

Scanning channels

When the SCAN function is turned on, the handset will continuously scan through all eight channels until it finds one on which another user is transmitting.

- 1  Press the **S (Scan)** button
SCAN appears on the display, and the channel number changes continuously. You can press the **S (Scan)** button again at any point to stop scanning.

When the handset detects an active channel, it will pause on that channel. Then ...

- 2 Press EITHER
 -  the **ENTER** button to set this as the current channel
 -  the **TALK** button to transmit on this channel
 -  the **MONI** button to monitor this channel (press again to continue scanning)
 -  the **▲** or **▼** button to continue scanning

Monitoring two channels at once (Dual Watch)

- 1  Press the **MENU** button FOUR times
DW appears on the display, as well as the currently selected channel.
- 2  Press the **▲** or **▼** button to select a second channel
The display switches backwards and forwards between the two channels. Any existing sub-channel setting for either channel will be retained. If the handset detects a signal on either channel, it will stop and receive it.
OR, to monitor for weak signals on the channel currently shown:
- 3  Press the **MONI** button (to stop monitoring, press the **MONI** button again)
To end Dual Watch mode
- 4 Press the **TALK**, **CALL** or **ENTER** button

Locking the buttons

With the buttons locked, you can transmit (TALK), receive or monitor (MONI) the current channel. But you can't change the volume (▲▼) or use the MENU button.

-  To lock the buttons:
Press and hold the **ENTER** button until  appears on the display
- To unlock the buttons:
 Press and hold the **ENTER** button until  disappears from the display

Using a hands-free kit (headset)

You can plug a hands-free kit (not supplied as standard) into the socket on the top of your MR650 handset. With a hands-free kit, you may wish to transmit in VOX mode; but if you find that this doesn't work very well, you can turn the VOX sensitivity off and press the TALK button to transmit, as normal.

If you'd like to buy the optional hands-free kit, phone the Binatone Help Line on **01325 304 473**.

4 Cleaning and care

To clean your MR650, use a soft cloth dampened with water. Do not use cleaners or solvents, which may cause damage not covered by the guarantee.

5 Technical specification

Operating frequency 446.00625 to 446.09375 MHz (eight channels)

Channel spacing 12.5 KHz

Output power 0.5 W

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

6 Guarantee and service

The Binatone MR650 is guaranteed for 12 months from the date of purchase. The Guarantee does not cover damage by misuse or negligence, or by excessive voltages — for example, faults on the telephone line, or lightning.

If you think your MR650 has developed a fault, please return it to the shop where you bought it.

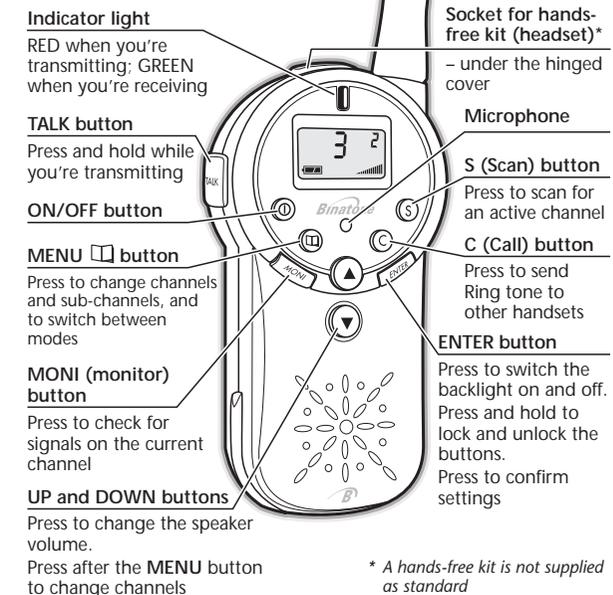
7 Troubleshooting

Problem	Possible cause	Solution
No power	<ul style="list-style-type: none"> ■ Batteries are low or not fitted correctly  check; replace batteries if necessary ■ Handset is not switched on  check 	
Weak reception/ no reception/ 'noisy' reception	<ul style="list-style-type: none"> ■ Batteries are low or not fitted correctly ■ Other user is not within range  check ■ Handsets are not tuned to the same channel  check ■ Noisy reception is more likely when using high numbered sub-channels  try using a lower-numbered sub-channel, agreeing it with the rest of your group first ■ Volume level is too low  increase the volume ■  Speak in a normal voice, 5–8 cm (2–3 inches) away from the microphone ■ Local conditions are impairing reception  move to a different location, away from obstructions and as high as possible ■ You're wearing the handset too close to your body  move the handset ■ Other user is not transmitting  check ■ Other user is too close  check ■ There's interference from other users on the same channel  agree to use a different channel 	
Cannot change channels	<ul style="list-style-type: none"> ■ Handset is locked  check ■ Batteries are low or not fitted correctly 	
In VOX mode, the handset transmits all the time	<ul style="list-style-type: none"> ■ Background noise is high  move to a quieter place ■ VOX sensitivity is too high  set it to a lower level 	
In VOX mode, the handset doesn't transmit	<ul style="list-style-type: none"> ■ VOX sensitivity is too low  set it to a higher level ■  Speak in a louder voice, nearer to the microphone 	
Cannot charge the batteries	<ul style="list-style-type: none"> ■ Make sure the mains power lead is firmly plugged into the charger. ■ Make sure the mains power adapter is plugged in, and that mains power is switched on at the socket. ■ Make sure the handset is correctly in place in the charging cradle, with its battery compartment cover locked shut. ■ Use only battery pack, as supplied with the unit. 	

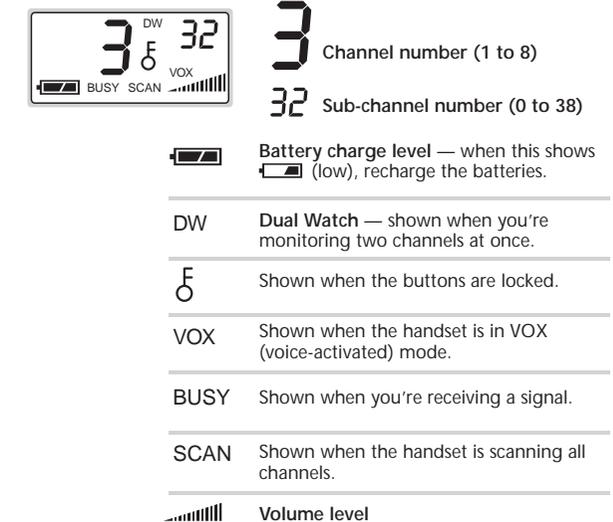
Binatone MR650

Personal Mobile Radio (PMR) with twin charger

User Guide



What's on the display



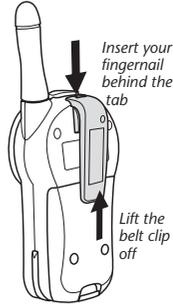
1 Fitting the batteries

Your MR650 includes a **rechargeable battery pack** for each handset.

To remove the belt clip

It's easier to fit the battery pack without the belt clip in place.

Pull the tab forward (away from the handset) to release the belt clip. Then lift the belt clip off

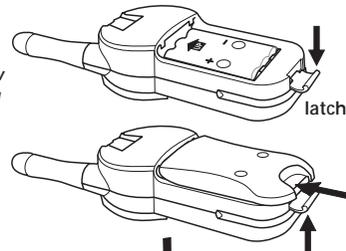


To fit the batteries

1 Open the locking latch and slide off the battery compartment cover

2 Insert the rechargeable battery pack as shown

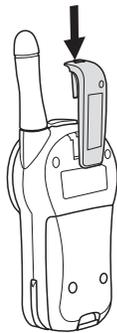
Make sure the 'UP' arrow is showing, and pointing towards the top of the handset



3 Replace the cover and close the latch

To replace the belt clip

Slide the belt clip down into the slot until it clicks into place



Important — read these safety warnings before you charge the batteries

- When placing the handset in the charger, use only the rechargeable NiCd battery pack supplied with the MR650.
- Don't try to fit or recharge non-rechargeable batteries.
- Make sure the battery compartment cover is securely locked in place when you're 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.
- When you're not going to use your MR650 for a few weeks, take the battery pack out so it doesn't leak corrosive substances.
- When the display shows that the battery charge level is low, recharge the batteries.
- Don't leave dead batteries in your handset — they might leak if you do.

2 Charging the batteries

If you prefer to wall mount the charger, use the template supplied

Connect the mains power lead to the charger

Plug the mains adapter into a 230 V AC, 50 Hz mains socket, with the switch on the socket set to OFF

Then switch on at the mains socket

The MR650 must be used with the mains adapter supplied. Using any other adapter will result in non-compliance with EN60065, and will invalidate any approval given to this apparatus.

Place the handsets in the charging cradles

The charge light comes on when when a handset is in the charging cradle

If the handset is switched on, the charge level symbol blinks on the display while the batteries are being charged.

To check the charge level, disconnect the jack connector from the handset, switch on and check the display.

It takes about 6 hours to recharge the batteries fully if they've become completely run down. New batteries can take up to 14 hours to charge fully.

Battery life

The MR650 has a built-in Power Saver feature to make the batteries stay charged for longer. But when you're not using the handset, it's best to switch it off to save battery power. You'll also find that the batteries last longer if you keep the **backlight** switched off when you don't need it.

The backlight for the display

- ▶ To switch the backlight on and off:
▶ **ENTER** Briefly press the ENTER button

3 Using the Personal Mobile Radio

Transmission range

The talk range depends on environment and terrain. It will be greatest (up to about 3 km, or 1¾ miles) in wide open spaces, without obstructions such as hills or buildings. Don't try to use two PMR handsets which are less than 1.5 m (5 feet) apart. If you do, you may get interference.

Important safety warnings

- If you are using a hands-free headset — to protect your hearing, do not turn the volume to the highest level.
- To reduce radio frequency exposure when you're using your MR650, hold the handset at least 5 cm (2 inches) from your face.
- Never use your MR650 outdoors in a thunderstorm.
- Don't use the MR650 in the rain.
- If your MR650 ever gets wet, turn it off and remove the batteries. Dry the battery compartment and leave the cover off for a few hours. Don't use the handset until it is completely dry.
- Like all electrical equipment, the MR650 charger should be kept out of the reach of young children.

Switching on and off

- ▶ To switch the handset ON:
▶ **ON/OFF** Press and hold the ON/OFF button until the display comes on
▶ To switch the handset OFF:
▶ **ON/OFF** Press and hold the ON/OFF button until the display goes blank
▶ You hear a musical tone each time to confirm.

Volume control

- ▶ To adjust the loudspeaker volume:
▶ **▲** Press the ▲ or ▼ button
▶ **▼** The volume level is shown by the bars on the display.
▶ You can change the volume either while you're using your MR650 handset, or while the handset is idle (switched on but not in use).

Changing channels and sub-channels

PMR has eight channels, numbered 1 to 8. To communicate with other PMR users within range, you must all have your handsets tuned to the same channel.

- 1 **MENU** Press the MENU button ONCE
The current channel number flashes on the display.
- 2 **▲** Press the ▲ or ▼ button to go to the channel you want
▼
- 3 **ENTER** Press the ENTER button to confirm

Each channel also has 38 sub-channels (sometimes called CTCSS codes), letting you set up groups of users within the same channel, for more private communication. If you have set a sub-channel, you can communicate only with other users tuned to the same channel and the same sub-channel.

To turn the sub-channel function off, simply set the sub-channel to 0 (zero). You can then communicate with any PMR user on the same channel who has also turned off sub-channel operation (or whose PMR handset does not have this feature).

- 1 **MENU** Press the MENU button TWICE
The current sub-channel number flashes on the display.
- 2 **▲** Press the ▲ or ▼ button to go to the sub-channel you want
▼
- 3 **ENTER** Press the ENTER button to confirm

Transmitting and receiving

- ▶ PMR transmission is 'one-way-at-a-time' — while you are speaking, you cannot receive a transmission.
- ▶ PMR446 is an open-licence band — always identify yourself when transmitting, as other people may be communicating on the same channel.

To speak to another handset user

- 1 **TALK** Press and hold the TALK button so that the TRANSMITTING light comes on
- 2 **Speak** Speak clearly into the microphone, in a normal tone — don't shout
- 3 **TALK** When you've finished speaking, release the TALK button

To listen to another handset user

- ▶ Make sure you are NOT pressing the TALK button
BUSY is shown on the display when the other person is speaking. Don't try to transmit until they have finished.

Monitoring the current channel

Normally, the MR650 will not pick up very weak signals. But you can monitor the current channel for all sounds.

- ▶ **MONI** Press and release the MONI button
Your handset will pick up any signals on the current channel, including background noise. It will carry on monitoring for about 20 seconds, unless you press and release the MONI button again to stop it.

Ring tone

You can send Ring tone to other handsets within range and tuned to the same channel (and sub-channel if applicable), to alert them you want to communicate with them.

- ▶ **C** Press and release the C (Call) button
You'll hear Ring tone for about 3 seconds, while the red 'Transmitting' light is on. Any other handset within range and tuned to the same channel will hear Ring tone, and may decide to transmit to you.

You can also use Ring tone at the end of a transmission to signal that you've finished speaking.

VOX (voice-activated transmission) mode

In VOX mode, your handset will transmit whenever it detects your voice (or other noise), without the TALK button pressed. It will transmit for at least 2 seconds, even if you stop talking. You may wish to use VOX mode if you're using a hands-free kit (see overleaf).

The level of VOX sensitivity is shown by bars on the display. At the highest level (most bars), the handset will pick up softer noises (including background noise); at the lowest level, it will pick up only quite loud noises.

To turn VOX mode on and off:

- 1 **MENU** Press the MENU button THREE times
VOX flashes on the display, and the current level of VOX sensitivity is shown.
- 2 **▲** Press the ▲ or ▼ button to set the level of VOX sensitivity
▼ If you press the ▼ button repeatedly until the 'sensitivity' bars disappear altogether, you turn VOX mode off, and VOX disappears from the display.
- 3 **ENTER** Press the ENTER button to confirm the setting
As long as the handset is in VOX mode, VOX is shown steadily on the display.