channels 2 and 3 you determine the input signals with the *PHONO/LINE* switch. "Phono" is intended for connecting a turntable. "Line" must be selected for all other signal sources (e. g. CD or MD players).
- 6 **Never connect devices with line level to the highly sensitive phono inputs! The output level of phono pick-up systems is measured in millivolts, whereas CD players and tape decks have levels measured in volts, i.e. the level from line signals is up to 100 times higher than that of the phono inputs.**

PRO MIXER DX626

- [6] Adjust the channel volume with the *CHANNEL* fader.
 - [7] The PRO MIXER has a talkover function. This feature is actually quite simple: by pushing the *TALK* button, the signal of the other input channels is lowered (*TALK* LED lights up), enabling your voice to be heard more clearly over the microphone.
 - [8] The *MASTER* control determines the output volume at the *MASTER* output (see [27]).
 - [9] A *BALANCE* control for the *MASTER* output is for shaping the stereo image.
 - [10] The *BOOTH* control determines the output volume at the *BOOTH* output (see [26]).
 - [11] The *CUE* control determines the volume of the headphones signal (PFL signal).
- 👉 The PFL signal is your headphones signal. It enables you to preview music without affecting the MASTER signal. The headphone channel signal is taken pre-fader (PFL=Pre-Fader Listening).**
- [12] With the three buttons *CH-1*, *CH-2* and *CH-3*, you determine the signal source for the headphones signal. You can preview the channels individually or listen to all three simultaneously.
 - [13] The *MASTER/CUE* fader allows you to control the volume ratio between the input channels' signal and the *MASTER* signal on your headphones.
 - [14] Here you can read the volume level of the PFL and *MASTER* signals from three, 10-character LED displays. The lower LED chain displays the PFL signal and the two upper LEDs display the right and left *MASTER* signals.
 - [15] The PRO MIXER DX626 BPM counter is an extremely useful feature. It ensures smooth transition from one track to the next, making your session an absolute success. It can calculate the various tempi of tracks in bpm (beats per minute). The left display indicates the tempo on channel 2 and the right display shows the tempo on channel 3.
 - [16] The *CROSSFADER* is for crossfading between channels 2 and 3.
 - [17] This is the connector for a commercially available 12-volt BNC lamp.
 - [18] Turn on the DX626 with the *POWER* button.

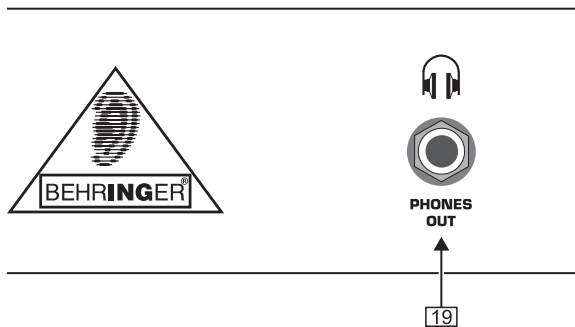


Fig. 2.2: Headphones connector

- [19] The *HEADPHONES* connector enables you to preview pieces of music (PFL signal) on your headphones. Your headphones should have a minimum impedance of 32 ohms.

2.2 Rear panel

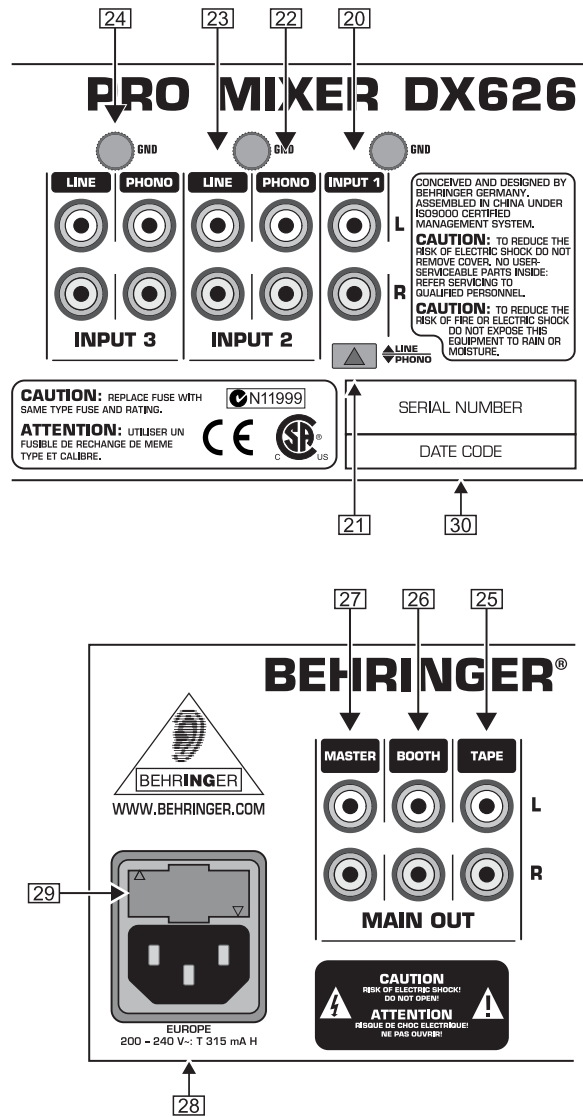



Fig. 2.3: The DX626 rear connectors

With the exception of the microphone and headphone connectors, the PRO MIXER DX626 only has cinch jacks, which can be found on the rear panel of the console.

- [20] This is the *INPUT 1* input for channel 1. It can be switched to phono or line input sensitivity.
- [21] With the *PHONO/LINE* switch at the channel 1 input you can choose between *LINE* and *PHONO* input. However, in order to do that, the *MIC/LINE-PHONO* switch on the front panel must be switched to *LINE-PHONO* (see [4]).
- [22] The *PHONO* inputs from channels 2 and 3 are also for connecting turntables.
- [23] These are the *LINE* inputs from channels 2 and 3 for connecting tape decks, CD or MD players etc.
- [24] The *GND* connectors ground the turntables.
- [25] Using the *TAPE* output you can record your music by connecting devices such as tape decks, DAT recorders etc. Unlike the *MASTER* and *BOOTH* outputs, the output volume is fixed, making it necessary for you to adjust the input level on the recording device.

- [26] The *BOOTH* output gives you another possible way to connect an amplifier. It is controlled by the *BOOTH* control on the front panel. Through this output you can operate monitor speakers or even provide another area with sound.
- [27] The *MASTER* output is for connecting an amplifier and is adjusted using the *MASTER* control.
-  **Always turn the power amps on last to avoid inrush currents that can easily damage your speakers. And, to avoid sudden and unpleasant surprises for your ears, make sure there is no signal at the DX626 before turning on the power amps. To be sure, slide all the faders to the bottom and switch all controls to zero.**
- [28] This is the connector for the power cable. This is where the advantage of the sophisticated internal power supply can be seen: the pulse behaviour of each amplifying circuit is mainly determined by the voltage reserves available. Each mixing console is equipped with numerous operational amplifiers (op amps) to process line level signals. Due to limited output of their power supplies, many mixing consoles show signs of "stress" when subjected to heavy loads. But not your DJX400: the sound is always clear and transparent.
- [29] **FUSE HOLDER / VOLTAGE SETTING.** Before connecting the unit to the mains, ensure that the voltage setting matches your local voltage. Blown fuses should only be replaced by a fuse of the same type and rating. On some units, the fuse holder can be switched to one of two positions, i.e. 230 V and 115 V. N.B: should you desire to operate the unit outside Europe at 115 V, a higher fuse rating is required.
- [30] **PRO MIXER DX626 SERIAL NUMBER.** Please take the time to complete and return the warranty card within 14 days of the date of purchase. Or, simply register online at www.behringer.com.

3. SPECIFICATIONS

AUDIO INPUTS

Mic	40 dB Gain, elec. balanced input
Phono 1, 2 and 3	40 dB Gain @ 1 kHz, unbalanced inputs
Line 1, 2 and 3	0 dB Gain, unbalanced inputs

AUDIO OUTPUTS

Master	max. +21 dBu @ +10 dB (Line In)
Booth	max. +21 dBu @ +10 dB (Line In)
Tape	type. 0 dBu Phones type. 125 mΩ @ 1% THD

EQUALIZER (+/-8 dB)

Stereo Low	+12 dB/-32 dB @ 50 Hz
Stereo Mid	+12 dB/-32 dB @ 1.2 kHz
Stereo High	+12 dB/-32 dB @ 10 kHz
Mic Low	+12 dB/-32 dB @ 50 Hz
Mic Mid	+12 dB/-32 dB @ 1.2 kHz
Mic High	+12 dB/-32 dB @ 10 kHz

TALKOVER BUTTON (MIC) -16 dB

LAMP (BNC) 12 V/400 mA

GENERAL

Signal-to-noise ratio (S/N)	> 87 dB (Line)
Crosstalk	> 70 dB (Line)
Distortion (THD)	< 0.05%
Frequency response	20 Hz - 20 kHz
Gain control range	-16 dB - +6 dB

POWER SUPPLY

Mains Voltage	USA/Canada 120 V ~, 60 Hz U.K./Australia 240 V ~, 50 Hz Europe 230 V ~, 50 Hz
General	
Export Model	100-120V~, 200-240V~, 50-60Hz
Power Consumption	max. 15 W
Fuse	100 - 120 V ~: T 500 mA H 200 - 240 V ~: T 315 mA H
Mains Connection	Standard IEC Receptacle

DIMENSIONS/WEIGHT

Dimensions (H x W x D)	approx. 2.4"/3.6" (61 mm/91 mm) x 10" (254 mm) x 12" (305 mm)
Weight	approx. 2.4 kg

BEHRINGER makes every effort to ensure the highest standard of quality. Necessary modifications are carried out without notice. Thus, the specifications and design of the device may differ from the information given in this manual.

PRO MIXER DX626

4. WARRANTY

§ 1 WARRANTY CARD/ONLINE REGISTRATION

To be protected by the extended warranty, the buyer must complete and return the enclosed warranty card within 14 days of the date of purchase to BEHRINGER Spezielle Studioteknik GmbH, in accordance with the conditions stipulated in § 3. Failure to return the card in due time (date as per postmark) will void any extended warranty claims. Based on the conditions herein, the buyer may also choose to use the online registration option via the Internet (www.behringer.com or www.behringer.de).

§ 2 WARRANTY

1. BEHRINGER (BEHRINGER Spezielle Studioteknik GmbH including all BEHRINGER subsidiaries listed on the enclosed page, except BEHRINGER Japan) warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (1) year* from the original date of purchase, in accordance with the warranty regulations described below. If the product shows any defects within the specified warranty period that are not excluded from this warranty as described under § 3 and 4, BEHRINGER shall, at its discretion, either replace or repair the product using suitable new or reconditioned parts. In the case that other parts are used which constitute an improvement, BEHRINGER may, at its discretion, charge the customer for the additional cost of these parts.

2. If the warranty claim proves to be justified, the product will be returned to the user freight prepaid.

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

§ 3 RETURN AUTHORIZATION NUMBER

1. To obtain warranty service, the buyer (or his authorized dealer) must call BEHRINGER (see enclosed list) during normal business hours **BEFORE** returning the product. All inquiries must be accompanied by a description of the problem. BEHRINGER will then issue a return authorization number.

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

3. Shipments without freight prepaid will not be accepted.

§ 4 WARRANTY REGULATIONS

1. Warranty services will be furnished only if the product is accompanied by a copy of the original retail dealer's invoice. Any product deemed eligible for repair or replacement by BEHRINGER under the terms of this warranty will be repaired or replaced within 30 days of receipt of the product at BEHRINGER.

2. 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. The warranty does not cover any such modification/adaptation, irrespective of whether it was carried out properly or not. Under the terms of this warranty, BEHRINGER shall not be held responsible for any cost resulting from such a modification/adaptation.

3. Free inspections and maintenance/repair work are expressly excluded from this 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, potentiometers, keys/buttons and similar parts.

4. Damages/defects caused by the following conditions are not covered by this 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.

▲ damages/defects caused by force majeure or any other condition that is beyond the control of BEHRINGER.

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

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

7. Products which do not meet the terms of this warranty will be repaired exclusively at the buyer's expense. BEHRINGER will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 6 weeks after notification, BEHRINGER 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.

§ 5 WARRANTY TRANSFERABILITY

This warranty is extended exclusively to the original buyer (customer of 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 BEHRINGER.

§ 6 CLAIM FOR DAMAGES

Failure of BEHRINGER to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of BEHRINGER exceed the invoiced value of the product.

§ 7 OTHER WARRANTY RIGHTS AND NATIONAL LAW

1. This warranty does not exclude or limit the buyer's statutory rights provided by national law, in particular, any such rights against the seller that arise from a legally effective purchase contract.

2. The warranty regulations mentioned herein are applicable unless they constitute an infringement of national warranty law.

* Customers in the European Union please contact BEHRINGER Germany Support for further details.

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