



## Universalfilter UF1

The fully analogue filter system UF1 with integrated M/S-matrix is a versatile processing tool for Stereo- and M/S-signals in mastering environments.

The unique operating principle of UF1 allows the weighting of all variables in the frequency-domain. Beside, it lets you localize and position any single sound source within the stereo image. Fading-in/out of particular musical instruments and voices without affecting overall signal quality is easily done with the high-precision filter units of UF1.

UF1 is capable of splitting any stereo signal into its mid and side signals to process these signals separately by 10 fully parametric filters. The system comprises control units for stereo base and a filter of 12 or 24 dB/oct for vinyl cut. Any filter unit can be activated/deactivated by solo switches - frequency and Q-factor are controlled by high-precision ELMA®-switches and can be reproduced instantly.

As all Roger Schult products, the UF1 is hand-crafted and precision-engineered in Germany.

### Technical Data

03 / 2013

#### Filter

Filter bands, 23-position switch	17Hz - 815Hz / 50Hz - 2,3kHz / 125Hz - 6kHz / 350Hz - 18,8kHz / 1,2kHz - 25kHz
Gain control with center detent	± 5 dB range (± 10 dB optional )
Custom gain control options:	
23-position ELMA switches	± 5.5 dB: resolution of ± 0.5 dB (or ± 11 dB: resolution of ± 1 dB)
41-position Alps pot, RK27alps	± 5 dB: resolution of ± 0.25 dB (or ± 10 dB: resolution of ± 0.5 dB)
Optional Q-factor controls:	
Q-factor, 11-position	0.3 / 0.5 / 0.7 / 1.0 / 1.5 / 2.5 / 4 / 6 / 10 / 12 / 15 (band 2, 3, 4)
Q-factor, 11-position	LP / 0.3 / 0.5 / 0.7 / 1.0 / 1.5 / 2.5 / 4 / 6 / 10 / HP (band 1, 5, serially s. 2016)
focus - button	reverse function of gain control
solo - switch	solo functions
off - switch	enable / disable filter module

#### Input section

phase L - switch	phase reverse left channel
mono - switch	sum of L & R channels to check mono compatibility
reverse - switch	channel swap L / R
2 gain controls with center detent	± 5 dB range

#### M/S Section

stereo-width control	continuously variable from 0 to 2 (mono - super wide) with center detent
stereo-width toggle switch	compare switch to toggle default stereo width
mode selector	choice of input and output modes: St-MS / St-St / off / MS-St / MS-MS
M - switch	solo cue of the mid signal
S - switch	phase-corrected solo cue of the side signal



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### Input - electronically balanced

Reference input level +6 dBu  
Maximum input level + 28 dBu  
Input impedance 47 kOhm

### Output - electronically balanced

Reference output level +6 dBu  
Maximum output level +30 dBu  
Output impedance 50 Ohm  
Harmonic distortion THD+N 0,03% (20 Hz - 40 kHz)  
Input and output connectors XLR , balanced  
Frequency range 20 Hz - 40 kHz,  $\Delta = -0.4$  dB  
Delay time of hard bypass relays max. 3 ms  
Power supply 100-230 V AC, 47-63 Hz, max.110 Watt, optional ext. power supply N2304  
Dimensions 19" / 5 RU, 483 x 177 x 330 mm (width x height x depth)  
Weight 7.85 kg incl. power supply, 6.70 kg without power supply  
External power supply N2304 4.9 kg

### Features

(beginning with SN # 0008)

- Phase and channel swap of the inputs
- Mono compatibility switch
- Continuously variable input gain control between -10 dB and +10 dB
- Stereo-width control from 0 to 2 (mono - super wide) plus default stereo toggle switch
- Phase-corrected solo cue function for mid and side signals
- 4 modes of operation for M/S and stereo mastering
- Fully parametric 5-band, 2-channel filter system with unique solo switching capabilities
- Variable Q-factor from 0.3 to 15 (optionally from 0.3 to 10 and additional high- and lowpass)
- Interruption-free power supply

### Applications

The UF1 is a universal mastering toolkit allowing complex processing of stereo and M/S signals, changes of perceived depth of individual instruments and frequency ranges, as well as the spatial resolution and width of the stereo image in a recording.

