

# Laney

## Richter Bass Amplification

**R1**

**R2**

**R3/R3H**

**R4/R4H**

**R5**

**User manual**

[www.laney.co.uk](http://www.laney.co.uk)

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** When using electric products, basic cautions should always be followed, including the following.

1. Read all safety and operating instructions before using this product
2. All safety and operating instructions should be retained 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. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built up enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on a power supply cord.
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the chord exits the unit.
11. The power supply cord should be unplugged when the unit is to be 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 can be cleaned with a damp cloth. The vinyl covering used on some units can be cleaned with a damp cloth or ammonia based household cleaner if necessary. Disconnect the unit from the power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through any ventilation holes or openings. On no account place drinks on the unit.
15. A qualified service technician should check the unit if:
  - The power cord has been damaged
  - Anything has fallen or spilled into the unit
  - The unit does not appear to operate correctly
  - The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service the equipment. All service work is done by a qualified service technician.
17. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility 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 exposure.

Duration Per Day In Hours	Sound Level dBA, slow response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure exceeds the limits set forth above. To ensure against potentially dangerous exposure to high sound pressure levels it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.



Lightning Bolt Symbol:

This symbol is used to alert the user to the presence of dangerous voltages and the possible risk of electric shock.



Exclamation Mark Symbol:

This symbol is used to alert the user to make special note of important operating or maintenance instructions found in the reference manual.

**SAVE THESE INSTRUCTIONS**

## INTRODUCTION

Congratulations on your decision to purchase a Laney amplifier.

Laney products are designed with ease of operation as a primary objective, however to ensure you derive the best from your new amplifier, it is important you take time to read this user manual and to familiarise yourself with the control functions and facilities available.

## BEFORE SWITCHING ON

After unpacking your amplifier check that it is factory fitted with a three pin 'grounded' (or earthed) plug. Before plugging into the power supply ensure you are connecting to a grounded earth outlet.

If you should wish to change the factory fitted plug yourself, ensure that the wiring convention applicable to the country where the amplifier is to be used is strictly conformed to. As an example in the United Kingdom the cable colour code for connections are as follows.

EARTH OR GROUND - GREEN/YELLOW  
NEUTRAL - BLUE  
LIVE - BROWN

This manual has been written for easy access of information. The front and rear panels of each unit are graphically illustrated, with each control and feature numbered. For a description of the function of each control feature, simply check the number with the explanations adjacent to each panel.

Your Laney RICHTER bass amplifier has undergone a thorough two stage, pre-delivery inspection, involving actual play testing, as well as burn in.

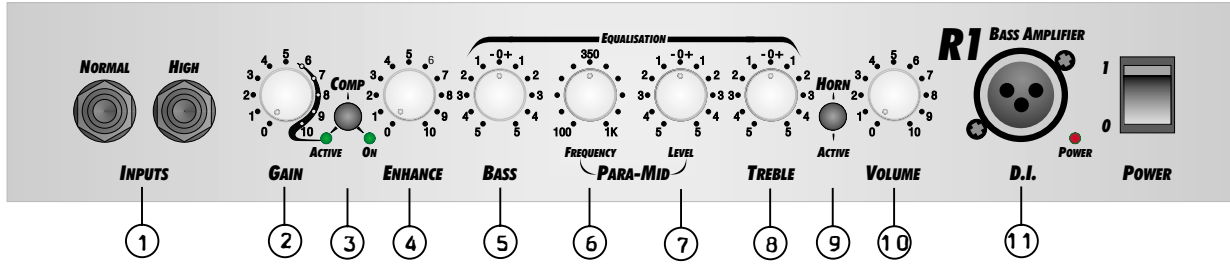
When you first receive your Laney RICHTER bass amp, follow these simple procedures:

- (i) Ensure that the amplifier is set at the correct voltage for the country it is to be used in.
- (ii) Connect your instrument with a high quality shielded instrument cable. Use of cheap cables will compromise the sound of your instrument and your amplifier.

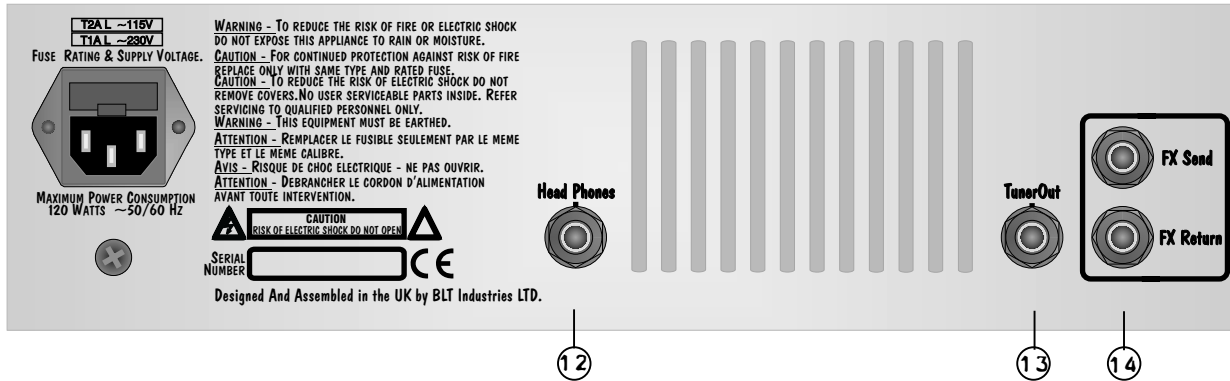
Care of your Laney amplifier will prolong it's life.....and yours!.

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## R1 front



## R1 Rear



1. Inputs: Normal and High inputs are provided for connection of bass guitars. High output basses, either Active or Passive should be connected via the High socket. Low output basses should be connected using the normal input. High output basses may also be placed in the Normal input if pre-amp overloading is desired.

2. Gain: This control is used to set the level of gain present in the pre-amp. The higher the level of gain, the more the signal will clip producing distortion. The GAIN control should be used in conjunction with the VOLUME control (10) to produce the desired signal characteristics.

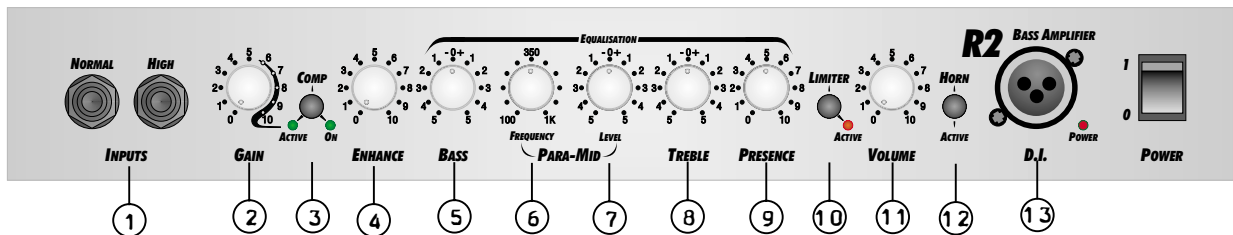
3. Compressor: Engages and disengages the on-board compressor. This compresses the input signal giving a punchier sound. In association with the compressor are two LED's indicating that the compressor is engaged and one indicating the compressor is active. It is possible to have the compressor engaged but it only be active during certain periods of playing - typically the most dynamic sections. Note that the higher the gain the greater the level of compression.

4. Enhance: The ENHANCE control provides an increased definition at the low-end of the frequency spectrum giving you a tighter, punchier sound. The ENHANCE control does this by providing a dip in the frequency-response of the amplifier at approximately 200hz. This dip eliminates some of the secondary-harmonics of the important low-frequencies around 40-80 Hz producing a thicker sound. Turning the control through to its maximum has the effect of boosting both the low and high-frequency content of the signal whilst not affecting the mids.

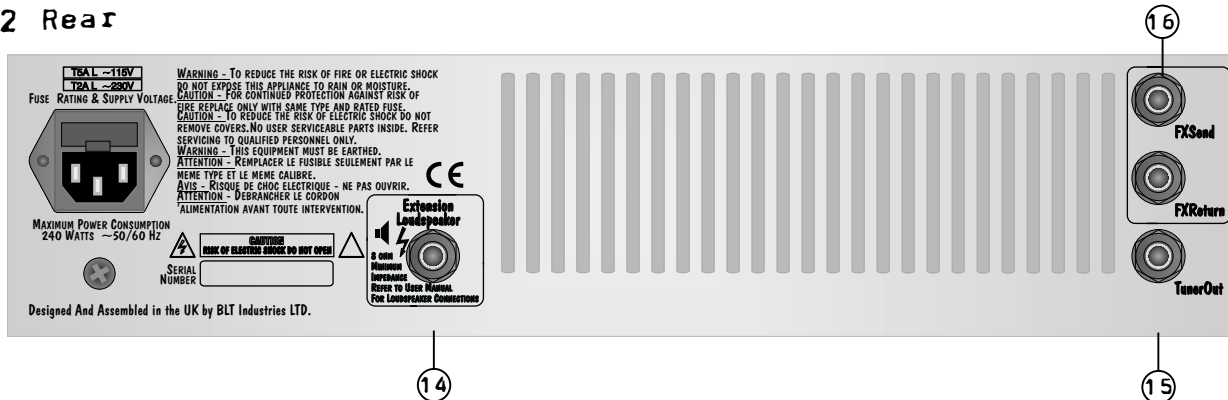
5. Bass: Controls the low-frequency response of the pre-amplifier.

- 6. Paramid frq: Selects the MID-frequencies to be cut or boosted in conjunction with the PARAMID GAIN control (7). To access LO mid-frequencies turn the FREQUENCY control anticlockwise, to access HI mid frequencies turn the FREQUENCY control clockwise.
- 7. Paramid Level: Sets the level of boost or cut applied to the frequency set by control(6). For frequency-boost turn the control clockwise. For frequency-cut, turn the control anticlockwise.
- 8. Treble: Controls the high-frequency response of the pre-amplifier.
- 9. Horn Switch: Switches the on-board horn either on or off.
- 10. Volume: Sets the overall listening level of the amplifier.
- 11. D.I: XLR socket for direct-injection of the amplifier signal to a mixing-desk or additional power-amplifier. The XLR socket provides a low-impedance balanced output-signal.
- 12. Phones: Headphone output for silent practicing.
- 13. Tuner out: Socket for connecting external tuner.
- 14. FX Loop: Send and return sockets are provided for connecting external effects-units.

## R2 Front



## R2 Rear



- 1. Inputs: Normal and High inputs are provided for connection of bass guitars. High output basses, either Active or Passive should be connected via the High socket. Low output basses should be connected using the normal input. High output basses may also be placed in the Normal input if pre-amp overloading is desired.

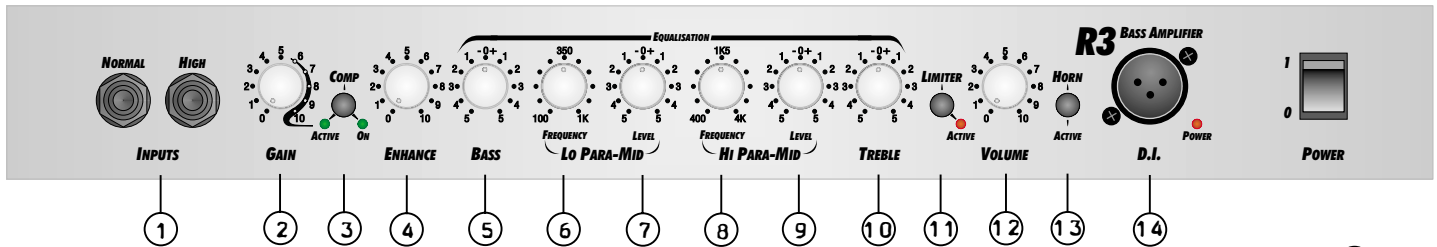
2. Gain: This control is used to set the level of gain present in the pre-amp. The higher the level of gain, the more the signal will clip producing distortion. The GAIN control should be used in conjunction with the VOLUME control (10) to produce the desired signal characteristics.
3. Compressor: Engages and disengages the on-board compressor. This compresses the input signal giving a punchier sound. In association with the compressor are two LED's, one indicating that the compressor is engaged and one indicating the compressor is active. It is possible to have the compressor engaged but it only be active during certain periods of playing - typically the most dynamic sections.
4. Enhance: The ENHANCE control provides an increased definition at the low-end of the frequency spectrum giving you a tighter, punchier sound. The ENHANCE control does this by providing a dip in the frequency-response of the amplifier at approximately 200hz. This dip eliminates some of the secondary-harmonics of the important low-frequencies around 40-80 HZ producing a thicker sound. Turning the control through to its maximum has the effect of boosting both the low and high-frequency content of the signal whilst not effecting the mids.
5. Bass: Controls the low-frequency response of the pre-amplifier
6. Paramid frq: Selects the MID-frequencies to be cut or boosted in conjunction with the PARAMID GAIN control (7). To access LO mid-frequencies turn the FREQUENCY control anticlockwise, to access HI mid frequencies turn the FREQUENCY control clockwise.
7. Paramid Level: Sets the level of boost or cut applied to the frequency set by control(6). For frequency-boost turn the control clockwise. For frequency-cut, turn the control anti-clockwise.
8. Treble: Controls the high-frequency response of the pre-amplifier.
9. Presence: Controls the high-frequency signal content of the pre-amplifier. The PRESENCE control is set at 3K.
10. Limiter: Allows the on-board limiter to be defeated if desired. With the switch in the out position the limiter is engaged. The LIMITER is automatically triggered at high-output levels and is designed to prevent power-amp distortion at high-output levels. When the limiter is automatically triggered an LED lights up to indicate the limiter is active. It is possible to have the limiter engaged but not have the LED active. The LIMITER monitors both power-amp clipping and load so it automatically registers the cabinet impedance and sets itself accordingly.
11. Volume: Sets the overall listening level of the amplifier.
12. Horn switch: Switches the on-board horn either on or off.
13. D.I: XLR socket for direct-injection of the amplifier signal to a mixing-desk or additional power-amplifier. The XLR socket provides a low-impedance balanced output-signal.

14. Ext Speaker socket: This socket should be used to connect an extension-cabinet. The impedance of the extension-cabinet must not be less than 8 Ohms. Connecting cabinets that have a lower impedance than 8 Ohms will result in the amplifier overheating. Continual use in this manner may cause permanent damage. Connecting a cabinet with an impedance of greater than 8 Ohms will cause no damage to the amplifier but will result in a reduced output.

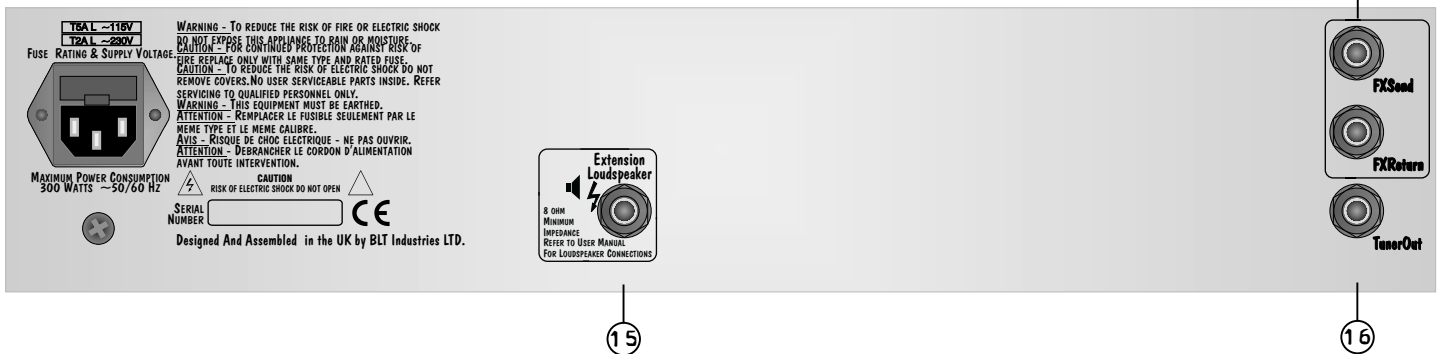
15. Tuner out: Socket for connecting external tuner.

16. FX Loop: Send and return sockets are provided for connecting external effects-units..

## R3/R3H Front



## R3 Rear



1. Inputs: Normal and High inputs are provided for connection of bass guitars. High output basses, either Active or Passive should be connected via the High socket. Low output basses should be connected using the normal input. High output basses may also be placed in the Normal input if pre-amp overloading is desired.

2. Gain: This control is used to set the level of gain present in the pre-amp. The higher the level of gain, the more the signal will clip producing distortion. The GAIN control should be used in conjunction with the VOLUME control (12) to produce the desired signal characteristics.

3. Compressor: Engages and disengages the on-board compressor. This compresses the input-signal giving a punchier sound. In association with the compressor are two LED's one indicating that the compressor is engaged and one indicating the compressor is active. It is possible to have the compressor engaged but it only be active during certain periods of playing - typically the most dynamic sections.

4. Enhance: The ENHANCE control provides an increased definition at the low-end of the frequency spectrum giving you a tighter, punchier sound. The ENHANCE control does this by providing a dip in the frequency-response of the amplifier at approximately 200hz. This dip eliminates some of the secondary-harmonics of the important low-frequencies around 40-80 Hz producing a thicker sound. Turning the control through to its maximum has the effect of boosting both the low and high-frequency content of the signal whilst not effecting the mids.
5. Bass: Controls the low-frequency response of the pre-amplifier
6. Lo Paramid frq: Selects the LO MID-frequencies to be cut or boosted in conjunction with the LO PARAMID LEVEL control (7). To access low LO mid-frequencies turn the FREQUENCY control anticlockwise, to access higher LO MID frequencies turn the FREQUENCY control clockwise
7. Lo Paramid Level: Sets the level of boost or cut applied to the frequency set by control (6). For frequency-boost turn the control clockwise. For frequency-cut, turn the control anti-clockwise
8. Hi Paramid frq: Hi Paramid Frequency : Selects the HI MID-frequencies to be cut or boosted in conjunction with the HI PARAMID LEVEL control (9). To access low Hi mid-frequencies turn the FREQUENCY control anticlockwise, to access higher Hi MID frequencies turn the FREQUENCY control clockwise
9. Lo Paramid Level: Sets the level of boost or cut applied to the frequency set by control 8. For frequency-boost turn the control clockwise. For frequency-cut, turn the control anti-clockwise
10. Treble: Controls the high-frequency response of the pre-amplifier.
11. Limiter: Allows the on-board limiter to be defeated if desired. With the switch in the out position the limiter is engaged. The limiter is automatically triggered at high-output levels and is designed to prevent power-amp distortion at high-output levels. When the limiter is automatically triggered an LED lights up to indicate the limiter is active. It is possible to have the limiter engaged but not have the LED active. The LIMITER monitors both power-amp clipping and load so it automatically registers the cabinet-impedance and sets itself accordingly.
12. Volume: Sets the overall listening level of the amplifier.
13. Horn switch: Switches the on-board horn either on or off.
14. D.I: XLR socket for direct-injection of the amplifier signal to a mixing-desk or additional power-amplifier. The XLR socket provides a balanced low-impedance output-signal.

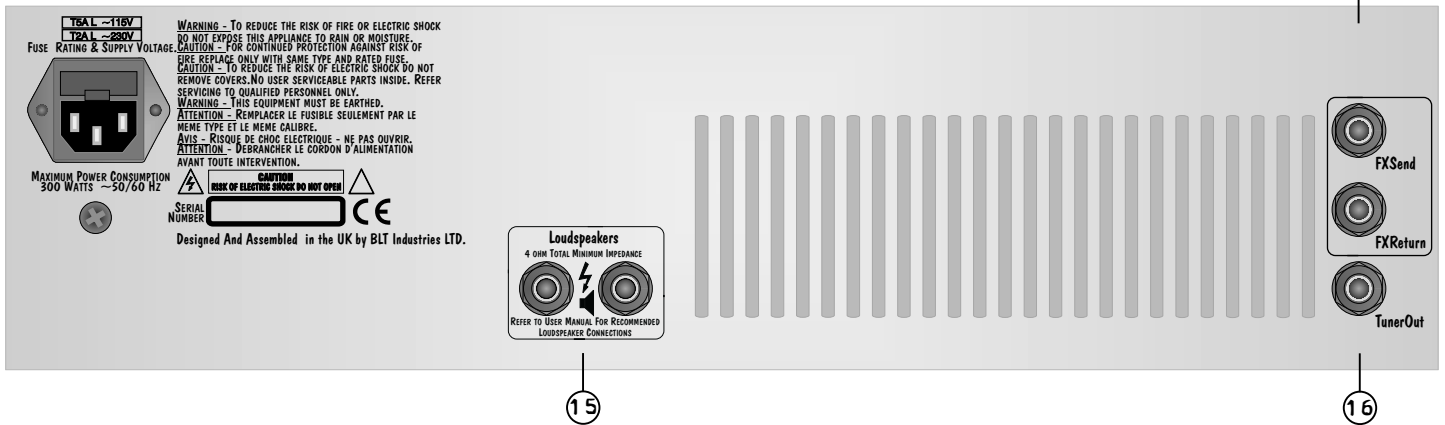


15. Ext Speaker socket: This socket(s) should be used to connect an extension-cabinet. The impedance of the extension-cabinet must not be less than 8 Ohms for the R3, or for the R3H a Minimum 4 Ohms. Connecting cabinets that have a lower impedance than 8 Ohms will result in the amplifier overheating. Continual use in this manner may cause permanent damage. Connecting a cabinet with an impedance of greater than 8 Ohms will cause no damage to the amplifier but will result in a reduced output.

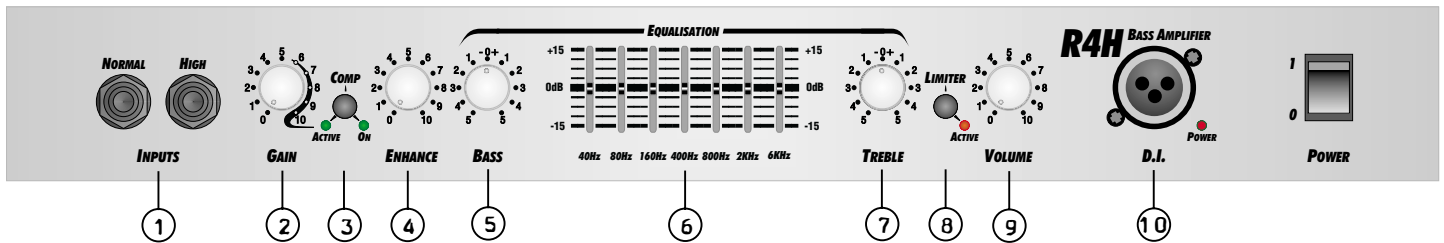
16. Tuner out: Socket for connecting external tuner.

17. FX Loop: Send and return sockets are provided for connecting external effects-units..

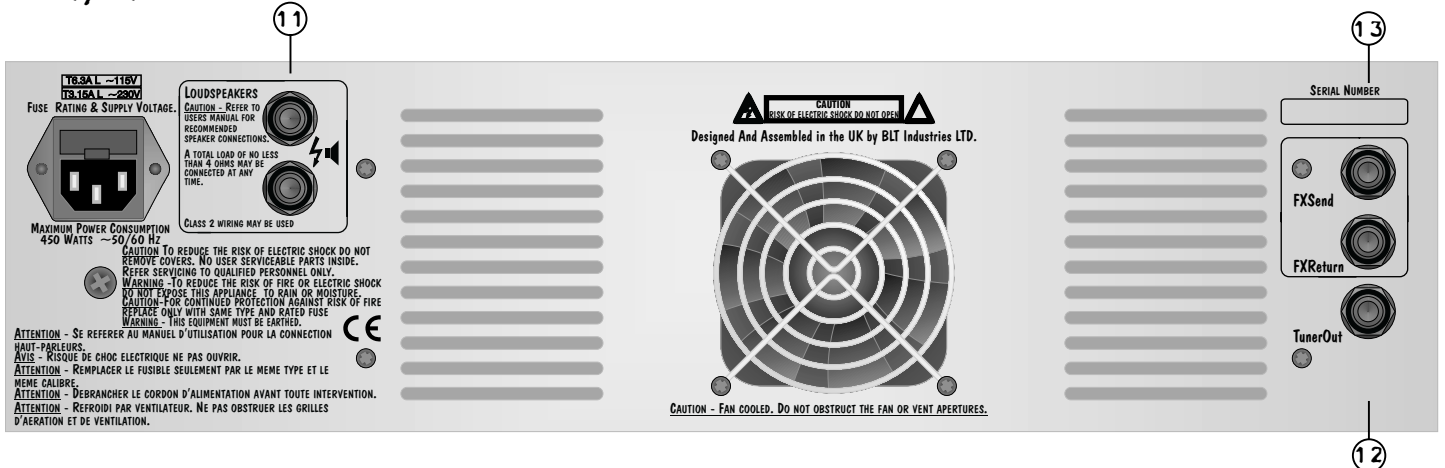
### R3H Rear



### R4/R4H Front

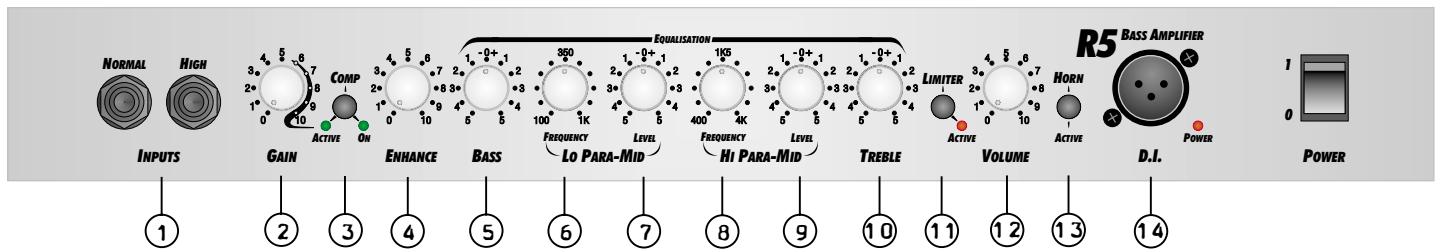


### R4/R4H Rear

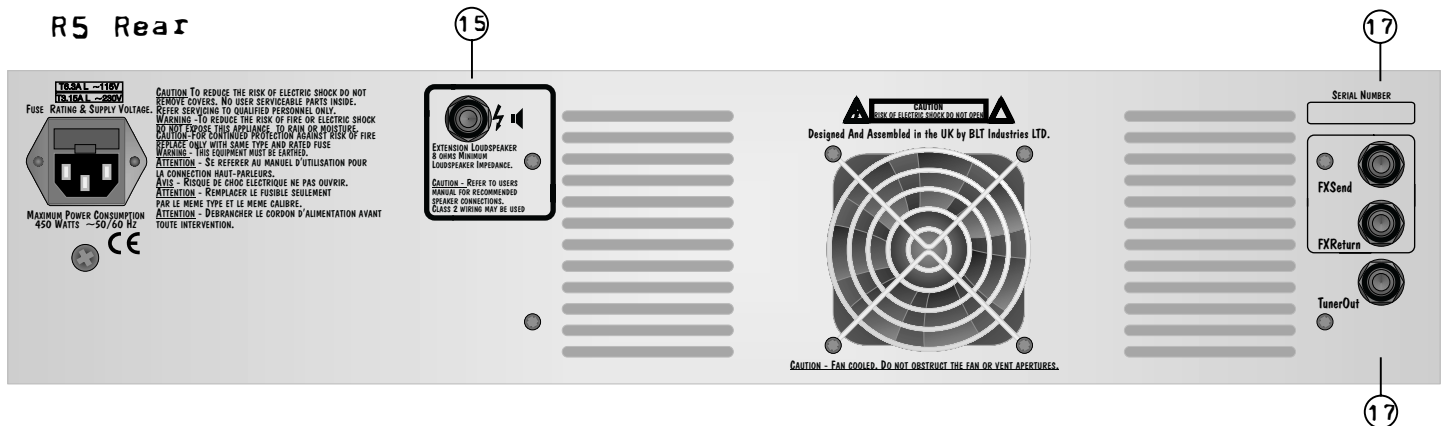


1. **Inputs:** Normal and High inputs are provided for connection of bass guitars. High output basses, either Active or Passive should be connected via the High socket. Low output basses should be connected using the normal input. High output basses may also be placed in the Normal input if pre-amp overloading is desired.
2. **Gain:** This control is used to set the level of gain present in the pre-amp. The higher the level of gain, the more the signal will clip producing distortion. The GAIN control should be used in conjunction with the VOLUME control (9) to produce the desired signal characteristics.
3. **Compressor:** Engages and disengages the on-board compressor. This compresses the input-signal giving a punchier sound. In association with the compressor are two LED's, one indicating that the compressor is engaged and one indicating the compressor is active. It is possible to have the compressor engaged but it only be active during certain periods of playing - typically the most dynamic sections.
5. **Bass:** Controls the low-frequency response of the pre-amplifier
6. **Graphic EQ:** The 7-band onboard GRAPHIC-EQ allows extensive tonal-shaping to be achieved. With the sliders along the centre-line the GRAPHIC-EQ will exert a flat signal-response it is at this point that individual frequency-bands can be cut or boosted. Moving the slider beneath the centre-line will incur a frequency-cut conversely, pushing the slider above the centre-line facilitates frequency-boost. As a general rule, avoid extreme settings of the sliders: try to set the GRAPHIC with as little cut or boost as possible.
7. **Treble:** Controls the high-frequency response of the pre-amplifier.
8. **Limiters Switch:** Allows the on-board LIMITER to be defeated if desired. With the switch in the out position the limiter is engaged. The limiter is automatically triggered at high-output levels and is designed to prevent power-amp distortion at high-output levels. When the limiter is automatically triggered an LED lights up to indicate the limiter is active. It is possible to have the limiter engaged but not have the LED active. The limiter monitors both power-amp clipping and load so it automatically registers the cabinet-impedance and sets itself accordingly.
9. **Volume:** Sets the overall listening level of the amplifier.
10. **D.I:** XLR socket for direct-injection of the amplifier signal to a mixing-desk or additional power-amplifier. The XLR socket provides a low-impedance balanced output-signal.
11. **Ext Speaker socket:** This socket(s) should be used to connect an extension-cabinet. The impedance of the extension-cabinet must not be less than 8 Ohms. Connecting cabinets that have a lower impedance than 8 Ohms will result in the amplifier overheating. Continual use in this manner may cause permanent damage. Connecting a cabinet with an impedance of greater than 8 Ohms will cause no damage to the amplifier but will result in a reduced output.
12. **Tuner out:** Socket for connecting external tuner.
13. **FX LOOP:** Send and return sockets are provided for connecting external effects-units..

## R5 Front



## R5 Rear



1. **Inputs:** Normal and High inputs are provided for connection of bass guitars. High output basses, either Active or Passive should be connected via the High socket. Low output basses should be connected using the normal input. High output basses may also be placed in the Normal input if pre-amp overloading is desired.

2. **Gain:** This control is used to set the level of gain present in the pre-amp. The higher the level of gain, the more the signal will clip producing distortion. The GAIN control should be used in conjunction with the VOLUME control (12) to produce the desired signal characteristics.

3. **Compressor:** Engages and disengages the on-board compressor. This compresses the input signal giving a punchier sound. In association with the compressor are two LED's indicating that the compressor is engaged and one indicating the compressor is active. It is possible to have the compressor engaged but it only be active during certain periods of playing - typically the most dynamic sections.

4. **Enhance:** The ENHANCE control provides an increased definition at the low-end of the frequency spectrum giving you a tighter, punchier sound. The ENHANCE control does this by providing a dip in the frequency-response of the amplifier at approximately 200hz. This dip eliminates some of the secondary-harmonics of the important low-frequencies around 40-80 Hz producing a thicker sound. Turning the control through to its maximum has the effect of boosting both the low and high-frequency content of the signal whilst not effecting the mids.

5. **Bass:** Controls the low-frequency response of the pre-amplifier

6. Lo Paramid frq: Selects the LO MID-frequencies to be cut or boosted in conjunction with the LO PARAMID LEVEL control (7). To access low LO mid-frequencies turn the FREQUENCY control anticlockwise, to access higher LO MID frequencies turn the FREQUENCY control clockwise
- 7.Lo Paramid Level: Sets the level of boost or cut applied to the frequency set by control 6. For frequency-boost turn the control clockwise. For frequency-cut, turn the control anti-clockwise
8. Hi Paramid frq: Hi Paramid Frequency : Selects the HI MID-frequencies to be cut or boosted in conjunction with the HI PARAMID LEVEL control (9). To access low Hi mid-frequencies turn the FREQUENCY control anticlockwise, to access higher Hi MID frequencies turn the FREQUENCY control clockwise
- 9.Lo Paramid Level: Sets the level of boost or cut applied to the frequency set by control 8. For frequency-boost turn the control clockwise. For frequency-cut, turn the control anti-clockwise
- 10.Treble: Controls the high-frequency response of the pre-amplifier.
- 11.Limiter: Allows the on-board limiter to be defeated if desired. With the switch in the out position the limiter is engaged. The limiter is automatically triggered at high-output levels and is designed to prevent power-amp distortion at high-output levels. When the limiter is autpatically triggered an LED lights up to indicate the limiter is active. It is possible to have the limiter engaged but not have the LED active. The LIMITER monitors both power-amp clipping and load so it automatically registers the cabinet-impedance and sets itself accordingly.
12. Volume: Sets the overall listening level of the amplifier.
- 13.Horn switch: Switches the on-board horn either on or off.
- 14.D.I: XLR socket for direct-injection of the amplifier signal to a mixing-desk or additional power-amplifier. The XLR socket provides a low-impedance output-signal.
- 15.Ext Speaker socket: This socket(s) should be used to connect an extension-cabinet. The impedance of the extension-cabinet must not be less than 8 Ohms. Connecting cabinets that have a lower impedance than 8 Ohms will result in the amplifier overheating. Continual use in this manner may cause permanent damage. Connecting a cabinet with an impedance of greater than 8 Ohms will cause no damage to the amplifier but will result in a reduced output.
- 16.Tuner out: Socket for connecting external tuner.
- 17.FX Loop: Send and return sockets are provided for connecting external effects-units..

	R1	R2	R3	R3H	R4	R4H	R5
<b>Power Output</b>	65W	120W	165W	165W	300W	300W	300W
<b>Maximum Power Consumption 50/60Hz</b>	120W	240W	300W	300W	450W	450W	450W
<b>Input Impedance Normal/Hi</b>	1M Ohm	1M Ohm	1M Ohm	1M Ohm	1M Ohm	1M Ohm	1M Ohm
<b>Input Sensitivity Norma/Hi</b>	20/40mV	10/20mV	12/24mV	12/24mV	12/24mV	12/24mV	12/24mV
<b>FX Loop Level (Nominal)</b>	700mV	800mV	800mV	800mV	800mV	800mV	800mV
<b>Minimum Ext.Speaker Impedance</b>	n/a	8 Ohms	8 Ohms	4 Ohms* eg 2x8 Ohms or 1x4 Ohms	8 Ohms	4 Ohms* eg 2x8 Ohms or 1x4 Ohms	8 Ohms
<b>Recommended Minimum Extension Speaker Power Rating</b>	n/a	60 Watts	80 Watts	165 Watts*  150 Watts (4 Ohms) 100 watts (8 Ohms)		300 Watts*  150 Watts(4 Ohms) 150 Watts(8 Ohms)	
<b>Recommended Richter Extension Cabinets</b>	n/a	R115	R410 or R115	R410 & R115 or 2xR410	R410 or R115	R410 & R115 or 2xR410	R410 or R115





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