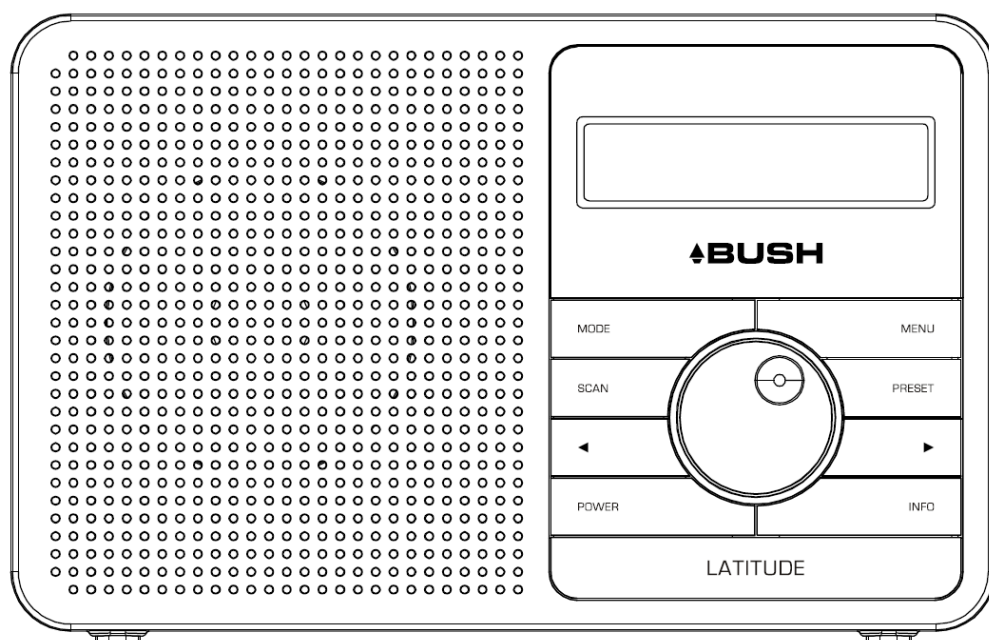# DAB+/FM DIGITAL RADIO



## LATITUDE SERIES

The Gold Technical Support Line: 1902 215 259

(Charges will apply at $2.95 per minute)

www.bushaustralia.com.au

# Introduction and Contents

Thank you for buying this Bush product, which is designed to give you many years of trouble-free service.

You may already be familiar with using a similar unit, but please take time to read these instructions.

They are designed to familiarise you with the unit's many features and to ensure you get the very best from your purchase.

## Safety is important

Your safety and the safety of others are important.
Please therefore, ensure you read the "Safety Instructions" **before** you operate this unit.

## Warranty

In the unlikely event that your product fails to work normally, please call the below free phone number to discuss the problem with one of our qualified service engineers.

| Australia | New Zealand |
|---|---|
| **Bush Warranty: 1800 509 394** | **Bush Warranty: 0800 450 259** |

# Contents

# Safety Instructions

*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.

- Never allow children to insert foreign objects into holes or slots on the unit.

- Do not cover the ventilation with items such as tablecloths, curtains, etc. This may cause overheating.

- No naked flame sources, such as lit candles, should be placed on or near the unit.

- Do not expose the unit to dripping or splashing water, and no objects filled with liquids, such as vases, should be placed on or near the apparatus.

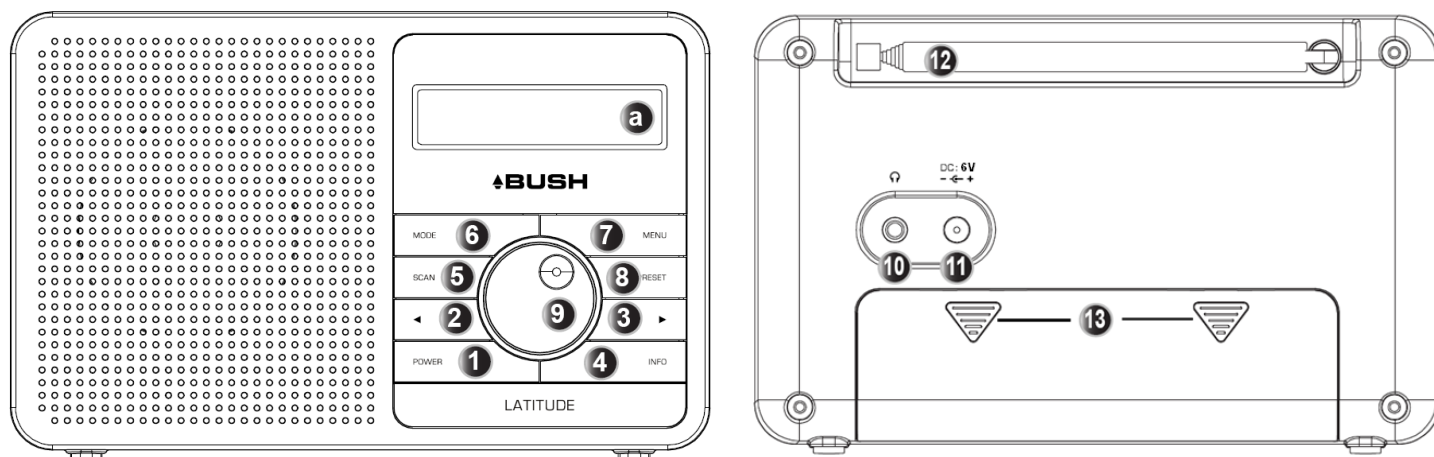- Do not place the unit in a closed cabinet without proper ventilation.

## 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.

## Servicing

- There are no user serviceable parts in the unit. When servicing, refer to qualified service professional.
- Consult your retailer if you are ever in doubt about the installation / operation / safety of the product.

# DAB+ Radio and Battery Operation



| 1. | **POWER** Button | 5. | **SCAN** Button | 10. | Headphone Jack |
|---|---|---|---|---|---|
| 2. | ◄ Button | 6. | **MODE** Button | 11. | DC Jack |
| 3. | ► Button | 7. | **MENU** Button | 12. | Aerial |
| 4. | **INFO** Button | 8. | **PRESET** Button | 13. | Battery Compartment |
| a. | **LCD Display** | 9. | **SELECT** Dial | | |

| Control | DAB+ and FM |
|---|---|
| **POWER** | Press the **POWER** Button to turn the radio on or off. (*when the alarm sounds, press this button to turn the alarm off*) |
| **SELECT** | **Normal Operation**: Turn this dial to adjust the volume level<br>**When in the menu**: Turn this dial to browse options, and press to confirm |
| **◄ or ►** | **When in the menu** Press the ◄or ► Button to move between different options.<br><br>**When in DAB+ mode**: Press the ◄or ► Button to move between stations.<br><br>**In FM mode, when the Frequency is displayed**:<br>Press the ◄or ► Button to manually search for FM Stations.<br>Press and hold the ◄or ► Button to auto search for FM Stations. |
| **INFO** | When a station is being listened to, press the INFO button to view various station information. |
| **SCAN** | Press the **SCAN** button to automatically search for stations. |
| **MODE** | Press the **MODE** button to switch between DAB+ and FM modes. |
| **MENU** | Press the **MENU** button to enter the Main menu. |
| **PRESET** | Press and hold the **PRESET** button to enter the preset options. |

## Battery Operation

1. Remove the battery door at the back of the radio via pushing the two triangles on battery door downwards.

2. Fit 4 new alkaline batteries, referring to the markings inside the battery compartment.

✎ *Note: To avoid damage to the radio, do not mix old and new batteries.*

3. Cover the battery door.

✎ *Note: If the radio will be unused for an extended period, please remove the batteries to avoid damage.*

# 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 better quality audio.

## 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, allowing for better service more of the time.

## No need to re-tune

A single DAB+ frequency can be used to cover the whole of the **Australia**, so solving many of the problems experienced with the earlier analogue system. **DAB+** scans automatically and tunes-in all of the available stations in your area.

## Scolling text

Broadcasters can transmit text to your radio. This way you can read the name of the DJ, artist, song title or any other information they choose.

## DAB+ coverage

Check your local coverage at www.digitalradioplus.com.au, or alternatively send a text message to 0409-DRPLUS to receive an SMS confirming whether you reside in a DAB+ broadcast area.

# Getting Started

Carefully remove your **DAB+ Receiver** from the box. You may wish to store the packaging for future use.

## In the Box

Inside the box you will find:

- DAB+ Radio (Main Unit)
- Power Adapter
- User Guide

## Positioning your DAB+ Radio

Place your **DAB+ Receiver** on a flat / stable surface that is not subject to vibrations.

**Avoid the following locations:**

- Where the radio will be exposed to direct sunlight.
- Where the radio will be close to heat radiating sources.
- Where the humidity is high and ventilation is poor.
- Where it is dusty.
- Where it is damp or there is a possibility of water dripping or splashing onto unit.

## Adjusting the Aerial

The aerial should be extended to ensure you receive the best reception possible in both DAB+ and FM radio modes. It may be necessary to alter the position of the **DAB+ RADIO** and /or aerial to achieve the best signal.

## Using Headphones

You will require headphones fitted with a 3.5 mm diameter stereo plug. The headphone jack is located on the back of this unit. Headphones are not supplied with this **DAB+ Receiver.**

## Turning the Unit On/Off

Connect the power adapter to the DC Jack on the back of the unit. Then insert the power adapter into the wall outlet. Turn the mains power on and then press the **POWER** button to turn on the unit, when you want to turn the unit off, simply press the **POWER** button again.

# Getting Started

☞  *Note: When you turn on the radio it will automatically search and store all available stations. You should conduct an*
*additional Full Scan to ensure all stations are picked up and stored. It is recommended every few months to run a new*
*scan to pick up any new DAB+ broadcasts that may have begun broadcasting after purchasing your DAB+ radio.*

**For initial use**, your radio will conduct a full scan store all DAB+ radio stations possibly it can detected.
**In normal operation, this order can be performed by following this process**:
Press the **MENU** Button→Turn the **SELECT** dial to Full Scan →Press the **SELECT** dial to confirm.

```
Scanning...          19
■■■■■■■■□□□□□□□□
```

The Full Scan may take1-2 minutes to complete, your radio will then play the first station from the available station list.

☞  *Note: a.   The DAB+ stations will be displayed and stored in alphanumeric order.*

         *b.   If no DAB+ stations are found, it may be necessary for you to relocate your radio.*

## Shift to another Station

Follow this process to change between available radio stations

1. Use the ◀or ▶arrows to change between stations.
2. Press the **SELECT** dial to select the station that you wish to listen to once it is appears on the LCD Display.
Alternatively, the radio will begin playing the station that is on the display after a period of 3 seconds without having to press the **SELECT** dial.

You can also use the **SELECT** dial to scroll through stations quicker. To do this:
1. Press the **MENU** Button and then press the **SELECT** dial to confirm the station list option.
2.  Turn the **SELECT** dial to browse through the station list.
3.  Press the **SELECT** dial to select the station that you wish to listen to once it is appears on the LCD Display

## Volume Control

Adjust the radio volume by turning the **SELECT** dial, ensuring that this is not attempted from within the menu.

## View Station Information

☞  *Note: There is a variety of station information transmitted by broadcast. This radio offers a convenient way to view this*
*information.*

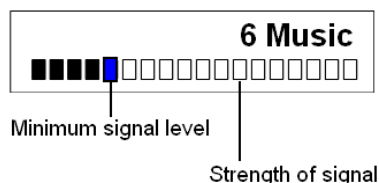To view information of the station that you are listening to, follow this process:

Press the **INFO** button repeatedly to select the information that you want your radio to display including Scrolling Text Information, Station Type, Signal Strength, Broadcaster Information, Signal Frequency, Signal Quality, Broadcast Format, Time and Date.

# Using DAB+ Radio

## Display the Signal Strength

✐ *Note: Stations with signal strength below the minimum signal level will not provide a steady stream of audio.*
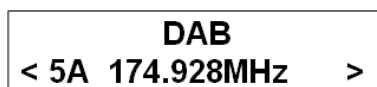
1. Refer to the method of '<u>View Station Information</u>' outlined on the previous page to activate 'Signal Strength'. A signal bar will be displayed as shown below.

The indicator on the signal bar shows the minimum acceptable signal level.

## Manual Tune:

1. Press **MENU** Button→Turn the **SELECT** dial to Manual tune →Press the **SELECT** dial to confirm, the display will show the channel number and frequency as below

2. Turn the **SELECT** dial to step between the channels and then press the **SELECT** dial select the current channel.

✐ *Note: If there is a multiplex corresponding to this channel and frequency, then the display will show a tuning meter with the signal strength and the multiplex name after a few seconds.*

3. To exit '**Manual tune**' press the **SELECT** dial again.

## DRC (Dynamic Range Control)

You can set the level of the compression of stations to eliminate the differences in dynamic range or sound level between radio stations.

✐ *Note: When DRC is set to **off** it indicates no compression, when DRC is set to **low** it indicates little compression, and when DRC is set to **high** it shows maximum compression.*

1. Press **MENU** Button→Turn the **SELECT** dial to the **DRC** menu →Press the **SELECT** dial to confirm.

2. Turn the **SELECT** dial to select your ideal DRC Mode. Press the **SELECT** dial to confirm.

## Prune

✐ *Note: Performing a prune of stations will remove inactive stations from the station list.*

1. Press the **MENU** Button→ Turn the **SELECT** dial to the **Prune** menu → Press the **SELECT** dial.

2. Turn the **SELECT** dial to select **Yes**, and then press the **SELECT** dial to confirm.

# Using Presets

## Setting Station Presets

✍ **Note**: *The process for setting presets is the same for DAB+ and FM Radio stations.*

Your radio can store 10 DAB+ & 10 FM station presets. Make sure that you are not in the menu when you are attempting to set a preset.

The way of storing the station being played as a preset is as follows:

1. Press and hold the **PRESET** Button until the following is displayed:

```
   Preset  Store
< 1:  (Empty)        >
```

2. Turn the **SELECT** dial to locate the number that you wish to store the station in (1-10).

3. Select your preferred preset station number and then press the **SELECT** dial, it would say 'Preset # stored'.

## Playing a Preset Station

**To select a stored station**:

1. Press the **PRESET** Button to enter the '**Preset Recall**' setting.

```
   Preset  Recall
< 1: waiting in a    >
```

2. Turn the **SELECT** dial to select the preset that you wish to select and then press the **SELECT** dial to confirm.

# Using FM Radio

1.  Press the **MODE** Button to switch to FM Mode from DAB+ Mode.

2.  Once in FM mode, the radio will play from the beginning of the FM frequency range (87.50MHz) or will play the last FM station that you were listening to.

```
87.50MHz
[No RadioText]
```

3.  **P**ress the ◄ or ► Button to change the frequency by 0.05MHz.

4.  **To perform an Auto-scan follow one of the following options:**

1.  Press and hold the ◄ or ► Button;
2.  Press the **SELECT** dial; or
3.  Press the **SCAN** Button

✎  *Note: The display will show the frequency changing until it stops on the next station.*

## Scan Setting

☑  The FM scan will stop when it locates 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 strong signal strength:
Press the **MENU** Button → < Scan setting > → Strong stations only → press the **SELECT** dial to confirm.

## View Station Information

✎  *Note: There is a variety of station information transmitted by broadcast. This radio offers a convenient way to view this information.*

To view currently playing station information, the path is:

Press the **INFO** button repeatedly to select the option you want your radio display, s such as radio Text, Program Type, Audio Info, Time and Date. Etc.

To view information of the station that you are listening to, follow this process:

Press the **INFO** button repeatedly to select the information that you want your radio to display including Radio Text Information, Station Type, Audio Information, Time and Date.

# System Settings

## Set Time

1. Press **MENU** Button→ Turn the **SELECT** dial to < **System**> → Press the **SELECT** dial to enter the **Time** menu. and then press the ◀ or ▶ Button to view options as below:

   ☑ *<Set 12/24 hour format>*: Select between '***Set 24 hour***' and '***Set 12 hour***'
   ☑ *<Auto update>: Select from '**Update from DAB**' to update the time from the DAB+ broadcast and '**No update**'*
   ☑ *<Set Time/date>: Manually set both the Time and Date*
   ☑ *<Set date format>:Select between the American 'MM-DD-YYYY' format or Australian 'DD-MM-YYYY'*

2. Then select the option that you wish to modify according to your personal preference.

## Set Sleep Time

1. Press the **MENU** Button→ Turn the **SELECT** dial to < **System**> → Press the **SELECT** dial to confirm, and then turn the **SELECT** dial to the **Sleep** menu.
2. Press the **SELECT** dial to confirm, your radio will display '**Set sleep time → Sleep off**'.
3. Turn the **SELECT** dial (or press the ◀ or ▶ Button) to view options **Sleep Off, 15, 30, 45, 60** or **90 minutes**.
4. Press the **SELECT** dial to confirm.
5. To view the set sleep time, follow steps 1 and 2 from above.
6. Your radio will automatically turn to Standby mode after the set time has elapsed, to turn your radio on requires you to press the **POWER** button.

## Set Backlight

✎ **Note***: You can set the brightness of the LCD Display in standby or on mode.*

· **Power On Brightness Setting:**

1. Press the **MENU** Button→ Turn the **SELECT** dial to < **System**> → Press the **SELECT** dial to confirm, and then turn the **SELECT** dial to the **Backlight** menu.
2. Press the **SELECT** dial, now your radio will invite you set for **Standby** condition.
3. Turn the **SELECT** dial to '**Power On'** and then press the **SELECT** dial.
4. Turn the **SELECT** dial to your ideal option: **low/Medium/High**, and then press the **SELECT** dial. (Setting to high level is recommended!)

· **Standby Brightness Setting:**

Follow the process outlined above, but in option 3, select '**Standby**' instead of 'Power On'. For energy saving purposes, this function is usually set to low.

## Factory Reset

✛ A factory reset resets all user settings to default values, all stored time and station settings will be lost.

It can be set via the following process:

Press the **MENU** Button→< **System** > →< **Factory Reset** >→ **Factory Reset? <NO>** or **YES**→ turn the **SELECT** dial to '**YES**'→ Press the **SELECT** dial.

# Troubleshooting and Technical Specification

## Set Alarm

✍ **Note**: *Ensure that the time is set correctly before you set one of the Alarms.*

The process to set an alarm is as follows:

1. Press the **MENU** Button→ < **System** > → < **Alarms** >.
2. Press the **SELECT** dial to confirm, and your radio will display '**Alarm 1 Setup**'. To set alarm2, turn the **SELECT** dial to then press the **SELECT** dial to select '**Alarm 2 Setup**'.
3. Once you have selected the alarm → Press the **SELECT** dial twice, then follow the instructions on the display to configure the following parameters. Once each is set, press the **SELECT** dial:

* **Alarm State**: Off/ On, press the ◀ or ▶ buttons to select On or Off.
* **On Time**: 00: 00 (alarm sounding time) Select the alarm time in hours, then minutes. Press the **SELECT** dial to confirm each once confirmed.
* **Duration time**: 15/30/45/60/90minutes (alarm sounding lasting time) Select how long you wish for the alarm to sound for.
* **Source**: Buzzer/DAB/FM Select the audio that you wish to hear when the alarm sounds.
* **Alarm Frequency**: Daily, Once, Weekends or Weekdays. Selects how often you wish for the alarm to sound.
* **Alarm Volume**: Press the ◀ or ▶ button to select your desired alarm volume, then press the **SELECT** dial to confirm.

Once all parameters are confirmed your radio will display '**Alarm saved**'.

### To Operate SNOOZE

* When the Alarm sounds and you wish to activate the snooze function press the **SELECT** dial.

* The radio will go into Standby mode for a period of 5 minutes. It will display a five minute count down and once the 5 minutes is over, the alarm will sound again.

* The Alarm will sound again after the snooze time has elapsed, at this time, if you press the **SNOOZE** button again and it will count down for another 5 minutes, or you also can press the **POWER** button to stop the alarm.

### To Turn Off Alarm

✍ **Note**: *To turn the alarm off temporarily, when the alarm sounds, press the **POWER** button. To turn it off permanently, follow the instructions 1 and 2 for setting an alarm as outlined above, and select Off.*

Refer to steps1 and 2 outlined above. Use the ◀ or ▶ Button to select 'Off', and then press the **SELECT** dial to confirm.

## Display Software Version

1. Press the **MENU** Button→ < **System** > → < **SW version** >.
2. Press the **SELECT** dial to confirm. You will now be able to view the software information of this radio.

# Troubleshooting

If a fault occurs, check the points listed below before contacting the Bush Warranty line or taking the radio for repair. If you are unable to remedy a problem by following these suggestions, please consult your retailer or service professional.

**WARNING:** Under no circumstances should you try to repair the set yourself, as this may cause injury or death and would invalidate the warranty.

| PROBLEM | POSSIBLE CAUSE | REMEDY |
|---|---|---|
| No sound | Headphones maybe connected | Disconnect the headphones |
| | Volume not adjusted | Adjust the Volume |
| | Power cord is not correctly connected | Connect the power cord properly |
| Unit Buttons are not working | Electrostatic discharge | Turn off the unit, disconnect the mains plug, and reconnect after a few seconds |
| Radio poor reception | Weak radio aerial signal | Rotate the aerial for best reception, and ensure it is fully extended. |
| | Interference caused by the vicinity of electrical equipment including TVs, Video Recorders, Computer, Thermostats, Fluorescent Lamps (TL) engines etc. | Keep the unit away from other electrical equipment |
| | You may not be in a digital radio area | Check if you receive digital radio via the online postcode tracker at www.digitalradioplus.com.au |

# Technical Specification

Specifications ……………………………….…………….. DAB+ and FM radio
Speaker Power……………………………………....….. 1 W
Frequency Range ………………………………………… FM: 87.5-108MHz
DAB+: 174 – 240MHz
LCD Display ……………………………….……………… High resolution display
Power Supply ..…………………………………………… AC/DC Adaptor: DC 6V, 500mA

Max Power Consumption.…………………………….….. 3W

Dimension ..…………………………………………………  167mm x 40mm x 105mm

# Warranty

Please keep your receipt as proof of purchase. This product is warranted for any defect in materials or workmanship for 12 months years after the original date of purchase. This product is for normal domestic and office use only.

This warranty does not cover damage from misuse or neglect , accidental damage, vermin infestation, excessive voltages such us lightning or power surges or any alternation that affects the performance or reliability of the product.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

In the unlikely event that your product fails to work normally, please contact **Bush Warranty on 1800 509 394 (Australia) or 0800 450 259 (New Zealand)** & have your receipt of purchase on hand.

**This guarantee is subject to the following provisions:**
● It is only valid within boundaries of the country of purchase
● The product must be correctly assembled & operated in accordance with the instructions contained in the manual
● This product must be used solely for domestic purposes
● The guarantee does not cover accidental damage
● 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 damaged

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

PO BOX 6287
Silverwater  NSW  1811
www.bushaustralia.com.au
**Bush Warranty: 1800 509 394 Australia**
**Bush Warranty: 0800 450 259 New Zealand**