

## Coolback II 300

### 3-way Active Mono Amplifier

#### Features

- 3-way Mono Digital Crossover
- 3 High performance Class AB amplifiers
- Sophisticated Power Supply
- Automatically On/Off via signal sensing
- Very Quick Soft Start - fuse saver
- Silent Design Toroidal Transformer 350VA
- Free XOverWizard software
- Optical isolated USB interface
- 48 biquads total processing power
- 150W + 200W + 200W Peak Power
- Very Low overall Noise and Distortion
- Regulated Supply for the Digital Crossover
- High current capability Supply for the amps
- 40mm High Quality Aluminium Heat Sink

#### Description

Coolback II 300 is a sophisticated, luxurious and powerful 3-way active “plate amplifier” intended to be a part of the loudspeaker. All electronics assembled on it and acting as a heat sink for the amplifier modules. The only visible on the outside are the connectors (Balanced Input - Neutrik XLR, PC Communication - Neutrik USB and IEC mains Power inlet), Operation Switch (ON-OFF-AUTO) and LED Indicators (ON-StandBy). The Coolback II 300 is 160mm wide and 580mm high - 40mm heat sink profile - a flange of maximum 20mm for mounting.

#### Applications

- High-End Active Loudspeakers
- Active Studio Monitors
- High Performance Surround Loudspeakers

#### Coolback II 300





## Coolback II 300 front

### Balanced Input

Neutrik 3-pol XLR female  
Pin1 Screen, Pin2 Positive, Pin3 Negative

### PC-Interface

Neutrik USB connector connects the PC to the onboard [www.FTDIchip.com](http://www.FTDIchip.com) circuit (FT232R driver can be downloaded at the FTDIchip web site).

The digital crossover DCN23 is optically isolated between the FTDI circuit and the rest of the circuitry on DCN23, which prevents ground loops and here by avoids hum problems.

The Coolback II 300 is programmed via the XOverWizard software:

[www.groundsound.com/XOW.zip](http://www.groundsound.com/XOW.zip)

### Operating Switch

Automatically powering On/Off at signal present

**Off** - forced OFF.

**On** – forced ON

### Power Indication

**On** – Green LED

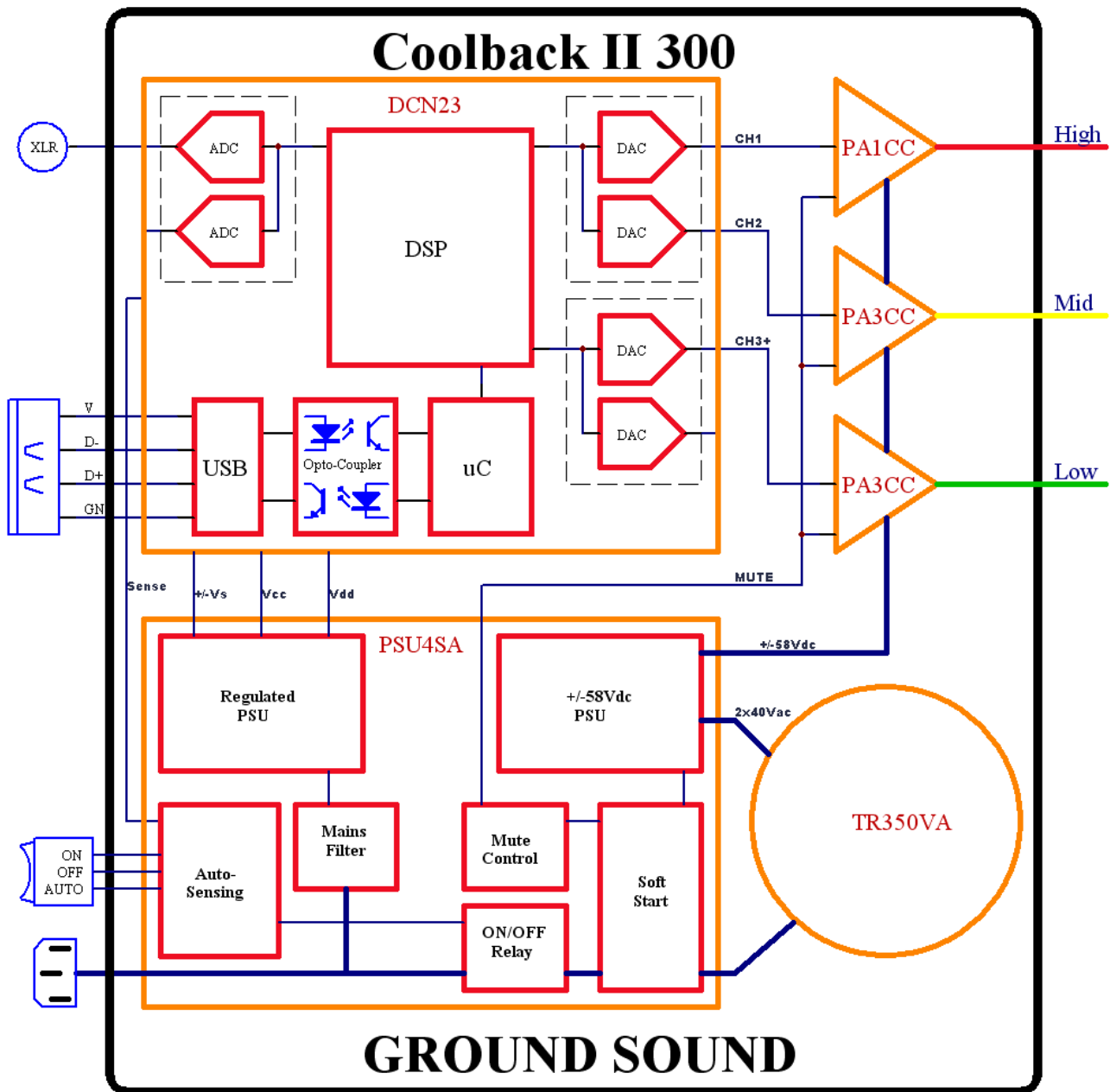
**St.By** – Red LED

### Mains Inlet

230Vac 50/60Hz IEC power connector.

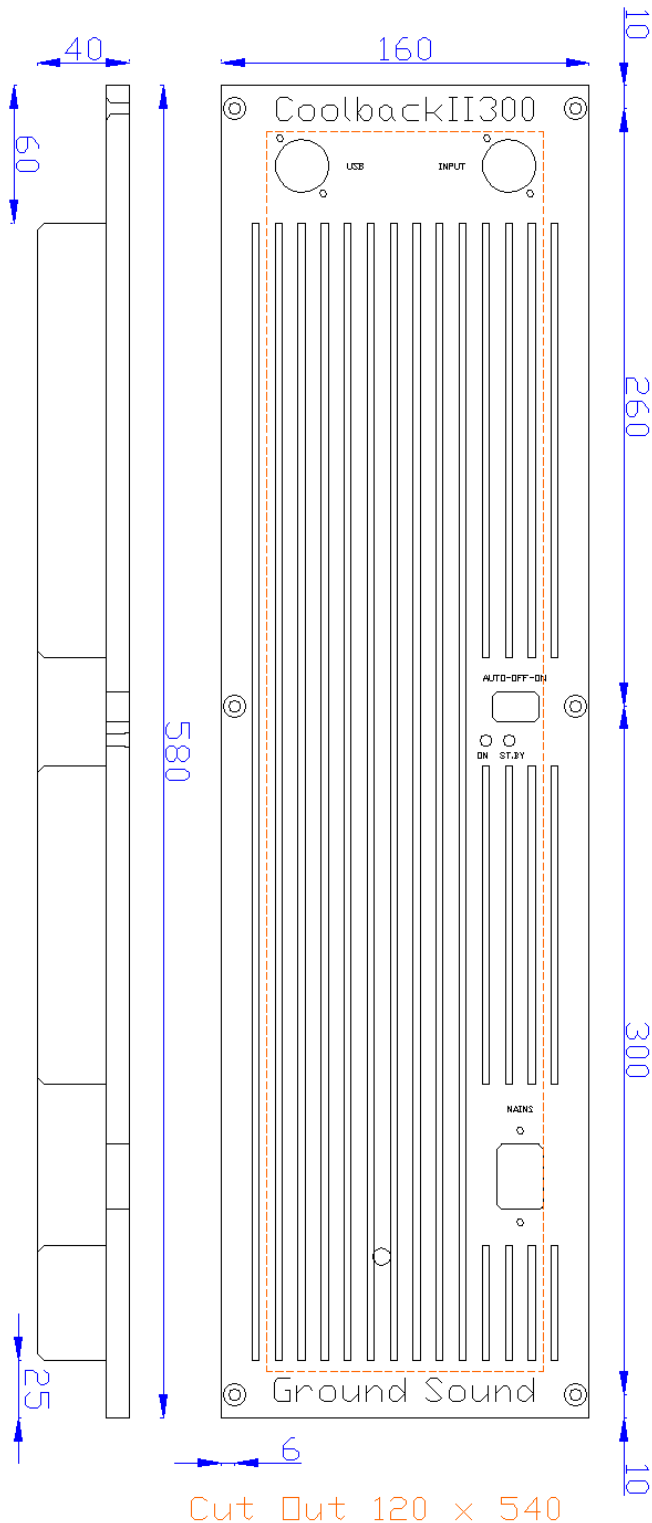
Mains earth pin is connected to Chassis (Aluminium plate). Electronics ground is ground lifted from Chassis.

## Functional Block Schematic of Coolback II 300



## Specifications

100W (8Ω) / 150W (4Ω) - minimum load 4Ω - Tweeter  
 150W (8Ω) / 250W (4Ω) - minimum load 3Ω - Mid-range  
 150W (8Ω) / 250W (4Ω) - minimum load 3Ω - Bass  
 24 bit/96kHz Processing  
 48 biquads total Processing Power  
 Frequency Response : 5-45kHz (-3dB)  
 Distortion : <0.08%  
 Signal/Noise Ratio : >108dB  
 Thermal Protection above 80°Celsius  
 Idle "ON" Power Consumption: 35W  
 StandBy Consumption: 8W  
 Maximum Consumption: 350W  
 Weight: app. 9kg



### Mechanical dimensions

The mounting of Coolback II 300 requires 6 pcs 5mm screws either self-drilling woodscrew or full threaded screw.

The Coolback can be used with or without separate internal box in the loudspeaker. If the Coolback II 300 is mounted in the main box, remember to seal between flange and aluminium plate. Especially make sure that a safe distance between the electronics and damping material etc. is held at all time. If you have the slightest doubt of safety risks, then it is better to make a separate internal box for the Coolback. Ground Sound takes absolutely no responsibility for any customer mounting and assembly of/with the Coolback II 300.

### Wiring

The only thing you have to wire before mounting the Coolback is the loudspeaker cables and you can either use the appropriate size FastOn or better solder the wire to the terminals of the driver. In rare cases the driver has spring terminals and in this case you simply have to strip the cables to make the connection.

Tweeter (Channel 1) = Twisted Red/Black  
 Mid (Channel 2) = Twisted Yellow/Black  
 Bass (Channel 3) = Twisted Green/Black  
 Connect coloured to + terminal and black to - terminal of the driver.

### Remarks and Revision history

Ground Sound reserves the rights to make alterations without prior notice.

Please notice that Ground Sound will not be held responsible for any property damage. It's assumed that the customer is aware of the danger of high voltage and takes the necessary precautions to avoid personal injury and fully understands the consequence of dealing with high voltage.

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