



TEGELR

Magnetismus 2

User Manual

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Safety first

Safety Instructions

Read carefully before using the device.

1. Only use the device in permitted and functional outlets.
 2. Protect the device and the power plug against humidity, dripping or splash water to avoid the risk of electric shock. For example, do not place any liquids in containers or similar close to the device.
 3. Never place the device in extremely warm or cold environments and absolutely never in direct sunlight. This could create a fire risk.
The recommended operational temperature is between 15°C and 35°C. Condensation may occur if the device is brought from a cold to a warm environment. In this case, the device should be switched off for several hours.
 4. Never place the device in an extremely humid or dusty environment. This can create a fire risk or risk of electric shock.
 5. Do not cover the ventilation slots.
 6. Please remove the power cord to completely disconnect the device from the power supply. To avoid damaging the cord, pull the plug and not the cord; this could otherwise create a fire risk or risk of electric shock.
 7. Use only the supplied power cord or an identical to the one provided, with a CE mark and the suitable mark of conformity.
 8. Do not put heavy objects on the power cord. A damaged power cord can create a fire risk or risk of electric shock.
 9. Avoid allowing foreign objects or liquids to penetrate the device.
 10. If the power cord is damaged (if it has cracks, tears, or an exposed wire), ask your supplier for a replacement. Never continue to use a damaged power cord.
 11. The high voltages inside the device can be dangerous to life and limb. These can remain for some time after the device has been switched off. The device should only be opened by an experienced service technician.
 12. Any changes made to the device will invalidate the warranty.
 13. You should switch off the device as soon as possible and unplug the power cord in the event of a thunderstorm. If there is a risk of lightning, you should not touch the power cord until it is disconnected from the outlet as there is a risk of electric shock.
 14. If you notice anything abnormal – e.g. smoke, a strong smell, or noise – switch the device off immediately and unplug the power cord. Contact your retailer to find out whether a supplier is necessary. Do not continue to use the device.
 15. If replacing the fuse, use one of the same specifications. If the fuse fails again after replacement, contact your supplier to see if a repair is necessary. Do not continue to use the device.
 16. Do not clean the unit with solvent-based cleaning agents – just use a damp cloth. Unplug the unit before cleaning and wait until it is completely dry.
 17. If your device is equipped with audio transformers, place it away from other equipment which may generate potentially disruptive magnetic fields. These may cause humming sounds and other noise interference. If this occurs, place the device elsewhere.
 18. The packing material is not a toy. Children should not play with plastic bags. There is a risk of suffocation.
 19. This product is not intended to be used by individuals (including children) with limited physical, sensory or mental abilities or with limited experience and/or knowledge, unless these people are supervised by a person who will ensure their safety, or they have been properly instructed on how to use the device by such a person.
 20. Children should be supervised to ensure that they do not play with the device.
 21. Make sure that children do not insert foreign objects into the ventilation slots or holes in the back wall. There is a risk of electric shock.
-

Connections



1

POWER AND FUSE

The device is equipped with an IEC socket. Use a compatible cable only. Read the Safety Instructions section for use before connecting the power cord.

Please see the Technical Data section for the appropriate fuse.

2

OUTPUT

The unit is equipped with two XLR inputs (female).

Use this input to connect the device to signals at line level from other studio equipment, such as insert sends or D/A converters. Observe the electrical properties of the input (see Technical Data).

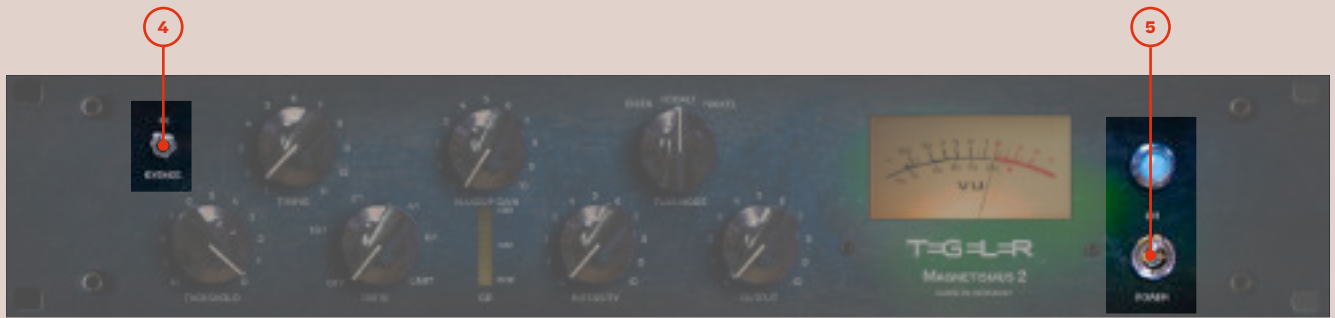
3

INPUT

The unit is equipped with two XLR outputs (male).

Connect the outputs to the corresponding insert returns or A/D converter inputs. Observe the electrical properties of the output (see Technical Data).

Controls



4

BYPASS

When in bypass mode, the signal is passed directly unprocessed from the input to the output.

Also, when switched off, the cream is in hard bypass mode due to the relays.

5

POWER

The power switch starts up the device or switches it off.

The LED lights up during operation. To disconnect the device completely from the mains, the mains plug must be unplugged.

Quick Start

Follow this quick steps to start with the Magnetismus 2:

1. Feed the Magnetismus 2 with a drum loop.
2. Set the TIMING to 3.
3. Set RATIO to LIMIT.
4. Turn the THRESHOLD ccw until the GR METER reads 10dB at peaks.
5. Set FLUX MODE to KOBALT.
6. Set INTENSITY to 10
7. Turn MAKEUP GAIN until the VU METER reads 0dB at peaks
8. Set OUTPUT as needed.
9. Toogle bypass to hear the differences.

Use this setting as a starting-point and begin to experiment.

Video Tutorial:

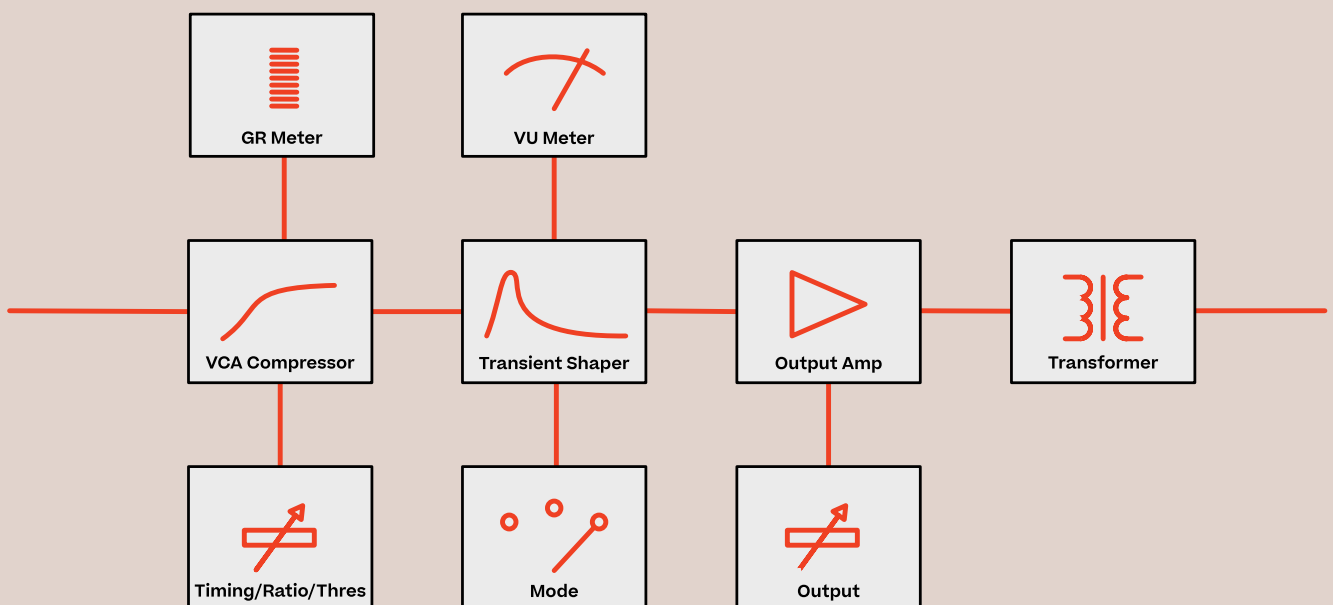
Please visit the Magnetismus 2 product page and watch the video tutorials:

<https://www.tegeler.com/Magnetismus2/Index#Videos>

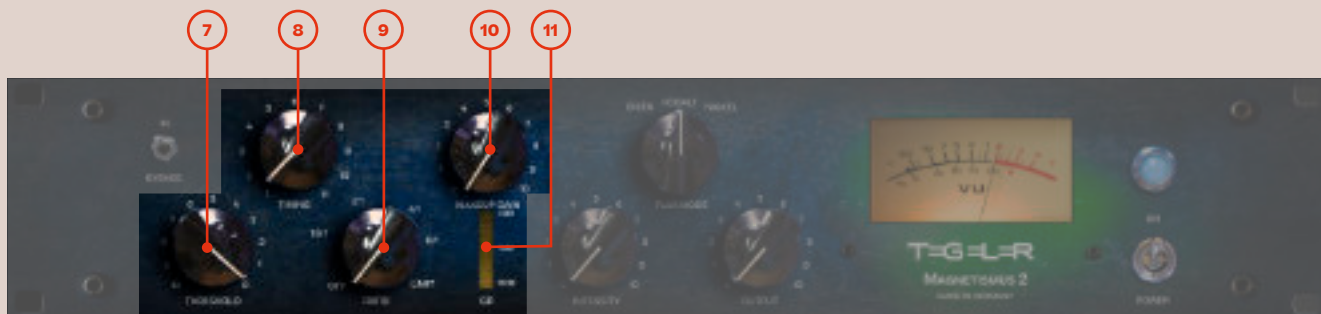


Signal Flow

Block Diagram



VCA Compressor



7 THRESHOLD

The Threshold sets the signal level at which the compressor kicks in. A lower threshold will apply the gain reduction of the compressor to a larger portion of the signal.

8 TIMING

The timing control regulates the attack and release speed of the compressor. Lower values stand for faster speeds.

A fast attack clamps down quickly, affecting transients, while a slow attack lets more of the transient through before compression starts.

A fast release stops compressing quickly, making the sound more natural but possibly causing 'pumping', while a slow release smooths out the volume changes but might reduce the perceived loudness.

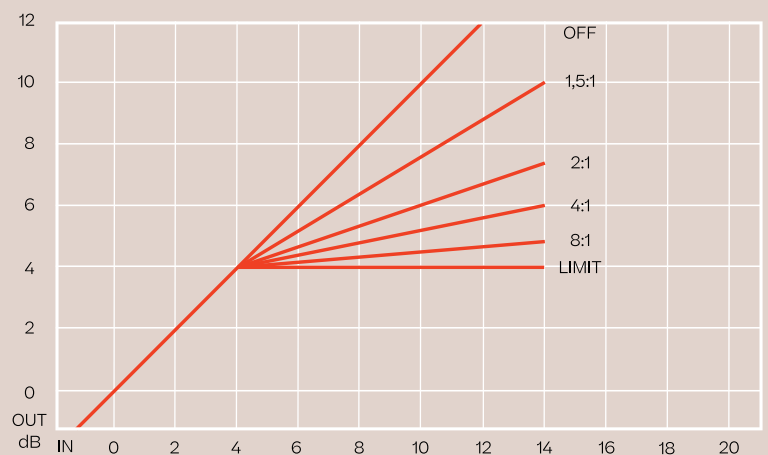
Position	Attack in ms	Release in ms
1	7	11
2	10	16
3	15	25
4	21	44
5	38	120
6	68	220
7	130	520
8	286	1600
9	611	2800
10	1300	4500

9 RATIO

This control sets the ratio between the input level and the output level for signals above the threshold.

OFF means that no compression is performed.

LIMIT means that the output signal cannot exceed a certain value, even if the input signal increases in volume.



10 MAKEUP GAIN

With this control you adjust the level at which the signal is sent for transient processing.

This is helpful to compensate for level drops due to compression.

11 GR METER

This LED strip indicates the strength of the current compression.

A value of 5 dB means that the level of the current signal has been reduced by 5 dB.

Transient Shaper



12 INTENSITY

With this control you can adjust the intensity of the transient processing. The further you turn the slider towards 10, the stronger the smoothing of the transients becomes.

At 0 the processing is disabled.

14 OUTPUT

With the output control, the signal that has been reduced in level by the processing can be restored.

It also determines how hot the output transformer is driven. Use this to add some additional transformer sound.

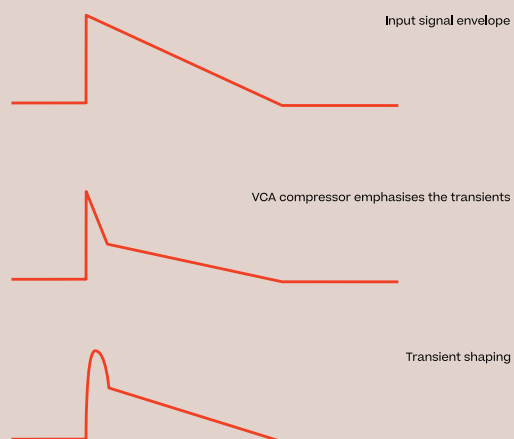
15 METER

The meter shows the working level within the transient processing. A good starting point is when the meter is at the loudest signal peaks down to the 0db mark.

If the level is higher, not only the transients are processed, but also the rest of the signal. This can sometimes lead to an interesting result. And sometimes rather not. Experiment!

This switch determines the width of the transients that are still processed. Iron has the greatest width, nickel has the least. The following picture illustrates the processing of transients:

Simplified representation of the processing



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FLUX MODE

The transients are first emphasised by the VCA compressor and then smoothed by the transient shaper. The result is a smoother sound, similar to a tape machine.

Technical Data

Frequency Response	20 Hz – 40 kHz
Max. Input Level	+22 dBu
Impedance Line Input	≥ 10 kOhm
Output Impedance	< 600 Ohm
Max. Output Level	+24 dBu
Dynamic	≥ 110 dB
Ethernet	10/100/1000 Base-Tx
Voltage	110 V~ – 230 V~, 50 – 60 Hz
Fuse	2 A slow-blow
Max. Power Consumption	< 25 W
Dimensions	2 U, H: 88.2 mm, W: 483 mm, D: 250 mm

Additional Information

In order to always ensure the highest audio quality, devices manufactured the Tegeler Audio Manufaktur GmbH are always adapted to match the current state of the art and technology. Changes in design, circuits, and controls are made without prior notice. For this reason, it is possible that the specifications and appearance of the device may differ slightly from those described in this document.

All brands, trademarks and registered trademarks mentioned in this document are the property of their respective owners and are used exclusively for information purposes, even when used without express identification as a registered trademark. All information is intended for personal use – commercial use of descriptions, graphics, photos, or the structure is not permitted. The published texts are protected by copyright.

Conformity

CE Declaration of Conformity

We, Tegeler Audio Manufaktur GmbH, of Weststr.1, 13405 Berlin, Germany, under the management of CEO Michael Krusch, certify and declare under our sole responsibility that the following product

Description: Audio Compressor
Manufacturer: Tegeler Audio Manufaktur GmbH
Model: Magnetismus 2

conforms with the essential requirements of the following directives and standards:

- 2006/95/EEC Low Voltage
- 2004/108/EEC Electromagnetic Compatibility
- DIN EN 60065 Safety of Audio Equipment
- DIN EN 55103-1/2 Electromagnetic Compatibility of Audio Equipment

This declaration is deemed invalid in the event the device is altered without our prior written agreement.



Berlin, 01.03.2016 Michael Krusch, CEO

This product was manufactured in conformity with 2011/65/EU.

FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
 2. This device must accept any interference received, including interference that may cause undesired operation.
-

Canadian Interference-Causing Equipment Regulations

This apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

T=G=L=R

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