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Introduction

The Ringdale NetAudio® Player enables hi-fi digital sounds from your Local Area Network (or even from across the Internet if required) to be downloaded to its local rewritable memory, where it can be stored as long as required.

The stored sounds (music or speech) can then be played, either through the device's own speaker or by connecting the player to other audio systems - including speakers, P.A. systems, even a telephone system (with a 600 ohm 4.5 Vpp input socket).

***Important Note:* Ringdale strongly recommend the user check the copyright status of any sound files used with the NetAudio® Player. Ringdale accept no responsibility for infringement of copyright that may occur during the movement, storage or playing of digital sound files.**

The NetAudio® Player can be set to auto-repeat a recording, or it can be programmed to select eight different stored recordings. The user can specify a sequence of samples to be played in a particular order and can determine the delay between the samples.

Typical examples of a use for the NetAudio® Player would be playing sounds to callers on hold on a telephone system, or playing music interspersed with customer information announcements in a shop.

Once installed on the network, the NetAudio® Player is configured and remotely managed from your PC using the PeripheralVision® software provided.

Follow the instructions in this guide for quick installation and operation of your Ringdale NetAudio® Player.

Features

Three versions available - The standard NetAudio® Player with up to five minutes available recording time, NetAudio® Player 55 with 55 minutes recording time and NetAudio® LongPlay with 120 minutes recording time.

Remote management from your PC using Ringdale's PeripheralVision® software

Sound is stored in digital format

Up to eight sound files can be stored to the player at any one time

Can be programmed to play sounds in any order required

Auto-repeat facility enables player to run continuously

Audio recording does not deteriorate with constant use

Rewritable memory can be updated more than 10,000 times

Record/playback password protection

Powers up automatically after power failure

Integral all voltage power supply

Extremely low power consumption (3 watts)

NPMP™/SNMP compatible

Uses the AB-180-20, currently the fastest 8-bit microprocessor available

Installation

Connect the power cord to the **Power Input** socket as shown in the illustration below and plug into power supply.

The LEDs will flash to indicate that the device has powered up.

The illustration shows the position of the RJ45 port, its diagnostic LEDs and the audio output socket.
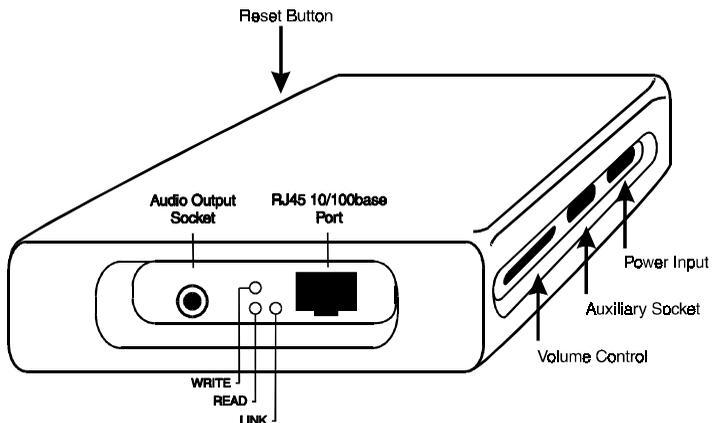
RJ45 10/100base Port
Connect to this port the RJ45 cable from a hub on your Ethernet/Fast Ethernet network.

The LEDs are itemized as follows:

Link (Yellow) LED
The Link LED indicates that the port is functionally connected to an external port. It lights up when the connected hub is turned on. If the LED does not light up, there may be a problem with the cabling or the hub.

Write (Red) LED
The Write LED blinks when a data packet is being *sent* from the port.

Read (Green) LED
The Read LED blinks when a data packet is received, regardless of the status of the port, even if the port is disabled.

These last two LEDs enable monitoring of the traffic passing through the device.

Audio Output Socket
The NetAudio® Player is supplied with a lead with a mono jack plug that can be connected to this socket if required. This enables the player to be instantly connected to 90% of telephone systems or another external audio system such as a speaker etc. **Note:** any lead connected to this socket must have a 3.5 mm **Mono** plug.

Reset Button
Pressing this will return the player to its position on power-up. Sounds stored on the player and any playlist that has been created will not be lost.

Volume Control
Alter the volume of the NetAudio® Player as required using this control.

Auxiliary Socket
Use this if the NetAudio® Player needs to be connected to an external device (See *Pin Information*.... section if this is required.

Configuration Procedure

Once the NetAudio® Player is installed on the network it is necessary to configure the device.

Configuration is accomplished by using the **PeripheralVision**® software supplied with the NetAudio® Player (see following section).

Using PeripheralVision® to
Configure the NetAudio® Player ————————————

*Full operational procedures for PeripheralVision®
are dealt with in the Help file which can be
accessed from the program, refer to this if any
problems are encountered in the procedure
detailed below.*

Install PeripheralVision® onto a PC on your
network. Using the **Locate NPMP™** discovery
tool in PeripheralVision®, enter the default set **IP
address (11.22.33.44)**. The NetAudio® Player
will appear on the network map, it will be an icon
similar to the example on the left.

11.22.33.44

Left click twice on the icon to open up the property
pages of the device.

Passwords

**Because of the sensitive nature of the
information that can be configured, access to
the NetAudio® Player property pages in
PeripheralVision® is restricted by a password.**

The Default Password is *Password.*

To change the password, use the arrows
in the top right corner to scroll the property
pages and click on the **NetAudio Player**
page (shown on the next page). Click the
Password button and this will open the
window shown on the left:

Enter the new password into the box, type
in the confirmation and click on **OK**.

Access to change the configuration will now be
restricted to those who have the new password.

Following is a detailed description of the
NetAudio Player page and how to configure it.

The following information needs to be entered onto this page (this will be supplied by your network administrator):

Device Name   Enter here the name with which the device will be identified.

IP Address   Enter here the IP address assigned to the player.

TCP/IP Subnet Mask   Enter here the subnet mask for your network.

FTP Timeout   Enter here the number of seconds you want PeripheralVision® to attempt to download a sound file before timing out.

There are two other facilities that are optional:

Auto IP   When this box is ticked, you are able to automatically change the IP address using the Ping and arp facilities in MS-DOS Prompt. If it is not ticked the IP address can only be changed using PeripheralVision®.

RARP/BOOTP   When this protocol is enabled, access to change the information on the page is denied. When deselected, TCP/IP facilities are available.

Click on **Apply** to register the new information.

Downloading Sounds

Select the **Sound Banks** page. This is shown below:
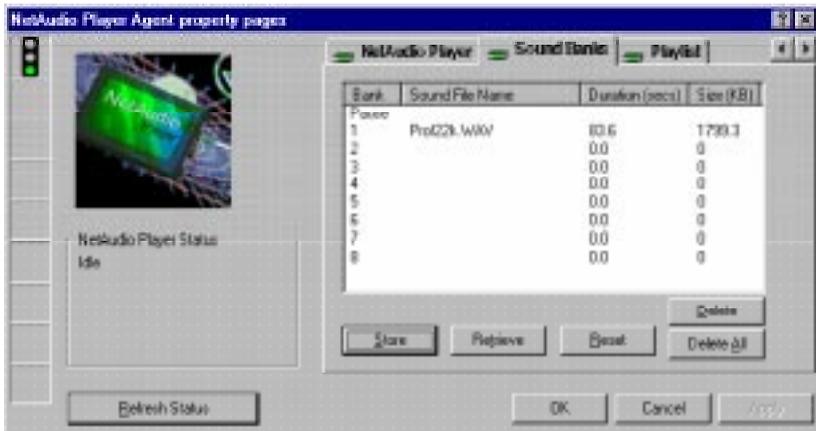
To download a sound file to the NetAudio® Player, select the bank number you wish to assign the sound to - these are found in the left hand column of the above table (1-8). Click on the **Store** button. This will open the following window:
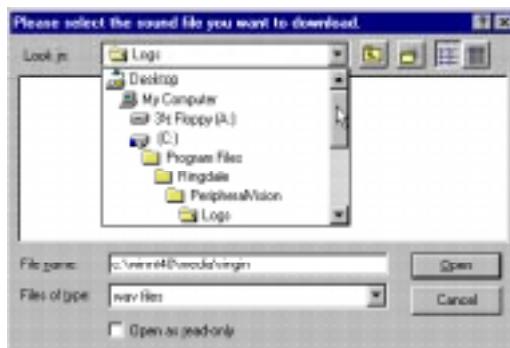
Click on the drop-down box at the top of the window. Find the sound file you require and click on **Open**. The sound file will download to your NetAudio® Player and will appear in the table on the Sound Banks page.

Note: the player supports sound (WAV) files of 8KHz, 11KHz, 12KHz, 16KHz, 22KHz and 24KHz. If the sound file is different from those listed above, see the section **Converting Sound Files**.

The table will display each sound's file size (kb), and the length in time of the sound (secs). The NetAudio® Player can hold up to eight sound files (providing the total playing time of the files is not greater than the recording time of the player).

If you want to remove the sound file from the player and put it back on the network, select the bank number of the sound you no longer require. Click on the **Retrieve** button. From the displayed window, select where you want to download the sound file to, then click on **Open** and the sound will download back onto the network.

Note: when downloading sound files to and from the NetAudio® Player, ensure that sounds are not being played at the same time.

If you want to delete a sound from the player, select the bank number of the sound you no longer require and click on the **Delete** button, then click on **Apply**.

If you want to delete all the sounds from the sound bank table, select **Delete All**, then click on **Apply**.

Note: care should be taken when deleting sound files from the player. Once deleted, the files will be irretrievably lost.

The **Reset** button can be used to abort a Store/Retrieve/Delete procedure once it has been started.

Programming Sounds

Now your sound/s are stored on the player, but they **are not** yet ready to play. To play your sounds they must be put on the **Playlist**.

Select the **Playlist** page. This is shown below:
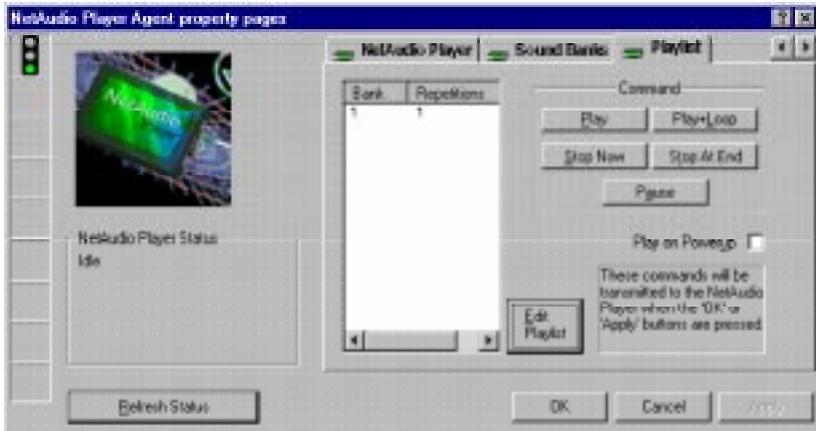
Click on the **Edit Playlist** button. This will open the window displayed below:
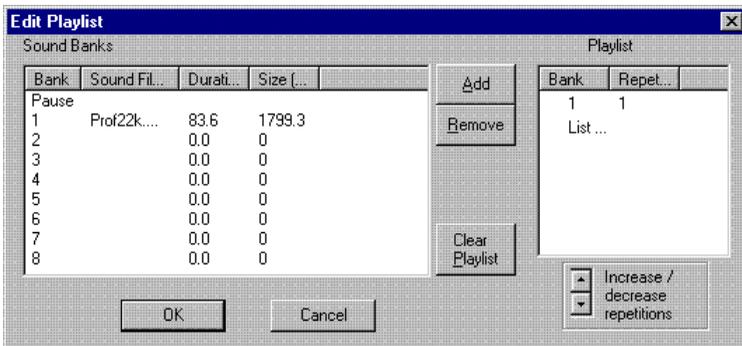
The bank table on the left shows the sounds that are stored on the player. The table on the right is the Playlist.

Select the required sound from the bank table by clicking upon it. Click the **Add** button and the sound will appear in the Playlist.

The **Repetitions** column indicates how many times the sound will repeat itself before the player moves on to the next sound in the list. This is defaulted to one. If you need to change this, select the sound in the Playlist and click on the **Increase** button (located under the Playlist). The repetition number will increase by one with each click. Click on the **Decrease** button to reduce the number of repetitions.

If you want to insert a sound into a specific place in the Playlist, click on the position required in the playlist, then select the bank number from the sound bank list and click on **Add**. The sound will appear in the list in the position specified.

To remove a sound from the Playlist, select the sound you want removed and click on the **Remove** button.

Click on **Clear Playlist** to remove the existing playlist ready for creating a new one.

Inserting Pauses into the Playlist
At the top of the sound bank list is a file called **Pause**. This enables you to insert pauses into the Playlist if required. To do this, follow the same procedure as for the regular sound files.

Each pause lasts for a tenth of a second. Use the repetition facility to increase the length of the pause to your requirements. For example, if a pause of one second is required, then the number in the Repetitions column of the Playlist will be 10.

Once you have created your Playlist. Click on **OK** to apply your selections.

Playing the Sounds
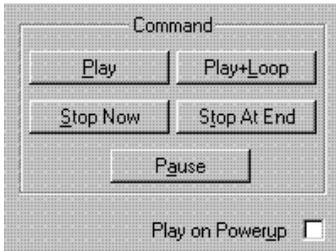
Sounds are played using the **Command** section on the Playlist page. Below is a description of the function of each button.

Play   Click on this button to start the sounds playing in the order they are listed on the Playlist. The NetAudio® Player will play to the end of the list and then stop.

Play + Loop   Click on this button to start the sounds playing in the order they are listed on the Playlist. The NetAudio® Player will continue playing the sounds until it is told to stop. When all the sounds on the list have finished playing, they will automatically start again.

Stop Now   Click on this button to stop the NetAudio® Player playing immediately. After pressing Stop, pressing Play again will start the sound/s playing from the beginning of the Playlist.

Stop At End   Click on this button to stop the NetAudio® Player playing when it reaches the end of the Playlist.

Pause   Click on this button to pause the NetAudio® Player. Pressing Play again will start the sound/s at the point they were paused, not from the beginning.

Note: none of these commands will be activated until either **OK** or **Apply** are pressed.

On the lower left side of all the NetAudio® Player property pages in PeripheralVision® is a box that monitors the status of the player. To check that the command given is being obeyed, click on the **Refresh Status** button after clicking on Apply. The box will display the updated status.

Play on Powerup

By default, the player will be idle on power-up until the sounds are started using the Command section. Tick this box if you require the NetAudio® Player to automatically start playing the Playlist in a loop when it is powered-up.

PeripheralVision®
Licensing

PeripheralVision® software comes licenced for 30 days, after which time a full licence can be purchased to continue access to all the facilities of the program. **This does not affect your ability to use PeripheralVision® to configure the NetAudio® Player.** This facility remains operational whether the software is licenced or not.

Copyright Warning

Ringdale strongly recommend the user check the copyright status of any sound files used with the NetAudio® Player. Ringdale accept no responsibility for infringement of copyright that may occur during the movement, storage or playing of digital sound files.

Converting Sound Files

Note: To convert sound files it is necessary to use a PC with a sound card installed.

The NetAudio® Player supports sound (WAV) files of 8KHz, 11KHz, 12KHz, 16KHz and 22KHz of a PCM 8-bit mono format. If the sound file is different from any of these it will be necessary to convert it to one of the above. This can be done using the **Microsoft Sound Recorder** program (sndrec32.exe) which will be present on any Windows 95/98/NT machine which has a sound card.

Follow these simple instructions to check if you need to convert the sound file.

Open the Sound Recorder program. This will display the window shown below:

From the **File** drop down menu list, select the **Open** option and find the sound file you want to convert. The file name will appear on the bar at the top of the Sound Recorder window.

From the same File menu select **Properties**. This will display the window shown at the top of the next page.

Properties for Sound

Details

[icon] Sound

Copyright:	No Copyright information
Length:	0.00 sec.
Data Size:	0 bytes
Audio Format:	PCM 22,050 Hz, 8 Bit, Mono

Format Conversion

[icon] To adjust the sound quality or use less space for this sound, click Convert Now.

Choose from:

All formats ▼   Convert Now...

OK   Cancel
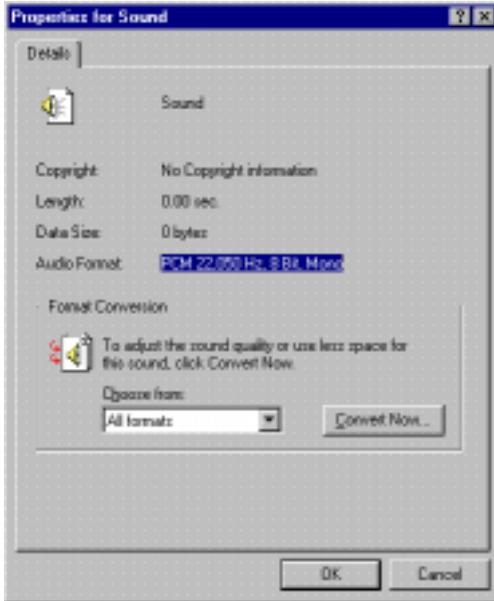
The format of the file will be displayed half way down the page, as highlighted here. For use on the NetAudio® Player, the file must be a PCM 8-bit mono WAV file of between 11 and 22 KHz, as is this one. if this is the case, click **OK** and exit Sound Recorder. The file is ready for use on the player.

If it is not, click on the **Convert Now** button to open the following window.

Sound Selection

Name:

Radio Quality ▼   Save As...   Remove

Format: PCM ▼

Attributes: 22,050 Hz, 8 Bit, Mono   22 KB/s ▼

OK   Cancel
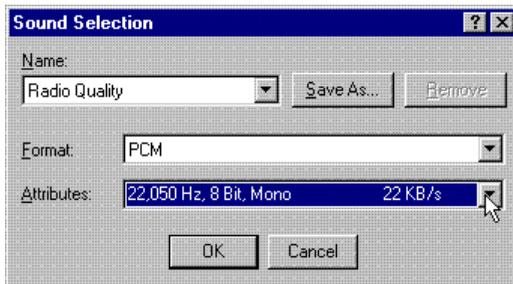
From the **Format** drop-down list select PCM.

From the **Attributes** drop-down list select a compatible KHz format (ensuring it is **Mono**).

Click on **OK**.

The sound file will be saved in the required format and is now ready to be stored onto the NetAudio® Player.

Pin Information for the Auxiliary Socket _____

Auxiliary Socket

1 2 3 4 5 6 7 8 9 10

Pin
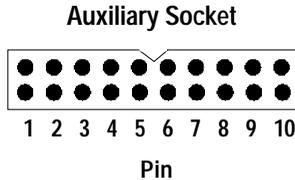
The pin configuration for the auxiliary socket on the NetAudio® Player is as follows:

Pin 2 - Restart Sound   When this pin is activated, the NetAudio® Player will restart the sound currently being played from the beginning again.

Pin 9 - Reset Player   When this pin is activated the NetAudio® Player will return to its position on power-up. Sounds stored on the player and any playlist that has been created will not be lost.

Pins 1,3-8,10   Random unassigned.

Safety and Location Advice

The device is designed to operate in a typical office environment. Choose a site that is:

Well ventilated and away from sources of heat including direct sunlight.

Away from sources of vibration or physical shock.

Isolated from strong electromagnetic fields produced by electrical devices.

Provided with a properly grounded wall outlet.

Do not attempt to modify or use the supplied AC power cord if it is not the exact type required.

Ensure that the system is disconnected from its power source and from all telecommunications links, networks, or modem lines whenever the chassis cover is to be removed. Do not operate the system with the cover removed.

Troubleshooting and Technical Reference ───────

Symptom	Poss. Cause	Action
LEDs do not flash at power-up	Power cord not connected	Plug in to player and/or power supply
	Fuse defect	Replace fuse
Link LED does not light up	No cable inserted	Connect to hub and player
	Player not powered up	Check power supply for player
	Wrong cable type	Verify cable selection
	Bad cable	Replace cable

Technical Specification

Mains Supply:	230/110 volts AC
Frequency:	50..60Hz
Power:	3 watts typical
Input Port:	RJ45 10/100base TX Ethernet or Fast Ethernet
Output:	$\sim$ 4.5 Volt pp at 4 ohm = 1 watt
Sound Output:	<1%
Recording Time:	5, 55 or 120 minutes total
Number of Recordings:	1-8 maximum (not exceeding recording time)
Dimensions:	35mm(h) x 175mm(w) x 115mm(d)
Part No:	00-22-0351-0000

Technical Support _____

Ringdale Ltd, Ringdale Inc. and Ringdale GmbH all have Technical Support Departments. Their addresses and contact details are found on the back cover of this manual.

Before you call:

Please have the following information ready before calling:

Network Information:
Network operating system type and version, server configuration.

LAN topology:
Type of cable being used, size of network, number of PCs and other nodes in network.

History of the Problem:
The symptoms of the problem.
Did the device work for a period of time or fail immediately after installation?

Was any PC option changed (hardware or software) prior to the problem appearing?