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REDISCOVERED.
RELIVED. RELOVED.**

ROBERTS

RS1

Wireless Multi-room Adaptor with Internet Radio, Music Player and Spotify Connect
and remote control from iPhone and Android using UNDOK



Please read this manual before use

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RS1 Multi-room Adaptor features

The Roberts RS1 provides the following features in an attractive compact unit:-

- Integrate your existing audio equipment into a multi-room capable system, see page 4.
- Line output and digital output sockets for connecting the audio signal to a hi-fi system, radio or any other devices with an auxiliary input.
- Auxiliary input for playing audio from MP3 players, turntables or other audio equipment.
- Remote control from Apple iPhone, iPad and Android devices using the UNDOK app.
- Compatible with Spotify Connect, allowing your Spotify selections to be played using the adaptor, remotely controlled from your iPhone, iPad, Android device or any Desktop.
- Listen to local, regional, national and international broadcasts using Internet radio.
- Listen to over 1000 radio stations from around the country, and over 10,000 from around the world without using your PC.
- Listen to podcasts from a wide range of broadcasters.
- 40 internet radio station presets.
- Use the Music Player to play your music collection from devices on your network. Connection to Apple and Linux based computers is also possible.
- Playback of audio files from USB memory devices.
- MP3, WMA, AAC, FLAC, ALAC (Apple Lossless) and WAV formats are supported.
- The RS1 connects to your home computer network, either using WiFi or via a wired Ethernet connection.
- Dual band WiFi for a greater network compatibility.
- Works with Windows 'Play to' / 'Cast to Device' function (as a Digital Media Renderer).
- All radio station presets, network configuration details and user settings are retained in the event of a power failure.
- Adjustable sleep timer, can be set to put the adaptor into standby after a delay of up to 60 minutes.
- Mains operation using supplied mains adaptor.

Before you can use this product

Before you can use this product, you must have the following:

- A broadband Internet connection.
- A router (or equivalent wireless access point) providing a WiFi signal or Ethernet connection, connected to your broadband Internet Service Provider. The broadband modem, router and wireless access point will often be a single combined unit supplied by your Internet Service Provider or bought from a computer store.
- A smart phone or tablet which uses either the Android operating system (version 4.0.3 or later) or Apple iOS (version 8 or later).
- If your wireless network requires a security password to allow connection, then you either need to know the WEP, WPA or WPA2 key used for encryption so that you can get the product to communicate with the network, or your router needs to offer WiFi Protected Setup (WPS).
- If you choose to connect the product to your network using a wired Ethernet connection, then an Ethernet cable of appropriate length will be needed.

The product's WiFi system is compatible with 802.11b, g, n or a networks and can use 2.4 GHz or 5 GHz WiFi frequency bands.

If connecting using WiFi, the product will typically work within a 10-20 metre radius from your wireless router or access point. The actual range achieved will depend upon the building type, other nearby wireless networks, and possible interference sources.

IMPORTANT: Before you continue, make sure that your router (or access point) is powered up and working with your broadband Internet service (use your computer, smart-phone or tablet to verify this). To get this part of the system working you must refer to the instructions supplied with those items.

About this instruction manual

This instruction manual is split into sections for each of the operating modes of your Roberts RS1 multi-room adaptor. Each section is clearly identified by the shaded heading in the top right hand corner of each pair of pages.

Before using the Internet Radio and Music Player functions, you will need to connect your adaptor to your computer network using either the WiFi or Ethernet connection. This is covered in the section titled **Setup**.

The **Internet Radio** section describes how to find radio stations to listen to. These can be radio stations that you already know and listen to conventionally, or new stations you may search for. You may set up stations that you like as Favourites so that they are more readily accessible.

The section for the **Music Player** describes how you may play music files that you may have stored on a computer or other devices connected to your network. The use of Shared Media (using UPnP) and USB playback is explained.

The **Spotify Connect** section explains the use of the adaptor in conjunction with the Spotify internet based music streaming service.

The **Multi-room** section explains how your adaptor may be connected as part of a wireless music system.

The **Auxiliary Input** section shows how to use your adaptor with devices connected to its auxiliary input socket.

The **UNDOK Settings** section explains how to modify settings for your adaptor including the sleep timer.

The **Information** section includes troubleshooting, specifications and warranty information.

Introduction

Setup

(page 6)

Internet Radio

(page 10)

Music Player

(page 14)

Spotify Connect

(page 22)

Multi-room

(page 25)

Auxiliary Input

(page 29)

UNDOK Settings

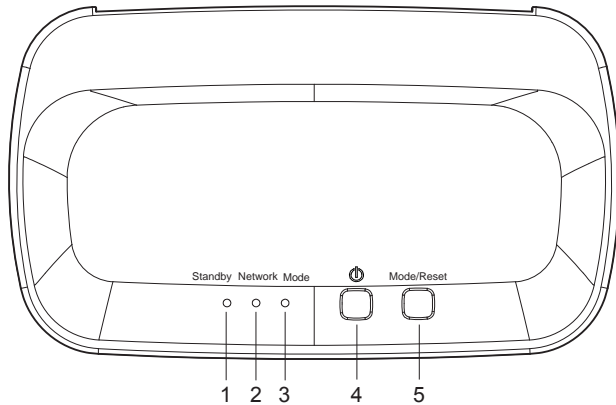
(page 30)

Information

(page 31)

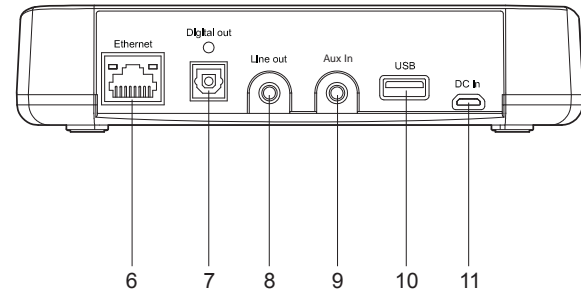
Controls and connections

Top view



1. Standby indicator
2. Network Status indicator
3. Mode indicator
4. On / Standby button
5. Mode / Reset button

Rear view



6. Ethernet socket (RJ45)
7. Digital optical output socket (Toslink)
8. Line output socket
9. Auxiliary input socket
10. USB playback socket
11. DC input socket

Controls and connections cont.

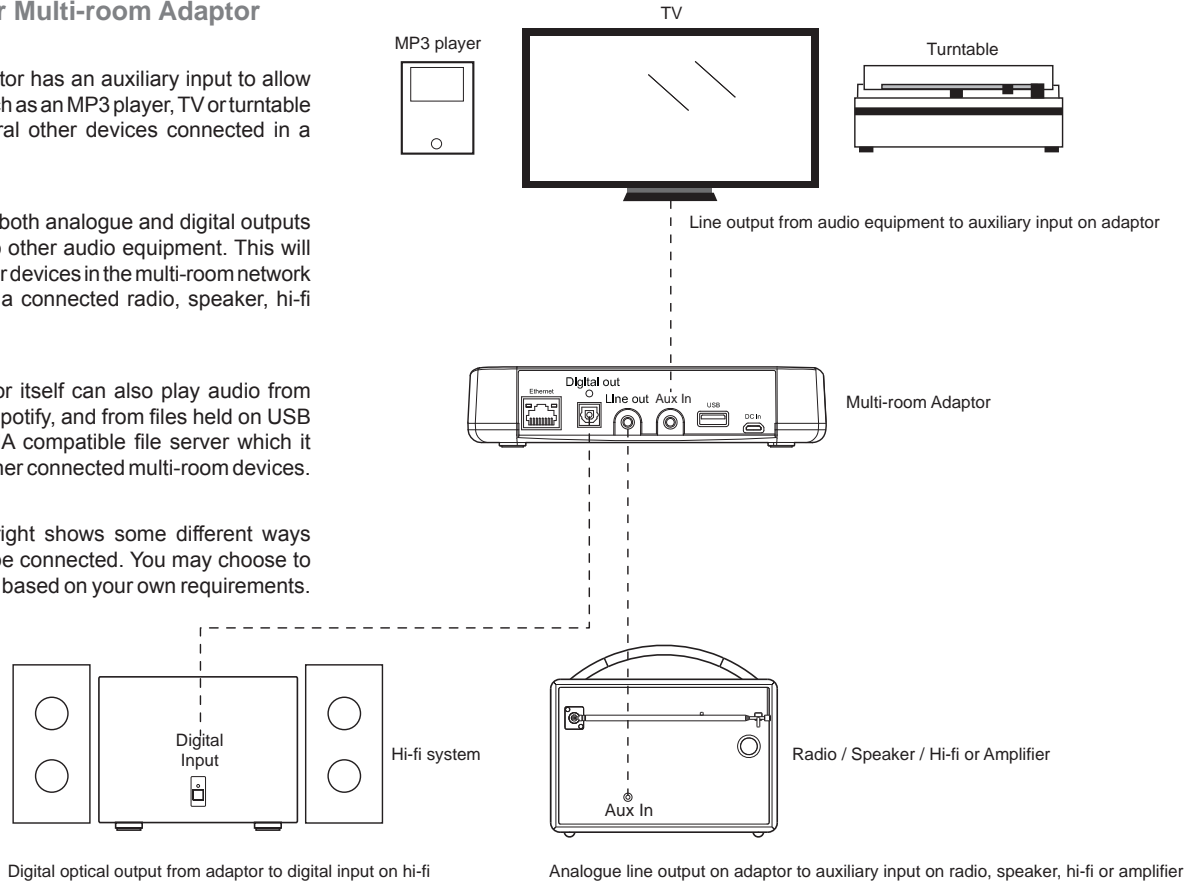
Connecting your Multi-room Adaptor

Your Multi-room Adaptor has an auxiliary input to allow audio from devices such as an MP3 player, TV or turntable to be played to several other devices connected in a multi-room network.

The adaptor also has both analogue and digital outputs to allow connection to other audio equipment. This will enable audio from other devices in the multi-room network to be played through a connected radio, speaker, hi-fi system or amplifier.

In addition the adaptor itself can also play audio from Internet Radio, from Spotify, and from files held on USB memory or on a DLNA compatible file server which it can then share with other connected multi-room devices.

The diagram to the right shows some different ways that the adaptor can be connected. You may choose to connect other devices based on your own requirements.



Controls and connections cont.

Optical S/PDIF output socket

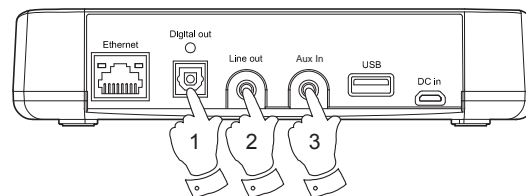
1. A digital output socket providing an S/PDIF signal is provided on the rear of your adaptor for connection to a hi-fi system, amplifier or other equipment with a digital optical input.

Line out socket (3.5mm Jack)

2. A 3.5mm **Line Out** socket located on the rear of your adaptor is provided for connecting the audio signal to the auxiliary input of another product such as a radio, hi-fi system or amplifier.

Auxiliary input socket (3.5mm Jack)

3. A 3.5mm **Auxiliary Input** socket located on the rear of your adaptor is provided for connecting the audio signal from an external audio source such as an MP3 player or other device, see page 4 for further details.



Controlling the adaptor

Most functions on the adaptor are controlled using the UNDOK app. However you can also use the buttons on your RS1 for the following functions.

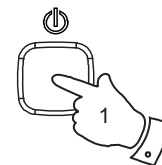
1. Pressing the **On/Standby** button brings the adaptor out of Standby mode. Pressing the **On/Standby** button while the adaptor is in use will cause it to return to the Standby mode. The **Standby** indicator will light.
2. Press and release the **Mode/Reset** button to select the desired operating mode, Internet Radio, Spotify, Music Player or Auxiliary Input.

The **Mode** indicator will change colour according to the music source selected (see page 28).

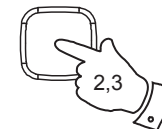
Instructions for each operating mode are given in the later sections of this book.

Note: You will need to use the UNDOK app to select your choice of content for most operating modes.

3. The **Mode/Reset** button can also be used to reset the adaptor, please see page 31.



Mode/Reset



Step 1 - Download the UNDOK app

Download and install the UNDOK app on to your Android or iOS device.



- iOS - Download from Apple App Store
- Android™ - Download from Google Play Store



- If you already have the UNDOK app installed on your device ensure that you have the latest version.
- It is possible that this app may have been changed slightly since these instructions were written.
- Please refer to the Roberts Radio website for guidance on how to use the latest version.

Note: At the time of writing Android version 4.0.3 and later or iOS version 8 or later are required to use UNDOK.

Step 2 - Plug in the product and switch on for first use

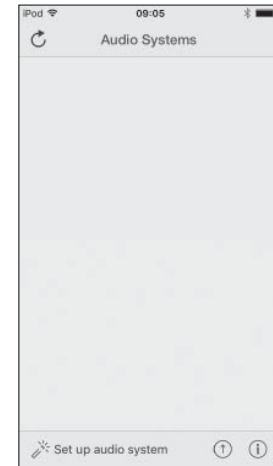
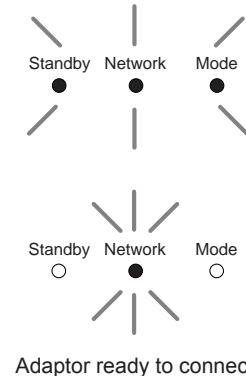
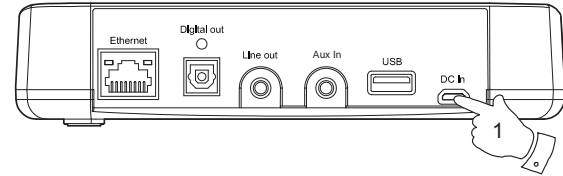
1. Place the multi-room adaptor on a flat surface and plug the cable from the mains adaptor into the **DC input socket** located on the rear of the adaptor (marked 'DC In') ensuring that the plug is pushed fully into the socket.
2. If you wish to use a wired network connection, plug the Ethernet cable into the RJ-45 socket at the back of the adaptor.
3. Connect the adaptor to your audio equipment, please see pages 4 and 5.
4. Plug the mains adaptor into a wall socket and switch on the socket.

IMPORTANT: The mains adaptor is used as the means of connecting the product to the mains supply. The mains socket used for the product must remain accessible during normal use. In order to disconnect the product from the mains, the mains adaptor should be removed from the mains socket outlet completely.

5. When you apply the power the **Standby, Network Status and Mode indicators** will all light briefly.
6. If this is the first time that you use your adaptor or after a factory reset, after several seconds the **Network Status indicator** will flash slowly indicating that your adaptor is now ready to connect to your home network.
 - After each use the adaptor will remember the mode used and then switch on in that mode the next time it is used.

Note: If the adaptor has not previously been connected to a network, the Network Status indicator will flash slowly. If this is not the case please reset the adaptor see page 31.

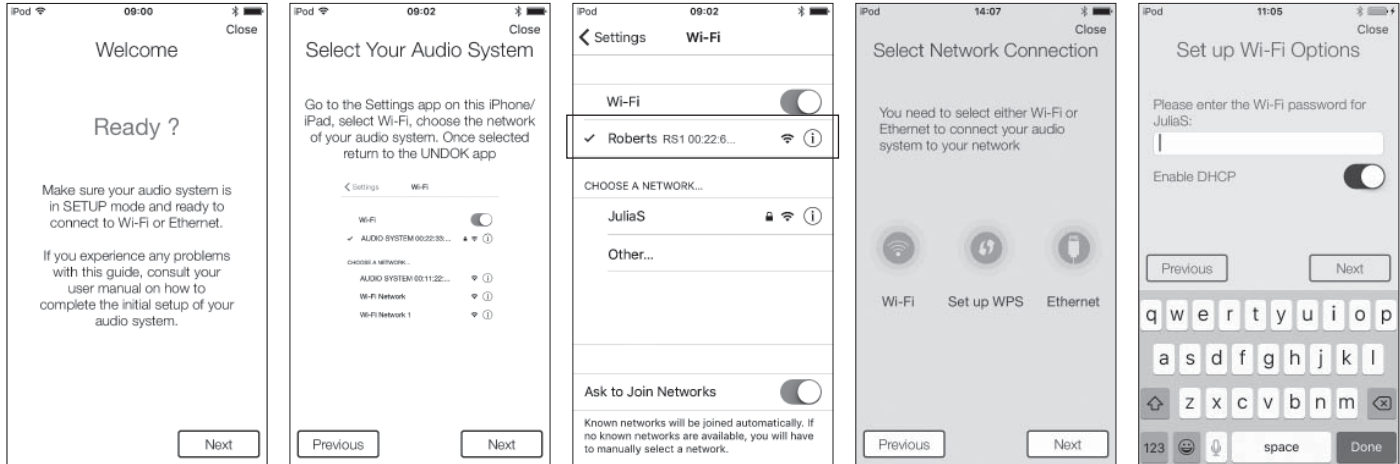
7. Use the UNDOK app to connect your adaptor to your network. If adding more than one product this must be done for the first time each product is used.



Step 3 - Setup new audio system - Apple iOS device

If your device uses Android, please see page 9.

The **UNDOK app** has a setup wizard to help configure suitable audio devices to connect to your home WiFi network.

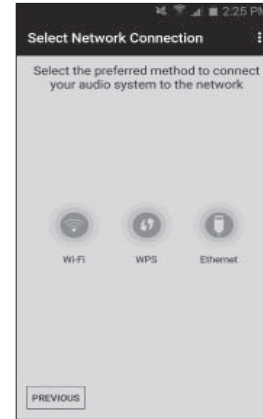
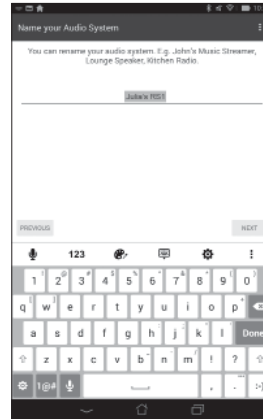
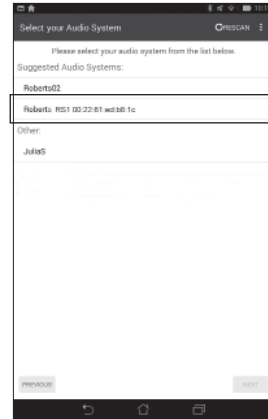


1. Open the **UNDOK app**.
2. Setup a **New Audio system**.
3. The app will prompt you to use your **device's WiFi** settings to connect to your adaptor.
4. Select your **RS1** adaptor. Once your device has connected to the adaptor, **return** to the UNDOK app.
5. Use the app to complete the setup, including giving the adaptor a name (living room, etc), whether it is connected via WiFi or Ethernet. If you wish to connect using an Ethernet cable please (see page 33).
6. For a WiFi connection the app will ask you to choose a WiFi network and enter the appropriate password.
7. The **Network Status indicator** on your adaptor will stop flashing and will go off when it has successfully connected to your network.

Step 3 - Setup new audio system - Android device

If your device is an iPhone or iPad (i.e. uses iOS) please see page 8.

The **UNDOK app** has a setup wizard to help configure suitable audio devices to connect to your home WiFi network.



1. Open the **UNDOK app**.
2. Setup a **New Audio system**.
3. The app will show a list of suggested audio systems to setup.
4. Your adaptor will normally appear in this list as **RS1**. It may appear in the list below called **Other**. Select the adaptor to be setup.
5. Use the app to complete the adaptor setup, including giving the adaptor a name (living room, etc).
6. Choose whether it is connected via WiFi or Ethernet. If you wish to connect using an Ethernet cable please (see page 33).
7. For a WiFi connection the app will ask you to choose a WiFi network and enter the appropriate password.
8. The **Network Status indicator** on your adaptor will stop flashing and will go off when it has successfully connected to your network.

Note: If when setting up your adaptor your Android device complains that it cannot connect to the internet this is because it is temporarily connected directly to your adaptor. You should ignore this warning message.

Internet Radio

Internet Radio - the basics

Before you can use your multi-room adaptor to listen to broadcasts via the Internet, it is necessary to have connected it to your computer network using either the wireless (WiFi) connection or the wired Ethernet connection (RJ-45 socket) located on the back of the unit. Please see pages 6-9 for details.

There are literally many thousands of radio broadcasts available via the Internet as well as 'Podcasts'. Your adaptor provides several ways of searching for broadcasts in order to make finding and choosing them easier. Once you have found the radio stations that you like, you may either store them as presets or add them to a list of your favourite stations which your adaptor can access. The adaptor allows you to store up to 40 presets and as many favourites as you like.

You may search for an Internet radio station by Location. If you know the name of the station and the country from which a station is broadcast this may be the easiest method to find a station. It is also a great way to experience radio from other parts of the world.

You may also search for an Internet radio station by Genre. If you prefer a particular type of music, Blues for example, you may search for a radio station that broadcasts that type of music, and you can choose from a list of Blues radio stations regardless of location, or taking location into account.

If you know part of the name of an Internet radio station, you can enter it into the UNDOK app and it will search for stations that match that name. This can be helpful if you are unsure of the location or genre of a particular station.

The adaptor connects to a radio station database which serves many users in many countries. This means that there is a very wide range of programme content available. You can also search for stations which have been recently added to those available (new stations) or you can search for the most popular.



Internet radio

Selecting internet radio

1. Ensure your multi-room adaptor is switched on.
2. Select **Internet Radio** as the music source.
3. Select 'Browse' to choose radio stations.

Presetting internet radio stations

Your adaptor has forty memory presets for internet radio which can easily be set to store the details of any radio station or podcast.

1. To store the currently playing radio station select the **Preset** option on the playing screen and choose the desired preset number. Press the '+' symbol to store your preset station.
2. To recall a preset select the **Preset** option on the playing screen and select the desired preset station.

If your adaptor cannot connect to a radio station

Note: If your adaptor is unable to connect to an Internet radio station this can be for many reasons, but typically will be due to one of the following:

The radio station may not be broadcasting at the present time.

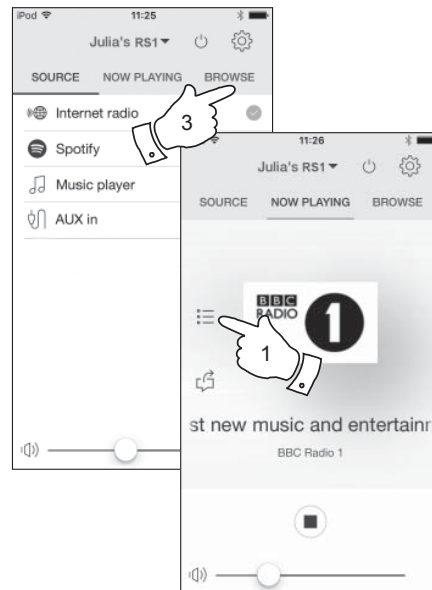
The radio station may not be able to accommodate any more connections from internet listeners.

The broadcaster may limit listening to specific countries or regions

There may be network congestion (either locally or at a distance) which is affecting the reliability of the connection.

If your adaptor can connect, but the audio is not continuous and the radio keeps having to reconnect, this may be due to the radio station only having limited connection capacity.

Please also refer to the 'Troubleshooting' section on page 36.



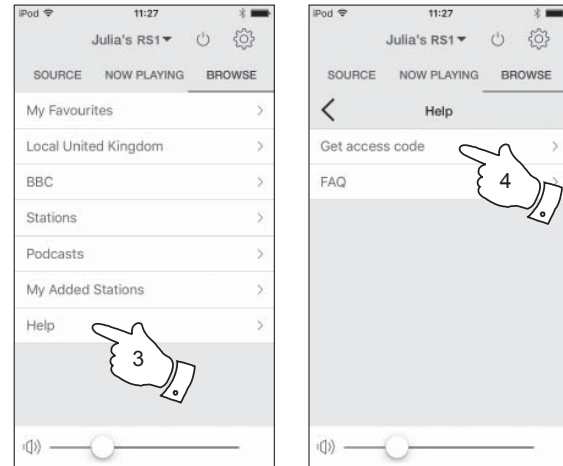
Customising your stations list

In addition to storing your favourite radio stations in the presets, your adaptor allows you to create customised lists of stations which can appear in two special menus called '*My Favourites*' and '*My Added Stations*'.

Your adaptor uses a database which is accessed via the Internet in order to find out which radio stations are available and how it should connect to them. You are able to add your personal selections to this database. These are configured using a web browser on your device or on a PC. You can choose the stations which will appear in the '*My Favourites*' menu from the large selection already listed. Additionally, if you find a radio station that is not listed then you may also add the Internet address (URL) of the station's audio stream to your selection. It will then appear in UNDOK via the '*My Added Stations*' menu item.

Registering an account

1. Open the web site <http://www.wifiradio-frontier.com> using a web browser. Click on the '*Register here*' link and follow the on-screen instructions to register an account. During the registration process the web site asks for an access code. This allows it to uniquely identify your adaptor from the many others that it also provides data for. To obtain the access code, please follow these steps.
2. Using the UNDOK app select **Internet radio** as the music source for your adaptor.
3. Select the '*Browse*' screen and then select the item called '*Help*'.



4. In the Help menu, select the menu item '*Get access code*'. Provided that the adaptor is connected to the Internet, a code will be displayed of typically seven characters (upper case letters and numbers). Make a note of this code for the next step. If you need to re-register later you must repeat this process to get a fresh access code.
5. You should then use the code displayed to fill in the Access Code field on the web page when you set up your account.

Once you have your account set up, if you have other products which use the same database, you may also add them to your account. You will need to get an access code for each product in order to add it to the account. They may then share your favourite and added radio station details.

Customising your stations list - cont.

Configuring My Favourite Stations

1. Using the web site at <http://www.wifiradio-frontier.com> it is possible to search among the many radio stations that are available by location, genre, or language. You may also choose from new or popular stations.
2. When the radio stations that you have found are shown on your computer screen, they are shown with a 'Play' icon and an 'Add to favourites' icon (the plus symbol and heart). Clicking on the 'Play' icon will allow you to hear the radio station via your device or a PC. Clicking on the 'Add to favourites' icon will cause the radio station to be added to the list accessible via your adaptor.
3. To help you organise your favourites, and since you may have a great many after a while, the web site will allow you to specify the name for a category or group under which the radio station will be listed. Suitable names might be 'Rock', 'Smooth', 'Mum's stations', and so on. When ever you add another radio station to your favourites you can either add it to an existing category or create a new one.
4. Once you have Internet radio stations available in your My Favourite Stations list, you may play these stations using your adaptor. These stations will be available from the Internet Radio menu item '*My Favourites*' in the UNDOK app.
5. To look at, modify or delete your favourite stations lists on the web site, use the link '*My favourites*' in the '*My account*' area. To delete a favourite radio station, click on the icon with a heart and minus symbol.

Configuring My Added Stations

1. If you wish to listen to a radio station which is not currently held in the database at <http://www.wifiradio-frontier.com> it is possible to add the details yourself. You will need to obtain the internet address (URL) for the audio stream for the station that you wish to add. This may be information provided by the radio station itself, via its web site, or perhaps passed to you from another listener.
Note: The URL for the audio stream will generally **not** be the URL for the web page from which you listen to the station on your PC.
2. Use the '*My added stations*' link in the '*My account*' area on the web site. This allows you to add details of new stations or to modify those already added. You can provide a name for the radio station which will be shown in UNDOK. You must also provide the web address, location and format details.
3. Once you have Internet radio stations available in your My Added Stations list, you may play these stations. These stations will be available from the Internet Radio menu item '*My Added Stations*' in the UNDOK app.
4. It is possible to add the web addresses for audio streams which may not be playable using your adaptor. The Roberts RS1 can only play MP3, WMA and AAC Internet radio streams.
5. To look at, modify or delete your added stations list on the web site, use the link '*My added stations*' in the '*My account*' area. To delete an added radio station, click on the icon with a heart and minus symbol.

Use with Windows, Apple Mac, Linux, USB memory

The Music Player allows you to play audio files which are stored on another device connected to your network or which are held on a USB memory device plugged into your multi-room adaptor.

Networked devices that could hold audio files can include computers, smart phones, tablets, NetworkAttached Storage (NAS) units, and network routers which have UPnP / DLNA file sharing capability. In order to play files from a device on your network, your adaptor must connect to a file server program on that device which uses the Universal Plug and Play (UPnP) protocol (often known as DLNA).

If the device is a computer or tablet using Windows, then it probably already has a UPnP server program available in the form of Windows Media Player (WMP). This allows you to share your files to devices on your network, and you may then select files by Album, Artist, and so on using UNDOK. WMP can serve MP3, WMA, AAC and WAV files to your adaptor (and FLAC files from Windows 10).

If you are an Apple MacOS, Linux, iOS or Android user, or if you have your audio files stored in other formats, such as ALAC, there are many other UPnP server programs available. Note that Apple computers do not support UPnP streaming natively and third party software is required for this task. If you wish to use a DLNA server built into your network router, you should consult your router's documentation on how this should be configured.

The Music Player on the adaptor can play audio files in MP3, WMA, AAC, ALAC, FLAC and WAV formats. WMA Lossless files can also be played when using Windows Media Player as the UPnP server. Note that the playback of files encoded using WMA Voice, WMA 10 Professional, and of files which have DRM protection is not supported by the adaptor.



Please note that when using a UPnP/ DLNA server, the search and selection criteria that are available to the user are determined by the server software, and not by the device playing the content. Typical searches include Artist, Album and Genre. Many server applications also allow you to access your files according to the folders within which they are stored as well as other criteria. Windows Media Player is less flexible than some other UPnP servers in this regard, but is generally easier to set up.

Many UPnP server applications are also capable of sharing pictures and video files to other network connected devices. If this is the case (as it is with Windows Media Player) you may see the option of choosing between 'Music', 'Video' and 'Pictures' on the Music Player's menu. Clearly you should only select the 'Music' option. Content offered via the alternative options will not be playable using your adaptor.

Some third party server applications allow customisation of the search criteria and indexing methods. This can be useful if you have a very large collection of stored music files.

It is not possible in this book to describe server applications for all available environments, and neither is it practical to describe how to get the best out of each. Windows Media Player is used as an example in this case, although many of the principles are applicable to other servers as well. The access to the media, the choice of media for playing, and the use of the media playback controls within UNDOK are similar regardless of the UPnP / DLNA server being used.

When using your adaptor as part of a group of multi-room products, audio files in ALAC and FLAC formats will only play on the group master (see page 37).

Accessing your audio files via a UPnP server

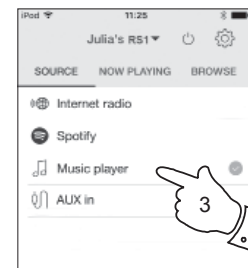
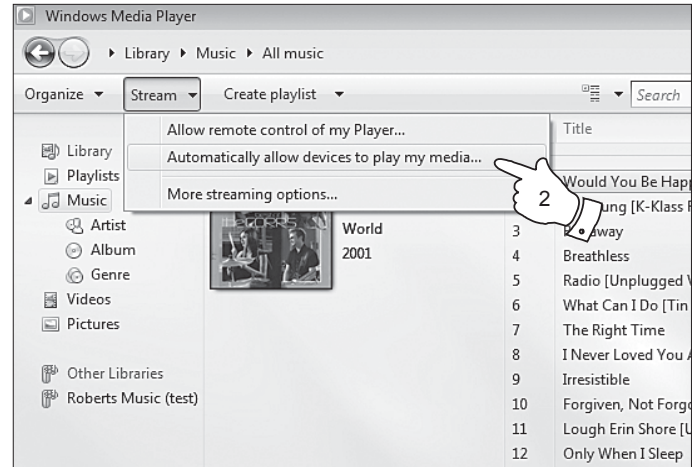
If your device or PC is running Windows 7, 8, 8.1 or 10, then Windows Media Player includes a UPnP server which will make your files available to your adaptor. There are other UPnP server solutions available for non-Windows users and for Windows users who may wish to use an alternative (see the preceding page).

It is beyond the scope of this instruction book to cover all possible options for UPnP. We explain the use of Microsoft's Windows Media Player here since that will be the first choice for the majority of users.

Set up UPnP access with Windows Media Player

1. At the time of writing, Windows 7, 8, 8.1 and 10 all use Windows Media Player version 12 (referred to here as WMP 12), and the configuration is similar in each case. WMP 12 can create a library from all the media files available to it on your device or PC. To add new media files to the library, select 'Library', then 'Music', then 'All music' or 'Artist', 'Album' etc. This will show you the current library contents. You may then simply drag and drop files from other locations into the library. Alternatively, with media files or folders on the screen, you may right-click on the file or folder and select 'Include in library' and then select 'Music'. In this way you can quickly add additional content to your music library.
2. In WMP 12, click on 'Stream' (see picture at right) and then select 'Automatically allow devices to play my media'. Then accept the 'Automatically allow all computer and media devices' option. There are other options (see overleaf) but this is the simplest if you just wish to quickly enable media streaming to your adaptor.
3. Ensure your adaptor is switched on and select **Music Player** as the music source.

Enabling Media Streaming in Windows Media Player 12



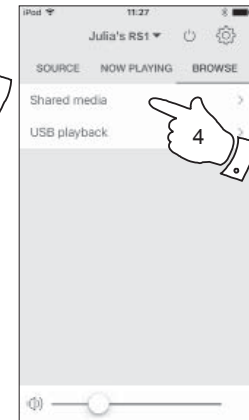
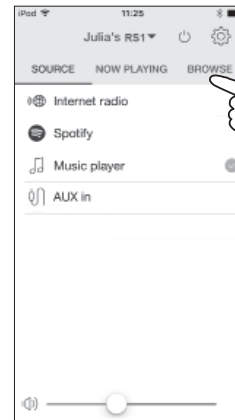
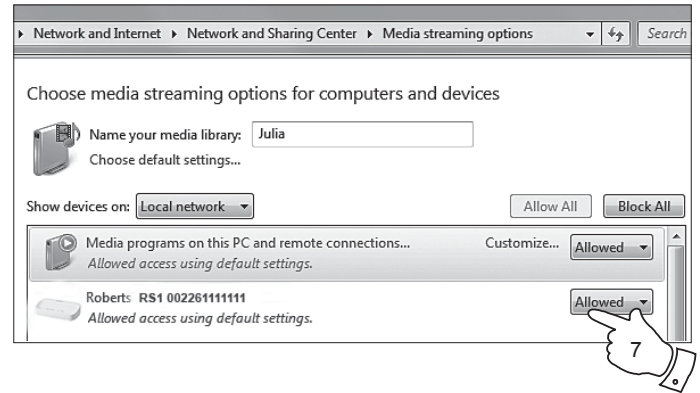
Set up UPnP access on a Windows PC - cont.

4. Select 'Browse' in the UNDOK app and select 'Shared media'. The adaptor will scan for all available UPnP servers. It may take a few seconds for the adaptor to complete its scan.
5. After scanning, select your UPnP server. If you allowed automatic connection previously, your adaptor should now connect and you may skip to the next page.
6. Your PC may prompt you that there has been a connection to your UPnP server. Whether prompted or not, in order that the adaptor can access the music files, you will need to click the 'Library' tab in WMP 12 and select the 'Stream...' item to open the 'Media Streaming' window. Select 'Automatically allow devices to play my media' then select 'Automatically allow all computer and media devices'.
Alternatively select 'More Streaming options' to enable sharing on a 'per device' basis.
7. In the 'More streaming options' window, the adaptor may be listed as a blocked device. Click on the button shown to select 'Allowed'.

Note: If you are using Microsoft's Windows' firewall software, this should be correctly configured by WMP 12. If you are using third party firewall software you may need to manually configure it to allow your unit and WMP 12 to communicate (see the 'Troubleshooting' section on page 36).

8. Select the named server again. If WMP 12 is now able to communicate with your adaptor you will be presented with some media selection options on the display.

Allowing a device to connect to Windows Media Player 12

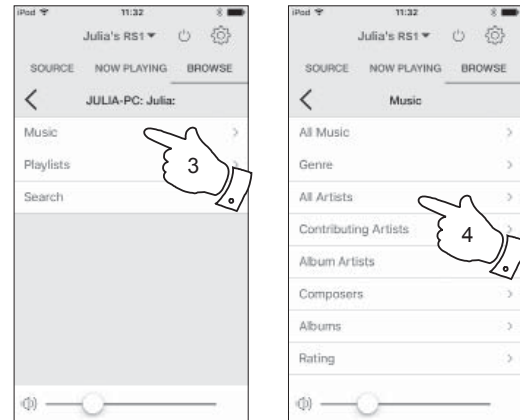
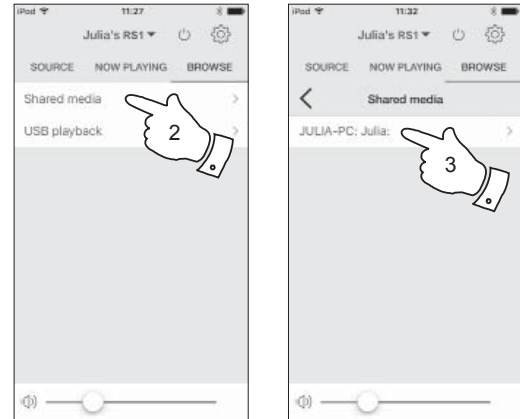


Locating and playing media files using UPnP

Once the UPnP server has been configured to share media files with your adaptor, you may select the files that you wish to play as follows:-

1. Ensure your adaptor is switched on. Select **Music Player** as the music source. Select 'Browse' and the main Music Player menu will then be displayed.
2. Select 'Shared media' to cause the adaptor to scan for UPnP servers. Note that it may take a few seconds for the adaptor to complete its scan.
3. After a successful scan select your UPnP server. If the display shows multiple media types, select 'Music'. (Some UPnP servers can serve pictures and video content to suitable devices.)
4. UNDOK will now list the media categories which are made available by the UPnP server - for example, 'Album', 'Artist' and 'Genre'. Select which category you wish to browse.
If you wish to use the search function select 'Search'. You may select characters to build a keyword for searching for content to play.

When you first set up sharing with a UPnP server, not all of your files will be available immediately. The UPnP server must look inside each file to identify the artist and album information from 'tags' embedded in them. The server may also need time to access the Internet to obtain additional information such as 'album art' which it can display when you examine your music library on your PC or device. For a library of many files this can take some time.



Media selection

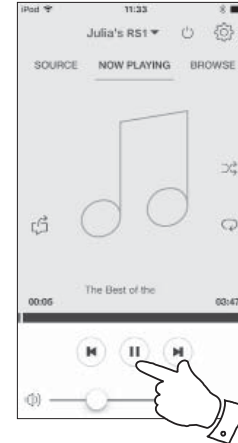
When searching via UPnP you will have a selection of search criteria as determined by the UPnP server software. This allows you to search by a given information type (Album, Artist, Genre, etc.) and then to narrow the search to an album or to a particular track within an album.

Some UPnP server applications allow the search options to be customised.

Controlling playback

You can control media playback using UNDOK.

1. Press the **Play / Pause** icon to pause playback of the current track.
2. If you press the **Play / Pause** icon, playback will resume from the point where it was paused.
3. Press the **Previous** icon to start playback of the previous track in the list.
4. Press the **Next** icon to start playback of the next track in the list.
5. Press and hold the **Next** or **Previous** icons to move through the current track. The longer the icon is pressed, the greater the speed at which the player will move through the track. Release the icon when the desired point is reached. (Note that this feature is not supported when playing files encoded using the FLAC and ALAC formats).
6. You may choose to repeat the current album or to play the files in random order, or both options together. Use the UNDOK app for repeat and shuffle options.



Using USB memory devices

This section describes how to use your multi-room adaptor to access and playback your audio files from USB memory devices. USB memory devices plug into the rectangular slot on the back of the adaptor.

Important: *Your adaptor is only designed to work with USB flash memory devices. It is not intended to be connected to hard disk drives or any other type of USB device.*

The RS1 adaptor has been tested with a range of USB memory devices of up to 128GB capacity. USB memory must use the FAT 16 or FAT 32 filing system in order to operate with your adaptor. Your adaptor is unable to play from media formatted using the exFAT or NTFS formats.

It is possible to use SD, SDHC or SDXC cards for media storage and playback when held in a suitable USB adaptor. However, due to the wide variation of such adaptors, it is not possible to guarantee that all adaptor / card combinations will work in the adaptor.

Audio formats supported are MP3, WMA, AAC, FLAC, ALAC and WAV.

USB playback does not support files encoded using WMA Lossless, WMA Voice, WMA 10 Professional, nor files of any format which have DRM protection.

Recommendations:

Unless you have only a few files on the USB memory device, do not place all files in the root folder.

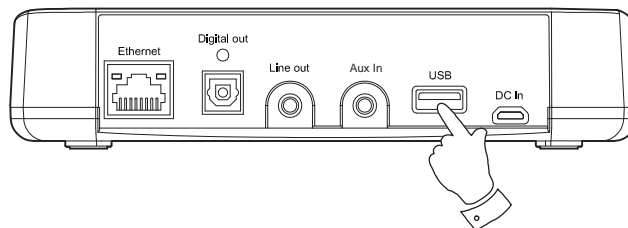
The number of items (files / sub-folders) in any folder should be less than 2000.

Searching and playback will be more responsive if the number of files in any one folder is limited (we suggest not more than 250).

It is recommended that the USB memory is reformatted in your computer before adding your music files.

The maximum depth of folder nesting permitted is 8 folder levels (but playback is only from the currently selected level).

Shuffle functions are limited to 500 tracks.



Cautions:

In order to minimise the risk of damage to your adaptor or your USB memory, please place the unit so that the memory device cannot easily be knocked while it is inserted in the socket.

Remove the USB memory before carrying the unit or if not using the USB feature for a prolonged period.

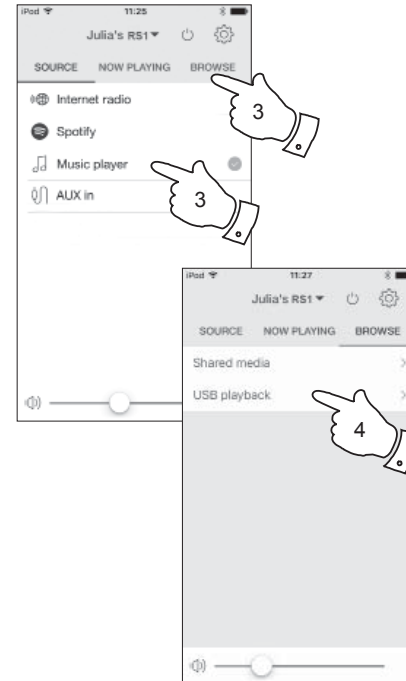
Place the unit in Standby mode before removing your USB memory device.

The USB connection is intended only for flash memory devices. The use of hard disk storage media is not supported.

Playback via USB of files stored on MP3 players is not guaranteed.

Playing files from USB memory devices

1. Carefully insert the USB memory device into the USB socket at the back of the adaptor.
2. Ensure your adaptor is switched on.
3. Select **Music Player** as the music source. Select '*Browse*' and the main Music Player menu will then be displayed.
4. Select the '*USB playback*' option. UNDOK will now list the content stored on the USB memory device. If there are many files or folders this may take a few seconds.
5. Select the required folder. The list of current tracks will then be displayed. Alternatively if you have nested folders (such as album folders within an artist folder) then you simply step to the next folder level.
6. Select the highlighted track. All files in the current folder will then be played in turn.
Files are sorted by filename in numeric-alpha order (0-9...A...Z) before being played. Albums will play in the correct order if the filename begins with the track number (use leading zeroes if more than 9 tracks).
7. Controlling playback from the USB memory device including Shuffle and Repeat functions is explained on page 18.



Windows 'Play to' / 'Cast to Device' function

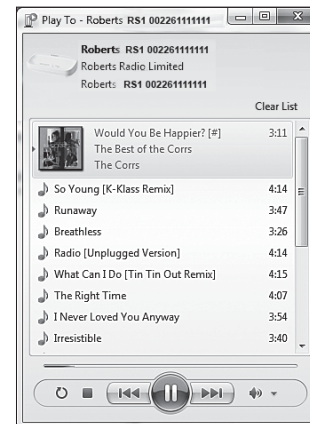
If you use Windows 7, 8, 8.1 or 10 it is possible to choose a music album, track or playlist at the computer and then tell Windows that this should be played using the adaptor using the 'Play to' function (called 'Cast to Device' in Windows 10).

Similar functionality is available for other computer types and for handheld devices using Apple's iOS or Android operating systems. In this mode the adaptor operates as a Digital Media Renderer (known as DMR mode).

1. Ensure your adaptor is plugged in and connected to your network.
2. At your Windows PC, locate the file, album or playlist that you wish to play using the adaptor.
3. Use the right-hand mouse button to pop-up a menu of options for the chosen item and select the 'Play to' / 'Cast to Device' option.
4. Windows should show you one or more devices, including your adaptor, to which you may choose to send the music. Highlight the adaptor item and click with the left mouse button.
5. Windows will then open a 'Play to' / 'Cast to Device' window showing the track or tracks to be played. Your computer will then take control of your adaptor. Your adaptor will enter the Digital Media Renderer mode (DMR) and after a few seconds the chosen media will start playing.
6. While the adaptor is playing in DMR mode you can use the controls in the 'Play to' / 'Cast to Device' window on your computer to skip tracks, fast-forward or rewind, to pause or restart, and to change the volume.

7. While playing, you may select additional content within Windows and again use the 'Play to' / 'Cast to Device' function. The additional tracks will be added to the playlist in the current 'Play to' / 'Cast to Device' window. You may also delete or change the order of tracks within the 'Play to' / 'Cast to Device' window.
8. When you wish to exit DMR mode, simply either switch off your adaptor or select a different operating mode.

Note: Some Windows security software can prevent correct operation of the 'Play to' / 'Cast to Device' function. Such software may have updates or configuration options which will permit 'Play to' / 'Cast to Device' to operate correctly - please consult your anti-virus software supplier. The 'Play to' / 'Cast to Device' function in Windows 7, 8, 8.1 and 10 has been tested successfully with the RS1 adaptor when using Microsoft's own security software without problems.



Spotify Connect - the basics

Spotify is all the music you'll ever need. Millions of songs available instantly. Just search for the music you love, or let Spotify play you something great. Spotify works on your phone, tablet, computer and home speakers. So you'll always have the perfect soundtrack for whatever you're doing.

Spotify Connect allows your Spotify selections to be played using the multi-room adaptor, remotely controlled from your iPhone, iPad, Android device or any Desktop.

Spotify Connect also allows you to transfer the playing of the sound to other Spotify Connect enabled devices under the control of your smart-phone, tablet or any Desktop.

Once your Spotify account has been connected to your adaptor, you may also control playing from Spotify Connect with the UNDOK app.

Spotify Connect compatibility is shown with the following identifier:



Setting up Spotify Connect

For more details about setting up Spotify Connect, please go to [**spotify.com/connect**](https://www.spotify.com/connect)

To use Spotify Connect with your RS1 adaptor you will need to download the Spotify app and you will need a **Spotify Premium** account.

The Spotify software is subject to third party licenses found here:

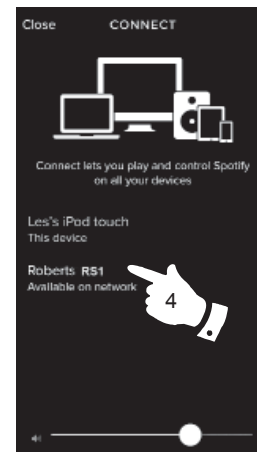
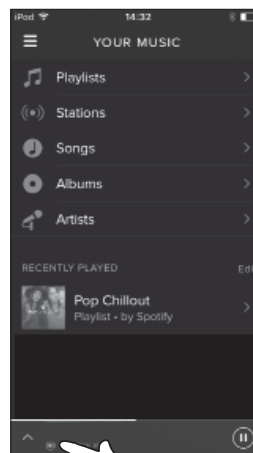
[**www.spotify.com/connect/third-party-licenses**](https://www.spotify.com/connect/third-party-licenses)

Playing music using Spotify Connect

Spotify Connect lets you push a button to control the music between your Spotify Connect enabled devices. While playing a song, you can switch playback from your smart-phone, tablet, Desktop or even to a Connect enabled audio product.

1. Ensure your adaptor is switched on.
2. Make sure that both your adaptor and Apple iOS / Android device are connected to the same network and that you have downloaded the latest Spotify app to your device.
3. Simply open Spotify on your Apple iOS / Android device and tap the **Spotify Connect icon** (🔊) on the play screen. When the Spotify app has identified other devices that are compatible with Connect, the Connect icon will be shown with a circle. When another device is playing, the Spotify Connect icon will become green. Tapping the Connect icon will show a list of Connect enabled devices and allow remote control of the volume.
4. To select your adaptor choose **RS1** on the Spotify Connect devices screen. You are now ready to play music using your adaptor using Spotify Connect.

The next time you open Spotify, it will continue playing from the previously selected device.



Note: On some devices the layout of controls within the Spotify app may be different from that shown and may also change with different versions of the app. Refer to spotify.com/connect if needed.

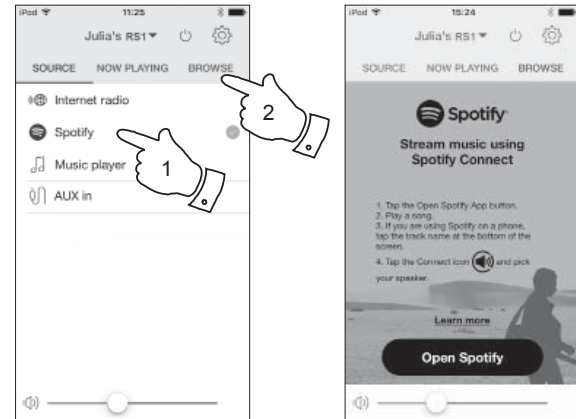
Controlling Spotify on your Multi-room adaptor

The music can be controlled using the controls on any Spotify Connect enabled device.

1. Press and release the **Play / Pause** icon to pause playback of the current track.
2. Press and release the **Play / Pause** icon, playback will resume from the point where it was paused.
3. Press the **Next** icon to start playback of the next track in the current Spotify playlist.
4. Press the **Previous** icon to start playback of the previous track in the current Spotify playlist.
5. The volume may be controlled from within the Spotify app.

Using the UNDOK app to select Spotify

1. Ensure your adaptor is switched on and select **Spotify** as the music source.
2. UNDOK is not able to access your Spotify account directly. Selecting 'Browse' will provide a link page which you can then use to access Spotify.



Multi-room - the basics

Your RS1 adaptor may be used with other products as part of a multi-room system.

Products may be combined into a synchronised group allowing several units to play the same content around your home.

Multiple groups may be configured for different areas of the home or for different users.

Different products may use the same or different operating modes, but audio will not be synchronised between groups, only between products in the same group.

You may control a single product, a group of products, or even multiple groups using the UNDOK app.

Each group that you configure may contain up to five compatible products. Typically as many as 16 products may operate together on a single network. The maximum number of products that will work together reliably is dependent upon the reliability and capability of the network.

Compatible products from Roberts also allow content from other sources to be shared with all the products in a group. These include CD, DAB and FM radio.

The UNDOK app allows you to:

- Create a group
- Rename a group
- Edit a group - add or remove one or more products
- Delete a group
- Control a group - choose operating mode and browse for content
- Adjust volume for an entire group or for individual products within a group
- Control products which have not been assigned to any group



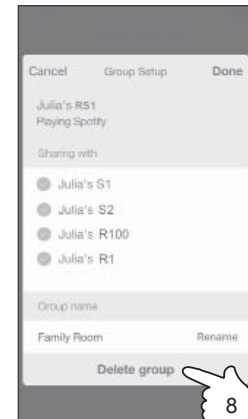
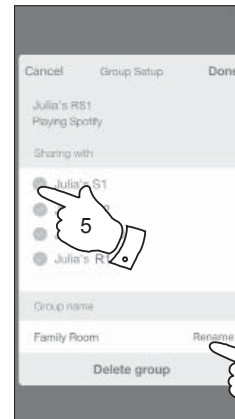
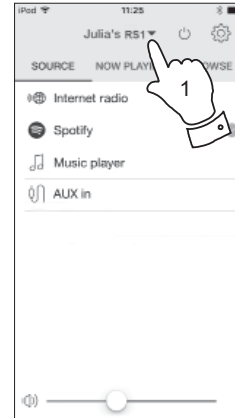
Control via the UNDOK app

Creating and editing a multi-room group with UNDOK

You can use the UNDOK app to combine your adaptor into a group with the other multi-room products.

Note: You may add up to five connected audio products into any one group.

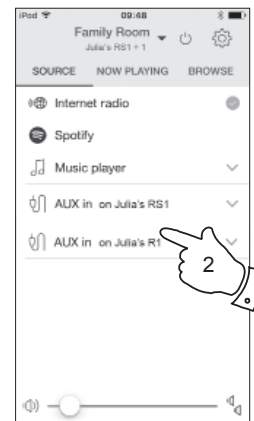
1. Access your list of connected audio products within UNDOK.
2. A list of audio products connected to your network will be shown.
3. Select the edit group icon.
4. UNDOK will show the group setup screen and a list of the products available for grouping.
5. Select the audio products that you wish to add into your group (a maximum of four additional products). You may add or remove products as needed.
6. You may rename your group, for example *'Family Room'* or *'Down Stairs'* etc.
7. Confirm your selection.
8. You may choose to delete a group. The products that were previously in the group will then be listed as individual products.



Playing audio to a group

The process of choosing the audio source and content for a group of products is almost the same as for a single product.

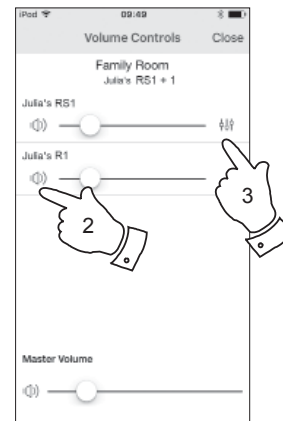
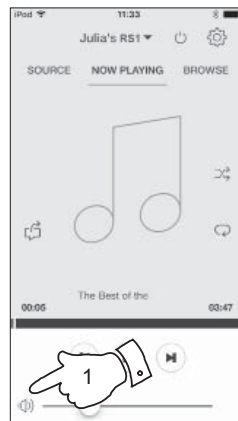
1. Select the desired group (or individual product if not in a group).
2. Select the desired source. If more than one product offers the same source type, e.g. Auxiliary input then each will be shown in the source menu.
3. Select 'Now Playing' or 'Browse' as needed to access content for the selected source.



Volume control using UNDOK

UNDOK allows you to control the volume of a group of products and the volume of individual products within the group.

1. Use the multiple speakers icon to access the individual volume controls.
2. You may also mute either the group, or products within the group using the speaker icon.
3. The equaliser for products in a group can also be accessed from the group's volume control.



Mode indicator and controls in a multi-room configuration

1. When your adaptor is used in a multi-room group and it is acting as the source, providing content to other products in the group, it is said to be acting as the group Master.






In this situation, the adaptor's mode indicator will show different colours to indicate the current operating mode of the product, just as if the adaptor was operating alone and not as part of a multi-room group.

2. The buttons on the adaptor will operate in all modes exactly as they do when the adaptor is used on its own. The On / Standby button will control the On / Standby state of all products within the same group.
3. When your adaptor is used in a multi-room group and it is receiving content from one of the other products in the group, it is said to be acting as a Client within the group.

In this situation, the adaptor's mode indicator will show White.

The On / Standby button may be used to put all of the devices in the group into Standby, or to switch them back on, as needed.

Mode

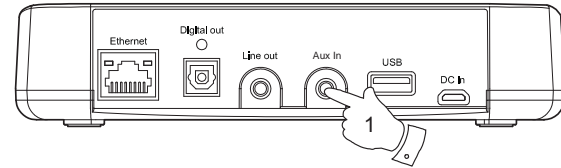
	Internet radio	Purple
	Spotify	Yellow
	Music Player / USB / Play-to	Cyan
	Auxiliary Input	Green
	Multi-room client member	White

Auxiliary Input

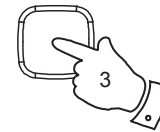
Auxiliary input socket

A 3.5mm **Auxiliary Input** socket located on the rear of your adaptor is provided for connecting the audio signal from an external audio source such as an MP3 player or other device, see page 4 for further details.

1. Connect a stereo lead from the output of the chosen audio source to the Auxiliary Input socket located at the rear of the adaptor. Typically this lead will have a 3.5mm stereo plug at both ends.
2. Switch on your adaptor.
3. Press and release the **Mode/Reset** button until the Aux In mode is selected (green indicator) or select 'AUX in' in the UNDOK app.
4. Press 'play' on the connected audio device if needed.
5. Depending upon the connected devices, you may need to adjust the volume on the UNDOK app as well as the volume settings of any products connected to the adaptor. If used as part of a multi-room group, you may also need to adjust the volume settings of other products in the group.



Mode/Reset



UNDOK Settings

Sleep timer

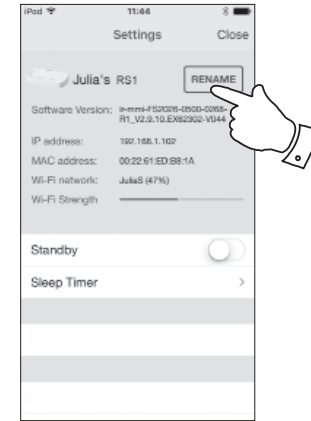
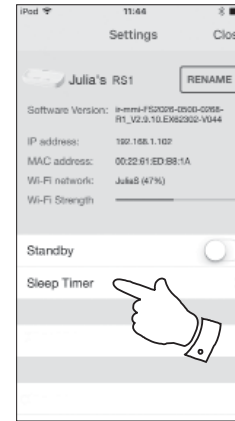
Your multi-room adaptor can be set to go into standby after a preset time has elapsed. The sleep setting can be adjusted as follows.

1. Set the sleep timer using the UNDOK app.
2. Your adaptor will go into standby after the preset sleep timer has elapsed.
3. If the adaptor is configured as part of a multi-room group then all devices in the group will go into standby.

Friendly name

Your adaptor is identified within the UNDOK app using its Friendly Name. By default, your adaptor's name will be shown as "Roberts RS1" followed by a 12 digit alphanumeric code which is the network MAC address that is unique to your adaptor. Use the adaptors settings in UNDOK to change its friendly name.

UNDOK Settings



Information

Factory reset

If you wish to completely reset your adaptor to its initial state this may be performed by following this procedure. By performing a factory reset, all user entered settings will be erased.

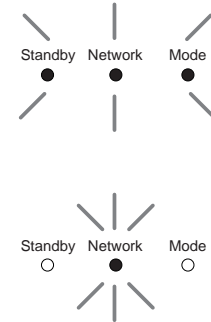
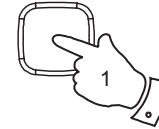
1. To reset your adaptor **press and hold** the **Mode/Reset** button for approximately 10 seconds or until the **Standby, Network Status** and **Mode indicators** light briefly.
2. The adaptor should then clear its stored settings and restart. A full reset will be performed and the adaptor will restart as if first plugged in. After a further 10 seconds the **Network Status indicator** will flash slowly.
3. You may then reconnect your adaptor to your network using the UNDOK app (see pages 7 to 9).
4. Alternatively you can reset your adaptor from the 'Settings' screen in the UNDOK app.

In case of malfunction for any reason, reset the product as described above to resume normal operation. It may be necessary in some cases to disconnect the mains power, then reconnect power after 10 seconds.

In case of malfunction due to electrical fast transient (burst), reset the product as above (reconnection of the power source may be required) to resume normal operation.

When connecting the adaptor to a router with an Ethernet cable, shielded cable is highly recommended. The communication could be interrupted temporarily or noise may occur if using un-shielded cable and under strong local interference. Normal communication will resume automatically when the interference signal is removed.

Mode/Reset



Adaptor ready to connect

Software version display

The software version display is provided for reference and customer support purposes.

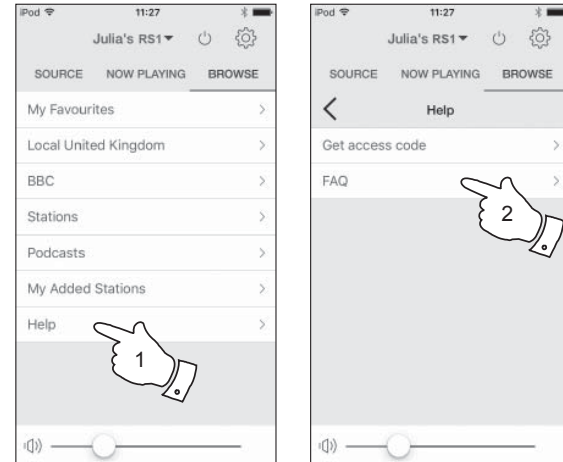
1. To view your software version select the '*Settings*' screen in the UNDOK app.

Audio FAQ

Your adaptor can access some audio help for Internet Radio use.

1. With your adaptor switched on and in the **Internet Radio** mode, select '*Browse*' and then the '*Help*' option from the app.
2. Select the '*FAQ*' option to display some frequently asked questions.
3. Choose the question that suits your requirements and select to listen to the answer.

Adjust the volume as needed.



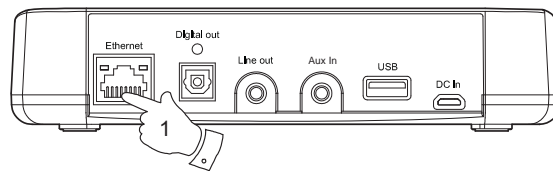
Using an Ethernet connection

If you choose to connect your adaptor to the network using a wired Ethernet connection, then an Ethernet cable of the appropriate length will be needed (cable not supplied).

The app will offer you an option to connect using Ethernet during the setup procedure.

1. Connect the **Ethernet cable** to the RJ45 Ethernet socket on the back of your adaptor.
2. Select the Ethernet option on the UNDOK app and follow the onscreen guide.

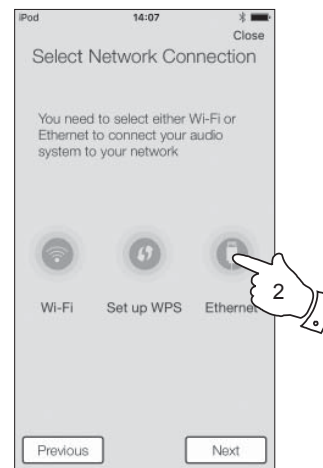
In situations where there are many WiFi networks in use, it is possible that multi-room performance of the product may be improved by using the ethernet connection.



RJ45 connection indicators

There are two indicator lights incorporated into the RJ-45 connector. If you have problems with your wired connection, they may help you to identify the possible cause of the problem.

Green On = Link established OFF = no connection
Yellow flashing = Data transfer



Network indicator status

The RS1 adaptor has a Network Status indicator which shows the current network status.

Network



Slow blinking - Ready to be configured to a WiFi or Wired network



Fast blinking - Network connection error



Off - Network configuration successful and completed

Inactive Standby feature

In order to minimise its energy consumption when not in use, your adaptor includes an automatic Inactive Standby feature. This is designed to put your adaptor into standby if it detects that it is no longer being used in the following circumstances.

Internet radio – streaming is stopped

Music player – music playing is stopped

Aux-in – there is no audio input signal

If any of these conditions is detected for more than 10 minutes then the adaptor will start a 5 minute countdown before entering standby.

After 15 minutes of inactivity the adaptor will enter standby.

Pressing any button or resuming listening during the 15 minute period will reset the standby timer.

Software update

From time to time, new software features may be made available for your adaptor. This will be indicated via the 'Settings' screen in the UNDOK app which may then be used to update the product.

If you download a software upgrade to your product, additional license terms may apply and these are available <http://www.frontier-silicon.com/audio/eula.htm>

Troubleshooting

If you experience any trouble with your product, then you may find it useful to visit the help section on our web site.

As a first step, the following points should be checked.

Is there power to the product?

- Make sure your product is plugged in and connected to the mains - see page 7.
- Ensure your product is switched on.

Is your product not receiving audio?

- Check the volume level of your product.
- Check your product is in range and that you have connected your product to your network.
- Ensure the product and the device used for control is connected to the **same** network.
- Ensure that WiFi is enabled on your device. Refer to your device's documentation for details.
- If your product is not visible within UNDOK, first try restarting the UNDOK app on your device. Try reinstalling the UNDOK app and check that you have the latest version installed.
- If the WiFi connection to the product appears unreliable, try an Ethernet connection to verify the functioning of the product.
- Try to eliminate possible interference from other sources e.g. cordless phone, microwave oven etc.

If you have difficulty connecting the product to your computer network, some of these steps may help to resolve the problem:

1. Confirm that a WiFi connected PC can access the Internet (i.e. can browse the web) using the same network.
2. Check that your network's firewall is not blocking any outgoing ports. As a minimum, the product needs access to UDP and TCP ports 80 and 123. Port 53 may be required for DNS. Some Internet radio services may require additional ports to be open. Windows Media Player 11 or 12 will allocate a port number for UPnP media sharing and will configure Microsoft's Windows built-in firewall appropriately. Other firewall software may require configuration for UPnP or to allow particular IP addresses to have trusted access.
3. Check that your access point does not restrict connections to particular MAC addresses (sometimes called MAC address filtering).
You can view the product's MAC address using the 'Settings' screen in the UNDOK app.
The MAC address will typically be of the form
`00 : 22 : 61 : xx : xx : xx`
4. If you have an encrypted network, check that you have entered the correct encryption key into the UNDOK app. Remember that text-format WPA keys are case sensitive. If you have problems connecting the product to your network, then please ensure that you enter the correct key for the network. If the problem persists, then you may need to re-check your network configuration.

Troubleshooting - cont.

If your product can connect to the network, but is unable to play a particular Internet radio station, it may be due to one these causes:

1. The station is not broadcasting at this time of the day.
2. The station has reached its maximum allowed number of simultaneous connections.
3. The Internet connection between your product and the server (often located in a different country) is slow. This could be due to internet congestion, either locally or at a distance.
4. The station may choose to block internet connections to your geographic region (sometimes known as geo-locking).
5. The station is no longer broadcasting. The database of radio stations that your product connects to is frequently updated and checked but may not always be completely accurate.
6. The radio station is broadcasting using an audio format which is not playable by your product (although the RS1 does play the most popular formats used by regular broadcasters).

Try using a PC to listen via the broadcaster's web site or via the radio station database web site at <http://www.wifiradio-frontier.com>. If you can play the station with a PC, it may be that the internet feed or local network connection is poor. However, some broadcasters (such as the BBC) provide different data streams for PC users and Internet radio listeners, so this test is not always conclusive.

If you cannot play the station via your PC this may indicate that the problem is not necessarily due to your product, but it could be your network, your internet connection, the broadcaster, or internet congestion.

Music Player / UPnP problems

The use of the Music Player function with UPnP should be straightforward. However, the cleverness of UPnP means that it is often disabled by default by security applications and in routers.

If you are using Windows Media Player 12 as your UPnP server, and if it fails to operate with your product, please keep this fact in mind: *A fresh installation of Windows and Windows Media Player when using Microsoft's built-in firewall software will normally work.*

If it does not work, possible reasons may include:

- UPnP functions blocked in firewall software
- UPnP functions turned off by security software
- UPnP functions 'hi-jacked' by other software
- UPnP functions blocked in the router
- Multi-cast packets blocked in the router
- IP address of system blocked in firewall software

Some third-party UPnP servers are much less dependent upon other parts of Windows than WMP 12. If the greater flexibility that these offer is attractive, it may also be found in some cases that they are easier to get working.

Audio codecs

Your product supports a range of audio codecs which provide compatibility with a wide range of Internet Radio stations. These also allow users to stream music from their computers or to play directly from USB flash memory devices.

Note that for any given audio codec, there are many streaming protocols available, and thus even if an Internet Radio station uses a supported format, this does not guarantee that every such station will work with the product. The radio stations database to which the product connects is checked for compatibility so that most stations should be playable without problems. Similarly when streaming media from a computer, while a codec may be supported, there can be many subtle variations in formats, tagging schemes and protocols (even within UPnP). In general your product will play the supported formats with most common UPnP servers.

The following table summarises the maximum supported bit-rates for the various audio formats that are playable on your product. Higher rates may be playable in some cases but performance of the product may be affected.

Codec	Maximum supported data rate
AAC (LC, HE, HE V2)	320 kbits/sec
ALAC ⁽¹⁾ ⁽⁵⁾	1.5 Mbts/sec
FLAC ⁽²⁾ ⁽⁵⁾	1.5 Mbts/sec
LPCM ⁽³⁾	1.536 Mbts/sec
MP3	320 kbits/sec
WAV ⁽³⁾	1.536 Mbts/sec
WMA ⁽⁴⁾	320 kbits/sec

All codecs support 2-channel (stereo) coded files only.

All codecs support sample rates up to 48 k samples/sec (includes 32 and 44.1 samples/sec).

Files which have Digital Rights Management (DRM) protection applied will not be playable on the product.

(1) 16 bit samples are supported in ALAC files.

(2) 16 and 24 bit samples are supported in FLAC files.

(3) The maximum supported bit-rate is for 48 kHz sampling, 2 channels and 16-bits per sample.

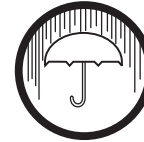
(4) WMA Lossless, WMA Voice, WMA 10 Professional, and files which have DRM protection are not supported.

(5) When using the product as part of a group of multi-room products, audio files in ALAC and FLAC formats will only play on the group master (see page 14).

Cautions

Safety instructions

- There are no user serviceable parts inside this product.
- Do not attempt to open or disassemble any part of the product.
- Do not dispose of the product in a fire or incinerator.
- Do not expose the product to water, moisture, steam or sand.
- Use only the mains power adaptor supplied with the product or a genuine replacement provided by Roberts Radio.
- To maintain the compliance with the WiFi RF exposure requirement, place the product at least 20 cm (8 inches) from nearby persons except when operating the controls.
- The AC/DC adaptor and product shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the AC/DC adaptor or the product.



Do not leave your product where excessive heat could cause damage.

- Avoid using or storing the product at extremes of temperature. Avoid leaving the unit in cars, on window sills, in direct sunlight etc.
- The product must be used in a moderate climate.
- No naked flame sources such as lighted candles should be placed on the product.
- It is recommended to operate the product such that there is a minimum distance (10cm recommended) to adjacent objects in order to ensure good ventilation.
- The ventilation of the product should not be restricted by covering it with items such as newspapers, tablecloths, curtains etc.
- The top panel will become slightly warm to the touch. This is completely normal.



Specifications

Power Requirements

Mains 100 - 240 volts AC, 50 - 60Hz ~ only
(use only the supplied adaptor)

Connectivity

Wired Ethernet 10/100M bits/sec via RJ-45 connector

WiFi 802.11 b, g, n or a supported with WEP
and WPA / WPA2 encryption

Compatible with 2.4 GHz and 5 GHz
WiFi bands.

The name plate or rating label is located on the rear/underside of the product.

The Company reserves the right to amend the specification without notice.

Circuit features

Line output socket 3.5mm diameter, stereo

Auxiliary Input socket 3.5mm diameter, stereo

Optical digital output socket Toslink

Aerial System Built-in WiFi antenna

Use of the software in this product is subject to software licence terms contained in this user manual - by using the product, you are agreeing to comply with these licence terms:

Thompson Licensing: MP3 audio decoder

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson

Fraunhofer: MPEG-4 HE AAC Audio decoder

MPEG-4 HE-AAC audio coding technology licensed by Fraunhofer IIS:

<http://www.iis.fraunhofer.de/amm/>

**Microsoft: Windows Media Audio decoder (WMA)**

This product is protected by certain intellectual property rights of Microsoft. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft.

Microsoft: Real Time Streaming Protocol (RTSP)

This product is protected by certain intellectual property rights of Microsoft. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft.

Spotify: Spotify Connect

The Spotify software is subject to third party licenses found here:

<http://www.spotify.com/connect/third-party-licenses>

Updates

If you download a software upgrade to your product, additional licence terms may apply and these are available at:

<http://www.frontier-silicon.com/audio/eula.htm>

Guarantee

This product is guaranteed for twelve months from the date of purchase by the original owner against failure due to faulty workmanship or component breakdown, subject to the procedure stated below. Should any component or part fail during this guarantee period it will be repaired or replaced free of charge.

The guarantee does not cover:

1. Damage resulting from incorrect use.
2. Consequential damage.
3. Product with removed or defaced serial numbers.

Procedure:

Any claim under this guarantee should be made through the dealer from whom the product was purchased. It is likely that your Roberts' dealer will be able to attend to any defect quickly and efficiently, but should it be necessary the dealer will return the product to the company's service department for attention. In the event that it is not possible to return the product to the Roberts dealer from whom it was purchased, please contact Roberts Radio using the contact details on the www.robertsradio.com website.

For product repairs falling outside the guarantee period, please refer to the "Customer care" tab on the www.robertsradio.com website.

These statements do not affect the statutory rights of a consumer.

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