# Product data

## Wireless Relay Station, BS370

### NTM/KRCNB 303 01/1



***Features***

- *Base station without cable connection to system*
- *Extension of the coverage of BS330, BS340 or DCT1800/Core base station*
- *DECT GAP/CAP radio interface*
- *Can handle 5 simultaneous calls*
- *Powered by local AC-adapter*
- *Supports omni-directional and directional external antennas*
- *Connector for extra directional antenna to communicate with host base station*
- *External LED status indication*
- *Compact lightweight design*

### General

The Wireless Relay Station BS370 extends the coverage area of a host base station without using data cables.

The BS370 is connected to the host base station through the air interface. The host base station provides the connection to the system.

The radio signals from the cordless phones to the BS370 are retransmitted from the BS370 towards the host base station. The host base station sends the signals to the system.

The other way round, the BS370 receives radio signals of the host base station and retransmits them to the cordless phones within the BS370's coverage area.

### Applications

With the BS370 you can easily and quickly extend the coverage area of a base station. No data cables are required.

This makes the BS370 suitable for all situations where installing cables is difficult or time consuming. Examples of applications are: a separate parking house, a small office annex on the other side of the street, etc.

The BS370 is designed for indoor use. It can be used with the DCT1800-GAP and DCT1800-S systems, BusinessPhone (with integrated DECT) and MD110 (with integrated DECT).

### Host base stations

The BS330 (KRCNB 301 03/n), BS340 (KRCNB 302 01/1) and DCT1800/Core base station (KRCNB 201 type) can be used as host base station. The host base station must have base station software with revision level R2A or higher.

It is possible to lock more than one BS370 to the same host base station. This could be useful when there is a need to cover large areas with low traffic.

It is not possible to lock a BS370 to another BS370.

### Connection to host base station

The BS370 can communicate with the host base station in two ways:

- By the antennas used to communicate with the cordless phones
- Optionally, by an extra directional antenna

Without an extra directional antenna, the typical configuration is as shown in figure 1 below. The BS370 has to be in the coverage area of the host base station. The maximum distance between the BS370 and its host base station is ca. 30 m in a building. In the open field the distance can be much more, up to 300 m. The possible distance depends on propagation characteristics.

With an extra directional antenna, the configuration is as shown in figure 2 below. The BS370 no longer has to be in the coverage area of the host base station. The maximum distance between BS370 and host base station is 1000 m.

### Call handling

The BS370 can handle 5 calls simultaneously.

The host base station can handle 8 calls simultaneously. When a call is being made via the BS370, the host base station uses 1 speech channel to communicate with the BS370. Thus, each call on the BS370 reduces the maximum number of simultaneous calls on the host base station with one.

### Antennas

The BS370 is equipped with two omni-directional dipole external antennas. At any time during the transmission or reception cycle only one antenna is active. However, fading of the radio signal is corrected by switching to the other antenna for transmission and reception. This switching, also called spatial diversity, can be done per time slot.

The special omni-directional antennas for the BS340 can also be used.

Special directional antennas are available for application areas where there is a need for more horizontal than vertical coverage, e.g. parking lots.

For communication with the host base station an extra directional antenna can be used.

### Connectors

Three modular ‘jack’ type connectors are located on the rear of the BS370: one RJ12 and two RJ45. The RJ12 jack is used for configuration and service. Either one of the two RJ45 jacks can be used to power the BS370.

### Mounting

The BS370 can be mounted on a wall, ceiling, pole or beam, using the same mounting bracket. The bracket can be secured first. Then the BS370 can be fixed on the bracket. This makes mounting and exchanging the BS370 relatively simple.

### Power

The BS370 has to be powered by a local AC-adapter. This circuitry requires a minimum voltage of 10.8 Vdc. The maximum input voltage that can be offered to the base station is 56 Vdc. The polarity of the supply voltage is not important.

### Software upgrade

The software of the BS370 resides in programmable non-volatile memory. This memory can be programmed using the Base Station Manager, a Windows based tool. See the product data of the Base Station Manager for more information.

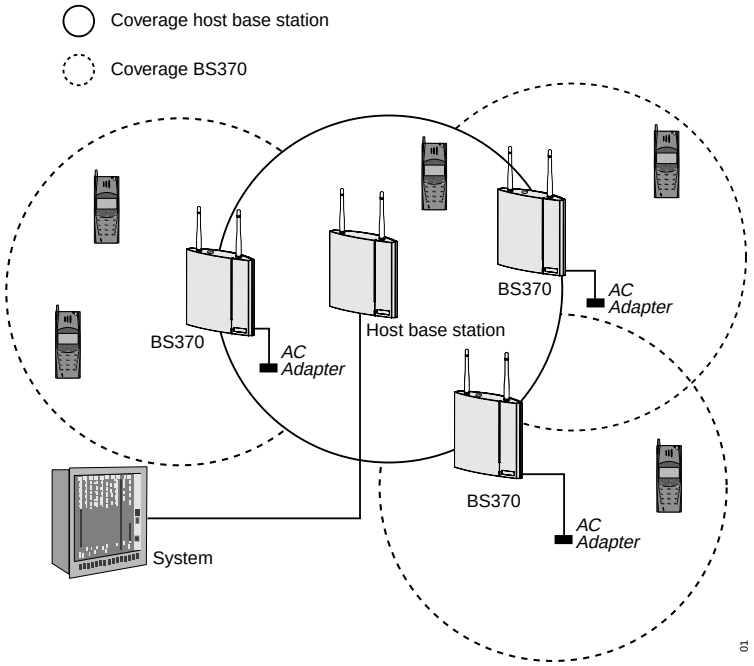


*Fig. 1 Extra base station coverage with BS370*

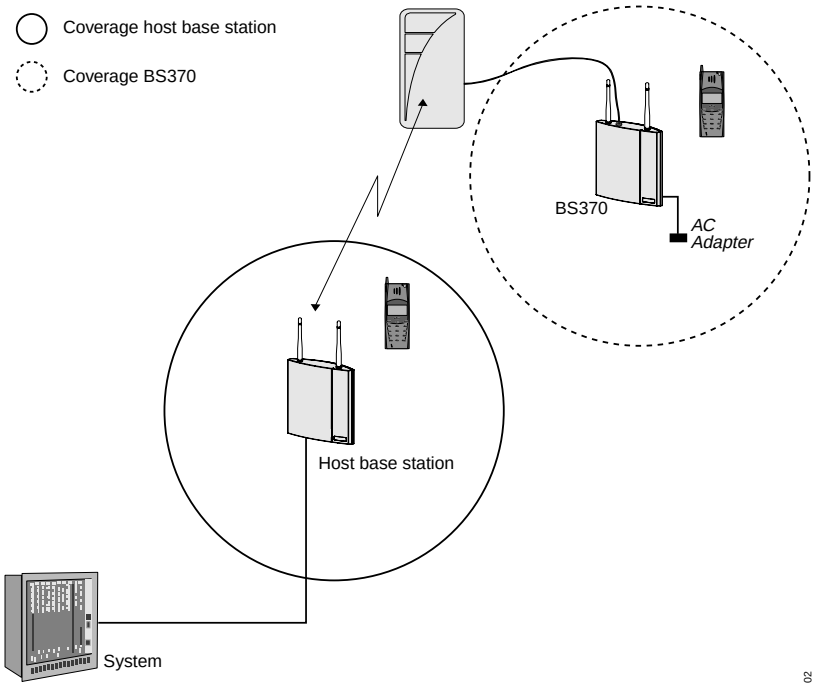


*Fig. 2 Coverage of BS370 with extra antenna to connect with host base station*

# Specifications

Specifications subject to change without prior notice.

### Physical

| | |
|---|---|
| Dimensions | : 200 (w) x 165 (d) x 56 (h) mm |
| Weight | : 496 grams (incl. standard antennas) |
| Colour | : light grey |
| Size standard antenna | : 107 (l) x 8.5 (d) mm |
| Weight standard antenna set | : 17 grams |
| Material | : ABS moulded plastic |

### Environmental

| | |
|---|---|
| Operating temperature | : –10 to +55 °C |
| Storage temperature | : –40 to +70 °C |
| Relative operating humidity | : 15 to 90%, non condensing |
| Relative storage humidity | : 5 to 95%, non condensing |

### Functional

| | |
|---|---|
| Operating voltage | : 10.8 to 56 Vdc |
| Power consumption | : typical 3 W, maximum 5 W |
| RF output power (e.r.p.) | : between 19 dBm and 24 dBm |
| Receiver sensitivity | : at least –86 dBm at B.E.R. = $10^{-3}$ |

### Compliance to European regulations and standards

| | |
|---|---|
| CE regulation | : 1999/5/EC, Radio &Telecommunications Terminal Directive R&TTE<br>73/23/EEC, Low Voltage Directive<br>89/336/EEC, Electromagnetic Compatibility Directive (EMC) |
| CE marking | : CE 0344 |
| DECT standard | : TBR6:1999 |
| Safety standard | : EN 60 950:1992;A1, A2, A3, A4 + A11, IEC 60 950:1991;A1 - A4 |
| EMC standard | : ETS 300 329 06:1997 |