CARLSBRO

STINGRAY LEAD/LEAD COMBO/BASS/BASS COMBO

INSTRUCTION GUIDE

NOTICE D'EMPLOI

GEBRAUCHSANWEISUNG

Stingray Lead
Stingray Lead Combo
Stingray Bass
Stingray Bass Combo

MAINS VOLTAGE

The amplifier is set to operate from the nominal mains voltage stated on the rear panel immediately above the mains input socket. For 220v. indicated the working range will be 200-250v. 50-60 Hz. For 110v. indicated the working range will be 100-125v. 50-60 Hz.

The mains lead supplied should be plugged into the three pin mains input socket and a suitable plug fitted to the other end. Care must be taken in wiring the plug and the following colour code must be observed.

Green and Yellow	—	EARTH
Brown	—	LIVE
Blue	—	NEUTRAL

The mains on/off switch is located on the rear panel immediately above the mains input socket and the mains fuse is located to the left of it. If it should be found necessary to replace the fuse, the fuse rating specified below the fuseholder must be strictly adhered to.

The L.E.D. power indicator on the front panel will glow immediately the amplifier is switched on. When switched off, the lamp will extinguish gradually.

CONNECTION OF LOUDSPEAKERS

Two jack sockets (marked "OUTPUT 4-16 Ohms") are provided on the rear panel of the amplifier for connection of loudspeakers. With combination amplifiers the internal speakers are already wired into these sockets, whilst for the separate amplifiers a speaker lead with a jack plug at each end is provided for the connection of external speaker cabinets.

CHOICE OF SPEAKER CABINETS

There is a wide range of speaker cabinets available from Carlsbro for use with the amplifiers, but it is essential that certain rules are observed if maximum performance is required.

Maximum power output of 150 watts will only be delivered when the combined impedance of all speakers used is 4 ohms. If the impedance is 16 ohms the maximum power output will be 50 watts. The impedance is stated on the rear of the cabinet and if only one is used the power output will be as above. When two speaker cabinets are used it is usual for them to be of the same impedance, so that the combined impedance will be half the impedance of each individual cabinet, e.g. if two 4 × 12" speaker cabinets of 8 ohms each are both connected the combined impedance will be 4 ohms and the maximum power will be delivered. Care must be taken to see that the power rating of each speaker cabinet is not exceeded or damage will result to the speakers. The "Lead Combo" is fitted with two speakers, having a combined impedance of 4 ohms which gives the amplifier a full 150 watt output capacity.

The "Bass Combo" is fitted with one Powertone Bass 15" speaker of 8 ohms impedance, an additional speaker of 8 ohms impedance may also be plugged into either output socket to increase the total power output to 150 watts.

SLAVE AND PRE-AMP OUTPUTS (Rear Panel)

The pre-amplifier and power output sections of the amplifiers may be isolated by inserting a jack lead into the pre-amplifier socket on the rear panel. This prevents the signal from reaching the power amplifier and provides a low level output which is fully controlled by the tone and effects circuits. This signal may be fed into any suitable signal processing unit such as a mixer unit. The output from the mixer unit may then be fed back into the power amplifier by means of a jack lead inserted into either of the two "Slave" sockets which are also situated on the rear panel.

Additional slave amplifiers may also be fed by connecting a jack lead from one of the "Slave" sockets on the rear panel of the "Slave" amplifier. Any number of the "Slave" amplifiers may then be added by connecting in the above manner.

STINGRAY LEAD

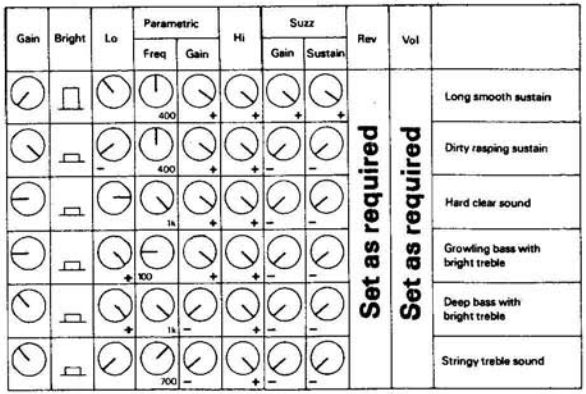
This amplifier has two channels each having two high impedance inputs of high and low sensitivity marked "hi" and "lo".

Channel 1 features unique and advanced equalisation effects and controls. The controls "GAIN", "LO", "PARAMETRIC FREQ", "PARAMETRIC GAIN", "HI", "SUZZ GAIN" and "SUZZ SUSTAIN". A "BRIGHT" switch is also provided and gives you extra brilliance and attack to the sound. The "GAIN" control enables you to match your

instrument to the amplifier input. Also, by turning the "GAIN" up and the "VOL" control down, overload distortion can be obtained giving a dirty sustained sound. (This overload distortion is only available on channel 1). The "LO" AND "HI" controls work in the conventional manner. In addition, to these controls, channel 1 features a PARAMETRIC EQUALISER. Any frequency between 75Hz an 1kHz can be selected by the control marked "FREQ". This can then be cut or boosted by the control marked "GAIN". In effect, the parametric section operates like a powerful graphic equaliser. "SUZZ" is obtained by adjusting the "SUSTAIN" control for the length of sustain and the "GAIN" control for the volume of the suzz. The "SUSTAIN" control also functions as an on/off switch for the suzz effect.

Channel 2 features "GAIN" "LO" and "HI" controls. The "GAIN" control enables you to match your instrument or microphone to the amplifier input. The "LO" and "HI" controls work in the conventional manner.

Reverberation is available for both channels. It is selected by pressing either of the push buttons situated beside the "REV" control. Adjustment of the "REV" control varies the depth of reverberation.



The suzz and reverberation effects can be switched on and off using the double footswitch which is provided with the amplifier. its ¼" jack plug should be plugged into the "F/S" socket on the front panel.

We have given a few control settings below. Remember that these settings will vary according to your instruments own sound and which pick up and tone control selection you make. For example, it's no good trying to obtain a very bright sound if you use the top pick up only with the treble turned off at the guitar. However, these examples will help you get started on the incredible range of sound that the Stingray Lead offers.

NOTE: Extra treble can be obtained either by boosting the high frequencies with the parametric or by cutting the low frequencies. Obviously the reverse applies for extra bass.

STINGRAY BASS

Two "inputs" of different sensitivity are provided on the front panel. The left hand socket is marked "lo" and should be used with high output guitars whilst the right hand "hi" socket should be used with low output guitars.

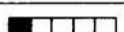
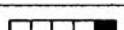
Initially all controls should be set to minimum, i.e. fully anti-clockwise and the "VOL" control at the right hand end of the panel should be increased slowly until the required volume is produced.

With all push buttons in the "OUT" position the three rotary controls, "HI", "MID", and "LO" can be adjusted to provide a wide range of bass sounds.

In addition to the three rotary tone controls there are five push button switches marked "BAND PASS FILTERS" which enable 5 preset sounds to be selected instantly. This is done by boosting certain frequencies such that the characteristic of the overall sound is altered. For example the "LO" push button boosts the frequencies around 360 Hz giving a smooth deep sound whereas the "HI" push button boosts frequencies around 6 KHz to give a sharp staccato sound. A further 4 useful settings can be obtained by selecting 2 adjacent buttons together.

To the left of the Band Pass Filter section there is an additional push button marked "DEEP". This provides further enhancement of the lower bass frequencies giving a richer deeper sound.

The frequencies selected by the push buttons have been specially chosen after consultation with professinal bass players and you will improve your sound by careful experimentation of the band pass filter in conjunction with various rotary tone control settings. We have shown below a few examples to help you get started.

Band Pass Filter	Tone Control Settings			Sound Character
	HI	MID	LO	
				A deep rounded sound
				The classic jazz bass sound with lots of drive and penetration
				A solid bass with a hard "click" effect on the higher notes
				A full soft acoustic bass sound

Technical Specification
All figures given with amplifier powered from 240V 50Hz supply.

STINGRAY LEAD

Channel 1		
Controls		GAIN, BRIGHT Switch, LO, PARAMETRIC FREQUENCY and GAIN, HI, SUZZ GAIN and SUSTAIN, REV and VOL.
Input Sensitivity		hi 5mV Tone controls in centre position lo 16mV
Input Overload		1.6V on both hi and lo inputs
Bright Switch		+10 dB boost at 5KHz
Tone Controls		
LO		25 dB variation at 50HZ
PARAMETRIC	FREQUENCY	Variable from 75Hz to 1Khz
	GAIN	± 20 dB variation at selected frequency
HI		35 dB variation at 6.5KHz
SUZZ	SUSTAIN	Varies length of sustain plus on/off
	GAIN	Adjusts volume of Suzz
Channel 2		
Controls		GAIN, LO, HI.
Input Sensitivity		hi 5mV Tone controls in centre position lo 16mV
Input Overload		1.6V on both hi and lo inputs.
Tone Controls		
LO		25 dB variation at 50Hz.
HI		35 dB variation at 65 kHz.
REV		Varies depth of reverberation. Reverberation selected for each channel by push button selector.
Footswitch		Reverberation and Suzz can also be switched on or off by footswitch.

STINGRAY BASS

Sensitivity	lo	23mV
	hi	14mV

For maximum undistorted output at 1 KHz
Tone controls maximum Push buttons out

"DEEP" switch 8db Boost at 40 Hz

"BAND PASS FILTERS" Provide Boost as follows:

LO	360 Hz + 10 db	
	860 Hz + 10 db	
MID	MID	2KHz + 15 db
		4KHz + 15 db
	HI	6KHz + 15 db
TONE CONTROLS	'HI'	+ 45 db at 10KHz
	'MID'	+ 15 db at 300 Hz (T and B at Max.)
	'LO'	+ 30 db at 40 Hz