EURODESK SL3242FX-PRO/SL2442FX-PRO

User's Manual

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BEHR**ING**ER®

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EURODESK SL3242FX-PRO/SL2442FX-PRO

FOREWORD

Dear Customer,

Welcome to the team of EURODESK users and thank you very much for expressing your confidence in BEHRINGER products by purchasing this mixing console.

It is one of my most pleasant tasks to write this letter to you, because it is the culmination of many months of hard work delivered by our engineering team to reach a very ambitious goal: to present you two outstanding mixing consoles that give you maximum flexibility and performance with a unique sound character and broad range of striking functions. The task to design the new SL series certainly meant a great deal of responsibility, which we assumed by focusing on you, the discerning user and musician. It also meant a lot of work and night shifts to accomplish this goal. 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 participated in such a project can be proud of what we've achieved.

It is our philosophy to share our joy with you, because you are the most important member of the BEHRINGER team. With your highly competent suggestions for new products you've greatly contributed 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 favorable price. All of this will enable you to fully unfold your creativity without being hampered by budget constraints.

We are often asked how we can make it to produce such high-grade devices at such unbelievably low prices. The answer is quite simple: it's you, our customers! Many satisfied customers means large sales volumes enabling us to get better conditions of purchase for components, etc. Isn't it only fair to pass this benefit back to you? Because we know that your success is our success, too!

I would like to thank all people whose help on "Project SL" has made it all possible. Everybody has made very personal contributions, starting from the designers of the unit to the many staff members in our company and finally to you, the user of BEHRINGER products.

My friends, it's been worth the trouble!

Thank you very much,

Uli Behringer

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CAUTION!

☞ **We would like to point out that high volume levels may damage your hearing and/or your headphones/ loudspeakers. To avoid switch-on/off thumps from the console and any downstream devices, always make sure that your power amp(s) or active speakers are the last components that are switched on and the first to be switched off. Always make sure that the _appropriate_ volume is set.**

EURODESK SL3242FX-PRO/SL2442FX-PRO

1. INTRODUCTION

Congratulations! With the EURODESK you have acquired a state-of-the-art mixing console that sets new standards. Right from the very start it has been our goal to design a revolutionary unit that can be used for a great variety of applications. And indeed, this overwhelming mixing console gives you plenty of functionality and a broad range of connection and expansion options.

BEHRINGER is a company with its roots in professional recording studio technology. For many years now we have been successful in developing products for studio and live use. These include microphones and studio gear of all kinds (compressors, enhancers, noise gates, tube processors, headphone amplifiers, digital effects, DI boxes, etc.), monitor and P.A. speakers as well as professional live and recording mixers. Our entire technical know-how has gone into your EURODESK mixing console.

FBQ Feedback Detection System

One of the most outstanding features of this console is the FBQ Feedback Detection System, which is part of the graphic equalizer. This ingenious circuit makes it possible to detect and subsequently eliminate feedback frequencies very quickly. FBQ increases the brightness of the EQ fader LEDs for the frequency bands where feedback is occurring. What used to be a tedious search for feedback frequencies is now mere child's play.

IMP "Invisible" Mic Preamp

The microphone channels are equipped with BEHRINGER's brand-new high-end IMP Invisible Mic Preamps, which offer you:

▲ 130 dB of dynamic range and hence an unbelievable amount of headroom,

▲ a bandwidth from below 10 Hz to above 200 kHz for the crystal-clear reproduction of even the slightest details,

▲ extremely noise and distortion-free circuitry for absolutely natural sound and neutral signal reproduction,

▲ perfect adaptation to any microphone on the market (up to 60 dB gain and +48 V phantom power), and

▲ the possibility of pushing the dynamic range of your 24-bit/192-kHz HD recorder to the max and thus achieving ultimate audio quality.

What is more, the EURODESK comes with two effects processors using 24-bit A/D and D/A converters and the effects algorithms of our renowned 19" multi-effects device VIRTUALIZER PRO DSP2024P. Each processor offers 99 presets with first-class room simulations, delay and modulation effects as well as compressor, tube distortion and numerous other effects available—all with excellent audio quality!

The mixer is equipped with a state-of-the-art integrated switch-mode power supply. Unlike conventional designs, this supply automatically adapts to supply voltages between 100 and 240 V. With its considerably higher efficiency, it is also more economical in terms of power consumption than standard power supply units.

1.1 Before you get started

1.1.1 Shipment

Your EURODESK was carefully packed at the factory and the packaging is designed to protect the unit from rough handling. We still 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.**

☞ **We recommend that you use a flight case, so as to give your 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 EURODESK 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 a proper ground connection. For your own safety, never remove or disable the ground conductor from the unit or on the AC power cord.**

1.1.3 Warranty

The EURODESK's serial number is located on the rear panel. 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 www.behringer.com.

1.2 The manual

This manual is designed to give you an overview of all control elements and at the same time inform you in detail about how to use them. To provide you with a clear structure, we have grouped the control elements according to their function. They can easily be found on the enclosed numbered illustrations. If you need more detailed information on specific topics, please visit our web site at www.behringer.com. The product-related information pages and the ULTRANET-based glossary explain the relevant audio engineering terminology in full detail.

2. CONTROL ELEMENTS

This chapter describes the various control elements of your mixing console. All controls and connections are explained in full detail.

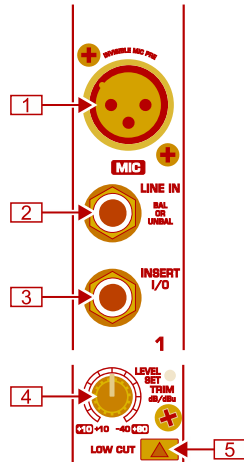### 2.1 Mono input channels

2.1.1 Microphone and line inputs

Fig. 2.1: Connectors and controls of the mic/line inputs

1 Each mono input channel is equipped with a balanced microphone input on an XLR connector, which provides +48 V phantom power for condenser microphones at the touch of a button (see rear panel).

☞ **Be sure to switch off your audio system before you activate the phantom power supply to prevent audible switch-on thumps from reaching your monitor speakers. Please also note the information given in chapter 2.11 "Rear panel".**

2 Each mono input also has a balanced line input on 1/4" TRS connectors. Of course, these inputs can also be used with unbalanced plugs (1/4" TS connector).

3 *INSERT I/O* connector is used to process a signal with dynamic processors or equalizers. This insert point is pre-fader, pre-EQ and pre-aux send.

Unlike reverb and other effects, which are usually added to the dry signal, dynamic processors process the entire signal. So, aux send buses are not the best solution here. Instead, dynamic processors and equalizers are inserted into the signal path. Once processed, the signal then re-enters the mixing console at the same point where it left. Signal interruption only occurs if a plug is inserted into the corresponding jack (1/4" stereo plug: tip = signal output, ring = input). All mono input channels are equipped with insert points. They can also be used as pre-EQ direct outputs, without signal flow interruption. For this you need a cable with a 1/4" TS connector on the recorder/effects processor end, and a bridged stereo 1/4" TRS connector on the console end (tip and ring interconnected).

4 The *TRIM* control adjusts the input gain. Be sure to set this control fully counter-clockwise before you connect or disconnect a signal source to or from one of the inputs.

TRIM has a dual scale: the first scale has a gain from **+10** to **+60 dB** for the MIC input.

The second scale has a gain from **+10** to **-40 dBu** for the line input. For devices with a nomal line output level of -10 dBV or +4 dBu the setting is as follows: with TRIM fully counter-clockwise connect the external device and adjust the output level recommended by the manufacturer. If available, the output level display of the external device should read 0 dB with signal peaks. For +4 dBu increase TRIM, for -10 dBV increase it further. The fine-tuning can be done with a music signal and the *LEVEL SET* LED, which will illuminate when the optimum operating level has been set.

5 Mono channels are equipped with a high-slope *LOW CUT* filter eliminating unwanted low-frequency signals, such as floor rumble (18 dB/oct., -3 dB at 80 Hz).

2.1.2 Equalizer

All mono input channels are equipped with a 3-band equalizer. The maximum boost/cut of the individual bands is 15 dB, in mid position the EQ is set to neutral.
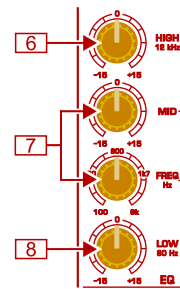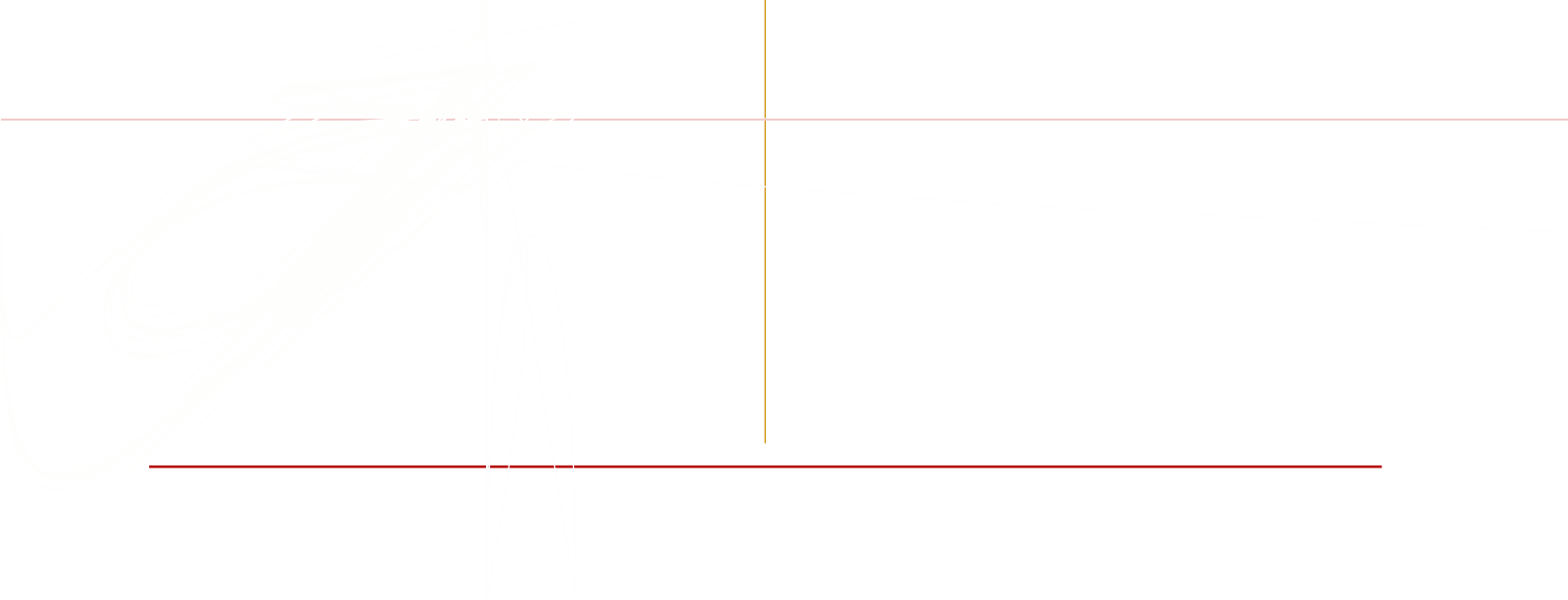

Fig. 2.2: Equalizer section of input channels

6 The *HI* control in the EQ section controls the high frequency range of the respective channel. It is a shelving-type filter which can boost or cut all frequencies above a fixed frequency (12 kHz).

7 The *MID* control allows you to raise or lower the mid-range level. It is a semi-parametric peak filter, which boosts or cuts the frequency range around a variable mid-range frequency. Use the *FREQ* control to select the mid-range frequency from 100 Hz to 8 kHz. Then use the MID control to boost or cut the selected frequency range.

8 The *LOW* control boosts or cuts the low-frequency range. Like the HI filter it is a shelving-type filter, which raises or lowers the level of all frequencies below a specific frequency (80 Hz).

2.1.3 Aux/FX send buses

Aux sends enable you to take the signals from one or multiple channels and collect them on one bus. This signal is then present at one of the aux send jacks, from where it can be routed to an active monitor speaker or external effects device, for example. The FX returns are subsequently used as a return bus for the processed signal.

EURODESK SL3242FX-PRO/SL2442FX-PRO

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27 Use the routing switches for the subgroups to send the subgroup signal to the main mix. You can route it to the left stereo side (=*LEFT* pressed), to the right stereo side (=*RIGHT* pressed) or to both (=LEFT and RIGHT pressed). For example, when you have created a stereo submix using subgroups 1 and 2, be sure to route group 1 to the left and group 2 to the right side to maintain proper stereo positioning. If it is a mono submix with just one subgroup, route it to the left and right sides of the main mix to make the signal audible on both sides.
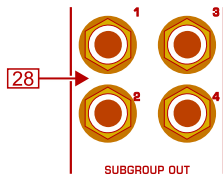

Fig. 2.10: Subgroup outputs 1 - 4

28 These four *SUBGROUP OUT*(PUTS) carry the signals of the individual subgroups. For multi-tracking connect the outputs to the inputs of a multi-track recorder (see chapter 4.1 "Studio set-up").

2.5 Mono out section for subwoofer applications

Using this auxiliary mono output you can route the main mix signal to a separate power amp. The tunable low-pass filter allows you to limit the signal content to the low-frequency range to get a perfect subwoofer signal. This signal is mono because very low frequencies disperse quickly, so there would be no benefit to position this signal in the stereo mix.
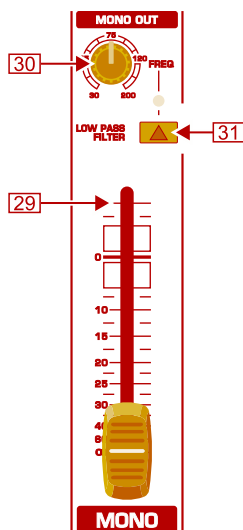

Fig. 2.11: Mono out fader and low-pass filter

29 The *MONO* fader controls the volume of the signal present at the MONO OUT (see 32).

30 The *FREQ* control adjusts the cut-off frequency of the low-pass filter (30 to 200 Hz). Frequencies above cut-off are filtered out when activated.

31 Use the *LOW PASS FILTER* switch to activate the filter function (LED illuminates).

Fig. 2.12: Mono out connector

32 The *MONO OUT* connector provides the line-level mono signal for connection to the inputs of a power amp or active speaker. You can also use this output as a monitor bus, e.g. to connect a headphone amplifier. In this case, the signal should of course not be limited by the low-pass filter.

2.6 Main out section
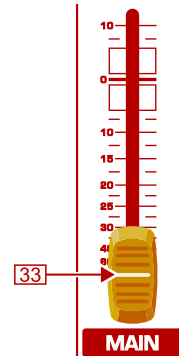
Fig. 2.13: Main out fader

33 Use this high-precision *MAIN* fader to control the output level of the main mix.
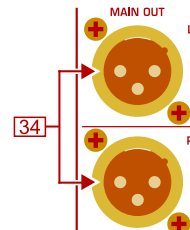
Fig. 2.14: XLR main out connectors

34 The *MAIN OUT*(PUTS) are balanced XLR connectors with a nominal operating level of +4 dBu and provide the main mix signal.
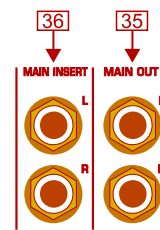
Fig. 2.15: Main out connectors and main insert

35 The *MAIN OUT* 1/4" TRS connectors outputs also provide the main mix signal.

36 Like the channel inserts, the *MAIN INSERT* connectors can be used to connect a dynamics processor or equalizer for further processing of the mix signal. The MAIN INSERT refers to the MAIN OUTs (XLR and 1/4" TRS connectors), the MONO OUT (see 32) and, if the MAIN switch in the PHONES/CONTROL ROOM section is pressed, also to the PHONES/CTRL ROOM output (see 4
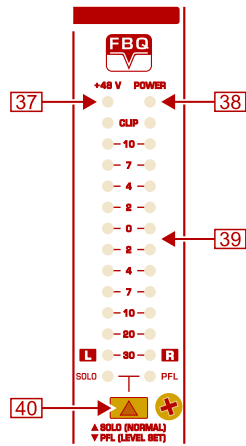
Fig. 2.16: Level meter

[37] The red "*+48 V*" LED illuminates when phantom power is on. Phantom power is required for the operation of condenser microphones, and can be switched on with the corresponding switch on the rear of the console.

[38] The *POWER* LED is illuminated when the console is switched on.

[39] The high-precision level meter accurately indicates the output signal level. For example, when you press the SOLO switch on one of the input channels, its signal level will be displayed here, either pre-fader (PFL) or post-fader (SOLO), depending on the position of the SOLO/PFL switch (see [40]). In PFL mode only the left display is active, because the PFL signals are mono.

[40] The *SOLO/PFL* switch determines whether the monitored signal is <u>pre</u> (PFL) or <u>post</u>-fader (SOLO) after pressing the SOLO/PFL switch (the LED illuminates). The level meter indicates the corresponding signal (see [39]). When you adjust a signal with the TRIM control, it is advisable to select PFL mode, so that the level shown is independent of the channel fader position.

2.6.1 Talkback

The talkback function of the EURODESK allows you to communicate with the musicians in the recording room or on the stage. The talkback signal is present at the AUX SEND outputs, which are particularly useful for monitor/headphone mixes.
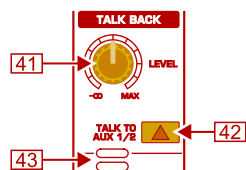
Fig. 2.17: Talkback section

[41] The *LEVEL* control determines the volume of the talkback signal at the AUX 1/2 outputs.

[42] Use the *TALK TO AUX 1/2* switch to activate the built-in talkback microphone. Its signal is sent to the AUX SEND jacks 1 and 2. Keep the switch pressed while you're speaking.

[43] This is the built-in talkback microphone.

2.6.2 Phones & control room
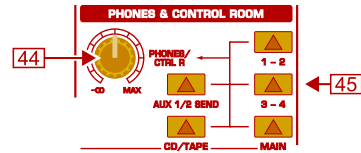
Fig. 2.18: Phones/control room section

[44] The *PHONES/CTRL R* control adjusts the volume of the headphones connected to the PHONES/CTRL ROOM OUT jack (see [46]). If you have an active monitor speaker or power amp connected here, you can also control the monitor volume.

[45] These switches select the signal sent to the PHONES/CTRL ROOM jack. Available sources are: MAIN, CD/TAPE, AUX 1/2 and subgroups 1 - 2 and 3 - 4.

Fig. 2.19: Phones/control room output

[46] Connect your headphones or monitor speaker to the *PHONES/CTRL ROOM OUT* 1/4" TRS connector.

☞ **IMPORTANT! High volume levels may damage your hearing and/or your headphones/loudspeakers. To avoid switch-on/off thumps from the console and any downstream devices, always make sure that the power amp(s) or active speaker(s) are the last components that are switched on and the first to be switched off. Always make sure that the <u>appropriate</u> volume is set.**

2.7 CD/tape

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FBQ

FX SEND
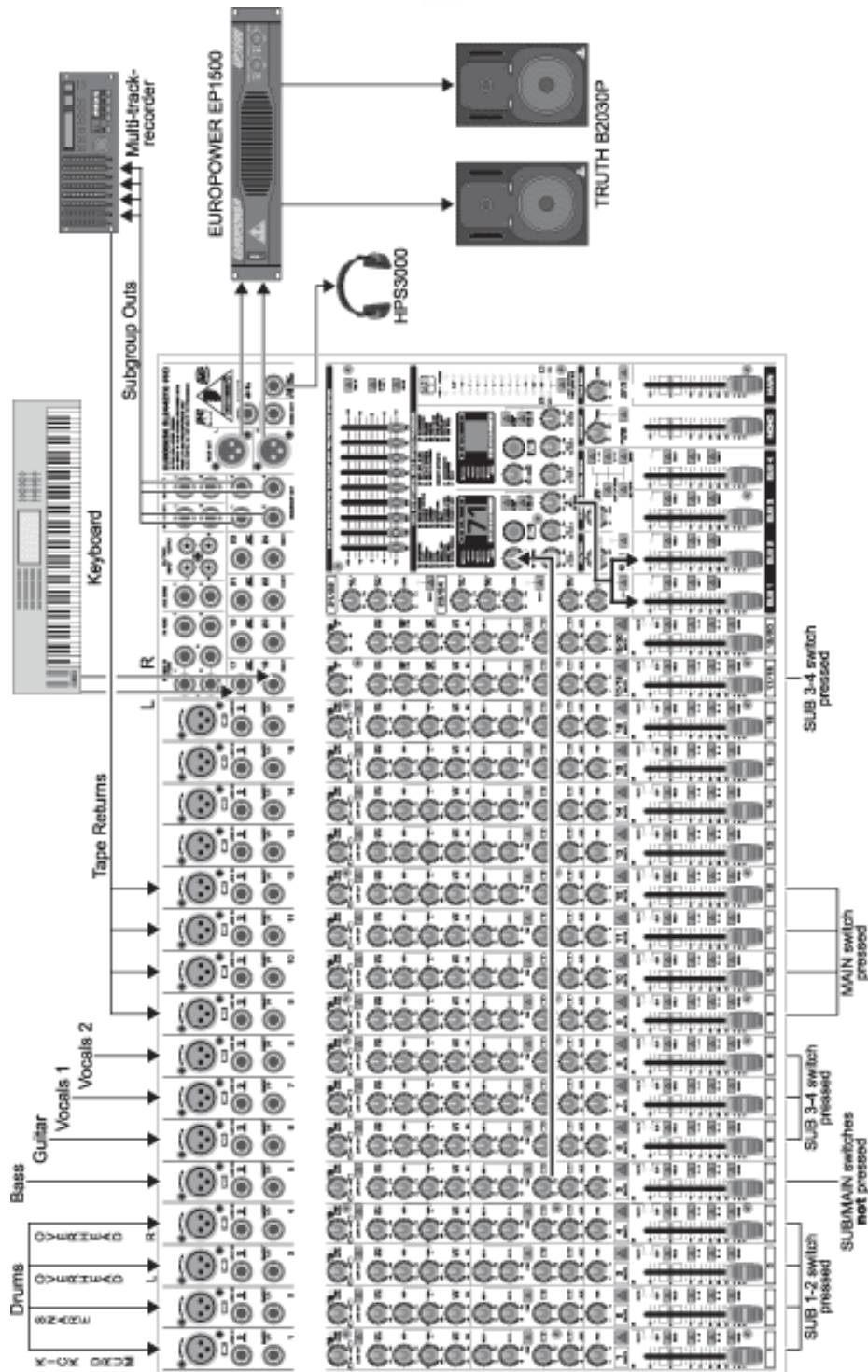
4. WIRING EXAMPLES

Fig. 4.1: Wiring the console for studio operation

4.1 Studio set-up

The following wiring example shows a studio set-up for 4-track-recording: the drums are mixed down to two subgroups and then routed via the subgroup outputs to two tracks of the multi-track recorder. The remaining two subgroups are used to record the guitar, keyboard (stereo channel) and two vocal signals on the remaining two tracks. The four return paths from the recorder are connected to four separate mono input channels on the EURODESK. The built-in compressor is used only for the bass, which is why this input channel is separate from all buses (SUB and MAIN switch <u>not</u> pressed). The bass signal is directly routed from the built-in effects processor to the respective subgroups (FX TO MAIN control). The MAIN/SUB switch in the FX1 section is pressed, but NOT the SUB 1/2 SUB 3/4 button.

☞ **Please make sure that none of the subgroup routing switches (1-2 and 3-4) is pressed in the channels connected to the recorder returns. Otherwise, a feedback loop will be created as soon as you start recording. Only press the MAIN switch on these input channels, so that the tape return signals are routed to the main outs and Phones/CTRL room outputs of the console.**
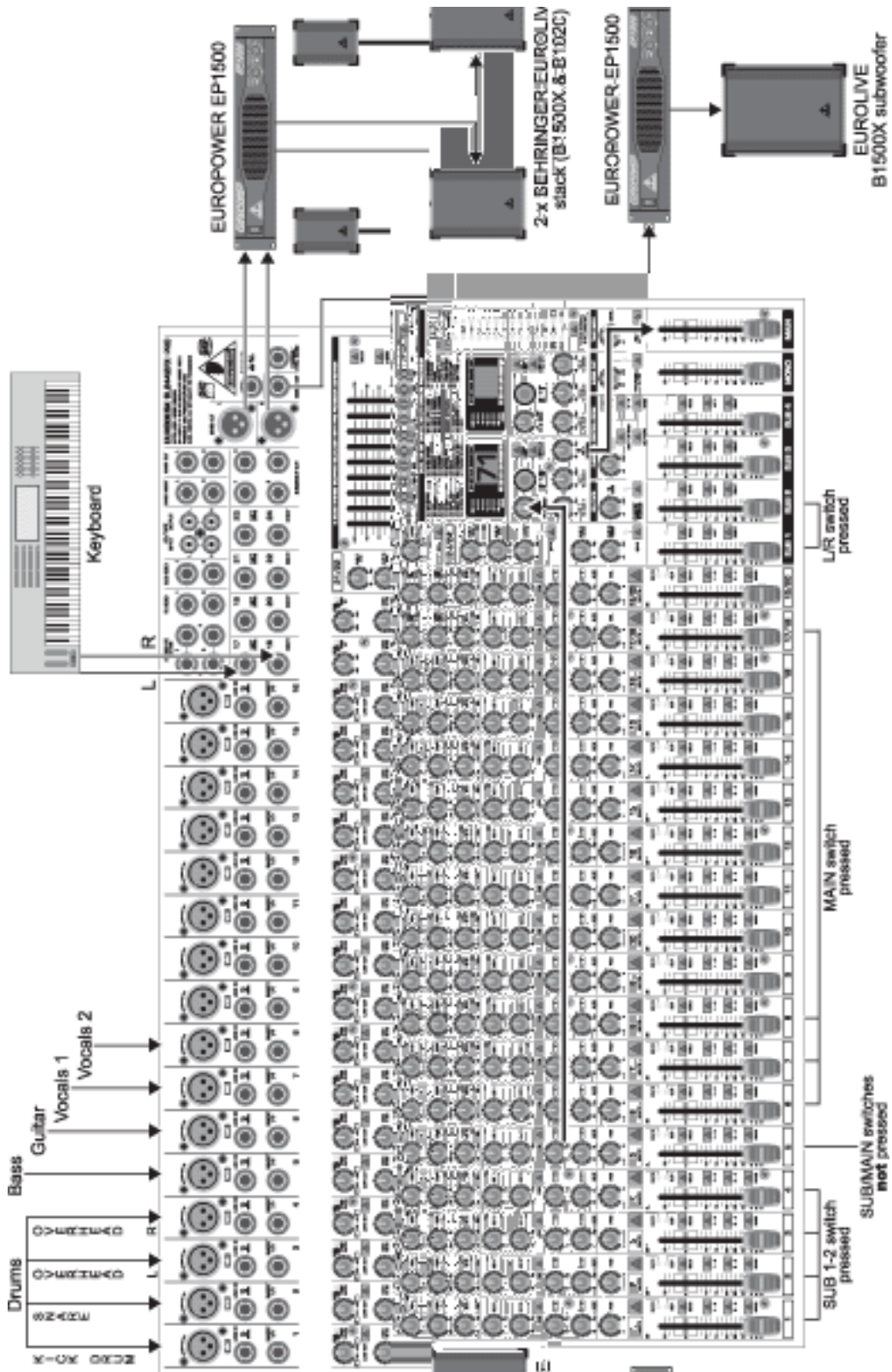
Fig. 4.2: Wiring the console for live operation

4.2 Live set-up

This example shows a classic live set-up. As in the studio example, four drum microphones, bass, keyboard (stereo channel), guitar and two vocal microphones are connected. The four drum channels (kick drum, snare, overhead L, overhead R) are mixed down to two subgroups and then routed to the main mix. This way, it is possible to conveniently control the volume of the entire drums in the main mix with the two subgroup faders. The built-in compressor insert effect is used for the bass. The corresponding input channel is separate from all buses and the bass signal is routed directly from the internal effects processor to the main mix bus. The MAIN/SUB switch must not be pressed in this case and the position of the SUB 1/2 SUB 3/4 switch is irrelevant.

6. SPECIFICATIONS

Mono inputs

Microphone inputs (IMP "Invisible" Mic Preamp)

Type	XLR, electronically balanced, discrete input circuit
Mic E.I.N. (20 Hz - 20 kHz)	
@ 0 Ω source resistance	-134 dB / 135.7 dB A-weighted
@ 50 Ω source resistance	-131 dB / 134 dB A-weighted
@ 150 Ω source resistance	-129 dB / 130.5 dB A-weighted
Frequency response	<10 Hz - 160 kHz (-1 dB), <10 Hz - 200 kHz (-3 dB)
Gain	+10 to +60 dB
Max. input level	+12 dBu @ +10 dB gain
Impedance	approx. 2.6 kΩ balanced
Signal-to-noise ratio	110 dB / 112 dB A-weighted (0 dBu In @ +22 dB gain)
Distortion (THD+N)	0.004% / 0.003% A-weighted

Line inputs

Type	1/4" TRS connector, electronically balanced
Impedance	approx. 20 kΩ balanced 10 kΩ unbalanced
Gain	-10 to +40 dB
Max. input level	+22 dBu @ 0 dB gain

Crosstalk[1]

Main fader closed	90 dB
Channel muted	84 dB
Channel fader closed	85 dB

Frequency response

Microphone input to main out	
<10 Hz - 70 kHz	+0 dB / -1 dB
<10 Hz - 160 kHz	+0 dB / -3 dB

Stereo inputs

Type	2 x 1/4" TRS connector, balanced
Impedance	approx. 20 kΩ balanced / 10 kΩ unbalanced
Gain	-20 dB to +20 dB
Max. input level	+22 dBu @ 0 dB gain

CD/tape in

Type	RCA
Impedance	approx. 10 kΩ
Max. input level	+22 dBu

EQ mono channels

Low	80 Hz / ±15 dB
Mid	100 Hz - 8 kHz / ±15 dB
High	12 kHz / ±15 dB
Low cut	80 Hz, 18 dB/oct.

EQ stereo channels

Low	80 Hz / ±15 dB
Low mid	400 Hz / ±15 dB
High mid	3 kHz / ±15 dB
High	12 kHz / ±15 dB

Channel inserts

Type	1/4" TRS connector, unbalanced
Max. input level	+22 dBu

AUX/FX send

Type	1/4" TS connector, unbalanced
Impedance	approx. 120 Ω
Max. output level	+22 dBu

FX returns

Type	1/4" TS connector, unbalanced
Impedance	approx. 10 kΩ
Max. input level	+22 dBu

Subgroup outputs

Type	1/4" TS connector, unbalanced
Impedance	approx. 120 Ω
Max. output level	+22 dBu

Main outputs (XLR)

Type	XLR, electronically balanced
Impedance	approx. 240 Ω balanced / 120 Ω unbalanced
Max. output level	+28 dBu

Main outputs (1/4")

Type	1/4" TRS connector, electronically balanced
Impedance	approx. 240 Ω balanced / 120 Ω unbalanced
Max. output level	+28 dBu

Main inserts

Type	1/4" TRS connector, unbalanced
Max. input level	+22 dBu

Mono output

Type	1/4" TS connector, unbalanced
Impedance	approx. 120 Ω
Max. output level	+22 dBu
Low pass	variable 30 Hz - 200 Hz, 18 dB/oct.

Phones/CTRL room output

Type	1/4" TRS connector, unbalanced
Max. output level	+19 dBu / 150 Ω (+25 dBm)

CD/tape out

Type	RCA
Impedance	approx. 1 kΩ
Max. output level	+22 dBu

DSP	Texas Instruments®
Converter	24-bit Sigma-Delta, 64/128-times oversampling
Sampling rate	46 kHz

Main Mix system data[2]

Noise	
Main mix @ -∞, Channel fader -∞	-100 dB / -102,5 dB A-weighted
Main mix @ 0 dB, Channel fader -∞	-82 dB / -85 dB A-weighted
Main mix @ 0 dB, Channel fader @ 0 dB	-72 dB / -75 dB A-weighted

Power supply

Power consumption	50 W
Fuse	100 - 240 V~: **T 2 A H**
Mains connection	Standard IEC receptacle

Dimensions/weight

SL3242FX-PRO

Dimensions (H x W x D)	approx. 100 mm (3 9/10") x 896 mm (35 1/4") x 410 mm (16 1/8")
Weight (net)	approx. 11.5 kg

SL2442FX-PRO

Dimensions (H x W x D)	approx. 100 mm (3 9/10") x 682 mm (26 9/8") x 410 mm (16 1/8")
Weight (net)	approx. 8.5 kg

Measuring conditions:

ad 1: 1 kHz rel. to 0 dBu; 20 Hz - 20 kHz; line input; main output; gain @ unity.

ad 2: 20 Hz - 20 kHz; measured at main output. Channels 1 - 4 gain @ unity; EQ flat; all channels to main mix; channels 1/3 hard left, channels 2/4 hard right. Reference = +6 dBu.

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.

7. PRESETS

Effect	Description	Application examples
PARALLEL EFFECTS		
Cathedral	Very dense and long reverberation of a large cathedral.	Solo instruments / vocals in slow pieces.
Plate	Simulates the sound of early plate reverberators.	A classic for drums (snare) and vocals.
Concert	Simulates a small theater or large concert hall.	Creates an "atmosphere" (e.g. radioplay voices).
Stage	Very dense reverb, especially for live applications.	Dissipates the sound of keyboard pads, for example.
Room	You can clearly hear the walls of the room.	Reverb effect that isn't directly noticeable.
Studio	Adds spaciousness to the sound; signals sound natural, not "flat".	Gives a sound source more "class" in the mix.
Small Hall	Simulates a small, lively (strongly reflecting) hall.	Perfect for processing drums.
Ambience	Reproduces a middle-sized room without late reflections.	Extremely versatile effect.
Early Reflections	Very dense reverb with pronounced early reflections.	Drums, percussion, slap bass
Spring Reverb	Simulates a classic spring reverberation.	Extremely versatile effect.
Gated Reverb	Reverb that is synthetically cut off	Produces a very "crisp" snare sound.
Reverse Reverb	Reverb with reversed envelope, i.e. it slowly gets louder.	Produces a very spaced out vocal sound.
Chorus	Slight detuning of the original signal.	Extremely versatile effect (guitar, vocals, bass, keyboards etc.).
Flanger	A slightly delayed signal is added to the original signal, producing phase shifting of the signals.	Extremely versatile effect (guitar, vocals, bass, keyboards etc.).
Phaser	Another phase-shift effect.	Extremely versatile effect (guitar, vocals, bass, keyboards etc.).
Rotary Speaker	Simulation of a classic effect for electronic organ.	Organ / keyboards.
Delay	Delay of the input signal with several repetitions.	Extremely versatile effect.
Chorus & Reverb	Combination of chorus and reverb.	A classic effect for vocals.
Flanger & Reverb	Flanger combined with a reverb effect.	All-purpose effect.
Phaser & Reverb	Phaser combined with a reverb effect.	All-purpose effect.
Rotary Speaker & Reverb	Rotary Speaker effect combined with reverb.	Organ/keyboards/electric guitar.
Delay & Reverb	Delay combined with reverb.	The most common combination for vocals, solo guitar, etc.
Delay & Chorus	Widens the signals and produces interesting repetition effects.	Makes vocals stand out in the mix. Good intelligibility is preserved.
Delay & Flanger	Similar to Delay & Chorus, but with audible up/downward modulation.	Ideal for creating a slightly spaced out sound.
INSERT EFFECTS		
Compressor	Soft or loud passages are raised or lowered in level respectively.	Single signals, especially from microphones.
Expander	No dynamics limitation (see Compressor), but quite the opposite: interference (noise, hum, etc.) is reduced in level.	Single signals, especially from microphones.
Gate	A gate opens for a specific period of time to make a specific signal pass, and then closes abruptly.	"Controls" feedback-prone microphones / eliminates interference.
Ultramizer	Extremely efficient compression through automatic adaptation of compression parameters.	Gives mix signals a constant output level.
Ultrabass	Combines sub-harmonics processor, bass exciter and limiter.	Gives keyboard sounds some special "class" / sound effect for electric basses.
Panner	The signal "wanders" between the sides of the stereo basis.	Special effect, e.g. for radioplay soundtracking.
Exciter	Adds synthetic harmonics to the signal, resulting in increased presence and "loudness".	Both mix and single signals. Improves intelligibility of vocal signals.
Auto Filter	Level-dependent boost of a specific frequency band, similar to auto-wah effect for electric guitars.	DJ-ing / sound effects for live events / electric guitar or bass.
Tube Distortion	Simulates the tube distortion of classic guitar amplifiers.	Electric guitar / vocals / keyboards.
Guitar Amp	Guitar amp simulation.	Electric guitar or bass.
Vinylizer	Adds the clicks and noise of old vinyl records.	DJ-ing / sound effects for live events.
Test Tone	1-kHz test tone.	Makes P.A. level setting easier.

8. 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 Studiotechnik 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 Studiotechnik 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 § 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 under the terms of this warranty will be repaired or replaced.

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, crossfaders, potentiometers, keys/buttons, tubes 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.