## The Manual

## Reuss Evil Twin mk II™

# Based on the two classic 1970s circuits of the Reuss RSH pedal, expanding their sonic posibilities and fixing their inherent shortcomings

- Fuzz intensity for the blue box circuit can be adjusted
- Both circuits have gotten an added recovery gain stage, so now they are LOUD
- Both circuits have gotten a tone control
- Octave fuzz circuit can be preset to either one or two octaves down
- Distortion circuit can be preset to six different clipping options
- Internal 'fat switch' for the distortion circuit for extended low-end response

## Controls (right to left, upper row first)

- 'FUZZ INT' controls the intensity of the 'OCTAVE FUZZ' effect (this is fixed at max at the RSH and the original blue box effect). Please note that the sound level drops a bit when the control is all the way down.
- **'BLEND'** controls the mix balance between the fuzz effect and the monophonic octave-down tone. Pure fuzz all the way down and pure octave-down tone all the way up.
- 'FUZZ TONE' adjusts the treble of the 'OCTAVE FUZZ' circuit.
- 'FUZZ VOL' is the output volume control of the OC-TAVE FUZZ. Please note that it is very loud (much louder than the vintage original blue box), and it also amplifies all the inherent noises and artifacts of the circuit!
- **'DISTORTION'** controls the amount of distortion of the 'DISTORTION' circuit. Pure germanium clipping has the widest range. By design, the bass frequencies rolls off as the control is dialled up.
- 'DIST TONE' adjusts the treble of the 'DISTORTION' circuit. All the way up there is no filtering (similar to the vintage original Distortion+ circuit).
- **'DIST VOL'** controls the output volume of the 'DISTOR-TION circuit.

## Foot switches

- **'OCTAVE FUZZ'** turns the octave fuzz effect on and off, indicated by a blue light in the bi-colour LED (mechanical true bypass)
- **'DISTORTION'** turns the distortion effect on and off, indicated by the red ligt in the bi-colour LED (mechanical true bypass).
- Both effects 'on' gives a purple-ish light in the LED

## Connectors

- 'INPUT'. Connect your instrument here
- **'OUTPUT'** is the output. Both circuits features an output buffer, ensuring a uniform high quality output signal, resistant to tone loss and noise.
- **The DC connector** is for a standard 'Boss-type' guitar pedal 'negative centre' power supply. ONLY use this type. Reversing the polarity can damage the pedal. The pedal handles 9-18V at the DC jack. You can also run it with a 9V battery (not included)

**Please note:** The pedal is drawing power from the battery, when there is a jack in the input connector. Alway remove the input jack when the pedal is not in use, if you are running it with a battery



## Internal switches

(left to right when looking inside the pedal - see pictures next page)

- 'OCTAVE MOD' Selects if the monophonic octave-down tone generated by the octave fuzz circuit is one or two octaves down (two octaves is the original blue box mode). Slide switch in left position is two octaves down, right side position is one octave down. Pedal ships preset to two octaves down (standard blue box mode).
- **'FAT MOD'** This red DIP-switch extends the low-frequency response of the distortion circuit one octave down when in 'ON' position. The effect is subtle with a guitar and more noticable with a bass guitar. The pedal ships with this switch preset to 'ON'.
- 'GE BYPASS' Setting lane 1 of this switch to 'ON' takes the germanium clipping diodes out of the circuit.
- **'SI BYPASS'** Setting lane 2 of this switch to 'ON' takes both the silicon clipping diodes and MOSFET clipping transistors out of the circuit.
- **'DIODE ON/OFF'** Setting lane 1 of this switch to 'ON' selects the silicon clipping diodes.
- **'MOSFET ON/OFF'** Setting lane 2 of this switch to 'ON' selects the MOSFET clipping transistors. The pedals ships with this switch set to 'ON', resulting in a great sounding hybrid germanium/MOSFET clipping character.

## (... Internal switches - continued)

• **'6 dB'** This red DIP-switch raises the output level of the distortion effect by 6 dB when set to 'ON'. This is only to be activated when setting the pedal in pure germanium clipping mode, which has a much lower clipping thred-shold, resulting in a lower output level.

## Clipping preset guide (internal switches)

**Pure germanium clipping:** GE BYPASS = OFF, SI BYPASS = ON (similar to Reuss RSH / vintage Distortion+)

#### **Pure silicon diode clipping:** GE BYPASS = ON, SI BYPASS = OFF, DIODE ON/OFF = ON, MOSFET ON/OFF = OFF (*similar to DOD 250*)

## Pure MOSFET clipping:

GE BYPASS = ON, SI BYPASS = OFF, DIODE ON/OFF = OFF, MOSFET = ON

## Hybrid silicon/germanium clipping:

GE BYPASS = OFF, SI BYPASS = OFF, DIODE ON/OFF = ON, MOSFET ON/OFF = OFF (First version Reuss Old Black Shoe)

## Hybrid MOSFET/germanium clipping (default):

GÉ BYPASS = OFF, SI BYPASS = ÔFF, DIODE ON/OFF = OFF, MOSFET ON/OFF = ON

## No clipping:

GE BYPASS = ON, SI BYPASS = ON (very loud clean boost, until opamp starts to break up)

## Warning - Extreme settings!

Both sections of the Evil Twin pedal are based on primitive vintage 1970s circuits and features vintage new old stock parts. The circuits are crude and noisy by their very nature, which is part of their charm, and by adding the very loud recovey gain stages to them in the Evil Twin mk II, these noises and artifacts can be amplified considerably. The octave fuzz will click and splutter and buzz in its attempts to track an octave-down tone from any noise, your unclean playing and finger noises and whatnot. When the distortion section is turned on at the same time as the octave fuzz, all these noises and artifacts are amplified immensely by the high gain of this circuit. It's all natural and a lot of fun, and it's only dangerous to your ears. And most importantly: It is NOT a malfunction. The Evil Twin mk II is a creative tool with endless possibility, and it is your job to learn to tame the beast.



## **Features and Specifications**

- Two-in-one pedal based on the Reuss RSH-03, which features vintage correct 1970s circuits of Rowland S. Howard's old Distortion+ and Blue Box pedals. In the Evil Twin mk II these circuits are updated and modified.
- Both circuits features an added recovery gain stage at the output section to make them louder. The original vintage circuits suffers from a weak output
- Both circuits features an added tone control
- The fuzz intensity of the blue box circuit is adjustable
- The monophonic octave-down tone is selectable between one or two octaves down
- The distortion circuit can be preset to six different clipping options
- Vintage new old stock germanium diodes
- Vintage new old stock 2SC1849 transistors in the octave fuzz section (same as in vintage 1970s pedals)
- Extremely high build quality. Assembled by hand in the European Union. The pedals features a hybrid SMD construction, where the critical parts are hand soldered 'trough hole' in the traditional way, and the passive parts are surface mount (resistors and small capacitors)
- Powder coated enclosure in matte black finish with a subtle metallic sparkle effect and real silk screen printed graphics
- Runs on a standard 'Boss-type' guitar pedal 9V power supply or 9V battery (not included). The pedal handles up to 18V from an external power supply.
- High quality Neutrik jacks

- Alpha brand upgrade quality foot switches (good for at least 30000 stomps)
- Compact footprint: 11,9 x 9,4 cm (standard Hammond 1590BB size)
- Runs on a standard 'Boss-style' 9V DC guitar pedal power supply or a 9V battery. The pedal accepts 9-18V, but no real advantage of running it higher than 9V
- Fully analog circuit with low power consumption, below 15 mA. The pedal can run a long time on a battery

## **Battery access**

Remove the four screws at the bottom side of the pedal with a philips head screwdriver to remove the bottom plate and gain access to the battery (pedals ships without a battery).

## Warranty

All Reuss pedals comes with a limited 24 months warranty against manufacturing faults The warranty is not covering normal wear and tear or abuse.

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