Ground Sound
Audio Products • Digital Crossovers • Amplifiers • Power Supplies

Coolback II 600
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 600VA
- Free XOverWizard software
- Optical isolated USB interface
- 48 biquads total processing power
- 150W + 350W + 350W Peak Power
- Very Low overall Noise and Distortion
- Regulated Supply for the Digital Crossover
- High current capability Supply for the amps
- 15mm High Quality Aluminium Mounting

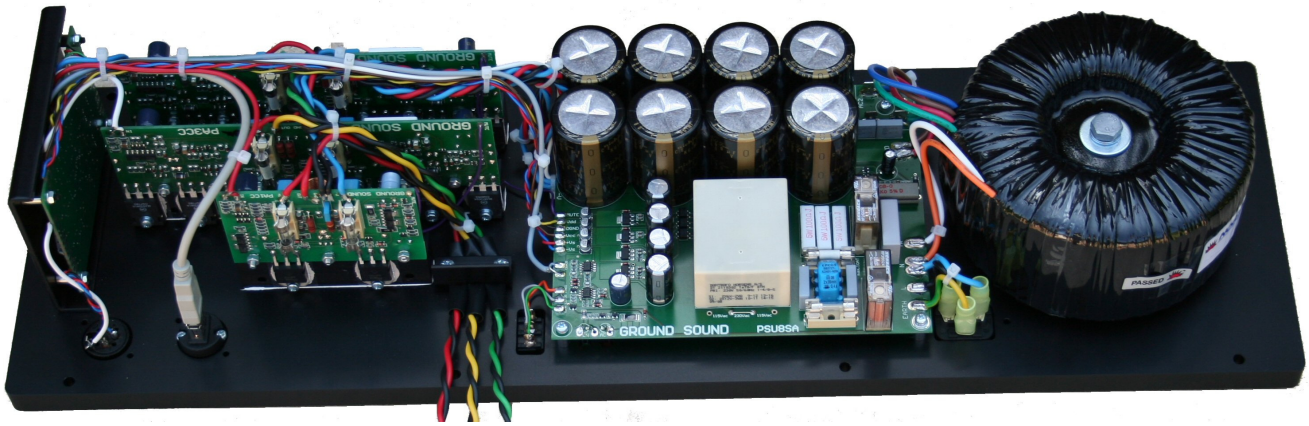
Description

Coolback II 600 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 600 is 180mm wide and 600mm high - a thickness of 15mm - a flange of maximum 17mm for mounting.

Applications

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

Coolback II 600



Coolback II 600 front

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

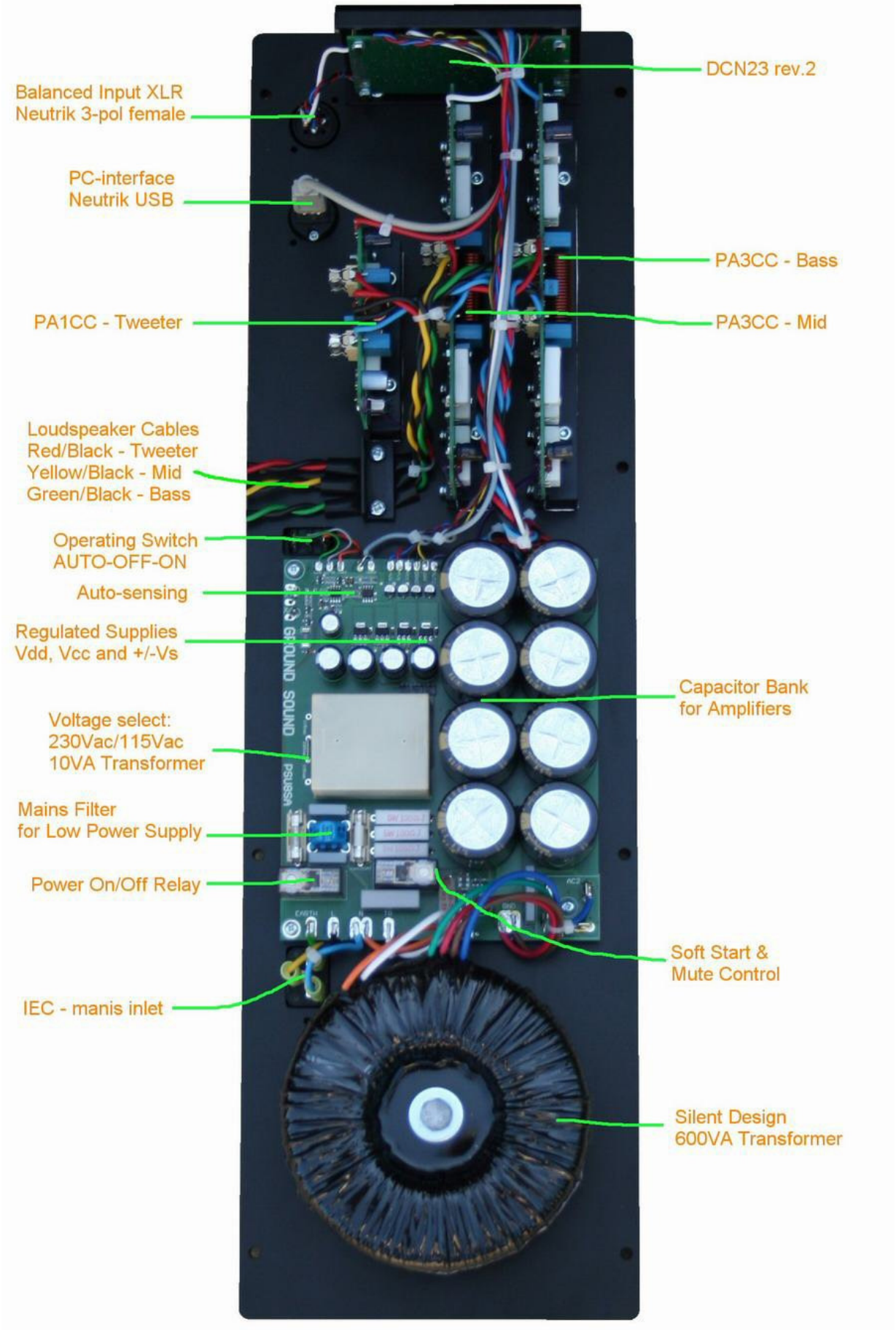
PC-Interface
Neutrik USB connector connects the PC to the onboard www.FTDIchip.com circuit (FT232R driver can be downloaded at the FTDIchip web site).
The digital crossover DCN23 is optically isolated between the FTDI circuit and the rest of the circuitry on DCN23, which prevents ground loops and here by avoids hum problems.
The Coolback II 600 is programmed via the XOverWizard software:
www.groundsound.com/XOW.zip

Operating Switch
Automatically powering On/Off at signal present
Off - forced OFF.
On – forced ON

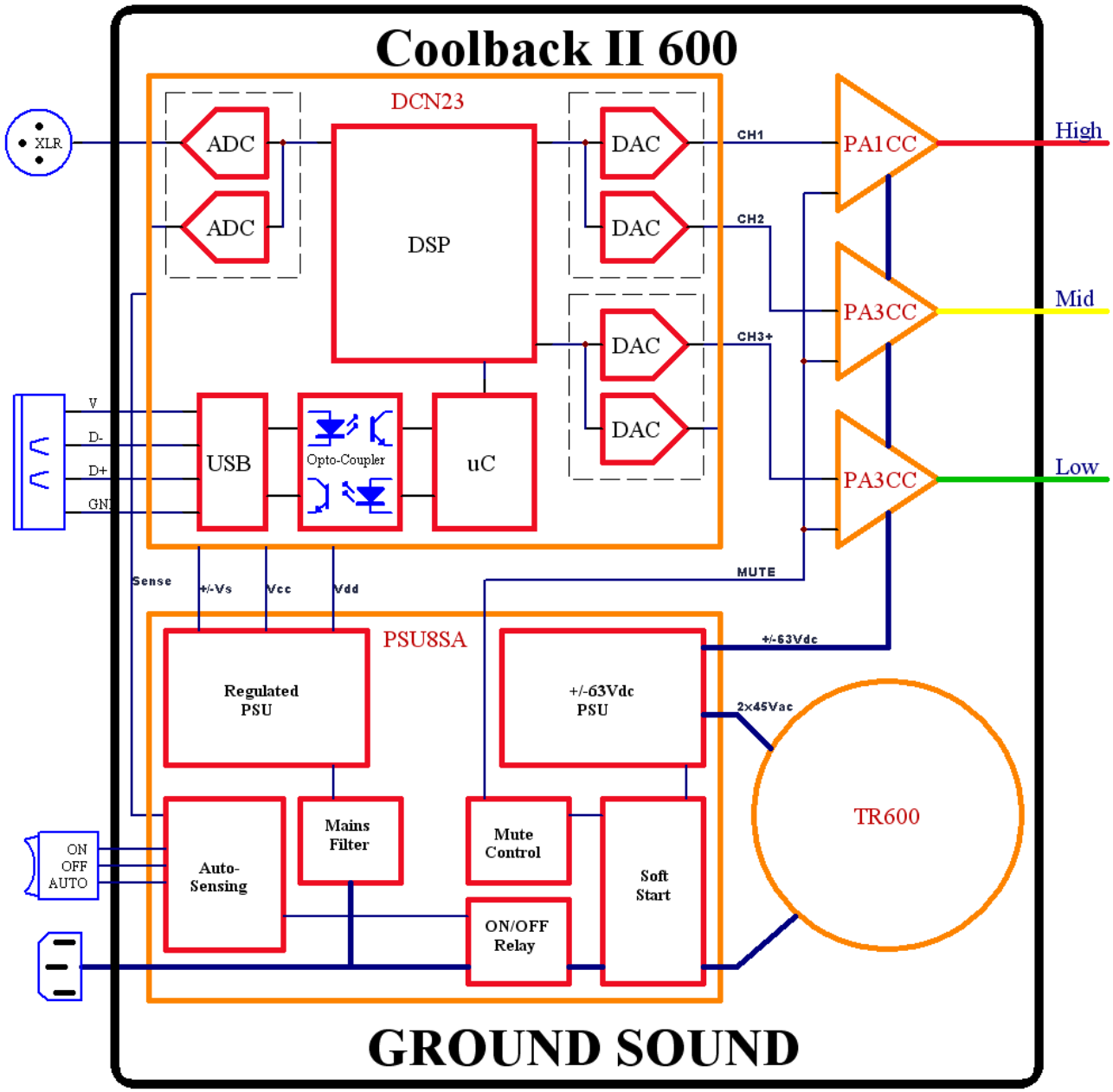
Power Indication
On – Green LED
St.By – Red LED

Mains Inlet
230Vac 50/60Hz IEC power connector.
Mains earth pin is connected to Chassis (Aluminium plate). Electronics ground is ground lifted from Chassis.

Overview of the Back of a Coolback II 600

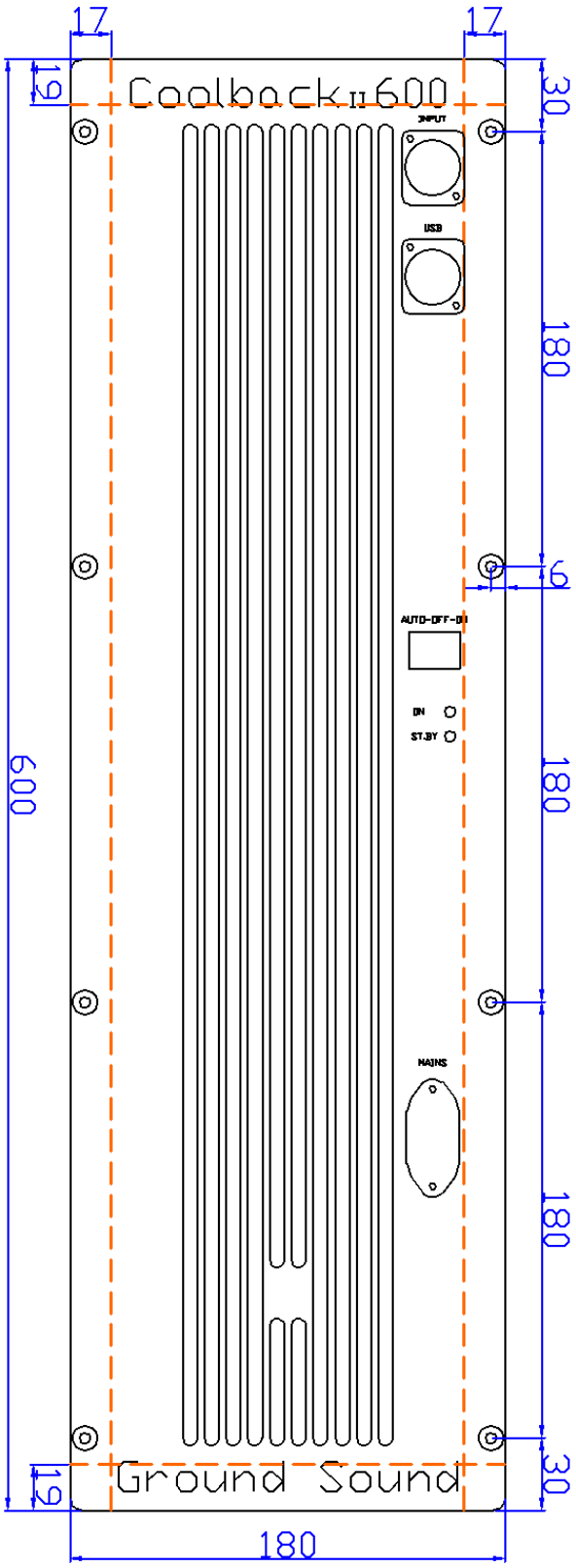


Functional Block Schematic of Coolback II 600



Specifications

100W (8Ω) / 150W (4Ω) - minimum load 4Ω - Tweeter
200W (8Ω) / 350W (4Ω) - minimum load 3Ω - Mid-range
200W (8Ω) / 350W (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°Celcius
Idle “ON” Power Consumption: 46W
StandBy Consumption: 8W
Maximum Consumption: 600W
Weight: app. 12kg



Mechanical dimensions

The mounting of Coolback II 600 requires 8 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 600 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 600.

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.

Revision A: 2009-05-25