elysia

# xfilter

## Precautions

### WARNING: High Voltage

- Risk of electric shock.
- Do not open chassis.
- Refer service to qualified service staff only.
- Before connecting the device to the main power supply, check if the right voltage is selected.
- Replace fuse with the same type and value only.
- This device must be connected to ground.
- Do not use a damaged power cord.
- Never place containers with liquid, e.g. beverages or a vase, on the unit.
- Do not expose this device to rain or moisture.
- Do not use this device near water, e.g. swimming pool, bathtub or wet basement.

### CAUTION: Temperature

- Surfaces of the device may become hot during operation.
- Do not install this device near any heat source such as radiators, stoves or other heat sources.
- Always allow enough ventilation space around the unit for air circulation.
- Do not cover circulation vents.

### CAUTION: Connecting & Mounting

- Never connect the output of a power amplifier to this device.
- Place the unit on a rigid board or place it in an appropriate rack.
- Use the device according to this manual only.

### CAUTION: Humidity

- If this device is moved from a cold place to a warm room, condensation can occur inside the device. To avoid damaging the unit, please allow it to reach room temperature before switching it on.

## Welcome to filter wonderland!

Thank you very much for purchasing the xfilter – one of the quite few true linked stereo EQs in the market.

The xfilter gives you the expensive sound of an all class-A equalizer in a surprisingly affordable package, with a precise stereo image based on computer-selected, stepped potentiometers and low tolerance film capacitors.

This EQ is serious about flexibility. It offers high and low shelf bands which can be switched into high and low cut filters with resonance, two mid peak filters with wide and narrow Q, plus additional passive LC stages with shielded coils for a glorious top end.

With its exceptionally open sound, straight transient projection and solid punch, the xfilter is the perfect match for your xpressor – or any other piece of delicious outboard gear!

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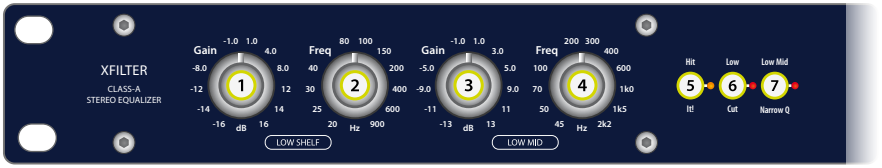
## Controls




**1 Gain (Low Shelf)**
Boosts or cuts the low frequency range » p. 8

**2 Frequency (Low Shelf)**
Sets the frequency for the low shelf filter » p. 8

**3 Gain (Low Mid)**
Boosts or cuts the low mid frequency range » p. 10

**4 Frequency (Low Mid)**
Sets the center frequency for the low mid peak filter » p. 10

**5 Hit It!**
Activates the xfilter (LED on) or deactivates it with a hardwire bypass (LED off)

**6 Low Cut**
Switches the low shelf filter (LED off) into a low cut filter with resonance (LED on) » p. 8

**7 Narrow Q (Low Mid)**
Changes the Q factor of the low mid filter from a wide curve (LED off) to a narrow curve (LED on) » p. 10

**8 Narrow Q (High Mid)**
Changes the Q factor of the high mid filter from a wide curve (LED off) to a narrow curve (LED on) » p. 11

**9 High Cut**
Switches the high shelf filter (LED off) into a high cut filter with resonance (LED on) » p. 9

**10 Passive Massage**
Activates a special passive LC filter network (LED on) or deactivates this additional fixed band (LED off) » p. 7

**11 Gain (High Mid)**
Boosts or cuts the high mid frequency range » p. 11

**12 Frequency (High Mid)**
Sets the center frequency for the high mid peak filter » p. 11

**13 Gain (High Shelf)**
Boosts or cuts the high frequency range » p. 9

**14 Frequency (High Shelf)**
Sets the frequency for the high shelf filter » p. 9

## Connectors

1. **Audio inputs (XLR and ¼" phone jack)**
2. **Audio outputs (XLR and ¼" phone jack)**
3. **Additional audio outputs (¼" phone jack)**
4. **Mains connector/power switch/fuse holder**
5. **Voltage selector**

**Mono operation:** Connect either input and output **1** or **2** - both will work identically.

**Stereo operation:** Connect both inputs and outputs **1** and **2** - the choice which channel is left and which is right is up to you.

**Inputs (+4 dBu)**

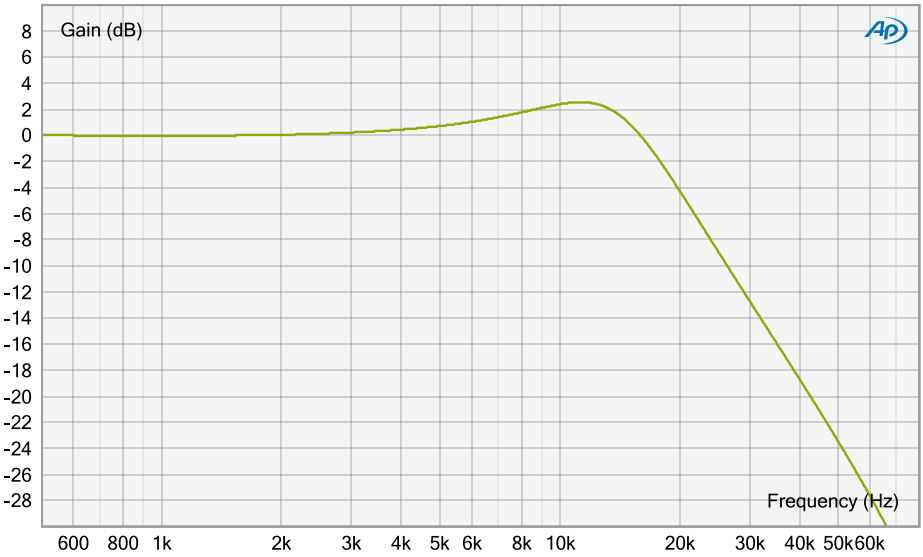
| | | | |
|---|---|---|---|
| XLR balanced: | **Pin 1:** ground | **Pin 2:** hot (+) | **Pin 3:** cold (-) |
| XLR unbalanced: | **Pin 1:** ground | **Pin 2:** hot (+) | **Pin 3:** ground |
| Jack balanced: | **Sleeve:** ground | **Tip:** hot (+) | **Ring:** cold (-) |
| Jack unbalanced: | **Sleeve:** ground | **Tip:** hot (+) | **Ring:** ground |

**Outputs (+4 dBu)**

| | | | |
|---|---|---|---|
| XLR balanced: | **Pin 1:** ground | **Pin 2:** hot (+) | **Pin 3:** ground |
| XLR unbalanced: | **Pin 1:** ground | **Pin 2:** hot (+) | **Pin 3:** idle |
| Jack balanced: | **Sleeve:** ground | **Tip:** hot (+) | **Ring:** ground |
| Jack unbalanced: | **Sleeve:** ground | **Tip:** hot (+) | **Ring:** idle |

**Fuses (2 pieces)**
230V operation: 100mA slo-blo
115V operation: 200mA slo-blo

## Passive Massage



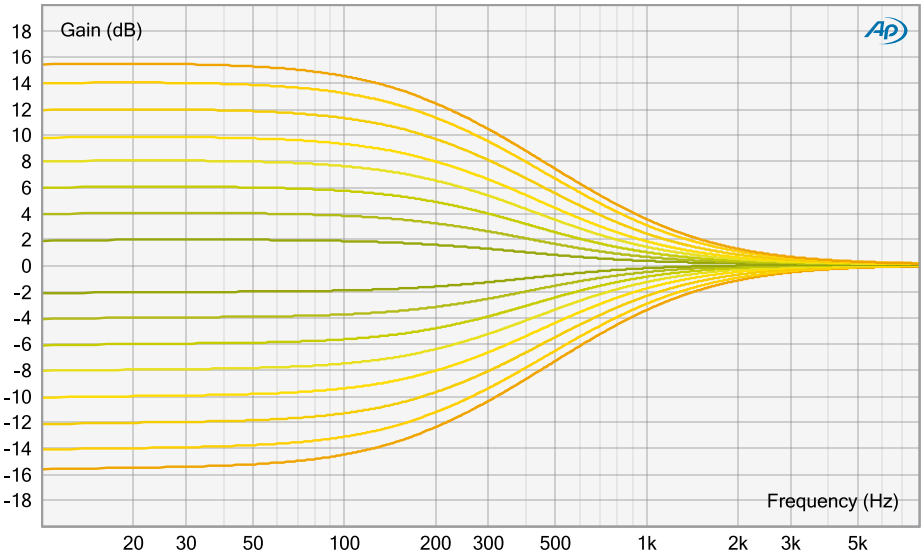

Mmm... The beautiful sheen a passive EQ adds on top of everything. We all love it, we all need it!

Well, here is the good news: In addition to its four flexible active bands, the xfilter features a switchable fixed LC filter for polishing the high frequency range.

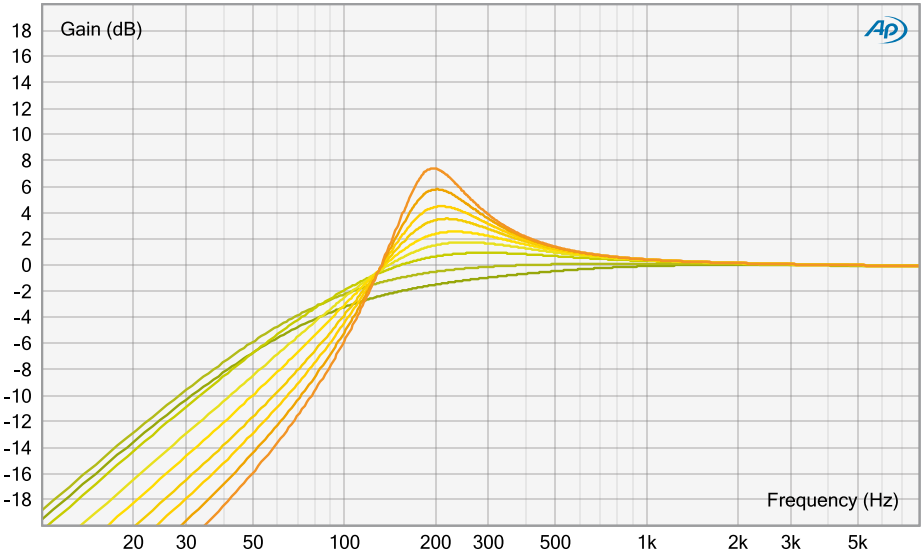
The filter mainly consists of a capacitor and a coil per channel, but unlike the standard shelving designs, it has a slight resonance peak at 12 kHz and starts to fall off at 17 kHz.

This way, the saturation-like storage effect of the shielded coil focuses on the area around the peak without pushing the complete high frequency spectrum too much.

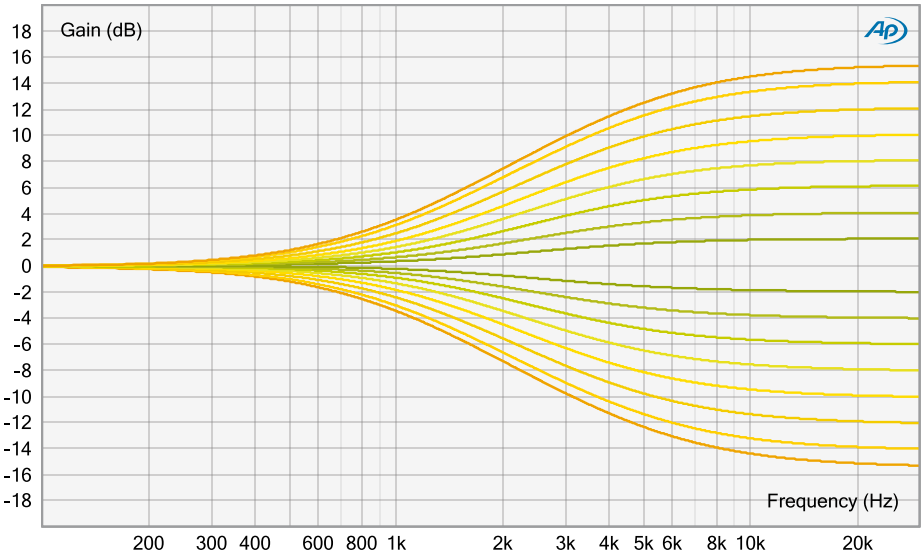
## Low Shelf



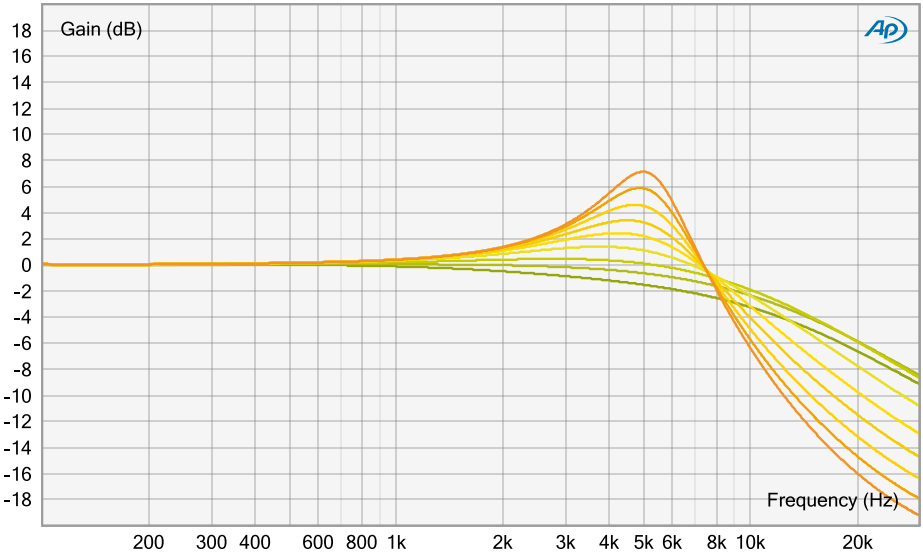

## Low Cut



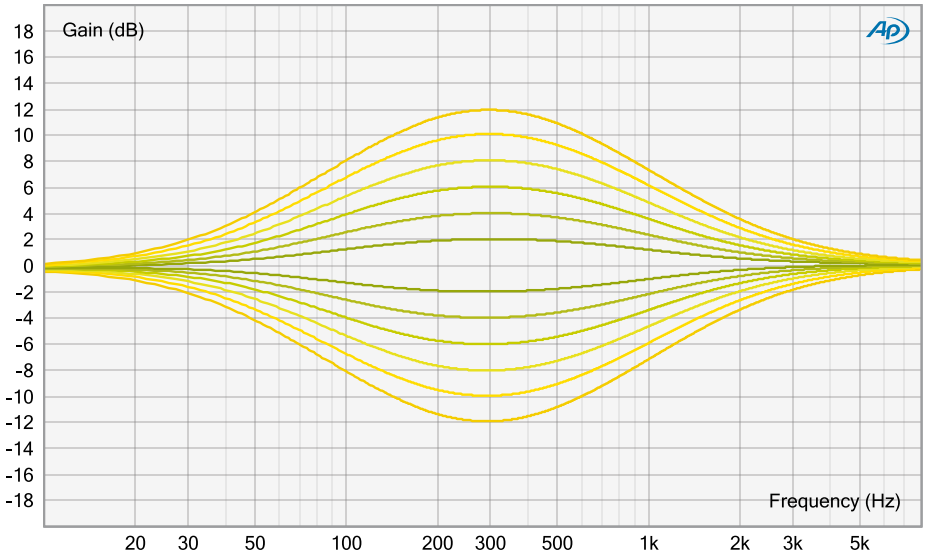
## High Shelf



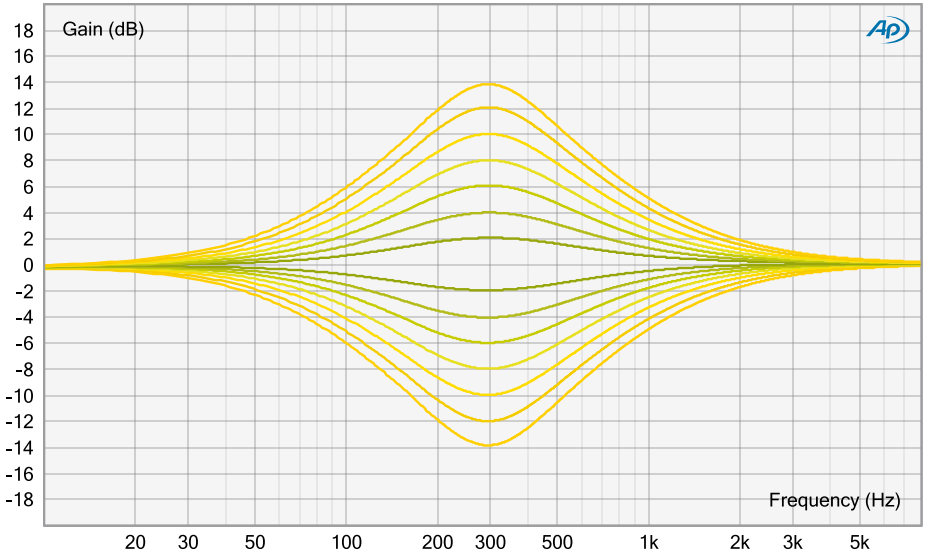

## High Cut



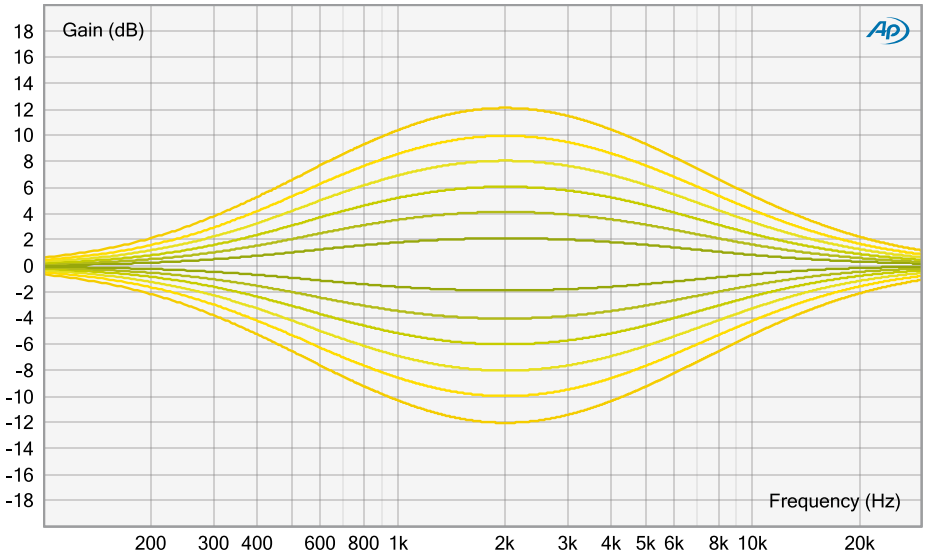
## Low Mid (Wide Q)



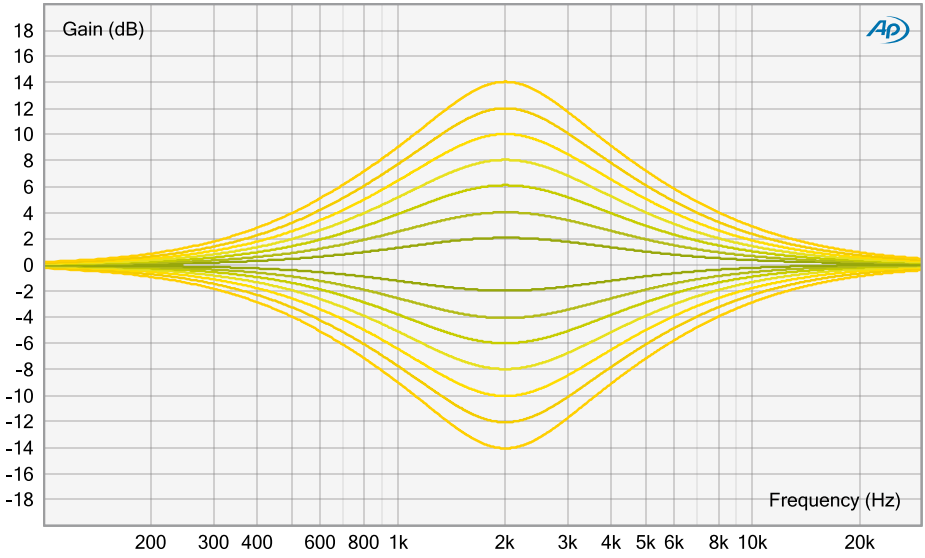

## Low Mid (Narrow Q)



## High Mid (Wide Q)




## High Mid (Narrow Q)



XFILTER
CLASS-A
STEREO EQUALIZER
Gain
Freq
LOW SHELF
Gain
Freq
LOW MID
Hit
Low
Low Mid
Hf
Cut
Narrow Q
elysia
High Mid
High
Passive
Narrow Q
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Massage
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Massage
Gain
Freq
HIGH MID
Gain
Freq
HIGH SHELF

## Technical Details

| | |
|---|---|
| Frequency response: | <10 Hz - 400 kHz (-3.0 dB) |
| THD+N @ 0 dBu, 20 Hz - 22 kHz: | 0.0018 % |
| THD+N @ +10 dBu, 20 Hz - 22 kHz: | 0.005 % |
| Noise floor, 20 Hz - 20 kHz (A-weighted): | -98 dBu |
| Dynamic range, 20 Hz - 22 kHz: | 120 dB |
| Maximum input level: | +21 dBu |
| Maximum output level: | +21 dBu |
| Input impedance: | 10 kOhm |
| Output impedance: | 68 Ohm |

## CE Conformity

CE elysia GmbH, Am Panneschopp 18, 41334 Nettetal, Germany, declares with sole responsibility that this product complies with the following norms and directives:

- 2006/95/EG Low Voltage Directive (formerly 73/23/EWG or 93/68/EWG)
- 89/336/EWG EMC (Electromagnetic Compatibility) Directive
- DIN EN 55103-1 EMC of audio equipment - Emission
- DIN EN 55103-2 EMC of audio equipment - Immunity

This declaration becomes invalid by any unapproved modification of the device.

Nettetal, 01.09.2013 - Ruben Tilgner & Dominik Klaßen

## Warranty Info

The xfilter is covered by a limited warranty for a period of 2 years against defects in parts and labor from the date of purchase. Natural wear is not covered by this warranty. Repairs or replacements will not extend the warranty period.

The warranty is given to the original purchaser only and is not transferable. elysia will only give warranty on products purchased through authorized elysia dealers. The warranty will only be valid in the country of the original purchase unless otherwise pre-authorized by elysia.

All warranties become void when the product has been damaged by misuse, accident, neglect, modification, tampering or unauthorized alteration by anyone other than elysia authorized service personnel.

The warrantor assumes no liability for property damage or any other incidental or consequential damage whatsoever which may result from failure of this product. Any and all warrantees of merchantability and fitness implied by law are limited to the duration of the expressed warranty.

elysia will not pay for express or overnight freight service or pay for shipments to locations outside Germany. All damages caused by transport are not covered by this warranty.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some of the above limitations may not apply to you.

## Legal Info

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RoHS compliant 2002/95/EC

This product is manufactured according to the 2002/95/EC directive. The purpose of this directive of the European Union is the Restriction of Hazardous Substances (RoHS) in electronic equipment in order to protect health and nature. Dispose separately!

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