

# RD COMPACT

HOT ROD

## OWNER'S MANUAL



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PLEASE READ ALL INSTRUCTIONS, PAY ATTENTION TO SAFETY WARNINGS.

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### **IMPORTANT:**

**This product is designed to be powered from a 9VDC, >100mA power supply with 2.1mm centre-negative barrel connector.**



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## Introducing the RD COMPACT HOT ROD

The RD Compact Hot Rod is a super-charged version of our celebrated RevivalDRIVE Compact pedal, paying homage to the heavily modified amps that came to define the sound of Hard Rock and Heavy Metal. Using all-analogue components and replacing the valves with discrete transistor-based circuitry, we have reproduced the sound, response and circuit behaviour of these “hot rods”, delivering aggressive high gain and massive sustain.

Streamlined, intuitive controls give you full command of both sound and feel, while the powerful Post-Drive EQ lets you adjust the RD Compact Hot Rod to suit your preferred amp and settings - not the other way around.

With the ability to directly shape key amp properties like preamp voicing, break-up characteristics and low-frequency distortion, plus a built-in Blend control to mix in your dry signal, the RD Compact Hot Rod allows you to quickly dial in a range of legendary “hot-rodded” amp tones or mix and match different flavours to create your own unique sound.

### Key features

- Class-A preamp stage with realistic, “hot-rodded” amp gain-staging
- Phase inverter and push-pull output stages
- Variable negative feedback in the output stage
- Specially designed power supply, emulating rectifier and mains transformer sag
- Reactive load to simulate interaction between amp and speaker
- Wide gain range, from clean to full-on saturation
- Full control of tone, dynamic response and distortion characteristics
- Blend knob to mix in your dry signal
- Powerful tone-shaping Post-Drive EQ
- High-current, low-noise electronics
- Ultra-high input impedance
- Silent switching
- High-quality buffered bypass
- Advanced power supply filtering and protection
- Premium components throughout
- Designed and built in England

## ABOUT THE RD COMPACT HOT ROD

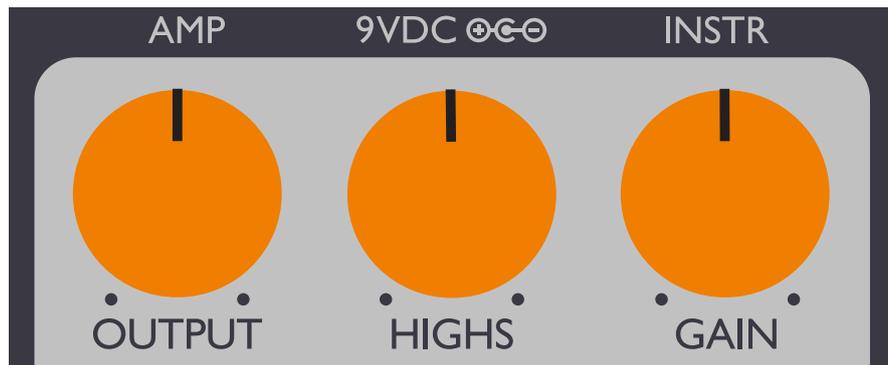
Like many guitarists, our favourite tones of all time come from plugging straight into a vintage, non-master-volume valve amp, turned up loud. When we designed the original RevivalDRIVE Compact, we recreated every stage of a valve amp's signal path using all-analogue components, allowing us to capture the sound and circuit behaviour of a wide spectrum of classic amps.

Just like the legendary amp techs of the '70s and '80s, the RD Compact Hot Rod takes this platform and pushes it to the extreme – more gain, more sustain and more aggression. We didn't compromise when we "hot-rodded" our pedal's circuitry, so it has all the tone, dynamics and feel of those searing, chugging, fire-breathing amps from Hard Rock's golden age.

While most overdrives tend to work well with one style of amp and less well with others, we want our pedals to sound great into lots of different amps, so we designed an ingenious Post-Drive EQ filter that, together with a three-way mode switch, makes the process of adjusting the pedal to suit your amp much more intuitive.

The RD Compact Hot Rod features our push-pull output stage as well as a specially designed rectifier circuit, while the Highs control gives an endlessly variable set of preamp characteristics from British to American, subdued to unhinged. Also included is a Blend control, which simultaneously backs off the gain as you mix in your clean tone, ensuring pleasing, musical results throughout the control's travel.

## Connecting the RD COMPACT HOT ROD



**INSTR:** Connect to your guitar, bass or other instrument.

**AMP:** Connect to your amp, power amp, mixer or recording interface. If you're playing through something other than a guitar speaker (e.g. PA speakers, studio monitors, headphones or direct recording), we strongly recommend using a speaker simulator after the RD Compact Hot Rod.

**9VDC:** Connect a 9VDC 2.1mm centre-negative mains power adaptor (minimum 100mA).

### Main controls

**OUTPUT:** The output control sets the pedal's overall output level. As it isn't part of the RD Compact Hot Rod's emulated amp circuitry, the **OUTPUT** control won't alter the pedal's overdrive character. It simply lets you make it louder or quieter.

**GAIN:** The **GAIN** control functions exactly like the volume knob on a non-master-volume valve amp. Turn it clockwise for more gain, sustain, drive and distortion. Turn counterclockwise to clean things up.

**BLEND:** This control lets you adjust the mix between the dry input signal (DRY) and the overdriven signal created by the RD Compact Hot Rod. As mixing clean and very heavily overdriven signals tends to produce undesirable results, we've designed the **BLEND** knob to gently back off the gain as you mix in more dry signal.

Set the control fully clockwise (100% O.D.) then turn it counterclockwise to progressively mix your original clean signal back in, delivering a rounder, fuller and more natural tone.

**HIGHS:** The **HIGHS** knob progressively increases mids and highs as you turn it clockwise, delivering a brighter, more incisive tone while keeping the low end tight and controlled so that high-gain settings don't turn to mush.

The **HIGHS** knob provides a continuous range of useful preamp voicings, ranging from a Marshall®-style amp with its tone controls centred (**HIGHS** set fully counterclockwise), to a late '70s Master Volume Marshall® (**HIGHS** at 12 o'clock) to a cranked modded Fender® amp (fully clockwise).

## Main controls (continued)



**LOWS:** The **LOWS** control allows you to adjust the amount of bass pushing the drive circuitry. Increasing the amount of low end (turning clockwise) results in a thick and raspy distorted sound. Conversely, pulling the lows out of the drive path (turning counter-clockwise) will reduce the amount of low-frequency distortion, resulting in a tighter, more defined overdrive.

Fully clockwise, the **LOWS** control imitates the response of a Marshall® JTM45 with the bass turned up (but with more gain than was available from this amp).

Fully counterclockwise, it replicates the tight lows of a modded Marshall® Super Lead or a higher gain Vox®-type circuit, such as a Trainwreck® Liverpool. In between these two extremes, the **LOWS** knob produces low-end characteristics similar to a Fender®-style amp.

**MORE/PRES:** This control combines two parameters, both related to the effects of negative feedback in the output stage.

Turned clockwise from the centre position (**PRES**), this control releases the higher frequencies from the effects of negative feedback, progressively boosting highs just like the classic “Presence” knob on vintage Marshall® and Fender® amps.

Turned counterclockwise from the centre position (**MORE**), this control progressively reduces negative feedback in the pedal’s push-pull output stage, increasing gain at all frequencies and also varying playing feel by modifying the break-up characteristics.

With the control centred at 12 o’clock, there is a definite threshold to this transition, with an abrupt switch from clean to overdriven once you pick hard enough. Turned fully counterclockwise, there’s a smooth, gradual transition from clean to fully overdriven with an earlier onset of distortion.

At 12 o’clock, the response is akin to a Marshall® with the “Presence” knob at zero. Fully counterclockwise, the pedal behaves more like a Vox®, with no negative feedback whatsoever.

## POST-DRIVE EQ controls



The **POST-DRIVE EQ** ensures compatibility with a wide range of amplifiers. Instead of altering your amp or its tone controls to suit the RD Compact Hot Rod, set your amp for the desired clean sound then use the EQ controls to adjust the pedal's output accordingly (see tables on opposite page).

**POST-DRIVE EQ switch:** This switch offers a choice of three different output filters.

- **P/AMP:** Use this setting when plugging into a flat-response power amp, FX return, mixer or recording interface. Selecting the **P/AMP** setting disengages the **ADJ** variable filter control (see below).
- **EQ1:** Designed to suit the response of a Blackface Fender®-style amp, **EQ1** applies a low-pass filter to roll off excessive highs. Use this setting when plugging into a bright-voiced guitar amp.
- **EQ2:** Voiced for connecting to a Marshall®-style amp, **EQ2** applies a high shelf cut to gently rein in high frequencies. Use this setting when plugging into a fuller-sounding, mid-rich amp.

**ADJ:** When **EQ1** or **EQ2** is selected, the **ADJ** knob lets you fine-tune the pedal's output to suit the individual response of your amp and the way its controls are set. As you turn the **ADJ** knob counterclockwise, this proprietary filter design gradually rolls off bass and adjusts the high shelf response. The end result is a very powerful and intuitive control.

If your amp sounds too bright or thin with the RD Compact Hot Rod engaged, turn the **ADJ** control clockwise. If it sounds too dark and woolly, turn the **ADJ** control counterclockwise.

## POST-DRIVE EQ controls (continued)

Use the tables below to help you set up the RD COMPACT HOT ROD for the first time with a new guitar amplifier or flat-response device. Working through Steps 1 and 2 allows you to “set-and-forget” the **POST-DRIVE EQ** controls and move on to having fun dialling in your ideal tone with the main controls.

Step 1: Set **POST-DRIVE EQ** switch for the connected amp or device

AMPLIFIER OR CONNECTED DEVICE	POST-DRIVE EQ SWITCH POSITION
Power amp/FX return & guitar speaker Mixing desk & cabinet simulation Recording interface & cabinet simulation	<b>P/AMP</b>
Bright, mid-scooped guitar amplifier	<b>EQ1</b>
Dark or Mid-rich guitar amplifier	<b>EQ2</b>

Step 2: Fine-tune the **POST-DRIVE EQ** with the **ADJ** control\*

HOW IS THE RD COMPACT HOT ROD TONE?	TURN THE ADJ CONTROL...
Too bright or thin	Clockwise
Too dark or woolly	Counterclockwise
Just right!	Leave in this position and enjoy using the pedal!

\*Please note: the **ADJ** control is not active when the **POST-DRIVE EQ** switch is in the **P/AMP** position.

## Example settings



### THRASH PLEXI

The early years of Thrash Metal featured some huge, Hot-Rodded tones from both sides of the Atlantic. Cranking the **GAIN**, boosting the **HIGHS** and **PRES** whilst cutting **LOWS** unleashes a super-tight, super-bright Metal Plexi tone. Unruly and aggressive yet controlled and articulate.



### LIVERPOOL HOT ROD

Like an AC30 on steroids! We've voiced this setting after the well-respected Trainwreck® Liverpool amps which pushed the British EL84 design to the limit. These settings provide a glassy lead tone with ultra-sensitive dynamics. Dialling the **BLEND** back to 2 o'clock mixes chime and grit with the natural tone of your amp.



### BROWN SOUND

A Modded Plexi with everything on 10! Dialling back the **MORE/PRES** control mimics the reduced negative feedback in this revered tone. With a gentle transition into distortion and a softer dynamic response, this classic tone could be mistaken for a vintage Marshall® on a variac.



### CALIFORNIA HOT ROD

Inspired by the lead tones of Santana's modded Fender® Princeton®, these settings deliver a controlled, mid focused overdrive sound. In the late 60s, Randall Smith was hot rodding Fender® Princeton® combos for more gain and sustain. This venture later turned into MESA/Boogie®.

## Appendix A: Physical specification

Measurement	Unboxed	Boxed
Weight	620g (21.8oz)	700g (24.6oz)
Length	143mm (5.62")	170mm (6.6")
Depth	66mm (2.6")	100mm (3.9")
Height	65mm (2.56")	75mm (2.9")

## Appendix B: Performance specification

Measurement	Value
Input impedance	1M $\Omega$
Output impedance	1k $\Omega$
Current draw	100mA
Power supply requirements	9VDC 2.1mm centre negative connector

## Appendix C: Connector pin outs

Instrument & Amplifier 1/4" TS sockets:

Pin	Description
Tip	Signal
Sleeve	Ground

## Appendix D: Safety notices

### General safety

Keep these instructions and heed all warnings. Do not use this apparatus near water. Clean only with a dry cloth. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat. Refer all servicing to qualified service personnel. No user serviceable parts inside.

When using an external power supply, use only attachments/accessories specified by Origin Effects. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Do not defeat the safety 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 are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. Unplug this apparatus during lightning storms or when unused for long periods of time.

**WARNING:** Any changes or modifications not expressly approved by Origin Effects Limited could void the user's authority to operate the equipment.

## Appendix D: Safety notices (continued)



The crossed out wheeled bin symbol indicates this product is classified as Waste Electrical and Electronic Equipment (WEEE) in the European Union and should not be discarded with household waste. Other territories may vary. Contact your local authority or Origin Effects for more information.



**WARNING:** This product can expose you to chemicals including nickel, which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



Evaluation of apparatus based on altitude not exceeding 2000m. There may be some potential safety hazard if the apparatus is operated at altitude exceeding 2000m.



Evaluation of apparatus based on temperate climate conditions only. There may be some potential safety hazard if the apparatus is operated in tropical climate conditions.

## Appendix E: warranty

This product is covered by a 2-year manufacturer's warranty from the date of purchase. This applies only to original purchasers who have bought their product from an authorised Origin Effects dealer or directly from Origin Effects.

All returns or servicing should be arranged through the original dealer. Proof of original ownership may be required in the form of a purchase receipt.

For full warranty details visit [www.origineffects.com/warranty](http://www.origineffects.com/warranty).