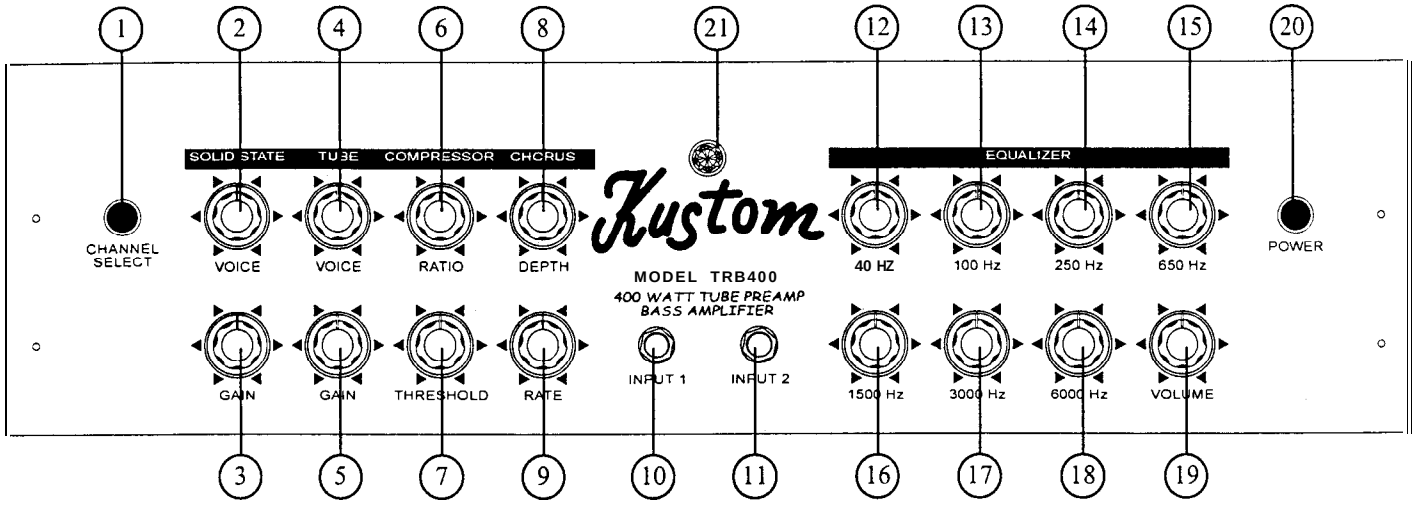
Kustom

MODEL TRB400H

400 WATT SOLID STATE BASS AMPLIFIER

OWNER'S MANUAL



Congratulations....you have purchased the Kustom TRB4OOH bass amplifier, one of the finest bass amps on the market today. With the style and looks of yesteryear and the latest electronics of today the TRB4OOH combines all the features you've been looking for. Kustom, with a 30 year tradition of excellence in design, proudly delivers to you this amp and rewards you with a rugged and dependable amp designed and engineered in the USA. Please take a few minutes to learn about all the professional feaures that are built in.

Front Panel:

1.) Channel Select – Selects between the solid state pre-amp and the tube pre-amp. The footswitch, when connected, overrides the front panel switch.

2.) Solid State Voice – This control is an overall tone shaping control for the solid state pre-amp. It works in conjunction with the equalizer section.

3.) Solid State Gain – This is the volume control for the solid state pre-amp. It varies the input level of that channel. This will produce the cleanest possible signal.

4.) Tube Voice – As with the previous voice control, this control is an overall tone shaping control for the tube pre-amp. It also works in conjunction with the equalizer section.

5.) Tube Gain – This is the volume control for the tube pre-amp section. It varies the input level of that channel. This can be used to add a warmer sound to the signal all the way to adding a bit of edgy sounding distortion.

6.) Compressor Ratio – Compression "levels out" a signal's peaks. It smoothes out the sound making notes sound evenly played. This control adjusts the amount of compression applied to the signal. In the counterclockwise position there is very little. As you increase this control, it flattens out the signal making the sound "squashed" or very squeezed. The control range is from 1 to 1 compression to 5 to 1.

7.) Compressor Threshold – This control sets the point where the compressor is actually engaged. This is a "soft knee" compressor that gradually compresses the sound. Increase the control and compression becomes more apparent.

8.) Chorus Depth – This control mixes the dry sound with the chorus effect. The amount of desired chorus effect will range from very subtle to very noticeable. The effect is controlled via the footswitch either on or off

9.) Chorus Rate – This control determines how fast the chorus effect cycles around the sound. Slower speeds will make the sound shimmer and sound silky to a fast speed that sounds like a warble or wavering sound. The ranges are from .05 Hz to 7 Hz.

10.) Input 1 – This ¼" jack accepts signals from all normal basses and instruments.

11.) Input 2 **–** This ¼" jack is padded down -8 db and will accept signals from active basses, keyboards or line level signals that have already been pre-amplified.

Equalizer Section – The TRB400H uses Active Electronics to give you an entire range of tonal control. Active equalizers allow adding or subtracting frequencies at a given range. Standard tone controls only give you the ability to subtract on a wide range level. These selections were specially selected for the bass guitar frequency ranges..

12.) 40 Hz **E.Q. –** This control is centered at 40 Hz. It gives you +/- 15 db of gain.

13.) **100** Hz **E.Q.** - This control is centered at 100 Hz. It gives you +/- 15 db of gain.

14.) 250 Hz **E.Q.** - This control is centered at 250 Hz. It gives you +/- 15 db of gain.

15.) 650 Hz **E.Q.** - This control is centered at 650 Hz. It gives you +/- 15 db of gain.

16.) 1500 Hz **E.Q.** - This control is centered at 1500 Hz. It gives you +/- 15 db of gain.

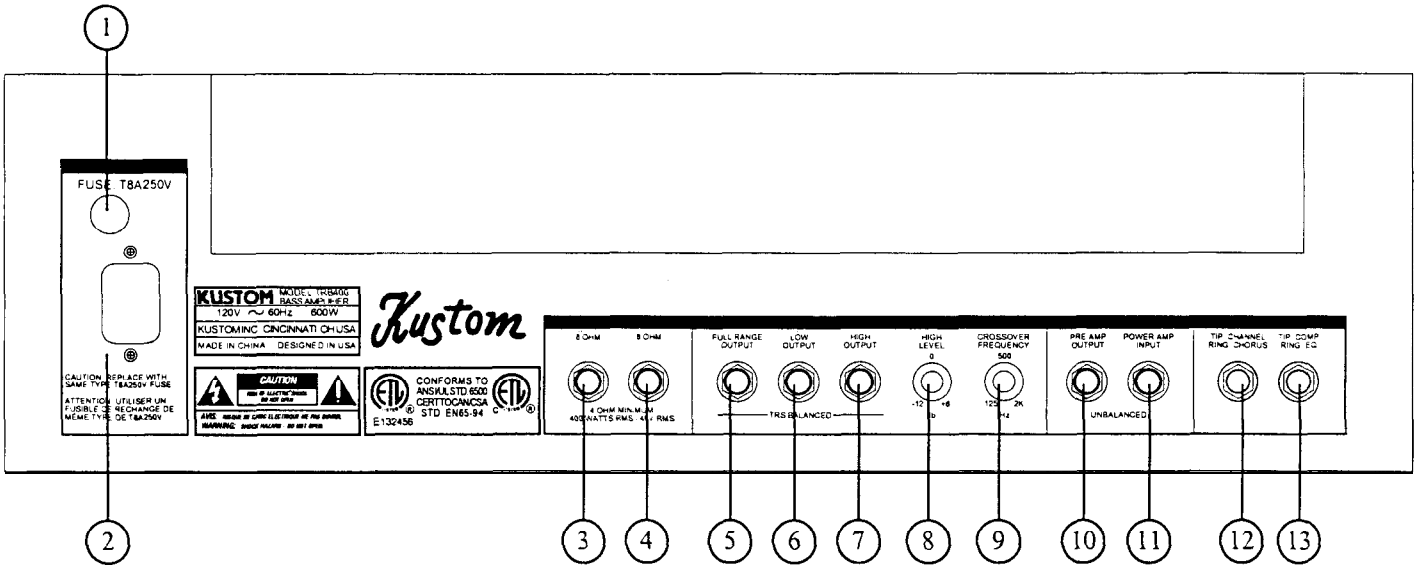
17.) 3000 Hz **E.Q.** - This control is centered at 3000 Hz. It gives you +/- 15 db of gain.

18.) 6000 **Hz E.Q.** - This control is centered at 6000 Hz. It gives you +/- 15 db of gain.

19.) Master Volume – This is the overall volume control for the entire amplifier. It works in conjunction with the pre-amp volume controls. For the cleanest signal possible ,it is recommended that you set your master volume control half to three quarters of the way open and then start increasing the individual pre-amp controls. If you prefer a slightly dirtier sound, open the pre-amp volumes up more and decrease the master volume control until the proper ratio is achieved.

20.) **Power On/Off –** This pushbutton turns the amplifier on or off.

21.) Blue Jewel Light – This lamp is activated when the unit is powered up.



Back Panel:

1.) Fuse Holder - This holds the fuse. The fuse is a 4 amp 250V AGC type fuse. Replace with ONLY the same type. You should always carry a couple of spare fuses just in case you need them. Caution: if the fuse blows repeatedly, contact your local dealer or service center for repair.
2.) **Power Cord** – The TRB400H is equipped with a 3 prong. Grounded type A.C. supply cord designed to reduce the possibility of shock due to electrical fault. Be sure to connect to a grounded receptacle. DO NOT alter the plug!
3.) 8 Ohm Speaker Output – This ¼" jack is for hooking up a single 8 ohm speaker cabinet or a single 4 ohm cabinet. Do not go below a 4 ohm load. All the TR Series cabinets are 8 ohms.
4.) 8 Ohm Speaker Output – This ¼" jack is provided for hooking up an additional 8 ohm speaker cabinet. Do not go below a 4 ohm load.
5.) Full Range Output – This is a balanced low impedance 3 conductor (TRS) ¼" jack which can also serve as a direct output to additional amplifiers, mixing consoles or recording equipment. This jack provides the entire range output.
6.) Low Output - This is a balanced low impedance 3 conductor (TRS) ¼" jack which provides the low frequency output to hook up additional amplifiers when bi-amping. The point where the frequencies are split and the low frequencies are fed to this jack. It is determined by the crossover frequency control.
7.) High Output - This is a balanced low impedance 3 conductor (TRS) ¼" jack which provides the high frequency output to hook up additional amplifiers when bi-amping. The point where the frequencies are split and the high frequencies are fed to this jack. It is determined by the crossover frequency control.

Wiring for 1/4" 3 conductor low impedance connectors – Tip is positive and corresponds to pin 2 on a XLR connector. Ring is negative and corresponds to pin 3 on an XLR and Sleeve is ground and corresponds to pin 1 on the XLR.

8.) High Level – This is the volume control for the signals coming from the high output jack. It controls the volume for additional amplifiers. This control range is from an attenuated -12 db to a boosted +6 db.
9.) Crossover Frequency – This control determines at what actual frequency the signal is divided between the two appropriate outputs. It is variable from 125Hz to 2 KHz.
10.) Pre-Amp Output - This is an unbalanced 2 conductor (TS) ¼" jack which sends the signal to the inputs of external processing equipment such as equalizers, delays or other outboard gear. This jack is post equalizer and post master volume control.
11.) Pre-Amp Input - This is an unbalanced 2 conductor (TS) ¼" jack which returns the signal from the outputs of external processing equipment such as equalizers, delays or other outboard gear. This jack is post equalizer and post master volume control, therefore the volume control on the external processor becomes your overall master volume.
12.) Footswitch Jack #1 – This is a 3 conductor (TRS) ¼" jack which hookup to the supplied footswitch. It controls the chorus on/off and pre-amp channel selection. Tip is channel select and Ring is Chorus on/off.
13.) Footswitch Jack #2 – This is a 3 conductor (TRS) ¼" jack which hookup to the supplied footswitch. It controls the compressor on/off and the equalizer on/off. Tip is compressor and ring is the equalizer.

SPECIFICATIO

MODEL	POWER	EQUALIZER	CHANNELS	IMPEDANCE	EFFECTS	EFFECTS LOOP	PREAMP TUBES	POWER AMP	DIMENSIONS	WEIGHT
TRB400H	400W	7 Band 2x Voice	Tube Solid State	4Ω 8R	Chorus Compressor	Yes	Ix 12AX7	Bi-Polar	27.5 x 17.7 x 11.8" 70 x 45 x 30 cm	45 lb 20.0 kg

DANGER

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY TO NOISE INDUCED HEARING LOSS BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.

THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS	SOUND LEVEL db FLOW RESPONSE
8	90
6	93
4	95
3	97
2	100
1	103
1/2 HR. or LESS	110

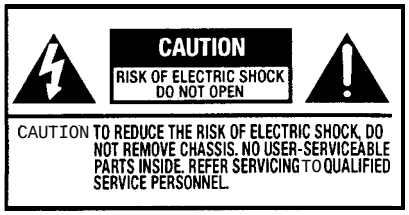
ACCORDING TO OSHA, ANY EXPOSURE IN THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS. EAR PLUGS OR PROTECTORS IN THE EAR CANAL OR OVER THE EARS MUST BE WORN WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS. IF EXPOSURE IN EXCESS OF THE LIMITS AS PUT FORTH ABOVE, TO INSURE AGAINST POTENTIALLY HARMFUL EXPOSURE TO HIGH SOUND PRESSURE LEVELS. IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF INDUCING HIGH SOUND PRESSURE LEVELS, SUCH AS THIS AMPLIFICATION SYSTEM, BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

CAUTION

THIS AMPLIFIER HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE POWER RESERVE FOR PLAYING MODERN MUSIC WHICH MAY REQUIRE OCCASIONAL PEAK POWER. EXTENDED OPERATION AT ABSOLUTE MAXIMUM POWER IS NOT RECOMMENDED SINCE THIS COULD DAMAGE THE ASSOCIATED LOUDSPEAKER SYSTEM. **PLEASE BE AWARE THAT MAXIMUM POWER CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE MASTER VOLUME CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.**

IMPORTANT

1. Read all safety and operating instructions before using this product
2. All safety and operating instructions should be kept for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water i.e. bathtub, sink, swimming pool, wet basement, etc.
6. This product be located so that its position does not interfere with proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat, such as a stove, radiator, or another heat producing amplifier
8. Connect only to a power supply of the type indicated on the back of the amp near the power supply cord.
9. Do not break off the ground pin of the power supply cord.
10. Power supply cords should always handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts and vinyl covering may be cleaned with a damp rag.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation ports or any other openings.
15. This unit should be checked by a qualified service technician if:
    - A. The power supply cord or plug has been damaged.
    - B. Anything has fallen or been spilled into the unit.
    - C. The unit does not operate correctly.
    - D. The unit has been dropped or the enclosure damaged
16. The user should not attempt to service this equipment. All service work must be done by a qualified service technician for warranty repairs.



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