

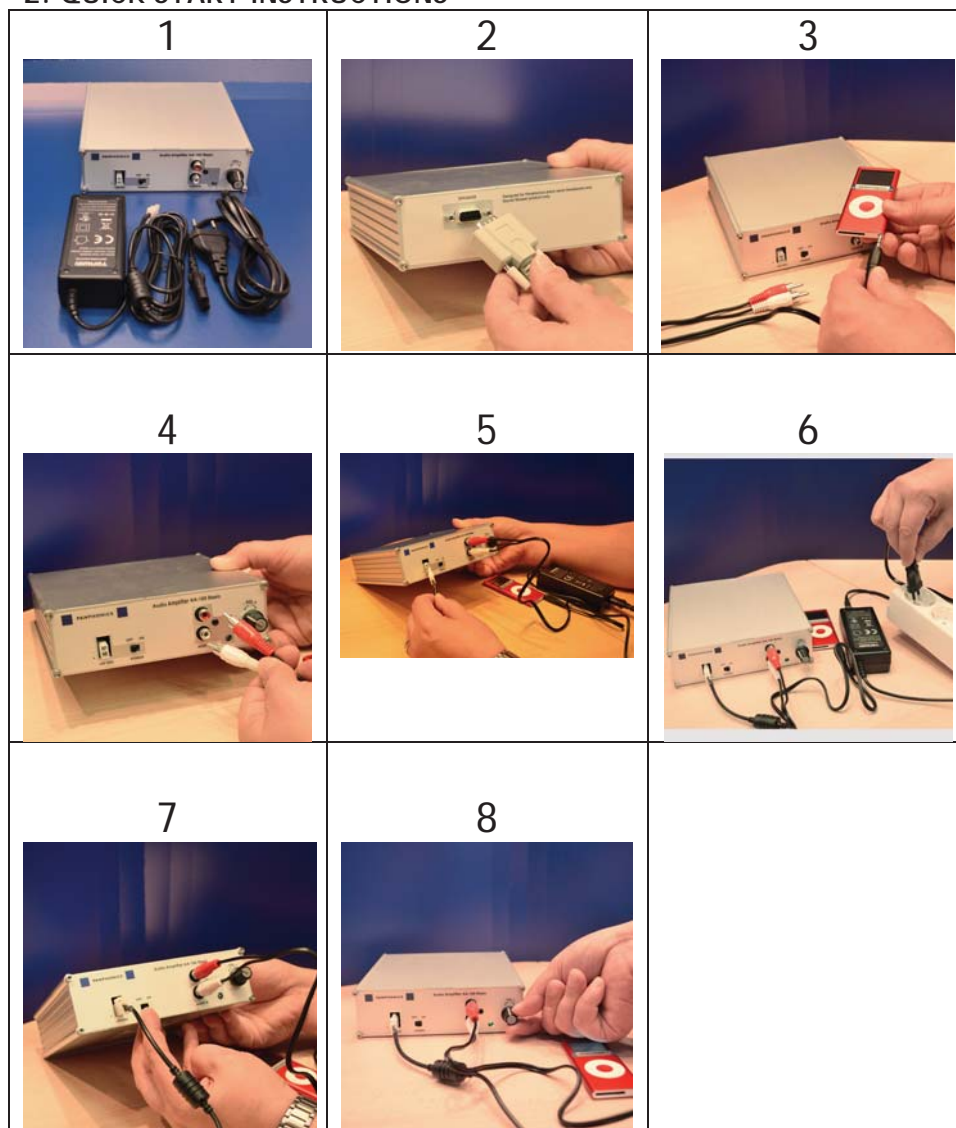


Panphonics AA-160 Basic Operation Manual

1. PRODUCT DESCRIPTION

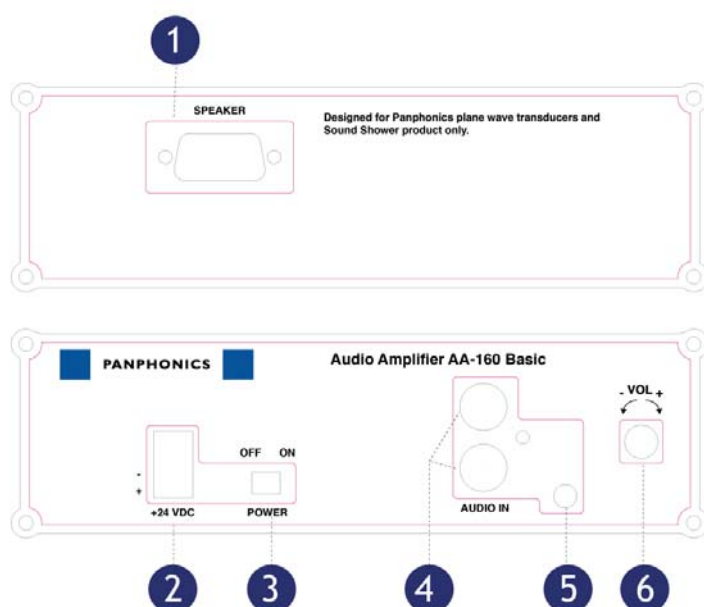
The Panphonics AA-160 Basic amplifier is capable of driving Panphonics speakers with high-quality audio.

2. QUICK START INSTRUCTIONS



1. Make sure you have all the provided equipments (AA160 Basic amplifier / Power Supply / Power cord) 2. Connect Panphonics speaker D-connector to amplifier 3. Connect RCA cable to the media player 4. Connect RCA cable to amplifier 5. Make sure that the Power Switch is turned OFF, then connect Power Supply cables to the amplifier 6. Connect power supply cables to electricity socket 7. Turn the power switch ON 8. Adjust the volume by rotating the volume knob

3. CONNECTIONS & CONTROLS IN AA-160 AMPLIFIER



1. Speaker out connector

Amplifier output for a speaker. Use only Panphonics speakers and audio elements.

2. Power input connector

Input for the provided power supply.

3. Power switch

Manual switch to turn the amplifier on and off.

4. RCA input

Input for unbalanced connections. The connector is summed to mono internally. When connecting a media player set the media players output volume (when adjustable) as high as possible without causing any distortion to the AA-160 amplifiers input stage. If the full volume setting causes distortion to the input of the AA-160 amplifier, lower the media players output volume. Set the final output volume by using the AA-160 amplifiers Volume Knob (#5).

5. LED signal light

Green light informs that the amplifier is functioning properly at an appropriate volume level. Red light informs that the amplifier's volume level is set too high.

6. Volume knob

Rotate to adjust the output level of the AA-160 Basic amplifier.

4. TROUBLESHOOTING

If the sound cannot be heard,

- Make sure that the Power Supply is connected to the amplifier and the power switch is turned ON (Green LED stays on)
- Make sure that the amplifiers volume level is not at its minimum level. If Red LED turns on the volume level is too high
- Make sure that all the cables have been connected correctly and the media player is turned on and it is functioning properly. If the media player has it's own volume control, make sure the volume has been set at sufficient level

If the sound volume is too low,

- Makes sure that the media player's volume level is set higher (still adjusting the amplifier's volume level to an appropriate level, so that Red LED does not turn on)
- Please note that the media player's output capacity affects the amplifier's final audio output

5. SPECIFICATIONS

Electrical Properties	
External Power Supply	+24 V DC, 2.5 A
Input impedance, RCA	10 kOhm
Input voltage, RCA	0.9 Vp-p
Rated Output	160 V rms (135 nF load)
S/N Ratio	> 70 dB
THD	< 0.05 @ 75% Rated Output
Audio Properties	
Output Frequency	min. 250 Hz - 16 kHz
Operational Conditions	
Temperature Range	0°C - 40°C (32°F - 72°F)
IP Class	IP20
Physical/Weight	
AA-160 Dimensions (HxWxD)	48 mm x 161 mm x 163 mm (1.89" x 6.34" x 6.42")
AA-160 Weight (net)	0.8 kg (1.8 lbs)
Colour	Anodized Aluminium

Product label of AA160 Basic amplifier



6. TERMS OF WARRANTY

Panphonics Oy warrants to the original purchaser that this Panphonics Oy's product (the "Product") will be free from defects in materials, design or workmanship, on the following terms and conditions:

Panphonics Audio Elements have been tested at the place of manufacture in accordance with the quality control of Panphonics Oy. Each notice of defects in the Product will be compared to the quality control record of the said Product. This Limited Warranty does not include deviations in audio performance characteristics of the Product if the performance characteristics entered into the quality control record have been correct and the purchaser cannot provide positive proof to the contrary, for example, inadequate transportation procedures.

1) The period of warranty will be twelve (12) months from the date the original purchaser took possession of the Product, or should have taken possession of the Product if the receipt of the Product was delayed due to a cause attributable to the purchaser. In case the original purchaser sells or otherwise assigns the Product to a new owner/user, the period of warranty will continue unaltered until the end of the original period of warranty.

2) This Limited Warranty is valid and enforceable only in the following states: European Community, Norway, Iceland and Switzerland.

3) During the period of warranty Panphonics Oy or its authorized maintenance service will either repair the defective Product or replace it with a new Product, at Panphonics Oy's option. Panphonics Oy will return the repaired Product or deliver a new Product to the purchaser in working order. All replaced parts and equipment will become the property of Panphonics Oy.

4) This Limited Warranty does include mechanical defects of the Product and significant deviations between technical data and performance characteristics of the Product.

5) The repaired or replaced Product will not be given extended or additional period of warranty.

6) This Limited Warranty does not include defects caused by normal tear and wear. In addition, this Limited Warranty will not be valid if:

i) The defect was due to

- a. The use of the Product either contrary to instructions or otherwise negligently;
- b. The Product being exposed to moisture, steam, extreme temperature or environment, or rapid changes in such, or corrosion or oxidation with corrosive materials, liquids or gasses or other way highly corrosive environment;
- c. The Product being altered, connected to another product, opened or repaired without authorization or the Product being repaired with spare parts not approved by Panphonics Oy;
- d. The Product being misused or installed incorrectly; or
- e. The Product having been in on an accident or been exposed to the elements or spilled over with food or liquid, or been affected by chemical substances or other events beyond the scope of influence of Panphonics Oy, including but without limitation to labour dispute and every other event Panphonics Oy cannot reasonably be expected to overcome, for example fire or other natural catastrophe, war, rebellion, seizure, monetary exchange control, mandatory legislation, orders of authorities, refusal of export license, scarcity of transportation, general scarcity, restrictions in the use of power, and defects and delays of subcontractor's delivery caused by the above-mentioned causes unless the damage has been direct consequence of a defect in material or design or workmanship;

ii) The purchaser has not informed Panphonics Oy or its authorized maintenance service about the defect within thirty (30) days from the occurrence of the defect during the period of warranty;

iii) The Product has not been returned to Panphonics Oy or its authorized maintenance service within thirty (30) days from the occurrence of the defect during the period of warranty;

iv) The serial number of the Product has been transferred, removed or damaged, or any number has been altered or is impossible to read;

v) The defect was caused by the malfunction of an electronic appliance not provided by Panphonics Oy;

vi) The defect was caused as a consequence of the Product being used with an accessory, which was not

manufactured, approved or provided by Panphonics Oy, or the Product was

connected to such accessory, or the Product was used for other purposes than instructed, or the Product has been connected to such electronic system, which does not operate customarily compared to the normal use of the Product;

vii) The defect was caused as a consequence of an acoustic or electric overloading of the Audio Element.

7) In order to be able to invoke this Limited Warranty, the purchaser must provide either

i) Readable and unaltered original sales receipt/warranty card, which clearly sets out the name and address of the seller, the date and place of the purchase, the type of the Product and serial number, or alternatively

ii) Readable and unaltered original sales receipt, which brings out the same information if produced to the seller/supplier of the Product.

8) The purchaser's rights against Panphonics Oy based on defects or defective functions of the Product are limited to this Limited Warranty. This Limited Warranty will supersede all other oral, written, statutory (unless mandatory), contractual and other warranties and liabilities. In no event will Panphonics Oy be liable for unforeseen, incidental, consequential or indirect damages or expenses. Should the purchaser be a company or other legal person, Panphonics Oy will not be liable for direct damages or expenses. Unless it is contrary to mandatory provisions of law, the purchaser will be finally responsible for product liability.

9) Any amendment or supplement to the terms of this Limited Warranty is binding on Panphonics Oy only if Panphonics Oy has beforehand accepted in writing to the amendment or supplement. The defective Product must be shipped to Panphonics Oy on the purchaser's expense.

7. MAINTENANCE

The equipment is turned off by turning the power switch OFF and removing the power supply unit from the mains socket. Notice that disconnecting the power plug only from the AA-160 does not disconnect the main power from the power supply unit. The Panphonics Sound Shower does not need periodical maintenance.

8. IMPORTANT SAFETY INFORMATION (ENG)

1. Panphonics speakers are designed to be used with supplied amplifier and power source only.
2. Disconnect unit from main voltage before making any connections.
3. Read all documentation before operating your equipment.
4. Follow all instructions.
5. Do not remove the rear cover. No user serviceable parts inside.
6. Make sure power outlets conform to the power requirements.
7. Do not operate the unit on a surface or in the environment what may impede the normal flow of air around the unit.
8. Do not use the unit near high heat or moisture-producing devices. Device is for inside use only.
9. When connecting a media player set the media players output volume (when adjustable) as high as possible without causing any distortion to the AA-160 amplifiers input stage.
10. Do not spill water or other liquids into or on to the power supply and amplifier.
11. **EQUIPMENT SHOULD BE INSTALLED AND SERVICED BY A SKILLED PERSON ONLY.**
12. The product label is located on the amplifier's rear plate.