

# VERMONA



„CROSS FILTER“

## Foreword

Thank you for purchasing the VERMONA CROSS FILTER.

The CROSS FILTER is a special tool for DJs, musicians and remixers, which is suitable for live conditions through its ease of use and user-friendly control surface.

We believe you will have much fun with it.

The VERMONA team.

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# General

## Important safety information

The following safety precautions must be observed during all phases of operation, service and repair of this equipment. Failure to comply with these precautions or with specific warnings in this manual violates safety standards of design, manufacture and intended use of this equipment.

**The manufacturer assumes no liability for the customer's failure to comply with these requirements!**

## Ground and power connection

To prevent the risk of electrical shock, this equipment must be grounded. The factory setting for power is already made for each country (115V AC, 230V AC). An individual setting is not allowed by virtue of safety reasons. This modification must be done by qualified personnel only!

## Voltage peak

The units are equipped to manage voltage peaks, which are often generated at live situations. When using the units with unstable voltage, please make sure that the device is grounded.

## Use near explosive goods

The units should not be used near easily flammable or explosive goods.

## Dampness

The units should not be used in damp or wet places. Make sure the unit is not in humid atmospheres, because this could cause condensation within the unit.

**WARNING: Risk of electrical shock!**

## Connections

Only use cables, plugs and adapters, which do not affect the normal use of the unit.

## Cooling System

The unit should not be used near heating or warm or hot fans. When using the unit in a rack or wall system, make sure that the unit has enough space to let the generated heat dissolve.

## Cleaning

Please clean the unit only with a dry duster. Do not use sharp cleaning fluids or water!

## Spare parts or modifications

Modification instructions and schematic information should only be used from service departments of our official authorized VERMONA dealers. To prevent the risk of electrical shock, please do not open or modify the unit yourself. Before opening the unit always disconnect the power lead/AC Adapter. Opening or modifying the units causes the loss of warranty claims!

## Warranty

The manufacturer warrants this product to be free of defects in material and/or workmanship. The manufacturer's warranty does not apply to products that have been damaged due to and/or subjected to improper handling by shipping companies (forwarders), negligence, accidents, improper use or alteration not authorized by the manufacturer.

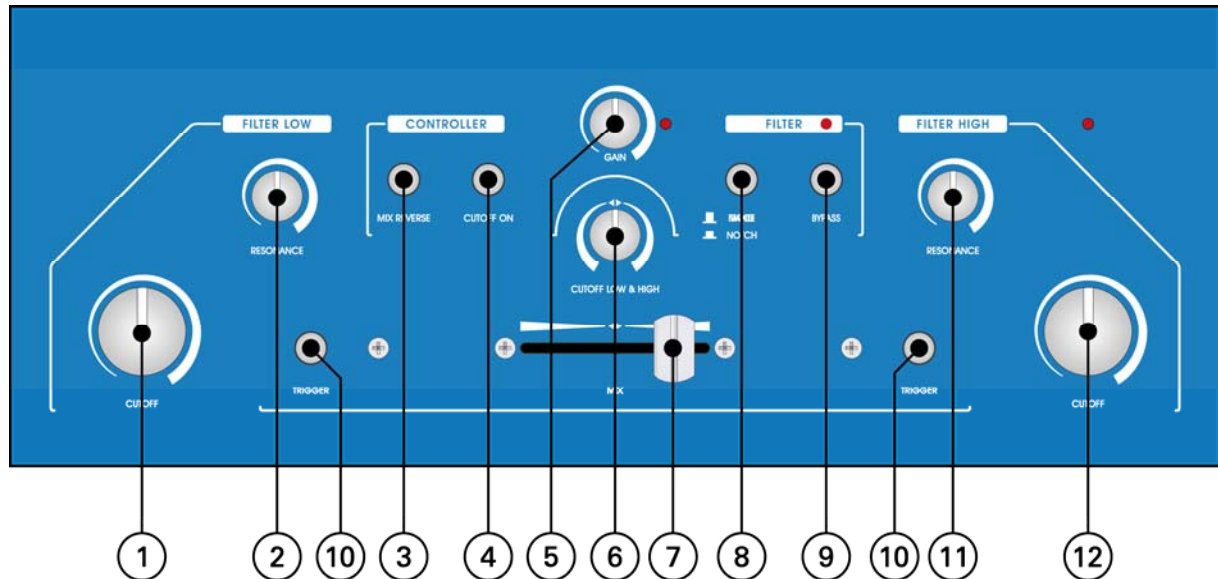
This warranty is in lieu of an excluded all other warranties, expressed or implied. The manufacturer will not be liable for incidental or consequential loss or damage whatsoever, whether based upon allegations or negligence, breach of warranty, or otherwise. This disclaimer of incidental or consequential damages includes, but is not limited to, property damages, loss of profits, loss of time or other losses or inconvenience resulting from any defect in the material or workmanship of this product or any other connection with the purchase, operation or use of this product.

## Technical changes

All changes, which improve the technical features of the units, can be made without subjective notice by the manufacturer.

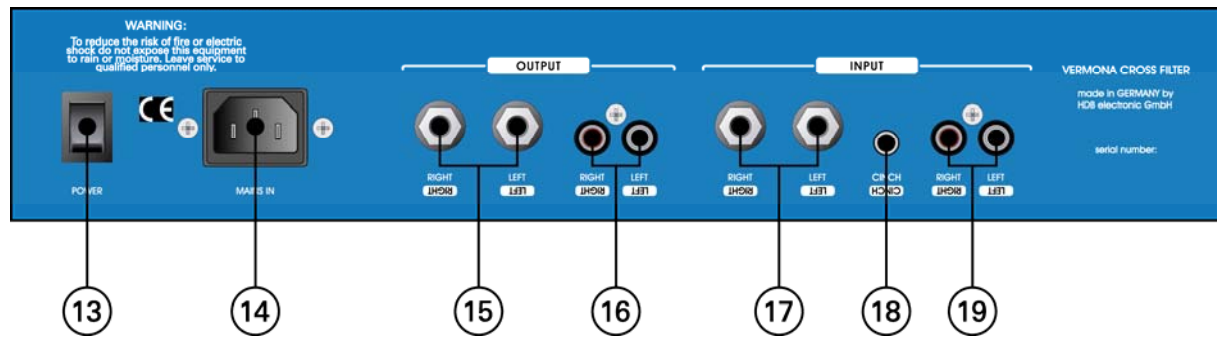
# Control Surface Features

## Front Panel



- (1) **CUTOFF** knob for controlling the cutoff frequency of FILTER LOW
- (2) **RESONANCE** knob for controlling the resonance level of FILTER LOW
- (3) **MIX REVERSE** switch for swapping the sides of the fader
- (4) **CUTOFF ON** switch for turning on/off the CUTOFF LOW & HIGH controller (6)
- (5) **GAIN** knob for setting the input level of the CROSS FILTER.  
The CLIP LED should flash up only at level peaks of the input signal.
- (6) **CUTOFF LOW&HIGH** knob which controls the cutoff frequency of FILTER LOW and FILTER HIGH parallel.
- (7) **MIX** fader which fades between original and effect signal
- (8) **MODE** switch for setting the filter mode. The mode can be set to NOTCH or BAND
- (9) **BYPASS** knob for activating the bypass function
- (10) **TRIGGER** momentary switch for changing from filtered to unfiltered signal, works only if bypass is inactive and MIX fader is set to effect signal.
- (11) **RESONANCE** knob for controlling the resonance level of FILTER HIGH
- (12) **CUTOFF** knob for controlling the cutoff frequency of FILTER HIGH

## Rear Panel



- (13) **POWER** power switch
- (14) **MAINS IN** power socket
- (15) **OUTPUT** TRS output jacks (left and right channel)
- (16) **OUTPUT** RCA output jacks
- (17) **INPUT** TRS input jacks (left and right channel)
- (18) **CINCH** switch for choosing the input jack pair. If this switch is on, the RCA jacks are active.
- (19) **INPUT** RCA input jacks

## Getting Started

### Unpacking

All VERMONA devices are checked and tested carefully before packaging. In spite of the specially designed cartons and the solid build quality of the devices, damages during transportation are possible. Please check the unit after receipt for visible damage.

Please do not discard the original packing! Use it for shipping the unit again, should this be necessary.

### Inventory

The VERMONA CROSS FILTER comes complete with:

- The VERMONA CROSS FILTER
- Power cord
- This manual

## Connections

- Connect the included power cord to a power receptacle.
- Connect the outputs of your CD-Player, Tape Deck ... with the LINE IN (17 and/or 19) of the CROSS FILTER.
- connect the outputs (15 and/or 16) of the ACTION FILTER with the inputs of your mixing console or amplifier.

It's also possible to insert the ACTION FILTER into an effect loop of a DJ mixer. You have to connect the SEND jacks of your mixer with the LINE INPUTS (17 / 18) and the outputs (15 / 16) of the ACTION FILTER with the RETURN jacks of your mixer.

## MODES

The CROSS FILTER works either in BAND or in NOTCH mode. You can toggle between them with the MODE switch (3).

The mode determines the characteristic and interconnection of FILTER LOW and FILTER HIGH.

### BAND

If the CROSS FILTER is set to BAND mode, the combination of FILTER LOW and FILTER HIGH results in a band-pass filter, which only lets pass a certain frequency range of the input signal.

All frequencies below and above these so-called band-pass range were cut off.

The width and position of the band-pass range in the entire frequency spectrum will be set with the CUTOFF controllers (1) and (9).

In BAND mode FILTER LOW is a high-pass filter. That means, all frequencies above the adjusted cutoff value can pass the filter, all frequencies below were cut off.

FILTER HIGH is a low-pass filter in this mode, so it works exactly opposite to the high-pass filter. All frequencies below the adjusted cutoff value can pass the filter, all frequencies above were cut off.

**NOTE:** In BAND mode some settings can result in a totally elimination of the input signal. That happens, when the cutoff frequency of the low-pass filter is lower then the cutoff frequency of the high-pass filter – this can also be used as effect, especially in combination with the TRIGGER button.

### NOTCH

In NOTCH mode, the combination of FILTER LOW and FILTER HIGH results in a notch filter, which works exactly opposite to the band-pass filter. A notch filter removes a certain frequency range out of the entire frequency spectrum. This range is called band-stop range, whose width and position will also be adjusted with the CUTOFF controllers (1) and (9).

In NOTCH mode, FILTER LOW is used as low-pass filter and FILTER HIGH is a high-pass filter.

## CUTOFF LOW & HIGH

The CUTOFF LOW & HIGH controller controls both cutoff frequencies in the same manner. If you have set a band- or notch range with the CUTOFF controllers of the filters ((1) and (12)), you can move this band- or notch range through the whole frequency spectrum by using the CUTOFF LOW & HIGH controller.

The CUTOFF LOW & HIGH controller can be activated by pressing the CUTOFF ON switch (4).

Declaration of conformity

for VERMONA CROSS FILTER

We declare under our sole responsibility that this product is in conformity with the following standards or standardization documents in attention of operation conditions and installation arrangements acc. to operating manual:

EN61000-3-2, EN 61000-3-3, EN 55013, EN 55020, EN 60065  
according to the provisions of the regulations 89/336/EWG and 73/23/EWG.

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