Marshall

AMPLIFICATION



Advanced**Valvestate**Technology

AVT100X

Owners Manual

Downloaded from www.Manualslib.com manuals search engine



From Jim Marshall

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

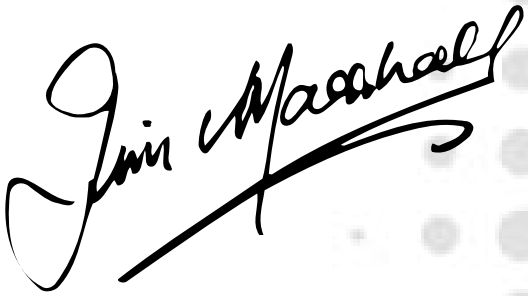
Ever since its initial launch in the early 1990's, the original Marshall Valvestate technology received worldwide acclaim and set a new standard in affordable quality amplification. However, my dedicated team of designers are constantly looking for methods to make our amplifiers sound even better. As they are all guitar players themselves this process has become a passion within the design department.

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

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,



Downloaded from www.Manualslib.com manuals search engine

Introduction

What is AVT?
Advanced Valvestate Technology, or AVT for short, is a major step forward in hybrid amplifier design which is exclusive to our Advanced Valvestate Series of amplifiers. It has evolved from the original, critically acclaimed Marshall Valvestate technology, but is improved so that it emulates even more closely the feel and response of the classic Marshall all-valve power stage...without using valves.

It is not only the power stage that has been significantly improved in the series either. Much careful attention to detail and many hours of development have also gone into the preamp section too. As a result, each AVT channel offers the widest possible range of control and shape to your sound, with an ECC83 (a.k.a.12AX7) preamp valve adding to the all-important tone and feel of these latest Marshall creations.

Valve Drive Preamp
As just stated, each amp in the range boasts a preamp stage equipped with an ECC83 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, the clean sounds ring with the 'bell-like' harmonics that only a valve preamp can deliver and the break-up is never harsh or unnatural sounding. Whenever an AVT Overdrive channel is selected the ECC83's dual triode is saturated to its limit, providing the dynamics and feel worthy of a place in the Marshall hall of fame.

Power Amp Delivery
The same sort of toneful care and attention was also focused on the all-important power stages of the AVT series too. Our goal was to ensure that each one would create the warm, musical feel and 3-dimensional sounds that have made our all-valve power amps world renowned. In addition, these AVT products were designed to deliver the goods in the often hostile and unpredictable environment of the live performance stage - which is why all the AVT power amps, from the AVT50X upwards, are fan cooled for optimum reliability.

'Extended Bass Response' Loudspeakers
Knowing how important the relationship between the amplifier and speaker is, this is another area where we spent a great deal of time and effort when developing the AVT Series. By working extremely closely with our long-term colleagues at Celestion Loudspeakers, we have successfully developed a range of speakers which, through radical design, re-define the state-of-the-art in rock guitar reproduction. In a nutshell, they allow the compact closed back cabinets used in the AVT range, to maintain the bottom end delivery normally only associated with a full 4 x12 cabinet set-up.

DFX Onboard
At Marshall our aim is to create products that offer our fellow guitarists true inspiration in the practice and performance of their art. When integrating DFX (Digital Effects) into the tonal topology of AVT, the greatest care was taken to ensure that the highest level of signal integrity was maintained. Through careful shaping and mixing of the 'wet' (processed) and 'dry' (unprocessed) signals, we have ensured that the onboard effects enhance your tone while adding none of the nasty, artificial 'grain' often associated with DFX. Different effect types can be assigned to the Clean and Overdrive channels and can, of course, be turned on and off via the sturdy 6-way LED foot controller supplied with your amp.

AVT100X Front Panel Features

I. The Pre-amp Section
Your AVT100X combo amp boasts three independent channels: Clean, Overdrive 1 and Overdrive 2. The preamp section is where the gain, tone and relative volume of these three channels is determined.

1. Input Jack Socket
This is where you plug your guitar into the amp. You must always use a screened (shielded) guitar cable and never use an unscreened (unshielded) speaker cable. Also, this cable should be one of good quality. If you are in any doubt regarding this, your Marshall dealer will be more than happy to help and advise you.

2. Clean Channel Selector Switch
This allows selection of the Clean channel via the front panel.

3. Clean Channel Gain Control
This rotary control regulates the drive into the two cascaded valve stages of the preamp. Lower settings will give you a wide range of well defined, warm clean tones.

At higher Gain settings you will pass through natural, valve-induced compression and into an increased level of desirable 'break-up' (a.k.a. 'crunch') which is perfect for subtly overdriven blues/rock.

4. Bright Switch
Most of the Gain controls in classic Marshall amps have been fitted with what is known as a 'treble bleed capacitor'. This device allows extra high frequencies to be 'bled' through to the drive section when the Gain control is at low settings. Engaging the Bright Switch will 'bleed' extra high frequencies into the drive stage of the Clean channel, giving you a bright, clean tone perfect for many styles, including funk and country.
The higher the Gain control is set, the less effect the 'treble bleed capacitor' has. As a result, at maximum Gain settings, the bright switch will have no audible effect at all.

5. Clean Volume Control
As its name suggests, this control determines the volume of the clean channel. The actual setting you choose will be dependent on how loud you want the channel to be, and also on the 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 - just like an all-valve Marshall amp. When this occurs, the AVT's power amp will start to add musical harmonics, compression and 'break-up' into your sound.

Note: As each channel has its own volume control, you can easily balance the levels of all three channels as you so desire. Once set to your satisfaction, these controls can be left alone and you can use the amp's Master Volume knob (16) to set your overall volume level.

6. Clean Tone Controls
The Clean channel is equipped with rotary Bass, Middle, and Treble controls. These three passive EQ controls are designed to achieve maximum tonal variation from your AVT amplifier. Just like the tone controls on our famous all-valve amps they 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. As you will discover, the lower the Middle control is set, the more 'reactive' the others become.
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. To offer you some guidance, suggested settings are shown later on in this manual.

*** Points to remember are:**
When selecting a sound on any amp:

a) The tone and output level coming out of each guitar is as widely variable as guitars themselves. Remember, guitars and also pickups are not designed (nor intended) to be equal. Therefore, amp settings will vary to suit both your guitar and your playing style, and, by necessity, are at your discretion.

b) The tone of your sound is also dependent on the way you set-up the Volume, Gain and Tone controls of your amp. Taking the time to adjust them to taste will further enhance the sonic textures of your AVT. As is true of all the best

Downloaded from www.Manualslib.com manuals search engine

things in life, it is worth investing some time playing around until you find the desired sweet spot!

Note: The amp's Master Presence control (17) affords you further adjustment of the high end.

7. OD1 Channel Select Switch
Pressing this front panel switch selects the Overdrive 1 (OD1) channel of your AVT.

8. OD1 Gain Control
This rotary control can be best described as the 'sonic brain' of the OD1 channel. Lower Gain settings will produce well-defined, natural sounding overdrives which have a nice 'cut,' making them perfect for funky, blues rock. Higher gain settings will see the sound start to get more 'rounded' as the AVT's pre-amp valve is pushed into saturation.

9. OD1 Scoop Switch
Fine tuned to create the most awesome mid 'scoop' imaginable, OD1's Scoop circuitry is more than just a pre-set middle control. Instead it actually reconfigures the whole post-EQ voicing of the channel - from low to high. Because of this, even though the resulting 'scooped' sound that occurs when the switch is activated (pushed 'in') is totally extreme, the channel's overall tone still remains tight and focused.

10. OD1 Volume Control
As its name suggests, this control determines the volume of the OD1 channel. The actual setting you choose will be dependent on how loud you want the channel to be, and also on the type of sound you have selected on the pre-amp (i.e.: high Gain settings will generate much more preamp output level than lower, cleaner sounding Gain 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 - just like an all-valve Marshall amp. When this occurs, the AVT's power amp will start to add musical harmonics, compression and desirable 'break-up' to your sound.

As previously stated, each channel has its own volume control so you can easily balance the levels of all three channels. Once set to your satisfaction, these controls can be left alone and you can use the amp's Master Volume knob (16) to set your overall volume level to best suit each playing situation and venue.

11. OD2 Channel Select Switch
This selects the Overdrive (OD2) channel of your amp.

12. OD2 Gain Control
Cranking the OD2 Gain control will unleash the most extreme gain levels ever found on a Marshall Valvestate amplifier. The higher settings of the OD2 gain control can be likened to driving the front-end of an already raging Marshall valve amp with a high gain, overdrive stomp box. If you've already experienced the tonal pleasure of 'front ending' a Marshall valve amplifier in this way, you will appreciate the energy and dynamics of this type of set-up! Turning the OD2 Gain control clockwise will see more of the already smouldering signal being sweetly compressed and 'rounded' by the unique characteristic of the AVT's Valve Drive stage as it is driven over the top into total saturation. This channel can also be as nasty and 'in-yer-face' as you would like. Engaging the OD2 'Scoop' button (13) will take this channel onto a new level of cranium crushing crunch, perfect for modern (a.k.a. 'nu') metal.

13. OD2 Scoop Switch
As is true of the OD1 Scoop, this circuit acts like an advanced, pre-set contour control that not only 'scoops-out' the mids but also shapes the highs and lows for a tight, focused sound. Engaging OD2's Scoop Switch loads you up with a 'bottom heavy' sound perfect for the de-tuned, high-gain aggression favoured by many modern acts.

14. OD2 Volume Control
This control regulates the drive of the OD2 channel into the power stage of the amplifier, hence controlling its output volume. You will find that the louder you go, the looser the bottom end of your sound will become. Having said this, the closed-back cabinet design of your AVT is such that it will deliver tight, well-defined low end at much higher volumes than any other 'hybrid' amplifier known to man.

15. Overdrive Tone Controls
Your AVT is equipped with rotary Bass, Middle, and Treble EQ controls which are shared between the two Overdrive Channels, OD1 and OD2. This EQ section boasts a tone circuit identical to the one used in legendary Marshall valve amplifiers such as the 100 Watt 'Plexi' and the JCM800 2203, making it a foundation stone for that instantly recognisable and unsurpassable 'Marshall Sound.' As was the case with the Clean channel's EQ network, these controls are interactive and, as a result, allow endless tonal possibilities.

Note: Remember that in addition to these three controls, further tonal adjustment is also afforded by the Scoop button (13) and also the Master Presence control which is explained later (17).

II. The Master Section
These controls adjust the power amp section of your AVT and determine the overall Volume and Presence of the amplifier.

16. Master Volume
Once you have set the relative volumes of your AVT's channels, this control governs the overall volume of the amplifier.

17. Master Presence
A feature normally only found on expensive valve amplifiers, the Presence control affords you increased high frequency control by altering the power amplifier's feedback. Increasing the Presence control will emphasise high-end 'fizz' in overdriven tones and top-end 'sparkle' in clean sounds.

III. FX Section

A. Parallel FX Loop
Your AVT boasts a rear-panel mounted Parallel FX loop for use with external effects devices. This FX loop is Mono so if using a stereo effects processor you would need to connect to the 'mono' output on the processor.

18. FX Loop Mix Control (Clean & Overdrive)
When an effects unit is hooked-up to the aforementioned FX loop, this control adjusts the FX Mix for all three channels. Turning it clockwise increases the amount of effect you hear - from 'dry' (0) to 'wet' (10).

Please note that the FX mix on your external processor should be set to maximum (i.e. 'wet').

B. Internal Digital FX
As mentioned in the introduction of this manual, the AVT100X features a DFX (Digital Effects) section which adds digital effects to all three channels.

The DFX section boasts 16 on-board effects and three controls - DFX Mix, Adjust and Program.

We chose these particular effects algorithms to give you a comprehensive palette of natural sounding options. When developing the DFX section, our aim was to enhance the overall sound of the amplifier and, most importantly, allow the effects to work with you instead of masking your all-important tone underneath layers of artificial sounding digital signal processing.

ENGLISH

Downloaded from www.Manualslib.com manuals search engine

The first 10 programs offered are all Reverbs. Reverberation effects recreate the natural echo reflections found in physical environments such as halls and rooms or, in the case of plate reverbs, a mechanically vibrating metal plate. These echoes are extremely complex in nature and are, therefore, notoriously difficult to recreate. In developing these 10 programs we've gone to great lengths to ensure that none of the harsh digital 'graininess' normally associated with some digital reverbs is present.

Below is a brief description of each of the 16 DFX programs available:

1	**Hall A:** this is a large, bright sounding, concert hall. "Wembley Arena, are you ready to rock!?"
2	**Hall B:** warmer sounding than Hall A, this program is perfect for adding depth and character to clean and acoustic tones.
3	**Hall C:** a medium sized hall with 12ms of delay before the reverb starts.
4	**Room 1:** a hardwood studio with lots of early reflections. Perfect for acoustic type sounds.
5	**Room 2:** perfect for adding some subtle ambience.
6	**Room 3:** warmer sounding than Room 1, perfect for clean or acoustic work.
7	**Plate 1:** a bright, transparent plate sound ideal for lead work.
8	**Plate 2:** warmer sounding than Plate 1, this program is great for adding sustain, especially on clean and acoustic tunes.
9	**Plate 3:** an accurate emulation of a vintage tube plate reverb. As this program has very little low end it is great for adding 'cut'.
10	**Gated Reverb:** by 'chopping-off' the end of the reverb's decay 'tail' via a Noise Gate, this program is great for spicing-up chord stabs without cluttering up your sound.
11	**Chorus:** splitting the signal and then mixing the dry signal with a detuned version creates this popular effect. To add to the subtle 'widening' this creates, the detuned signal is modulated by an LFO (Low Frequency Oscillator) which causes the detuning to vary. The result is a subtle, lush sound that is equally effective on both clean and dirty tones.
12	**Flange:** similar to chorus but much more 'jet' like in nature.
13	**Delay:** this creates an echo repeat of the original signal. The delay time is adjustable in 10 millisecond (ms) increments and can be set to be as long as 1270ms which is well over 1 second.
14	**Chorus/Room:** as the name suggests, this combines Chorus and a large room Reverb.
15	**Chorus/Delay/Room:** if program 14 isn't dramatic enough for you then this is definitely the one for you, as it adds Delay to the Chorus & Reverb mix!
16	**Modulation:** this effect is similar to the chorus effect but is less subtle and can be used to create rotary speaker-like effects.

19. DFX Mix Control (Clean & Overdrive FX)

This determines the level of the internal effects selected by the Program control (21). In general you will find that the modulation effects (e.g.: Chorus, Flange) require more level than the reverbs and delays. As always, let your ears decide what is right!

20. Adjust Control (Clean & Overdrive FX)

For each of the 16 selectable DFX a particular parameter is adjustable. For example, when a Reverb is chosen, the decay (how long the reverb will be heard before it fades away) is adjustable via this control. The 'Program/Adjust' table (22) on the front panel of your amp lists what the Adjust control does for each of the 16 programs.

21. Program (Clean & Overdrive FX)

This selects each one of the 16 on board digital effects. The DFX available include single effects such as Reverb (9 types), Delay or Chorus and also multi-FX such as Chorus/Delay/Room. To add further to the flexibility of the DFX sections it can be switched on and off via the sturdy, 4 way foot-controller which comes supplied with each amp.

22. Digital FX Program / Adjust Table

This lists the 16 programs selectable via the Program control (21) and also indicates which parameter the Adjust control (20) modifies for each one. For added convenience, this table is shown below.

Digital **FX**

Program	Adjust
1-3	**Halls** Decay Time
4-6	**Rooms** Decay Time
7-9	**Plates** Decay Time
10	**Gated Reverb** Decay Time
11	**Chorus** Rate
12	**Flange** Rate
13	**Delay** Time
14	**Chorus Room** Decay Time
15	**Ch/Dly/Room** Time
16	**Modulation** Speed

23. Power Switch

Wait for it...yes, this switches the amp on and off! When the amp is on the power switch is illuminated and vice-versa. Advanced power amplifier muting circuitry provides anti-thump protection on power up and down.
Important Note: As is the case with an all-valve amplifier, there will be no signal heard until the amp's ECC83 preamp valve warms-up and starts to pass signal. This can take up to 15 seconds so don't panic!

Downloaded from www.Manualslib.com manuals search engine

AVT100X Rear Panel Features

1. Mains Input Connector
Your AVT 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 seek advice from a qualified technician. Your Marshall dealer will help in this respect.

2. Loudspeaker Jack Sockets
There is one speaker jacksocket on the AVT100X, marked Internal (8 Ohm), this is where the output of the AVT power amplifier is connected to its internal 8 Ohm Celestion loudspeaker.

⚠ **WARNING:**
Always provide the AVT100X with a load equal to, or greater than, 8 Ohms.

3. Footswitch
For connection of the supplied Stage Foot Controller (PEDL-10038). This sturdy 4-way Marshall footswitch allows instant selection of the 3 channels, plus the DFX. It also features LED's to indicate status.

4. Headphone
The headphone output is fully emulated using an improved version of the circuitry found on the industry standard JMP-1. Turning the Master Volume (16) to zero will provide silent practice.

5. Emulated Line Output
This jack socket carries a specially treated output signal from your AVT that accurately emulates the sonic signature of a Marshall 4x12 cabinet. This unerringly accurate emulation circuitry is Marshall's most advanced to date and was developed via countless hours of technical research, playing, listening and fine-tuning. This output can be used in both live performance and recording situations to achieve authentic guitar amp tones, without having to use a microphone. Turn down the Master Volume (16) for silent recording.

FX Loop
As already mentioned, the AVT100X boasts a Mono Parallel FX loop for connection with external effects units. In addition to the FX Mix control on the front panel (see 'Front Panel Features,' point 18) this FX loop comprises of an FX Send jack, an FX Return jack and an FX level control button.

6. FX Return
For connection to the output of your external effects device.

7. FX Level
This should be set to match the level of the processor being used (generally -10dB for a stomp box, +4dB for a professional, rack unit).

8. FX Send
For connection to the input of the external device being used.

*** FX Loop Hints**
a) Always use high quality, shielded patch cables.

b) If the processor being used has an input level control, ensure it is set correctly.

c) Time based effects (delays & reverbs) and modulation effects (chorus, flange, phase, etc.) are ideal for use in a Parallel FX loop.

d) Certain stomp box effects such as Wah, distortion, overdrive and fuzz were designed specifically for use in-front of the amp and sound best when used that way. This said, tonal beauty is in the ears of the beholder so, if such a pedal sounds great to you when used in an FX loop then go for it! Sometimes, there are no rules...

Follow all instructions and heed all warnings
KEEP THESE INSTRUCTIONS !

Suggested Settings

On all the following suggested settings you will immediately notice how rich and authentic the sounds are. As you will hear, even on clean settings Advanced Valvestate Technology adds those subtle harmonics and that desirable compression which only a classic all-valve amp can normally deliver.

Funky Clean
A really bright clean which still maintains mid definition. This is best used in conjunction with a single-coil neck pick-up or the neck/bridge combination on a humbucker equipped guitar. Keeping the Gain control low ensures a clean preamp signal and also helps feed extra treble through to the power amplifier for additional brightness and cut.

Blues Clean
Here the preamp Gain is increased and what you start to hear is pure, harmonically rich break-up and compression from the internal Marshall ECC83 preamp valve. Again the neck pick-up on a single coil guitar or the neck/ bridge combination on a humbucker-loaded guitar will deliver the warmest tones.

Jazz Clean
A warm rounded clean ideal for 'comping' and walking bass progressions.

Brit Crunch
Here the advantage of the separate Gain and Volume controls really comes into play. Notice how the Gain is quite low but the Volume is quite high. This is the way the old Marshall crunch sounds of the late 60's and 70's were created - namely by keeping the preamp pretty clean and creating the desired distortion by driving the power stage hard. With such a setting, when you back off the guitar's volume or pick lighter, you will feel and hear how the rich, clear tone of the clean sound remains.

Funky Overdrive
For those who wish to get lost in a purple haze, back off OD1's Gain to give extra definition and dynamics.

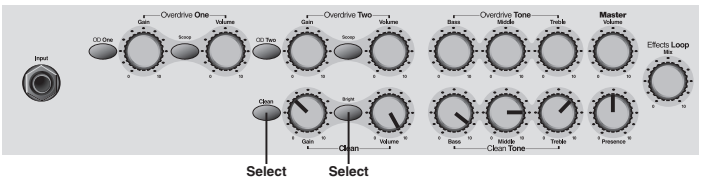
MV Crunch
This crunch is reminiscent of the first Marshall Master Volume amplifiers of the much heralded JCM800 series. The Valve Drive Preamp is driven into mild saturation, creating a big, open overdrive using the bridge position pick-up, whether single-coil or humbucker.

Screaming Lead
Here the Gain is cranked to the max and the mids are brought up to fatten the tone of the single notes. With these settings the rich, natural harmonic overtones that the valve introduces will be very apparent. Best with the bridge pickup.

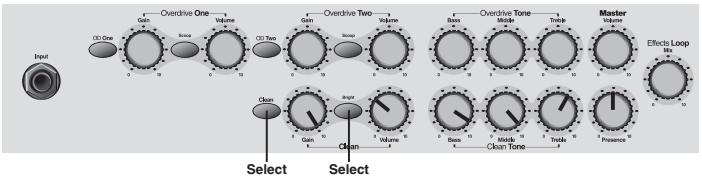
Heavy, Modern Crunch
Cutting the Mids while heavily boosting the Gain, Treble and Bass gives an aggressive, modern 'tear-yer-face-off', scooped sound. The bridge humbucker is the one to use here if you truly wanna ride the lightning...definitely not for the faint-hearted!

Downloaded from www.Manualslib.com manuals search engine

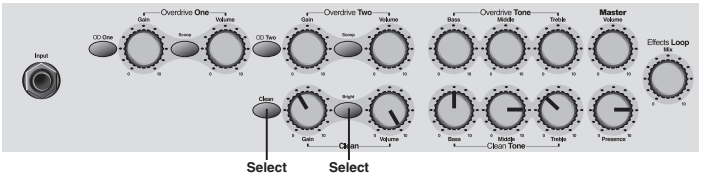
AVT100X Suggested Settings



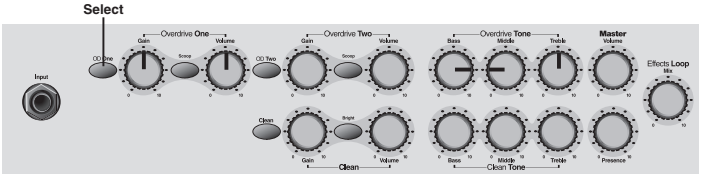
Funky Clean



Blues Clean



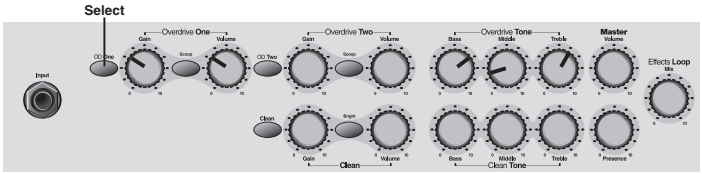
Jazz Clean



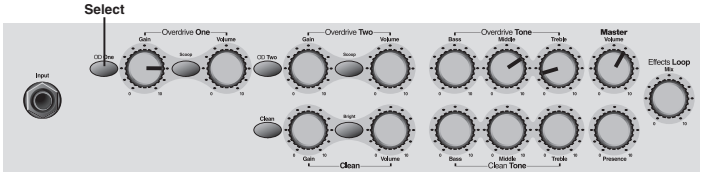
British Crunch

AVT100X Suggested Settings

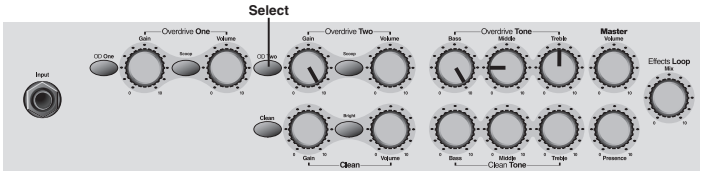
Funky Overdrive



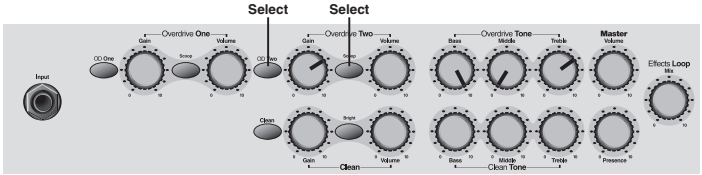
MV Crunch



Screaming Lead

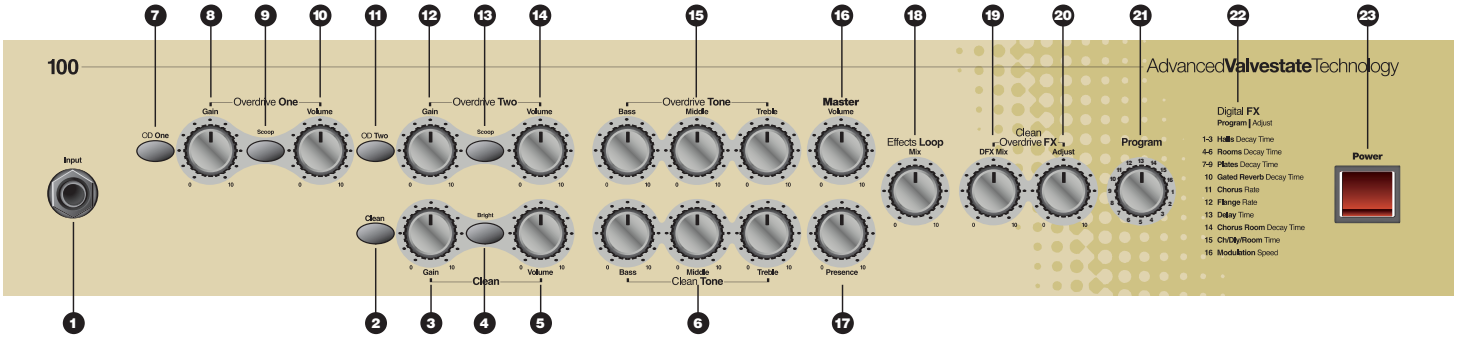


Heavy Modern Crunch

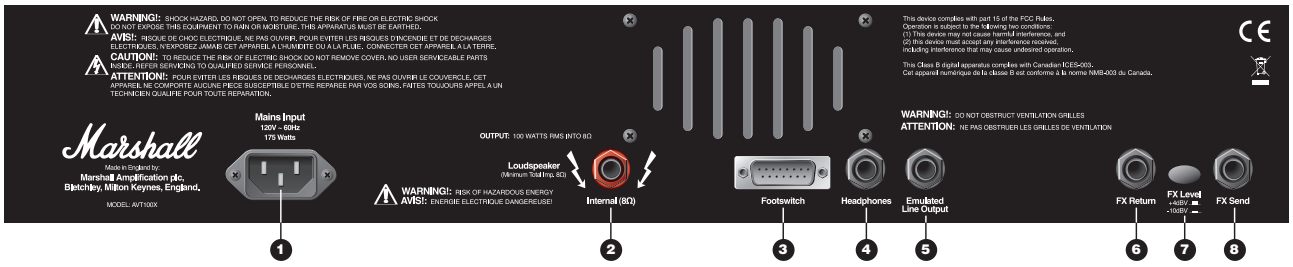


Downloaded from www.Manualslib.com manuals search engine

AVT100X Combo Front Panel Features



AVT100X Combo Rear Panel Features



Downloaded from www.Manualslib.com manuals search engine

Power Output	**100W RMS into 8Ω**
Potencia de salida	100W RMS sobre 8Ω
Ausgangsleistung	100W RMS an 8Ω
Puissance de sortie	100W RMS sous 8 ohms
パワー出力	*100W RMS / 8 Ω* **接続**
Main Guitar • Input Impedance	**1MΩ**
Impedancia de entrada principal de guitarra	1MΩ
Guitar Input • Eingangsimpedanz	1MΩ
Impédance d'entrée	1MΩ
メインギター・入力インピーダンス	1MΩ
Emulated Output • Level	**-10dBV * see note 1**
Nivel de salida de línea simulada	-10dBV * ver nota 1
Emulated Output • Ausgangspegel	-10dBV * siehe Hinweis 1
Niveau de sortie	-10dBV voir note 1
エミュレート出力・レベル	*-10dBV* * **注 1 参照**
FX Send • Level Switchable	**-10dBV, +4dBV * see note 2**
Envío de efectos • Nivel Commutable	-10dBV, +4dBu * ver nota 2
FX Send • Ausgangspegel (schaltbar)	-10dBV, +4dBV * siehe Hinweis 2
Niveau de sortie d'effet • Commutable	-10dBV, +4dBV * voir note 2
エフェクト・センド・レベル切り替え	*10dBV, +4dBV* * **注 2 参照**
Weight	**23.2kg**
Peso	23.2kg
Gewicht	23.2kg
Poids	23.2kg
重量	23.2kg
Size (mm)	**607 x 550 x 290**
Tamaño (mm)	607 x 550 x 290
Maße (mm)	607 x 550 x 290
Taille (mm)	607 x 550 x 290
サイズ	607 x 550 x 290
Internal Speaker • Custom Celestion	**100W/12" 8Ω**
Altavoz interno • Celestion custom	100W/12" 8Ω
Interner • Custom Celestion Lautsprecher	100W/12" 8Ω
Haut-parleur interne (custom Celestion)	100W/12" 8Ω
内蔵スピーカー：カスタムCelestion	100W/12" 8Ω
Valve	**1 x ECC83 (Dual Triode)**
Válvula	1 x ECC83 (Triodo doble)
Röhre	1 x ECC83 (Dual Triode)
Lampe	1 x ECC83 (double triode)
バルブ	*1 x ECC83* **(デュアル･トライオード)**

*** Note 1:** Recommended for connection to inputs with input impedance >20KΩ

*** Nota 1:** Se recomienda conectar a entradas con impedancia superior a 20KΩ

*** Hinweis 1:** Empfohlen für Inputs mit eine Eingangsimpedanz >20KΩ

*** Note 1:** Recommandée pour une impédance d'entrée supérieure à 20KΩ

*** 注 1 :** 接続する入力の推奨インピーダンス ＞20kΩ

*** Note 2:** Recommended for use with line level equipment (i.e. rack processors etc.)

*** Nota 2:** Se recomienda utilizar con equipo con nivel nominal de línea (como procesadores de rack, etc...)

*** Hinweis 2:** Empfohlen für die Benutzung mit Equipment auf Linepegel (z.B.Studioeffektgeräte etc.)

*** Note 2:** Recommandée pour des niveaux de ligne de type processeur d'effets en rack.

*** 注 2 :** 接続機器（ラックプロセッサーなど）の推奨ラインレベル

Downloaded from www.Manualslib.com manuals search engine