MOOST FOOTSWIRTCH DOUBLES SOUND POSSIBILITIES

The R660-112 (DUETTE 112) is equipped with special circuitry that enables up to six different sound levels to be created. In addition to the standard three sounds (overdrive, clean and mix) provided by the inclusive FS3 footswitch, connection of the optional BOOST footswitch xplands these to six in total.

by connecting your guitar to the socket on the BOOST footswitch and then connecting the footswitch output to either of the two inputs, it is possible to vary the input sensitivity remotely by foot. When using the Same SIM-PLAY feature you can also BOOST each input independently providing each guitarist is using demost footswitch.

When you select RYTHMN SECTION, the BOOST footswitch will allow rythmn clean or loud lead clean sounds to be achieved. Select LEAD SECTION on the FS3 (LED glowing), and you will be able to have two depths of overdrive level. It is easy to set up dirty rythmn and heavy lead sounds without effecting the RYTHMN SECTION settings. That's four so

Finally there is the MIX position on the FS3 footswitch. This is also effected by the BOOST function, but not guite in the way you might first expect. Since overdrive has the effect of compressing the signal (gets more distorted without getting much louder), then the overdrive content of the MIX sound just gets dirtier. However, the clean signal element of the MIX does get louder (the dynamic range is not resricted by the overdrive circuit), therefore, BOOST will give a different MIN sound balance depending on it's setting. 'A great deal of experimentation will obviously be required to mester these features.

The BOOST facility is not fitted to model RG30 alo (DUETTE 110), niether is it able to be fitted at a later time.

We hope you enjoy using your new DUETTE which has been entirely designed and manufactured in England. WMerever commercially practical w components, produced within the EEC are used. * .

Two-year limited warranty

- 1 If take a occurs due to faulty workmanship or components within ne first 12 months from the date of purchase, the product will at the .
- Company's discretion be repaired or retriaced free of charge.

 2. Parts will be replaced in accompance with the same criteria curing
- ne second 12 months, but labour and return carriage will be
- narged at the rates currently in force at the time of repair.
- 3 this warranty does not cover wear and tear, and excludes equipment that has been modified. Speakers are limited to 42 months warranty, and tootswitches to 6 months only 4 Goods that are suspected of being faulty must be returned to the
- origina dealer from whom they were purchased, for their inspection.
- They must not be returned direct to the tactory.

 5. Returns must be made in the original packing, with corriage paid and proof of date of purchase enclosed. The company dicepts no responsibility for goods damaged in transit to its premises for repair. The responsibility for returning faulty goods to the factory lies solely with the dealer from whom the purchase was made
- The company ages not lend or hire equipme : Goods connot be

repaired on a "while-you-wait" basis.

Your dealer



The amps you designed

DUETTE guitar Instructions

Guitar Combo - RG60-112

FEATURES

- 60 watts RMS output power?
- 30cm(12 inch) SESSION speaker (99dBAv. SPI-).
- REVERB footswitchable ACCUTRONICS
- Dual footswitchable OVERDRIVE and CLEAN channels with MIX and 'SIM-PLAY'® ability.

CHANNEL 1 CONTROLS

- Overdrive depth control.
- * Two band 'valve amp' design EQ
- post overdrive.
- Volume control.

CHANNEL 2 CONTROLS

- Two band Valve amp' design EQ
- · Letume control.

OTHER FACILITIES

- ★ Twin inputs incorporating 'SIM-PLAY'® allowing independent clean and overdrive 'DUETTE-ing' for two quitarists.
- * Boost facility via optional footswitch allowing 2 clean levels and 2 overdrive depths.
- * Super sensitive BIFET pre-amp design.
- * Reverb level control.
- Overall FX LOOP (-10dB level.)
- Extension speaker socket EXT + INT.
- Stereo HEADPHONE socket.
- FS3 Channel, Mix and Reverb

footswitch with LED status indication inclusive.

- Moulded SAFETY AC connector.
- Transit cover inclusive.
- Two year limited warranty.
- Weight: 13kg (28.5lbs).
- Dimensions: 435 x 375 x 255mm (17 x 15
- x 10 inches) approx.



Guitar Combo - RG30-110

FEATURES

- · 30 wafts RMS output.
- 25cm (10 inch) SESSION speaker (97dB Av. SPL).
- REVERB footswitchable ACCUTRONICS
- Footswitchable OVERDRIVE and CLEAN channels with 'SIM-PLAY'(R)

CHANNEL 1 CONTROLS

- · Overdrive depth control.
- Variable HARMONIC FILTER post overdrive.
- Volume control.

CHANNEL 2 CONTROLS

- Two band 'valve amp' design FQ
- Volume control:

OTHER FACILITIES

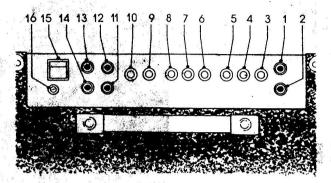
- Twin inputs incorporating "SIM-PLAY"®. allowing indépendent clean and overdrive operation for two guitarists.
- Super sensitive BIFET pre-amp design.
- Overall FX LOOP (-10dB level).
- Extension speaker output EXT + INT
- Stereo HEADPHONE output.
- . FS2 CHANNEL and REVERB

foolswitch with LED status indication inclusive

- Transit cover inclusive.
- * Moulded SAFETY AC connector.
- * Two year limited warranty.
- Weight: 12kg (26.4lbs).
- Dimensions: 435.x 375.x 250mm (17 x 15.
- x 10 inches) approx.



The control panel



INPUT SECTION

- 1. DUAL INPUT: high impedance input, use of which enables footswitchable clean or overdrive sounds.
- 2. SOLO INPUT: high impedance input for dedicated lead overdrive or clean playing (set OVERDRIVE control 0-3 for clean playing).

LEAD SECTION CONTROL GROUP

- 3. OVERDRIVE CONTROL: use this control to set the depth of overdrive on LEAD SECTION. Advancement will increase the distortion and length of sustain.
- 4. VOLUME CONTROL: use to set the volume (loudness) of the overdriven sound without effecting the overdrive depth.
- 5. TREBLE CONTROL: operates over the range 1,000 to 10,000kHz. (FILTER control on model RG30-110). See notes on EQ.
- 6. BASS CONTROL: operates over the range 50 to 200Hz. (Not fitted on model RG30-110). See notes on EQ.

RYTHMN SECTION CONTROL GROUP

- 7. VOLUME CONTROL: controls the volume of the clean RYTHMN SECTION. Overdrive is not attainable on this section.
- 8. TREBLE CONTROL: operates over the range 1,000 to 10,000kHz.
- 9. BASS CONTROL: operates over the range 50 to 200Hz.

OVERALL FACILITIES

- 10. REVERB CONTROL: varies the depth of reverb.
- 11. EFFECTS SEND: output from the pre-amp to drive effects pedals with -10dB signal level for low noise operation and studio quality results. Circuitry optimised for 'semi-pro' battery operated units.
- 12. EFFECTS RETURN: for returning signal to the main power amp after processing by the unit. Use of these facilities is highly recommended.



- 13. EXTENSION SPEAKER: connect any speaker of any impedance. No harm will be done to the amplifier. **DONOT CONNECT HEADPHONES TO THIS COUTPUT**
- 14. HEADPHONE SOCKET: connect any stereo headphones having an impedance of between 8 and 600 ohms (mono sound image). NOTE: sound will be brighter than listening via the speaker due to the wide frequency response of headphones.
- 15. AC POWER SWITCH: this turns your amplifier on, at which stage the neon glows. If the neon fails to glow when the switch is operated, replace the AC fuse. If it still fails to glow return the amplifier to your dealer for advice.
- 16. AC POWER FUSE: fit only the type specified. Most modern fuses carry an 'F' or 'T' pre-fix in their code ie, T800mA or T1.6A. The 'T' indicates 'Time Lag'. This allows the surge current caused by turning on your amplifier to pass without blowing the fuse, whilst still offering full protection to the amplifier and user. To avoid problems of frequent fuse failure DO NOT USE 'F' types (Fast Acting).

Output power

RG60-112 - Typical output power is 60 watts RMS into a pure resistive *load of 4 ohms allowing for 5% total distortion and an AC supply of 240 volts. This also applies to 120 volt models. Reduce power rating to approximately 50 watts RMS when used on 220 volt AC supplies.

RG30-110 - Typical output power is 30 watts RMS at 240 & 120 volts AC and 25 watts RMS at 220 volts AC, within the same conditions as above.

GETTING TO KNOW YOUR DUETTE

SIM-PLAY (TM) - SESSION'S UNIQUE FEATURE

The most important feature of the Duette 110 is its ability to accommodate two guitarists playing simultaneously, without interaction. One guitar can plug into the DUAL input for footswitchable clean or overdrive sounds alternately - at will, while the other uses the SOLO input for lead playing.

We call this feature SIM-PLAY and is an original design from SESSION, incorporated in both DUETTE's (RG30-110 and RG60-112).

SIM-PLAY is a trade mark of Axess Electronics Ltd.

FOOTSWITCH FUNCTION SELECTORS FS2 AND FS3

The footswitch is an integral component and naturally the amplifier cannot work properly without it. On the face of the footswitch body there are two or three 'push on, push off' heavy duty switches. Alongside each is an 'LED' indicator.

When the indicators are alight the following states exist:

FS3 - RG60-112 (DUETTE 112)

CHANNEL - Lead Section engaged.

MIX - Lead and Rythmn Sections combined.

REVERB - Reverb on. ..

DUETTE guitar

IDEAS FOR CREATING YOUR OWN LEAD SOUND

To gain full benefit of the powerfull EQ controls, it is necessary to treat the treble, bass and volume controls as a three part system for 'moulding' your sound.

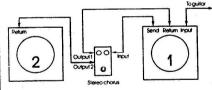
'FAT STACK' - With the treble set at 2-4 and bass at 10, a rich, deep lead sound will be produced. Many modern heavy rock guitarists go for this sound.

'FULL BODY' - To achieve a middly round overdrive character keep treble and bass controls set low and increase volume. The resultant effect is exactly the same as having mid range control. This flavour is particularly good for front pickup use with guitar tone control turned down (full bass). Set overdrive at 8-10. Add reverb to richen up! Result should be similar to Gary Moore's sound.

'BRIGHT BITE' - Treble to 7, bass at 4-5, crank up the volume and your all set to offend even the highest priests of Metal Mania!

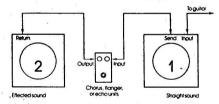
Always remember, Treble and bass controls are post overdrive, therefore, dramatic changes in sounds can be made by boosting or cutting the additional harmonics generated by the overdrive circuitry. Small adjustments make big changes when in deep overdrive.

Use of effects loop 1 amplifiers connected in stereo



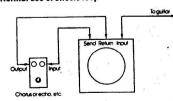
All controls on amp 1 effect both amps.

2 amplifiers connected in pseudo stereo



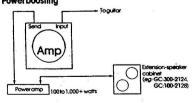
Master control from amp 1.

3 Normal use of effects loop



Note: do not use "Copicat" echoes, fuzz or overdrives, or compressors in the effects loop. They are designed to workonly with low-levels guitar eutputs, and the signals will be too large to operate such effects.

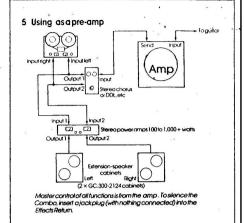
4 Powerboosting



MORE ABOUT EFFECTS LOOPS

All guitar amplifiers consist of two 'blocks' internally, a PRE-AMP and POWER AMP. The pre-amp moulds the guitar signal and deals with LOW level signals (low voltages). The POWER AMP takes the low level signals coming out of the pre-amp and boosts them up to a size suitable for driving the loudspeaker itself - high level signals (high voltages). An EFFECTS LOOP is a means of tapping into the signal between the PRE-AMP and the POWER AMP.(fig.1)

By connecting, for example, a chorus pedal into the signal path in this way, you can affect the overall sound of your amplifier. Signals come out of the PRE-AMP from the EFFECTS SEND, into the pedal and the 'effected' sound is put back into the amplifier through the EFFECTS RETURN socket.(fig.2)



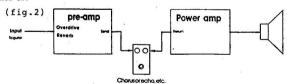
As you put a jack into the EFFECTS RETURN socket, an internal switch automatically disconnects the normal PRE-AMP to POWER AMP link and injects the signal going into that socket straight to the POWER AMP. In this way, your effects unit is truely inserted into the signal chain.

So it follows:

EFFECTS SEND = PRE-AMP OUT EFFECTS RETURN = POWER AMP IN



You cannot insert OVERDRIVE, FUZZ and certain types of COMPRESSOR pedals as they are generally designed to operate with only 5-10mV of instrument signal. Also, the output level is matched to the 10mV amplifier inputs and are unable to supply the large level signals to fully drive the POWER AMP. A drop in volume would be noticed when switched in.



The signal at the SEND socket is a miniature version of what you hear, and is of a level compatible with the input sockets of Portastudios. PA systems and tape recorders. This level is 200mV at amplifier full volume.

The return socket is an input to the POMER AMP alone and requires 200mV of signal to drive the output stage up to full volume. Since inserting a jack plug into this socket automatically disconnects the PRE-AMP section , your guitar combo turns into a straight POMER AMP in a speaker cabinet. Therefore, you have created a 'universal' slave amplifler with the EFFECTS RETURN socket as its one input.

Thinking of your amplifier as having two seperate and independent blocks, normally connected together in a chain, is not a new concept. Bif i amps are organised in exactly the same way. The inclusion of an EFFECTS LOOP on an amplifier, as a means of seperating and manipulating the signals between PRE-AMP and POMER AMP, opens up a whole new area limited only by your imagination. SESSION amplifiers are designed with imagination in mind!

DO use the EFFECTS SEND as a D.I. OUT.

DO use CHORUS, FLANGER or ECHO pedals.

Do keep your sockets clean and have your amplifier serviced at least once a year if regularly gigged.

DON'T use OVERDRIVE, FUZZ, COMPRESSOR or other pedals designed to work with guitar level signals.

DON'T use PHONES or EXT. SPKR sockets as a D.I. OUT. DON'T supply the EFFECTS RETURN signals from PHONES or EXT SPKR

sockets on other amplifiers.

OON'T keep this information to yourself - tell your friends:

SESSION

The amps you designed