

# Marshall

**AMPLIFICATION**



**VALVESTATE** **2000**  
AVT

**AVT20, AVT50 & AVT50H**  
**User Manual**

## **From Jim Marshall**

*I would like to thank you personally for selecting one of our **Valvestate 2000 AVT amplifiers**.*

*After its initial launch, the original Marshall Valvestate technology received worldwide acclaim and set a new standard in affordable quality amplification. However, my team of designers are constantly looking for methods to make our amplifiers sound even better. As they are all guitar players themselves this process has become a passion within the design department.*

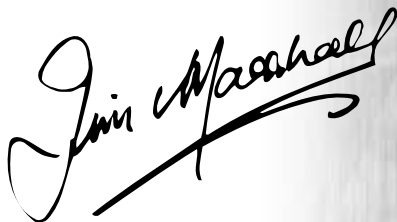
*As the name Advanced Valvestate Technology suggests, your new amplifier benefits from their research and utilises the latest circuitry, which is absolutely unique to Marshall. By emulating the feel and response of an all-valve amplifier even more closely, the new **AVT** range perform brilliantly and represent another major step forward in guitar sound technology.*

*Since I first began making amplifiers in 1962, one of the key factors in our success has been reliability. Therefore, many hours of exhaustive testing have been carried out in the development of AVT to ensure that this remains so.*

*I suggest that you read this manual thoroughly before operating your new amplifier and keep it in a safe place for future reference. This will help you to derive maximum enjoyment from our **Advanced Valvestate Technology**.*

*Wishing you every success.*

*Yours Sincerely,*


**VALVESTATE****AVT****2000**



## 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. No objects filled with liquids should be placed on the apparatus. When cleaning, only use a dry cloth.
  - G ALWAYS** unplug this apparatus during lightning storms or if 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.
  - J ENSURE** that any extension cabinets used are of the correct impedance.
- CE** - **Note:** This equipment has been tested and found to comply with the requirements of the EMC directive (Environments E1, E2 and E3) and Low Voltage directive in the E.U.
- EUROPE ONLY - Note:** The Peak Inrush current for the AVT20 is 3 amps and the AVT50 is 10 amps.
- CAUTION:** Any changes or modifications not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment.
- NOTE:** It is recommended that all audio cables, with the exception of the speaker lead, used to connect to the AVT20, AVT50 and AVT50H are of a high quality screened type. These should not exceed 10 metres in length. Always use a non-screened Marshall approved speaker lead when connecting an extension cabinet to these units.
- WARNING:** Do not obstruct ventilation grilles 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 is 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 !

## Introduction

**Welcome** to the third and most recent generation of Marshall Valvestate guitar amplifiers - **Valvestate 2000.**

### The History

We first started making the critically acclaimed **Valvestate** amplifiers in the early 90s and then updated the original range to the best-selling VS II line in 1996. Our original intention with Valvestate was simple: to capture the special sound and feel of a Marshall valve amplifier by using solid state technology. By so doing we knew we could make our unique and highly desirable tones more affordable and thus more available to many more guitar players. The first two generations of Valvestate both achieved these goals and have become firm favourites with players and critics alike, the world over. Now, with the advent of the 21st Century, we have once again redefined what guitarists can expect from affordable backline amplification. Utilising all the knowledge and experience gained over the past 10 years, we proudly bring you - **Valvestate 2000.**

### Addictive Tone

In this latest generation, not only will you find more, guitarist-friendly features, but more (much more!) valve-like tone and feel. As with all our amplifiers, we started designing with a clean slate - relying totally on our experience, skill and tonal history. As all our designers are guitarists in addition to being exceptional engineers, the aforementioned feel and tone were an absolute priority from the beginning. In short our goal was to make these amps so enjoyable to play, they are addictive!

### Pre-amp Valve Power

In each of the Valvestate 2000 range, all the preamp stages are equipped with an ECC83 (a.k.a. 12AX7) Dual Triode valve. Drawing on our vast experience in this field, we have gone to great lengths to ensure that this precious device delivers maximum sonic benefit at all settings and volume levels. As a result, even the VS2000 clean sounds ring with the bell like harmonics that only a valve pre-amp can deliver. On the Overdrive channels the ECC83's dual triodes are saturated to their limit, providing the dynamics and feel worthy of a place in the Marshall hall of fame. The same sort of toneful care and attention was focused on the all-important power stage of each amp too. Once again we wanted to ensure that they delivered the warm, musical feel and **3-dimensional sounds** that have made our all-valve power-amps world-renowned. We are so proud of the end results of our labour that we felt we had to coin a new name for the technology used. So, we christened it **AVT - Advanced Valvestate Technology.**

### Fire-breathing Babies

This manual covers the AVT20 and AVT50 combos plus the AVT50H head. Even though these are the 'babies' of the range, they go far beyond the realms of traditional, lower powered amps. These are all real, fire-breathing Marshall amps in their own right, and, as such, are bestowed with all the technology, tone, and feel of their higher-powered brethren. As is the case with the entire Valvestate 2000 Range, the loudspeakers used are all custom built by **Celestion** and have been specifically designed to fully complement and augment the myriad of sounds generated by our Advanced Valvestate Technology.

## AVT20 1x10" Combo Front Panel Features

### 1 Input Jack Socket

This is where you plug your guitar into the amp. In case you are not aware, you must always use a screened guitar cable, never use an unscreened speaker lead. Also, for the best performance this cable should be one of high quality. If you are in any doubt regarding this, your Marshall dealer will be more than happy to help and advise you further.

### 2 Clean/Overdrive selection switch

Your AVT20 has two selectable modes - Clean and Overdrive. When the switch is 'out' Clean is selected, when it is pushed 'in' Overdrive mode is activated.

The Clean mode of the AVT20 has the warm, responsive action normally associated with a valve amp, rather than the relatively sterile, one-dimensional sound that is typical of many solid-state type guitar amps. At lower Gain settings this mode remains very clean but will evolve into a bluesy/rock type crunch at higher Gain settings.

When Overdrive is selected it will take you from mild crunch to aggressive 'modern' distortions and all-points in between. The many sonic palettes available are dependent on the exact settings of the front panel controls for Gain, Volume, Treble, Middle and Bass.

### 3 Gain Control

This rotary control can best be described as the sonic 'brains' of the amp. At lower settings, with the Clean/Overdrive switch set to Clean, the AVT20 will give you a wide range of well-defined clean tones. At higher Gain settings, the amp will start to 'crunch up' into the aforementioned 'blues/rock' type sounds. This 'crunching up' is often referred to as 'break-up'. When Overdrive mode is selected lower Gain settings will give you a vintage sounding, valve distortion while higher settings will produce more modern, high-gain tones.

### 4 Volume Control

As its name suggests, the Volume control determines how loud your AVT20 will be by controlling how much signal is transferred from the preamp to the power amp. Due to the remarkable realism of our Advanced Valvestate Technology, once the Volume control is turned-up past a certain point, the preamp will start to push the power amp section into creating its own, desirable distortion mode - just like an all-valve Marshall amp. When this occurs, the AVT20's power amp will start to add musical harmonics, compression and 'break-up' into your sound.

### 5 Tone Controls

The AVT20 is equipped with rotary Bass, Middle, and Treble controls, all of which work on both the Clean and Overdrive modes. These three passive EQ controls are designed to achieve maximum tonal variation from your AVT20 and, just like our famous all-valve amps, are highly inter-dependent on each other. As a result, the way each one functions depends on the exact position of the other two controls. This is especially true of the Bass and Treble controls in relation to the Middle control. The lower the Middle control, the more reaction can be obtained from the others. As tone is very much down to personal taste, experimentation and experience is probably the best way of learning how these three controls will affect your sound. Some suggested settings are shown later.

### ! Points to remember are:

A) The tone and output level coming out of the guitar is as widely variable as there are guitars themselves, all guitars are not designed (nor intended) to be equal. Therefore, amp settings will vary to suit your guitar and playing style, and by necessity, are at your discretion. Again, if in doubt, consult your Marshall dealer for advice.

## AVT20 1x10" Combo Front Panel Features

B) The tone of your sound is also dependent on the settings of the 'tone' controls, and adjusting them to taste will further enhance the sonic textures of your AVT20. The best way to achieve your desired settings is to experiment.

### 6 Reverb Depth Control

Your AVT20 is fitted with an internal spring Reverb unit. This control affects the mix of the direct (dry) and Reverb signals - the higher this control is set, the greater the Reverb depth.

### 7 CD Input Jack Socket

The CD input will take a stereo signal from an external source, such as a CD or tape player, and mix it into a mono format. This will allow you to play along with a pre-recorded signal. Because this input is after the preamp stage, its volume has to be controlled from your CD or tape player.

### 8 Emulated DI Out Jack Socket

This jack socket carries a specially treated output signal from your AVT20 which accurately emulates the sonic signature of a guitar loudspeaker. This output can be used in both

live performance and recording situations to achieve authentic guitar amp tones without having to use a microphone. Furthermore, if you wish to mute the loudspeaker, for 'silent' recording, then merely insert an unused jack plug (a short patch cable will do fine) or a set of headphones into the Headphone socket.

### 9 Headphone Jack Socket

In addition to providing a specially filtered output signal for a set of headphones, this jack also disconnects the main loudspeaker, enabling you to practice in 'silence'.

### 10 External Speaker Jack Socket

This socket allows you to connect your AVT20 into an external loudspeaker system, provided it has an impedance of 8 or 16 ohms. By using any one of our comprehensive range of extension cabinets, you will be able to unleash the massive amount of tonal options that extra loudspeakers will provide.

## AVT20 1x10" Combo Rear Panel Features

### 1 Mains Input Connector

Your AVT20 is provided with a detachable mains (power) lead which is connected here. The specific mains input voltage rating that your amplifier has been built for is shown on

the back panel. Before connecting for the first time, please ensure that your electricity supply is compatible with your amplifier. If you have any doubt, please get advice from a qualified person. Your Marshall dealer will help in this respect.



## AVT50 1x12" Combo & AVT50H Head Front Panel Features

### 1 Input Jack Socket

This is where you plug your guitar into the amp. In case you are not aware, you must always use a screened guitar cable, never use an unscreened speaker lead. Also, for the best performance this cable should be one of high quality. If you are in any doubt regarding this, your Marshall dealer will be more than happy to help and advise you further.

### 2 Clean Gain Control

When the Clean channel is selected, this rotary control can best be described as the sonic 'brains' of said channel. At lower settings, this control will give you a wide range of well defined clean tones. At higher settings, this control will start to 'crunch up' the sound of the channel in a 'blues/rock' type fashion. This 'crunching up' is often referred to as 'break-up'.

### 3 Clean Volume Control

As its name suggests, this control determines how loud the clean channel of your AVT50 will be by controlling how much signal is transferred from the preamp to the power amp.

The actual volume settings will be dependent on how loud you want the channel to be, and also what type of sound you have selected on the pre-amp. Due to the remarkable realism of our Advanced Valvestate Technology, once the Volume control is turned-up past a certain point, the preamp will start to push the power amp section into creating its own, desirable distortion mode - just like an all-valve Marshall amp. When this occurs, the AVT50's power amp will start to add musical harmonics, compression and 'break-up' into your sound.

### 4 Clean Tone Controls

The AVT50 Clean Channel is equipped with rotary Bass and Treble controls, with a pre-set mid 'scoop'. As is the case with our all valve amps, these two passive controls are very inter-dependent on each other. As tone is very much down to personal taste, experimentation and experience of the control's functions is probably the best way to learn how they will affect your sound. We would advise spending some time with these controls to see what suits you best. Some suggested settings are shown later, to act as possible starting points.

### 5 Channel Push-switch

Your AVT50 has two channels - Clean and Overdrive. This switch selects the channel you desire - 'out' for Clean and 'in' for Overdrive. When using the supplied footswitch, the channel push-switch must be left in the 'in' position for the footswitch to operate.

The Clean channel of the AVT50 has the warm, responsive action normally associated with a valve amp, rather than the relatively sterile, one-dimensional sound that is typical of many solid-state type guitar amps. At lower Gain settings this channel remains very clean but will evolve into bluesy/rock type crunch at higher Gain settings.

When the Overdrive channel is selected it will take you from mild crunch to aggressive 'modern' distortions and all-points in between.

The many sonic palettes available from both channels are dependent on the exact settings you choose on the front panel controls for Gain, Volume and EQ.

### 6 Overdrive Gain Control

When the Overdrive channel is selected, this rotary control acts as it's sonic 'brain'. Lower Gain settings will give you a vintage sounding, valve distortion while higher settings will produce more modern, high-gain tones.

## AVT50 1x12" Combo & AVT50H Head Front Panel Features

### 7 Overdrive Volume Control

As its name suggests, this control determines how loud your AVT50's Overdrive channel will be. The volume setting you choose will be dependent on both how loud you actually want to be, and also what type of sound you have set up on the preamp, i.e. high overdrive settings will be generating much more preamp output level than lower, cleaner settings. Due to the remarkable realism of our Advanced Valvestate Technology, once the Volume control is turned-up past a certain point, the preamp will start to push the power amp section into creating its own, desirable distortion mode - just like an all-valve Marshall amp. When this occurs, the AVT50's power amp will start to add musical harmonics, compression and 'break-up' into your sound.

### 8 Overdrive Tone Controls

The AVT50 is equipped with rotary Bass, Middle, and Treble controls, for the Overdrive Channel. These three passive EQ controls are designed to achieve maximum tonal variation from your AVT50 and, just like our famous all-valve amps, are highly inter-dependent on each other. As a result, the way each one functions depends on the exact position of the other two controls. This is especially true of the Bass and Treble controls in relation to the Middle control. The lower the Middle control, the more reaction can be obtained from the others. As tone is very much down to personal taste, experimentation and experience is probably the best way of learning how these three controls will affect your sound. Some suggested settings are shown later.

### ! Points to remember are:

**A)** The tone and output level coming out of the guitar is as widely variable as there are guitars themselves, guitars are not designed (nor intended) to be equal. Therefore, amp settings will vary to suit your guitar and playing style, and, by necessity, are at your discretion. Again, if in doubt, consult your Marshall dealer for advice.

**B)** The tone of your sound is also dependent on the settings of the 'tone' controls, and adjusting them to taste will further enhance the sonic textures of your AVT50.

### 9 Reverb Depth Control

The AVT50 is fitted with an internal spring Reverb unit. This control affects the mix of the direct (dry) and Reverb signals - the higher the control is set, the greater the depth of the Reverb.

### 10 CD Input Jack Socket

The CD input will take a stereo signal from an external source, such as a CD or tape player, and mix it into a mono format. This will allow you to play along with a pre-recorded signal. Because this input is after the preamp stages, its volume has to be controlled from your CD or tape player.

### 11 Headphone Jack Socket

In addition to providing a specially filtered output signal for a set of headphones, this jack also disconnects the main loudspeaker, enabling you to practice in 'silence'.

## AVT50 1x12" Combo & AVT50H Head Rear Panel Features

### 1 Mains Input Connector

Your AVT50 is provided with a detachable mains (power) lead which is connected here. The specific mains input voltage rating that your amplifier has been built for is shown on the back panel. Before connecting for the first time, please ensure that your electricity supply is compatible with your amplifier. If you have any doubt, please get advice from a qualified person. Your Marshall dealer will help in this respect.

### 2 Loudspeaker Jack Socket

#### i. Combo Version (AVT50)

This socket allows you to connect your AVT50 into an external loudspeaker system, provided it has an impedance of 8 or 16 ohms. By using any one of our comprehensive range of extension cabinets, you will be able to unleash the massive amount of tonal options that extra loudspeakers will provide.

#### ii. Head Version (AVT50H)

This is where you connect your AVT50 Head to external loudspeaker cabinets in order to deliver the extraordinary power that only a Marshall head can provide.

The AVT50H is specifically voiced to run into the AVT412A / AVT412B 4x12" compact cabinet combination. Having said this the AVT50H is equally at home driving any one of our other loudspeaker options, such as the legendary 1960A/B 4x12" full size cabinets for example.

### WARNING:

Always provide the AVT50H with a load equal to, or greater than, 4 Ohms. Using the two loudspeaker outputs, with cabinets rated at 8 Ohms each, the full 50W of the specially designed AVT power amplifier will be unleashed.

### 3 Emulated DI Out Jack Socket

This jack socket carries a specially treated output signal from your AVT50 which accurately emulates the sonic signature of a guitar loudspeaker. This output can be used in both live performance and recording situations to achieve authentic guitar amp tones without having to use a microphone. Furthermore, if you wish to mute the loudspeaker, for 'silent' recording, then merely insert an unused jack plug (a short patch cable will do fine) or a set of headphones into the Headphone socket.

### 4 FX Return Jack Socket

Use a high quality shielded lead to connect the output of your effects unit to the effects return jack of the AVT50H.

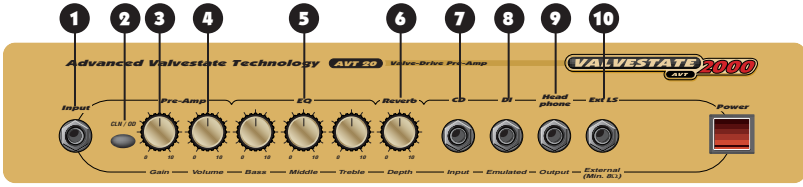
### 5 FX Send Jack Socket.

The AVT50 is fully equipped with a Series effects loop in order to allow you to connect external effects units to the amplifier. As always, we recommend you use high quality leads to ensure you lose none of the tone of the AVT50's direct signal. Connect this output to the input of your effects unit. Adjust the input gain of your effects unit so as not to overdrive its circuitry. Set the effects unit output level to achieve the same 'effected volume' as in bypass.

### 6 Footswitch Input Jack Socket

Supplied with your new AVT50 is a Marshall Channel select footswitch (PEDL-00001). This plugs into the Footswitch Input Jack Socket.

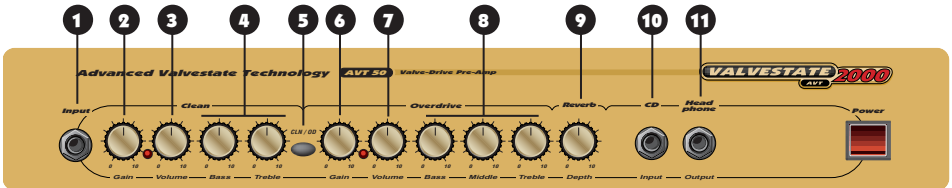
## AVT20 1x10" Combo Front Panel Features



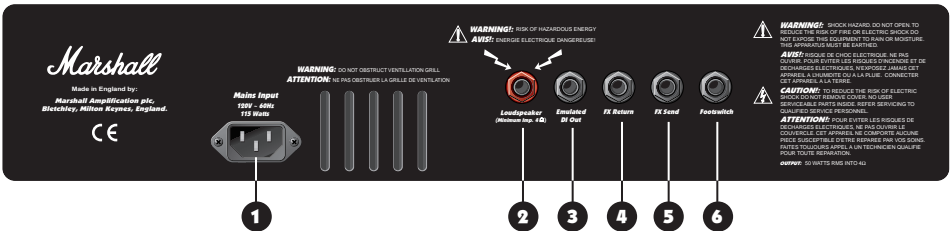
## AVT20 1x10" Combo Rear Panel Features



## AVT50 1x12" Combo & AVT50H Head Front Panel Features



## AVT50 1x12" Combo Rear Panel Features



## AVT50H Head Rear Panel Features

