PANDORA
internet radio

The Pandora® Radio by Livio®

Please read carefully before using the receiver.

When was the last time you fell in love with a new artist or song?

At Pandora, we have a single mission: To play music you'll love – and nothing else.

To understand just how we do this, and why we think we do it really, really well, you need to know about the Music Genome Project.®
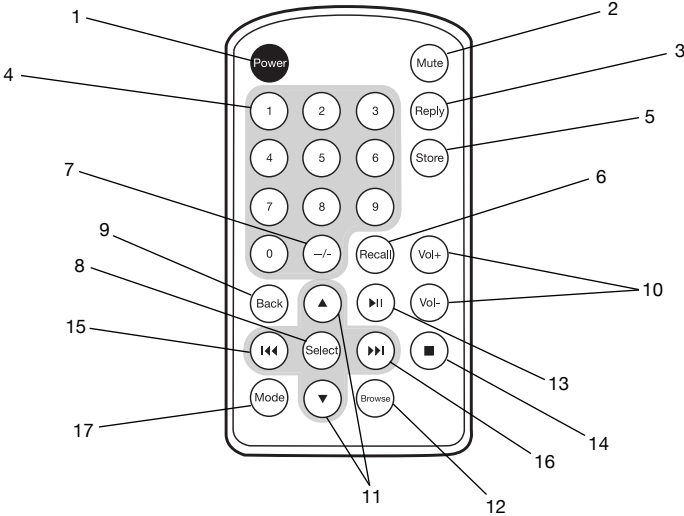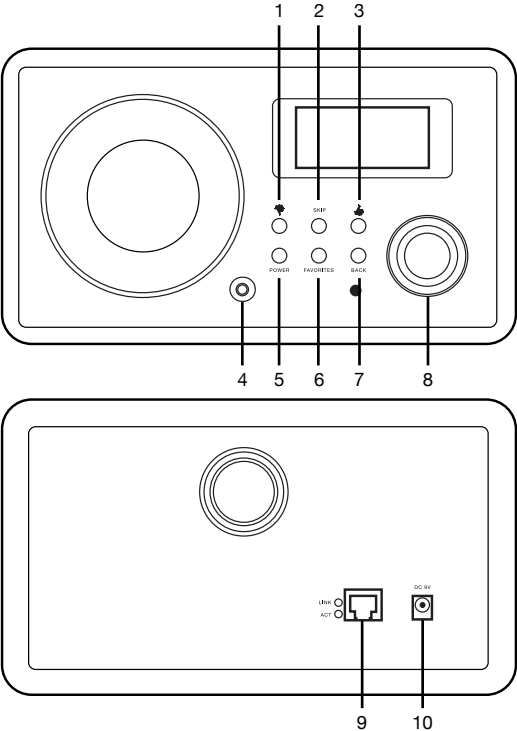
Since we started back in 2000, we have been hard at work on the Music Genome Project. It's the most comprehensive analysis of music ever undertaken. Together our team of fifty musician-analysts has been listening to music, one song at a time, studying and collecting literally hundreds of musical details on every song. It takes 20-30 minutes per song to capture all of the little details that give each recording its magical sound – melody, harmony, instrumentation, rhythm, vocals, lyrics ... and more – close to 400 attributes! We continue this work every day to keep up with the incredible flow of great new music coming from studios, stadiums and garages around the country.

With Pandora you can explore this vast trove of music to your heart's content. Just drop the name of one of your favorite songs or artists into Pandora and let the Genome Project go. It will quickly scan its entire world of analyzed music, almost a century of popular recordings – new and old, well known and completely obscure – to find songs with interesting musical similarities to your choice. Then sit back and enjoy as it creates a listening experience full of current and soon-to-be favorite songs for you.

You can create as many "stations" as you want. And you can even refine them. If it's not quite right you can tell it so and it will get better for you.

The Music Genome Project was founded by musicians and music-lovers. We believe in the value of music and have a profound respect for those who create it. We like all kinds of music, from the most obtuse bebop, to the most tripped-out drum n' bass, to the simplest catchy pop tune. Our mission is to help you connect with the music YOU like.

We hope you enjoy the experience!

Pandora® Radio Controls

Pandora Controls

(1) THUMBS DOWN	Press when you dislike the song being played
(2) SKIP TRACK	Press to skip the next track
(3) THUMBS UP	Press when you like the song being played

Other Key Features

(4) HEADPHONE JACK	Connect headphones for private listening here
(5) POWER	Press to turn the Pandora Radio on or off
(6) FAVORITES	Press to mark a song as favorite for preferred play
(7) BACK MENU COMMAND	For use in the Menu mode
(8) VOLUME/MENU SELECT	Turn to adjust volume or select station when in Menu mode
(9) ETHERNET JACK	Connect an ethernet cable here to wired internet use
(10) DC POWER JACK	Connect included power supply here

Remote Control

(1) POWER	Press to switch the internet radio ON/OFF.	(10) + VOL -	Use to adjust the volume.
(2) MUTE	Press to mute the voice.	(11) UP\DOWN	Use to search for stations, and use to change the option show on the display.
(3) REPLY	Reserved for future services.	(12) BROWSE	Press to view the name of the track currently playing and then turn the dial to see the list of tracks waiting in the play queue.
(4) 0---9	Numeric buttons for Store and Recall functions.	(13) PLAY/PAUSE	Press to play/pause playback.
(5) STORE	Use to store 100 (0-99) radio stations.	(14) STOP	Press to stop playback, with a track name displayed, press and hold to delete the track.
(6) RECALL	Use to Play up the pre-setting stations.	(15) PREV	Press to start playback at the previous track.
(7) --/-	Select the numeric bits>	(16) NEXT	Press to start playback at the next track.
(8) SELECT	Press to select a displayed option>	(17) MODE	Press to switch Repeat ON/OFF and Shuffle ON/OFF mode.
(9) BACK	Press to go back to the previous display.		

Step 1: Switching on the Radio

Plug the cable from the AC adaptor into the socket labeled 9V DC on the back of the radio, then switch on at the mains.

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

```
Recvia Radio

ARM Powered
```

after a few seconds, this will change to show:

```
Connecting to
Network
```

Step 2: Connect to the Network

NOTE: At first, you need to select network;

(1) Press the SELECT button;
(2) Turn the dial until the display says "Configure";

```
Configure
```

(3) Press the SELECT button;
(4) Turn the dial until the display says "Network Config";

```
Network Config
```

⚠ CAUTION

Use only the main adaptor supplied with the radio. Connecting a power supply with a different rating will cause permanent damage to the radio and may be hazardous.

(5) Press the SELECT button;
(6) Turn the dial until the display says "Wired/Wireless";

```
Wired/Wireless
```

(7) Press the SELECT button;
(8) Turn the dial until your appropriate equipment;

```
Auto
Wired Only
Wireless Only
```

If you select Auto, it will be select automatically.
If you select Wired Only, It will be only used for Wired Ethernet.
If you select Wireless Only, It will be only used for Wireless Wi-Fi connection.

(9) When the ESSID for the access point you want to connect to be displayed on the screen, press the SELECT button. You might need to enter the correct WEP (Wired Equivalent Privacy) or WPA (Wi-Fi Protected Access) code. If your network is not configured to need a WEP or a WPA code, the display will show:

```
Network OK
```

If the screen displays:

```
Encryption Key Required
```

Then the 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 for it to communicate with you network.

After 3seconds the display goes into the code entry mode or press SELECT. To enter the code, use the dial to select each character of the code in turn, pressing the SELECT

button after each character.

Make sure the character you want is shown in the centre of the display to be able to select it.

WEP and WPA codes are case sensitive to upper and lower case characters so you must enter them exactly.

After the final character, use the dial to select END and press the SELECT key.

```
<{ }~   END   < >0
```

The display shows "Connecting to network" as the radio connects to the network:

```
Connecting to Network
```

Then it will be displayed:

```
Network OK
```

You may see a message saying <Station Update From Reciva>. This indicates that some new radio stations may be available since you last connected, or others may have ceased to broadcast. The list of available stations will change.

Listening to your Pandora Radio

(1) With <Station> the highlighted menu, press the SELECT button.

```
<     Stations     >
```

Or if the screen does not display <stations>, turn the dial until it does and then press the SELECT button.

(2) Turn the dial to choose from <Location> or <Genre>.

<Location> enables you to choose a station from a particular country.

<Genre> enables you to choose radio stations according to their content, for example 90s, Classical, Dance or Rock.

```
<     Location     >
```

OR

```
<     Genre     >
```

(3) Press the SELECT button to choose the option you want: The display will show the number of stations that are loading. The 1st station name will be displayed – stations are listed alphanumerically.

(4) Press SELECT button for the stations you would like to listen. The display will show <Station Selected Buffering x%> while the station are buffering.

When you are listening to a particular station, the following information will show on the display:
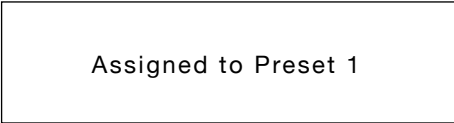
For example:

BBC Radio 1	(Station Name)
32 kbps WMA	(Transmission Information)
Real Enabled	(Media player capabilities)

Changing the Volume

You can change the volume by turning the dial clockwise to increase the volume and anticlockwise to decrease the volume. The display shows the volume bar. You cannot change the volume when you are in a menu or when the radio is connecting to a station.

Storing a Radio Station in a Preset by the Panel Control

When a radio station is playing, just hold down one of the preset buttons to store the station (e.g. to store preset1: press and hold the preset).

Assigned to Preset 1

Playing a preset radio station when a radio station is playing, briefly press the PRESET button (I, II, III) for the station you want.

Configure Menu

Choosing the option you want from the Configure Menu

(1) Press the SELECT button. (NOTE: If you make a mistake at any point ,press BACK button to go back to the previous screen.)

(2) Turn the knob until 'Configure' 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 in the table to the right.

Configuration Options

Option	Description
<Network Config>	Enables you to configure your radio's network settings, scan again for a connection to another wireless network, or to manually configure the network parameters. This is useful if you take the Internet radio to another building where you want to use.
<Version>	Displays the versions numbers of the various parts of software the hardware on you Internet radio.
<Upgrade Firmware>	Use this option to download new firmware for the radio from the Reciva portal on the internet. If there is new firmware available, 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 no 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 setting back to their default as they were when they left the factory. If you perform a factory reset on your radio you will loss all you presets and your wireless network connection.
<Register>	This will display a key that can be used to register the radio on the Reciva Customer portal.
<Clock>	Use this option to set the time, to set an alarm and to view the current alarm setting, see" Setting the clock", "Setting the alarm".
<Sleep Timer>	Selecting this option will enable the Internet radio to switch itself off after a set period. (1) After selecting the 'Sleep Timer' menu item, the radio will display: 'Sleep Timeout' and the sleep timer value in the form '00:00:00' (hours:minutes: seconds). (2) Rotate the knob to change to sleep timer value and then press SELECT to begin the sleep timer. (3) The radio will continue to play as normal, but it will go into standby mode after the sleep timer has expired. (4) To turn the radio back on again, simply press the ON/OFF button.
<Backlight>	Selecting this option will alter the internet radio's backlight values. (1) After select the 'Backlight' menu item, the radio will display its list of three menu modes: 'Inactive', 'Active' and 'Standby'. These three states are explained below: 'Inactive' state when there is no user activity for 30 seconds. '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 the menu mode. You can alter this value by rotating the knob to increase or decrease it.

Troubleshooting

Still need help? Go to www.livioradio.com/help

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

Confirm that a Wi-Fi or Ethernet Wired connected PC can access the internet (i.e. can browse the web) using the same network. Check that a DHCP server is available, or that you have configured a static IP address on the radio. Check that you firewall is not blocking any outgoing ports. As a minimum the radio needs access to UDP and TCP ports 80,554,1755,5000, and 7070.

Some access points may be set so that only equipment with registered MAC addresses can connect to them. This is one possible cause of the Internet Radio being unable to connect to the Wi-Fi network, and the Internet Radio display will show Bad ESSID or key. To overcome this problem you will need to add the Internet Radio's MAC address to the list of allowed equipment in your access point. The Internet Radio's MAC address can be found using the menu item Configure->Network Config ->View Config -> MAC address. You will need to refer to the guide for you Access Point in order to enter the Internet Radio as an allowed piece of equipment. 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 wireless network name(ESSID) is 'Hidden'(a setting on the wireless access point), then you can either turn on the name, or you can manually enter the name into the internet radio and media player, Select Configure, Select network, Enter ESSID. Confirm if the Network is encrypted, e.g. requires a WEP or WPA key, then enter the network name.

(2) 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 reasons:

The station is not broadcasting at this time of the day (remember it may be located in a different time zone). The station has too many people trying to attach to the radio station server and the server capacity is not large enough. The station has reached the maximum allowed number of simultaneous listeners. The station is not broadcasting anymore.

The link on the radio is out of date. This is updated automatically every day, so the next time you turn on the link will be recognised. The internet connection between the server (often located in a different country) and you is slow. Some internet service providers may fail to stream in certain geographical areas. Try using a PC to play back the stream via the broadcaster's web sit. If you can play back the station with a

PC, use the form at *http://www.reciva.com/station/add_station.asp* to notify us so that we can change the station data that is used by the radio.

If you have a laptop, try connecting it if your Internet Radio cannot find the station.

(3) If the Internet Radio keeps re-buffering radio station:

The Internet Radio is streaming the data from the radio station via your broadband connection, if there is a high error rate on your broadband connection, or the connection is intermittent, then it will cause the Internet Radio to pause until the connection is re-established and it has received enough data to start playing again. If your Internet Radio keeps stopping, please check the DSL modem to ensure that the Broadband line is not suffering a high error rate or disconnections. If you are experiencing these problems, you will need to contact your broadband supplier.

(4) What is Buffering?

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

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

Caution:

(1) 15.21 statement：

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

(1) 15.105 statement：

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 t he interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different

from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

The antennas used for this transmitter as shown in this filing must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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