Digital radio in UK uses VHF Band III (209 to 230MHz). The design and installation of an antenna to suit the DAB band is much more critical than that for FM, so it is important to consider and use the best option for the particular vehicle, and to follow some important checks. Please check this leaflet for a description of the pros and cons of each of the three main DAB antenna types.

General Considerations and Checks

Antenna Installation Instructions. These should be studied before commencing the install. If there is any doubt as to the safety or suitability of the antenna for the vehicle, the supplying dealer or vehicle manufacturer should be consulted for advice.

Connectors. The standard antenna connector found on most vehicle DAB receivers is SMB(f) - check the supplied antenna connector is compatible with the DAB unit.

Glass Types. Any type of glass-mounted antenna should not be fitted to reflective-coated (athermic) glass. This can normally be identified by a gold or blue hue in sunlight. In addition external glassmount antennas are not suitable for double-glazed glass.

Coaxial Cable Routing. The cable must be routed so as to avoid impeding airbag operation. Note that airbags may be fitted in the A-pillar or roof sides (curtain type). Cables should be secured so as not to obstruct or impede controls. If cables need to be extended, suitable coaxial cable and the relevant connectors must be used.

DAB Coverage. Remember to check DAB coverage (see overleaf for details)

DRDB Feb 2006

DAB Coverage

Currently over 85% of the population of the UK live within DAB coverage. This includes most towns and cities, major routes and motorways. More transmitters will be switched on in the next two years increasing coverage.

For a definitive list and descriptions of the stations you can receive go to:
www.digitalradionow.com and enter your postcode.

Alternatively **text "DAB" then your postcode to 83252** to see how many stations you can receive. Texts cost 25p plus network operators charge.

This leaflet describes the main DAB antenna types. These and others are manufactured by a number of different companies. Please check with your supplier for latest details.

Produced by the Digital Radio Development Bureau (DRDB) in association with
the following aerial manufacturers:

AntennenTechnik AG
www.antenne-ag.de
tel: 07734 420864
email: howard.bottomley@antenne-ag.de

Harada Industries (Europe) Ltd
www.harada.co.uk
tel: 0121 423 2222
email: info@harada.co.uk

Panorama Antennas Ltd
www.panorama-antennas.com
tel: 020 8877 4444
email: enquiry@panorama-antennas.com

DAB digital radio™

Vehicle Antenna Guide

This leaflet is for retailers, installers or users of in-vehicle DAB radios. It describes the main antenna options available, together with some of the installation issues, so you can make an informed decision on which type of product to use.

DAB Digital Radio

More Choice

Less Interference

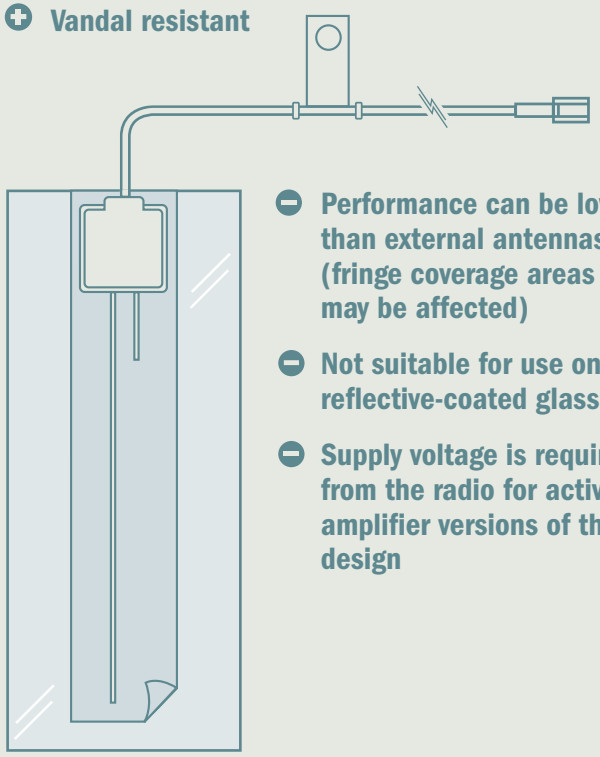
Easier Tuning

Internal Screen Mount Antenna

This film antenna fits to the inside surface of the glass (usually the corner of the front windscreen, passenger side). It is available in active and passive versions.

It must be vertically mounted for optimum performance.

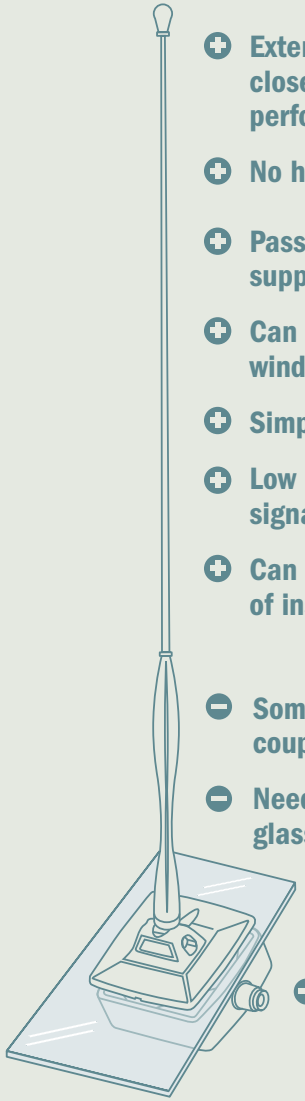
- ⊕ **Usually the least expensive option**
- ⊕ **Easy to install**
- ⊕ **No need to drill roof of vehicle avoiding warranty issues**
- ⊕ **Unobtrusive. Styling of the vehicle remains unchanged**
- ⊕ **Active amplifier compensates for cable loss**
- ⊕ **Vandal resistant**



- ⊖ **Performance can be lower than external antennas (fringe coverage areas may be affected)**
- ⊖ **Not suitable for use on reflective-coated glass**
- ⊖ **Supply voltage is required from the radio for active amplifier versions of this design**

External Glassmount Antenna

This is an on-glass antenna, similar in style to the well-accepted GSM glassmount antenna. It comprises an external whip antenna on a mounting foot, with internal coupling box which is connected to the DAB receiver by a coaxial cable. The signal is transmitted through the glass by capacitive coupling, between the external and internal.



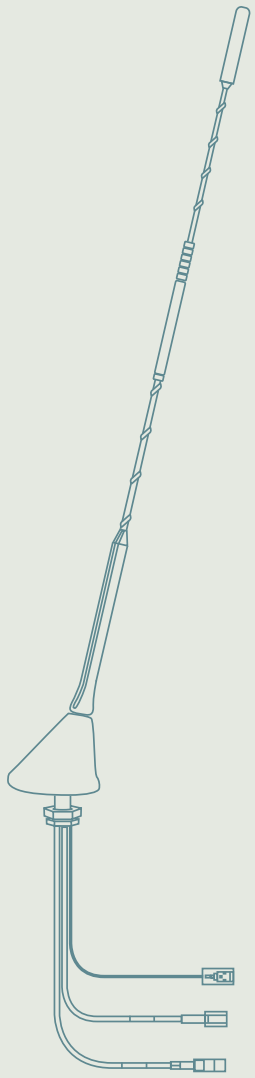
- ⊕ **External whip antenna gives closer to omni-directional antenna performance**
- ⊕ **No hole required to fit**
- ⊕ **Passive antenna, so no power supply feed required**
- ⊕ **Can be fitted to front, rear or side window glass**
- ⊕ **Simple to fit by installer or user**
- ⊕ **Low loss coaxial cable to maximise signal at receiver**
- ⊕ **Can be removed with no evidence of installation**

- ⊖ **Some signal loss in through glass coupling system**
- ⊖ **Needs care to clean and warm glass to ensure correct adhesion of component parts. Maximum bond is achieved after 24 hours**
- ⊖ **Not suitable for use on double glazed or reflective coated glass**

Multi-Frequency Roof Mount Antenna

This antenna can replace the standard AM/FM roof antenna fitted to many vehicles. It offers the addition of DAB reception without the need for extra holes in the roof. For aftersales fitting a 15mm hole is required.

These multi frequency antennas are also available with AM/FM +DAB and GPS.



- ⊕ **Antenna located on top of vehicle roof giving best all round omni directional performance**
- ⊕ **No extra holes needed in body panels**
- ⊕ **Both AM/FM and DAB signals are amplified in antenna base**
- ⊕ **Operating voltage is fed either via coaxial cable or separate wire**
- ⊕ **Easy fitting into existing hole in body panel or by a standard 15mm dia mounting hole. One nut fixing**
- ⊕ **Antenna looks the same as original fit antenna**

- ⊖ **Cost. An antenna with these functions will always be the most expensive**
- ⊖ **Needs to be fitted by experienced person**
- ⊖ **Extra cable needs to be run for the DAB Function**