TEVION COMMUNICATIONS

Terrain 550

User's Guide

Congratulations on choosing to buy a Tevion® product. By doing so you now have the assurance and peace of mind that comes with purchasing a product made by one of Europe's leading manufacturers.

All products brought to you by Tevion® are manufactured to the highest standards of performance and safety, and, as part of our philosophy of customer service and satisfaction, are backed by our comprehensive 3 Year Warranty.

Please fill in and return the Warranty Card to the address provided.

We hope you will enjoy using your purchase for many years to come.

After Sales Support

Now you have purchased a Tevion® product you can rest assured in the knowledge that as well as your 3 year parts and labour warranty you have the added peace of mind of dedicated helplines and web support :

AFTER SALES SUPPORT

UK / N.IRELAND HELPLINE NO 08453459677
REP. IRELAND HELPLINE NO 0818762092
WEB SUPPORT http://www.binatonetelecom.com/

Never allow children to play with electrical equipment

TEVION COMMUNICATIONS

Terrain 550

Private mobile radio with twin charger

USER GUIDE

Antenna

LCD Screen - Displays the current channel selection and other radio symbols.

PTT (PUSH to TALK) button - Press and hold to transmit.

CALL button - Press to send ringing tone to other PMR units.

MENU Button -Press to change channels and sub-channels, and to switch between modes.

Speaker

Receiver LED- Lights up when you are receiving signals.

Ear/Mic/Charge Jack

PWR (POWER) button - Press and hold to turn the unit ON or OFF.

MIC (Microphone)

∧(UP)/∨(DOWN) buttons - Press to change channels, volume, and to select settings during programming.

1. LCD Screen

8	Channel Number. Changes from 1 to 8 as selected by the user.
38	CTCSS Code. Changes from 1 to 38 as selected by the user.
	Displays the Battery charge level. When the bars are reduced, the battery needs recharging.
10:30	Displays the time.
00:00	Displayed when the Stop watch function is activated.
TX	Displayed when transmitting a signal.
RX	Displayed when receiving a signal.
DCM	Displayed when the Dual Watch function is turned ON.
VOX	Displayed when the VOX feature is enabled.
SC	Displays when the PMR is scanning all channels.
	Displayed when the Key Lock feature is activated.
	Displays the current Speaker volume level.
	Displays when the call signal is ON.
	Displays when the vibrator function is activated.

2. Installation

2.1 Removing the Belt Clip

a. Pull the Belt Clip latch forward (away from the PMR.)
b. While pulling the Belt Clip latch, push up the Belt Clip as shown in Figure 1.

2.2 Installing the Belt Clip

a. Slide the Belt Clip into the slot as shown in Figure 2.
b. A "click" indicates the Belt Clip is locked into position.

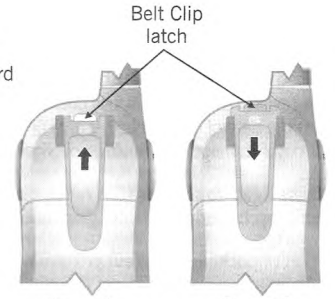


Figure 1 *Figure 2*

2.3 Installing the Battery pack

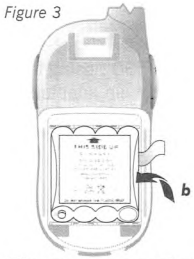


Figure 3

Figure 4

Caution: Observe the proper battery polarity orientation when installing batteries. Incorrect positioning can damage both the batteries and the unit.

a. Slide down the Battery Compartment Cover.
b. Install the rechargeable battery pack by following the orientation as shown in Figure 3 (the arrow is showing and pointing upward.)
c. Replace the Battery Compartment Cover. See Figure 4.

Important

Read these Safety Warnings before you charge the batteries.

- *When placing the PMR in the charger,* ***use only the rechargeable batteries supplied with the Terrain 550.***
- ***Don't try to recharge non-rechargeable batteries.***
- ***Make sure the battery compartment cover is securely locked in place*** *when you are charging the batteries.*
- ***Dispose of used batteries safely and in a way that will not harm the environment*** *- never try to burn them or put them anywhere, they could get burnt or punctured. Risk of explosion.*
- ***Don't leave dead batteries in your PMR units.*** *They might leak if you do.*
- ***Don't disassemble the battery pack.***

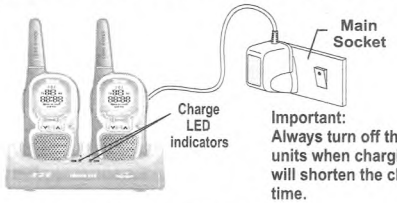
2.4 Charging the Battery pack

a. Insert the small plug on the end of the mains adaptor into the Power-in Connection Jack at the back of the desktop charger.
b. Plug the mains adaptor into a 240V AC, 50 Hz main socket with the switch on the socket set to OFF.
c. Switch ON the main socket.

The PMR must be charged using the mains adaptor provided. Using any other adaptor will result in non-compliance with EN60065 and will invalidate any approvals & warranty.

d. Place the PMR units in the charge cradle in an upright position and facing outward.**The Charge LED indicators will light up.**

e. It takes about 10 hours to fully recharge the batteries if they are completely run down.**New batteries take up to 14 hours to fully charge.**



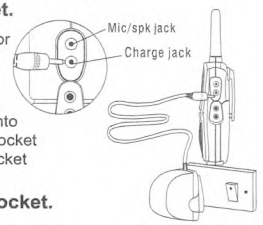
Important:
Always turn off the PMR units when charging.This will shorten the charging time.

f.Charging the battery pack (using adaptor)

Lift the charge socket cover located on the right side of the handset.

Insert the round connector of the 9.0V DC/200mA adaptor into the charge jack.

Plug the mains adaptor into a 240V AC, 50Hz main socket with the switch on the socket set to OFF.



Then switch ON the main socket.

Battery meter

The battery meter is located in the left corner of the LCD Screen. It appears like a battery with three bars inside. These indicate the amount of power available. when the battery level reach it minimum level in PMR on mode, unit will emit two beep tones and automatically turn off the power and proceeds to watch mode.

The PMR can detect the battery charge in 4 levels;

Battery charge at high level.

Battery charge at medium level.

Battery charge at low level. At this level, the PMR will emit a "beep" sound for every 10 seconds in normal mode.
Important: Charge the unit for 10~14 hours.

Battery charge at very low level. When the battery level rech it minimum level in PMR on mode, unit will emit two beep tonesand automatically turn off the power and proceeds to watch mode.
Important: Charge the unit for 10~14 hours.

Battery life

The Terrain 550 has a built in power saver feature to make the batteries last longer. But when you are not using the units, turn them OFF to conserve battery power.

3. Operation

3.1 Transmitting range

The talk range depends on the environmental and terrain. It will be greatest (up to about 8 km) in wide open spaces, without obstructions such as hills or buildings. Don't try to use two PMR units which are less than 1.5m (5feet) apart. If you do, you may experience interference.

Important safety warning

- To reduce radio frequency exposure when you're using your Terrain 550, hold the unit at least 5cm (2 inches) away from your face.
- Never use your Terrain 550 outdoors during a thunderstorm.
- Don't use the Terrain 550 in the rain.
- If your Terrain 550 ever gets wet, turn it off and remove the battery. Dry the battery compartment and leave the cover off for a few hours. Don't use the unit until it is completely dry.
- Keep the Terrain 550 out of the reach of babies and young children.

3.2 Turning the Unit ON/OFF

To Turn ON;

a. Press and hold the **POWER** button until the LCD Screen turns ON and displays the current channel.

To switch OFF;

b. Press and hold the **POWER** button until the LCD screen turns blank.

You can hear a musical tone each time to confirm.

3.3 Adjusting the Speaker volume

The volume level is shown by vertical bars on the LCD screen. You can change the volume while using your PMR, or while the unit is idle (switched on but not in use).

Press the **UP** button to increase, or press the **DOWN** button to decrease the speaker volume.

3.4 Changing Channels

The PMR has 8 available channels. To communicate with other PMR users within range, you must all have your PMR tuned to the same channel.

a. Press the **MENU** button once, the current channel number flashes on the LCD Screen.

b. Press the **UP** or **DOWN** button to select the desired channel. The channel changes from 1 to 8, or vice versa.

c. Press the **PTT** button to confirm the channel setting.

Note: Refer to the "Channel Table" section of this Owner's Manual for detailed frequency listing.

3.4.1 Setting the CTCSS sub-channel

Each channel also has 38 sub-channels to let you set up group of users within the same channel for more private communication. If you have set the sub-channel, you can only communicate with other PMR users tuned to the same channel and sub-channel.

To turn the sub-channel function off, simply set the sub-channel to *0* (zero). You can communicate with any PMR user set to the same channel who also turns off the sub-channel operation (or whose PMR unit does not have the feature).

a. Press the **MENU** button twice, the current CTCSS sub-channel number flashes on the LCD Screen.

b. Press the **UP** or **DOWN** button to select one of the 38 CTCSS sub-channels.

c. Press the **PTT** button to confirm the sub-channel setting.

Transmitting and Receiving

! **The Terrain 550** transmission is 'one way-at-a-time.' While you are speaking, you can not receive a transmission.

! **The Terrain 550** is an open-license band. Always identify yourself when transmitting, as other people may be communicating on the same channel.

3.4.2 Receiving a Call

The unit is continuously in the Receive mode when the unit is turned ON and not transmitting. When a signal is received on the current channel, "**RX**" will be displayed on the LCD Screen and receiver LED lights up.

3.4.3 Transmitting (sending a speech)

a. Press and hold the **PTT** (Push to Talk) button to transmit your voice. "**TX**" will be displayed on the LCD Screen.

b. Hold the unit in a vertical position with the **MIC** (Microphone) 5 cm away from the mouth. While holding the **PTT** button, speak into the **MIC** (microphone) in a normal tone of voice.

c. Release the **PTT** button when you have finished transmitting.

3.4.4 Monitor

You can use the Monitor feature to check for weak signals on the current channel.

a. Press and hold the **MENU** and **DOWN** buttons at the same time. "**RX**" will be displayed on the LCD Screen. Your PMR will pick up any signals on the current channel, including background noise.

b. Press the **PTT** button to stop the channel monitoring.

3.5 Setting the VOX (Voice Activated) Sensitivity

In VOX mode, the PMR will transmit a signal only when it is activated by your voice or other sounds around you. The unit will transmit further for 2 seconds even if you stop talking.

The level of VOX sensitivity is shown by a number on the LCD Screen. At the highest level, the unit will pickup softer noise (including background noise); at the lowest level, it will pick up only quite loud noise.

a. Press the **MENU** button 3 times, "**VOX**" will be displayed and *"OF"* flashes on the LCD Screen.

b. Press the **UP** button to set the VOX sensitivity level (the maximum level is *"3"*.)
*To deactivate the VOX function, press the **DOWN** button until "OF" appears on the LCD Screen.*

c. Press the **PTT** button to confirm your setting. "**VOX**" will steadily appear on the LCD Screen as long as the Vox feature is activated.

VOX operation is not recommended if the PMR will be used in a noisy or windy environment.

3.6 Vibrator and Call alert

Your Terrain 550 can alert you to incoming signal by emitting an audible call tone and vibration signal.

3.6.1 Call-Ring tone

You can send a Call-ring tone to other PMR users to give an alert that you want to communicate with them.

Press the CALL button.

You will hear a ring tone for about two seconds, "**TX**" appears on the LCD Screen. Any other units within the transmitting range and tuned to the same channel and sub-channel (if applicable) will hear the Call-ring tone.

3.6.2 Selecting a Call-Ring tone

The PMR is equipped with 5 different types of Call-Ring tones.

a. Press the **MENU** button 4 times, the LCD Screen will display *"1 CR"* while *"1"* is blinking.

b. Press the **UP** or **DOWN** button to select the desired Call-Ring tone. A respective Call-Ring tone sound will be played when changing from one tone to another.

c. Press the **PTT** button to confirm your setting.

3.6.4 Activating the Vibrator mode

a. Press the **MENU** button 5 times, *"OF"* flashes on the LCD Screen.

b. Press the **UP** button to activate the vibrator function.
OR
Press the **DOWN** button to deactivate the vibrator function.

c. Press the **PTT** button to confirm your setting.

3.7 Setting the Roger Beep

The Roger Beep is a tone which is automatically transmitted whenever the PTT button is released. This alerts the receiving party to inform that you have intentionally ended the transmission, and you are now in receive mode.

a. Press the **MENU** button 6 times, *"ONRO"* flashes on the LCD Screen.

b. Press the **UP** or **DOWN** button to activate (*"ON" will be displayed on the LCD screen*) or deactivate (*"OFF" will be displayed on the LCD screen*) the Roger Beep feature.

c. Press the **PTT** button to confirm your setting.

3.8 Setting the Key Tone ON or OFF

This feature allows the PMR to emit a confirmation tone after pressing each button.

a. Press the **MENU** button 7 times, *"ONKO"* flashes on the LCD Screen.

b. Press the **UP** or **DOWN** button to activate (*"ON" will be displayed on the LCD screen*) or deactivate (*"OFF" will be displayed on the LCD screen*) the Key Tone feature.

c. Press the **PTT** button to confirm your setting.

3.9 Setting the Dual Watch Mode

Your PMR is capable of monitoring two channels, the current and another (dual watch) channel. If the unit detects a signal on either channel, it will stop and receive the signal.

a. Press the **MENU** button 8 times, "**DCM**" will be displayed while *"OF"* flashes on the LCD Screen.

b. Press the **UP** or **DOWN** button to select the Dual Watch channel (1~8, except the current channel).

c. Press the **MENU** button to change the CTCSS code.

d. Press the **UP** or **DOWN** button to select the desired CTCSS code (1~38.).

f. Press the **PTT** button to confirm your setting.

a. Press the **MENU** button 8 times, the channel number flashes on the LCD Screen.

b. Press the **UP** or **DOWN** button until *"OF"* is displayed on the LCD Screen.

c. Press the **PTT** button to exit.

3.10 Activating the Channel Scan

Channel scan perform searches for active signals in an endless loop for all 8 channels, and all 38 CTCSS codes.

a. Press the **MENU** and **UP** buttons at the same time.
The LCD Screen will display "**SC** " and the channel number changes rapidly. When an active signal is detected, channel scan pauses on the active channel

b. Press the **UP** button to continue scanning channels 1~8.

c. When radio pauses on the active channel, press the **DOWN** button to scan the CTCSS sub-channels 1~38.

d. Press the **PTT** button to communicate through the active signal channel, or press the **UP** button to continue with the channel scanning.

4 . Stop watch Function

4 .1 To set the time

The PMR has a 24 hour clock.

a. Press the **MENU** button for 9 time.
The HOUR segment in the LCD Screen starts flashing.

b. Press the **UP** or **DOWN** button to adjust the hour time.

c. Press and release the **MENU** button to set the minutes.
The MINUTES segment in the LCD Screen starts flashing.

d. Press the **UP** or **DOWN** button to adjust the minute time..

e. Press **PTT** button to confirm the time setting and exit from the time setting mode.

Note:

- Once you remove the battery from the unit, the clock will reset to the default time 12:00.

4.2 Using the Stop watch

a. Press and hold the **CALL** button for 3 secs.
The Stop watch icon appears in the LCD Screen.

b. Press the **UP** button once to start the Stop watch. To stop, press the **UP** button again.

c. Press the DOWN button once to reset the timer.

d. Press and hold the **CALL** button for 3 seconds to exit from the Stopwatch mode.

5. Auxiliary Features

5.1 Key Lock

The Key Lock feature allows the user to disable the **UP**, **DOWN**, and **MENU** buttons so that the PMR settings could not be changed accidentally.

a. To activate the Key Lock feature, press and hold the **MENU** button until "O-" is displayed on the LCD Screen.

b. To deactivate the Key Lock feature, press and hold the **MENU** button until "O-" disappears on the LCD Screen.

The **PTT**, **CALL**, and **POWER** buttons will remain functional even if the Key Lock feature is activated.

5.2 LCD Screen Back Light

Every time a button is pressed (except PTT and CALL button), the LCD Screen back light will illuminate for 4 seconds.

5.3 Microphone/Earphone/Charge Jack

The PMR is equipped with an auxiliary microphone, earphone, and charge jack located at the opposite side of the PTT button.

Note: *Depending on the model version, the charging and headset accessories are optional. They may or may not be included with the product.*

6. Specifications

Channels Available	8 Channels
CTCSS Sub-channel	38 for each Channel
Output Power (TX)	0.5W
Range	Up to 8 Kms.

Channel Frequency Table

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	446.00625	5	446.05625
2	446.01875	6	446.06875
3	446.03125	7	446.08125
4	446.04375	8	446.09375

7. Safety

⚠ CAUTION

Damaged Antenna

Do not use any PMR that has a damaged antenna. If a damaged antenna comes in contact with the skin, a minor burn may result.

Batteries

All batteries can cause property damage and/or bodily injury such as burns if conductive material such as jewelry, keys, or beaded chains touch exposed terminals. The material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.

⚠ WARNING

For Vehicles with an Air Bag

Do not place your PMR in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a PMR is placed in the air bag deployment area and the air bag inflates, the PMR may be propelled with great force and cause serious injury to the occupants of the vehicle.

Potentially Explosive Atmospheres

Turn your PMR OFF when in any area with a potentially explosive atmosphere, unless it is a type especially qualified for such use (for example, Factory Mutual Approved). Sparks in such areas could cause an explosion or fire resulting in injury or even death.

Batteries

Do not replace or charge batteries in a potentially explosive atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn your PMR OFF near electrical blasting caps or in a "blasting area" or in areas posted: "Turn off the two-way radio." Obey all signs and instructions.

NOTE: *Areas with potentially explosive atmospheres are often, but not always, clearly marked. They include fueling areas such as below deck on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.*

8. Cleaning and Care

To clean your PMR, use a soft cloth dampened with water. Do not use cleaners or solvent, which may cause damage that may not be covered by guarantee.

9. Guarantee and service

The Tevion Terrain 550 is fully guaranteed for 36 months Manufacturer's Warranty from the date of of purchase shown on your sales receipt. The guarantee does not cover damage by misuse or negligence, or by excessive voltage.

Please keep your sales (till) receipt - this is your guarantee. You should also keep the original packaging materials.

When unpacking your Tevion Terrain 550 , check for visible damage. If you see any damage, do not use the PMR - return the whole unit to where you bought it.

If your Tevion Terrain 550 develops a fault, refer to the "Troubleshooting Guide." section of this manual. If you can't solve the problem, return the whole unit as follows;

While the unit is under guarantee

1. Pack up all the parts of your Terrain 550 , using the original packaging. Remember to include the main adaptor.
2. Return the unit to the store where you bought it, and make sure you take your sales receipt as your proof of purchase.

Repair after the Guarantee has expired

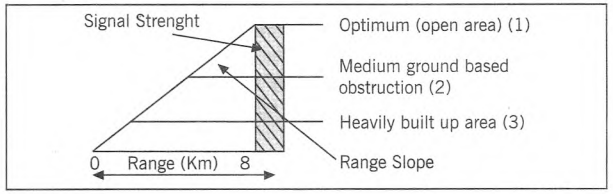
If the unit is no longer covered by Guarantee, first follow steps 1 as for repair under Guarantee, Then...

1. Ask for a quotation of the repair charge, and details of where to send your Terrain 550 for repair.
2. Return your Terrain 550 to the address given by the Service Department, making sure to include your name and address, and a cheque or postal order for the value of the repair charge.

This does not affect your statutory rights.

Effective Range

The Transmission range of the product is dependent on the environment terrain where it is being used, the following diagram attempts to guide the user on the sort of performance to expect for everyday use.



Range Check

The Transmission range will be affected as shown in the above diagram. The transmitting range typical values for different environment conditions will be (1) 8 km (2) 4 km (3) 2 km. It should be remembered that these are only guide values as actual achieved distances will be dependent on the environment and terrain.

10. Troubleshooting Guide

Symptom	Solution
No power.	• Check if the batteries are installed properly. • The battery may be weak. • Replace the old batteries with new one.
Reception is weak.	• Press the **UP** button to increase the receiver volume level. • The receiving signal may be weak and/or out of range. • If this happens, press the **MENU** and **DOWN** buttons at the same time to activate the Monitor function.
Cannot change CTCSS sub-channels.	• Key lock mode must be deactivated if the Key lock icon (⊶) is displayed on the LCD Screen. • To change CTCSS sub-channels, press the **MENU** button twice, the CTCSS sub-channel number flashes on the LCD Screen. Press the **UP** or **DOWN** button to change the CTCSS sub-channel. • Batteries may be weak.
Range is limited.	• Batteries may be weak. • Replace with new batteries if the charge level indicator gets low. • See the "Effective Range" diagram. The maximum range will vary depending on terrain and environment. • Open fields provide the maximum range, while steel/concrete structures, heavy foliage, and use in buildings and in vehicles may limit the range significantly. • Wearing the radio close to the body, such as in a pocket or on a belt, will decrease range; change the location of the radio.
Sound distortion problems.	• If you are transmitting, speak in a normal tone of voice, 5 cm away from the **MIC** (microphone.). • If you are receiving, lower the volume to a comfortable level. • Radios too close. Radios must be at least 2 meters apart; increase your distance. • Radios too far apart. Obstacles interfere with transmission. Talk range is up to 8 Kms. in a clear unobstructed conditions.
No communication	• Check the Channel and the CTCSS code setting. Both the Transmitting and Receiving PMR units should have tuned to the same Channel and CTCSS code (if applicable).

This equipment is intended for use in:

Austria	✓	Finland	✓	Latvia	✓	Spain	✓
Belgium	✓	France	✓	Liechtenstein	✓	Sweden	✓
Bulgaria	✓	Germany	✓	Luxemburg	✓	Switzerland	✓
Croatia	✓	Greece	✓	The Netherlands	✓	Turkey	✓
Cyprus	✓	Hungary	✓	Norway	✓	UK	✓
Czech	✓	Iceland	✓	Poland	✓	Romania	✓
Denmark	✓	Ireland	✓	Portugal	✓	Slovakia	✓
Estonia	✓	Italy	✓	Slovenia	✓		

✓ **Countries of use**

Declaration of Conformity

The **Terrain 550** complies with the essential requirements

- **R&TTE Directive, 1999/5/EC**
- **Low Voltage Directive 73/23/EEC**

And conforms to the following relevant standards:

- **ETSI EN 300 296-2 V1.1.1**
- **ETSI EN 301 489-5 V1.3.1**
- **ETSI EN 301 489-1 V1.4.1**
- **EN 60065: 2002**

Waste electrical products must not be disposed of with household waste. This equipment should be taken to your local recycling centre for safe treatment.

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TEVION COMMUNICATIONS **Terrain550**

WARRANTY CARD

Congratulations! You have made an excellent choice with the purchase of this quality product. Our commitment to quality also includes our service. Should you, contrary to expectations, experience defects due to manufacturing faults during private use within 36 months of the date of purchase we shall be liable for warranty in accordance with statutory warranty regulations provided that:

- the device was not put to any use other than the intended
- was not overloaded
- was not used with the wrong accessories
- repairs were not carried out by any other than the authorized workshop

The warranty certificate is only valid in connection with the receipt. Please keep both in a safe place. This warranty does not affect your statutory rights.

This purchase is guaranteed for a period of three years beginning on the day of purchase. Keep your purchase receipt safe as proof of date of purchase. The guarantee can only be extended for the duration of any repair required.

During the warranty period defective devices can be sent freight prepaid to the service address stated on the back cover of this document. We will, at our discretion, either repair or exchange the device in accordance with warranty legislation.

Please enclose the following when sending your product in for repair:
1. Receipt (proof or purchase)
2. This warranty certificate with the fault report form overleaf complete with your name, contact details and fault description.

If the original receipt is not enclosed the repair will be charged in all cases. After the warranty has expired you can still send defective devices for repairs freight prepaid to the address stated below. Quotes as well as repairs after the warranty period period are to be paid for in all cases.

Ensure that the product is sent well packed as no responsibility can be accepted for items lost or damaged in transit.

This warranty does not affect your statutory rights.

3 YEAR WARRANTY

TEVION COMMUNICATIONS **Terrain550**

FAULT REPORT CARD

Name _____

Address _____

_____

Email _____ Daytime Tel No _____

Fault Description _____

_____

_____

In order to deal with your enquiry as quickly and efficiently as possible, we ask you to send your enquiry by e-mail. Do not forgot to include your name, address and a daytime telephone number.

Alternatively, you can contact our freephone service hotline on the number below.

UK / N.IRELAND HELPLINE NO **08453459677**
REP. IRELAND HELPLINE NO **0818762092**
WEB SUPPORT **http://www.binatonetelecom.com/**

Helpline No. UK/Northern Ireland **08453459677** REP. IRELAND **0818762092**
Web Support http://www.binatonetelecom.com/