

O W N E R S   M A N U A L  
Integrated Amplifier



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## 1.0 Equipment installation

Normally your Naim equipment will have been installed by the dealer who sold it to you even if you live outside their immediate vicinity. Your dealer is responsible for making sure that the system sounds exactly as it should and information given here is not intended to reduce this responsibility in any way.

### 1.1 cables and connections

Please do not modify the standard interconnect cables supplied with your Naim equipment. This is important for safety as well as performance. One end of each cable is marked with a band to establish its correct orientation. The band always marks the end that connects to the signal source.

Loudspeaker leads are also very important. Naim loudspeaker cable is correct for your system and your dealer will make up leads to suit your equipment installation. **The leads should each be at least 3.5 metres long and of equal length.** The recommended maximum is 20 metres. Loudspeaker leads are, like interconnect leads, directional, and should be connected so that the printed arrow points towards the speakers. Using alternative loudspeaker cable will degrade performance, and may even damage your amplifier. An exception to these loudspeaker cable constraints is the **nap 6-50** multi-room power amplifier. The **nap 6-50** is designed to be tolerant of both a wide variety of cable types, and cable runs well in excess of 20m. The loudspeaker connectors supplied with all Naim amplifiers and loudspeakers have been specifically designed to make a robust mechanical connection. It is essential that these are used in order to comply with current European safety regulations.

All the plugs and sockets supplied with your Naim equipment have been chosen because they make the best possible connection for their purpose. A poor contact will degrade the signal substantially and plugs and sockets should look 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. Special contact cleaners and contact enhancers should not be used as they tend to deposit a film which is very difficult to remove and may degrade the sound.

# 2

## 2.0 Getting Started

### 2.1 switching on and off

Source components and power supplies for cd players, tuners, preamplifiers and crossovers should be switched on before switching on the amplifier(s). Always switch the amplifier(s) off and wait about a minute for its power supply capacitors to discharge before connecting or disconnecting any leads. Always use the power switch on the product rather than a mains outlet switch.

### 2.2 running in

Your Naim equipment will take a considerable time to run-in before it performs at its best. The duration varies, but under some conditions you will find that the sound continues to improve for as much as five weeks. Better and more consistent performance will be achieved if the system is left switched on for long periods. It is worth remembering however that all electronic equipment can be damaged by lightning. Please read the warnings section.

### 2.3 mains supply

Where fused plugs are used 13 amp fuses should be fitted. Fuses of a lower rating will fail after a period of use.

A hi-fi system usually shares a mains circuit with other household equipment some of which can cause distortion of the mains waveform. In some Naim equipment such distortion can lead to a mechanical hum from the transformers. The hum is not transmitted through the speakers and has no effect on the performance of the system but is purely local to the transformer itself. A separate fused mains circuit (like that reserved for electric cookers) may reduce transformer hum. Such a circuit (ideally with a 30 or 45 Amp rating) will also have a lower impedance, supply cleaner power, and consequently improve system performance.

Do not wire voltage dependent resistors or noise suppressors into mains plugs. They degrade the mains supply and the sound.

### 2.4 siting the equipment

Power supplies and amplifiers should be located a reasonable distance away from other equipment. This separation will stop transformer radiation causing hum audible from the loudspeakers. The minimum recommended distance is 300mm (12 inches), and that allowed by the standard interconnect lead is the maximum.

Some Naim equipment is extremely heavy. Ensure that your equipment rack or table can easily support the weight and is stable.

### 2.5 if you have a problem

Legal consumer protection varies from country to country. In most territories a dealer must be prepared to take back any Naim equipment he has sold you if he cannot make it work to your satisfaction in your own home. A problem may be due to a fault in any part of the system or its installation so it is essential to make full use of your local dealer's diagnostic skills on site. Please contact your local distributor, or Naim at the address in the back of this manual, 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 guarantee arrangements with your own dealer at the time of sale. We are always available to offer help and advice.

It is essential that repairs and updates are only carried out by an authorised Naim dealer, or at the factory by Naim itself. Many components are made, tested or matched specially for Naim and appropriate replacements are often unobtainable from non-specialist sources.

## 3.0 Warnings

Naim equipment is designed to offer the finest sound quality that can be achieved, avoiding compromise wherever possible. This can lead to circumstances that may be unfamiliar. The material that follows contains advice specifically related to Naim equipment as well as more general warnings about the use of domestic audio products. Please read it carefully.

The transformers in Naim power amplifiers and power supplies may sometimes make a mechanical noise caused by distortion of the mains waveform. Naim transformers are large in size and have heavy gauge secondary windings making them relatively sensitive to such distortion. A separate mains circuit for your hi-fi system may reduce the effect while also giving an overall improvement in sound quality. It may be necessary however to take account of mechanical transformer noise when siting your equipment.

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. If there is a known problem in your locality it is advisable to arrange for a home demonstration before purchase to find out if Naim equipment is likely to be affected. Susceptibility to radio frequency interference is related to the wide internal bandwidth necessary for high sound quality. Systems incorporating moving coil phono preamplifiers and active crossovers are more likely to suffer. 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. In situations of extreme radio interference Naim equipment may be unsuitable.

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

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



### important

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 dealer, or your distributor. Unauthorised modifications will invalidate your guarantee.

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

The following label is attached to all mains powered equipment:



## 4.0 Connection

### 4.1 mains lead

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured **GREEN-AND-YELLOW** must be connected to the terminal in the plug which is marked by the letter **E** or by the safety earth symbol or coloured green or green-and-yellow.

The wire which is coloured **BLUE** must be connected to the terminal in the plug which is marked with the letter **N** or coloured black.

The wire which is coloured **BROWN** must be connected to the terminal in the plug which is marked with the letter **L** or coloured red.

### 4.2 non-rewireable mains plugs

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

### 4.3 fuse carrier

Should the plug fuse carrier be damaged or lost, the correct replacement must be obtained from your dealer or from Naim direct. Do not use the plug until the fuse carrier is replaced.

### 4.4 plug fuses

Replace only with ASTA or BS 1362 approved fuses.

## note



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 dealer or an experienced radio/TV technician for help.

# Nait 5 Integrated Amplifier

## inputs

The Nait 5 has 6 inputs - CD, Tuner, Tape, A/V, AUX1 and AUX 2.

Tape, A/V and AUX 1 all have record output facilities for your cassette deck, VCR etc.

The AUX 2 input is provided with two sockets. Use the right hand socket (when viewed from the rear) for connecting your usual ancillary equipment. The extra (left hand) socket is for use with separate phono stage, such as the Prefix or Stageline. Only one of these sockets may be used at a time, for safety as well as performance. Your amplifier will have a protective cover fitted over the extra socket. If you wish to use this socket it is advisable to refit the protective cover over the unused socket to prevent mistakes.

## tape facilities and monitor button

The tape monitor (mon) button allows you to listen to the output of a 3-head tape machine while recording to check the "off-tape" signal. The source for recording is chosen by the input selector buttons in the normal way.

Pressing the monitor button during recording allows the output from a 3-head tape machine connected to either tape, A/V or AUX 1 to be heard. After pressing "mon", select whichever one of these your tape machine is connected to.

A second press returns the amp to normal position.

## mute button

Pressing the mute button reduces the output from the loudspeakers to zero. (This will not affect any recordings taking place at the same time).

## balance adjustment

Balance adjustment (left to right) on the Nait 5 is operated electronically within the amplifier. This is controlled by the remote handset. Please see separate instructions on page 10.

Each of the inputs can be adjusted so that the volume level from all sources can be matched to one another. The remote handset enables this function. Please see separate instructions on page 10.

## preamp, power amp and power supply options

The Nait 5 has separate preamplifier and power amplifier sections built in to one chassis. These can be reconfigured for use separately with an external power supply and/or a power amplifier for improved sound quality.

To enable this the link plugs on the rear panel need to be removed and new connections made.

### 1. to add a separate power supply to the preamp section:

Switch off at mains

Refer to diagram on page 7

Remove all the link plugs

Connect SNAIC 5 between nait and power supply and SNAIC

4 between power supply and nait as shown in the diagram

Switch on power supply and amplifier.

### 2. to use the preamp section only with a separate power amp:

Switch off at mains

Refer to diagram on page 8

Remove the double link plug, leaving the link in "signal out A"

Connect SNAIC between nait and power amp as shown in diagram.

### 3. to add a separate power supply and power amp:

Switch off at mains

Refer to diagram on page 9

Connect SNAIC 5 between nait and power supply and SNAIC

4 between power supply and power amp as shown in diagram.

## note



The negative input and output connections are all common.

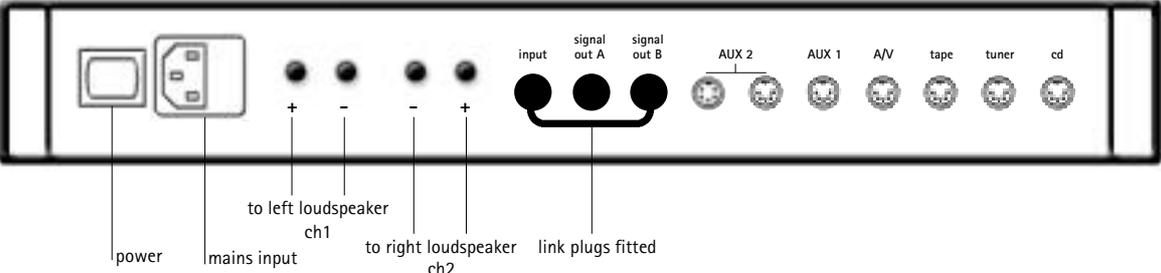
The mains earth (ground) should always be connected regardless of what other equipment is used in conjunction with Naim Audio amplifiers. This only grounds the case and the electrostatic screen within the transformer, and is not connected to the signal negative. In order to avoid hum loops, the signal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

# Nait series 5 front

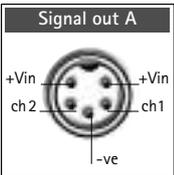
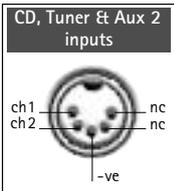
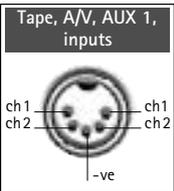


volume

# Nait series 5 rear



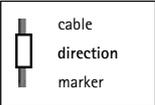
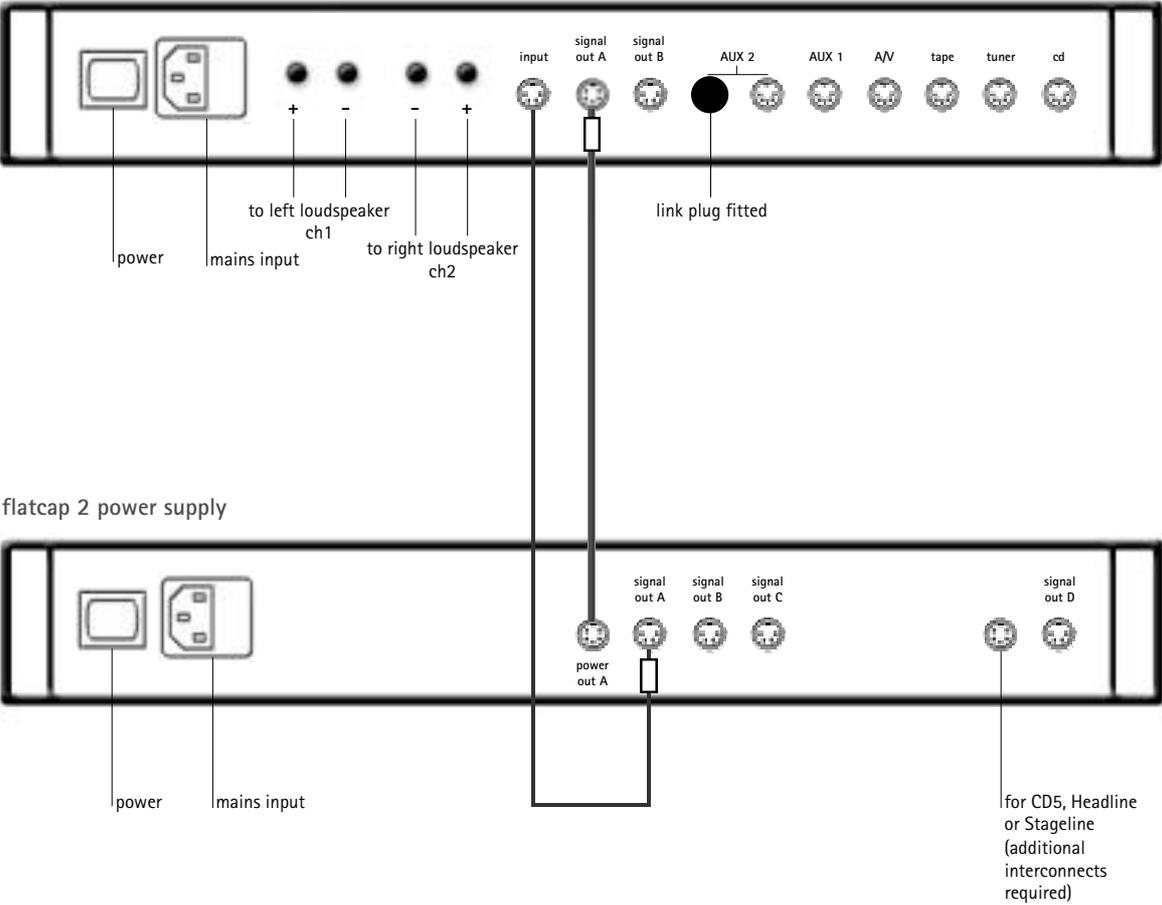
power mains input to left loudspeaker ch1 to right loudspeaker ch2 link plugs fitted



**please note**

The nait 5 features various technologies to reduce microphonic effects, in particular a compliant mounting for the main circuit boards and the din sockets on the rear. Some movement of the board and sockets when connecting/disconnecting is normal.

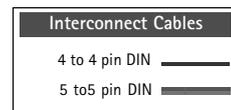
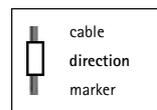
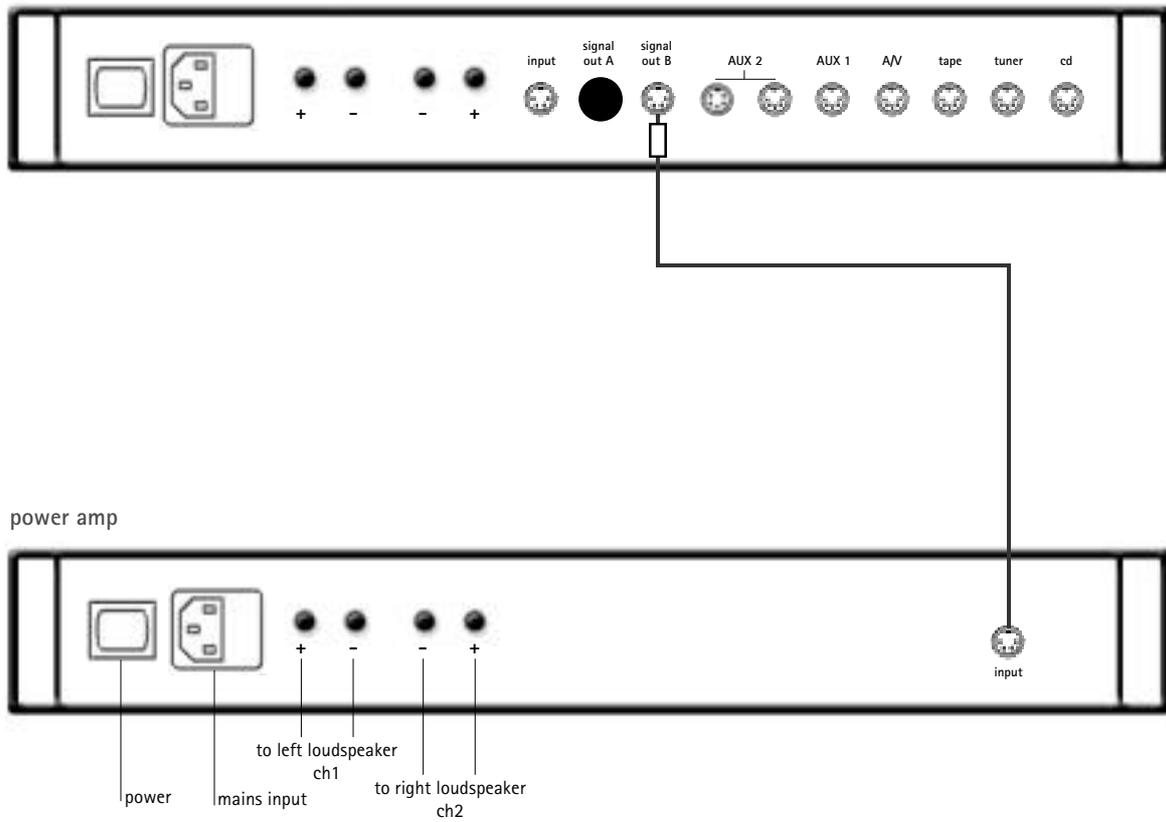
nait 5 connected to power supply



Interconnect Cables	
4 to 4 pin DIN	—————
5 to 5 pin DIN	—————

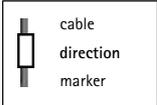
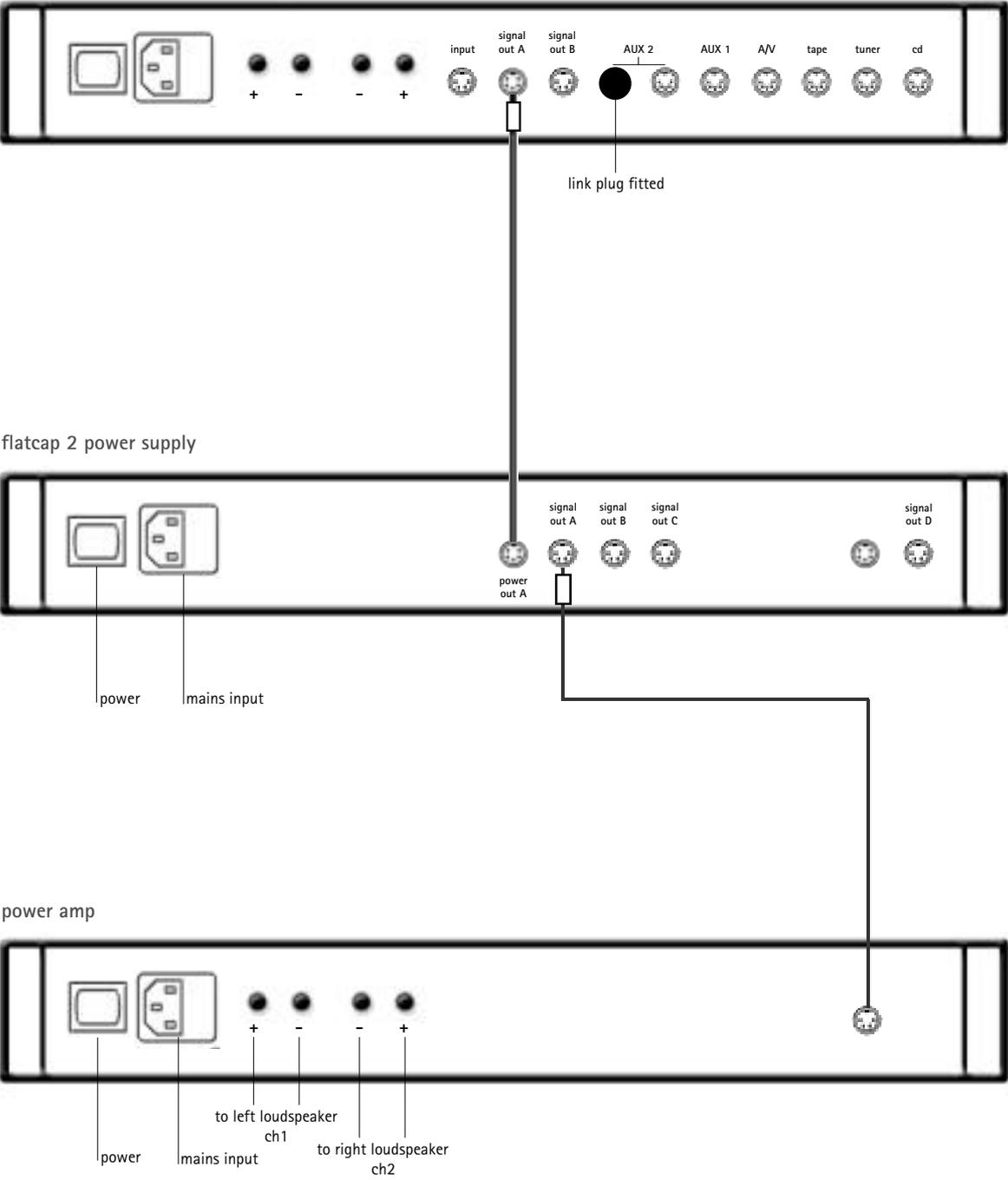
## nait 5 connected to power amp

NB – do not connect nait 5 to mains in this configuration.



# nait 5 connected to flatcap 2 power supply & power amp

NB - do not connect nait 5 to mains in this configuration.



Interconnect Cables	
4 to 4 pin DIN	———
5 to 5 pin DIN	—————



# narcom 2 remote handset

NARCOM 2 is a multi-functional remote control handset designed to be used with Naim Audio CD players, integrated amplifiers, pre-amplifiers and preset tuners. The handset control configuration is based around three types of keys: System Component Keys, Global Keys and Soft Keys.

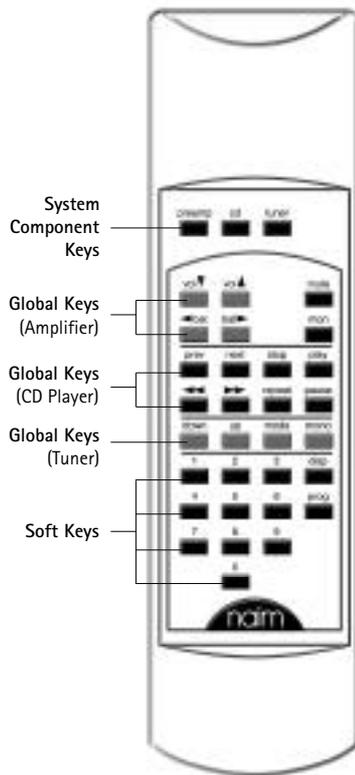
## 1 System Component Keys

These keys switch the operation of the "Soft Keys" into modes appropriate to each system component (preamp, CD or tuner).

- preamp:** Switches the action of the Soft Keys to that appropriate for an integrated or pre-amplifier.
- cd:** Switches the action of the Soft Keys to that appropriate for a CD player.
- tuner:** Switches the action of the Soft Keys to that appropriate for a preset tuner.

## 2 Global Keys

These keys operate specific component functions regardless of the System Component Key setting.



- preamp**
- vol (up and down):** Adjusts the amplifier output volume and the volume control position.
- mute:** Reduces the amplifier output volume to zero. A second press restores the volume. The **mute** button on the amplifier will illuminate when mute is selected.
- bal (left and right):** Adjusts the output channel balance.
  - Some Naim amplifiers have control of balance available only from the remote handset. On these products the balance will automatically "centre" as it reaches the mid point. Balance centring is indicated by a flashing volume control indicator. To resume adjustment once the balance has centred, **bal** key must be released and re-pressed.
- mon:** The **mon** button enables the output of a 3-head tape machine to be heard while recording in order to check the "off-tape" signal. The source to be recorded is chosen by the input selector buttons in the normal way. After pressing **mon**, select the input to which your machine is connected. A second operation of the **mon** key restores normal output.
- compact disc**
- prev:** Selects the previous track. From a stopped position **prev** will select the last track.
- next:** Selects the next track.
- stop:** Stops the CD. Holding the **stop** key for more than a second will also cancel previously set-up program and display preferences.
- play:** Plays the CD. Pressing **play** while a track is playing will return the player to the beginning of that track.
- <<:** Fast reverses the CD when in play mode.
- >>:** Fast forwards the CD when in play mode.
- repeat:** Puts the CD into repeat mode. A complete disc or programmed disc selection will repeat until **stop** is pressed.
- pause:** Pauses a playing CD. Pressing **pause** a second time will start the disc again.

- tuner**
- mode:** Switches the tuner sequentially through "frequency", "scan" and "preset" modes. Modes are indicated by the indicators on the tuner display.

**up & down:** These keys both have three possible functions depending upon the selection of the **mode** key. In **frequency** mode the up and down keys adjust the tuning frequency in 0.05MHz steps. In **scan** mode the up and down keys will cause the tuner to search for stations. In **preset** mode the up and down keys will tune to the next numbered preset.

**mono:** Toggles between mono and stereo operation. The tuner display will indicate stereo when both stereo operation is selected and a stereo signal is received. The **mono** button on the tuner will illuminate when **mono** is selected.

### 3 Soft Keys

These keys operate functions depending on the System Component Key setting.

**numeric keypad:** In **preamp** mode the numeric keys will switch between the amplifier inputs (1 - cd, 2 - tuner, 3 - tape, 4 - av, 5 - aux 1, 6 - aux 2). In **cd** mode the numeric keys will select tracks. In **tuner** mode the numeric keys will select tuner presets or can be used directly to input station frequencies.

**prog:** In **preamp** mode the **prog** key function varies depending upon the specific amplifier model in use. Firstly, some models incorporate a programmable volume control system that enables different source component output levels to be matched. Secondly, some models incorporate optional automatic source switching which will switch the input of the amplifier as soon as any handset key appropriate to a particular source is operated. For example, if the tuner input is selected on the amplifier and the **CD play** key is operated on the handset, the amplifier will switch to the CD input. Thirdly, if you have a surround sound processor connected to the A/V input, the volume control on the amplifier can be disabled, allowing the processor to take over control of the output level from the power amplifier stage (unity gain).

To program the volume control for each input first set the volume control to a comfortable listening level with the loudest source (probably CD). Enter program mode by pressing and holding the **prog** key until the amplifier volume control indicator flashes. Select the input to be adjusted using the handset and use the **vol up** and **down** keys to set the volume to a comfortable listening level. The amplifier volume control will not rotate during this operation. Select a further input to adjust. To exit program mode press and hold the **prog** key until the volume control indicator stops flashing, or operate any control on the amplifier.

To access automatic source switching enter program mode as described above. Use the handset **mon** key to toggle automatic switching on and off. The **mon** button on the amplifier will illuminate when source switching is automated. Exit the program mode as above.

To utilise the surround sound processor unity gain function, enter program mode as described above. Use the handset **mute** key to toggle the function on and off. The **mute** button on the amplifier will illuminate when unity gain is selected. Exit the program mode as above. The **unity gain function should only be used where the amplifier is used in a correctly configured A/V system. Damage may result if the unity gain feature is used inappropriately.**

To return to the default settings, press and hold the **prog** key until the amplifier volume control indicator flashes. Press and hold **disp** key until the volume control indicator stops flashing.

In **cd** mode the **prog** key enables specific CD tracks and their play order to be selected. To select a play order select a track number from the numeric keypad followed by the **prog** key until the desired selection is complete. During selection, the track number indicated in the player display will be followed by either "P", "-", or a space. "P" indicates that the track is already selected. "-" indicates that the track can be selected. A space indicates that there is no more memory available.

The **prog** key can also be used to delete tracks from a play order. To delete a track, press and hold the **prog** key until the **prog** indicator in the CD display illuminates then delete the track or tracks using the numeric keypad followed each time by a further operation of the **prog** key. During deletion the track number indicated in the player display will be followed by either "C", "-", or a space. "C" indicates that the track is already deleted. "-" indicates that the track can be deleted. A space indicates that there is no more memory available.

The play order can be reviewed by pressing **prog** while the player is either stopped or playing. The player display will then scroll through the selected tracks. The **prog** indicator on the player display will illuminate when a play order has been programmed. To clear memory press and hold the **stop** key.

In **tuner** mode the **prog** key enables specific FM station frequencies to be assigned to preset memory. To assign a station to a preset first tune manually by inputting the station frequency directly from the numeric keypad or by using the **up** or **down** keys (or **scan**). Press and hold the **prog** key on the handset. The tuner is now in **preset programming mode** - the preset indicator will flash and the display will show "--". Press the desired pre-set number from the numeric keypad. The display will show "-" or "P" if the preset number is already in use. Exit from program mode and save the new or overwritten preset by pressing and holding the **prog** key. To exit program mode without saving (or overwriting) a preset select "0 0" on the numeric keypad. To erase a preset number, select the preset and press and hold the **display** key. To clear all preset numbers press and hold the **program** key followed by the **display** key.

**display:** In **cd** mode the **display** key will scroll through these options: tracks ("time" indicator off), time ("time" indicator on) and display off. In **tuner** mode the **display** key will simply toggle between on and off.

newcomer

# Specifications

## nait 5

Nominal Input Sensitivities (Tuner, Tape, CD, etc)	75 mV, 100 K $\Omega$
Overload margin, on all inputs at all audio frequencies	35 dB
Output Levels, Tape	75 mV, 600 $\Omega$
Power Output	Continuous 8 $\Omega$ , 30 W/ch Transient 125 VA
Mains Supply	100V, 115V, 230V 50 or 60 Hz
Case Size (H x W x D)	58.4 x 432 x 301 mm

# EC Declaration of Conformity to Appropriate Standards

## Manufacturer

Naim Audio Limited  
Southampton Road  
Salisbury England  
SP1 2LN

## Products

nait 5 integrated amplifier  
nap 170 power amplifier, flatcap 2 power supply

## Safety

HD 195-S6  
EN 60 065

## EMC

Emissions Tested to EN 55013  
Sound and television broadcast receivers and associated equipment

Immunity Tested to EN55020  
Electromagnetic immunity of broadcast receivers and associated equipment

In accordance with CISPR 16-1  
Radio disturbance and immunity measuring apparatus

CISPR 16-2  
Methods of measurement of disturbances and immunity

IEC 801-2 8KV (air gap)  
4KV (contact)  
(performance criterion B)

IEC 801-3 3V/m 20dB  
(performance criterion A)

IEC 801-4 1KV (AC lines)  
0.5KV (signal lines)  
(performance criterion B)

OWNIT • issue 3 • May 2001

Naim Audio Southampton Road Salisbury England SP1 2LN  
Tel: +44 (0)1722 332266 www.naim-audio.com