



MANUAL

# T 1000



**EICH**  
AMPLIFICATION

**IMPORTANT SAFETY INSTRUCTIONS**

The apparatus shall not be exposed to dripping or splashing and that no objects with liquids, such as vases, shall be placed on the apparatus. The MAINS plug is used as the disconnect device, the disconnect device shall remain readily operable.

Warning: the user shall not place this apparatus in the area during the operation so that the mains switch can be easily accessible.

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not block any of the 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 is 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 plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a 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 tipover.
13. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tipover.
14. Unplug this apparatus during lightning storms or when unused for long periods of time.
15. 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.

**CAUTION:** Use of controls or adjustments or performance of procedures other than those may result in hazardous radiation exposure.

**WARNING:** To reduce the risk of FIRE or electric shock, do not expose this apparatus to rain or moisture.

**CAUTION:** RISK OF ELECTRIC SHOCK DO NOT OPEN  
**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Congratulations! You are now the proud owner of a EICH T 1000 bass amplifier. This manual will help you get to learn all the useful and exciting features of one of the best amplifiers in the world.

The new EICH T 1000 is extremely small in size but very big in sound. Composed of only the finest materials this compact sound machine covers a broad frequency range and impresses with a powerful punch.

Exclusive features and our new ultra-flat premium input stage set new standards in this amplifier class. The very effective tone controls suit all musical styles. The amps of the T 1000 series boast a four-band tone control section which lets you easily dial any sound you want. The TASTE control emphasizes the tonal characteristics of the individual instrument. Set to the centre, the control has no effect on the signal. Turn it counter-clockwise to filter out some ultra-low frequencies and at the same time enhance a pronounced mid range. This is the ultimate fretless tone. Turn it clockwise to soften the high end which leads to a pumping bass sound.

Additional features like an effects loop, Tuner Out, Line Out, Line In, two Speakon® outputs and a DI out with Pre/Post switch prove that the T 1000 amps are extremely versatile devices. T 1000 amps are ideal for travelling around the world due to their voltage switch which allows them to be operated at 230 and 115 volts.

The result is an impressive live performance with an unbeatable power-to-weight ratio.

The meticulous quality control during all stages of production guarantees failsafe performance. Using only the best components available the unique circuit design and the professional workmanship make the T 1000 today's state-of-the-art in top-of-the-line bass amp manufacturing.



CE Declaration of Conformity  
**T 1000 Bassamp**

We declare under our sole responsibility that this product is in conformity with the following standards or standardization documents in attention of operation conditions and installation arrangements according to operating manual:  
 EN 61000-3-2, EN 61000-3-3, EN 55013, EN 55020, EN 55022, EN 60065 according to the provisions of the regulations 89/336/EWG and 73/23/EWG.

## >> FRONT PANEL



### 1 INPUT

Plug in your shielded instrument cable into this jack. We advise you to always turn down the volume control on your instrument before plugging it into this jack.

### 2 -10

When using a bass guitar with active pickups or basically delivering relatively high output levels we advise you to use this function. When this switch is engaged the signal will be attenuated by 10 dB before it reaches the »GAIN« and TONE controls. This mode is accompanied by the illuminated push button switch. Attenuation allows the »GAIN« control (#4) to be used in a more subtle way by somehow altering the taper of the pot – the »GAIN« control can be brought up to a higher position now. If, on the other hand, the »GAIN« control must be turned all the way up without reaching a satisfying gain range,

you better deactivate the »-10 dB« switch.

### 3 CLIP

The red »CLIP« LED helps you adjust the input sensitivity of the T 1000 preamp so that the signal from your instrument best matches the preamp's internal operating level. Turn up the »GAIN« control (#4) while you hit the strings of your bass hard until the »CLIP« LED starts flashing. Now back up the »GAIN« control a bit until the LED goes off. The flashing »CLIP« LED tells you that the input stage of the preamp is clipping somewhere and that you should either turn down the »GAIN« control (#4) or engage the »-10« function (#2). Keep in mind that excessive use of the »LO« control (#9) and »BASS BOOST« (#8) will raise the internal level and thus make the »CLIP« LED come on much earlier.

### 4 GAIN

This control adjusts the basic signal level in the preamp and thus determines its sensitivity and overall dynamic characteristics. In order to best adjust your instrument's signal level to the internal operating level of the T 1000 watch the »CLIP« LED (#3). Set the »GAIN« and/or the »-10 dB« function (#2) that the »CLIP« LED just doesn't come up.

***Do not leave the volume control on your instrument set too low, otherwise noise picked up along the cable will become more prominent and thus lower the signal-to noise ratio of the amp.***

### 5 TASTE

This unique feature adds to the superiority of the T 1000's tonal qualities. Leave the control in the centre position if you seek a more "natural" sound. When turned

to the right (clockwise) towards »RICH« the sound gets increasingly fatter with lots of low-end punch, ending in a warm, vintage-like tone. When turned to the left (counter clockwise) towards »DRY« this control adds urgent attack and midrange growl.

***The »TASTE« control allows you to quickly and effectively soften those instruments which sound a little harsh and scathing. At the same time bass guitars with a muddy, booming neck pickup gain definition by turning the »TASTE« control towards the »DRY« position.***

### 6 ATTACK TIME

This switch allows you to alter the attack time of the included high-end »COMPRESSOR« (#7). When the switch is not engaged the attack time is short which means that the signal is compressed immediately – great for fretless sounds. When you depress the switch, which is accompanied by the illuminated push button switch, the attack time is longer. Now the transients of the signal (the very first moments of a note) pass the circuit unprocessed resulting in a hot, lively bass sound – great for rock and funk sounds.

### 7 COMPRESSOR

The »COMPRESSOR« of the T 1000 gently pulls up low notes, thus providing a great, even sustain. The more you turn up the »COMPRESSOR« (to the right, i.e. clockwise), the more audible is the compression effect. The level reduction usually associated with compression is made up by an internal automatic gain control. No matter how much compression you apply the signal level will always stay the same. In order to use the compressor conveniently and effectively adjusting the input sensitivity (refer to #1 through #4) is of crucial importance.

## >> FRONT PANEL



### 8 BASS BOOST

This switch, when engaged (the push button switch illuminates), boosts the very low frequencies around 30 Hz by 12 dB. This adds a solid ground to the sound similar to a valve amp.

### 9 LO

This is the primary low frequency control. It allows for cutting or boosting the frequency range around 70 Hz by 15 dB each. This frequency range represents the bottom end and massive yet distinguished punch in a bass guitar. Start from the 12 o'clock position and dial in the sound you like.

### 10 LO MID

The »LoMID« control is centred at 250 Hz and offers a cut or boost of 12 dB. The slope of this control is not as

steep as the one of the »LO« control (#9). This frequency range, when turned up, determines the body of the bass guitar signal and lets the bass be heard in a mix. Turn it counter clockwise to reduce unwanted room resonance..

### 11 HI MID

The »HiMID« control is centred at 800 Hz and offers a cut or boost of 12 dB, again with a more gentle slope just like the »LoMID« control (#10). Due to the broader ranges which are covered by these controls the sound never gets booming or honky when you turn them all the way up. Turning up the »HiMID« control gives you a great fretless sound. On the other hand, when you cut the »HiMID« range you end up with a funky slap sound of extremely high quality.

### 12 HI

The »HI« control is centred at 5 kHz and offers a cut or boost of 15 dB. Turn it up for a biting, crystal clear rock or funk bass. Turn it counter clockwise to reduce hiss or generally dampen the sound for a muted reggae feel.

### 13 HI BOOST

Depress this switch and engage a boost of 12 dB at 10 kHz. (the push button switch illuminates). This is your switch if your strings are dead or if you are into a more HiFi-like bass sound with silky top end.

### 14 LINE/EFFECT MIX

Signals connected to the »LINE IN / EFFECTS LOOP RETURN« jack (#29b) and the »AUX IN« (#28) can be added to the dry bass guitar signal according to your likings with this »LINE/EFFECTS MIX« control.

The parallel »EFFECTS LOOP« (#29) is designed for the

connection of one or more effects devices. The »RETURN/ LINE IN« jack (#29b) can also be used to connect various external audio sources to the T 1000 such as an MP3 player, a second bass guitar, or in order to just use the power amp of the T 1000.

The »LINE / EFFECTS MIX« is a balance control adjusting the level of the effects sound as compared to the dry sound of the T 1000 preamp. With the »EFFECTS MIX« control all the way to the left the signal of the external device, i.e. of the »RETURN/LINE IN« jack (#29b), is off. All you hear is the dry bass signal. Turning it up a little will add some effects to your sound. In this position (to the left of the knob's centre position) the effects sound is processed in parallel with the unaffected or dry signal which enables you to preserve the integrity of the premium tone and feel the T 1000 is capable of delivering.

The more you turn the control clockwise, the more prominent will the »RETURN« signal become (i.e. the effect) while at the same time the dry signal will decrease. When the »LINE / EFFECTS MIX« control is turned all the way up to »10« the »EFFECTS LOOP« effectively becomes a serial loop. Now the internal signal path is interrupted (rather than just tapped), sent out to the external device(s) where it gets processed (added with effects, modulated, modified, whatever) and returned to the amplifier as a whole.

### 15 MASTER

This is the overall volume control of the T 1000 and works on the two internal power amp sections. It determines the level at the »SPEAKER OUTPUTS« (#24 - #26) as well as the »LINE OUT« jack (#30).

Note: Each power amp features its individual »VOLUME« control on the back panel (#25a and #26a). Do make sure that they are turned up accordingly.

## >> FRONT PANEL



### 16 MUTE

The »MUTE« switch should be depressed when you power up or down your T 1000 – the push button switch illuminates when the function is engaged. In this mode no audio signal will be processed and heard at any output except the »TUNER« jack (#31). That way you don't have to turn down the volume for silent tuning or when changing instruments, thus you do without the nasty cling which you usually hear when you unplug the jack. The »MUTE« switch also interrupts the signal path at the transformer balanced »DI OUT« (#18), no matter which position the switch »POST« (#17) is in (that way your silent tuning or changing instruments won't be heard in the PA, either).

During breaks the amp should be set to »MUTE« rather than switched off completely. That way the internal fan stays on and cools down the power amp circuitry if ne-

cessary. Disengage the »MUTE« function and start to rumble – now there is signal at all outputs again.

### 17 POST

With this switch the transformer balanced »DI OUT« (#18) can be selected to be a »PRE« or »POST« preamp signal. In the »PRE« position (switch is not depressed) the »DI OUT« signal is tapped directly after the input stage including the »-10 dB« function (#2), if activated, as well as the »GAIN« control (#4). In the »POST« position (switch depressed) the »DI OUT« signal is taken after it has been processed by the complete preamp, i.e. including the »GAIN« control (#4), the tone control section (#8 through #13), and the »EFFECTS LOOP« (#14, #29). It is not affected by the »MASTER« control (#15). As a reference the push button switch will be illuminated when the »DI OUT« is set to »POST«.

»GROUND LIFT« (#18a) into the »LIFT« position.

### 19 FS/MUTE/COMPRESSOR

Connect the optional footswitch for the T1000 to this 6.3 mm stereo jack with the cable which comes included with the footswitch. This will allow you to switch the functions »MUTE« (#16) and »COMPRESSOR« (#7) remotely. For the footswitch to work properly the »MUTE« switch on the front panel of the amp must be »OFF«. There is a red LED indicating that the »MUTE« function is active, and likewise a blue LED for the »COMPRESSOR« function on the footswitch. Even with the footswitch connected the »MUTE« function can still be engaged with the »MUTE« switch on the front panel of the amp (#16).

### 20 POWER

Activating the »POWER SWITCH« will light up the switch and make the EICH logo on the front panel (#21) illuminate.

**Before you turn on the amp do make sure that the »MUTE« switch (#16) is depressed and the voltage is correct (see #23)!**

### 21 EICH Logo

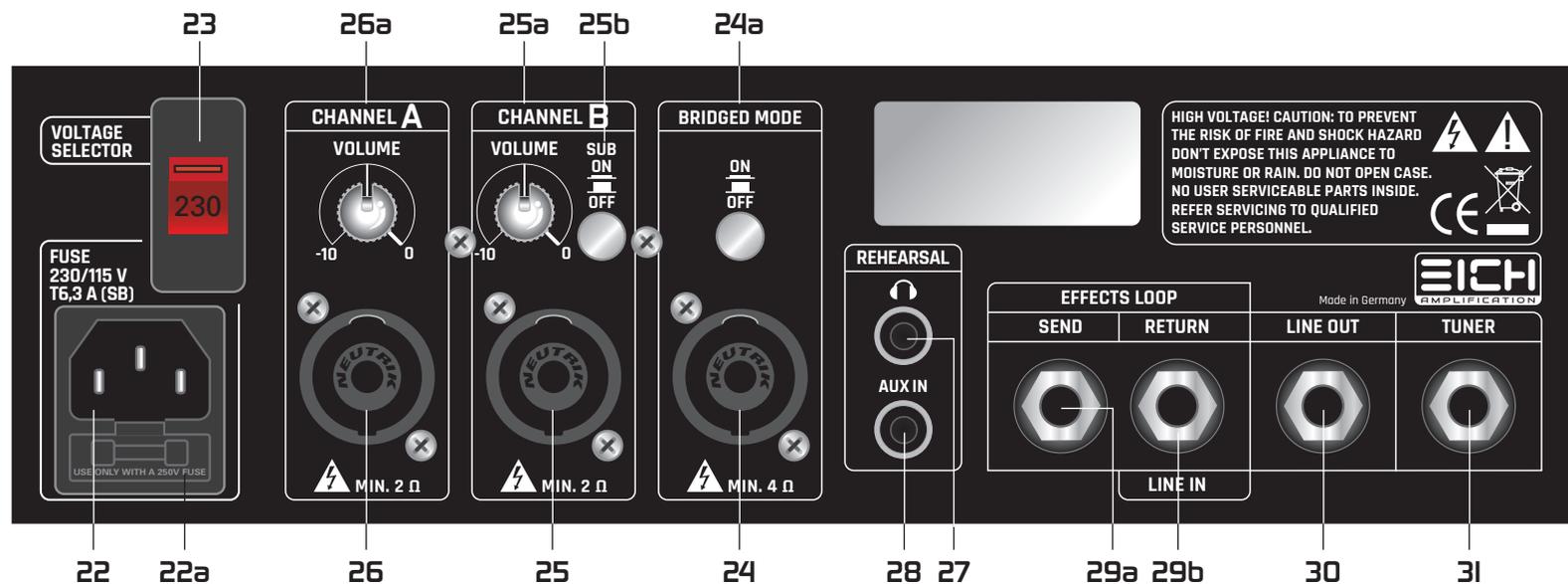
The EICH logo in the centre of the front panel will illuminate blue when the »POWER« switch (#19) is turned on and the included power strip is plugged in.

### 18 DI

T 1000 supplies a balanced line output signal for connecting to a house mixing board, recording console or external amplifier(s) with balanced inputs. Connect a shielded 3-core microphone cable with XLR plugs to this male XLR output. The need for an additional active DI box, which can be pretty expensive, is obsolete. Due to the advanced circuit design using only the best components available the high sound quality of the »DI OUT« makes it the amp of choice in any recording studio (you can use the T 1000's pre amp on its own without driving any speakers). The DI signal can be tapped either before or after the preamp, as determined by the switch »POST« (#17).

### 18a GND/LIFT

There is no need to be afraid of nasty ground loops anymore. In case you will get a ground loop, please switch the



## 22 POWER RECEPTACLE

Connect the supplied AC power cord to the power receptacle. Make sure the Euro plug is firmly inserted in the socket. The other end of the cable should be connected to any standard grounded AC outlet or into a power strip of proper voltage. Before you plug in do make sure that the voltage is correct (see #23)!

Just in case you lose the cord provided, the jack accepts a standard 3-prong IEC cord like those found on most professional gear and computers – you can get it at any electronics, music or computer store.

**Never (!) remove or otherwise attempt to defeat the ground pin of the power cord in order to get rid of a hum induced by a ground loop.**

## 22a POWER FUSE

The T 1000 is fused for your and its own protection. If

you suspect a blown fuse, disconnect the cord, pull out the »FUSE DRAWER« (#22a, located just below the cord receptacle) and replace the fuse with another suitable fuse. There should be a spare fuse in the fuse drawer. For 230 V and 115 V units the fuse for the T 1000 must be a 6,3 A (amps) SLO BLO 5 x 20 mm. When you're in a country with a standard of 115 volts set the »VOLTAGE SELECTOR« (#23) accordingly.

If two fuses blow in a row, something is very wrong. Do not open the unit. Refer service to qualified service personnel.

## 23 VOLTAGE SELECTOR

The T 1000 features a "VOLTAGE SELECTOR" allowing you to use your amplifier anywhere in the world just by the flick of a switch. The unit is set to 230 V when we ship to a country in Europe.

## 24a BRIDGED MODE

Press the switch »BRIDGE MODE ON/OFF« just above this Speakon® output until it rests in the »ON« position. In this mode neither the two »VOLUME« controls for »CHANNEL A« (#26a) and »CHANNEL B« (#25a) nor the »SUB-BOOST« filter (#25b) are active. The overall output level is controlled by the »MASTER« volume control (#15) on the front panel only. Make sure that the speaker outputs of »CHANNEL A« (#26) and »CHANNEL B« (#25) are not being used.

In »BRIDGE MODE« the two internal power amps are combined to produce 1000 watts of continuous output power at a minimum load of 4 ohms. Be absolutely certain that the speaker cabinet(s) connected is (are) able to handle the extremely high output power of the amp. All EICH cabinets featuring at least 4 speakers will do the job easily (e.g. 410L-4, 610L-4, 810L-4, 612XL-4 etc.). When you use a speaker cabinet with a lower power handling capacity do make sure that you operate the amp at moderate levels only, i.e. don't turn up the »MASTER« control (#15) too far.

Whatever your setup is, always make sure that the speaker cables are as long as necessary but as short as possible, using heavy gauge cable (we recommend at least 2 x 2.5 mm<sup>2</sup>). Do stick to speaker cables with Speakon® connectors only, either NL2FX (two pin connector) or NL4FX (four pin connector). The wiring of the pins is as follows: 1+ = hot, 1- = ground. High quality EICH speaker cables can be obtained as an option.

## 25 CHANNEL B

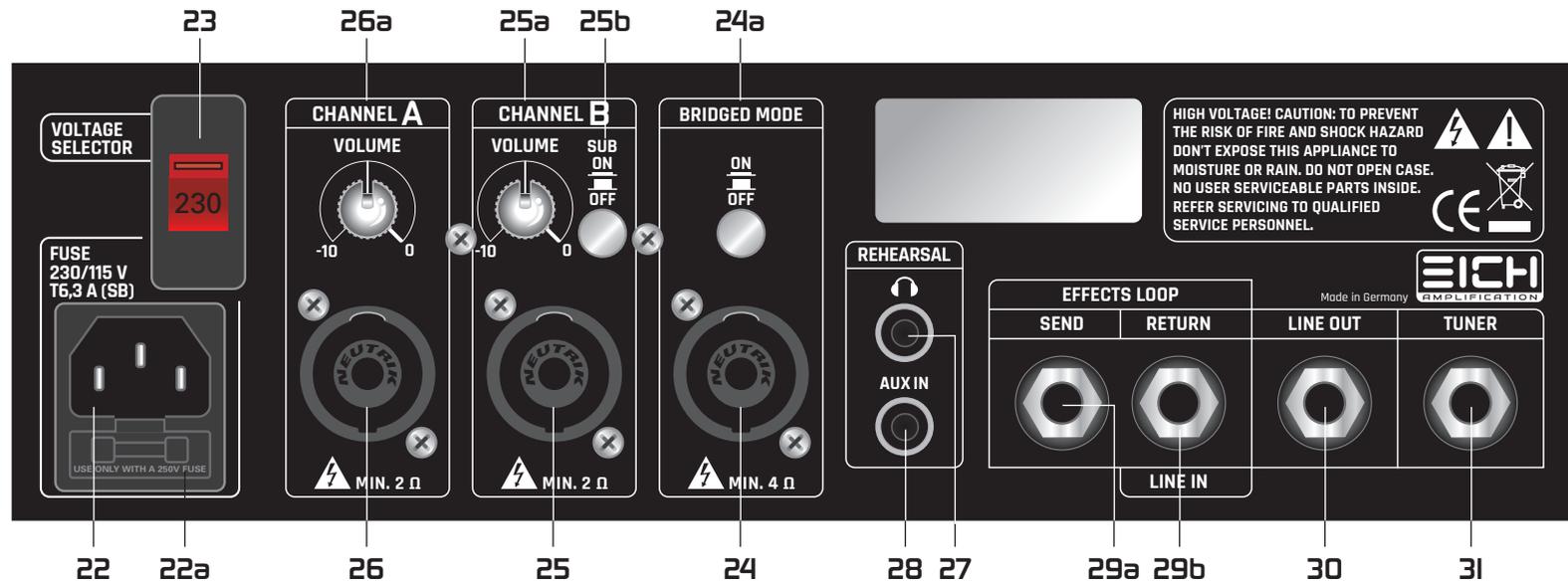
T 1000 is equipped with two power amps, »CHANNEL A« (#26) and »CHANNEL B« (#25), which can be used simultaneously, each of them delivering 500 watts continuous output power at a minimum load of 2 ohms. Each power

Should you wish to use your T 1000 in the USA set the "VOLTAGE SELECTOR" to "115 V".

**ATTENTION: Don't forget to set it back to »230 V« when you return home! EICH Amplification cannot be made responsible for damages to the unit caused by improper voltage selection. Therefore it is a good idea to always check the »VOLTAGE SELECTOR« before powering up the unit.**

## 24 SPEAKER BRIDGED MODE

T 1000 sports three original Neutrik Speakon® NLJ2MD-V speaker outputs. The wiring of the pins is as follows: 1+ = hot, 1- = ground. The one on the right (looked from behind) is reserved for mono bridged operation. When operating the amp in »BRIDGE MODE« care should be taken that the minimum load is no less than 4 ohms.



amp features one Neutrik Speakon® connector. If you want to connect more than one speaker cabinet to the SPEAKON® outputs you have to daisy chain one cabinet with the next.

Just make sure that the minimum load of each power amp is no less than 2 ohms.

»CHANNEL A« (#26) works exactly the same way as »CHANNEL B« (#25). Thus, in total, you could connect two cabinets with an impedance of 2 ohms each or four cabinets with an impedance of 4 ohms each to the T 1000 simultaneously.

Both power amp channels have got their own »VOLUME« control (#25a,26a). They allow you to set individual output levels for the cabinets connected thus leaving you with a couple of interesting options. Do make sure that the »BRIDGE ON / OFF« switch (#24a) is in the »OFF« position – otherwise these »VOLUME« controls (#25a,26a)

are not active.

#### 25b SUB ON / OFF

»CHANNEL B« (#25) features a unique "SUB BOOST" filter (#25b) doing two different things simultaneously: When this switch is depressed a low pass filter cuts all frequencies above 200 Hz. At the same time there is a level boost of 12 dB. This switch makes your T 1000 the ideal amp for the use with a EICH BASS BOARD together with a "normal" cabinet. Connect the BASS BOARD to "CHANNEL B" (#25) with the "SUB BOOST" function (#25b) depressed and a "normal" speaker cabinet to "CHANNEL A" (#26) while balancing the output levels accordingly.

#### 26 CHANNEL A

»CHANNEL A« (#26) works exactly the same way as »CHANNEL B« (#25) with the exception of not offering

the »SUB« filter (#25b). Thus you can connect one or two speakers (by daisy chaining them) with a total impedance of 2 ohms. The output power rating is 500 watts. »CHANNEL A« (#26) and »CHANNEL B« (#25) can be operated simultaneously.

»CHANNEL A« (#26), just like »CHANNEL B« (#26), features its own »VOLUME« control (#25a,26a). It allows you to adjust individual output levels for both channels and thus the cabinets connected. Do make sure that the »BRIDGE MODE ON / OFF« switch (#24a) is in the »OFF« position – otherwise this »VOLUME« control is not active.

#### 27 PHONE OUT

This 3.5 mm stereo jack lets you connect your headphones. With the »MASTER« volume (#15) you can control both the level of your instrument and the level of the audio source

connected to the »AUX IN« jack (#28). It is possible to use your T 1000 without a cabinet, so you can just play in any situation!

#### 28 AUX IN

This 3.5mm stereo »AUX IN« jack (#28), provides the possibility to connect your mp3 player, your iphone or other external audio sources. You can control its' level with the »MASTER« volume (#15) to blend it with your bass signal. Please use the included 3.5mm stereo cable to connect the audio source of your choice.

#### 29 EFFECTS LOOP

##### RETURN/LINE IN, SEND

These two 1/4" jacks are the serial patch points for external signal processing effects.

##### 29b RETURN/LINE IN

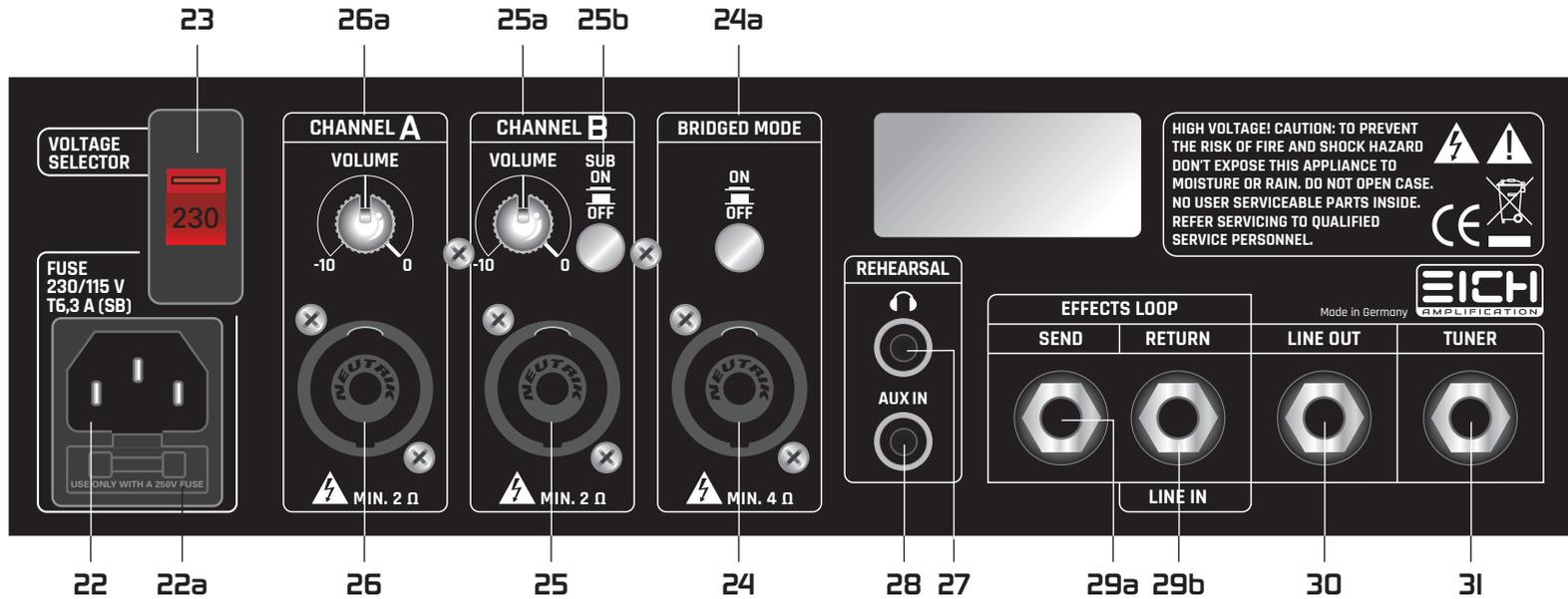
Connect the output of the (last) external device to the »RETURN« jack.

Always use high quality shielded instrument cables for connecting to and from external devices. Keep the cables as short as possible.

If you notice crackling distortion when using external effects, either the batteries of the stomp box have run out, or the send level of the amplifier is too high for the processor's input stage. In this case you better connect the device between bass guitar and amplifier.

The »RETURN / LINE IN« jack (#29b) can also be used to connect various external audio sources to the T 1000 such as an MP3 player, or in order to just use the power amp of the T 1000. The »MASTER« control (#15) determines the final output level. As the »RETURN / LINE IN« jack (#29b) is placed after the tone controls (#8 through #13).

## >> BACK PANEL



### 29a SEND

Connect the »SEND« jack to the input of the (first) external device.

### 30 LINE OUT

This jack provides a line level signal for connection to a separate power amp, PA mixing console or recording equipment. The volume of the signal is controlled by the »MASTER« control (#15). Note that the output is muted when the »MUTE« function (#16) is engaged.

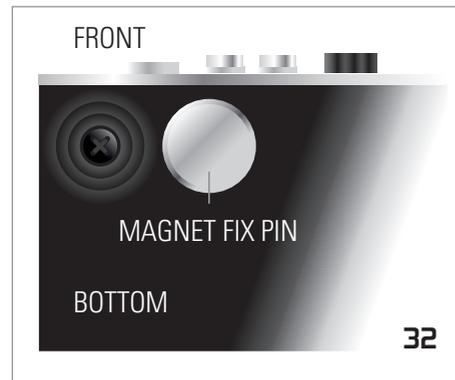
### 31 TUNER

This jack is provided for connection to an electronic tuner and is always "live" even when the T 1000 is in »MUTE«

mode (#16). This allows for silent tuning as well as providing a monitor feed which stays hot even when the house mix is muted.

### 32 MAGNET FIX PINS

On the bottom of the amp the »MAGNET FIX PINS« holds all our T-Series Amps on all our EICH Amplification cabinets. The ultra-strong magnets holds the amp safe because all Cabinets are equipped with the »AMP FIXING« system. Even inclination angle above 45 ° are no problem.



### TECHNICAL SPECIFICATIONS

input impedance:	1 meg ohms
sensitivity:	-26 dB max
EFFECTS LOOP impedance	
EFFECT SEND:	600 Ohm
EFFECT RETURN/LINE IN:	10 kOhm
nominal input level:	0 dBu
LINE OUT impedance:	600 Ohm
nominal output LINE OUT:	+6 db
impedance balanced DI out:	600 Ohm
nominal output level DI out:	+6 dBu
ATTACK short COMPRESS.:	5ms
ATTACK long:	25ms
<b>TONE CONTROL:</b>	
BASS BOOST:	30Hz/+12dB
LO:	70Hz/+15dB
LO MID:	250Hz/+12dB
HI MID:	800Hz/+12dB
HI:	5k/+15dB
HI BOOST:	10k/+12dB

### POWER:

2 x 500 w/2 ohms
2 x 350 w/4 ohms
1 x 1000 w/4 ohms
1 x 700 w/8 ohms

### FUSE:

230V/AC + 115 V/AC	6,3 A/T (Slow Blow)
dimensions (w x h x d):	27 x 8 x 25 cm
	10,6" x 3,1" x 10"

weight:

2,4 kg, 5,4 lbs



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**[www.eich-amps.com](http://www.eich-amps.com)**