

Bonneville

O P E R A T I N G
I N S T R U C T I O N S

Trace Elliot

A L L V A L V E
G U I T A R
A M P L I F I E R

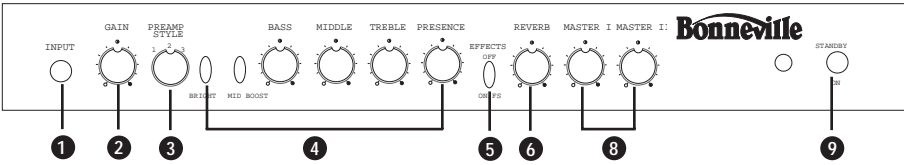
Introduction

The design brief for the Bonneville was simply to build a single channel all valve guitar amplifier. Although it only has one channel, it can produce a wide range of tones due to the design of both the preamp and power amp sections.

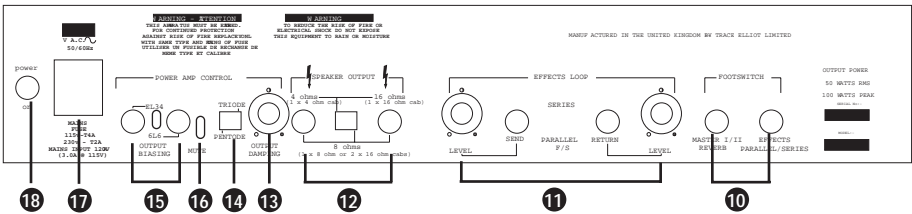
The topology has been based on traditional guitar amplifier designs, with new ideas incorporated where beneficial.

The main signal path is 100% valve and the only semiconductor devices in the whole circuit are for a.c rectification, for the switching of relays and, in the case of the combo, for lowering the impedance of the signal driving the reverb spring.

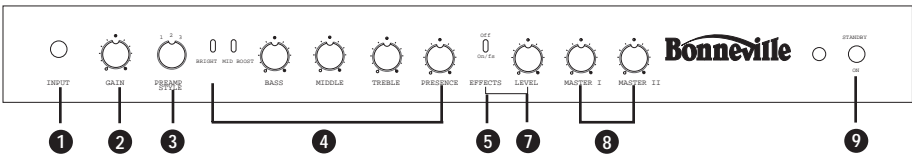
Front Panel (Combo)



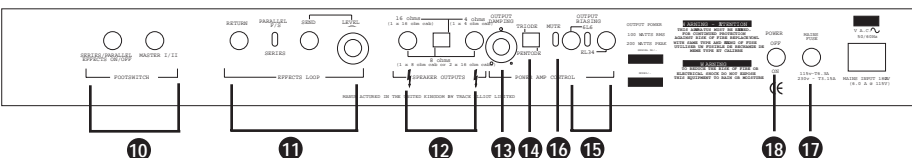
Rear Panel (Combo)



Front Panel (Head)



Rear Panel (Head)



FRONT PANEL CONTROLS

Input ①

A single jack socket is provided for connection to your instrument. This is a high impedance input which allows for perfect matching to both passive and active guitars.

Gain ②

This control adjusts the degree of drive in the preamp stage. This is used in conjunction with the PREAMP STYLE switch to set the amount of overdrive required.

Preamp Style ③

This is a 3 position rotary switch that radically alters the configuration of the preamp.

Position 1 configures the preamp like the classic American tweed circuit (3 valve stages). This is for clean to low gain sounds depending on where the GAIN control is set.

Position 2 reconfigures the preamp and adds a 4th valve stage. This provides gain levels and tone similar to traditional British amplifiers.

Position 3 adds a 5th valve stage, re-biases the existing valves and re-voices the circuit. This produces a modern high gain rock tone.

In all positions the amplifier is very responsive to the player's dynamics and use of the volume on the guitar.

Tone Controls ④

The tone controls are all passive and interactive.

The BRIGHT switch adds more high frequencies when selected. It works in the traditional way, therefore as the gain control is increased the effect is reduced.

MID BOOST fattens up the sound by changing the operating range of the TREBLE control. This is particularly useful when using single coil pickups, to get a stronger tone.

BASS, MIDDLE and TREBLE all work in the conventional way; being interactive controls you will find that the TREBLE control has an effect on both the BASS and the MIDDLE when a lot of treble lift is used.

Passive controls were chosen as they provide the best and most natural kind of equalisation for a guitar signal. The amount of bottom end that these amplifiers provide will depend not only on whereabouts the BASS control is set, but also where the OUTPUT DAMPING control is set (see below).

PRESENCE works as a tone control in the feedback loop of the power stage. Therefore it controls the overall brightness of the amplifier. This control is interactive with the OUTPUT DAMPING control, the further clockwise the OUTPUT DAMPING is set the less effect the PRESENCE control will have (see below).

Effects On/Off ⑤

This switch selects the effects loop; the connections are on the rear panel. With the switch down (ON) the effects loop is also selectable by footswitch.

Reverb (combo version) ⑥

A single control is provided to set the level of reverb. The effect is produced by a three spring reverb tray in the bottom of the cabinet.

Effects Level (head version) ⑦

This is basically the return level of the effects loop which is found on the rear panel on the combo versions. For full explanation see below.

Master I & II ⑧

MASTER I & II control the level of signal sent to the power amp and consequently the overall volume of

the amplifier. The two master volume controls are foot switchable, enabling two levels of the same sound to be set up.

Standby/On Switch 9

As the name implies, this switches the amplifier from STANDBY mode, where only the valve heaters and relay circuits are on, to ON for actual use. This should be used correctly every time the unit is used to prevent problems with valves and increase their life.

Before the POWER is switched on (rear panel), make sure the STANDBY switch is in the standby position. After switching the power on, wait at least 30 seconds before switching from standby to on. This will ensure that the valves have time to warm up before large voltages are applied to the plates. During short breaks the amplifier can be switched to standby and will therefore be ready to play when next needed.

REAR PANEL

Footswitch Sockets 10

One footswitch is supplied with each unit. This will operate in either footswitch socket.

One socket allows the effects loop to be switched on or off and the effects loop to be switched from series to parallel mode. With effects off and in series mode the signal is muted, this is useful for quiet passages with no guitar, for tuning or for between songs when no background noise is wanted.

The other socket enables switching of MASTER I & II and, where applicable, REVERB ON or OFF.

Effects Loop 11

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

The SEND LEVEL sets the level of signal out of the SEND socket. This is for connection to the input of effects units. It can also be used as a line out.

The RETURN socket is connected to the output of the effects unit used and the RETURN LEVEL (EFFECTS LEVEL on head version front panel) sets the level of the effected signal in the overall sound.

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 and then back into the amp, whereas in PARALLEL mode the effected signal is mixed in with the original dry signal, thus retaining total purity. When the switch is set to PARALLEL the function is also footswitchable. The choice of which mode to use will depend on what kind of effects unit is used and what overall effect is desired.

POWER AMP CONTROL

Speaker output socket & impedance selector switch 12

The Bonneville has connections for driving loads of 4Ω, 8Ω or 16Ω depending upon which socket is used and how the switch is set.

In one position the two sockets are for either 4Ω or 16Ω, as indicated on the unit, whereas with the switch in the other position either socket can be used to drive an 8Ω cab or both sockets can be used to drive two 16Ω cabs (in parallel), also indicated on the unit.

When using more than one speaker cabinet the overall effective impedance should be correctly worked out and the appropriate socket used.

For 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 8Ω cabinets are used,

$$\frac{8 \times 8}{8 + 8} = \frac{64}{16} = 4 \text{ so the } 4\Omega \text{ socket should be used.}$$

Output Damping 13

The OUTPUT DAMPING control determines how much effect the speaker cab has on the output stage. High damping, with the control fully anticlockwise, provides a lot of negative feedback which basically attempts to correct any distortions that are occurring in the output stage and speakers, this produces a tighter, cleaner sound with flatter response.

Low damping, with control fully clockwise, restricts negative feedback and therefore allows the speakers to be more loosely coupled to the amplifier. The speaker cabinets own impedance/frequency curve is then superimposed on to the overall sound. The effect will depend on what kind of speakers and cabinet are used but generally this produces a looser, more harmonically rich sound with lots of bottom end.

As stated before the further clockwise this control is set the less effect the PRESENCE control will have, this is basically because less signal is being sent back from the output transformer to the phase splitter for the PRESENCE control to work with.

Pentode/Triode Switch 14

The power stage can be set to either PENTODE or TRIODE operation.

PENTODE position is the full power mode and has generally a more powerful sound.

TRIODE mode produces around half as much power and therefore has less headroom and produces power amp distortion earlier.

Biasing 15

Although the unit will be factory fitted with EL34 valves, the power stage can also use either 6L6, 5881 or 6550 valve types.

The bias switch allows quick and easy selection of two power valve types. All the user has to do is, while the unit is off, replace current valves with new type, flick the bias switch and then power up.

The amplifier will be set at the factory so the BIAS switch allows selection between EL34 and 6L6 valve types, the most popular types for guitar amplifiers.

Selection between any two of the valve types mentioned can be achieved by re-biasing using the preset trimmer pots, under the rubber grommets. **This should be carried out by a competent engineer with the correct equipment.** A bias voltage test point is provided: this is in line with the bias switch on the top of the head or underneath on the combo. To measure the bias voltage connect voltmeter (set to DC 100V range) as follows:- Black lead clip on to bias switch, Red lead touch test point underneath grommet, the voltage can be set by using a trimmer tool to adjust the appropriate preset trimmer pot on rear panel.

When changing power valves, matched pairs should be used. On the head version, looking at the unit from the rear, left to right valves 1 and 2 are a pair, and valves 3 and 4 are a pair.

Mute Switch 16

When this is selected the power stage is muted, therefore the preamp can be used, by taking an output from the EFFECTS SEND socket, without any need to load the power amp.

Mains Fuse 17

In the event of having to replace the mains fuse always use the same rating and type as marked on the units rear panel. Using one of higher rating will invalidate the guarantee.

If after the replacement the mains fuse should blow a second time, immediately refer the unit to a TRACE ELLIOT approved service engineer for checking.

Power On/Off Switch 18

When switched on this supplies power to the valve cathode heaters and the relay switching circuit. Check that the correct mains voltage is applied to the mains inlet socket and that the front panel STANDBY switch is in the standby mode before switching ON or OFF.

ORIENTATION OF PREAMP VALVES

The preamp valves fitted in production are SOVTEK 12AX7's. These were used because they were found to have low microphony, good reliability and produce a wonderfully rich and musical harmonic structure particularly when overdriven.

Six 12AX7's are fitted to the Bonneville amplifiers and are used as follows:-

Combo Version

Looking at the unit from behind with the rear panel removed, the second row of three are for the actual preamp gain stages, the right hand valve being the input stage and therefore the most sensitive.

The first row are for, from left to right, phase splitter, effects loop and reverb.

Head Version

Again looking at the unit from behind with the rear panel removed, the second row of three are for the preamp gain stages, this time the left hand valve being the input stage and therefore the most sensitive.

The first row are for, from right to left, phase splitter, effects loop and as the head version does not have a reverb the left hand valve is unused and is provided as a spare.

TECHNICAL SPECIFICATIONS

Preamp

INPUT	1M Ω IMPEDANCE
EFFECTS SEND	IMPEDANCE 100K Ω NOMINAL SIGNAL LEVEL OdBv
EFFECTS RETURN	IMPEDANCE 250K Ω NOMINAL SIGNAL LEVEL OdBv
TONE CONTROLS	PASSIVE
REVERB	3 SPRING REVERB TRAY
CIRCUIT TOPOLOGY	MAIN SIGNAL PATH 100 % VALVE

Preamp

POWER RATING	HEAD	PENTODE MODE	≥ 100 WATTS
		TRIODE MODE	40-50 WATTS
	COMBO	PENTODE MODE	≥ 50 WATTS
		TRIODE MODE	20-25 WATTS
		(EL34 power valves)	

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. Trace Elliot 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



Warning

Zum fort dauernden 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 Warning

Es liegt im Design eines Lautsprechers und im Design von Gitarrenaufnehmern, daß sie elektromagnetische Felder abgeben oder von solchen beeinflusst werden. Trace Elliot 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 même type et du même courant nominal.

Pour réduire le risque d'incendie ou de décharge électrique, n'exposez jamais cet équipement à la pluie ou à l'humidité.

Si vous soupçonnez une défaillance, faites toujours appel à un ingénieur qualifié.

Cet appareil doit être mis à la masse. Les fils de cette conduite diamentée 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 diamentée 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 être relié à la borne de la fiche marquée de la lettre E, du symbole de terre ou colorée en Vert et Jaune.

Le fil Bleu doit être relié à la borne marquée de la lettre N ou colorée en Noir.

Le fil Marron doit être 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 l'adaptateur ou dans le tableau de distribution.

Compatibilité électromagnétique - avertissement

La conception d'un haut-parleur et des pickups de guitare est telle qu'ils sont affectés par des champs électromagnétiques ou en émettent les enceintes de haut-parleur Trace Elliot ne devraient pas être 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.

Ces 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 mètres 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 Trace Elliot 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



Advarse!

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 høyttalere ikke utsettes for regn eller fuktighet. Hvis du har den minste mistanke om feil må høyttalere repareres av en kvalifisert tekniker. Høyttalere må jordes. Ledningene har følgende fargekode:

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

Hvis fargekoden ikke stemmer overens med stopselets fargekoder, går du frem slik: Den grønne og gule ledningen må kobles til stopselets 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. Høyttalere må kobles til en 16 ampere krets.

Advarsel - elektromagnetisk forenighet

Alle høyttalere og pick-up'er til gitarer gir nødvendigvis fra seg eller påvirkes av elektromagnetiske felter. Trace Elliot-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 et trygt nivå i en avstand av 1,27 m fra utgangene.

VEILIGHEDSVOORSCHRIFTEN



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 - Stroomvoerende

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 gitaar tastelementen dat zij elektromagnetische velden emitteren of er door beïnvloed worden. Trace Elliot 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 gitaren uitrusting 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 aandrijfrichting.

Niveaus van 30 dBuV werden rechtstreeks van de aandrijvers gemeten. Deze niveaus zijn vermindert tot een veilig niveau op een afstand van 1.27m van de aandrijvers.

SÄKERHETSFÖRESKRIFTER



Varning

For øvrburtet skydd mot brandrisk, byta ut sikringer endast med samma typ av sikring och styrka.

For ått minska risken for brand eller elektriska stötar, utsätt inte utrustningen for 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 og 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 og gul måste anslutas till den terminal i stickproppen som markeras med bokstaven E eller genom jordsymbolen eller grön og 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 sikring användas eller om någon annan sorts stickpropp används måste en 15 amp sikring användas i stickproppen eller i en förgreningsspropp eller i fördelningstavla.

Emissionsströmsvarning

Det är ingår i konstruktionen på högtalare og gitarers pick-uper att de skall påverkas av elektromagnetiska fält. Trace Elliots högtalarlådor skall inte användas närmare än 2 meter från utrustning som kan påverkas av elektromagnetiska störningar.

Gitarer 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 frekvensfunktion.

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 vältämiseksi käytä aina samantyyppisiä ja -tehoisia sulakeita.

Vähentääksesi tulipalo- ja sähköiskuvaaraa pidä tämä laite poissa sateesta äläkä altista sitä kosteudelle.

Jos epäilet laitteen toimivan virheellisesti, ota aina yhteys ammattitaitoisien 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 maaltosymbolilla 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 jakelutaluuun.

Sähkömagneettista virtaa koskeva varoitus

Kaiuttimien ja kitaran mikrofonin suunnitteluun kuuluu lunnostaan se, että niiden tulee säteillä sähkömagneettista kenttää tai tämän tulee vaikuttaa niihin. Trace Elliot -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 lähettä, kuten kaiutinta.

Kaiuttimien päästöjen voimakkuudet ovat riippuvaisia teholaitteen taajuudesta.

Voimakkuustasot mitattiin suoraan 30 dBuV:n lähteestä.

Nämä tasot laskevat turvalliselle tasolle oltaessa 1, 27 metrin etäisyydellä teholaitteesta.

INSTRUÇÕES DE SEGURANÇA



Aviso

Para protecção contínua 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 eléctrico, não exponha este equipamento 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 símbolo 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-falantes Trace Elliot não devem ser usadas a menos de 2 metros do equipamento que pode ser afectado pela interferência 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 frequência 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.

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 et 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. Trace Elliot 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 et sikkert niveau i en afstand af 1,27 m fra drivaggregaterne.

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 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 Trace Elliot 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.

ÖRYGGISRÁÐSTAFANIR.



Aðvörun.

Viðvarandi vernd gegn eldhættu gerir nauðsynlegt að endurnýja öryggi einvörðungu með nákvæmlega samskonari öryggjum.

Til að draga úr eldhættu eða því að fara rafstraum ber að gæta þess að rigning eða komist ekki að tækinu.

Ef grunur leikur á bilun ber jafnan að leita til lögglits viðgerðarmanns.

Tækið verður að vera jarðtengt. Leiðslurnar í rafmagníð eru litáðar samkvæmt eftirfarandi kerfi:

Grænar og gular - jörð Bláar - null Brúnar - straumur

Með því litirnir á leiðslu tækisins kunna að vera í ósamræmi við litamerkingar á innstungu yðrar ber að fara þannig að:

Leiðsluna, sem er græn og gul, ber að tengja í innstungu þar sem merkt er E eða jörð eða er græn og gul að lit.

Leiðsluna, sem er blá, ber að tengja í klemmuna þar sem merkt er N eða sem er svört.

Leiðsluna, sem er brún, ber að tengja í klemmuna þar 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 toflunni.

EMC aðvörun.

Það er föst regla við hönnu hátalara og gítargripa að þeir gefi frá sér eða verði fyrir áhrifum af rafsegulsviðum. Trace Elliot hátalarakerfi ætti ekki að nota í innan við 2 metra fjarlægð frá tækjum, sem kynnu að verða fyrir áhrifum rafsegulruflana.

EKKI ætti heldur að nota gítara með rafsegulgripa í innan við 2 metra fjarlægð frá hverskyns rafsegulútsendingum eins og hátölurum.

Útsendingar frá hátölurum fara eftir líðleikennum drifttækisins.

Hávaðarmörkin voru mæld beinlínis frá drifum 30 dBuV.

Hægt er að lækka þau að öryggjum mörkum í 1,27 metra fjarlægð frá drifunum.

**Προειδοποίηση**

Για συνεχή προστασία από τον κίνδυνο φωτιάς, αβιγκαταστήστε τις ασφάλειες μόνο με ασφάλειες του ίδιου τύπου και της ίδιας αναλογίας.

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

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

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

Πράσινο & Κίτρινο – Γείωση Μπλε – Ουδέτερο Καφέ – Ηλεκτροφόρο

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

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

Το σύρμα που έχει χρώμα Μπλε πρέπει να συνδέεται στον ακροδέκτη που είναι σημειωμένος με το γράμμα N 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 χρώμα.

Εάν χρησιμοποιείται πρίζα A 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.

Προειδοποίηση της EMC

Εί να 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 TRACE ELLIOT να μην χρησιμοποιούνται λιγότερο από 2 μέτρα μακριά από τη συσκευή που πιθανόν να επηρεάζονται από ηλεκτρομαγνητική παρέμβαση.

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

Εκπομπές από μεγάφωνα εξορτώνται από το χαρακτηριστικό της συχνότητας της συσκευής μετάδοσης κίνησης.

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

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