

Marshall

Valvestate Pro *120/120* *Power Amp*

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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.

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Handbook

WARNING!

PLEASE READ THE FOLLOWING LIST CAREFULLY

- A. **ALWAYS** fit a good quality mains plug conforming to the latest B.S.I. standards where necessary (UK only).
 - B. **NEVER** attempt to by-pass fuses or fit ones of the incorrect value.
 - C. **NEVER** attempt to replace fuses or valves with the amplifier connected to the mains.
 - D. **DO NOT** attempt to remove the amplifier chassis, there are no user serviceable parts.
 - E. **ALWAYS** have this equipment serviced or repaired by competent, qualified personnel.
 - F. **NEVER** use an amplifier in damp or wet conditions.
 - G. **DO NOT** switch the amplifier on without the loudspeaker connected.
 - H. **ENSURE** that any extension cabinets used are of the correct impedance.
 - I. **WARNING** : When fitted into a standard rack or flight case, **ALWAYS** ensure that the front and back of the case are completely removed. For stand alone use, a clearance of 30cm is required at the top, back and sides.
 - J. **PLEASE** read this instruction manual carefully before switching on.
- WARNING** : This apparatus must be earthed.
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Introduction

The concept behind Marshall's revolutionary Valvestate™ technology, is to simulate the performance of a Marshall valve power stage, without actually using power valves. By providing the warmth, feel, responsiveness and sheer musicality of a valve amp, without involving the cost and weight, Valvestate™ has placed the classic Marshall sound in the hands of thousands of waiting guitarists the world over.

The original Valvestate™ power amps, the 40 Watt per side 8004 and the 80 Watt per side 8008, were launched in the early 1990's to instant widespread critical acclaim. Several years have passed since then and the Valvestate Pro 120/120 has benefited from this research time. As a result, the Valvestate Pro 120/120 features enhanced Valvestate™ technology which emulates more accurately the characteristics of a valve power amp, specifically the damping exerted by a valve power amp on the loudspeakers and how that changes at different frequencies.

Apart from the obvious increase in output power over the 80 Watts per side of the 8008 to 120 Watts per side, the Valvestate Pro 120/120 achieves this power in a more dynamic way, to give a far more apparent increase in loudness and feel.

The Valvestate Pro 120/120 also benefits from the increased flexibility of user definable controls, such as the addition of Resonance and Presence controls, the remotely switchable Linear/Valvestate function and Power Dimension circuit. On the rear panel you will now find the inclusion of an "Impedance Selector" switch, which allows the amplifier circuitry to be optimally matched to either 4, 8 or 16 Ohm loudspeaker loads.

The Power Dimension circuit mentioned above has been adapted from the award winning Valvestate VS100 guitar amplifier. This emulates the tone and feel of a low power valve power stage and can be used to add extra depth and warmth to the output of the preamp feeding the Valvestate Pro 120/120 power amp. As this circuit is before the power amp's Volume control, it is of great benefit in achieving awesome tone when lower volume levels are the order of the day.

Mounting of the Valvestate Pro 120/120

The Valvestate Pro 120/120 is a 19" 2U rack mount style product and as such it is recommended that it is properly mounted in a suitable rack enclosure. In line with proper rack building procedure, the rear of the amplifier, as well as the front, should be mechanically secured to the rack case. A variety of fixing holes are provided to ease the use of such procedures.

Although the Valvestate Pro 120/120 is fan cooled, it must be remembered that the heat generated has to be removed from the amplifier, therefore it is very important to ensure that the front and rear grilles are not obstructed and have an adequate access to fresh air.

WARNING !



WARNING : RISK OF HAZARDOUS ENERGY!
AVIS : ENERGIE ELECTRIQUE DANGEREUSE!

If the loudspeaker is disconnected a high voltage can be present at these output terminals. Operation in this manner can damage your amplifier, therefore ensure that the loudspeaker is properly connected.

120/120 Front Panel Features

1. Volume

Controls the overall volume of the Valvestate Pro 120/120.

2. Resonance

Adds bottom end thud to your sound by affecting the speaker damping. Similar to the difference between open and closed back cabinets.

3. Presence

Controls the higher frequencies in your sound, adding brightness and crispness.

4. Clip A

Indicates when Channel A of the power amp is about to go into clipping.

5. Clip B

Indicates when Channel B of the power amp is about to go into clipping.

Please Note:

Driving the Valvestate Pro 120/120 into clipping will not damage it in anyway, so if this produces the sound that you want, don't worry.

6. Mode

Selects Linear or Valvestate connection. The Linear Mode produces a tightly damped, well defined tone, as normally found in Hi-Fi and PA power amplifiers. The Valvestate mode on the other hand produces a very loosely damped tone that follows the reactance of the connected loudspeaker, in the same way that a typical Marshall valve amp does, thus increasing the impression of warmth and feel. Both modes can have a very valid impact on your tone, therefore try both. Generally, the Linear mode is preferable for clean funky tones, whilst the Valvestate mode is preferable for rock tones. Don't take our word for it though, experiment.

7. LED

Indicates when in Valvestate mode.

8. Dimension

The Dimension switch is designed for use in situations where you have set your amp to get your sound but it is simply too loud for the given situation. Its function is to emulate, at lower volume levels, the extra saturation found when playing through a transformer and valve power stage pushed to the limit. This can also be used to great effect at higher volume levels too, so don't be afraid to experiment.

9. LED

Indicates when the Dimension facility is in use.

10. Power LED

Indicates operating status of the Valvestate Pro 120/120.

11. On/Off

Switches the mains power to the Valvestate Pro 120/120.

120/120 Rear Panel Features

1. Mains Input

Mains Input - Connects the Valvestate Pro 120/120 to a power supply.

2. Speaker Outputs A

For connection of speakers to Channel A of the power amp. The minimum load per channel is 4 Ohms.

3. Impedance Selector

Though unusual for solid state power amps, the Valvestate Pro 120/120 features an impedance selector. By allowing you to match the impedance of the amp to the speaker load correctly, you will optimise the Valvestate characteristics of the Valvestate Pro 120/120.

Unlike valve power amps, providing that you don't go below the minimum impedance (4 Ohms), it is not possible to damage the power amp with "wrong" impedance settings. In fact we would suggest that you try setting the amp to different impedances, as each offer slightly different tonal variations. For example, by plugging into an 8 Ohm load, but setting the Valvestate Pro 120/120 to 16 Ohms, the amp will simulate the characteristics of a 50 Watt power stage, rather than a 100 Watt power stage

4. Speaker Outputs B

For connection of speakers to the right side of the power amp. The minimum load per channel is 4 Ohms.

Remote Switching

In addition to the front panel, the Linear / Valvestate facility, and the Dimension facility, can be switched remotely by a footswitch or programmable device, such as the Marshall JFX-1. It should be noted that this will override the front panel switch position.

5. Mode

For connection of a footswitch for remote switching of the Mode function.

6. Dimension

For connection of a footswitch for remote switching of the Dimension function.

Inputs

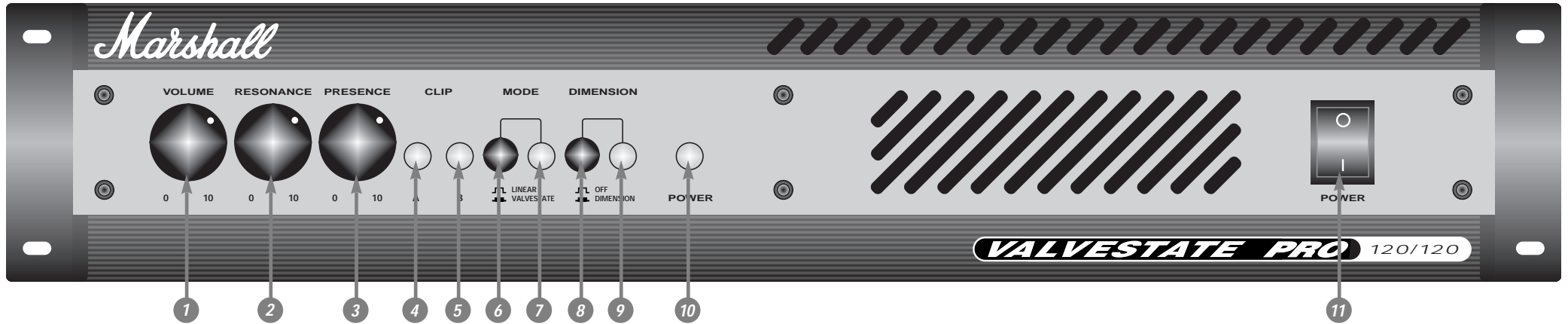
7. A (Mono)

Takes the left input from a stereo pre-amp, or the mono input from a mono pre-amp. If only this input is used you will get the same output from both channels.

8. B

Takes the right input from a stereo pre-amp. If only this input is used you will only get output from Channel B.

Valvestate Pro 120/120 Front Panel



Valvestate Pro 120/120 Rear Panel

