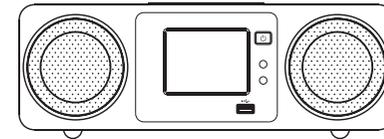




WFR-2D



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Rersion 1





“Made for iPod” and “Made for iPhone” mean that an electronic accessory has been designed to connect specifically to iPod or iPhone respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.

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Before you can use this product Introduction

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

- A broadband Internet connection (not required for DAB, FM or Music Player functions).
- A wireless access point (WiFi) or a wired Ethernet connection connected to your broadband Internet Service Provider, 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 WiFi Protected Access (WPA/WPA2) data encryption then you either need to know the WEP, WPA or WPA2 key used for encryption so you can get the radio to communicate with the network, or your router needs to offer WiFi Protected Setup (WPS).

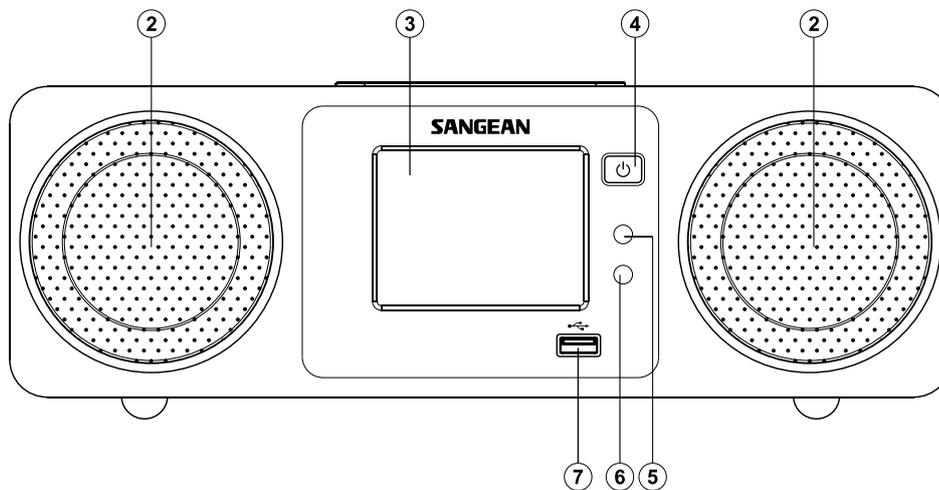
If connecting using WiFi, the radio will typically work within a 10-20 meter radius from your wireless access point. The actual range achieved will depend upon the building type, other nearby wireless networks, and possible interference sources. DAB and FM radio functions can operate wherever the radio is able to receive a suitable broadcast signal.

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.

Controls and connections

(Front view)



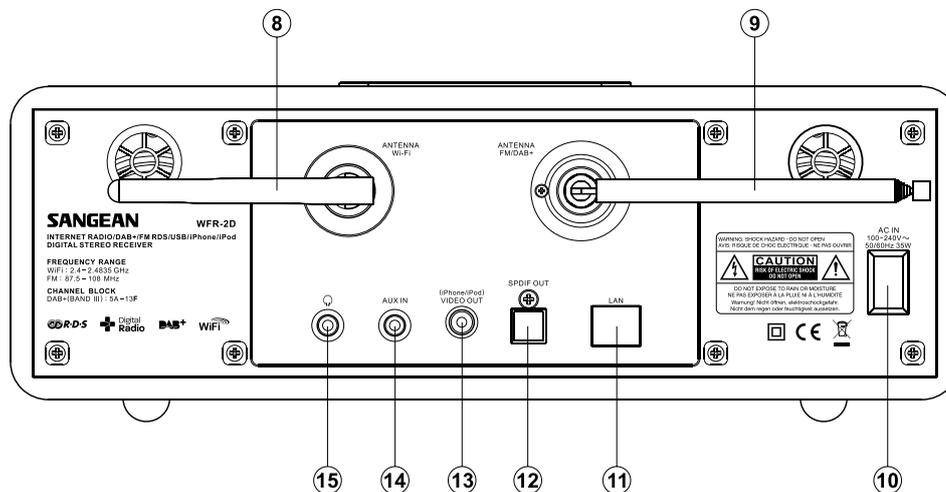
- 2. Speakers X 2
- 3. Color touch screen
- 4. On/ Standby

- 5. Light sensor
- 6. Remote control sensor
- 7. USB socket

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Controls and connections

(Rear View)



8. Wi-Fi antenna
9. Telescopic antenna
10. Mains input socket
11. Ethernet socket (RJ-45)

12. Optical output socket (Toslink)
13. iPod/ iPhone video out socket
14. Aux in socket
15. Headphone socket

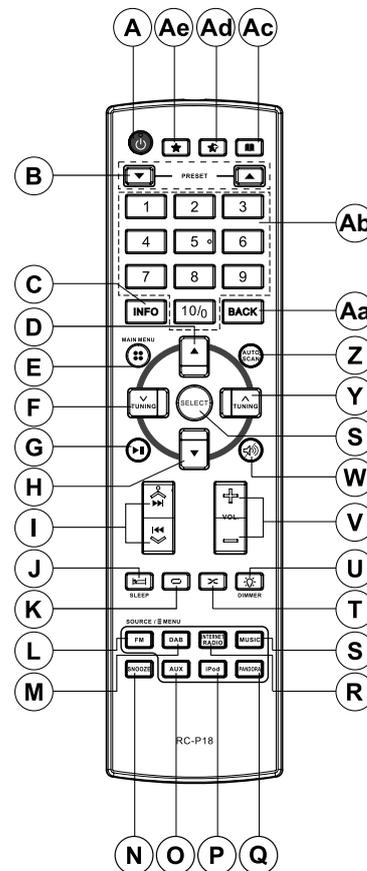
Controls and connections-cont.

Remote control handset

- A. On/ Standby button
- Aa. Back button
- Ab. Key pad buttons 1-10/0
- Ac. Directory button
- Ad. Add favorite button
- Ae. Recall favorite station button
- B. Recall preset station button
- C. INFO button
- D. Up button
- E. Menu button
- F. Tuning down button
- G. Play/ Pause button
- H. Down button
- I. Prev/ Next button (Fast-forward/ Rewind button)
- J. Sleep button
- K. Repeat button
- L. FM button
- M. DAB button
- N. Snooze button
- O. Aux in button
- P. iPod button
- Q. Pandora button (no function available)
- R. Internet radio button
- S. Music button
- T. Shuffle button
- U. Dimmer button
- V. Volume Up/ Down button
- W. Mute button
- X. Select button
- Y. Tuning Up button
- Z. Auto scan button

Note:

Almost all functions that are available from the touch panel screen may also be performed using the remote control. However, please note that there are two items cannot be accessed by using remote control, which are Setting and Alarm.



Using the touch screen

The WFR-2D internet radio has a high resolution color display with touch sensitive controls. When using the internet radio, the display shows only the controls that are needed at each stage of its operation. To operate the controls simply touch the button area with the tip of a finger for about half a second until the command has been accepted.

You may find that at first, the internet radio does not always detect that you have touched a button. If so, try touching with a little more pressure, or for slightly longer. You will soon find the optimum touch needed to control your internet radio.

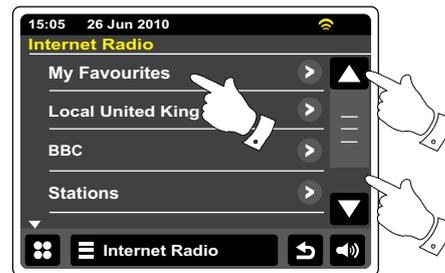
The panel may be cleaned using a dry cloth. Do not use abrasives, cleaning fluids or solvents.



Navigation controls on the touch screen

This section describes the basic means of controlling your WFR-2D internet radio. Instructions for each operating mode are given in the later sections of this book.

1. Pressing the **On/Standby** control brings your radio out of Standby mode. Pressing the On/Standby control while the radio is in use will cause it to return to the Standby mode with the clock display.
2. Touching the **Mode** buttons on the Home menu screen gives you access to each of the operating modes: DAB radio, FM radio, Internet radio, iPod, My Music, Auxiliary Input, Alarms and Settings.
3. Touch the **Menu** bar on screen to access a high level menu for the current operating mode. Touching the bar a second time will normally cause the radio to revert to the previous display or menu.  My Music
4. Touch the **Home** button to return to the main home menu. 
5. Many operations require the user to make a selection from the menu. This is done by touching the relevant item on the touch screen. If there are more than four items in a menu, then you will need to touch the Up or Down arrows so that the additional items become visible. The sliding scroll bar on the right will give an indication showing the current portion of the menu that is displayed. Pressing the area between the arrow and the bar will cause the menu to scroll further if there are many items. If there are many items in a menu, then the radio allows the menu to 'wrap around' in either direction. This can make it easier to reach items at the end of a long menu, such as a list of countries or Internet radio stations.
6. If an error is made when navigating the menus, it is generally possible to go back to a higher level menu by pressing the **Back** button on the screen. 



7. Touch the **Close** button to exit the current mode. The display will return to the home menu screen. 

8. Touch the **Volume** button and then use the + or - buttons on the screen or use the Rotary Volume control until your required volume level is reached.   

9. Your internet radio has a **Play mode idle screen** which displays the time and date with information relevant to the operating mode but without the control buttons being visible. The time delay before the idle screen is shown can be adjusted between 1 and 10 minutes see the section of 'Idle time out'.

When the idle screen is shown touch the screen to reactivate the main play-mode screen.

10. Your radio has slideshow feature adding visual content from digital radio broadcasters. This feature allows you to view photos of presenters and artists, including album covers and concert information, as well as obtain general information, such as weather, travel, promotional updates and advertising information.



Text entry screens

To enter text when in a text entry screen use the procedure below to navigate and select required text.

Setup Wizard

A To enter the text touch the **required character** on the display to cause the character to be entered.

▲ To enter UPPERCASE characters touch the **arrow** on the left hand side of the screen until the arrow appears yellow.

The next character will be entered as uppercase.

⬆ To enter lowercase characters touch the **arrow** on the left hand side of the screen until the arrow appears white. The next character will be entered as lowercase.

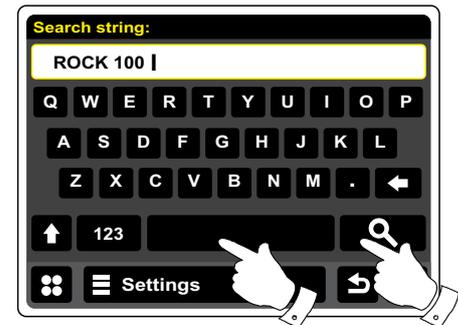
123 Touch the **number/text** button on the left hand side of the screen to toggle between numbers and text.

← If you make a mistake and wish to erase a character touch the **left arrow** (backspace key).

✓ When the complete text has been entered touch the **tick** or **Magnifying glass** icon. The icon shown will vary according to the text being entered.

To enter a space use the space bar on the keypad.

You can also use the remote control to highlight and enter text. Use the **Left**, **Right** and **Up**, **Down** buttons to highlight text and use the Select button to enter text. You can carry out all the above functions using the remote control.



Configuration

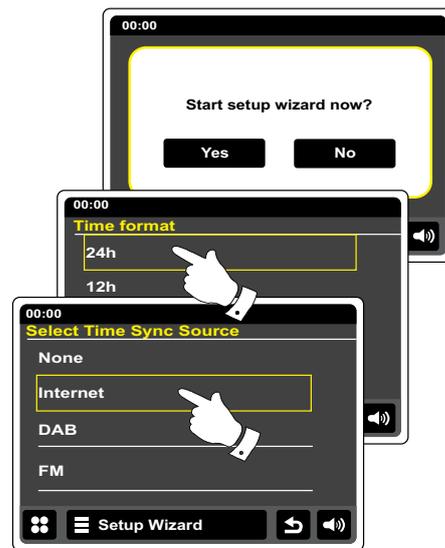
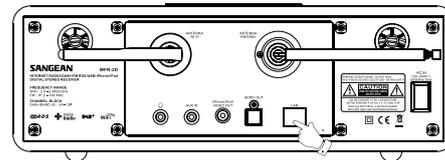
Connecting your internet radio to your computer network

1. Place your internet radio on a flat surface.
2. If you wish to use a wired network connection, plug the Ethernet cable into the RJ-45 socket (marked LAN) at the back of the radio.
3. Plug the mains lead into the mains socket located at the back of your radio ensuring that the plug is pushed fully into the socket.
4. 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, the mains plug should be removed from the mains socket outlet completely.

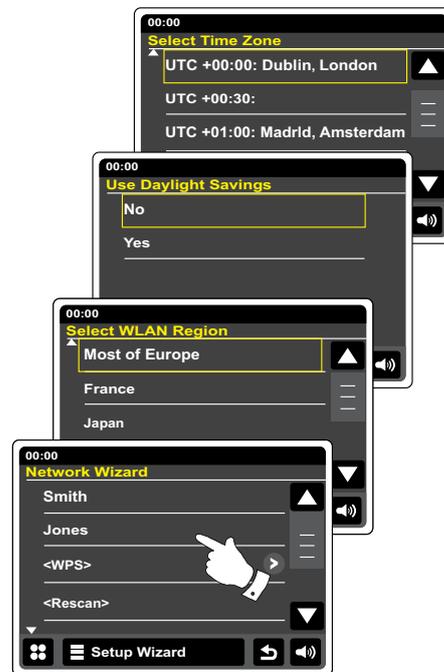
5. When you apply power, the display on the radio will light up and say: 'WELCOME TO DIGITAL RADIO'. The first time that you use your radio (or after a Factory Reset) the display will show 'Start setup wizard now'. Touch Yes on the screen to start the setup wizard. You will then need to select the desired language (go to step 7).
6. You are recommended to run the setup wizard, but if you wish not to, touch **No** on the display. The screen will ask if you wish to run the setup wizard again at the next start up. The radio will then enter standby mode with the clock not set.
7. For the language option, select **English**. You will then have a choice to set the clock to use the 12 or 24 hour format. Touch the desired hour format.
8. A menu allowing you to specify the synchronisation source for the clock will appear on the display. The default of Internet will be the best option for most users.



Connecting to your computer network-cont.

Touch the **Internet** option for the clock synchronization. The clock can also be updated from DAB or the FM radio, from the Network, or not automatically updated. If you choose any option, other than internet go to step 11. Otherwise you will first need to select the correct time zone and daylight savings setting, see steps 9 and 10. If you choose **None** you will need to set the clock manually, see section 'Manually setting the clock.'

9. Select the time zone which is applicable to your location.
10. You will then need to set the daylight Savings option according to your location (Daylight Savings is also known as Summer / Winter time or BST/ GMT adjustment).
11. The display will then show a list of WiFi region options for the network set up. Touch the required region. Do this even if planning to use the wired Ethernet connection. Your radio will then scan for available WiFi networks.
12. The radio will enter the Network Settings Wizard and will display 'Scanning...'. After a short while the display will show a list of the available WiFi networks. If you are intending to use the WiFi connection, go to step 13. To use the Ethernet connection to your router (with automatic configuration), scroll through and touch the **<Wired Network>** menu item. The radio will attempt to connect.



Connecting to your computer network-cont.

If your network allows automatic configuration (which is normal) the radio will acquire a network address. The screen should say 'Connecting,' and then 'Setup Wizard completed.' Touch OK to exit the setup wizard, the radio will enter Standby mode. You can then skip to step 20 .

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.

Yellow ON= Link established ; OFF =no connection

Yellow Flashing= Data transfer

Green ON= 100 Mbits/ sec link; OFF= 10 Mbits/ sec link

If your network does not support automatic configuration or if you wish to set it up manually then you should select **Manual Settings** instead of selecting Wired in the Network Wizard, then see the section of 'Manual network configuration.'

13. If you plan to use a WiFi connection, you will first need to identify your network in the list of network names presented by the Network Wizard. If no networks are found then you may have to get your wireless router working (please see the instructions supplied with it) or you may be too far from the router. When the radio finds your wireless network, it displays the Network Name (SSID) for the wireless access point on the screen. This is a name that is allocated to the access point in your router by the person who set up the network-for example' Jones family' or 'Paul's network.' If the router supports WiFi Protected Setup, then '[WPS]' will be shown in front of the SSID. It is possible, and in some locations highly likely, that your radio will find more than one wireless network, in which case you should choose which one you need to connect to.

14. Scroll through the list to see the SSID for each wireless network that has been found. If your network is shown proceed to step 16 on the next page. If it is not shown then proceed to step 15.

 If you make a mistake at any point, use the **Back** button to go back to the previous screen.



Connecting to your computer network- cont.

15. If your network is not found, it may be because the router is configured not to broadcast the SSID. You should then scroll through the menu and select **Manual settings** option in order to enter the network details manually. This is described in 'Manual Network Configuration'. If your network name is being broadcast, and it was not found, then try re-scanning (press the **Back** button), and if necessary try moving your radio to a location to a location closer to your access point/ router.
16. When the SSID for the wireless network you wish to connect to appears on the screen, touch to select. If WiFi Protected Setup (WPS) was indicated, you will see an additional menu at this point, otherwise proceed to step 17. Choose one of the WPS menu options as required for your router (WPS may be via push button, or using an identification number). 'Push Button' - the display prompts you to press the WPS button on your router or access point and touch **OK** on screen. The two devices should then connect with the encryption key sent automatically to the radio.
'PIN' - the display shows an identification number which you must enter into your router using a web browser (refer to your router's user documentation). Then touch **OK** on screen on the radio. The two devices should then connect with the encryption key sent automatically to the radio.
'Skip WPS' - if you wish to enter the encryption key yourself. If you chose Push Button or PIN the screen will then show 'Connecting...' and then 'Setup wizard completed'. Touch OK to exit the setup wizard and then go to paragraph 20 on the next page.
17. If your network is configured without an encryption key, the screen should say 'Connecting...', and then 'Setup wizard completed'. Touch OK to exit the setup wizard and enter Standby mode. If this is the case then you have successfully connected your radio to your network, so please go to paragraph 20 on the next page.
18. If the screen displays 'Network Key:', it is because the network is using one of the encryption systems: Wired Equivalent Privacy (WEP) or WiFi Protected Access (WPA). You will need to enter the correct WEP or WPA key into the radio to allow it to communicate with your wireless network. If you do not have the WEP or WPA key, then you should obtain it from the person who set up your network. Some wireless routers may come with an encryption key already set up by the supplier, in which case you should refer to the documentation provided with it. WPA is used here to also include WPA2.



Connecting to your computer network- cont.

WEP keys are 10 or 26 characters long (using 0 - 9, and A - F). Press the '123' button, then press again when it shows 'hex'. This provides a simplified keyboard layout for the WEP key entry. Some wireless routers can also use pass-phrases for WEP but these are not supported.

WPA keys are usually set up using a pass-phrase of between 8 and 63 characters. Your radio accepts pass-phrases for WPA keys.

19. To enter the WEP or WPA key, characters see page 11. Enter characters as needed until the complete key has been entered. Remember, WEP keys only use the numbers 0-9 and letters A-F. WPA keys are sensitive to upper and lower case characters. You must enter the key **exactly** or the radio will not connect to the network. After the final character of the WEP or WPA key has been entered touch the tick symbol. The screen will show 'Connecting...' and then 'Setup wizard completed'. Touch **OK** to exit the setup wizard. The radio should now be able to connect to the network.

20. Once you have connected your radio to the network (and therefore also to the Internet) it will go into Standby mode. It should then display the time as obtained from the Internet. If the time display is not correct for any reason, it can easily be adjusted manually later, see the section for 'manually setting the clock.'

If you have followed the steps on the preceding sections successfully, your radio will have connected to your router, and then made a connection to the Internet and set its clock. If this is the case, then you can try listening to radio stations via the Internet as described in the section of 'Internet Radio' onwards.



Changing the network connection

In the sections above, you choose how your radio would be connected to your network, either using a WiFi connection or using a wired Ethernet cable. From time to time, you may find that you need to connect to different computer networks. The Internet setup menu allows you to change your radios network settings, scan for an alternative wireless network, or to manually configure the network parameters.

The steps outlined below describe how you can do this - see also the section 'Network profiles' on. If you have no need to do this, however, please skip to the section of 'Internet Radio'.

Configuring the radio to use an alternative WiFi connection

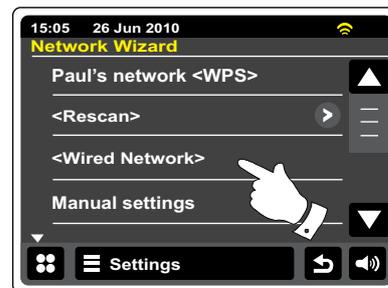
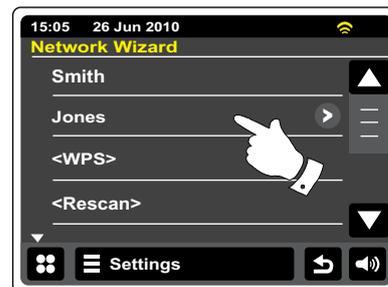
1. From the 'Settings' > 'Network settings' menu touch Network wizard. This will present you with details of any WiFi networks that are found. Scroll down the list and touch the desired network name. The radio will then use its WiFi system to communicate with the network. Depending on the settings for the new network you may need to enter an encryption key. By default the radio will then acquire an IP address and other network settings from your router using DHCP.

Configuring the radio to use the wired Ethernet connection

2. Connect your radio to your router using an Ethernet cable plugged into the RJ-45 socket (marked LAN) at the back of the unit. From the 'Settings' > 'Network settings' menu touch Network wizard. This will present you with details of any WiFi networks that are found. Scroll down the list and touch the <Wired Network> option. The radio will then use its Ethernet connection to communicate with the network. By default the unit will then acquire an IP address and other network settings from your router using DHCP.



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Manual network configuration

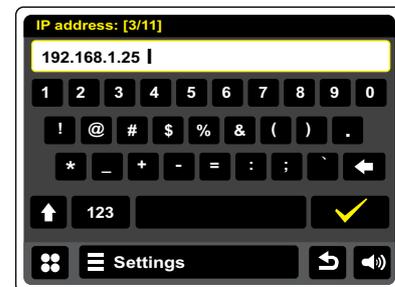
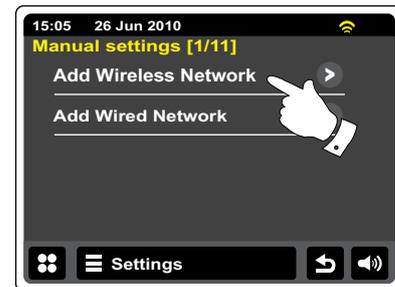
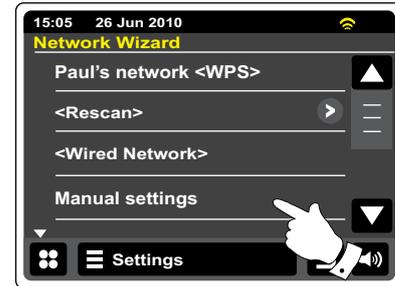
If you do not wish to use DHCP for automatic configuration, or if your network is configured with a hidden SSID, then you will need to enter some network settings manually. (Note - a hidden SSID may prevent casual observers from detecting your network, but it is not recommended as a means of network security.)

1. From the radios 'Settings' > 'Network settings' menu, touch **Manual settings**. You must then choose whether to connect using 'Wired' or 'Wireless' connections. If you choose 'Wireless' there are as many as eleven settings screens, shown by the '1 of 11' progress marker at the top of the display. If you choose 'Wired' there are seven screens and the progress marker will reflect this, although the steps to set up the network parameters are basically the same.
2. The next menu asks whether you wish to use DHCP to configure your network parameters (IP address, subnet mask, gateway address, etc.). Unless you are familiar with networking and related terminology, we recommend that you allow the use of DHCP. Choose **DHCP Yes** unless you need to specify the network details manually.

If you have chosen 'Wired' and then **DHCP Yes**, your radio should now establish a connection to the router using the Ethernet cable. Please skip to step 11 on page 20.

If you chose 'Wireless' and **DHCP Yes**, please skip to step 6 in order to set up the wireless connection details. If you chose **DHCP No** for either connection method, the next step is to set up the IP address.

3. The manually specified IP address should be chosen to be compatible with the settings in your router and must be a unique address on your network. If you are using DHCP for some devices and static (manually configured) IP addresses for others, the IP address used should fall outside the range that the router may allocate using DHCP. Typically, the first three groups of digits will be the same for all devices on your network (Text entry is described on page 11). The display may show an address of 0.0.0.0. To delete a character touch backspace. To clear, touch and hold the backspace. Use digits and fullstop to enter the IP address, e.g. 192.168.1.25. Touch the tick symbol to confirm. When the IP address has been entered, the subnet mask should be entered. The subnet mask defines which parts of the IP address are common across your network. For most small networks the subnet mask will be 255.255.255.0 and this is entered in the same way.
4. The Gateway address is normally the IP address of the router through which the radio connects to the internet and is entered in the same way as the previous address.



Manual network configuration - cont.

5. In most installations the DNS settings (DNS = Domain Name System) will be set to the same IP address as your router (192.168.1.1 in the example shown). In this case the secondary DNS may be left at zero.

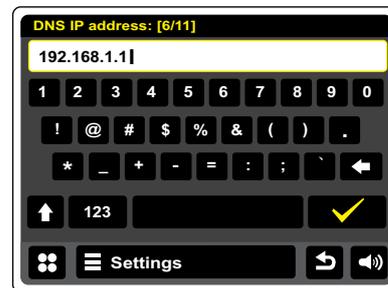
Text entry is described in previous section 'Text entry screens'. Touch the tick symbol to confirm. If you previously specified 'Wired' and then 'DHCP No', your radio should now connect to the router using the Ethernet cable (in which case skip to step 11).

6. If you specified 'Wireless', the next step is to set up the WiFi connection, starting with the name of the wireless network (SSID) followed by the encryption options and password.

To enter the SSID see text entry on page 11. Do this as needed until the complete network name has been entered. The SSID setting is sensitive to upper and lower case characters and symbols. You must enter it exactly as set up in your router.

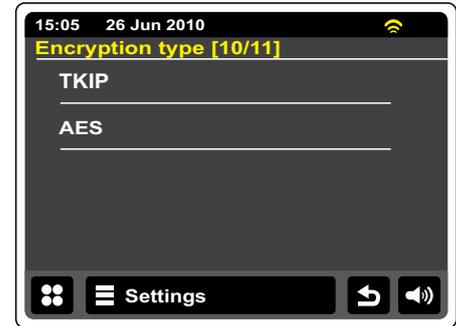
7. Having entered the SSID, you must enter details of the encryption system used on your wireless network. This should be the same as specified in your router settings. If your network does not use encryption, then select the 'Open' option. Your radio should then connect to the network, so skip to step 11. If your network uses WEP (Wired Equivalent Privacy) select 'Pre-Shared' option then go to step 8. The remaining options are for WPA or WPA2 (WiFi Protected Access) - see step 9.

8. If you chose 'Pre-Shared' in step 7, you should then choose the WEP option. The key should be entered using only the numbers 0-9 and the letters A-F. The key will be 10 characters long for 64-bit encryption and 26 characters long for 128-bit encryption. Spaces or special symbols are not permitted in WEP keys. Use the '123' then 'hex' buttons to access a keyboard for WEP key entry. Once the key is entered the radio should connect to your network. Please skip to step 11.



Manual network configuration - cont.

9. WPA and WPA2 are similar, although WPA2 offers a higher level of security. Whichever you selected in step 7, you then have to specify the variant used. They are TKIP (Temporal Key Integrity Protocol) and AES (Advanced Encryption Standard). As previously, the setting should match that used by your router. Some routers allow both to be specified, and the router will use whichever variant is supported by the connected device. AES is regarded as the more secure option if it is available.
10. The radio will then require you to enter the encryption key. This must be a string of between 8 and 63 characters and must be identical to the key which has been entered into your router. Note - the encryption key is sensitive to the use of upper and lower case letters and symbols. Take care to enter the key exactly, or the radio will not be able to connect to your router. Once the key is entered the radio should connect to the network.
11. While the radio is trying to connect to the network, it will display 'Processing...' when checking the encryption key (if using the WiFi connection) and then 'Connecting...'. If the connection is made successfully, the radio will return to the Network settings menu. If the unit cannot connect, then it will display a 'Failed to connect' message and will return to the SSID entry screen (step 6). Once connected, the network settings are stored in the radio. The settings are retained when the radio is disconnected from the mains. You may now use the **Back** and **Mode** buttons to access the functions of your radio.



Internet Radio

Internet Radio - the basics

Before you can use your internet radio 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.

There are literally many thousands of radio broadcasts available via the Internet as well as 'Podcasts'. Your radio provides several ways of searching for broadcasts in order to make finding and choosing them easier. Once you have found radio stations which you like, you may add them to a list of your favorite stations which your radio can access. You can store as many favorites 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 radio 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 WFR-2D radio 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.

If your radio cannot connect to a radio station

Note:

If your radio is unable to connect to an internet radio station it will generally either display 'Network Error' or 'Stopped'. 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 radio 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.

Internet Radio



From the home menu touch the **Internet Radio** mode button.



Directory-In play mode touch to return to the station list.



Information-Touch to view detailed information for a station currently being played.



Add Favorite-Touch to add the currently tuned radio station to the favorites list.



Rewind-Touch to rewind previously broadcast material and podcasts. (Not applicable to all programmes/podcasts).



Fast-forward-Touch to fast-forward previously broadcast material and podcasts. (Not applicable to all programmes/podcasts).



Play/Pause-Touch to pause previously broadcast material and Podcasts. Touch to resume playback.



Stop-Touch to stop previously broadcast material and Podcasts.



Use the scroll bar to scroll through a list. Touch the **Up** or **Down** arrows or press the area



between the arrow and the bar to cause the menu to scroll further if there are many items. It



there are many items in a menu, then the radio allows the menu to 'warp around' in either

direction. this can make it easier to reach items at the end of a long menu, such as a list of countries or internet radio stations.

Selecting a radio station by location

 Touch the **Internet Radio** menu bar once or twice to enter the Internet radio menu list.

Touch **Browse station list** and select **Stations** to enter stations menu.

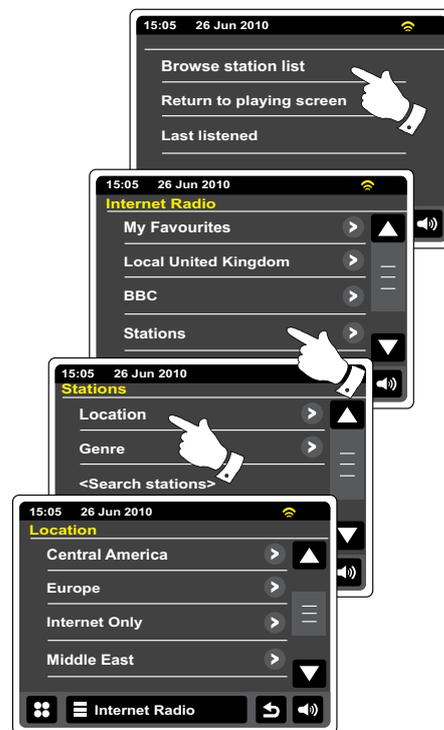
Note: that the menu may offer one or more local selections based upon the country in which the unit is being used, according to your internet IP address ('United Kingdom' and 'BBC' stations, for example).

Select **Location** and scroll through the list of continents. For each continent there will be a list of countries, for each country a list of categories, for each category a list of stations. You may explore and use the list as needed.

Select the desired **station**. The display will show 'Connecting...' while the radio connects to the new station. The station should then start playing. Adjust the volume as needed.

If the station has on-demand content, that is, it gives the option of listening to programmes which have already been broadcast or to Podcasts, there will be an additional screen showing the radio station name as well as a 'Podcasts' option.

Podcasts and Listen Again content can also be accessed separately from the main Internet radio menu, see the section of 'Selecting a podcast/ BBC Listen Again' in the following page.



Selecting a radio station by genre

Follow the same procedure on the proceeding page to select a radio station by genre. Select Genre instead of Location and then select the desired Genre.

Searching for a radio station by name

There may be occasions when you know the name of a radio station but you do not know the location or genre. This facility allows you to search for the station using a part (or parts) of the radio station name.

<Search stations> is accessed via the Stations menu.

You can refer to section of 'Text entry screens' for how to enter text.

The radio will search for radio stations that match your search data. If you include a space between two search items the radio will look for station names which included both items. Thus a search for 'Rock 100' could find s station called '100 Classics Rock Hits' as well as a station called '100.FM Rocks.'

Touch the station that you wish to listen to. The display will show 'Connecting...' while it finds a new station.



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Selecting a New or Popular station

As described in the section 'Internet Radio - the basics', your radio connects via the Internet to a database of radio stations. This option is provided to highlight stations which are newly added to the list of those available, or stations which are particularly popular with listeners around the world. Your radio allows you to easily choose stations from these two categories, using menus similar to those used when finding stations by location and genre.

New and Popular stations are accessed from the **Stations** menu.

Last Listened

It is often helpful to be able to go back to a station that you have recently listened to. Your radio has a 'Last Listened' feature which provides you with quick access to the most recently listened to radio stations or podcasts. As each new radio station is listened to the oldest item is deleted from the list. The Last Listened list is stored when the radio is disconnected from the mains.

 The **Last Listened** stations list is accessed from the Internet radio bar.



Selecting a podcast / BBC Listen Again Internet Radio

Some radio stations allow you to listen to programmes that have already been broadcast. The BBC's Listen Again service is an example of this. In addition, radio broadcasters and individuals may make programmes which are intended normally to be downloaded into a computer or copied onto a portable media player. These are commonly known as Podcasts.

On your radio, both Listen Again programmes and Podcasts are grouped together as Podcasts, and the same menu is used to access and listen to both types of programming. Listen Again programmes are also accessible via the Stations menu.

 Select the **Internet Radio** menu bar once or twice to enter the Internet menu list.

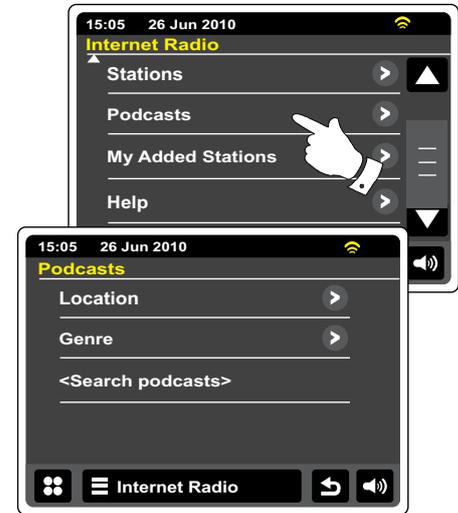
Touch **Browse station list**, then select **Podcasts**.

You may then search by location, genre, or using part of the name of the podcast. The searches operate in exactly the same way as when searching for a conventional radio station.

Stations which enable you to listen to previously broadcast programmes also may allow you to fast-forward, rewind to any point within the programme, play/ pause or simply stop the programme playing.



These features are dependent on the programme or podcast and will not always be available.



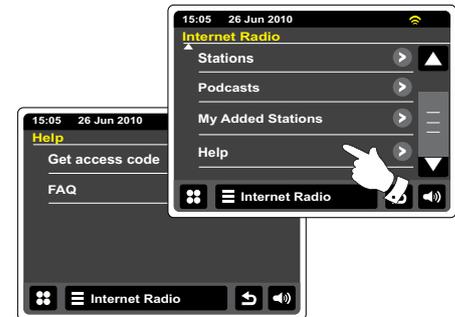
Customising your radio

Your radio allows you to create customized lists of stations which can appear in two special menus on the radio called 'My Favorites' and 'My Added Stations.'

Your radio 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 will only be accessible by you using your PC or your radio. You can choose the stations which will appear in the 'My Favorites' 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 on your radio via the 'My Added Stations' menu item.

Registering an account

1. Open the web site <http://www.wifiradio-frontier.com> using the Internet browser on your computer. 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 internet radio from the many others that it also provides data for. To obtain the access code, please follow these steps.
2. With your radio switched on and in Internet radio mode,  Select the **Internet Radio** menu bar once or twice to enter the Internet menu list, Touch **Browse station list**, scroll down and select **Help**.
3. In the Help menu, touch Get access code. Provided that the radio 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.
4. You should then use the code displayed by the radio 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 radios which use the same database, you may also add them to your account. You will need to get an access code from each radio in order to add it to the account. They may then share your favorite and added radio station details.



Customising your radio - cont.

Configuring My Favorite 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 favorites' icon (the plus symbol and heart). Clicking on the 'Play' icon will allow you to hear the radio station via your computer. Clicking on the 'Add to favorites' icon will cause the radio station to be added to the list accessible via your radio.
3. To help you organize your favorites, 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 on your radio. Suitable names might be 'Rock', 'Smooth', 'Mum's stations', and so on. When ever you add another radio station to your favorites 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 Favorite Stations list, you may play these stations from your radio. These stations will be available on your radio from the Internet radio menu item **My Favorites**.
5. To look at, modify or delete your favorite stations lists on the web site, use the link 'My favorites' in the 'My account' area. To delete a favorite 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 on your radio. 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 from your radio. These stations will be available on your radio from the Internet radio menu item **My Added Stations**.
4. It is possible to add the web addresses for audio streams which may not be playable by your radio. If you attempt to play such a stream, your radio will normally display an error message of some kind. The WFR-2D can only play MP3, WMA, FLAC, AAC and RealAudio 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.

To add favorite stations

 Tune to the required radio station as previously described. To store the favorite station touch the Add to favorite button. 'Favorite added' will show on the display. Repeat this procedure as needed for the remaining favorites.

Selecting your favorite stations

 **Internet Radio** Touch the **Internet Radio** menu bar once or twice to enter the Internet radio menu list.

Touch **Browse station list** and then select **My favourites**.

Select **Stations** or the required group and touch the required favorite station. The display will show 'Connecting...' while it finds the new station.

Removing a favorite station

Follow the procedure above until the desired favorite station is shown on the display.

 To remove a favorite station touch the **Bin** button, the screen will display 'Are you sure?'. Touch **Yes** if you wish to erase the station and the selected favorite station will be removed. Select **No** if you do not wish to erase the selected station.

Note:

You can use the favorite stations feature on your radio without setting up an account on the internet. However, if you later decide to set up an account and register your radio, then your existing favorites will be lost. You will then need to reselect the stations and add them to your favorites a second time.



Selecting your added stations

 Touch the **Internet Radio** menu bar once or twice to enter the Internet radio menu list.

Touch **Browse station list** and scroll down and select **My Added Stations**.

Select the desired added station in the list and 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 online.

In addition, it is possible to specify audio streams for 'My added stations' which are not compatible with your radio. In this event the station will not be playable. The Sangean WFR-2D can only play MP3, WMA, FLAC, AAC and Real Audio streams.

Note that the audio coding formats listed are generic terms. There are many variations of each format, as well a variety of streaming protocols in use by different radio broadcasters. Your radio has been designed to play the vast majority of coding and streaming formats in current use by broadcasters.

Display information

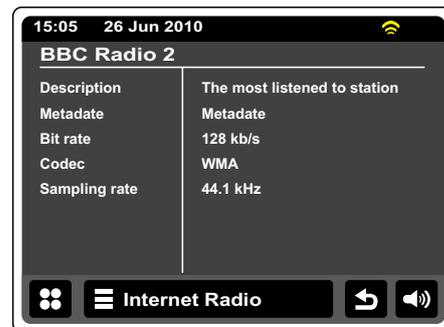
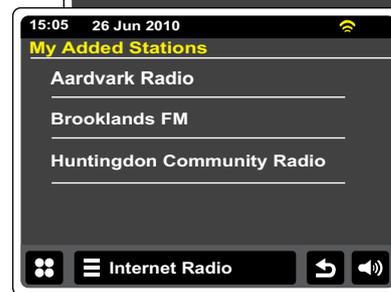
When playing an internet radio station, the display typically shows the station name, metadata and a logo.

 Touch the **Information** button to view a more detailed information screen.

Whenever the radio is displaying a play screen (as opposed to an Idle screen), the time and date is displayed in the top left hand corner and a WiFi strength or Ethernet connection indicator is shown in the top right hand corner.



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Music Player

-  From the home menu select the **My Music** mode button.
-  **Directory**-In play mode touch to return to the music list.
-  **Information**-Touch to view detailed information for a track currently being played.
-  **Skip/Rewind**-Touch to skip current track. The previous track in the list will be played. Press and hold to advance forward speed.
-  **Skip/Fast-forward**-Touch to skip current track. The next track in the list will be played. Press and hold to advance forward speed.
-  **Play/Pause**-Touch to pause playback of the current track. Touch again to resume playback.
-  **Stop**-Touch to stop the track currently playing.
-  **Add to playlist**-Touch to add the current track to your playlist.
-  Use the scroll bar to scroll through a list. Touch the Up or Down arrows or press the area between the arrow and the bar to cause the menu to scroll further. If there are menu items. If there are many items in a menu, then the radio allows the menu to 'wrap around' in either direction.



Music Player

Use with Windows, Apple Mac, Linux, USB memory

The Music Player allows you to play audio files which are stored on a computer on your network or on a USB memory device plugged into the radio.

In order to play files from a computer on your network, your radio must connect to a file server application which uses the Universal Plug and Play (UPnP) protocol. If your computer uses Windows 7, Vista or XP, then it is likely that your computer already has a UPnP server application available. Windows Media Player (versions 11 and 12) has this capability, and it is able to make your files available to your radio. It also allows you to select files by Album, Artist, and so on.

Windows Media Player 12 can serve MP3, WMA, AAC and WAV files to your radio. Windows Media Player 11 is only able to serve MP3 and WMA files to your radio. If you have your audio files stored in the FLAC format, or if you are an Apple Mac or Linux user, there are other UPnP server applications which you may use with your radio.

The Music Player on the radio can playback audio files in MP3, WMA, AAC, FLAC and WAV formats. WMA Lossless files can also be played when using Windows Media Player as it will convert these to a compatible format before streaming them to the radio. Note that the playback of files encoded using WMA Voice, WMA 10 Professional, and of files which have DRM protection is not supported.

When using a UPnP server, the search and selection criteria are determined by the server software, but typically 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, but is generally easier to set up. It is supplied as a standard component of Windows 7, Vista or XP.

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 11 and 12) you may see the option of choosing between 'Music', 'Video' and 'Pictures' on the Music Player's menu. You should only select the 'Music' option. Content offered via the alternative options will not be playable on your radio.

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.

Here is a short selection of alternative UPnP server applications, although many others are available:

Twonky Media Server (Windows, Apple Mac, Linux)

TVersity (Windows) *

Elgato EyeConnect (for Apple Mac OS X) *

MediaTomb (Linux, MAC OS X) *

* = free of charge versions available at the time of writing

Please refer to the documentation for your chosen server application for full details of its configuration and usage.

Accessing your audio files via a UPnP server

If your computer is running Windows 7, then Windows Media Player version 12 includes a UPnP server which will make your files available to your radio. If you have Windows Vista or XP please see the later section of 'Accessing your radio audio files via a UPnP server using Windows Vista and XP'. 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 12

1. Windows Media Player 12 (referred to here as WMP 12) can create a library from all the media files available to it on your 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 radio.
3. Press the **On/Standby** control and select the **My Music** mode button from the home menu screen. The main 'Music Player' menu will then be displayed. 🍷



Set up UPnP access on a Windows PC-cont.

4. Touch **Shared Media**. The radio will scan for all available UPnP servers. It may take a few seconds for the radio to complete its scan. The radio will display 'No UPnP service' if no UPnP servers are found.
5. After scanning, select your **UPnP server**. If you allowed automatic connection previously, your radio should now connect and you may skip to the next page. If you did not permit automatic connections, your radio will then normally display 'Unauthorised' at this stage.
6. Your PC may prompt you that there has been a connection to your UPnP server. Whether prompted or not, in order that the radio may 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 radio will be listed as a blocked device. Click on the button shown to select 'Allowed'.

Note:

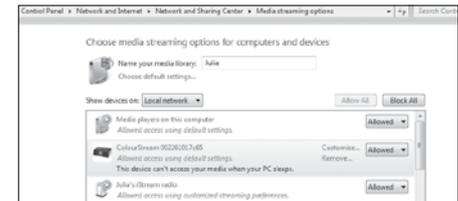
If you are using Microsoft Windows' firewall software, this should be correctly configured by WMP 12. If you are using third party firewall software you may need to manually configure it to allow your unit and WMP 12 to communicate.

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



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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 radio, you may select the files that you wish to play as follows:-

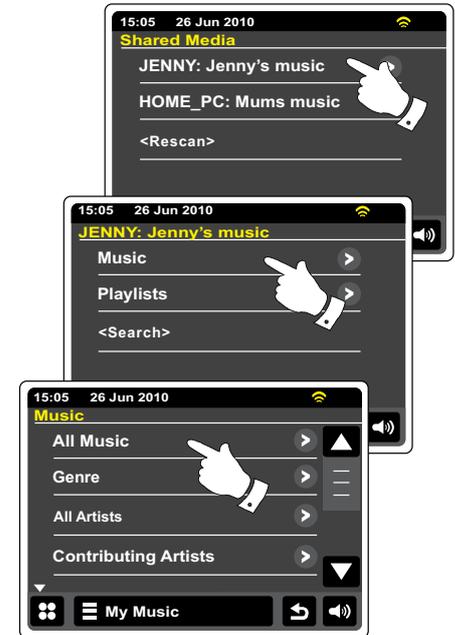
 From the home menu select **My Music** mode button,

Select **Shared Media** to cause the radio to scan for UPnP servers. Note: that it may take a few seconds for the radio to complete its scan.

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.)

The radio will now list the media categories which are made available by the UPnP server - for example, 'Album', 'Artist' and 'Genre'. Select the **category** you wish to browse. If you wish to use the search function touch **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, it is likely that 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. 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 on your computer. 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. The searches described here are just examples of the possibilities.

Listening to a complete album

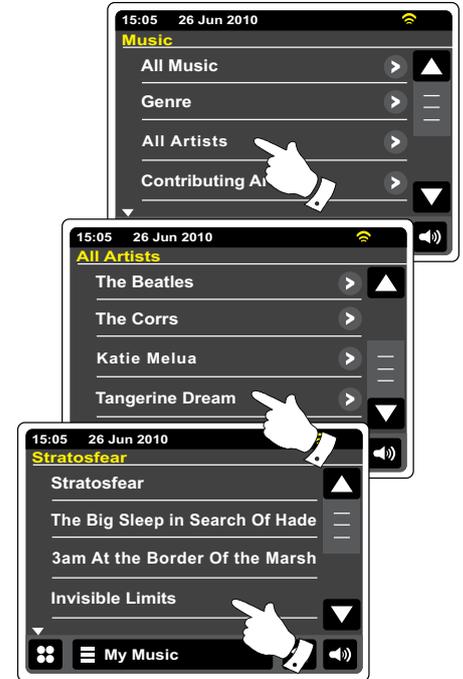
Touch **Artist**, **Album**, **Genre**, etc. according to your needs.

When you reach the album or folder the menu will then switch to showing the tracks in that album or folder. When searching by UPnP they will normally be listed in track number order (but as with the search criteria, this can vary according to the server application used).

With the first track in the album indicated, touch the track and the album will begin playing.

While the radio is playing from your media library, you may use the menus as described page above to choose a different selection. When you select the track from which to play, the radio will then immediately begin playing the new selection.

Please see also section of 'Playlists' in Music player mode.



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Listening to a particular track

If you wish to play a particular track from an album or folder, first choose the album or folder as described on the preceding pages.

Use the scroll bar until the required track is shown.

Select the chosen track, the track will begin playing. The radio will then play subsequent tracks from the same album or folder.

Controlling playback

-  Touch to pause playback of the current track. Touch again to resume playback.
-  Touch to skip current track. The previous track in the list will be played. Press and hold to advance rewind speed.
-  Touch to skip current track. The next in the list will be played. Press and hold to advance forward speed.
-  Touch to stop the track currently playing.

Press and hold the **Fast-forward** or **Rewind** button to move through the current track. The longer the button is pressed, the greater the speed at which the player will move through the track. Release the button when the desired point is reached. (Note that this feature is not supported when playing files encoded using the FLAC format.)



Controlling playback cont.

Repeat tracks

 When the music track is playing select the **Repeat** button, repeat will appear in yellow and your selected tracks will be played repeatedly. Touch the **Repeat** button again to turn off the repeat function. The Repeat button will return to white.

 **My Music** Alternatively touch the **My Music menu** bar once or twice to enter the music menu list.

Touch **Repeat** until 'On' appears in yellow and your selected tracks will be played repeatedly. Touch **Repeat** again to turn off the repeat function, 'Off' will show on the display.

Shuffle tracks

 When the music track is playing select the **Shuffle** button, shuffle will appear in yellow and your selected tracks will be shuffled. Touch the **Shuffle** button again to turn off the shuffle function. The Shuffle button will return to white

 **My Music** Alternatively touch the **My Music menu** bar once or twice to enter the music menu list.

Touch **Shuffle** until 'ON' appears in yellow and your selected tracks will be shuffled. Touch **shuffle** again to turn off the shuffle function, 'OFF' appears on the display.

Note:

The shuffle play function may only be used if the current selection comprises fewer than 500 tracks.



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Display mode

When playing a track in Music Player mode the display typically shows Artist, Album and track name. Depending on the media and the server, album art may also be displayed.

 Touch the **Information** button to view additional information.

Note:

That the availability of information depends on the specific media files, their format and upon the server capability. (Not all UPnP servers make information from the media files available in the same way).

The time is displayed in the top-left corner of the display, and a WiFi strength or Ethernet connection indicator is shown in the top-right corner.



Using USB memory devices

This section describes how to use your radio to access and playback your audio files via USB memory devices. USB memory devices plug into the rectangular slot located beneath the touch screen.

Important:

Your radio 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 WFR-2D radio has been tested with a range of USB memory devices of up to 64GB capacity. USB memory must use the FAT or FAT 32 filing system in order to operate with the radio. It is possible to use SD or SDHC 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 radio.

Audio formats supported are MP3, WMA, AAC, FLAC 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 directories) in any directory 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 directory levels (but playback is only from the currently selected folder).

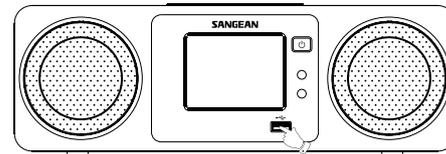
Cautions:

In order to minimise the risk of damage to your radio or your USB memory, please place the unit such 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.

Note:

Shuffle and Playlist functions are limited to 500 tracks.



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Playing files from USB memory devices

Carefully insert the USB memory device into the USB slot. Press the **On/Standby** control to switch on the radio.

The radio may detect that the memory has been connected, in which case it will ask whether you wish to open the folder view of the memory contents. Touch **Yes**.

If the USB memory was not automatically detected, proceed as follows.

Select **My Music** mode button then select **USB playback**, the radio will now list the content stored on the USB memory device. If there are many files or folders this may take a few seconds.

Touch the required folder. The list of tracks in the current folder will be displayed. Alternatively, if you have nested folders (such as album folders within an artist folder) then you will simply step to the next folder level.

Touch the **track** to begin playing. All files in the current folder will then be played in turn.

Files are played in the order in which they exist in the filing system of the USB memory (they are not sorted by file name or track number).

Controlling playback from the USB memory device including Shuffle and Repeat functions is explained on section of 'Repeat tracks' and 'Shuffle tracks'.

The shuffle play function may only be used if the current selection comprises fewer than 500 tracks.

Note:

When playing from USB media, the information displays is limited to the filename. The display of tags and album art is not supported.



Playlists

Sometimes you may wish to set up a list of music tracks or albums which can then be played without further action - as background music for a party, for example.

Your radio can be configured to hold a queue of up to 500 tracks in a playlist menu. The tracks or albums for the playlist can be selected from your UPnP server and from a USB memory device. The playlist is held in memory in your radio until external power is removed, or until the playlist is cleared from the menu.

Adding a single track to your playlist

- ✪ When playing a track using a UPnP server or a USB memory device touch and release **ADD to Playlist** button and the display will show **'Added to My Playlist'**.
The track will be added to the playlist for play back later.

Adding and entire album or folder

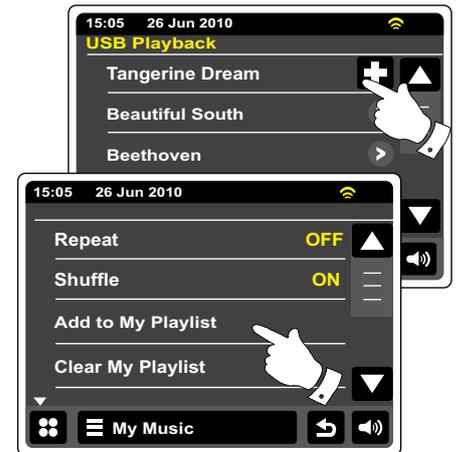
- ✚ When using a UPnP server or a USB memory device scroll to the chosen album, artist or folder and **touch and hold** until the display changes to edit mode with an add symbol allowing you to add entire albums to the playlist. Touch the add symbol and the display will show 'Add to My playlist.'

Each of the tracks within the album, artist or folder selection will be added to the playlist individually. This show any unwanted tracks to be removed from the playlists if needed (see the section of 'Erasing a track from the Playlist').

- ☰ **My Music** Alternatively touch the **My Music** menu bar once or twice to enter the music menu list and select **Add to My playlist** then follow above procedure.



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Viewing My playlist

 When playing a track touch the **Directory** button to enter the media selection menu.

 Repeatedly touch the **Back** button to return to the 'Select Music Source' menu.

Touch **My Playlist** to see all of the tracks previously added. You may use the arrows and scroll bar to scroll through the playlist.

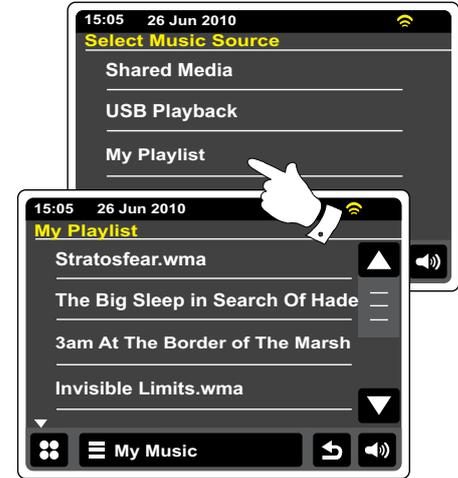
Tracks which are served via UPnP will show their track name and USB tracks will show their file name.

Erasing a track from the playlist

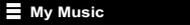
From the **My Playlist** menu follow above instructions to find a track you wish to erase.

 Press and hold the track to cause the **Bin** button to show on the display. Touch the **Bin** button to delete, or use the back button to cancel.

 Alternatively touch the **My Music** menu bar to enter 'My Playlist menu' and select **Delete from My Playlist** then follow above procedure.



Clearing the Playlist

 Touch the **My Music** menu bar to enter the music menu list.

Touch **Clear My Playlist**, you will be asked to confirm deletion. To cause the whole playlist to be deleted touch **Yes**.

If you do not wish to clear the playlist touch **No** to cancel the operation.

Playing your playlist

 When playing a track touch the **Directory** button to enter the media selection menu.

 Repeatedly touch the **Back** button to return to the 'Select Music Source' menu.

Touch **My Playlist** to see all of the tracks previously added.

Scroll through until the desired track is on screen and touch to play.



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iPod docking

Your WFR-2D radio has an iPod dock facility which allows you to play digital audio files and video soundtracks held on your iPod/ iPhone directly. Video is only displayed on your iPod.

The WFR-2D uses the Universal Dock Connector developed for use with iPods/ iPhones. iPods currently manufactured are supplied with adaptor inserts which ensure correct alignment of the iPod/ iPhone with the electrical connector. Should you require an insert to use your iPod/ iPhone with WFR-2D, then please contact an iPod/ iPhone accessories supplier.

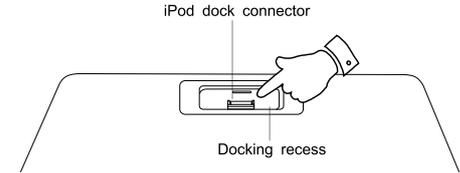
Ensure that the radio is in standby.

Place the iPod docking adaptor into the iPod docking recess so that it is securely seated.

Carefully place your iPod/ iPhone on the universal iPod dock connector then press the **On/ Standby** button to switch on the radio. **To avoid possible damage to either device, do not use your iPod/ iPhone without the correct adaptor fitted in the dock connector.**

The radio may detect that the iPod/ iPhone has been connected, in which case it will ask whether you wish to switch to iPod mode. To switch to the iPod mode select **Yes**. Select **No** if you do not wish to select the iPod mode.

If your iPod/ iPhone is not detected follow the procedure on next page.



iPod docking cont.

 From the home menu touch the **iPod** mode button. Your iPod/iPhone will switch on and continue playing from where it was previously stopped.

Note: The WFR-2D radio is able to recharge your iPod's/iPhone's internal battery.

Your iPod/iPhone will use its backlight settings as configured. If these need changing, use the iPod's Settings menu.

 **Skip/Rewind**-Touch to start playback of the previous track in this list. Press and hold to rewind current track.

 **Play/Pause**-Touch to pause playback of the current track. Touch again to resume playback.

 **Stop**-Touch to stop the track currently playing.

 **Skip/Fast-forward**-Touch to start playback of the next track in the list. Press and hold to fast-forward current track.



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Navigating your iPod/ iPhone

Use the **Left** and **Right** buttons while playing to enter the selection menus on your iPod/ iPhone. Then use the **Up** or **Down** buttons on the remote control as required to move up and down a menu screen on your iPod/ iPhone.

Press the **Select** button to choose the highlighted menu item. To access a higher level menu, press **Left**. TO enter a menu, artist or album press **Right**.

Playing a file on your iPod/ iPhone

When you have found the required item press the **Select** button (on the remote control) to start the iPod/iPhone playing- but see note below.

Adjust the volume to the required setting using the **Volume** control on your radio.

 To pause playback touch **Play/Pause** button. To resume playback press the **Play/Pause** button (on the remote control) or use the **Pause** button on the display.

 To stop playback touch the Stop button.

Note:

iPod vary in how they respond to the **Play/Pause** button dependent upon the iPod model and software revision. Play/Pause may pause and resume the current selection, or it may pause the current selection and then start playing a new selection. The use of the **Select** button to start playing an item avoids this inconsistency.

Search function

 While the iPod/iPhone is playing, touch and hold the **Fast-forward** or **Rewind** buttons.

 Release the button when the desired part of the item is reached.

Repeat

While the iPod/iPhone is playing, press the **Repeat** button (on the remote control) to cycle through the repeat functions of the iPod/iPhone. The iPod/iPhone display will show the current repeat mode symbol.

Shuffle

While the iPod/iPhone is playing, press the **Shuffle** button (on the remote control) to control the shuffle symbol in the iPod/iPhone display. The tracks in the current album or playlist will be shuffled when shuffle is enabled.

DAB Radio

In DAB radio mode you can listen to conventional radio broadcasts, scan for new radio stations, manually tune stations and view station information.

Carefully extend the telescopic aerial.

 From the home menu press the **DAB Radio** mode button.

 **Directory**-In playmode touch to select the list of DAB radio stations.

 **Add Favorite**-Touch to Add the currently tuned radio station to the favorite list. Your radio can store up to 10 favorite DAB stations.

 **Favorite**-Selects the favorite station list previously stored in the radios memory.

 **Left**-Touch to select the previous DAB radio station in the list.

 **Right**-Touch to select the next DAB radio station in the list.

 **Information**-Touch to view detailed information for a station currently being played.



Using the DAB mode for this first time-DAB

If this is the first time that DAB mode is used a quick scan of the Band III DAB channels will be carried out. The display will show 'Scanning in progress.' (If the radio has been used before the last used station will be selected instead).

During the scanning process, as new stations are detected the station counter will be increase and the stations will be added to the list which is stored in the radio. The bar graph indicates the progress of the scan.

When scanning is completed the radio will list the stations found (in numeric-alpha order 0....9.... A....Z....), unless it has previously been tuned to a DAB station.

 Touch the **UP** or **Down** arrows or press the area between the arrow and the bar to scroll further to view the list of stations.

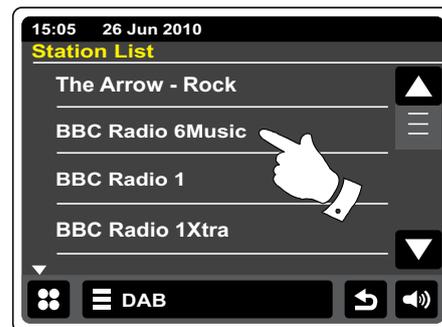
To select desired station touch the station name that you wish to tune to. The radio will return to the selected station. Use the Volume control to set the sound level as available.

A question-mark in front of the station merely indicates that the station has not recently been detected by the radio. It may still be available.

If the station list is still empty after the scan the display will show 'No signal please adjust your radio'. If no stations are found it may be necessary to relocate your radio to a position giving better reception.



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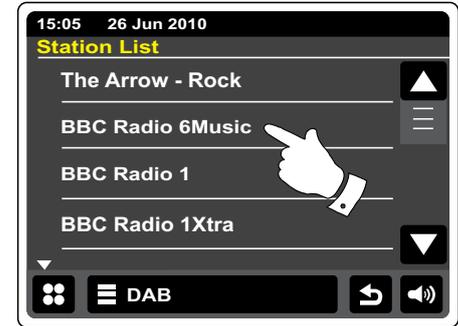
Selecting a DAB radio station

When playing a DAB radio station, the display normally shows the name of the current station with other related information.

 When playing a radio station touch the **Directory** button to access the list of DAB radio stations.

Use the scroll bar and select desired station that you wish to tune to. The radio will retune to the selected station. Use the volume control to set the sound level as needed.

 Alternatively when playing a DAB radio station touch the **Left** or **Right** buttons to cause the radio to select with the next or previous station in the list. The use of favorite station can be referred to 'Edit Favorite stations' in the following page.



Secondary services

Some DAB radio stations can have one or more secondary stations associated with them. Typically these are not broadcast continually. If a station has a secondary station available then the secondary will appear in the list of station names beneath the main (or primary) station. Examples are the programmes 'Daily Service' and 'Parliament' on BBC Radio 4.

Follow the procedure above to access the station list and scroll to the chosen station. If the secondary service is not available (off-air) then the primary service will be selected.

Display information-DAB

When playing a DAB radio station, the display shows the station name and DLS information broadcast giving real time information such as programme name, track title and contact details.

 Touch to view a detailed information screen displaying information such as station ensemble, Frequency, error rate, signal strength, codec, bit rate and sampling rate.

Stereo or mono broadcasts are indicated at the top of the screen.

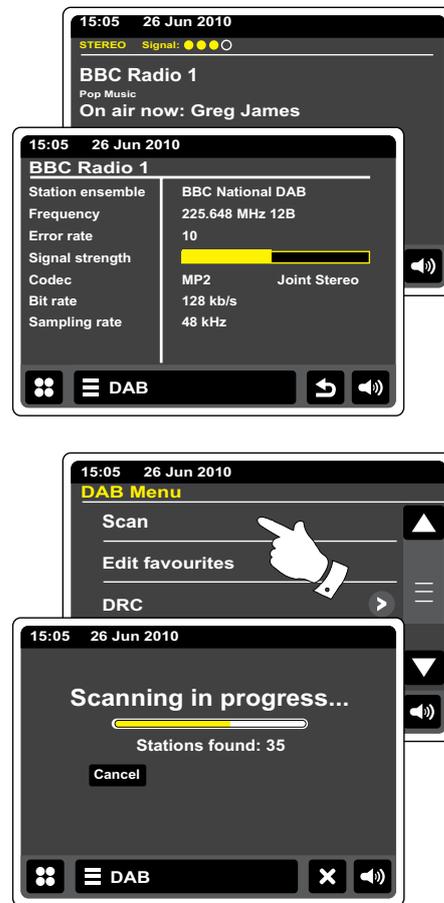
Two or more yellow markers at the top of the display indicate a good DAB signal is being received.

Finding new DAB radio stations

Should you wish to use your radio for DAB reception in a new location, or if no stations were detected during the initial scan, you can follow this procedure to allow your radio to find out which DAB radio stations are available.

 Touch the **DAB menu** bar once or twice to enter the DAB menu list.

Select Scan the display will show 'Scanning in progress' and your radio will perform a scan of the DAB frequencies. As new stations are found the station counter will increase and stations will be added to the list. The bargraph indicates the progress of the scan.



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Manual Tuning

Manual tuning allows you to tune directly to the various Band III DAB channels (5A to 13F).

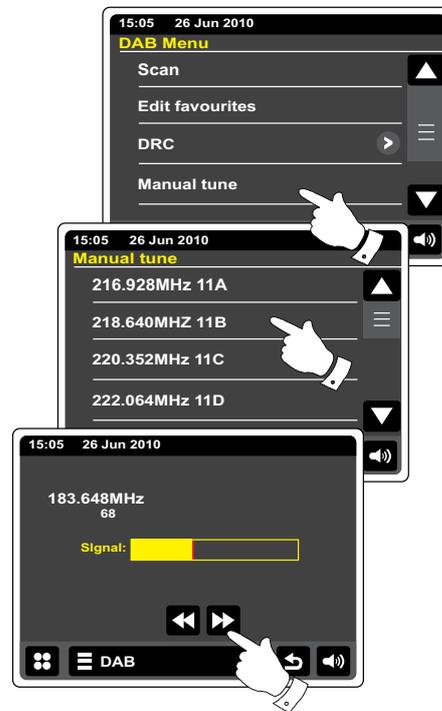
 Touch the **DAB menu** bar once or twice to enter the DAB menu list.

Select Manual tune and use the scroll bar to scroll through to choose the required DAB channel. Touch the desired DAB channel to cause the radio to tune to the chosen channel. When the radio has tuned, the display shows the channel number and frequency, and the name of the DAB multiplex found (if any). A bar graph shows the signal strength and is useful if you need to reposition the radio or its aerial. The minimum signal marker 'I' which separates the left and right parts of the signal graph shows the minimum signal level required for satisfactory reception.

 Any new radio stations found on the tuned DAB multiplex will be added to the list stored in the radio.

 To choose a different frequency touch the **Left** or **Right** buttons until desired frequency shows
 on the display. Press and hold to move quickly through the list.

 Touch the **Back** button once or twice as needed to return to normal tuning mode.



My favorites-DAB

There are 10 favorite station presets for DAB radio. Note: favorite stations are retained in memory when the radio is switched off and disconnected from the mains. Favorites 1-5 may be accessed using the numbered buttons on the remote control.

- ★ Tune to the required radio station as previously described. To store the favorite station touch the **ADD to favorite** button. 'Favorite added' will show on the display. Repeat this procedure as needed for the remaining presets.
- ★ To select a favorite station previously stored, touch the **Favorite** button. Touch one of the favorite stations from the list and your radio will tune to the station stored in the preset memory. Use the scroll bar to access the list.

Edit Favorite stations – DAB

You may edit your favorite station list once you have stored your favorite stations. You may move or delete selected favorite stations.

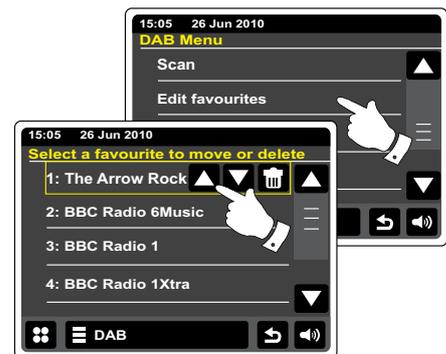
-  Touch the **DAB menu** bar to enter DAB menu list and touch **Edit Favorites** from the list.

Touch the favorite station that you wish to move or delete.

-   Touch the **Up** or **Down** arrows to move the favorite station up or down in your list.
-  Touch the **Bin** button to delete the favorite station. 'Empty' will show on the display where the preset was previously stored.



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Dynamic Range Control settings

Dynamic Range Control (also known as DRC) can make quieter sounds easier to hear when your radio is used in a noisy environment by reducing the dynamic range of the audio signal.

From the DAB menu list select **DRC** to enter the DRC adjustment mode. The current DRC setting will be highlighted on the screen.

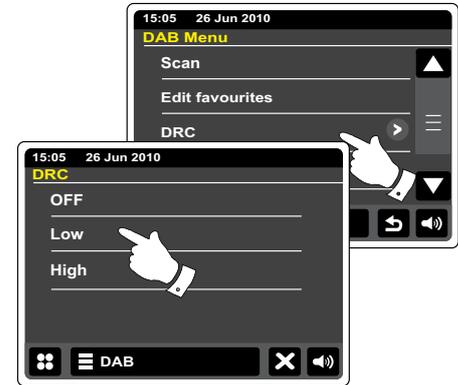
Touch the required DRC setting the display will return to the previous screen.

'DRC Off' - DRC is switched off, Broadcast DRC will be ignored.

'DRC high' - DRC is set as sent by broadcaster.

'DRC low' - DRC level is set to 1/2 that sent by broadcaster.

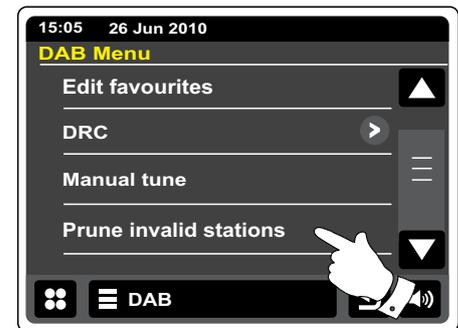
Note: Not all DAB broadcasts use the DRC function. If the broadcast does not provide DRC information, then the DRC setting in the radio will have no effect.



Prune invalid stations

If you move to a different part of the country, some of the stations which were listed may no longer be available. Also, from time to time, some DAB services may stop broadcasting, or may change location or frequency. Stations which cannot be found, or which have not been received for a very long time are shown in the station list with a question mark. The Prune stations function will delete the marked DAB stations from your station list.

From the DAB Menu list select **Prune invalid stations** to cause the invalid stations names to be removed from the list.



FM Radio

In FM radio mode your radio can find stations automatically using the autoscanner feature or you can manually tune to a station. You can store your favorite stations and select either mono or stereo mode for the station that you are listening to.

Carefully extend the telescopic aerial.

 From the home menu touch the **FM Radio** mode button.

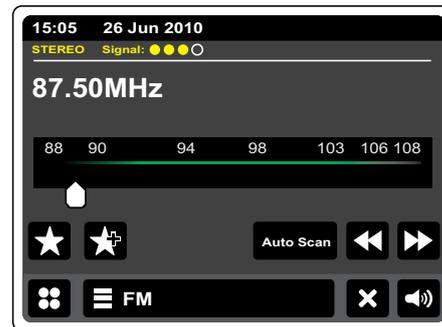
 **Add Favorite**-Touch to add the currently tuned radio station to the favorites list. Your radio can store up to 10 favorite stations in FM mode.

 **Favorite**-Selects the favorite station list previously stored in the radios memory.

 **Left**-Tunes down the FM waveband, high frequency to low frequency.

 **Right**-Tunes up the FM waveband, low frequency to high frequency.

 **Auto Scan**-Touch to select autotune mode (Auto tune will be displayed in yellow when active). Your radio will automatically scan the fm band and will stop when it finds a station of sufficient strength.



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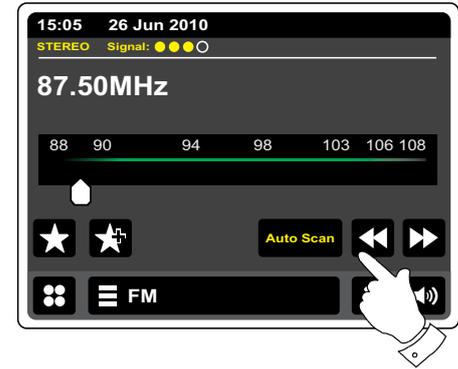
Auto scanning – FM

Auto Scan Touch the **Auto Scan** button until Auto Tune appears in yellow.

- ◀ Touch the **Left** or **Right** buttons to cause the radio to scan to find a station. It will stop scanning when it finds a radio station of sufficient strength. When the end of the waveband is reached the radio will recommence tuning from the opposite end of the waveband.

The display will show the frequency of the signal which has been found. If RDS information is available, after a few seconds the display will show the radio station name. Stereo or Mono broadcasts are indicated at the top of the screen.

If you only hear hiss or interference, simply touch the **Left** or **Right** buttons to scan further. Your radio may have found a spurious interference signal. The yellow markers at the top of the display show the relative strength of the FM signal being received.

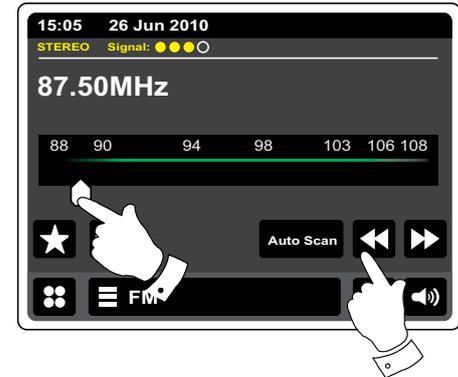


Manual tuning- FM

Auto Scan Ensure Autoscan is deselected. (Auto scan will be displayed in white).

- ◀ Touch to control the frequency that the radio will tune to. The frequency will change in steps of 50kHz.
- ▶ When the end of the waveband is reached the radio will recommence tuning from the opposite end of the waveband.

Alternatively move the dial scale pointer on the screen to manually select the frequency.



My Favorites- FM

There are 10 favorite station presets for FM radio. Note that favorite stations are retained in memory when the radio is switched off and disconnected from the mains. Favorites 1-5 may be accessed using the numbered buttons on the remote control.

★ Tune to the required radio station as previously described. To store the favorite station touch the **Add to favorite** button. 'Favorite added' will show on the display. Repeat this procedure as needed for the remaining presets.

★ To select a favorite station previously stored, touch the **Favorite** button. Touch one of the favorite stations from the list and your radio will tune to the station stored in the preset memory. Use the scroll bar to access the list.

☰ FM Alternatively touch the **FM menu** bar and touch **My Favorites** from the list.

Edit Favorite stations-FM

You may edit your favorite station list once you have stored your favorite stations. You may also move or delete selected favorite stations.

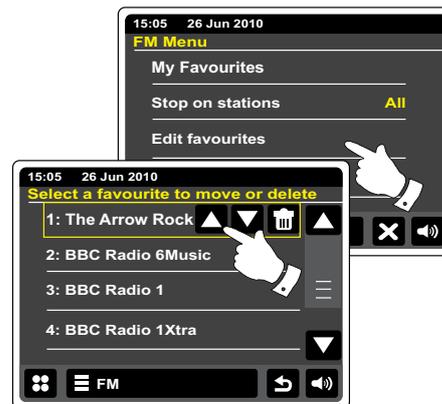
Select **Edit favourites** from the FM Menu and touch the favorite station that you wish to move or delete.

▼ ▲ Touch the **Up** or **Down** arrows to move the favorite station up or down in your list.

🗑 Touch the **Bin** button to delete the highlighted favorite station. 'Empty' will show on the display where the preset was previously stored.



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Scan setting-FM

When using the FM mode your radio can be set either to scan local stations or to scan all stations including distant radio stations.

From the FM Menu list touch **Stop on stations**. The current setting will be displayed in yellow. To set your radio so that only the stations with the strongest signals are found during scanning touch **Stop on stations** until 'Strong' appears on the display. (Normally this will restrict scanning to local transmissions).

Alternatively, to set your radio so that all available stations are found during scanning (local and distant transmissions) touch **Stop on stations** until 'All' appears on the display.



Stereo / Mono switching – FM

If the FM radio station being listened to has a weak signal, some hiss may be audible. It is possible to reduce this hiss by forcing the radio to play the station in mono rather than stereo.

Enter the FM Menu list. The current stereo/mono setting will be displayed in yellow.

To switch to mono mode in order to reduce the hiss from a weak FM signal select **Force mono** until 'Yes' appears on the display.

Alternatively, to return to the stereo/mono mode touch **Force mono** until 'No' appears on the display.



Clock and Alarms

Automatically updating the clock

Your radio will normally update the clock automatically when connected to the internet.

You may wish to use the radio away from the internet, in which case you may specify that the unit sets its clock from DAB or FM radio broadcasts. After a power failure the radio will then set its clock the next time that you turn on the radio in DAB or FM mode.

Alternatively you may specify that the time is not automatically updated. In this case the clock must always be set manually after a power interruption.

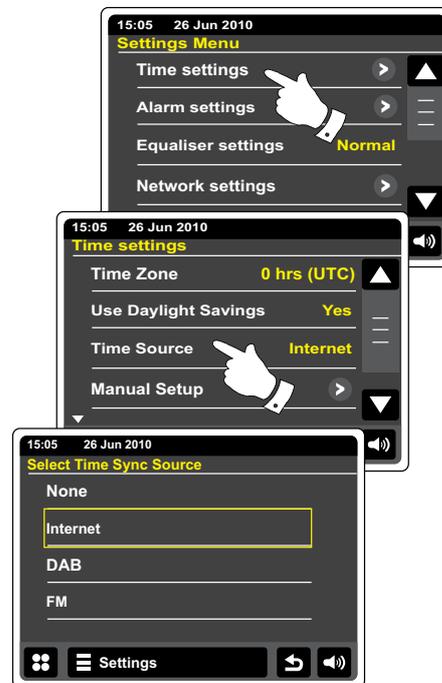
 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

Touch **Time settings**.

Select **Time Source** to enter the time setup. The current time source will be displayed in yellow.

Touch **Internet**, **DAB**, **FM** or **None** as required. The radio will return to the previous menu display.

If you choose none you will need to set the clock manually, see section of 'Setting the clock format'.



Setting the clock format

The clock display used in standby mode and on the playing mode screens can be set to 12 or 24 hour format. The selected format is then also used when setting the alarms.

Access the main Settings menu. Touch **Time Settings** and scroll down until the current clock format is displayed. The current time format will appear in yellow.

Touch **Time format** to select either 12 or 24 hour format. If the 12 hour clock format is chosen, the radio will then use the 12 hour clock for the setting of alarms, and will display a 12 hour clock with an AM or PM indicator when in standby mode.

Manually setting the clock

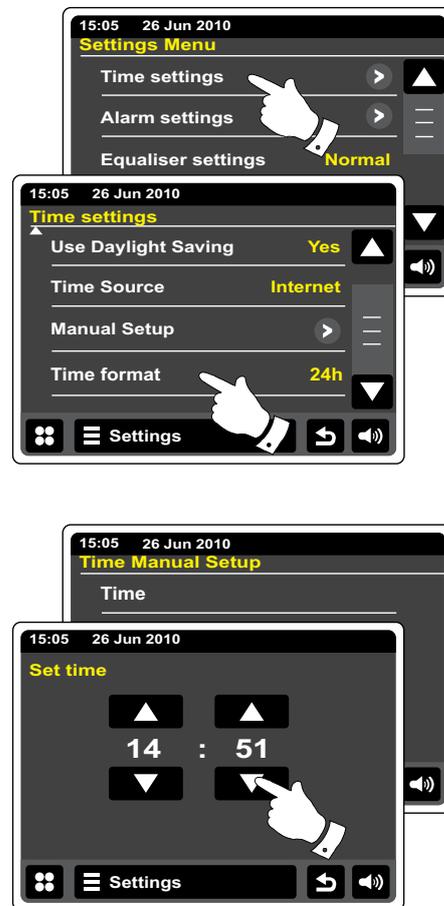
The WFR-2D radio will normally set its clock automatically to UK time after a connection to the Internet has been established. Should you need to set the time manually, change the time zone, or manually switch from winter to summer time (GMT to BST - also known outside the UK as daylight savings time), then please follow this procedure. Manually setting the clock will cause the Time Source setting to be set to 'None'.

Access the main Settings menu. Touch **Time Settings**.

Select **Manual Setup** to enter the time manually.

▼ ▲ Select **Time** and then use the **Up** and **Down** arrows to set the correct time.

↶ Touch the **Back** button to return to the previous screen.



Manually setting the date

To set the correct date follow procedure for setting the clock on the previous page. Select the **Date** option on the display. Manually setting the date will cause the Time Source setting to be set to 'None'.

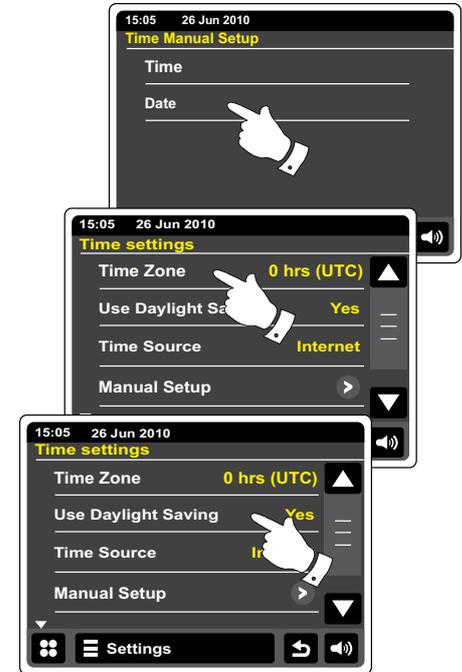
Setting the time zone

From the **Time Settings** menu, touch **Time Zone**.
Select the correct time zone which is applicable to your location.

Setting Daylight Savings

From the **Time Settings** menu, touch **Use Daylight Savings**. The current setting will appear in yellow.

In the UK, 'Yes' is equivalent to British Summer Time, 'No' is equivalent to Greenwich Mean Time.



Setting the alarm clock

Your radio has two separate alarms which can be set to wake you to either the radio, iPod or a buzzer alarm. In the event of a power interruption your radio has built in memory that will retain your alarm settings. Ensure that the time is set correctly before setting the alarms. When setting the alarm, there are several options which you must specify these are as follows:

Alarm 1 or Alarm 2

Enable: Off (Alarm will be disabled), Daily, Once, Weekend, Weekday

Time

Mode: DAB, FM, iPod, Internet Radio, Last.fm and Buzzer

Volume: The radio uses the saved volume setting for each alarm when it sounds.

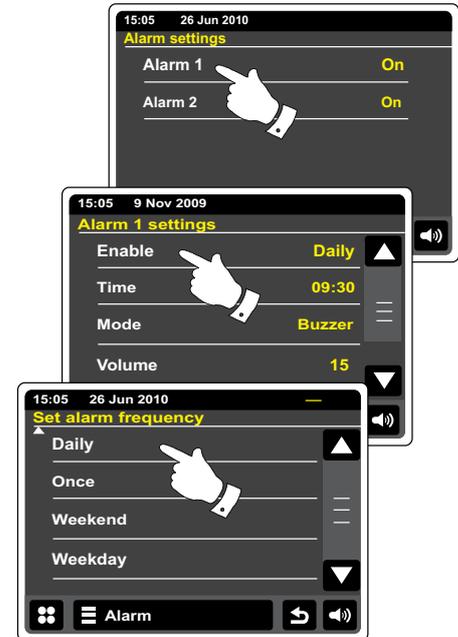
Note: When setting the alarm to Once you will need to set the correct date and time. If the radio has been set to use a 12 hour clock format, there will also be an option here for setting AM or PM for the alarm time.

Note: When DAB or FM radio mode is selected, the radio alarm may be set to any of the stations which have been stored as favorites or to the station most recently listened to. Touch My Favorites if you wish to change it. Note that you can only set the alarm to use a favorite which has already been stored.

 From the home menu press the **Alarm** mode button.

Scroll through the alarm menu and touch the required menu item.

 Alternatively the alarm setup can be accessed via the **Settings** mode button.



Setting the alarm clock cont.

▼ ▲ Use the **Up** and **Down** arrows to set the time and date option.

+ - Touch the + and - buttons to adjust the alarm volume.

↶ Note: If you make a mistake at any point while setting the alarms or wish to return to the previous screen touch the **Back** button.

When the alarm sounds

The buzzer, iPod or radio alarm will sound at the selected times for up to 60 minutes unless cancelled. The volume used for the alarm will be as specified during the alarm setting procedure.

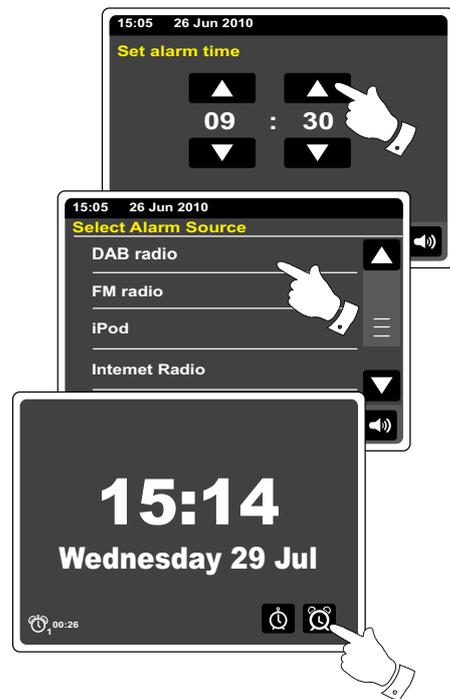
If the radio cannot connect to the specified radio station, the buzzer alarm will be used instead.

The alarm icon will flash and the radio will automatically switch back to standby mode when the 60 minutes have elapsed.

To cancel an alarm, touch **Cancel** on the screen to return to standby mode.

Note:

If the radio is switched on because of an alarm you can control basic functions such as volume.



Editing alarms when in standby

 When in standby touching the **alarm button** will enter the alarm setup menu. Follow the procedure on the proceeding pages to edit the alarms.

Snooze timer

The buzzer, iPod or radio alarm can be silenced for a selected number of minutes by touching **Snooze** on the display. The Snooze duration can be adjusted between 5 and 30 minutes in 5 minute increments. The default setting is 5 minutes.

While the snooze timer is active the remaining snooze time is shown next to the flashing alarm icon on the clock display. This sequence can be repeated during the 60 minute alarm period.

In order to cancel the Snooze timer while the alarm is suspended, press the **On/Standby** control.

To set the snooze time

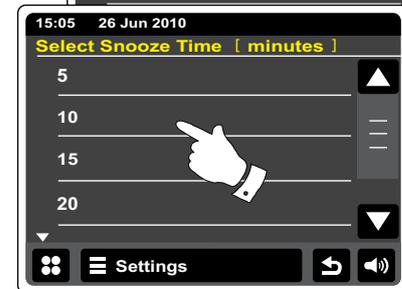
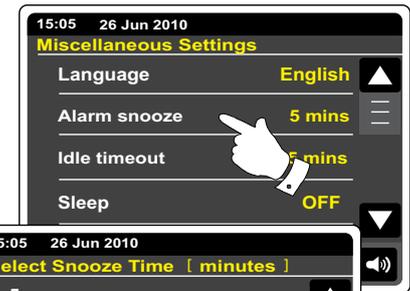
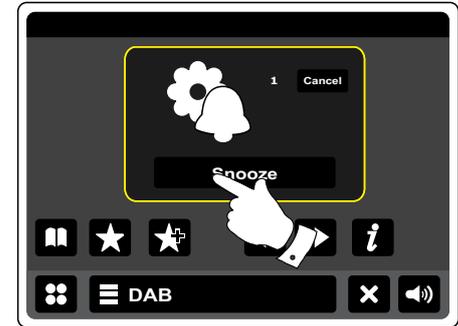
 From the home menu select the **Settings** mode button. The main settings menu will be displayed.

Scroll through the menu and touch **Miscellaneous settings**.

Touch **Alarm snooze**. The current snooze time will be shown in yellow.

Scroll through and touch the desired snooze time setting from between 5, 10, 15, 20, 25 and 30 minutes.

 Touch the **Back** button to return to previous screen.



Sleep timer

Your radio can be set to turn off after a preset time has elapsed. The sleep timer setting can be adjusted between 15 and 90 minutes in 15 minute increments.

 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

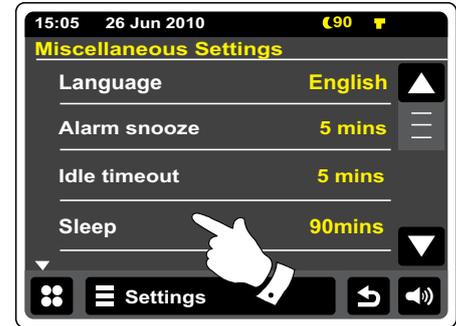
Scroll through the menu and touch **Miscellaneous settings**.

Select **Sleep**. The current sleep time will be shown in yellow.

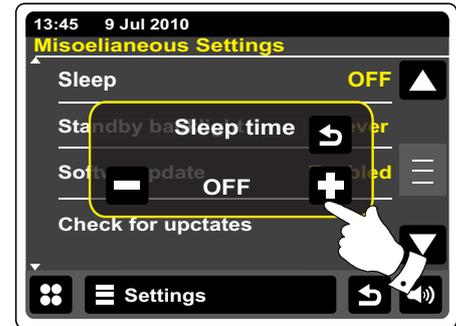
  Touch to set the desired sleep time. The sleep timer can be set to between 15 and 60 minutes, or to Off.

 Touch the **Back** button to return to the previous screen.

Your radio will switch into standby mode after the preset time has elapsed. An active sleep timer is shown using a small timer indicator at the top of the playing displays. This indicator also shows the sleep time remaining before the radio switches itself into standby mode. While the sleep timer is in use, the backlight level will be set to the Standby setting. To cancel the sleep time before the preset time has elapsed and to turn off the radio, press the **On/Standby** control to turn the unit off manually. To cancel the sleep timer and leave the radio playing, go back into the sleep timer settings and select the **Off** option. Alternatively, simply press the **On/Standby** control twice in succession to cancel the timer and switch the radio back on again.



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Idle time out

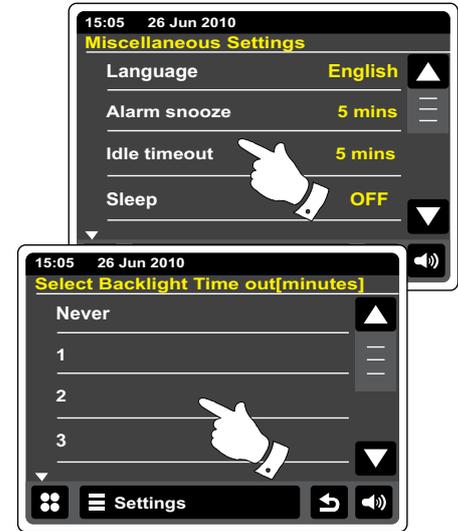
Your radio has a play mode idle screen which displays the time and date with information relevant to the operating mode but without the control buttons being visible. The Idle time out setting can be adjusted between 1, 2, 3, 5, 10 minute increments or set to never time out.

 From the home menu select the **Settings** mode button. The main settings menu will be displayed.

Scroll through the settings menu and touch **Miscellaneous settings**.

Select **Idle timeout**. The current timeout setting will be shown in yellow. The radio's play mode idle screen will activate after the preset time has elapsed.

To instantly activate the play mode idle screen, touch the screen when your internet radio is in play mode.



Display and Audio

Equaliser function

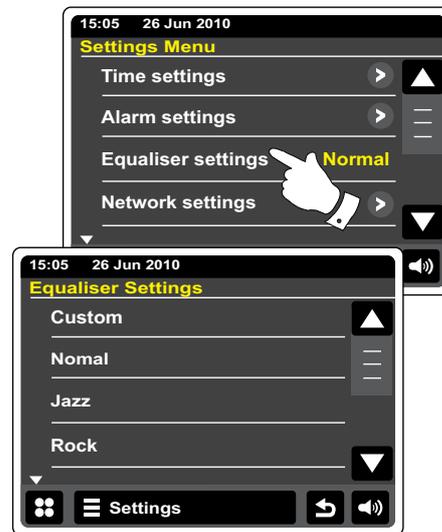
The sound on your radio can be adjusted to suit your personal taste for the material that you are listening to. The WFR-2D has a range of equaliser modes. Alternatively you may set the treble and bass levels to your own preferences which can be accessed from the 'Custom' settings menu item.

 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

Select **Equaliser settings**. The current setting will appear in yellow.

Scroll through the menu and select the required **Equaliser setting**. The various settings are as follows:

- a- 'Normal'
- b- 'Jazz'
- c- 'Rock'
- d- 'Classic'
- e- 'Pop'
- f- 'Speech'
- g- 'Custom'



Setting up your Custom EQ profile and Audio

If you find the preset equaliser functions not to your liking, you may set up a custom treble and bass setting as follows:

 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

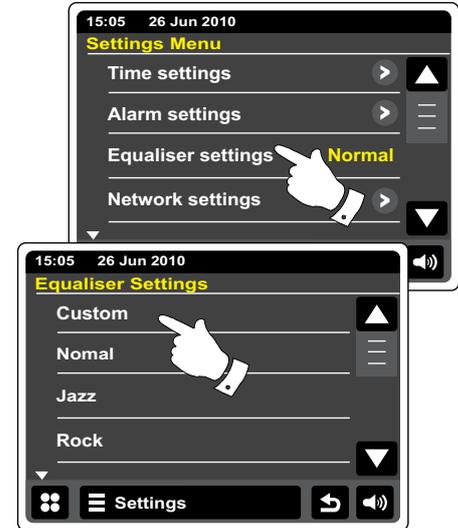
Select **Equaliser settings**. The current setting will appear in yellow.

Scroll through the menu and select **Custom**.

  Either use the **Up** and **Down** arrows or touch the slider to adjust the bass and treble levels. The sound will change as you adjust the levels.

To use the Custom profile select **Custom**.

To quickly cancel the effect the Custom profile touch **Normal**. The treble and bass settings will be remembered for the next time that you wish to use the custom equaliser setting.



Brightness control

The brightness of the display can be adjusted for when the radio is in Standby and for when it is in use. If you use the unit in the bedroom, you may prefer a lower standby brightness level than the standard setting.

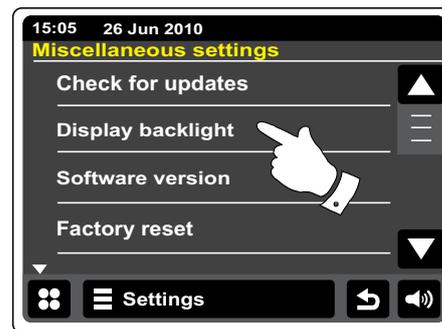
 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

Scroll through the menu and select **Miscellaneous Settings** and select **Display backlight**.

To adjust the display brightness when the radio is switched on, adjust 'Power on backlight'.

To adjust the display brightness when the radio is in standby, adjust 'Standby backlight'.

  Either use the **Left** or **Right** arrows or touch the slider to adjust the backlight level. The display will change as you adjust the levels.

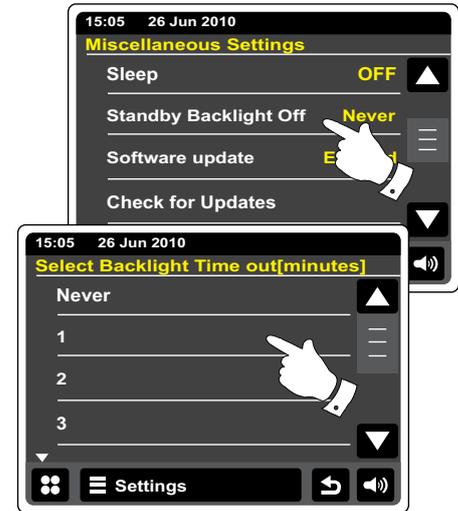


Standby backlight off

Your radio has a 'Standby backlight off' setting which can be set to switch the backlight off when the radio is in Standby. The time out setting can be adjusted between 1 and 30 minutes or set to never switch backlight off.

 From the home menu select the **Settings** mode button. The main settings menu will be displayed.

Select **Miscellaneous Settings** and select **Standby backlight Off**. Select the desired number of minutes.



Auxiliary input socket

A 3.5mm **Auxiliary Input** socket located on the rear of your radio is provided for connecting the audio signal from an external audio source such as an MP3 or CD player.

Connect a stereo lead from the headphone output of your MP3 or CD player to the Aux In socket located at the rear of the radio. Typically this lead will have a 3.5mm stereo plug at both ends.

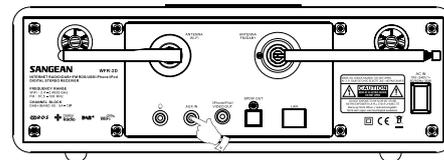
Switch on your radio.

 From the home menu press the **Aux** mode button.

Press 'play' on the connected audio device. If you are using its headphone output for the connection, set its volume control to a level of somewhere between two-thirds and maximum (the objective is to get a strong audio signal but without too much distortion). Then adjust the volume on the radio as required.

Note, if using an iPod as the sound source, you may need to set its output to maximum to get an adequate audio signal level.

After use, disconnect your player in order to listen to your radio conventionally.



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Optical S/PDIF output socket

A digital output socket providing an S/PDIF signal is provided on the rear of your radio for connection to an amplifier, mini-disc or other equipment with a digital optical input. This feature is not active for iPod or AUX in modes.

Video out socket

1. Place your iPod/ iPhone on the iPod dock connector
2. Plug in a RCA cable in the jack labeled 'VIDEO OUT' on the back of WFR-2D
3. Connect the plug on the other end of the cable to the respective 'VIDEO IN' jack on the back of your TV.
4. Turn on your iPod/ iPhone and Switch to iPod mode.

Note: This feature is only activate for iPod mode.

Headphone socket

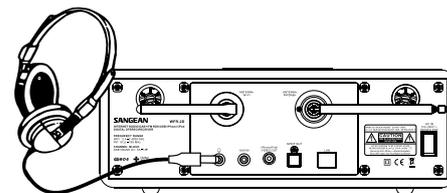
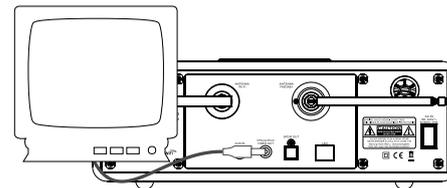
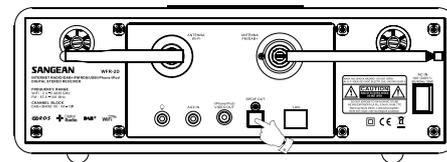
A 3.5 mm headphone socket located on the rea of your radio is provided for use with your headphones. Inserting a plug automatically mutes the internal loudspeaker.

Please be aware that the sensitivity of head phones can vary widely. We therefore recommend setting volume to a low level before connecting headphones to the radio. It is also recommended to reduce the volume before unplugging your headphones.

Important:

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

Note: This feature does not support iPod/ iPhone.



Information

Factory reset

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

 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

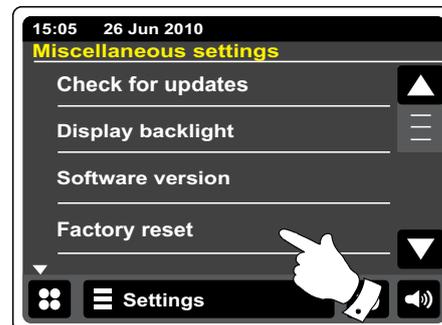
Select **Miscellaneous settings**.

Select **Factory reset** and then touch **Yes** to proceed. A full reset will be performed and the radio will restart as if first plugged in. The DAB stations 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, the clock and alarms will be reset.

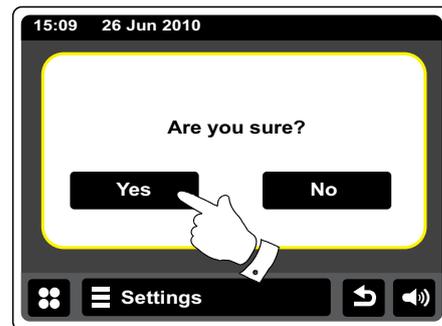
If you do not wish to carry out a system reset, touch **No** the display will revert to the previous menu.

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.



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Software update

From time to time, new software features for your radio may be developed. Your radio has therefore been designed to allow its internal software to be updated using your Internet connection. You should not attempt to update your radio unless it is recommended to you by Roberts Customer Services. Updating the software may remove all network settings, radio station presets and alarm settings from your radio. It is important that you do not attempt this procedure unless you have a good Internet connection and a reliable mains power supply. If the radio connects to your router using a WiFi connection, make sure that this is also reliable before proceeding.

 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

Select **Miscellaneous settings**.

Select **Software update**, the current setting will appear in yellow. If you want your radio to check periodically for new software versions select **Enabled** to proceed. If you wish to disable the software update select **Disable**.

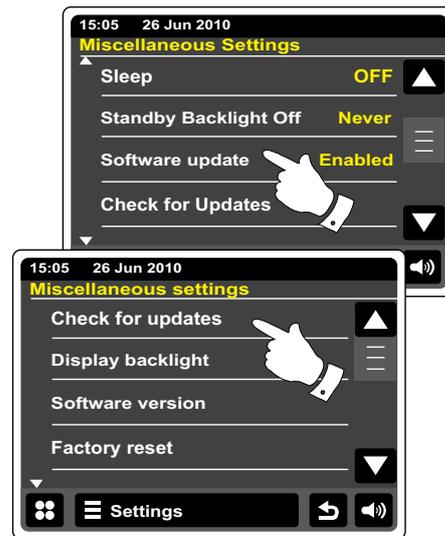
To check if there are any software updates available currently, touch **Check for Updates**. The radio will check to see if an update is available. The display will show 'Checking'. If there are no updates then the display will show 'Software up to date'. If a software update is available your radio will then offer the choice of updating the software or not, displaying 'New version available. Update software?'. Touch **Yes** option if you wish to go through the update process.

If you choose to update your radio it will first download the new software and will then reprogram its internal memory. This may take a few minutes depending on the speed of your internet connection.

Once the software update is completed, the radio will prompt you to restart. You may find that you will need to reconfigure your network connection following an update. You may also need to re-enter all radio station presets, alarm settings, and configuration options.

VERY IMPORTANT:

Do not switch off the power to the radio until the update operation is complete and the radio has restarted, otherwise the unit may become permanently damaged.



Network profiles

Each time that you connect your radio to a WiFi network, the radio will store the details of that connection (SSID, security key, DHCP/IP address settings) as a profile. Up to four such profiles are stored in the radio so that if the unit is used in multiple locations there is no need to enter the network settings when returning to a location previously visited.

The radio stores the four most recent profiles in memory identified by their SSID. Normally the radio will attempt to connect to one of the stored profiles and only if it is unable to do so will you need to use the Network Wizard.

In the event that you visit a location only once you may wish to delete the profile for the network in that location to avoid losing other profiles.

 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

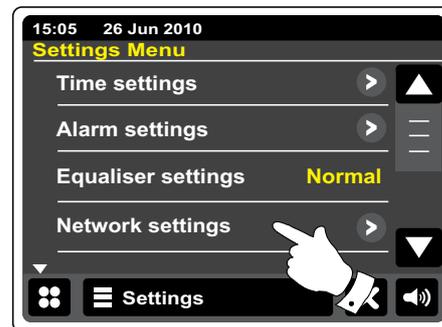
Select **Network Settings**.

Select **Network profiles** and a list of your network profiles will be displayed. The network Wizard can also be accessed from this menu.

 Touch the **Bin** button to delete the unwanted profile.

The radio will display 'Are you sure?' Touch **Yes** the selected profile will be deleted. Touch **No** if you do not wish to delete the profile.

Note: that it is not possible to delete a profile which is currently in use.



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Software version display

The software version display is provided for reference and customer support purposes and cannot be changed.

 From the home menu press the **Settings** mode button. The main settings menu will be displayed.

Select **Miscellaneous Settings**.

Touch **Software version**. The software version will be displayed.

 Touch the **Back** button to return to previous screen.

Audio FAQ

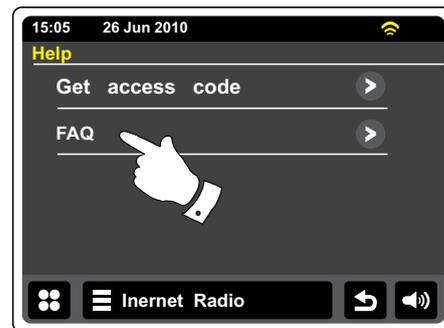
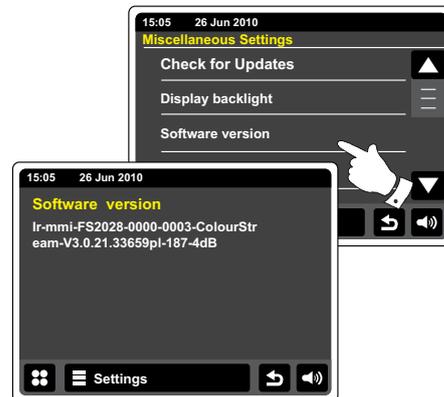
Your radio can access some audio help for Internet Radio use.

 Touch the **Internet menu bar** once or twice to enter the Internet menu list.

Touch Browse station list and scroll down and select **Help**.

Select **FAQ** to display some frequently asked questions.

Select a question that suit your requirements and listen to the answer. Adjust the volume as needed.



Accessing your radio audio files via a UPnP server using Windows Vista and XP

If your computer is running Windows Vista or XP, then Windows Media Player version 11 includes a UPnP server which will make your files available to your radio. 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 on a Windows PC

1. If your PC is running Microsoft Windows Vista or Windows XP then you can use Microsoft's Windows Media Player version 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 web site and installed by following the instructions detailed in its installation wizard, or by using Microsoft's Windows Update facility.
2. Once installed, Windows Media Player 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 the 'Library' tab, then 'Add to Library... > Advanced Options', click 'Add', choose the files you wish to add and click 'OK'.

The next step is to connect your radio to Windows Media Player 11 and to configure the program to allow the radio to access your media library.

3. Press the On/Standby button to switch the unit on. Then touch the My Music mode button until the main 'Music Player' menu is displayed. 

Selecting Media Sharing in Windows Media Player 11



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Set up UPnP access on a Windows PC - cont.

Touch **Shared media**. The radio will scan for all available UPnP servers. It may take a few seconds for the radio to complete its scan. The radio will display 'No UPnP service' if no UPnP servers are found.

4. After scanning, select your UPnP server. If you are using WMP 11 as the server, your radio will then normally display 'Unauthorised ' at this stage.
5. Your PC may prompt you that there has been a connection to your UPnP server. Whether prompted or not, in order that the radio may access the music files, you will need to click the 'Library' tab in WMP 11 and select the 'Media Sharing...' item to open the 'Media Sharing' window. Make sure the box 'Share my media to:' is ticked.
6. In 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 unit and WMP 11 to communicate.

7. On the radio, touch the named server again. If WMP 11 is now able to communicate with your radio you will be presented with some media selection options on the display.



Audio codecs

Your radio 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 your radio. The radio stations database to which your radio 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 radio will play the supported formats with most common UPnP servers.

Bit-Rates

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

Codec	Maximum supported rate
AAC (LC)	320 kbits/sec
FLAC (1)	1.5 Mbits/sec
LPCM (2)	1.536 Mbits/sec
MP3	320 kbits/sec
Real Audio	64 kbits/sec
WAV	1.536 Mbits/sec
WMA (3)	320 kbits/sec

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

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

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

(1) 16 and 24 bit samples are supported in FLAC files

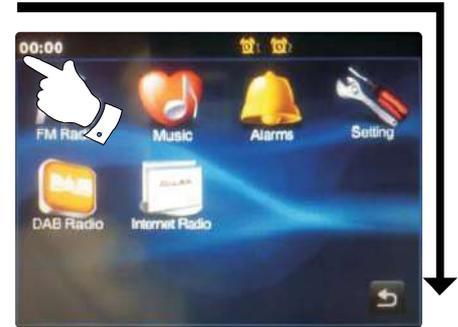
(2) The maximum supported bit-rate is for a 48 kHz sampling, 2 channels and 16-bits per sample.

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

Demonstration mode

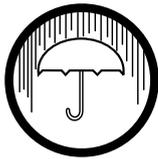
Your radio has an in-store demonstration mode. Normally, this mode is disabled, but may be enabled as follows. At the home screen slide your finger left to right along the top edge of the display and then down the right-hand side in one continuous motion.

Repeat the same motion to return the radio to normal operation.



Cautions

Do not allow your radio to be exposed to water, steam or sand.
Do not leave your radio where excessive heat could cause damage.
The name plate is located on the rear of the radio.



- The radio shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the radio.
- 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.
- No naked flame sources such as lighted candles should be placed on the product.
- It is recommended to avoid using or storing the product at extremes of temperature. Avoid leaving the unit in cars, on window sills, in direct sunlight etc.
- The radio must be used in a moderate climate.
- The power plug should be close to the radio, and easy to be approached that during the emergency, to disconnect the power from the radio, just unplug the power plug from the AC power slot.
- Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

Specifications

Power Requirements

Mains AC 100-240 volts, 50/60 Hz only

Remote control battery 2 XAAA

Connectivity

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

WiFi 802.11b and 802.11g supported with WEP and WPA/WPA2 encryption
Compatible with 802.11n routers which offer mixed mode support for 802.11b/g

Frequency coverage FM 87.5 - 108MHz
DAB 174.928 - 239.200MHz

Circuit features

Loudspeaker 80 mm

Output Power 2 x 6 Watts

Aux In socket 3.5mm stereo

Headphone socket 3.5mm stereo

Aerial System WiFi Built-in antenna
DAB / DAB+ Telescopic aerial
FM Telescopic aerial



If at any time in the future you should need to dispose of this product please note that: Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice. (Waste Electrical and Electronic Equipment Directive)