Ocean Digital

User Manual

Internet Radio

WR-220

Please read this user manual carefully before using the receiver.

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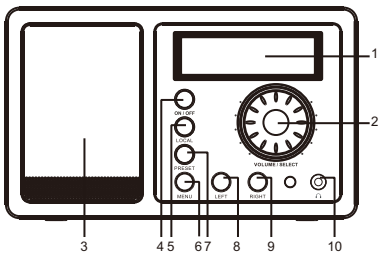
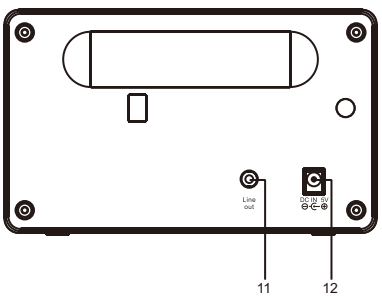
Location of Controls

Front

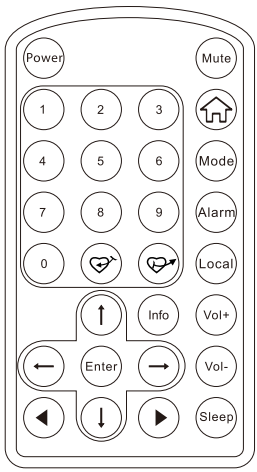


Back



1. **LCD Display**
2. **Dial Control**
   - Rotate the dial to adjust volume level
     Adjust LCD backlight level under Standby
   - Push the dial to confirm / select menu options
   - Push to stop/resume playback of the radio
3. **Speaker**
4. **On/off**
   - Press to power on/ Standby
5. **Local**
   - Quick access the local stations in your country
6. **Menu**
   - Press to enter menu
7. **Preset**
   - Long press to store the station to Favorite list
   - Press briefly to recall the favorite station
8. **Left**
   - Back to previous menu
   - Left cursor
9. **Right**
   - Right cursor
   - Enter edit menu under Favorite list
10. **Earphone jack**
11. **Line Out jack**
12. **DC IN jack**

Remote Control



1. **Power**: Standby on/off
2. **Mute**: Speaker on/off
3. **0-9**: Input numbers for encryption code, recall favorite stations, enter index number to select item from the list Toggle the same numeric key gives you a choice to input letters
4. : Return to Main Menu
5. **Mode**: Switch between Internet radio and Media Centre
6. **Alarm**: Alarm Setting
7. : Preset the current playing station to Favorite
8. : Recall the favorite station
9. **Local**: Access radio stations in your local country
10. ↑ : Cursor up
11. ↓ : Cursor down
12. ← : Cursor left/Back
13. → : Cursor right
14. **Info**: Access the network and system information
15. **Enter**: Confirm selection
16. ▶ : Next (next item in the list: next station, next track)
17. ◀ : Previous (Previous item in the list: previous station, previous track)
18. **Volume +**: Increase volume
19. **Volume -**: Decrease volume
20. **Sleep**: Sleep Timer setting

Enter encryption code of the Wi-Fi router

Using remote control

When you want to enter the letters, numbers or symbols for the encryption code, using remote control would be easy to complete the job.

Here is the definition of each key and press the same button to cycling through different letters / symbol available

After each entry, press the right key to input the next. When it is done, press Enter to confirm.

Key 1: 1 and different kind of symbols !@#$%^&*()_+[]{};:'"\|,./<>?
Key 2: 2ABCabc
Key 3: 3DEFdef
Key 4: 4GHIghi
Key 5: 5JKLjkl
Key 6: 6MNOmno
Key 7: 7PQRSpqrs
Key 8: 8TUVtuv
Key 9: 9WXYZwxyz
Key 0: 0

Using buttons on the radio

Use the Dial control to scroll through the letters or symbols, press right key to input the next entry. Press the Dial knob when it is done.

Before you start

Please ensure the following is ready:

- You have a broadband internet connection.
- A wireless broadband router is connected to the internet successfully. The radio supports Wireless B, G and N connection (Wireless N router can also be used with the setting on B or G).
- You know the Wired Equivalent Privacy (WEP) or Wi-Fi Protected Access (WPA) data encryption code/password. You need to key in the correct code when the radio is connected to the wireless router for network connection.
  If you do not know the code/password, please contact the person /technician who set up the router/network for you.
- The radio can work via Wireless network connection (Wi-Fi connection)

Precautions

- The radio should not be used in a high temperature or high humidity environment over prolonged periods of time as this may damage the unit.
- Keep the radio away from liquids as it may get damaged. Please switch off the radio immediately if water or liquids is spilled into the radio. Consult with the shop you bought this radio for any question.
- Avoid using or storing the unit in dusty or sandy environment.
- Do not open and repair the radio by yourself.
- Use only the AC adaptor supplied with the radio.
  Connecting a power supply with a different rating will cause permanent damage to the radio and may be hazardous.
- Clean only with dry cloth.

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE RADIO BACK. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

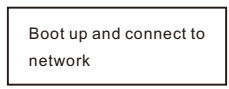
THE LIGHTNING FLASH AND ARROWHEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF “DANGEROUS VOLTAGE” INSIDE THE RADIO.

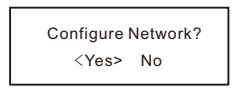
THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THIS RADIO.

Connect the radio with your Wi-Fi Router

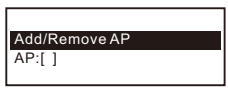
1. Insert the adaptor plug into the DC socket located at the rear side of the radio.
   Plug the adaptor into a wall socket outlet.
   Caution: Use only the adaptor supplied with the radio. Connecting a power supply with a different rating will cause permanent damage to the radio and may be hazardous.

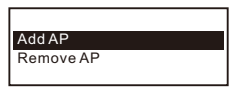
2. The radio will power on and display as follow. Choose <Yes> to start configuring network.





3. Select <Add/Remove AP> and <Add AP>:

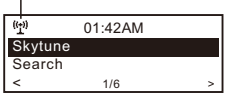




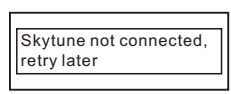
4. It will start scanning the available Wi-Fi routers nearby. Choose to connect your AP and enter the encryption code. Press 'Enter' to confirm.
   Remark: The encryption codes are case sensitive to upper and lower case.

5. When the Wi-Fi connection is done, the display shows:

When this symbol appears, the radio is trying to connect to the Wi-Fi network



If you try to select Skytune when the Wi-Fi network is not connected, it will show the message below:



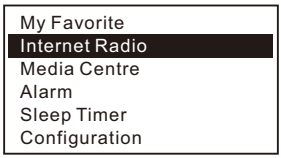
After the Wi-Fi network is connected, you will see the Wi-Fi signal bar here.

When the "No internet warning icon" appears, it means the WiFi connection is there but there is problem in the internet connection. Please check your internet connection if this icon appears.

No internet warning icon

Start using internet radio

Press <Menu> to return to the main menu or the ⌂ key on the remote controller. You will see the item list below:



<My Favorite>- To show the list of favorite stations which have been assigned to the presets. There are up to 99 presets available.

<Internet Radio>- Start exploring the worldwide radio stations and music here

<Media Centre>- Music streams from the UPnP servers/ devices under the same Wi-Fi network

<Alarm>- Setting of Alarms

<Sleep Timer>- You can set the timer to turn the radio standby after certain time elapsed

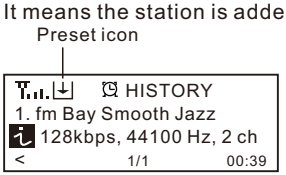
<Configuration>- More settings available for you to configure the radio as you desire

My Favorite

This is to show the list of your Favorite stations which have been assigned to the presets.

■ Preset a station

While you are playing a radio station, press the ♡ button on the remote controller or long press the <Preset> key on the unit, you will see the ⊻ icon appears as below. It means the station is added to the Favorite list.



The new added station will always showing in the last item on the Favorite list.

You can store up to 99 presets

■ **Recall a station**

Press the button on the remote controller or press the <Preset> button briefly on the unit to recall the Favorite list. You can enter the Index number to quickly scroll to the radio station you want to listen.

e.g., On the remote controller, press 2 8 and Enter, it will scroll to the station no. 28.

■ **Edit your favorite list**

On the Favorite list, choose the radio station you want to edit then press the right → key on the remote controller. It will enter the Edit menu with the following options:

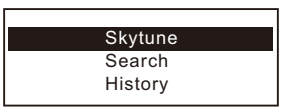
Move down – To move down the ranking of a station

Move up – To move up the ranking of a station

Delete – To delete a particular station

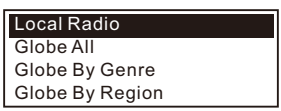
Internet Radio

On the main menu, choose <Internet Radio> and you will find the options below:



Skytune

Select Skytune to start enjoying thousands of radio stations over the world. You can filter your search by Region, Music genre and talks. The <Local Radio> let you access quickly the stations available in your local area.



⚠ *You can change the Local Radio area under Configuration> Local radio setup.*

Search

Instead of browsing the radio station list, you can access the desired station by performing search and input the name of the station.

History

The radio will memorize the stations you have listened on the radio. It can memorize up to 99 stations.

If you have listened more than 99 stations, it will supersede the first station that you have listened.

Media Centre

UPnP (Universal Plug and Play)

You can stream music from the Networked device which supports UPnP function to the radio to play.

For instance, most of the latest computer laptop supports UPnP, and you can stream music from Windows Media Player application on the computer and listen on your radio.

⚠ *Please make sure your computer laptop is on the same Wi-Fi network as the Radio before you start using this function.*

1. If your PC is running Microsoft Windows XP, then you can use Windows Media Player 11(WMP11) to act as your UPnP(Universal Plug and Play) media server. (For Windows 7 or above, please download the correspond version of Windows Media Player).The latest Windows Media Player may be downloaded from Microsoft's website and install by following the instructions detailed in its installation wizard.
2. Once installed, Windows Media Player will create a library from all the media files available to it on your PC.

2.1 Windows XP / Windows Media 11

2.1.1 To add new media files to the library, select' File > Add to Library…> Advanced Options', Click 'Add' and choose the files you wish to add and click' OK'.

2.1.2 Now you need to connect your Internet radio to Windows Media Player 11 and configure it to allow the radio to access your media library. In order to this, you will need to do the following:

a. On the radio, go to the main menu and select <Media Centre> <UPnP>.

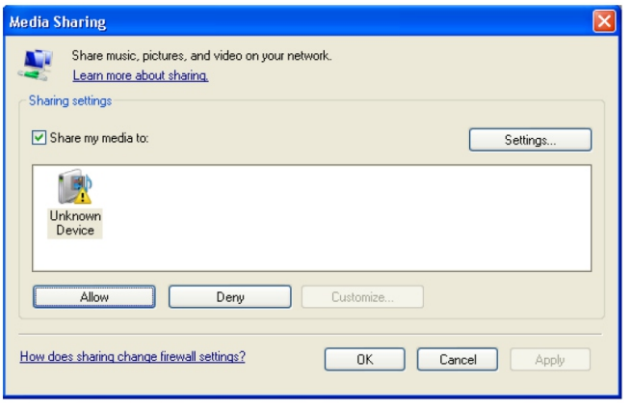
b. It will scan for all available UPnP servers. Note, this may take a few seconds for the radio to complete its scan and before the scan has completed, the radio will display '[Empty]'. The radio will continue to display '[Empty]' if no UPnP servers and found.

c. After a successful scan. Select your UPnP server, by rotating the dial if there is more than one UPnP server, and then press SELECT.

2.1.3 Your PC will now prompt you that a device has attempted to connect to your UPnP server. In order to allow the radio to have access to the media files, you will need to click the 'Library' tab from Windows Media Player 11 and select the <Media Sharing> item to open the 'Media Sharing' window.

Selecting 'Media Sharing…' for Windows Media Player11:

2.1.4 From the 'Media Sharing' windows, the radio will be listed as an unknown device. Click on the unknown device listed, then click the 'Allow' button and then click 'OK'.
Allowing the Radio to Connect:



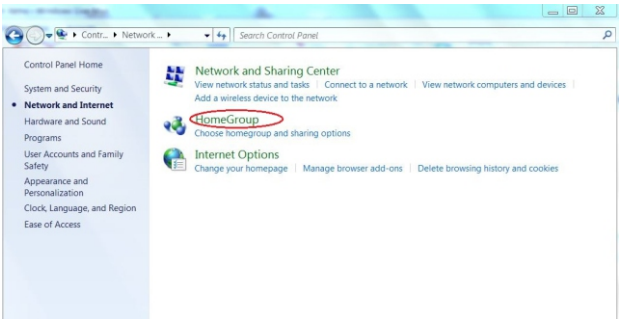
2.2 Windows 7 / Windows Media Player 12

2.2.1 If you are using WMP 12, simply go to <File> and choose <Open> to retrieve the music files you would like to add to library.

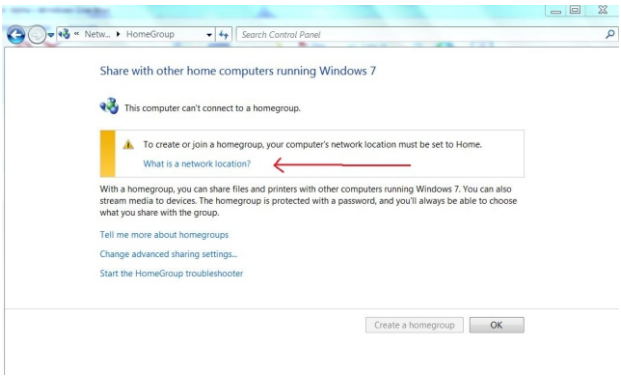
2.2.2 Windows 7 or above requires the PC to be set as Home network and also with the Homegroup enabled to allow devices to access/ play the media files on your Windows Media Player. Please find the steps below:

I) Go to <Control Panel>, select <Network and Internet>

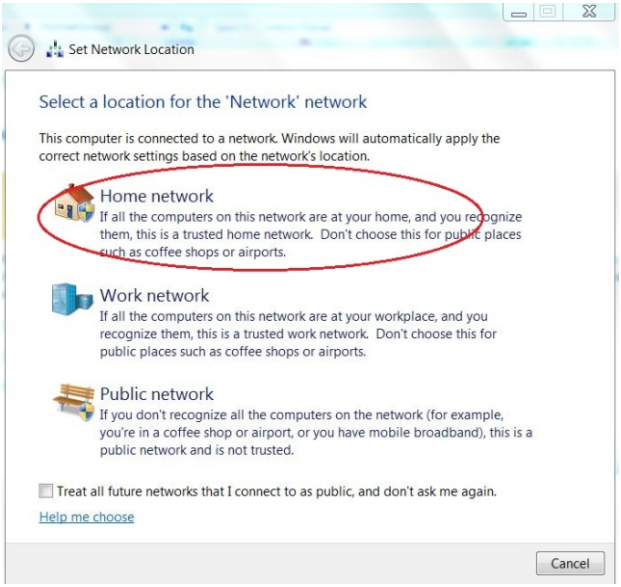
ii) Choose <HomeGroup>



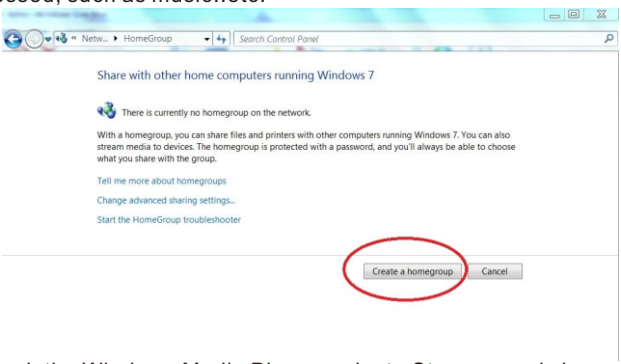
iii) Set the network location



iv) Choose Home network

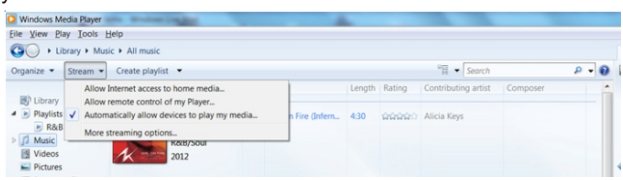


v) Create a homegroup, then choose the kind of media file to be accessed, such as music..etc.



vi) Launch the Windows Media Player, select <Stream> and choose <Automatically allow devices to play my media> from the drop down list.

vii) You can now enjoy the music streaming from the windows media player.



Music streaming via UPnP

1. Once the UPnP server is configure to share media files with your radio, you can start music streaming.
2. On the main menu, select <Media Centre> and choose <UPnP>
3. It may take a few seconds for the radio to complete the scan for available UPnP servers. If no UPnP servers are found, it will show <Empty List>.
4. After a successful scan is done, select your UPnP server.
5. The radio will show the media categories available from the UPnP server, e.g. 'Music', 'Playlists' etc.
6. Choose the media files that you wish to play.

⚠ *You can set the mode of playback under <Configuration → Playback setup>.*

My Playlist

You can make you own playlist for the UPnP music files. Choose the song you want to add to playlist, long pressing the Dial until the sign ⊻ appears. The song will be added to "My playlist". You can add up to 99 songs to "My Playlist".

⚠ *The UPnP playlist will be erased when the radio is powered off.*

Clear My Playlist

Remove all songs in "My Playlist" to allow a new playlist to be prepared.

Alarm Setting

1. Choose <Alarm> from the main menu or press the <Alarm> button on the remote controller.
2. Select either Alarm 1 or Alarm 2, and choose <Turn on> to activate the Alarm.
3. Follow the alarm wizard instructions to set the alarm.

The wizard will guide you through the settings below:

Time – Set the time for the alarm

Sound – You can choose <Wake to Radio> or <Wake to Melody> for the alarm sound.

■ Wake to Radio – only the preset stations can be used for the radio alarm (stations from Favorite list).

Please preset your favorite station before setting the alarm.

■ Wake to Melody- The Melody is default by system.

Repeat – You can schedule the alarm as you desire – Everyday, Once or multiple days.

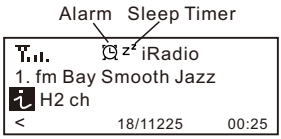
Alarm Volume – Adjust the volume of the alarm as you like by rotating the dial.

4. After the above settings are completed, press the left ← button to exit and make sure the Alarm is turned on. You will see the Alarm icon ⏰ appeared on the display if it is activated.

Sleep Timer Setting

You can set the timer to let the radio go standby after certain time elapsed in the range of 15 minutes to 180 minutes.

You can press <Sleep> button on the remote controller to set the timer. You will see the icon appeared on the display if the timer is set.



Configuration

Network

There are two options under this setting: Wi-Fi Network and Wi-Fi Channels

Wi-Fi Network

■ Add / Remove AP

Add AP – It will scan out a list of routers available nearby
Remove AP – If you have already added a router and want to remove it, choose this option.

■ AP: [ ]

If you have added more than one routers on the radio and want to switch to another one, select this option to change.

■ Signal

This is to show the strength of the Wi-Fi Signal of the Wi-Fi router as received by the radio. Usually signal levels lower than -70dBm is at weaker level and if it affects the reception of your radio, you may need to optimize the router location or check any problem of the router itself.

■ IP

The IP is set <Dynamic> by default. Select to change <Fixed> IP according to your network condition.

■ DNS

The DNS is set <Dynamic> by default. Select to change <Fixed> DNS according to your network condition.

Wi-Fi Channels

Not all of the Wi-Fi channels are available in every country. There may be variation between different countries. Therefore it is necessary to choose the Wi-Fi channels to ensure the Wi-Fi performs satisfactory.

We have already set the channels according to the requirement in different countries. Choose the country you are staying from the list to get the correct channel.

The <Europe/United Kingdom> is set by default, press <Enter> on the Remote controller or push the <Dial> to edit the country selection.

Date and Time
The radio will set your local time automatically after wifi connection. You can choose to manual set the time if you want. Press the **<Tune/Select>** rotary knob to enter into menu, then choose manual set time zone.

Language
English, French, Spanish, Italian, German, and Simplified Chinese are available.

Local Radio
The radio will detect the radio stations in your local area automatically. When you press the **<Local>** button on the radio, you can access the local radio stations right away, or select **<Local Radio>** under the Skytune menu.

You can also set the Local with other country if you want. Go to **<Configuration>,** choose **<Local Radio>** and select **<Manual –set Local Radio>** to set other region.

Playback Setup
This is to set the mode of playback under UPnP streaming: Repeat All, Repeat Once or Shuffle.

DLNA Setup
Our radio supports streaming from DLNA devices and you can rename your radio for easy recognition by the DLNA servers.

Resume when Power on
This function is ON by default. The radio will resume to the last state of mode when the radio is power on next time, e.g. if it was playing radio station before power off, it will resume playing the last listened station when it is power on the next time.

Dimmer
You can set the display backlight level as you prefer.

There are two settings available: Mode and Level

■ Mode: Normal or Power Saving
Normal – the display will stay with the same level of brightness all the time without dim down.
Power Saving – the display will dim down after 15 seconds if no operation is made on the radio.

■ **Level: Bright and Dim**
Bright - the display will stay at the selected level when there is operation on the radio or if the mode is selected in <Normal> as described above.
Dim - the display will dim to the selected level when <Power saving> mode is selected.

■ **Dimmer on Standby**
When the radio is on Standby, rotate the dial to adjust your prefer backlight level which you feel comfortable especially during night time.

EQ
The radio provides several choices of equalizers for you to apply to the type of music playing, such as Flat, Rock, Jazz, Pop, Classical, and Dancing. There is <**Advanced**> level if you want to apply your customized setting on the sound effects.
There are different sound effects available. The Flat is set by default.

Buffer Time
Sometimes you may experience uneven playback of the internet radio. This can happen if the internet connection is slow or network congestion occurs. To help improving the situation, you can choose longer buffer time to get a few seconds of radio stream before beginning to play. The default value is 2 seconds. You can choose 5 seconds if you prefer to have a longer buffering time.

Information
View the Network and System Information of your radio.
To access quickly to this information, press the <Info> button on the remote controller.

⚠ *When you use your PC to manage the My favorite stations, you have to use the IP address and you can view this info from here. Then type in the IP address (Configuration>Info>Network>IP) to your PC's browser input window*

Software Update
There may be software release to upgrade features of the radio time to time.
Check the update regularly to keep your radio up to date with the latest software.

Reset to Default
You can do the reset to clear all the settings and return to default settings.
** Please note all the Station presets, Settings and configuration will be lost after you have performed the Reset.

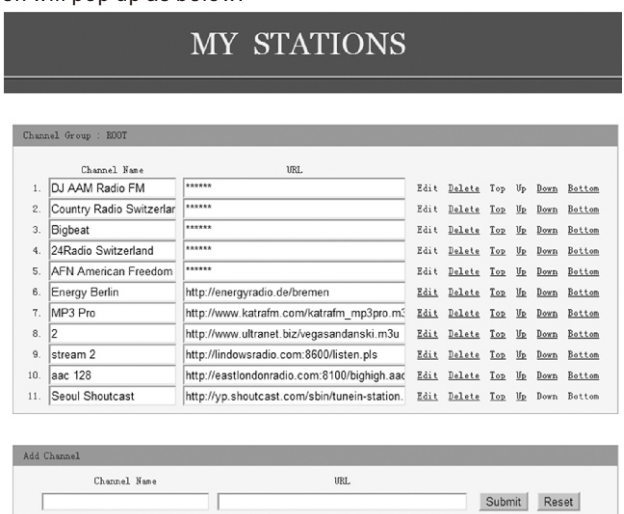
Add your favorite URL

You can add your favorite radio station if you know the published URL of the radio.
We provide an embedded server for your radio and you can manage your favorite stations anytime to add or edit the list. Follow the steps below to access the embedded server:

1. Connect your PC to the same Wi-Fi network as your radio.

2. Locate the IP address in either way as follow:
   ■ Press the <Info> button on the remote controller, choose <Network> and scroll to <IP> to view the IP address
   ■ On the main menu, go to Configuration > Information > Network > IP

3. Open the web browser (we support Internet Explorer and Chrome) in your PC and type the IP address of the radio (e.g. 192.168.1.11). The screen will pop up as below:



4. You can input the name and URL of a new radio station under the Add channel section, then click Submit. The new station will sync to the Favorite list of your radio immediately.

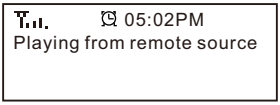
You can add up to 99 radio stations.

Music Streaming from mobile devices

Our radio supports playing music streams from mobile device which uses UPnP or iOS streaming.

Note: Ensure your mobile devices are on the same Wi-Fi network as the radio.

The radio will be discovered as the Speaker source with name <iRadio-xxxxx> on your mobile devices.
Choose the <iRadio-xxxxx> to be the speaker to play music, our radio will start playing the selected music from your mobile device.
When the radio is playing streams from the remote devices, the display will be show as below:



If you are using iOS devices and you want to switch back to listen the internet radio, remember to disable the <iRadio-xxxxx> as the speaker and resume the iOS device as the source of speaker.

Trouble Shooting

Problem	Cause	Solutions
Cannot connect to Wi-Fi network	Network down	• Confirm that a Wi-Fi or Ethernet Wired connected PC can access the internet (i.e. can browse the web) using the same network. • Check that a DHCP server is available, or that you have configured a static IP address on the radio. • Check that you firewall is not blocking any outgoing ports. As a minimum the radio needs access to UDP and TCP ports 80,554,1755,5000 and 7070.
	Router restricts access to listed MAC addresses	Obtain the MAC address from **Configuration > Information** > **Network > Wi-Fi MAC** and add to the allowed equipment list on your access point. Note: The radio has separate MAC addresses for wired and wireless networks;
	Insufficient Wi-Fi signal strength	• Check distance to router; see if a computer can connect to the network in this location • Optimize the distance of the router's location
	Unknown encryption method	Change encryption method on router. The radio supports WEP, WPA, WPA2
	Firewall preventing access	Check the following ports are open: UDP and TCP ports 80 and 123; DNS port 53. Windows Media Player: varies – non-Microsoft firewalls may require configuration for UPnP.
If your radio can connect to the network successfully, but is unable to play particular stations		• The station is not broadcasting at this time of the day (remember it may be located in a different time zone). • The station has too many people trying to attach to the radio station server and the server capacity is not large enough. • The station has reached the maximum allowed number of simultaneous listeners. • The link on the radio is out of date. This is updated automatically every day, so the next time you turn on the link will be recognised.

1. If the Internet Radio keeps re-buffering radio station:

The Internet Radio is streaming the data from the radio station via your broadband connection, if there is a high error rate on your broadband connection, or the connection is intermittent, then it will cause the Internet Radio to pause until the connection is re-established and it has received enough data to start playing again.

If your Internet Radio keeps stopping, please check the DSL modem to ensure that the Broadband line is not suffering a high error rate or disconnections. If you are experiencing these problems, you will need to contact your broadband supplier.

2. What is Buffering?

When playing a stream, the Internet Radio/Media player, downloads a small amount of the stream before it starts playing. This is used to fill in any gaps in the stream that may occur if the internet or the wireless network is busy.

The Internet Radio streams music data from the PC while you are listening. If a stream gets blocked or experiences Internet congestion while transferring it may stop/interfere with the quality of play. If this happens, check your internet connection speed- it must be faster than the speed of the streams.

Technical Specification

Model: WR-220
Power input: 5V ⎓ 1A
Power voltage: 100-240V~50/60Hz
Wireless Network: IEEE802.11b/g/n
Security Protocol: WEP/WPA/WPA2
Audio output power: 2W (RMS)
Audio sockets: 3.5mm earphone jack, 3.5mm Line-out jack
Unit Dimension: 164 x 98 x 98 mm (L x H x D)
Remark: Specification may vary without notice

What's included in the box

* Internet Radio
* Power adaptor
* Remote control
* User manual

WEEE and Recycling

The European laws do not allow any more the disposal of old or defective electric or electronic devices with the household waste. Return your product to a municipal collection point for recycling to dispose of it. This system is financed by the industry and ensures environmentally responsible disposal and the recycling of valuable raw materials.

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FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE : Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.