

**BEFORE PROCEEDING WITH COMPLETE UNPACKING AND SETUP
CONSULT UNPACKING AND INSPECTION INSTRUCTIONS ON PAGE**

comp.two (version2)

tube compressor



rockruepel

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2 – Safety Review

WARNING: High Voltage – Risk of electric shock

Do not open chassis.

Ensure that the correct voltage (115V/230V) is selected before connecting the *comp.two* to the main power supply.

If the device is damaged or does not work as expected, refer to qualified service staff only.

Never use damaged power chords.

Replace fuse with the same type and value : T 1 A (115V); T 500 mA (230V)

Ensure that the *comp.two* is connected via a grounded connection.

Keep away from moisture and other liquids.

Do not use the *comp.two* close to water or in wet surroundings.

CAUTION: Temperature – Chassis may become hot during operation

Do not install any heat sources (for instance radiators or stoves) close to the device.

Avoid direct solar irradiation.

Do not block the circulation vents. Warm air must exhaust.

Leave enough free rack-spaces around the compressor to avoid overheating.

Do not install power amps near the device.

WARNING: Incorrect installation – Connection may cause damage

Do not connect power amp-outputs to the *comp.two*.

Install the device only on flat surfaces or mount it properly into an adequate rack.

WARNING: Condensed water (liquid) may cause damage

Condensation inside the device may occur, when you move the device from a cold place to a warm room. To avoid damaging the *comp.two*, always wait until the device has reached room temperature before switching it on.

WARNING: High sound volume may harm the sense of hearing

This device produces a maximum amplification of 32 dB. Set input and output controls on zero position before monitoring the sound via headphones or loudspeakers.

Gradually increase the volume levels for input and output.

HINT: Delayed operation

The *comp.two* uses vacuum tubes, therefore the device will be on standby for several seconds after switching it on.

3 - Preface

Congratulations on your *rockruepel comp.two (version2)*!

You now own a versatile vari- μ -compressor. The *comp.two* is designed for mastering, mixing and recording and offers a pristine and highly transparent sound due to its exclusive audiophile approach.

After years of development and searching for optimal sound and design, I have developed the *comp.two* resulting in one of the best sounding modern vari- μ -compressor. This stereo/dual-mono-compressor is optimized for daily professional use. The *rockruepel comp. two* would not be what it is today, without feedback and advice from colleagues and friends.

The function of the *comp.two* is based upon the optimized vari- μ -design and never compromising on high-end components and a minimalistic approach. The deciding factor in design were always my ears.

The *comp.two* is built on fully-balanced tube-circuitry. The main audio path consists of SOWTER input- and output transformers (SOWTER), two high-end coupling capacitors, input- and output-tubes (NOS 6N3 and 6CG7).

The „true“ dual mono-design has separate power supplies for every channel. The potentiometers are encapsulated, quality products from ALPS. The VU-meters can be calibrated with a trim-pot hidden behind small holes in the rugged front plate. All switches use relays or directly determine control voltage. The two bypass-switches separate circuitry, so that only input directly connects with the output (true bypass). An IC is used to regulate the VU-Meter. Apart from that circuitry, the *comp.two* consist of discrete components and is hand wired in Germany. In addition to the essential controls such as input, output, threshold, attack and release, the *comp.two* provides a side chain with an integrated four-stage filter. (Flat, 50, 74, 110 and 160

Hz). This filter takes out high-energy bass frequency that could otherwise affect the compressor's behavior. The special "amp-only" -mode uses only the in- and output-stages and not the compression.

only the best

- audiophile, full-balanced circuitry design
- aluminum chassis with rugged front plate (6 mm)
- SOWTER-transformers
- ALPS-potentiometers
- VU-meter
- output-tube: 6CG7
- input-tube: NOS 6N3
- high-end coupling capacitors
- amp-only-mode
- true hard bypass
- true dual mono with separate power supply
- side chain-control (54, 74, 110, 160 Hz)
- THD+N: -68 dB
- attack-time: 600 μ s - 70 ms
- release-time: 0,2 ms - 4 s

Some may say: "Tube-compressors sound good but they are too slow. I prefer VCA-compressors because of their speed". The *comp.two* accomplishes both, with an attack up to 600 μ s it is extremely fast but it also has a soft and really musical knee compression for your sound processing.

Thanks for buying the *rockruepel comp.two*.
Oliver Gregor & Stefan Heger

4 – Included in box

- rockruepel *comp.two*
- IEC power plug
- owner's manual

5 - Content

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6 – About this manual

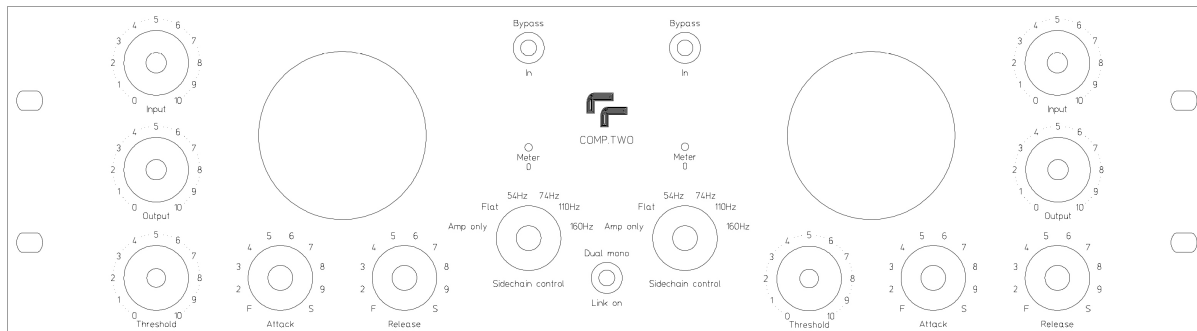
In order to find out all the possibilities and information on the compressor it is recommended to read this owner's manual from top to bottom. If you are looking for some direct information you will find hints about „handling & controls“ on page 6 and notes about the circuit points, „input and outputs“ on page 8. Perhaps you are only interested in the technical specs on page 10 or the attack- and release-time table also on page 10. You will surely get some useful information, a quick overview and you will avoid operational errors with the *rockruepel comp.two* if you take the time to read this manual.

If you are an experienced engineer or compressor-geek and tired of reading another boring owner's manual, you can use the fast way. The „ruepel“-boxes in every chapter deliver the most important information, special features or parameters in compact phrases. This ultra-fast overview gets you working with your *comp.two* within a few minutes.

the fast way

- „*ruepel*-boxes“ for ultra-fast overview
- „Handling & controls“ (page 6)
- „In and outputs“ (page 8)
- „Tech specs (page 10)

7 – Handling & controls



1. Input:

The input stage amplification is between non stepped values of 0 ($-\infty$ dB) and 10 (+16 dB). The more input gain you choose, the more harmonic distortion is added to the signal. The tube stage provides differences from a pure, clean to distorted and saturated sound.

2. Output:

Every compression causes a loss of volume. The output-stage helps to compensate the gain reduction with a 26dB gain reserve. The interaction of the input and output stage offers sound variations depending on how much the input or output tube is driven to saturation or even distortion (input stage).

In amp-only-mode the compressor-section is skipped completely but the signal still passes through the circuitry. You can design your sound by using the input and output controls. The spectrum of coloration without compression ranges from-natural clean to aggressive distortion.

3. Threshold:

If the input level exceeds the adjusted threshold, the compression will start immediately. The threshold control offers non stepped values between 0 and 10.

4. Attack:

The rotary control determines in ten steps the attack-time of the compressor. Position 1 is marked with the character ,F' for *fast* transient response, position 10 uses the character ,S' for *slow* operation.

5. Release:

This rotary switch is divided in ten steps to control the release time. The values also range between ,F'(ast) and ,S'(low).

6. Sidechain Control/Amp Only

The side chain controls define frequencies of the high pass filter, which affect the control signal only. As a result high-energy bass frequencies from the side chain signal will not affect the compressors operation. There are four frequencies: 54, 74, 110 and 160 Hz and the flat-position, which switches the filter off.

As mentioned previously, the amp only-mode leaves only input and output controls operational. The signal still passes through the audio path (transformer, tubes, capacitors) but skips the compressor section.

7. **Meter 0:**

The VU-meters are equipped with trim pots, accessible through small holes in the front plate. Use a suitable screwdriver to set the zero point for calibration.

1. When the unit is turned off check the location of the needle, if not on zero use the calibration screw on the meter to adjust.
2. Turn unit on and wait 10min. Now use the Meter 0 trim pot and set needle to 0.

8. **Bypass:**

The *comp.two* has one "hard bypass" switch per channel. If activated, the complete circuitry including tubes, transformers and capacitors are excluded and the input is directly connected to the output. In bypass-mode you hear the unprocessed original signal for A/B-comparison.

9. **Dual Mono/Link On:**

The the link-on-mode is helpful for stereo processing. When this mode is activated the channel with higher level determines the compression for both channels. For perfect tonal balance it is important that threshold- attack- and release-values are identical. To adjust volume differences between the channels, use input and output controls.

The dual mono-mode offers two precise separated channels with an individual power supply ("real" dual mono). Therefore the *comp.two* has the ability to process two mono-signal separately.

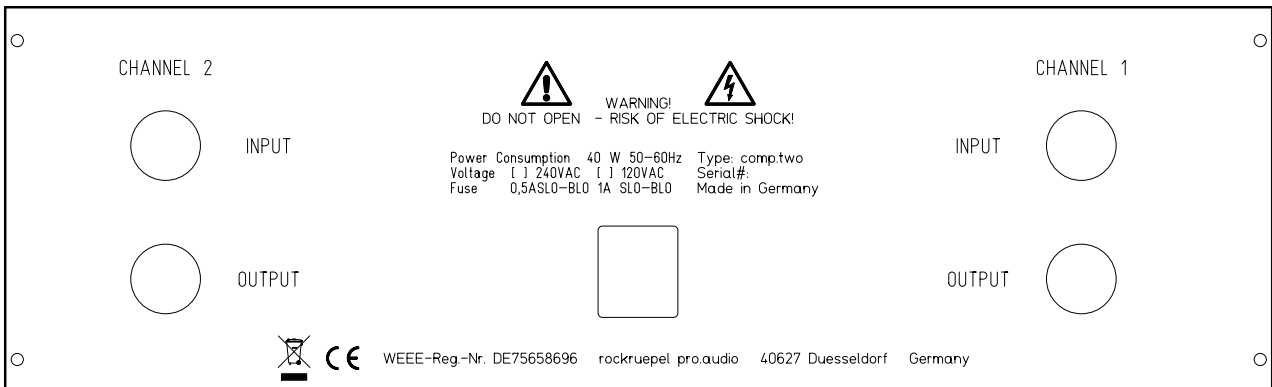
10. **VU-Meter**

The backlit VU-meters display gain reduction. The logarithmic scale shows values between 0 and -20 dB. 1-dB-steps are marked up to a gain reduction of 4 dB. This is the critical range for gain reduction.

ultra fast, musical and precise

- side chain-filter (54, 74, 110, 160 Hertz)
- 32 dB of amplification without compression
- high-speed-control-process (0,6 ms), release (200,ms)
- hardwire-bypass
- "real" dual mono with separate power supply
- link-on-mode (channel with higher level dictates compressions process)
- for perfect channel balance, threshold-, attack- and release-values have to be equal
- trim pots for calibration the VU-meters
- logarithmic scale with zoom-in-effect up to 4 dB

9 – In and Outputs (connections)



1. Input 1 & 2:

The XLR-inputs are transformer-balanced (SOWTER) and designed for line-level signals.

2. Output 1 & 2:

The line level-outputs are transformer-balanced (SOWTER). Remember, that the *comp.two* has an amplification reserve of +26 dB to avoid overloading when other devices are connected.

3. Main plug and fuse :

The *comp.two* uses a standard main plug (included). In case of blown fuse, replace it with identical components. Pay attention to correct specifications. Open the fuse housing by using a small screwdriver and replace the fuse carefully.

@ 115V: time lag/slow-blow, 1 A

@ 230V: time lag/slow-blow, 500 mA

exquisite connection

- high-end SOWTER-transformers for in- and outputs
- professional XLR-connectors with locking mechanism

10 - Tech Specs

Frequency Response			
40Hz – 15 kHz			± 0,70 dB
20Hz – 20 kHz			± 1,25 dB
Amplification			26dB
Max Output Level (40Hz k_{ges} -40dB)			+24dBu
Supply Voltage			115/230V AC
Power Consumption			40W
Dimensions	B/H/T	483 mm (19") 132,5 mm (3HE)	295mm
Weight			8,7 kg

Input Data:

Input	balanced, floating
Impedance over frequency range	≧ 19kOhm
Common-Mode Rejection Ration (CMMR) @ 15kHz	≧ 40dB

Output Data:

Output	balanced, floating
Impedance over frequency range	≧ 600Ohm
Common-Mode Rejection Ration (CMMR) @ 15kHz	≧ 35dB

THD k_{ges} (+4 dBu):

40Hz	1kHz	6,3 kHz
-43dB	-68dB	-69dB

Signal-to-noise ratio

(working level: + 4dBu, input and output control: 5)

p_{Ger} ≧ -82 dBqs (CCIR 486)

p_{Fr} ≧ -86 dBq (Bandwidth 10Hz – 30 kHz)

Position	Attack (Release 5)	Release (Attack 5)
F	3,5 mS	200 mS
2	4 mS	220 mS
3	5,5 mS	240 mS
4	8 mS	300 mS
5	11,5 mS	400 mS
6	17 mS	600 mS
7	25 mS	850 mS
8	30 mS	1,4 S
9	55 mS	2,5 S
S	70 mS	4 S

*** Fastest Attacktime 600 uS (Attack F Release F)***

11 - Warranty

2 year warranty for registered units:

<http://www.masteringworks.de/en/contact.html>

Service and contact information

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About rockruepel and Mastering Works:

Rockruepel launched with the successful tube compressor series consisting of comp.one and its successor, the comp.two. This boutique compressors are insiders secret tool for recording, mixing and mastering and are now among engineers such as Russell Elevado, Luca Pretolesi, Max Dingel, Paul Stacey, Fab Dupont. The amazing sound and build quality that the users of comp.one and comp.two already know and love, is now in a completely new audio tool available, the limit.one. The user can balance between loudness and dynamics in a new previously unknown way.

Mastering Works GmbH is the European distributor of selected high-end audio solutions. CEO Stefan Heger introduced in 2004 the Dangerous 2 Bus to different studios and engineers and founded Mastering Works GmbH, a company with an exquisite product portfolio and the exceptionally close contacts with end users. Besides the brands Dangerous Music, Sterling Modular, rockruepel and Guzauski Swist it also includes training and individual studio solutions.