

INSTRUCTION MANUAL

T-audio MP-101

Internetradio DAB+, Tuner, Media player

USB

LAN

WiFi

Bluetooth

Spotify Connect

RS232

	CAUTION RISK OF ELECTRONIC SHOCK DO NOT OPEN		CAUTION: TO REDUCE THE RISK OF ELECTRONIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
---	--	---	---

	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
---	---

	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.
---	--

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



Outward Appearance

Face plate:



Rear plate:



SUPPLEMENTS:

- | | |
|---------------------|------------------------------------|
| FM Antenna Wire x 1 | AV Wire x 1 |
| AC Power Cord x 1 | 2.4G Antenna Remote Controller x 1 |

External Resources

To operate unit, following external resources are needed:

- A power source (AC 230 V mains supply)
- A wired (Ethernet) or wireless (Wi-Fi) network (provided through a router) with appropriate permissions and password if necessary (for *Internet radio* and *Network Music player* modes)
- Broadband Internet access for *Internet radio mode*.
- A music library stored on the network or on a USB mass storage device (for *Music player* modes),
- An external audio source (for *Aux in* mode)

Connectors

- Ethernet RJ45
- Audio out
- Line in
- Line out
- Headphones out



MP-101 Internetradio DAB+, Tuner, Media player with USB, LAN, WiFi, Bluetooth, Spotify Connect and RS232

Feature

- Internet Radio with access to over 20,000 stations, 'Listen again' broadcasts and podcasts
- Music player allowing easy navigation and playback through a USB or network-stored library of music files including AAC/AAC+, MP3, WMA, WAV
- "Play To" feature allowing media to be pushed from a PC running Windows 7 to the unit operating in Digital Media Renderer (DMR) mode
- DAB/DAB+ digital radio with a wide choice of channels and digital quality sound broadcast
- FM with RDS (Radio Data System)
- Aux in for external music sources such as MP3 players
- Large 2.7 inch display for easy control and clear information display, with up to six lines of text plus status icons
- Infrared remote control
- Clock with auto-update capability and dual independent alarms
- Sleep/snooze
- Multiple network profiles for easy setup
- 13 languages operating
- Multi room / Remote APP
- Bluetooth

1 Controls, connectors and display

Main controls

Button	Function
CONTROL SELECT	Turn to scroll through a menu of station list. The chosen option is highlighted in reverse text (dark characters on a white background) Press to select.

Button	Function
STAND BY	Turn on or back to standby mode (showing clock and date). Cancels sleep function.
SLEEP	Sleep/snooze: When playing, standby after a set time. When alarm is sounding, snooze for a set time.
ALARM	Enters alarm wizard, turns off alarm (when alarm is sounding) and toggles between alarms in standby.
MENU	Menu: Show menu for the current mode. Press again to show <i>Now playing</i> screen.
MODE	Cycle through the modes: <i>Internet Radio, Music player, DAB, FM, Aux in Bluetooth</i>
MUTE	Mute audio output.
MAIN VOLUME	Increase or decrease volume level.
PRESET	Press for the Preset recall/Save menu; Scroll up/down to select the preset number then press 'Select' to confirm. There are 10 presets each for Internet radio, DAB and FM
INFO	View more information about the station or track playing. Press again to cycle through further information screens then return to the normal <i>Now playing</i> screen.
	Previous : Select start of track, previous track or hold to scan down rewind.
	Next : Select next track or hold to scan up/fast forward.
	Play / Pause / Stop
Repeat	Music player repeat songs.
SHUFFLE	Music player shuffle songs.

Remote control

The remote control operates in a similar way to the main keypad.



Button	Function
	Standby: Turn on or back to standby mode (showing clock and date). Cancel sleep function.
SLEEP	Sleep/snooze: When playing, standby after a set time. When alarm is sounding, snooze for a set time.
ALARM	Enters alarm wizard, turns off alarm (when alarm is sounding) and toggles between alarms in standby.
MODE	Mode: Cycle through the modes: <i>Internet Radio, Music player, DAB, FM, Aux in, Bluetooth</i>
1	Set/recall preset 1 or 6.
2	Set/recall preset 2 or 7.
3	Set/recall preset 3 or 8.
Preset	Preset: Press for the Preset recall/Save menu; Scroll up/down to select the preset number then press 'Select' to confirm. There are 10 presets each for Internet radio, DAB and FM modes.
4	Set/recall preset 4 or 9.
5	Set/recall preset 5 or 10.
SHIFT	Press Shift then Preset to access higher preset numbers.
MENU	Menu: Show menu for the current mode. Press again to show <i>Now playing</i> screen.

	Up: Scroll up through a menu or station list.
INFO	Info: View more information about the station or track playing. Press again to cycle through further information screens then return to the normal <i>Now playing</i> screen.
	Back.
Repeat	Music player repeat song.
	Down: Scroll down through a menu or station list.
SHUFFLE	Shuffle: Music player shuffle songs.
	Play/pause/stop.
- VOLUME	Decrease volume.
+ VOLUME	Increase volume.
Mute	Mute.
	Previous: Skip back (previous track).
	Rewind.
	Fast forward.
	Next: Skip forward (next track).

2 Screens

The screen shows various menus, dialogues and displays, as described below.

There are basically six types of screen:

- Standby (clock)
- Splash (mode)
- Now playing
- Dialogue
- Error/Information
- Menu

When text is too long to fit on the screen, it is first shown truncated, then, after a few seconds, slowly scrolls so that you can read it all.

The **Standby screen** shows the time, date and any active alarm times.



As you cycle through the play modes using **Mode** the unit shows a **splash screen** for each mode. After one second, the unit enters the selected mode and tries to start playing the last station or track that was playing in that mode. If this is not possible, the unit tries to connect to the selected source by scanning for stations, networks, or prompting for user input as appropriate.



Now playing screens show information about the audio source and track now playing, where available.



Dialogue screens are shown to allow the user to change settings. They vary in complexity from simple Yes/No options up to the scrollable network password input screen.



As with menus, the selected item is shown with a white background.

Dialogue screens mark the current setting with an asterisk (*).

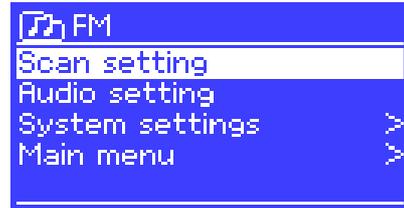
Error/Information screens give specific messages for a few seconds, then change automatically to another screen.



Menus

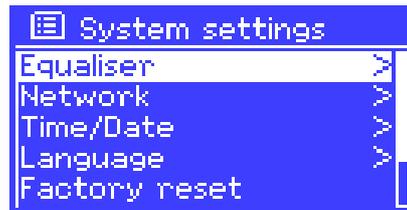
The unit has basically three types of menu. Use the **Select** control to step through and select options. A scroll bar on the right of the screen shows if there are further options above or below those visible.

Each mode has a **Mode menu**, with options specific to that mode. For example, the FM mode menu has just two options: Scan setting and Audio setting.



In addition, each mode menu has two final options: **System settings >** and **Main menu >**. The '>' indicates options leading to further menus.

The **System settings menu** allows access to system settings and information such as network, time, language and software update.



Menus with more options than will fit on one screen have a scroll bar to the right.

The **Main menu** allows access to all modes plus sleep and timer functions.



some menus, for example the *System settings menu*, have several submenus. A menu map of the unit is shown on the last page of this manual book.

3 Getting started/setup

To set up the unit:

1. Place the unit on a suitable shelf or table
2. Connect the power adaptor between the unit and the mains supply.
3. To receive broadcast radio (DAB and FM), extend the telescopic antenna.

The setup wizard starts.

3.1 Setup wizard

When the unit is started for the first time, it runs through a setup wizard to configure settings for date/time and network. Once this has finished, the system is ready to use in most modes.

*Note: To change these settings later, select **Menu** > **System settings** >. To run the setup wizard again, select **Menu** > **System settings** > **Setup wizard**.*

Select **Yes** to start the setup wizard.

If you choose **No**, the next screen asks if you would like to run the wizard next time the unit is started. The system then starts without configuring time/date and network settings and enters the Main Menu.

Note: If power is removed while the wizard is in progress, the wizard will run again next time when the unit is started.



3.1.1 12/24 hour display

To change between 12 and 24 hour display, select **Set 12/24 hour** and then select your preference.

3.1.2 Time/date

The time and date can be updated manually or automatically. With auto-update, the time and date are automatically synchronized with external clocks. Auto-update is generally more accurate.

Auto-update

Auto-update works with data sent over DAB, FM or the Internet. The clock is only updated when in a corresponding mode, so it is best to select a mode you use regularly.

DAB and **FM** use time signals broadcast with radio transmissions.

Network uses a time signal sent from the Frontier Silicon Internet radio portal when in any network-connected mode.

1. Select **Update from DAB**, **Update from FM**, **Update from Network** or **No update**.
2. If you are updating from the network, set your time zone.
3. If your country uses daylight saving, the automatically updated time from the network may be wrong by one hour. When daylight savings are in effect (during the winter), turn on the **Daylight savings** option to rectify this.

Note that if you are updating the time from DAB or FM, the **Daylight savings** option



has no effect on the clock's time.

The unit will auto-update from the selected source when time information is available.

Manual set

If you set **No update**, the wizard now prompts you to set the time and date manually.

The date and time are displayed as *dd-mm-yyyy* and *hh:mm AM/PM* with the first value, *dd*, active (flashing).

Adjust each value with the **Select** control. As each value is set, the next value becomes active and flashes.



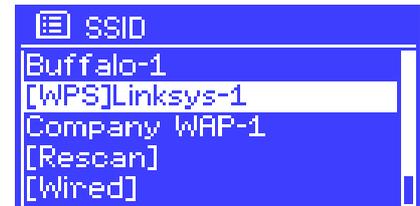
3.1.3 Network

The unit is compatible with all common network protocols and encryption methods, including *Wi-Fi Protected Setup (WPS)*.

To connect the unit to your network, you need one of the following:

- A wired router and an Ethernet (RJ45 network) cable
- A Wi-Fi wireless router, together with password key if set

Select **WLAN region/country > Wi-Fi network (SSID)**, and then select a network from the list.



To connect to a wired network, select **[Wired]**, after ensuring that the Ethernet cable from the wired router is connected to the Ethernet socket of the unit.

If the network is open (non-encrypted), the unit connects without any further ado; see *Completion* below.

Standard encrypted network

To enter the network's key (password), use the **Select** control to move the cursor through the characters and select. As each character is selected, the key is built up near the top of the display.

There are three options accessible by turning **Select** back before the first characters (0123...) – **Backspace**, **OK** and **Cancel**.



WPS encrypted network

WPS encrypted networks are identified by '[WPS]' at the start of the network name, and have three methods of connection. Select one and follow the prompts:

- **Push Button >**
The unit prompts you to press the connect button on the router. It then scans for a ready Push Button Connect network and connects.



- **Pin >** (code number)
The unit generates an 8-digit code number which you enter into the wireless router, access point, or an external registrar (e.g. advanced versions of Windows Vista).

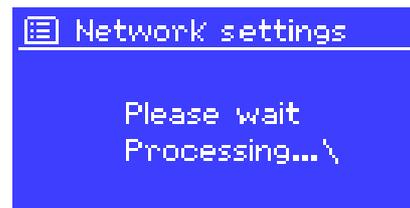


- **Skip WPS >**
Enter key as for a standard encrypted network, above.

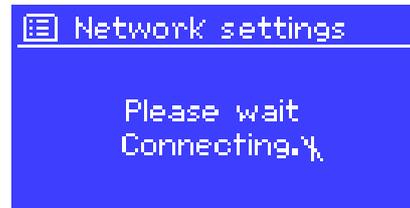
For more information on setting up a WPS encrypted network, see your WPS router's instructions.

Completion

The unit tries to connect to the selected network.



If connecting fails, the unit returns to a previous screen to try again.



If the network connection is lost, the unit automatically tries to reconnect.

3.2 Common settings

3.2.1 Equaliser

Several preset EQ modes are available; also a user-defined setting.

To adjust the EQ, select **Menu >**
System settings > Equaliser.

You can then choose from a variety of preset modes or create your own, with custom bass, treble and loudness settings.





3.2.2 Network

The unit remembers the last four wireless networks it has connected to, and automatically tries to connect to whichever one of them it can find.

You can see the list of registered networks through **Menu** > **System settings** > **Network** > **Network profile** >. From here you can delete unwanted networks by turning and pressing **Select** then confirming delete **Yes**.

There are also other options for viewing and manually altering network settings from **Menu** > **System settings** > **Network** > (for example setting up a wired network). Users experienced with networking may find these options useful for diagnosing and fixing network problems.

3.2.3 Language

The default language is English. To change, select **Menu** > **System settings** > **Language** > then select your language. ((Language selection: English / Danish / Dutch / German / Italian / French / Spanish / Finnish / Norwegian / Portuguese / Turkish / Polish / Swedish)

3.2.4 Info

Shows details of the current system includes Radio ID: Unique code used to identify this particular radio device. A label shows Radio ID is also placed at rear panel.

3.3 Setting up a music server

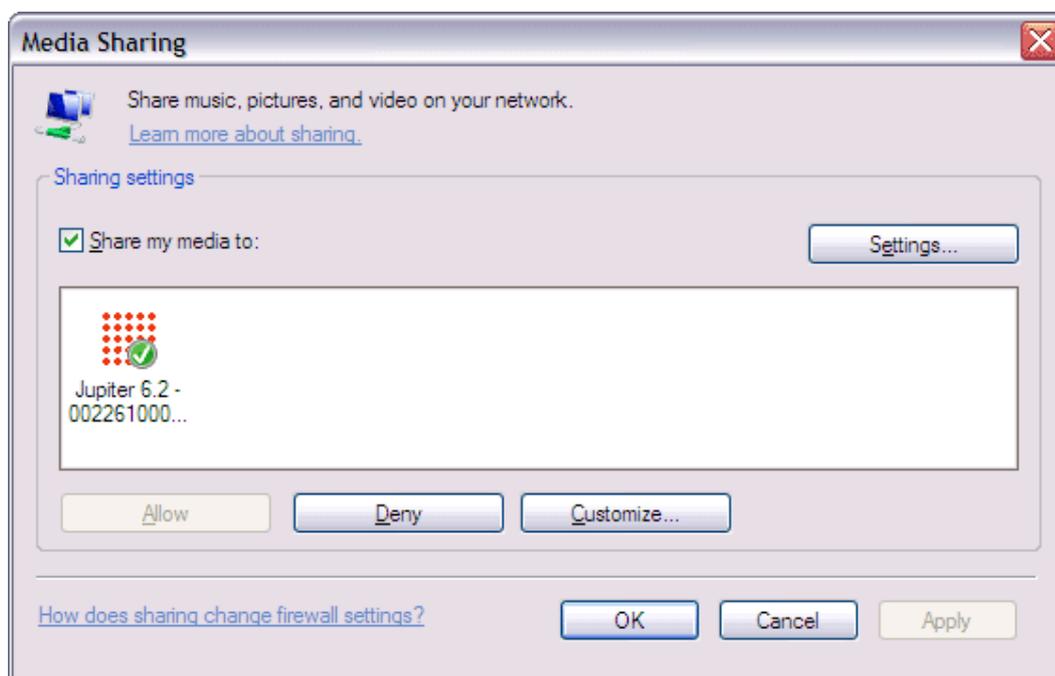
In order for the unit to play music files from a computer, the computer must be set up to share files or media.

UPnP media sharing allows devices to play music from a shared media library, navigating through tag menus such as *Artist*, *Album* or *Genre*. If you are running a suitable server system such as a PC with Windows Media Player 10 or later (WMP), and your music library is well-tagged, then it is recommended to use media sharing. Only the UPnP server needs to be set up.

3.4 Sharing media with Windows Media Player

The most common UPnP server is Windows Media Player (10 or later). Alternatively, other UPnP platforms and servers may be used. To set up WMP for media sharing, perform the following steps:

1. Ensure that the PC is connected to the network.
2. Ensure that the radio is powered on and connected to the same network.
3. In WMP, add to the media library the audio files and folders you want to share with the unit (**Library > Add to Library...**).
4. In WMP, enable media sharing (**Library > Media sharing...**).



Make sure that the radio has access to the shared media by selecting it and clicking **Allow**. You can also set a name for the shared media in **Settings...** Click **OK** to close the dialogue boxes.

The PC is now ready to stream the music to the radio. The WMP UPnP service runs in the background; there is no need to start WMP explicitly.

3.5 Setting up the Unit for “Play To” Windows 7 streaming media feature.

To set-up the unit to be controlled and to stream music via Windows Media Player 12 (Windows 7 only), perform the following steps:

1. Ensure that the PC is connected to the network.
2. Ensure that the unit is powered on and connected to the same network.

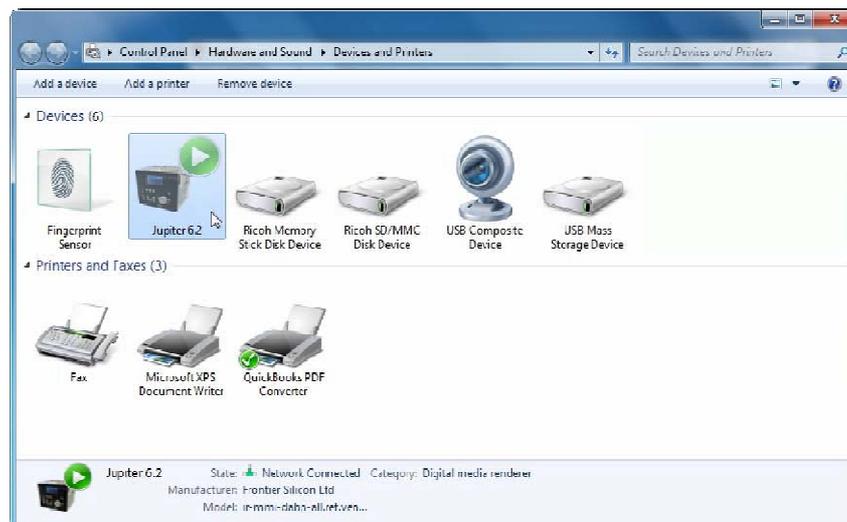
Note: the unit must be in an Internet radio mode to be detected.

3. From the Windows 7 main screen, select **Start > Devices and Printers**.



4. Select the Add a device tab in the top left of the Devices and Printers window and follow the instruction prompts given by the wizard.

In the Devices and Printers window a Jupiter 6 icon will appear and you are now ready to stream your Windows media music files to the unit.



4 Internet radio mode

The unit can play thousands of radio stations and podcasts from around the world through a broadband Internet connection.

When you select Internet radio mode, the unit contacts the Frontier Silicon Internet radio portal to get a list of stations, organised into different categories like Country, Most popular and Genre. Once you select a station, the unit connects directly to that station.



Note: *The station list menu is provided from the Internet radio portal, so it is only accessible when the unit is connected to the Internet. Station lists and submenus may change from time to time.*

There are several ways of selecting stations.

Directly from the radio:

- Last listened
- Presets

From the portal through the **Menu** > **Station list** > menu:

- Browse by Country, Genre, Most popular, Newest
- Search by keyword



If you are already listening to an Internet radio station, you can press **Back** rather than **Menu** to quickly return to the last visited branch of the menu tree. For example, suppose you were listening to *New Orleans Radio* through the browse facility. Pressing **Back** would return you to the *Highlighted Blues stations* menu. Pressing **Back** again would return you to the *Blues* menu, and so on.

4.1 Last listened

When Internet radio mode restarts, the last-listened station is selected. To select another recently used station, select **Menu** > **Last listened** then one of the stations listed. Most recent stations appear at the top of the list.

4.2 Presets

Presets are stored in the radio and cannot be accessed from other radios.

To store an Internet radio preset, press and hold **Preset** until the display shows the *Save preset* screen. Select one of the 10 presets to save the currently playing station.

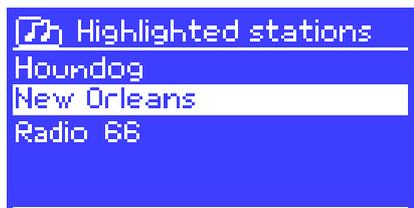
To select a preset, press **Preset** briefly, then select one of the listed preset stations. When a preset station is playing, it shows Pn (P1, P2 etc) in the bottom of the screen.

Note: *Operation of presets is identical for Internet radio, DAB and FM.*

4.3 Browse

To browse Internet broadcasts, select **Menu** > **Station list** > then either **Stations** > or **Podcasts** >.

Browse through the menus to find broadcasts.



*Note: BBC radio 'Listen Again' programmes are accessible through the Podcast menu, for example **Menu** > **Podcasts** > **Location** > **Europe** > **United Kingdom** > **All shows** > **BBC Radio 4** > **You and Yours** > **20/10/2008 - October 20**.*

4.4 Search

You can also search through Internet broadcasts for stations or podcasts with particular keywords in their title.

To search, select **Menu** > **Station list** > then either **Stations** > or **Podcasts** >



Enter a keyword by selecting characters then **OK**. The search entry screens are similar in operation to the Wi-Fi password entry screen.



Select a broadcast from the list.



For podcasts, you may be able to select a particular episode.



4.5 Now playing information

While the stream is playing, the screen shows its name and description. If artist and track information is available, this is also shown. To view further information, press **Info**.

Each time you press **Info**, another set of information is displayed, cycling through the following details:

- Artist and track name (default; where available)
- Station description
- Station genre and location
- Signal reliability
- Codec and sampling rate
- Playback buffer
- Today's Date

5 Music player mode (network and USB)

Music player mode plays audio files such as MP3s, AACs, WMAs or FLACs from a computer on the local network, or from a USB Flash stick or a hard drive.



To enter Music player mode, either press **Mode** until the display shows *Music player*, or select **Menu** > **Main menu** > **Music player**.

Once in music player mode, press **Menu** then select either **Shared media** or **USB playback**.



If you are already playing a music file, you can press **Back** rather than **Menu** to

quickly return to the last visited branch of the menu tree. For example, suppose you were listening to the track *Heat* by the artist *50 Cent* through browsing shared media . Pressing **Back** would return you to the track listing for the album *Get Rich or Die Tryin'*. Pressing **Back** again would list all *50 Cent* albums. Pressing **Back** again would list all album artists, and so on.

You can use **<<** and **>>** to move through tracks. Press and hold to rewind or fast forward and press quickly to select previous or next track.

5.1 Shared media (from UPnP media server)

Select **Menu** > **Shared media** >

If you have set up shared media , you should see an entry consisting of *<computer name>*: *<Shared media name>*, for example *JB-Laptop: Audio*. If you have more than one computer sharing media, the alternatives are listed. Select the shared media you want to play.

From this point on, the menus are generated from the shared media server (typically Windows Media Player). The first menu shows a list of media types, for example Music, Video, Pictures and Playlists. The unit can only play music and playlists.



There is also a search function, which finds tracks in a similar way to Internet radio search.

From Music, there are numerous ways of selecting tracks, including:

- Genre
- Artist
- Album
- Composer
- Rating



Once you have found a track you want to play, press **Select**. A short press plays the track immediately and a long press adds the track to the playlist. You can also add entire albums to the playlist.

The unit plays either the selected track or the playlist.

5.1.1 Wake-on-LAN

If shared media is selected a list of available music servers will be displayed.

If a question mark appears before the server name, this indicates that the server has been seen before and supports Wake-on-LAN functionality, but cannot currently be found on the network.

If a server with a question mark is selected by the user, the device will try to wake the server up and connect to it. In some instances this may not be possible as the server may not be connected to the network any more or may be switched off.

5.1.2 Prune servers

From time to time it may be necessary to remove servers displaying question marks in front of the server name from the server list. For example, if the device is moved to a new network or if a Wake-on-LAN server is removed from your current network.

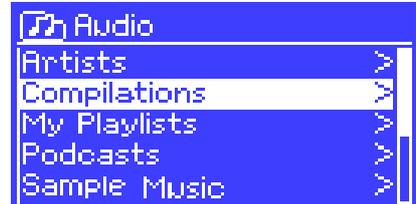
To perform this function go to **Menu** > **Prune servers** > **Yes**

5.2 USB playback

To play audio from a USB mass-storage device such as a USB Flash stick or USB hard drive, Select **Menu** > **USB playback**.

Browsing folders

From this point on, menus are generated from the folders on the USB device. Browse folders with the **Select** control and **Back** button. The display shows folder and file names (not necessarily track names).



Once you have found a track that you want to play, press **Select**. A short press plays the track immediately and a long press adds the track to the playlist. You can also add entire folders to the playlist.

The unit plays either the selected track or the playlist.



Viewing track metadata

While a track is playing, you can view extra information about it (metadata) by pressing **Info**. Each time you press **Info**, a different item of metadata is displayed.



5.3 Playlists

The unit holds a queue of up to 500 tracks in the playlist. Playlist tracks can be mixed from multiple UPnP servers and USB. To manage the playlist, select **Menu** > **My playlist**.

- To view the playlist, scroll through it by turning **Select**.



UPnP tracks show their track name; USB tracks show their file name.

- To play the playlist from a certain track, quick **Select**.
- To erase a track from the playlist, long **Select**, then confirm YES.

If you select a track/album/folder for instant playback (without using the playlist), the playlist is preserved. The playlist is also preserved during standby.

5.4 Repeat/shuffle

You can repeat tracks or play them in random order by selecting **Menu** > **Repeat play** or **Menu** > **Shuffle play**.

5.5 Now playing information

While a track is playing, the screen shows its track and artist (UPnP) or file name (USB). There is also a progress bar with figures for elapsed and total track time. At the bottom of the screen, an icon indicates *UPnP* or *USB* depending on the source. To view further information, press **Info**.

Each time you press **Info**, another set of information is displayed, cycling through:

- UPnP: playback progress bar (default), album, codec/sampling rate, playback buffer bar, today's date
- USB: playback progress bar (default), artist, album, folder, full file path, bit rate/codec type/sampling rate, playback buffer bar, today's date

6 Using the “Play To” feature in Windows 7 to stream media

One of the new Windows 7 features includes a feature called “Play To” and this lets your PC running Windows 7 control the unit to push media and use as a universal remote control for your media collection.

Jupiter 6.2 supports the industry standard DLNA (Digital Living Network Alliance) 1.5 digital media render. This allows you to “Play To” other devices around your home and combine media streaming with controlling a connected media receiver while streaming content to it from another Windows 7 PC on a home network.

Before you can use the “Play To” feature you need the set-up Jupiter 6.2 for Windows 7 streaming media.

6.1 Use “Play To” in Windows Media Player

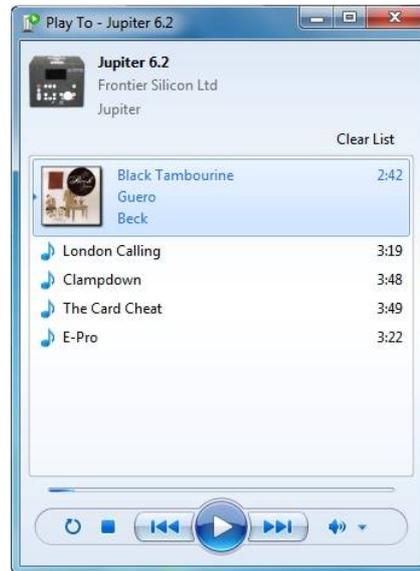
Windows Media Player makes it easy to manage your media, find items that you want to play, and open Play To. To select items that you want to play, follow these steps:

1. Click the **Start** button, click **All Programs**, and then click **Windows Media Player**.

If the Player is currently open and you're in Now Playing mode, click the **Switch**

to **Library** button in the upper-right corner of the Player.

2. If the list pane is closed or if the **Burn** or **Sync** tabs are exposed, click the **Play** tab.
3. Find the items that you want to play in the Player Library, and then drag those items from the details pane into the list pane.
4. Click the **Play to** button at the top of the list pane, click the device on your network that will receive the media.
5. In the **Play To** dialog box, use the playback controls to play, pause, or stop the media stream, and to change to the next or previous item in the list.



6.2 Use “Play To” elsewhere in Windows 7

Outside of Windows Media Player, you can stream media to the unit with “Play To” by right-clicking music files. To select music files and stream them to the unit, follow these steps:

1. Click the files you want to stream to the unit.
2. Right-click the selected files, point to “Play to”, and then click the device on the network that will receive the media.
3. In the Play To dialog box, use the playback controls to play, pause, or stop the media stream, and to change to the next or previous item in the list.

6.3 Now playing information

While a track is playing, the screen shows its track name (UPnP). There is also a progress bar with figures for elapsed and total track time. At the bottom of the screen, an icon indicates *UPnP*. To view further information, press **Info**.



Each time you press **Info**, another set of information is displayed, cycling through the following:

- Artist, album, codec/sampling rate, playback buffer

7 DAB radio mode

DAB radio mode receives DAB/DAB+ digital radio and



displays information about the station, stream and track playing.

To enter DAB mode, either press **Mode** until the display shows *DAB Radio* or select **Menu** > **Main menu** > **DAB**.

7.1 Scanning for stations

The first time you select DAB radio mode, or if the station list is empty, the unit automatically performs a full scan to see what stations are available. You may also need to start a scan manually to update the list of stations for one of the following reasons:

- Available stations change from time to time.
- If reception was not good for the original scan (for example the antenna was not up), this may result in an empty or incomplete list of available stations.
- If you have poor reception of some stations (bubbling), you may wish to list only stations with good signal strength.



To start a scan manually, select **Menu** > **Scan**.

Once the scan is complete, the radio shows a list of available stations.

To remove stations that are listed but unavailable, select **Menu** > **Prune invalid**.

7.2 Selecting stations

To listen to or change a station, turn the **Select** control to view a list of stations and press to select. Once selected, the station plays and the screen shows information about the station, track or show as broadcast.

Presets

To store a DAB preset, press and hold **Preset** until the display shows the *Save preset* screen. Select one of the 10 presets to save the currently playing station.

To select a preset, press **Preset** briefly, then select one of the listed preset stations. When a preset station is playing, it shows Pn (P1, P2 etc) in the bottom right of the screen.

7.3 Now playing information

While the stream is playing, the screen shows its name and DLS (*Dynamic Label Segment*) information broadcast by the station giving real-time information such as programme name, track title and contact details. Stereo broadcasts are indicated with an icon at the top of the screen. To view further information, press **Info**

Each time you press **Info**, another set of information is displayed, cycling through DLS text, programme type, ensemble name/frequency, signal strength/error rate, bit rate/codec/channels and today's date.

7.4 Settings

Dynamic range compression

Some DAB broadcasts offer dynamic range compression (DRC). This feature allows radios to compress the dynamic range of the output audio stream, so that the volume of quiet sounds is increased, and the volume of loud sounds is reduced. This can be useful if you are listening to music with a high dynamic range in a noisy environment (for example, classical music while cooking).

To change the DRC of the unit, select **Menu** > **DRC**, and then **DRC high**, **DRC low** or **DRC off**.

Note: The unit DRC setting does have any effect if DRC data is not included in the broadcast.

Station order

You can choose the order of the DAB station list to be either *Alphanumeric*, *Ensemble* or *Valid*. *Ensemble* lists groups of stations that are broadcast together on the same ensemble, for example *BBC* or *South Wales local*. *Valid* lists valid stations first, alphanumerically, then off-air stations.

To change station order, select **Menu** > **Station order** > then **Alphanumeric**, **Ensemble** or **Valid**.

8 FM radio mode

FM radio mode receives analogue radio from the FM band and displays RDS (Radio Data System) information about the station and show (where broadcast).

To enter FM mode, either press **Mode** until the display shows *FM Radio* or select **Menu** > **Main menu** > **FM**.



8.1 Selecting stations

To find a station, press **Select**. The frequency display starts to run up as the unit scans the FM band. Alternatively, you can scan up or down by pressing and holding the **>>** or **<<** buttons or tune manually with quick presses, or by turning the **Select** control.

Presets

To store an FM preset, press and hold **Preset** until the display shows the *Save preset* screen. Select one of the 10 presets to save the currently playing station.

To select a preset, press **Preset** briefly, then select one of the listed preset stations. When a preset station is playing, it shows Pn (P1, P2 etc) in the bottom right of the screen.

8.2 Now playing information

While an FM station is playing, the screen shows one of the two following sets data:

- If RDS information is available, by default the service name (i.e. station name) is displayed. You can cycle through further RDS information by pressing **Info**. Each time you press **Info**, another set of information is displayed, cycling

- through RDS radio text, RDS programme type, frequency and today's date.
- If no RDS information is available, the currently tuned frequency is shown.

8.3 Settings

Scan settings

By default, FM scans stop at any available station. This may result in a poor signal-to-noise ratio (hiss) from weak stations. To change the scan settings to stop only at stations with good signal strength, select **Menu** > **Scan setting** > **Strong stations only?** > **Yes**.

Audio settings

By default, all stereo stations are reproduced in stereo. For weak stations, this may result in a poor signal-to-noise ratio (hiss). To play weak stations in mono, select **Menu** > **Audio setting** > **FM weak reception: Listen in mono only** > **Yes**.

9 Aux in mode

Aux in mode plays audio from an external source such as an MP3 player.

To play audio with Aux in mode,

1. Turn the volume low on both the unit and, if adjustable, the audio source device.
2. Connect the external audio source to the Aux In 3.5 mm stereo socket.
3. Either press **Mode** until the display shows *AUX in* or select **Menu** > **Main menu** > **AUX in**.
4. Adjust the volume of the unit (and, if necessary, the audio source device) as required.



10 Alarms and sleep

As well as a clock/calendar, there are two versatile wake-up alarms with snooze facility, and a sleep function to turn the system off after a set period. Each alarm can be set to start in a particular mode.

To set the clock/calendar, see *Getting started/setup*.



10.1 Alarms

To set or change an alarm, either press **Alarm** or select **Menu** > **Main menu** > **Alarms**.

Select the alarm number (1 or 2) then configure the following parameters:

- **Enable:** on/off,
- **Frequency:** Daily, Once, Weekends or Weekdays,
- Time,
- **Mode:** Buzzer, Internet radio, DAB, FM



- **Preset:** Last listened or 1-10,
- **Volume:** 0 – 20.

To activate the new settings, scroll down and select **Save**.

The screen shows active alarms with an icon at the bottom left.

At the set time, the alarm will sound. To temporarily silence it, press **SLEEP**. You can change the snooze period with the **Select** control if you like. The radio returns to standby for the set period, with the silenced alarm icon flashing.



10.2 Sleep

To set the sleep timer, select **Menu** > **Main menu** > **Sleep** then choose from **Sleep OFF, 15 MINS, 30 MINS, 45 MINS** or **60 MINS**.

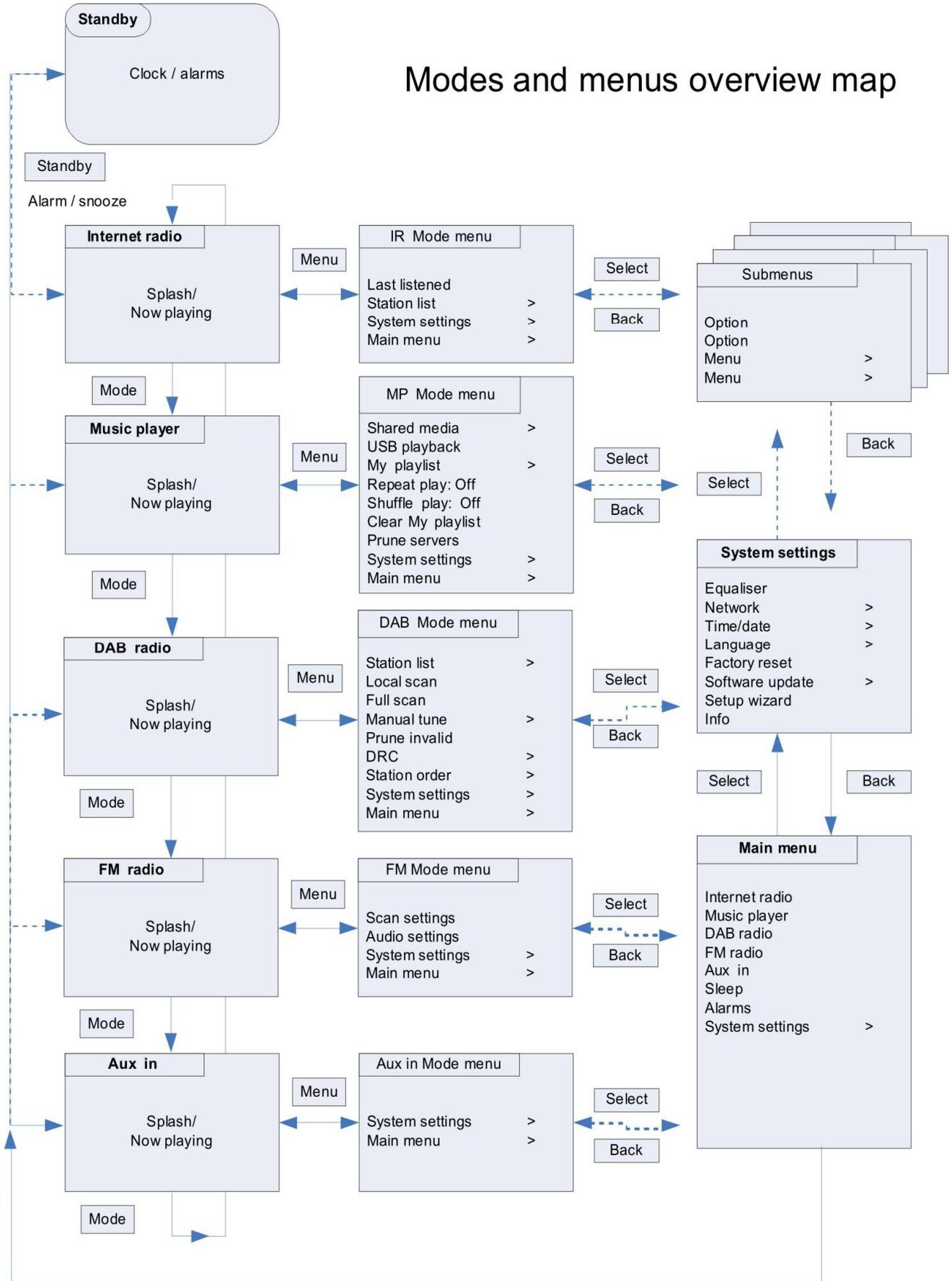
Once you select a sleep period, the system returns to the main menu. Press **Menu** to return to the Now playing screen.

11 Factory reset

A factory reset resets all user settings to default values, so time/date, network configuration and presets are lost. However, the radio's current software version is maintained, as is registration with the Internet radio portal. Internet radio favourites therefore remain unless you re-register your radio with another account on the portal website.

To perform a factory reset, select **Menu** > **System settings** > **Factory reset Proceed** > **Yes**.

Modes and menus overview map



RS232_Internet Radio Command Code

The communication between computer and unit is UART.	
Start bit : 1	Data bits : 8
Stop bit : 1	Parity bit : none
Code : HEX	Baud : 19200
Function	Code
STAND BY	0x01
1	0x02
2	0x03
3	0x04
4	0x05
5	0x06
M1	0x07
M2	0x0A
M3	0x0B
M4	0x0E
M5	0x0F
SHIFT	0x15
PRESET	0x17
SLEEP	0x18
MENU	0x19
INFO	0x1A
ALARM	0x1B
ENTER / TUNER SCAN	0x1C
MODE	0x1D
MENU UP / TUNNIG UP	0x1E
MENU DOWN / TUNNIG DOWN	0x1F
AUTO SCAN UP	0x20
AUTO SCAN DOWN	0x21
LEFT (BACK)	0x22
RIGHT	0x26
REPEAT	0x27
SHUFFLE	0x2A
PLAY / STOP	0x2B
VOLUME -	0x2C
VOLUME +	0x2D
MUTE	0x2E
PREV	0x2F
F.B	0x30
F.WD	0x31
NEXT	0x32
6	0x33
7	0x34
8	0x35
9	0x36
10	0x37
M6	0x3A
M7	0x3B
M8	0x3C
M9	0x3D
M10	0x3E
INTERNET RADIO Mode	0x3F
MUSIC PLAYER Mode	0x40
DAB Mode	0x41
FM Mode	0x42
AUX IN Mode	0x43