

GSR85DAB Portable DAB/FM Radio

User Guide



Introduction

Thank you for purchasing this Portable DAB/FM Radio which has been designed and manufactured to give you many years of trouble-free service.

You may already be familiar with using a similar product but please take time to read these instructions which have been written to ensure you get the very best from your purchase.

Safety is Important

To ensure your safety and the safety of others, please read the Safety precautions **before** you operate this product.

Keep this information in a safe place for future reference.



NOTE: In the case of malfunction due to electrostatic discharge, reset the product to resume normal operation. Reconnection of the power source may be required.

Introduction	2	
Safety is Important	2	
Safety Information	4	
Electrical Information	5	
Important		
Location of the Controls	6	
Front and Control Panel	6	
What is DAB?		
Getting Started	9	
In the Box		
Positioning your DAB Radio	9	
Adjusting the Aerial	9	
Using Headphones	9	
Battery Operation	.10	
Mains Operation		
Using your DAB Radio		
Switching On for the first time	.11	
Changing DAB Stations		
Adjusting the Volume		
Scanning for DAB Stations		
Station Display Symbols		
Storing DAB Presets		
Selecting a Preset Station		
Reset		
Changing the DAB Station Information		
Using the MENU Control		
Using the MENU Control - continued		
Using the FM Radio		
Automatic Tuning Manual Tuning		
Storing FM Presets		
Selecting a Preset FM Station		
Aux In Socket		
Charging Batteries		
Charging Batteries		
Technical Specification		
Guarantee	25	

Safety Information



WARNING! Ensure that you read all of the safety instructions before using this unit.

Safety Considerations

- Position the power cable and other connected cables so that they are not likely to be walked on, pinched or where items can be placed on or against them.
- Do not use the unit in humid or damp conditions.
- Do not allow the unit to get wet.
- Do not expose the until to dripping or splashing.
- Do not cover any of the ventilation slots on the unit, as this may cause overheating.
- Do not place the unit in closed bookcases or racks without proper ventilation.
- Never allow children to insert foreign objects into holes or slots on the unit.
- No naked flame sources, such as lighted candles, should be placed on the unit.

Cleaning

- Disconnect the unit from the mains supply before cleaning.
- Do not use any liquids or aerosol cleaners, as this may damage the unit. Use a soft, dust free cloth.

Battery Disposal

- Please ensure that used batteries (not included) are disposed of safely.
- Do not dispose of batteries (not included) in fire.
- Contact local authorities for means of disposal.

Servicing

- There are no user serviceable parts in the unit. When servicing, refer to qualified service personnel.
- Consult your dealer if you are ever in doubt about the installation, operation, or safety of the Portable DAB/FM Radio.

Electrical Information

Make sure that the voltage of your electricity supply is the same as that indicated on the rating plate of the power supply unit supplied with your Portable DAB/FM Radio. It requires a 230V AC, 50Hz mains supply. Do not use any other supply.

The mains lead supplied may be fitted with a non-rewireable plug. If you need to change the fuse in a non-rewireable plug, the fuse cover must be refitted. If the fuse cover is lost or damaged, the plug must not be used until a replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or becomes damaged, it should be removed and an appropriate plug fitted following the wiring diagram below. The plug removed must be disposed of safely, as insertion into a mains socket could be an electrical hazard.

Important

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The blue wire must be connected to the terminal marked with the letter N or coloured black.
- The brown wire must be connected to the terminal marked with the letter L or coloured red.
- No connection is to be made to the earth terminal of the plug.



If a 13 Amp (BS1363/A) plug is used, a 3 Amp fuse (BS1362) must be fitted, or if any other type of plug is used a 3 Amp fuse must be fitted, either in the plug, adapter or in the distribution board.



This symbol indicates that this unit is a Class II double insulated appliance and therefore an earth connection is not required.

Location of the Controls

Front and Control Panel



- 1 Carry handle
- 2 Preset buttons
- 3 Shift button
- 4 DAB/FM button
- 5 Volume +/-
- 6 Scan button
- 7 Display button
- 8 Menu button
- 9 Scroll down button
- 10 Scroll up button
- 11 Select button
- 12 Power On/Off button
- 13 Display

- 14 Aerial
- 15 Power socket
- 16 Battery compartment
- 17 Aux In Socket
- 18 Headphone socket

What is DAB?

DAB was developed in Europe by a consortium of broadcasters and manufacturers.

DAB uses digital compression techniques to transform the source material, i.e. music and speech, into digital code before it is transmitted. The code consists of electronic 'ones and zeros' called binary digits or bits. The binary code is then multiplexed or grouped together to create a superior signal, when compared with the older analogue system, with the following key benefits:

Interference free reception.

Analogue systems suffer from an effect called 'multipath distortion'. This is caused because waves do not behave in an orderly fashion, but bounce and reflect off buildings etc. DAB sees this as an advantage and uses the direct and reflected signals to actually reinforce the end result.

No need to re-tune.

A single DAB frequency can be used to cover the whole of the UK, so solving many of the problems experienced with the earlier analogue system. DAB s can automatically tune-in all of the available stations in your area.

Getting Started

Carefully remove your Portable DAB/FM Radio from the box. You may wish to store the packaging for future use.

In the Box

Inside the box you will find:

- Portable DAB/FM Radio
- Mains Cable
- User Guide

If any of these items are missing please contact Product Support on:

Internet: www.goodmans.co.uk

Positioning your DAB Radio

Place your Portable DAB/FM Radio on a flat, stable surface that is not subject to vibrations.

Avoid the following locations:

- Where it is exposed to direct sunlight.
- Where it is close to heat radiating sources.
- Where the humidity is high and ventilation is poor.
- Where it is dusty.

Adjusting the Aerial

The aerial should be extended to ensure good reception in both DAB and FM radio modes. It may be necessary to alter the position of the Portable DAB/FM Radio and/or aerial to achieve the best signal.

Using Headphones

You will require headphones fitted with a 3.5mm diameter stereo plug and an impedance of 8-32 ohms. The Headphone socket is located on the side of this unit (page 7).

Headphones are not supplied with this Portable DAB/FM Radio.

Battery Operation

Before installing batteries (not included), ensure that the Portable DAB/ FM Radio is disconnected from the mains supply.

Remove the battery compartment cover on the back of the Radio by carefully pushing the two lugs down. The battery cover can then be lifted away.



Fit 6 x 1.5v LR14 Batteries (C-size or equivalent, not included), referring to the polarity markings inside the battery compartment.

Never mix old and new batteries.

Finally, replace the cover.

For battery operation, switch off the mains supply and remove the cable from the power socket. Battery operation will be selected automatically.

We recommend the use of Ever Ready Energizer batteries.





CAUTION! DANGER OF EXPLOSION IF BATTERIES ARE INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE.

If you are not going to use the Portable DAB/FM Radio for an extended period, please remove the batteries to avoid damage.

Mains Operation

Your Portable DAB/FM Radio requires a mains supply of 230V AC ~ 50 Hz. Please ensure that your mains supply is compatible before use.

Insert the mains cable into the power socket at the rear of the Radio, then plug in and switch on the supply.

Using your DAB Radio

Switching On for the first time

When you switch your Portable DAB/FM Radio on for the first time, DAB mode is selected automatically. The **DISPLAY** will illuminate and 'Welcome to digital radio' will be displayed.

The following screen will be displayed. A bar graph indicates the progress of the search - the number of stations found increases as the scan progresses.



When the scan is complete, the Portable DAB/FM Radio will then select the first available station - stations are listed in numerical then alphabetic order.

The station list is retained in memory so the next time you switch the Portable DAB/FM Radio on, the station search does not take place.

If there are no stations found, check that adequate DAB coverage exists in your area.

It is possible to perform a manual scan for stations, see page 17.

Changing DAB Stations

- Press the SCROLL UP or SCROLL DOWN button to scroll up and down through the available stations. The station names will appear on the second line of the DISPLAY.
- 2 When the desired station is displayed press **SELECT**. The Portable DAB/FM Radio will immediately tune to that station.

Adjusting the Volume

- 1 To increase the volume by pressing the **VOLUME +** button.
- 2 To decrease the volume by pressing the **VOLUME –** button.

Scanning for DAB Stations

Due to the nature of DAB radio, additional stations and services regularly become available. If you wish to see if there have been any new DAB stations introduced in your area you can initiate a search.

Press the **SCAN** button to activate a local search for stations. This will take approximately 10 seconds. If you are using your Portable DAB/FM Radio outside of the UK then a wider search can be initiated by pressing and holding down the **SCAN** button for approximately two seconds. In this case a full scan is performed which will take approximately 20 seconds.

Station Display Symbols

You may see some symbols displayed alongside the station names. These are defined as follows:

- ♥ This indicates that the station is one of your ten favourite stations and can be used when selecting the station order, see page 16.
- ? This is displayed before the station name if the station is not available or not active.
- Chevrons displayed after the station name indicate that this is a primary station with secondary services.
- +
- Chevrons displayed before the station name indicate that this is a secondary station.

Storing DAB Presets

Note: Each preset button holds two presets. For example, the **1/6** preset button, on the Portable DAB/FM Radio, holds preset positions one and six.

You can preset up to 10 DAB stations for easy access as follows:

- Tune to the station you wish to preset (see 'Changing DAB Stations' on page 11).
- 2 Press and <u>hold</u> one of the **PRESET** buttons (e.g. 1/6), located on the top of the Portable DAB/FM Radio. 'Preset # saved' will appear on the second line of the **DISPLAY**, where # is the number of the preset position.
- 3 To save to preset positions 6-10, hold down the **SHIFT** button then press and <u>hold</u> the desired **PRESET** button. If you have already saved a DAB station in that preset location, it will be over-written with the new station.

Selecting a Preset Station

To select presets 1-5, press the relevant **PRESET** button.

To select presets 6-10, hold down the **SHIFT** button and then press the relevant **PRESET** button.

If you have not already stored a DAB station in one of the presets, 'Empty preset' will be displayed. The **DISPLAY** will revert to the previously selected station after a few seconds.

Reset

You can delete all of the preset stations and return the Portable DAB/ FM Radio to its factory settings as follows:

- 1 Press and hold the MENU button.
- 2 The DISPLAY will show 'Press SELECT to confirm delete...'
- 3 Press the SELECT button

The **DISPLAY** will show 'Welcome to Digital Radio' before performing a new scan for stations.

The Portable DAB/FM Radio will be returned to its factory condition.

If you do <u>not</u> wish to reset the Portable DAB/FM Radio, wait a few seconds without pressing any buttons and the Portable DAB/FM Radio will revert to its previous operating condition.

Changing the DAB Station Information

It is possible to change the information that is displayed on the second line of the **DISPLAY** when listening to a DAB station. Note that this information is not available when listening to conventional FM stations. There are seven types of information available as listed below with examples to the right. To change the information displayed press the **DISPLAY** button repeatedly.

Dynamic Label Segment (DLS)

This is scrolling text information supplied by the DAB station. It may comprise information on music titles or details of the programme and is provided by the broadcaster.

• Program Type (PTY)

This is a description of the type of programme provided by the DAB station and is provided by the broadcaster.

Multiplex Name

This will show the multiplex that is broadcasting the programme you are listening to.

Time and Date

This displays the time and date and is provided by the broadcaster, so will be accurate.

Channel and Frequency

This displays the channel number and the transmission frequency.

Audio Information

This shows the digital bit-rate and the audio mode.

Signal Error Rate

If the transmission signal contains errors the system can apply correction. The amount of signal correction can be displayed as a numerical value between 0 and 99. As the value increases, you will hear the signal degrade. To improve reception, try adjusting the position of the antenna. Please note a signal error rate of 30 or more will make the station un-listenable.

Press DISPLAY
BBC Radio 5 Live DLS Scrolling
Press DISPLAY
BBC Radio 5 Li∨e News
Press DISPLAY
BBC Radio 5 Live BBC National DAB
Press DISPLAY
BBC Radio 5 Live 12:40 04-07-2005
Press DISPLAY
BBC Radio 5 Live 12B 225.64MHz
Press DISPLAY
BBC Radio 5 Live 80Kbps Mono
Press DISPLAY
BBC Radio 5 Live Signal error 7
Press DISPLAY

Using the MENU Control

The **MENU** function allows you to change some of the system options on your Portable DAB/FM Radio. These options are arranged in a menu structure as shown below.



Using the MENU Control - continued

Pressing the **MENU** button will enter the menu control. The options are described below.

Station Order

This function enables you to define how the stations are arranged when scrolling the stations list.

- 1. Press the **MENU** button to access the menu control.
- Press either the SCROLL UP or SCROLL DOWN buttons until 'Station order' is displayed.
- 3. Press the SELECT button to access 'Station order'.
- 4. Use either the **SCROLL UP** or **SCROLL DOWN** to display the desired option.

There are four options available as described below.

Favourite Station (Fav station)

The DAB tuner monitors the stations that you listen to and will build a list of the ten most listened to stations. When this option is selected the station list is re-ordered so that these stations appear at the top of the list. When you scroll through the list you will see that your ten favourite stations will have a heart shaped symbol.

Alphanumeric

This is the default setting. The stations are arranged in numerical then alphabetical order.

Active Station

This option will re-order the list with those stations that can be received in your area at the top of the list and those that cannot at the bottom of the list.

Prune Stations

This option will remove from the list any stations that have no service in your area (i.e.: the stations that were preceded by '?').

5. Press **SELECT** to confirm.

Manual Tune

It is possible to manually tune to a specific channel/frequency and add this to the station list.

This function can be used to obtain the optimum reception for a specific channel/frequency, taking into account the position of the aerial.

- 1. Press the **MENU** button to access the menu control.
- Press either the SCROLL UP or SCROLL DOWN buttons until 'Manual tune' is displayed.
- 3. Press the SELECT button to access 'Manual tune'.
- 4. Use either the **SCROLL UP** or **SCROLL DOWN** buttons to select the desired channel/frequency.
- 5. Press SELECT.

A rectangle will be displayed on first line of the **DISPLAY**. The position of this rectangle indicates the minimum signal strength to achieve satisfactory reception.



- 6. Adjust the position of the antenna to obtain the optimum signal strength.
- 7. Press the **SELECT** to confirm.

Dynamic Range Control

DRC adds or removes a degree of compression to compensate for the differences in the dynamic range between radio stations. For example, a station broadcasting popular music may have a high level of compression applied since the emphasis is on a constant high listening level, whereas a station broadcasting classical music will have little or no compression as the listener requires all of the highs and lows in the music to define the detail.

There are three levels of compression:

- DRC 0 No compression applied.
- DRC 1 Maximum compression applied (this is the default).
- DRC 1/2 Medium compression applied.

The best way to determine which of these settings suits you best is to experiment with them on a variety of source material.

- 1. Press the **MENU** button to access the menu control.
- Press either the SCROLL UP or SCROLL DOWN buttons until 'DRC value' is displayed.
- 3. Press the SELECT button to access 'DRC value'.

The current DRC level will be displayed on line 1 of the **DISPLAY**.

 Press the SCROLL UP button to select between the three DRC values. The available options appear on line 2 of the DISPLAY.

When the required DRC value is displayed press **SELECT** to confirm.

• You should be able to hear the difference in compression immediately.

Software Version

This is only provided as an engineers reference in the unlikely event that servicing should ever be necessary.

- 1. Press the **MENU** button to access the menu control.
- Press either the SCROLL UP or SCROLL DOWN buttons until 'Sw version' is displayed.
- The version number will appear on line 1.

Using the FM Radio

If the Portable DAB/FM Radio is in DAB mode, press the **DAB/FM** button to select FM mode. You may hear background noise as no station has been tuned in. The **DISPLAY** will look something like this:

98.	SIZMHZ	FM
-----	--------	----



NOTE: If the Radio is switched off in FM mode it will always resume in DAB mode, in last selected station, when switched back on.

Automatic Tuning

1. Press and release the **SCAN** button to automatically search for the next available station.

'Searching...' will appear on the **DISPLAY** as the Radio scans up the frequencies (see below).

Searching...>.

- 2. If the reception is poor, briefly press the **SCROLL UP** or **SCROLL DOWN** button to fine tune the station.
- If the reception does not improve, try altering the position of the aerial.
- If the reception is still poor, scan again to determine whether a stronger signal exists for the desired frequency.
- 3. When you have tuned into the desired frequency/station, you can save it in one of the ten preset locations, as described on page 20.

NOTE

NOTE: When you scan through conventional FM frequencies, the stations are detected based upon the strength of the signal. Automatic FM scans may detect very noisy or distorted stations - it may be necessary to re-scan, adjust the aerial/radio position or fine-tune the signal to achieve the best results.

Manual Tuning

1. Press and <u>hold</u> the **SCROLL DOWN** or **SCROLL UP** button to manually scan up or down through the frequency band.

When the desired frequency appears on the **DISPLAY** release the **SCROLL DOWN** or **SCROLL UP** button.

- 2. If the reception is poor, briefly press either the **SCROLL UP** or **SCROLL DOWN** button to fine tune the station.
- If the reception does not improve, try altering the position of the aerial.
- If the reception is still poor, scan again to determine whether a stronger signal exists for the desired frequency.
- 3. When you have tuned into the desired frequency/station, you can save it in one of the ten preset locations, see below.

Storing FM Presets

You can preset up to 10 FM stations for easy access as follows:

- 1. Tune to the station you wish to preset, as described on the previous page.
- 2 Press and <u>hold</u> one of the **PRESET** buttons (1-5) until the **DISPLAY** shows:



In this case, 'Preset 1 saved' is displayed to indicate that the station has been saved into first preset position.

- To save presets 6-10, hold down the **SHIFT** button then press and hold the desired **PRESET** button.
- If you have already saved an FM station in that preset location, it will be over-written with the new station.

NOTE: When you store DAB stations, these do not overwrite your FM presets.

NOTE

Selecting a Preset FM Station

- 1. To select a preset station, press the relevant **PRESET** button.
- The station frequency assigned to selected preset will be displayed.
- To select presets 6-10, hold down the SHIFT button then press the relevant PRESET button.



NOTE: The **DISPLAY** and MENU buttons do not have any function in FM radio mode.

Aux In Socket

Connect the Aux in socket with the line output socket of the external audio device.

Please ensure the volume control on the external unit and the volume control on the GSR85DAB are both set to minimum, then after connection adjust the volume on the GSR85DAB until the desired level is reached.

Re-Charging Batteries

WARNING: Do not charge non rechargeable batteries in this player. Danger of explosion is possible.

The preferred rechargeable battery type to use are NIMH C size. They do not suffer from poor charge memory problems after being in use for some time.

- 1. A fully charged battery depending on its capacity will take approximately 15 hours for a full charge.
- 2. Charging of the batteries is possible with the radio powered on or off as long as it is connected to the mains supply.
- 3. Insert 6 x C-size rechargeable batteries into the battery compartment observing the correct polarity as indicated inside the battery compartment.
- 4. With the radio connected to a mains supply move the charge switch to its ON position. The Charge green LED indicator will illuminate and remain illuminated when this switch is in the ON position.
- 5. After approximately 15 hours move the charge switch to its OFF position. The charge indicator will extinguish and charging of the batteries will no longer take place.
- 6. Remove the mains cable from the side of the radio to operate the radio from the batteries. Reconnecting of the mains cable to the radio will bypass the batteries.

Note: The charge current in this player has been optimised for over night charging of NI-MH rechargeable batteries. Nicad batteries can be used but the charge time will need to be reduced.

Troubleshooting

If you believe that something is wrong with your Portable DAB/FM Radio, first check the points listed below.

There is no sound from my radio

- Check that either the radio is connected to the mains supply and is switched power on, or that the batteries have sufficient power.
- Make sure that the radio has been able to locate DAB/FM stations.

The DISPLAY shows 'NO SERVICES AVAILABLE' (DAB mode)

- Make sure that DAB coverage exists in your area.
- Try adjusting the position of the aerial or location of the radio.

Poor reception

 As with any radio service, there will be areas of weak signal that may cause poor reception. Follow the instructions for Manual Tuning on page 17 and adjust the aerial while monitoring the signal strength until the optimum signal is obtained. If reception is still poor try re-locating the radio to another part of the room.

I cannot access secondary services

 At the time of publishing this manual not many secondary services are available in the UK. This will increase as more DAB stations start broadcasting. If a secondary service station is available, the secondary indicator '>>' will be displayed next to the station name.

The DISPLAY has gone blank or says 'SERVICE OFF AIR'

 This may occur if a broadcaster changes the label of a service or removes a label whilst you are listening to the station. The radio will try to re-tune to the station. Alternatively, perform a scan by pressing the SCAN button.

I cannot hear the station I have selected

 The station you are listening to is displayed on line 1. Line 2 shows the selected option, but you have to press the SELECT button to tune to the selected station.

I here is distortion on some stations

 This is due to a weak signal. Try re-positioning the aerial to gain maximum signal strength.

Technical Specification

Power

Power supply Battery operation	230V AC ~ 50 Hz 6 x LR14 (C-size) batteries or equivalent (not included)
DAB Specifications RF section Input	Band III, 174 MHz to 240 MHz 50R, nominal
FM Specifications	
Frequency range:	87.50 MHz to 108.00 MHz (in 50 KHz steps)
Aux Input	Stereo sockets: 3.5 mm diameter
Headphone	Stereo sockets: 3.5 mm diameter
Dimensions Maximum dimensions:	320mm (W) x 120mm (H) x 75mm (D)

Guarantee

This product is guaranteed for 12 months from the date of original purchase. If any defect arises due to faulty materials or workmanship, the unit will either be replaced, a refund given or repaired free of charge (where possible) during this period by the dealer from whom you purchased the unit.

The guarantee is subject to the following provisions:

- The guarantee is only valid within the boundaries of the country of purchase.
- The product must be correctly assembled and operated in accordance with the instructions contained in this booklet.
- The guarantee does not cover accidental damage, misuse, or consumable items.
- The guarantee will be rendered invalid if the product is resold or has been damaged by inexpert repair.
- The manufacturer disclaims any liability for incidental or consequential damages.

This guarantee is in addition to and does not diminish your statutory, or legal rights.

DBF-REV1-JUL05

Goodmans