

## Wi-Fi Internet Radio

### Important safety instructions

1. Read and understand all safety and operating instructions before the radio is operated.
2. Retain instruction: The safety and operating instructions should be retained for future reference.
3. Heed warnings. All warnings on the appliance and operating instructions should be followed.
4. Follow all operations and use instructions.
5. Water and moisture: The appliance should not be used near water. Do not use near a bathtub, washbowl, laundry tub, kitchen sink, wet basement, swimming pool, etc.
6. Unplug the radio from the AC power outlet before cleaning. Use only a damp cloth for cleaning the exterior of the radio.
7. Do not place the radio on an unstable cart, stand, bracket or table. The radio may fall, causing serious personal injury and damage to the radio.
8. Ventilation: This radio should be situated so that its location or position does not interfere with its proper ventilation. For example, the radio should not be used on a bed, sofa, rug or other soft surfaces that may block the ventilation openings. It should not be placed in a built-in situation like a cabinet that may reduce air flow through the ventilation openings.
9. Power sources: The radio should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your radio dealer or power company.
10. Power cords: The power cord should be positioned so it is not walked on, pinched, or items placed on top of it. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit. Unplug the power cord by gripping the power plug, not the cord. Operate the radio using only the current type of power source indicated. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
11. Do not overload wall outlets or extension cords. This can result in a risk of fire or electrical shock. Never insert objects of any kind into the radio through opening. The objects may touch dangerous voltage points or short out parts. This could cause a fire or electrical shock.
12. If the radio is left attended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage caused by lightning or power line surges.
13. If the radio is left unattended and unused for a long period of time, remove the batteries. The batteries may leak and damage furniture of your radio.
14. Do not attempt to service the receiver yourself. Removing the cover may expose you to dangerous voltage, and will void the warranty. Refer all servicing to authorized service personnel.
15. Object and Liquid Entry-Never push objects of any kind into this radio through opening as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind of product.
16. The appliance should be serviced by qualified service personnel when:
  - A. The power supply cord or the plug has been damaged.
  - B. Objects have fallen or liquid had been spilled into the radio.

- C. The radio has been exposed to rain or water.
- D. The radio does not appear to operate normally or exhibits a marked change in performance.
- E. The radio has been dropped, or the enclosure damaged.

1. Select / On / Off / Volume control
2. Infra-red sensor
3. Speakers
4. LCD display

5. Mains input socket
6. Headphone socket
7. Line Out socket
8. Auxiliary Input socket
9. RJ-45 socket (Ethernet)
10. Wi-Fi antenna

1. Radio button
2. Clock / Time button
3. Radio Preset buttons 1-6
4. Reply button 1
5. Queue / Queue Clear button
6. Rewind button
7. Pause / Stop button
8. Fast-forward button
9. Back button
10. Select / Audio button 3
11. Menu down button
12. Menu up button
13. Volume up / down button
14. On / Standby button 4
15. Auxiliary Input button 5
16. Media button

#### Remote control battery replacement

1. With the aid of the end of a paper clip slide the catch to the right hand side.
2. Remove battery holder by pushing holder in direction shown.
3. Remove battery from holder.
4. Replace battery (CR2032 or equivalent) ensuring that the positive side of the battery faces you with holder positioned as shown.

## 5. Replace the battery holder.

**IMPORTANT:** The battery should not be exposed to excessive heat such as sunshine, fire or the like. After use, disposable batteries should if possible be taken to a suitable recycling centre. On no account should batteries be disposed of by incineration.

Before you can use this product

Before you can use your Internet radio, you must have the following:

- A broadband Internet connection.
- A wireless access point (Wi-Fi) or a wired Ethernet connection (10 or 100 Mbits/sec with RJ45 connection) connected to your broadband Internet, preferably via a router. In many cases the broadband modem, router and wireless access point will be a single combined unit supplied by your Internet Service Provider or bought from a computer store.
- If your wireless network is configured to use Wired Equivalent Privacy (WEP) or Wi-Fi Protected Access (WPA) data encryption then you need to know the WEP or WPA key so you can get the Internet radio to communicate with the network.

The Internet radio will typically work within a 10-20 meter radius from your wireless 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 wireless access point or router is powered up and working with your broadband Internet service (use your computer to verify this). To get this part of the system working you must read the instructions supplied with the wireless access point or router.

### Navigation controls

1. The majority of functions on your radio may be performed by using the Rotary control on the front panel. Turn the control clockwise or anti-clockwise to highlight the desired function, and then give a short press on the Rotary control to select that function. In this instruction booklet, press always means ***press*** and ***release***. Where a long press is needed to perform an operation this is specifically stated in the text.

When not being used for navigating the system menus, the rotary control simply acts as a conventional volume control.

The rotary control also has an additional function. When listening to the radio, a long press of the control will

provide access to a menu to allow adjustment of bass and treble settings.

2. Your WFR-20 radio is supplied with a compact remote control. All functions can be performed using this. Many operations require the user to make a selection from the menu. Use the *Up* and *Down* buttons in the group labeled MENU to highlight the desired function. Then press the *Select* button.

3. If an error is made when navigating the menus, it is generally possible to go back to the previous menu by pressing the *Back* button on the remote control.

So that the radio can be used without the remote control, menus also include a *Back* option which takes the user to the previous menu. This can be accessed using the front panel Rotary control or via the remote control. In this instruction book the words '*Back* option' refer to either of these methods.

#### Remote control functions

- *Standby* button is used to switch your radio on and off.
- *Radio* button will open the radio stations menu.
- *Media* button will open the Media menu
- *Aux* button will select the Auxiliary input mode
- *Clock* button will open the alarms and sleep timer menu. A long press will show the time and date while the radio is in use.
- *Select* button is used to choose the highlighted option in a menu. A long press is normally used to access the Audio settings menu.
- *Back* button is used to access the previous menu.
- *Menu Up* and *Menu Down* buttons are used to highlight an option within a menu.
- *Volume Up* and *Volume Down* buttons allow you to change the volume level.

- **Preset** buttons provide quick access to six of your favorite radio stations.
- **Queue** button will enter the track list (queue) in the media player. A long press will clear the queue and stop playback.
- **Rewind, Pause and Fast-forward** buttons are used for playback control in the Media Player.
- **Reply** button is reserved for possible future applications.

### Connecting your radio to your computer network

1. Place your radio on a flat surface and plug the mains lead into the **Mains input socket** located on the rear of your radio (marked 'AC in') ensuring that the plug is pushed fully into the socket.
2. If planning to use a wired network connect the Ethernet cable into the RJ-45 socket at the back of the radio. If a wired connection is present then the radio will use this in preference to a wireless connection.
3. Plug the other end of the mains lead into a wall socket and switch on the wall socket.  
**IMPORTANT:** The mains plug is used as the means of connecting the radio to the mains supply. The mains socket used for the radio must remain accessible during normal use. In order to disconnect the radio from the mains completely, the mains plug should be removed from the mains socket outlet completely.
4. The display on the front of the radio will light up and say: 'Welcome to Internet Radio'. If you are using a wired Ethernet connection to your router, the radio should connect, and download a radio station list update. It will then go to the main mode menu, 'After you have connected to your network'.  
If you are not using a wired connection, or if the wired connection is not working, after a few seconds the display will change to show 'Scan for networks'.  
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, Flashing = Data transfer  
Yellow ON = 100M bps link, OFF = 10M bps link

### Connecting to a wireless network

1. When the display says 'Scan for networks', press the Select control. The radio will now scan for all available wireless networks and will show 'Scanning'.

2. If the radio cannot find a network then the display will say 'No Wireless Networks Found'. If this happens then you will have to get your wireless access point working - please see the instructions supplied with it.
3. When the radio finds your wireless network, it displays the Network Name (ESSID) for the access point on the screen. This is a name that is allocated to the access point by the person who set up the network -for example: 'My Home Network'.
4. It is possible, and in some locations highly likely, that your radio will find more than one wireless access point, in which case you should choose which one you need to connect to.
5. Rotate the Select control to see the ESSID for each access point that the radio has found. If your network is shown proceed to step 7 on the next page.
6. If your network is not found, it is possible that it is configured such that the ESSID is not broadcast (sometimes referred to as hidden). If this is the case then use the **Back** option and then select 'Enter network name'. This procedure is described in the 'Network Configuration Menu', 'Entering the network name manually'. If you know that your network name is not hidden, and it was not found, then either try re-scanning, or refer to 'Troubleshooting'.  
If you make a mistake at any point, use the **Back** option to go back to the previous screen.)
7. When the ESSID for the access point you want to connect to is highlighted on the screen, press the Select control.
8. If your network is not configured to need an encryption code, the screen should say 'Connecting to network', then 'Network OK'. If this is the case then you have successfully connected your radio to your network, so please proceed to the section 'After you have connected to your network' on the next page.
9. If the screen displays either 'Enter WEP key' or 'Enter WPA key', it is because the network is using one of the encryption systems: Wired Equivalent Privacy (WEP) or Wi-Fi Protected Access (WPA). You therefore need to enter the correct WEP or WPA key into the radio to allow it to communicate with your network. If you do not have the WEP or WPA key, then you should obtain it from the person who set your network. Some Wi-Fi routers may come with a key already set up by the supplier, in which case you should refer to the user documentation provided with it.  
WEP keys are 10 or 26 characters long (using 0 - 9, and A - F). Some Wi-Fi access points can also use pass-phrases for WEP but these do not conform to a defined standard and are not supported. WPA keys are usually set up using a pass-phrase of between 8 and 63 characters. Your Internet radio can accept pass-phrases for WPA keys.  
If the WEP or WPA key was previously entered and the radio has not had a factory reset the display will show 'Using saved key' and should then connect to the network.
10. After 3 seconds, the display goes into the key entry mode. To enter the key, use the knob to select each character of the key in turn, pressing the **Select** control after each character. Remember, WEP keys only use the numbers 0 - 9 and letters A - F. WPA keys are sensitive to upper and lower case characters so you must

enter them exactly.

11. If you make an error use either the **Back** key on the remote control to delete the character entered, or give a long press on the Select control. Use the left and right arrows to move the block cursor to access incorrectly entered characters.

12. After the final character of the WEP or WPA key has been entered, locate the 'END' symbol and press the **Select** control. (The 'END' symbol is located between the punctuation symbols and the numbers 0 - 9.) The radio should now be able to connect to the network.

After you have connected to your network

1. Once connected to your radio to the network (and therefore also to the Internet) it will display the main Mode menu. This menu provides access to all major functions of the radio. There are also buttons on the remote control for each of the Mode menu options except for the Configure menu.

2. Rotate the **Select** control until the 'Off' option is highlighted on the display.

#### Switching your radio on

1. With the radio in Standby mode (displaying the clock), press the **Select** control (or the **On / Standby** button on the remote control). Rotate the **Select** control forward and backward to highlight different elements in the menu.

2. When the first item 'Radio Stations' (or 'Stations') is highlighted, press the **Select** control to enter the Radio menu. Alternatively, you could press the **Radio** button on the remote control.

3. The Radio menu allows selection of radio station by location and genre. It also provides access to the radio station presets. When the radio first connected to the Internet it automatically stored a radio station in Preset 1. (If you don't like it, you can easily change it later.) Rotate the **Select** control so that the station name is highlighted on the display.

4. Press the **Select** control once more and the display will show 'Connecting' while it finds the audio stream for the station. After a few seconds you should hear the radio station, and then the display will change to show additional information from the broadcast.

#### Volume control

1. While the radio station is playing with its name on the radio's display, you can change the volume by rotating the **Select** control or by pressing the **Volume up** and **Volume down** buttons on the remote control.

2. If the radio is in its menu-browsing state, you can change the volume either pressing the **Volume up** and **Volume down** buttons on the remote control, or by waiting for the menu display to time-out (nominally 15 seconds) and then by rotating the **Select** control.

#### Audio setting (tone control)

Your radio has an Audio Settings menu where the bass and treble characteristics of the sound can be adjusted to your personal taste.

1. When the radio is playing, press and hold the **Select** control (or press and hold the Select button on the remote control). The radio will select the Audio menu which allows bass and treble adjustment as well as alternative access to the main Mode Menu.
2. If adjusting selecting bass, rotate the **Select** control until 'Bass' is highlighted on the display. Press and release the **Select** control. The display will show the current Bass level. Rotate the **Select** control to set the desired level (between -5 and +5) and press and release to confirm selection.
3. If selecting treble rotate the **Select** control until 'Treble' is highlighted on the display. Press and release the **Select** control. The display will show the current Treble level. Rotate the **Select** control to set the desired level (between -5 and +5) and press and release to confirm selection.
4. To quickly cancel any bass or treble setting, rotate the **Select** control until 'Flat' is highlighted on the display. Press and release the **Select** control and the equalization levels will be reset.

#### Switching your radio off

The Audio settings menu also provides a quick way to switch off your radio. Give a long press to enter the menu, and then a short press to select the Off option. Your radio will immediately enter the **Standby** mode with the clock display. Alternatively you can use the **Standby** button on the remote control.

#### Selecting a radio station

1. If the radio is in Standby mode press the **Select** control to switch it on. If the radio is already playing press the **Select** control to access the menus. If needed, use the **Back** option to access the main Mode menu.
2. Rotate the **Select** control until 'Radio Stations' is highlighted on the display.
3. Press the **Select** control so that the radio will enter the Radio Stations menu.
4. Rotate the **Select** control to choose between 'Location' or 'Genre'.

**Location** enables you to choose a radio station from the list first by geographic region and then by country.

**Genre** enables you to choose radio stations according to their content, for example Classic, Rock, Sport, News, etc.

### Selecting a radio station by location

1. Rotate the **Select** control to scroll through the list of regions. This menu is cyclic, i.e. you can scroll the list continually in either direction.
2. When your selected continent is highlighted on the display press the **Select** control to confirm your choice. Your radio will list the countries available. This menu is cyclic (so you can go back through the list to quickly access the UK, for example).
3. Rotate the **Select** control until your selected country is highlighted on the display. Press and release the **Select** control to confirm your choice. The station list for that country will appear on display.
4. Rotate the **Select** control until your selected station name is highlighted on the display.
5. Press the **Select** control to confirm your choice of station. The display will show 'Connecting' while it finds the new station.

Should you be unable to connect to a particular station, please note that some radio stations do not broadcast 24 hours per day, and some stations are not always on-line.

### Selecting a radio station by genre

1. Rotate the **Select** control to scroll through the list of content types. This menu is cyclic - you can scroll the list continually in either direction.
2. When your selected Genre is highlighted on the display press the **Select** control to confirm your choice. Your radio will then enter the station list. This menu is cyclic.
3. Rotate the **Select** control until your selected station name is highlighted on the display.
4. Press the **Select** control to select the station. The display will show 'Connecting' while it finds the new station.

Should you be unable to connect to a particular station, please note that some radio stations do not broadcast 24 hours per day, and some stations are not always on-line.

### Storing a radio station in a preset

There are 12 memory presets available. All may be accessed using the rotary control. Additionally, presets 1 -6 may be accessed using the remote control.

1. Select the required station as previously described.
2. When the radio is playing use the **Select** control to access the Radio Stations menu. If needed, use the **Back** option.
3. In the Radio Stations menu rotate the **Select** control to display the preset station list.
4. Scroll through the preset list until you reach the next available preset (or a preset that you wish to change).
5. Press and hold the **Select** control until the display shows that the station has been stored - for example, 'Assigned To Preset 1'. The station will be stored under this chosen preset. Repeat this procedure for any other preset memories that you wish to configure.
6. If using the remote control, presets 1 - 6 can be stored by pressing and holding the required preset button on the remote control without the need to navigate the radio menus.

### Recalling a preset radio station

1. When the radio is playing use the **Select** control to access the Radio Stations menu. If needed, use the **Back** option.
2. In the Radio Stations menu rotate the **Select** control to display the preset station list.
3. Rotate the **Select** control to scroll through the preset station list (presets 1 - 12).
4. Highlight the required saved radio station and press and release the **Select** control. The radio will connect to the station stored in preset memory.
5. Alternatively, presets 1 -6 can be recalled by briefly pressing the required preset button on the remote control without the need to navigate the radio menus.

Note: If you have not previously stored a radio station in the selected preset, your current radio station will continue to play.

### Listening to previously broadcast material

Some radio stations allow you listen to programmes that have already been broadcast. When you select a radio station that has this facility, the station does not start playing immediately, but instead the display shows the options 'Live' and 'On demand'.

1. Rotate the **Select** control to highlight 'Live' or 'On Demand'.
2. Press and release the **Select** control to select:  
'Live' - plays the current output from the station as normal.

'On Demand' - lets you listen to previous broadcasts.

The options will depend on the station you have chosen.

3. When you choose 'On Demand', the display shows the names of the programmes available.
4. Rotate the **Select** control to highlight the programme that you wish to listen to. Press the **Select** control to select the programme.
5. When you have chosen the programme you want to listen to, either it will start to play, or the display may show a list of days for you to choose from, or it may show you a playback start time of 00:00. Note that this is not the time that the original broadcast took place. It is the time after the start of the programme from which the radio will start playing. If a start time is displayed, skip to step 7.
6. Rotate the **Select** control to select the day the programme was broadcast. Press the **Select** control to choose the day. The display will then show a programme start time of 00:00.
7. To listen from the beginning of the programme, press the **Select** control again. Alternatively, rotate the **Select** control to choose the required start time and then press the **Select** control to start the programme playing.

#### Fast-forward / Rewind broadcasts

Stations which enable you to listen to previously broadcast programmes also allow you to fast-forward and rewind to any point within the programme.

1. Press the **Fast-forward** button on the remote control. The elapsed time that the programme has been playing will be displayed and will automatically advance in 30 second increments.
2. When the required time into the programme is reached, press the **Select** button.
3. Press the **Rewind** button on the remote control to rewind. The elapsed time that the programme has been playing will be displayed and will automatically count back in 30 second increments.
4. When the required time into the programme is reached, press the **Select** button and the programme will resume from that point.

#### Play / Pause function

When listening to previously broadcast material, it is possible to temporarily pause the programme if needed.

To pause playback press the **Play / Pause** button on the remote control. To resume playback press the **Play / Pause** button again.

In addition to storing your favourite radio stations in the radio presets, your radio allows you to create a customised list of stations which can appear in a special menu on the radio called 'My Stuff'.

The WFR-20 uses Internet Radio technology which has been developed by a British company, Reciva Limited, based near Cambridge. Reciva allow you to register your radio on their web site, and then to associate a choice of radio stations with your radio. These stations can be selected 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.

#### Registering an account on Reciva's website

1. Open the website, <http://www.reciva.com>, using the Internet browser on your computer. Click on the '**My Account**' link and follow the on-screen instructions to register an account. Please note, during the registration process, a validation code will be sent to you via email. Please enter this code when prompted to do so.
2. After logging into your account, you will be able to edit your information for '**My Stations**', '**My Streams**', '**My Details**' and '**My Radios**' from the '**My Account**' section.
3. You can now add your Internet Radio to your account on the website by accessing the '**My Radios**' link. From the '**My Radios**' section, you will need to enter in your radio's eight-digit serial number, which can be found from the '**Configure > Version**' menu on the radio, and you will also need to enter in your radio's registration code - which can be found from the '**Configure > Register**' menu on the radio.

#### Configure My Stations

1. Using Reciva's website at <http://www.reciva.com>, it is possible to search for radio stations that are available in Reciva's stations database. Whenever stations are searched for on the website, they will be displayed in a list of search results together with a link to **Add to My Stations**.
2. Clicking on the **Add to My Stations** link, will add the station to your account's **My Stations** list. This list can be edited by clicking on **My Stations** under the **My Account** section on the website.
3. Once you have Internet stations available in your **My Stations** list, you may play these stations from your Internet Radio. These stations will be available on your radio from the menu item: '**Radio Stations > My Stuff > My Stations**'.

Please note, the **My Stuff** menu item and your personal selection of radio stations (**My Stations**) will only be available on your radio once your radio has downloaded a new radio stations list. To cause the radio to download a new list of stations immediately, please remove and reconnect the power to your radio.

#### If a radio station is not listed

If you want to listen to a particular radio station which is currently not listed in your radio or on Reciva's web site, you can enter a request for them to add the radio station to their database.

## Configure My Streams

1. Once logged into your Reciva website account, you can add your own Internet radio streams to the *My Streams* section, which is listed under the *My Account* section. Typically, these will be Internet radio stations that you will have found using your computer.
2. Clicking on *My Streams* will prompt you to enter the station's name and its media stream URL. The media stream URL should be a link to a website's actual audio stream. If you have any doubt about locating the media stream URL from a webpage, then please refer to the FAQs section on Reciva's website, <http://www.reciva.com>.
3. Once you have Internet radio streams available in your *My Streams* list, you may play these stations from your Internet Radio. These stations will be available on your radio from the menu item: '*Stations > My Stuff > My Streams*'.

Please note, the *My Stuff* menu item and your personal selection of radio streams (*My Streams*) will only be available on your radio once your radio has downloaded a new radio stations list. To cause the radio to download a new list of stations immediately, please remove and reconnect the power to your radio.

## Media Player

### Media player basics

The Media Player allows you to play audio files which are stored on a computer on your network. Supported file formats are MP3, WMA, AAC, WAV, FLAC, AIFF, Real Audio, AU and playlists (M3U). Note that the playback of DRM protected content is not supported.

Your radio supports two file access methods. It can connect to folders shared on the network, commonly known as Windows Shares. It can also connect with file server applications using the Universal Plug and Play (UPnP) protocol.

All of the supported file types are playable in Windows Shares mode. When using a UPnP server, the playable file types are dependant on the server software used. For example, Microsoft Windows Media Player 11 can serve MP3, WMA and WAV files. To be able to play the other supported file types via UPnP you may need to install additional third-party software.

When using Windows Shares, music selection is by Artist, by Album and optionally by track within an Album. When using a UPnP server, the search and selection criteria are determined by the server, but typically include additional options such as Genre. Many server applications also allow you to access files according to the folders within which they are stored.

Note that the references to 'PC' in this section refer to any computer device that may be sharing content on your network, whether it is a Windows device, an Apple computer, a Linux device, or any other. We use the generic term 'PC' simply because it is short and convenient.

## Using Windows Shares

Setting up your Windows PC to allow the radio to access your audio files via Windows Shares.

1. Please ensure that your PC is available on the same network as your Internet radio. Using Windows Explorer, locate the folder where your audio files are stored.
2. Right click on the folder.
3. Select 'Properties'.
4. Click on 'Sharing'.
5. Select 'Share this folder on the network' and 'Allow network users to change my files'.

Please note, do not try to make your 'My Documents' or any of its sub-folders (e.g. 'My Music') shareable.

### Locate the shared audio files using the radio

1. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu.
2. Rotate the Select control until 'Media Player' is highlighted on the display and press the Select control. Alternatively, use the **Media** button on the remote control
3. Rotate the **Select** control until 'Windows Shares' is highlighted, then press to select this option.
4. Rotate the **Select** control until 'Scan for PCs' is highlighted and press the Select control again.
5. The radio will now display 'Finding PCs'. If any PCs are sharing folders on the network they will be shown. When the search is complete, rotate the **Select** control to highlight the PC which is sharing your files. If your PC does not appear, check its file sharing and firewall settings.
6. Press the **Select** control. The radio will then search the selected PC for shared folders. If the PC's security settings require it, the radio may ask for a user name and password. Enter these according to your PC's settings.
7. Rotate the **Select** control to highlight the correct shared folder and press the **Select** control to confirm the selection.
8. The radio will display 'File Scan...' as it scans through the media files in the shared folder. The bottom row of the display will show some file or folder names to indicate that the file scan is in progress. If you have a

large number of audio files this could take several minutes to complete.

9. Once the radio has finished scanning, it will display 'By Album', 'By Artist', etc. Use the *Select* control to scroll through the scanned media files, which will now be organised 'By Album', 'By Artist' and 'Playlists' – if available.

Note that the first time the file scan is performed, a file called '.reciva\_media\_cache' is written to the folder where the audio files are stored. This file is created by the scanning software in order to speed up subsequent file scans.

Set up a Windows PC to allow the radio to access your audio files via a UPnP server

1. If your PC is running Microsoft Windows XP or Windows Vista then you can use Microsoft's Windows Media Player 11 (WMP 11) to act as your UPnP (Universal Plug and Play) media server. If not already installed on your PC, Windows Media Player 11 may be downloaded from Microsoft's website and installed by following the instructions detailed in its installation wizard, or by using Microsoft's Windows Update facility.
2. Once installed, WMP 11 can create a library from all the media files available to it on your PC. To add new media files to the library, select 'File > Add to Library... > Advanced Options', click 'Add' and choose the files you wish to add and click 'OK'.

You will now need to connect your Internet radio to Windows Media Player 11 and configure it to allow the radio to access your media library. In order to this, you will need to follow these next steps.

#### Connecting the radio using UPnP

1. Use the *Select* control to switch on your radio and to access the menus. If needed, use the *Back* option. Select the Media Player menu. Rotate the *Select* control to highlight 'UPnP Servers'.
2. Press and release the *Select* control and the radio will scan for all available UPnP servers. Note, this may take a few seconds for the radio to complete its scan and before the scan has completed, the radio will display 'Empty'. The radio will continue to display 'Empty' if no UPnP servers are found.
3. After scanning, select your UPnP server (rotate the *Select* control if more than one UPnP server is found), and then press the *Select* control. Your radio will normally display 'Access Denied' at this stage.
4. Your PC may now prompt you that a device has attempted to connect to your UPnP server. Whether you are prompted or not, in order to allow the radio to have access to the media files, you will need to click the 'Library' tab in WMP 11 and select the 'Media Sharing...' item to open the 'Media Sharing' window.

5. From the 'Media Sharing' window, the radio will be listed as an unknown device. Click on the unknown device shown to select it, then click the 'Allow' button and then click 'OK'.

Note: If you are using Microsoft Windows' firewall software, this should be correctly configured by WMP 11. If you are using third party firewall software you may need to manually configure it to allow your radio and WMP 11 to communicate (see 'Troubleshooting').

6. Select the named server again using the *Select* control. If WMP 11 is now able to communicate with your radio you will be presented with some media selection options by the server software.

#### Locating and playing media files when using UPnP

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

1. Use the *Select* control to switch on your radio and to access the menus. If needed, use the *Back* option. Select the Media Player menu. Rotate the *Select* control to highlight 'UPnP Servers'.

2. Press Select control and the radio will scan for all available UPnP servers. Note that it may take a few seconds for the radio to complete its scan, and that before the scan has completed the radio may display 'Empty'. The radio will continue to display 'Empty' if no UPnP servers are found.

3. After a successful scan, rotate the *Select* control to highlight your UPnP server and then press the *Select* control.

4. The radio will now list the media categories which are made available by the UPnP server - for example, 'Music' and 'Playlists'. Rotate the *Select* control to highlight which category you wish to browse, then press the *Select* control to confirm your choice.

5. Rotate the *Select* control to highlight a category and press the *Select* control again. For example, you could select 'Music' and then select 'Albums'.

Note: In UPnP mode the search criteria offered and the file types made available to the radio are a function of the UPnP server software installed on your PC.

6. Rotate the *Select* control to highlight the media files that you wish to play and then press the *Select* control.

Do not worry if not all of your media appear in the menus immediately. Windows Media Player needs to look inside each file to identify the artist, album and track information from 'tags' embedded in each file. Additionally, Windows Media Player may take 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.

7. The radio will display '[Add to Queue]'. Press the *Select* control and the radio will add all the tracks in the album to its queue and begin playing them automatically.

### Media selection

Whether you access your files using Windows Shares or using UPnP, the file selection mechanisms are the same. The only difference between the two methods is that when using UPnP you will generally have a wider choice of search criteria, as determined by the UPnP server software on your computer. Some third party server applications allow customisation of the search criteria and indexing methods, which can be useful if you have a very large collection of stored music files.

The selection mechanism allows you to search by a given information type (Album, Artist, etc.) and then to narrow the search, either just to an album or to a particular track within an album. The selected album or track is then added to a queue of tracks to be played. You can add more albums or tracks to the queue while music is playing, or you can jump between tracks in the queue. You can also clear the queue if you wish to make a fresh selection. The searches described here are examples of the possibilities available.

### Listening to a complete album

1. Rotate the *Select* control until 'By Artist' is highlighted on the display. Press the *Select* control.
2. Rotate the *Select* control until the required artist is highlighted on the display. Press the *Select* control.
3. Rotate the *Select* control until the required album name is highlighted on the display. Press the *Select* control. '[Add to Queue]' will be highlighted at the head of a list of tracks.
4. Press the *Select* control. The album will begin playing and all of the tracks in the album will be stored in the queue.

### Listing to a single track

1. If you wish to play only a particular tracks from an album, first choose the album as described in steps 1 - 3 on the preceding section (section 'Listening to a complete album').
2. '[Add to Queue]' will be highlighted at the head of a list of tracks.
3. Rotate the *Select* control until the required track is highlighted.
4. Press and release the *Select* control. The track will begin playing.

### Queuing up albums for playback later

While the Media Player is playing, you may add additional albums or tracks to the media queue.

1. Use **rotary** control (with the **back** option as needed) to search for and highlight the required album (or use the **Select**, **Back** and **Menu up** and **Menu down** buttons on the remote control).
2. Press the **Select** control (or button) to choose the album. The list of tracks for the album will be displayed, headed by '[Add to Queue]'.
3. If needed, rotate the **Select** control or the **Menu up** button on the remote control so that '[Add to Queue]' is highlighted. Press and release the **Select** control. 'Tracks Added to Queue' will be displayed.

#### Queuing up tracks for playback later

1. If you wish to add only particular tracks from an album to the queue, first choose the album as described in steps 1 - 3 on the preceding section (section 'Queuing up albums for playback later').
2. Use the **Rotary** control (or use the **Menu up** and **Menu down** buttons on the remote control) to search for and highlight the required track.
3. Press the **Select** control (or button). 'Track Added To Queue' will show on the display.

#### Controlling playback

1. Press and hold the **Play / Pause** button on the remote control to stop playback of the current track. If you press and release the button again, playback will resume from the beginning of the same track.
2. Press and release the **Play / Pause** button to pause playback of the current track. If you press and release the button again, playback will resume from the point where it was paused.
3. Press the **Rewind** button to start playback of the previous track in the queue.
4. Press the **Fast-forward** button to start playback of the next track in the queue.

#### Browsing the list of tracks currently queued up for playback

1. Press the **Queue** button on the remote control. The currently playing track name will be displayed, along with its position in the queue.
2. Use the **Menu up** or **Menu down** buttons (or rotate the **Select** control) to see which tracks are queued up for

playback.

3. If you want to jump to a particular track in the queue, press the **Select** button (or the rotary control) when the required track is displayed. Playback will then continue from the beginning of that track.

#### Clearing the media player queue

1. When the radio is playing press the **Select** control to access the menus. If needed, use the **Back** option to access the main Media Player menu.
2. Press the **Select** control and rotate the **Select** control until 'Clear Queue' is displayed.
3. Press the **Select** control. The display will then show 'Queue cleared' and all tracks will be erased from the media queue.
4. Alternatively, a **long press** of the **Queue** button can be used to clear the queue from any point in the Media Player without any need to navigate the menus.

#### Playing tracks in the queue repeatedly

1. When the radio is playing, press the **Select** control to access the menus. If needed, use the **Back** option to access the main Mode menu.
2. Rotate the **Select** control until 'Media Player' is highlighted on the display then press the **Select** control to enter the Media Player menu. Alternatively press the **Media** button on the remote control.
3. Rotate the **Select** control until 'Playback Mode' is displayed then press the **Select** control.
4. Rotate the **Select** control until 'Repeat' is highlighted. Press and release the **Select** control. The display will show 'Enable' with a YES / NO option.
5. Rotate the **Select** control to select 'YES', then press the **Select** control to confirm that Repeat mode should be enabled. If you do not wish to enable Repeat mode select 'NO'.

If Repeat mode has previously been enabled, then the display will show 'Disable' with a YES / NO option after step 4. Select 'YES' to cancel Repeat mode.

#### Playing tracks in random order

1. When the radio is playing, press the **Select** control to access the menus. If needed, use the **Back** option to access the main Mode menu.
2. Rotate the **Select** control until 'Media Player' is highlighted on the display then press the **Select** control to

enter the Media Player menu. Alternatively press the **Media** button on the remote control.

3. Rotate the **Select** control until 'Playback Mode' is displayed then press the **Select** control.
4. Rotate the **Select** control until 'Shuffle' is highlighted. Press and release the **Select** control. The display will show 'Enable' with a YES / NO option.
5. Rotate the **Select** control to select 'YES', then press the **Select** control to confirm that Shuffle mode should be enabled. If you do not wish to enable Shuffle mode select 'NO'.

If Shuffle mode has previously been enabled, then the display will show 'Disable' with a YES / NO option after step 4. Select 'YES' to cancel shuffle mode.

### Auxiliary input socket

Your radio has a 3.5mm stereo jack socket for connection to external audio sources. This can be configured to two sensitivity levels to suit the output level of the connected device.

1. Connect an external audio source, such as an MP3 or CD player to the Aux In socket on the back of the radio.
2. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu.
3. Rotate the **Select** control until **Auxiliary Input** is highlighted on the display.
4. Press the **Select** control. The display will then show 'Aux In' and the external source will be selected. Alternatively, simply press the **Aux** button on the remote control.
5. If you are using a headphone output on the connected player, adjust the volume control on the player to a mid-level and then use the volume control on your Internet radio to set a comfortable listening level.

Note: In the event that the sound is either too quiet, or loud and distorted, it may be that you need to adjust the Auxiliary Input level setting - please see the following section.

### Setting the auxiliary input level

Different audio sources can vary quite significantly in the strength of the signals which they provide to other equipment such as your Internet radio. In particular, some headphone outputs are at a much lower level than others, and almost all headphone outputs are at a lower level than so called 'Line-level' outputs.

So that you may use your radio with a range of external audio sources, the input sensitivity of the Auxiliary Input may be configured to suit either Headphone or Line-level outputs. The Headphone Level setting is the more sensitive of the two.

1. When the radio is playing press the **Select** control to access the menus. If needed, use the **Back** option to

access the main Mode menu. Rotate the **Select** control until 'Configure' is highlighted on the display.

2. Press the **Select** control to show the Configure menu on the display. Rotate the **Select** control until 'Auxiliary input level' is highlighted.

3. Rotate the **Select** control until either 'Headphone level' or 'Line Input Level' is highlighted on the display, and then press the **Select** control to activate the desired setting.

4. If needed, select the **Back** option to exit the menu.

### Setting the clock

Normally the WFR-20 Internet radio will set its clock automatically to UK time after a connection to the Internet has been established. Should you need to set the time manually, please follow this procedure.

1. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu.

2. Rotate the **Select** control until the display says 'Configure'. Press the **Select** control to enter the configure menu.

3. Rotate the **Select** control until 'Clock Setup' appears on the display. Press the **Select** control to enter the clock setup menu.

4. Rotate the **Select** control until 'Set Time/Date' is highlighted on the display. Press the **Select** control to highlight the hour digits on the display.

5. Rotate the **Select** control to select the hour. Press the **Select** control to highlight the minute digits on the display.

6. Rotate the **Select** control until the correct date is highlighted on the display. Press the **Select** control enter the date and to highlight the month on the display.

7. Rotate the **Select** control to select the correct month. Press the **Select** control enter the month and to highlight the year on the display.

8. Rotate the **Select** control to select the year. Press the **Select** control to confirm the clock setting. The display will show 'Time and Date Set' and will then return to the radio station display.

### Setting the clock format

The clock display can be set to 12 or 24 hour format. The selected format is then also used when setting the alarms.

1. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu.
2. Rotate the **Select** control until the display says 'Configure'. Press and release the **Select** control to enter the configure menu.
3. Rotate the **Select** control until 'Clock Setup' is highlighted on the display. Press the **Select** control to enter the clock setup menu.
4. Rotate the **Select** control until 'Clock format' is highlighted on the display. Press the **Select** control to enter the clock format menu.
5. Rotate the **Select** control to select either 24 hour or 12 hour format. Press the **Select** control to confirm your choice of clock format.

#### Setting daylight saving/summer time

These 4 options are available:

European - Sets DST by European rules.

DST On - Sets Daylight Saving Time (offset +1 hour)

DST Off - Cancels Daylight Saving Time.

Local time zone – manually forward or backward by 30 mins/step.

Reset clock – removes any user set time, time-zone or DST offset and sets them back to the factory state.

1. Press the **Select** control to switch on your radio and to access the menus.
2. Rotate the **Select** control until the display says 'Configure'. Press the **Select** control to enter the configure settings.
3. Rotate the **Select** control until 'Clock Setup' appears on the display. Press the **Select** control to enter the clock setup menu.
4. Rotate the **Select** control until 'DST' or 'Local time zone' appears on the display. Press the **Select** control to enter it, then you will be able to set the summer time.

#### Setting the alarm clock

Your radio has four separate alarms which can be set to wake you to either a radio station or a buzzer alarm. Each alarm can be set to sound either once, everyday, weekly, weekdays or at weekends. In the event of a power interruption your radio has built in memory chip that will retain your alarm settings.

Note: If no buttons are pressed for 10 seconds the radio will exit the alarm setup. If you make a mistake at any point, use the Back option to go back to the previous screen.

1. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu.
2. Rotate the **Select** control until the 'Alarm clock' is highlighted on the display. Press the **Select** control to enter the alarm settings.
3. Rotate the **Select** control until 'Set Alarms' is highlighted on the display then press the **Select** control. The display will show the status of alarms 1-4. It will also offer a 'Disable All' option.
4. Rotate the **Select** control until the desired alarm 1 - 4 is highlighted on the display. Alarms which are not highlighted show the time of the next alarm (if any) and the day of the week on which they will occur. The currently highlighted entry will scroll through the full alarm details including whether the alarm is daily, weekly, etc. and the details of the alarm type (buzzer or radio station name).
5. To change the setting for the highlighted alarm press the **Select** control. The alarm hour will be highlighted. The 12 hour or 24 hour clock format will be used according to the currently selected clock format option.
6. Rotate the Select control to choose the hour for the alarm. Press the Select control to store this setting and the minute digits will be highlighted.
7. Rotate the **Select** control to choose the minute for the alarm. Press and **Select** control to store this setting. The alarm day option will be highlighted on the display:-  
Once - will sound at one time only  
Everyday - will sound everyday.  
Weekly - will sound once every week.  
Weekdays - will sound on weekdays only.  
Weekends - will sound on weekends only.
8. Rotate the **Select** control to choose one of the above options for the alarm. Press the **Select** control to store this setting. If setting the alarm to everyday, weekdays or weekends please skip to point 10.
9. Rotate the **Select** control until the required day of the week for the alarm is highlighted on the display. Press the **Select** control to store this setting. The radio will enter the alarm mode option.
10. The alarm can be set to a radio station or a buzzer alarm. The radio station alarm may be set to any of the stations which have been stored as presets or to the station currently being listened to. Rotate the **Select** control to select either Buzzer or the required radio station.
11. Press the **Select** control to confirm the alarm settings. Your radio will show 'Alarm Set' and will go back to the list of alarms with the new alarm setting shown in the display.

### When the alarm sounds

The radio alarm will sound at the selected times for up to 60 minutes unless cancelled. The volume for the radio alarm will be the same as the volume previously used when listening to the radio or media player. If for any reason the radio cannot connect to the requested radio station at the time that the alarm is due, the buzzer alarm will be used instead.

The buzzer alarm sounds for 10 minutes and the volume will gradually increase from a low level. If the radio is playing at the time that the buzzer sounds, then the buzzer volume is based on the radio volume setting.

1. If the radio alarm sounds when the radio is in standby, the display will show 'Turn on Radio' with a YES / NO option. If no action is taken the radio will switch off at the end of the alarm period. If you select NO, the radio will switch off immediately. If you wish to listen to the radio, or to be able to select alternative stations, then select YES using the *Select* control.

2. If a radio alarm sounds and the radio is already playing, the radio will change to the station specified for the alarm, and the display will show 'Stop alarm' with a YES / NO option. Selecting YES will revert to the previous radio station or the media player. Selecting NO will allow the radio station from the alarm to continue.

3. If the buzzer alarm sounds when the radio is in standby, the display will show 'Turn on Radio' with a YES / NO option. If no action is taken, the buzzer will stop after 10 minutes. If you select NO, the alarm will switch off immediately. If you wish to listen to the radio or media player, then select YES using the *Select* control.

4. If the buzzer alarm sounds when the radio is already playing, the display will show 'Alarm'. If no action is taken, the buzzer will stop after 10 minutes. If you wish to go back to the radio station press the *Select* control.

### Disabling alarms

1. To Disable all alarms enter the alarm setup menu and Rotate the *Select* control until 'Disable all' is highlighted on the display. Press the *Select* control to confirm. The display will show 'All alarms disabled' for 3 seconds then return to the alarms list display.

2. To Disable a single alarm enter the alarm setup menu and rotate the *Select* control until the desired alarm is highlighted on the display. Press the *Select* control. The display will show 'Enable Alarm YES / NO'.

If NO is selected alarm is cancelled and the display returns to the alarm list.

If YES is selected the alarm details may be changed by modifying any or all of the alarm options.

### Sleep timer

Your radio can be set to turn off after a preset time has elapsed. The sleep setting can be adjusted between 15 and 120 minutes in 15 minute increments.

1. When the radio is playing, press the *Select* control to access the menus. If needed, use the *Back* option to access the main Mode menu.

2. Rotate the **Select** control until the 'Alarm clock' is highlighted on the display then press the **Select** control.
3. Rotate the **Select** control until 'Sleep timer' is highlighted on the display then press the **Select** control.
4. Rotate the **Select** control until the required sleep time setting is selected between 15 and 120 minutes or to Off. Press the **Select** control to confirm the setting.
5. The display will show 'Sleep timer' set. Your radio will switch off after the preset time has elapsed.
6. To cancel the sleep time before the preset time has elapsed and to turn off the radio, use the **Select** control (or the remote control) to turn the radio off manually. To cancel the sleep timer and leave the radio playing, go back into the sleep timer settings (steps 1 to 4 above) and select the Off option in step 4.

During the last two minutes of the sleep timer period, the radio will gradually reduce the volume before switching off.

### Backlight

This option allows you to alter the radio's display backlight settings to suit your needs. Separate settings are available for Active mode (while using the menu system), Inactive mode (when listening), and Standby mode (when the radio is off with just the clock display showing).

1. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu.
2. Rotate the **Select** control until 'Configure' is highlighted on the display. Press the **Select** control to enter the Configure menu.
3. Rotate the **Select** control until 'Backlight' is highlighted on the display. Press the **Select** control to enter the Backlight menu.
4. The backlight setting can be adjusted for 'Active', 'Inactive' and 'Standby' modes. Rotate the **Select** control to highlight the desired backlight option then press the **Select** control.
5. The radio will now display the setting for the selected backlight option. You can alter this value by rotating the **Select** control to increase or decrease it according to your needs.
6. When the desired value is reached, press the **Select** control to store the setting. If the value is not modified or stored after 10 seconds, the radio exits the Backlight menu and will return to its previous display.

This facility allows you to change the display language for the menus.

1. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu. Rotate the **Select** control until 'Configure' is highlighted on the display then press the **Select** control to enter the Configure menu.
2. Rotate the **Select** control until 'Language' is highlighted then press the **Select** control to access the list of available languages (English, French, Spanish, German, Danish, Italian, Dutch, Portuguese, Finnish, Swedish and Norwegian).
3. Rotate the **Select** control to highlight the desired menu language. Press the **Select** control confirm your choice and to restart the radio using the chosen language.

#### Software version display

The software version display is provided for your reference only.

1. Use the **Select** control to switch on your radio and to access the menus. If needed, use the **Back** option to access the main Mode menu. Rotate the **Select** control until 'Configure' is highlighted on the display.
2. Press and release the **Select** control to enter the Configure menu. Rotate the **Select** control until 'Version' is highlighted.
3. Press and release the **Select** control to show the current software version on the display. Rotating the control will display additional information. Use the **Back** option to exit.

#### Network configuration

This menu enables you to configure your radio's network settings, scan for a connection to an alternative wireless network, or to manually configure the network parameters. This can be useful if you take the Internet radio to another location where there is a different network setup.

It is possible to configure your radio to connect to your network via an available Ethernet connection (RJ-45) or via a Wi-Fi router.

##### Configuring the radio only to use a wired Ethernet connection

1. From the radio's Network Configuration menu, select 'Wired / Wireless'. This menu will present you with three options: 'Wireless Only', 'Wired Only' and 'Auto'. Selecting 'Wired Only' will allow cause the radio to restart and then to use only its Ethernet connection to communicate with the network. The radio will also disable its wireless network capabilities. This will require your radio to be physically connected to a wired Ethernet using the RJ-45 socket on the rear panel.

##### Configuring the radio only to use a Wi-Fi connection

2. Selecting the 'Wireless Only' option from the 'Wired / Wireless' menu will allow cause the radio to restart and then only to use only its Wi-Fi connection to communicate with the network. The radio will also disable its

Ethernet connection.

### Configuring the radio to use either an Ethernet or a Wi-Fi connection

3. Selecting the 'Auto' option from the 'Wired / Wireless' menu will cause the radio to restart. It will then attempt to establish an Ethernet connection to the network. If no Ethernet connection is available the radio will attempt to establish a Wi-Fi connection to the network.

Having established a particular type of connection to the network, this connection will remain in use while the radio is on.

The Network Configuration menu also allows you to choose whether or not the Internet radio displays a warning message when the Wi-Fi signal strength is low. You can enable this feature by selecting 'Signal Warning' and then selecting 'Yes'.

### Entering the network name manually

If your network is configured with a hidden ESSID, then you will need to enter the network name manually.

1. In the Network Configuration menu, select 'Enter network name'. A string of characters will be displayed. You can scroll through this list by turning the rotary control or by pressing the *Menu up* or *Menu down* buttons. The centre character will be entered into the network name each time that you press *Select*.

If you make an error, either use the *Back* button on the remote control, or give a long press on the rotary control.

2. When the name has been entered, locate the END symbol in the string of characters and then press *Select*. The radio will then try to connect to the named network.

### Troubleshooting

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

1. Confirm that a Wi-Fi connected PC can access the Internet (i.e. can browse the web) using the same network.

2. Check that a DHCP server is available, or that you have configured a static IP address on the radio. You can configure a static IP address on the radio using the menu item 'Configure -> Network Config -> Edit Config', and then select 'No' for 'Auto (DHCP)'.

3. Check that your network's firewall is not blocking any outgoing ports. As a minimum, the radio needs access to UDP and TCP ports 80, 554, 1755, 5000 and 7070. The use of Windows Shares requires access to UDP and TCP ports 135 - 139 and 445. Windows Media Player 11 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.

4. Check that your access point does not restrict connections to particular MAC addresses. You can view the radio's MAC address using the menu item 'Configure -> Network Config -> View Config -> MAC address'. Note that the WFR-20 radio has both wired and wireless MAC addresses.

5. If you have an encrypted network, check that you have entered the correct key or pass-phrase into the radio. Remember that text-format WPA keys are case sensitive. If your radio displays 'Wireless error' when attempting to connect to an encrypted network followed by a 5-digit number, then please ensure that you enter the correct pass -phrase for the network. If the problem persists, then you may need to consult your network configuration.

If your radio can connect to the network successfully, but is unable to play particular stations, it may be due to one of the following causes:

1. The station is not broadcasting at this time of the day (remember it may be located in a different time zone).
2. The station has reached the maximum allowed number of simultaneous listeners.
3. The Internet connection between your radio and the server (often located in a different country) is slow.
4. The station is not broadcasting any more.
5. The link to the audio stream used by the radio is out of date.
6. The radio station is broadcasting using an audio format which is not playable by your radio (although the WFR-20 does play almost all formats used by regular broadcasters).

Try using a PC to play back the stream via the broadcaster's web site. If you can play back the station with a PC, use the form at [http://www. reciva.com](http://www.reciva.com) to notify Reciva so that they can update the station data that is used by the radio.

#### Factory reset

If you wish to completely reset your radio to its initial state this may be performed by following this procedure.

1. Use the Select control to switch on your radio and to access the menus. If needed, use the Back option to access the main Mode menu. Rotate the Select control until 'Configure' is highlighted on the display.
2. Press the Select control to enter the Configure menu. Rotate the Select control until 'Factory Reset' is highlighted on the display.
3. Press the Select control again and the display will show 'Are you sure?'. Rotate the Select control to highlight 'Yes' if you wish to carry out a system reset or highlight 'No' if wish to return to the previous screen.

Then press the Select control again.

4. A full reset will be performed, the station list together with any preset stations will be erased and your wireless network connection details will be lost. All configuration settings will be restored to their defaults, and the language used for menus will be reset to English.

In the event that you are unable to access the menus (or if the language setting has accidentally been changed to a language that you cannot understand) the Factory Reset may also be performed as follows:

1. Remove all power from the unit and wait 30 seconds.
2. Then, re-apply power while simultaneously pressing and holding the front panel rotary control. Keep this pressed as the radio powers up and until it displays 'Factory Reset Complete'. This should normally only take between 10 and 15 few seconds. Then, release the control while the radio restarts.
3. If this is not successful, please remove power for one minute, and then repeat the operation.

### Upgrade firmware

From time to time, new software features for your radio may be developed. For example, a new audio decoder may be added to allow an alternative audio format to be supported. Your radio has therefore been designed to allow its internal software to be upgraded using your Internet connection. The upgrade mechanism is accessible via the Configure menu.

Upgrading the software will remove all network settings, radio station presets and alarm settings from your radio. Do not attempt this procedure unless you have a good Internet connection and a reliable mains power supply. If you connect to your router using a Wi-Fi connection, make sure that this is also reliable before proceeding.

The Upgrade Firmware option allows your radio to download new internal software from the Reciva portal on the Internet. If there is new software available, then the radio will ask whether you want to download it or not. Selecting No or using the **Back** option will cancel the operation. A software upgrade may take several minutes. **IMPORTANT:** Do not switch off the power to the radio until the upgrade operation is complete and the radio has restarted, otherwise the radio may become permanently damaged.

Once the software upgrade is completed your radio will restart. If you use a Wi-Fi connection, you will need to re-enter all network settings in order to be able reconnect to your network. A firmware update also erases all radio station presets, alarm settings, and configuration options.

### Headphone socket

1. A 3.5mm **Headphone Socket** located on the rear of your radio is provided for use with headphones.

Inserting a plug automatically mutes the internal loudspeaker.

**IMPORTANT:** Excessive sound pressure from earphones and headphones can cause hearing loss.

### Line out socket (3.5mm Jack)

A 3.5mm **Line Out** socket located on the rear of your radio is provided for connecting the audio signal to an external amplifier. Inserting an audio cable into this socket will not mute the internal loudspeaker. Set the volume control on the radio to minimum if desired.

### Specifications

Power Requirements Mains Battery (Remote control) AC 230 volts, 50 Hz, or AC 110 volts, 60 Hz CR2032 only

Connectivity Wired Ethernet Wi-Fi 10/100M bits/sec via RJ-45 802.11b and 802.11g supported WEP and WPA encryption supported

### Circuit features

Loudspeaker 2 x 75 mm

Output Power 5 Watts RMS per channel

Headphone socket Auxiliary In socket Line Out socket 3.5mm dia 3.5mm dia 3.5mm dia

Aerial System External Wi-Fi Antenna