

Coolback 800

4-way Active Mono Amplifier

Features

- 4-way Mono Digital Crossover
- 2 High performance Class AB amplifiers
- 2 High performance Class H amplifiers
- Sophisticated Power Supply
- Automatically On/Off via signal sensing
- Soft Start - fuse saver
- Silent Design Toroidal Transformer 800VA
- XOverWizard II software
- Optical isolated USB interface
- 180 biquads total processing power
- 150W + 150W + 600W + 600W Peak Power
- Very Low overall Noise and Distortion
- High current capability Supply for the amps
- 40mm High Quality Aluminium Heat Sink

Applications

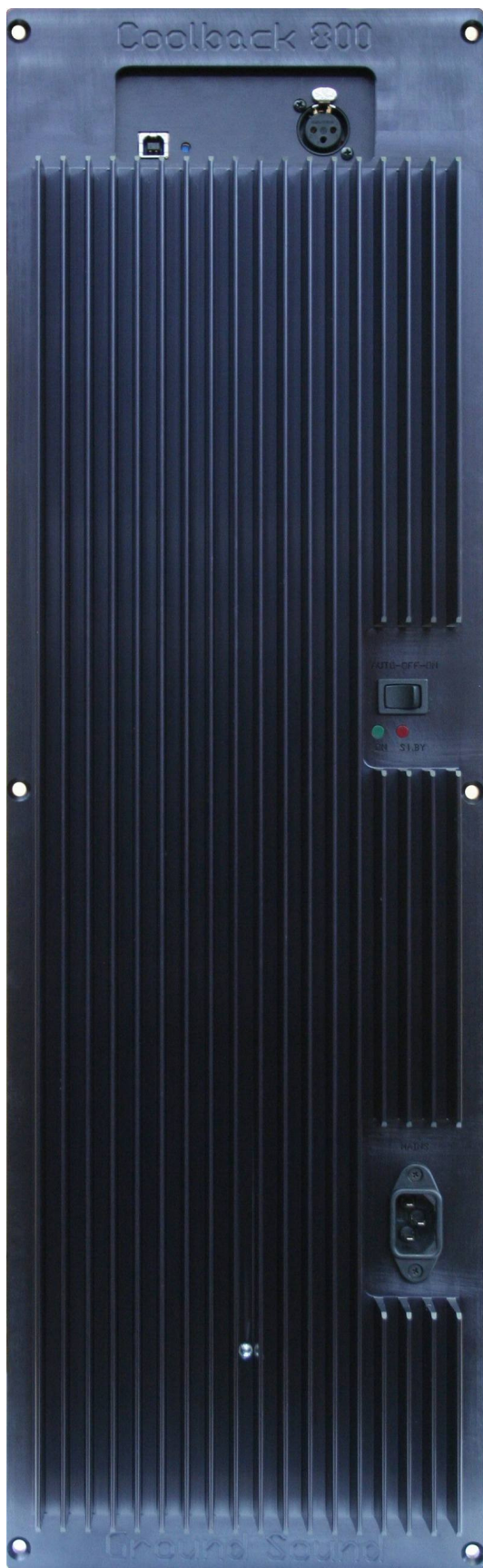
- High-End Active Loudspeakers
- Active Studio Monitors
- High Performance Surround Loudspeakers

Description

Coolback 800 is a sophisticated, luxurious and powerful 4-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 800 is 200mm wide and 650mm high - 40mm heat sink profile - a flange of maximum 17mm for mounting.

Coolback 800





Coolback 800 front

Balanced Input

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

PC-Interface

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 DCN14 is optically isolated between the FTDI circuit and the rest of the circuitry on DCN14, which prevents ground loops and here by avoids hum problems. The Coolback 800 is programmed via the XOverWizard II software: www.groundsound.com/XOWII.php

Operating Switch

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

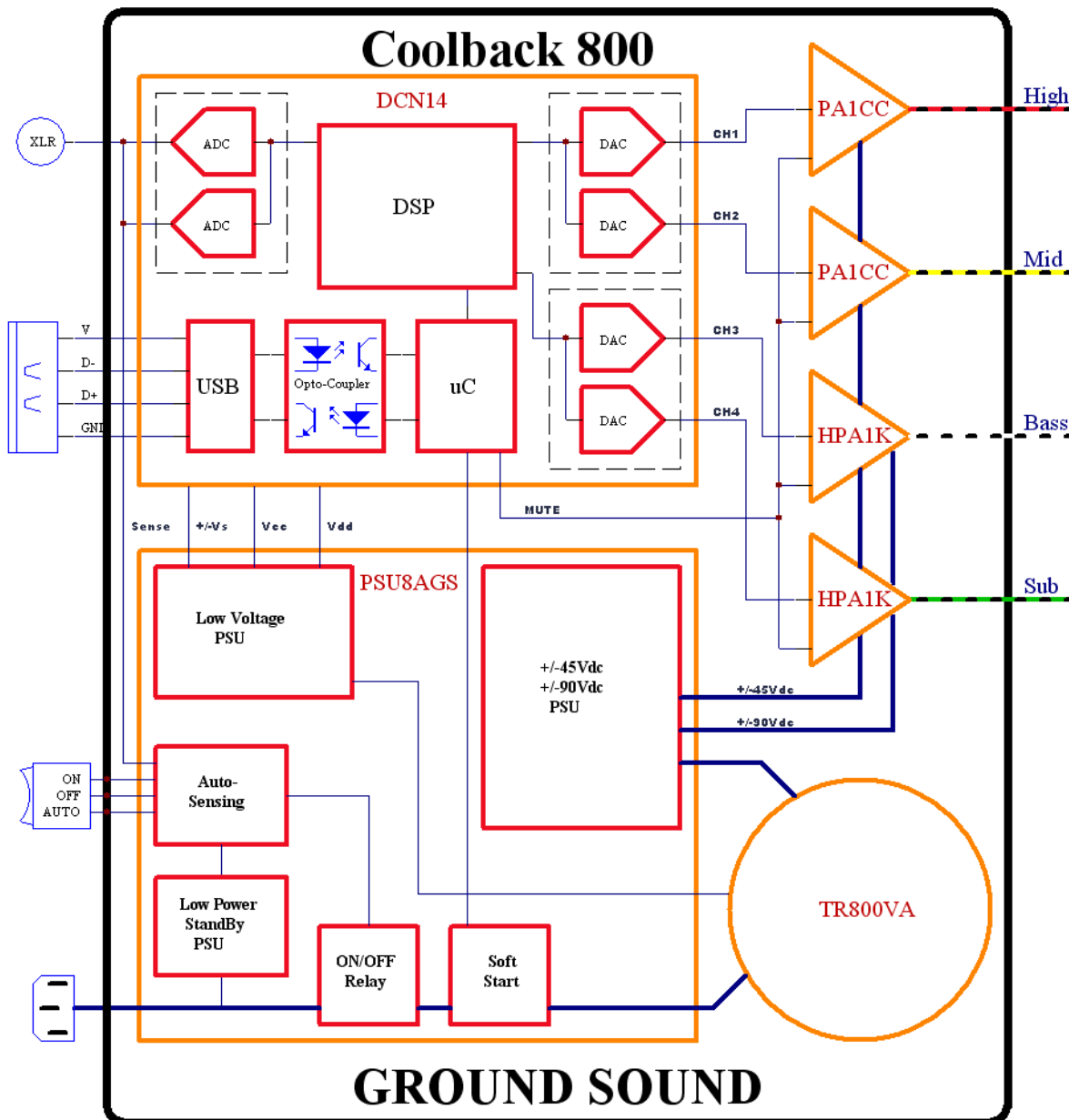
Power Indication

On – Green LED
St.By – Red LED

Mains Inlet

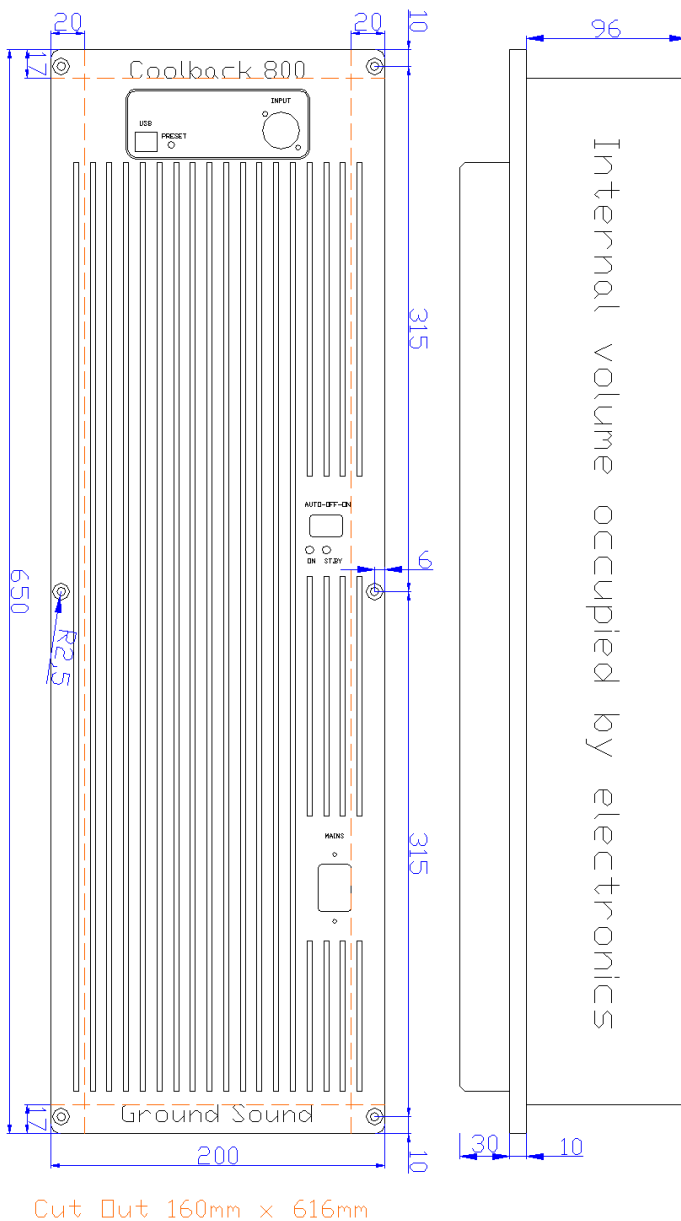
230Vac 50/60Hz IEC power connector.
Mains earth pin is connected to Chassis (Aluminium plate). Electronics ground is ground lifted from Chassis.

Functional Block Schematic of Coolback 800



Specifications

- 100W (8Ω) / 150W (4Ω) - minimum load 3Ω - Tweeter
- 100W (8Ω) / 150W (4Ω) - minimum load 3Ω - Mid-range
- 350W (8Ω) / 600W (4Ω) - minimum load 2Ω - Bass
- 350W (8Ω) / 600W (4Ω) - minimum load 2Ω - Sub
- 24 bit/96kHz Processing
- 180 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: 60W
- StandBy Consumption: <1W
- Maximum Consumption: 800W
- Weight: app. 16kg



Mechanical dimensions

The mounting of Coolback 800 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 800 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 800.

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 White/Black
 Sub (Channel 4) = 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: 2013-11-18