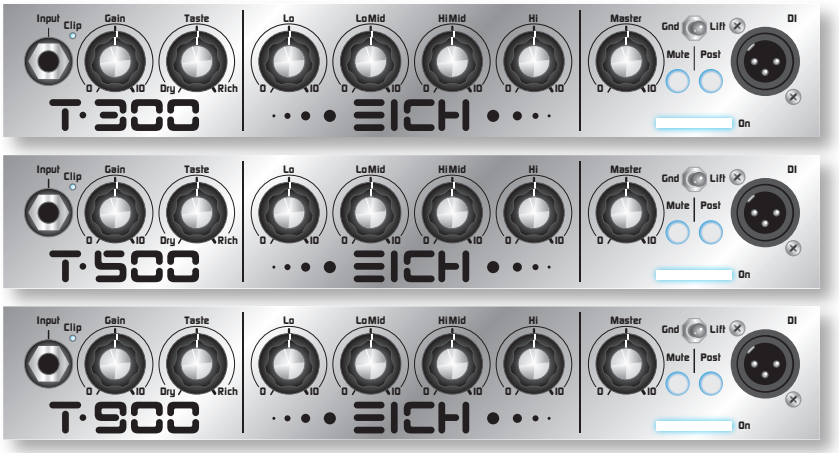
MANUAL

T·300 T·500 T·900



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 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 lighting 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 suficient 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 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 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 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, Speaker Output and a DI out with Pre/Post- and Ground Lift-switch prove that the T amps are extremely versatile devices. T 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 today's state-of-the-art in top-of-the-line bass amp manufacturing.

CE Declaration of Conformity

T 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 CLIP

The red »CLIP« LED helps you adjust the input sensitivity of the T preamp so that the signal from your instrument best matches the preamp's internal operating level. Turn up the »GAIN« control (#3) while you hit the strings of your bass hard until the »CLIP« LED starts flashing. Now back up the »GAIN« (#3) 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 (#3). Keep in mind that excessive use of the »LO« control (#5) will raise the internal level and thus make the »CLIP« LED come on much earlier.

3 GAIN

This control adjusts the basic signal level in the preamp and thus determines it's sensitivity and overall dynamic characteristics. In order to best adjust your instrument's signal level to the internal operating level of T watch the »CLIP« LED (#2). Set the »GAIN« such that the »CLIP« LED (#2) 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.

4 TASTE

This unique feature adds to the superiority of the T'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.

5 LO

This is the primary low frequency control. It allows for cutting or boosting the frequency range around 30 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.

6 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 (#5). This frequency range, when turned up, determines the body of the bass guitar signal and lets the bass kick out in a mix. Turn it counter clockwise to reduce unwanted room resonance.

7 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 »LO MID« control (#6). 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 »HI MID« control gives you a great fretless sound. On the other hand, when you cut the »HI MID« range you end up with a funky slap sound of extremely high quality.

8 HI

The »HI« control is centred at 8 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.

9 MASTER

This is the overall volume control of the T and works on internal power amp. It determines the level at the »SPEAKER OUTPUTS« (#16) as well as the »LINE

>> FRONT PANEL

OUT« jack on the back panel (#17). Furthermore you can control the level of the audio source connected to the »AUX IN« jack to blend it with your bass signal.

10 MUTE

The »MUTE« switch should be depressed when you power up or down your T-Bassamp the 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 (#21). 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 balanced »DI OUT« (#12), no matter which position the switch »POST« (#11) and »GND/LIFT« (#12a) 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 (T500/T 900) stays on and cools down the power amp circuitry if necessary. Disengage the »MUTE« function and start to rumble – now there is signal at all outputs again.

11 POST

With this switch the transformer balanced »DI OUT« (#12) can be selected to be a »PRE« or »POST« preamp signal. In the »PRE« position (switch is not depressed) the »DI OUT« signal (#12) is tapped directly after the input stage including the »GAIN« control (#3).

In the »POST« position (switch illuminates when the function is engaged) the »DI OUT« signal (#12) is taken after it has been processed by the complete preamp, i.e. including the »GAIN« control (#3), the tone control section (#5 through #8), and the »EFFECTS LOOP« (#19). It is not affected by the »MASTER« control (#9).

12 DI

The T-Bassamp supplies a transformer 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'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« (#11).

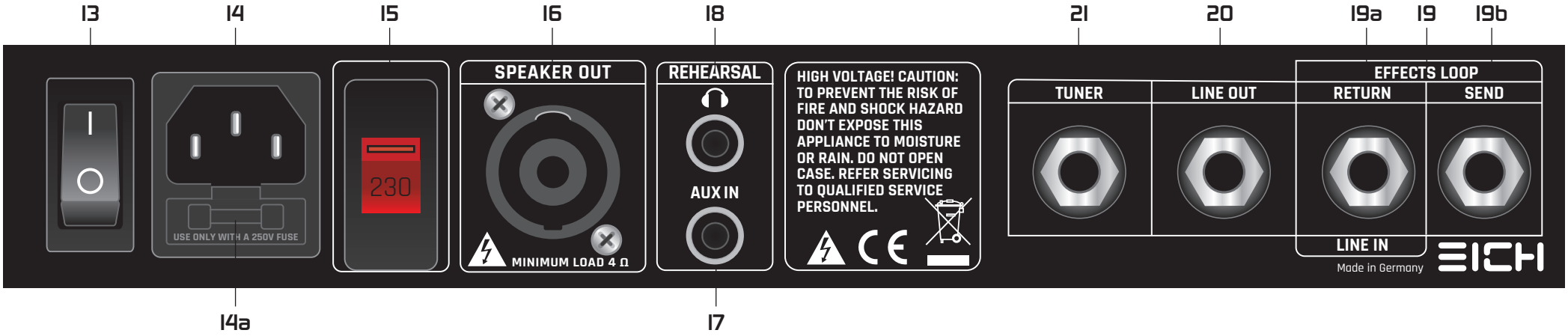
12a GND/LIFT

There is no need to be afraid of nasty ground loops anymore. In case you will get a ground loop, please switch the »GROUND LIFT« (#12a) into the »LIFT« position.

13a ON

Provided the included power cord is plugged into the »POWER SOCKET« on the back panel (#14) and into an appropriate wall socket, the white line on the front panel will illuminate when the »POWER SWITCH« (#13) is turned on, no matter what positions other switches are in.

>> BACK PANEL



13 POWER

At the risk of stating the obvious, this switch is used to turn the T on and off. Before you turn on the amp do make sure that the »MUTE« switch (#10) is depressed. Activating the »POWER SWITCH« (the top of the switch must be depressed towards the amp chassis) will make the white line on the front panel (#13a) illuminate. The amp is OFF when the bottom of the »POWER SWITCH« is depressed – the white line (#13a) will no longer illuminate.

Before you plug in do make sure that the voltage is correct (see #15)!

14 POWER RECEPTACLE

Connect the supplied AC power cord to the power receptacle. Make sure the IEC 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 #15)! 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 one 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.

14a POWER FUSE

The T is fused for your and its own protection. If you suspect a blown fuse, disconnect the cord, pull out the »FUSE DRAWER« (#14a, located just below the cord receptacle) and replace the fuse with another suitable fuse. There should be a spare fuse in the fuse drawer.. When you're in a country with a standard of 115 volts set the »VOLTAGE SELECTOR« (#15) accordingly. If two fuses blow in a row, something is very wrong. Do not open the unit. Refer service to qualified service personnel.

15 VOLTAGE SELECTOR

The Amp 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. Should you wish to use your T 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 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.

16 SPEAKER OUT

T sports one speaker output. ***Just make sure that the minimum load of the power amp is no less than 4 ohms.*** Thus you can connect two 8 ohms speakers or one 4 ohms speaker.

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 mm²). Do stick to speaker cables with EICH speaker connector. No matter which plug you use the "hot" wire must be connected to pin "1+" and the "cold" wire to pin "1-". This Combo socket is also able to handle a 1/4" jack. High quality EICH speaker cables can be obtained as an option.

You can find the output power of the T amps on page 11 under Technical Specifications.

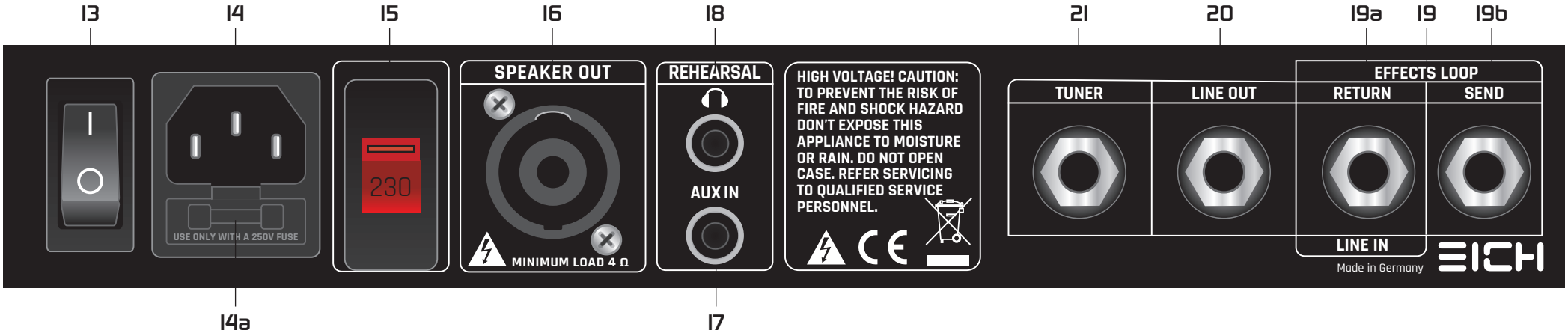
17 AUX IN

This 3.5mm stereo Aux In jack provides the possibility to connect your mp3 player, your iphone or other external audio sources. You can control its' level with the »MASTER« volume (#9) to blend it with your bass signal.

18 PHONE OUT

This 3.5 mm stereo jack lets you connect your headphones. With the »MASTER« volume (#9) you can control both the level of your instrument and the level of the audio source connected to the »AUX IN« jack (#17). It is possible to use your T without a cabinet, so you can just play in any situation!

>> BACK PANEL



19 EFFECTS LOOP

RETURN/LINE IN, SEND

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 (#19a) can also be used to connect various external audio sources to the T such as an MP3 player, or in order to just use the power amp of the T. The »MASTER« control (#9) determines the final output level. As the »RETURN / LINE IN« jack (#19a) is placed after the tone controls (#5 through #8). Connect the »SEND« jack (#19b) to the input of the (first) external device.

20 LINE OUT

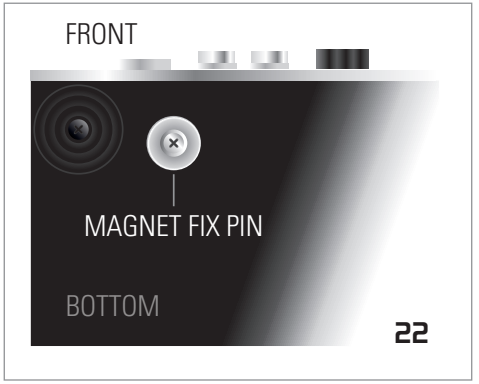
This jack provides a line level signal for connection to a separate power amp, PA mixing console or recording equipment. The volume of the signal is controlled by the »MASTER« control (#9). Note that the output is muted when the »MUTE« function (#10) is engaged.

21 TUNER

This jack is provided for connection to an electronic tuner and is always "live" even when the T is in "MUTE" mode (#10). This allows for silent tuning as well as providing a monitor feed which stays hot even when the house mix is muted.

22 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
sensivity:	-26 dB max
EFFFECTS 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
tone control section:	
LO:	30Hz/+-15dB
LO MID:	250Hz/+-12dB
HI MID:	800Hz/+-12dB
HI:	8k/+-15dB
Power:	
T300	300 w/4 ohms, 200 w/8 ohms
T500	500 w/4 ohms, 300 w/8 ohms
T900	900 w/4 ohms, 600 w/8 ohms
Fuse 230V/AC, 115V/AC	T 300: 2,5 A/T T 500: 4,0 A/T T 900: 6,3 A/T
dimensions (w x h x d):	10,6" x 1,7" x 8,3"
weight:	T 300: 1,27 kg, 2,80 lbs T 500: 1,49 kg, 3,28 lbs T 900: 1,69 kg, 3,72 lbs

EICH
AMPLIFICATION

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