

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.

## **Alarms on Private Business Radio (PBR)**

**OfW72 (previously Radiocommunications Agency information sheet RA 284)**

### **1. Introduction**

Various different types of alarm service are available:

- alarms on PBR;
- short-range alarms; and
- Wide area PBR (distress alarms)

This leaflet sets out Ofcom's (the Office of Communications) current policy towards alarms on PBR.

### **2. What are alarms on PBR?**

An alarm on PBR is a portable, mobile or transportable item of alarm equipment that, when activated, automatically transmits a message on a PBR channel.

Please note that PBR assignments on shared channels have no guarantee of certain communication with regard to safety of life in an emergency. A number of users share the same channel, so an alarm alert may not be received by its base station. If you require safety-of-life operation, please bear this in mind when planning your alarm system.

### **3. What are the equipment and operating requirements?**

Alarms may now be used on all shared PBR channels, and on exclusive channels where appropriate. However, we do not envisage that an alarm system will be the sole user of an exclusive channel.

Please note the following conditions for all alarms on PBR:

- standard PBR approval applies to all equipment;
- the message transmitted when the alarm is triggered may last no more than 10 seconds;
- there may be no more than two repeats (i.e. three transmissions in total) before the alarm resets;
- when it receives an alarm message, the base station must transmit an acknowledgement signal in the form of a tone or tones, which should cause the alarm to cease transmission immediately and reset;
- polling for status is forbidden;
- the alarm may not act as a receiver for any type of message – its only receive capability shall be that associated with the use of 'carrier sense' and the reception of an acknowledgement signal from the base station after an alarm message has been sent;
- alarms may be activated either manually or by automatic devices – for example, by infrared motion detector burglar alarms or smoke detectors; and

- any alarm unit may not transmit a status message more than once in an eight-hour period. The message must be no longer than the alarm message, and must not be transmitted more than three times. During all transmissions, the message must contain the call sign detailed on the licence schedule, in line with section 7 of the licence terms, provisions and limitations.

#### **4. Alarms on PBR speech-dominant channels**

Information booklet Of20 lists the conditions for PBR use in these channels. You must adhere to all the normal PBR conditions, and your equipment must meet the relevant specification's requirements. You must also keep accurate and up-to-date records of alarm locations, and tell us how to close down the alarm system efficiently at any time if the equipment causes interference.

##### **Directional antennas**

We are prepared to consider, on a case-by-case basis, authorising the use of a three-element directional antenna set to provide maximum radiation in the direction of the central control point for alarm stations using PBR. The following conditions apply:

- The effective radiated power (ERP) must not exceed 2W. (This may be increased up to 5W if you can demonstrate that 2W ERP will not provide a satisfactory signal at the central control point.)
- The height of the alarm station antenna may be up to 10 metres above ground level.
- The equipment comprising the antenna must conform to the relevant UK Radio Interface Requirement, or (if placed on the UK market before 8 April 2000) be type-approved for use as a fixed station.
- Use of the antenna must not cause interference to other radio users, and permission to use it may be withdrawn by us at any time.

We anticipate that such antennas will not be needed unless the local topography makes 'normal' line-of-site communication difficult. If you want to use alarm equipment in these conditions, contact the local Ofcom office for the area where you will install the equipment.

#### **5. Alarms on data-dominant PBR channels**

Information leaflet OfW58 contains details of data on PBR. Your alarm must conform to all the current service requirements.

#### **6. Alarms licensed before the current policy came into force**

In the past, non-fixed alarms were generally allowed on single frequency channels with on-site PBR conditions and a requirement for carrier sense. All equipment which was brought onto the market prior to April 2001 must be type approved. Equipment that was placed on the market after April 2001 must be R&TTE compliant.

Systems licensed under the old policy are allowed to remain with customers for their operational lifetime on a non-interference basis.

#### **7. Other types of business radio alarm**

As explained in Section 1, other types of alarm system exist. If you require an alarm system, consider your requirements and select the type most appropriate to your needs.

Information leaflet OfW73 contains information about PBR wide-area distress alarms. Short-range alarms are covered by leaflet OfW69.

## **8. Applications and enquiries**

To apply for a licence and frequency assignment for alarms on PBR, please use application form Of21.

For further information please contact:

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