

Thank you for purchasing this DAB/FM radio. Please read the instructions and warnings carefully before use, to ensure safe and satisfactory operation of this product.

## **Important safety information**

It is most important that this instruction leaflet be retained with the product for future reference. These warnings have been provided in the interest of safety. You must read them carefully before using the appliance.

If you are unsure of the meanings of these warnings contact the branch from which you purchased the appliance.

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance .
- To protect against fire, electric shock and injury to persons **DO NOT IMMERSE CORD, plug or base unit in water or other liquids.**
- Unplug from the mains when not in use, before putting on or taking off parts and before cleaning.
- Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions or has been damaged in any manner. Return the appliance to the nearest store.
- Do not let power cord hang over edge of table or counter, or touch hot surfaces.
- In the event of a fault, return the appliance to your nearest store. No repair should be attempted by the consumer.
- Do not use the appliance for anything other than intended use .
- For household use only.
- Do not use outdoors.
- Save these instructions for future reference .
- ***WARNING! Polythene bags over the product or packaging may be dangerous. To avoid danger of suffocation, keep away from babies and children.***

# DAB+/FM Radio

DB456

## Specification

### POPnano DB456


ITEMS	SPECIFICATIONS
Description	DAB / FM Digital Radio
Frequency Ranges:	FM: 87.5-108MHz; DAB+: 174-240MHz
LCD Display:	High resolution display
Power Supply:	DC Power Input: 3.7V, 550mAh built-in Li-Polymer battery USB input for charging: DC 5V / 500mA
Dimension:	70x34x25mm

## Packing List

1. DAB+ / FM Digital Radio x 1 PC
2. USB cable x 1 PC
3. Earphone x 1 PC
4. Instruction manual x 1 PC

## 1) Turn on the unit

### 1.1 Turn on the unit

Slide the “On/OFF” switch to “On” side (  ) to turn on the unit.


### 1.2 Turn off the unit

Slide the “On/OFF” switch to “Off” side (  ) to turn off the unit.

### 1.3 Charging the unit

During the On or Off state of the unit, you can use the provided USB cable to charge up the internal battery.

## 2) Switch between DAB and FM mode

Press and hold the “  ” for 3 seconds to select DAB or FM mode.

## 3) Basic Operation

### 3.1 DAB radio mode

DAB radio mode receives DAB digital radio and displays information about the station and program / track as broadcasted




DAB  
MODE

#### 3.1.1 Reset and scan DAB station

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



- o New stations may become available from time to time.
- o Stations close or can no longer be received (In the station list, invalid stations are indicated with a question mark in front of their name).
- o If reception was not good for the original scan (for example the antenna was not up), this may result in an empty or incomplete list of available stations.
- o If you have poor reception of some stations causing the audio to break up, you may wish to list only stations with good signal strength.

## To do a full scan manually

In DAB mode, press the “SCAN” button  for three seconds, it will go to “Full scan” to start the scanning. Once a scan is complete, the radio returns to playing the previously-selected station or first station on the station list.



## 3.1.2 Select stations

In DAB mode, press the “” button to select channel through the list of stations, stop at your preferred station, Then press “” button to confirm .

**Note: During the search, operation of the sound level will be muted automatically.**

## 3.1.3 Adjust volume

In DAB mode, press the “” button to decrease or increase the volume by one step.



## 3.2 FM radio mode

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

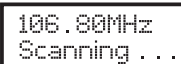


While FM radio is playing, the screen shows its frequency, or if RDS information is available, station name and any further ‘Radio Text’ information. . If no information is available, just the frequency and a “No Radio Text ” message is shown.



### 3.2.1 Scan FM station

The first time you select FM radio, it is set to the lowest frequency in the FM band. In FM mode, press the “MENU/SELECT” button <sup>MENU</sup> once to scan through the FM frequencies. A scan stops when a station found. It can be set to stop at each station or only at stations with a strong signal (for details see Scan settings in section 4.2.1 Settings).



### 3.2.2 Select station

In FM mode, you can also tune the station manually. Press the “◀▶” button to adjust the FM frequencies with 50 kHz down or up respectively.

### 3.2.3 Adjust volume <sup>MODE</sup>

In FM mode, press the “◀▶” button to decrease or increase the volume by one step.



## 4) Advance setting

The Advance settings allow you to tailor the DAB/FM radio with a variety of options to suit you. To access Advance settings from any mode, press and hold the “MENU/SELECT” <sup>MENU</sup> button for 3 seconds to enter the menu.

### 4.1 DAB radio mode

Under the advance setting, press the “◀▶” button to select option through the list of menu. Then, stop at your preferred option and press the “MENU/SELECT” <sup>MENU</sup> button once to start the function. The advance setting menu options are: <sup>SELECT</sup>

- o Full scan
- o Manual tune
- o Prune
- o Info
- o Reset and Scan
- o DRC
- o System

DAB < Full scan >	DAB < Prune >
DAB < Reset and Sca >	DAB < System >
DAB < Manual tune >	DAB < Info >
DAB < DRC >	

## 4.1.1 Full scan

Under advance setting, press the “” button to select “Full scan” through the list of menu, press “MENU/SELECT” <sup>MENU</sup> button and full scan starts automatically. Once a scan is complete, the <sup>SELECT</sup> radio returns to playing the previously-selected station or first station on the station list.

**Note: if no radio station found, it shows No DAB Station. For a better reception, extend the antenna or do the full scan again in another place.**

## 4.1.2 Reset and scan




DAB < Full scan >
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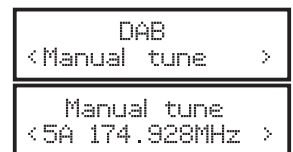
Under advance setting, press the “” button to select “Reset and scan” through the list of menu, press “MENU/SELECT” <sup>MENU</sup> button to confirm the reset and scan function.

DAB < Reset and Sca >
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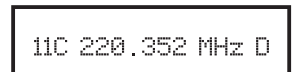
## 4.1.3 Manual tune

As well as the normal method of scanning, you can also manually tune to a particular channel/frequency. This can be useful for adjusting your antenna to achieve the best possible reception and scanning a particular channel to update the station list

Under advance setting, press the “” button to select “Manual tune” through the list of menu, it enters the setting by pressing “MENU/SELECT” () button. Then press the “” button to select a particular channel/frequency.



The display shows a live indication of the received signal strength on the selected frequency. Adjustments to your antenna will be manifested in the received signal strength displayed.

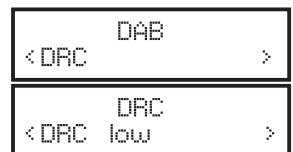


## 4.1.4 DRC (Dynamic range compression)

This function reduces the difference between the loudest and quietest audio being broadcast. Effectively, this makes quiet sounds comparatively louder and loud sounds comparatively quieter.

### Options: off(default)/low/high

Under advance setting, press the “” button to select “DRC” through the list of menu, it enters the setting by pressing “MENU/SELECT” () button. Then press the “” button to select a particular setting, it will change to new setting by pressing the “MENU/SELECT” () button.

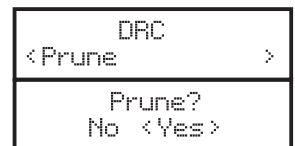


**Note: DRC only works if it is enabled by the broadcaster for a specific station.**

## 4.1.5 Prune (remove stations that are listed but unavailable)

This removes all invalid stations indicated in the station list with a '?' in front of the station name.

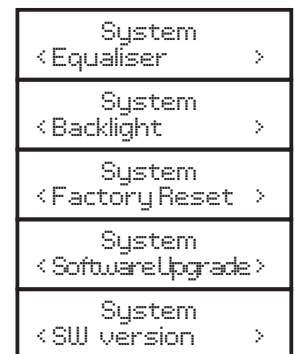
Under advance setting, press the “◀▶” button to select “Prune” through the list of menu, it enters the setting by pressing “MENU/SELECT”<sup>MENU</sup> button. Then press the “◀▶” button to choose <YES>. Next, press the “MENU/SELECT”<sup>MENU</sup> button to confirm removing all invalid stations.



## 4.1.6 System

The System menu options are:

- o Equaliser
- o Backlight
- o Factory Reset
- o Software Upgrade
- o SW version





**Note:** as you cycle through the possible values, an asterisk appearing to the right-hand side of the display indicates the currently selected value for each setting.

### 4.1.6.1 Equaliser

The radio has an equalizer option to adjust the audio.

Equaliser options – My EQ / Normal / Classic / Jazz / Pop / Rock / Speech





Cycle through Equaliser menu by pressing the “” button, select a particular option and then press “MENU/SELECT”  button to confirm the change of new setting.

System <Equaliser >	Equaliser <Normal >
Equaliser <My EQ... >	Equaliser <Classic >

### 4.1.6.2 Backlight

This radio display has a backlight with adjustable timeout (this is the time delay, in seconds, after which the display switches off).

Timeout options - Light On | 10 | 20 | 30 | 45 | 60 | 90 | 120 | 180

Cycle through Backlight menu by pressing the “” button, select a particular option and then press “MENU/SELECT”  button to confirm the change of new setting.

System <Backlight >	Timeout <10 sec >
Timeout <On >	Timeout <20 sec >

### 4.1.6.3 Factory reset

A factory reset clears all user defined settings, replacing them with the original default values, so time/date, preferences/settings, DAB station list and preset stations are all lost.

If you select Factory reset, you are asked to confirm by selecting Yes.

System <Factory Reset >
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Under advance setting, press the “” button to select “Factory reset” through the list of menu, you are asked to confirm by selecting YES.

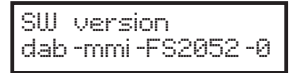
## 4.1.6.4 Software Upgrade

Under advance setting, press the “

## 4.1.6.5 Software version

This displays the current software version.

Cycle through the menu, press the “ button to confirm. It will show the software version on the LCD. 



## 4.1.7 Info



You can view further information under this menu, options include:

- o DLS (Dynamic Label Segment – short text information broadcast with DAB audio)
- o Signal Strength
- o PTY (Programme Type)
- o Ensemble
- o Frequency
- o Signal Quality
- o Bitrate codec
- o Battery level
- o Time
- o Date

<DLS	Info	*	>	<Signal quality	>
<Signal strengt	>	<Bitrate codec	>	<Battery level	>
<Ensemble	>	<Time	>	<Date	>
<Frequency	>	<Date	>		

Cycle through Info menu by pressing the “” button, select a particular option, and then press “MENU/SELECT”<sup>MENU</sup>  button to confirm. It will show the information on LCD.

## 4.2 FM radio mode

Under the advance setting, press the “” button to select through the list of menu, stop at your preferred option, and then press the “MENU/SELECT”<sup>MENU</sup>  button to enter or start the function. The advance setting menu options are:



- o Scan setting
- o Audio setting
- o System (please refer to 4.1.5)
- o Info

### 4.2.1 Scan setting

By default, FM scans stop at any available station (All stations). This may result in poor quality audio from weak stations.

**Options: All stations | Strong stations only**


Scan setting	*
< All stations	>

Press the “” button to select a particular option in Scan setting, then press the “MENU/SELECT”<sup>MENU</sup>  button to confirm the change to new setting.

### 4.2.2 Audio setting

By default, all stereo stations are reproduced in stereo. For weak stations, this may result in poor quality audio. The audio quality can be improved using mono.

## Options: Stereo allowed | Forced mono

Press the “” button to select a particular option in Audio setting, then press the “MENU/SELECT” <sup>MENU</sup> button to confirm the change to new setting



FM  
< Audio setting >

### 4.2.3 System

Please refer to 4.1.6

### 4.2.4 Info

You can view further information under this menu, options include:

- o Radio Text
- o PTY (Programme Type)
- o PS (Programme Service)
- o Stereo & Mono
- o Battery level
- o Time
- o Date

Info  
< Radio text >

Info  
< PTY >

Info  
< PS >

Info  
< Stereo / Mono >

Info  
< Battery level >

Info  
< Time >

Info  
< Date >

Cycle through Info menu by pressing the “” button, select a particular option, then press the “MENU/SELECT” <sup>MENU</sup> button to confirm. It will show the information on LCD.



## 5) Trouble shooting and error message

### 5.1 Trouble Shooting

Problem	Cause	Solution
FM: Hiss DAB: burbling/intermittent cut-out	Low signal strength	Check/move antenna Move radio Rescan local (high-strength) stations only For DAB, check local coverage at <a href="http://www.ukdigitalradio.com/coverage">www.ukdigitalradio.com/coverage</a>
DAB: 'No stations available' message	Low signal strength	As above then rescan stations.

### 5.2 Error messages

Message	Description	Example
DAB mode		
Service not available	No DAB reception	
Signal error	The DAB signal has been interrupted.	
No DAB Station	The listed station cannot be found.	
(No Name)	The current station does not broadcast an identity name.	
No stations found	No DAB stations are available-check aerial.	
FM mode		
No RadioText	No RDS text information is available on this station.	
No PTY	No RDS programme type information is available.	
No Name	No RDS station name is being broadcast	
General messages		
?	LIST_INVALID	