

# *Marshall*

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## *JCM900*

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*SL-X 2100 & SL-X 2500*  
*Master Volume Models*

*&*

*4100, 4500, 4101, 4102, 4501 & 4502*  
*Dual Reverb Models*

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*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.*

*Nov '98*

# *Handbook*

# JCM 900 VALVE SERIES

## **WARNING!**

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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 amplifiers speaker or speakers connected does not fall below the minimum impedance rating.
- I. PLEASE READ this instruction manual carefully before switching on.

## **INTRODUCTION**

Marshall have specialised in the production of valve amplification since 1962.

The unique tone and playing response of the valve has formed the cornerstone of the Marshall "Sound of Rock", which we have modified over the years to cope with the changing demands of the evolving guitar player.

The JCM 900 models split into two distinct product ranges, the Master Volume SL-X and the Dual Reverb. Though they share common ancestry and have similar rear panel functions their applications are quite different.

# HI GAIN MASTER VOLUME SL-X

The latest innovation from our valve designers involves the use of an extra ECC83 pre-amp valve in the gain stage of the Master Volume SL-X models.

This gives a gain soaked front end that is the most extreme yet produced by Marshall and is controlled by twin gain controls, the first (item 2), from 0-10, the second (item 3), from 10-20! Combinations of these two controls can take you from classic Marshall crunch in lower positions, to pure overdriven outrage on maximum. It is well worth experimenting with these twin gains in conjunction with the tone network (items 6-9) to really get to know the full capability of your new SL-X head.

The twin Master Volumes (items 4 & 5) are another unique feature of the SL-X amp giving you two footswitchable output volume levels, ideal for rhythm to solo switching.

Although a clean sound is available, this amp was designed for the uncompromising high gain player who demands a no compromise sound.

# 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.

# HI GAIN MASTER VOLUME 900 SL-X

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## FRONT PANEL FUNCTIONS

### Models 2100 & 2500

#### 1. Input Jack

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

#### 2. Pre-Amp Volume Control

Sets the initial gain level of the pre-amp section (0-10). Lower settings for clean sounds - higher settings for crunch and overdrive.

#### 3. Gain Sensitivity Control

Sets the secondary gain level of the pre-amp section (10-20).

## **NOTE:**

Combinations of the two gain controls (items 2 and 3) provide a wide range of clean, crunch and overdrive possibilities. Experimentation will reveal the optimum settings for each.

### **4 & 5. Master Volume "A" Master Volume "B"**

Twin footswitchable Master Volume Controls. Master "B" controls the overall volume exclusively when a footswitch is not connected. The connection of footswitch P801 allows switching between Master "A" or "B" giving independent volume levels for rhythm and solo playing.

### **6,7,8 & 9. Treble, Middle, Bass & Presence**

Passive equalisation circuit. These controls are interactive to provide the maximum range of tonal variation.

### **10. Master Volume B "ON" LED Indicator**

Indicates red when Master Volume "B" is selected.

### **11. Footswitch Jack Socket**

Input for the connection of remote footswitch (model P801).

### **12. Standby Switch**

Controls the H.T. supply to the amplifier valves. Allows the filaments to remain heated during breaks.

### **13. Power Switch**

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

## **HI GAIN DUAL REVERB**

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### **FRONT PANEL FUNCTIONS**

#### **Models 4100, 4101, 4102, 4500, 4501 & 4502**

##### **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

The Hi Gain Master Volume SL-X and Dual Reverb models feature comprehensive connection and control facilities on the rear panel which are common to both ranges.

### 50 Watt Models 2500, 4500, 4501 & 4502

#### 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 Watts models - or 50 Watts on 100 Watt models). The "high" power position gives "pentode" operation for the full rated output.

#### 9. Valve Failure L.E.D.

Indicates red when output valve fails and causes valve fuse (item 10) to operate.

#### 10. Valve Failure Fuse

Operates in the event of an output valve failure and prevents any internal damage to the amplifier.

#### NOTE:

On 50 Watt models items 11 & 12 **DO NOT** appear.

#### 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.

## REAR PANEL FUNCTIONS

### 100 Watt models 2100, 4100, 4101 & 4102

Items 1 to 8 follow the same format as the 50 Watt models.

#### 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 (10) and (11) 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.

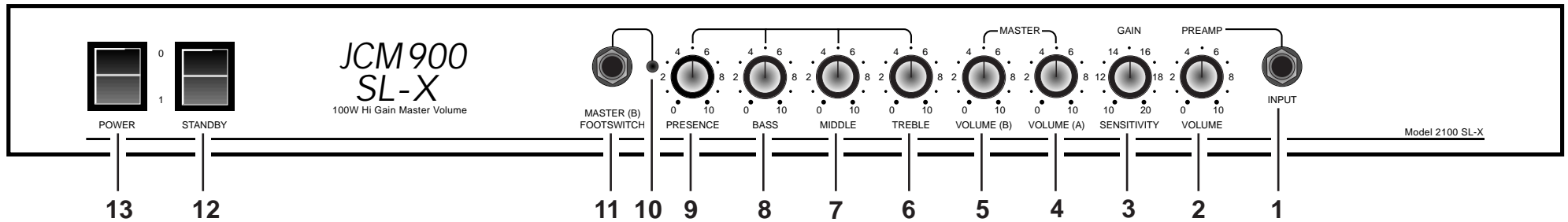
#### 14. Mains Power Fuse

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

#### NOTE:

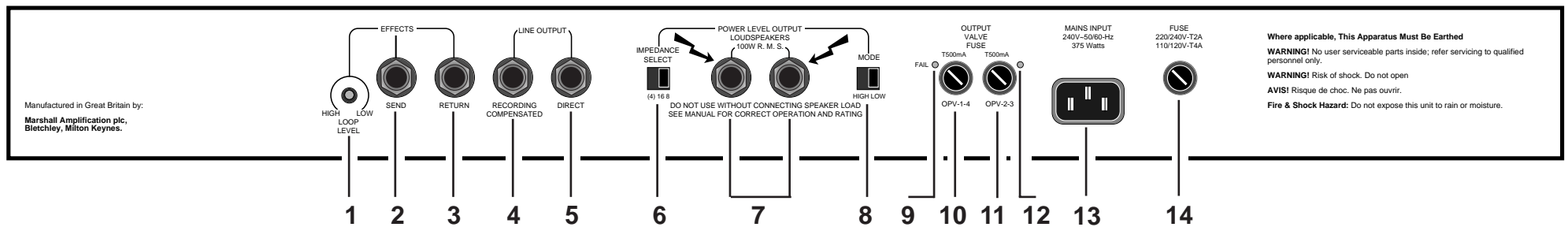
Always ensure that the fuse value matches the labelling on the amplifier rear panel. If in doubt consult your dealer.

## JCM 900 SL-X HI GAIN MASTER VOLUME FRONT PANEL



## JCM 900 SL-X HI GAIN MASTER VOLUME & DUAL REVERB REAR PANEL

NOTE: On Combo models the rear panel is reversed



## HI GAIN DUAL REVERB FRONT PANEL

NOTE: On Combo models the front panel is reversed

