

# BG250




## USER'S MANUAL



# IMPORTANT SAFETY INSTRUCTIONS



- 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.
- 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 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.

## Warning!

- To reduce the risk of fire or electrical shock, do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
- This apparatus 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
110-125V	UL817 and CSA C22.2 no 42.
220-230V	CEE 7 page VII, SR section 107-2-D1/IEC 83 page C4.
240V	BS 1363 of 1984. Specification for 13A fused plugs and switched and unswitched socket outlets.

- This equipment 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 in a confined space.
- Do not open the unit – risk of electric shock inside.

## Caution:

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

## Service

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

# EMC/EMI

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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. However, 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.

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# INTRODUCTION

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## **Congratulations on the purchase of your new BG250 bass combo**

Powerful, check! Filled with features, check! Lightweight, check! What else do you need? How about extraordinary and super-inspiring technology?

Simple to use but not simple at all. It just looks and feels simple and easy to use every time you plug in. Use the Bass, Middle and Treble, as you would on every other amp, but know that great attention and effort is behind the actual behavior of these controls. Different frequency areas are affected when boosting and attenuating to make it feel 'just right'.

Tuner for 5 string basses, Balanced Out with Pre/Post EQ selector, Tubedrive recreation of the warm tube sound, Headphones Out and Rehearsal Input for a stereo source such as an iPod, is most likely more than you would expect, but why not expect more?

TonePrints® for your bass amp. What is it?

BG250 is born with a Chorus effect under the hood and with the TonePrint knob you can add just the amount you want. But Chorus is just the default effect! From TC Electronic's website you can download and try out a Flanger, Vibrato, Drive or Compressor. Of course, all effects are specially tuned for bass. But that's not all...! We had some of the best bass players in the world tailor their own personal effect tones for you to grab. TonePrints are uploaded to the amplifier using either a USB cable and a computer or via the amazing TonePrint App for most smartphones.

Now, plug in and enjoy the BG250. We know you will!

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Please note: We reserve the rights to change the contents of this manual at any time. The latest manual revision can always be downloaded from [www.tcelectronic.com](http://www.tcelectronic.com). If you need additional information and support, be sure to visit TC Support Interactive – this service can also be accessed via [www.tcelectronic.com](http://www.tcelectronic.com)



## If you just can't wait...

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

### Unpacking

- Unpack your BG250 amp.
- The box should contain the following items:
  - BG250 amplifier
  - Power Cable
  - Mini jack to mini jack cable
  - USB cable
  - Manual
- 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

- Connect the power cable to an outlet with correct voltage. This amplifier accepts from 100 to 240 VAC.
- Connect your bass to the input jack on the front panel.
- Adjust the input gain using the GAIN knob.
- Adjust the output volume using the MASTER knob.
- **Play!**

Be sure to check [www.tcelectronic.com](http://www.tcelectronic.com) for latest news about BG250 Combo and other TC products.

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## OPERATION – FRONT PANEL



### 1 – INPUT

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

### 2 – GAIN & PEAK LED

The input gain should be set to the highest possible level without overloading the input stage. To find the correct setting, simply plug in your bass, play and turn up the GAIN knob until the PEAK LED occasionally lights up. Then reduce the gain slightly. When set, simply turn up the MASTER volume knob to start playing.

### 3/4/5 – TONE Controls

The BG250 Bass, Middle and Treble controls are not your standard Bass amp EQ. Standard tone controls boost or cut the same frequency area when you turn the controls clockwise or

counter-clockwise. BG250's tone controls intelligently address several different frequencies when you turn them. In essence, they not only provide tone control, but also contouring as well as TC's unique TweeterTone technology.

By adapting one or more target frequencies and bandwidths at the turn of a single knob, BG250's contouring tone controls combine optimal tone shaping abilities with ease of use.

### 6 – TUBEDRIVE

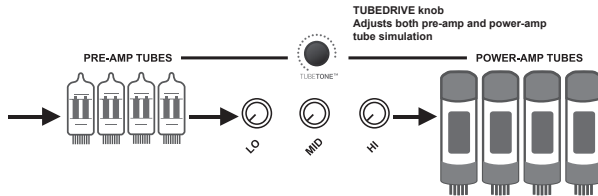
Most transistor designs have tried to replicate the tube sound using a single small pre-amp tube. Generally, they fail as they don't take into account the crucial characteristics of the full pre-amp and power amp sections – both of which are essential to the sound.

Tubedrive allows you to alter the "personality" and sound of your BG250 Combo. The effects you can achieve range from a small touch of classic tube amp response and character through



# OPERATION – FRONT PANEL

obvious, but pleasant “tube attitude” to highly overdriven. Contrary to many tube simulations, Tubedrive recreates both the entire preamp section (located before the tone control section) and the power amp section (located after the tone controls). Not only does this give you the most realistic and flexible recreation of the actual tube sound and response, the BG250 Combo tone controls also allow you to alter the behavior and character of Tubedrive the way you would on an actual tube amp.



*The TUBEDRIVE knob adjusts the amount of both the preamp and the power-amp tube simulation.*

## 7 – TUBEDRIVE ON/OFF

Activates/deactivates the Tubedrive feature. Tubedrive on/off can also be controlled using a TC Electronic SWITCH 3 connected to PEDAL.

## 8 – TONEPRINT

Download unique TonePrints from your favorite artist via TC Electronic’s website and follow the instructions to upload them to BG250.

## 9 – TONEPRINT ON/OFF

Activates/deactivates the current TonePrint effects. TonePrint on/off can also be controlled using a TC Electronic SWITCH 3 connected to PEDAL.

## 10 – MASTER (Volume)

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

## PEDAL input

Connect a TC Electronic SWITCH 3 (optional) and activate/deactivate Tubedrive, Tuner mute and TonePrint.

## SWITCH-3



Switch 1 - Mute  
Switch 2 - TubeDrive on/off  
Switch 3 - TonePrint on/off

## OPERATION – FRONT PANEL

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### 12 – USB IN

Connection for computer for TonePrint upload and software updates.

### 13 – TUNE MUTE Button and LED

To tune silently, press the MUTE button. The red LED indicates that the mute function is active. The MUTE button not only mutes the speaker and headphones outputs, but also the balanced output. This way you can tune up with no sound going to your own rig or to the PA.

### 14 – AUX IN (REHEARSE)

The AUX IN is a stereo auxiliary input. Any signal present on the AUX IN phone jacks is played back through the PHONES output. This allows you to play along with a rehearsal track when checking out new stuff or when practicing 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.

### 15 – PHONES (MUTING)

This 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 (“Rehearsal Input”) input jack found on the front panel of the BG250 Combo. This feature allows you to play along with e.g. an MP3 player (e.g. an iPod®), a signal from a

computer sound-card or any other audio source playing background tracks – this is excellent for rehearsing or checking out new tracks without disturbing the neighbors.

The headphone volume is controlled by the MASTER level knob. When a set of headphones is connected to the PHONES jack, the BG250 Combo’s speaker is disabled. This is a very convenient feature when you need a “silent mode”, e.g. at night.

### 16 – BALANCED OUT

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

To determine where in the signal chain the signal for the balanced output should be tapped, use the PRE/POST switch located right beside the BALANCED OUT jack.



The BG250 Combo’s MUTE button mutes the Balanced output (as well as the internal speaker and headphones outputs). This means that you can tune up with no sound in your own rig or in the PA – provided, of course, that you use the BG250 Combo’s balanced output to feed the PA instead of running your bass through conventional line-driver.

### 17 – PRE/POST SWITCH

This switch determines whether the balanced line-driver output provides the pre- or post-processed signal.

## OPERATION – REAR PANEL

### 18 – TUNING INDICATION

The BG250 tuner allows you to easily tune a 4 or 5 string bass. B, E, A, D and G LEDs indicate which of the strings you are tuning. The string is in perfect tune when both of the two green LEDs are lit.

### 19 – POWER LED

This LED indicates when power is on.



### MAINS IN – Power Input & POWER Switch

The switch-mode power supply accepts voltage from 100V to 240V



The ground pin of the power supply unit must be connected in order to avoid voltage differences between e.g. the PA and the BG250 Combo.

## MISCELLANEOUS

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

### Ventilation

#### ***Be sure not to cover the BG250 cooling grid!***

Insufficient ventilation may cause the amplifier's temperature to increase to critical values.

### Protection Modes

The BG250 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 can be invoked:**

- if a short circuit situation occurs (on speaker outputs)
- if the amplifier is used in an environment that is too hot
- if proper ventilation is not ensured

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

#### **How to proceed if you experience 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.
- Turn on the amplifier again.

If these steps doesn't solve the problem and the Tuners LED's continue to flash, you will have to send the BG250 to a qualified service center for inspection.

# APPENDIX – TECHNICAL SPECIFICATIONS

## Input

Input connector	1/4" jack	Balanced output	Balanced XLR, Pre/Post Pre-amp
Input impedance	500 kOhm / 100pF	Bal. Out Max.	+2dBu
Gain range	-96 to 36dB	Bal. Out Optimal Load Impedance	600 Ohm
<b>Tone control</b>		Rehearsal input	1/8" jack input, fits to iPod ®
Bass	80Hz @ Gain: -24 to 0dB; 100Hz @ Gain 0 to +15dB	Humidity	Max. 90 % non-condensing
Mid	500Hz @ Gain: -24 to 0dB; 800Hz @ Gain 0 to +15dB & 0 to -12dB	Dimensions	462 x 620 x 380 mm / 18.2" x 24.4" x 15.0"
Treble / Tweeter Tone	Center Freq.: 1800Hz @ Gain: -24 to 0dB; 3150Hz @ Gain 0 to +15dB	Weight	15.8 kg / 34.8 pounds
Tubedrive	0 to 10, Tube amp Recreation	Finish	Tolex covered. Handcrafted plywood box
Tone Print	0 to 10 embedded parameters for TonePrints	Porting	Front porting
Tuner	Bass Tuner, always on	Woofer	TC Electronic custom 15"
Tuning range	B0 (30.87Hz) to G4 (392.00Hz)	Tweeter	TC Electronic custom Piezo
Mute	Mutes speaker out, Phones out and Balanced out		
Master Level / Headphones Output	Studio quality headphone amp		
HP Out Impedance	40 to 600 Ohm		
Mains supply	100 - 240V~ 50/60Hz (70W @ 1/8 of Max. Output)		
Power module rating	250w (500w instantaneous Peak @ min. Load)		

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

**tc electronic<sup>®</sup>**