

BH250 BG250-208

English Manual



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Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this device near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. 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 device. When a cart is used, use caution when moving the cart/device combination to avoid injury from tip-over.
13. Unplug this device during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the device 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 device, the device has been

Important safety instructions

exposed to rain or moisture, does not operate normally, or has been dropped.

Warning

- To reduce the risk of fire or electrical shock, do not expose this device to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the device.
- This device must be earthed.
- Use a three wire grounding type line cord like the one supplied with the product.
- Be advised that different operating voltages require the use of different types of line cord and attachment plugs.
- Check the voltage in your area and use the correct type. Please refer to the following table:

Voltage	Line plug according to standard
110-125 V	UL817 and CSA C22.2 no 42.

Voltage	Line plug according to standard
220-230 V	CEE 7 page VII, SR section 107-2-D1/ IEC 83 page C4.
240 V	BS 1363 of 1984. Specification for 13A fused plugs and switched and unswitched socket outlets.

- This device should be installed near the socket outlet and disconnection of the device should be easily accessible.
- To completely disconnect from AC mains, disconnect the power supply cord from the AC receptacle.
- The mains plug of the power supply shall remain readily operable.
- Do not install this device in a confined space.
- Do not open the device – risk of electric shock inside.

Service

- There are no user-serviceable parts in this device.
- All service must be performed by qualified personnel.

Caution

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

EMC/EMI

This equipment has been tested and found to comply with the limits for a Class B Digital device, pursuant to part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. How-

ever, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

About this manual

This manual will help you learn understanding and operating your TC product. It is available in print and as a PDF download from the TC Electronic website.

Please read this manual in full, or you may miss important information.

Please do not operate your TC device before you have made all connections to external equipment as described in the “Setting up” section. In the subsequent sections of the manual, we assume that all connections are made correctly and that you are familiar with the previous sections.

We reserve the rights to change the contents of this manual at any time.

To download the most current version of this manual, view the product warranty, and access the growing FAQ database for this product, visit the web page

www.tcelectronic.com/support/

Introduction

Good things often come in small packages.

Thank you for purchasing a BH250 or BG250-208. Now let's see what we got here...

- Powerful? *Check!*
- Rich on features? *Check!*
- Lightweight? *Check!*

So... What else do you need?

BH250 vs. BG250-208

If you have purchased a **BG250-208**, you only need your instrument, a cable, and you're good to go. This is a portable, lightweight bass combo that will be your best mate in rehearsal rooms and on stage, in the studio or wherever you feel like playing.

If you purchased a **BH250**, this is where the fun begins! Combine this micro bass head with one or more speaker cabinets, and you have a flexible bass rig featuring extraordinary and super-inspiring technology.

From here on, we will refer to both products as BH250/BG250-208, because the amp technology is the same.

More than meets the eye

There's a lot of clever technology under the hood of BH250/BG250-208, but that doesn't mean it's hard to use. Use the Bass, Middle and Treble controls as you would with every other amp – but know that great attention and effort was put into the way these controls affect your sound. Different frequency areas are affected when boosting and cutting to make it feel “just right”. There's a tuner for 4, 5 and 6-string basses, a balanced output with a Pre/Post EQ switch, a headphones out and a rehearsal (“aux”) input for a stereo source to play along with...

This may already be more than you would expect from a bass head/combo... but why not expect even more?

Let's talk TonePrints.

TonePrint

OK – TonePrints. What are they?

BH250/BG250-208 is born with a beautiful chorus effect under the hood, and with its TonePrint knob, you can add just the amount you want. But you know what's even better than having a great effect? Being able to choose from *many* great effects! This is what TonePrint is about.

Bass TonePrints are signature effects made by some of the world's greatest bass players. On top of that, product specialists at TC Electronic have also contributed TonePrints that will suit any music genre.

A TonePrint is an effect that has been fine-tuned to give you the perfect balance between ease of use and an inspiring sound.

From TC Electronic's website, you can download and try out chorus, flanger, vibrato, octaver, drive or compressor TonePrints. And of course, all these effects are specially tuned for bass.

More TonePrints – created by some of the world's best bass players and sound aficionados – are added all the time. Last but not least – **TonePrints are free.** This is your personal effect library that will never charge late fees.

Transferring TonePrints to your device

There are two ways of transferring TonePrints to your TonePrint-enabled TC device.

1. If you have a smartphone, download the free TonePrint app from TC's website. Once downloaded and installed, this app allows you to choose from the complete TonePrint library.
 - To transfer a TonePrint to your device, connect your instrument to your TC device using a regular jack-jack cable, launch the app on your smartphone and follow on-screen instructions. Transferring a TonePrint this way only takes a few seconds.
2. You can also use your computer to download TonePrints from tcelectronic.com/bh250/tonerprints/
 - Connect your computer to your TonePrint-enabled TC device using a USB cable.
 - Once you have downloaded a TonePrint, open the downloaded file on your computer and follow on-screen instructions.

Please note that your TC device has two TonePrint slots. Select the TonePrint slot where you want to store a TonePrint before transferring the new TonePrint.

Switching between TonePrint slots is described on page [11](#).

Once a TonePrint has been transferred to your TC device, it will remain in memory, even when you switch the device off.

Now, plug in your bass and enjoy the BH250/BG250-208. We know you will!

Quick Setup Guide

If you just can't wait...

Here are a few quick steps to get you playing within minutes.

Unpacking

- Unpack your BH250/BG250-208. The box should contain the following items:
 - **BH250 bass head or BG250-208 bass combo**
 - Power cable
 - Mini jack to mini jack cable
 - USB cable
 - Manual
 - Switch-3 sticker
- Inspect all items for signs of transit damage. In the unlikely event of this having occurred, inform the carrier and supplier.

- Keep all the packaging if damage has occurred, as this will show evidence of excessive handling force.
- It is also a good idea to keep the packaging for future transportation.

Setting up

- If you have purchased a **BH250** bass head, connect the Speaker Out jack on the BH250's rear panel to a cabinet or combination of cabinets with a minimum impedance of 4 Ohms.
- Connect the power cable to an outlet with correct voltage. This device accepts voltages from 100 to 240 VAC.
- Connect your bass to the INPUT jack on the front panel.
- Select Active or Passive pickup type using the GAIN selector.
- Adjust the output volume using the MASTER knob.
- **PLAY!**

Operation – Front Panel

This section describes the BH250/BG250-208's front panel ports and controls.



1. INPUT

You can connect an active or passive bass to this ¼" input jack. The BH250/BG250-208 input stage is designed to adapt to any type of pickup.

2. GAIN switch

Set the position of the GAIN switch according to the pickups in your bass. Active pickups typically have a higher output than passive pickups, and you should set the GAIN switch accordingly. If your bass pickups requires a 9V battery, your pickups are active – if not, they are passive.

3. DYNAMIC TONE CONTOURING FILTER SECTION

The Dynamic Tone Contouring Filter Section of your BH250/BG250-208 is not your standard bass amp EQ! Ordinary bass, middle and treble controls boost or cut the same frequency area when you turn the controls clockwise or counterclockwise. The tone controls of your BH250/BG250-208's intelligently address several

different frequencies when you turn them, integrating not only tone control but also contouring your sound.

By adapting one or more target frequencies and bandwidths at the turn of a single knob, the Dynamic Tone Contouring Filter Section combines excellent tone shaping abilities with ease of use.

4. TONEPRINT knob

TonePrints are described on page 6 of this manual. If you are not familiar with the concept, please read this section first. You can also find additional information and videos about TonePrint technology on TC's website.

The TonePrint knob allows you to control the TonePrint effect amount applied to your signal. For Chorus, Flanger, Vibrato and Octaver, the TonePrint knob acts as a **wet/dry mix control**. For Compression and Drive, the TonePrint knob acts as an **amount (intensity) control**. Featured TonePrint artists may have assigned the TonePrint knob to other parameters.

Switching TonePrint slots

BH250/BG250-208 can store two independent TonePrints. To switch between these TonePrints, connect an optional TC Switch-3 pedal to the PEDAL jack on the rear panel.

Please note that when you switch from one TonePrint slot to the other, the current position and parameter value of the TonePrint knob is stored. This means that when you return to the previously selected TonePrint, the position of the TonePrint knob on the front panel and the setting of the parameter may not be in sync, so be careful when adjusting it.

5. TONEPRINT LED

The TONEPRINT LED lights up when the TonePrint effect is active. To deactivate TonePrint, turn the knob fully counterclockwise or use a Switch-3 footswitch connected to the PEDAL jack on the rear panel.

6. TUNER

The BH250/BG250-208 tuner allows you to easily tune a 4, 5 or 6-string bass.

The tuner is always active.

The E, A, D and G LEDs indicate which strings you are currently tuning. When the E *and* A LEDs are lit, you are tuning the B string. When the D *and* G LEDs are lit, you are tuning the C string. The string is in perfect tune when both green LEDs to the right of the string LEDs are lit.

7. MUTE switch

To tune you instrument silently, set the MUTE switch to “Mute” (bottom position).

The MUTE switch mutes the balanced output as well as the speaker and headphones outputs, allowing you to tune up with no sound going though your own rig or into

the PA (provided, of course, that you use the balanced output instead of a conventional line-driver).

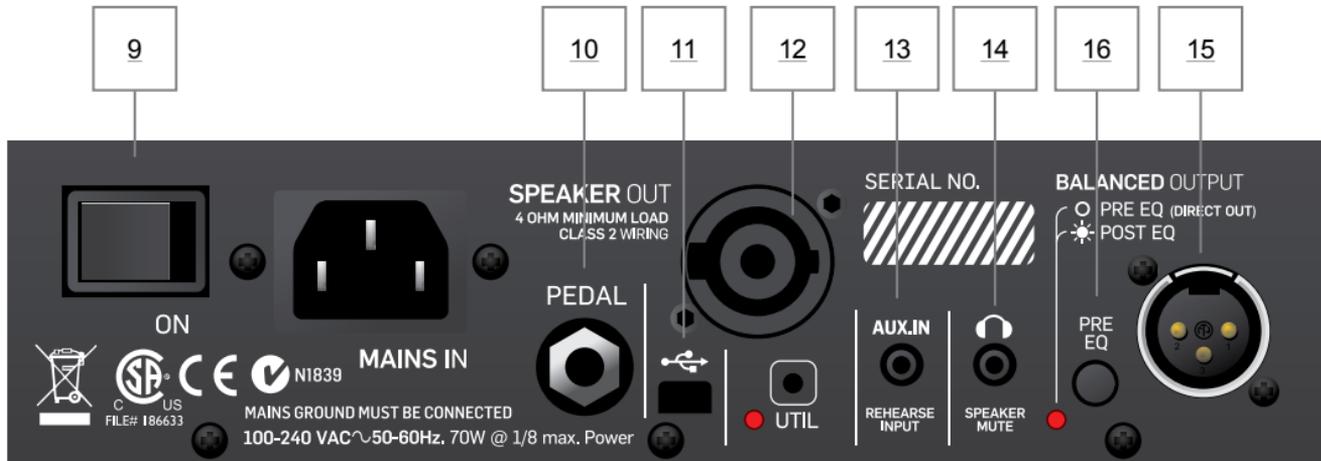
When you have connected a Switch-3 to the PEDAL jack on the BH250/BG250-208, you can tap its third switch to mute or unmute. **Switch-3 overrides the Mute switch on the device.**

8. MASTER level knob

Use the MASTER knob to set the overall output level of the amp. The MASTER knob also controls the level of the headphone output.

Operation – Rear Panel

This section describes the BH250/BG250-208's rear panel controls and ports.



9. MAINS IN – Power switch & Power input

The switched-mode power supply of this device accepts voltages from 100V to 240V. The ground pin of the power supply unit must always be connected in order to avoid voltage differences between e.g. the PA and the BH250/BG250-208.

10. PEDAL input

You can connect a TC Electronic Switch-3 to the PEDAL input of your BH250/BG250-208 to control the following features:

- Activate TonePrint A
- Activate TonePrint B
- Mute

11. USB port

To transfer a downloaded TonePrint from your computer to your TC device, connect the computer and your TC device using a USB cable. A USB connection can

also be used to update the internal software (firmware) of the TC device.

12. SPEAKER OUT

Use the SPEAKER OUT connector for connecting BH250 to speaker cabinets. Please note that this is a speakON connector, and you must use speaker cables. **Do not use instrument cables!**

Use a cabinet configuration with your BH250 with a minimum load of 4 Ohms. Examples:

- 2x8 Ohm (in parallel)
- 1x4 Ohm.

13. AUX IN

The AUX IN is a stereo auxiliary input. Any signal present on the AUX IN jack is played back through all BH250/BG250-208 outputs. This allows you to play along with a rehearsal track, or you can practice to the beat of a metronome click. The included “mini jack to mini jack cable” allows you to use an iPod®, iPhone®

or any other consumer playback device as a source for rehearsing.

14. PHONES (Speaker Mute)

The PHONES jack is a 1/8" connector for headphones. With a mild speaker filter applied to the bass sound, our studio quality headphone amp caters for a great headphone sound. The headphone output also plays back any signal connected to the AUX IN input jack. This feature allows you to play along with an audio player, a signal from a computer or any other audio source playing background tracks. This feature is excellent for rehearsing or checking out new tracks without disturbing the neighbors.

15. BALANCED OUTPUT

Use the BALANCED OUT XLR jack to connect the BH250/BG250-208 to the PA when you play on stage, or to connect your amp to a recording device when you are in the studio.

16. PRE/POST EQ button

Use the PRE/POST button located to the left side of the BALANCED OUT jack to determine where in the signal chain the signal for the balanced output should be tapped.

- PRE setting: The signal is tapped before the EQ and TONEPRINT effect.
- POST setting: The signal is tapped after EQ and TONEPRINT effect.

Protection mode

This product is equipped with an advanced protection system for both the amplifier's and your own safety. These protection features should only kick in if you operate this product under extreme conditions.

Be sure not to cover the BH250/BG250-208 cooling grid! Insufficient ventilation may cause the amplifier's temperature to increase to critical values.

The BH250/BG250-208 is equipped with an intelligent protection system, ensuring that the amp does not suffer or malfunction if operated wrongly or in extreme environments. When the amplifier switches to Protection mode, the speaker output is muted, and the TUNER LEDs start flashing in pairs of two.

Protection mode is invoked...

- if a short circuit occurs (on speaker outputs).
- if the amplifier is used in an environment that is too hot.
- if proper ventilation is not ensured.
- if the combined impedance of the internal speaker and an attached speaker is below 4 Ohms.

In Protection mode, the speaker outputs are shut off to prevent speaker damage. However, the balanced output still passes audio.

How to proceed in Protection mode

- If the amplifier does not automatically recover from Protection mode and feels hot, try turning off the amplifier for a minute to let it cool. Ensure sufficient ventilation.
- Ensure that your speaker cable is not defect, as such a defect could cause a short circuit.
- Turn on the amplifier again.

If these steps do not solve the problem and the Tuner LEDs continue flashing, you will have to send the amplifier to a qualified service center for inspection.

Technical Specifications

Input	
Input connector	1/4" jack
Input impedance	500 kOhm / 100 pF
Gain range	-96 to 36 dB
Tone control	
Bass – BH250 & BG250-208	80 Hz @ Gain -24 to 0 dB; 100 Hz @ Gain 0 to +15 dB
Mid – BH250 & BG250-208	500 Hz @ Gain -24 to 0 dB; 800 Hz @ Gain 0 to +15 dB
Treble / Tweeter-Tone – BH250	1800 Hz @ Gain -24 to 0 dB; 5000 Hz @ Gain 0 to +15 dB
Treble / Tweeter-Tone – BG250-208	1400 Hz @ Gain -24 to 0 dB; 2500 Hz @ Gain 0 to +15 dB
TonePrint	2 TonePrint slots
Tuner	Bass Tuner, always on

Tuning range	B0 (30.87 Hz) to G4 (392.00 Hz)
Mute	Mutes speaker out, Phones out and Balanced out
Master Level / Headphones Out	Studio quality headphone amp
HP Out Imp.	40 to 600 Ohm
Mains supply	100-240 V~ 50/60 Hz (70 W @ 1/8 of Max. Output)
Power module rating	250 W (500 W instantaneous Peak @ min. Load)
Speaker output	Neutrik speakON™
Balanced output	Balanced XLR, Pre/Post Pre-amp
Bal. Out Max.	+2 dBu
Bal. Out Optimal Load Impedance	600 Ohm
Rehearsal input	1/8" jack input, fits to iPod®
Humidity	Max. 90 % non-condensing

Dimensions BH250	220 x 63 x 231 mm / 8.7" x 2.5" x 9.1"
Dimensions BG250-208	292 x 320 x 465 mm / 11.5" x 12.6" x 18.3"
Weight BH250	1.8 kg / 3.97 lbs
Weight BG250-208	11.75 kg 25.90 lbs
Speaker Impedance BG250-208	8 Ohm
Finish	Brushed and anodized aluminum front plate/ Metal chassis

Due to continuous development, these specifications are subject to change without notice.

Links

- TC Electronic Bass Products:
tcelectronic.com/bass/
- TonePrint Bass:
tcelectronic.com/toneprint/toneprint-bass/
- TC Support:
tcelectronic.com/support
- TC @ Facebook:
facebook.com/tcelectronic

