



PMR 446 Information Sheet

1. PMR 446

The PMR (Private Mobile Radio) 446 service has been introduced in the United Kingdom following the adoption by the CEPT/ERC¹ of the Decisions ERC/DEC/(98) 25, 26 and 27 which comply member states to:

- set aside the band 446.0 - 446.1 MHz for a PMR 446 service;
- exempt PMR 446 equipment, using frequencies in the 446.0 - 446.1 MHz band, from individual licensing; and
- allow the free circulation and use of PMR 446 equipment using frequencies in the 446.0 - 446.1 MHz band and complying with the European technical standard ETS 300 296.

In introducing the PMR 446 service the Radiocommunications Agency has fully complied with the ERC's decisions.

2. WHAT IS PMR 446?

PMR 446 is a handportable short range voice only communication system, which provides a basic but effective radio service for both business and non business users. It is ideal for providing communication over short distances; such as within office buildings, factories and building sites. Only speech transmissions can be made.

3. LICENCE EXEMPT

The PMR 446 service is licence exempt; users do not require a licence to use PMR 446 radios, provided the equipment complies with the requirements in section 5 below.

4. FREQUENCIES

There are eight 12.5 kHz simplex frequencies which can be used anywhere in the United Kingdom. The frequencies have been harmonised (but not necessarily authorised) for use across Europe. The channel centre frequencies are as follows:

446.00625 MHz	446.01875 MHz
446.03125 MHz	446.04375 MHz
446.05625 MHz	446.06875 MHz
446.08125 MHz	446.09375 MHz

The frequencies are shared and users may, under local heavy use conditions, experience interference and channel sharing problems. These may be reduced by changing frequency and/or CTCSS tone and/or DCS code. PMR 446 is not suitable for safety of life use or for users who need to have access to frequencies at particular locations and times.

As a licence exempt service, PMR 446 is unprotected and the Agency will not become involved in interference or channel sharing disputes between users.

5. RADIO EQUIPMENT

PMR 446 radio equipment must be handportable, have an integral antenna, have a maximum ERP of 500 mW and be compliant with ETS 300 296.

PMR 446 radio equipment must use the above frequencies only. Radio equipment which can operate on any other frequency, including Short Range Business Radio (SRBR) equipment capable of using frequencies in the 461 MHz band, must not be used for the PMR 446 service.

6. OTHER FACILITIES

The Agency strongly recommends that CTCSS, DCS and/or selective calling is used with PMR 446 radios, but the use of these signalling systems is not mandatory.

The Agency permits the use of speech privacy measures, including speech inversion, with PMR 446 radios.

The Agency also permits the inclusion of broadcast (AM/FM) radio receivers in PMR 446 radios, where there is no provision for the received broadcast signal to be re-transmitted on the PMR 446 radio frequencies.

The following accessories can be used with PMR 446 radios:

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

The accessories must be connected by appropriate sockets installed by the manufacturer at the time of manufacture and conformance evaluation and their use must not affect the RF characteristics of the radios.

In all cases, the use of these facilities must not cause any change to, or effect on, the performance characteristics of the PMR 446 radio, as permitted under the Wireless Telegraphy (Exemption) Regulations (SI 1999/930).

The Agency does not permit PMR 446 radios to be connected to the Public Switched Telephone Network (PSTN) or other telephone networks.

7. HOW TO USE PMR 446 EQUIPMENT

Before speaking you should check that a frequency is free by either listening or using the channel busy indicator. When you speak you should identify yourself and the person you are calling. The radios allow communication in only one direction at a time so you will find it helpful to identify when you have finished speaking. It is expected that the frequencies will become particularly busy in cities or where large numbers of people gather such as large sporting events. All users will benefit if messages are kept short.

8. REPLACEMENT SERVICE FOR THE SRBR SPEECH SERVICE

PMR 446 will replace the SRBR speech service. The Agency stopped issuing new SRBR licences on 30 September 1999, but existing SRBR licensees can continue to use SRBR speech equipment on SRBR speech frequencies until 31 December 2003. No use after this date will be permitted.

9. ADAPTATION OF SRBR EQUIPMENT FOR PMR 446 USE

Some SRBR radios may be able to be adapted for PMR 446 use. To be used for PMR 446 the radios must comply with all the requirements listed in section 5 above. Whether or not an SRBR radio can be adapted for PMR 446 use will depend on the frequency range and type of antenna used. It is an Agency requirement that any reprogramming of SRBR radios is carried out by the manufacturer or radio suppliers approved by the manufacturer only. Changes to non integral antennas will need to demonstrate compliance with ETS 300 296. For more information on whether your SRBR radio can be adapted for PMR 446 use, contact your supplier.

10. USE OF PMR 446 RADIO EQUIPMENT OUTSIDE THE UNITED KINGDOM

PMR 446 radio equipment can be used in CEPT member countries that have implemented the ERC Decisions listed above.

Before using PMR 446 radios outside the United Kingdom, users should check that the relevant administration has implemented the Decisions. Users who fail to do this and use their radios overseas, may break the laws of the country concerned, run the risk of prosecution and the

confiscation of equipment.

Details of the progress made by CEPT member countries in implementing PMR 446 can be obtained from the European Radiocommunications Office (ERO) website <http://www.ero.dk/>

11. INTERFERENCE TO LICENSEES IN 446.0 446.1 MHZ BAND

The PMR 446 frequencies are interleaved between existing simplex on-site PBR frequencies. It is expected that little interference will be caused to users on these frequencies. Licensees who believe they may be suffering interference from PMR 446 equipment should contact their Agency Local Licensing Centre.

12. FURTHER INFORMATION

For further information about the PMR 446 service contact:

PBS Central Licensing Unit
Radiocommunications Agency
Wyndham House
189 Marsh Wall
London E14 9SX
Tel: 020 7211 0199
Fax: 020 7211 0118

13. FOR INFORMATION ON OTHER RADIO MATTERS

The Radiocommunications Agency has produced a range of information sheets, general publications, licence application forms and guidance notes, concerning the use of the radio spectrum. These publications, unless otherwise stated, are available free of charge on a single copy basis and may be obtained from:

The Library and Information Service
Radiocommunications Agency
Wyndham House
189 Marsh Wall
London E14 9SX
Tel: 020 7211 0502/0505
Fax: 020 7211 0507
E-mail: library.ra@gnet.gov.uk
Web site: www.radio.gov.uk