

RD COMPACT

HOT ROD

OWNER'S MANUAL



www.origineffects.com

ORIGIN EFFECTS is a trademark of Origin Effects Limited and is a registered trademark in the United States, United Kingdom, China and the EU.

The ORIGIN EFFECTS Totem Device is a trade mark of Origin Effects Limited and is a registered trademark in the United States, China and United Kingdom.

MARSHALL® is a registered trademark of Marshall Amplification PLC.
Origin Effects has no affiliation with Marshall Amplification PLC.

FENDER® is a registered trademark of Fender Musical Instruments Corporation.
PRINCETON® is a registered trademark of Fender Musical Instruments Corporation.
Origin Effects has no affiliation with Fender Musical Instruments Corporation.

VOX® is a registered trademark of Vox Amplification Limited.
Origin Effects has no affiliation with Vox Amplification Limited.

MESA/BOOGIE® is a registered trademark of Mesa/Boogie Limited.
Origin Effects has no affiliation with Mesa/Boogie Limited.

TRAINWRECK® is a registered trademark of Scott Alan Fischer.
Origin Effects has no affiliation with Scott Alan Fischer.

All other product names and trademarks are the property of their respective owners and are hereby acknowledged.

No part of this publication may be reproduced in any form or by any means, whether mechanical or electronic, without the written permission of Origin Effects Limited.

Origin Effects Limited reserves the right to change the features and specifications described herein without notice or obligation. Origin Effects Limited cannot be held responsible for any loss or damage arising directly or indirectly from any error or omission in this manual.

© Origin Effects Limited 2024

Origin Effects LTD
Unit 4, Top Angel, Buckingham
Buckinghamshire, MK18 1TH
United Kingdom



Contents

Safety Notices	4
Safety Instructions	5
Introducing the RD Compact Hot Rod	6
About the RD Compact Hot Rod	7
Connecting the RD Compact Hot Rod	8
Controls	8
Sample Settings	12
Appendix A: Physical Specification	13
Appendix B: Performance Specification	13
Appendix C: Connector Pin Out	13
Appendix D: Environmental Information	14
Appendix E: Directives & Regulations	14
Appendix F: Warranty	15

Safety Notices:

General Information:

This document contains important information for the safe operation of the product. Read and follow the safety instructions and all other guidance. Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is available on our website <https://origineffects.com/manuals/>

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, stoves or other apparatus (including amplifiers) that produce heat. Refer all servicing to qualified service personnel.




NOTICE!

Damage may be caused to the device should it be tampered with!

No user-serviceable parts inside. In the event of damage to the unit, service or repair must be done by qualified service personnel only.

Symbols and signal words:

Signal Word	Meaning
DANGER!	This combination of symbol and signal word indicates a dangerous situation that could result in serious injury or even death if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a potentially dangerous situation that could result in serious injury or even death if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a potentially dangerous situation that could result in material and/or environmental damage if it is not avoided.

Warning Symbol	Meaning
	Warning - dangerous situation

Safety Instructions:

Intended use:

This device is intended for use as effects pedal for sound processing of signals from musical instruments with electromagnetic pickups. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.



DANGER!

Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Never allow children to play with packaging material or the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such as knobs, rubber feet) that children could play with.



WARNING!

Possible hearing damage due to high volumes on speakers, headphones, bass & guitar amplifiers!

With loudspeakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage. Do not operate the device permanently at a high volume level.

Decrease the volume level immediately if you experience ringing in your ears or hearing impairment and seek medical advice.



NOTICE!

Damage to device if powered incorrectly!

This product is designed to be powered from a 9VDC, >200mA power supply with 2.1mm centre-negative barrel connector. Use of an incorrectly rated power supply could result in damage to the pedal and the power supply.



NOTICE!

Possible staining due from rubber feet!

The plasticiser used in the manufacture of the rubber feet on this product may react with floor coatings and result in permanent dark stains after some time. If necessary, use a suitable mat to prevent direct contact between the device's rubber feet and the floor.

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

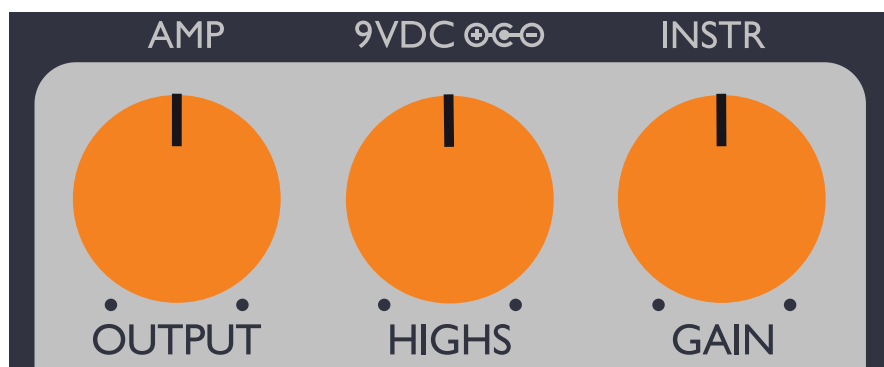
Like many guitarists, our favourite tones of all time come from plugging straight into a vintage, non-master-volume valve amp, turned up loud. When we designed the original RevivalDRIVE Compact, we recreated every stage of a valve amp's signal path using all-analogue components, allowing us to capture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



NOTICE!

Damage to device if powered incorrectly!

This product is designed to be powered from a 9VDC, >100mA power supply with 2.1mm centre-negative barrel connector. Use of an incorrectly rated power supply could result in damage to the pedal and the power supply.

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.

Main controls (continued)



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).

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.

POST-DRIVE EQ controls



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.

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	P/AMP
Bright, mid-scooped guitar amplifier	EQ1
Dark or Mid-rich guitar amplifier	EQ2

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 Ω
Output impedance	1k Ω
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

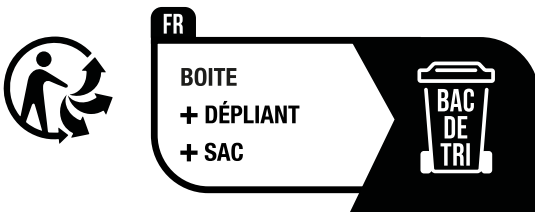
Appendix D: Environmental Information



The crossed out wheely 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.



The packing materials for this product are recyclable. Do not dispose of these materials with your normal household waste. Please refer to the symbols on the packaging for recycling information. Contact your local authority for further guidance on recycle in your region.



Points de collecte sur www.quefairedemesdechets.fr
Privilégiez la réparation ou le don de votre appareil !

Scatola	Volantino	Borsa
PAP20	PAP22	LDPE4
Raccolta Carta	Raccolta Carta	Raccolta Plastica

Controlla le linee guida locali per la raccolta

CARTÃO	PAPEL	PLÁSTICO
Esvaziar Espalmar	Separar	Esvaziar



Appendix E: Directives & Regulations



This product complies with Electromagnetic Compatibility (EMC) directive 2014/30/EU.



Origin Effects Ltd has conformed where applicable to European Union's Directive 2011/65/EU on Restrictions of Hazardous Substances (RoHS) as well as the following sections of California law which refer to RoHS, namely sections 25214.10, 25214.10.2, and 58012, Health and Safety Code; Section 42475.2, Public Resources Code.



This equipment has been tested and found to comply with the limits for a Class B device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Appendix F: Warranty

At Origin Effects we want you to have a long and happy relationship with your pedal, so we offer a comprehensive 2-year warranty from the date of purchase. You can extend this warranty to 4 years by registering your product at <https://origineffects.com/register/>

Please note the warranty is not transferable and only valid for the original owner. Returns or servicing should be arranged through the store you purchased the product from. Proof of original ownership may be required in the form of a purchase receipt.

For full warranty details visit www.origineffects.com/warranty.