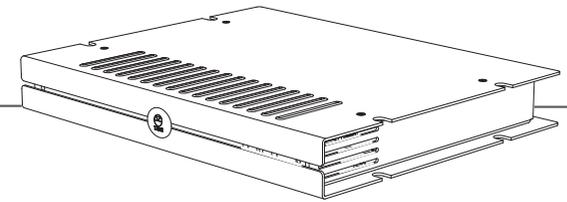




LINN

SNEAKY MUSIC DS

NETWORK MUSIC PLAYER



SYSTEM INSTALLATION AND SETUP MANUAL

SNEAKY MUSIC DS

INSTALLATION AND SETUP

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Pack 1395/2/E

SNEAKY MUSIC DS

INSTALLATION AND SETUP

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Important:

Installation of the Sneaky Music DS requires knowledge of networks and network security. You should not attempt to install the Sneaky Music DS unless you are comfortable working in these areas. Linn Products Limited cannot be held responsible for any network security compromise and/or loss of data due to improper installation.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

1 OVERVIEW

The Sneaky Music DS operates within a standard Ethernet network.

There are many ways of setting up a Sneaky Music DS system. This illustration shows a basic system. A more complex system is shown on page 2.

Basic system

The advantages of this system include easier setup, and better affordability.

1. PC/laptop

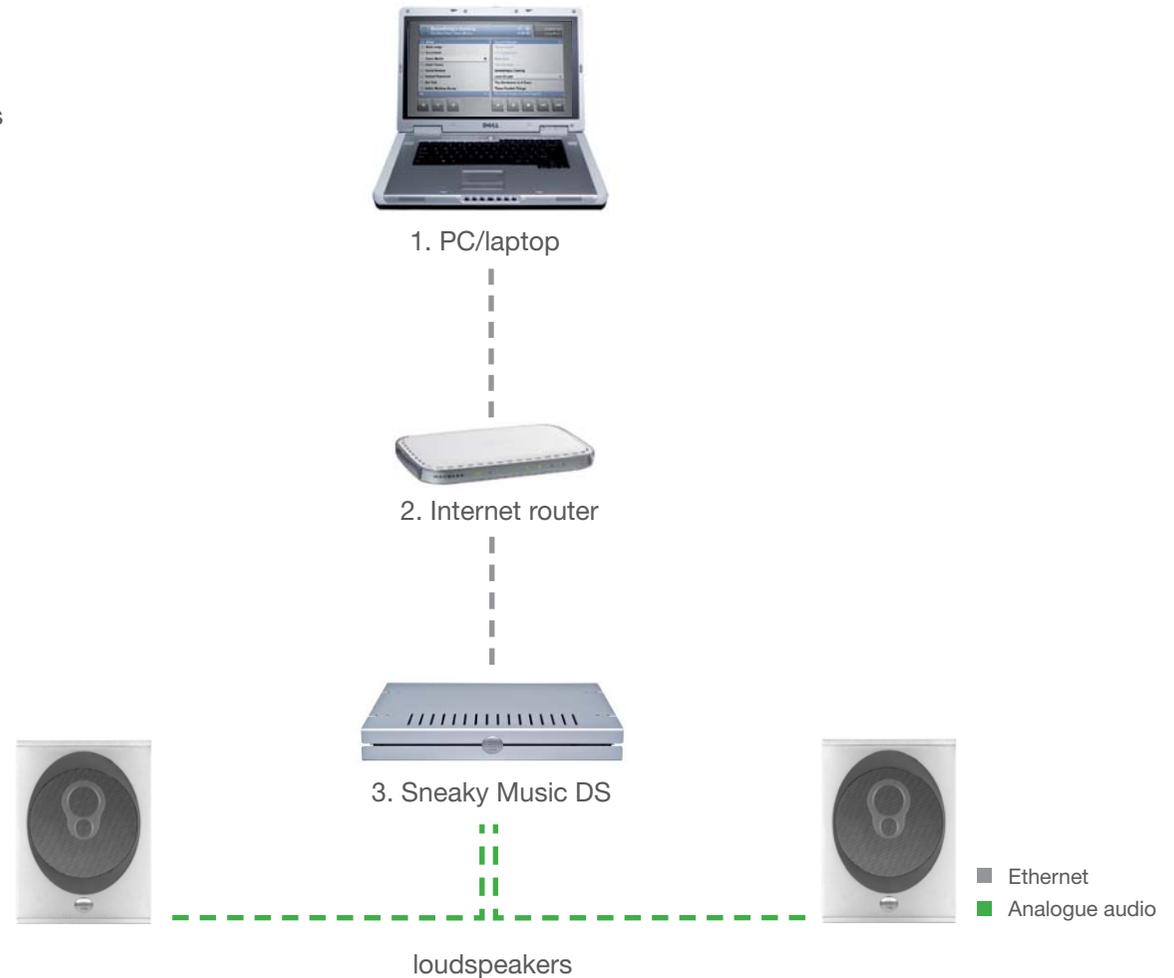
The PC or laptop is a standard computer that is used during setup and configuration of the system. It is also used for storing your music and operating the Sneaky Music DS. In order for the computer to communicate with the Sneaky Music DS, it must be connected to the Internet router.

2. Internet router

This device is the connection point for the computer and Sneaky Music DS, allowing them to communicate with each other. Also required for accessing SHOUTcast Internet radio and obtaining album information.

3. Sneaky Music DS

Retrieves music from the computer (and SHOUTcast Internet radio via the router), and then transforms the digitally stored music into high quality analogue audio. The Sneaky Music DS plays WAV, FLAC, MP3 and AIFF files.



Installation instructions for a basic system start on page 4.

SNEAKY MUSIC DS

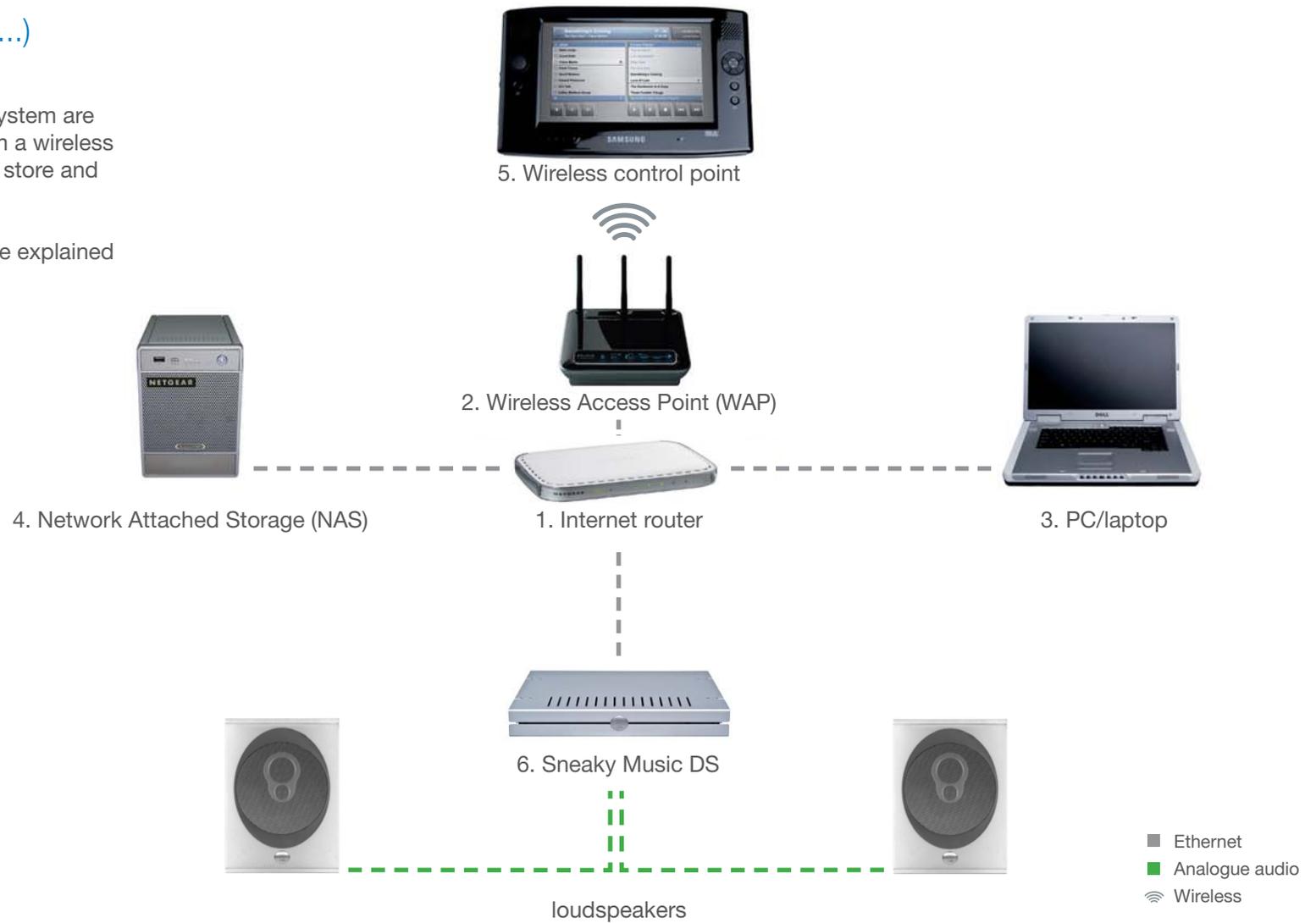
INSTALLATION AND SETUP

1 OVERVIEW (continued...)

Full system

The main advantages of the full system are the convenience of operation from a wireless control point, and using a NAS to store and protect your music collection.

The components in the system are explained on the next page.



SNEAKY MUSIC DS

INSTALLATION AND SETUP

1 OVERVIEW (continued...)

The first two components provide network infrastructure.

1. **Internet router**
This device is the connection point for all other components on the network, allowing them to communicate with each other. Also required for accessing SHOUTcast Internet radio and obtaining album information.
2. **WAP**
Plugs into the router thereby allowing wireless components to communicate with wired ones.

A PC/laptop is required for system installation.

3. **PC/laptop**
The PC or laptop is a standard computer that is used during setup and configuration of the Sneaky Music DS system. The same, or another computer, may be used after setup to add new music to the NAS. In order for the computer to communicate with the Sneaky Music DS system, it must be connected to the Internet router.

The final three devices interact together to provide the Sneaky Music DS music experience. They are:

4. **NAS**
Securely stores music on a hard drive array. Additionally, the NAS runs two important pieces of software:
 - a. **Media Server**
Indexes and allows retrieval of the music from the NAS.
 - b. **Network Sharing Protocols**
Allows computers to place new music on the NAS.

5. **Wireless control point**
Allows you to browse, select, and control the playback of music. It requests information about the location of the music from the Media Server and then passes this information to the Sneaky Music DS.
6. **Sneaky Music DS**
Follows instructions from the wireless control point to retrieve music from the NAS (and SHOUTcast Internet radio via the router), and then transforms the digitally stored music into high quality analogue audio. The Sneaky Music DS plays WAV, FLAC, MP3 and AIFF files.

Installation instructions for a full system start on page 10.

SNEAKY MUSIC DS

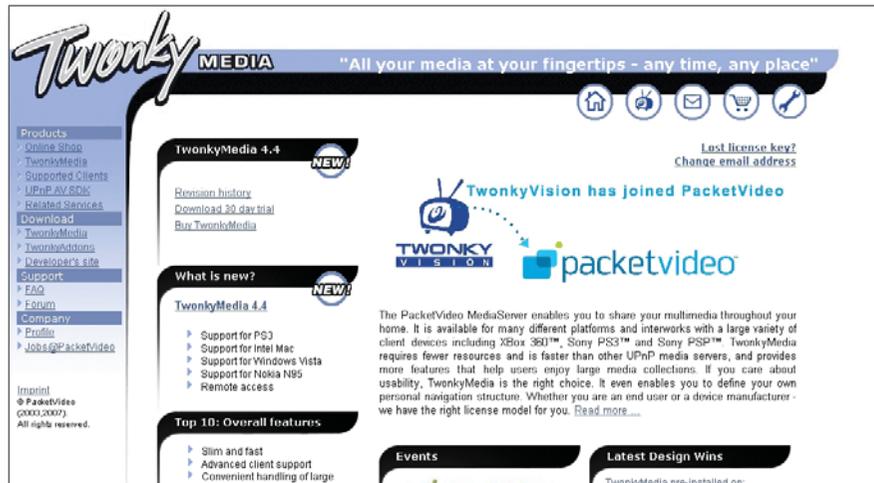
INSTALLATION AND SETUP

2 BASIC SYSTEM INSTALLATION

TwonkyMedia

TwonkyMedia is a UPnP media server which allows access to all the music stored on your computer.

TwonkyMedia will present the music files to you in such a way that they will be ordered by Artist, Album, Artist/Album, Genre, etc... It gives various options for searching through your music, as explained below.



Downloading TwonkyMedia

TwonkyMedia for a PC or MAC can be downloaded from the TwonkyMedia website: <http://www.twonkymedia.com>. Click on the 'Download TwonkyMedia' link from the left-hand menu on the main page. Install the appropriate version on your computer.

Suggested TwonkyMedia Setup

There are various options for setting up TwonkyMedia which will effect how the information is displayed to you.

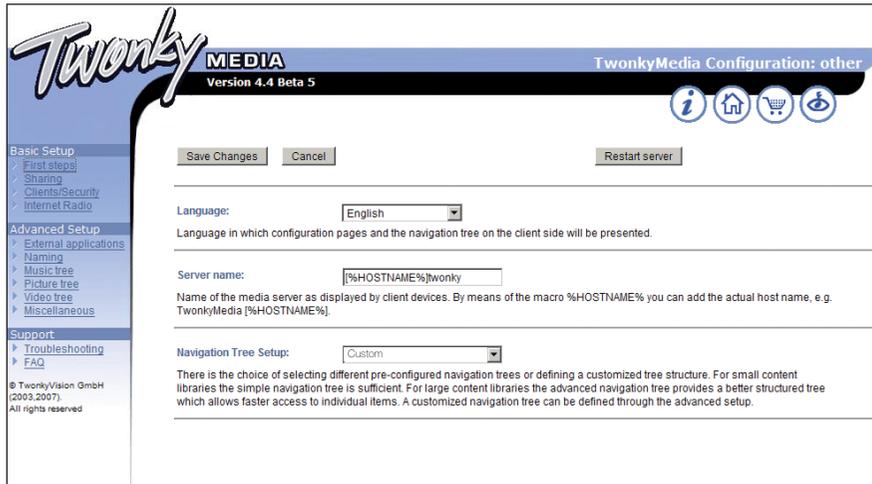
1. Run TwonkyMedia. Select 'Advanced Control'. From the menu on the left select 'Services', then 'Streaming Services'.
2. Ensure the 'TwonkyMedia' service checkbox is enabled.
3. Follow the http link to connect to the TwonkyMedia server and purchase a license from the online shop.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

2 BASIC SYSTEM INSTALLATION (continued...)

4. Select 'First Steps' from the menu on the left-hand side.

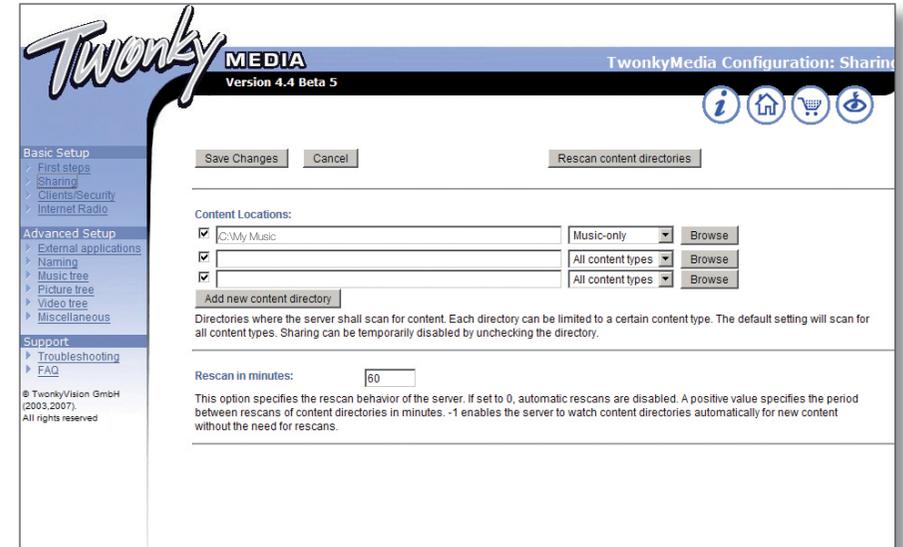


'Navigation Tree Setup' *must* be changed to 'Custom'.

Press 'Save Changes'.

Press the 'Restart server' button before continuing.

5. Select 'Sharing' from the left of the page.



The settings for 'Content Locations' is important as they will be used when setting up Ripstation Micro DS (the recommended disc ripping software). Use the browse button to set the path to correspond to the directory into which Ripstation will rip CDs - typically, this will be 'C:\My Music'. Set the drop-down menu to 'Music-only'.

Set 'Rescan in minutes' to '-1'.

Press 'Save Changes'.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

2 BASIC SYSTEM INSTALLATION (continued...)

6. Select 'Naming' from the left of the page.

Tick 'Standardize titles' at the top of the page.

The screenshot shows the Twonky MEDIA configuration interface. The top header includes the Twonky logo, 'MEDIA', and 'TwonkyMedia Configuration: Naming' with 'Version 4.4 Beta 5'. A navigation menu on the left lists 'Basic Setup' (First steps, Sharing, Clients/Security, Internet Radio), 'Advanced Setup' (External applications, Naming, Music tree, Picture tree, Video tree, Miscellaneous), and 'Support' (Troubleshooting, FAQ). The main content area has buttons for 'Save Changes', 'Cancel', and 'Restart server'. The 'Naming' section is active, showing a checked 'Standardize titles' checkbox and a description: 'Enable/disable standardization of titles and artists, e.g. changing "The Beatles" to "Beatles, The"'. Below are input fields for 'Folder prefix string', 'All Tracks' (set to 'Total Tracks'), 'Playlists' (set to 'Playlists'), and 'Last played' (set to '- Last played -').

The screenshot shows the Twonky MEDIA configuration interface, specifically the 'Advanced Setup' section. The top header is identical to the previous screenshot. The left navigation menu highlights 'Naming' under 'Advanced Setup'. The main content area contains several input fields: 'All Pictures' (empty), 'All Videos' (empty), 'Music' (set to 'Music'), 'Pictures' (empty), and 'Videos' (empty). Each field has a description: 'Name for "All Pictures" folder (server default used if left empty)', 'Name for "All Videos" folder [server default used if left empty]', 'Name for Music root folder, leave empty to suppress this folder.', 'Name for Pictures root folder, leave empty to suppress this folder.', and 'Name for Video root folder, leave empty to suppress this folder.'. There is also a field for '- ALL -' (empty) with the description 'Title of the - ALL - entry in the nodes of the navigation tree.'.

Remove the 'Video', 'Pictures' and '-ALL-' directories.

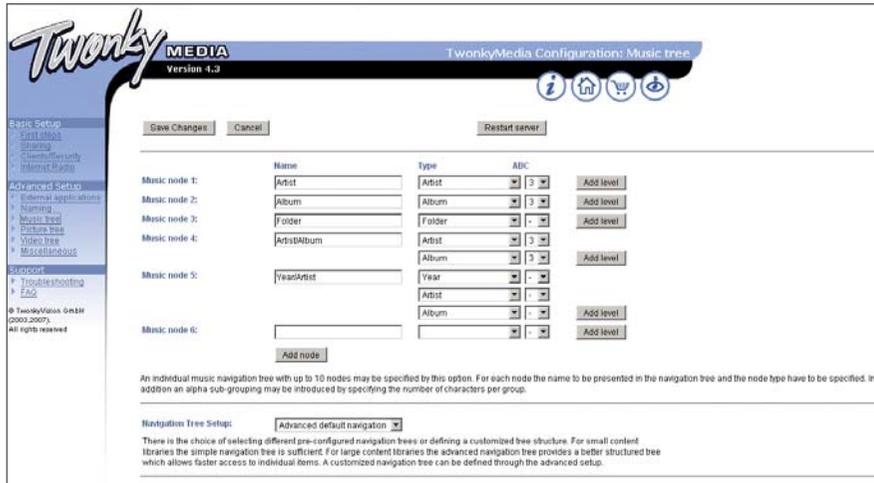
Press 'Save Changes'.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

2 BASIC SYSTEM INSTALLATION (continued...)

7. Select 'Music Tree' from the left of the page.



Apply the settings shown in the above screen image. Press 'Save Changes', then 'Restart server'.

8. Internet radio

If you wish to add SHOUTcast Internet radio as a source, select Internet Radio from the Basic Setup menu, enable SHOUTcast and select the required genres.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

2 BASIC SYSTEM INSTALLATION (continued...)

Ripstation Micro DS

Linn recommends the use of Ripfactory's Ripstation Micro DS for ripping CDs to FLAC. This software is available free of charge from Ripfactory's website.

Installation

Go to the Ripfactory website:

<http://www.ripfactory.com/rsmicrods.html>

Download and install the software.

Operation

Full details on using the software can be found in the Ripstation Micro DS User Manual, which you will find in the Ripfactory directory that has been added to the PC's Programs menu. A quick start guide is provided in the manual.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

2 BASIC SYSTEM INSTALLATION (continued...)

Installing the Linn GUI and Config application

The Linn GUI is used for operating the Sneaky Music DS system. The Linn Config application allows you to view and configure the settings on your Sneaky Music DS.

1. Copy the Linn GUI and Linn Config installers from the supplied disc, to your computer.
2. Run both the installers. Do not launch the Linn GUI or Linn Config at this time.
3. The Linn GUI and Linn Config must be given firewall permissions to allow them to operate. If the PC/laptop uses the Windows Firewall the Linn software will be added automatically, providing you have admin rights on the PC/laptop. If a different firewall is used, consult the vendor's manual for instructions on how to add the Linn software to the list of permissions.

Note:

Each time you update to a new version of the Linn GUI or Linn Config software, you must add the new software to non-Windows firewalls' list of permissions.

4. To configure the Sneaky Music DS, follow the instructions in the *Linn Config Application* document on the supplied disc.

Now go to page 20.

SNEAKY MUSIC DS

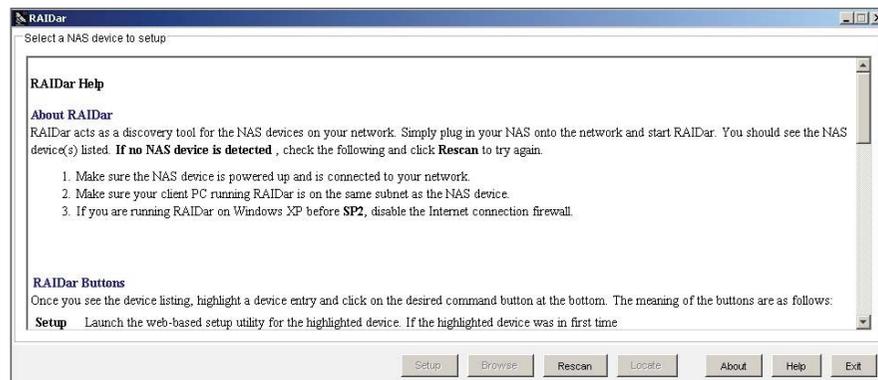
INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION

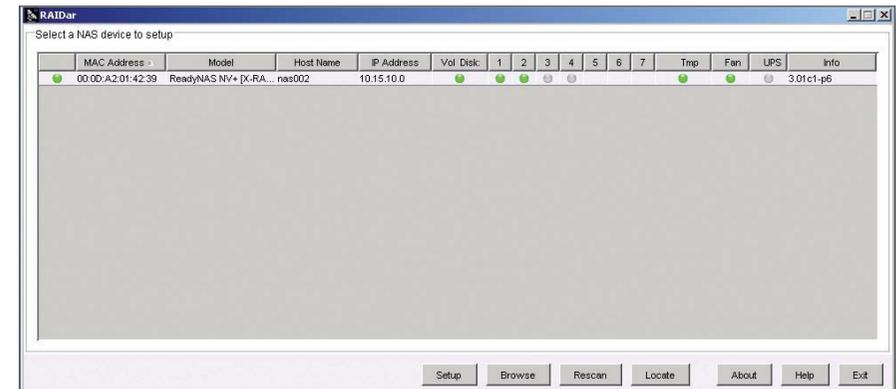
Set up of the NAS

To make installation easier, here we describe in detail the steps needed to setup an Infrant ReadyNAS NV+. For other NAS devices consult the documentation from your NAS vendor. The instructions below assume that the NAS has been supplied with hard drives pre-installed. The RAID configuration for the Infrant ReadyNAS NV+ is best set at X-RAID. For other manufacturers' devices RAID 5 should be chosen to allow easy future expansion of storage.

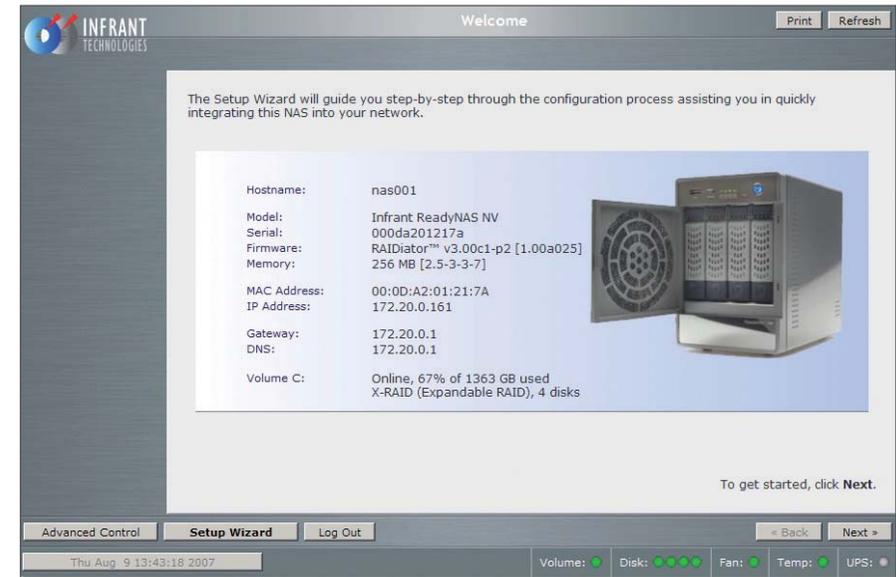
1. On the installation PC/laptop disable all firewalls and the proxy server.
2. Follow the Getting Started Guide supplied with the ReadyNAS, up to and including installing the RAIDar software. Once installed and running, RAIDar will scan the network for the Ready NAS. If the screen below appears, check all connections, ensure all firewalls and the proxy server are disabled, then press 'Rescan'.



When the screen below appears, select the appropriate NAS (if more than one is available), then press 'Setup'.



You will be asked for a username and password. Enter the default username and password as shown in the ReadyNAS installation guide. After you log in, select 'Next' from the bottom-right corner.



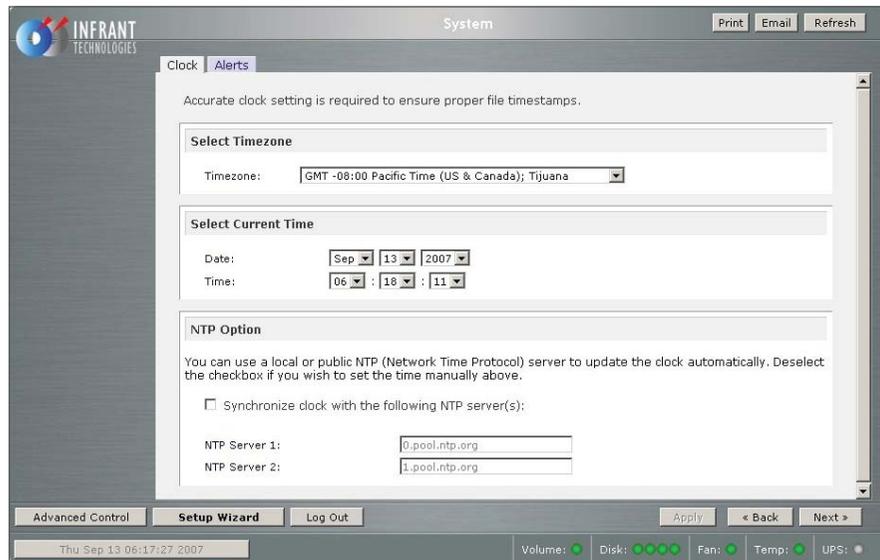
SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

3. The 'Clock' screen

Select the appropriate timezone and time for your location. If the 'Synchronize clock...' checkbox is selected, deselect it. Press 'Apply', then 'Next'.



4. The 'Alerts' screen

Enter one or more email contacts. If there are any problems with the NAS an email notification will automatically be sent. This allows any problems to be diagnosed and fixed before any music is lost. Press 'Apply', then 'Next'.

5. The 'Ethernet' screen

Select the IP address assignment appropriate for the network the Sneaky Music DS system is being installed into. Press 'Apply', then 'Next'.

6. The 'Global Network Settings' screen

Select a hostname for the NAS, e.g. 'nas001'. This name should be unique to the network. This name will be used to refer to the NAS from other devices on the network, for example the ripping software (please refer to the *Ripstation Micro DS* section for details). Leave other settings unchanged. Press 'Apply', then 'Next'.

7. The 'Admin Password' screen

Complete the required information. Press 'Apply', then 'Next'.

8. The 'Security Mode' screen

Nothing on this screen needs changed. Press 'Next'.

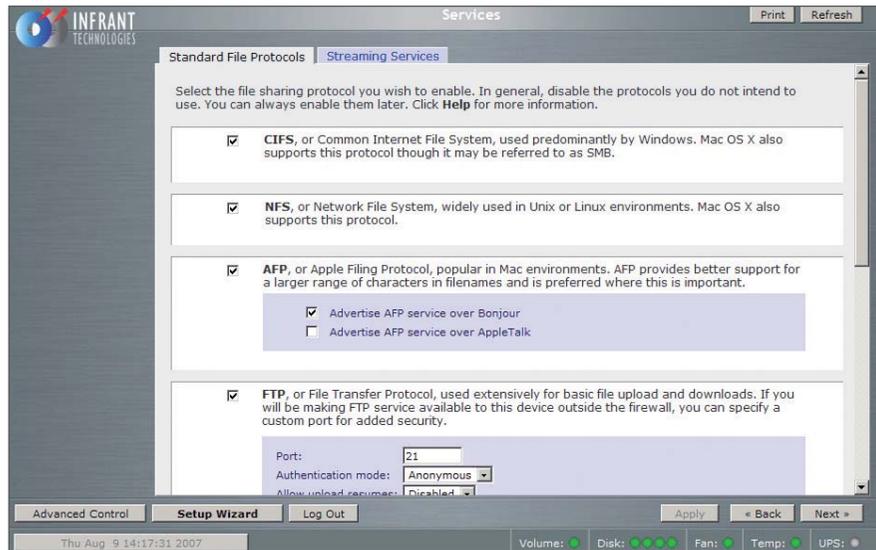
SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

9. The 'Standard File Protocols' screen

Select the NFS checkbox. Leave other settings unchanged. Press 'Apply', then 'Next'.

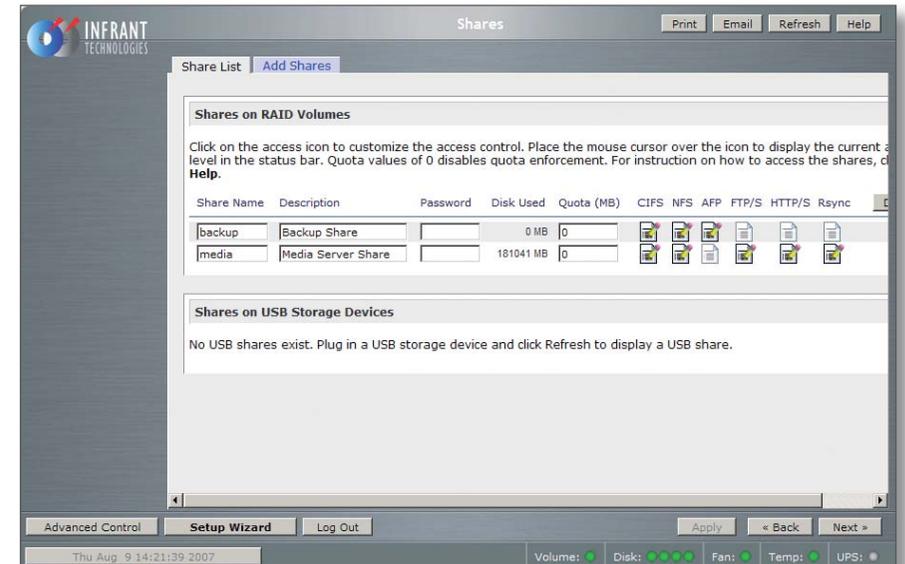


10. The 'Streaming Services' screen

Nothing on this screen needs changes. Press 'Next'.

11. The 'Share List' screen

Click on the CIFS icon on the line beginning 'media'. This will take you to 'Share Options'...



SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

12. The 'Share Options' screen

Set the default access to 'Read/Write'. Repeat this on the 'NFS', 'HTTP/S' and 'Rsync' tabs. Leave the 'AFP' and 'FTP/S' tabs set to 'Disabled'.

Select the Advanced Options tab.

Make the following settings:

- Share folder owner: media

- Share folder group: nogroup

- Share folder rights: Read/write

- Share group rights: Read/write

- Share folder everyone rights: Read/write

- Uncheck 'Set ownership and permission for existing files...'

- Check 'Grant rename and delete privileges to non-owner of files.'

This completes the initial setup of the NAS.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

TwonkyMedia

To complete the installation of the Infrant ReadyNAS, TwonkyMedia Server software has to be installed onto it. This is a UPnP media server and allows access to all the music stored on your NAS.

TwonkyMedia will present the music files to you in such a way that they will be ordered by Artist, Album, Artist/Album, Genre, etc... It gives various options for searching through the music, as explained below.



Downloading TwonkyMedia

TwonkyMedia for a PC or NAS other than an Infrant ReadyNAS can be downloaded from the TwonkyMedia website:

<http://www.twonkymedia.com>. If you are using an Infrant ReadyNAS, download the software and installation manual from the Linn website: http://www.linn.co.uk/ds_software, then follow the steps below.

Suggested TwonkyMedia Setup

There are various options for setting up TwonkyMedia which will effect how the information is displayed to you.

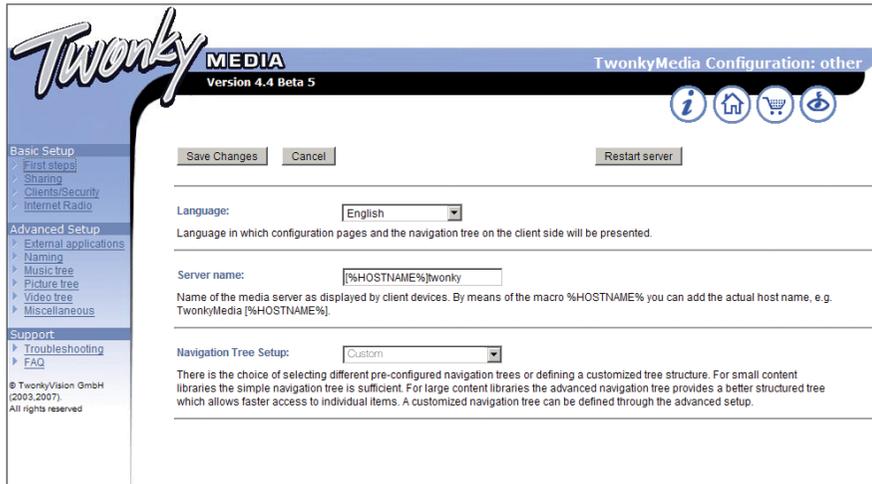
1. Log onto the NAS. Select 'Advanced Control'. From the menu on the left select 'Services', then 'Streaming Services'.
2. Ensure the 'TwonkyMedia' service checkbox is enabled.
3. Follow the http link to connect to the TwonkyMedia server and purchase a license from the online shop.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

4. Select 'First Steps' from the menu on the left-hand side.

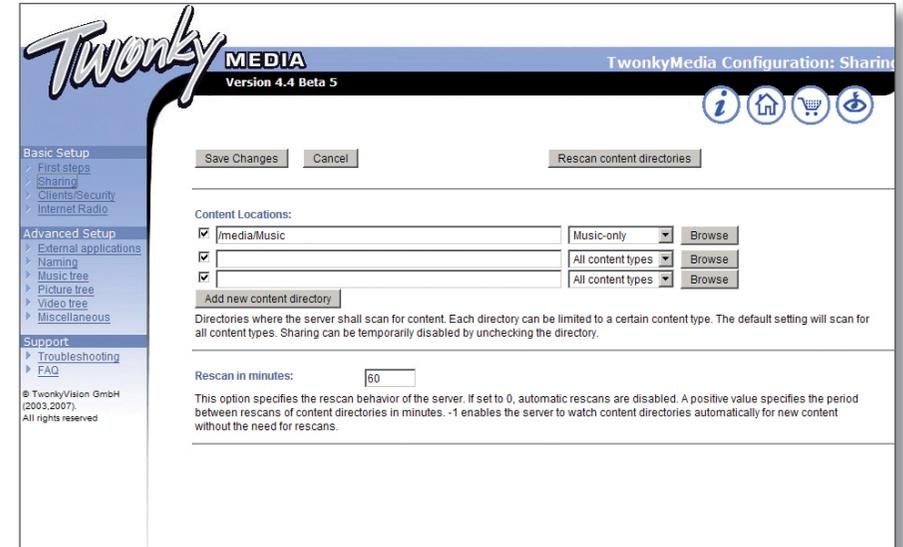


Here the name of the server can be set. This is necessary for installations where more than one NAS is available. 'Navigation Tree Setup' *must* be changed to 'Custom'.

Press 'Save Changes'.

Press the 'Restart server' button before continuing.

5. Select 'Sharing' from the left of the page.



The settings for 'Content Locations' is important as they will be used when setting up Ripstation Micro DS (the recommended disc ripping software). Use the browse button to set the path to correspond to the directory into which Ripstation will rip CDs - typically, this will be '/Media/Music'. Set the drop-down menu to 'Music-only'.

Set 'Rescan in minutes' to '60'.

Press 'Save Changes'.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

6. Select 'Naming' from the left of the page.

Tick 'Standardize titles' at the top of the page.

The screenshot shows the Twonky MEDIA configuration interface. The top bar includes the Twonky logo, 'MEDIA', and 'TwonkyMedia Configuration: Naming Version 4.4 Beta 5'. A navigation menu on the left lists 'Basic Setup' (First steps, Sharing, Clients/Security, Internet Radio) and 'Advanced Setup' (External applications, Naming, Music tree, Picture tree, Video tree, Miscellaneous). The 'Naming' section is active, showing a 'Standardize titles' checkbox which is checked. Below it are fields for 'Folder prefix string', 'All Tracks' (set to 'Total Tracks'), 'Playlists' (set to 'Playlists'), and 'Last played' (set to '- Last played -'). Buttons for 'Save Changes', 'Cancel', and 'Restart server' are visible at the top.

The screenshot shows the Twonky MEDIA configuration interface, specifically the 'Advanced Setup' section. The top bar is the same as the previous screenshot. The 'Advanced Setup' menu on the left is expanded to show 'Naming', 'Music tree', 'Picture tree', 'Video tree', and 'Miscellaneous'. The 'Naming' section is active, showing fields for 'All Pictures', 'All Videos', 'Music', 'Pictures', 'Videos', and '- ALL -'. Each field has a text input box and a description below it. For example, 'All Pictures' is described as 'Name for 'All Pictures' folder (server default used if left empty)'. The 'Music' field is set to 'Music'. The '- ALL -' field is set to '- ALL -'.

Remove the 'Video', 'Pictures' and '-ALL-' directories.

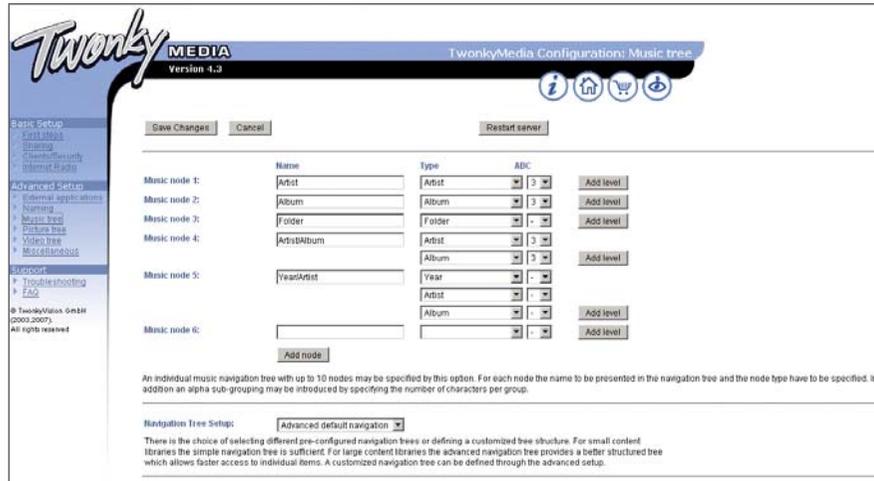
Press 'Save Changes'.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

7. Select 'Music Tree' from the left of the page.



Apply the settings shown in the above screen image. Press 'Save Changes', then 'Restart server'.

8. Internet radio

If you wish to add SHOUTcast Internet radio as a source, select Internet Radio from the Basic Setup menu, enable SHOUTcast and select the required genres.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

Ripstation Micro DS

Linn recommends the use of Ripfactory's Ripstation Micro DS for ripping CDs to FLAC and sending them to the NAS. This software is available free of charge from Ripfactory's website.

Ripstation Micro DS should be installed on the PC/laptop that will be used for ripping CDs.

Installation

Go to the Ripfactory website:

<http://www.ripfactory.com/rsmicrods.html>

Download and install the software.

Operation

Full details on using the software can be found in the Ripstation Micro DS User Manual, which you will find in the Ripfactory directory that has been added to the PC's Programs menu. A quick start guide is provided in the manual.

Ripping a large collection of CDs

If you have a large collection of CDs that you wish to rip to the NAS, using Ripstation Micro DS may be too time consuming. An alternative method is to use a ripping service. These can be easily found via an Internet search.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

3 FULL SYSTEM INSTALLATION (continued...)

The wireless control point, and installing the Linn GUI and Config application

The Linn GUI is used for operating the Sneaky Music DS system on the wireless control point. The Linn Config application allows you to view and configure the settings on your Sneaky Music DS.

You may need to fully charge the battery on the control point before continuing with this procedure (see the information supplied with the control point), this may take an hour or longer.

1. Update the control point with .NET 2.0, available at www.microsoft.com/net.
2. Copy the Linn GUI installer to the wireless control point.
3. Copy the Linn Config installer onto the installation PC/laptop.*
4. Run both the installers. Do not launch the Linn GUI or Linn Config at this time.
5. On the control point, disable the 'Auto Right Click' behaviour. This can be done by locating the notification area at the bottom-right of the Windows screen, and clicking the Touchkit: USB Controller icon
 - Select the Setting tab
 - Press the Option button
 - Deselect 'Enable Auto Right Click'.
6. The Linn GUI and Linn Config must be given firewall permissions to allow them to operate. If the PC/laptop uses the Windows Firewall the Linn software will be added automatically, providing you have admin rights on the PC/laptop. If a different firewall is used, consult

the vendor's manual for instructions on how to add the Linn software to the list of permissions.

Note:

Each time you update to a new version of the Linn GUI or Linn Config software, you must add the new software to non-Windows firewalls' list of permissions.

7. To configure the Sneaky Music DS, follow the instructions in the *Linn Config Application* document on the disc supplied with the Sneaky Music DS.

* Install the Linn Config on the PC/laptop you will use to rip CDs. This will allow you to make changes to the product's setup and run the diagnostic tools.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

4 SNEAKY MUSIC DS INSTALLATION

This section describes how to connect the Sneaky Music DS into a Linn hi-fi system.

Unpacking

The Sneaky Music DS is supplied with the following:

- CD-ROM (contains system software, installation manual and owner's manual)
- 2 red, 2 black BAF loudspeaker connectors
- mains lead
- 4 aluminium feet
- wall-mounting kit

We recommend that you retain all packaging in case you need to transport the Sneaky Music DS at a later date.

Positioning

The Sneaky Music DS can be positioned almost anywhere, but please consider the following points:

- The unit should be placed on a flat, stable and rigid surface.
- Allow at least 4" (10 cm) free space above and at each side of the unit for air circulation.

- Do not position the unit where sunlight can shine (whether directly, diffused or reflected) on its front surface as the infra-red (IR) radiation in sunlight will be picked up by the unit's IR remote sensor and this can adversely affect its operation. Similarly, some electrical devices such as plasma TVs, fluorescent lights and energy saving lamps can emit IR which can likewise affect the operation.
- For best performance do not stack the unit with other products. Ideally, position the unit on a shelf by itself or, if proximity to other products is unavoidable, positioning side-by-side is preferable to stacking.
- The unit should not be situated above, or directly adjacent to, sources of heat such as radiators, other power amplifiers, etc. Nor should it be enclosed in a cabinet with such devices.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

4 SNEAKY MUSIC DS INSTALLATION (continued...)

Back panel



- 1. ETHERNET**
For connecting the unit to the Internet router
- 2. FALLBACK**
Used when reprogramming the unit
- 3. RS232 1 - 2**
Currently not in use
- 4. RC5 ACCESSORY**
For connecting the unit to a Linn Basik 3 IR
- 5. DIGITAL AUDIO OUTPUT**
One SPDIF and one TOSLINK output for connection to a device with digital input capabilities
- 6. ANALOGUE AUDIO OUTPUT**
For connection to a pre-amplifier
- 7. SPEAKER OUTPUT**
For connection to loudspeakers
- 8. EARTH GROUND**
For connecting the unit to an earthing terminal if no mains earth is available
- 9. Mains power inlet**

SNEAKY MUSIC DS

INSTALLATION AND SETUP

4 SNEAKY MUSIC DS INSTALLATION (continued...)

Connecting to the mains supply

The Sneaky Music DS contains an automatic internal mains voltage switch. This switch operates on all worldwide mains voltages from 100 V to 240 V. The unit can be connected to any worldwide mains voltage with no adjustment.

This unit must be earthed. Use the earthed moulded mains lead supplied, or if no mains earth is available, ensure the product's EARTH GROUND connector is connected to an earthing terminal. 

Amplifier protection

The Sneaky Music DS features two methods of protecting its internal power amplifier from damage.

Short-circuit protection

If the speaker outputs are accidentally short-circuited, the power amplifier will shut down instantly and will remain in that state until the short-circuit is rectified.

Over-temperature protection

If the power amplifier's temperature rises above its safe operating limit, it will cease operation until the temperature drops to a safe level and will then automatically resume.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

5 THE LINN CONFIG APPLICATION

The Linn Config application is used to configure the settings on the Sneaky Music DS.

For full instructions on using the Linn Config see the *Linn Config Application* document on the disc supplied with the Sneaky Music DS.

6 STARTING UP THE SYSTEM

This section describes the steps involved in turning on your Sneaky Music DS system.

Basic system

1. Turn on the Internet router.
2. Turn on the computer and wait for it to finish booting.
3. Turn on the Sneaky Music DS (and the rest of your hi-fi system).
4. Start the Linn GUI.
5. Follow the instructions in the *Operation* chapter of the Sneaky Music DS owner's manual.

Full system

1. Turn on the Internet router and the Wireless Access Point.
2. Turn on the NAS and wait for it to finish booting.
3. Turn on the Sneaky Music DS (and the rest of your hi-fi system).
4. Turn on the wireless control point and start the Linn GUI.
5. Follow the instructions in the *Operation* chapter of the Sneaky Music DS owner's manual.

SNEAKY MUSIC DS

INSTALLATION AND SETUP

7 TECHNICAL SPECIFICATIONS

Date of introduction	March 2008
Type	Network music player
Supported file types	WAV, FLAC, MP3, AIFF
Audio sample rates	7.35 k, 8 k, 11.025 k, 12 k, 14.7 k, 16 k, 22.05 k, 24 k, 29.4 k, 32 k, 44.1 k, 48 k, 88.2 k, 96 k, 176.4 k, 192 k
Word depths	16 – 24 bits
Ethernet interface	100Base-T RJ45
Control protocol	Compatible with UPnP™ media servers, UPnP™ AV 1.0 control points
Local control	RS232 x 2 RJ11
Connector types optical digital output coaxial digital output line outputs speaker outputs	TOSLINK RCA phono RCA phono Inverted safety 4 mm BFA Sockets
Output impedance line outputs speaker outputs	300 Ω 0.06 Ω
Output voltage line outputs speaker outputs	2.8 V peak, 2 V rms (0 dBFS) 15 V peak, 10 V rms (0 dBFS, 16.6 dB gain, vol. 79)
Output offset line outputs speaker outputs	< 2 mV < 3 mV

Signal-to-noise ratio line outputs	Better than -120 dB
Channel balance	Better than +/- 0.2 dB
Channel separation line outputs speaker outputs	Better than -120 dB Better than -100 dB
Gain range	-80 dB to +20 dB
Gain resolution	1 dB
Unity gain volume	0 dB = volume 80
Dynamic range	120 dB
Damping factor	67
Signal level for clipping	415 mV rms (0 dBFS, +16.6 dB gain, vol. 79)
Harmonic distortion	< 0.03% at 1 kHz at 10 W
Load tolerance	Unconditionally stable into all loudspeaker loads
Frequency response – pre – power	2.5 Hz – 170 kHz (-3 dB) 2.5 Hz – 48 kHz (-3 dB)
Speaker output voltage	15 V peak
Speaker output power	20 W into 4 Ω
Power consumption standby operational maximum continuous	10 W 14 W 120 W
Mains supply voltage (auto-ranging)	100 – 120 V ac (±10%) 50 – 60 Hz 200 – 240 V ac (±10%) 50 – 60 Hz

SNEAKY MUSIC DS

INSTALLATION AND SETUP

7 TECHNICAL SPECIFICATIONS (continued...)

Fuse	250 V, T1.6 A (not user replaceable)
Dimensions	(H) 44.5 mm x (W) 345 mm x (D) 274 mm (H) 1.8" x (W) 13.6" x (D) 10.8"
Shipping dimensions	(H) 115 mm x (W) 440 mm x (D) 380 mm (H) 4.5" x (W) 17.3" x (D) 15.0"
Weight	2.7 kg 6 lb
Shipping weight	3.4 kg 7.5 lb
Control	Remote controllable (handset not supplied)