AUDIONET

AMP III

Stereo - Amplifier

Owner's Manual

Congratulations!

Audionet is proud to welcome you in the world of german high-end audio! Your Audionet AMP III is designed for natural and audiophile music reproduction in conjunction with safe operation and perfect long-term stability. The AMP III combines excellent high-frequency capabilities with total control of your loudspeakers.

Therefore, it is ideally suitable to be combined with the Audionet SAM main amplifier for "bi-amping". Furthermore, in conjunction with the Audionet PRE I preamplifier it forms a world-class high-end combination.

First, please read the manual and the precautions carefully. The AMP III is a complex unit and offers some uncommon features! In case of difficulties, please do not hesitate to contact your dealer or our factory directly!

Installation and power supply

Placing

Please find a place for your Audionet AMP III that is sufficiently ventilated to allow the heat to dissipate.

Connecting

Connect the power jack at the rear to your wall outlet. You should either use the provided power cord or another one allowed for your home country specifications. Tuning with "audiophile" power cords can lead to improved sound field. Ask your dealer for assistance.

NOTE: The power specifications on the rear must meet to your home country specifications. The AMP III is a Class I-system and must be earthed. Please ensure a stable earth connection.

Mains phase detection

Your Audionet AMP III is able to detect a wrong polarizing of the mains. If you see the front lamp flashing quickly when powering on, flip the plug in your wall outlet (also see below).

Additionally, on the rear panel you find a mark "phase" next to the mains connector. If you have the optional "Audionet Power Cord", APC, the phase is also marked on the wall plug itself.

The correct polarizing of the mains is important for reasons of audio clarity and stability.

Inputs and Outputs

For adding or removing connections your AMP III must be

switched off!

Please make sure that all cables are in absolute best condition. Broken shields or short-cut loudspeaker cables could damage loudspeakers or the amplifier!

Inputs

At first connect your AMP III to your preamplifier. Normally, the inputs labeled "direct in" should be used for this purpose.

Additionally, the AMP III is equipped with an AC-coupled input.

Using this input removes a DC-offset (direct current) from the signal of the preamplifier by a high-grade capacitor.

You should use this "ac-coupled in" only, if you have problems with D.C., which are not unlikely especially with active crossovers. By connecting the source to these inputs you prevent a DC-current flowing through the loudspeaker woofers decreasing sound dynamic and quality. In extreme cases the AMP III might even shut down showing the "DC" flash code (see below).

Loop output

The Audionet AMP III can be connected to other power amplifiers for "multi"-amping. For this purpose the signals from the input are routed back to the output labeled "out".

Speakers

Connect the left and right speakers to the gold plated WBT terminals on the rear. Please make sure that the red outputs (+) of the amplifier are connected to the positive inputs of the loudspeakers (usually red) and the white outputs (-) are connected to the negative loudspeaker inputs (usually white or black).

Wrong speaker polarization will result in severe loss of sound quality!

The nominal loudspeaker impedance must be 4 ohms or higher.

Although the AMP III has a protection circuit to prevent damage of the system, switch off the unit while working on the loudspeaker cables.

Never use force or tools tightening the terminal screws!

For bi-wiring the loudspeakers with your Audionet AMP III please use two loudspeaker cables and remove the "bridge" at the speaker terminals. Insert the "tweeter" cable from the rear using banana plugs and mount the "bass" cable from the side. In doubt please ask your dealer for assistance.

Headphones

A 6.3mm headphone jack is located on the rear of your AMP III. The signal on this socket is permanently active and cannot be switched off.

Please be aware that listening music via headphones can seriously damage your ears! The program can start suddenly!

Bi-Wiring

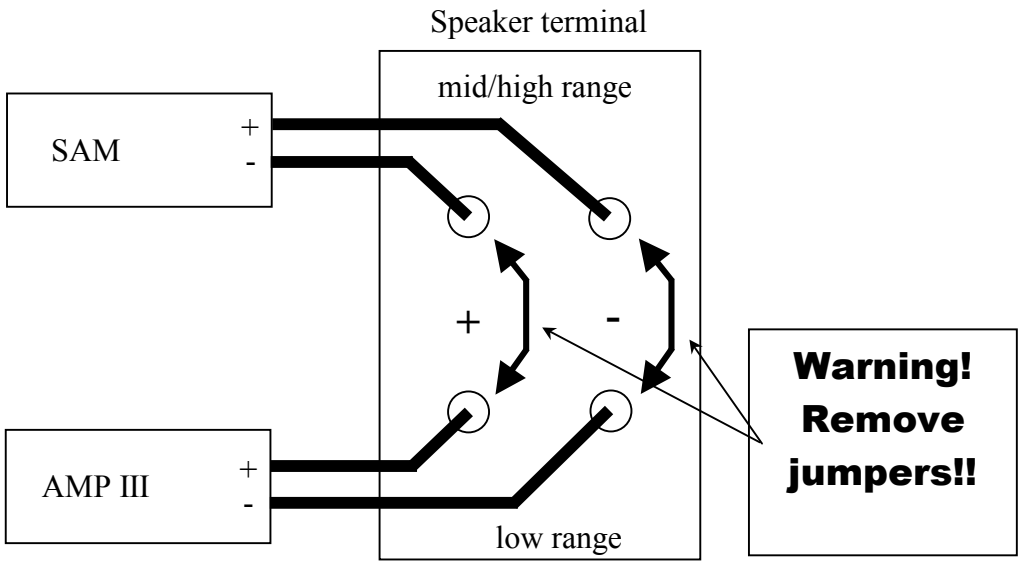
If your speakers support bi-wiring, connect each speaker with 2 separate speaker cables. Bi-wiring can improve the impulse response and spatial resolution of your speakers.

Bi-Amping

The AMP III is the ideal partner for bi-amping. In combination with a second amplifier (e.g. Audionet SAM), the low range and the mid/high range section of your speakers can be driven by separate amplifiers.

Before you use your system in a bi-amping setup, please ask the manufacturer of your speakers, if they are able to work in a bi-amping environment, and if any modifications or special setup procedures are necessary.

Warning: You must remove the jumpers connecting the terminals of the low range and mid/high range inputs of your speakers. Before switching on your system for the first time, please make absolutely sure, that the jumpers have been removed. Otherwise both amplifiers are shorted against each other and will be destroyed!



Operating

Power

Please, at first turn down your preamplifier. Then bring the main switch at the rear in the "on" position. The switch is located above the mains socket. Now the AMP III is in stand-by mode.

For switching your AMP III on and off, please use the power button at the front panel from now on. The main switch does not need to be operated unless you are absent for a long time. It must only be operated while the AMP III is in stand by mode.

Mains phase indicator

As mentioned above, your Audionet AMP III is able to detect a wrong polarizing of the mains. The indication is done by the front LED between the touch of the "power" ball and the "click" of the loudspeaker relays.

If the polarizing is correct, the LED flashes ⊗_____⊗_____⊗ etc. However, if you should observe a fast signal ⊗_⊗_⊗_⊗_⊗_⊗ etc., flip the plug in your wall outlet after having switched off the AMP III.

Audionet Link

When the AMP III is in stand-by mode its power can be controlled by any Audionet preamplifier using the "Audionet link". This feature is described in the preamplifier manuals, too.

You only need a simple optical "Toslink" cable. Connect one of the preamplifier outputs "Audionet Link" with the "Link" input of your AMP III. Now the AMP III power follows the preamplifier. Length of the "Toslink" cable is not critical - so you can place the AMP III next to the speakers if you prefer!

Protection system

Your Audionet AMP III is equipped with one of the most powerful protection circuits available on the market. Six errors are distinguished and indicated by the front LED using a "morse" like code:

•	•	•	Overload left
•	•	—	Overload right
•	—	•	Temperature error
—	•	•	High-Frequency error
—	—	•	DC error left
—	—	—	DC error right

In case of an error being indicated please check the cause referring to the following table:

- Overload: Short-circuit of a loudspeaker cable or loudspeaker defect.
- Overtemperature: Please free the top and bottom ventilation slots!
- HF Error: HF oscillation, please check your input source.
- DC Error: Dangerous DC-voltage at the output: Defect preamp or active crossover carrying DC. Please try connecting the source to the inputs "ac-coupled in" (see above).

Specialities

Construction

For optimizing the High-Frequency capabilities Audionet consequently uses Surface-Mounted Devices (SMD). As a result the faster and more compact circuits enable the engineer to use low-straw and extreme short wiring. The very good damping factor is a result of this, for instance.

Power supply

There are separate transformer windings and filters for pre- and power circuitry to ensure maximum load-independence. The main transformer is rated 700VA and drives two load capacitors from "Audionet" (2x41.000µF). All 16 rectifying diodes are ultra-fast "schottky"-types.

Microcontroller

The AMP III is controlled and supervised by a powerful Infineon micro-controller. It checks the mains phase, detects errors of the power stages in time and indicates the cause unambiguously. Of course it is driven by an oversized power supply of its own.

Circuitry

In the input stage Audionet employs a low-noise monolithic Dual-FET. A dual differential gain stage follows feeding multiple bootstrapped emitter-followers, which decouple the power stages from the voltage gain stages perfectly.

A fast arithmetic correction circuit locally ensures that distortion of the power stages is eliminated at once. The fast American "IR" Power-MOSFET-Transistors ensure powerful loudspeaker control and long term stability.

Precautions and Care

- Prevent children from playing with plastic bags!
- Please store and operate the unit in a dry room at a reasonable room temperature
- Avoid moisture or any liquid to get into the unit
- Set up the unit in a free position. Do not cover the top.
- Do not open the case. No user serviceable parts inside. Unauthorised opening will cause a loss of waranty.
- Do not short-circuit the output terminals.
- Please use a dry cloth for cleaning

We wish you many exciting listening experiences with your Audionet products!

If you need further information about our products please do not hesitate to contact you local Audionet dealer or us directly!

Your Audionet Team

Technical Data

Function	High-End Stereo Power Amplifier
Power	2 x 110 Watts into 8Ω 2 x 200 Watts into 4Ω
Frequency response	0 - 500,000Hz (-3dB)
Damping factor	typ. 1000 at 100Hz, (8Ω) typ. 600 at 10kHz (8Ω)
Distortion spectrum	k2 typ. -100dB, k3 typ. -120dB, at 25W/4Ω
Noise	> 112dB (A) at 10Veff
Channel separation	> 90dB for 1kHz
Input impedance	47kOhm, 150pF
Voltage Gain	31,3 (=30dB)
Inputs	1 x DIRECT IN, dc-coupled 1 x AC-COUPLED IN, ac-coupled via 1 µF MKP-Capacitor, f0=3,4Hz
Outputs	1 x OUT, for routing to other amplifiers
Speaker output	"WBT" teminals, gold plated
Headphones out	1x 6.3mm, stereo, 32..600Ω (rear side)
Power supply	220..240 Volts / 50..60 Hz or 110..120 Volts / 50..60 Hz as indicated on the rear 5W stand-by, 700W max.
Dimensions	w 430mm, h 110mm, d 360mm
Weight	15kg
Finish	Steel Chassis: black, 2mm Front: 10mm aluminum, natural or black elox Top: brushed aluminum , black

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