

BRAVADO-X WiFi Internet Radio by Grace Digital Audio



**GRACE**  
DIGITAL AUDIO

---

USER GUIDE GDI-IRD4500M

---

# Table of Contents

Safety Warnings .....	4
Internet Radio and Network Music Player Quickstart Guide .....	5
What you need before you can use your Internet radio .....	5
Radio Controls .....	6
Remote Control.....	8
Steps for connecting your radio to your wireless network .....	9
Step 1 - Power up the radio.....	9
Step 2 - Scan for a wireless network connection .....	9
Step 3 - Connect to the wireless network.....	10
Choosing a radio station to listen to .....	12
Choosing a Pandora radio station.....	13
Changing the volume.....	14
Storing a radio station in a preset .....	14
Playing a preset radio station .....	14
Requesting a station that is currently unavailable .....	15
Stations which enable you to choose what you listen to .....	15
Setting the clock.....	16
Setting the alarm.....	17
Setting the sleep timer .....	20
Configuring 'My Stuff' .....	20
Registering an account on Grace Digital Audio's website .....	20
Configuring 'My Profile' .....	20
Configuring 'My Stations'.....	21
Configuring 'My Streams'.....	21
Configuring 'My Podcasts' .....	21
Configuring 'My Pandora' .....	22
Accessing Pandora Feedback Menu.....	23
Media Player Quickstart Guide.....	24
Setup your Windows PC to allow the radio to access your audio files via Windows Shares .....	24
Locate the shared audio files using the radio .....	26
Listening to a single shared track.....	26
Listening to a complete shared album.....	27
Arranging (Queuing up) tracks for playback later .....	27
Arranging (Queuing up) albums for playback later .....	27
Controlling playback.....	28

---

# Table of Contents

Browsing the list of tracks currently (queued up) for playback.....	28
Removing tracks from the list (queue) .....	28
Playing tracks in random order .....	29
Playing tracks in the list (queue) repeatedly .....	29
Set up a Windows PC to allow the radio to access your audio files via a UPnP server .....	30
Locating and playing media files using the radio and UPnP.....	32
Browsing the list of tracks currently arranged (queued up) for playback .....	33
Arranging (queuing up) UPnP tracks for playback later.....	33
Queuing up albums for playback later .....	33
Controlling playback.....	34
Removing tracks from the list (queue) .....	34
Playing tracks in random order .....	35
Playing tracks in the queue repeatedly.....	35
Settings Menu .....	36
Choosing the option you want from the Configure menu .....	36
<Network Config> .....	36
<Upgrade Firmware> .....	37
<Language>.....	37
<Factory Reset> .....	37
<Register> .....	37
<Clock Setup>.....	37
<Sleep Timer> .....	37
<Backlight> .....	38
<UPnP> .....	38
<Wi-Fi Strength> .....	38
<Other Cool Stuff> .....	38
Troubleshooting .....	39
Specifications.....	40
License Information and Warranty.....	40
Appendix.....	41
Step 1: Set Up Media Sharing in Windows Media Player 11 .....	41
Step 2: Play Music on the Internet Radio .....	43
Using the USB Port as an USB-Ethernet Connection.....	43
Contact.....	44
Proposition 65 .....	44

---

# Safety Warnings

Please read before installation.

If this Internet radio has been moved from a cold place to a warm place, DO NOT plug it in for 2-3 hours (e.g. from a cold car boot to a warm room). There is a possibility that moisture may have condensed in the Internet radio, this can cause damage to your Internet radio. To avoid damage please unpack your Internet radio and allow it to stand at room temperature for 2-3 hours before use. This will help any moisture evaporate and prevent unnecessary damage to your Internet radio.

- DO** Ensure that the power plug is easily accessible.
- COVERS** Do not remove any fixed covers as this may expose dangerous voltages.
- WEATHER** It is advisable to unplug an external antenna during a thunderstorm.
- VENTILATION** The ventilation holes on the casing of your Internet radio prevent it from over heating. Do not block or cover these holes, especially with cloth or paper. Do allow a minimum distance of 5cm around the apparatus for sufficient ventilation.
- DAMAGE** Never use your Internet radio if it is damaged in any way. Always place your Internet radio on a flat level surface avoiding anywhere which may be subject to strong vibration.
- TEMPERATURE** Avoid extremes of temperature, either hot or cold, place your Internet radio well away from heat sources such as radiators or gas/electric fires.
- DO NOT** Use this apparatus in tropical climates.
- MOISTURE** Do not allow your Internet radio to be exposed to rain, moisture or dust. If any liquid is spilt into your Internet radio it can cause serious damage. If you spill any liquid into your Internet radio switch it off at the mains immediately. Contact your store immediately.
- CAUTION** Do not open any covers and do not repair yourself. Qualified personnel must carry out repair work.

Proposition 65

and this product

Refer to page 44 of User Gu

# INTERNET RADIO QUICKSTART GUIDE

---

## What You Need Before You Can Use Your Internet Radio and Network Streamer

Before you can use your Internet radio, you need the following:

- A broadband Internet connection.
- A wireless access point (Wi-Fi) connected to your broadband Internet, preferably via a router.
- If your wireless network is configured to use Wired Equivalent Privacy (WEP) or Wi-Fi Protected Access (WPA) data encryption then you need to know the WEP or WPA / WPA 2 code so you can get the Internet radio to communicate with the network.
- If your wireless network is configured for trusted stations you will need to enter the radio's MAC address into your wireless access point. To find the radio's MAC address use menu items as follows: Settings > Network Config > View Config > MAC Address
- To enter the MAC address into your wireless access point, you must read the instructions supplied with the wireless access point.

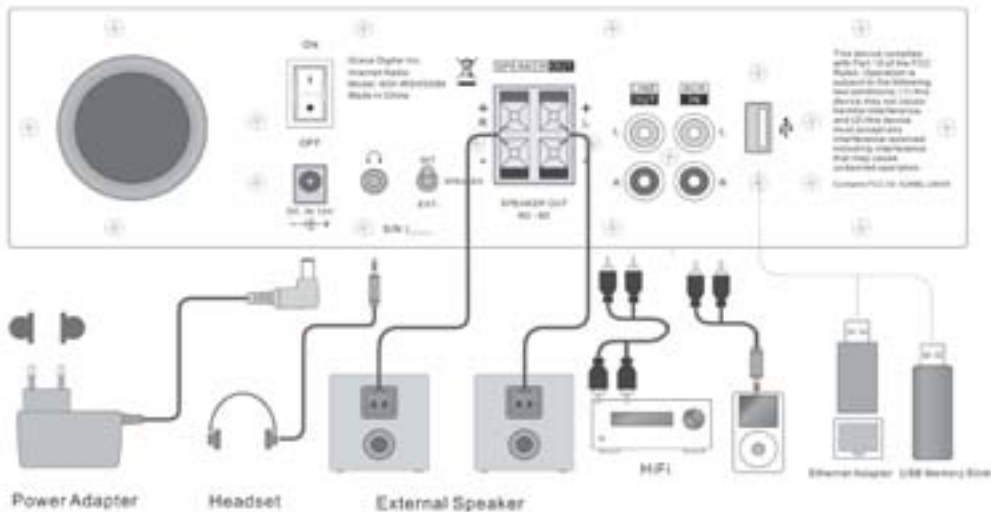
The Internet radio should work anywhere within 300 feet (100 meters) of the wireless access point.

Before you continue, make sure that your wireless access point is powered up and connected to your broadband Internet. To get this part of the system working you must read the instructions supplied with the wireless access point

# Radio Controls



CONTROL	INTERNET RADIO MODE	MEDIA PLAYER MODE
STANDBY/ON	Press to turn on/off the Internet Radio	Same
←	Go back to previous menu page	Same
⏸ / P1	Press and hold for 2 seconds to store Preset station P1 Press to listen to Preset station P1	Play/Pause
■ / P2	Press and hold for 2 seconds to store Preset station P2 Press to listen Preset station P2	Stop
⏮ / P3	Press and hold for 2 seconds to store Preset station P3 Press to listen Preset station P3	Previous Track
⏭ / P4	Press and hold for 2 seconds to store Preset station P4 Press to listen Preset station P4	Next Track
Mode / P5	Press and hold for 2 seconds to store Preset station P5 Press to listen Preset station P5 Select Mode for equalizer settings	Mode
PUSH / Volume Knob	Pushing the select button inwards will activate the currently selected menu item. Turning the knob clockwise or counter clockwise will increase or decrease the volume. This will also move up or down in the menu. Push the button inward to select the highlighted menu item. If selected in error, press the 'back' button to move back to the previous menu	Same



JACKS	DESCRIPTION
ON / OFF SWITCH	Master ON / OFF control for power. <b>IMPORTANT:</b> Switch MUST be ON for the power / standby switch on the front panel to operate the unit.
DC 12V Connection	To supply power to the unit, connect the power adaoter to the DC connection and a wall electrical power outlet
Headphone Jack	The headphone jack is a stereo headphone jack. Plug stereo headphones in for stereo playback of your music or to plug in and connect your internet radio into a home stereo (cables not included)
INT - EXT SPEAKER Selection Switch	The speaker switch is used to select between EITHER internal (INT) speaker or external (EXT) speaker. Select 'Speaker On' if internal speaker is desired. <b>IMPORTANT:</b> IF audio is not heard check that SPEAKER INT has been selected To listen to internatl speakers INT must be selected & Master Power switch ON To list to external speakers EXT must be selected & Mater Power switch ON
RCA (L R) Jack LINE OUT	Connect RCA cables to optional external speakers (not included). 16 watts at 8 ohms or 24 watts for 6 ohm speakers. NOTE: select EXT on the SPEAKER switch
SPEAKER OUT (L R) Wire Connections	Connect optional external speakers to the SPEAKER OUT 6 $\Omega$ - 8 $\Omega$ wire connections
RCA (L R) Jack AUX IN	Connect alternative audio devices to the RCA AUX IN jacks and play audio over the system
USB Port	Play audio from a USB flash drive or connect an optional USB ethernet adapter for use as a LAN internet connection.. Refer to APPENDIX for details

# Remote Control



CONTROL	INTERNET RADIO MODE	MEDIA PLAYER MODE
	Press STANDBY power key to turn off the Internet Radio (Master power is on the back unit)	Same
THUMBS UP THUMBS DOWN	Press for Pandora Thumbs UP/DOWN selection	no function
Arrow Keys 	Press Arrow Keys to navigate throughout various menus and selections	Same
	Press to return to previous menu page	Same
OK	Push OK to select menu items, stations etc.	Same
	NA	Play/Pause
	NA	Previous Track
	NA	Stop
	NA	Next Track
	Press MENU key to return to the main menu	NA
	Press + to increase and - decrease volume	Same
	Press MUTE button to turn off/on the volume	Same
	Set Alarms	NA
BROWSE	NA	NA
REPLY	Access Pandora interactive menu	NA
Keypad 1-10	Selects Preset Stations (Up to 10)	Same

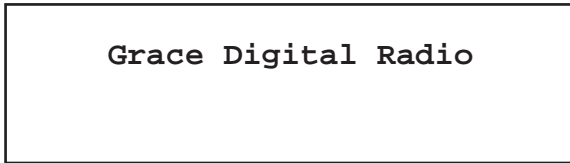
---

# Steps For Connecting Your Radio To Your Wireless Network

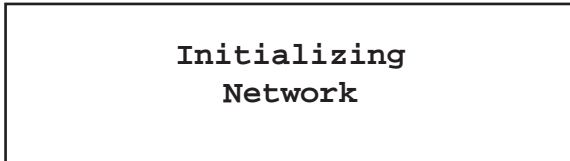
## Step 1 - Power up the radio

First, connect to the AC Power. The radio can be switched on or off with the STANDBY/ON button.

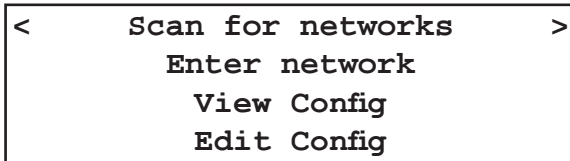
The display on the front of the radio will light up and indicate:



After a few seconds, this will change to show:



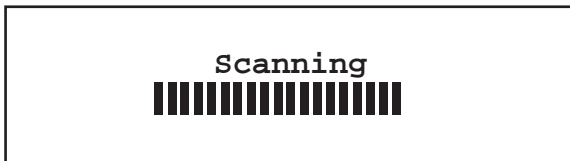
After a few seconds, this will change to show:



## Step 2 - Scan for a wireless network connection

When the display shows < Scan for networks >, press the 'Select' button.  
(Note: if you make a mistake at any point, press the 'Back' button to go back to the previous screen.)

The radio will now scan for all available wireless networks and will display:



---

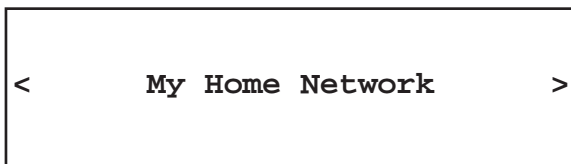
# Steps For Connecting Your Radio To Your Wireless Network (Continued)

If it can't find one then the display will show:



If this happens then you will have to setup your wireless access point - see the instructions supplied with your wireless router / access point.

When the radio finds your wireless network, it displays the ESSID for the access point on the screen - this is a name that is allocated to the access point by the person who set up your network - for example:



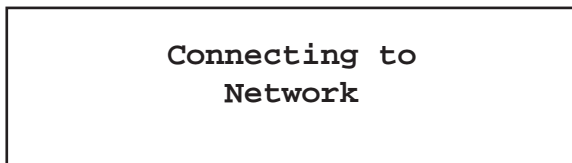
It is possible, and in some locations highly likely, that your radio will find more than one wireless access point, in which case you can choose which one you want to connect to. Turn the knob on the radio to see the ESSID for each access point the radio has found.

For optimal performance you may want to check your home network settings to make sure your radio is on a different channel than your neighbors. To do this please consult your Wi-Fi router owners manual.

## Step 3 - Connect to the wireless network

When the ESSID for the access point you want to connect to is displayed on the screen, press the 'Select' button.

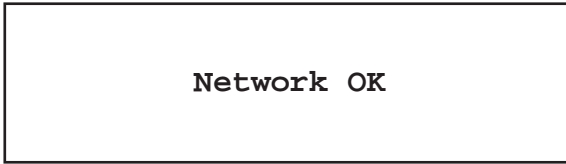
If your network is not configured to need an encryption code, the screen should say:



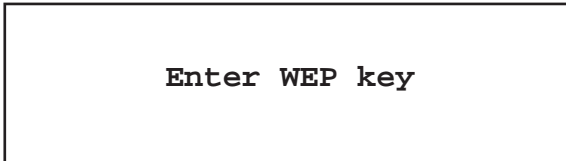
---

# Steps For Connecting Your Radio To Your Wireless Network (Continued)

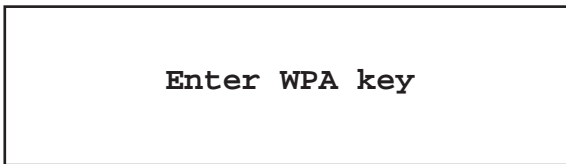
Then:



If the screen displays either:



Or:



Then your network is using one of the encryption systems: Wired Equivalent Privacy (WEP) or Wi-Fi Protected Access (WPA). You therefore need to enter the correct WEP or WPA code into the radio to get it to communicate with your network.

Only the person who set up the network in the first place knows this code; if that person is not you then you need to find out what the password / security code is.

After 3 seconds, the display goes into the code entry mode. To enter the code, use the knob to select each character of the code in turn, pressing the 'Select' button inwards after each character. Note that WEP and WPA codes are sensitive to upper and lower case characters so you must enter them exactly.

Use the 'Back' button to erase incorrect characters.

After the final character, use the knob to select the END character and press the 'Select' button.

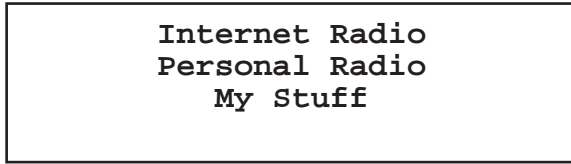
The radio should now be able to connect to the network. Your password will be saved in your Grace radio even if a power outage occurs.

If the display shows "Invalid key" or "Network Error", an incorrect password has probably been entered.

---

# Choosing A Radio Station To Listen To

1. Press the 'Select' button.  
(Note: if you make a mistake at any point, press the 'Back' button to go back to the previous screen.)



2. If the screen does not show < Internet radio > as shown above, turn the knob until it does. Please note that the 'My Stuff' folder will only show up after you register your radio onto our web site.
3. Press the 'Select' button, to choose <Internet radio>.
4. Turn the knob to choose from <Sirius>, <Location> or <Genre>.
5. Press the 'Select' button to choose the option you want.

<Sirius> allows you to choose a Sirius Internet Radio station if you are have a Internet Radio enabled Sirius Radio subscription. Please see [www.sirius.com](http://www.sirius.com) for more info.

<Location> enables you to choose from the radio stations provided by any country which you choose from a list.

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

## <Sirius>

If you are an active Sirius subscriber with a package that includes the ability to listen to Sirius internet radio on a non computer based product you will be able to listen to those stations on the Grace Digital radio. You can either enter your Sirius user name and password onto the Grace Digital website or through this portion of the radio's menu.

When you are in the Sirius menu, press the select button to choose <log in> or <change user>. When prompted you can enter your Sirius user name and password (user names and password are case sensitive). After your user name and password is accepted, go back to the main menu and select <Sirius>. You will now be able to view the Sirius internet radio stations. Scroll to the stations you would like to listen to and press the select button inward to listen to that station.

## <Location>

1. Turn the knob until the display shows the region you want (or select 'All' to display all countries),
2. Press the 'Select' button.
3. Turn the knob until the display shows the country you want.

4. Press the 'Select' button.
5. Turn the knob until the display shows the station you want.
6. Press the 'Select' button and wait until the radio connects to that station.

Note that some radio stations do not broadcast 24 hours per day, and some stations are not always on-line.

If this station has on-demand content (that is, it gives the option of listening to programs which have already been broadcast), see "Stations which enable you to choose what you listen to".

## <Genre>

1. Turn the knob until the display shows the type of content you want to listen to, then press the 'Select' button.
2. Turn the knob until the display shows the station you want.
3. Press the 'Select' button and wait until the radio connects to that station.

Note that some radio stations do not broadcast 24 hours per day, and some stations are not always on-line.

If this station has on-demand content (that is, it gives the option of listening to programmes which have already been broadcast), see "Stations which enable you to choose what you listen to".

---

# Choosing A Pandora Radio Station To Listen To

## (Personal Radio)

This section allows for the new Grace Digital Personal radio services. The current service is Pandora. Prior to this feature working you must first register your radio on the Grace web site. Please see registering your radio. After this is complete you can enter in your Pandora user name and password. Please check out [www.pandora.com](http://www.pandora.com) to check out this service.

## <Stations>

1. Press the select button and you can choose any of the Pandora stations that you have created on your Pandora account.

## <Create Stations>

1. Press the select button and you can create a new station by typing in a word.
2. After you type in the word, select (end) in the menu. After a few seconds it will show you artist, songs and albums with names similar to the word you initially entered.
3. Choose the selection you desire. This function will also create a new station on your Pandora web site.

---

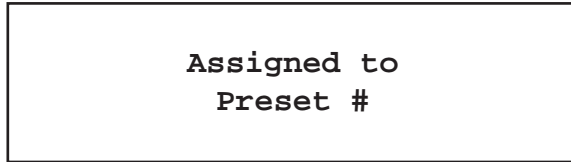
## Changing The Volume

When a radio station is playing, you can increase the volume simply by turning the Volume knob, clock wise.

---

## Storing A Radio Station In A Preset (Radio)

When a station is playing, hold down one of the preset buttons (1-5) until the screen shows.



\* Where “#” is the number of the preset button you held down.

---

## Storing A Radio Station In A Preset (Remote control)

1. When a station is playing, press the and hold one of the numbers (1-10) on the remote control.
2. Select a number to assign the station to (1-10).

\* Please note presets 1-5 are the same for the remote & radio and can be stored using either the radio or remote.

---

## Playing A Preset Radio Station (Radio)

When your radio is powered on and connected to your Wi-Fi network, briefly press the preset button (1-5) on the radio, or 1-10 on the remote control, for the station you want to listen to.

\* Note, do not hold the button down - if you do then the station currently playing will overwrite the one stored in the preset; \*be careful\*.

---

## Requesting A Station That Is Currently Unavailable

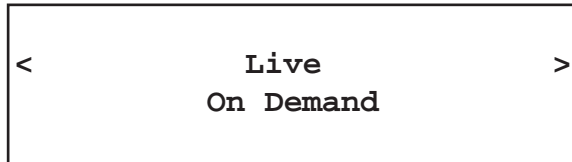
If you want to listen to a particular radio station which is currently not available online, you can visit the Grace Digital Audio web site at <http://grace.reciva.com/> and enter in a request to add the station to the list.

Please note that some radio stations do not pass the audio stream quality test so we are not able to add every request. Typically we can add a station within 10 business days if the station provides us a quality stream. You can check back on our web site periodically to see if the station has been added.

---

## Stations Which Enable You To Choose What You Listen To

Some radio stations can provide a number of options associated with their station; for example, some stations enable you to listen to programs that have already been broadcast. When you select a radio station that has this ability, the station does not start playing immediately, but instead the display shows:



1. Turn the knob to choose <Live> or <On Demand>, then press the 'Select' button.  
If you choose <Live> then the radio plays the current output from this station as normal.  
If you choose <On Demand> then more screens are displayed where you can choose what you want to listen to.  
What is displayed will depend on the station you have chosen - the following steps are only a guide.
2. When you choose <On Demand>, the display shows the names of the programs. Turn the knob to choose the program you want, then press the 'Select' button.

---

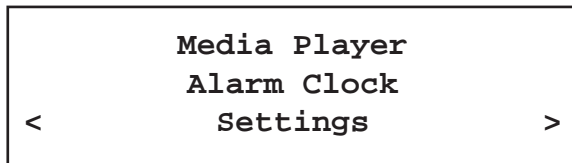
## Stations Which Enable You To Choose What You Listen To (Continued)

3. When you have chosen the program you want to listen to, either it will just start playing, or the display may show a list of days for you to choose from - use the knob to set the day the program was broadcast, then press the 'Select' button.
4. After you have chosen the day, you may be able to choose the Start Time. Set the Start Time using the knob and press the 'Select' button.
5. Program which enable you to choose the time also enable you to fast-forward and rewind to the part you want to into to while the radio is playing. The elapsed time is displayed. Using the Skip forward (P3) or Skip backward (P1). Skip forward or backward in 30 second intervals.

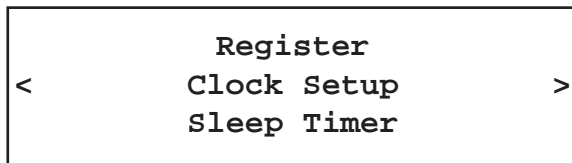
---

## Setting The Clock

1. Press the 'Select' button. (Note: if you make a mistake at any point, press the BACK button to go back to the previous screen.)
2. Turn the knob until the display shows <Settings>.



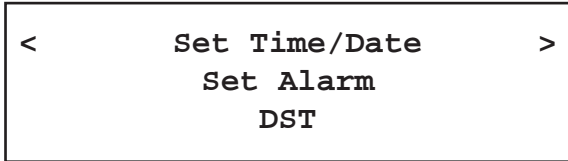
3. Press the 'Select' button.
4. Turn the knob until the display shows <Clock Setup>.



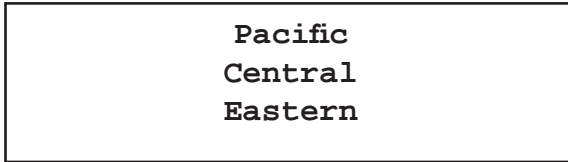
---

## Setting The Clock (Continued)

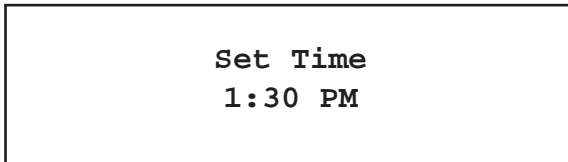
5. Turn the knob until the display says <Set Time/Date>.



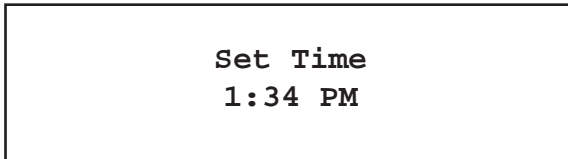
6. Press the 'Select' button.



7. Turn the knob until the correct time zone is seen on the display. Push the 'Select' button to set your time zone. Then turn the Menu knob until the hour setting is correct, then press the 'Select' button.



8. Turn the knob until the minute setting is correct, then press the 'Select' button.

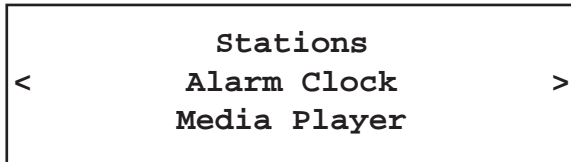


The display shows <Set Time> with the new time shown beneath for 3 seconds, then returns to the menu, press the 'Back' button 2 times to go to the main menu.

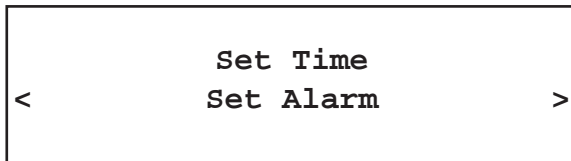
---

# Setting The Alarm

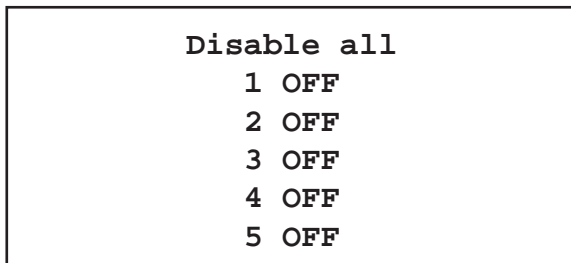
1. Press the 'Select' button. (Note: if you make a mistake at any point, press the BACK button to go back to the previous screen.)
2. Turn the knob until the display shows <Alarm Clock>.



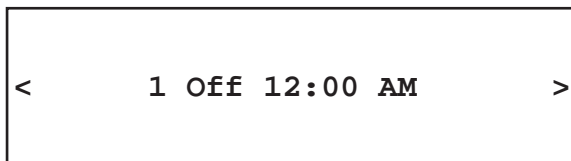
3. Press the 'Select' button.
4. Turn the knob until the display shows <Set Alarm>.



5. Press the 'Select' button.



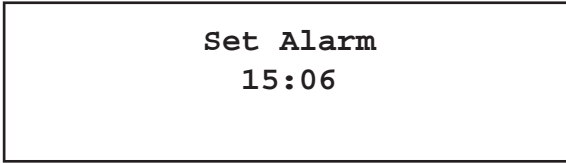
6. Turn the knob to choose between <Disable all> which turns off all alarms or any of the 5 alarms. Press the select button to set the alarm that you want to activate. Below is an example to set Alarm 1. Choose < 1 Off 12:00 AM >



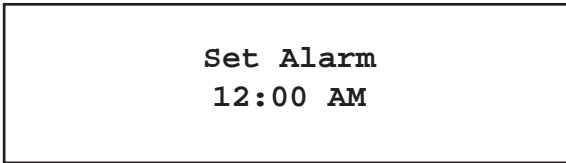
---

## Setting The Alarm (Continued)

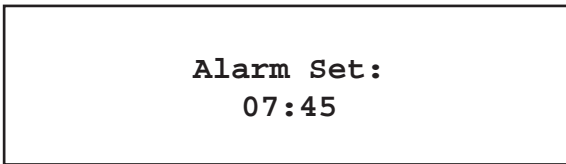
7. If you choose “Yes” then the display enables you to set the time for the alarm.



8. After selecting < 1 Off 12:00 AM> you can choose the time to set the Alarm.



9. Turn the knob until the minute setting is correct, then press the ‘Select’ button.

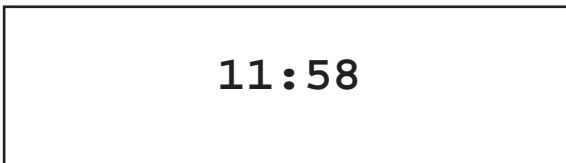


10. Turn knob to choose how often you want the Alarm to alarm

11. Turn knob to use either the buzzer or the current radio station that is playing to turn on.

The display shows <Alarm Set> with the time of the alarm shown beneath for 3 seconds and then returns to the radio station display.

When in Standby Mode, the Alarm time is shown next to the clock time with brackets.



Ensure the volume is set to the desired level.

Please note that when your Alarm turns on, the radio’s back light display will turn on and show a menu asking if you want to turn on the radio or not. If within 60 seconds after the display turns on your radio does not connect to your Wi-Fi network and the radio station starts playing, the buzzer will announce instead. For optimal performance choose a radio station that typically buffers very quickly.

---

## Setting The Sleep Timer

1. Choose Alarm Clock
2. Choose Sleep Timer
3. Then scroll the Select knob form between 30 seconds and 99 hours. When the desired time is reached, Press the select knob. The radio will stay on until the timer is reaches zero.

## CONFIGURING 'MY STUFF'

---

### Registering An Account On Grace Digital Audio's Website

1. Open the website, <http://grace.reciva.com> from your internet browser.
2. Click on the 'Register' link and follow the on-screen instructions to register an account. Please note, during the registration process, a validation code will be sent to you via email. Please enter this code when prompted to do so.
3. After logging into your account, you will be able to edit your information for 'My Profile', 'My Stations', 'My Streams', 'My Radios' and 'My Podcasts' from the left-hand side of the website.
4. You can now add your Internet Radio to your account on the website by accessing the 'My Radios' link. From the 'My Radios' section, you will need to enter in your radio's eight digit serial number, which can be found from the <Settings > <Version> menu on the radio. When in the <Version> menu please rotate the menu knob left or right until <Serial Number> shows on the display. You will also need to enter in your radio's seven digit registration code, which can be found from the 'Settings' then turn the 'Select' knob until the 'Register' choice is active. Push the 'Select' knob in to obtain your registration number.

---

### Configuring 'My Profile'

1. Once logged into you Grace Digital Audio account, you can edit your account's details from your 'My Profile' section.
2. Click on the 'My Profile' link to view your account's current information. This information will include various details such as your address, user name, password etc. Edit your details and then click on the 'Update' button to save them.

---

## Configuring 'My Stations'

1. It is possible to search for radio stations that are available in Grace Digital Audio's stations' database from Grace Digital Audio's website. Whenever stations are searched for on the website, they will be displayed in a list of search results together with a link to 'Add to My Stations'.
2. Clicking on the 'Add to My Stations' link, will add the station to your account's 'My Stations' list. Clicking on 'My Stations' and then selecting the station will allow you to edit this list.
3. Once you have Internet stations available in your 'My Stations' list, you may play these stations directly from your Internet Radio. These stations will be available on your radio from the menu item: 'Stations > My Stuff > My Stations'. Please note, the stations will only be available to your radio once your radio has downloaded a new stations list. To cause the radio to download a new stations' list, please remove and reconnect the power to your radio.

---

## Configuring 'My Streams'

1. Once logged into your Grace Digital Audio website account, you can add your own Internet radio streams to your 'My Streams'.
2. Clicking on 'My Streams' will prompt you to enter the station's name and its media stream URL. The media stream URL should be a link to a website's actual audio stream. If you have any doubt about locating the media stream URL from a webpage, then please refer to the FAQs section on Grace Digital Audio's website, <http://grace.reciva.com>. You can also contact the website of the station that you want to listen to, to obtain the exact URL.
3. Once you have Internet radio streams available in your 'My Streams' list, you may play these stations from your Internet Radio. These stations will be available on your radio from the menu item: 'Stations > My Stuff > My Streams'. Please note, the streams will only be available to your radio once your radio has downloaded a new stations' list. To cause the radio to download a new stations' list, please remove and reconnect the power to your radio.

---

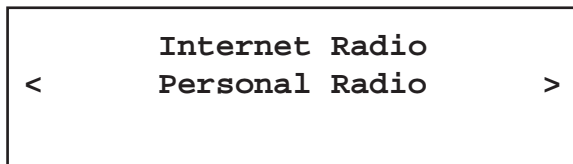
## Configuring 'My Podcast'

1. It is possible to add audio podcasts (RSS feeds) to your Grace Digital Audio account that can be accessed on your Internet radio. To add a podcast, simply login to your account and then click on the 'My Podcasts' link.
2. From your 'My Podcasts' section, you can add your chosen podcast by entering in the podcast's name and its URL as prompted by the website. Please note, the podcast URL will have to be a direct RSS feed which will end with the 'xml' extension e.g. <http://someurl.com/podcast.xml>
3. Once you have podcasts available in your 'My Podcasts' list, you may access these feeds from your Internet Radio. These podcasts will be available on your radio from the menu item: 'Stations > My Stuff > My Podcasts'. Please note, the podcasts will only be available to your radio once your radio has downloaded a new stations' list. To cause the radio to download a new stations' list, please remove and reconnect the power to your radio.

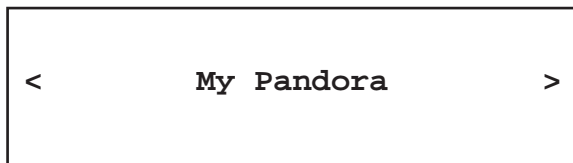
---

# Configuring 'My Pandora'

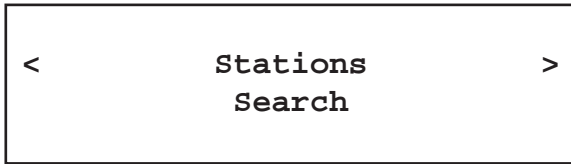
1. In order to use the Pandora feature on the Grace Digital Internet radio you must 1st have an active Pandora account. You can create a Pandora account at [www.pandora.com](http://www.pandora.com) or on Grace's web site.
2. Grace Digital is not affiliated in any way with Pandora nor do we guarantee any of Pandora's services or streams. Please see Pandora's web site for information on how to update and activate your Pandora services. After you have successfully signed up with Pandora's service that allows you to use a stand alone internet radio you are now ready to go to the next step. Please note that if you have any questions, concerns or problems with Pandora's services please contact Pandora directly.
3. Log onto your Grace Digital Audio account. Please note that you must follow the steps in 'Registering An Account On Grace Digital Audio's Website' prior to upgrading your radio to be able to receive Pandora music stream. If you have not signed up for the enhanced services please go back to that step.
4. After you have successfully logged into the Grace Digital Audio web site choose 'enhanced or optional' features. In this menu item you will choose 'activate Pandora' (please note from time to time the actual verbiage used in the on line steps will change). You will then be prompted to add your pandora 'user name' and 'password'. After you have done this please unplug your radio from power and wait 15 minutes. Plug the radio back in and turn the radio on. You will now be able to listen to your Pandora stations on your Grace digital radio.
5. You can then listen to your Pandora music section via the following menu choices. Select 'Personal Radio'.



6. Select 'My Pandora'.



6. Select 'Stations'.



---

## Accessing Pandora Feedback Menu

1. While listening to one of your Pandora radio stations choose the 'Retrieve' button on the internet radio. The 'Retrieve' button will allow you to perform the similar choices as you do with your regular Pandora on line account. Choosing the reply button will allow you to thumbs up / down a song, sleep up to 6 songs an hour, book mark songs and artist etc.

- Bookmark Song
- Bookmark Artist
- Give Feedback (thumbs up or down a song)
- Song Details
- Skip Song
- Explain Song

# MEDIA PLAYER QUICKSTART GUIDE

The Media Player allows you to play unprotected audio files (AAC, AIFF, MP3, RM, WAV, WMA) and play lists (M3U) stored on a networked PC or Apple. It has been verified to work with Windows 2000 and Windows XP, and Apple OSX.

---

## Set Up Your Windows PC To Allow The Radio To Access Your Audio Files Via Windows Shares

### Windows XP

1. Please ensure that your PC is available on the network for your Internet radio, then, using Windows

Explorer, locate the folder where your audio files are stored.

2. Right click on the folder.

3. Select 'Properties'.

4. Click on 'Sharing'.

5. Select 'Share this folder on the network' and 'Allow network users to change my files'.

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

### Windows Vista

1. Please ensure that your PC is available on the network for your Internet radio.

2. Open the 'Network and Sharing Center' windows from 'Start menu > Control Panel > Network and Sharing Center'.

3. From the 'Network and Sharing Center', under the 'Sharing and Discovery' heading, ensure that the following parameters are set:

- Network discovery On
- File sharing On
- Public folder sharing On
- Password protected sharing Off

4. Open 'Windows Explorer' by right clicking on the Start menu and selecting 'Explore'.

Create a new directory in the 'Public' directory and move your media files into this new directory.

5. Right click on the directory just created and select 'Share...'. Ensure that the directory is listed as being shared, if not, click on the 'Share' button.

6. Right click on the directory just created and select 'Properties'. From the 'Properties' window, click the 'Sharing' tab and then click the 'Advanced Sharing...' button. From the 'Advanced Sharing...' window, click to check the 'Share this folder' option.

## Apple OSX

1. The MAC will require Windows File Sharing. MAC OS 9 and earlier versions of the OS will need extra software to use Windows File Sharing. MAC OS X 10.2 and later versions have Windows File Sharing built into the OS. Please ensure that your PC is available on the network for your Internet radio. Your radio will also need to be able to access directories that require a user name and password.

2. Setup Windows File Sharing on the MAC:

- From the 'Dock', click 'System Preferences'. From the 'System Preferences' window, under the 'Internet & Network' section, click 'Sharing'.
- From the 'Sharing' window, do the following:
  - Under the 'Services' section, enable 'Personal File Sharing' and 'Windows Sharing'. Also, click 'Start' for each of these services.
  - Under the 'Firewall' section, keep the firewall off.
  - Under the 'Internet' section, keep 'Internet Sharing' off.

3. Setup Account:

- From the 'System Preferences' window, click 'Accounts'. Select an account and remember its 'Short Name' and password. This will be used for the radio to connect to the MAC.

4. Directory Setup:

- From the 'Dock', click 'Finder'. From 'Finder', click 'Applications > Utilities'. Click on 'More Info' for 'Directory Access' and ensure that it is 'Read/Write' enabled. Double-click on 'Directory Access' and enable the following:
  - AppleTalk
  - LDAPv3
  - SLP
  - SMB/CIFS
- Also, for 'SMB/CIFS', click 'Configure' and select an appropriate workgroup.
- Copy and paste the mp3 media files to 'Documents' in the 'Finder' window.
- Turn on 'AirPort' (or wireless sharing).
- Wait for a few minutes for the changes to take place.

5. The radio should now be able to access the MAC from its 'Media Player > Windows Shares' menu after entering in the MAC account's short name and password on the radio.

---

## Locate The Shared Audio Files Using The Radio

1. Power up the radio.
2. Wait for 'Stations' to be displayed on the radio, or press the BACK button repeatedly until 'Stations' is displayed.
3. Turn the knob until the radio display shows 'Media Player'.
4. Press the SELECT button and turn the knob until 'Windows Shares' is displayed.
5. Press the SELECT button, turn the knob until 'Scan for PCs' is displayed and press SELECT again.
6. The radio will now display 'Finding PCs'. Once the radio has finished, turn the knob to highlight the correct PC.
7. Press the SELECT button. The radio will search for shared folders.
8. Turn the knob to highlight the correct shared folder and press SELECT.
9. The radio will display 'File Scan...' as it scans through the media files in the shared folder. Text on the bottom row of the display will change to indicate that the file scan is in progress. If you have a large number of audio files this could take several minutes to complete.
10. Once the radio has finished scanning, it will display 'By Album'. You can now browse through the scanned media files, which will now be organized 'By Album', 'By Artist' and 'Play lists' – if available.

Note: The first time the file scan is done a file called 'reciva\_media\_cache' is written to the folder where the audio files are stored. This is in order to speed up subsequent file scans.

---

## Listening To A Single Shared Track

1. Turn the knob until 'By Artist' is displayed.
2. Press the SELECT button.
3. Turn the knob until the required artist is displayed.
4. Press the SELECT button.

5. Turn the knob until the required album name is displayed.
  6. Press the SELECT button. '[Add to Queue]' will be displayed.
  7. Turn the knob until the required track is displayed.
  8. Press the SELECT button. The track will begin playing.
- 

## Listening To A Complete Shared Album

1. Turn the knob until 'By Artist' is displayed.
  2. Press the SELECT button.
  3. Turn the knob until the required artist is displayed.
  4. Press the SELECT button.
  5. Turn the knob until the required album name is displayed.
  6. Press the SELECT button. '[Add to Queue]' will be displayed.
  7. Press the SELECT button. The album will begin playing.
- 

## Arranging (Queuing Up) Tracks For Playback Later

1. Highlight the required track.
  2. Press the SELECT button. 'Track Added To Queue' will be displayed.
- 

## Arranging (Queuing Up) Albums For Playback Later

1. Highlight the required album.
  2. Press the SELECT button.
  3. Turn the knob until '[Add To Queue]' is displayed.
  4. Press the SELECT button. 'Tracks Added to Queue' will be displayed.
-

---

## Controlling Playback

1. Use the STOP button to stop playback.
2. Use the PLAY/PAUSE button to either pause a currently playing track or to restart a currently paused track or to restart a stopped track.
3. Use the SKIP TO PREVIOUS TRACK button to start playback of the previous track in the queue.
4. Use the SKIP TO NEXT TRACK button to start playback of the next track in the queue.

---

## Browsing The List Of Tracks Currently Arranged (Queued Up) For Playback

1. Press the BROWSE button. The currently playing track name will be displayed.
2. Turn the knob to see which tracks are queued up for playback.
3. If you want to jump to a particular place in the queue then press the SELECT button when the required track is displayed.

---

## Removing Tracks From The List (Queue)

1. Press the BROWSE button. The currently playing track name will be displayed.
2. Turn the knob to select the track you want to remove from the queue.
3. Press and hold the STOP button for 2 seconds and the radio will display: 'Delete Track?'
4. Turn the knob to highlight 'Yes' or 'No'.
5. Press SELECT to confirm whether you actually want to delete the track from the queue.
6. If 'Yes' was selected then 'Removed From Queue' will be displayed.
7. To remove all tracks from the queue, keep pressing BACK until the 'Media Player' menu item is selected, press SELECT and then turn the knob to select 'Clear Queue' and press SELECT again.

---

## Playing Tracks In Random Order

1. Select the individual tracks as described previously.
2. Navigate to top-level menu item 'Media Player' using the SELECT and BACK buttons.
3. Press the SELECT button.
4. Turn the knob until 'Playback Mode' is displayed.
5. Press the SELECT button.
6. Turn the knob until 'Shuffle' is displayed.
7. Press the SELECT button.
8. Turn the knob to select YES/NO to confirm that shuffle mode should be enabled.

---

## Playing Tracks In The List (Queue) Repeatedly

1. Select the individual tracks as described previously.
2. Navigate to top-level menu item 'Media Player' using the SELECT and BACK buttons.
3. Press the SELECT button.
4. Turn the knob until 'Playback Mode' is displayed.
5. Press the SELECT button.
6. Turn the knob until 'Repeat' is displayed.
7. Press the SELECT button.
8. Turn the knob to select YES/NO to confirm that repeat mode should be enabled.

Note:

1. If the shared folders contain more songs than the Internet Radio memory limit, it will display "Too many files".
2. Repeatedly pressing button P4 will toggle Repeat and Shuffle modes

---

# Set Up A Windows PC To Allow The Radio To Access Your Audio Files Via A UPnP Server

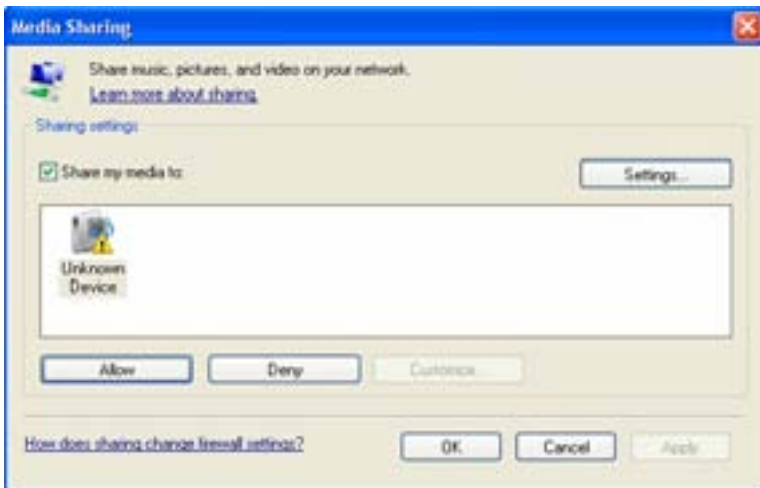
1. If your PC is running Microsoft Windows XP or Windows Vista, then you can use Windows Media Player 11 (WMP11) to act as your UPnP (Universal Plug and Play) media server 1.0. Windows Media Player 11 may be downloaded from Microsoft's website and installed by following the instructions detailed in its installation wizard.
2. Once installed, Windows Media Player 11 will create a library from all the media files available to it on your PC. To add new media files to the library, select 'File > Add to Library... > Advanced Options', click 'Add' and choose the files you wish to add and click 'OK'.
3. You will now need to connect your Internet radio to Windows Media Player 11 and configure it to allow the radio to access your media library. In order to this, you will need to do the following:
  - a. Keep pressing BACK to get to the radio's top-level menu and then turn the rotary knob to select 'Media Player'.
  - b. Press SELECT and then turn the knob to highlight 'UPnP Servers'.
  - c. Press SELECT and the radio will scan for all available UPnP servers. Note, this may take a few seconds for the radio to complete its scan and before the scan has completed, the radio will display '[Empty]'. The radio will continue to display '[Empty]' if no UPnP servers are found.
  - d. After a successful scan, select your UPnP server, by rotating the knob if there is more than one UPnP server, and then press SELECT (note, your radio will display 'Access Denied' at this stage).
4. 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 Player 11:



5. From the 'Media Sharing' window, 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:



---

# Locating And Playing Media Files Using The Radio And UPnP

1. Once the UPnP server is configured to share media files with the Internet radio, you can play the files by doing the following on the radio.
2. Keep pressing BACK to get to the radio's top-level menu and then turn the knob to select 'Media Player'.
3. Press SELECT and then turn the knob to highlight 'UPnP Servers'.
4. Press SELECT and the radio will scan for all available UPnP servers. Note, this may take a few seconds for the radio to complete its scan and before the scan has completed, the radio will display '[Empty]'. The radio will continue to display '[Empty]' if no UPnP servers are found.
5. After a successful scan, select your UPnP server, by rotating the knob if there is more than one UPnP server, and then press SELECT.
6. The radio will now list the media categories available from the UPnP server, e.g. 'Music', 'Playlists' etc. Turn the knob to select which category you wish to browse, press SELECT and turn the knob to highlight a sub category and press SELECT again. For example, you could select 'Music' and then 'Album'.
7. Turn the knob to highlight the media files that you wish to play and press SELECT.
8. The radio will display '[Add to Queue]', press SELECT and the radio will add the tracks to its queue and begin playing them automatically.

---

## Browsing The List Of Tracks Currently Arranged (Queued Up) For Playback

1. Press the BROWSE button. The currently playing track name will be displayed.
2. Turn the knob to see which tracks are queued up for playback.
3. If you want to jump to a particular place in the queue then press the SELECT button when the required track is displayed.
4. It is important to note here that media files scanned from the radio's 'Windows Shares' function can also be added to the radio's queue.

---

## Arranging (Queuing Up) UPnP Tracks For Playback Later

1. Highlight the required track.
2. Press the SELECT button. 'Track Added To Queue' will be displayed.

---

## Arranging (Queuing Up) Albums For Playback Later

1. Highlight the required album.
2. Press the SELECT button.
3. Turn the knob until '[Add To Queue]' is displayed.
4. Press the SELECT button. 'Tracks Added to Queue' will be displayed.

---

## Controlling Playback

1. Use the STOP button to stop playback.
2. Use the PLAY/PAUSE button to either pause a currently playing track or to restart a currently paused track or to restart a stopped track.
3. Use the SKIP TO PREVIOUS TRACK button to start playback of the previous track in the queue.
4. Use the SKIP TO NEXT TRACK button to start playback of the next track in the queue.

---

## Removing Tracks From The List (Queue)

1. Press the BROWSE button. The currently playing track name will be displayed.
2. Turn the knob to select the track you want to remove from the queue.
3. Press and hold the STOP button for 2 seconds.
4. Turn the knob to highlight 'Yes' or 'No'.
5. Press SELECT to confirm whether you actually want to delete the track from the queue.
6. If 'Yes' was selected then 'Removed From Queue' will be displayed.
7. To remove all tracks from the queue, keep pressing BACK until the 'Media Player' menu item is selected, press SELECT and then turn the knob to select 'Clear Queue' and press SELECT again.

---

## Playing Tracks In Random Order

1. Select the individual tracks as described previously.
2. Navigate to top-level menu item 'Media Player' using the 'Select' and 'Back' buttons.
3. Press the 'Select' button.
4. Turn the knob until 'Playback Mode' is displayed.
5. Press the 'Select' button.
6. Turn the knob until 'Shuffle' is displayed.
7. Press the 'Select' button.
8. Turn the knob to select YES/NO to confirm that shuffle mode should be enabled.

---

## Playing Tracks In The List (Queue) Repeatedly

1. Select the individual tracks as described previously.
2. Navigate to top-level menu item 'Media Player' using the 'Select' and 'Back' buttons.
3. Press the 'Select' button.
4. Turn the knob until 'Playback Mode' is displayed.
5. Press the 'Select' button.
6. Turn the knob until 'Repeat' is displayed.
7. Press the 'Select' button.
8. Turn the knob to select YES/NO to confirm that repeat mode should be enabled.

The Media Player allows you to play unprotected audio files (AAC, AIFF, MP3, RM, WAV, WMA) and play lists (M3U) stored on a networked PC. It has been verified to work on Windows 2000 and Windows XP.

## SETTINGS MENU

---

### Choosing The Option You Want From The Settings Menu

1. Press the 'Select' button.

(Note: if you make a mistake at any point, press the 'Back' button to go back to the previous screen.)

2. Turn the knob until 'Settings' is displayed
3. Press the 'Select' button.
4. Turn the knob until the display shows the option you want.
5. Press the 'Select' button to choose the option shown on the display. The options are explained below.

---

### <Network Config>

Enables you to scan again for connection to another wireless network, or to manually configure the network parameters. Use this if you take the Internet radio to another building where you want to use it, or if you change your wireless router.

---

## <Upgrade Firmware>

Use this option to download new firmware for the radio from the Grace Digital Audio portal on the Internet. If there is new firmware available, then the radio will prompt you if you want to download it or not. Note, at this stage, you can press the radio's 'Back' button to cancel the radio beginning a firmware upgrade. A Firmware upgrade may take several minutes, so do not switch off the power to the radio until the operation is complete otherwise the radio may become permanently damaged.

---

## <Language>

Allows you to change the display language.

---

## <Factory Reset>

Puts all the settings back to their defaults as they were when the unit left the factory. If you perform a factory reset on your radio you will lose all your presets and your wireless network connection.

Please note that your radio's serial number will still be registered with your Grace Digital internet radio account (assuming you already registered the radio). Any premium station passwords, my stuff stations and podcast that were saved on our web site will be saved all be reassociated with your radio after you power back on, log onto your network and download a new stations list.

---

## <Register>

This will display a key that can be used to register the radio on the Grace Digital Audio Customer portal: <http://grace.reciva.com/>

---

## <Clock Setup>

Use this option to set the time, to set an alarm and to view the current alarm setting, see "Setting the alarm".

---

## <Backlight>

Selecting this option will alter the Internet radio's backlight brightness.

1. After selecting the 'Backlight' menu item, the radio will display its list of three menu modes: 'Inactive', 'Active' and 'Standby'. These three states are explained below:
  - The radio gets into its 'inactive' state when there is no button pressed for 30 seconds.
  - The 'active' state is when there is user activity.
  - 'Standby' is the state when the radio has been turned off.
2. Rotate the knob to highlight the desired menu mode and press SELECT.
3. The radio will now display the current backlight value for this menu mode. You can alter this value by rotating the knob to increase or decrease it.

---

## <UPnP>

This menu allows you to change the name of your device. You can name your device any name you want so other UPnP devices will be able to view the name. Such as Greg's Kitchen Radio etc.

---

## <Wi-Fi Strength>

This menu will show the signal strength of your Wi-Fi access point as it is seen by the internet radio. This feature can assist you in locating of your internet radio for optimal performance.

---

## <Other Cool Stuff>

Please note this manual is for the current shipping version of software. We periodically release new software with new features and move some menu items around. So please have fun and look around at all the features and enjoy listening to premium music content, talk radio, kids ,music, NPR and BBC and sports from around the world.

# TROUBLESHOOTING

If you experience any trouble with your wireless Internet radio, then you may find it useful to visit the help section on: webpage: <http://www.gracesupport.com/>

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

1. Confirm that a Wi-Fi connected PC can access the Internet (i.e. can browse the web) using the same network.
2. Check that a DHCP server is available, or that you have configured a static IP address on the radio. To configure the DHCP, you must read the instructions supplied with the wireless access point.
3. Check that your 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. To configure the Access Port Control, you must read the instructions supplied with the wireless access point.
4. Check your access point does not restrict connections to particular MAC addresses. You can view the radio's MAC address using the menu item Configure > Network Config > View Config > MAC address.
5. If you have an encrypted network, check that you have entered the correct key or passphrase into the radio. Remember that text-format keys are case sensitive.

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

1. The station is not broadcasting at this time of the day (remember it may be located in a different time zone).
2. The station has reached the maximum allowed number of simultaneous listeners.
3. The station is not broadcasting anymore.
4. The link on the radio station is out of date.
5. The Internet connection between the server (often located in a different country) and you is slow.



Try using a PC to play back the stream via the broadcaster's web site.

If NO audio from your speakers or NO power: be sure the power switch on the back to the unit is turned ON; Using the selection switch on the back of the unit for internal or external speaker source, be sure the desired selection is made appropriately. If using external speakers, be sure speaker wires and connections are securely and properly completed.

---

# Specifications

- Power Requirements - Mains AC 100-240V, 50/60Hz / 12V 1.5A
- Power Consumption: 18W
- Speaker Output (RMS) Level: 16W (8W x 2) 8Ω 3" internal speakers / 24W (6Ω) external speakers
- Frequency Response 80Hz - 15 KHz ± 3dB internal speakers / 50Hz-20KHz ± 3dB external
- Headphone Speakers Level: 15mW
- Network WiFi 802.11n or optional USB Ethernet adapter

	This Product is intended for North American markets. The GRACE Wireless Internet Radio GDI-IRD4500M is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC
	FCC Compliance and Advisory Statement: 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

---

# License Information and Warranty

This product contains software licensed under version 2 of the GNU Public License and version 2.1 of the GNU Lesser Public License.

This product includes technology owned by Microsoft Corporation and under a license from Microsoft Licensing GP. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft Corporation and/or Microsoft Licensing, GP as applicable.

## Warranty

Your Internet Radio is guaranteed against original defects in materials, manufacture and workmanship for one year from the date of purchase under a limited manufacturer' warranty.

Under this warranty, repair of any defect or, at the company's discretion, replacement of the faulty component(s) without charge for parts or labor, is . This warranty does not imply any acceptance by Grace Digital, retailers or its agents for consequential loss or damage and specifically excludes fair wear and tear, accident, misuse of unauthorized modification.

This warranty is applicable in the United States only and does not in any way limit the customer's legal rights. Claims and enquiries under the warranty for Grace products purchased outside the USA should be addressed to the local importers or distributors. If you have reason to claim under the warranty please contact your dealer in the first instance. Please retain all original packaging materials for possible future use. We suggest that you complete details of purchase now and keep this information in a safe place for future reference. Grace Digital provides warranty support for new product(s) purchased from an authorized distributor, dealer or reseller only. Any product not purchased new from an authorized distributor, dealer or reseller is void of any manufacturer's warranty.

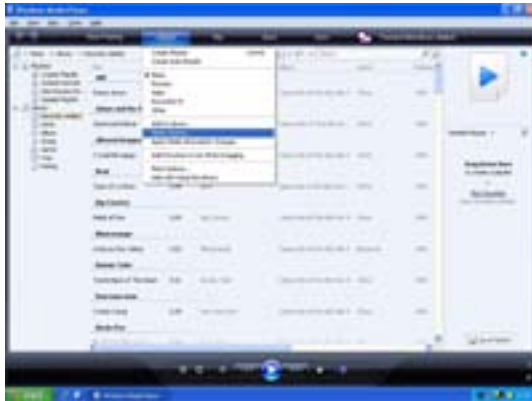
# APPENDIX

## Step 1: Set Up Media Sharing In Windows Media Player 11

After you download and install Windows Media Player 11 for Windows XP and connect your radio to your network, you need to set up media sharing so that you can share music with your radio.

The following steps describe how to set up media sharing in Windows Media Player 11.

1. In Windows Media Player 11, click the small arrow below the Library tab, and then click Media Sharing.



2. In the Media Sharing dialog box, select the Share my media check box.



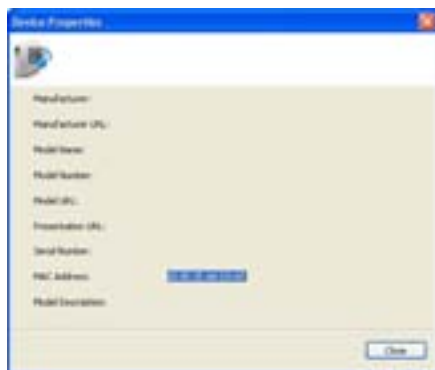
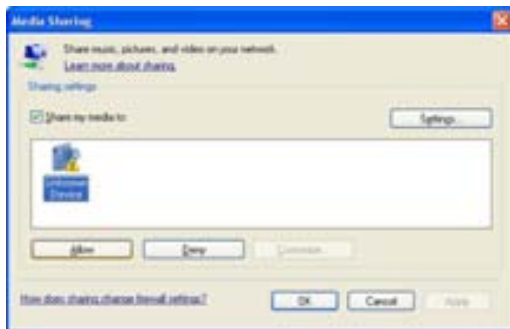
# Step 1: Set Up Media Sharing In Windows Media Player 11 (Continued)

- 3. In the list below the Share my media to: check box, click your Radio\*, click Allow, the selected device will now show a green tick and then click OK.
- If your device does not appear in the list of devices perform the following steps;
  1. From the “Media Player” menu of your internet radio select “UPnP Servers”
  2. A list of available computers will appear.
  3. Select the required computer.



4. The display may show “Access Denied (801)”

5. Your device will now appear in the list. If you want to confirm this is your radio, right click the device and select Properties your radio’s MAC address will be shown.



---

## Step 2: Play Music On The Internet Radio.

After installing and configuring your radio and Windows Media Player 11, you are now ready to play music wirelessly.

The following steps describe how to play music using the Radio.

1. Using the control, to select "UPnP Servers" from the "Media Player" menu.
2. Select the computer you wish to play the music files from.
3. Use the control to browse by All Music, Genre, All Artists, Contributing Artists, Album Artists, Composers, Albums, Play lists, Folders or Star Ratings and then press Select.
4. Select the music track/tracks you want to play, and then press the 'Select' button. Enjoy!

---

## Using the USB Port as an USB-Ethernet Connection

Your wireless router is connected to your internet. Your radio is equipped with 801.11n WiFi for a wireless connection to your wireless router. Once connected to your wireless router your radio will have connection to the internet and internet radio. Your radio may also connect using a wired connection to the internet with the use of the USB port on the back of the unit and an USB-Ethernet adapter (USB-Ethernet adapter sold separately)

To use an USB-Ethernet adapter with your radio, insert the adapter into the USB port at the back of the unit, ensure the LAN cable (wired line connecting to your internet service) is connected to the adapter, boot up your radio and the radio will then find the USB-Ethernet adapter for connection to your network

# CONTACT

---

For fastest response time please send us an email with any questions to:  
gracesupport.com or refer to the User Forum at:  
<http://www.GraceDigitalAudio.com/forum/>

Monday - Thursday	9:00am to 4:00PM (PST)
Friday	9:00am to 12:00 PM (PST)

## PROPOSITION 65

---

This product may contain chemicals listed in Proposition 65 ([http://www.oehha.ca.gov/prop65/prop65\\_list/Newlist.html](http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html)) that may be known to cause cancer, birth defects or other reproductive harm.

---

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

“To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter.”



# GRACE

DIGITAL AUDIO

Grace Digital Inc., San Diego, CA