Marshall

Valve Power Amps

9100 & 9200

Marshall Amplification plc Denbigh Road, Bletchley, Milton Keynes, MK1 1DQ, England Tel: (01908) 375411 Fax: (01908) 376118

Web Site - http://www.marshallamps.com

Whilst the information contained herein is correct at the time of publication, due to our policy of constant improvement and development, Marshall Amplification plc reserve the right to alter specifications without prior notice.

Jan '99

Handbook

WARNING!

PLEASE READ THE FOLLOWING LIST CAREFULLY

- **A. ALWAYS** fit a good quality mains plug conforming to the latest B.S.I. standards (UK only).
- **B.** ALWAYS wire the plug in accordance with the colour code attached to the mains lead (UK only).
- **C. DO NOT** attempt to remove the amplifier chassis. There are no user serviceable parts inside.
- **D.** ALWAYS have this equipment serviced or repaired by competent, qualified personnel.
- E. NEVER under any circumstances, operate the amplifier without an earth.
- **F. NEVER** use any amplifier in damp or wet conditions.
- **G. ALWAYS** ensure that the impedance of the speaker or speakers connected does not fall below the amplifiers minimum impedance rating and is matched to this amplifiers output
- I. PLEASE READ this instruction manual carefully before switching on.

Introduction

Models $9100 \ 2 \ x \ 50$ watt and $9200 \ 2 \ x \ 100$ watt stereo valve power amplifiers are the latest step forward in valve rack technology from Marshall.

Built as dedicated guitar system based units, they incorporate many features that are both revolutionary and evolutionary. From stunning styling through to the radical circuit design, these power amps are in a sonic class of their own without any compromises to their true Marshall heritage.

The specially designed Marshall "Gold" front panel provides a deep recess in which the controls are sited giving a smooth uncluttered finish whilst allowing the controls to be set and forgotten about, with little fear of accidental re-adjustment. The removable top half contains a window, which in addition to showing the true glory of the valves when the amp is in use, provides easy access to the output valves when replacement becomes necessary.

The two power amp halves of your 9100/9200 are totally separate "MonoBlocs", a feature that is normally only found on expensive valve hi-fi power amps. This means that the only common electrical item (apart from when specifically cross linking inputs) is the mains supply and that nothing that occurs to one power amp can sonically react with the other half. Also in the unlikely event of one side breaking down, the other side will carry on working regardless.

Our constant research into valve amplifier technology has resulted in further circuit design improvements which dramatically effect the overall feel and playing response of the 9100 & 9200.

These improvements include Marshalls latest True Differential Inverter technology, which expands the capability of the phase splitter (inverter) to be nearer to a true differential amplifier than most other circuits used today. Put simply, the phase splitter takes the incoming signal and inverts half of it. This inverted half of the signal forms the bottom half of the sound envelope and the non-inverted half forms the top half. The effect of T.D.I. technology is to give a more defined spectrum of sound over a broader band width without compromising the overdrive and compression effects for which valve amplifiers are famed.

This also allows more radical uses of feedback networks and the incorporation of the "voicing" switching found on each channel. These incredible "voicing" options, which can be remotely activated, can be used to greatly expand your pre-amps tone forming at the flick of a switch.

Mounting the 9100 and 9200 in a rack

Your 9100/9200 is a 19 inch 3U high rack mounting unit and subsequently we strongly recommend that, to protect your investment, it is securely mounted in a suitable rack enclosure. A series of mounting holes are provided both front and rear to allow sufficient fixings to be utilised. As with all rack mount products of substantial weight, the rear of the unit must be supported as well as the front, therefore suitable brackets should be obtained and fitted between the provided rear mountings and the rack case.

Ventilation and air flow

Even though the amplifier has fan reinforced cooling, it must be remembered that a valve amplifier, by necessity, generates a high level of heat, and therefore should not be mounted or used in a situation without adequate airflow.

9100 and 9200 valve power amplifiers

- Channel A mains power rocker switch
 Connects channel A to incoming mains supply.
 LED 3 indicates red when activated.
- 2. Channel A standby switch
 Connects channel A's high voltage circuit to the

frequency content of sound.

- Channel A gain control
 Rotary control to set and balance the incoming signal level.
- 9. Channel B gain control
- 10. Channel B presence control
- 11. Channel B voice switch



power supply. LED 4 indicates green when activated.

Note! Items 1 & 2 are marked 0 & 1 (to comply with international regulations), 0 is off and 1 is on. Note! To conserve valve life, standby switch 2 should remain off for at least 1 minute after powering up the amplifier.

- 3/4. Mains & standby LED's.
- 5. Voice B LED -

Indicates red when channel A's voicing option B is activated.

6. Channel A voice toggle switch

Selects voice option A or B, this function is repeated on a remote switching jack on the rear panel (see rear panel functions). The switch should be in the B position for the remote switch to be operative.

7. Channel A presence control
Rotary control to boost the upper mid to high

- 12. Channel B voice LED
- 13. Channel B standby LED
- 14. Channel B mains LED
- 15. Channel B standby switch
- 16. Channel B mains switch

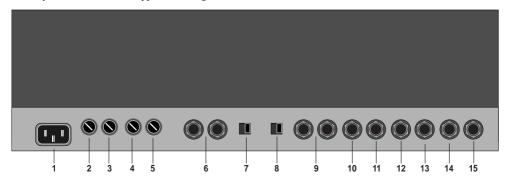
Note! Channel A's notes also apply.

- 17. Upper front panel fixing screws
 Use 2mm (5/64) allen head driver to remove.
- 18. Front rack mount fixing holes.

Rear Panel

1. Mains input socket

Connects amplifier to incoming mains supply.



2. Channel B mains fuse Please see specifications for correct ratings.

- 3. Channel A mains fuse
 Please see specifications for correct ratings.
- 4. Channel B H.T. fuse
 Please see specifications for correct ratings.
- 5. Channel A H.T. fuse
 Please see specifications for correct ratings.
- Channel B loudspeaker jacks
 Connects channel B to loudspeaker load model 9100 50 watts RMS, model 9200 100 watts RMS
- Channel B output impedance select
 16 Ohm or 8 Ohm it is important that your amplifier and loudspeaker load are correctly matched.

Note! If 4 Ohm output is desired please consult your authorised Marshall agent.

- 8. Channel A output impedance select See 7 for notes.
- Channel A loudspeaker jacks See 6 for notes.
- 10,11. Remote voicing switching jacks 10 operates on channel B, 11 operates on channel A. Short to ground function. Using jack 11 only links channel A & B switching functions for simultaneous use.

12. Channel B link out jack

Connects channel B input signal to further power amp inputs.

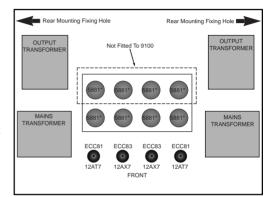
- 13. Channel B input jack Accepts input from preamp.
- 14. Channel A input jack
 Accepts input from preamp

Note! Using 14 only connects input signal to both channels A & B for parallel mono operation.

15. Channel A link out jack

Connects channel A input signal to further power amp inputs.

Valve Location Guide



Specification Chart

Parameter	9100	9200	Notes
Size	19" 3U x 331mm deep	19" 3U x 331mm deep	the unit must be supported at the rear when mounted in a rack
Weight	29.5 kg	34.5 kg	
Power input	350 watts	700 watts	
Voltage Input	115V or 230V	115V or 230V	Consult amp rating plate or dealer
Frequency	50 or 60 Hz	50 or 60 Hz	Consult amp rating plate or dealer
Mains fuses	T3.15A/115V	T4A/115V	Per channel
	T1.6A/230V	T2A/230V	Per channel
H.T. Fuses	T315 mA	T1A	Per channel
Output Power	50W RMS	100W RMS	At clipping (per channel)
Output Impedance	8 or 16 Ohm	8 or 16 Ohm	Consult dealer for 4 Ohm
Input sensitivity	OdB	OdB	
Input impedance	20ΚΩ	20ΚΩ	
Output valve	2 x 5881*	4 x 5881*	Per channel
Phase inverter	1 x ECC81/12 AT7	1 x ECC81/12 AT7	Per channel
Pre Driver	1 x ECC83/12 AX7	1 x ECC83/12 AX7	Per channel
Tie Diivei	1 X ECC65/12 AX /	1 X ECC65/12 AX7	1 et chamet

^{*} Output valves may be either 5881 or EL34 please note they are \underline{not} interchangeable. Consult qualified service personnel.