

# BT Diverse Repeater User Guide



Bringing it all together



# Welcome...

to your BT Diverse Repeater  
Range Extender

BT Diverse Repeater

- Extends the range in which you can make and receive calls from your existing DECT base station by up to 50m indoors and 300m outdoors (in ideal conditions).
- Compatible with a range of BT Diverse and BT Freestyle products.
- Confidence tone option keeps you informed that your handset is in range of the Repeater.

SIEMENS

BT Diverse

This User Guide provides you with all the information you need to get the most from your BT product.

Before first using your BT Diverse Repeater you will need to set it up and register it with your base station. Follow the instructions in 'Getting Started', on the next few pages.

#### **Need help?**

If you have any problems setting up or using your BT Diverse Repeater please contact the Helpline on **Freephone 0808 100 7337\***.

Alternatively, you may find the answer in 'Help' at the back of this guide.

\* Calls made from within the UK mainland network are free. Mobile and International call costs may vary.

#### **Got everything?**

- BT Diverse Repeater
- Mains power adaptor
- 2 x screws and wall plugs

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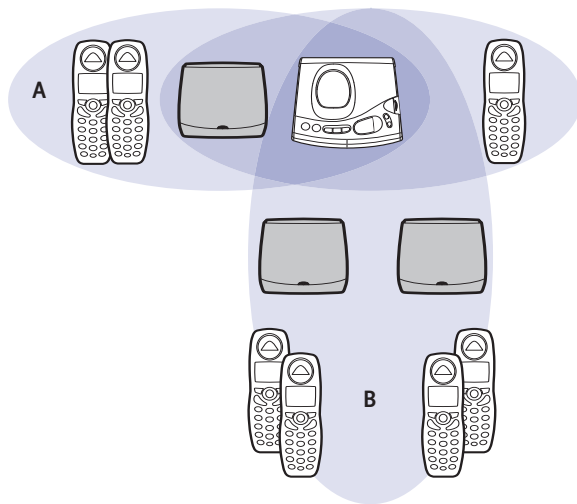
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# Introduction

Up to six Repeaters can be installed on a single base station and each Repeater can support up to 2 handsets each. The registration of Repeaters on the base station does not reduce the number of handsets that can be registered to the base station. A typical arrangement is shown below:



## IMPORTANT

It is possible to roam between the Repeater and the base, however, call handover during conversation is not always guaranteed.

## IMPORTANT

It is not possible to further extend the range in one direction by registering a second Repeater to the first Repeater. All Repeaters must be within range of the base station as the Repeater can only be registered to a base station and not another Repeater.

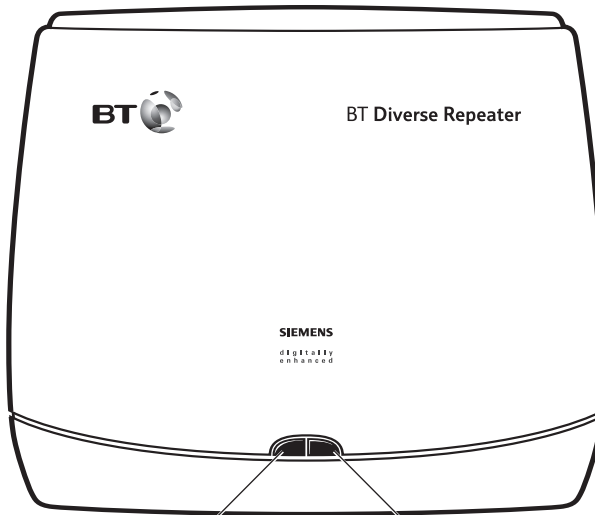
- A You can operate two handsets in the reception range of the repeater.
- B If you wish to operate more than two handsets you must increase the number of Repeaters for the reception range.

The BT Diverse Repeater is compatible with the following products:

BT Diverse 6210	BT Diverse 4010
BT Diverse 6250	BT Diverse 4016
BT Diverse 6350	BT Diverse 3010
BT Diverse 6410	BT Diverse 3010 Micro
BT Diverse 6450	BT Diverse 3016
BT Freestyle 7250	BT Diverse 2010
BT Freestyle 7310	BT Diverse 2011
BT Diverse 5000	BT Diverse 2015
BT Diverse 5210	BT Diverse 2016
BT Diverse 5250	BT Diverse 2020
BT Diverse 5310	BT Diverse 2-Line
BT Diverse 5350	
BT Diverse 5410	BT Diverse ISDN
BT Diverse 5450	

# Getting started

Front



## Left LED

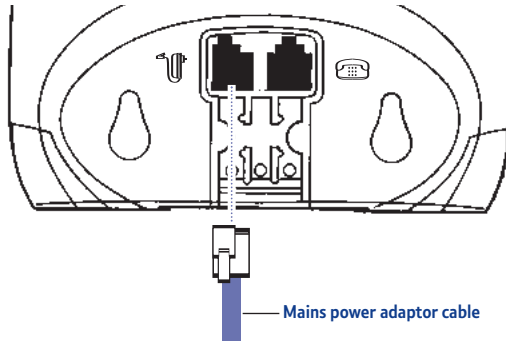
<b>OFF</b>	Power supply off
<b>ON</b>	Normal link to base station
<b>Flashing</b>	No link to base station
<b>Intermittent flashing</b>	Ready to register

## Right LED

<b>OFF</b>	No calls
<b>Flashing once</b>	One handset using Repeater
<b>Flashing twice</b>	Two handsets using Repeater

### Connect the mains power adaptor

Plug the small end of the power adaptor cable into the socket on the back of the Repeater.



Then plug the other end into the mains wall socket. Use a power socket close to your base station. This is because during the registration process the base station needs to be near the Repeater. You can relocate your Repeater after registration is complete.

### Switch off the mains power at the wall socket

This is for the registration procedure. Before beginning registration, all unregistered Repeaters should be switched off.

### Register the Repeater to the base station

1. Turn on the Repeater mode in the product that you will be registering the Repeater to. This varies dependant on the product, the instruction can be found in the relevant userguide, provided with the product.
2. Put the product into registration mode, this is normally done by pressing and holding the **Find** button, or by pressing the **Registration** button, as appropriate.
3. Switch on the power to the Repeater at the wall socket. The green lefthand LED on the Repeater will flash, then after a short while the LED will remain on, indicating that the registration is complete.

# Using your BT Diverse Repeater

If extending the range to outdoors it may be better to locate the Repeater near a window and higher on the wall, as radio signals do not work as well through thick walls.

## **Please note**

If using more than one Repeater on a base station you should ensure the Repeaters are placed at least 10 metres apart.

## **Please note**

Blind spots (where signal is weak) can cause loss of signal. Avoiding blind spots will reduce the risk of losing a call.

Once registered, the Repeater can be positioned anywhere within the reception range of the base station, preferably towards the direction you wish to extend the range.

1. Locate a suitable position near a mains socket within the reception area of the base station and towards the direction you wish to extend the range.
2. Plug the power adaptor into the mains socket (and into the Repeater if it has been disconnected) and switch on the mains power at the wall socket.

The green left-hand LED will begin to flash as it connects to the base station, then stops flashing and remains lit once a link has been made. If the LED continues to flash, switch the power off and on again. If flashing continues, see the 'Help' section on page 14.

## **Operating a handset for the first time within the extended Repeater area**

Make sure that handset(s) you want have been registered to the same base station as the Repeater.

1. Switch off the handset within the new reception range of the Repeater but outside the reception range of the base, and then switch it back on again.
2. To confirm the handset is working with the Repeater, press the **TALK** button on the handset whilst next to the Repeater.

You should hear a dial tone and confidence tones, if they have been switched on (see below). Look at the Repeater, the green right-hand LED should be flashing.

Your Repeater is now ready for use. A Repeater can support up to two handsets simultaneously to make or receive calls. If you try to use a third handset to make an internal/external call via the Repeater whilst two handsets are using it, the call will fail.

However, it may still be possible for a third handset to make a call if it is near the main base station. (The number of simultaneous internal/external calls will vary according to the type of base station you use, please refer to the base station user guide.)

### **To turn the Repeater's confidence tone on and off**

The Repeater has the option to provide a confidence tone (a confirmation beep every 2 seconds) which sounds when your handset is working in the Repeater area.

It is suggested that the confidence tone is switched ON to aid installation and to get an idea of the base and Repeater reception areas.

Before starting this procedure the Repeater's power adaptor must be connected to the Repeater and the mains socket, but switched OFF at the mains socket.

Turn the Repeater confidence tones on/off as required (see below).

The default setting for the confidence tone is OFF.

1. Switch the power to the Repeater ON for between 1 to 5 seconds then switch it OFF.
2. Switch the power ON again. If the left-hand green LED on the Repeater flashes slowly switch it off again. Switch it on again. The confidence tone is now activated.

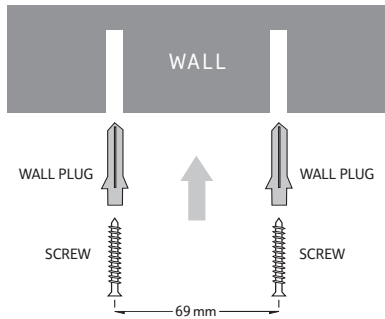
### **To reset the Repeater**

Before re-installing the Repeater, it needs to be reset. Before starting, make sure the Repeater's power adaptor is connected to the Repeater and the mains socket, but switched off at the mains.

1. At the Repeater, switch the power on for 1 to 5 seconds and switch it off again.
2. Switch on for 25 to 35 seconds and switch it off again. The Repeater should now be reset.

## Wall mounting the Repeater (optional)

The unit may be left free standing or mounted on a wall using the wall plugs and screws provided.



The screw heads should protrude about 5mm from the wall.

### WARNING

The screws supplied to wall mount your BT Diverse Repeater will not be suitable for all wall types.

BT recommends that you seek advice from a building professional before attempting to wall mount your Repeater. BT are not responsible for any damage/injury caused while attempting to wall mount your Repeater.

Before you wall mount, please check that:

- the wall can support the weight of the Repeater;
- you are not drilling into any hidden wiring or pipes;
- the power cable will reach the wall socket.

## **BT Diverse Helpline Freephone 0808 100 7337\***

If you are still having difficulty setting up or using your BT Diverse Repeater, please call the Diverse Helpline on Freephone 0808 100 7337\*.

Lines open 9am – 5.30pm, Monday to Friday.

### **The Repeater LED continued to flash on and off after the registration process had been completed**

- The registration process was not successful. You will have to repeat the registration process again with the base station concerned.

### **The Repeater LED continually flashed on and off when placed/mounted in the desired location**

- The radio connection is very weak/poor. You will have to find another location where the signal from the base is better.
- The Repeater may have been reset. If this is the case it will have to be registered to the base again.

### **The Repeater LED does not light up at all**

- There is no power to the Repeater. Check that the power adaptor lead is plugged into the Repeater, the power adaptor is plugged into the mains socket and the mains power is switched on.

### **The audio quality is very poor/noisy when in the Repeater reception area**

- The radio connection is very weak/poor. You will have to find another location where the signal from the base is better.

### **The Repeater will not register**

- Reset the Repeater as described on page 12.

### **Cannot make or receive calls when in the Repeater reception range**

- There is no power to the Repeater. Check that the Power adaptor lead is plugged into the Repeater, the power adaptor is plugged into the mains socket and the mains power is switched on.
- The Repeater is not registered. You will have to repeat the registration process again with the base station concerned.

### **Call lost or audio becomes poor when moving from the base reception area to the Repeater reception area**

- You may be moving out of range of the base/repeater areas, or are in a 'blind spot'. Move towards the base or Repeater.
- Some base stations and handset combinations do not support call handover during conversation when moving from base to Repeater area.

### **Handset beeps every 2 seconds when in the Repeater reception area**

- The Repeater's confidence tone has been switched on. To switch the confidence tone off, see page 11.

# General information

## Safety

### General

- Only use the power supply included with the product. Using an unauthorised power supply will invalidate your guarantee and may damage the product.
- Do not open the base. This could expose you to high voltages or other risks. Contact the BT Diverse Helpline on Freephone 0808 100 7337\* for all repairs.
- The BT Diverse Repeater operates by transmitting radio signals. These signals may cause interference to hearing aids.
- It is recommended that advice from a qualified expert be sought before using this product in the vicinity of emergency/intensive care medical equipment.
- It is recommended that if you have a pacemaker fitted you should check with a medical expert before using this product.
- Your product may interfere with other electrical equipment, e.g. TV and radio sets, clock/alarms and computers if placed too close. It is recommended that you place your product at least one metre away from such appliances to minimise any risk of interference.

### Cleaning

Simply clean the product with a damp (not wet) cloth, or an anti-static wipe. Do not use a dry cloth as it could cause a static discharge resulting in damage to the product.

### Environmental

- The BT Diverse Repeater will produce a certain amount of heat during operation. Equally, additional handsets and the chargers can become warm during charging. Whilst this is entirely safe, we advise against placing these products on antique, veneered or wooden surfaces as damage may occur.
- Do not stand your product on carpets or other surfaces which generate fibres, or place it in locations preventing free flow of air over its surfaces.
- Do not use the BT Diverse Repeater and handsets in damp, humid conditions such as bathrooms. Do not expose any of the equipment or batteries to fire or water.

## Product disposal instructions



The symbol shown here and on the product means that the product is classed as Electrical or Electronic Equipment and should not be disposed with other household or commercial waste at the end of its working life.

The Waste of Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) has been put in place to recycle products using best available recovery and recycling techniques to minimise the impact on the environment, treat any hazardous substances and avoid the increasing landfill.

### Product disposal instructions for residential users

When you have no further use for it, dispose of the product as per your local authority's recycling processes. For more information please contact your local authority or the retailer where the product was purchased.

### Product disposal instructions for business users

Business users should contact their suppliers and check the terms and conditions of the purchase contract and ensure that this product is not mixed with other commercial waste for disposal.

## Technical information

Standards	DECT GAP
Radio frequency range	1800MHz – 1900MHz
Transmit power	10mW average power per channel
Range (max)	300m outdoors 50m indoors
Power supply	240v +8% -10% (plug in power adaptor)
Power consumption	6VA
Operating temperature	-10°C to +50°C
Dimensions (L x B x H)	131 x 50 x 111 mm
Weight	136g
Power cable length	Approx. 3m

This product is intended for registration to BT Diverse 6210, BT Diverse 6250, BT Diverse 6350, BT Diverse 6410, BT Diverse 6450, BT Freestyle 7250, BT Freestyle 7310, BT Diverse 5000, BT Diverse 5210, BT Diverse 5250, BT Diverse 5310, BT Diverse 5350, BT Diverse 5410, BT Diverse 5450, BT Diverse 4010, BT Diverse 4016, BT Diverse 3010, BT Diverse 3010 Micro, BT Diverse 3016, BT Diverse 2010, BT Diverse 2011, BT Diverse 2015, BT Diverse 2016, BT Diverse 2020, BT Diverse 2-Line, BT Diverse ISDN that are connected to the public switched telephone network (PSTN) and private switchboards within the United Kingdom.

### R&TTE Directive

This equipment complies with the essential requirements for the Radio Equipment and Telecommunications Terminal Equipment Directive (1999/5/EC).

In demonstration with the essential requirement for the efficient use of the radio spectrum, the product complies with ETSI EN 301 406.

For a copy of the Declaration of Conformity please contact the BT Diverse Helpline on Freephone 0808 100 7337\*.

## Guarantee

Your BT Diverse Repeater is guaranteed for a period of 12 months from the date of purchase.

Subject to the terms listed below the guarantee will provide for the repair of, or at BT's or its agent's discretion the option to replace the BT Diverse Repeater, or any components thereof, which is identified as faulty or below standard, or as a result of inferior workmanship or materials. Products over 28 days old from the date of purchase may be replaced with a refurbished or repaired product.

### The conditions of this guarantee are:

- The guarantee shall only apply to defects that occur within the 12 month guarantee period.
- Proof of purchase is required.
- The equipment is returned to BT or its agent as instructed.
- This guarantee does not cover any faults or defects caused by accidents, misuse, fair wear and tear, neglect, tampering with the equipment, or any attempt at adjustment or repair other than through approved agents.
- This guarantee does not affect your statutory rights.

### Within the 12 month guarantee period:

If you experience difficulty using the product, prior to returning it, please read the 'Help' section beginning on page 14, or contact the BT Diverse Helpline on Freephone 0808 100 7337\*, 9am–5.30pm, Monday to Friday.

In the unlikely event of a defect occurring, please follow the Helpline's instructions for replacement or repair.

### Outside of the 12 month guarantee period:

If your product needs repair after the guarantee period has ended, the repair must meet the approval requirements for connection to the telephone network. We recommend that you call the BT Diverse Helpline on Freephone 0808 100 7337\* and you will be advised of our recommended repair agents.

### Returning your product

If the Helpline is unable to remedy your problem they will ask you to return the product. Where possible, pack the product in its original packaging. Please remember to include all parts. Please note that we cannot take responsibility for goods damaged in transit. Please obtain and keep proof of posting from the Post Office or carrier.

### For your records

Date of purchase:

.....

Place of purchase:

.....

Serial number:

.....

For guarantee purposes proof of purchase is required so please keep your receipt.



Visit us at [www.bt.com](http://www.bt.com)



## Offices worldwide

The telecommunications services described in this publication are subject to availability and may be modified from time to time. Services and equipment are provided subject to British Telecommunications plc's respective standard conditions of contract. Nothing in this publication forms any part of any contract.

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CE compliant to R&TTE Directive (1999/5/EC)