# Reference Manual - English

# **POWER AMPLIFIERS**

NAP 500 • NAP 300 • NAP 250 • NAP V145 NAP 200 • NAP 155 XS • NAP 100



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### Introduction

Naim Audio products are conceived with performance as the top priority. Careful installation will help ensure that their full potential is achieved. This manual covers all power amplifiers. It begins with some general installation notes. Product specific information begins in Section 4.

Note: Please read the Statutory Safety Warnings found at the end of this manual.

### 1. Connections

It is important for both safety and performance that the standard cables supplied are not modified.

#### 1.1 Interconnect Cables

If options are available with your equipment and installation, DIN interconnect sockets should be used in preference to RCA Phono sockets. One end of each Naim interconnect cable is marked with a band to establish its correct orientation. The band denotes the end that connects to the signal source. Naim Hi-Line interconnect cable will provide the best results.

Interconnect plugs and sockets should be kept clean and free from corrosion. The easiest way to clean them is to switch off the equipment, pull the plugs out of their sockets, and push them back in again. Contact cleaners and "enhancers" should not be used as the film they deposit may degrade the sound.

### 1.2 Loudspeaker Cables

Loudspeaker cables are vitally important. They should each be at least 3.5 metres long and of equal length. The recommended maximum is normally 20 metres although longer cables may be viable with some Naim amplifiers.

Some Naim amplifiers are designed only to work with Naim loudspeaker cable and using alternatives may degrade the performance or even damage the amplifier. Other Naim amplifiers can be used with any high quality loudspeaker cable although we recommend that Naim loudspeaker cable is used. Naim loudspeaker cable is directional and should be oriented so that the printed arrow points towards the speakers. The Naim loudspeaker connectors supplied are designed to comply with European safety legislation and must be used.

Contact your local retailer or distributor for further advice on loudspeaker cables and connectors.

# 2. Mains Power

Use only the mains leads and plugs supplied or the Naim PowerLine mains cable.

Where fused plugs are used 13 amp fuses should be fitted. Fuses of a lower rating will fail after a period of use. Do not wire voltage dependent resistors or noise suppressors into mains plugs. They degrade the mains supply and the sound.

### 2.1 Mains Plug Wiring

In some territories a mains plug may need to be fitted to the supplied mains lead. As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in the plug proceed as follows:

The wire coloured <u>GREEN-AND-YELLOW</u> must be connected to the terminal in the plug marked by the letter <u>E</u> or by the safety earth symbol or coloured <u>GREEN</u> or <u>GREEN</u> and YELLOW.

The wire coloured <u>BLUE</u> must be connected to the terminal in the plug marked with the letter N or coloured <u>BLACK</u>.

The wire coloured <u>BROWN</u> must be connected to the terminal in the plug marked with the letter  $\underline{L}$  or coloured RED.

### 2.2 Equipment Fuses

Mains powered Naim Audio equipment is fitted with a mains fuse on the rear panel adjacent to the mains input socket. Replace it if necessary only with the spare fuse supplied or with an identical fuse. Repeated failure of the fuse points to a fault that should be investigated by your retailer or Naim itself.

### 2.3 Non-rewirable Mains Plugs

If a non-rewirable plug is cut from a mains lead (for whatever purpose) the plug MUST be disposed of in a way to render it totally useless. Considerable shock hazard exists if the cut-off plug is inserted into a mains outlet.

### 2.4 Mains Circuits and Cables

A hi-fi system usually shares a mains circuit with other household equipment some of which can cause distortion of the mains waveform. This distortion can in turn lead to mechanical hum from mains transformers. Some Naim transformers are large in size, making them relatively sensitive to such distortion, and it may be necessary to take account of transformer hum when siting your equipment.

Transformer hum is not transmitted through the speakers and has no effect on the performance of the system; however, a separate mains circuit may reduce it. Such a circuit (ideally with a 30 or 45 Amp rating) will also generally improve system performance. Advice on the installation of a separate mains circuit should be sought from a qualified electrician.

### 3. General Installation

Naim equipment is designed to offer the finest performance possible avoiding compromise wherever practical. This can lead to circumstances that may be unfamiliar. The notes that follow contain advice specifically related to Naim equipment as well as more general warnings about the use of domestic audio products. Please read them carefully.

### 3.1 Siting The Equipment

In order to reduce the risk of hum audible from the loudspeakers, power supplies and power amplifiers should be located a reasonable distance away from other equipment. The maximum separation distance for connected equipment is that allowed by the standard interconnect lead.

Some Naim equipment is extremely heavy. Check the weight of the equipment prior to lifting and if necessary use more than one person so that it can be moved safely. Ensure that your equipment rack or table can easily support the weight and is stable.

### 3.2 Switching On

Source components and power supplies should be switched on before the power amplifiers. Always switch amplifiers off and wait a minute before connecting or disconnecting any leads. Always use the power switch on the product rather than a mains outlet switch.

A "thump" may be heard from the loudspeakers as power amplifiers are switched on. This is normal, will not cause any loudspeaker damage and does not point to any fault or problem. A mild "pop" may also be heard shortly after equipment is switched off.

#### 3.3 Running In

Naim equipment takes a considerable time to run in before it performs at its best. The duration varies, but under some conditions the sound may continue to improve for over a month. Better and more consistent performance will be achieved if the system is left switched on for long periods. It is worth remembering however that equipment left connected to the mains can be damaged by lightning.

### 3.4 Radio Interference

In some circumstances, depending on where you live and the earthing arrangements in your home, you may experience radio frequency interference. Controls on broadcasting in some territories allow very high levels of radio frequency radiation and both the choice and exact siting of equipment may be critical. Susceptibility to radio frequency interference is related to the wide internal bandwidth necessary for high sound quality. A radio frequency filter kit is available for some Naim equipment but sound quality will be progressively compromised as more elements of the kit are fitted.

### 3.5 Lightning Precautions

Your Naim hi-fi system can be damaged by lightning and should be turned off and disconnected from the mains when there is risk of lightning strike. For complete protection all mains plugs and any aerial cables should be disconnected when not in use.

### 3.6 Problems?

Consumer protection varies from country to country. In most territories a retailer must be prepared to take back any equipment he has sold if it cannot be made to work satisfactorily. A problem may be due to a fault in the system or its installation so it is essential to make full use of your dealer's diagnostic skills. Please contact your local distributor, or Naim Audio directly, if any difficulties cannot be resolved.

Some Naim equipment is made in special versions for different territories and this makes it impracticable to arrange international guarantees. Please establish the local guarantee arrangements with your retailer. Contact Naim Audio directly for help and advice if necessary.

#### 3.7 Service and Updates

It is essential that repairs and updates are only carried out by an authorised Naim retailer or at the factory by Naim itself. Many components are custom made, tested or matched and appropriate replacements are often unobtainable from other sources.

Direct contact to Naim for service or update information should be made initially through Customer Services:

Tel: +44 (0)1722 426600 Fmail: info@naimaudio.com

Please quote the product serial number (found on its rear panel) in all correspondence.

# 4. NAP 500 Installation and Operation

The NAP 500 and NAP 500PS should be installed on a dedicated equipment stand intended for the purpose and should be in their final location before connecting cables or switching on. Switch on the source and preamplifier components, with the volume turned down, before switching on the NAP 500. The NAP 500 power button is located on the front panel of the NAP 500PS Power Supply.

Care should be taken when siting the NAP 500 to ensure that the top and bottom ventilation grids are not blocked.

The NAP 500 and NAP 500PS are very heavy and care should be taken when lifting or moving them. Make sure that the surface they are to be placed on can support the full weight.

#### 4.1 General Connections Notes

The mains earth (ground) should always be connected regardless of what other equipment is used in conjunction with Naim power amplifiers. This only grounds the case and the electrostatic screen within the transformer, and is not connected to the signal negative. In order to avoid hum loops, the signal negative of the whole system should be connected to the mains earth (ground) in one place.

Note: Each channel of the NAP 500 is a "bridged" amplifier, so none of the speaker outlet sockets (+ or -) are at earth potential. Avoid connecting mains powered equipment such as electrostatic speakers, sub-woofers and headphone energisers that do not have a floating earth. No plug which is connected directly or indirectly to earth potential should be attached to any speaker outlet (+ or -).

#### 4.2 Protection Notes

In the NAP 500 the fan speed is increased in response to an increase in amplifier dissipation. If the amplifier reaches 70°C due to prolonged running at high level or to airflow being blocked, the output will be interrupted and the fan will run at full speed until it has cooled down. This may take a few minutes.

It is not necessary to switch the amplifier off, but it may be advisable to mute the preamplifier or turn the volume down to avoid surprises when it comes back on.

OPERATION OF THE AMPLIFIER'S THERMAL PROTECTION SUGGESTS PROLONGED USE AT TOO HIGH A VOLUME LEVEL. YOUR LOUDSPEAKERS MAY BE AT RISK IF THIS IS THE CASE. THE VOLUME SHOULD BE REDUCED.

### 4.3 Loudspeaker Cable and Connectors

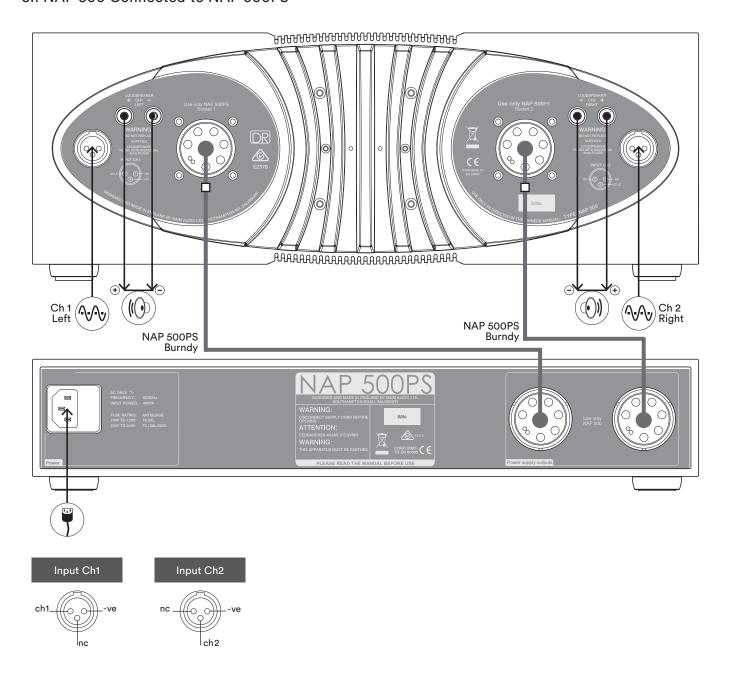
Only Naim Audio speaker cable should be used to connect a loudspeaker to the output of the NAP 500. Custom Naim Audio loudspeaker connectors are supplied to make the connection and in order to comply with current European safety regulations these should always be used.

DAMAGE TO THE AMPLIFIER MAY RESULT IF "HIGH DEFINITION" CABLE OR ANY OTHER SPECIAL CABLE IS USED TO CONNECT THE LOUDSPEAKERS.

Ensure when connecting speakers that they are "in phase". That is, the positive and negative connection orientation at both the speaker and amplifier ends of the cable is the same for both channels.

# 5. NAP 500 Connections

### 5.1 NAP 500 Connected to NAP 500PS



# 6. NAP 300 Installation and Operation

The NAP 300 and NAP 300PS should be installed on a dedicated equipment stand intended for the purpose and should be in their final location before connecting cables or switching on. Switch on the source and preamplifier components, with the volume turned down, before switching on the NAP 300. The NAP 300 power button is located on the front panel of the NAP 300PS Power Supply.

Care should be taken when siting the NAP 300 to ensure that the underside fan inlet and rear outlet are not obstructed.

The NAP 300 and NAP 300PS are heavy and care should be taken when lifting or moving them. Make sure that the surface they are to be placed on can support the full weight.

#### 6.1 General Connections Notes

The negative input and output connections for each channel are common. The mains earth (ground) should always be connected regardless of what other equipment is used in conjunction with Naim power amplifiers. This only grounds the case and the electrostatic screen within the transformer, and is not connected to the signal negative. In order to avoid hum loops, the signal negative of the whole system should be connected to the mains earth (ground) in one place.

#### 6.2 Protection Notes

In the NAP 300 the fan speed is increased in response to an increase in amplifier dissipation. If the amplifier reaches 70°C due to prolonged running at high level or to airflow being blocked, the output will be interrupted and the fan will run at full speed until it has cooled down. This may take a few minutes.

It is not necessary to switch the amplifier off, but it may be advisable to mute the preamplifier or turn the volume down to avoid surprises when it comes back on.

OPERATION OF THE AMPLIFIER'S THERMAL PROTECTION SUGGESTS PROLONGED USE AT TOO HIGH A VOLUME LEVEL. YOUR LOUDSPEAKERS MAY BE AT RISK IF THIS IS THE CASE. THE VOLUME SHOULD BE REDUCED.

### 6.3 Loudspeaker Cable and Connectors

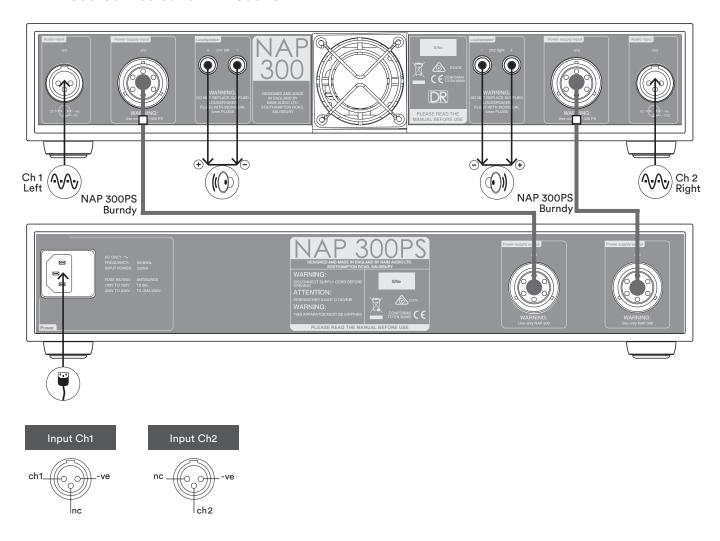
Only Naim Audio speaker cable should be used to connect a loudspeaker to the output of the NAP 300. Custom Naim Audio loudspeaker connectors are supplied to make the connection and in order to comply with current European safety regulations these should always be used.

DAMAGE TO THE AMPLIFIER MAY RESULT IF "HIGH DEFINITION" CABLE OR ANY OTHER SPECIAL CABLE IS USED TO CONNECT THE LOUDSPEAKERS.

Ensure when connecting speakers that they are "in phase". That is, the positive and negative connection orientation at both the speaker and amplifier ends of the cable is the same for both channels.

# 7. NAP 300 Connections

### 7.1 NAP 300 Connected to NAP 300PS



# 8. NAP 250 Installation and Operation

The NAP 250 should be installed on a dedicated equipment stand intended for the purpose and should be in its final location before connecting cables or switching on. Switch on the source and preamplifier components, with the volume turned down, before switching on the NAP 250. The NAP 250 power button is located on the front panel.

The NAP 250 is heavy and care should be taken when lifting or moving it. Make sure that the surface it is to be placed on can support the full weight.

### 8.1 General Connections Notes

The negative input and output connections are all common. The mains earth should always be connected regardless of what other equipment is used. This only grounds the case and the electrostatic screen within the transformer, and is not connected to the signal negative. In order to avoid hum loops, the signal negative of the whole system should be connected to the mains earth (ground) in one place.

#### 8.2 Protection Notes

If the amplifier's external case reaches 70°C due to prolonged running at high power, the mains supply will be interrupted and the illuminated logo will switch off until the amplifier has cooled down. This may take up to thirty minutes.

OPERATION OF THE AMPLIFIER'S THERMAL PROTECTION SUGGESTS PROLONGED USE AT TOO HIGH A VOLUME LEVEL. YOUR LOUDSPEAKERS MAY BE AT RISK IF THIS IS THE CASE. THE VOLUME SHOULD BE REDUCED.

### 8.3 Loudspeaker Cable and Connectors

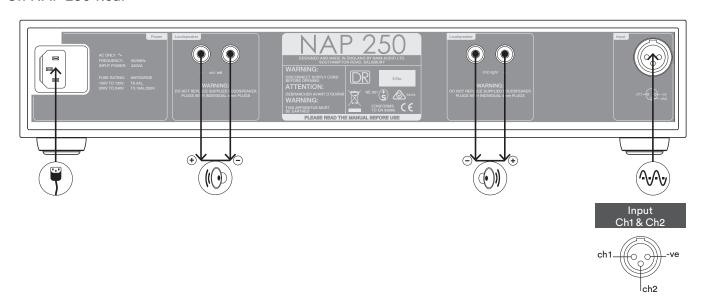
Only Naim Audio speaker cable should be used to connect a loudspeaker to the output of the NAP 250. Custom Naim Audio loudspeaker connectors are supplied to make the connection and in order to comply with current European safety regulations these should always be used.

DAMAGE TO THE AMPLIFIER MAY RESULT IF "HIGH DEFINITION" CABLE OR ANY OTHER SPECIAL CABLE IS USED TO CONNECT THE LOUDSPEAKERS.

Ensure when connecting speakers that they are "in phase". That is, the positive and negative connection orientation at both the speaker and amplifier ends of the cable is the same for both channels.

# 9. NAP 250 Connections

### 9.1 NAP 250 Rear



### **NAP V145**

# 10. NAP V145 Installation and Operation

The NAP V145 is a mono power amplifier intended for use in audio-visual systems. The NAP V145 should be installed on a dedicated equipment stand intended for the purpose and should be in its final location before connecting cables or switching on. Switch on the source and preamplifier components, with the volume turned down, before switching on the NAP V145. The NAP V145 power button is located on the front panel.

The NAP V145 is heavy and care should be taken when lifting or moving it. Make sure that the surface it is to be placed on can support the full weight.

#### 10.1 General Connections Notes

The negative input and output connections are all common. The mains earth should always be connected regardless of what other equipment is used. This only grounds the case and the electrostatic screen within the transformer, and is not connected to the signal negative. In order to avoid hum loops, the signal negative of the whole system should be connected to the mains earth (ground) in one place.

#### 10.2 Protection Notes

If the amplifier's external case reaches 70°C due to prolonged running at high power, the mains supply will be interrupted and the illuminated logo will switch off until the amplifier has cooled down. This may take up to thirty minutes.

OPERATION OF THE AMPLIFIER'S THERMAL PROTECTION SUGGESTS PROLONGED USE AT TOO HIGH A VOLUME LEVEL. YOUR LOUDSPEAKERS MAY BE AT RISK IF THIS IS THE CASE. THE VOLUME SHOULD BE REDUCED.

### 10.3 Loudspeaker Cable and Connectors

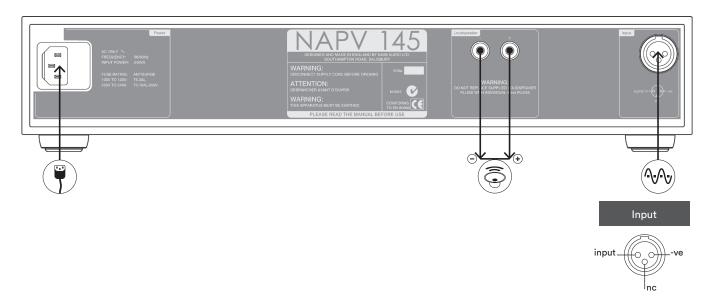
Only Naim Audio speaker cable should be used to connect a loudspeaker to the output of the NAP V145. Custom Naim Audio loudspeaker connectors are supplied to make the connection and in order to comply with current European safety regulations these should always be used.

DAMAGE TO THE AMPLIFIER MAY RESULT IF "HIGH DEFINITION" CABLE OR ANY OTHER SPECIAL CABLE IS USED TO CONNECT THE LOUDSPEAKERS.

Ensure when connecting speakers that they are "in phase". That is, the positive and negative connection orientation at both the speaker and amplifier ends of the cable is the same for both channels.

### 11. NAP V145 Connections

### 11.1 NAP V145 Rear



# 12. NAP 200 Installation and Operation

The NAP 200 should be installed on a dedicated equipment stand intended for the purpose and should be in its final location before connecting cables or switching on. Switch on the source and preamplifier components, with the volume turned down, before switching on the NAP 200. The NAP 200 power button is located on the front panel.

The NAP 200 can provide power for an appropriate Naim Audio preamplifier. The power supply output is carried on the DIN input socket.

The NAP 200 is heavy and care should be taken when lifting or moving it. Make sure that the surface it is to be placed on can support its full weight.

### 12.1 General Connections Notes

The negative input and output connections are all common. The mains earth should always be connected regardless of what other equipment is used. This only grounds the case and the electrostatic screen within the transformer, and is not connected to the signal negative. In order to avoid hum loops, the signal negative of the whole system should be connected to the mains earth (ground) in one place.

#### 12.2 Protection Notes

If the amplifier's external case reaches 70°C due to prolonged running at high power, the mains supply will be interrupted and the illuminated logo will switch off until the amplifier has cooled down. This may take up to thirty minutes.

OPERATION OF THE AMPLIFIER'S THERMAL PROTECTION SUGGESTS PROLONGED USE AT TOO HIGH A VOLUME LEVEL. YOUR LOUDSPEAKERS MAY BE AT RISK IF THIS IS THE CASE. THE VOLUME SHOULD BE REDUCED.

### 12.3 Loudspeaker Cable and Connectors

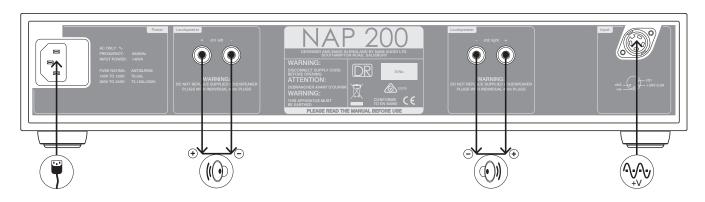
Only Naim Audio speaker cable should be used to connect a loudspeaker to the output of the NAP 200. Custom Naim Audio loudspeaker connectors are supplied to make the connection and in order to comply with current European safety regulations these should always be used.

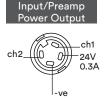
DAMAGE TO THE AMPLIFIER MAY RESULT IF "HIGH DEFINITION" CABLE OR ANY OTHER SPECIAL CABLE IS USED TO CONNECT THE LOUDSPEAKERS.

Ensure when connecting speakers that they are "in phase". That is, the positive and negative connection orientation at both the speaker and amplifier ends of the cable is the same for both channels.

### 13. NAP 200 Connections

#### 13.1 NAP 200 Rear





### **NAP 155 XS**

# 14. NAP 155 XS Installation and Operation

The NAP 155 XS should be installed on a dedicated equipment stand intended for the purpose and should be in its final location before connecting cables or switching on. Switch on the source and preamplifier components, with the volume turned down, before switching on the NAP 155 XS. The NAP 155 XS power switch is located on the rear panel.

The NAP 155 XS can provide power for an appropriate Naim Audio preamplifier. The power supply output is carried on the DIN input socket.

#### 14.1 General Connections Notes

The negative input and output connections are all common. The mains earth should always be connected regardless of what other equipment is used. This only grounds the case and the electrostatic screen within the transformer, and is not connected to the signal negative. In order to avoid hum loops, the signal negative of the whole system should be connected to the mains earth (ground) in one place.

#### 14.2 Protection Notes

If the amplifier's external case reaches 70°C due to prolonged running at high power, the mains supply will be interrupted and the illuminated logo will switch off until the amplifier has cooled down. This may take up to thirty minutes.

OPERATION OF THE AMPLIFIER'S THERMAL PROTECTION SUGGESTS PROLONGED USE AT TOO HIGH A VOLUME LEVEL. YOUR LOUDSPEAKERS MAY BE AT RISK IF THIS IS THE CASE. THE VOLUME SHOULD BE REDUCED.

### 14.3 Loudspeaker Cable and Connectors

Only Naim Audio speaker cable should be used to connect a loudspeaker to the output of the NAP 155 XS. Custom Naim Audio loudspeaker connectors are supplied to make the connection and in order to comply with current European safety regulations these should always be used.

DAMAGE TO THE AMPLIFIER MAY RESULT IF "HIGH DEFINITION" CABLE OR ANY OTHER SPECIAL CABLE IS USED TO CONNECT THE LOUDSPEAKERS.

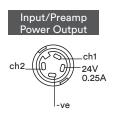
Ensure when connecting speakers that they are "in phase". That is, the positive and negative connection orientation at both the speaker and amplifier ends of the cable is the same for both channels.

## 15. NAP 155 XS Connections

### 15.1 NAP 155 XS Rear



<u>Note:</u> The NAP 155 XS features various technologies to reduce microphonic effects. Some movement of the board and sockets when connecting and disconnecting cables is normal.



# 16. NAP 100 Installation and Operation

The NAP 100 should be installed on a dedicated equipment stand intended for the purpose and should be in its final location before connecting cables or switching on. Make sure that the amplifier location allows adequate ventilation. Switch on the source and preamplifier components, with the volume turned down, before switching on the NAP 100. The NAP 100 power switch is located on the rear panel.

#### 16.1 General Connections Notes

The mains earth grounds only the case and the electrostatic screen within the transformer and is not connected to the signal negative. The mains earth must always be connected to "ground" regardless of any other equipment used. In order to avoid hum-loops the signal negative of the whole system should be connected to the mains earth in one place.

The DIN and RCA signal input sockets are connected in parallel and should not be used simultaneously.

#### 16.2 Protection Notes

Once installed the NAP 100 is intended to remain permanently switched on via its rear panel switch. If the internal heatsink reaches 70°C due to prolonged operation at high volume levels, the power amplifier circuit will be disabled until the temperature has fallen. This may take up to thirty minutes.

OPERATION OF THE AMPLIFIER'S THERMAL PROTECTION SUGGESTS PROLONGED USE AT TOO HIGH A VOLUME LEVEL. YOUR LOUDSPEAKERS MAY BE AT RISK IF THIS IS THE CASE. THE VOLUME SHOULD BE REDUCED.

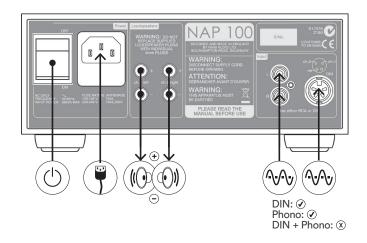
### 16.3 Loudspeaker Cable and Connectors

A stereo set of speaker connection sockets is provided on the rear panel. Custom Naim Audio loudspeaker connectors are supplied to make the connection and in order to comply with current European safety regulations these should always be used. Naim Audio speaker cable will provide the best results; however, a wide range of speaker cable types can be used without risk of damage to the amplifier.

Ensure when connecting speakers that they are "in phase". That is, the positive and negative connection orientation at both the speaker and amplifier ends of the cable is the same for both channels.

### 17. NAP 100 Connections

#### 17.1 NAP 100 Rear





# 18. Specifications

	NAP 500	NAP 300	NAP 250
Power Output:	140 Watts per channel, $8\Omega$	90 Watts per channel, $8\Omega$	80 Watts per channel, 8Ω
Quiescent Consumption:	60VA	27VA	25VA
Voltage Gain:	+30dB	+29dB	+29dB
Input Impedance:	18kΩ	18kΩ	18kΩ
Frequency Response:	-3dB @ 1.5Hz and 100kHz	-3dB @ 2Hz and 70kHz	-3dB @ 2Hz and 65kHz
Power Supply Output:	None	None	None
Dimensions (H x W x D):	NAP 500 - 160 × 432 × 375mm	NAP 300 - 87 × 432 × 314mm	87 × 432 × 314mm
	NAP 500PS - 87 × 432 × 314mm	NAP 300PS - 87 × 432 × 314mm	
Weight:	NAP 500 - 25kg	NAP 300 - 10.7kg	15.8kg
	NAP 500PS - 15.4kg	NAP 300PS - 14.1kg	
Mains Supply:	100V, 115V or 230V, 50/60Hz	100V, 115V or 230V, 50/60Hz	100V, 115V or 230V, 50/60Hz
	(NAP 500PS)	(NAP 300PS)	
	NAP V145	NAP 200	NAP 155 XS
Power Output:	80 Watts, 8Ω (single channel)	70 Watts per channel, $8\Omega$	60 Watts per channel, 8Ω
Quiescent Consumption:	15VA	11VA	10VA
Voltage Gain:	+29dB	+29dB	+29dB
Input Impedance:	18kΩ	18kΩ	18kΩ
Frequency Response:	-3dB @ 2Hz and 65kHz	-3dB @ 2Hz and 70kHz	-3dB @ 3Hz and 50kHz
Power Supply Output:	None	24V, 0.3A	24V, 0.25A
Dimensions (H x W x D):	87 × 432 × 314mm	87 × 432 × 314mm	70 × 432 × 301mm
Weight:	15.8kg	11.6kg	7.5kg
Mains Supply:	100V, 115V or 230V, 50/60Hz	100V, 115V or 230V, 50/60Hz	100V, 115V or 230V, 50/60Hz
	NAP 100		

Power Output: 50 Watts per channel,  $8\Omega$ 

Quiescent Consumption: 15VA Voltage Gain: +29dB Input Impedance:  $18k\Omega$ 

Frequency Response: -3dB @ 3.5Hz and 69kHz

Power Supply Output: None

Dimensions (H x W x D):  $87 \times 207 \times 314$ mm

Weight: 5.6kg

Mains Supply: 100V, 115V or 230V, 50/60Hz

# 19. Diagram Icons



Analogue signal



Analogue signal with power supply



Left speaker output



Right speaker output



Mono speaker output



Power switch



IEC mains supply

# 20. Declarations of Conformity

Naim Audio declares that Naim Audio products are in conformance with:

Low Voltage Directive 2006/95/EC

Electromagnetic Compatibility Directive 2004/108/EC

Restriction of Hazardous Substances (RoHS2) Directive 2011/65/EU

Waste of Electrical and Electronic Equipment Directive 2012/19/EC

Energy Using Product Directive 2009/125/EC

Naim Audio products comply with the following standards:

EN60065 - Audio, video and similar electronic apparatus - Safety requirements

EN55013 - Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics

EN55020 - Sound and television broadcast receivers and associated equipment - Immunity characteristics

EN61000-3-2 - Mains harmonics current emissions

EN61000-3-3 - Mains flicker emissions

Products that display the crossed-out wheeled bin logo cannot be disposed of as domestic waste. These products must be disposed of at facilities capable of re-cycling them and appropriately handling any waste by-products. Contact your local authority for details of the nearest such facility. Appropriate recycling and waste disposal helps conserve resources and protects the environment from contamination.

# 21. Statutory Safety Warnings

In order to comply with current European safety regulations it is essential that the Naim loudspeaker connectors supplied with amplifiers and loudspeakers are used.

Do not under any circumstances allow anyone to modify your Naim equipment without first checking with the factory, your retailer, or your distributor. Unauthorised modifications will invalidate your guarantee.

Equipment must not be exposed to dripping or splashing and no objects filled with liquid, such as vases, should be placed on the equipment.

For your own safety do not under any circumstances open Naim equipment without first disconnecting it from the mains.

Warning: an apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.

Warning: batteries installed shall not be exposed to excessive heat such as sunshine, fire or the like.

Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable. To disconnect the equipment from the mains remove the mains plug from the mains outlet.

The following label is attached to all mains powered equipment:



This equipment has been tested and found to comply with the relevant EMC and Safety Standards, and, where applicable, also complies with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your Naim retailer or an experienced radio/TV technician for help.

To the fullest extent permitted by applicable law, Naim Audio Ltd. disclaims all liability for any loss or damages whether real, incidental or consequential that arise from using this product. Naim Audio Limited, its agents and representatives, cannot be held responsible for the loss of any data or content from a Naim/NaimNet server, however caused.



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