SESSION
The amps you designed

DUETTE guitar instructions

Guitar Combo – RG60-112
FEATURES
- 40 watts 4Ω output power
- 30cm (12 inch) SESSION speaker (99dB SPL)
- TREBLE – footswitchable ACOUTRONICS spring
- Dual footswitchable OVERDRIVE and CLEAN channels with MIX and SIM-PLAY® ability.

CHANNEL 1 CONTROLS
- Overdrive depth control
- Two band valve amp design EQ – pre/overdrive
- Volume control

CHANNEL 2 CONTROLS
- Two band valve amp design EQ
- Volume control

OTHER FACILITIES
- Twin inputs incorporating SIM-PLAY®, allowing independent clean and overdrive DUETTE® for two guitarists.
- Boost facility via optional footswitch allowing 2 clean levels and 2 overdrive depths.
- Super sensitive BEF pre-amp design.
- Reverb level control.

Overall FX LOOP (–10dB level)
- Extension speaker socket – EXT + INT.
- Stereo HEADPHONE socket.
- FS2 – CHROMAL, Mix and Reverb footswitch with LED status indication inclusive.
- Moulded SAFETY AC connector.
- Transistor driven寞.
- Two year limited warranty.
- Weight: 13.6 kg (30.1 lb).
- Dimensions: 435 x 375 x 250 mm (17 x 15 x 10 inches) approx.

Guitar Combo – RG30-110
FEATURES
- 30 watts 4Ω output power
- 25cm (10 inch) SESSION speaker (97dB SPL)
- OVERDRIVE – footswitchable ACOUTRONICS.
- Footswitchable OVERDRIVE and CLEAN channels with SIM-PLAY®.

CHANNEL 1 CONTROLS
- Overdrive depth control
- Variable MACHETE FILTER – post overdrive.
- Volume control

CHANNEL 2 CONTROLS
- Two band valve amp design EQ
- Volume control

OTHER FACILITIES
- Two input incorporating SIM-PLAY®, allowing independent clean and overdrive operation for two guitarists.
- Super sensitive BEF pre-amp design.
- Overall FX LOOP ( –10dB level).
- Extension speaker socket – EXT + INT.
- Stereo HEADPHONE output.
- FS2 – CHROMAL Mix and Reverb footswitch with LED status indication inclusive.
- Moulded SAFETY AC connector.
- Transistor driven.
- Two year limited warranty.
- Weight: 12.9 kg (28.8 lb).
- Dimensions: 435 x 375 x 250 mm (17 x 15 x 10 inches) approx.
The control panel

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).

INPUT SECTION

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 200kHz. (Not fitted on model RG30-110). See notes on EQ.

LEAD SECTION CONTROL GROUP

7. VOLUME CONTROL: controls the volume of the clean RHYTHM 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 200kHz.

RHYTHM SECTION CONTROL GROUP

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.

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 guitarist 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 AXESS Incorporated in both DUETTE's (RG30-110 and RG60-112).

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

FOOTSWITCH FUNCTION SELECTORS PS2 AND PS3

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:

PS2 - RG60-112 (DUETTE 112)

<table>
<thead>
<tr>
<th>CHANNEL</th>
<th>MIX</th>
<th>REVERB</th>
</tr>
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<tbody>
<tr>
<td>Lead Section engaged.</td>
<td>Lead and Rhythm Sections combined.</td>
<td>Reverb on.</td>
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CONT'D
DUETTE guitar

IDEAS FOR CREATING YOUR OWN LEAD SOUND

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

'FULL BODY' - To achieve a midly 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 riche 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 priestes 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

2 amplifiers connected in pseudo stereo

3 Normal use of effects loop

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 truly inserted into the signal chain.

Do it follows:

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

(fig.1)

You cannot insert OVERDRIVE, FUZZ and certain types of COMPRESSOR pedals as they are generally designed to operate with only 5-15mV of instrument signal. Also, the output level is switched on the TONE AMP inputs and the signal is not strong enough to supply the large level signals to fully drive the POWER AMP. A drop in volume would be noticed when switched in.

(fig.2)

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 portable mixers, PA systems and tape recorders. This level is 20mV at amplifier full volume.

The return socket is an input to the POWER 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 POWER AMP in a speaker cabinet. Therefore, you have created a new amplifier with the EFFECTS RETURN socket as its only input.

Thinking of your amplifier as having two separate and independent blocks, normally connected together in a chain, is not a new concept. As this is organised in exactly the same way, the inclusion of an EFFECTS LOOP on an amplifier, as a means of separating and manipulating the signals between PRE-AMP and POWER 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, BLUES or BONE pedals.
- DO keep your sockets clean and your amplifier serviced at least once a year if regularly plugged.
- 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 route signals from PHONES or EXT. SPKR sockets on other amplifiers.
- DON'T keep this information to yourself - tell your friends!