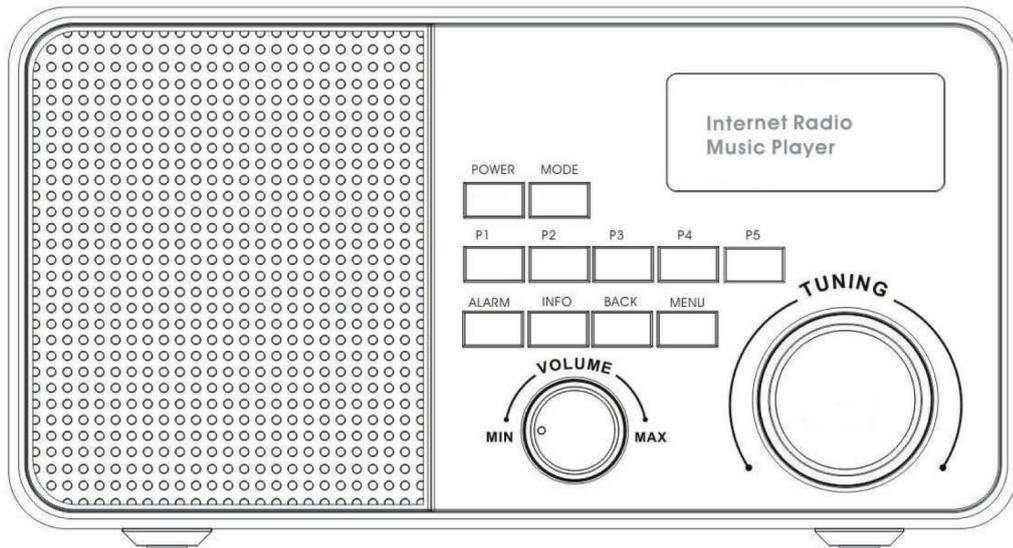




HAV-IR10 -11
Wi-Fi Internet Radio



MANUAL

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1 Introduction

This guide instructs the user to set up and use the HAV-IR10 -11 based Wi-Fi radio user interface to access the different features available on the radio.

Its main functions are to:

- Stream radio stations content via the Internet,
- Stream the Podcast Stations via the Internet
- Play the DAB and FM stations,
- Play files from a local server via Wi-Fi or Ethernet.

1.1 Conventions used in this guide

The following conventions are used in this guide:

- <back> - the name of a button / key
- [playing screen] – the name of a displayed screen,
- *mode* – the name of a menu or sub-menu.

1.2 Infrastructure requirements

The following infrastructure must be ready to fully utilise the functionality available on HAV-IR10 -11 (as shown in Figure 1).

1. Broadband internet connection
2. Wi-Fi router (or optionally, a wired Ethernet connection)
3. PC
 - Windows Media Player (WMP) 11 can be set up to enable streaming music files from the PC to the radio.
 - The shared folder on the network of the PC. (Please unlock the file by clicking the option “Allow network users to change my files”).
 - The PC can also be used to customise the radio’s favourites via the Frontier Silicon internet radio portal.

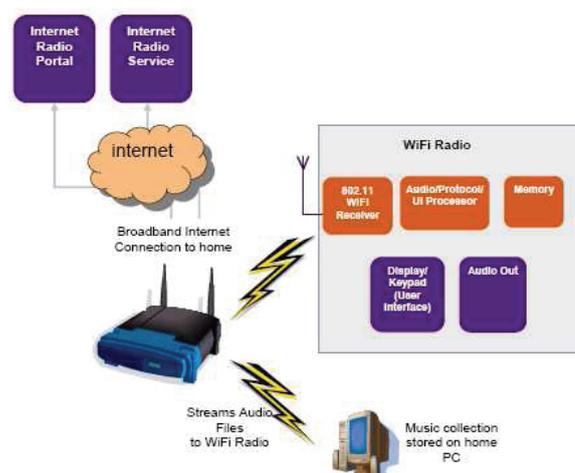


Figure 1: Wi-Fi radio infrastructure

2 Menu structure

2.1 Menu names

The Wi-Fi radio features three types of menu. These are:

- The **Main menu**
This is the menu which allows users to enter into different modes, setup the radio, and check the information in the radio (for example software version, product ID).
- The **Internet Radio Station List menu**
This is the sub-menu in the “Internet Radio” option in the main menu that allows users to access the different internet radio services. This menu comes direct from the Internet Radio portal.
- The **Mode menus** for the various modes
The mode menus are so called because they show the functions available within the context of each of the modes. Pressing the <menu> button anytime will take you the mode menu of the relevant mode the radio is currently in. Each context menu provides an entry called *main* menu which takes you back to the MAIN menu.

2.2 Auxiliary Input Function (Aux-in function)

The unit is capable of aux-in speaker function.

1. Select the “Auxiliary Input” in the Main Menu.
2. Using the included audio cable, connect one end to the “Aux in jack” at the unit back and another end to your electronic device “audio out” or “earphone jack”, the speaker will export the connected audio source.

2.3 Key functions

Figure 2 shows a typical configuration of keys available on the HAV-IR10 -11.

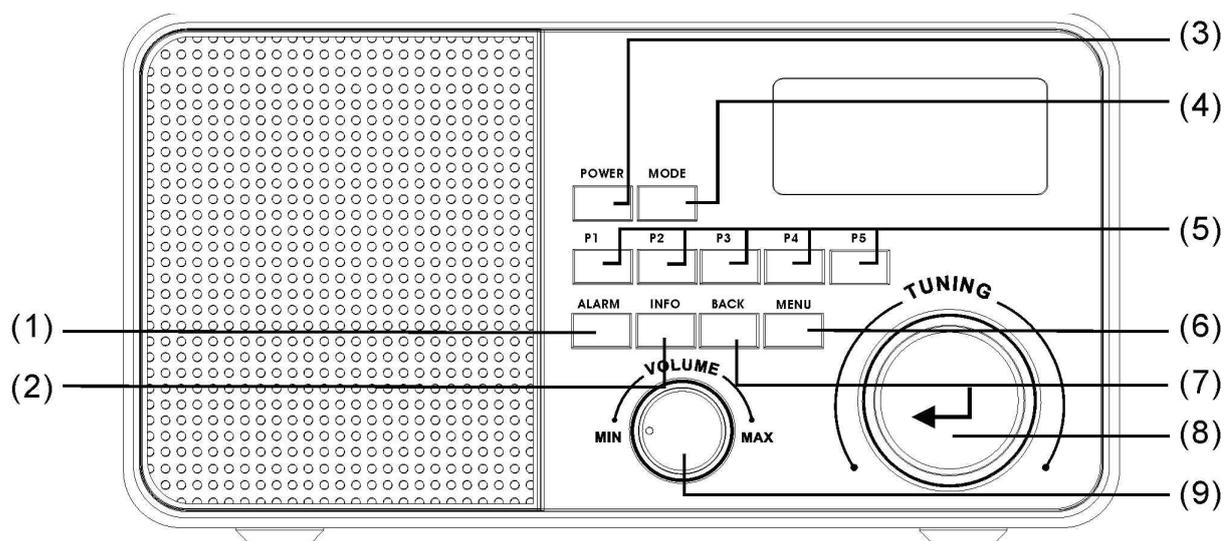


Figure 2: Control Panel

The keys shown in Figure 2 have the following functions:

(1)	Alarm Button	Press to set the alarm.
(2)	Info Button	Press to see information about the service currently playing
(3)	Power Button	Press to control the power source of the radio.
(4)	Mode Button	Press to select the different mode immediately in the broadcast
(5)	Preset Button P1 – P5	Press and hold the Preset Button for saving the preset. Press it shortly to load the preset station. Preset is not available in the <i>Music Player Mode</i> .
(6)	Menu Button	Press to enter the <i>mode</i> menu for the selected mode. Press again to cancel and return to the [playing screen].
(7)	Back Button	Press to go back to the upward menu.
(8)	Rotary Tuning Controls	Rotate the control to scroll up or down a menu and press the control to act as the Forward function to select the entry.
(9)	Rotary Volume Control	Adjust the volume level in the playback. Turn the knob in the clockwise direction to increase the volume level and anti-clockwise direction to decrease the volume level.

Figure 3 shows the site-map of all the menu and sub-menu in the HAV-IR10 -11.

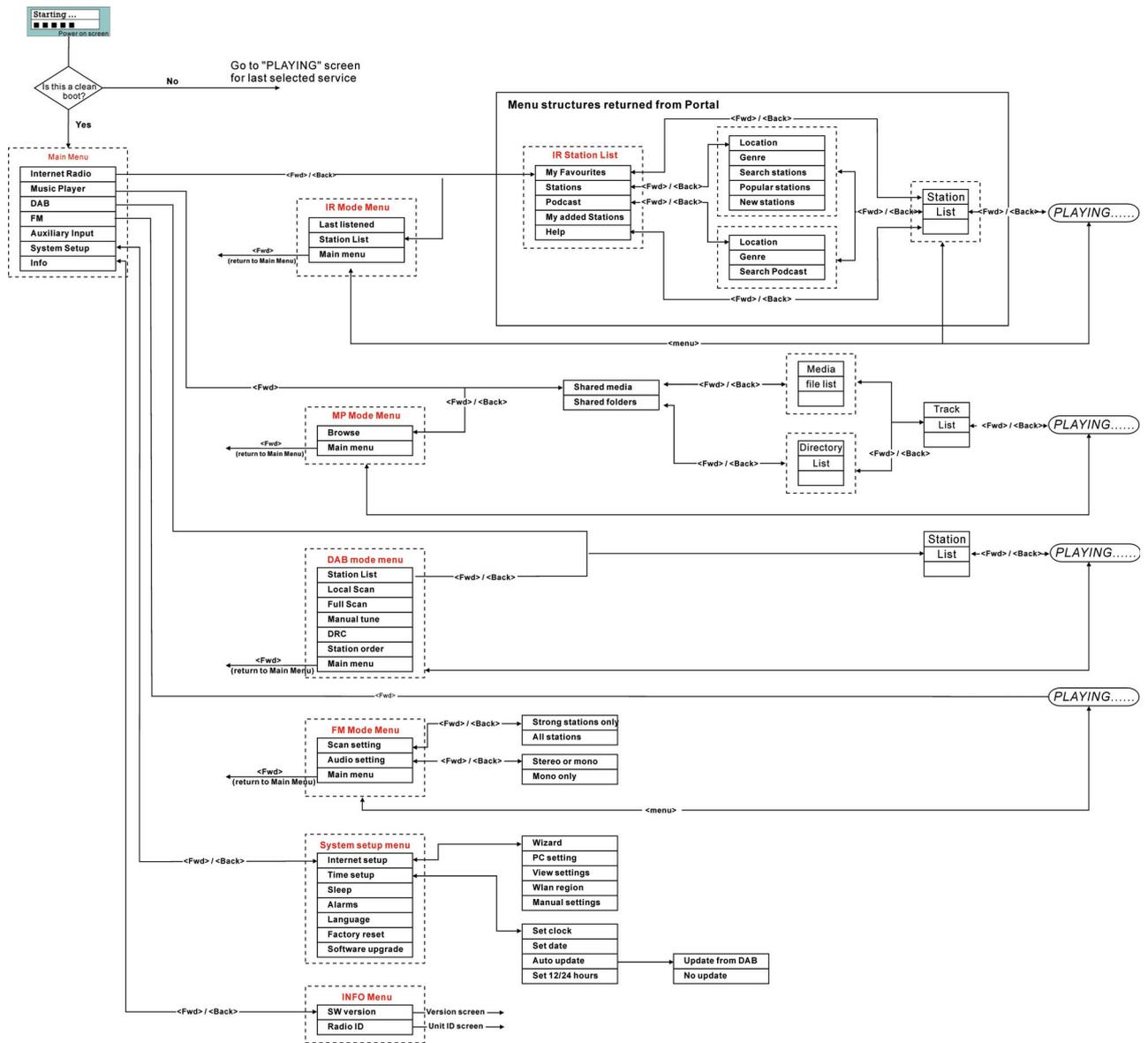


Figure 3: Menu Structure of the HAV-IR10-11

3 Setting up the Wi-Fi radio

To fully utilise all the functions available in the HAV-IR10 -11, please setup the radio by selecting the “System Setup” in the main menu. The *Main menu* → *System setup* menu has a series of options that allows system-wide settings to be altered.

These settings are:

Option	Setting
Internet setup	Setting the Internet connection
Time setup	Setting the date and time
Sleep	Setting the sleep time of the HAV-IR10 -11
Alarms	Setting the 2 alarms in the HAV-IR10 -11
Language	Selects the user interface language
Factory reset	To reset the system back to the factory default
Software upgrade	Update the operating software

3.1 Setting the time and date

The time has to be reset whenever the HAV-IR10 -11 is unplugged. Or, the time could be updated by the DAB radio system when using in the DAB-supported region. The clock set must be completed before the alarm setting.

To set the time:

1. Go into the *System Setup* from *Main menu* → *Time setup*

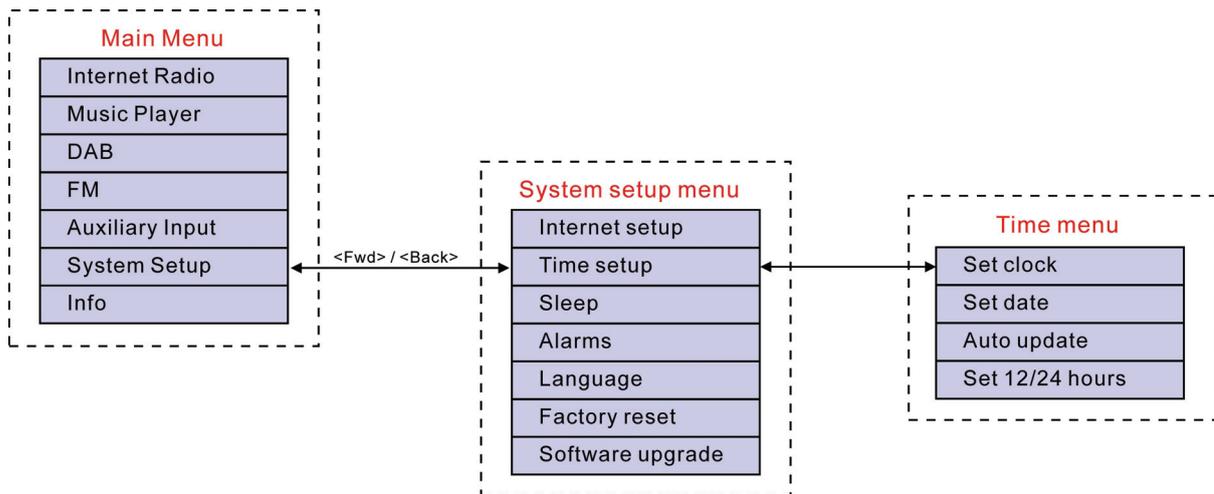


Figure 4: Navigating to the Time Menu

2. The Time Setup option was to setup the time and the date.
3. *Auto update* option allows the user to synchronise with the DAB broadcaster clock. Please note that this function will be activated only when using in the DAB-supported region.
4. In the region without DAB-supported, you could choose to auto update the clock system from the NET. However, the clock system was fixed at GMT+1.
5. The *Set 12/24 hour* menu allows selection of clock display format for either 12 or 24 hour.

3.2 Setting alarms

The *alarms* menu can be accessed in two ways:

- i. Select the submenu in the *Time Setup* option (*Main menu > System setup > Time setup > Alarms*)
- ii. Press the <ALARM> button on the HAV-IR10 -11

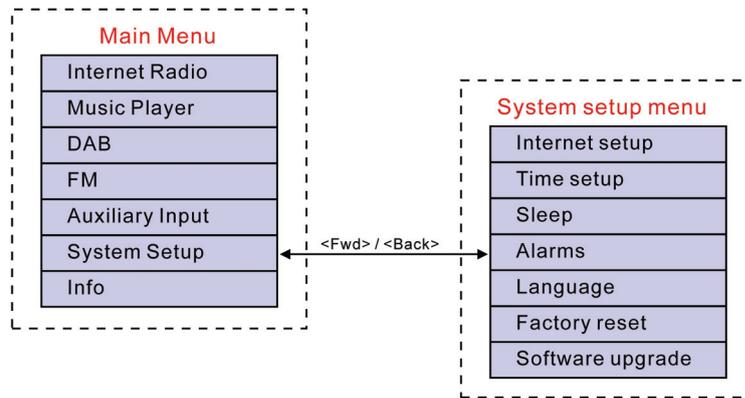
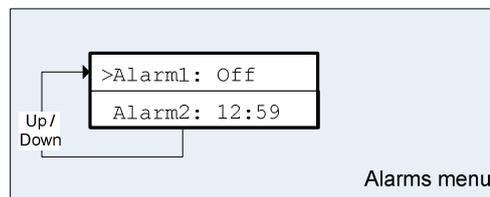


Figure 5: Navigating to the Alarm menu

- The five alarms are preset to be activated daily after setting.
- The Internet Radio Station, Buzzer, DAB and FM could be set as the alarm form.

When entered, the *Alarms* menu shows the following display:



Please select the Alarm 1 – 5 by rolling the Rotary Tuning Control. The set alarm time will be displayed on the optioned; or “Off” will be displayed for the unused alarm.

Setup the alarm:

1. Select the alarm from 1 – 5 by rotating the rotary control to left or right. Choose the “Forward” option by pressing the rotary control. (Refer to figure 7 below).
2. After setting the alarm time, select the alarm type:
 - Buzzer
 - Internet Radio
 - DAB
 - FM

Note: it is not possible to set the alarm to wake up by Music Player mode.

3. The “Last Listened” Option: When setting this option as the alarm type, the alarm will be activated by the previous station you were listening to. However, when there is no any memory in the radio, the setting will be defaulted to “buzzer” mode
4. The “Volume” Option: This is to adjust the alarm volume from 0 - 16. The volume 0 is mute and the volume 16 is the loudest. The alarm volume was default at volume 16.
5. The settings will not be saved and activated until the ‘Save’ option item was been selected. If the setting is exited without setting, a splash screen will notify the user as below.

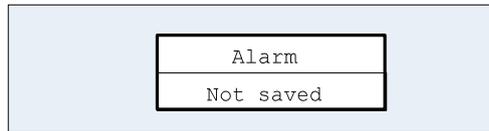


Figure 6: Notification of alarm without Saving

Please find the figure 7 below for the summarized menu tree for setting alarm.

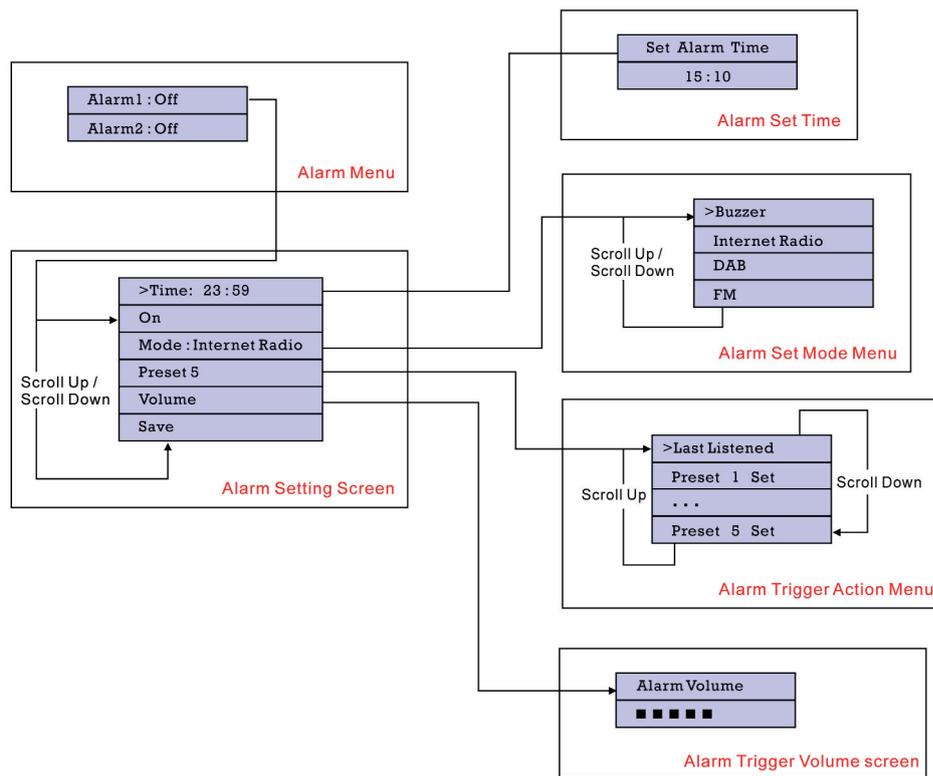


Figure 7: Alarm Menu Tree

3.3. Setting up the Internet radio

In the first time using the HAV-IR10 -11, the Internet connection must be setup to access the Internet. Please follow the below 2 procedures to setup the access point:

- Select the WLAN region. Choose your region in the list, even if you are not using the Wi-Fi to access the Internet. (Using the Ethernet connection instead, for example).
- The Internet Wizard will guide the user to setup of the network after choosing the region. The radio has been configured to run the Internet Wizard automatically when entering the Internet Radio mode if a connection is not made.

Alternatively, you could run the Internet Wizard to connect to a different Wi-Fi network by choosing the Internet Setup in the “System Setup” option in the main menu.

The *Internet setup* menu allows selecting either:

- Help you setup the Wi-Fi access point or;
- View and edit the current Wi-Fi settings.

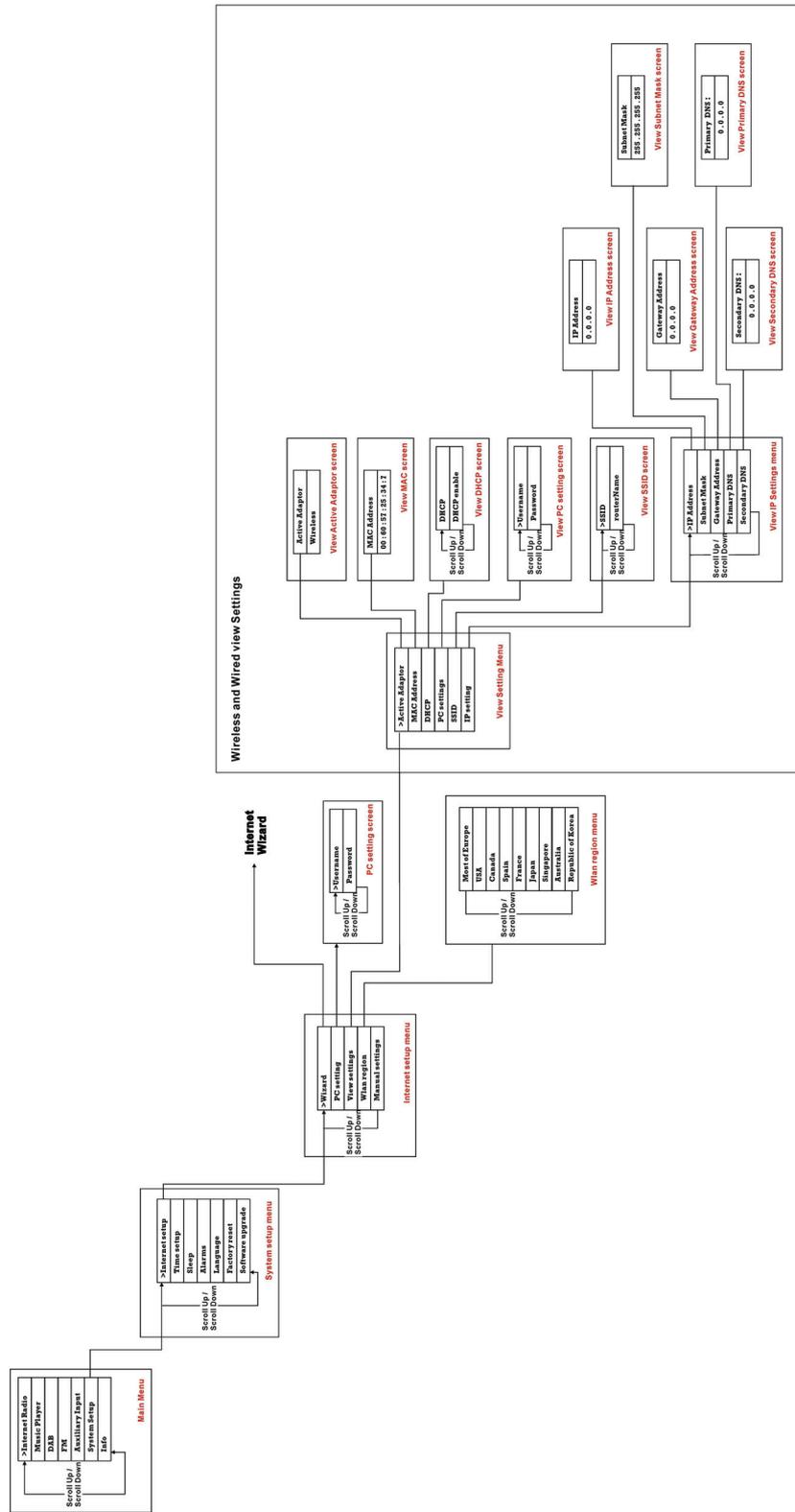
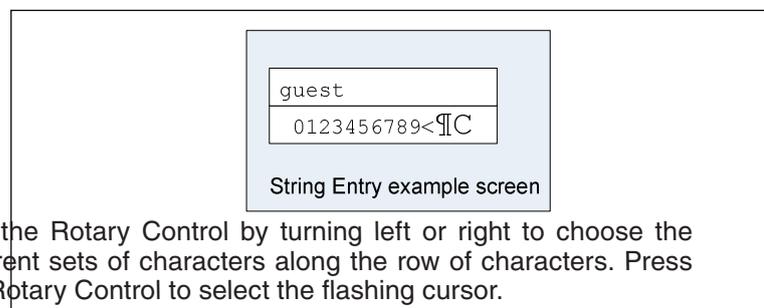


Figure 8 System Setup Menu Flow Chart

To setup the internet radio by using the Internet Wizard:

1. Select the “Wizard” in the Internet Setup.
2. Select the WLAN region in which the radio is located.
3. The Wizard will automatically scan for all available Wi-Fi and wired (Ethernet) networks.
4. Select your desired network by the rotary control key. There are three special options:
 - [Rescan] Rescan for all possible network;
 - [Wired] Available when the wired Ethernet is available.
 - [Manual config] Set up the wireless configuration manually.
5. If the only one unlocked network is available, the radio will connect to the network itself. “Connected” will be shown on the screen after the radio is successfully access to the Internet.
6. If the network is with security, please input the password of the access point to connect the network.

Please refer to the below:



Use the Rotary Control by turning left or right to choose the different sets of characters along the row of characters. Press the Rotary Control to select the flashing cursor.

Choose the ‘<’ symbol = back space

the ‘|’ symbol = enter

the ‘C’ symbol = cancel

7. Users can edit their Wi-Fi settings by selecting the *System setup* → *Internet setup* → *Manual settings*.
8. Selecting View settings allows you to access other Wi-Fi connected settings. These are:
 - Active adapter, which displays the current connection being used to connect to the Internet (WLAN or Wired),
 - MAC address,
 - DHCP status
 - PC settings
 - SSID
 - IP settings, which displays the IP address, the subnet mask and the gateway address.

3.4. Setting up the music player

There are two Music Player modes available. Each of them requires different settings, and either one can be used to playback music from a media server.

3.4.1 Shared folders (CIFS)

In order to set up the device to playback music stored on shared network drives, user name, password and domain settings must be configured to work with the PC share settings. This is only required if the user has set a password on his/her shared folders.

PC: Domain/Workgroup configuration

The Domain configuration item can be found on a Windows XP machine as follows:

1. From the start menu, select Control Panel > System then select the "Computer Name Tab".
2. The Domain or Workgroup that this Computer is a member of is displayed in this tab.
3. Please set the PC to a Domain or Workgroup. To do this click on the change button on the computer name tab. Please set the Domain name as "MSHOME" (This is the default setting of Window XP).
4. A reboot of the PC may be prompted if the Domain or Workgroup has been changed.

PC: Setting up a new user account (Windows XP)

The Wi-Fi Radio requires a user account to be set up on each PC that you wish to browse. By default most PCs have at least one user account associated with it. The user name and password (optional) needs to be the same on each PC as the Internet Radio only stores one user name and one password. For windows XP this can be set up as follows:

1. From the start menu, select Control Panel -> User accounts
2. From this screen left click the 'Add ...', and enter the new user name and the Domain/Workgroup setting noted above. Select the type of user (restricted) and then select finish.
3. Select the user just created, select 'Reset Password ...' and enter a password for this user.
4. Note the User Name and Password.

Note for Windows VISTA: Users have to turn on the Guest account via manage user accounts in the control panel in VISTA, then add access to either 'Everyone' or 'Guest' on the shared drive. They could create a new account for the internet radio, with a password, if they are concerned about security. The Guest account has no password by default, so the Wi-Fi radio will connect to it from its factory default settings.

PC: Configuring a shared drive

From the Start menu select My Computer and navigate to the directory you wish to share. Right click on the directory and select Sharing and Security. Configure the shared drive as read only, and ensure that the User Name created above has read access to the share.

Wi-Fi Radio: Storing the username and password

Before the radio can stream music from a PC, you need to ensure you have shared folder available on the PC, and set up the radio so that it knows the username and password (if one has been set) for the shared folder on the PC.

This can be set up using the PC settings menu shown below in Figure 10:

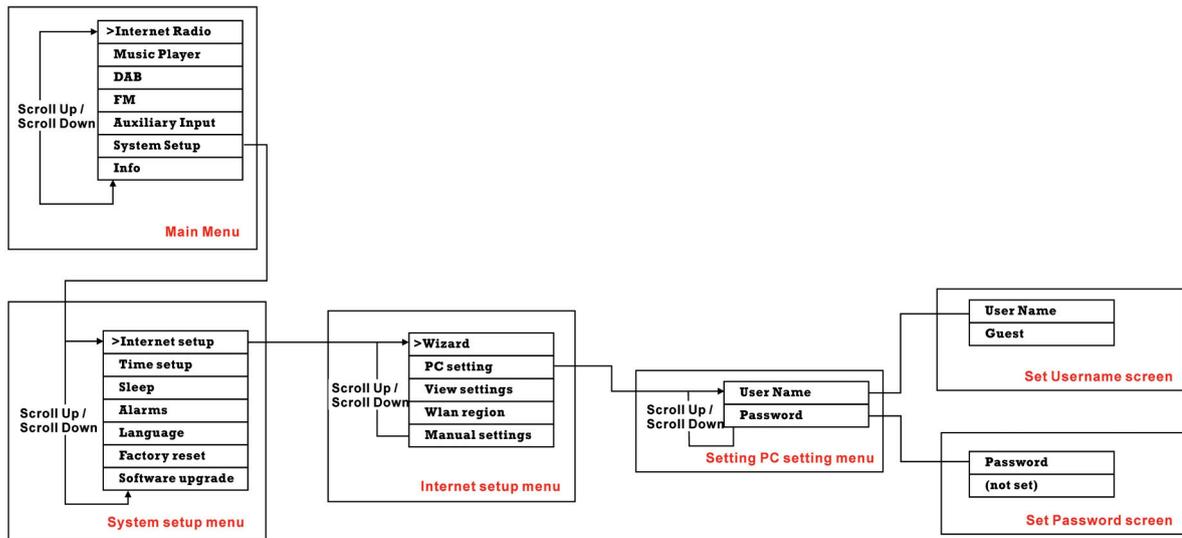
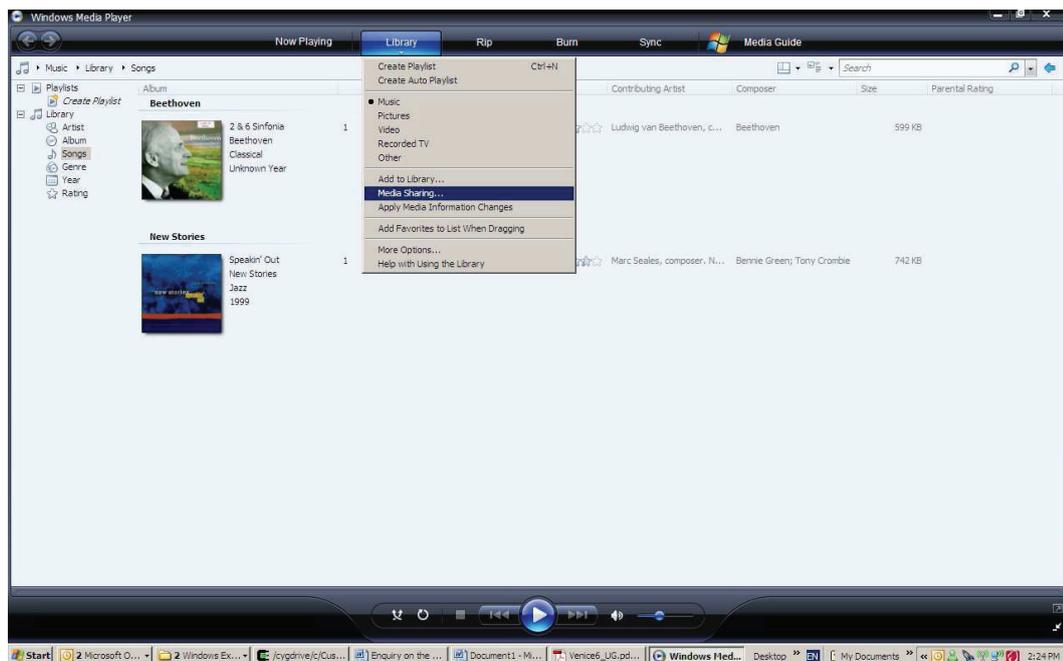


Figure 10: Navigating to PC Settings menu

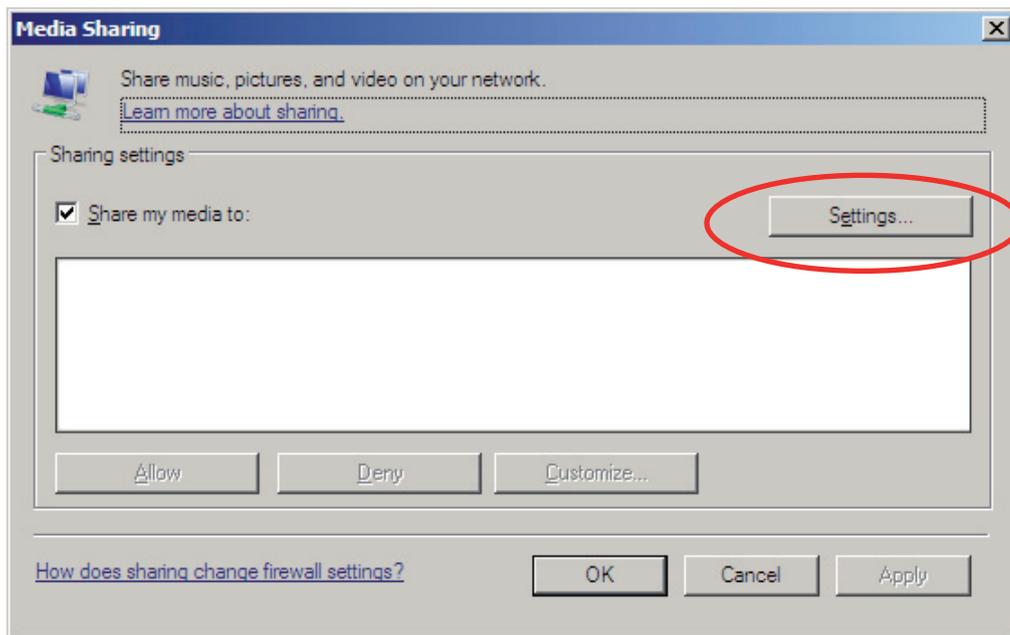
3.4.2 Shared media (UPnP)

Media sharing uses Windows Media Player (WMP) 11 and above as media server. This mode does not require any setting in the radio, but the PC needs to be configured to allow the radio access to the media. This is the procedure to run uPnP.

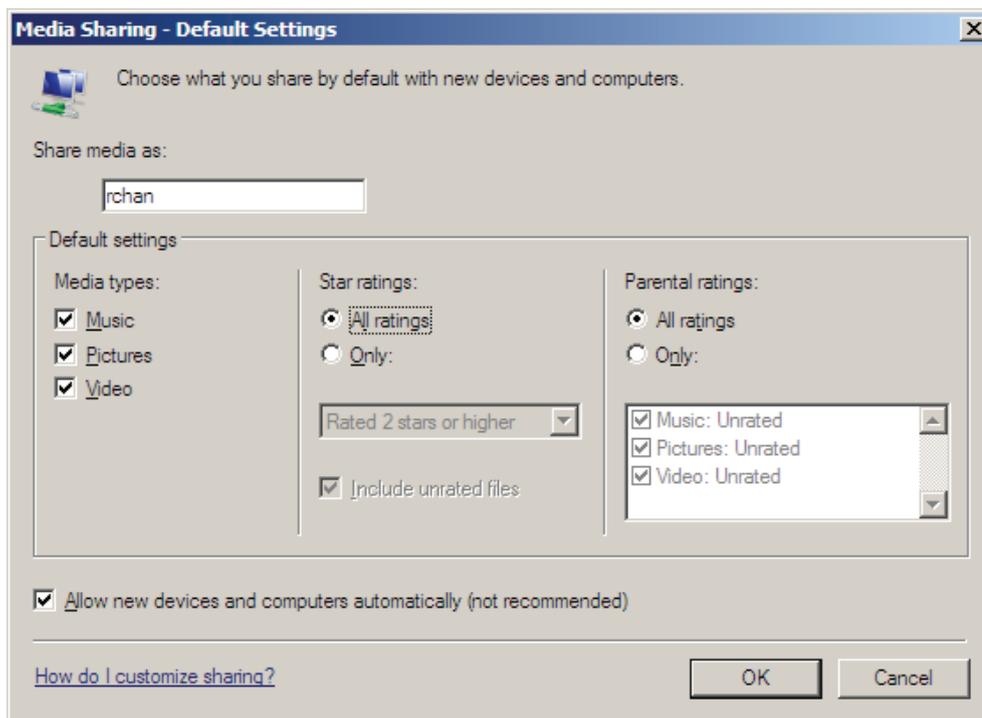
- 1) Put the *.mp3 and *.wma that you are going to share in C:\Documents and Settings\All Users\Documents\My Music\Sample Music (\\palm\dropbox\ylam\Music\)
- 2) Install Windows Media Player 11
(<http://www.microsoft.com/windows/windowsmedia/player/download/download.aspx>)
- 3) Click Library “Media Sharing”



4) Check the “Share my media to” box, then click settings



5) Follows the settings below:



- 6) In Windows XP → Start Menu → Run → Type “services.msc”, and please make sure
 - a. Universal Plug and Play Device Host
 - b. Windows Media Player Network Sharing Service is “started”.



- 7) Make sure you laptop / PC and the HAV-IR10 -11 is connected to the same wireless network. If you are in Frontier Silicon office, make sure your PC and V6 are connected to Frontier-Visitor
- 8) Start HAV-IR10 -11 board. Go to Music Player Mode → Shared media, and then you should be able to find your shared music in there.
(I think Shared Media is for UPnP and Share folder is for samba)

4 Using the Wi-Fi radio

4.1 Changing modes

When you turn on the radio again, the radio will automatically run the last listened programme. To select another mode:

1. Press the <menu> key to display the mode menu of the mode you are in.
2. Use the rotary control to go to the Main menu.
3. In the main menu, select the different mode.

The unit accesses the last service played in that mode.

Alternatively, press the <mode> button on the radio to select the different modes.

4.2 Internet radio

The Internet Radio mode allows the user to select services (which can be live radio stations or Podcasts) to listen to from the internet radio portal.

When the user connects to Internet Radio, a *Station list* menu is provided. This is built up after the initial logon from the internet radio portal server. The Station List menu and the two submenus that lead off (for items relating to Internet Radio and Podcasts, respectively) are shown below in Figure 11.

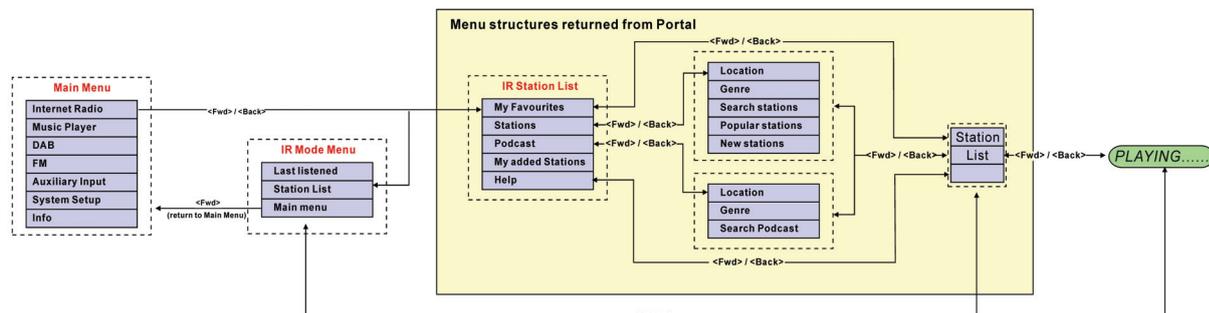


Figure 11: Internet Radio menu

The Internet Radio *Stations List* menu provides the following functionality:

Name	Description
My Favourites	Navigating to stations stored within Favourites. The Favourites list can be built up by accessing the internet radio portal over the PC and creating favourites lists.
Stations	Navigates to sub-menu which allows users to navigate to stations by location, genre, most popular, new stations, or by doing a search by alphabets.
Podcast	Navigates to sub-menu which allows users to navigate to Podcast and listen-again services by location, genre, or by doing a search by alphabets. On or Off
My added stations	Shows the stations which were added by the user through the vTuner portal (although the Internet portal has access to over 8000 stations, you can still input new stations, which will then be displayed under the <i>My added streams</i> menu.

Help	Use <i>Get access code</i> during the radio registration on the Internet radio portal, see section 6 for details. The FAQ offers help for common problems with Internet radio.
------	--

The *Internet Radio Playing* screen displays information on the currently-selected service, and is the default behaviour when a service is selected and playing.

The top line always displays the station name, whilst the information displayed in the bottom line can be scrolled through by pressing the 'Info' button. The different information types displayed are shown below;

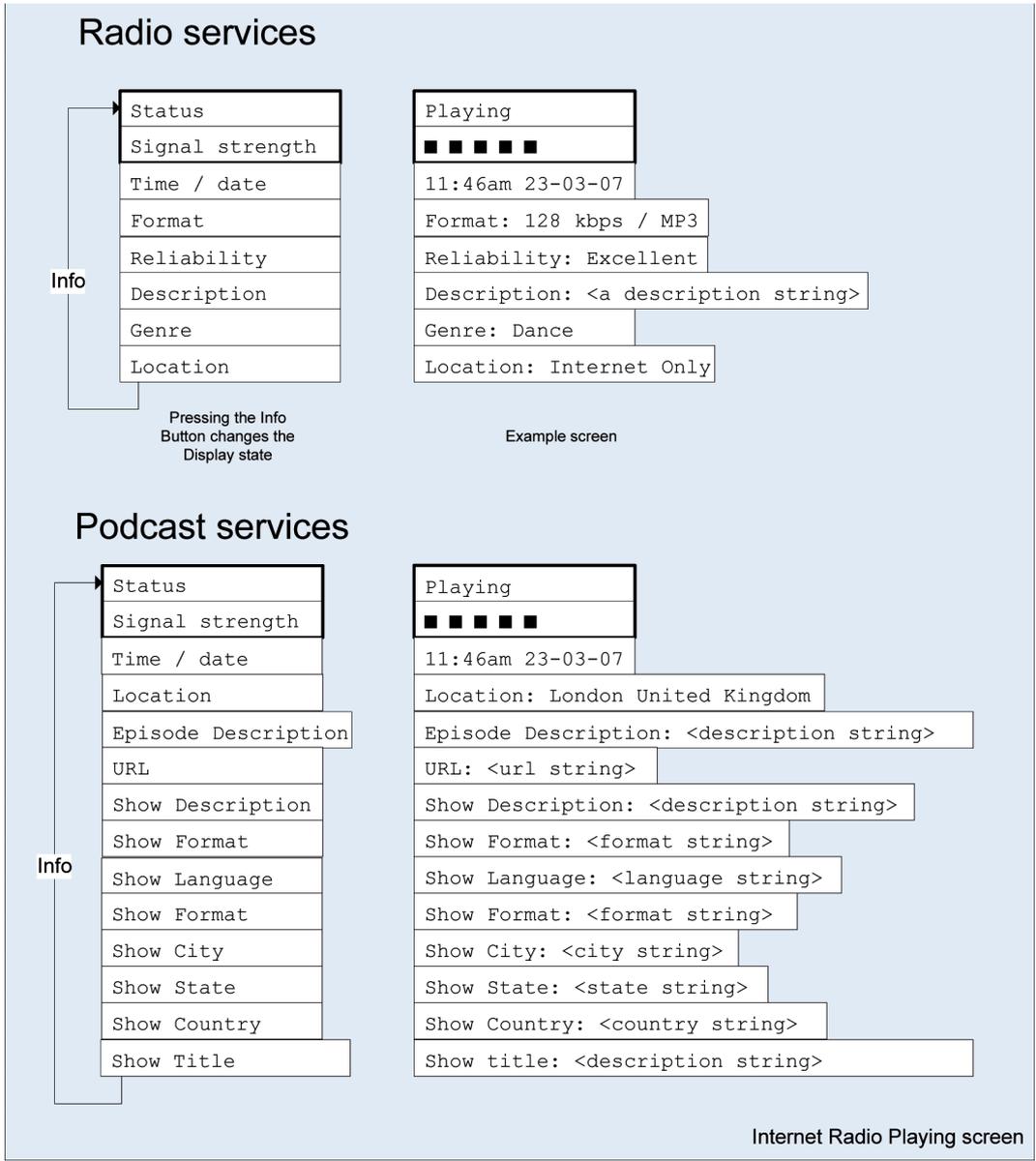
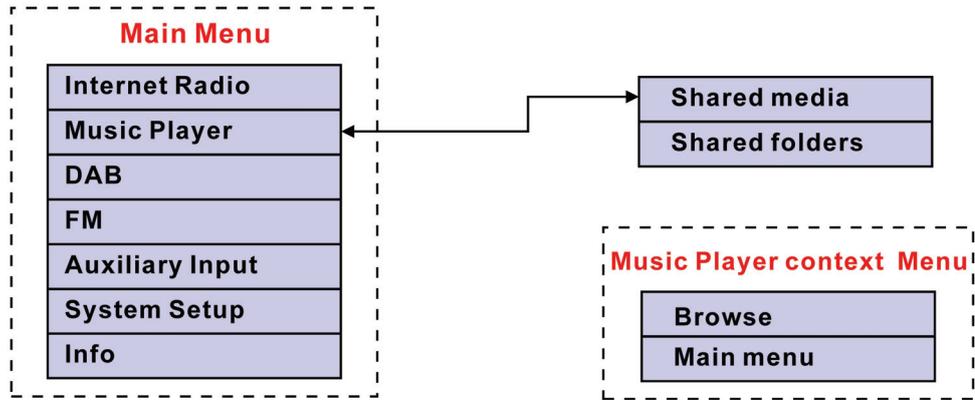


Figure12: Information types available for Internet radio and podcasts

4.3 Music player

The Music Player allows accessing music files stored on a PC connected to the same network and playback through the radio. The *Music Player* can be accessed direct from the *Main menu*.



The connection process is different depending on the Music Player mode selected.

4.3.1. Shared folders

The startup flow when entering Music Player Shared folders mode is shown in Figure 13:

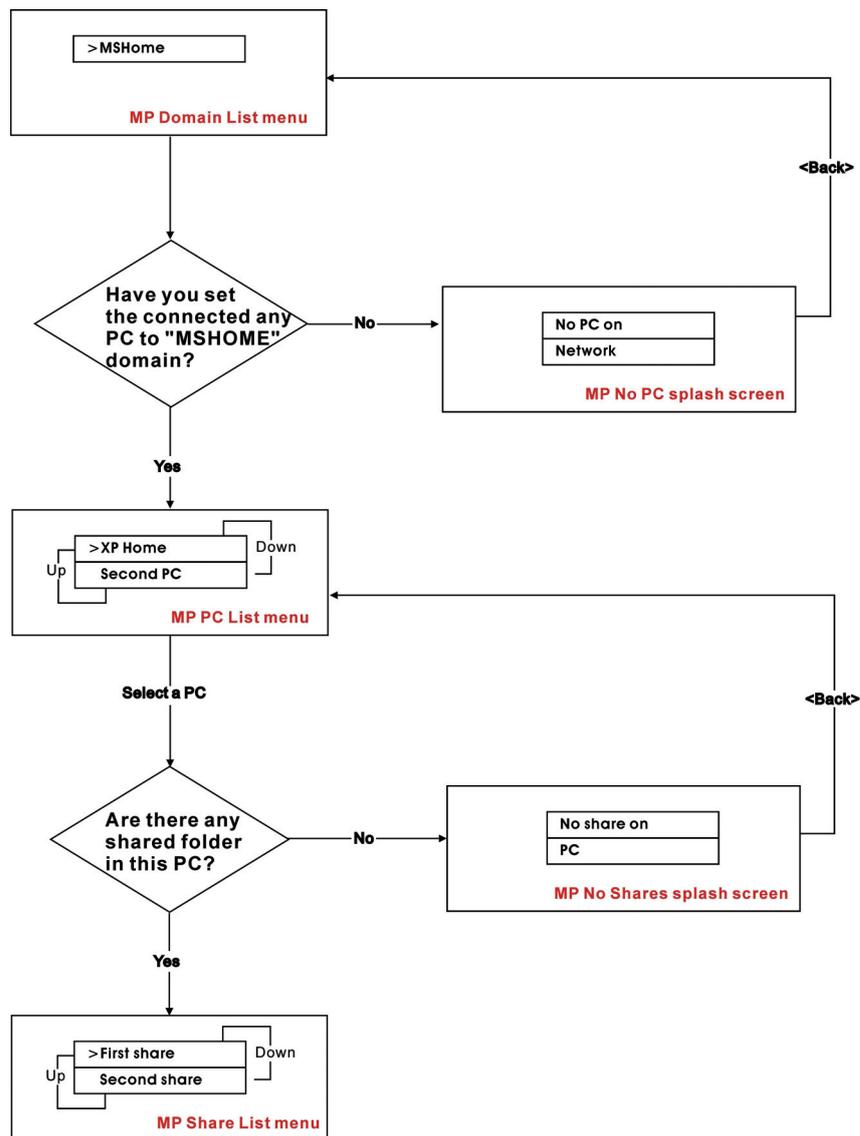
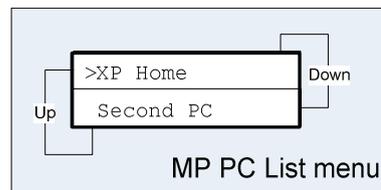


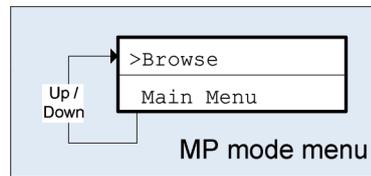
Figure 13: Music Player start up flow

1. Ensure that the user name and password have been configured as described in section 3.4.
2. Enter the music player menu
3. Once the user selects the "MSHOME" domain, a list of PCs on the domain is displayed:



4. Once the Domain and PC have been chosen, a list of all of the shared folders in the system is displayed.

5. Select a folder and a file to play within the folder.
6. Press *Menu* invokes the *Music player mode menu*, and then back to the *Main menu*; select *Browse* to enter the last selected shared folder.



4.3.2. Shared media

The shared media mode uses UPnP technology to make easier both setting up and navigating the Music playback mode. Unless the Upnp network has been setup in the PC, for example by Window Media Player 11, or this will not be functioned. In this mode, the connection sequence is as detailed in Figure.

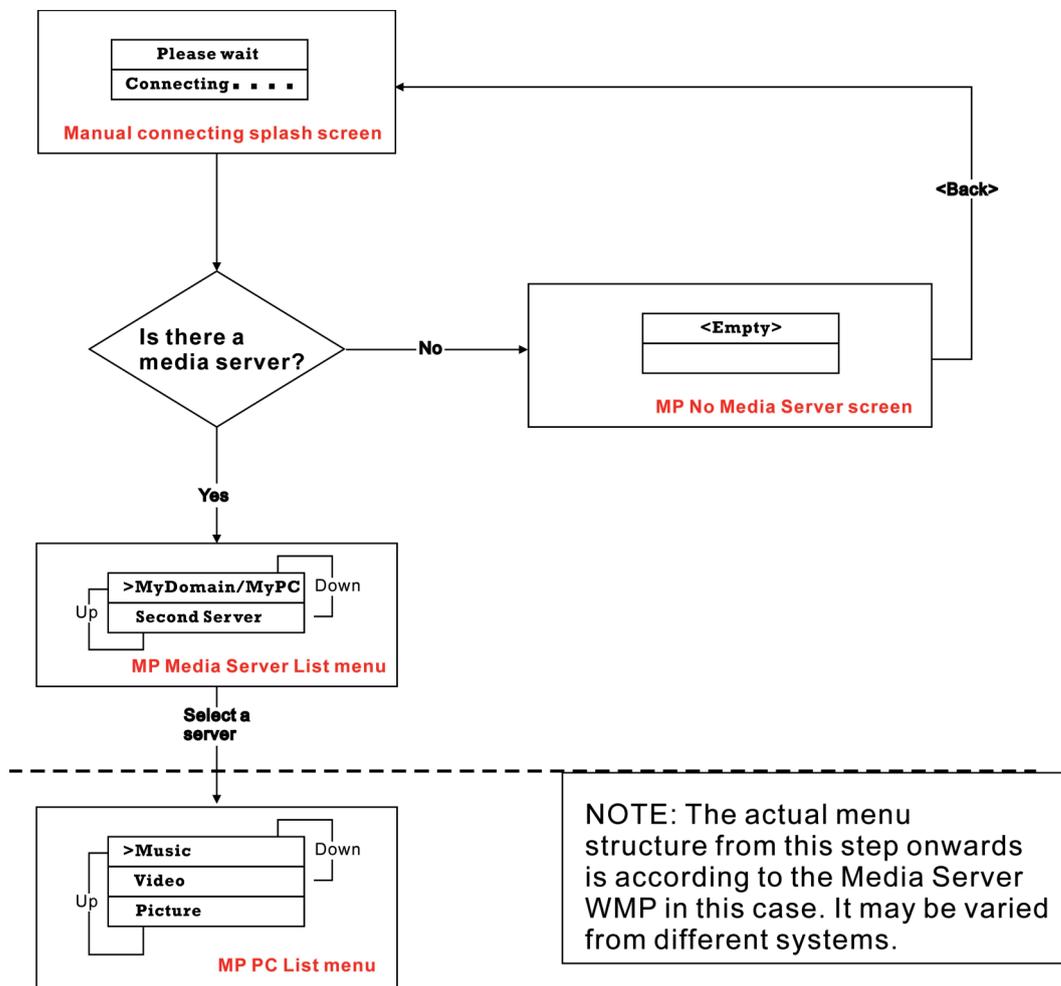


Figure 14: Connection flow sequence in Shared media mode

4.4 FM radio

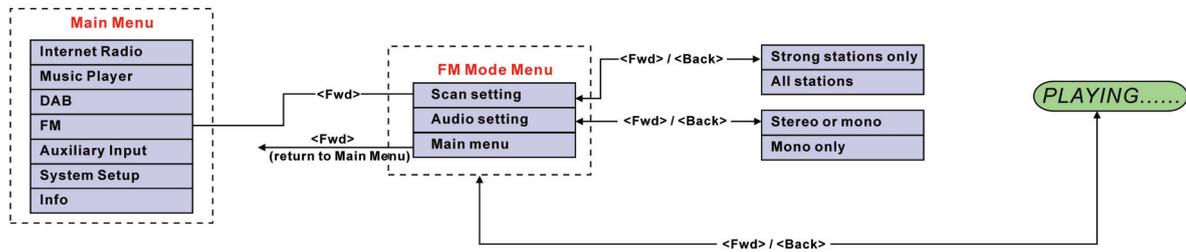


Figure 15: FM mode menu structure

The *FM mode menu* allows setting up the following:

Name	Description
Scan setting	<p>The Scan settings menu allows the user to set how an FM search started by pressing the rotary control.</p> <p>‘Strong stations only’ will only stop under strong signal strengths. This means that the audio quality of services that it stops on should be good, there is also the chance that desired services may be missed.</p> <p>‘All stations’ will stop under many more circumstances, including Carrier Wave and other non-broadcast interference. Whilst this means that there will be more stops, it will be more likely for the user to scan a desired service.</p>
Audio setting	<p>The <i>Audio settings menu</i> allows the user to set whether to always play stereo stations in mono mode, or whether to switch stereo stations to mono when the signal quality gets below a certain threshold.</p>
Manual Tuning	<p>Users could also tune the FM frequency by turning the rotary control</p>

4.5 Presets

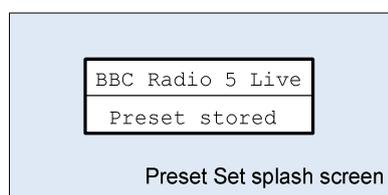
Presets are a system that allows the user to store a build-configurable number of preset stations in each mode. The behaviour of presets is different in each individual mode because of the way that the preset is stored within the system.

Presets are available in the following modes:

- Internet Radio
- DAB
- FM

A short press of a preset is used to recall a preset; a long hold of a key is used to store a preset.

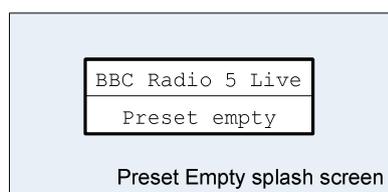
When a DAB or FM preset is stored after a long-press, a splash screen is displayed for a set time, with the information on the bottom line replaced by a 'Preset stored' string. The example below is for DAB:



Any key press will cancel this splash screen and perform a relevant action; for instance, pressing 'Info' will close the splash screen and alter the Information field on the bottom line. Likewise, pressing 'Up' closes the splash screen and goes to the service list.

A short press of a preset key recalls a preset; if the preset has already been set then the radio attempts to tune to the relevant service. Any failure to tune is reported in the normal way.

If the preset is currently unset, then another splash screen is displayed with 'Preset empty' on the bottom line:



In the case of DAB, FM and Internet radio, presets point to a defined service. This is not possible in Music Player mode, which consequently has no presets.

5 Software Upgrade through the Internet

The user could update the operation software to improve the performance. Please select the “Software Upgrade” in the “System Setup” menu. To access this feature, please refer to the figure 19 below.

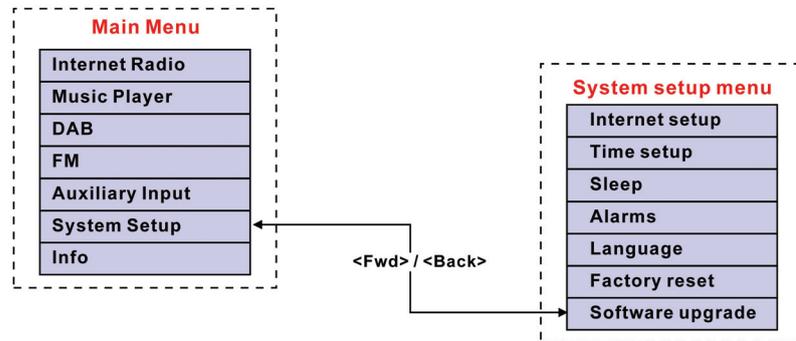


Figure 16 Navigating to the Software upgrade menu

The radio could search for updated software automatically when the connection was established (either wired or wireless). This may take a few second. If the radio is not connected to the network, or a connection has not yet been set up, please follow the section 3.3 to setup your Internet connection.

If the more updated version of software is available, the user will be asked to confirm the upgrade. Once the process is initiated, a progress bar will show in the display and the warning “**not to remove power**” will be flashing in the screen periodically. This is very important in order to keep the radio operational. If the power of the radio was cut during the upgrade, the user setting or information in the radio may be lost.

Once the update is completed, either “upgrade successful” or “failure” will be informed to the user. If successful, pressing <select> to restart the radio with the new software.

Note: After a software upgrade all user settings are preserved.

The whole process is summarised in Figure 19.

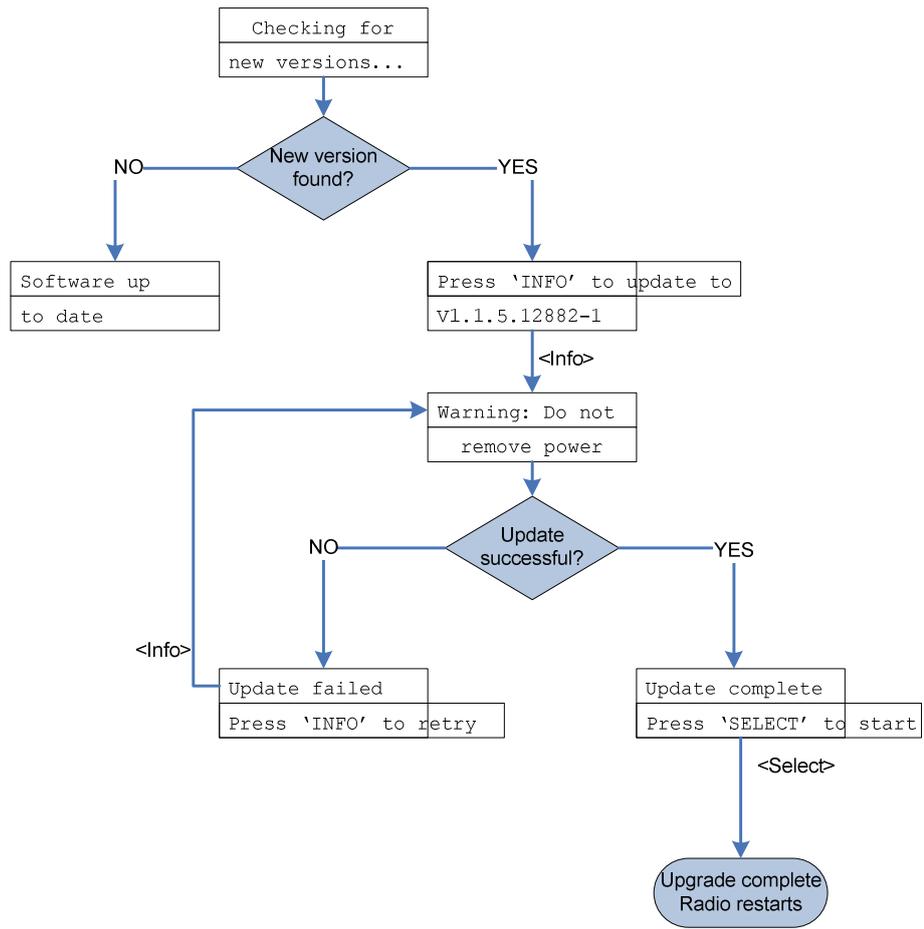


Figure 17: Internet software upgrade process

6 Configuring the internet portal on a PC

Log onto the Frontier Silicon internet radio portal to configure your radio (for example to add favourites or add stations).

The screenshot shows the Frontier Silicon Internet Radio Portal. On the left is a navigation sidebar with options like 'Search', 'Stations', 'Podcasts', 'Browse Stations' (By location, By genre, By language, New stations, Most popular), 'Browse Podcasts' (By location, By genre), and 'My account' (My favourites, My added stations, My preferences). Below the sidebar are language options and footer information. The main content area has a header with 'Access global stations' and 'Personalise favourites', followed by 'Search. Browse. Find.' and a digital radio display. Below this are sections for 'My favourites' (listing 'toms favs', 'My Favorites', 'neil wma', 'FS', 'Bret', 'Podcasts', 'Test', 'neil RA', 'HedsTest') and 'My added stations' (a table of stations).

Station name	Location	Genre	Stream
Radio Italia	Italy	Rock	MP3
FSL-Shout1	United Kingdom	Shoutcast-Test	MP3
FSL-Shout2	United Kingdom	Shoutcast-Test	MP3
FSL-Shout3	United Kingdom	Shoutcast-Test	MP3
FSL-Shout4	United Kingdom	Shoutcast-Test	MP3
FSL-Shout3-DNS	United Kingdom	checking DNS lookup	MP3
WIZB	US Alabama	Christian	WMA
WTVY	US Alabama	Country	WMA
WRTT Rocket	US Alabama	Rock	WMA
WQEN-HD2	US Alabama	Adult Contemporary	WMA
WKMX	US Alabama	Adult Contemporary	WMA
WIQR 1410 AM	US Alabama	Sports	WMA

Figure 18 Frontier Silicon Internet Portal

To access the Frontier Silicon internet radio portal:

1. Open a web browser and go to: <http://www.wifiradio-frontier.com>.
2. If not yet a member, click on *Register here* link. It will ask for the Access Code from the Wi-Fi radio.
3. To get the Access Code, go to Internet Radio mode, then press <back> > *Help* > *Get access code*. The radio displays an entry that states the access code of the unit in the form: "Access code ABCD123". Enter the code into the entry field on the website.
4. Fill in the rest of fields, including username, password and radio model
5. Click *Register*, after which you should now be taken back to the configuration page.
6. You should now be on a page used for configuring the favourites and added stations for your own HAV-IR10 -11.

To add stations to the “Favourites” group for your specific Wi-Fi radio, simply browser through the list of stations genres until you find something you want to add, then click on the heart symbol to the left of the station name. The first time you add a station, you’ll be asked to create a new group for that station. This group will appear as a sub-menu item under the “Favourites” entry in the root vTuner menu. You can add as many stations to favourites groups as you like.

When you have added what you want, simply restart your Wi-Fi radio. You should now find that the groups and added stations appear under the “Favourites” list.

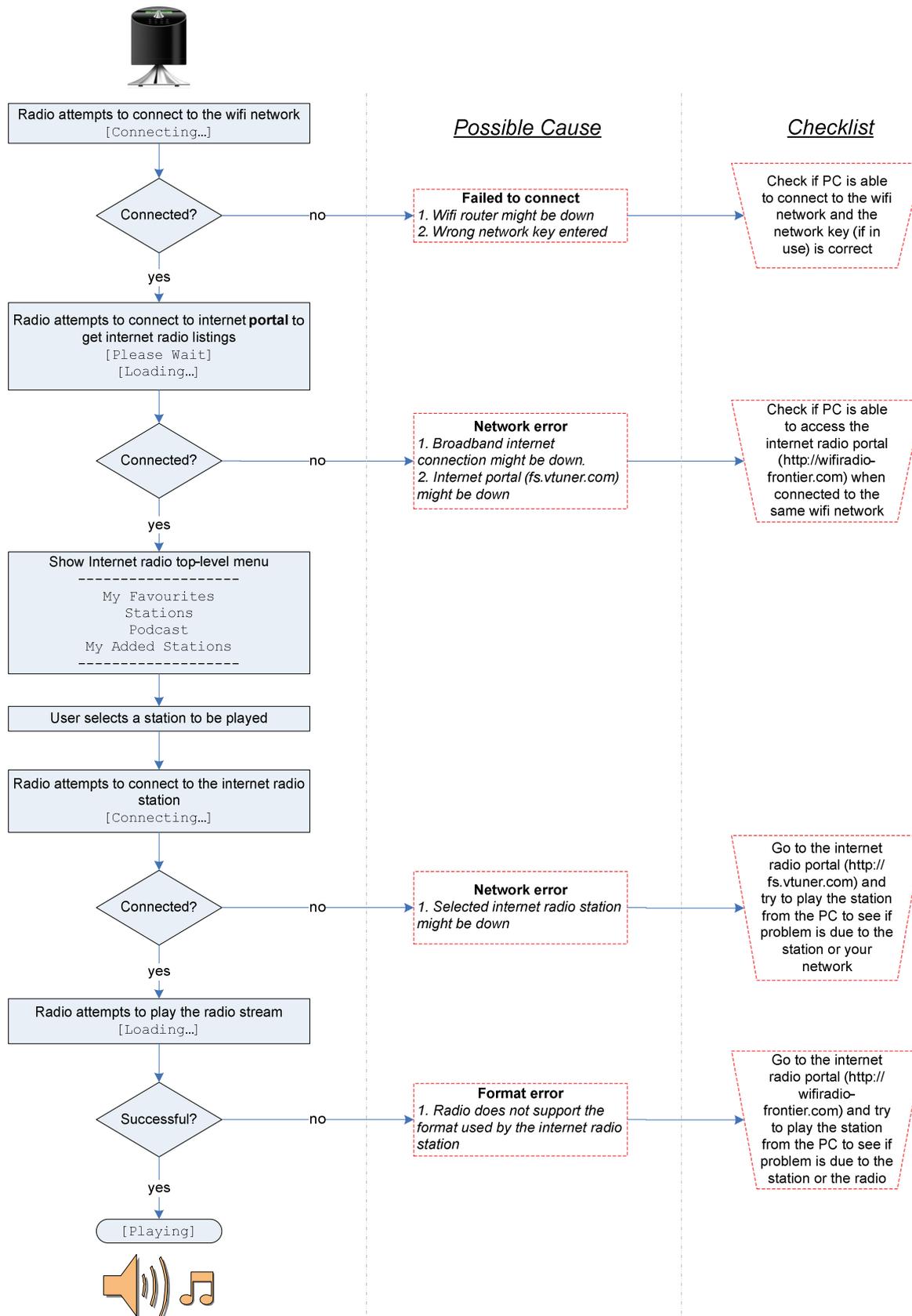
To reset the favourites and added stations, register the radio in the website under a new user account and request a new access code for the radio.

7 Info and Error Messages

The following is a description of the info and error messages that the Wi-Fi radio could possibly display.

Message	Type	Description
Failed to connect	Error	Seen when a Wi-Fi network related error occurs. Some examples of circumstances which will trigger a 'failed to connect' are: <ul style="list-style-type: none"> - radio fails to connect to Wi-Fi network - wrong network security key entered
Network error	Error	Seen when a server/connection related error occurs. Some examples of circumstances which will trigger a 'network error' are: <ul style="list-style-type: none"> - radio fails to connect to Wi-Fi network - radio fails to connect to internet radio portal - radio fails to connect to a radio station - radio's was streaming a station and connection fails midway through the streaming - radio fails to connect to a PC for streaming music
Format error	Error	Seen when the radio has problem playing the media due to unsupported format type. Some examples of circumstances which will trigger a 'format error' are: <ul style="list-style-type: none"> - radio tunes to a internet radio station which is being transmitted using an audio codec not supported by the radio (i.e. AAC+). - Radio tries to play a music file from a PC which is in a format not supported
Not available	Info	Seen when the radio tries to tune to a DAB station without sufficient signal reception.
Connecting...	Info	Seen when the radio tries to establish connection with a network, server, portal, station.
Loading...	Info	Seen once the radio has established connection, and starts buffering the station/stream.
Playing	Info	Seen once the radio has completed connecting, and loading, and starts playing the stream. This is the point when the station becomes audible.

8 Troubleshooting – connecting to an internet station



9 Service Information

Disposal of electrical and electronic equipment



This symbol on the product or in the instructions means that your electrical and electronic equipment should be disposed at the end of its life separately from your household waste. There are separate collection systems for recycling in the EU.

For more information, please contact the local authority or your retailer where you purchased the product.

Specifications:

Model:	HAV-IR10 -11
Type:	Wi-Fi Internet Radio with PLL FM Radio
Dimension:	250 x 130 x 135 mm
Weight:	2 KG (approx.)
Power Source:	Powered by mains socket DC 12V ~ 1.5A

