



# The Duchess V4 Guitar Amplifier



## User Guide

**Congratulations!**

**...and thank you for buying a Victory V4 Power Series Guitar Amplifier.**

### **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 & warnings, especially those in **RED****
- **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 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 Amplifier comes with the following:**

**A mains lead for your country.**

**This User Guide, (please check the website periodically as these owner's manuals are constantly being updated to give you more information about your Victory product). The issue number can be found on the last page.**

## Controls & Connections

Understand what does what in your V4 Guitar Amplifier:

### INPUT

Plug in your guitar here, or connect in line with your front-end pedals.



### FOOTSWITCH TREMOLO

This socket is for an optional 1-Way latching footswitch to remotely switch the Tremolo effect ON/OFF. These can be purchased from the Victory Store: [www.victorystore.co.uk](http://www.victorystore.co.uk)

### EFFECTS LOOP

The V4 Amplifier 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 V4 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 V4 Amplifier 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.

#### LINE OUT, (Balanced)

The Line Out is a TRS socket allowing for balanced connection to a PA system or desk. The signal is Post-EQ and Effects Loop so all the Tone settings, Tremolo and Reverb effects will be included. It is also Post-FX so any pedals effects will also be included. The level of this signal is nominally 1.7Vrms, (+4dbu). This signal level is plenty to drive a desk.

#### 9Vdc OUT, (max. 500mA)

This 9Vdc output can be used to power effects pedals. Please note the current draw of any units that you power from this outlet and ensure that **the total doesn't exceed 500mA**. The power consumption varies tremendously from effect to effect; many use as little as 30mA so you could power 16 of these from the socket but others draw 300mA or more allowing only one to be connected.

#### Top Panel Controls



## **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!

## **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.

## **TREBLE**

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

## **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.

## **MASTER VOLUME**

The Master Volume control is used to set the stage or overall volume of the amplifier. If this is turned to maximum, then the V4 Amp 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.

## **TREMOLO DEPTH.**

This controls the Amplitude Modulation of the Tremolo effect, turning the volume of the output stage up and down continuously to varying degrees depending on where the control is set. Basically, it controls the amount of Tremolo effect.

## **TREMOLO SPEED**

This controls the speed of the Tremolo effect. Please experiment in conjunction with the Depth control to find the most pleasing settings for your sound.

## **REVERB**

The V4 Amplifier has a built-in Digital Reverb and this control varies the amount of Reverb added to the guitar signal.

## **FOOTSWITCH**

The big switch labelled ‘Tremolo’ turns the Tremolo effect ON/OFF. When ON, the led will light.

The Tremolo can also be remotely switched using the optional extra single way latching footswitch, (see page 3 for details).

## COOLING FAN

The V4 Guitar Amp is fitted with a 60mm 12V fan. We've reduced the voltage to around 3V resulting in the best speed vs noise vs cooling. The V4 Amplifier does not rely on this fan for correct operation, it's fitted to reduce the external heat of the chassis, which without the fan is still within the CE allowed temperature specifications. In the unlikely event of fan failure, the amplifier can still be used until such time that the fan can be replaced.

## 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 your amplifier or piece of electronic equipment 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 preamp 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.

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 to avoid damaging any fixings. These are readily available from all good tool suppliers. We recommend having a No.1 and a No.2 Point Posidrive screwdriver.

We have deliberately fitted the V4 Amplifier with countersunk screws for fixing the baseplate. This is to allow for the feet being removed and the amp then being Velcro'd flush to your pedal board should you so wish.

## Amplifier Dimensions:

SIZE (mm): 224(w) x 105(h) x 170(d) including feet & handle. Unboxed.

285(w) x 160(h) x 215(d). Boxed.

Weight: 1.6Kgs, (3.52lbs) Unboxed. 2.0Kgs, (4.4lbs) Boxed

## Output Level

Unlike a valve output stage, the impedance of the speaker used does not need to match the amp which will drive any load of 4 Ohms and above. However, the higher the value of the load, the less output power will be available. The V4 Amplifier produces its maximum power into 4 Ohms and that is 180Watts RMS. The following measurements were taken at 240V mains input using a 1 KHz Sine Wave with the output waveforms set just before clipping:

50Watts RMS into 16 Ohms

100Watts RMS into 8 Ohms

180Watts RMS into 4 Ohms

Valves: V1: EC900, (6HA5) V2, V3, V4: CV4014, (EF91).

Output Stage: ICEpower 200AS1. For the full specifications, please see:

<https://icepower.dk/products/amplifier-power-modules/as-series/>

The output stage is fully protected against short circuit and open circuit. This means you do not need to have a speaker or load connected to use the V4 Amplifiers, e.g. if you are connecting straight into a desk using the LINE OUT, or into another amp using the Effects Return or LINE OUT.

## Warranty & Repair

All Victory products come with a 5-year limited warranty. This covers any defects in manufacturing or faulty components. Normally, we warranty valves, (tubes) for 90 days in line with all other valve amplifier brands for guitar and HiFi.

However, the valves used in your new V4 Series preamp pedal were originally manufactured to NATO specifications. Due to the extremely high-quality construction and proven reliability, Victory have taken the unprecedented step of extending the warranty of these from 90 days to 2 years. They were designed to have a minimum life-span of 6000 hours which, if used for 2 hours every day, equates to over 8 years use.

The warranty is also transferable to a new owner in the unusual event that you wish to sell your Victory equipment.



We don't recommend changing the valves, (tubes) just for the sake of it as the Mullard CV4014s are arguably one of the best quality valves ever made. The valves comprise 1 x EC900 triode and 3 x CV4014 pentode, both have 7 pins rather than the normal 9. Please replace only with valves of the same type. Replacements are available from [www.victorystore.co.uk](http://www.victorystore.co.uk) among others. They are NOT swappable with normal dual-triode types (12AX7/ECC83 etc). Valve changes should ideally be done by a qualified technician. To change the valves, first unplug the mains lead and leave the unit for a few minutes to allow all internal capacitors to discharge. Then remove the 4 x M4 Countersunk Posi-Drive bolts that hold the base plate on using a No.2 Point Posi-Drive screwdriver. The valves are held very tightly in the ceramic bases so a slow circular motion is required to ease them out. When replacing, be sure to line the pins up correctly, (there is a gap between pins 1 & 7). No Biasing or setup is required when changing valves and the screenprinting on the base plate shows which type goes where.

#### Valve Story:

For those that are interested, the 3 CV4014 valves in your pedal were manufactured in 1981 in the Mullard factory in Mitcham, Surrey, England for the British Ministry of Defence. They were then shipped to the Royal Navy Supply Depot at Spring Quarry in Wiltshire where they have been stored in a climate-controlled atmosphere deep underground for the past four decades. This depot is part of the vast underground cold-war nuclear bunker facility which thankfully was never needed and has just been an extremely expensive place to keep these valves very safe, just waiting for us to design products around them 😊

The EC900 valve in the first stage is a low-noise triode manufactured by E.I. (Elektronska Industrija) in the former Yugoslavia under license from Philips & Mullard using all of the Philips equipment they purchased when Philips shut up shop in Europe. These have also proved to be incredibly reliable so we have included them in the 2-year valve warranty.

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.

Contact info: [sales@victoryamps.co.uk](mailto:sales@victoryamps.co.uk) [service@victoryamps.co.uk](mailto:service@victoryamps.co.uk)  
Web: [www.victoryamps.co.uk](http://www.victoryamps.co.uk) [www.youtube.com/user/VictoryAmps](https://www.youtube.com/user/VictoryAmps)  
[www.facebook.com/VictoryAmpsUK](https://www.facebook.com/VictoryAmpsUK) [www.victorystore.co.uk](http://www.victorystore.co.uk)

**HAND MADE IN ENGLAND**

Issue 1 26.02.2020