# Karshall

## Valvestate

8100 & 8200 Heads

&

8280, 8240, 8080, 8040, 8020 & 8010 Combos

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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 (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.
- H. NEVER connect the negative side of the Valvestate<sup>TM</sup> loudspeaker output to earth (ground), e.g. by connecting a D.I. box across the loudspeaker terminals.
  - THIS MAY SERIOUSLY DAMAGE YOUR VALVESTATE<sup>TM</sup> AMPLIFIER, unless an earth lift switch is used to separate it from other ground connected equipment.
- I. PLEASE READ this instruction manual carefully before switching on.

#### INNOVATION IN AMPLIFIER TECHNOLOGY

Marshalls' Valvestate<sup>TM</sup> is a revolutionary concept in amplification.

Using the most up to date techniques our designers have produced a truly outstanding range of products for every level of guitarist. From the 10 Watt practice combo to the 100 Watt stack and now with our latest additions the 80 Watt per side Bi-Chorus combo and 100 Watt per side Bi-Chorus head, Valvestate<sup>TM</sup> technology will give you a quality of sound that is in every sense true Marshall.

Valvestate<sup>TM</sup> is able to do this by simulating the performance of a valve power stage. Using Bi-Polar devices in models 8010, 8020, 8040, 8080, 8100 and 8240 and MOSFET devices in models 8280 and 8200 in a new constant current configuration produces the type of high impedance output levels normally only delivered by a valve amplifier. This creates speaker reaction similar to that found in valve equipment. Ringing harmonics, rich bass response and sensitivity give Valvestate<sup>TM</sup> amps that special Marshall "feel" which is a joy to play!

To achieve the full dynamic potential of Valvestate<sup>TM</sup> power, we designed pre-amp sections of incredible versatility, with masses of gain and the widest tone control possibilities. Models 8040, 8080, 8100, 8240, 8280 and 8200 feature a Marshall ECC 83/12 AX7 valve in the pre-amp to give even greater dynamics by providing real valve overdrive. In addition, our special "Contour" control lets you focus the overdrive from mellow blues, right through to all out screaming metal. Also the totally analogue stereo chorus and reverb effects on the 8240, 8280 and 8200 help create some of the biggest sounds imaginable. Whatever your style of guitar playing, Marshall Valvestate<sup>TM</sup> will give you the edge!

This handbook covers the Valvestate<sup>TM</sup> guitar amp and combo range and has been compiled to help you to get the best from your amplifier. There is no substitute for playing experience and due to the great versatility of this range you should experiment as much as possible in order to familiarise yourself with the controls.

The Marshall Valvestate<sup>TM</sup> range has been designed by our amplifier engineers to add new dimensions to your guitar sound. The controls are there to be used to the full, so be extreme and enjoy getting to know Valvestate<sup>TM</sup>.

## GETTING THE BEST FROM YOUR VALVESTATE ™ AMPLIFIER

There may be some features of your Valvestate<sup>TM</sup> amplifier with which you are not familiar. The following terms are explained in order to help you to get the full benefit of these incredibly versatile facilities on those models to which they apply.

#### GAIN

This is really just another term for input volume. On controls that have increased drive capacity, the more you increase the gain, the greater the intensity of distortion. The  $Valvestate^{TM}$  boost channels have an abundance of gain and will give you countless overdrive variations. By playing with the positions of the gain and contour controls combined, you will discover the many different textures of  $Valvestate^{TM}$  overdrive.

#### **CONTOUR**

Our special mid band shift contour control changes the voicing of the boost channel to give you the maximum amount of variation on overdrive selections. It works on the frequencies that are most effective for guitar and gives unlimited potential to your distortion tones. As with the EQ controls, playing experience will show the optimum settings for your sound.

#### **CRUNCH**

A term used to describe semi-distorted sounds often used for rock rhythm or blues lead playing. Crunch is achieved by turning the normal channel gain to maximum or just below. Valvestate<sup>TM</sup> models have extra gain built into their normal channels to give you plenty of crunch (models 8080, 8240, 8100, 8280 & 8200 also have a switchable crunch selection). Turning down the guitar volume brings the sound back to clean.

#### EQ

Short for equalisation which describes the tone control combination. The Treble, Middle, Bass and Presence controls are extremely effective in your Valvestate<sup>TM</sup> amp and the only way to really get to know their full range is to play with them.

#### **EFFECTS SEND & RETURN**

When linking external effects processors, some of the best results can be achieved by using the effects loop. The Send jack sends the signal from the amp to the input of the effects unit. This then returns from the units' output into the Effects Return jack. The loop comes in after the amps' distortion circuitry so is best suited to effects units such as chorus and delay where extra colouration of the effect is not required. Effects such as distortion and compression are more suited to the amp input where sound colouration will follow. A level switch allows the loop to operate at high (0dB) signal levels for rack processors, or low (-20dB) levels for floor pedals.

#### PRE-AMP OUTPUT

This socket gives a signal direct from the amplifiers' pre-amp section which can be used either as an effects send, or as a means of driving an external power amp system.

#### POWER AMP INPUT

If you own a separate pre-amp, this socket gives you direct access to the Valvestate<sup>TM</sup> power stage, without involving the combo pre-amp. It can also act as an effects return.

#### LINE OUTPUT

The low level signal from this socket is specially filtered to enable you to link directly into recording or PA mixing equipment and to still achieve the Valvestate  $^{TM}$  guitar sound. The 8240, 8280 & 8200 have left and right Line Outputs operating in stereo.

#### **POWER STAGE**

This refers to the part of the amplifier that delivers the signal from the pre-amp control section and amplifies it in order to drive the loudspeaker. In your Valvestate TM unit this is the part that is so unique and will really make your guitar sounds simply the best!

#### STERFO CHORUS

Chorus is one of the sweetest guitar effects. The 8240, 8280 and 8200 bring you stereo chorus through twin Valvestate<sup>TM</sup> power stages for a panoramic spread and superb chorus depth.

## 8100, 8080, 8240, 8280 and 8200.

8100: 100 Watt HEAD.

8080: 80 Watt COMBO.

8240: 40 Watt per side Stereo Chorus COMBO. 8280: 80 Watt per side Bi-Chorus COMBO.

8200: 100 Watt per side Bi-Chorus HEAD.

#### CHANNEL 1 (Normal)

#### 1. Input Jack

Connects the guitar to the amplifier.

#### 2. Gain Control

Controls the gain level of the normal channel on both Clean and Crunch selections. In Clean mode, sounds remain clean, even at high gain levels. When switched to Crunch mode the amount of crunch increases as you wind the gain up.

#### 3. Clean/Crunch Rhythm Switch

Push switch to select either clean or crunch sounds on the normal channel (push in for Crunch).

#### 4-6. Bass. Middle & Treble

Full 3 band EQ for normal channel tonal selections. These controls are effective and interactive to give you incredible versatility. Try as many combinations as possible to really get to know your EQ.

#### 7. Channel Select

Normal to boost channel selector switch. This function is also footswitchable. Set the switch to the in position for the footswitch to function. LED's indicate which mode has been selected.

#### CHANNEL 2 (Boost)

#### 8. Gain Control

Controls the gain level of the boost channel, which features ECC 83/12 AX7 valve drive. This control is effective on either overdrive selection. On OD1, it fattens the bluesy distortion and on OD2 goes from rock overdrive to full metallic thrash as you turn it up.

#### 9. Overdrive Select (OD1 to OD2)

Manually switches from creamy "classic" OD1 to screaming "Hi Gain" OD2 distortion modes.

#### 10-12. Bass, Middle & Treble

Effective 3 band EQ to shape the tone of all overdrive selections.

#### 13. Contour Control

This sweeping control shifts the mid-band voicing of the boost channel to give amazing versatility to your overdrive sounds. When used in conjunction with the 3 band EQ, this control is devastating!

#### 14. Volume Control

Controlling the overall level of the boost channel, this allows volume balancing between the two channels

## MASTER SECTION (8080 & 8100)

#### 15. Effects Send Jack

For linking to the input of an external effects processor.

#### 16. Effects Level Switch

Selects the level to match your external effects units (0dB for rack units and -20dB for pedals).

#### 17. Effects Return Jack

For connection from the output of an external effects processor.

#### 18. Effects Mix

Allows you to mix the effects to dry signal. Note, if no effects possessor in line, Effects Mix fully clockwise will result in no signal.

#### 19. Master Reverb

Controls the level of reverb effect on all channel selections.

#### 20. Master Volume

Controls the overall volume level of the amp or combo

#### 21. Line Out Jack

Filtered low level signal for linking to a recording or mixing desk.

#### 22. Footswitch Jack

For the connection of a two way footswitch for reverb and channel selection (Marshall footswitch P802 included).

#### MASTER SECTION (8240)

The 8240 has identical features up to item 17, then as follows.

#### 17. Effects Returns

Jacks for connection from the left and right outputs of an external stereo effects processor (left return also acts as the return for a mono effects processor if used).

#### 18. Effects Mix

For mixing the effects to dry signal. Note - if no effects processor in line, Effects Mix fully clockwise will result in no signal.

#### 19. Master Reverb

Controls the level of reverb effect on all channel selections.

#### 20. Chorus Depth

Controls the modulation depth of the built-in charus effect

#### 21. Chorus Rate

Controls the speed of modulation of the chorus effect

#### 22. Chorus on/off Switch

Provides manual push switch selection for the chorus. May also be operated by footswitch connected to the rear panel jack socket. Set the front panel switch to the in position for the footswitch to function (Marshall footswitch P803 included).

#### 23. Master Volume

Controls the overall volume level of the combo.

### MASTER SECTION (8280 & 8200)

The 8280 and 8200 have identical features up to item 14, then as follows:

#### 15. Effects level switch

Selects the level to match your external effects units (0dB for rack units and -20dB for pedals).

#### 16. Effects Mix

For mixing the effects to dry signal.

#### 17. Master Reverb

Controls the level of reverb effect on all channel selections.

#### 18. Master Volume

Controls the overall volume level of the unit.

#### 19. Chorus on/off Switch

Provides manual push switch selection for the chorus. May also be operated by footswitch connected to the rear panel jack socket. Set the front panel switch to the in position for the footswitch to function (Marshall footswitch P803 included).

#### 20. Mode Select Switch (A/B)

Manually switches from mode A, flange type chorus, to Mode B, traditional chorus.

#### 21. Chorus Rate (Normal)

Controls the speed of modulation of the chorus effect on the normal channel.

#### 22. Chorus Depth (Normal)

Controls the modulation depth of the built in chorus effect on the normal channel.

#### 23. Chorus Rate (Boost)

Controls the speed of modulation of the chorus effect on the boost channel.

#### 24. Chorus Depth (Boost)

Controls the modulation depth of the built in chorus effect on the boost channel.

#### REAR PANEL (8280 & 8200 only)

#### 25. Mains Input

#### 26 & 27. Speaker Outputs

Two parallel wired sockets for connection to external speaker cabinet/cabinets from right hand side of power amp. Note - the combined total impedance of speaker cabinets should not be less than 4 Ohms.

#### 28 & 29. Speaker Outputs

Two parallel wired sockets for connection to external speaker cabinet/cabinets from left hand side of power amp. Note - the combined total impedance of speaker cabinets should not be less than 4 Ohms.

#### 30. Line Out Jack

Filtered low level right hand signal ideal for direct connection to recording or mixing desks.

#### 31. Line Out Jack

Filtered low level left hand signal, ideal for direct connection to recording or mixing desks.

#### 32. Footswitch Jack

For connection of the supplied two way footswitch for channel switching and chorus on/off functions. (Marshall footswitch P803 included).

#### 33. Parallel Stereo Loop Right Return

For connection to one side of the power amp from the output jack of an external stereo effects processor.

#### 34. Parallel Stereo Loop Left Return

For connection to the other side of the power amp from the output jack of an external stereo effects processor.

#### 35. Parallel Stereo Loop Send Jack

For linking in stereo to the input jack of an external stereo effects processor.

#### 36. Series Mono Loop Return Jack.

For connection from the output jack of an external mono effects processor.

#### 37. Series Mono Loop Send Jack

For linking to the input jack of a mono external effects processor.

#### REAR PANEL (8100 only)

The rear panel features the mains input socket plus two parallel wired sockets for the connection of loudspeaker systems, the combined total impedance of which should not be less than 4 Ohms, eg; two 8 Ohms cabinets in parallel. The purpose built cabinet for the 8100 is the 140 Watt compact 4x12 model 8412.

#### REAR PANEL (8240 only)

#### 24. Line Out Jacks

Filtered low level left and right signals ideal for direct connection to recording or mixing desks.

#### 25. Footswitch Jack

For connection of the supplied two way footswitch for channel switching and chorus on/off functions.

#### 8040: 40 Watt COMBO

#### CHANNEL 1 (Normal)

#### 1. Input Jack

Connects the guitar to the amplifier.

#### 2. Gain Control

Controls the gain level of the normal channel, giving clean sounds up to halfway, then bringing in blues to crunch rhythm sounds as the gain increases.

#### 3-5. Bass, Middle & Treble

Experimenting with these three wide ranging interactive bands of equalisation will give you a clearer understanding of the versatile Valvestate tones available from this channel.

#### 6. Channel Select Push Switch

Push switch to change from normal to boost channels. Note - This switch must be in for footswitch to function.

#### CHANNEL 2 (Boost)

#### 7. Gain Control

Controls the gain level on the boost channel. This model features an ECC 83/12 AX7 valve in the pre-amp for incredible overdrive tone and intensity. Take some time to experiment with the varying gain levels to find the wide variety of distortion sounds available.

#### 8. Contour Control

Mid-band contour shift, giving wide voicing sweep for maximum tonal versatility on overdrive selections. When used in conjunction with the EQ, this control is highly effective.

#### 9-10. Bass & Treble Controls

Interactive EQ controls covering the lower through to the upper frequencies and offering accurate sound tailoring.

#### 11. Volume

Controls the overall volume level of the boost channel.

#### **MASTER SECTION**

#### 12. Master Reverb

Gives overall control of the depth of reverb effect for both channels.

#### 13. Pre-amp Output

Direct output from the combo pre-amp. This gives a signal suitable for driving an external power amp or the input of an effects processor.

#### 14. Power Amp In

Input directly into the combo power amp. This allows the use of an external pre-amp (eg: 9004), or acts (in conjunction with pre-amp out) as the return input from an external effects processor.

#### 15. Line Output

Filtered output for connection directly to a recording or PA mixing desk.

#### 16. Footswitch Jack

Socket for the connection of a single footswitch for normal/ boost channel switching only (model P801 included).

#### 8020: 20 Watt COMBO

#### CHANNEL 1 (Normal)

#### 1. Input Jack

Connects the guitar to the amplifier.

#### 2. Gain Control

This controls the level of gain on the normal channel. The sound remains clean up to half way, then turns to slight distortion, with full crunch reached when on maximum gain.

#### 3-4. Treble & Bass

Controls and adjusts the upper and lower frequencies of the normal channel.

#### 5. Channel Select

Push switch to select Normal to Boost channels (this feature is also footswitchable). This switch must be in for the footswitch to function.

#### CHANNEL 2 (Boost)

#### 6. Gain Control

Control for the gain level of the boost channel. This takes the sound from bluesy distortion on lower settings to all out metal on maximum.

#### 7. Contour Control

Highly effective control which shifts the mid-band voicing of the boost channel tone. This adds incredible width and variation to distortion textures.

#### 8. Presence Control

Adds extra cut and bite to boost selections.

#### 9. Volume Control

Controls the volume level of the boost channel.

#### **MASTER SECTION**

#### 10. Master Reverb

Controls the level of the reverb effect on both channels

#### 11. Footswitch Jack

For the connection of a single operation footswitch for channel switching functions (P801 footswitch optional).

#### 12. Headphone Jack

The connection of stereo headphones mutes the internal speaker for private practice. Headphones with a mono plug should not be used.

#### 13. Line Output

The low level signal from this output is ideal for direct linking to recording equipment, or for driving further power amplifier systems.

#### 8010: 10 Watt COMBO

#### FRONT PANFI

#### 1. Input Jack

Jack socket for the connection from the guitar.

#### 2. Gain Control

This controls the level of input gain. Lower settings give clean sounds. As the control is advanced the amount of overdrive increases. Full Gain = Full Shred!

#### 3. Boost Select

Single switch which selects Normal (clean & crunch sounds) or Boost (overdrive sounds).

#### 4. Master Volume

This controls the overall volume of the amplifier on either channel selection.

#### 5-7. Bass. Middle & Treble

Three band equalisation for tonal selections on the normal or boost channel. These controls interact so it is best to experiment in order to find your own favourite settings.

#### 8. Headphone Jack

For the connection of stereo headphones. When headphones are connected the speaker connection is muted. Headphones with a mono plug should not be used

#### 9. Line Out Jack

Provides a low level version of the amplifier output signal. Special filtering allows you to link from this jack into recording equipment or further amplifier systems.

