Gibson

Super "Goldtone"

GA-30RV
GA-60RV
GA-30RVH

OPERATING
INSTRUCTIONS

INTRODUCTION

Congratulations on your purchase of a Gibson Super 'Goldtone' valve guitar amplifier. Please take a few minutes to read this owners manual so you may fully understand the extensive capabilities of this unit. With a little care your new amplifier should provide you with years of satisfactory service.

The Super 'Goldtone' range currently consists of the following products:

GA-30RV	30 watt Class A 1x10 + 1x12 combo
GA-60RV	60 watt Class A/B 2x12 combo
GA-30RVH	30 watt Class A head
SGT Cabinet	2x10 + 2x12 Mono/Stereo speaker cabinet

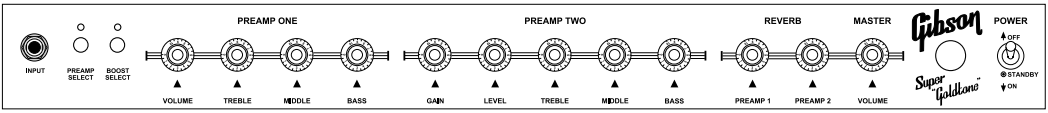
The main preamp functions on all models are more or less the same, with different valve power stages and/or speaker configurations used in each particular unit. All features and differences between models are described further on.
The circuit topology has been based on traditional guitar amplifier designs, with new ideas incorporated where beneficial.
The complete signal path; preamp, effects loop, reverb and power stage, on all models is 100% valve.
The switching circuitry for the different functions is all based around momentary switches controlling CMOS logic devices which then switch relays or FET's within the audio circuitry. This provides very low switching noise, excellent sonic performance and the ability to switch all the functions from multiple sources.
All Power and Output transformers and Chokes are custom made for maximum performance using high grade laminations. Windings are resin soaked and made to pass international approvals.
A highly regulated DC supply is used for heater filaments in all preamp valves for minimal hum levels.
Where appropriate an external biasing facility is featured - this enables techs to check/reset output bias at any time without removing the chassis. This also enables the use of several different valve types including EL34, 6L6, 6550 and KT88.
Internal wiring and glass epoxy circuit board layouts use multiple return, star earthing, for low noise and hum. All audio sections have been laid out for maximum sonic performance using 'point to point' wiring principles.
Porcelain valve sockets and gold plated jack sockets are used exclusively throughout.

FAST TRACK GUIDE AND SWITCH ON SEQUENCE

1. Check that the POWER switch on the rear panel is set to OFF and that the unit has the correct speaker load connected.
2. Connect the unit to an appropriate mains power point with the mains lead provided. *We also recommend that the MASTER volume is turned down to zero before switch on or switch off purely to prevent any unwanted noises from being amplified loudly.* Switch POWER switch to the STANDBY position.
3. While the unit is warming up (allow at *least* one minute), connect your instrument to the INPUT socket on the front panel and connect any effects units that may be used.
4. Switch POWER switch from STANDBY to ON.
5. Set all front panel controls to half way as a starting point and then adjust to taste.
6. After use, switch to STANDBY and then OFF.

FULL OPERATING INSTRUCTIONS

FRONT PANEL



Preamp features and controls

The preamp section is 100% valve and consists of two parallel preamp channels and a BOOST function that can be used on either channel. This allows FOUR different sounds to be selected from either the front panel or 2-way footswitch. Using the optional 5-way foot controller allows both channels to be used at once with BOOST on or off giving a total of SIX available preamp sounds.

A regulated DC supply is used throughout the preamp for the cathode heaters, this massively reduces any hum picked up within the preamp to extremely low levels, even when set for high gain.

When first switched on the unit should default to PREAMP ONE (green LED), BOOST off (LED off), EFFECTS off and REVERB on.

Input

A single jack socket is provided for connection to your instrument. This has a high impedance input which allows for perfect matching to both passive and active guitars. When there is no jack inserted into the input, the output of the preamp to the power stage is muted; this prevents any noise from being amplified when the unit is not in use.

N.B. Please read the section on the EFFECTS LOOP if a SUPER 'GOLDTONE' is to be used as a slave amp for a stereo set-up.

Preamp select switch

This enables the user to switch between PREAMP ONE and PREAMP TWO from the front panel. This can also be switched from the 2-way footswitch provided or by the optional 5-way foot controller.

The corresponding LED will light up green for PREAMP ONE and red for PREAMP TWO. It will also light up amber if the 5-way footswitch is used and PREAMP 0NE & TWO are selected.

N.B. If the 2-way footswitch is used to switch to CHANNEL 2 this will take priority over the push switch.

Boost select switch

This enables the user to switch the BOOST function on and off from the front panel. This can also be switched from the 2-way footswitch provided or by the optional 5-way foot controller.

The corresponding LED will light up red when BOOST is selected.

N.B. If the 2-way footswitch is used to switch on BOOST this will take priority over the push switch.

Preamp one

This channel has been voiced primarily for clean sounds with the controls at low to halfway settings, but with higher settings it can be driven harder for classic slightly overdriven blues tones or a vintage style crunch.

Using the BOOST function further increases the sonic capabilities.

Volume

This sets the level of PREAMP ONE and also has a large effect on the tone. From low to medium settings the sound is bright and clean which will suit most clean guitar styles. As it is increased the preamp will be pushed gradually towards a more overdriven tone, which responds well to the players dynamics.

Treble, Middle & Bass

The tone controls are all passive and interactive.

TREBLE, MIDDLE and BASS all work in the conventional way, on this channel the operating frequencies have been set specifically for vintage clean and slightly overdriven sounds. Passive controls were chosen throughout the amplifier as they provide the best and most natural kind of equalisation for a guitar signal.

Preamp two

This channel has been voiced primarily for overdriven tones although the overall sound produced can be altered radically depending on where the different controls are set. Using the BOOST fuction further increases the sonic capabilities.

Gain

This control adjusts the degree of drive in PREAMP TWO. Due to the design of the highly responsive all valve preamp this allows adjustment of the tone from clean, through crunch, to very dirty, adding the BOOST will then increase the sustain even further. Total amount of gain available should be enough for even the most extreme rock styles. This preamp is also very responsive to the players dynamics and use of the volume on the guitar.

Level

This control sets the overall output level for PREAMP TWO and can be used to balance the volume of the two preamps.

Treble, Middle & Bass

The TREBLE, MIDDLE and BASS controls on PREAMP TWO are also passive and interactive, however, for this preamp the operating frequencies have been specifically set for mainly over driven tones.

Reverb

Preamp 1, Preamp 2

These control the level of the reverb for each preamp respectively.
On the GA-30RV, and GA-60RV models the effect is produced by a six spring ACCUTRONICS reverb tray in the cabinet.
The optional 5-way foot controller can be used to switch the reverb effect on and off.
N.B. Due to the amount of reverb available, in some extreme settings; i.e. loud, lots of gain and lots of reverb, there may be occasions when the reverb springs start to self oscillate, producing a low pitched tone on their own. If this should happen then it is recommended that the gain, volume and/or reverb settings are adjusted to prevent this.
N.B. If both preamps are selected using the 5-way foot controller the reverb level will be controlled by the PREAMP 2 control.

Master Volume

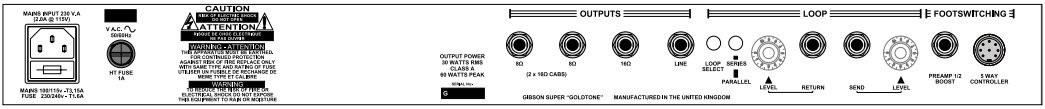
This sets the level of signal sent to the power amp and consequently the overall volume of the amplifier.

Power Switch
Off/Standby/On

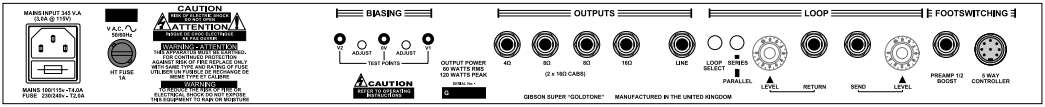
This switches the amplifier from OFF to STANDBY mode, where only the valve filament heaters are on, to ON for actual use. This should be used correctly every time the unit is used to prevent problems with valves and to increase their life. Please refer to SWITCH ON SEQUENCE earlier in the manual.

After switching of it is recommended, as with all valve amplifiers, that it does not receive any sudden physical shocks while the valves are still hot, i.e. through moving the unit. If possible try to give the amplifier a few minutes to cool down before transporting it.

REAR PANEL



GA-30RV & GA30RVH

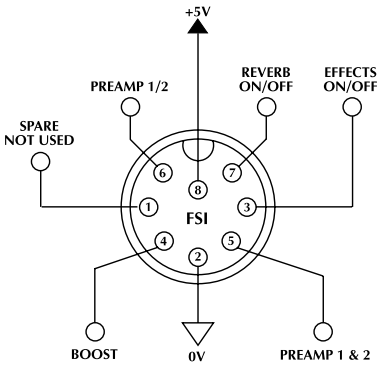


GA-60RV

Footswitch Control Sockets
DIN Socket - For 5-Way Foot Controller

This is an 8 pin DIN connector that when connected to the optional five way foot controller allows the user to do the following:- switch between PREAMP 1 and PREAMP 2, switch BOOST on and off, switch both preamps on, switch EFFECTS LOOP on and off and REVERB on and off.This socket may also be used to connect the SUPER "GOLDTONE" to an external (MIDI) switching unit, with an appropriate lead dependant on particular device used.

Bear in mind that the SUPER "GOLDTONE" internal switching is designed to respond to momentary (non latching) switching and that the external switching unit should be set for this. *For more advice on this please contact the Service Dept. or distributor in your territory.*



PIN CONNECTION FOR 8 WAY DIN CONNECTOR

Jack Socket - For 2-Way Footswitch (Preamp1/2, Boost on/off)

This is a stereo 1/4" jack socket for connection to the supplied two way latching footswitch, that enables the user to footswitch between preamp 1 and 2, and to operate the BOOST function remotely.

This can be used as well as the optional five way foot controller if desired, however, due to the 2 way footswitch being a latching type, when switched on it will take priority over any other switch.

Effects Loop

This has sockets for SEND and RETURN and a level for each, as well as a switch for SERIES or PARALLEL configuration.

Send, Level

The SEND socket is for connection to the input of effects units. By correctly adjusting the LEVEL control, this can drive floor type battery powered effects pedals or 19" rack type studio effects units.

The actual setting of the LEVEL control will depend on several things:- the output of the guitar, the preamp settings and the level needed to drive the particular effects unit.

The general idea is to set the level as high as possible, (which improves signal/noise ratio) without creating distortion.

As a guide, if floor type pedals are used the LEVEL will probably need to be set somewhere between '0' and '5', whereas if studio rack type devices are used it can be set higher up so that the level indicators on the effects unit reach their maximum point during peaks in the playing.

Return, Level

The RETURN socket is for connection to the output of effects units. The function of the LEVEL will depend on whether the loop is set to SERIES or PARALLEL configuration.

In PARALLEL operation the LEVEL control will set the amount of effect signal mixed in with the straight, un-effected 'dry' signal when the effects loop is switched in, it has no effect on the dry signal.

In SERIES operation the LEVEL control will set the overall level of the total signal (sent from the effects unit) when the effects loop is switched in.

Unless otherwise desired, it is best to set this so that when switching the effects loop on of off there are no great leaps in volume difference.

Series/Parallel Switch

The SERIES/PARALLEL switch alters the configuration of the effects loop.

In SERIES mode the whole signal comes out of the amp, into the effects unit and then back into the amp, where as in PARALLEL mode the effected signal is mixed in with the original dry signal, thus ensuring tonal purity of the dry signal.

The choice of which mode to use will depend on what kind of effects unit is used and what overall effects is desired. But generally if time delay effects are used, such as delay (echo), reverb, chorus, flanging, phasing, etc., then the PARALLEL setting is usually preferred. If volume or EQ related effects are used, such as overdriven/distortion, compression, graphic equalisation, wah-wah or volume pedals, or if a multi-effects unit is used with a combination of time delay and volume related effects, then it is usually best to set the switch to SERIES. There are no rules, it is best to experiment and see what you prefer.

If PARALLEL configuration is used then if possible it is recommended that the dry/direct signal from the effects unit is turned to minimum or off.

Ultimately there are no rules as to how to use effects, it is all down to the players personal preference and will also depend on what actual effects units are being used.

Indeed, although the effects loop is generally accepted as the best place to add effects, both technically and sonically, a lot of guitarists still prefer to put at least some of their effects before the amp, particularly, wah-wah or volume pedals, auto wahs/envelope filters or compressors.

Therefore, the only right way of doing this is to experiment with all your equipment and find what suits <u>you</u> best.

If two Super "Goldtones" are used in a stereo set up where the SEND from one amplifier is sent into the effects processor and the left and right outputs are fed back into the RETURN on each amp, a jack plug of some kind will need to be inserted into the INPUT to 'un-mute' the amplifier. The 'slave' amp should also preferably be set to 'SERIES' with all the controls on CHANNEL1 and CHANNEL 2 turned down.

For more advice on this please contact the Service Dept. or distributor in your territory.

Effects Loop Select Switch

This enables the user to select or deselect the effects loop from the rear panel.
It can also be selected by the optional 5-way foot controller.

Power Amp Sections

Currently, within the Super "Goldtone" range, two different power amp sections are used. The GA-30RV and GA-30RVH are each powered by four EL84/6BQ5's configured for CATHODE BIASED CLASS A, WITHOUT any NEGATIVE FEEDBACK. This is the traditional arrangement for a guitar amplifier of this type and will produce at least 30 watts with the valves supplied.

The GA-60RV is powered by two EL34's configured for GRID BIASED CLASS A/B. This is the traditional arrangement for a guitar amplifier of this type and will produce 60 watts with the valves supplied. Other octal based output valves such as KT88, 6L6 and 6550 may also be used if biased correctly.

Speaker Outputs

The GA-30 models have three 1/4" jack sockets for connection to 8Ω or 16Ω loads. The two 8Ω sockets are in parallel. The GA-60 has an additional 4Ω output.
On the combo models the two 8Ω outputs are connected to the two internal 16Ω speakers, however other cabinets may be used for different sounds/occasions as desired. When using other extension speaker cabinets the overall effective impedance should be correctly worked out and the appropriate socket(s) used.

Impedance Formula

For the two cabinets in parallel this can be done as follows:-

$$ZT \text{ (total impedance)} = \frac{Z1 \times Z2}{Z1 + Z2}$$

Therefore, as an example, if two 16Ω cabinets are used,

$$\frac{16 \times 16}{16 + 16} = \frac{256}{32} = 8$$

For more advice on this please contact the Service Dept. or distributor in your territory.

Output Biasing (GA-60RV)

Do not even attempt to make any adjustments to this before reading and understanding this section thoroughly. As with any power amplifier, incorrect biasing can result in the complete electronic destruction of the output devices, in this case expensive valves. As stated on the WARRANTY FORM, valves are not covered by the standard two year warranty except under certain conditions at the discretion of GIBSON.
If you are in any doubt as to what you are doing refer the unit to an appropriate electronics service centre.
The holes in the chassis marked BIAS MEASUREMENT and BIAS ADJUST allow the biasing of the output valves to be checked or reset easily and safely if necessary. It also allows the use of several different types of output valve including EL34, KT88, 6L6 and 6550.
On a new unit the biasing will be factory set for the particular set of valves supplied with the amplifier. Although this should not need to be adjusted unless a new set of output valves is fitted, on all amplifiers as valves age their bias requirements may change.

There are several methods that are used to bias valve amplifiers, the following is one of the easiest and ensures that the output valves do not draw too much current which can result in thermal runaway.

To check or reset bias on currently installed valves:-

1. Ensure unit is correctly loaded (speaker is connected). Connect to mains, switch on (STANDBY) and allow to warm up for at least one minute.
2. Ensure that the MASTER control is turned to zero and switch from STANDBY to ON.
3. Set voltmeter to 200mV DC range. Insert black probe into the 0V hole and red probe into V1. There should be a reading of 33mV (+/-3mV) on the voltmeter. If necessary, using a trimmer tool or small flat bladed screwdriver carefully rotate the appropriate BIAS ADJUST control to give the correct reading on the voltmeter.
4. Now insert black probe into V2. The reading should be as close to 0mV as possible (+/-1mV). If necessary, using a trimmer tool or small flat bladed screwdriver carefully rotate the appropriate BIAS ADJUST control to give the correct reading on the voltmeter.
5. Repeat steps 3 & 4 until no more adjustment is required.

To install new valves and bias amplifier:-

1. Ensure unit is disconnected from mains supply and that the valves have had time to cool down.
2. Either remove front grill or complete amplifier assembly and carefully remove old valves.
3. Install new valves making sure all are inserted correctly.
   N.B. Only use matched sets of output valves.
4. Using trimmer tool turn BIAS ADJUST controls fully anti-clockwise.
5. Ensure unit is correctly loaded (speaker is connected). Connect to mains, switch to STANDBY and allow to warm up for at least one minute.
6. Ensure that MASTER controls are turned to zero and switch from STANDBY to ON.
7. Set voltmeter to 200mV DC range. Insert black probe into the 0V hole and red probe into V1 probe.
8. Using trimmer tool carefully rotate the appropriate BIAS ADJUST control to give the correct reading on the voltmeter as shown below.

EL34	33mV (+/- 3mV)
KT88	37mV (+/- 3mV)
6L6	28mV (+/- 3mV)
6550	37mV (+/- 3mV)
5881	30mV (+/- 3mV)

The above values are a guideline but should be OK for most brands of valves, although the bias point for any amplifier is somewhat subjective. Increasing the values shown may improve the tone but will make the valves run hotter, whereas lower values will increase valve life and reliability.

9. Now insert black probe into V2. The other BIAS ADJUST control should now be adjusted to give a reading on the voltmeter as close to 0mV as possible (+/-1mV).
10. Repeat steps 7, 8 & 9 until no more adjustment is required.

For more advice on this please contact the Service Dept. or distributor in your territory.

The output valves on the GA-30 do not require biasing to be manually set due to the CATHODE SELF BIAS design of the output stage. Therefore to change valves simply follow points 1, 2 and 3 immediately above.

IEC Socket/Mains Fuse

This is for connection to universally used IEC mains leads to connect to appropriate domestic mains supply.
In the event of having to replace the mains fuse always use the same fuse rating and type as marked on the unit's rear panel. Using one of a higher rating will invalidate the warranty.
If after replacement the mains fuse should blow a second time, immediately refer the unit to an approved service engineer for checking.

Super "Goldtone" Cabinet Instructions

The Super "Goldtone" speaker cabinet incorporates a sealed (infinite baffle) 2x12" bottom, with two Celestion Vintage 30 speakers, and an open backed 2x10" top, with two Celestion Vintage 10's.
The power rating of these individually is 60 watts RMS, therefore the power rating of the whole cab will be 240 watts RMS.
The rear panel sockets and switch allow the cabinet to be configured as either a 4Ω mono cab, a 16Ω mono cab or a 2 x 8Ω stereo cab. To prevent serious damage check that the correct impedance is set on both amplifier and the speaker cabinet each time that they are used. Also make sure that any cables used to connect to the cabinet are proper speaker cables (NOT GUITAR/INSTRUMENT CABLES) and that they are in good working order.
When set to 8Ω stereo, a separate amplifier can drive into each of the sockets, however, when set to mono, either 4Ω or 16Ω, only one of the two sockets should be used at once. The likely result of driving two amplifiers into the cabinet when set to this configuration could be the destruction of both the amplifiers and speakers.

TECHNICAL SPECIFICATIONS

SUPER "GOLDTONE" GA-30RV, 6A-60RV & GA-30RVH

Input		Impedance 1MΩ, PREAMP SELECT and BOOST SELECT push switches
Channel 1		VOLUME, TREBLE, MIDDLE & BASS
Channel 2		GAIN, LEVEL, TREBLE, MIDDLE and BASS
Reverb		Valve driven ACCUTRONICS tray with separate controls for each preamp.
Effects Loop		SEND - Impedance ~10KΩ LEVEL variable (nominally -20 to 0dBu) SERIES/PARALLEL push switch
Footswitch Control		1/4" Jack socket for dual latching footswitch 8 way DIN socket for optional 5 way non latching footswitch
Speaker Outputs	**GA-30RV**	3 x 1/4" jack sockets (8Ω, 8Ω, 16Ω)
	GA-60RV	4 x 1/4" jack sockets (4Ω, 8Ω, 8Ω,16Ω)
	GA-30RVH	3 x 1/4" jack sockets (8Ω, 8Ω, 16Ω)
Speaker Configuration	**GA-30RV**	1x10" and 1x12" (Celestion Vintage 10 and Vintage 30
	GA-60RV	2x12" (Celestion Vintage 30)
Power Amp Control	**GA-60RV**	OUTPUT BIASING test points and BIAS ADJUST trimmers
Power Output	**GA-30RV**	~30 watts RMS Class A
	GA-60RV	~60 watts RMS Class A/B
	GA-30RVH	~30 watts RMS Class A

Factory Fitted Valve Compliment

GA-30RV	5 x 12AX7/ECC83's ,2 x 12AT7/ECC81's and 4 x EL84's
GA-60RV	5 x 12AX7/ECC83's ,2 x 12AT7/ECC81's and 2 x EL34's
GA-30RVH	5 x 12AX7/ECC83's ,2 x 12AT7/ECC81's and 4 x EL84's

Valve orientation is marked on the top of the chassis

SUPER "GOLDTONE" CABINET

Speaker Configuration 2x12″ closed back (bottom) + 2x10″ open back (top)
(2 x Celestion Vintage 30 and 2 x Vintage 10)

Individual Speaker Specifications

	SIZE	POWER HANDLING	SENSITIVITY (1W @ 1m)	RESONANT FREQUENCY	FREQUENCY RESPONSE	MAGNET WEIGHT
Celestion Vintage 30	12″	60W	100dB	70Hz	70Hz-5KHz	50oz
Celestion Vintage 10	10″	60W	97dB	80Hz	80Hz-5KHz	27oz

Dimensions

GA-30RV	W690mm / H500mm / D240mm (~27¼″ / 19¾″ / 9½″)
GA-60RV	W730mm / H500mm / D240mm (~28¾″ / 19¾″ / 9½″)
GA-30RVH	W645mm / H220mm / D275mm (~25½″ / 8¾″ / 11″)
SGT cabinet	W690mm / H690mm / D300mm (~27¼″ / 27¼″ / 12″)

Where necessary add height:-
40mm to include handle
20mm to include feet
80mm to include castors

Weight

GA-30RV	~33Kg (~73lbs)
GA-60RV	~36Kg (~80lbs)
GA-30RVH	~20Kg (~44lbs)
SGT cabinet	~40Kg (~88lbs)

SAFETY INSTRUCTIONS

Warning

For continued protection against the risk of fire, replace fuses only with fuses of the same type and rating.
To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.
In the event of a suspected malfunction, always refer this equipment to a qualified service engineer.
This apparatus must be earthed. The wires in this mains are coloured in accordance with the following code:-

***Green& Yellow* - Earth** ***Blue* - Neutral** ***Brown* - Live**

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:-
The wire which is coloured Green & Yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol or coloured green or Green and Yellow.
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Red.
If A 13 amp (BS1363) plug is used a 13 amp fuse must be fitted, or if any other type of plug is used a 15 amp fuse must be fitted either in the plug or adaptor or at the distribution board.

EMC Warning

It is inherent in the design of a loudspeaker and in the design of guitar pickups that they should emit or be affected by electro magnetic fields. Loudspeaker enclosures should not be used less than 2 metres away from equipment which is likely to be affected by electro magnetic interference.
Likewise, guitars fitted with electro magnetic pickups should not be used less than 2 metres away from any source of electro magnetic emissions such as loudspeakers.
Emissions from loudspeakers are dependent on the frequency characteristic of the drive unit.
Levels were measured direct from the drivers of 30 dBuV.
These levels are reduced to a safe level at a distance of 1.27 metres from the drivers.

SICHERHEITS-ANWEISUNGEN

Warnung

Zum fortdauernden Schutz gegen Feuerrisiken die Sicherungen nur durch Sicherungen desselben Typs und derselben Nennleistung austauschen.
Um das Risiko von Feuer oder Elektroschock zu reduzieren, dieses Gerät keinem Regen und keiner Feuchtigkeit aussetzen.
Im Fall eines vermuteten Defekts muß dieses Gerät einem qualifizierten Service-Techniker übergeben werden.
Dieses Gerät muß geerdet werden. Die Drähte im Stromkabel wurden dem folgende Code nach koloriert:

***Grün & Gelb* - Erde** ***Blau* - Neutral** ***Braun* - Stromführend**

Da die Farben der Drähte dieses Geräts nicht notwendigerweise den Farbmarkierungen der Pole in Ihrem Stecker entsprechen, sollten Sie wie folgt vorgehen:
Der grün/gelbe Draht muß an den Pol im Stecker angeschlossen werden, der mit dem Buchstaben E oder dem Erde-Symbol oder der Farbe Grün oder Grün/Gelb markiert ist.
Der blaue Draht muß an den Pol angeschlossen werden, der mit dem Buchstaben N oder schwarz markiert ist.
Der braune Draht muß an den Pol angeschlossen werden, der mit dem Buchstaben L oder rot markiert ist.
Falls ein 13 amp (BS1363) Stecker benutzt wird, muß eine 13 amp Sicherung eingesetzt werden; und falls ein Stecker anderer Art benutzt wird, muß eine 15 amp Sicherung entweder im Stecker selbst oder an der Verteilertafel eingesetzt werden.

EMC Warnung

Es liegt im Design eines Lautsprechers und im Design von Gitarrenaufnehmern, daß sie elektromagnetische Felder abgeben oder von solchen beeinflußt werden. Lautsprechergehäuse sollten daher nicht in unter 2 Metern Entfernung von Geräten benutzt werden, die durch elektromagnetische Störungen beeinflußt werden könnten.
Auch sollten Gitarren, die mit elektromagnetischen Aufnehmern ausgestattet sind, nicht in unter 2 Metern Entfernung von Quellen elektromagnetischer Emissionen, wie z.B. Lautsprechern, benutzt werden.
Die Lautsprecheremissionen sind von der Frequenzcharakteristik der Treiber-Einheit abhängig.
Die Werte wurden direkt von den Treibern von 30 dBuV gemessen.
Diese Werte reduzieren sich in einer Entfernung von 1,27 Metern von den Treibern auf ein sicheres Maß.

CONSIGNES DE SECURITE

Attention

Pour une protection continue contre les incendies, ne remplacez les fusibles que par des fusibles du mÍme type set du mÍme courant nominal.
Pour réduire le risque diincendie ou de décharge électrique, níexposez jamais cet équipement à la pluie ou à líhumidité.
Si vous soupÅonnez une défaiilance, faites toujours appel à un ingénieur qualifié.
Cet appareil doit Ítre mis à la masse. Les fils de cette conduite díamenée de secteur sont colorés selon le code suivant:

***Vert & Jaune* - Masse** ***Bleu* - Neutre** ***Marron* - Tension**

Etant donné que les couleurs des fils de la conduite díamenée de secteur de cet appareil risquent parfois de ne pas correspondre aux couleurs identifiant les bornes de votre fiche, procédez comme suit:
Le fil Vert & Jaune doit Ítre relié à la borne de la fiche marquée de la lettre E, du symbole de terre ou colorée en Vert set Jaune.
Le fil Bleu doit Ítre relié à la borne marquée de la lettre N ou colorée en Noir.
Le fil Marron doit Ítre relié à la borne marquée de la lettre L ou colorée en Rouge.
Si vous utilisez une fiche 13 amp (BS1363) vous devez utiliser un fusible 13 amp. Si vous utilisez un autre type de prise, installez un fusible 15 amp dans la prise, dans líadaptateur ou dans le tableau de distribution.

Compatibilité électromagnétique - avertissement

La conception d'un haut-parleur set des pickups de guitare est telle qu'ils sont affectés par des champs électromagnétiques ou en émettent les enceintes de haut-parleur ne devraient pas étre utilisées à moins de 2 mètres de l'équipement susceptible d'être affecté par les parasites électromagnétiques.
Les émissions en provenance de haut-parleurs dépendent de la caractéristique fréquentielle de l'émetteur piloté.
De même, les guitares équipées de pickups électromagnétiques ne devraient pas être utilisées à moins de 2 mètres de toute source d'émissions électromagnétiques telles que des haut-parleurs.
Les niveaux ont été mesurés directement à partir des drivers de 30 dBuV.
Ces niveaux sont réduites à un niveau sûr à une distance de 1,27 mètre des drivers.

INSTRUCCIONES DE SEGURIDAD

Advertencia

Para una protección continua contra el riesgo de incendio, reemplace siempre los fusibles con otros del mismo tipo y valor.
Para reducir el riesgo de incendio o descarga eléctrica, no exponga este equipo a la lluvia o a la humedad.
En caso de que sospeche que exista un desperfecto, refiera siempre este equipo a un ingeniero de servicio calificado.
Este aparato debe tener conexión a tierra. Los cables de esta toma se colorean según el código siguiente:-

***Verde & Amarillo* - Tierra** ***Azul* - Neutro** ***Marrón* - Vivo**

Como los colores de los cables de la toma principal de este aparato pueden no corresponder con los colores marcados que identifican los terminales en su enchufe, proceda como se indica a continuación:-
El cable verde y amarillo debe conectarse al terminal del enchufe marcado con la letra E, por el símbolo de tierra, o pintado de verde o verde y amarillo.
El cable azul debe conectarse al terminal marcado con la letra N o pintado de negro.
El cable pintado de marrón debe conectarse al terminal marcado con la letra L o pintado de Rojo.
Si se usa un enchufe de 13 amperios (BS 1363), se deberá poner un fusible de 13 amperios, o un fusible de 15 amperios si se usa cualquier otro tipo de enchufe, ya sea en el enchufe, en el adaptador o en la placa de distribución.

Advertencia EMC (de compatibilidad electromagnética)

Es inherente en el diseño de un altavoz y en el de las pastillas de guitarra que emitan o se vean afectados por campos electro magnéticos. Los recintos de los altavoces no deberán usarse a menos de 2 metros de distancia de cualquier equipo que pueda ser afectado por interferencias electromagnéticas.
Asimismo, las guitarras que tienen pastillas electromagnéticas no deberán usarse a menos de 2 metros de distancia de ninguna fuente de emisiones electromagnéticas tales como los altavoces.
Las emisiones de los altavoces dependen de la característica de frecuencia del equipo de accionamiento.
Los niveles se midieron directamente desde unidades de accionamiento de 30 dBuV.
Estos niveles se reducen a un nivel seguro a una distancia de 1,27 metros desde las unidades de accionamiento.

SIKKERHETSANVISNINGER

Advarsel!

For å hindre fare for brann må du alltid skifte en røket sikring ut med en av samme type og størrelse.
For å redusere faren for brann eller støt må høyttaleren ikke utsettes for regn eller fuktighet.
Hvis du har den minste mistanke om feil må høyttaleren repareres av en kvalifisert tekniker.
Høyttaleren må jordes. Ledningene har følgende fargekode:

Grønn og gul - jord **Blå - nøytral** **Brun - strømførende.**

Hvis fargekoden ikke stemmer overens med støpselets fargekoder, går du frem slik:
Den grønne og gule ledningen må kobles til støpselets terminal merket E eller med jord–symbolet, eller farget grønn og gul.Den blå ledningen må kobles til terminalen merket N eller farget sort.Den brune ledningen må kobles til terminalen merket L eller farget rød.Høyttaleren må kobles til en 16 ampere krets.

Advarsel – elektromagnetisk forenlighet

Alle høyttalere og pick–up'er til gitarer gir nødvendigvis fra seg eller påvirkes av elektromagnetiske felter. Høyttalerkabinetter må ikke brukes mindre enn 2 m fra utstyr som trolig kan påvirkes av elektromagnetisk støy.
Gitarer med elektromagnetisk pick–up må likeledes ikke brukes mindre enn 2 m fra en elektromagnetisk kilde, som f.eks. høyttalere.Utstrålingen fra en høyttaler avhenger av frekvenskarakteristikken til driver–enheten.Nivåene ble målt direkte fra utganger på 30 dBuV.
Disse nivåene faller til set trygt nivå i en avstand av 1,27 m fra utgangene.

VEILIGHEIDSVOORSCHRIFTEN

Waarschuwing

Voor bestendige bescherming tegen het gevaar van brand dienen zekeringen alleen vervangen te worden met zekeringen van hetzelfde type en van dezelfde waarde.
Om het risico van brand of elektrische schok te verminderen, wordt aanbevolen dat de uitrusting niet wordt blootgesteld aan regen of vocht.
In het geval van een verdacht defect dient altijd de hulp ingeroepen te worden van een bevoegde onderhoudsmonteur.
Deze apparatuur moet geaard worden. De draden in deze netspanning zijn gekleurd in overeenstemming met de volgende code:

Groen & Geel - Aardverbinding **Blauw - Neutraal** **Brown - Stroomvoerend**

Daar de kleuren van de draden in de netspanning niet overeenkomen met de gekleurde markeringen van de klemmen in uw stekker, dient u als volgt te werk te gaan:
De Groen & Geel gekleurde draad dient verbonden te worden met de klem in de stekker die gemarkeerd is met de letter E of met het aardesymbool of groen of Groen en Geel gekleurd is.
De Blauwe draad dient verbonden te worden met de klem die gemarkeerd is met de letter N of zwart gekleurd is.
De Bruine Draad dient verbonden te worden met de klem die met de letter L gemarkeerd of Rood gekleurd is.
Wanneer 13 amp. (BS1363) stekker gebruikt wordt dient een 13 amp. zekering aangebracht te worden, wanneer een ander type stekker wordt gebruikt dient een 15 amp. zekering aangebracht te worden in de stekker of adapter of in de verdeelkast.

EMC (Electromagnetic compatibility) [bestendigheid tegen elektromagnetische storingen]
Waarschuwing

Het is inherent in het ontwerp van een luidspreker en in het ontwerp van guitaar tastelementen dat zij elektromagnetische velden emitteren of er door beïnvloed worden. Luidspreker omkastingen dienen niet gebruikt te worden op een afstand van minder dan 2 meter van de uitrusting, daar deze beïnvloed zouden kunnen worden door elektromagnetische storing.
Evenzo dienen guitaren uitgerust met elektromagnetische tastelementen niet gebruikt te worden op een afstand van minder dan 2 meter van een bron van elektromagnetische emissies, zoals luidsprekers.
Emissies van luidsprekers zijn afhankelijk van de frequentie die kenmerkend is voor de aandrijfinrichting.
Niveaus van 30 dBuV werden rechtstreeks van de aandrijvers gemeten. Deze niveaus zijn verminderd tot een veilig niveau op een afstand van 1.27m van de aandrijvers.

SÄKERHETSFÖRESKRIFTER

Varning

För oavbrutet skydd mot brandrisk, byta ut säkringar endast med samma typ av säkring och styrka.
För att minska risken för brand eller elektriska stötar, utsätt inte utrustningen för regn eller fukt.
I händelse av en oförutsedd felaktig funktion så vänd er alltid en behörig serviceingenjör.
Denna apparat måste vara jordad. Ledningarna i stickproppen har färger enligt följande kod:

Grön och gul - Jordning **Blå - Neutral** **Brun - Spänningsförande**

Eftersom färgerna i apparatens sladd kanske inte överensstämmer med färgmarkeringarna som identifierar terminalerna i stickproppen, gör enligt följande:
Den ledning som är grön och gul måste anslutas till den terminal i stickproppen som markeras med bokstaven E eller genom jordsymbolen eller grön och gul färg.
Den ledning som är blå måste anslutas till den terminal som är markerad med bokstaven N eller svart färg.
Den ledning som är brun måste anslutas till den terminal som är markerad med bokstaven L eller röd färg.
Om en A 13 amp (BS1363) stickpropp används måste en 13 amp säkring användas eller om någon annan sorts stickpropp används måste en 15 amp säkring användas i stickproppen eller i en förgreningspropp eller i fördelningstavla.

Emissionsströmsvarning

Det är ingår i konstruktionen på högtalare och gitarrers pick-uper att de skall påverkas av elektromagnetiska fält. Högtalarlådor skall inte användas närmare än 2 meter från utrustning som kan påverkas av elektromagnetiska störningar.
Gitarrer som har elektromagnetiska pick-uper monterade skall heller inte användas mindre än två meter bort från någon källa med elektromagnetisk emission, som t ex högtalare.
Emissionen från högtalare beror på drivenhetens frekensfunktion.
Nivåer uppmätta direkt från drivenheten var på 30 dBuV.
Dessa nivåer reduceras till en säker nivå på ett avstånd av 1,27 meter från drivenheterna.

TURVAOHJEET

Varoitus

Palovaaran välttämiseksi käytä aina samantyyppisiä ja -tehoisia sulakkeita.
Vähentääkseksi tulipalo- ja sähköiskuvaaraa pidä tämä laite poissa sateesta äläkä altista sitä kosteudelle.
Jos epäilet laitteen toimivan virheellisesti, ota aina yhteys ammattitaitoiseen huoltohenkilöön.
Tämä laite täytyy maattaa. Tämän laitteen johdot on koodattu seuraavasti:

Vihreä & keltainen - maa **Sininen - neutraali** **Ruskea - jännitteinen**

Koska tämän laitteen verkkojohdon värit saattavat erota liittimen värimerkinnöistä, toimi seuraavasti:
Vihreä & keltainen johto täytyy yhdistää pistokkeen liittimeen, joka on merkattu E:llä tai maattosymbolilla tai joka on väriltään vihreä tai vihreä ja keltainen.
Sininen johto täytyy yhdistää liittimeen, joka on merkattu N-kirjaimella tai joka on väriltään musta.
Ruskea johto täytyy yhdistää liittimeen, joka on merkattu L-kirjaimella tai joka on punainen.
Käytettäessä 13 ampeerin (BS1363) pistoketta täytyy siihen laittaa 13 ampeerin sulake. Jonkin muun tyyppistä pistoketta käytettäessä täytyy 15 ampeerin sulake laittaa joko pistokkeeseen, adapteriin tai jakelutauluun.

Sähkömagneettista virtaa koskeva varoitus

Kaiuttimien ja kitaran mikrofonin suunnitteluun kuuluu lunnostaan se, että
niiden tulee säteillä sähkömagneettista kenttää tai tämän tulee vaikuttaa niihin. Kaiuttimia ei saisi käyttää 2 metriä lähempänä sellaisia laitteita joihin sähkömagneettinen kenttä vaikuttaa häiritsevästi.
Myöskään kitaroita, joissa on sähkömagneettiset mikrofonit ei saisi käyttää 2 metriä lähempänä mitään sähkömagneettista lähdettä, kuten kaiutinta.
Kaiuttimien päästöjen voimakkuudet ovat riippuvaisia teholähteen taajuudesta.
Voimakkuustasot mitattiin suoraan 30 dBuV:n lähteestä.
Nämä tasot laskevat turvalliselle tasolle oltaessa 1, 27 metrin set teholähteestä.

INSTRUÇÕES DE SEGURANÇA

Aviso

Para protecção contÌnua contra o risco de fogo, substitua os fusíveis só com fusíveis do mesmo tipo e taxação.
Para reduzir o risco de fogo ou de choque elèctrico, não exponha este equipamaento a chuva ou humidade.
No caso de suspeita de mau funcionamento, consulte sempre um mecânico de serviço devidamente qualificado.
Este aparelho deve ser ligado à terra. Os fios neste sector são coloridos em conformidade com o seguinte código:-

Verde e Amarelo - Terra **Azul - Neutro** **Castanho - Vivo**

No caso das cores dos fios no cabo deste aparelho não corresponderem com as marcações em cor que identificam os terminais na ficha proceda como se segue:-
O fio Verde e Amarelo deve ser ligado ao terminal na ficha marcado com a letra E ou pelo simbolo à terra ou com a cor verde ou Verde e Amarela.
O fio Azul deve ser ligado ao terminal marcado com a letra N ou com a cor Preta.
O fio castanho deve ser ligado ao terminal marcado com a letra L ou com a cor Vermelha.
Se for usada uma ficha de 13 amp (BS1363) deve ser montado um fusível de 13 amp, se for usada qualquer outro tipo de ficha tem de ser montado um fusível de 15 amp ou na ficha, ou no adaptador ou no quadro de distribuição.

Aviso CEM

É inerente ao design de alto-falantes e ao design de reprodutores de guitarras que devem emitir ou ser afectados por campos electromagnéticos. As coberturas dos alto-falantas não devem ser usadas a menos de 2 metros do equipamento que pode ser afectado pela interferíncia electromagnética.
Igualmente, as guitarras equipadas com reprodutores electromagnéticos não devem ser usadas a menos de 2 metros da fonte de emissões electromagnéticas tais como alto-falantes.
As emissões dos alto-falantes dependem da característica de frequíncia da unidade accionadora.
Os níveis foram medidos directamente de accionadores de 30 dBuV.
Estes níveis são reduzidos para um nível seguro a uma distância de 1,27m dos accionadores.

ISTRUZIONI PER LA SICUREZZA

Avvertenza

Per assicurarsi di essere sempre protetti contro il rischio di incendi, sostituire i fusibili soltanto con altri dello stesso tipo e potenza.
Non esporre l'attrezzatura alla pioggia o umidità per ridurre il rischio di incendi o shock elettrici.
Se si sospetta una malfunzione, consultare sempre un tecnico esperto in questo settore.
L'attrezzatura deve essere messa a terra. I fili sono stati colorati secondo il codice seguente:

Giallo e verde - Terra **Blu - Neutro** **Marrone - Sotto tensione**

Dato che i colori dei fili nel cavo elettrico del prodotto possono non corrispondere ai segni colorati che identificano i terminali della spina, procedere come segue:–

Il filo di color giallo e verde deve essere collegato al terminale nella spina marcata con la lettera E o con il simbolo terra, oppure di colore verde o verde e giallo.
Il filo di colore blu deve essere collegato al terminale che mostra la lettera N oppure di color nero.
Il filo di color marrone deve essere collegato al terminale che mostra la lettera L oppure di color rosso.
Con una una spina di 13 amp (BS1363), si deve usare un fusibile di 13 amp. Con qualsiasi altro tipo di spina inserire un fusibile di 15 amp nella spina, nell'adattatore o nel quadro di distribuzione.

Avvertenza EMC (per la compatibilità elettromagnetica)

Nel design di altoparlanti o di fonorivelatori di una chitarra, è inerente il fatto che raccoglieranno o saranno influenzati da campi elettromagnetici. Le custodie per altoparlanti non dovrebbero essere poste lontano meno di 2 metri dall'attrezzatura che potrebbe risentire dell'interferenza elettromagnetica.
Allo stesso modo, non usare le chitarre con fonorivelatori elettromagnetici ad una lontananza inferiore a 2 metri da qualsiasi sorgente di emissioni elettromagnetiche come altoparlanti.
Le emissioni da altoparlanti dipendono dalla caratteristica di frequenza dell'unità di comando.
I livelli sono stati misurati direttamente da unità di comando di 30 dBuV; il livello sicuro è ad una distanza di 1,27 metri dalle unità.

SIKKERHEDSINSTRUKTIONER

Advarsel

For vedvarende beskyttelse imod risikoen for brand, må sikringerne kun udskiftes med sikringer af samme type og størrelse.
For at reducere risikoen for brand og elektrisk chok må dette udstyr ikke udsættes for regn eller fugt.
Hvis man har mistanke om, at der er en fejl i udstyret, skal man altid henvende sig til en faguddannet servicetekniker.
Dette apparat skal have jordforbindelse. Lederne i el–ledningen er farvet efter følgende kode:

Grøn og gul - Jord **Blå - Nulleder** **Brun - Spændingsførende**

Fordi ledernes farver i dette apparats el–ledning evt. ikke svarer til de farvede afmærkninger, der identificerer klemmerne i stikket, skal man gå frem på følgende måde:
Den leder, som er farvet grøn/gul, skal forbindes med klemmen i stikket, der er afmærket med bogstavet E eller med jordsymbolet eller som er grøn eller grøn/gul.
Den blå ledning skal forbindes med den klemme, der er afmærket med bogstavet N eller som er sort.
Den brune ledning skal forbindes med den klemme, der er afmærket med bogstavet L eller som er rød.
Hvis der anvendes set 13A (BS1363) stik, skal der monteres en 13A sikring. Hvis der anvendes en anden type stik, skal der sættes en 15A sikring i stikket eller snydeproppen eller på strømfordelingstavlen.

EMC advarsel

Højttalere og guitar–pickups er konstrueret således, at de udsender eller påvirkes af elektromagnetiske felter. Højttalerkabinetter må ikke placeres mindre end 2 meter fra udstyr, der sandsynligvis vil blive påvirket af elektromagnetiske forstyrrelser.
Ligeledes bør guitarer, som er udstyret med elektromagnetiske pickups, ikke anvendes mindre end 2 meter væk fra en kilde til elektromagnetiske emissioner som f.eks. højttalere.
Emissioner fra højttalere afhænger af drivaggregatets frekvens. Niveauer måles direkte fra drivaggregater på 30 dBuV.
Disse niveauer reduceres til set sikkert niveau i en afstand af 1,27 m fra drivaggregaterne.

ÖRYGGISRÁÐSTAFANIR.

Aðvörun.

Viðvarandi vernd gegn eldhættu gerir nauðsynlegt að endurnýja öryggi einvörðungu með nákvæmlega samskonar öryggjum.
Til að draga úr eldhættu eða því að tá rafstraum ber að gæta þess að rigning eða komist ekki að tækinu.
Ef grunur leikur á bilun ber jafnan að leita til löggilts viðgerðarmanns.
Tækið verður að vera jarðtengt. Leiðslurnar í rafmagnið eru litaðar samkvæmt eftirfarandi kerfi:

Grænar og gular - jörð **Blaár - núll** **Brúnar - straumur**

Með því litirnir á leiðslum tækisins kunna að vera í ósamræmi við litamerkingar á innstungu yðar ber að fara pannig að:
Leiðsluna, sem er græn og gul, ber að tengja í innstungu par sem merkt er E eða jörð eða er græn og gul að lit.
Leiðsluna, sem er blá, ber að tengja í klemmuna par sem merkt er N eða sem er svört.
Leiðsluna, sem er brún, ber að tengja í klemmuna par sem merkt er L eða sem er rauð.
Ef A 13 amp. (BS1363) innstunga er notuð ber að hafa 13 amp. öryggi eða ef önnur innstungugerð er notuð ber að hafa 15 amp. öryggi annað hvort á innstungunni eða millistykkinu í töflunni.

EMC aðvörun.

það er föst regla við hönnun hátalara og gítargrípa að þeir gefi frá sér eða verði fyrir áhrifum af rafsegulsviðm. Hátalarakerfi ætti ekki að nota í innan við 2 metra fjarlægð frá tækjum, sem kynnu að verða fyrir áhrifum rafsegultruflana.
Ekki ætti heldur að nota gítara með rafsegulgrípa í innan við 2 metra fjarlægð frá hverskyns rafsegulútsendingum eins og hátölurum.
Útsendingar frá hátölurum fara eftir tíðnieinkennum driftækisins.
Hávaðamörkin voru mæld beinlínis frá drifum 30 BuV.
Hægt er að lækka þau að öruggum mörkum í 1.27 metra fjarlægð frá drifunum.

ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ 

Προειδοποιη

Για συνεχη προστασία από τον κινδυνο φωτιάς, αβτικαταστήστε τις ασφάλειες μόνο με αοφάλειες του ίδιου τύπου και της ίδιας αναλογιας.

Για να μειωσετε τον κίνδυνο της φωτιάς ή την ηλεκτροπληξία, μην εκτίθετε τον εξοπλισμό στη βροχή ή οτην υγρασία.

Σε περίπτωση που υποψιάζεστε κάποια δυσλειτουρλία, πάντοτε να παραπέμπετε αυτή τη συσκευή σε καταρτισμένο μηχανικό σέρβις.

Η συσκευή αυτή πρέπει να διαθέτει γείωση. Τα σύρματα στην κεντρική παροχή ρεύματος ειναι έγχρωμα σύμφωνα με τον ακόλουθο κωδικό:

Πράσινο & Κιτρινο – Γείωαη Μπλέ – Ουδέτερο Καφέ – Ηλεκτροφόρο

Μια και τα χρώματα στο σύρμα της κεντρικής παροχής αυτής της συσκευής μπορεί να μην αντιστοιχούν με τα έγχρωμα σημάδια που ταυτιζουν τους ακροδέκτες στην πρίζα σας, προχωρήστε ως εξής:–

Το σύρμα που έχει χρώμα Πράσινο & Κιτρινο πρέπει να σονδέεται με τον ακροδέκτη στην πρίζα που είναι σημειωμένος με το γράμμα Ε ή με το σύμβολο γείωσης ή με το πράσινο χρώμα ή με το Πράσινο & Κίτρινο.

Το αύρμα που έχει χρώμα Μπλε πρέπει να συνδέεται στον ακροδέκτη που είναι σημειωμένος με το γράμμα Ν ή το Μαύρο χρώμα.

Το σύρμα που έχει χρώμα Καφέ πρέπει να συνδέεται με τον ακροδέκτη που είναι σημειωμένος με το γράμμα L ή το Κόκκινο χπώμα.

Εάν ξρησιμοποιείται πρίζα Α 13 αμπέρ (BS1363) θα πρέπει να εφαρμόζεται ασφάλεια των 13 αμπέρ, ή εάν χρησιμοποιείται οποιοδήποτε άλλο είδος πρίζας θα πρέπει να εφαρμόζεται ασφάλεια των 15 αμπέρ είτε στην πρίζα ή στο μετασχηματιστή ή στον πίνακα διανομής.

Προειδιποιηση της EMC

Ει΄ναι αναγκαίο όπως στο σχέδιο του μεγαφώνου και στο σχέδιο πικάπ κιθάρας πρέπει να εκπέμπουν ή να επηρεάζονται από τα ηλεκτρομαγνητικά πεδία. Τα εσώκλειστα μελαφώνου της να μην χρησιμοποιούνται λιγότερο απο 2 μέτρα μακριά από τη συσκευή που πιθανόν να επηρεάζονταιι από ηλεκτρομαγνητική παρέμβαση.

Επίσης, οι κιθάρες που εφαρμόζονται με ηλεκρρομαγνητικά πικάπς δεθ πρέπει να χρησιμοποιούνται λιγότερο από 2 μέτρα απόσταση από πηγή ηλεκτρομαγνητικής εκπομπής, όπως τα μεγάφωνα.

Εκπομπές από μεγάφωνα εξαρτώνται από το χαρακτηριστικό της συχνότητας της συσκευής μετάδοσης κίνηοης.

Οι βαθμοί καταμετρήθηκαν απευθείας από το επιπεδο οδηγού των 30 dBuV.

Αυτα τά επίπεδα μειώνονται για ασφαλές επίπεδο σε ασφαλή βαθμό απόστασης 1,27 μέτρα από τους οδηγούς.

Electar Labs., 1818 Elm Hill Pike, Nashville, Tennessee 37210, USA
Phone: 615 871 4500 Fax: 615 889 5509
relations@gibson.com