



**4100 DUAL REVERB
HANDBOOK**

**JCM 900 VALVE
SERIES**



From the Chairman

I would like to thank you personally for selecting one of our Marshall JCM 900 valve amplifiers. For over three decades my company has been dedicated to the design and manufacture of the finest amplification systems in the world.

By 'listening' to guitarists from all over the world we know that their needs are constantly changing, demanding more from their amplification.

The only way to cope with these new demands is to invest into the research & development of new models capable of fulfilling their ever more extreme requirements. This investment has led to remarkable innovation within our product ranges over the years.

In all the JCM 900 models there are degrees of innovation to give extra high gain, wider tone control and greater connection flexibility to provide you with the widest possible sound variations.

In addition the incorporation of new circuitry and the unique 'output valve protection circuit' has increased the renowned Marshall reliability even further.

I wish you great success with your new amplifier.



WARNING! - Important safety instructions

WARNING: This apparatus must be earthed!

- A** PLEASE read this instruction manual carefully before switching on.
- B** ALWAYS use the supplied mains lead, if a replacement is required please contact your authorised Marshall Dealer.
- C** NEVER attempt to by-pass the fuses or fit ones of the incorrect value.
- D** DO NOT attempt to remove the amplifier chassis, there are no user serviceable parts.
- E** Refer all servicing to qualified service personnel including replacement of fuses and valves. Servicing is required when the apparatus has been damaged in any way, such as when the power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
- F** NEVER use an amplifier in damp or wet conditions.
- G** ALWAYS unplug this apparatus during lightning storms or when unused for long periods of time.
- H** PROTECT the power cord from being walked on or pinched particularly at plugs, convenience receptacles and at the point where they exit from the apparatus.
- I** DO NOT switch the amplifier on without the loudspeaker connected.


Ⓛ Note: This equipment has been tested and found to comply with the requirements of the EMC directive (Environments E1, E2 and E3) and the Low Voltage directive in the E.U.

Ⓛ EUROPE ONLY - Note: The Peak Inrush current for the JCM900 4100 is 40 amps.

Ⓛ CAUTION: Any changes or modifications not expressly approved by the party responsible for compliance may void the users authority to operate the equipment.

Ⓛ Note: It is recommended that all audio cables used to connect to the JCM900 4100 are of a high quality screened type. These should not exceed 10 metres in length.

Ⓛ WARNING: Do not obstruct ventilation grille and always ensure free movement of air around the amplifier!

 USA ONLY - DO NOT defeat the purpose of the polarised or grounding type plug. A polarised plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Follow all instructions and heed all warnings

KEEP THESE INSTRUCTIONS !

HI GAIN DUAL REVERB

The Dual Reverb range was designed for versatility with two independently controlled footswitchable channels, each voiced totally differently.

Channel A is voiced for brilliant clean tones with the gain control (item 2) on lower settings and crunch to lower gain lead as you turn it up.

Channel B is boosted with enough gain (item 3), for fearsome lead tones, ranging from classic on lower settings to contemporary screaming solos on maximum.

Channel master volumes (items 9 & 11) and individual channel reverb controls (items 8 & 10) give you incredible control and all round versatility in either, head or combo form.

VALVE OUTPUT POWER

The JCM 900 range use high quality 5881 output valves (x2 in 50 Watt models, x4 in 100 Watt models) for their unique distortion properties and fluid tone.

With most valve amplifiers, particularly Marshalls', the best sounds are achieved when the Master Volumes are set high enough to be utilising the driving power of the output valves to the full.

This delicate working balance between the pre-amp and power amp levels can only be achieved by experimentation.

You will find that all the JCM 900 models like to work hard and are designed to withstand prolonged use at full power quite readily. The PB100 Power attenuator is ideal for this use (connects between amp and cabinets) as it will allow you to run your amp at full power but keep the overall volume low.

The important thing to remember here is that it is the interaction between all the controls that plays a part in achieving your sound.

FRONT PANEL FUNCTIONS

1. Input Jack

Connects the instrument to the amplifier.
(A high quality screened lead must be used).

2. Channel 'A' Pre-Amp Gain Control

Sets the gain level for channel "A". Lower settings give clean sounds - higher settings for medium drive and crunch rhythm.

3. Channel 'B' Lead Gain Control

Sets the gain level for boosted Channel B. Lower settings give slight overdrive - higher settings for maximum drive and sustain.

4,5,6 & 7. Treble, Middle, Bass & Presence

Passive rotary equalisation circuit. These interactive controls provide a wide range of tonal possibilities for both channels.

8. Reverb Control Channel A

Controls the amount of reverb on Channel 'A'.

9. Master Volume Channel A

Controls the overall volume level of Channel 'A'.

10. Reverb Control Channel B

Controls the amount of reverb on Channel 'B'.

11. Master Volume Channel B

Controls the overall volume level of Channel 'B'.

12. Channel B 'ON' Push Switch/LED

Indicates red when Channel 'B' is selected either manually or by remote footswitch (models P802).

13. Footswitch Jack Socket

Connects the remote dual footswitch (models P802) for reverb ON/OFF and Channel A/B switching.

14. Standby Switch

Allows the amplifier to remain at 'standby' (i.e. the valve heaters remain on, ready for instant use, but without the signal circuit being active).

15. Power Switch

On/Off switch for total mains power to the amplifier.

REAR PANEL FUNCTIONS

1. Effects Loop Level Control

Adjusts the level of the effects loop from -10dBV to +4dBm. Higher settings match modern effects processors and lower settings match floor pedals.

Note:

Some effects such as distortion and compression are best suited to connection via the front panel input as opposed to the loop.

2. Effects Send Socket

Jack socket for connection to the input of external effects processor.

3. Effects Return Socket

Jack socket for the connection from the output of external effects processor.

4. Recording Compensated Line-Out Socket

Jack socket for direct connection to recording equipment or PA system. The signal is specially filtered for optimum recording performance.

5. Direct Line-Out Socket

Unfiltered pre-amp signal for connection to external power amplifiers.

6. Impedance Selector Switch

Two-way switch for matching the amplifier to speaker impedance. Amp heads feature 8 or 16 Ohm operation. Combo versions feature 4 or 8 Ohm options.

7. Loudspeaker Output Jack Sockets

Parallel wired jacks for linking speaker cabinets. Ensure that the speaker system is easily capable of handling the full amplifier power and that the impedance (item 6) is correctly selected. If in doubt consult your dealer.

8. Output Mode Switch

Switches the amplifier from high to low power output. The "low" setting configures the output stage to "triode" operation, which gives half the rated output (i.e. 25 Watts on 50 Watt models - or 50 Watts on 100 Watt models). The "high" power position gives "pentode" operation for the full rated output.

9 & 10. Valve Failure LED (OPV1-OPV4) Valve Fuse (OPV1-OPV4)

In the case of output valve failure (OPV1-OPV4), the fuse (item 10) will operate and illuminate LED (item 9). The amplifier will continue to function on reduced power (Using OPV2-OPV3 Only). Service should be obtained as soon as possible to prevent the premature ageing of (OPV2-OPV3).

11 & 12. Valve Failure LED (OPV2-OPV3) Valve Fuse (OPV2-OPV3)

Similar functions to items (9) and (10) but operating on OPV2 and OPV3.

13. Mains Power Input

Connects the amplifier to the mains power supply.

Note:

Always ensure that the incoming mains voltage matches that of the amplifier. If in doubt consult your Marshall dealer.

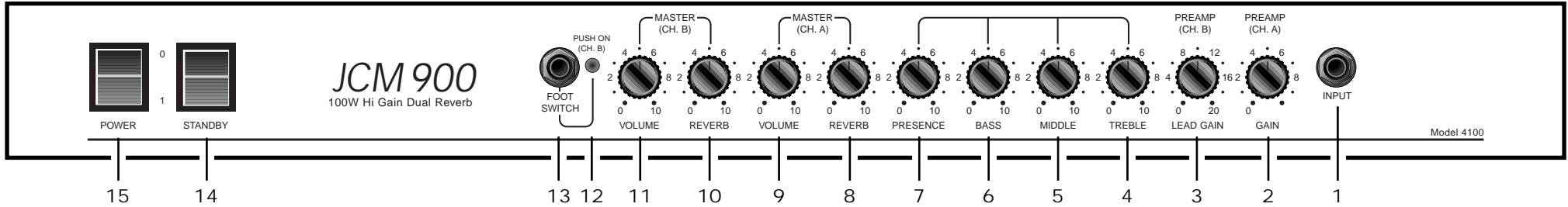
14. Mains Power Fuse

Protects the amplifier and mains supply in the event of a fault.

Note:

Always ensure that the fuse value matches the labelling on the amplifier rear panel. If in doubt consult your dealer.

FRONT PANEL



REAR PANEL

