



VICTORY V40 'The Duchess' All Valve 40 Watt Guitar Head



User Guide

Thank you, and congratulations on acquiring a Victory Amplification V40. This amp is proudly designed and built by our committed team of engineers and craftsmen in the UK.

We value simplicity in operation, flexibility in use and absolutely no compromise in tone. Our aim is simple: to create amplifiers that inspire you ever onwards in your playing and never let you down.

SAFETY FIRST

We want you to enjoy your amplifier to the best of its potential. So please...

Before you go any further, take a moment to read these SAFETY INSTRUCTIONS

- Read these guidelines & keep them
- Follow all instructions & guidelines
- Do not use this amplifier near water or any other liquid
- Do not block any openings
- Do not attempt to clean the amplifier with any fluids: use only a dry cloth
- Do not attempt to modify or service this product yourself
- Removing covers could mean you are exposed to dangerous voltages that may result in severe injury or death
- Refer all servicing to qualified service personnel
- Damage Requiring Service: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - (a) When the power-supply cord or plug is damaged;
 - (b) If liquid has been spilled, or objects have fallen into the product;
 - (c) If the product has been exposed to rain or water;
 - (d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation;
 - (e) If the product has been dropped or damaged in any way;
 - (f) When the product exhibits a distinct change in performance - this indicates a need for service.
- Replacement Parts: When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

What's included?

Your new Victory V40 comes with the following:

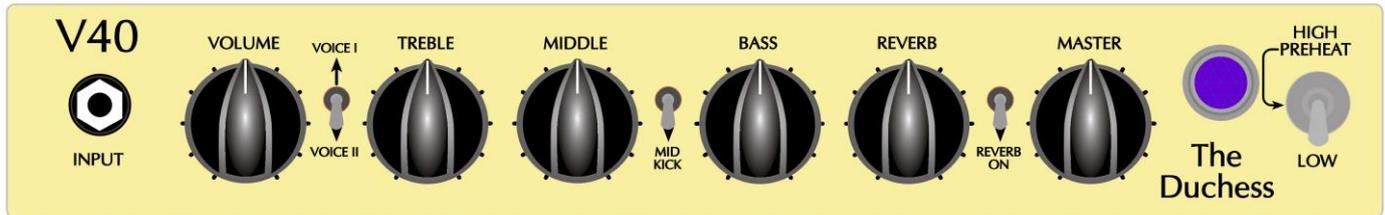
1 x Single way Latching Footswitch for Reverb ON/OFF

A mains lead for your country

A heavy duty Gig Bag/Travel Bag

This User Guide

FRONT PANEL

**Input**

Plug your guitar in here!

Volume

This adjusts the input sensitivity. Use low settings for maximum clean headroom and higher settings when you want to introduce more natural valve overdrive to your tone.

Balancing your input Volume level with your master volume level is crucial in delivering the tone and feel that works best for you.

Voice I/II switch

Switched the Voice I, the V40 has a relatively flat response for an American Style sound. Switching to Voice II adds more upper mid-range frequencies into the mix for a more traditional British Style sound.

Treble

Controls the high frequency content of your sound and is also a powerful tone shaper when it comes to overdrive character.

Middle

Controls the midrange frequencies in your sound. Run the middle control higher to help cut through a band mix, or generally fatten and 'widen' your sound. Run it lower for a lighter, less 'in-your-face' kind of sound.

Mid Kick switch

When switched ON, (downwards), this will add more mid-range frequencies while boosting them at the same time, allowing the Middle Knob to have a wider sweep and range of frequencies to control.

Bass

The Bass controls the low frequency content of your sound. Higher levels of bass can be good at low volumes, but take care when running the amp louder – you may find you need to reduce the bass control. As with all the EQ pots, adjust to taste!

Reverb

The V40 has a built-in Digital Reverb and this control varies the amount of Reverb added to the guitar signal.

Reverb ON/OFF switch

The Digital Reverb can be switched ON/OFF using this toggle.

Master

The Master Volume control is used to set the stage or overall volume of the V40. If this is turned to maximum, then the V40 becomes a non-master volume amplifier where the Input Volume control in conjunction with the Volume control on the guitar allows for a wide range of Volumes & Gains to be achieved. This can be very powerful for tone shaping.

The Master Volume control is positioned after the phase splitter valve and so turning up the Input Volume control allows for overdriving the first part of the power output stage.

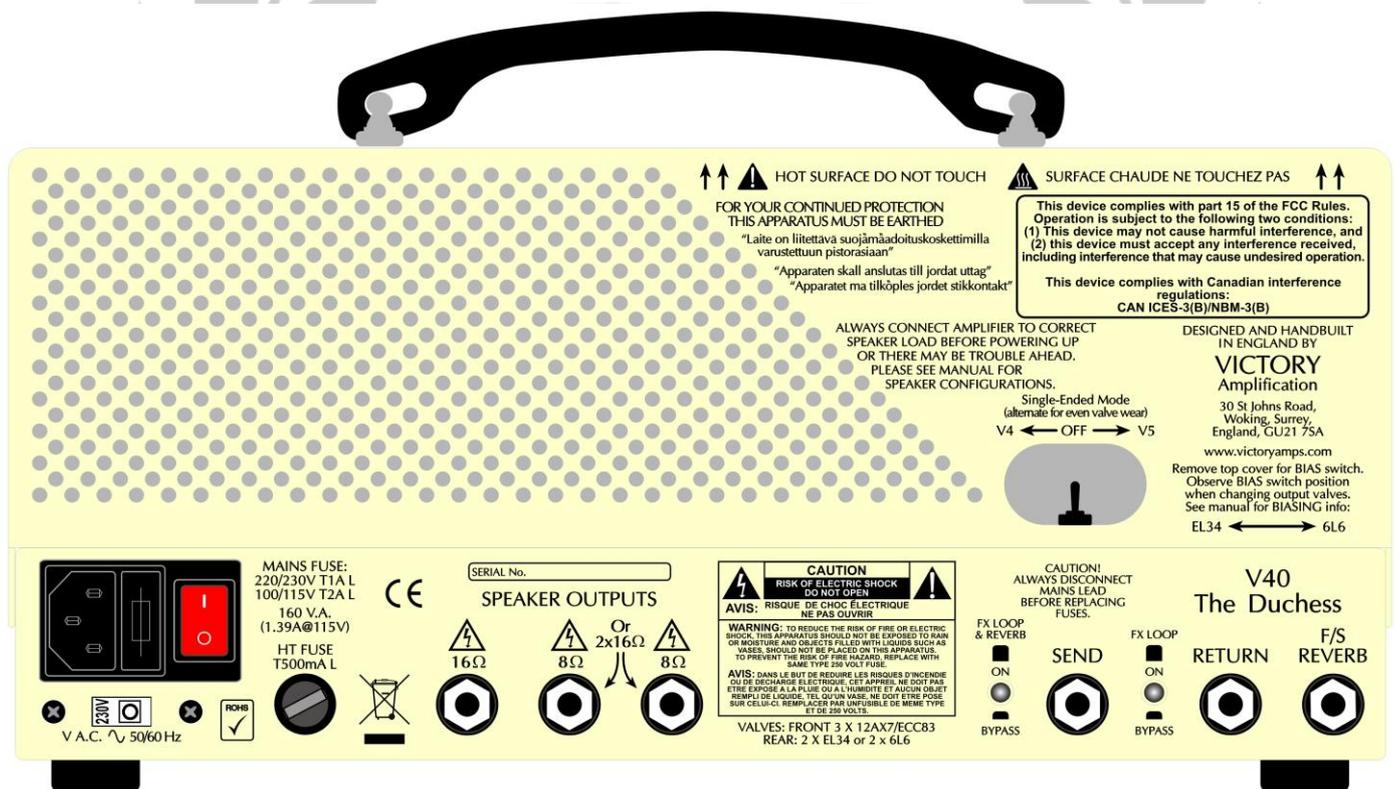
Power Lamp with Purple Jewel

When lit, this indicates that mains power has been applied to the amplifier. It houses a 6.3V 10mm bayonet filament bulb which can be replaced by unscrewing the jewel from the front.

HIGH – PREHEAT – LOW Switch, (PREHEAT was previously labelled as STANDBY)

The V40 should always be switched on, (mains switch on rear of amplifier), with this front panel toggle switch in its centre position. The amplifier is now in 'PREHEAT' mode with just the valve heaters and low voltages on. This allows the valves to heat up before they get 100s of volts up them, (it's less of a shock). After around 60 seconds, the amp can be switch to either HIGH, (around 42watts rms) or LOW, (around 9 Watts rms). PREHEAT has replaced STANDBY due to new EU legislation which limits the current allowed in any Standby mode. When switching the amplifier ON or OFF please ensure the Volumes are turned down and you leave at least 30 seconds before switching from PREHEAT to OFF. This will ensure extended valve life and avoid any power-down noise. This is especially relevant if you're running through a large PA system as any small pop may become amplified to audience death levels, which may limit your music career.

REAR PANEL



Voltage selector

This selects the correct mains voltage for your territory. Please refer to a qualified technician before even thinking about moving this switch. If you do find yourself in foreign climes where the mains voltage is different to home, (and the water tastes funny), it will be necessary to switch this selector. The mains fuse must always be changed at the same time. Failure to do this will result in either the mains fuse blowing as soon as the amp is turned on or the amp running with a fuse that is of too higher value to provide adequate safety protection. Generally, the fuse value will double if the mains voltage is halved, (i.e. if it's a 1A fuse in the UK @ 230V, it will need to be a 2A fuse for the USA @ 115V).

Always use the correct rating and type of fuse. Victory amplifiers exclusively use UL-approved 20x5mm glass 'T' or 'Timed' fuses. If you have difficulty acquiring the correct fuses, please contact Victory using service@victoryamps.co.uk.

Mains inlet with Switch, (IEC Socket)

Please only use the correct mains cord for your territory! The mains switch turns your amplifier 'ON'. Ensure the front panel toggle switch is in the middle, 'Standby' position before turning on the mains.

HT fuse

The HT or 'High Tension' fuse protects the high voltage for the valve supply. If this fuse blows, the first step is to replace it with an identical T500mA 20x5mm fuse. The HT fuse may sometimes blow due to 'flash-over' inside an output valve. This is where during the manufacturing process, not all of the gas is removed from the glass envelope and the 'getter' inside the valve, usually made from barium or magnesium oxide, will burn or evaporate these remaining gasses resulting in the common silvered internal surface of the valve. This process, which is more likely to happen with new equipment, draws high current momentarily and can blow the HT fuse. It will rarely cause any damage so just replacing the fuse is sufficient to get the amp running normally again.

However, if the HT fuse blows again, it may indicate a serious valve failure where internal parts of a valve are shorted and in this case the amplifier needs to be checked by a qualified engineer to assess the problem.

Speaker outputs

PLEASE NOTE: The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock. Terminals labelled as "Speaker Outputs" must be connected to a speaker cabinet of the designated load rating using an un-shielded two conductor cable for speaker use at all times during operation. Never use a guitar cable to connect the amplifier to a speaker as this presents the amplifier with a 'capacitive load'. This can cause instability or oscillation which may seriously damage valves and/or the expensive output transformer.

Always ensure a speaker is connected to the amplifier before powering up or damage to the output transformer may result. Never unplug a speaker when the amplifier is ON as this is even more likely to damage the transformer and the output valves.

The output transformer in the V40 has 2 separate secondary windings; a 16 Ohm and an 8 Ohm. This makes it easy to connect different combinations of speakers. There are three speaker output jacks: 2 x 8 Ohms, (wired in parallel) and 1 x 16 ohms.

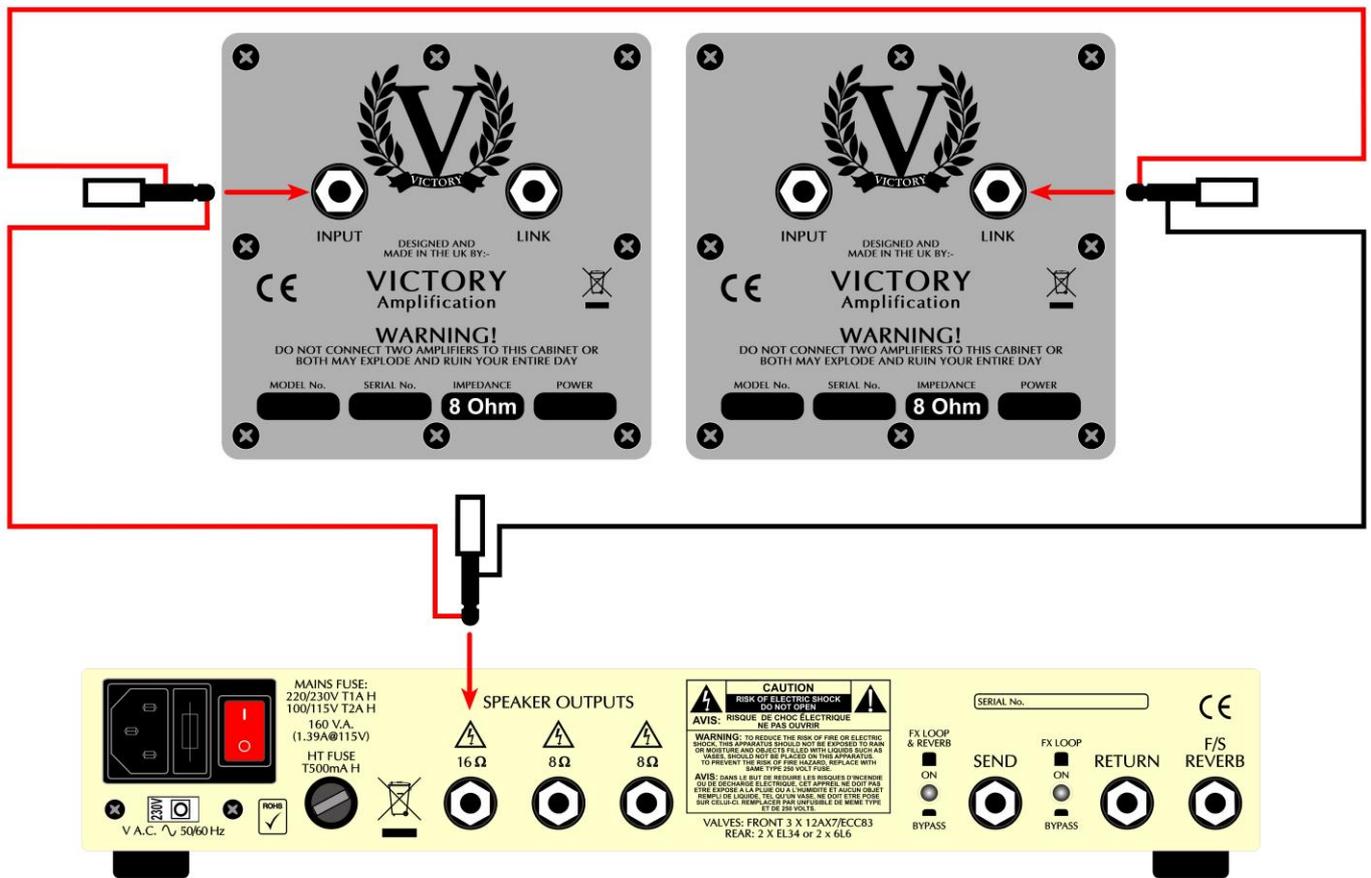
So here are the possible combinations:

1. For a single 8 Ohm cabinet, use either of the 8 Ohm sockets.
2. For a single 16 Ohm cabinet, use the 16 Ohm socket.
3. For a pair of 16 Ohm cabinets, use both of the 8 Ohm sockets.

It is possible to use a pair of 8 Ohm cabinets with the V40 but a special series lead needs to be used.

Here is a diagram of how this is achieved:

Wiring up 2 x 8 Ohm cabs for use with a Victory V30 or V40 Amplifier.
This is a series lead making a combined impedance of 16 Ohms.



So the end of this lead needs to be plugged into the 16 Ohm speaker socket on the V45. Alternatively, there are speaker matching boxes available. A low cost but reliable example is the Palmer Cabinet Merger, available from many retailers:

<https://www.andertons.co.uk/p/PCABM/misc-guitar-accessories/palmer-cab-m-passive-cabinet-merger>



You will need a couple of extra standard Jack to Jack speaker leads to use this box but it is a more elegant solution than a series lead.

FX Loop & Reverb Latching Push Switch

This switch will completely bypass the FX Loop & the internal Digital Reverb when pushed in. This gives the purest possible signal path through the amplifier.

FX Loop Latching Push Switch

This switch will bypass the FX Loop when pushed in. The Reverb can then be independently switched ON/OFF using the front panel toggle switch or the supplied latching footswitch.

Effects Loop

The V40 has an effects loop, which is a simple, low impedance, series loop.

The SEND socket is for connection to the input of effects units. On the V40 it is a lower impedance version of the signal that appears at the INPUT. Use the send to connect to floor pedals or rack effects such as Delay, Chorus and Reverb etc. Effects such as Overdrive, Fuzz, Wah Wah and Tuners often give better results plugged into the Instrument Input on the front panel. The Send socket can also be used on its own to send a signal to another amplifier.

The RETURN socket is for connection to the output of effects units. When not used it is internally connected to the SEND, therefore the EFFECTS LOOP can be ignored if not in use. It can also be used as a small signal 'Slave' input from another amplifier but DO NOT plug an amplifier's speaker output into the Return socket or very bad things will happen.

The RETURN socket is also very useful for fault diagnosis. If your V40 doesn't produce any sound when played, plug the guitar directly into the RETURN socket and play. This bypasses the entire pre-amplifier section and sends the guitar signal through just the output stage. If sound is now heard then the problem is in the pre-amp section and is likely to be a faulty pre-amp valve.

Reverb Footswitch socket

Connect the supplied single way latching footswitch here to switch the internal Digital Reverb ON/OFF Single Ended Mode switch.

This switch, located through a hole in the rear grill, is used to switch off either of the 2 output valves. This results in the amplifier running 'single-ended' which is a very pure Class A mode. If the front panel power switch is on LOW, in single-ended mode the V40 produces around 0.5 Watts rms. This should allow playing at home without getting lynched by the neighbours. The switch throws both ways to alternate between each output valve for even wear if this mode is used extensively.

However, even this very low output power can still be very loud so be aware of who you may be affecting. Victory takes no responsibility for any physical abuse that may result from your playing.

VERY IMPORTANT WARNINGS!!

In certain countries, (specifically, Nordic countries), is it totally forbidden to open up any electronic equipment or to work on them at all unless you are a fully qualified and approved technician. Please check the laws in your country and do not attempt to change valves/tubes or re-bias the amplifier if the law forbids this. In this case, please take you're your amplifier to a qualified and approved electronics technician.

In certain countries it is also totally forbidden to keep or place any liquids on top of the amplifier, (e.g. beer, water bottles, glass, drinks etc). This may cause serious electric shocks and/or dangerous situations.

Also it is totally forbidden to use the amp in the event of rain splatters/water drops getting into or onto the amp.

Even if it is not a law in your country, you should never allow liquids near the amplifier or attempt to use the amplifier if it has been subjected to any moisture as this could result in a fatal electric shock.

Biasing:



Whenever any output valves are changed, the amplifier will need to be re-biased. This must be done by a qualified or competent person as there are lethal voltages inside the V40 and getting killed by a guitar amplifier is a rubbish way to die. Also take care as valves may still be very hot from use. Use a cloth to remove valves if possible. Take care when removing any valve as the pins can easily be bent and the plastic locating key on the output valves can be snapped off. We recommend a slow circular motion known as a 'dweezling' while lifting the valves from their bases as this will free them with the least amount of effort and stress. Ensure that as you remove them that they are never more than a few degrees from vertical to avoid bending or breaking pins etc. Please always try to buy matched pairs of output valves as they will be easier to bias and give longer service. Ensure the toggle switch on the top of the chassis is in the correct position for the selected output valves, (either 6L6s or EL34s). The V40 Duchess ships with EL34 output valves fitted and is available with 6L6s as a special order.

All Victory amplifiers are constructed using Posidrive Screws & Machine Bolts. These are an improvement on the Phillips type of fixing which uses a 4-blade screwdriver. The Posidrive uses an 8-Blade screwdriver which allows for more precision and higher torque. Please try to use Posidrive Screwdrivers when working on a Victory amplifier. These are readily available from all good tool suppliers. We recommend having a No.1 and a No.2 point Posidrive screwdriver.

Unplug the V40 from the mains and remove the bottom chassis plate using a No.1 Posidrive screwdriver. Remove 4 x M4 screws from the side of the top grill using a No. 2 Posidrive and remove it. Carefully

place the V40 on a clear and secure surface upside down so all its soft bits are exposed. Plug the amp back into the mains; ensure a speaker or dummy load is connected to the correct speaker output and switch the amp on from the rear switch. After 30 seconds, switch the front panel switch from Standby to High. Do not be tempted to poke fingers anywhere inside the amp; lethal voltages are present. The BIAS pre-set is found in the power supply section on the PCB, (yellow circle on photo). The Bias voltage measurement is performed between the chassis and the test point TP8 & TP10, (yellow squares on photo). Using a multimeter set on the 200mV range, measure these test points and adjust the BIAS preset so the meter reads approx. 34mV. This translates into 34mA of current per output valve. Check both Test Points a few times and try to balance the Bias voltage so it is as close as possible between the 2 valves. We don't recommend a difference of greater than 6mV between the 2 valves.

Amplifier Dimensions:

SIZE (mm): 342(w) x 185(h) x 185(d) Unboxed. 545(w) x 310(h) x 300(d) Boxed.

Weight: 7.3Kgs Unboxed. 9.5Kgs Boxed

Output Power

Please note that due to the nature of the waveforms involved when the amp is in Single-ended mode, measuring the available output is very subjective.

The following measurements were taken at 240V mains input into an 8 Ohm load using a 1 KHz Sine Wave with the output waveforms set just before clipping:

High Power: 42 Watts

Low Power: 7 Watts

High Power Single-Ended: 1.6 Watts

Low Power Single Ended: 0.5 Watts

Valves: 3 x ECC83, (12AX7), 2 x EL34 as standard (can be switched for 6L6)

Notes on output volume and speaker attenuation:

Victory amplifiers are designed to be played loud with gigging and rehearsal in mind. It can be quite difficult to get suitable volumes and tones from the V45 at home or 'bedroom' levels even in the lower power settings. The nature of valve amps and the POTs used to control the signal is such that they only really start to work when turned up. However, many Victory users have had great success with speaker power-soaks and simulators. The simplest ones are low-cost attenuators such as the Jet City 'Jettenuator' which simply soaks up the output power of the amplifier allowing only some of the signal to reach your speaker(s). This allows you to really crank the amplifier up into output valve distortion to get big-stage overdrive without disturbing anyone.

https://www.thomann.de/gb/jet_city_amplification_jettenuator.htm?gclid=CKjxmLe-ktlCFeqc7QodK6llnA

For home studio recording and speaker attenuation, at the top end of the market, we have the Two Notes Torpedo range of attenuators & simulators. These are really excellent devices and are what my colleague Rabea Massaad uses for home recording:

<https://www.andertons.co.uk/search?query=torpedo>

There are many others out there with Palmer being one of the first companies to offer such devices. These are tried and tested solutions and also recommended by Victory:

<https://www.andertons.co.uk/b/139/palmer>

Warranty

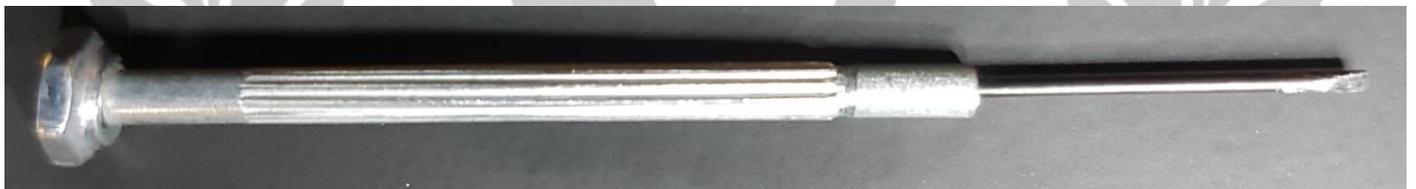
All Victory products come with a 5 year limited warranty. This covers any defects in manufacturing or faulty components. Valves and speakers are warrantied for 90 days from the purchase date but replacement parts will be at our discretion. Please contact your local dealer if you have any issues with your Victory product. Victory are setting up Official Service Centres around the world so please check on the Victory website to see where your nearest centre is located. These will have original Victory spare parts including the recommended valves for your amplifier direct from the Victory factory. They also have all technical details for your product and have been carefully selected to ensure you get the best possible service for warranty and non-warranty work.

Notes on what to do if your amplifier experiences any strange behavior:

Feb 2017: over 3000 amplifiers have now been shipped out of the factory and from 3 years answering service queries, the only real issues that come up are valve-related. These are either premature valve failure, (minimal), valves that have worn out through extended use or have become microphonic or noisy over time.

Many issues relating to valves can be cured simply by re-tensioning the valve bases. Over time, the valve sockets, which are constantly heating up, cooling down, expanding and contracting may become a bit 'loose' and not hold the valve pins as tight as they should. This can lead to noise and more commonly, sudden drops in volume or complete lack of sound.

It is an easy task to re-tension the valve sockets and this can be done with a small flat blade screwdriver such as this:



Carefully remove each valve in turn. The pre-amp valves have a sprung-loaded screening can fitted over each one so turn this through 90 degrees or so until it pops off. Then using the slow circular motion, pull the valve from the socket. The output valves are retained by spring clips which can just be slid off the top of the valves.

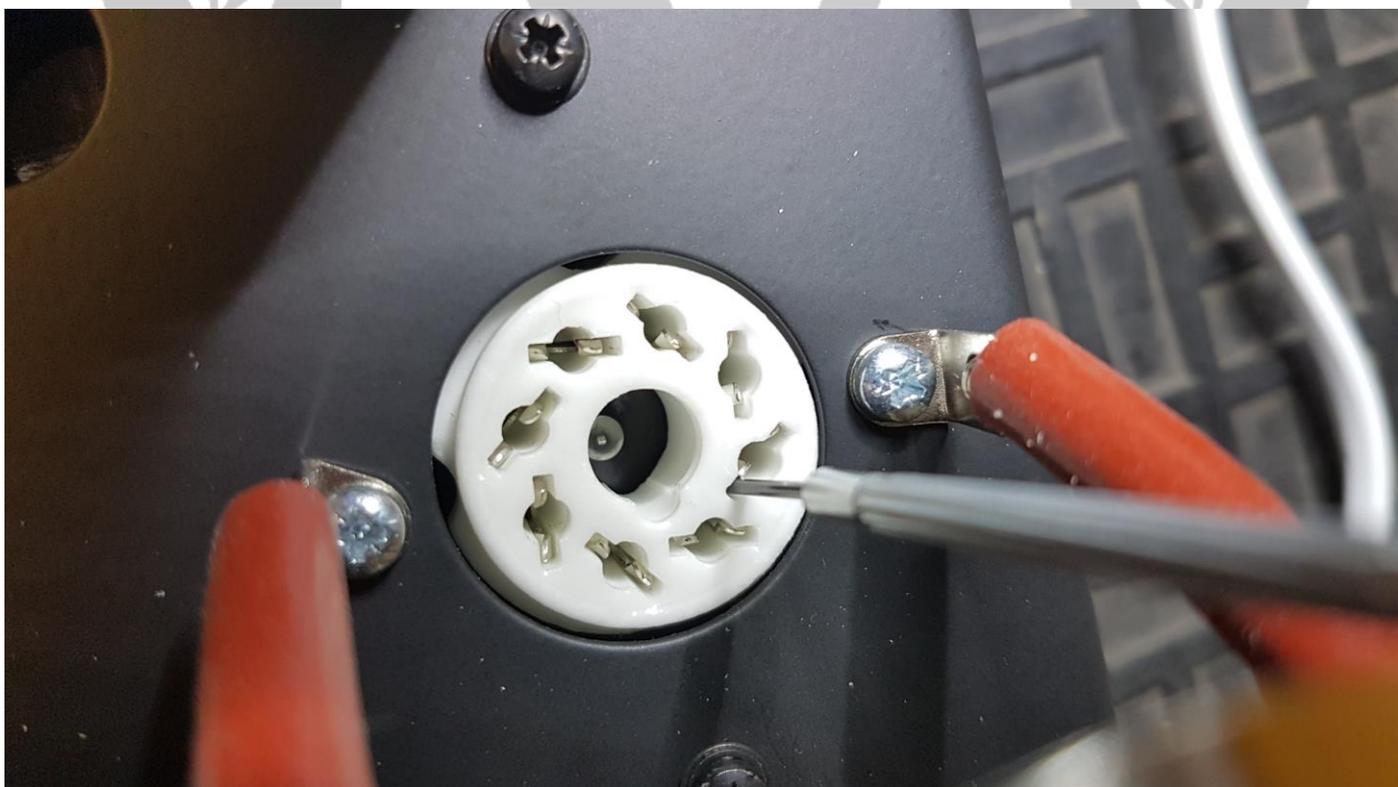
Please ensure that the valves go back into the same sockets as they are optimized at the factory for best position relating to gain, noise, & microphony. This is easily achieved if you just do one at a time; take it out, re-tension then re-insert and go to the next one.

You will see that the valve bases have small 2-part metal clips in each hole and these need to be pushed together to make a tight connection on the valve pins.

Pre-amp valves:



**Poweramp
Valves:**



Please make sure you don't close these pins up fully or it will be difficult to replace the Valves.

Replacement valves and tools for biasing such as a Multimeter and Terminal Screwdrivers are available directly from Victory. Please email your requirements to service@victoryamps.co.uk for a quote.

A note from Team Victory

We've built your Victory Amplifier as a professional, no-compromise musical instrument, with a great deal of pride and an absolute commitment to tone. We encourage you to learn to get to know it by experimenting with all the controls, in order to discover its vast array of tonal combinations.

Thank you for making your tones with us: we wish you many years of achieving inspiring sounds to push your playing ever onwards.

Now we'll shut up; you go play yer guitar.

Contact info:

sales@victoryamps.co.uk

service@victoryamps.co.uk

Web:

www.victoryamps.co.uk

www.youtube.com/user/VictoryAmps

www.facebook.com/VictoryAmpsUK

www.victorystore.co.uk



Handmade in England Issue 5 05.06.2018