

INSTALLATION AND USER MANUAL



FOR
DAB+A

DENSION
LEADING IN CONNECTED ENTERTAINMENT

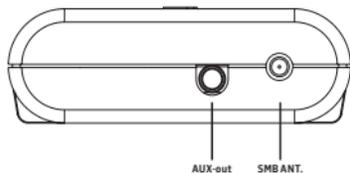
1. INTRODUCTION

DAB+A is a universal DAB receiver solution that offers DAB audio for all cars. Easy to use with our free mobile application (supports both iOS and Android) or with our Bluetooth low energy (BLE) remote control (optional accessory).

Package contents

- ▶ DAB+A device
- ▶ Power harness
- ▶ Power cable with 2-pin Micro-Fit for active antenna with external power source
- ▶ Installation accessories

DAB+A connectors



Aux-out – 3,5mm Jack auxiliary output to connect the device to the head unit through AUX

SMB ANT. – Antenna connector with phantom power support

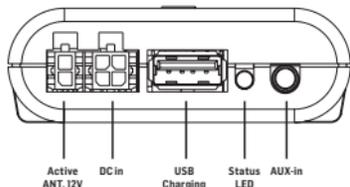
Active ANT12V – 12V Power output for antennas with external power support

DC in – Connector of the main power harness

USB Charging – USB connector for charging smartphones

Status LED – Status LED

Aux-in – 3,5mm Jack auxiliary input for music playback from external audio devices



2. INSTALLATION

Power supply

First of all, you will need to connect the power cable of the DAB+A. In order to give power to the device, please use the included car side power cable and connect the 3 power leads as follows:

- ▶ Red: +12V Battery (permanent 12V)
- ▶ Purple: +12V Switched (ACC or ignition)
- ▶ Black: Ground (GND)

Fitting the DAB antenna

- ▶ The DAB reception and performance depends on many factors, both on the vehicle and other external conditions.
- ▶ Before you start the antenna installation and/or the product testing, please make sure that you have a good DAB coverage and reception.

Important notes:

- ▶ If your vehicle comes with metalized windscreen (e.g. windscreen heating) an external antenna is required.
- ▶ The DAB module supports both amplified and nonamplified aerials. For amplified antennas we support phantom power through the SMB antenna connector and also 12V power is provided by the DAB receiver via the 2-pin molex connector.
- ▶ Read the manual of the antenna carefully and follow the instructions in order to find the right place for installation.
- ▶ Always test (read next chapter) the DAB functions before finalizing the installation.

Bluetooth setup (pairing)

DAB+A has a low energy Bluetooth chip for the DAB application (appear as DAB+A control). The low energy chip connects to your phone automatically without pairing after you start the Dension DAB application. Please be sure that the Bluetooth of the phone is ON.

3. USAGE WITH APPLICATION

Our DAB application for DAB+A and DAB+M devices is available in the Apple store for Apple iPhones, iPads and iPod Touch devices and in the Google Play store for Android phones and tablets.

Get your APP now!



3.1 First steps

Open the application and make sure that your DAB+A is powered on. When all these conditions are met, the app connects to the nearest Dension DAB device automatically.

After the connection, the application will switch to the 'Now Playing' screen and do a scan automatically so you will see all the available stations listed.

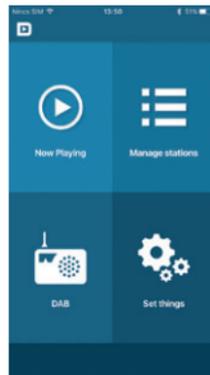
In case of first usage, you need to do some basic settings before you can listen and enjoy DAB music.

Main menu

To go to the main screen of the application you need to tap on the Dension logo on the top left corner.

You will see four options on the main screen:

- ▶ Now Playing
- ▶ Manage stations
- ▶ Source selection button
- ▶ Set things



Set things

This is where you need to do your basic settings before using the DAB+A device for the first time. Let's start by setting the frequency!

Setting FM frequency

First of all, you need to seek for a free FM frequency on your car radio. If you found one where you do not hear other stations, you need to go into the 'Set things' menu of the application and tap on 'Frequency'.

In the pop-up menu you can set the same frequency. After you click on the tick logo, you should hear the DAB on the radio on that frequency, also you should see the name of the currently played DAB station on the display of the radio as RDS.

You can also use automatical frequency setup if you tap on the little magnifying icon on the top right corner of the pop-up menu. In this



case the device automatically searches for free FM frequency and sets the device there. After that you will see the exact frequency in a pop-up menu and the app will drop you back to the 'Set things' menu.

Available devices

If there are more available devices within range, then you can switch between those devices in this menu.

Device volume

If you experience difference between the volume of your DAB+A device and other sources, you can easily adjust the volume until you get the same volume level.

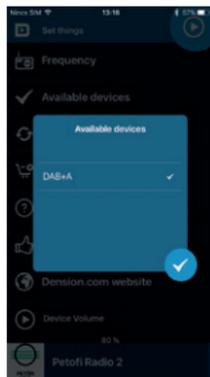
This can be done with the slide bar in the 'Set things' menu.

FM setup

This is where you can set the FM standards of the device.

- ▶ In case of USA and countries that use FCC standards please select FM US option, this will increase the power of the FM signal sent by the DAB device.
- ▶ In case of EU countries and countries that use CE standards please select EU FM option, this will decrease the power of the FM signal.

If you use the DAB+A through AUX input then please select FM OFF.



Device and App. information

On the bottom of the 'Set things' menu, you can find all of the information regarding your device and your application.

3.2 Managing DAB+

Manage stations

This menu is where you can list all of the available DAB stations in alphabetical order.

The application allows you to set unlimited favourite stations. In order to do so, you need to swipe the channel to the left then click on the yellow heart icon.

The favourite stations will be marked with a yellow line on the right side and the currently played station is marked in a yellow background.

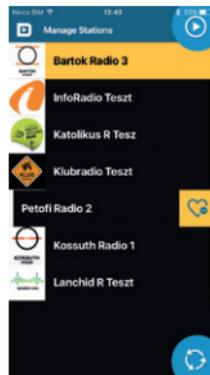
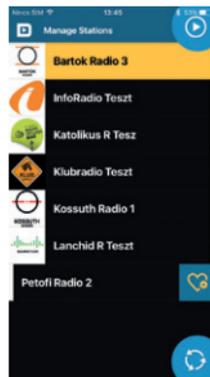
The order of the favourite stations can be changed by the user. You just need to drag and drop your favourite station to the place where you would like to see it.

All of this information is stored in the application on the phone which means all users can have personalized favourites list of their own.

Removing stations from the favourites is the same process as you added it. You just need to swipe it to the left and tap on the yellow heart.

In the 'Manage stations' menu, you can start a DAB scan by tapping on the refresh icon in the bottom right corner of the display.

If you press the  button, you can go directly to the 'Now Playing' screen.



Now Playing

In this screen you can get all of the information sent by the currently played DAB broadcaster, and you can also see the logo of the station.

If you swipe the current slide show to the left or right, you can switch between previous and next DAB stations.

All favourite stations will be marked in yellow.

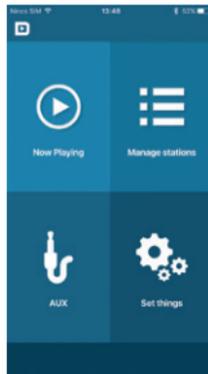
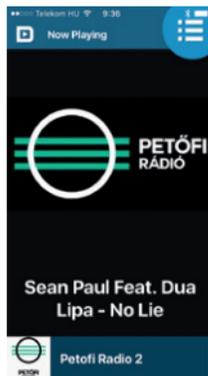
If you press the icon on the top right corner, you can jump directly to the 'Manage stations' menu.

3.3 Managing sources

There's also a button for selecting your preferred source. You only need to tap on the main screen's bottom left icon to set it, that will be your active source until you change it.

In case of AUX source, you will see only the logo of the source in the 'Now Playing' menu.

The 'Manage stations' will be active in case of all sources and if you select a DAB station the source will switch to DAB automatically.



4. USAGE WITH BLUETOOTH REMOTE CONTROL (BRC1DAB)

The Bluetooth remote control for DAB is an optional accessory for the Dension DAB+A and DAB+M devices. The remote control makes the usage of the DAB devices as simple as the usage of an FM stereo.

4.1 First steps

If you plan on using your DAB+A together with the remote control but without the DAB application, first you need to set up your DAB device. To do that, please follow these steps:

Bluetooth pairing

The Dension DAB remote control will connect automatically to the nearest DAB+A or DAB+M device.

Setting FM frequency

Manual Scanning

In order to set the FM frequency, you need to follow the next steps:

- ▶ Turn the ignition ON,
- ▶ Press and hold the **SET** button for 3 seconds,
- ▶ Enter the frequency (from 87.6 [876] to 107.9 [1079]),
- ▶ Press the **SET** button to store the valid frequency,
- ▶ Switch to the selected frequency on your radio.

Automatic Scanning

You can also start an automatic FM frequency scan. To use this option, you need to do the following:

- ▶ Turn the ignition ON,
- ▶ Press and hold the  button for 3 seconds,
- ▶ Press the  button.

After these steps, the device will be looking for a free frequency and will set it automatically. This frequency can be found if you do an FM scan with your radio.

4.2 Managing DAB+

You can perform a DAB scan by pressing the  button. During the scanning process you should see 'DAB scan' on the screen.

Navigation between stations

By pressing the  and  buttons, you can jump to the next or previous station.

If you press and hold these buttons, you can skip five stations at a time (alphabetically).

Presets

You can store presets to button 1-9. To store the currently played station, you need to press and hold one of the numerical buttons for 3 seconds.

After this, you can switch to that station directly by short pressing the same button.

4.3 Managing sources

With the  button you can toggle between the two available sources DAB and AUX.

Auxiliary sources

The device gives you the possibility to listen to music from an external source through a 3,5mm Jack connector. In order to mute the DAB radio and use the Auxiliary input of the device, you need to press the  button. In this mode you should see "AUX" on the RDS display.

5. IMPORTANT NOTES

Dension DAB+A provides you a simpler and safer way to use your phone in the car, however please always consider safety first and comply with the traffic regulations and laws that apply. Do not use your phone if it can distract your attention from driving.

6. DISCLAIMER AND WARRANTY

If your DAB+A product begins to behave in an unpredictable way, please immediately disconnect the device physically and have it checked by a qualified electrotechnician. Dension and its authorized distributors, as well as retailers are not liable for any incidental, consequential or indirect damages or loss and do not assume liability for any diagnostic fees. Using handheld devices while driving may be subject to government legislations. Please make sure that using a Dension device is in line with the applicable traffic laws. Dension does not assume liability for events resulting from any illegal or irresponsible usage of these handheld devices.

Dension reserves the right to modify its products or specifications without prior notice.

WARRANTY

Dension devices carry a one-year limited warranty that protects you from defects in material and workmanship of products sold by Dension or its authorized distributors and retailers. Dension does not warrant any installation work or assume liability for any damage caused by negligence, improper installation or operation. For warranty claims, proof of purchase is required.

SUPPORT

If you need further assistance in using your Dension product, please contact your local supplier or visit our website www.dension.com

For technical support please contact us through the listed possibilities on www.dension.com/automotive/support

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