



Richie Kotzen

**VICTORY RK100 Limited Edition
All Valve 100 Watt Guitar Amplifier**



User Guide

Thank you, and congratulations on acquiring a Victory Amplification Limited Edition RK100. This amp was proudly designed in conjunction with Richie Kotzen and built by our committed team of engineers and craftsmen in the UK. The facilities and tonal characteristics are exactly as Richie has specified and he has been involved at every stage in the design process.

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 & 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 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?

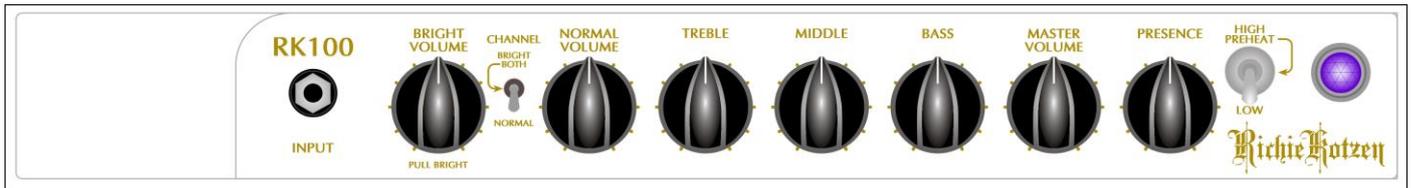
Your new Victory RK100 comes with the following:

A mains lead for your country

A dust cover

This User Guide

FRONT PANEL



INPUT

Plug your guitar in here!

BRIGHT VOLUME with PULL-BRIGHT Function

This controls the amount of bright channel gain. The amount of treble, (or Brightness) can also be boosted by pulling the control out.

CHANNEL SWITCH

This toggles between the Bright Channel, (up), the Normal Channel, (down) and having both channels on at the same time, (middle).

Switching to both channels, you can use both volume, (gain) controls and open up a vast palette of sounds. We encourage you to experiment at all settings to find those that suit your playing style and genres of music.

NORMAL VOLUME

This controls the amount of normal channel gain, or drive.

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.

BASS

This 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!

Master Volume

The Master Volume control is used to set the stage or overall volume of the RK100. If this is turned to maximum, then the RK100 becomes a non-master volume amplifier where the Input Gain controls 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.

PRESENCE

This controls a different part of the high frequency response of your amplifier than the treble control. You might like to see it as a 'master high end' control that helps you tame, or perhaps enliven your tone depending on your environment, without having to change your EQ. As the Master Volume is post phase-splitter on the RK100, the Presence control is positioned between the outputs of the Phase Splitter rather than in the more conventional position in the negative feedback line. This means that it works more effectively over the range of the Master Volume control. It also incorporates a passive tone circuit to tailor the high frequency content of the sound. It has a distinct effect on how your guitar feels, so play, listen and set to taste.

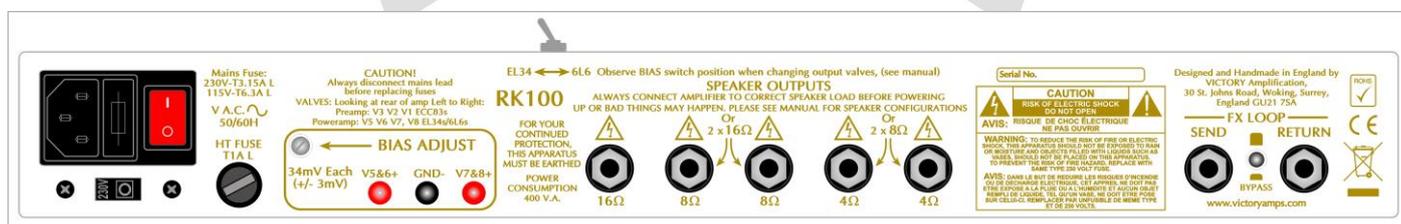
HIGH – PREHEAT– LOW Switch,

Ensure this switch is in the centre, (PREHEAT) position before applying mains power, (switch on the rear). Then apply mains power using the rear rocker switch. The amplifier is now in 'PREHEAT' or 'STANDBY' 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 40-60 seconds, the amp can be switched to either HIGH or LOW power. Due to recent EU regulations on the use of Standby functions and their associated low-power requirements, we are replacing the name of this function with PREHEAT to avoid any legal confusion. There will be no difference in operation of the amplifier. When switching the amplifier ON or OFF please ensure the Master Volume is turned down and you leave at least 20 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 damaging levels, which may limit your music career.

Power Lamp with 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.

REAR PANEL



Voltage selector

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 3.15A fuse in the UK @ 230V, it will need to be a 6.3A 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, (IEC Socket), Mains Fuse and Mains Power Switch

Please only use the correct mains cord for your territory! Ensure the RK100 is switched to the PREHEAT position on the front toggle switch before plugging the mains lead in this socket.

The mains fuse is located in a small tray between the inlet and switch which can be removed using a small flat blade screwdriver. Please note where this fuse is located in the tray before replacing it with the correct type and value for your territory.

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 T1A 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 or the Mains 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 or Mains fuse blows multiple times, 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. It can also fry the delicate voice coils in the speakers.

BIAS ADJUST section:

Biasing needs to be done each time the output valves are replaced and should be checked periodically to make sure they are working at their optimum for sound quality & valve life.

Ensure the toggle switch on the top of the chassis is in the correct position for the selected output valves, (either EL34s or 6L6s). The RK100 ships with EL34 output valves fitted but can be run with 6L6s which are available to purchase from the Victory Store. To set the Bias on the RK100 you need a multimeter set to the 200mV DC range. Biasing is carried out externally so no need to remove the amplifier from the wooden sleeve. You will just need to remove the rear grill to gain access to the valves for replacing them.

Carefully remove the 4 wood screws that hold the rear grill in place and put this safely to one side. To replace the output valves, carefully push down on each side of the retaining 'butterfly clips' to release the valves. We recommend the use of a soft cloth or protective gloves to remove valves if possible. The valves can then be pulled out using a slow rotational movement, (known as dweezling) to ease them from their sockets. This will free them with the least amount of effort and stress. Ensure that the key on the replacement valves lines up with the keyway on the socket before carefully pushing them home. 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. Make sure that they are never more than a few degrees from vertical to avoid bending or breaking pins etc.

Ideally try to buy a matched quartet, (quad) of output valves or Biasing may be difficult if not impossible.

To Bias the new valves, make sure the amplifier is connected to a speaker cabinet, (or dummy load resistor). Turn all controls to zero and remove the guitar input as any signals may interfere with the Bias settings. Switch to PREHEAT on the front and ON using the mains switch on the rear and then after 60 seconds, switch to HIGH.

Now put the black meter probe, (-ve) into the Black centre GND Bias socket and the red meter probe, (+ve) into the V5+/V6+ Bias socket. Using a small flat blade screwdriver in the Bias adjustment POT, turn this so you get 34mV on the multimeter. This equates to 34mA of current per valve as we are measuring the voltage across a 1 Ohm resistor. Ohms law gives us $V=I \times R$: Voltage = Current x Resistance.

Now put the red meter probe into the V7+/V8+ Bias socket and measure the voltage. Try to balance the 2 measurements around 34mV with a maximum of 6mV between them. For example, an extreme but perfectly acceptable case would be 31mV for V5+/V6+ & 37mV for V7+/V8+

The output transformer in the RK100 has 3 separate secondary windings; a 16 Ohm, an 8 Ohm and a 4 Ohm. This makes it easy to connect many different combinations of

speakers. There are five speaker output jacks: 1 x 16 ohms, 2 x 8 ohms, (wired in parallel), 2 x 4 ohms, (wired in parallel).

So here are all the possible combinations:

1. For a single 4 Ohm cabinet, use either of the 4 Ohm sockets.
2. For a single 8 Ohm cabinet, use either of the 8 Ohm sockets.
3. For a single 16 Ohm cabinet, use the 16 Ohm socket.
4. For a pair of 8 Ohm cabinets, use both of the 4 Ohm sockets
5. For a pair of 16 Ohm cabinets, use both of the 8 Ohm sockets.

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.

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.

Victory offer a range of cabinets to pair with your RK100 but specifically, we have the V412-SW which is a standard 4x12 in the same white & black livery as the amplifier. We don't advise the use of a single 1x12 cabinet from the current range as none of them are rated at 100Watts and the RK100 at full tilt is likely to turn the cone inside out. A pair of 1x12s will be fine however. All of the Victory 2x12 cabinets will also be suitable except the V212-VH as this is only rated at 60Watts.

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 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.

EFFECTS, (FX) LOOP

The RK100 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 RK100 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 RK100 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.

BYPASS SWITCH

This switch completely bypasses the effects loop. Make sure it is not engaged when using effects or they will not be in-circuit.

Amplifier Dimensions:

The height includes the feet but not the top strap handle:

SIZE (mm): 480(w) x 235(h) x 235(d) Unboxed. 610(w) x 340(h) x 345(d) Boxed.

Weight: 12.5Kgs/27.5lbs Unboxed. 14.75Kgs/32.45lbs Boxed

Output Power

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: 108 Watts

Low Power: 35 Watts

Valves: V1: ECC83, (12AX7), V2: ECC83, (12AX7), V3: ECC83, (12AX7), V5, V6, V7 & V8: EL34s or 6L6s.

The RK100 is fitted as standard from the factory with EL34 valves as these are Richie's preferred valves but these can be swapped for 6L6s, (see previous notes on BIASING).

Notes on output volume and speaker attenuation:

Victory amplifiers are designed to be played loud with gigging and rehearsal in mind. It can be difficult to get suitable volumes and tones from the RK100 at home or 'bedroom' levels even in the lower power setting. The nature of valve amps and the POTs used to control the signal are such that they only really start to work properly 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.

Victory takes no responsibility for any physical or verbal abuse that may result from your playing.

https://www.thomann.de/gb/jet_city_amplification_jettenuator.htm?gls=1&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 our 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. Footswitches are covered for 1 year from date of purchase and aftermarket UK made, colour-coded, heavy-duty ones are available from the Victory online store which come with a lifetime warranty: www.victorystore.co.uk. 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:

August 2019: over 7000 amplifiers have now been shipped out of the factory and from 6 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:



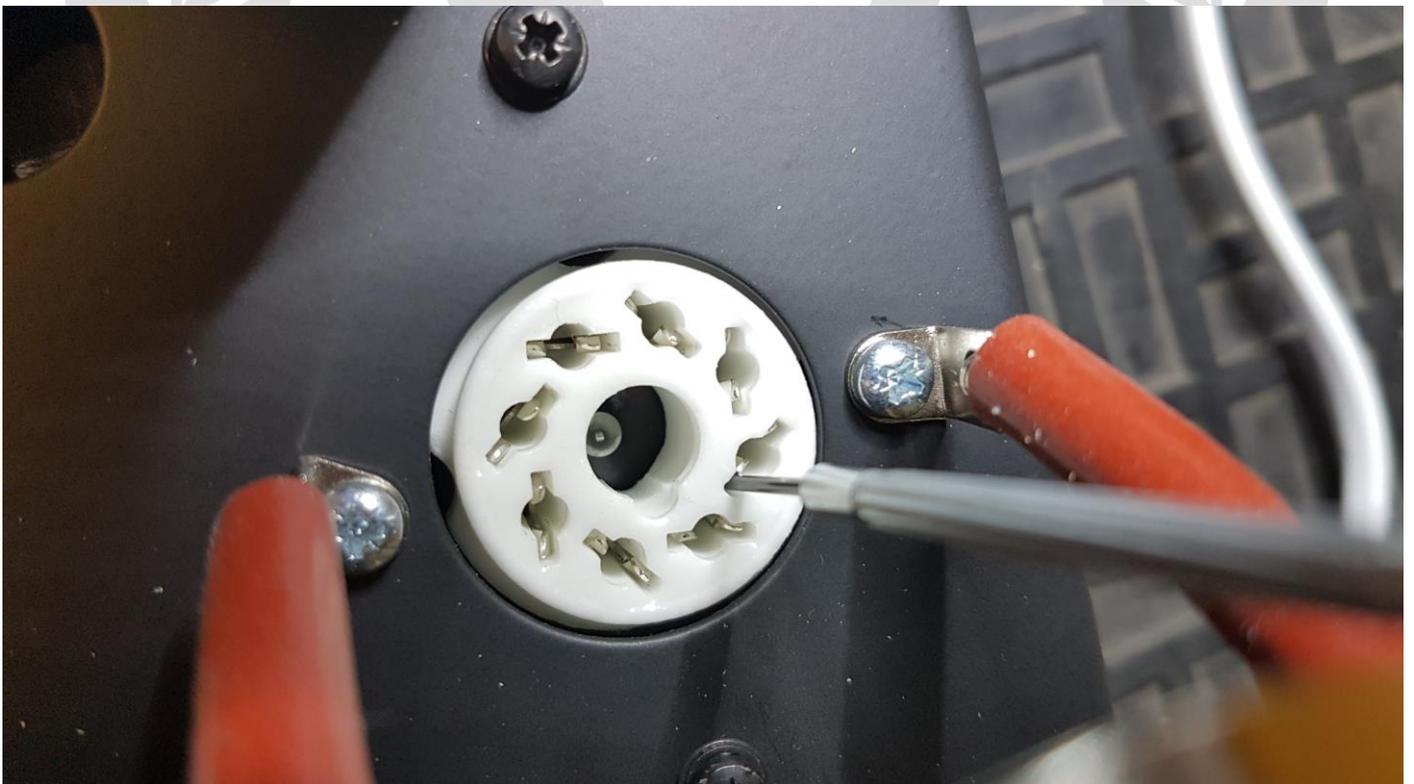
Important! Please ensure the amplifier is not plugged into the mains and has been off for at least 30 minutes before removing any valves so all of the high voltages have dissipated. Carefully remove each valve in turn. The pre-amp valves have a sprung-loaded screening can fitted over each one so turn 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 or butterfly clips that just need to be pushed down on either side to release 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 valve kits including tools for biasing such as a Multimeter and Terminal Screwdrivers are available directly from the Victory shop. Please visit www.victorystore.co.uk for spares, accessories and clothing.

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 for sales enquiries:

sales@victoryamps.co.uk

For any service or technical issues:

service@victoryamps.co.uk

Web:

www.victoryamps.co.uk

www.youtube.com/user/VictoryAmps

www.facebook.com/VictoryAmpsUK

www.victorystore.co.uk

