

DAB/FM RDS digital portable radio with built-in battery charger





Digital Audio Broadcasting

Please read this manual before use

Generations Sound for

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If you need any further advice, please call our Technical Helpline on :-020 8758 0338 (Mon-Fri)



- 12. Battery compartment
- 13. Telescopic aerial

Headphone socket
 DC jack socket

Battery operation using alkaline batteries

- 1. Remove the battery cover on the back of the unit by sliding the cover in the direction of the arrow.
- Insert six LR6 (AA size) alkaline batteries into the spaces in the compartment. Take care to ensure all batteries are inserted with the correct polarity as shown inside the battery compartment.
- Slide the battery switch to the *Alkaline* position and then replace the battery cover.
- Important: when using alkaline batteries the battery switch must be placed in the alkaline position. Failure to do so could result in serious damage to the batteries or radio.
- Reduced power, distortion and a 'stuttering' sound are all signs that the batteries may need replacing.
- If the radio is not to be used for any extended period of time it is recommended that the batteries are removed from the radio.
- We would recommend for economy that the ecologic 2 is used via the AC adaptor whenever possible with battery operation for occasional or stand-by use only. If extended listening using batteries is anticipated, then the use of rechargeable batteries is recommended.

Battery operation using rechargeable batteries

- 1. Remove the battery cover on the back of the unit by sliding the cover in the direction of the arrow.
- Insert six Rechargeable LR6 (AA size) batteries into the spaces in the compartment. Take care to ensure all batteries are inserted with the correct polarity as shown inside the battery compartment. The radio is designed to be used with Nickel Metal Hydride (NiMH) rechargeable batteries.
- 3. Slide the battery switch to the *Rechargeable* position and then replace the battery cover.

continued on next page (also see battery information pages 18-19)

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- The charge indicator lights to show that the batteries are charging. Batteries will be fully charged in around 7 hours.
- Important: when using rechargeable batteries the battery switch must be placed in the rechargeable position. Batteries will only be charged when the radio is switched off and connected to the AC adaptor.
- Reduced power, distortion or your radio switching off by itself are all signs that the batteries may need recharging.
- If the radio is not to be used for any extended period of time it is recommended that the batteries are removed from the radio.

IMPORTANT: The batteries should not be exposed to excessive heat such as sunshine, fire or the like. After use, disposable batteries should if possible be taken to a suitable recycling centre. On no account should batteries be disposed of by incineration.

Using the AC adaptor

The AC adaptor for use with the ecologic 2 should provide 12 volts DC output at 1 amp, centre pin positive.

- Insert the adaptor plug into the DC in socket on the left hand side of your radio.
- Plug the adaptor into a standard 13A mains socket outlet. Whenever the adaptor is plugged in to the radio and switched on at the mains the batteries are automatically disconnected. If the adaptor is plugged in to the radio but not switched on then the radio will run from the batteries if fitted.

The AC adaptor should be disconnected from the mains supply and the radio when not in use.

 IMPORTANT: The mains adaptor is used as the means of connecting the radio to the mains supply. The mains socket used for the radio must remain accessible during normal use. In order to disconnect the radio from the mains completely, the mains adaptor should be removed from the mains socket outlet completely.



Operating your radio - DAB

- 1. Carefully extend the telescopic aerial.
- 2. Press the **On/Off button** to switch on your radio. The display will show "Roberts" for a few seconds.
- If this is the first time the radio is used a quick scan of UK Band III DAB channels will be carried out, known as Auto-tune. The display will show "Welcome to DAB".
- During Auto-tune, the lower line of the display shows a bar graph indicating progress of auto-tune. If the radio has been used before, then the last used station will be selected instead of the Auto-tune process.
- 5. When the Auto-tune is completed the first station found (in numericalpha order 0...9...A....Z) will be selected.
- If the station list is still empty after the Auto-tune your radio will display "No stations available".
- If no stations are found it may be necessary to relocate your radio to a position giving better reception.



Rob	perts	
-----	-------	--

Welcome to DBB

BBC Radio 7 Now tunin9...

BBC Radio 7 I'm sorry I have

No stations available

Selecting a station - DAB

- 1. The top line of the display shows the name of the station currently selected.
- 2. Press either of the *Tuning Up or Down buttons* to scroll through the list of available stations.
- Press and release the Select button to select the station. The display may show "Tuning" while your radio finds the new station.
- 4. Adjust the Volume control to the required setting.

Note: If after selecting a station the display shows "Not Available" it may be necessary to relocate your radio to a position giving better reception.



Secondary services - DAB

- Certain radio stations have one or more secondary services associated with them. If a station has a secondary service associated with it the display will show ">>" next to the station name on the station list. The secondary service will then appear immediately after the primary service as you press the Tuning Up button.
- 2. Press the Select control to select the station.





Display modes - DAB

Your radio has seven display modes for DAB radio:-

- Press and release the *Info/Menu button* to cycle through the various modes.
- a. Scrolling text Displays scrolling text messages such as artist/track name, phone in number, etc.
- b. Programme type Displays type of station being listened to e.g. Pop, Classic, News, etc.
- c. Multiplex name Displays name of the DAB multiplex to which the current station belongs.

d. Time and date Displays current time and date.

e. Channel and frequency Displays channel and frequency for the station being listened to.

f. Audio type and bit rate Displays audio type and bit rate for the station being listened to.

g. Signal strength Displays signal strength for the station being listened to.



а

b

f

g

BBC Radio	7
I'm sorry	I have

- BBC Radio 7 Culture
- 。 BBC Radio 7 BBC National DAB
- BBC Radio 7 19:17 08-06-2008
- BBC Radio 7 12B 225.64MHz
 - BBC Radio 7 128kbps Stereo

BBC Radio 7

If you need any further advice, please call our Technical Helpline on :-020 8758 0338 (Mon-Fri)

Finding new stations - DAB

As time passes new stations may become available. To find new stations proceed as follows:-

- Press and release the Auto Tune button, the display will show "Fast scanning". Your radio will perform a scan of the UK DAB frequencies. As new stations are found the station counter on the right-hand side of the display will increase and stations will be added to the list.
- To carry out a full scan of the entire DAB Band III frequencies press and hold down the Auto Tune button for more than 2 seconds and then release. The display will show "Full scanning". As new stations are found the station counter on the right-hand side of the display will increase and stations will be added to the list.







Full Scannin9 24

Signal strength display - DAB

- 1. Repeatedly press and release the *Info button* until the display shows the signal strength.
- Position your radio and carefully angle the telescopic aerial for best reception using the signal strength display as a guide. Move your radio around and position it so as to give maximum number of black rectangles on the signal strength display. The clear unfilled rectangle indicates the minimum signal level required for satisfactory reception.
- 3. Press the Info button to exit the signal strength display.





Manual Tuning - DAB

Manual tuning allows you to tune directly to the various DAB Band III channels. UK DAB stations are located in the range 11B to 12D.

- 1. Press and hold the **Select button** until the display shows "Manual tune". Release the **Select button**.
- 2. Press either of the *Tuning Up or Down buttons* to select the required DAB channel.
- 3. Press and release the Select button to select the required DAB channel. The open bar in the middle shows you the minimum signal strength needed for good DAB reception. The signal strength bars will go up and down showing the changing signal strength as you adjust the telescopic aerial on your radio.
- When a DAB signal is found, the display will show the name of the DAB multiplex. Any new radio stations found will be added to the list stored in the radio.
- 5. Press and release the Select button to return to normal tuning.



Manualtune







I'm sorry I have

Autoselect - DAB

As an alternative to pressing the **Select button** to select a station your radio can be set so as to automatically select a station.

- Press and release either of the *Tuning Up or Down buttons* a few times, immediately press and hold down the *Select button* until the display shows "Autoselect ON".
- Press the *Tuning Up or Down buttons* until the station you require is visible on the display. After a few seconds your radio will automatically select the station shown on the display.
- To switch off autoselect press and release the *Tuning Up or Down* buttons a few times, immediately press and hold down the *Select* button until the display shows "Autoselect Off".

Select 1,2,3

TUNING



Autoselect OFF

If you need any further advice, please call our Technical Helpline on :-020 8758 0338 (Mon-Fri)

Dynamic Range Control (DRC) settings - DAB

DRC can make quieter sounds easier to hear when your radio is used in a noisy environment.

- 1. Press the On/Off button to switch on your radio.
- Press and hold in the *Info/Menu button* and the display will show "Station order."
- Press the *Tuning Up or Down buttons* until the display shows "DRC value".
- 4. Press and release the Select button to enter adjustment mode.
- Press the *Tuning Up/Down buttons* to select required DRC setting (default is 0).

DRC 0 DRC is switched off, Broadcast DRC will be ignored. DRC 1/2 DRC level is set to 1/2 that sent by broadcaster. DRC 1 DRC is set as sent by broadcaster.

6. Press and release the *Select button* to confirm the setting. The display will return to normal tuning mode.

Note: Not all DAB broadcasts are able to use the DRC function. If the broadcast does not support DRC, then the DRC setting in the radio will have no effect.



Station order setup - DAB

This function enables you to choose how the stations are arranged when selecting a station. There are four options available - favourite station, alphanumeric, active station and prune stations.

Note: Your radio default station order is numeric-alpha order.

- Press and hold in the *Info/Menu button* and the display will show "Station order."
- 2. Press and release the Select button.
- Press the *Tuning Up or Down buttons* to choose between favourite station, alphanumeric, active station and prune stations.
- 4. Press and release the **Select button** to select the station order setting required.

Favourite stations

When this setting is switched on, after a period of time the most listened to stations will move to the top of the station list and will be marked with the heart symbol Ψ .

Alphanumeric

Press the *Tuning Up or Down buttons* until "Alphanumeric" appears on the display. Your radio will now select stations in alphanumeric order (0...9...A...Z).





TUNING







Active station

When this setting is switched on the display will show only those that a signal can be found for.

Prune stations

Some DAB services may stop broadcasting or you may not be able to receive a station. Prune stations will delete the DAB stations from your station list that can no longer be received.

When this feature is selected your radio will delete the stations that are not currently being received.

Alphanumeric Active station •

Alphanumeric •Prune station •

Operating your radio - FM

- 1. Carefully extend the telescopic aerial.
- 2. Press the On/Off button to switch on your radio. The display will show "Roberts" for a few seconds.
- 3 Press the **Band button** to select the FM band
- 4. Press and release the Select button until the display shows "Auto tune <>".
- 5. Press the Tuning Up button to cause your radio to scan in an upwards direction (low frequency to high frequency) and stop automatically when it finds a station of sufficient strength.
- 6. After a few seconds the display will update and show station name (if RDS information is available).
- 7. Press the Tuning Down button to scan the FM band in a downwards direction (high frequency to low frequency).
- 8. When the waveband end is reached your radio will recommence tuning from the opposite waveband end.
- 9. Adjust the Volume control to the required setting.
- 10. To switch off your radio press the On/Off button.















Manual tuning - FM

- 1. Press the On/Off button to switch on your radio.
- 2. Press the Band button to select the FM band. Fully extend the Telescopic aerial.
- 3. Press and release the Select button until the display shows "Manual tune <>".
- 4. Press either of the Tuning Up or Down buttons to tune to a station. The frequency will change in steps of 50kHz.
- 5. When the waveband end is reached the radio will recommence tuning from the opposite waveband end.
- 6. Set the Volume control to the required setting.
- 7. To switch off your radio press the On/Off button.



FΜ

FM.

Display modes - FM

In FM mode the bottom line of the display can be set to any of the following modes:-

- 1. Press the Info/Menu button to cycle through the various modes.
 - a. Scrolling text
 Displays scrolling text messages such as artist/track name, phone in number etc.

 b. Program Type
 Displays type of station being listened to e.g. Pop, Classic, News, etc.

 c. Time and date
 Displays current time and date.

d. Frequency Displays frequency of the station being listened to.

Note: When tuned to the FM band, information display is only available when the radio is able to receive RDS information from the broadcaster.



Menu

Presetting stations

There are 5 memory presets for each of the two wavebands which allow you to quickly tune the radio to your favourite stations. Presets are store in a memory which remembers the settings even when the radio is switched off.

- 1. Press the On/Off button to switch on your radio.
- 2. Tune to the required station as previously described.
- Press and hold the required *Preset button* until the display shows e.g. Preset 1 saved. The station will be stored under the chosen preset button. Repeat this procedure for the remaining presets.
- Stations stored in the memories may be overwritten by following the above procedure.

Recalling a preset

- 1. Press the On/Off button to switch on your radio.
- 2. Select the required waveband.
- 3. Momentarily press the required *Preset button*, your radio will tune to the station stored in preset memory.













Stereo / Mono setting - FM

Your radio will play stereo broadcasts in stereo (via headphones) so long as the received signal is of adequate strength. However, as a stereo signal becomes weaker the audio signal will become poorer. It may be preferable to force the radio to play the station in mono in order to reduce the level of audio noise.

- 1. Press the On/Off button to switch on your radio.
- 2. Tune to the required FM radio station as previously described.
- Press and hold the Info/Menu button until the display shows "Mono Override" on the lower line. The upper line will show "Override Off" if the radio is in the Auto-Stereo mode.
- Press the Select button to switch on the Mono Override. While this setting is engaged, the radio will play the current station in mono whether listening via headphones or the loudspeaker.

Mono Override is a temporary setting and is applied to the currently tuned station only. It is cancelled automatically by tuning to another radio station.

- 5. If you wish to cancel Mono Override while listening to the currently tuned radio station, press and hold the *Info button* until the display shows "Mono Override" on the lower line. The upper line will show "Override On" if the radio is in the Mono Override mode.
- Press the Select button to switch off the Mono Override. The radio will play then play the current station in stereo through headphones if the signal is sufficiently strong.

If you need any further advice, please call our Technical Helpline on :-020 8758 0338 (Mon-Fri)







Override Off +Mono Override +

Override On •Mono Override •



TUNING

Scan sensitivity setting - FM

Your radio will normally scan for FM broadcasts which are strong enough to give good reception. However, you may wish the Auto-scan function to also be able to find weaker signals, possibly from more distant radio transmitters. Your radio includes a local / distant option for the Auto-scan function.

- 1. Press the On/Off button to switch on your radio.
- 2. If needed, press the Band button to select the FM band.
- Press and hold the *Info/Menu button* until the display shows "Mono override" on the lower line.
- Press and release the *Tuning Up or Down buttons* until the display shows "FM Scan Zone" then press the *Select button* to enter the scan zone selection menu.
- Press the *Tuning Up or Down buttons* to switch between Local and Distant options on the lower line of the display. The Distant option will allow the radio to find weaker signals when scanning.
- Press the Select button to confirm your selection. The radio will then revert to the normal information display. The Local or Distant setting is stored in the radio and remains in force until changed or until a System Reset.

Note: The initial setting (out of the box, or after a System Reset) causes the radio to ignore weak (distant) signals.







Software version

The software display cannot be altered and is just for your reference.

- 1. To view the software version on the display press and hold in the *Info/Menu button* for two seconds.
- Press the *Tuning Up/Down buttons* until the display shows "Sw version" on the lower line. The version number is then shown on the upper line of the display. After a few seconds the display will revert to normal tuning mode.

System reset

If your radio fails to operate correctly, or some digits on the display are missing or incomplete carry out the following procedure.

- 1. Press and hold down the Info/Menu button for 2 seconds.
- Press the *Tuning Up or Down buttons* until the display shows "Factory reset" on the lower line then press and release the *Select button* to select System reset.
- 4. Press the **Select button** once more and a full reset will be performed. All presets and station lists will be erased.
- After a system reset a scan of the DAB band will be performed. In case of malfunction due to electrostatic discharge, reset the product (reconnection of power source may be required) to resume normal operation.

If a problem persists our technical staff would be pleased to offer any assistance on operating the radio. Our technical helpline number is 020 8758 0338.

If you need any further advice, please call our Technical Helpline on :-020 8758 0338 (Mon-Fri)











TUNING









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Headphone socket

A 3.5mm *Headphone Socket* located on the left hand side of your radio is provided for use with either headphones or an earpiece. Inserting a plug automatically mutes the internal loudspeaker.

IMPORTANT: Excessive sound pressure from earphones and headphones can cause hearing loss.



Display backlight

- When using on batteries, the display backlight will be switched on for approximately 12 seconds when any button is pressed.
- When your radio is powered by AC mains the display backlight will always be switched on.

A Few words about batteries...

Your Roberts ecologic-2 radio has been designed to use a choice of power sources. You may plug it into the mains using the supplied adaptor, or for listening away from the mains you may use either alkaline or rechargeable batteries. We do not recommend the use of carbon-zinc or zinc-chloride batteries.

It is very important that you read the advice and warnings given below.

- Whichever type of batteries you choose to use, it is very important that the battery selection switch under the cover is set to the correct type.
- a. If no batteries are fitted, then set the switch to the Alkaline position. This position minimises the power consumption when the radio is powered from the mains.
- b. If Alkaline batteries are fitted, then set the switch to the Alkaline position.
- c. If Rechargeable batteries are fitted, then set the switch to the NiMH position. Your radio is designed to use Nickel-Metal-Hydride rechargeable batteries. No other type of rechargeable battery should be used in the radio.
- NEVER mix old and new Alkaline batteries. The old batteries may suffer damage and leak which will damage your radio and whatever the radio is standing on.
- NEVER mix old and new Rechargeable batteries. This may result in unreliable charging and shortened battery life. Never mix Rechargeable batteries of different types or capacities even if they are new.
- NEVER mix Alkaline and Rechargeable batteries. The recharging of Alkaline batteries can be very dangerous.

Rechargeable batteries...

Your ecologic-2 radio uses a range of methods to ensure correct and safe charging of Rechargeable Nickel-Metal-Hydride batteries. These work to protect your batteries from excessive charge and discharge. These protections can only work properly if the advice above is followed. In particular, the radio will not be able to correctly charge batteries if they are a mixture of different brands, or different ages, or different capacities.

We recommend that all the rechargeable batteries used in your radio are bought together as a set. They should always be charged together and discharged together and not "borrowed" from time to time for other applications. This will ensure that they give their optimum performance in your radio.

We recommend that the rechargeable batteries that you use should be from a quality brand, and should be of at least 2000mAh capacity. Batteries of this capacity should be able to power your radio for between 10 and 20 hours depending upon the volume of the radio, whether DAB or FM mode is used (DAB mode uses slightly less power than FM), and also depending on the condition of the batteries.

Before you first install a new set of rechargeable batteries into your radio you should first make sure that the battery type switch beneath the battery cover is in the NiMH position. Install the batteries arranging them as shown on the back of the radio. Plug the mains adaptor into a mains socket and then into the radio. While the batteries are charging the battery indicator should show a red light. When the batteries are fully charged the indicator will turn off. The time taken to charge the batteries will depend on how much charging they require. New batteries may be partly charged when first fitted, but it is normal for a set of batteries take several hours to charge fully (this can be between 5 and 8 hours depending on the battery capacity and their initial state of charge).

If you need any further advice, please call our Technical Helpline on :-020 8758 0338 (Mon-Fri) If you use the radio powered from the batteries, the battery light will be off. When the batteries are exhausted, the radio will switch itself off. It does this in order that the batteries are not excessively discharged. This would otherwise damage the batteries and shorten their life.

If you use the radio powered from the mains with rechargeable batteries fitted, the charging process is suspended until you switch off the radio. When you switch off the radio using its On/Off button charging will then resume. If the batteries have already been charged then they will only charge for a few more minutes before the battery charge indicator goes turns off.

If you only listen to your radio for short periods, you do not need to connect your radio to the mains to charge the batteries every time that you use it. However, if the radio is not to be used for a few weeks we recommend that the batteries are fully charged before the radio is put to one side (charge until battery charge light turns off).

If you intend not to use your radio for some months, then we recommend that the batteries are removed and put away, keeping them in a cool place out of reach of children, away from moisture and such that no metal object can contact the battery terminals.

With care, rechargeable batteries can last a long time and can operate for many hundreds of charge and discharge cycles. When your rechargeable batteries can no longer power your radio adequately, please dispose of them thoughtfully.

To avoid danger and risk of injury, please follow these guide lines

Improper use of batteries may result in leakage of fluid, overheating or explosion. Battery fluid is corrosive and may also be toxic. Battery fluid can cause skin burns, can damage the eyes, and can be harmful if swallowed.

- 1. Keep batteries out of the reach of children.
- 2. Do not heat, open, puncture, mutilate or dispose of batteries by burning.
- 3. Do not mix different battery types or old and new batteries. Always replace all the batteries at the same time.
- Do not carry or store batteries such that metal objects may contact the end caps.
- Remove batteries from the radio if they are worn out or if you are storing it for a long time.
- 6. Remove old or worn out batteries promptly, and recycle or dispose of them according to the regulations applicable to your location.
- If a battery does leak, remove all batteries from the product, taking care to avoid directly touching the leaked fluid. If the fluid contacts skin or clothes wash with water immediately. Before inserting new batteries, thoroughly clean the battery compartment with a damp paper towel, or follow the battery manufacturer's advice for clean up.

General

Do not allow this radio to be exposed to water, steam or sand. Do not leave your radio where excessive heat could cause damage such as in a parked car where the heat from the sun can build up even though the outside temperature may not seem too high. It is recommended that the DAB band be used wherever possible as better results in terms of quality and freedom from interference will usually be obtained than on the FM band.

The name plate is located on the back of your radio.



- Your radio should not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the radio.
- It is recommended to operate the product such that there is a minimum distance (10cm recommended) to adjacent objects in order to ensure good ventilation.
- The ventilation of the product should not be restricted by covering it or its ventilation openings with items such as newspapers, tablecloths, curtains etc.
- No naked flame sources such as lighted candles should be placed on the product.
- It is recommended to avoid using or storing the product at extremes of temperature. Avoid leaving the unit in cars, on window sills, in direct sunlight etc.

Specifications

Circuit Features

Power Requirements		Loudspeaker	75mm		
Mains	AC 100	- 240 volts, 50 - 60 Hz 🔨 only (adaptor)			
Batteries	6 x LR6	i (AA size)	Output Power	1 Watt	
Battery Life Up to 25 hours of listening for 4 hours a day at normal volume using alkaline cells.		Headphone socket	3.5mm dia		
		Aerial System	FM	Telescopic aerial	
Frequency Cove	rade			DAB	Telescopic aerial
Trequency cove	FM	87.5-108MHz			
	DAB	174.928 - 239.200MHz			

The Company reserves the right to amend the specification without notice

Guarantee

This instrument is guaranteed for twelve months from the date of delivery to the original owner against failure due to faulty workmanship or component breakdown, subject to the procedure stated below. Should any component or part fail during this guarantee period it will be repaired or replaced free of charge.

The guarantee does not cover:

- 1. Damage resulting from incorrect use.
- 2. Consequential damage.
- 3. Receivers with removed or defaced serial numbers.

N.B. Damaged or broken telescopic aerials will not be replaced under guarantee.

Procedure:

Any claim under this guarantee should be made through the dealer from whom the instrument was purchased. It is likely that your Roberts' dealer will be able to attend to any defect quickly and efficiently but should it be necessary the dealer will return the instrument to the Company's service department for attention. In the event that it is not possible to return the instrument to the Roberts' dealer from whom it was purchased, please contact Roberts Radio Technical Services at the address shown on the rear of this manual.

These statements do not affect the statutory rights of a consumer.

ROBERTS RADIO TECHNICAL SERVICES 97-99 Worton Road

Isleworth Middlesex

TW7 6EG Technical Helpline :- 020 8758 0338 (Mon-Fri during office hours)

Website: http://www.robertsradio.co.uk

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