Harley Benton

Block-800B

User Manual

Bass Head

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1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under *www.thomann.de*.

1.1 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this document.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – high-voltage.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used for the amplification of signals from musical instruments with electromagnetic pickups. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety

DANGER!

Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.

DANGER!

Danger to life due to electric current!

Within the device there are areas where high voltages may be present. Never remove any covers. There are no user-serviceable parts inside. Do not use the device when covers, safety equipment or optical components are missing or damaged.

DANGER!

Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Always use proper ready-made insulated triple-core mains cable with a safety plug. Do not modify the mains cable or the plug. In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.

WARNING!

Possible hearing damage due to operating the device at a high volume!

The device can produce volume levels that, when operated at a high volume, may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage. Avoid operating the device at excessively high volumes over an extended period of time. Decrease the volume level immediately if you experience ringing in your ears or hearing impairment. If this is not possible, keep a greater distance or use adequate ear-muffs.

NOTICE!

Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can overheat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.

NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the “Technical specifications” chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.

NOTICE!

Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). Ensure that the power cord plug is easily accessible at all times if it is the only device to safely disconnect the device from the mains supply. As a precaution, disconnect the device from the power grid when storms are approaching or it the device will not be used for a longer period.

NOTICE!

Risk of fire due to installation of a wrong fuse!

Using fuses of a different type than compatible with the device may cause a fire and seriously damage the device. Only use fuses of the same type. Observe the labelling on the device casing and the information in the "Technical data" chapter.

NOTICE!

Possible staining due to plasticiser in rubber feet!

The plasticiser contained in the rubber feet of this product may react with the coating of the floor and cause permanent dark stains after some time. If necessary, use a suitable mat or felt slide to prevent direct contact between the device's rubber feet and the floor.

3 Features

This powerful bass head is characterized by the following special features:

- Output power: 800 watts at 4 Ω
- Class-D ICE power amplifier
- 4-band equalizer
- Smart compressor
- D.I. output with pre/post & lift/ground switch
- Input sensitivity switchable for active or passive basses
- Mute function
- Tuner output
- Line input with volume control
- Headphone output
- FX loop
- Speaker outputs: Speaker Twist

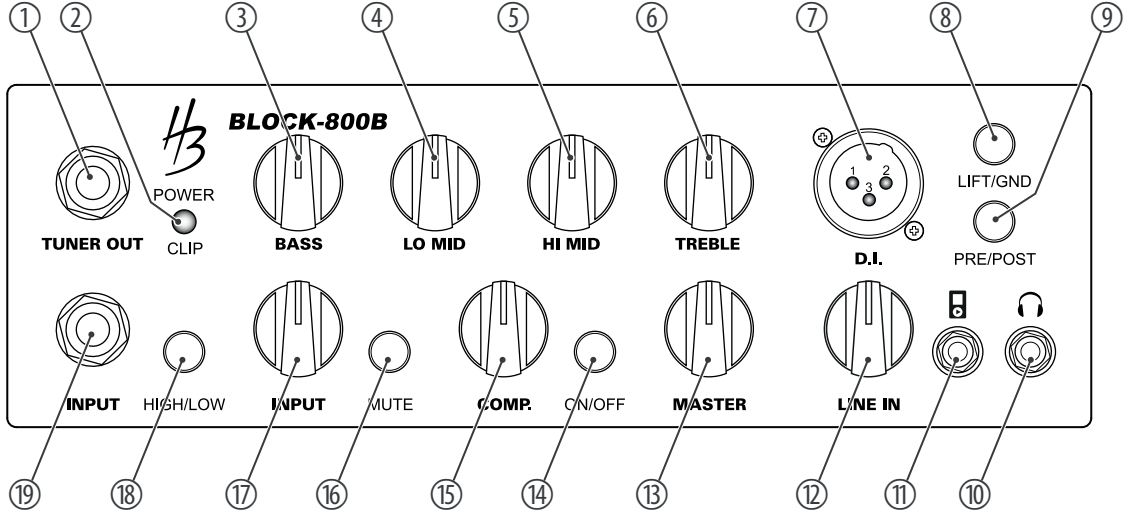
4 Installation and starting up

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

5 Connections and controls

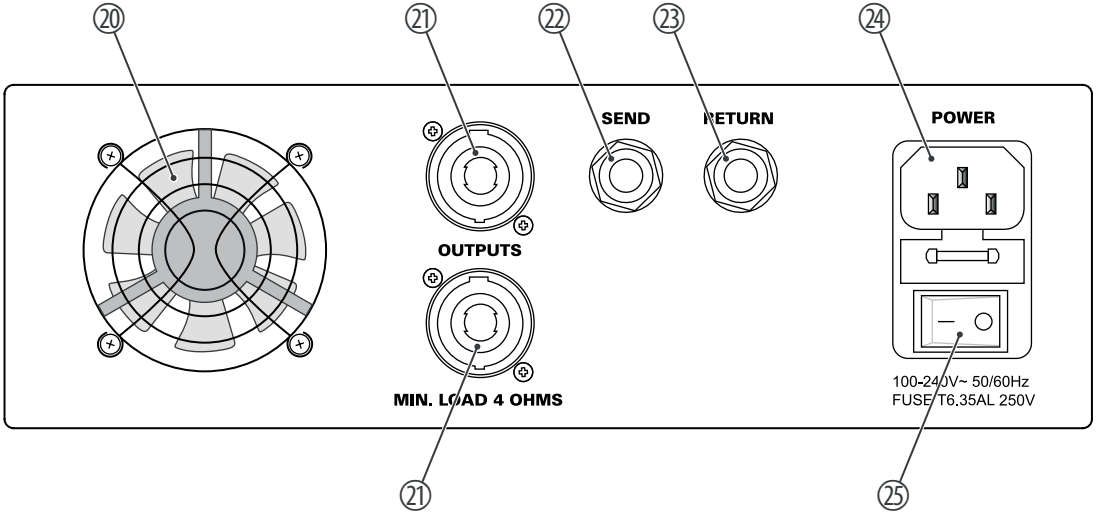
Front



1	*[TUNER OUT]* | 6.35-mm jack socket for permanent connection of a tuner
2	*[POWER / CLIP]* | The LED lights up green when the device is on. It lights up red when the signal is clipping. In that case, turn back the *[INPUT]* control until the LED turns green again.
3	*[BASS]* | Control for boosting or attenuating the low frequencies
4	*[LO MID]* | Control for boosting or attenuating the low mid frequencies
5	*[HI MID]* | Control for boosting or attenuating the high mid frequencies
6	*[TREBLE]* | Control for boosting or attenuating the high frequencies
7	*[D.I.]* | Balanced direct out with MIC level for connecting to a mixer, designed as XLR panel plug, 3-pin
8	*[LIFT/GND]* | This switch disconnects or connects the ground potential of the DI output and the device ground. In the *[LIFT]* position (released), the device ground is disconnected. This can eliminate any noise caused by ground loops, which may occur if the device is connected to other grounded devices. In the *[GND]* position (pressed), the device ground is connected.
9	*[PRE / POST]* | This switch determines where the DI signal is tapped. In the *[PRE]* position, the signal is tapped before tone control and compressor; in the *[POST]* position, it is tapped after.
10	🎧 | 3.5-mm jack socket for connecting headphones
11	📱 | 3.5-mm jack input for connecting a line level player, for example an MP3 player or mobile phone
12	*[LINE IN]* | Volume control for the 📱 input
13	*[MASTER]* | Control for the master volume of the device
14	*[ON / OFF]* | On/off switch for the compressor function

15	*[COMP.]* | Control for the intensity of the compressor function. The use of this function yields more saturated low frequencies, reduces signal peaks from hard string attack and increases the sustain of the notes, i.e. the long lingering of single notes.
16	*[MUTE]* | Switch for muting the device
17	*[INPUT]* | Control for the preamp volume. If the *[POWER / CLIP]* LED lights up red, this control must be turned back until the LED turns green again. If some individual frequency bands have subsequently been raised through tone control, readjustment of the *[INPUT]* control may be necessary.
18	*[HIGH / LOW]* | Switch for the sensitivity and impedance of the *[INPUT]*. If passive instruments are in use, this switch should be in the *[HIGH]* position, otherwise the input level will not be sufficient to fully drive the amplifier. If active instruments are in use, this switch should be in the *[LOW]* position, otherwise clipping and thus a pre-stage overload can easily occur, resulting in highly disruptive distortions.
19	*[INPUT]* | 6.35-mm jack socket for connecting an electric bass

Back


20
21
22
23
24
SEND
RETURN
POWER
OUTPUTS
MIN. LOAD 4 OHMS
100-240V~ 50/60Hz
FUSE T6.35AL 250V
21
25

20	Housing fan
21	*[OUTPUTS]* | 2 × speaker outputs (Speaker Twist) for connecting suitable speakers. The total impedance of the connected load must not fall below 4 Ω.
22	*[SEND]* | 6.35-mm jack socket of the serial effects loop for connecting sound processors such as compressors etc. The connection can also be used as a line output, since the internal signal path is interrupted only by plugging a plug into the *[RETURN]* input. The SEND signal is tapped after tone control.
23	*[RETURN]* | 6.35-mm jack socket of the effects loop for returning the processed signal
24	*[POWER]* | Rubber panel plug for connecting the power cable with fuse holder
25	Mains switch. Turns the device on and off.

6 Technical specifications

Amplifier class	Class-D ICE	
Input impedance	*[INPUT]*	HIGH: 1.5 MΩ LOW: 33 kΩ
	[RETURN]	22 kΩ
	[LINE]	22 kΩ
Output impedance	*[SEND]*	22 kΩ
	[D.I.]	420 Ω
Output power (RMS)	800 W at 4 Ω	
Input connections	Power supply	Rubber panel plug C14
	Instrument	1 × 6.35-mm jack socket
	Effects loop	1 × 6.35-mm jack socket
	Line	1 × 3.5 mm jack socket
Output connections	Speakers	2 × Speaker Twist
	Effects loop	1 × 6.35-mm jack socket
	Direct Out	1 × XLR panel plug, 3-pin

	Headphones	1 × 3.5 mm jack socket
	Tuner	1 × 6.35-mm jack socket
Tone control	Bass	100 Hz, ± 12 dB
	Lower mids	400 Hz, ± 12 dB
	Upper mids	1.6 kHz, ± 12 dB
	Treble	7 kHz, ± 12 dB
Signal-to-noise ratio	> 80 dB (A-weighted)	
Distortion	< 0.5%	
Power consumption	max. 1400 W	
Supply voltage	100 - 240 V ~ 50/60 Hz	
Fuse	5 mm × 20 mm, 6.3 A, 250 V, slow blow	
Dimensions (W × H × D)	240 mm × 88 mm × 240 mm	
Weight	2.9 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	20%…80% (non-condensing)

Further information

Equalizer	4-band
Limiter	No
External effects loop	Yes
Headphone connection	Yes
Tuner out	Yes
Compressor	Yes
Effects processor	No
DI output	Yes
Rack format	No
Matching bag	Item no. 194575

7 Plug and pin assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

1/4" TS phone plug (mono, unbalanced)

1	Signal
2	Ground, shielding

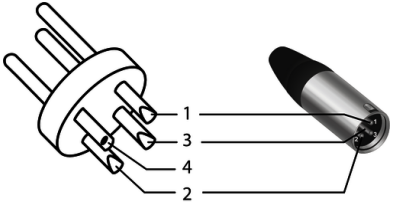
1/4" TRS phone plug (mono, balanced)

1	Signal (in phase, +)
2	Signal (out of phase, –)
3	Ground

Three-pole 1/8" mini phone jack (stereo, unbalanced)

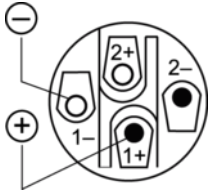
1	Signal (left)
2	Signal (right)
3	Ground, shielding

XLR plug (balanced)



1	Ground, shielding
2	Signal (in phase, +)
3	Signal (out of phase, –)
4	Shielding on plug housing (option)

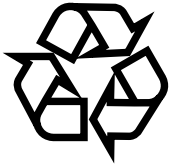
Speaker Twist connector



1+	Signal 1 (in phase)
1–	Signal 1 (out of phase)

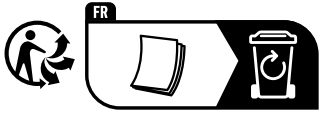
8 Protecting the environment

Disposal of the packing material



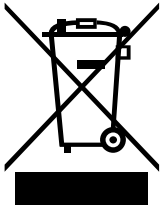
Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.



Observe the disposal note regarding documentation in France.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. If in doubt, consult your local waste management facility. You can also return the device to a retailer if they offer to take the device back for free or if they are legally obliged to do so. When disposing of the device, comply with the rules and regulations that apply in your country. You can also return your old device to Thomann GmbH at no charge. Check the current conditions on *www.thomann.de*.

Proper disposal protects the environment as well as the health of your fellow human beings. This is because the proper handling of old devices negates the potential negative effects of hazardous substances, and because it conserves resources by recycling them.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

If your old device contains personal data, delete those data before disposing of it.