



VBA 400
VALVE BASS AMPLIFIER



From the Chairman

I would like to personally thank you for selecting our VBA400 valve bass head.

Since I started Marshall Amplification in 1962 I have witnessed some incredible breakthroughs and advances in amplifier design technology, however there is an inescapable magical tone that comes from using a traditional Marshall valve amplifier. Furthermore it is a tone that is just as valid and just as much sought after today as it was all those years ago when I had my first shop in Hanwell, London.

What time and progress has given us is the ability to make valve amps that are more versatile. The new Marshall VBA400 is just that, a classic valve amp for bass guitar, complete with all of the normal attributes that you would expect from a Marshall valve amp, such as warmth, compression, controllable musical distortion and of course that classic Marshall tone, combined with modern day versatility and safety features. As such, the VBA400 is a classic valve bass amp for today's player.

I would like to wish you every success with all of your musical endeavours and also your new Marshall which I am sure you will find a pleasure to play for many years to come.

Yours Sincerely,

Marshall



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 when 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.



◻ **EUROPE ONLY** - NOTE: This equipment has been tested and found to comply with the requirements of the EMC directive (Environments E1, E2 and E3 EN 55103-1/2) and Low Voltage directive in the E.U.

◻ **EUROPE ONLY - NOTE:** The Peak Inrush current for the VBA400 is 204 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 used, with the exception of the speaker lead, to connect to the VBA400 are of a high quality screened type. These should not exceed 10 metres in length. Always use a non-screened Marshall approved speaker lead with the VBA400 Head and extension cabinets.

◻ **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 !



Constant exposure to the high sound pressure levels of which this amplification system is capable could result in permanent damage to your hearing.

Although individuals will vary in their susceptibility to noise induced hearing loss, almost everyone will have their hearing impaired if exposed to intense sound levels for a sufficient length of time.

To prevent the occurrence of permanent hearing loss, it is advisable to wear ear plugs or protectors if you are going to be exposed to high noise levels for prolonged periods.

Introduction

VBA stands for Valve Bass Amplifier and who better to make a bass amp powered by valve technology than Marshall Amplification? Over 36 years of designing and manufacturing world renowned high quality valve amps has given us priceless knowledge, experience and insight in the world of valve tone.

The VBA400 gives you 400 Watts of Marshall valve power courtesy of 12 valves; 8 6550 power valves, 3 ECC83 classic Marshall pre-amp valves and 1 ECC82 valve.

In addition to great tone, the VBA400 combines a number of other exciting and useful features. Situated on the rear panel of the amp is a Tuner Output which allows you to keep a tuner in line at all times (the bass is still plugged into the input on the front panel). Should you want to tune up during a live situation in silence, simply press the Tuner Mute facility button and both the sound to your speakers and to the DI will be cut off.

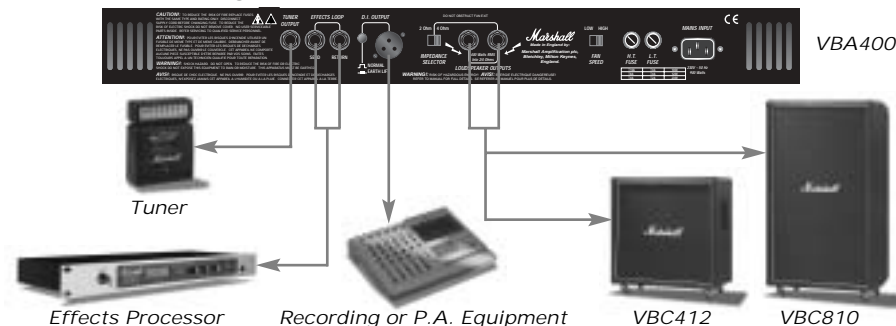
All valve amps need to be connected to a speaker before use and failure to do so will result in serious damage to the amp. To ensure that you do not damage your VBA400 by inadvertently forgetting to plug your amp into a speaker, we have designed the unit so that power cannot be applied internally unless it is connected to a speaker.

The VBA400 also features an instant overall tonal re-shaper in the form of a Contour control which has three pre-sets to allow you to dial in three different characters in an instant.

To fully compliment the VBA400 we have produced two specially designed cabinets, the 8x10" VBC810 and the 4x12" VBC412 which combine cool looks with classic Marshall tone.

In order to get the most from your VBA400 please read this handbook carefully before plugging in.

VBA400 Set-up guide



VBA400 Front Panel Features (page 26)

1. Power Switch

Controls mains power to the amplifier, activating the valve heaters and other auxiliary circuits including the fan. This should be switched on before the standby switch.

2. Standby Switch

Controls the H.T. (high tension) supply to the valves to allow them to attain the correct working temperature before playing. To prolong the life of the valves it is always advisable to switch on the Mains Power Switch (item 1) about 2 minutes before switching on the Standby (item 2).

This procedure allows the valves to heat up fully before use. On switching off, the Standby should always be switched before the Power Switch.

The standby facility is particularly useful live, between sets, as it allows you to reduce the amount of heat generated by the amplifier but keep the valves operating, which is conducive to longevity of valve life. Valve life can be further increased by always ensuring that the amplifier is allowed to cool down completely after use and before transportation.

3. Master Volume

Governs the overall volume of the VBA400.

4. Deep

The Deep Switch adds a tuned or resonant bass boost to your sound, increasing bottom end thud, without making your tone woolly around the bottom end.

5. Bright

The Bright switch adds high frequency presence, giving top end brilliance, crispness and bite to your sound.

6. Treble

Controls the high frequencies of the bass guitar tone, making your sound brighter when increased.

7. Middle

Dictates the middle register of the amplifier. Turning this up will make your bass sound fatter. Conversely reducing the amount of middle in your tone will result in a sharper sound.

8. Contour

3 position control adjusting the overall tonal voicing of the amplifier. Position 1 tailors the response of the amplifier for smooth low end, restrained lower mids, and mild high end lift, to give the classic vintage valve bass tone. In position 2 the lower mid is made more prominent whilst simultaneously the upper mids are subtly scooped to give a more aggressive, growling quality to the amplifier's tone. Position 3 introduces a gentle overall mid boost for an immediate, cutting, 'in your face' tone.

9. Bass

Controls the amount of low frequencies or bottom end in your tone.

10. Gain

The VBA400 is an all valve bass head and as such is ideally suited to creating thick musically overdriven tones or warm clean tones. If you require a clean bass sound turn this control up until your bass just starts to distort and then back it off slightly. If on the other hand you would like a distorted sound, simply turn up the Gain control until the required amount of distortion is achieved. Another tip, for those of you who have got active basses who want a distorted tone, is to try plugging your bass into the Passive Input. This will cause no harm and may provide the sound you are looking for.

Tuner Mute

The VBA400 features a Tuner Mute facility. On the rear panel there is a tuner output, item 1, which allows you to keep a tuner connected permanently in-line. By pressing the Tuner Mute On/Off button, item 12 on the front panel, you will cut the sound to the speakers and to the DI output allowing you to tune up in silence.

11. LED

Indicates when the Tuner Mute facility is in use.

12. On/Off

Allows you to switch the Tuner Mute facility on and off.

Inputs

Though the Passive and Active inputs were designed around the signal from an active bass and a passive bass guitar respectively, you should experiment to see which input best suits your style. Don't worry, connecting your bass to the wrong input will not harm your VBA400 but

may give you the sound that you are trying to capture.

If you are using a Tuner in-line via item 1 on the rear panel, you should still use one of these inputs to connect your bass.

13. Passive

This input is designed to take the signal from a passive bass. If your bass guitar is passive plug it in here. We recommend that you always use a high quality screened cable for this to help prevent noise, interference and unwanted feedback.

14. Active

This input is designed to take the signal from an active bass. If your bass guitar is active plug it in here. Again we recommend that you always use a high quality screened cable to help prevent noise, interference and unwanted feedback.

15. D.I. pre-post selector

The VBA 400 features a D.I. Output, item 5 on the rear panel, designed for connection to professional recording or P.A. equipment.

By selecting 'Pre', the signal for the DI will be taken from a point in the signal path before the front panel controls and will only be affected by the Tuner Mute, Item 12. This means that you will have no other influence over your sound being sent to the external recording or P.A. equipment connected to the D.I. output socket. By selecting 'Post', the signal for the DI will be taken after the Gain and Equalisation controls (but before the master volume control), giving you tonal and level control over the signal being sent to the external equipment.

5. D.I. output

The VBA400 features a low impedance, balanced XLR D.I. Output for connection to professional recording or P.A. equipment.

See Item 15 on front panel for more details.

6. Impedance Selector

It is imperative that the output impedance selector on this amplifier matches the impedance of the speaker(s) that it is driving.

The VBA400 delivers 400 Watts R.M.S. into 2 or 4 Ohms. Both the VBC810 and VBC412 cabinets are 4 Ohm cabinets. Therefore if you are using one cabinet ensure that the impedance selector is set to 4 Ohms, and if you are using 2 cabinets ensure that the impedance selector is set to 2 Ohms.

Failure to do this can result in serious damage to the amplifier.

7. & 8. Loudspeaker Outputs

For connection to VBC810 and or VBC412 cabinets. See above for impedance details.

Always use short, high quality, heavy duty speaker leads to connect this amplifier to the loudspeaker cabinets. Two speaker leads are supplied with the amplifier for this purpose. Do not use screened, guitar type, leads.

9. Fan Speed - Low & High

The VBA400 features 12 valves in total, 8 of which are power valves. Normal air convection would not be sufficient to keep such an amplifier cool, and the VBA400 therefore features a fan which sucks cool air through the front vent and pushes the resulting warm air out through the rear vent.

To ensure optimum cooling of the amplifier in all operating environments, the fan has two operating speeds, low and high. Low should be selected for normal operating situations. However, if this amplifier is going to be used in close proximity to other units generating appreciable amounts of heat, or if the ambient air temperature is high, the higher fan speed should be selected. The VBA400 features over temperature protection which will shut the unit down should internal temperatures become excessive, due for example to obstructed front or rear air vents. This protection is self-resetting after a period of approximately thirty minutes.

10. H.T. Fuse

Always ensure that the correct value fuse is fitted - see rear panel for details.

If this fuse fails repeatedly, you should refer the amplifier to a qualified Marshall service agent.

11. L.T. Fuse

Always ensure that the correct value fuse is fitted - see rear panel for details.

If this fuse fails repeatedly, you must refer the amplifier to a qualified Marshall service agent.

12. Mains Input

Connects the amplifier to the mains power supply.

The VBA400 is able to operate on 100, 115 or 230 Volts A.C. (50-60 cycles) by appropriate selection of internal voltage setting links and fuse types. Should you require to operate your VBA400 at a different mains voltage to that which the unit was originally intended, refer the amplifier to a qualified Marshall service agent, who will make the required adjustments.

VBA400 Rear Panel Features (page 26)

1. Tuner Output

The Tuner Output allows you to keep a tuner in-line at all times. See Tuner Mute in the Front panel Functions section for a full overview of this facility.

Effects Loop

The VBA400 features a series effects loop for optimum connection of external effects. As this is a series loop, all of the pre-amp signal is passed through the loop when in operation and the blend between 'dry' and 'effects' is determined solely by the setting of the 'mix' facility on your chosen effects processor.

2. Send

For connection to the input of an external effects processor.

3. Return

For connection to the output of an external effects processor.

4. D.I. Normal / Earth Lift

Linking one piece of earthed electrical equipment to another earthed piece of electrical equipment can result in an audible hum, due to the formation of an earth loop. In the past people would get round this problem by removing the earth of one of the appliances, which is of course extremely dangerous. The VBA400 features an Earth Lift which allows you to safely 'lift' the D.I. signal earth on the amp, should you be experiencing earth loop hum problems.

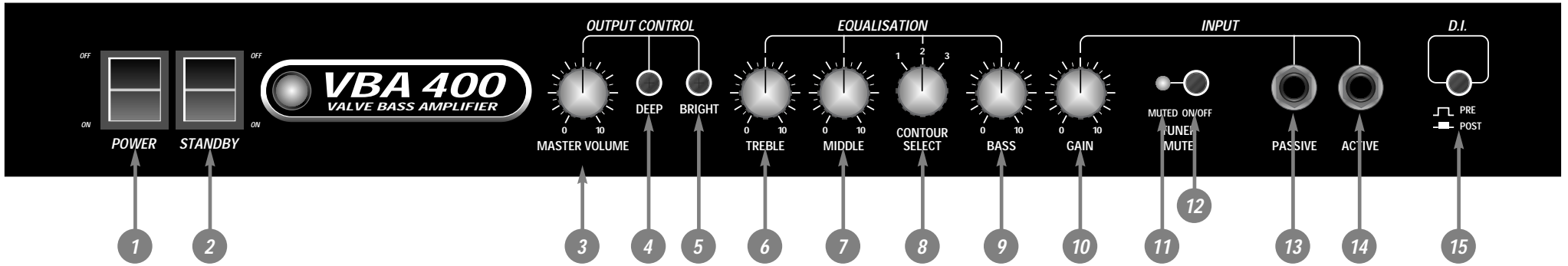
Valve Replacement

The valves fitted at the Marshall factory have been extensively tested and selected to ensure close matching of electrical characteristics, which, in conjunction with the amplifier's internal bias and balance controls (which are not user adjustable) should ensure long and reliable operating life.

As with any valve amplifier, the valves (particularly the output valves) do not have an infinite life and will require replacement at some point. The life expectancy of a set of valves depends on many factors including how frequently the amplifier is used, the quality of the valves fitted and proper use of the mains and standby switches when powering the amplifier up and down.

Signs that the valves are nearing the end of their useful operating life include loss of perceived output power, increase in valve microphony (detectable as a background 'ringing' type noise) and deterioration in tone. When the time comes to fit new valves it is strongly recommended that only Marshall replacement valves, tested to the same specification as the originals, be used, and that these are installed by an approved Marshall service agent who has access to the measuring equipment required to set the internal bias and balance controls to optimally suit the new valves being fitted.

VBA400 Front Panel



VBA400 Rear Panel

