

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.

## **Remote Control of Base Stations by Landlines**

**OfW53 (previously Radiocommunications Agency information sheet RA 327)**

### **1. Introduction**

If you are a Private Business Radio (PBR) licensee and you wish to install your system's base station at a remote site, the usual method of controlling the station is via a landline. This is normally obtained from a network service supplier, and can be either a 'private wire' (using a point-to-point installation), or a 'dial-up' system operating on any network service (using a conventional telephone line to connect the base station to its control point, often many miles away).

### **2. Using 'private wire' connections**

Private wire (PW) links are available only from the major network suppliers. They can be expensive to install and operate, with an annual rental charge of a similar level. However, they offer a high grade of service and line quality.

A failure in a PW-based system may render the base station inoperative until the network supplier can repair the line.

### **3. Using 'dial-up' connections**

A dial-up landline links the control point and the remote base station via a standard telephone line, provided by either a major network or a cable operator.

Dial-up systems have the advantage that the licensee pays the standard installation charge, plus call costs when the system is in use; there are no costs when the link is disconnected. This is useful if your control point needs only occasional direct access to the system. Line quality may not be as good as that available on a PW-based system, but there is the benefit that, if the line fails, dialling out again will quickly re-establish control of the base station.

### **4. Can I use landlines to control my base station?**

Yes, if you are a PBR licensee assigned with:

- standard wide-area shared channels and/or on-site shared channels; or
- regional and/or nationally exclusive assignments.

Service providers normally do not use landlines to control base stations, but they may be permitted to do so if they consult Ofcom.

### **5. R&TTE Directive**

All radio equipment (with certain specific exceptions) must meet certain essential criteria. This is a legal requirement under the Radio and Telecommunications Terminal Equipment (R&TTE) Regulations 2000, which implemented the R&TTE Directive (EU Directive 99/5/EC).

Under the Regulations, anyone who places radio equipment on the market or takes it into service must ensure that:

- the R&TTE Directive's requirements are met;
- the equipment is marked with the 'CE' marking together with the 'alert' symbol; and
- a written declaration of conformity has been drawn up for the equipment, together with information for the user on its intended use.

Manufacturers and suppliers may need to have their equipment re-approved before it is used as part of a licensed PBR system utilising the dial-up facility.

## **6. BABT approval**

The apparatus used to connect to the landline part of the system must be:

- approved by the British Approvals Board of Telecommunications (BABT); and
- installed in accordance with the network operator's requirements.

No third party traffic may be carried, and members of the public must be prevented from gaining access to the system.

## **7. Licensing requirements**

As licensee, you must meet the following requirements before Ofcom (the Office of Communications) will allow you to use dial-up landline control.

If you wish to use dial-up control, you must apply to us using application form Of21. When you apply, please specify the location of the remote site and its associated control point, together with the appropriate telephone numbers.

Establishing the link between the control point and its associated base station may not take place over any part of the business radio system. Mobiles may not initiate the setting-up of the landline link.

We will require you to adopt a security system involving a Private Identification Number (PIN) and a dial-back routine, to be used at the base station end of the landline. Typically the remote control point will initiate the setting-up of the link, by dialling the base station. The base station's landline unit will then request the PIN; having received this, it will disconnect the line. Dial-back will then occur automatically, redialling the number stored within the unit; the connection is then made. The base station will not be controllable by landline from the remote control point unless and until this procedure has been completed.

When the message is completed, the remote station must send a signal to the base unit, instructing it to disconnect the call. If the base station control unit detects a line failure condition, the connection will be automatically terminated.

To prevent the base station being triggered accidentally (for example, by a crossed line), the remote control unit must generate an in-band control tone when calling. This tone should be inaudible to the system operators and business radio users, and must be sent during the transmit period. The base station transmitter must be fitted with a three-minute automatic cut-out timer; this will switch off the transmitter after three minutes if no transmissions have been made or if a fault condition occurs, and will not allow any further transmissions until the fault condition is cleared.

You will be permitted one control point, plus one more for emergency or out-of-hours use. To apply for more, you must present an acceptable case to Ofcom, explaining why further control points should be granted. All control points must be shown on your licence schedule(s).

## **8. Further Information**

For further information about remote control using landlines, please contact:

**Ofcom Contact Centre**

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