

BTX36000 User Manual

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Important safety instructions



CAUTION: High voltage! Risk of death! To avoid lethal electric shock, do not open the casing. There are no user-serviceable components inside. Refer all maintenance to qualified service personnel. Remove the mains cable when the unit is not in use.

WARNING: To eliminate the risk of fire and electric shock, do not expose this unit to rain or moisture and splashing or dripping liquid, which might enter the device. Do not place any objects filled with liquid, such as vases, on the unit.



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.

- 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.
- 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.

- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use 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.
- 17) 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 unless you are qualified to do so.



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IMPORTANT NOTICE!

FAILURE TO OBSERVE THE FOLLOWING POINTS MAY RESULT IN DAMAGE TO THE AMPLIFIER OR LOUDSPEAKERS. DAMAGE CAUSED IN SUCH A WAY ARE NOT COVERED BY WARRANTY.

- Observe the correct impedance for your loudspeaker and use the appropriate output socket.
- Always use loudspeaker cables for connection between the amplifier and the loudspeaker. Never use other types of cable such as instrument cable and microphone cable.

Introduction

Thank you for choosing the BUGERA BTX36000 bass amplifier head. "THE NUKE" delivers massive 2 x 1,800 Watts in stereo mode or 3,800 Watts in mono-bridged mode. We have fitted the BTX36000 out with an active 9-band graphic EQ to make sure that so much power can be tailored exactly to the frequency range you want to apply to it. An integrated compressor increases the sustain and smoothes out volume peaks while the Bright function enhances the sound. A switchable Limiter provides distortion-free sound at all levels. In addition, the BTX36000 features comprehensive connectivity including balanced DI outputs for direct connection to a mixing console plus a Tuner output on the front and rear panel. The independent DC and thermal overload protection on each channel keeps the system safe and sound.

Before you get started

Your product was carefully packed at the factory to ensure safe transport. Nevertheless, if the box is damaged inspect the unit immediately for signs of damage.

- If the unit is damaged please do NOT return it to us, but notify your dealer and the shipping company immediately, otherwise, claims for damage or replacement may not be granted.
- Always use the original box to prevent damage during storage or transport.
- Make sure that children cannot play unsupervised with the unit or its packaging.
- Please ensure proper disposal of all packing materials.

Ensure adequate air supply and to avoid overheating do not place the unit near radiators etc.

Please make sure that all devices are properly grounded. For your own safety, never remove or disable the ground conductors from the devices or on the power cords. The unit must always be connected to the mains outlet with a protective grounding connection.

Important notes concerning installation

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.



Online registration

Please do remember to register your new BUGERA equipment right after your purchase by visiting www.bugera-amps.com and kindly read the terms and conditions of our warranty carefully.

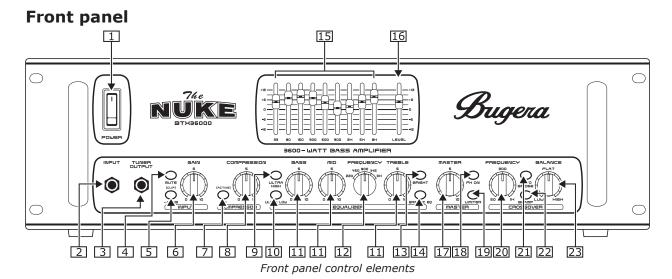
Should your BUGERA product malfunction, our goal is to have it repaired as quickly as possible. To arrange for warranty service, please contact the retailer from whom the equipment was purchased. Should your BUGERA dealer not be located in your

vicinity, you may directly contact the BEHRINGER company nearest to you. This contact information is included in the original equipment packaging (Global Contact Information/European Contact Information).

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

Thank you for your cooperation!

Control elements and connections



Use the *POWER* switch to switch the BTX36000 on and off. You should always make sure that the POWER switch is in the "Off" position when initially connecting the unit to the mains.

To disconnect the unit from the mains, pull out the main cord plug. When installing the product, ensure that the plug is easily accessible. If mounting in a rack, ensure that the mains can be easily disconnected by a plug or by an all-pole disconnect switch on or near the rack.

- Please note that switching the unit off does not fully disconnect it from the mains. When not using the unit for a long period of time, please unplug the unit's power cord from the power outlet.
- [2] INPUT: To connect an electric bass to the BUGERA amplifier, use this ¼" mono jack (unbalanced).
- 3 TUNER OUTPUT jack: To connect the BTX36000 to an electronic tuner, use this ¼" TS jack. Alternatively, use the TUNER OUTPUT 36 found on the rear panel.

You can mute the main signal path to tune your instrument by pressing the *MUTE* button 4.

INPUT features

- MUTE: Use this button if you want to tune a bass without hearing the tone. This feature mutes the main signal path, but not the TUNER output.
- 5 -15 dB: If the (CLIP) LED 5 constantly illuminates and the GAIN control 6 is set to 0 (zero), the input level of the audio signal is too high. In this case, press this button to activate the pad. The pad reduces the input sensitivity by 15 dB.

(CLIP) LED: At various points in the signal path, the BTX36000 monitors the level of the audio signal. When the

level is too high, the (CLIP) LED warns that clipping can occur. If the LED:

- occasionally illuminates, the BTX clips only some peaks in the audio signal. Occasional clipping does not reduce the sound quality and shows that the signal is strong enough.
- ▲ never illuminates, the BTX does not clip any signal peaks in the audio signal. The audio signal is probably too weak to make use of the full dynamic range. Increase the *GAIN* ⑤ setting until the *(CLIP)* LED lights up only occasionally, at the strongest signal peaks.
- ▲ constantly illuminates, the BTX clips a large part of the audio signal and you will hear a distortion. Lower the *GAIN* setting and check for extreme fader or control settings.
- GAIN control: Use this control to boost or cut the level of the input signal.

COMPRESSOR section

- The ON [ACTIVE] switch activates and deactivates the compressor. The switch lights when the compressor is active and the light dims when the signal level exceeds the threshold.
- The COMPRESSION control determines the compression level. You can adjust the amount of compression between 0 and 10:1.

EQUALIZER section

- The ULTRA HIGH switch boosts the frequency range centered at 5 kHz by 6 dB.
- The *ULTRA LOW* switch emphasizes the frequencies typical for a bass guitar, especially those of the lower strings.
- III BASS, MID, and TREBLE controls: For each tone (bass, midrange, and treble) that you can emphasize or de-emphasize, the BTX includes a single TONE control.

To emphasize a tone, you can turn the relevant tone control toward 10 (maximum boost). Alternatively, you might consider lowering adjacent bands. To de-emphasize a tone,



you can turn the relevant tone control toward 0 (maximum cut).

- By cutting certain frequencies instead of boosting others, you protect your equipment from extreme volume peaks ("clipping") and get valuable headroom.
- 12 The FREQUENCY selector adjusts the frequency of the MID rotary knob (see 11). There are five settings available: 220 Hz, 450 Hz, 800 Hz, 1.6 kHz and 3 kHz.
- 13 The *BRIGHT* switch boosts the frequency range centered at 2 kHz by 6 dB.
- 14 To activate the graphic EQ and level features, push this button or the footswitch 37.
- EQ sliders: If you activated the graphic EQ 14, you can use each slider to emphasize and de-emphasize a specific frequency band. The center frequency of each frequency band is displayed directly below the corresponding slider.

To boost a frequency band, move the corresponding slider up. To cut a frequency band, move the corresponding slider down.

LEVEL slider: To compensate for possible level changes of the equalized signal, slide this control between +12 and -12. At "0" level, the BTX neither boosts nor cuts the equalized signal.

MASTER features

[17] MASTER control: To adjust the speaker volume and the level of the PREAMP OUTPUT, turn this control toward 0 (no volume/level) or, alternatively, toward 10 (maximum volume/level).

- 18 The FX ON switch activates the EFFECTS LOOP (see 28, 29). The FOOTSWITCH connector may be found on the rear panel 37.
- 19 LIMITER button: The limiter reduces only the signal peaks that can overdrive the POWER AMP and distort the audio signal. The limiter prevents the BTX36000 from clipping these signal peaks. To activate or deactivate the limiter, push this button.

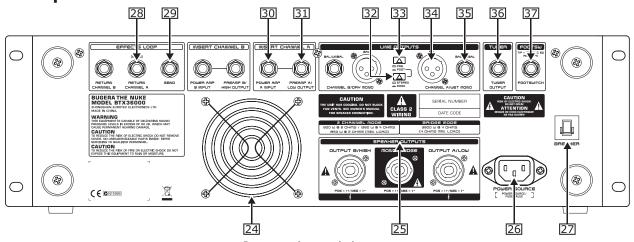
Typically, the limiter does not affect the perceived signal dynamics. For this reason we recommend to keep it switched on at all times.

CROSSOVER section

- The FREQUENCY rotary knob adjusts the crossover frequency required in the BI-AMP mode. The frequency range below the crossover frequency is routed to amplifier A (LOW), whereas the range above the crossover frequency is routed to amplifier B (HIGH).
- The MONO BRIDGE switch activates the mono-bridged mode. The switch glows when the mode is active.
- The BI-AMP switch activates the BI-AMP mode. The switch glows when the mode is active.
- 23 The BALANCE rotary knob adjusts the balance between low and high frequencies in BI-AMP mode (see 20).

To understand the different operation modes of the BTX36000, please read the sections "Modes of operation" and "Bi-amping."

Rear panel



Rear panel control elements

- 24 The unit's fan is located here. Fan speed adjusts automatically to assure trouble-free operation.
- To prevent faulty operation, please make sure that the unit is kept at a distance from other appliances emanating heat.
- 25 The SPEAKER OUTPUTS are high-quality professional speaker connectors. The pin designation of the speaker is pins 1+ and 1-. For details, refer to the section "Audio connectors".
- In mono-bridged mode, connect one loudspeaker to the middle jack MONO BRIDGE.
- In any other mode, connect one loudspeaker to OUTPUT A/LOW and another to OUTPUT B/HIGH.
- Before you connect speakers to the BTX36000, turn it off.
- The mains connection is established using a cable with an IEC mains connector. This cable is delivered with the BTX.

BREAKER (automated fuse). After eliminating the cause of faulty operation, simply push the BREAKER back in and power up the unit again. The BREAKER acts in place of common disposable fuses.

Caution

Before engaging the BREAKER switch, you should power down the unit (POWER switch set to OFF)!

EFFECTS LOOP jacks

- 28 RETURN CHANNEL A/B: The unbalanced ½" jacks are used to route a mono or stereo signal from an external effects unit back to the BTX.
- When using a stereo effects processor, route the right part of the effect signal to RETURN CHANNEL A and the left part of the effect signal to RETURN CHANNEL B.



- ▲ When using a mono effects processor, route the effect signal only to RETURN CHANNEL A.
- 29 SEND jack: To send an audio signal from the BTX to an effects processor, use this ½" TS jack.

INSERT CHANNEL section

- 30 POWER AMP INPUT: This unbalanced connector is used to feed a mono signal to the amplifier **A** as well as one to the amplifier **B**. This separates the internal signal path from the amplifiers.
- 31 PREAMP OUTPUT: This unbalanced connector is used to tap the preamplifier signal and feed it to an external amplifier
- ▲ When in BI-AMP mode, the low-frequency range of the signal is sent through the *PREAMP A/LOW OUTPUT*, while the signal's high-frequency range is sent through *PREAMP B/HIGH OUTPUT*.
- ▲ When in two-channel mode, connect the *PREAMP A/LOW OUTPUT* with the amplifier's right channel and the *PREAMP B/HIGH OUTPUT* with the left channel.

LINE OUTPUT features

- 32 STEREO/MONO: This switch adjusts the routing of the LINE signal between "wet" (with effects) and "dry" (without effects). The switch is only effective when PRE/POST has been pressed ("POST") 33!
- When in mono mode, LINE channel A has the "wet" signal with all the external effects and LINE channel B has the "dry" signal with the internal signal path.
- ▲ When in stereo mode, both LINE outputs have the "wet" signal with all external stereo effects.
- 33 PRE/POST button: To select the type of signal you want to send to a mixer/recording unit, use this button.

When this button is:

- pushed out (PRE EQ and effects), the BTX does not apply any preamp features (TONE/EQ/EFFECTS) to the audio signal.
- pushed in (POST EQ and effects), the BTX applies all preamp features to the audio signal.
- 34 BAL: The internal signals of channels **A** and **B** are routed to this balanced XLR connector. The type of signal depends on the settings of the controls 32 and 33.
- 35 BAL/UNBAL: The internal signals of channels **A** and **B** are routed to these unbalanced ¼"TS connectors. You can also connect these outputs to any balanced line inputs. The type of signal depends on the settings of the controls 32 and 33.
- 36 TUNER OUTPUT jack: To connect the BTX36000 to an electronic tuner, use this ¼" TS jack. There is also a TUNER OUTPUT connector 3 on the unit's front panel. Both TUNER OUTPUT connectors may also be used to hook up a stage monitor: the input signal is routed before the MUTE function so that the signal is always fed to the monitor speaker. This also means that it is not affected by sound and level settings.
- 37 Connect the supplied footswitch to the FOOTSWITCH connector. Switch 1 activates and deactivates the graphic EQ. Switch 2 turns the Effects Loop on and off.

Applications

Modes of operation

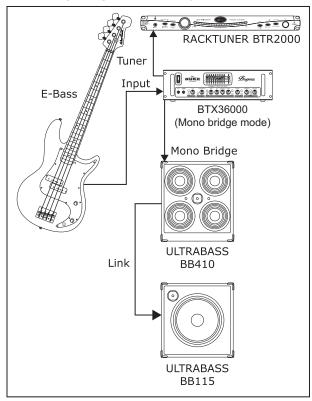
Mono-bridged mode

This mode is most commonly used on your BUGERA amplifier. When running in mono-bridged mode, the voltage of both channels is added up and fed into a single loudspeaker system. There is one input and one output signal respectively, and only the controls of

channel A (and not of channel B) are used. Mono-bridged mode is active when the button [21] glows.

Examples:

- ▲ Driving a single 8-Ohm loudspeaker.
- ▲ Driving a single 4-Ohm loudspeaker.



Mono-bridged mode

When the amp is overdriven for longer periods of time, the output signal may occasionally be muted for several seconds. In certain situations, excessive overdriving may trigger off the automated fuse. To avoid overdriving the amp, please continually make sure that an appropriate volume level is applied.

Caution

The minimum load in mono-bridged mode is 4 Ohms. 2-Ohm loads should never be applied when in mono-bridged mode.

Safety precautions for monobridged operation

- Running your amp in mono-bridged mode can quickly result in excessive overdriving and premature shutting down of the unit itself. In the worst-case scenario, your loudspeakers may be damaged permanently. Therefore, you should always make sure that the speakers you use can indeed handle the power load fed into them.
- A voltage of up to 100 V RMS is present between the output connectors of the BUGERA. Always implement appropriate safety precautions when connecting your speakers to avoid the risk of electric shock.

2-channel mode (stereo)

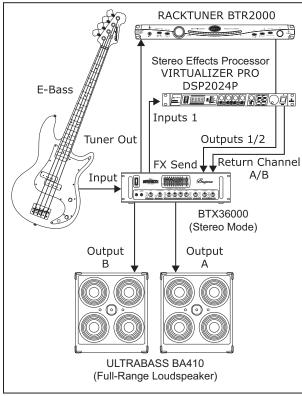
The 2-channel mode is a special feature of your BTX36000. Both channels operate fully independently from one another. There is



always a separate input signal as well as a separate output signal. 2-channel mode is active when the button 21 is not lit (off).

Examples:

- ▲ 2-channel (stereo) playback
- ▲ Two independent mono signals, such as instrument signal and monitor mix
- ▲ Bi-amp operation, whereby bass frequencies are run on channel A, and high frequencies on channel B (see 4.2 "Bi-amping").



2-channel mode (stereo)

Parallel mode

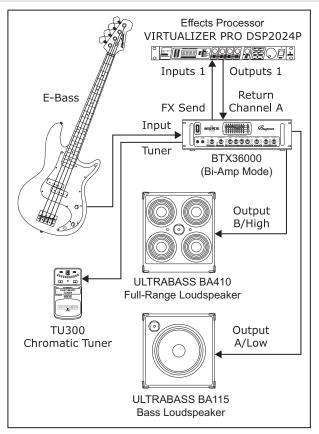
Parallel mode is identical to 2-channel mode, except that the inputs of both channels are internally connected in parallel. Channels **A** and **B** transmit the same signal which is useful for live applications with speakers positioned far apart.

Bi-amping

The BTX's active crossover is able to split up the signal into two frequency bands. The mono signal's low-frequency range (channel **A**) is separated from the high-frequency range (channel **B**).

The crossover frequency may be adjusted over the range of 50 Hz - 1 kHz, allowing you to select the frequency that corresponds to the speakers available to you:

- OUTPUT A: subwoofer, OUTPUT B: full-range loudspeaker (Example: EUROLIVE E1800X and ULTRA-BASS BB410) ► crossover frequency: < 200 Hz</p>
- ▲ OUTPUT **A**, **B**: different full-range loudspeakers (Example: ULTRABASS BB115 and ULTRABASS BB210) ▶ crossover frequency: > 300 Hz



Bi-amp operation

The compressor

A compressor is used to limit the dynamic range of a signal. Signal peaks are lowered and soft signals are raised in volume, thus reducing the difference between the highest and the lowest signal levels. The result is a much more powerful sound.

Some playing techniques, such as slapping, lead to high-level differences. In this case, a compressor can be used to make the low-level dead notes clearly audible, which gives the bass line even more groove. What is more, the sustain of long notes is extended.

Compressors work best if provided with high input signals. If the signal level is low, the effect will be activated only with high settings. If so, enabling the compressor can lead to extreme level differences. If GAIN is high, the compressor comes in quite early. In this case, you don't need to turn up the COMPRESSION control that far to achieve an effect. Experiment with it to find the best setting for your needs!

- ▲ Turn on the compressor ⑦.
- ▲ Turn the *COMPRESSION* rotary knob ③ slowly to the right to increase the level of compression.
- ▲ Use the ON (ACTIVE) switch to compare the compressed signal with the uncompressed signal.

About speaker impedance

The total impedance of the speakers that you connect to the BTX36000 affects the power output. The minimum speaker impedance is 2 Ohms in stereo mode and 4 Ohms in mono-bridged mode. The BTX36000 supplies the most power into the minimum speaker impedance.

How to calculate the speaker impedance

When using more than one speaker and each connecting to another BTX speaker jack, the speakers are connected in parallel. To calculate the resulting total impedance of the speakers, use the following formula—

$$Z_{\text{total}} = \frac{1}{\frac{1}{Z_1 + \frac{1}{Z_2} + \dots}}$$

—where Z_1 , Z_2 etc. are each the impedance of a single speaker and Z_{total} is the resulting impedance of all speakers.

For two speakers (Z_1 and Z_2), the formula reads as:

$$Z_{total} = \frac{Z_1 \cdot Z_2}{Z_1 + Z_2}$$

Via the formula, you get a 4 Ω load with:

- ▲ one 4-Ohm speaker
- ▲ two 8-Ohm speakers
- ▲ one 8-Ohm speaker and two 16-Ohm speakers
- As the speaker impedance decreases, the output power of the BTX increases. High output power can damage your speakers. As the speaker impedance increases, the output power of the BTX decreases.

Installation

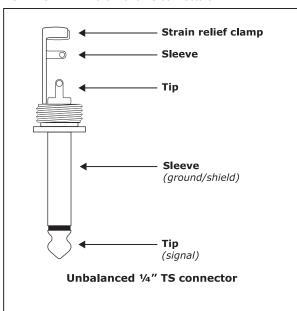
Rack mounting

The BUGERA can be mounted on a 19" rack requiring 3 U of space. Use 4 screws and washers to fix it to the front of the rack. Support the rear side of the BTX, especially when often being transported. Allow sufficient air circulation around the rack, particularly when warm ventilation air of additional units enter the rack.

The fan speed adjusts automatically and ensures safe operation. Never block ventilation openings. Should internal temperature reach extreme values, the unit will shut down automatically.

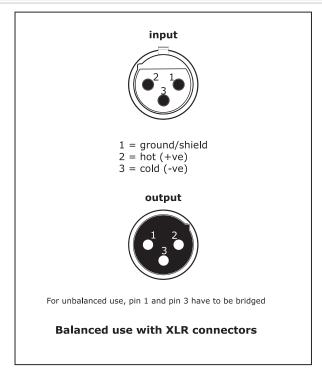
Audio connectors

The inputs of the BTX36000 as well as the EFFECTS LOOP and INSERT CHANNEL are mono TS connectors.



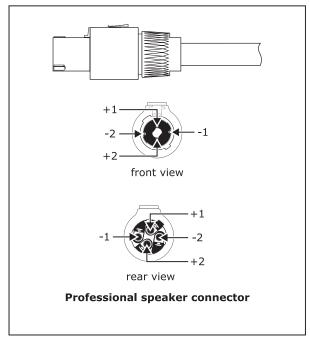
1/4" TS connector

The Line outputs are balanced XLR and stereo TRS connectors.



XLR connectors

Your BTX36000 is equipped with high-quality professional speaker connectors, which ensure safe and trouble-free operation. These connectors were especially developed for high-power loudspeakers. Once it is plugged in, it safely locks into its position and cannot be accidentally disengaged. It prevents the occurrence of electrical shock and ensures the correct polarity.



Professional speaker connector

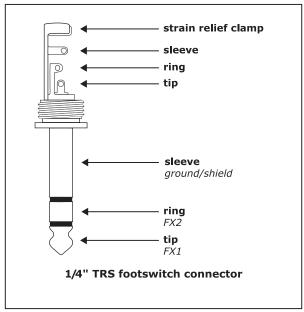
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Should you register distractive signals such as noise or hissing, we recommend separating the amp input from the signal source. This way, you can quickly determine if the noise originates from the equipment connected to the amp. Make sure to turn the volume to a minimum before turning it on (MASTER rotary knob turned fully left) to avoid any damage that may occur to your loudspeakers.

Footswitch connector

The footswitch connector is a 1/4" TRS connector.



1/4" TRS footswitch connector





Specifications

```
AUDIO INPUTS
 INPUT
                                                          1 x ¼" mono jack, unbalanced
   Input impedance
                                                          1 M\Omega unbalanced (0 dB) / 80 k\Omega unbalanced (–15 dB)
                                                          2 \times 1/4" mono jack, unbalanced
 RETURN CHANNEL A/B
   Input impedance
                                                          100 kΩ unbalanced
 POWER AMP INPUT A/B
                                                          2 x ¼" mono jack, unbalanced
   Input impedance
                                                         30 \ k\Omega unbalanced
AUDIO OUTPUTS
 TUNER OUTPUT
                                                          2 x 1/4" mono jack, unbalanced
                                                         min. 2.2 k\Omega
   Output impedance
 EFFECTS LOOP SEND
                                                          1 x ¼" mono jack, unbalanced
   Output impedance
                                                         min. 2.2 k\Omega
 LINE OUTPUT A/B
                                                          2 x XLR connector, balanced / 2 x 1/4" mono jack, balanced or unbalanced
   Output impedance
                                                          100 \Omega balanced, 51 \Omega unbalanced
 PREAMP OUTPUT A/B
                                                          2 x ¼" mono jack, unbalanced
   Output impedance
                                                          min. 2 k\Omega unbalanced
                                                          max. +21 dBu
   Output level
                                                          3 x professional speaker connector
 Loudspeaker connectors
 Load impedance
   both channels driven
                                                         min. 2 \Omega per channel
   bridged mono
                                                         min. 4 Ω
SYSTEM DATA
 Output power
   Peak power, both channels driven
                                                         2 x 1950 W / 2 Ω
                                                         2 x 1380 W / 4 Q
   Peak power, both channels driven
   Peak power, both channels driven
                                                         2 x 800 W / 8 Ω
                                                         3800 W / 4 Ω
   Peak power, bridged mono
 Tone control range
   BASS
                                                         ±12 dB @ 40 Hz
   MID
                                                         ±15 dB @ 220 Hz / 450 Hz / 800 Hz / 1.6 kHz / 3 kHz
   TREBLE
                                                         ±15 dB @ 8 kHz
   ULTRA LOW
                                                          +2.5 dB @ 50 Hz
   BRIGHT
                                                          +6 dB @ 2 kHz
   ULTRA HIGH
                                                          +6 dB @ 5 kHz
 Graphic EQ range
   33 Hz
                                                         ±15 dB
   80 Hz
                                                          ±8 dB
   150 Hz
                                                         +8 dB
   300 Hz
                                                          ±8 dB
   600 Hz
                                                         ±8 dB
   900 Hz
                                                         ±8 dB
   2 kHz
                                                          ±8 dB
   5 kHz
                                                         ±9 dB
   8 kHz
                                                         ±10 dB
 Compression ratio
                                                          10:1
 Signal-to-noise ratio
                                                          75 dB
POWER SUPPLY
 Power consumption
                                                          max. 3600 W
 Mains voltage / Breaker
   100/120 V~ (50/60 Hz)
                                                          18 A
   220/230 V~ (50/60 Hz)
                                                          10 A
 Mains connector
                                                          standard IEC receptacle
PHYSICAL/WEIGHT
 Dimensions (H x W x D)
                                                          5.5" x 19.0" x 14.6" (140 mm x 485 mm x 370 mm)
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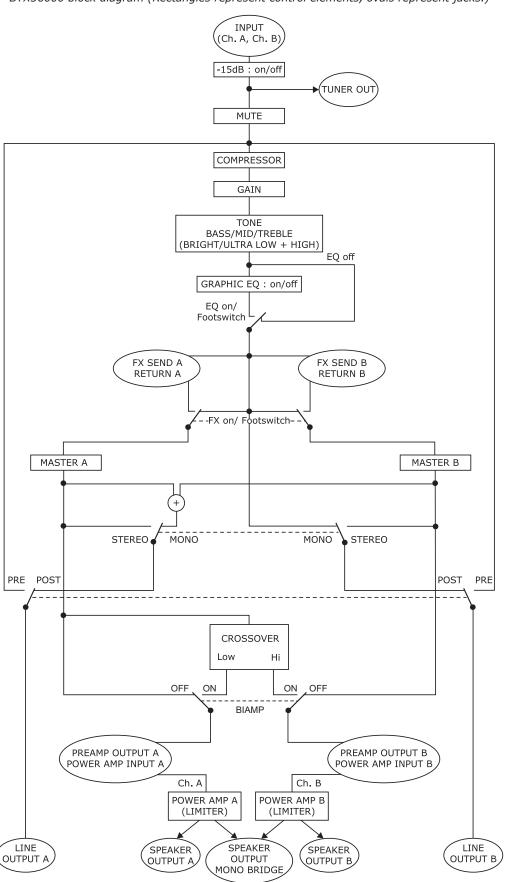
43.9 lb. (19.9 kg) We are constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or illustrated.

Weight



System block diagram

BTX36000 block diagram (Rectangles represent control elements, ovals represent jacks.)





Limited warranty

SPECIAL NOTE: NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

§ 1 Other warranty rights and national law

- This limited 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 limited warranty regulations mentioned herein are applicable unless they constitute an infringement of national warranty law.

§ 2 Online registration

Please do remember to register your new BUGERA equipment right after your purchase by visiting http://www.bugera-amps.com 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 Limited Warranty
 1. BEHRINGER Warranty BEHRINGER 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.

 BEHRINGER warrants valves (tubes) and meters contained in the product to be free of defects in material and workmanship if used under normal operat-
- ing conditions for a period of 90 days from the original date of purchase.

 This limited warranty is subject to the conditions, exclusions and limitations hereinafter set forth.

 If the product shows any defects within the specified warranty period that are not excluded from this warranty as described under § 5, BEHRINGER will, at its discretion, either replace the product by providing a new or reconditioned product 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. In case BEHRINGER decides to replace the entire product, this warranty shall apply to the replacement product for the remaining initial warranty period, i.e., one year** from the date of purchase of the initial product.
- If the warranty claim proves to be justified, the product will be returned to the user freight prepaid. Warranty claims other than those indicated above are expressly excluded.

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

§ 4 Return authorization number

- To obtain warranty service, the buyer (or his authorized dealer) must call BEHRINGER as exclusive distributor of BUGERA products (see enclosed list) during normal business hours BEFORE returning the product. All inquiries must be accompanied by a description of the problem. The buyer or his authorized dealer will receive a return authorization number.
- Subsequently, the product must be returned in its original shipping carton, together with the return authorization number. The return shipment address will be indicated by BEHRINGER.
 Shipments without freight prepaid will not be accepted.

- Warranty services will be furnished only if the product is accompanied by a copy of the original retail dealer's invoice.

 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, irrespective of whether it was carried out properly
- or not. Under the terms of this limited 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 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, tubes, 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
 - damage/defects caused by force majeure or any other condition that is beyond the control of BEHRINGER.
- Any repair or service performed by any person or entity other than a BEHRINGER authorized service center is not covered by this limited warranty. Any repair or opening of the unit carried out by unauthorized personnel (user included) will void this limited warranty.
- 7. Any exchange of the tubes/valves and associated biasing by any person or entity other than a BEHRINGER authorized service centre will void this limited
- 8. If an inspection of the product by BEHRINGER shows that the defect in question is not covered by this limited warranty, the inspection costs are payable by the custome
- 9. Products which do not meet the terms of this limited 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. Costs for freight and packing will be invoiced separately C.O.D. When the buyer has sent in a written repair order, such costs will also be invoiced separately.

§ 6 Warranty transferability

. This limited warranty is extended exclusively to the original buyer (customer of retail dealer) and is not transferable to anyone who may subsequently purchase this product.

§ 7 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.

THE FOREGOING CONSTITUTES THE ONLY WARRANTY MADE BY BEHRINGER WITH RESPECT TO THE PRODUCT AND IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. Any implied warranties, including without limitation, any implied warranties of merchantability or fitness from any particular purpose, imposed under state law are limited to the duration of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not be applicable to you.

BEHRINGER ASSUMES NO LIABILITY FOR PROPERTY DAMAGE RESULTING FROM FAILURE OF THIS PRODUCT NOR ANY LOSS OF INCOME, SATISFACTION OR DAMAGES ARISING FROM THE LOSS OF USE OF SAME DUE TO DEFECTS OR AVAILABILITY OF SAME DURING SERVICE.

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

