IRONHEART

-FOUNDRY-

IRF60-110

USER MANUAL

Laney™

EN

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INTRODUCTION

The Laney IRF60-110 is the entry point to the Ironheart Foundry combo range. A 60 Watt solid-state guitar amplifier that maps the circuit topology and tonal character of the Ironheart tube series into a compact, gig-ready combo. Powered by a custom-voiced 10" driver developed in partnership with HH, the IRF60-110 delivers genuine IRONHEART gain character in a package that goes anywhere, costs less than a tube amp, and never needs a re-tube.

Producing 60 Watts RMS, the IRF60-110 offers clean headroom alongside stage volume – while the power scaling 1W mode and headphone output make it equally powerful as a silent recording tool or a bedroom practice amp.

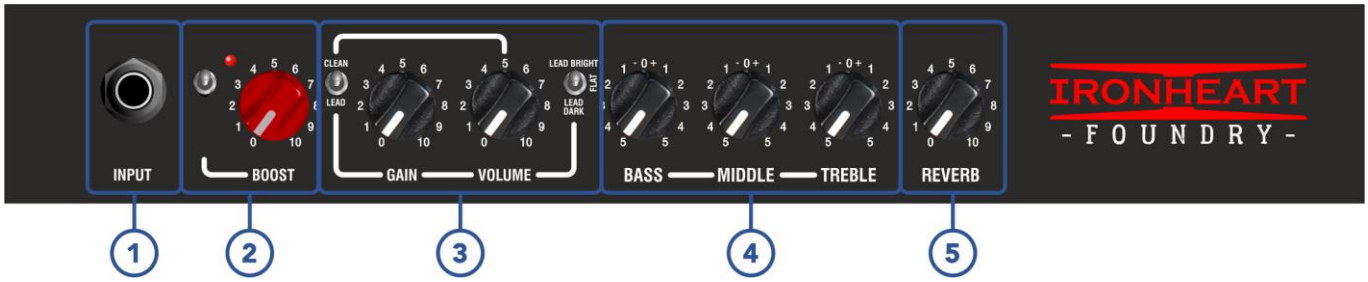
KEY FEATURES

The IRF60-110 is built around the Foundry philosophy: “everything you need, nothing you don't”

- 60 Watts RMS
- Custom 10" driver by HH Audio - purpose-voiced for the Foundry circuit
- Dual gain modes: CLEAN, and LEAD - covering clean headroom to saturated high-gain lead tones
- BRIGHT and DARK voicing switch for tonal shaping
- 3-band passive tone stack (BASS, MIDDLE, TREBLE)
- Pre-BOOST with footswitch jack - add a defined gain step on demand
- POWER scaling to under 1 Watt - full-character tone at any volume
- Onboard spring-style REVERB
- EFFECTS LOOP (Series SEND/RETURN)
- HEADPHONE output for silent practice
- AUX IN for backing tracks and play-along

CONTROLS

FRONT



1. INPUT

Connect your guitar here using a high-quality instrument cable.

2. BOOST

The switchable BOOST control is an additional pre-channel drive setting to increase the input signal. This is like placing a boost pedal in the front of your amplifier.

Control the amount of gain the BOOST delivers with the BOOST control knob and enable / disable the BOOST with the ON / OFF switch. The LED will illuminate to indicate the Boost is active.

Note: The BOOST switch needs to be in the up position to allow for footswitch control.

3. CLEAN/LEAD

Select either the CLEAN or LEAD channel via the toggle switch.

CLEAN - A low gain signal path for a clean tone, that can be driven with higher levels from the BOOST stage to produce rich tube-like tones with both odd and even harmonics. Use the VOLUME to fine tune the overall output level. When using the CLEAN channel, the GAIN control does not do anything.

LEAD - A high gain channel with additional GAIN control and three position TONE CHARACTER switch. Use the GAIN control in conjunction with the BOOST control to achieve the desired overdrive/distortion. This channel, with symmetrical clipping, produces a signal with more compression and sustain. Additional signal colouration can be applied via the tone switch:

LEAD BRIGHT – extends the high frequencies giving a brighter tonal character.

FLAT – this is a standard tone-stack setting gives no particular emphasis on high or low frequencies.

LEAD DARK – boosts the low-end frequencies adding some warmth to the tone whilst reducing the power of the high frequencies.

As with the CLEAN channel, the overall output level is set via the shared VOLUME control.

4. EQ

The Ironheart Foundry features a typical British voiced three-band EQ tone stack for full control of the BASS, MIDDLE and TREBLE frequency bands.

BASS – adjusts the strength of the low-end response of your output, for a deeper sound when turned clockwise.

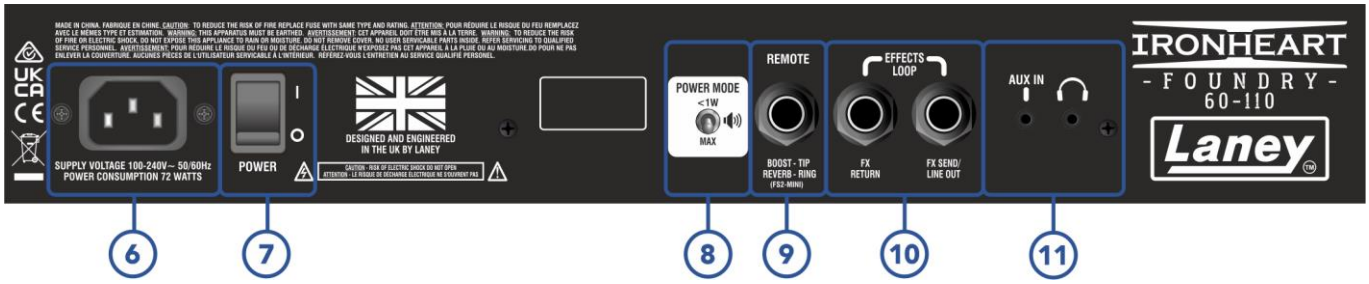
MIDDLE – adjusts the strength of the mid-range response of your output, that when turned clockwise gives a fuller sound.

TREBLE – a adjusts the strength of the top-end response of your output. Turning clockwise will boost the brighter, higher notes.

5. REVERB

Our built-in studio quality spring line reverb effect based on our Secret Path pedal. Turn the knob clockwise to increase the strength of the effect. At 0, no reverb will be heard. Remote on/off control is available via footswitch remote.

REAR



6. POWER SOCKET

IEC C14 mains inlet socket to connect the provided power cable. The universal power input accepts a wide voltage range -100-240V~50/60Hz with no voltage selection required.

7. POWER SWITCH

Main POWER switch for the unit. Set the switch to '0' when the amp is not in use.

8. POWER MODE

Switch the audio output level of the amplifier between full power and <1W for quiet playing.

9. REMOTE

A footswitch socket to allow for remote switching (on/off) of BOOST (tip) and REVERB (ring), with a suitable footswitch connected. A Laney-FS2-MINI (not included) is recommended, but most latching footswitches should work.

10. EFFECTS LOOP

FX SEND/LINE OUT and FX RETURN to connect external effects pedals or rack equipment. The FX SEND can also be used as a standard line level output. Both FX SEND and RETURN are post VOLUME and EQ, but pre-REVERB.

11. AUX IN AND HEADPHONES

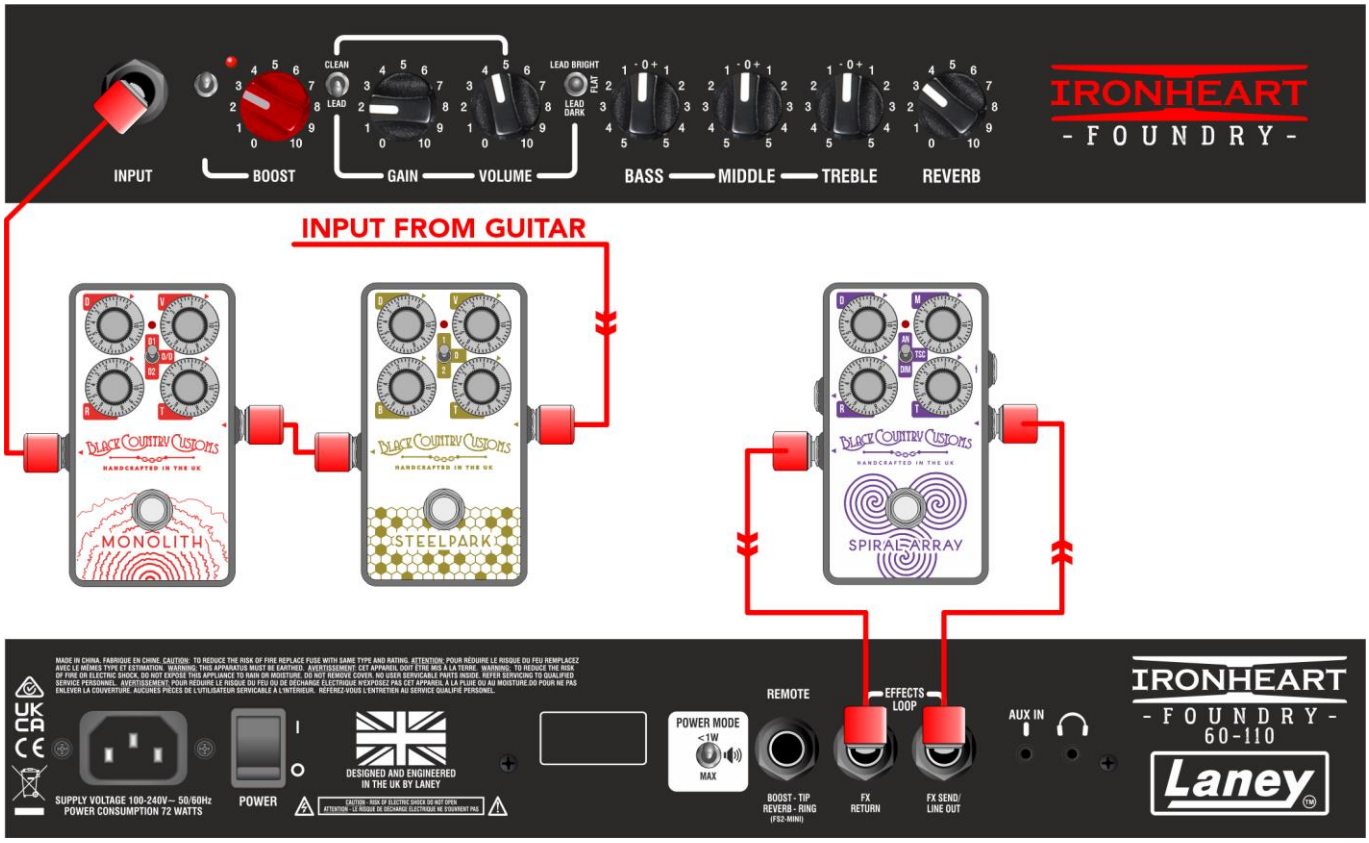
A 3.5mm AUX input to add a backing track to your mix. The AUX IN is internally routed post-VOLUME, EQ and REVERB.

A 3.5mm HEADPHONES output for silent playing – the onboard loudspeaker will mute when headphones are connected.

CONNECTIONS

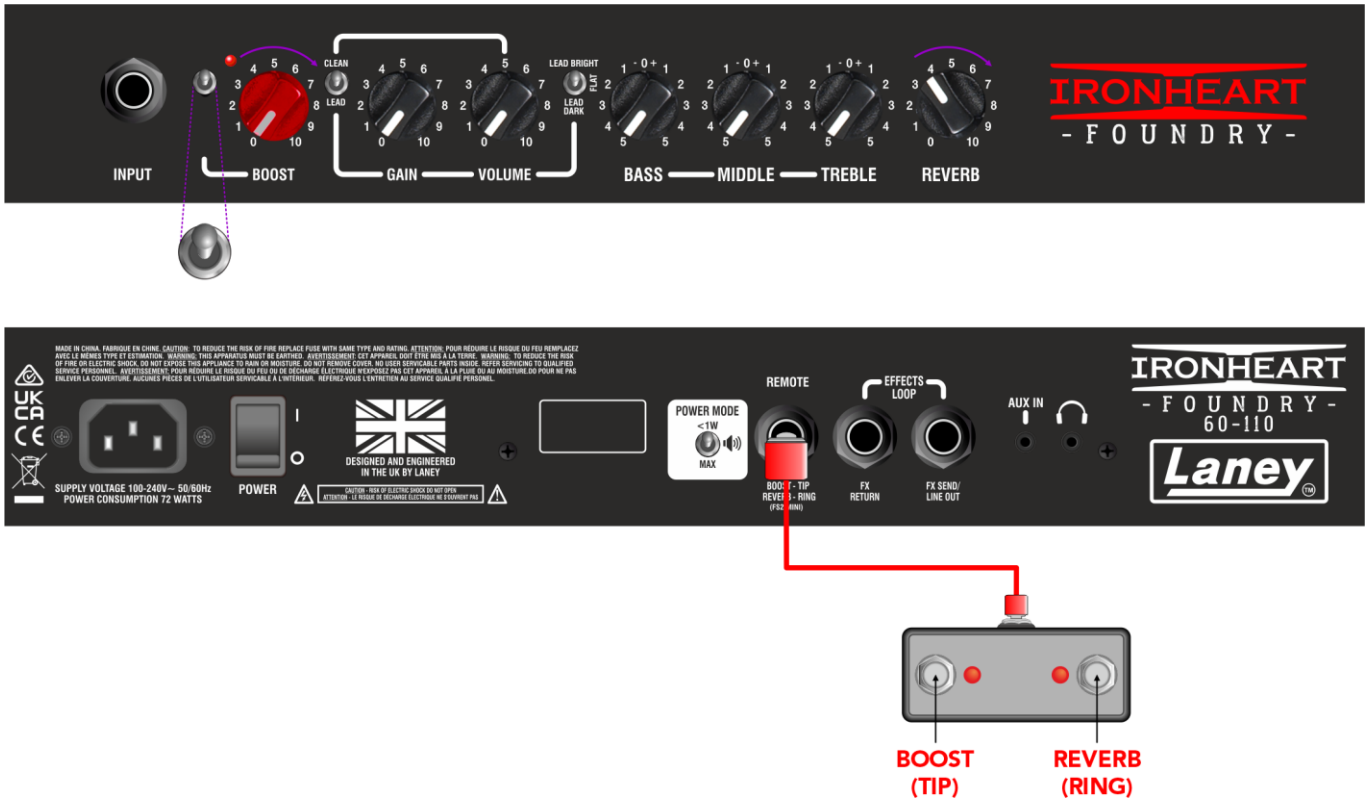
EXTERNAL FX

Add you favourite FX pedals before the amplifier INPUT, in the EFFECTS LOOP or a combination of the two to customise the IRF60-110 tone.



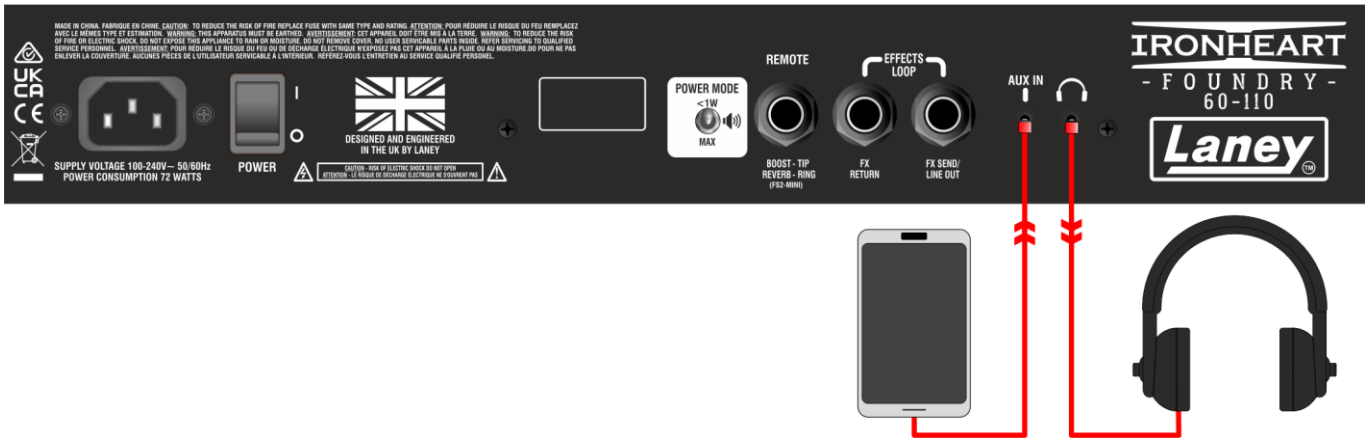
REMOTE

Remote access to the BOOST and REVERB functions for added flexibility. When using a dual footswitch, set the BOOST toggle switch to the ‘up’ position:



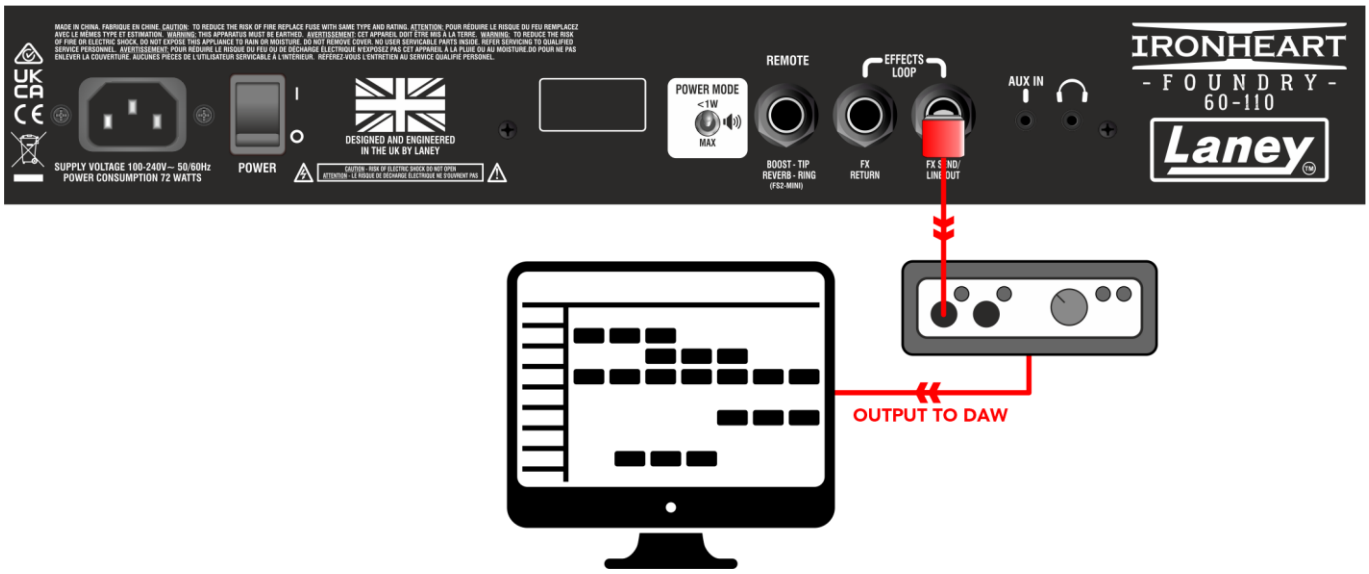
AUX AND HEADPHONES

Add a backing track using the AUX IN and listen with headphones for a private practice session.

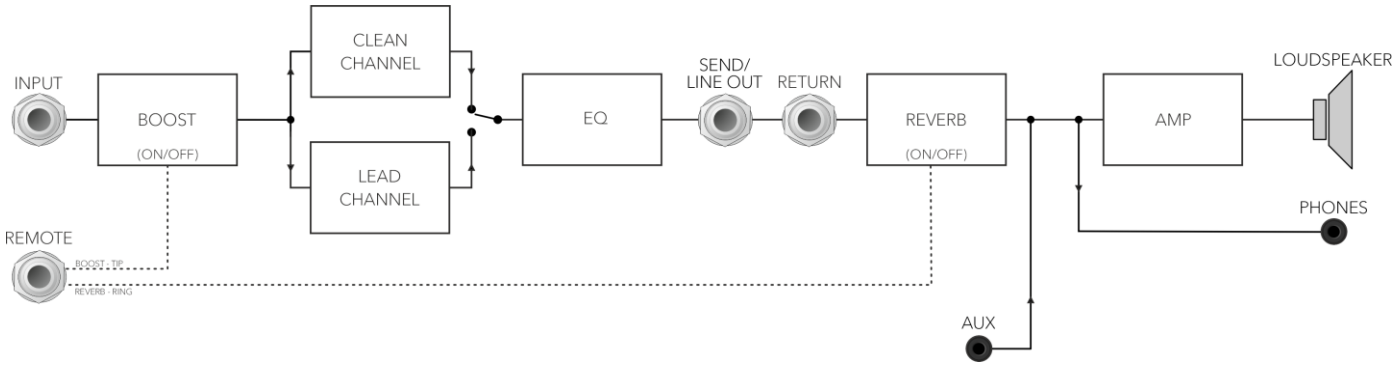


FX SEND/LINE OUT AND DAW

Connect the IRF60-110 to a PA or audio interface to DAW (DIGITAL AUDIO WORKSTATION) via the line level FX SEND Output.



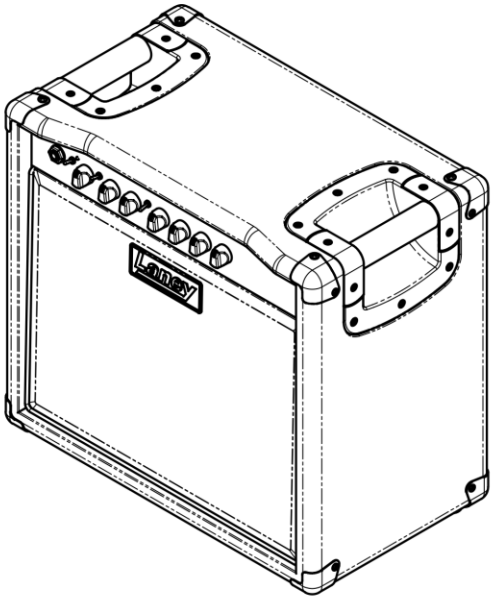
BLOCK DIAGRAM

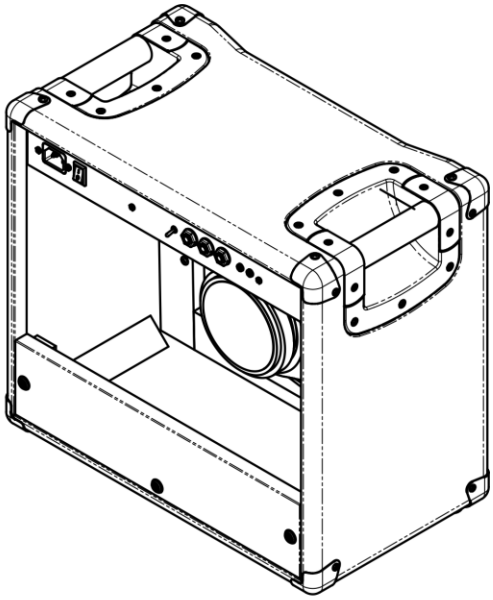


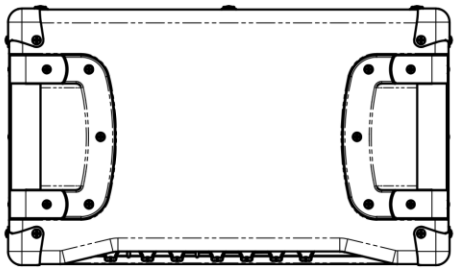
SPECIFICATIONS

Model No	IRF60-110
Name	Ironheart Foundry 60-110
Type	Guitar amplifier combo
Input Impedance	1MΩ
Amplifier Power	60W RMS or low power <1W bedroom mode
Channels	CHANNEL 1 (CLEAN) and CHANNEL 2 (LEAD)
EQ	Shared BASS, MIDDLE, TREBLE (passive tone stack) , EQ voicing switch (LEAD channel only)
Effects	Digital springline REVERB (footswitchable) and external EFFECTS LOOP
Controls	Pre-BOOST (footswitchable), channel switch, LEAD GAIN, VOLUME, lead tone character (NORMAL, BRIGHT, DARK), BASS, MIDDLE, TREBLE, REVERB, POWER MODE
Indicators	LED for BOOST, illuminated logo for POWER
Inputs	6.3mm (1/4") Mono instrument input jack, 6.3mm FX RETURN jack, 3.5mm stereo AUX IN jack
Outputs	6.3mm FX SEND (doubles as LINE OUT), 3.5mm stereo headphone jack
Loudspeaker	10" HH H1060-8 8 Ohm loudspeaker
Power Supply	Internal SMPSU 100-240V~ Universal voltage 50/60Hz. IEC C14 inlet and power on/off switch
Typical Power Consumption	72W
Main Construction Material	Robust composite wood construction (15mm MDF)
Unit dimensions (HWD)	382 x 416 x 241mm, (15" x 16.4" x 9.5")
Unit weight	9.5Kg, (20.9 lbs)
Carton dimensions (HWD)	455 x 480 x 310mm, (17.9" x 18.9" x 12.2"), 0.068 m³
Packed Weight	11.5Kg, (25.4 lbs)
EAN Code (Single)	5061098770331

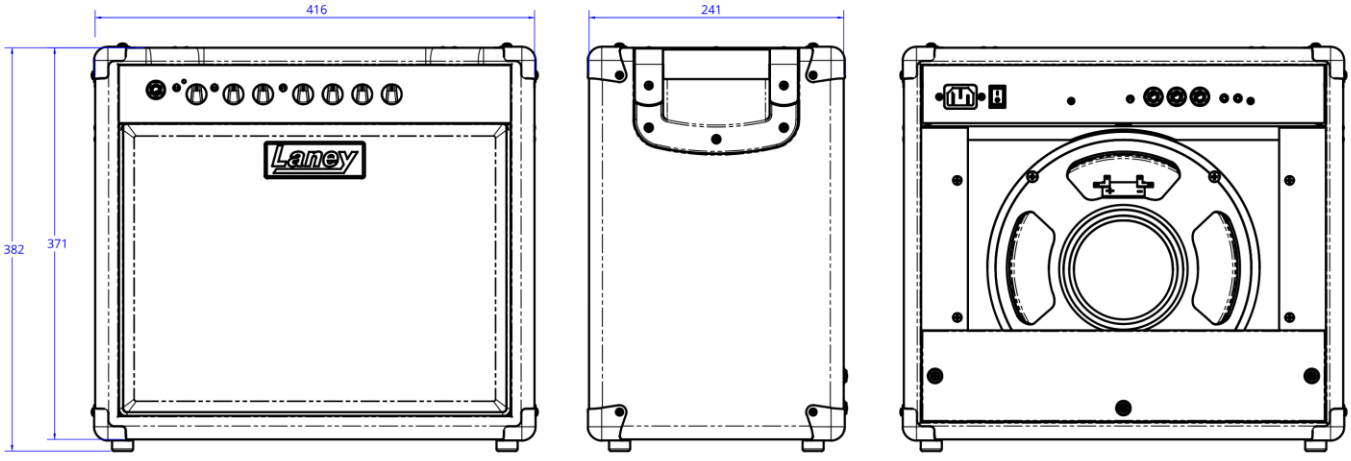
DIMENSIONS







Top



Front

Right

Back

Bottom

SAFETY AND WARNINGS

MANUFACTURER: LANEY AMPLIFICATION. STEELPARK ROAD, COOMBS WOOD BUSINESS PARK WEST, HALESOWEN, B62 8HD, UK

To take full advantage of your new product and enjoy long and trouble-free performance, please read this owner's manual carefully, and keep it in a safe place for future reference.

1) Unpacking: On unpacking your product, please check carefully for any signs of damage that may have occurred whilst in transit from the Laney factory to your dealer. In the unlikely event that there has been damage, please re-pack your unit in its original carton and consult your dealer. We strongly advise you to keep your original transit carton, since in the unlikely event that your unit should develop a fault, you will be able to return it to you dealer for rectification securely packed.
2) Amplifier Connection: To avoid damage, generally it is advisable to establish and follow a pattern for turning on and off your system. With all system parts connected, turn on source equipment, mixers, effects processors etc, BEFORE turning on your amplifier. Many products have large transient surges at turn on and off which can cause damage to your speakers. By turning on your amplifier LAST and making sure its level control is set to a minimum, any transients from other equipment should not reach your loudspeakers. Wait till all system parts have stabilised, usually a couple of seconds. Similarly, when turning off your system always turn down the level controls on your amplifier and then turn off its power before turning off other equipment.
3) 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 complete system. Use good quality shielded cables everywhere else.
4) Servicing: The user should not attempt to service these products. Refer all servicing to qualified service personnel.
5) Heed all warnings.
6) Follow all instructions.
7) Do not use this apparatus near water.
8) Clean only with a dry cloth.
9) Do not block any of the ventilation openings. Install in accordance with manufacturer's instructions.
10) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
11) An apparatus with Class I construction shall be connected to a mains socket outlet with a protective connection. 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 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.
12) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
13) Only use attachments/accessories provided by the manufacturer.
14) 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.
15) The mains plug or appliance coupler is used as the disconnect device and shall remain readily operable. 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. Unplug this apparatus during lightning storms or when unused for long periods of time.
16) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when 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.
17) Never break off the ground pin. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
18) If this product is to be mounted in an equipment rack, rear support should be provided.
19) Note for UK only: If the colours of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:
    - The wire that is coloured green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, coloured green or coloured green and yellow.
    - The wire that is coloured blue must be connected to the terminal that is marked with the letter N or the colour black.
    - The wire that is coloured brown must be connected to the terminal that is marked with the letter L or the colour red.
20) This electrical apparatus should not be exposed to dripping or splashing and care should be taken not to place objects containing liquids, such as vases, upon the apparatus.
21) 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 exposures: According to OSHA, any exposure more than the above permissible limits could result in some hearing loss. Earplugs or protectors to the ear canals or over the ears must be worn when operating this amplification system to prevent a permanent hearing loss, if exposure is more than the limits as 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.

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 ou inférieur	115

22) If your appliance features a tilting mechanism or a kickback style cabinet, please use this design feature with caution. Due to the ease with which the amplifier can be moved between straight and tilted back positions, only use the amplifier on a level, stable surface. DO NOT operate the amplifier on a desk, table, shelf or otherwise unsuitable non-stable platform.
23) For models with built in Bluetooth. The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Headstock Distribution Ltd is under license. Other trademarks and trade names are those of their respective owners. Laney is a registered trademark of Headstock Distribution Ltd.
    - INCORPORATED RADIO EQUIPMENT DEVICE TECHNICAL SPECIFICATION, REFER TO USER GUIDE
24) For models supplied with a companion mobile or desktop application ("App"), the App is provided as an optional convenience feature and is supplied "as is", "as available" and with all faults. The App may contain bugs, errors or other defects and may not be compatible with all devices, operating systems or future updates. Headstock Distribution Ltd reserves the right to modify, suspend or discontinue the App, or any part of it, at any time. To the maximum extent permitted by applicable law, no warranty is provided and we assume no obligation to provide maintenance, technical support, feature enhancements or compatibility updates. This notice does not affect any statutory rights or obligations that cannot be excluded under applicable law.
25) Symbols & nomenclature used on the product and in the product manuals, intended to alert the operator to areas where extra caution may be necessary, are as follows:

CAUTION:	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. Ce symbole est utilisé pur indiquer a l'utilisateur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique. Este símbolo tiene el propósito 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. Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von ausreichender Starke sind, um einen elektrischen Schlag verursachen zu können.
WARNING:	Intended to alert the user of the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product. Destiné à alerter l'utilisateur de la présence d'instructions importantes d'exploitation et de maintenance (entretien) dans la documentation accompagnant le produit. Este símbolo tiene el propósito de la alertar al usuario de las presencias de instrucciones importantes sobre la operación y mantenimiento en la literatura que viene con el producto. Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.
CAUTION: ATTENTION : PRECAUCION: VORSICHT:	Risk of electrical shock - DO NOT OPEN. To reduce the risk of electrical shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified personnel. Risques de choc électrique - NE PAS OUVIRIR. Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve a l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien a un personnel qualifié. Riesgo de descarga eléctrica - NO ABRIR. Para reducir el riesgo de descarga eléctrica, no quite la cubierta. No hay piezas reparables por el usuario en el interior. Remita el servicio a personal calificado. Risiko - Elektrischer Schlag! Nicht offen! Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vor Anwender repariert werden konnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.
WARNING: ADVERTISSEMENT : ADVERTENCIA: ACHTUNG:	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. Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil a la pluie ou a l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplantais situes dans le guide. Para evitar descargas eléctricas o peligro de incendio, no exponga este aparato a la lluvia ni a la humedad. Antes de usar este aparato, lea las instrucciones de funcionamiento para conocer más advertencias. Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerat nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.
FCC	This device complies with Part 15 of the FCC rules Operation is subject to the following two conditions: 1) This device may not cause harmful interference. 2) This device must accept any interference received, that may cause undesired operation. Warning: Changes or modification to the equipment not approved by Laney can void the user's authority to use the equipment. Note: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures. Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.
CE	SIMPLIFIED EU DECLARATION OF CONFORMITY Hereby, Laney Electronics declares that the radio equipment is in compliance with Directives 2014/53/EU, 2011/65/EU, 2009/125/EU This product conforms to the requirements of the following European Regulations, Directives & Rules: CE Mark (93/68/EEC), Low Voltage (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU), ErP (2009/125/EU) *For models with built in wireless communication: This product conforms to the requirements of the following European Regulations, Directives & Rules: CE Mark (93/68/EEC), Low Voltage 2014/35/EU, EMC (2014/30/EU), RoHS (2011/65/EU), RED (2014/30/EU), ErP, 2009/125/EU Full text of the EU declaration of conformity is available at the following internet address: http://support.laney.co.uk/approvals
UK CA	The object of the declaration described above is in conformity with the relevant statutory requirement Electrical Equipment (Safety) Regulations 2016, Electromagnetic Compatibility Regulations 2016, The Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, The Ecodesign for Energy-Related Products and Energy Information, (Amendment) (EU Exit) Regulations 2012
	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.

IRONHEART
- FOUNDRY -

LANEY AMPLIFICATION
STEELPARK ROAD, COOMBSWOOD BUSINESS PARK WEST, HALESOWEN, B62 8HD. UK
FOR THE LATEST INFORMATION PLEASE VISIT WWW.LANEY.CO.UK

IN THE INTEREST OF CONTINUED DEVELOPMENT, LANEY RESERVES THE RIGHT TO AMEND PRODUCT SPECIFICATION WITHOUT PRIOR NOTIFICATION.

V1.1