

## **Ofcom information leaflet OfW57**

### **PMR 446**

**Formally Radiocommunications Agency information sheet RA 357**

**This information sheet provides details about Private Business Radio (PBR). A business radio system is used to pass messages between a base station and mobile sets and mobile to mobile as an aid to conducting business. The different Business Radio licences allow the licensee to operate different types of systems in accordance with licence conditions and Wireless Telegraphy legislation.**

### **1. What is PMR 446?**

PMR 446 is a handportable, short-range, voice-only communication system. It provides a basic but effective radio service for both business and non-business users, and is ideal for providing communication over short distances (e.g. within office buildings, factories and building sites). Please note that it is for speech transmissions **only**.

### **2. No need for a licence**

The PMR 446 service is **licence-exempt**; you do not require a licence to use PMR 446, as long as they comply with the requirements in Section 4 below.

### **3. Frequencies**

There are eight 12.5 kHz simplex frequencies, which you may use anywhere in the UK. These frequencies have been harmonised (but not necessarily authorised) for use across Europe. The channel centre frequencies are:

1. 446.00625 MHz
2. 446.01875 MHz
3. 446.03125 MHz
4. 446.04375 MHz
5. 446.05625 MHz
6. 446.06875 MHz
7. 446.08125 MHz
8. 446.09375 MHz

Because the frequencies are shared, you may experience interference and channel-sharing problems if there are many other PMR 446 users locally. You may be able to reduce these problems by changing your frequency, CTCSS tone and/or DCS code (see Section 5). PMR 446 is not suitable for safety-of-life use, or for users who need access to frequencies at particular locations and times.

As a licence-exempt service, PMR 446 is unprotected. Ofcom (the Office of Communications) will not get involved in interference or channel-sharing disputes between users.

### **4. PMR 446 Radio equipment**

must:

- be handportable;
- have an integral antenna;
- have a maximum effective radiated power (ERP) of 500mW; and

- comply with European standard ETS 300 296 if placed on the market before 8 April 2001, or the UK Interface Requirement 2009 after this date.

PMR 446 equipment may **only** use the frequencies listed in Section 3. Radio equipment that can operate on any other frequency, including Short Range Business Radio (SRBR) equipment capable of using frequencies in the 461 MHz band, may **not** be used for the PMR 446 service.

## 5. Other facilities

We **strongly recommend** that you use the Continuous Tone Controlled Signalling System (CTCSS), Digitally Coded Squelch (DCS) and/or selective calling with PMR 446 hand portables. However, you do not have to do so.

You may also use speech privacy measures, including speech inversion, with PMR 446 radios.

PMR 446 hand portables may include broadcast (AM/FM) radio receivers, as long as there is no possibility that the radios will re-transmit the received broadcast signal on the PMR 446 frequencies.

You may use the following accessories with PMR 446 :

- external microphones, including VOX type microphones;
- earphones, headphones and external loudspeakers; and
- DC power sockets, charge sockets and battery packs.

These accessories may be used **only** if they do not affect the frequency characteristics. They must be connected by appropriate sockets, which were installed by the manufacturer at the time of manufacture.

In all cases, the use of any of the above facilities must not change or affect the PMR 446 radio's performance characteristics, as permitted under the Wireless Telegraphy (Exemption) Regulations (Statutory Instrument 2003 No 74).

You may only use PMR446 for the purposes described in The Wireless Telegraphy Exemption Regulations and IR 2009. You may **not**, for example, connect PMR 446 radios to the Public Switched Telephone Network (PSTN) or other telephone networks for business purposes, or make your PMR446 equipment available for remote access (gateway), or to link to other types of radio services, or operate a Node or Repeater.

## 6. How to use PMR 446 equipment

Before speaking, check that your chosen frequency is free, by either listening or using the 'channel busy' indicator. When you speak, identify yourself and the person you are calling. PMR 446 allows communication in only one direction at a time, so you will find it helpful to indicate when you have finished speaking. We expect that the frequencies will become particularly busy in cities or where large numbers of people gather (e.g. at large sporting events). All users will benefit if messages are kept short.

## 7. Replacement for the SRBR speech service

PMR 446 has replaced the SRBR speech service. No new SRBR speech licences have been issued since 30 September 1999.

Since 31 December 2003, **SRBR speech equipment may no longer be used.**

## 8. Adapting SRBR equipment for PMR 446 use

Some SRBR's may be adaptable for PMR 446 use, if:

- they meet all the requirements listed in Section 4; and
- they have a suitable frequency range and antenna type.

Any reprogramming of SRBR's **must** be carried out by the manufacturer, or by radio suppliers approved by the manufacturer. Changes to non-integral antennas will need to demonstrate compliance with ETS 300 296. For more information on whether your SRBR's can be adapted for PMR 446 use, contact your supplier.

## 9. Using PMR 446 equipment outside the UK

PMR 446 radio equipment may be used in member countries of the European Conference of Postal and Telecommunications Administrations (CEPT), if they have implemented the ERC Decisions listed in Section 11.

Before using PMR 446 outside the UK, check that the country you are visiting has implemented the ERC Decisions. If you do not do this, you may break the laws of the country concerned, risking prosecution and the confiscation of your equipment. To see the progress made by CEPT member countries in implementing the Decisions, visit the European Radiocommunications Office (ERO) website at [www.ero.dk](http://www.ero.dk).

## 10. Interference to licensees in the 446.0 to 446.1 MHz band

The PMR 446 frequencies are interleaved between existing simplex on-site Private Business Radio (PBR) frequencies. We do not expect that PMR 446 will cause much interference to users on these frequencies. If you are a PBR licensee and you think you may be suffering interference from PMR 446 equipment, please contact the Ofcom Contact Centre – see Section 12.

## 11. Background to PMR 446

In 1998, CEPT's European Radiocommunications Committee (ERC) adopted Decisions ERC/DEC/(98) 25, 26 and 27. These Decisions compelled CEPT member states to:

- set aside the band 446.0 to 446.1 MHz for a PMR 446 service;
- exempt PMR 446 equipment from individual licensing; and
- allow the free circulation and use of PMR 446 equipment that complies with ETS 300 296.

By introducing the PMR 446 service in the UK, the Radiocommunications Agency (Ofcom's predecessor as the regulator of UK civil radio use) fully complied with the ERC Decisions.

## **12. Further information**

For further information about the PMR 446 service, or to report interference from PMR 446 equipment, please contact:

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