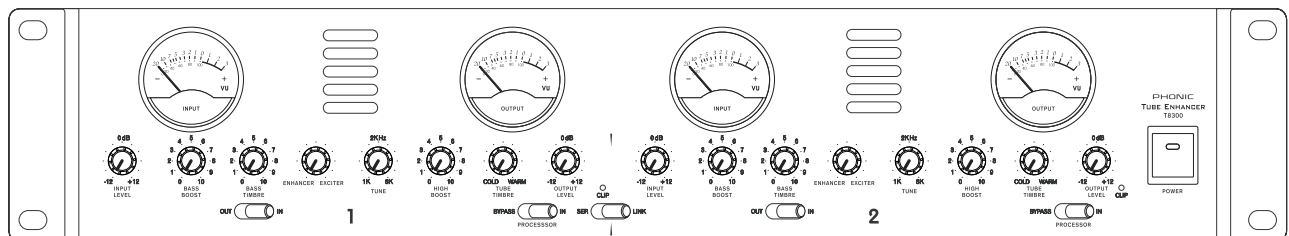


PHONIC

T8300

TUBE ENHANCER



T8300

English

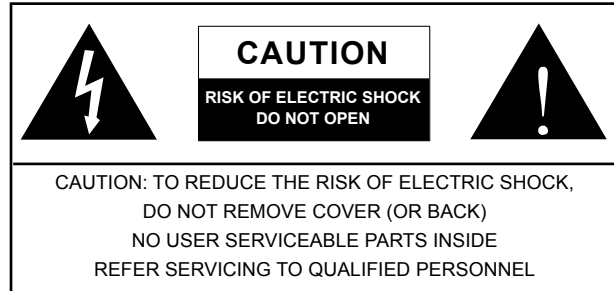
User's Manual

IMPORTANT SAFETY INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing and that no objects filled 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 confined 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 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.



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.

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

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



T8300

TUBE ENHANCER

USER'S MANUAL

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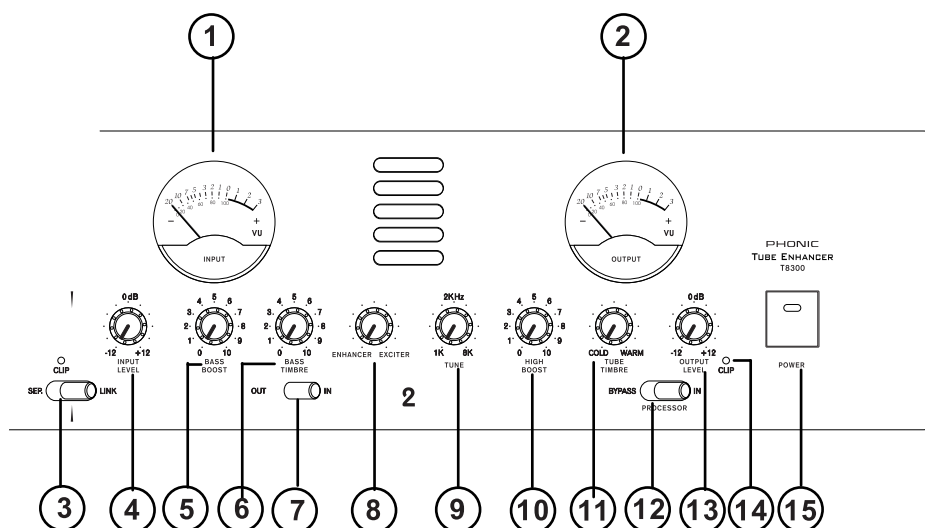
INTRODUCTION

Thank you for choosing a Phonic professional audio product. The T8300 Tube Enhancer is a new generation two-channel professional tube enhancer that excites the high frequency band as well as enhancing the low frequency sounds. The high-band exciter can be fine-tuned to the “sweet spot” to highlight a certain frequency; while the low-band enhancer sports a timbre control for adjusting the “color” of the bass sound. The Tube Enhancer uses the high quality 12AX7 valve preamplifier, which is well known for generating warm and highly enriched sounds. In addition, the Tube Enhancer draws on the benefit of a potentiometer control to fine tune the input difference between the tube and the conventional semiconductor preamplifier, giving you greater control and flexibility.

This manual is designed to be both concise and comprehensive. It is concise enough to help you get a quick start on using your new Tube Enhancer. It is comprehensive enough to help you gain a full understanding of the fine product you have purchased. We hope you will soon discover that you have made a wise investment in buying a Phonic product.

FEATURES

- Independent enhancement controls for low and high bands
- Variable frequency range for the exciter
- Variable tube effect for fine adjustment on bass timbre, or sound quality
- In/out switch for bass boost and timbre
- Relay-controlled bypass
- Channel-link function
- Balanced XLR and 1/4" TRS input and output
- VU meters for input and output levels
- Operating levels of +4 dBu and -10 dBV independently selectable for input and output



CONTROLS & CONNECTIONS

The Tube Enhancer has two channels that have identical controls and connections. The following descriptions apply to both channels.

Front Panel

1 INPUT meter

This VU meter displays the channel's input level.

2 OUTPUT meter

This VU meter displays the channel's output level.

3 Channel-link switch

This switch determines whether the two channels are to be controlled separately (SEP.) or in-sync (LINK). When the switch is set to LINK, the settings for Channel 1 are applied to both channels.

4 INPUT LEVEL control

This knob controls the channel's input level. The range of control is from -12 to +12 dB.

5 BASS BOOST control

This knob controls the level of bass boost.

CAUTION: Excessive level of bass boost may damage some speakers. Use this control with care.

6 BASS TIMBRE control

This knob adjusts the tube enhancement on the bass timbre, or sound quality. The enhancement is applied to the sub-low frequencies around 100 Hz. Turn up this knob to add more "punch" to the bass sound, such as a drum. Turn it down to make the bass sound "rounder".

7 Bass timbre IN/OUT switch

When set to IN, this switch activates the BASS TIMBRE function.

8 ENHANCER/EXCITER control

Turn this knob toward EXCITER to get a richer high frequency sound, or toward ENHANCER to allow more bass to come through.

9 TUNE control

This knob adjusts the high-pass filter for the exciter. The range of control is from 1 kHz to 8 kHz.

10 HIGH BOOST control

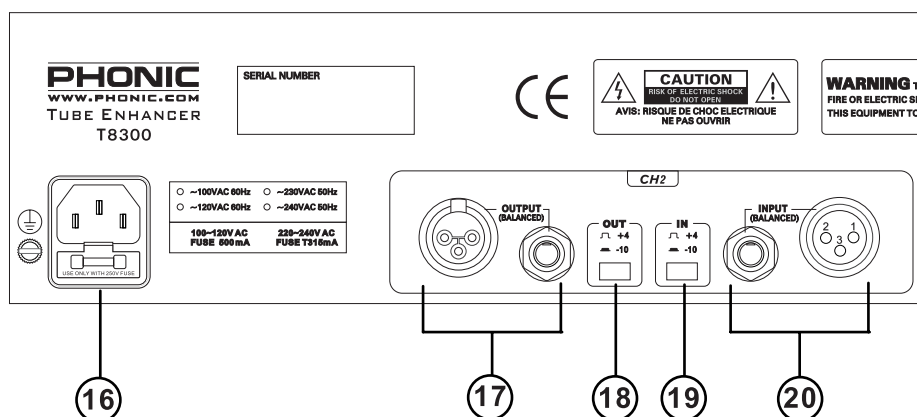
This knob controls the boost level of high frequencies.

11 TUBE TIMBRE control

This knob controls the timbre, or sound quality. Turn toward WARM for a more harmonic sound, or toward COLD for less.

12 PROCESSOR bypass switch

This switch determines whether the signal from the channel input should be processed (IN) or unaltered (BYPASS) before it is sent to the channel output. A bypass switch is useful for a quick comparison between processed and unprocessed sounds.



13 OUTPUT LEVEL control

This knob controls the channel's output level. The range of control is from -12 to +12 dB.

14 CLIP indicator

This LED indicator lights up when high-level signals overload the circuit, resulting in the clipping of signal peaks. If this indicator lights up frequently, reduce the level to avoid distortion.

15 POWER switch

This button switches the Tube Enhancer on when depressed, and off when released.

Rear Panel

16 Power inlet and fuse holder

Use the supplied power cord to connect the Tube Enhancer to an AC power outlet of a suitable voltage. To change the fuse, use a screwdriver to slide open the fuse cover, then replace the fuse with one that is of identical type.

17 OUTPUT connectors

The output connection is equipped with a male XLR and a 1/4" TRS jack. Both connectors are balanced.

18 Nominal operating level (OUT)

This button determines the nominal operating level for output (-10 dBV when depressed, and +4 level released). This setting should match the nominal operating level of the target device. In general, consumer products use -10 dBV, while professional products use +4 dBu.

19 Nominal operating level (IN)

This button determines the nominal operating level for input (-10 dBV when depressed, and +4 dBu when released). This setting should match the nominal operating level of the source device. In general, consumer products use -10 dBV, while professional products use +4 dBu.

20 INPUT connectors

The input connection is equipped with a female XLR and a 1/4" TRS jack. Both connectors are balanced.

INITIAL SETUP

Here is a recommended initial setup for your Tube Enhancer. Perform each step for both channels.

- 1 Set the PROCESSOR switch to IN.
- 2 Set the bass timbre IN/OUT switch to IN.
- 3 Set the INPUT LEVEL and OUTPUT LEVEL to 0 dB.
- 4 Set the BASS BOOST, BASS TIMBRE, ENHANCER/EXCITER, and HIGH BOOST to the lowest level.
- 5 Gradually turn up BASS BOOST and HIGH BOOST until changes in both bands are noticeable.
- 6 Adjust the TUNE control to set the frequency of the high pass filter for the exciter.
- 7 Adjust the ENHANCER/EXCITER control to find the best enhancer-to-exciter ratio.

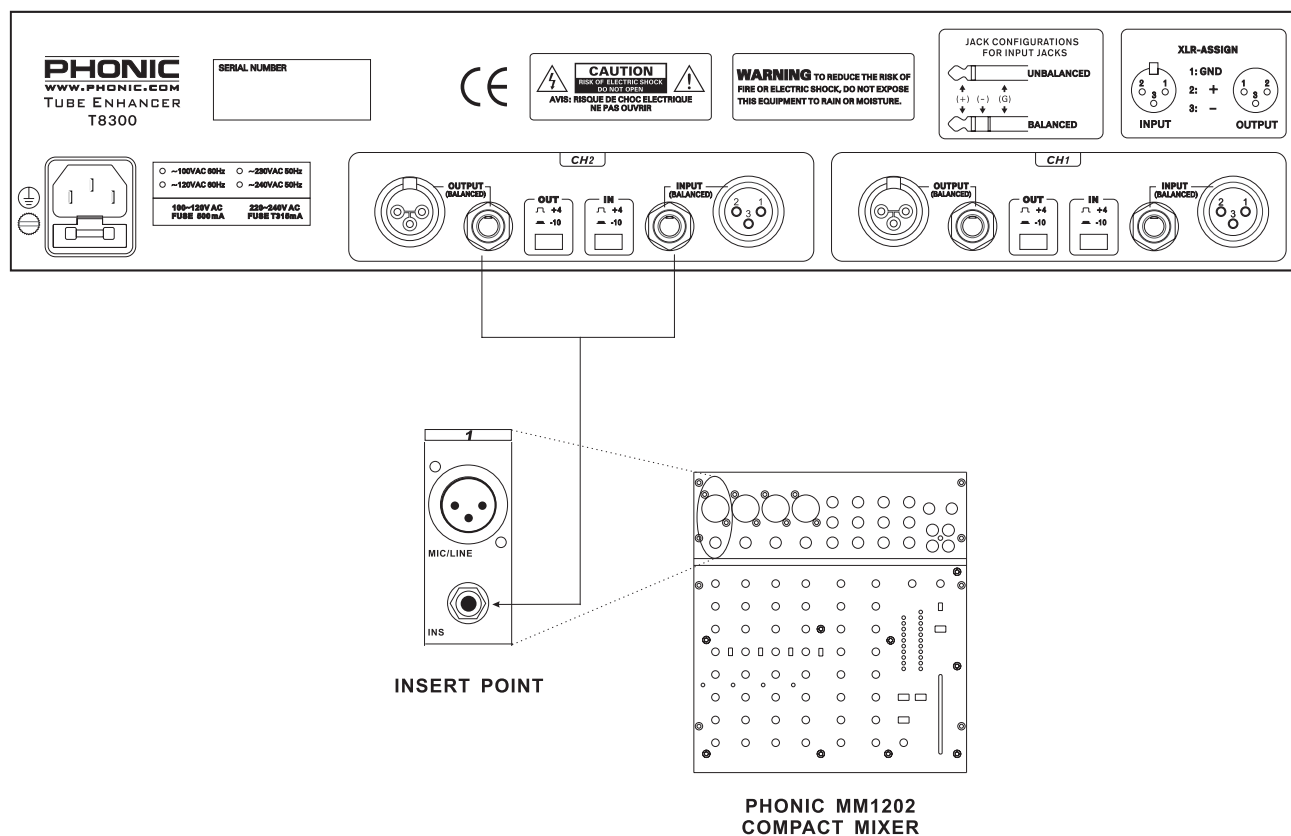
APPLICATION

This section presents three typical applications for the Tube Enhancer.

TO ENHANCE A CHANNEL INPUT

With the Tube Enhancer, you can add enhancement to the input signal for one of channels in your mixer. If there is an insert point on your mixer, you may process the signal from that insert point by connecting it to the Tube Enhancer via an insert cord. See “Appendix: Typical Connectors” for an illustration of some insert cords.

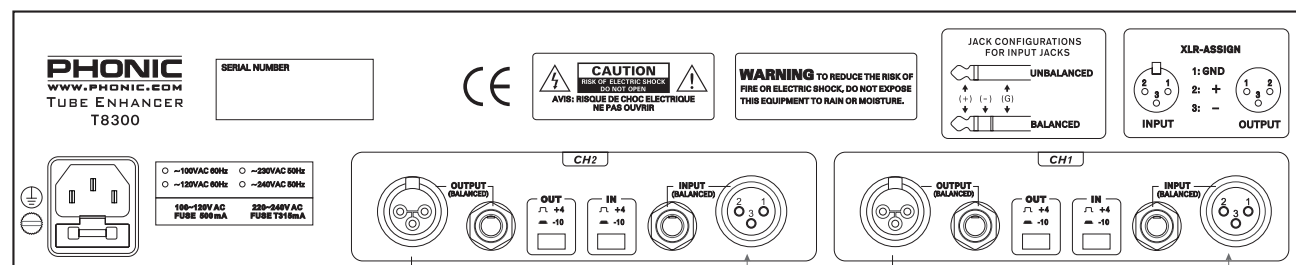
PHONIC T8300 TUBE ENHANCER



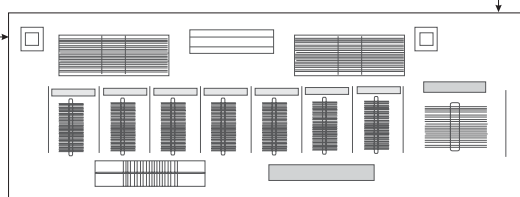
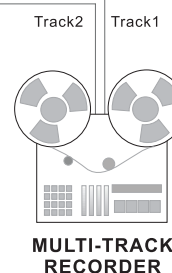
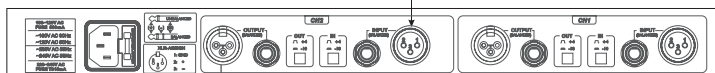
TO ENHANCE PLAYBACK OF PRE-RECORDED MATERIALS

You may use the Tube Enhancer to enhance pre-recorded materials from a multi-track recorder. First, connect a track output of the recorder to a channel input of the Tube Enhancer. Then, connect the Tube Enhancer's channel output to a bus input of your console (Output 1). Alternatively, you may opt for further processing by routing Tube Enhancer's output signal through another signal processor before sending it to the console (Output 2).

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PHONIC A6500 OPTIMIZER

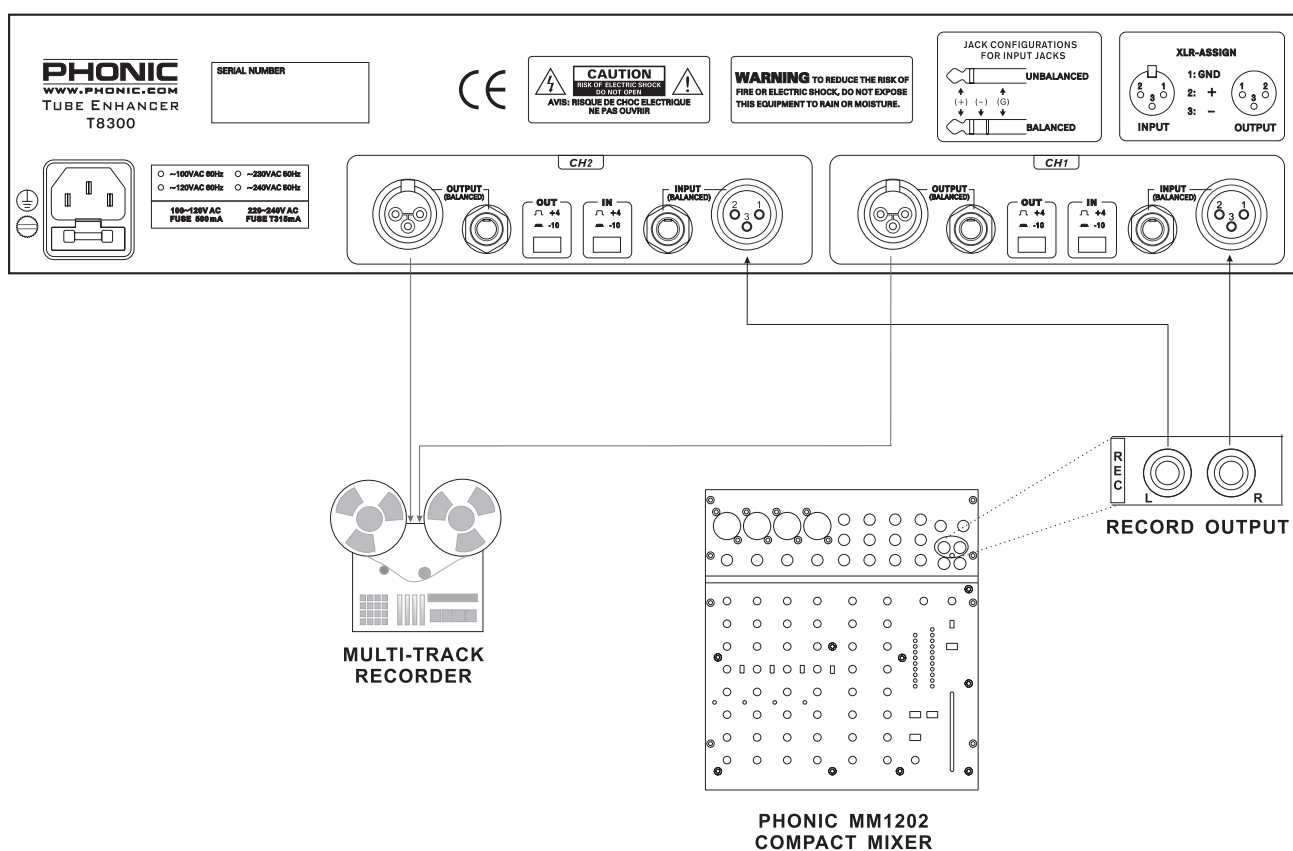


CONSOLE

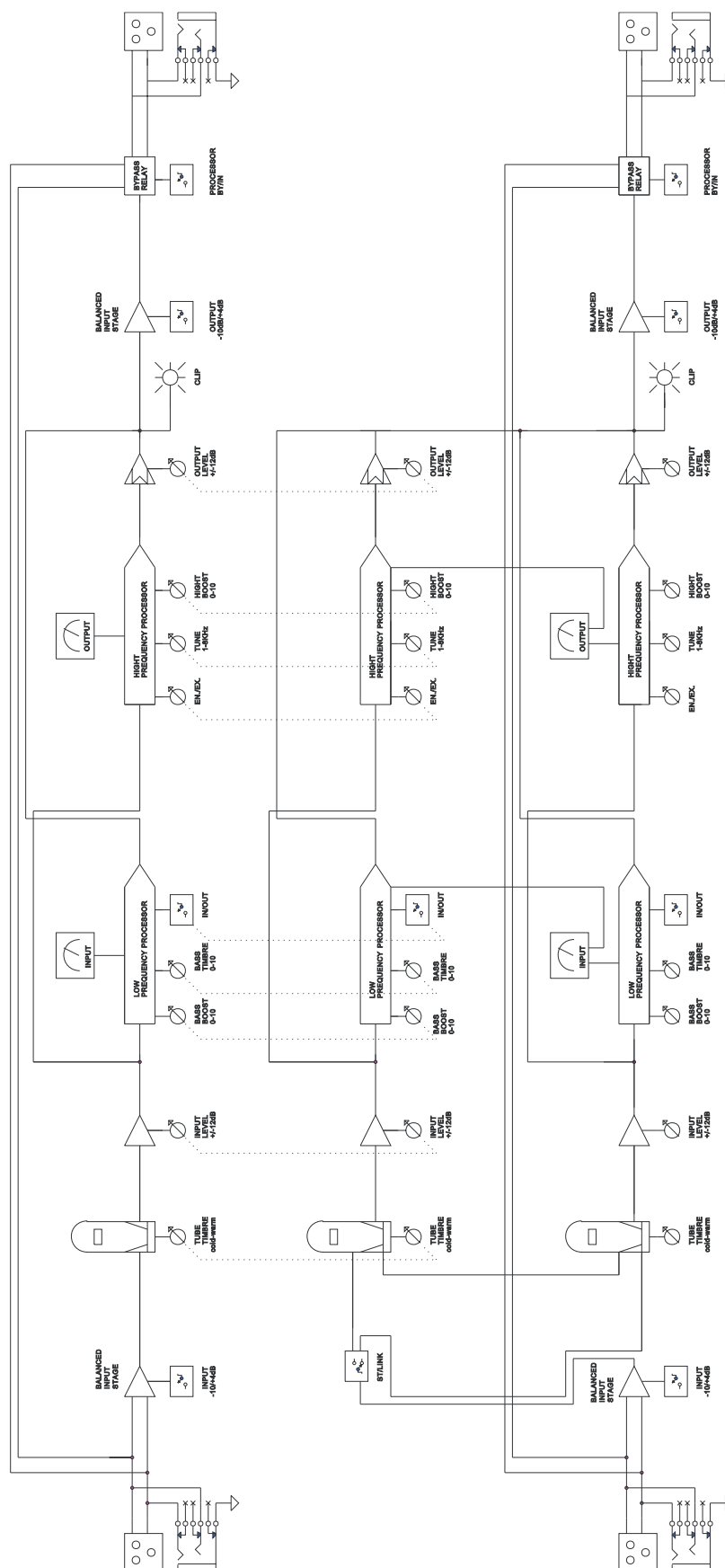
TO ENHANCE RECORDING

You may use the Tube Enhancer to enhance a studio recording. Connect your mixer's record output to the input of the Tube Enhancer, and then connect Tube Enhancer's output to the input of a recorder.

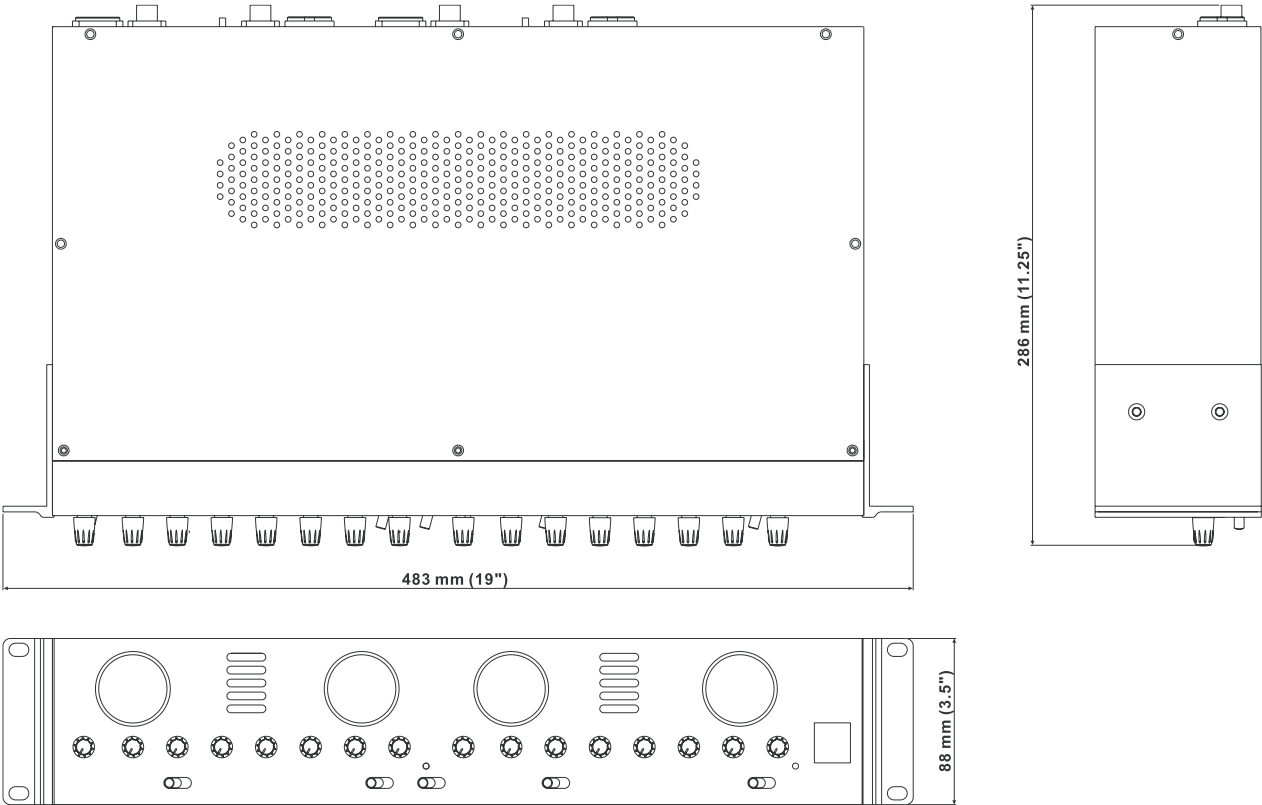
PHONIC T8300 TUBE ENHANCER



BLOCK DIAGRAM



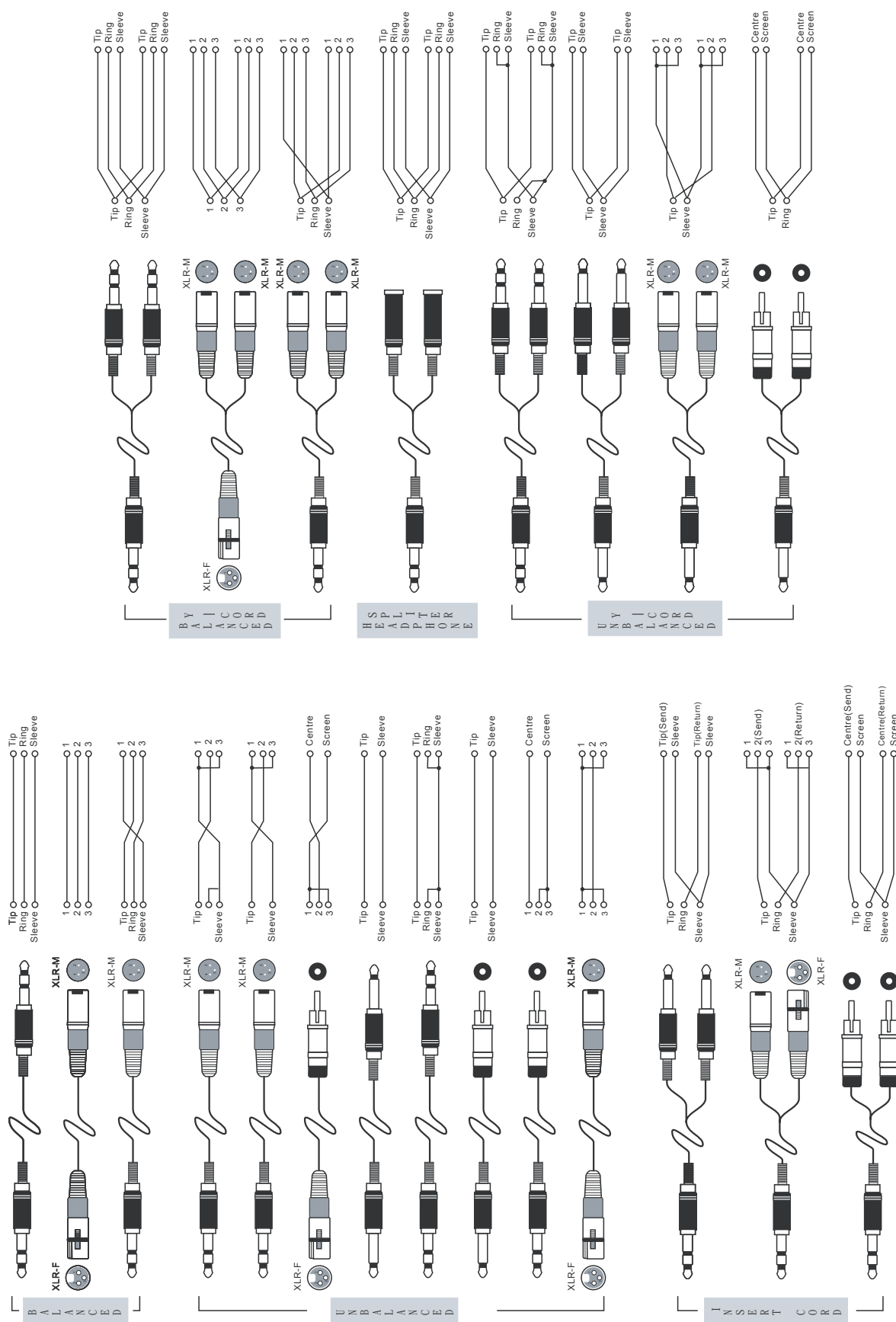
DIMENSIONS



SPECIFICATIONS

Inputs	
Connectors	XLR and 1/4" TRS
Type	RF filtered, servo-balanced input
Impedance	50k ohms balanced, 10k ohms unbalanced
Nominal Operating Level	-10 dB to +4 dB
Maximum Input Level	+21 dBu
CMRR	60 dB @ 1 kHz
Outputs	
Connectors	XLR and 1/4" TRS
Type	Electronically servo-balanced output stage
Impedance	60 ohms balanced, 30 ohms unbalanced
Maximum Output Level	+21 dBu, +20 dBm balanced and unbalanced
Nominal Operating Level	-10 dB to +4 dB
System Specifications	
Bandwidth	18 Hz to 30 kHz, +/- 2 dB
Noise	> -90 dB
THD	0.1% @ 0 dB, 1 kHz
Crosstalk	< -85 dB, 22 Hz to 22 kHz
Warmth	From 100% direct to 100% tube sound
Meters & Indicators	Per channel: Clip LED, Input VU Meter, Output VU Meter
Controls	Per channel: Input Level, Bass Boost, Bass Timbre, Enhancer/ Exciter, Tune, High Boost, Tube Timbre, Output Level
Switches	Channel Link Per channel: Bass Optimizer In/Out, Processor Bypass
Power Supply	
Power Consumption	30 watts maximum
Power Connector	Standard IEC connector
Operating Voltages	100-120V AC 60 Hz, 220-240V AC 50 Hz
Fuse	100-120V AC: 1Ah; 200-240V AC: 500 mAh
Physical	
Dimension (WxHxD)	483 x 88 x 286 mm (19 x 3.5 x 11.25 in.)
Weight	4.9 kg (10.8 lbs.)

APPENDIX: Typical Connectors



TO PURCHASE ADDITIONAL PHONIC GEAR AND ACCESSORIES

To purchase Phonic gear and optional accessories, contact any authorized Phonic distributor. For a list of Phonic distributors please visit our website at www.phonic.com and click on Get Gear. You may also contact Phonic directly and we will assist you in locating a distributor near you.

SERVICE AND REPAIR

For replacement parts, service and repairs please contact the Phonic distributor in your country. Phonic does not release service manuals to consumers, and advice users to not attempt any self repairs, as doing so voids all warranties. You can locate a dealer near you at <http://www.phonic.com/where/>.

WARRANTY INFORMATION

Phonic stands behind every product we make with a no-hassles warranty. Warranty coverage may be extended, depending on your region. Phonic Corporation warrants this product for a minimum of one year from the original date of purchase against defects in material and workmanship under use as instructed by the user's manual. Phonic, at its option, shall repair or replace the defective unit covered by this warranty. Please retain the dated sales receipt as evidence of the date of purchase. You will need it for any warranty service. No returns or repairs will be accepted without a proper RMA number (return merchandise authorization). In order to keep this warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying this warranty. Any tempering of the product or attempts of self repair voids all warranty. This warranty does not cover any damage due to accident, misuse, abuse, or negligence. This warranty is valid only if the product was purchased new from an authorized Phonic dealer/distributor. For complete warranty policy information, please visit <http://www.phonic.com/warranty/>.

CUSTOMER SERVICE AND TECHNICAL SUPPORT

We encourage you to visit our online help at <http://www.phonic.com/support/>. There you can find answers to frequently asked questions, tech tips, driver downloads, returns instruction and other helpful information. We make every effort to answer your questions within one business day.

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