

VH100R

OPERATING INSTRUCTIONS - 2.2

Laney

POWER TO THE MUSIC

100W ALL TUBE
GUITAR HEAD AMPLIFIER



www.laney.co.uk



The Dark Art

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. The product should be powered by a three pin grounded (or earthed) plug connected to a power socket with a grounded earth outlet.
3. All safety and operating instructions should be retained for future reference
4. Obey all cautions in the Operating instructions and on the back of the unit
5. All operating instructions should be followed
6. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
7. 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.
8. This product should not be placed near a source of heat such as stove, radiator, or another heat producing amplifier.
9. Connect only to a power supply of the type marker on the unit adjacent to the power supply cord.
10. Never break off the ground pin on a power supply cord.
11. 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 cord exits the unit.
12. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
13. If this product is to be mounted in an equipment rack, rear support should be provided.
14. The user should allow easy access to any mains plug, mains coupler and mains switch used in conjunction with this unit thus making it readily operable.
15. 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.
16. 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.
17. 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.
18. The user should not attempt to service the equipment. All service work is done by a qualified service technician.
19. 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 1/2	102
1	105
1/2	110
1/4 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.

SAVE THESE INSTRUCTIONS





Intended to alert the user to the presence of uninsulated 'Dangerous Voltage' within the products enclosure that may be sufficient to constitute a risk of electrical shock to persons.



Intended to alert the user of the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.

CAUTION: Risk of electrical shock - DO NOT OPEN.

CAUTION: To reduce the risk of electrical shock, do NOT remove the cover. No user serviceable parts inside. Refer servicing to qualified personnel.

WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance please read the operating instructions for further warnings.



Este simbolo tiene el proposito de alertar al usuario de la presencia de '(voltaje) peligroso' que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.



Este simbolo tiene el proposito de la alertar al usuario de la presencis de instrucccones importantes sobre la operacion y mantenimiento en la literatura que viene conel producto.

PRECAUCION: Riesgo de corrientazo - no abra

PRECAUCION: Para disminuir el risego de corrientazo, no abra la cubierta. No hay piezas adentro que el pueda reparar. Deje todo mantenimiento a los tecnicos calificados.

ADVERTENCIA: Para evitar corrientazos o peligro de incendio, no deja expuesto a la lluvia o humedad este aparato. Antes de usar este aparato, lea mas advticias en la guía de operacion.



Ce symbole est utilise pur indiquer a l'utilisateur de ce produit de tension non-isolee dangereuse pouvant etre d'intensite suffisante pour constituer un risque de choc electrique



Ce symbole est utilise pour indiquer a l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions sur l'utilisation et l'entretien (service) de l'appareil dans la litterature accompagnant le produit.

ATTENTION: Risques de choc electrique - NE PAS OUVIRIR

ATTENTION: Afin de reduire le risque de choc electrique, ne pas enlever le couvercle. Il ne se trouve a l'interieur aucune piece pouvant etre reparee par l'utilisateur. Confier l'entretien a un personnel qualifie.

ADVERTISSEMENT: Afin de prevenir les risques de decharge electrique ou de feu, n'exposez pas cet appareil a la pluie ou a l'humidite. Avant d'utiliser cet appareil, lisez les advertissements supplementaires situes dans le guide.



Dieses Symbol soll den Anwender vor unsolitierten gefahrlichen Spannungen innerhalb des Gehauses warnen, die von Ausreichender Starke sind, um einen elektrischen Schlag verursachen zu konnen.



Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

VORSICHT: Risiko - Elektrischer Schlag! Nicht offen!

VORSICHT: Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden Konnten. Reparaturen nur von qualifiziertem Fachpersonal durchfuhren lassen.

ACHTUNG: Um einen elektrischen Schal oder Feuergefahr zu vermeiden, sollte dieses Gerat nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.

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



NOTE

This manual has been written for easy access of information. The front and rear panels 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 amplifier has undergone a thorough two stage, pre-delivery inspection, involving actual play testing.

When you first receive your Laney guitar amplifier, follow these simple procedures:

- (i) Ensure that the amplifier is the correct voltage for the country it is to be used in.
- ii) Connect your instrument with a high quality shielded instrument cable. You have probably spent considerable money on your amplifier and guitar - don't use poor quality cable it won't do your gear justice.

Please retain your original carton and packaging so in the unlikely event that some time in the future your amplifier should require servicing you will be able to return it to your dealer securely packed.

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

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OPERATING INSTRUCTIONS

Dear Player,

Thank you very much for purchasing your new Laney product and becoming part of the worldwide Laney family. Each and every Laney unit is designed and built with the utmost attention to care and detail, so I trust yours will give you many years of enjoyment.

Laney products have a heritage which stretches back to 1967 when I first began building valve amplifiers in my parent's garage. Since then we have moved on from strength to strength developing an extensive range of guitar, bass, public address and keyboard amplification products along with a list of Laney endorsees that includes some of the world's most famous and respected musicians. At the same time we believe we have not lost sight of the reason Laney was founded in the first place - a dedication to building great sounding amplification for working musicians.

Warm Regards,



Lyndon Laney CEO



INTRODUCTION

The Dark Art: In an age where guitar players have developed an unhealthy fascination with pre-amp distortion, the fabled sound of a tube power amp being pushed hard has almost passed into history. Until now that is!

The VH100R features twin footswitchable channels; each with its own footswitchable gain; independent 3 band EQ; independent reverb level and dedicated FX loop, giving you an unprecedented level of flexibility. You can now go from a super clean shimmer; to a warm clean crunch; to a stack style distortion; to a full on lead tone, as simply as stepping on a switch - which is included with the amp (FS4). The hand wired 100W output stage is built to deliver: The harder you drive it, the better it sounds. The VH100R is designed to be used with the GS412IA and GS412IS cabinets - to enhance the amplifiers huge tonal range and produce stunning tone at any volume. The VH100R offers total flexibility - flexibility of tone and flexibility of use.

Your VH100R should give you years of trouble-free amplification, however please take time to read this manual and familiarise yourself with the controls as it will allow you to get the best from your amplifier. We hope you enjoy using your VH100R as much as we enjoyed designing and making it. Best wishes from all at Laney



FRONT PANEL CONTROLS

1 HI INPUT: 'Hi' stands for high gain. This input is designed for the connection of low output level guitars making it well suited for guitars with single coiled or low gain humbucker type pickups. Use of high gain pickups in this input may drive the preamp too hard causing a "mushy" sound. Only use good quality guitar cable.

2 LO INPUT: 'Lo' stands for low gain. This input is attenuated down approximately 50% from the Hi input and is designed for high output level guitars. It is useful in obtaining output that is "tight" not "mushy" from high gain humbucker type pickups. Also use this input for the cleanest full range sound with extended low end response. Only use good quality guitar cable.

3 GAIN: Sets the level of tube preamplifier gain or how dirty your sound is for the drive channel - Channel B. This channel is designed to produce full stack style distortion. This control should be used in conjunction with the Volume (4) Setting a low gain level and medium Volume will give a nice crisp bluesy lead tone, again with the ability to drive the output stage at higher Volume settings. Setting a medium level on the Gain control and a medium setting on the Volume will give you a punchy hard rock lead tone, with the ability to again drive the output tubes at higher Volume settings, while setting a high level on the Gain control and a low setting on the Volume will give you a full on metal lead tone, with the ability to again drive the output tubes at higher Volume settings. Having set the Gain and Volume controls to your desired sound try backing off your guitar volume and tone controls for lots of other cool sounds. Good tube amplifiers have the unique ability to produce a wide range of sounds by using only your guitar controls, playing weight and style.

4 VOLUME: Sets the overall 'loudness' of Channel B. It is useful to experiment with the gain and volume controls. If you want a very open, warm and semi overdriven sound try reducing the amount of gain (3) and increasing the volume. This reduces pre-

amp gain but pushes the power amp section and makes it work harder giving you a very desirable level of power amp distortion which is a very pleasing “retro” style sound.

5

DRIVE SWITCH: Switch in to enable the extra tube drive stage for Channel B, the led will illuminate when active. This gives you even more gain to play around with using the drive control (6) This channel is designed mainly for full on lead distortion. This must be switched on for the drive channel to be switchable with the enclosed FS4 footswitch.

6

DRIVE: This sets the amount of drive sound provided by the extra tube drive stage for Channel B. This varies from subtle crunch to hi-gain lead break sounds.

7-12

BASS, MIDDLE, TREBLE: These are a traditional set of passive tone controls. Passive controls have the advantage of always sounding musical at any of their settings mainly due to their unique interactive nature. This gives players a more natural set of tools to create their ideal sound. (Try them all set at midway (5) as a good starting point) (Top row of controls affects channel B, bottom row of controls affects Channel A)

13-14

REVERB: Controls how loud the built in reverb sounds. The reverb in the VH100R is a legendary Sound Enhancements aka ‘Accutronics Reverb’. The only choice for that authentic reverb sound. There are separate controls for Channel A (bottom) and Channel B (Top)

15-16

EFFECTS: Controls the amount of effect returned from an external effects unit via the effects loop/s located on the rear panel. There are separate controls for channel A (bottom) and channel B (top)

17

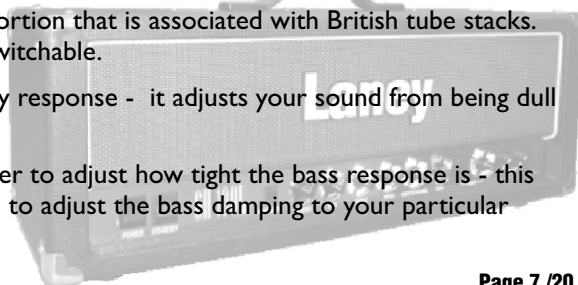
CHANNEL SWITCH: Use this switch to select the active channel, the led will illuminate for the active channel (Top or bottom row of controls) Channel A (Bottom) produces clean tone and mild overdrive that is reminiscent of a sixties American tube combo. Channel B (Top) produces more substantial overdrive and distortion that is associated with British tube stacks. Both channels feature an extra gain stage for more drive which is also footswitchable.

18

PRESENCE: An output stage tone control. This adjusts the high frequency response - it adjusts your sound from being dull to giving it edge / sounding sparkly.

19

RESONANCE: Adjusts level of Power Tube damping. This allows the player to adjust how tight the bass response is - this will be dependent on what speaker cabinet used. The Resonance allows you to adjust the bass damping to your particular taste.



FRONT PANEL CONTROLS - CONTINUED

VOLUME: Adjusts the overall volume of the clean channel (Channel A). This channel is designed to produce ultra clean tones. Try cranking the volume control up a little to push the output tubes harder for that real retro sound you can only get with a quality tube amplifier. Now use your guitar volume control to adjust the amount of distortion. (Wind it up a little for mild distortion, back it off a little for clean)

BRIGHT: Adds brightness and life to your tones when on the clean channel. Adds edge and picking emphasis when on the clean drive channel (22-24). This switch has more effect at low clean volume (20) and drive (23) settings. Use in conjunction with the clean treble control (12) for optimum performance.

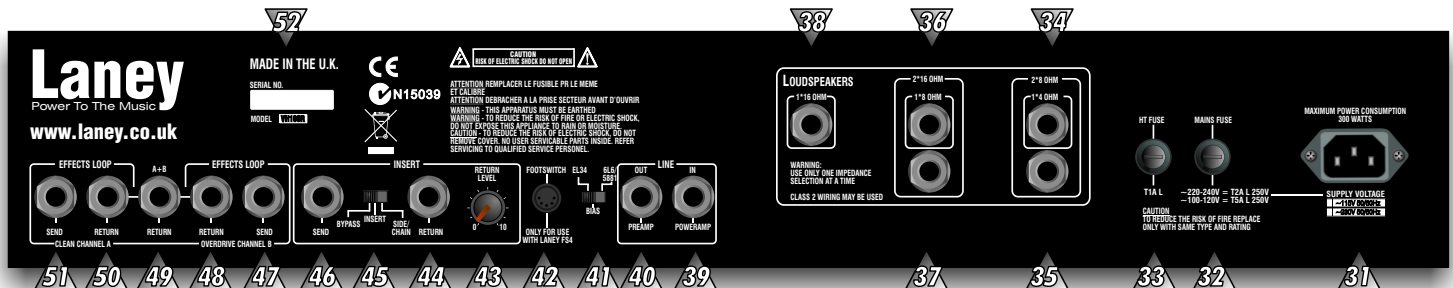
DRIVE SWITCH: Switch in to enable the drive stage for the clean channel. When active the led will illuminate. Note: This switch must be set to 'on' to enable remote switching via the FS4 footswitch.

DRIVE: Sets the level of tube preamplifier gain or how dirty your sound is for channel A drive. This channel is designed to produce clean crunch sounds. This control should be used in conjunction with the Volume (23). Setting low levels of gain with high levels of volume will give a clean preamplifier sound with tube output stage overdrive. Setting a medium gain level and medium Volume will give a nice crisp bluesy lead tone, again with the ability to drive the output stage at higher Volume settings. Setting a high level on the Gain control and a low setting on the Volume will give you a punchy hard rock lead tone, with the ability to again drive the output tubes at higher Volume settings. Having set the Gain and Volume controls to your desired sound try backing off your guitar volume and tone controls for lots of other cool sounds. Good tube amplifiers have the unique ability to produce a wide range of sounds by using only your guitar controls, playing weight and style.

VOLUME: Sets the overall 'loudness' of Channel A drive. It is useful to experiment with the gain and volume controls. If you want a very open, warm and semi overdriven sound try reducing the amount of gain (23) and increasing the volume. This reduces pre-amp gain but pushes the power amp section and makes it work harder giving you a very desirable level of power amp distortion which is a very pleasing "retro" style sound.

STANDBY: Disconnects the HT supply from the Tubes whilst the heaters still keep them warm. This allows you to switch out of standby and play without waiting for your amplifier to warm up. This is useful after you have sound checked and you are waiting to go on stage - leave the amp in standby so its ready to go when performance time comes. Always switch off for short breaks when you don't want to wait for the tubes to warm up again.

POWER: Main power switch for the unit. The VH100R features delay turn on circuitry to increase tube life, the HT supply to the tubes gets switched on only after they have warmed up and are ready to go - approx 30 seconds.



REAR PANEL CONTROLS

POWER INLET SOCKET: Connect to your power source. Make sure the specified voltage is correct for your country!

POWER FUSE: This is the main safety fuse for the unit. The fuse protects the AC power to the amplifier. **USE ONLY THE CORRECT SIZE AND RATING OF FUSE AS SPECIFIED ON THE PANEL.** If a fuse blows or fails and a replacement of the same size and rating is installed and it in turn blows, the amplifier has suffered a malfunction internally and needs immediate service from a qualified technician. **DO NOT TRY USING A FUSE OF HIGHER RATING.** Using a fuse that is too large in current rating may cause serious, irreparable damage to the amplifier and presents a serious fire hazard. The mains fuse ratings are detailed in the specs section at the rear of this manual

HT FUSE: This fuse protects the DC power to the tubes within the amplifier. **USE ONLY THE CORRECT SIZE AND RATING FUSE AS SPECIFIED ON THE PANEL.** If a fuse blows or fails and a replacement of the same size and rating is installed and it in turn blows, the amplifier has suffered a malfunction, at this point check the output tubes and replace faulty ones if required. Should tubes not be the problem the amplifier should be checked out by a qualified technician. Do not try using a fuse of greater value. Using a fuse that is too large in current rating may cause serious, irreparable damage to the amplifier. Fuses are designed to protect, do not take chances.

LOUDSPEAKERS: Loudspeaker outlets are provided on a series of five 1/4" (6.3mm) jack sockets. The impedance of the loudspeaker/s should be checked and connected to the appropriate socket/s. Using the incorrect sockets will reduce the life of your output tubes and won't sound as good and in extreme cases could damage your amplifier.

IMPORTANT: Operation of your VH100R amplifier without a loudspeaker connected could result in expensive failure of your output transformer. **DO NOT OPERATE WITHOUT A LOUDSPEAKER CONNECTED.** There are dedicated optimised outputs for the following loudspeaker combinations: 1*16 ohm, 1*8 ohm, 2*16 ohm, 1*4 ohm, 2*8 ohm.

REAR PANEL CONTROLS - CONTINUED

LINE IN: The Line in socket provides the user with an input to the power amplifier stage. When a Jack is connected to the Line In socket the preamp signal **does not** pass to the power amp.

LINE OUT: The line out socket gives the user an output for driving other amplifiers, mixing desks etc.. Can also be useful in multi-amp setups where a single preamp can drive several VH power stages. This can be done by simply daisy chaining Line outs to Line ins. The line out is an (unbalanced) line level output.

BIAS: This allows you to bias the amplifier to suit your chosen output tubes. The switch has two positions 5881/6L6 and EL34. We recommend the use of matched sets of output tubes for best performance. Ensure the switch is in the correct position otherwise you risk damaging your amplifier.

FOOTSWITCH: This is a 5 pin 180° DIN socket for connection of the dedicated FS4 footswitch enclosed with the amplifier. The FS4 allows remote switching of Channel A/B, Drive on Channel A, Drive on channel B and Global Reverb

FX RETURN LEVEL: This control serves two purposes:

- 1) In Side chain mode it controls the mix level of the global FX Return signal (via I4) mixed with the dry signal.
- 2) In Insert mode it behaves as an overall level control for the global FX Return (via I4)

EFFECTS LOOP RETURN: Connect the output from your external effects to this socket. A notable feature on the VH100R is that you won't lose sustain when the FX loops are in use. This is because the power stages are still driven by a tube FX loop buffer.

EFFECTS LOOP SWITCH: This allows the global effects loop to operate in three distinct modes:

- 1) **Side Chain:** The return signal is mixed with the dry signal, the level of FX return is controlled by the FX return level control. This allows you to set the right mix between the dry signal and the effects signal. Use Side chain mode for FX units such as delays, flangers etc where a direct signal path is maintained internally to avoid loss of dynamics through the external FX processor. When using this mode the external FX processor should be switched to 'effect only mode'
- 2) **Insert:** The return signal is buffered and sent directly to the output tubes, no mixing with the dry signal happens. The wet/dry mix is adjusted within the external FX processor. The FX return level control then acts as overall level control allowing you to make up for any insertion loss that may occur in the FX processor. Use this mode when the whole of the amplifier signal needs routing through any external processors such as graphic EQs etc.

Warning: In insert mode with the FX return level control at minimum the amplifier will have no output, good normal level for this control is '5' which is approx unity gain.

- 3) **Bypass:** The global FX loop circuitry is switched out of circuit altogether.



REAR PANEL CONTROLS - CONTINUED

EFFECTS LOOP SEND: Connect the input of your external effect to this socket. A 'side chain' effects loop allows you to connect external effects such as tremolo's, chorus and delays to your amplifier. Signal leaves the amplifier via the 'Send' (46) socket and comes back from the effects via the 'Return' (44) socket via the FX return level control (43). Some Effects are better suited to being between the guitar and amplifier input - these are foot pedal types / distortion / wah wah pedals etc. Rack mount effects will work better in the FX loop on the amplifier rear. Stomp boxes are normally designed for small signals such as a guitar output whereas rack mount FX are designed for the higher signal level obtained from an FX send.

CHANNEL B SEND: This line level output provides a signal from the pre-amplifier for routing to external effects processors. It operates in sidechain mode and any external processors should be set to 'Effect only Mode' if at all possible.

CHANNEL B RETURN: Connect the output of the Channel B FX processor here if you only want the effect to be assigned to channel B. Control the amount of effect with the Channel B effect level control on the front panel. (15)

CHANNEL A+B RETURN: This socket is provided for use when a single external FX processor is going to be used on both channels, but at different mix levels.

CHANNEL A RETURN: Connect the output of the Channel A FX processor here if you only want the effect to be assigned to channel B. Control the amount of effect with the Channel B effect level control on the front panel. (16)

CHANNEL A SEND: This line level output provides a signal from the pre-amplifier for routing to external effects processors. It operates in sidechain mode and any external processors should be set to 'Effect only Mode' if at all possible.

SERIAL NO: Displays the model and serial number of the unit.



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OPERATING INSTRUCTIONS

QUICK START SETTINGS

The image displays four rows of the Laney VH100R control panel, each representing a different sound preset. Each row includes a power switch (POWER/STANDBY), a channel selector (CHANNEL), and various knobs and switches for sound shaping. The settings are as follows:

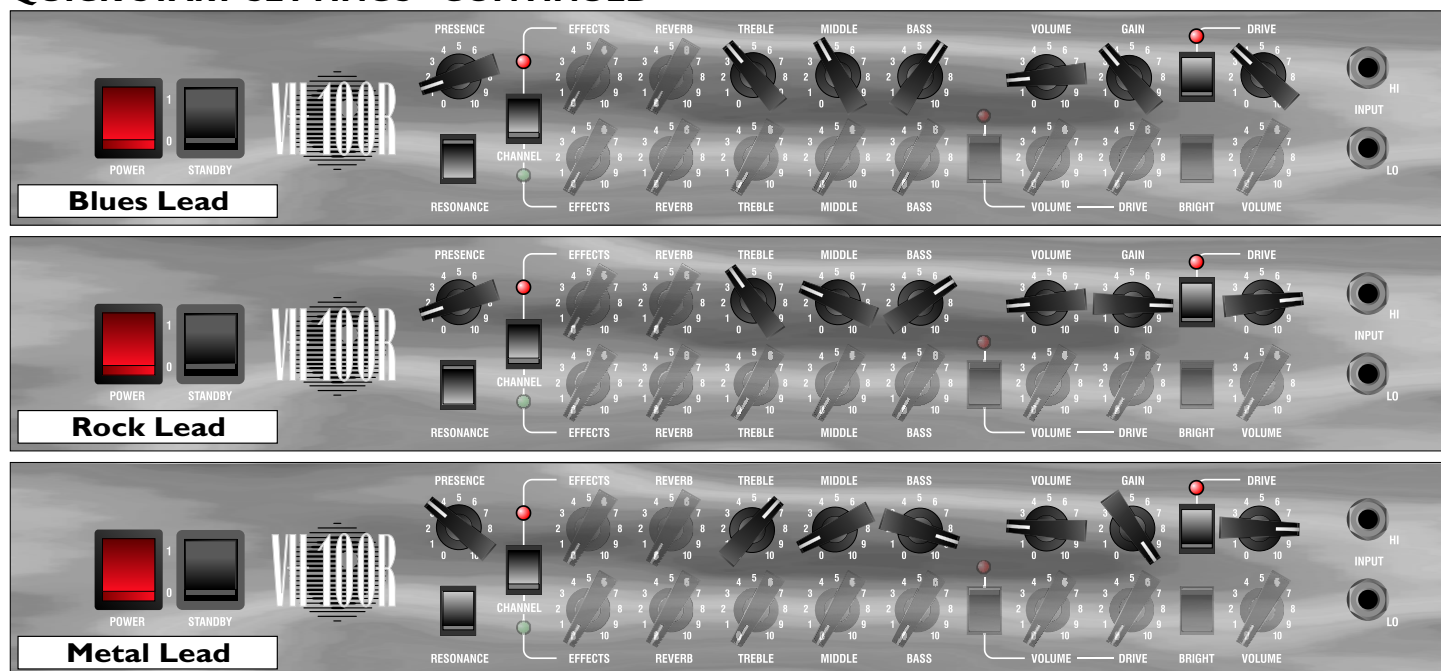
- Ultra Clean:** PRESENCE (10), EFFECTS (1), REVERB (1), TREBLE (10), MIDDLE (10), BASS (10), VOLUME (10), GAIN (1), DRIVE (1), BRIGHT (1), and a second VOLUME knob (10). The POWER switch is in the 'POWER' position (red light on).
- Clean Crunch:** PRESENCE (10), EFFECTS (1), REVERB (1), TREBLE (10), MIDDLE (10), BASS (10), VOLUME (10), GAIN (1), DRIVE (1), BRIGHT (1), and a second VOLUME knob (10). The POWER switch is in the 'POWER' position (red light on).
- Grungy/Punk:** PRESENCE (10), EFFECTS (1), REVERB (1), TREBLE (10), MIDDLE (10), BASS (10), VOLUME (10), GAIN (1), DRIVE (1), BRIGHT (1), and a second VOLUME knob (10). The POWER switch is in the 'POWER' position (red light on).
- Rock Rhythm:** PRESENCE (10), EFFECTS (1), REVERB (1), TREBLE (10), MIDDLE (10), BASS (10), VOLUME (10), GAIN (1), DRIVE (1), BRIGHT (1), and a second VOLUME knob (10). The POWER switch is in the 'POWER' position (red light on).

Each row also features a 'VH100R' logo and a 'CHANNEL' indicator light. The input jacks (HI and LO) are located on the right side of each panel.

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OPERATING INSTRUCTIONS

QUICK START SETTINGS - CONTINUED



NOTES: These settings are suggestions only and will obviously vary depending on your guitar and playing style.

Experiment until you find something you like!

TUBE AMPLIFIER SURVIVAL TIPS

Tube amplifiers generally sound much warmer/sweeter than solid state transistor amplifiers but they also need a little more respect due to the fragile glass tubes themselves. The VH100R uses top quality tubes, six ECC83 preamp tubes, and a matched set of four EL34B-STR output tubes which should give you years of trouble free service, however like all tube amps; it is important to treat it with a certain amount of respect.

- Take care when moving the amplifier. Tubes are fragile glass components, they can easily be damaged if thrown in and out of transit vans etc.
- Make sure the impedance of your cabinets matches the setting on your amplifier. Improper impedance matching will result in reduced output power output and compromised sound at best and amplifier failure/premature tube failure at worst.
- Allow the amplifier to warm up to room temperature before switching it on, The sudden thermal shock generated can crack the cold glass tube housing plus any moisture is bad news around high voltage electronics.
- Allow the amplifier to cool down after playing before moving. Hot tubes are more susceptible to damage than cool ones.
Use good quality loudspeaker leads, cheap leads are often not up to the job of handling the large requirements for loudspeakers and can often short out. Tube amps don't like running into a short circuit.

A tubes life expectancy is based upon a number of factors which include operating temperature, how hard and how often it is played, vibration due to travel etc. Tubes should be changed in your amplifier if you notice any change in your amplifiers performance etc. They need not be changed at any regular interval.

Typical problems with preamp tubes can be a crackley noise, hiss, hum and microphony. The preamp tubes can safely be changed with no action required if they fail or reduce in performance.

Typical output tube problems can be blown HT fuse, sound lacking in punch, sound lacks extreme highs or lows and low level hum. The Output tubes can be replaced singularly **if you replace them with the exact same type AND grade as factory fitted** otherwise they should be replaced as a set. If the same type and grade are used then no rebiasing of the amplifier is required. See the diagram at the bottom left hand corner to see how to check the tube grade fitted. If you wish to use a different grade of tube then they should only ever be changed by a qualified service agent due to the grid bias voltage needing adjustment. Do not attempt to rebias your tube amplifier yourself, there are potentially dangerous voltages inside.

Exact replacement preamp tubes and matched sets of output tubes are available from Laney via your dealer.

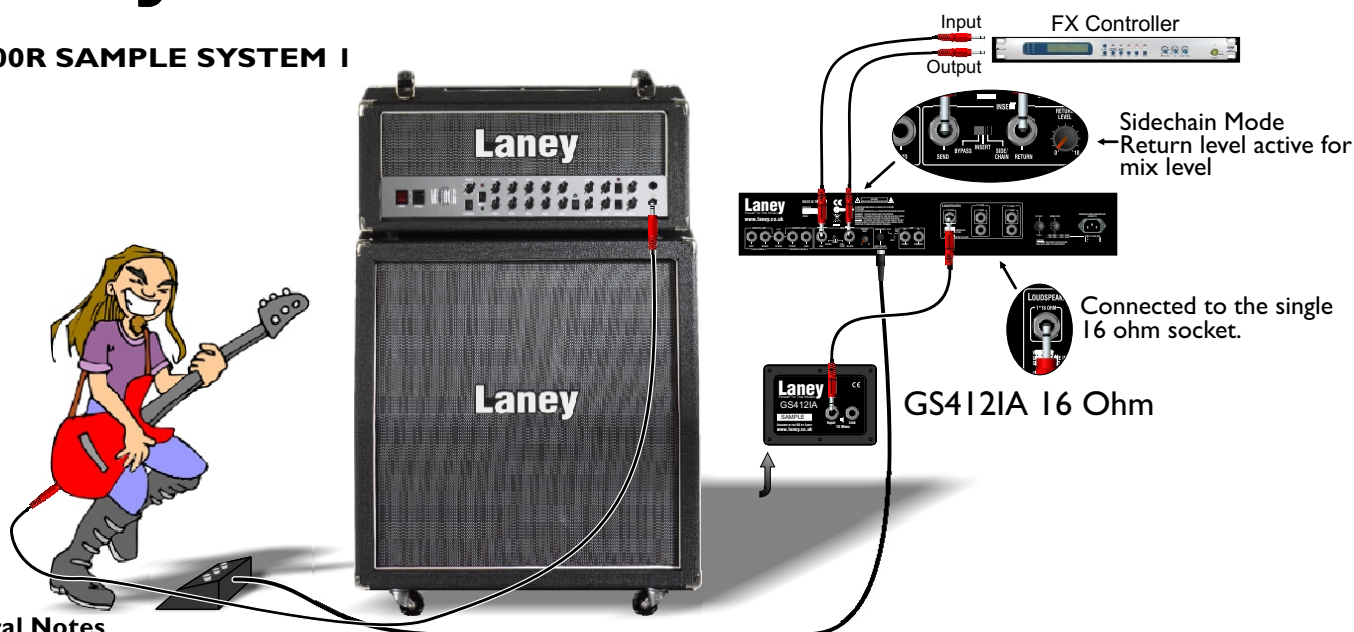
To change a tube, switch off the unit and unplug from the mains supply. Wait for the tubes to cool down. Remove the protective grille held in place with four screws. You should now be able to access the chassis where the tubes are mounted. Preamp tubes are protected with a screen can, to remove; gently twist the screen can anti clockwise and then pull up. The tube can then be gently pulled out. Take care when pushing the new tube in to make sure the pins are all aligned properly. Output tubes have a spring retainer which must be pushed downwards before the tube will come out.

TUBE AMPLIFIER SURVIVAL TIPS - continued



V1	ECC83	Hi-Grade	1st Gain Stage Drive Ch.
V2	ECC83	Standard	2nd Gain Stage Drive Ch.
V3	ECC83	Hi-Grade	1st Gain Stage Clean Ch.
V4	ECC83	Standard	2nd Gain Stage Clean Ch.
V5	ECC83	Standard	3rd Gain Stage Drive Ch.
V6	ECC83	Standard	Power Driver Stage
V7-10	EL34B-STR	Standard	MATCHED SET

VH100R SAMPLE SYSTEM I



General Notes

Amplifier connection: In order to avoid damage, it is advisable to establish and follow a pattern for turning on and off your equipment. With all system parts connected, turn on source equipment, tape decks, cd players, mixers, effects processors etc. BEFORE turning on your guitar amplifier. Many products have large transient surges at turn on and off which can cause damage to your speakers. By turning on your guitar amplifier LAST and making sure its Volume controls are set to minimum any transients from other equipment will not reach your loudspeakers. Wait until all system parts have stabilised; usually a couple of seconds. Similarly when turning off your system always turn down the Volume controls on your guitar amplifier and then turn off its power before turning off other equipment.

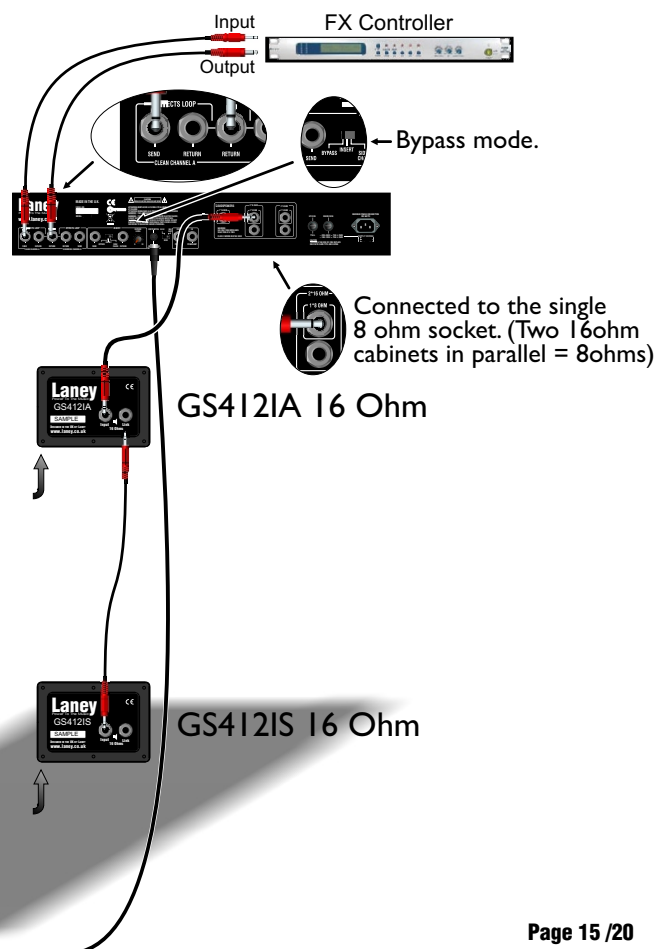
Cables: never use shielded or microphone cable for any speaker connections as this will not be substantial enough to handle the amplifier load and could cause damage to your amplifier system.

Caution: These professional loudspeaker systems are capable of generating very high sound pressure levels. Use care with placement and operation to avoid exposure to excessive levels that can cause permanent hearing damage. (Refer to guidelines on page 2)

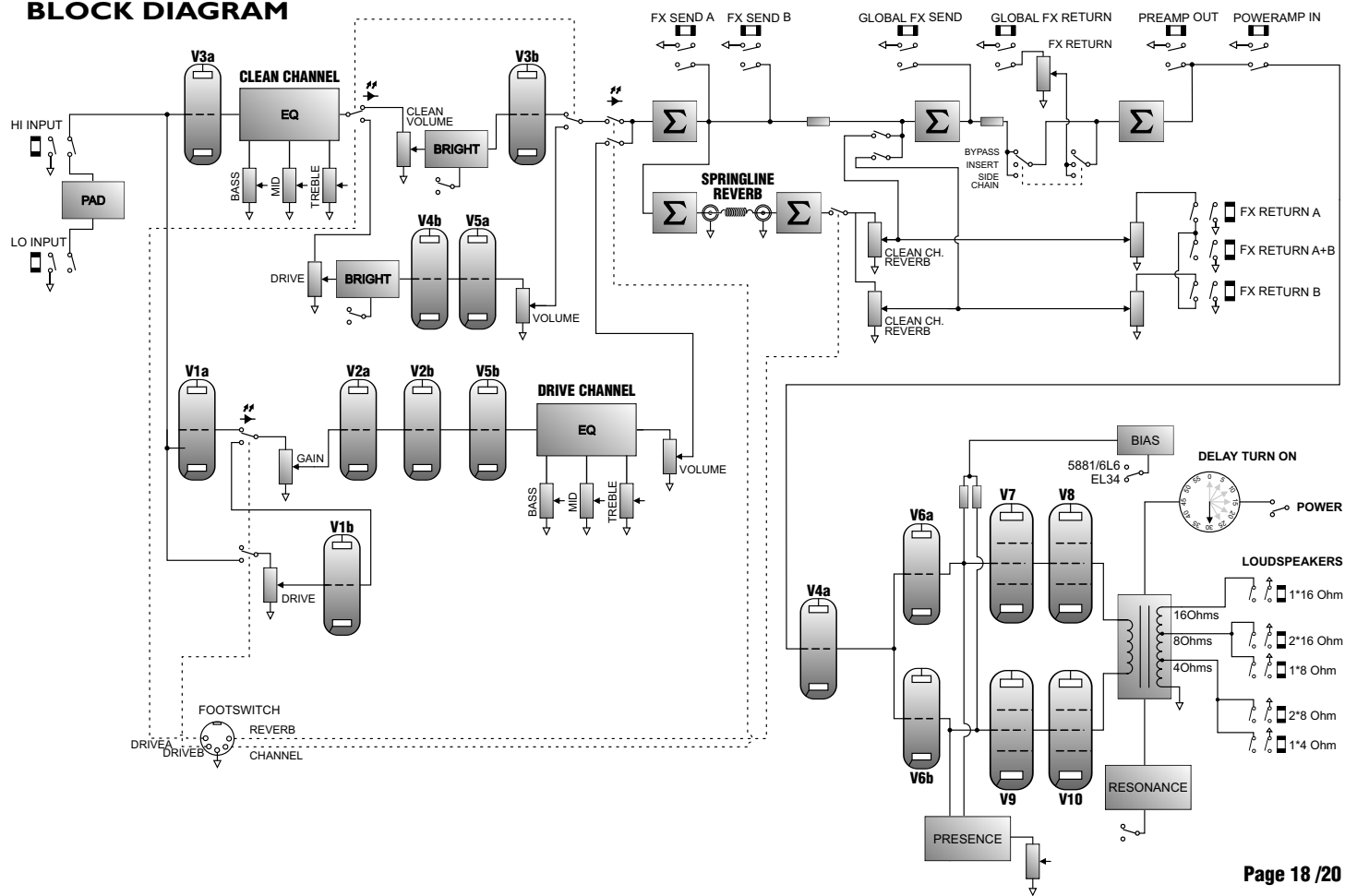
Servicing: The user should not attempt to service these products. Refer all servicing to qualified service personnel.

VH100R SAMPLE SYSTEM 2

Front panel effects level controls active allowing independent control of each channel



BLOCK DIAGRAM



SPECIFICATIONS

Supply Voltage	~100V, ~120V, ~220V, ~230V, ~240V 50/60Hz Factory Option	
Mains Fuse	(~220V>240V = T2A L 250V) (~100>120V = T5A L 250V)	
HT Fuse	T1A L	
Power Consumption	300W	
Output Power Rating	100W	
Loudspeaker Outputs	1*16 Ohm	
	1*8 Ohm	2*16 Ohm
	1*4 Ohm	2*8 Ohm
Features	Pure Class A/B Valve tone	
	4xEL34B-STR Power Tubes	(Matched Set TAD)
	6x12AX7 Preamp tubes	(Premium TAD ECC83)
	Hi & Lo Gain Inputs	
	Rugged construction	
	Selectable FX Loop with Level Control	(Sidechain/Insert/Bypass, 500mV Nominal)
	Individual Channel A+B FX loops	(With Front panel controls, 500mV Nominal)
EQ	Line In/Line Out	(Nominal)
	Passive Bass, Middle and Treble	(Separate EQ For Clean and Drive)
	Resonance Switch	
	Bright Switch	(For Clean Channel+Clean Drive)
	Presence	
Footswitchable	Channel, Drive A, Drive B, Reverb	(Laney FS4 footswitch included)
Input Impedance	1M Ohm/47pF	
Size (H*W*D)	290*675*290	
Unit Weight	27.5Kg	

This product conforms to the requirements of the following European Regulations, Directives & Rules:-

CE Mark (93/68/EEC), Low Voltage (72/23/EEC), EMC (93/68/EEC),
RoHS (EU2002/95/EC), WEEE (EU2002/96/EC)



In order to reduce environmental damage, at the end of its useful life, this product must not be disposed of along with normal household waste to landfill sites. It must be taken to an approved recycling centre according to the recommendations of the WEEE (Waste Electrical and Electronic Equipment) directive applicable in your country.



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LANEY AMPLIFICATION
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In the interest of continued product development, Laney Reserves the right to amend product specification without prior notification.



The Dark Art
III