Binatone

Action 1100
Private mobile radio with twin charger

USER GUIDE

1. Antenna

2. POWER/VOL Switch
Rotate clockwise/counter clockwise to turn the unit ON or OFF, and to increase/decrease the received volume.

3. Headset/Charge jack

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

5. Transmit (LED)

6. MENU Button (✒)
Press to switch between Modes.

7. MIC(Microphone)

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

9. CALL button
Press to send Call-ring tone to other PMR units.

10. UP/DOWN Buttons (▲ / ▼)
Press to change channels, volume, and to select settings during programming.

11. Speaker

1. LCD Screen

B	Channel Number. Changes from 1 to 8 as selected by the user.
BB	CTCSS Code. Changes from 1 to 38 as selected by the user.
BB	Digital Code. Changes from 1 to 83 as selected by the user.
▥▥▥	Displays the Battery charge level. When the bars are gone, the batteries need recharging.

TX	Displayed when transmitting a signal.
RX	Displayed when receiving a signal.
CTCSS	Displayed when the CTCSS sub-channel is turned On.
DCS	Displayed when the Digital Code System is turned On.
VOX	Displayed when the VOX feature is enabled.
SCAN	Displayed when the PMR is scanning all channels.
DCM	Displayed when the Dual Watch function is turned ON.
O┐	Displayed when the Key Lock feature is activated.

Binatone Helpline (for UK only)
Monday to Friday from 9:00am to 5:00pm
Tel: 0845 345 9677
**Please note that all calls are charged at local rate
or visit our website: www.binatoneglobal.com

2. Installation

2.1 Removing the Belt Clip

a. Pull the Belt Clip latch up (away from the Action 1100)

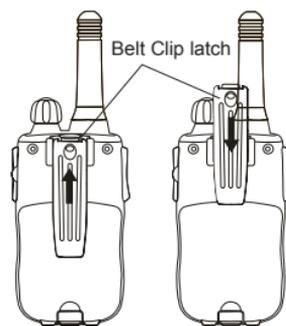**b.** While pulling the Belt Clip latch, slide the Belt Clip up as shown in Figure1.

2.2 Installing the Belt Clip

a. Slide the Belt Clip into the slot as shown in Figure2. A "click" indicates the Belt Clip is locked into position.

Belt Clip latch

Figure 1   Figure 2

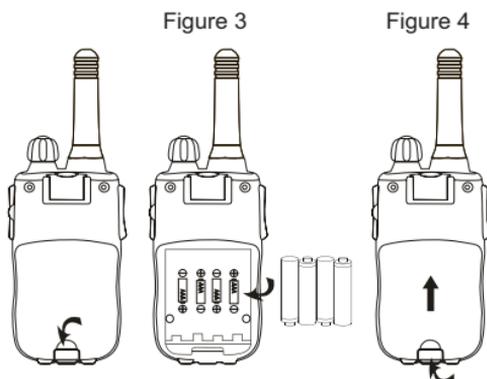### 2.3 Installing the Batteries

Figure 3   Figure 4

Caution: Observe the correct battery orientation when installing the batteries. Incorrect installation can damage both the batteries and the unit.

a. Remove the belt clip, unclip the latch at the bottom and remove the cover.

b. Insert the 4 "AAA" size rechargeable batteries by following the + /- polarity markings inside the Battery Compartment as shown in Figure 3.

c. Replace the Battery Compartment cover and push the latch back up until it clicks into place. See Figure 4.

Important

Read these Safety Warnings before you charge the batteries.
When placing the Action1100 in the charger, **use only the power supply supplied with the Action 1100.**
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.
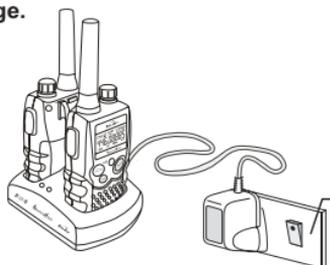**Don't leave dead batteries in your Action 1100 units.** They might leak if you do and damage the Action 1100.

2.4 Charging the Batteries

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, 50Hz mains power socket with the switch on the socket set to OFF.

c. Switch ON the mains socket.

> The Action1100 must be charged using the mains adaptor provided. Using any other adaptor will result in non-compliance with EN60950-1 and will invalidate any approvals & warranty.

d. Place the Action 1100 units in the charge cradle in an upright position. **The Charge LED indicators will light up.**

e. It takes about 10 hours to fully charge 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.
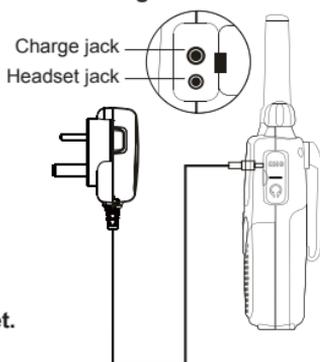
Mains socket

OR: Charging the batteries directly (using the adaptor)
Lift the charge socket cover located on the right side of the handset.

Insert the round connector of the 9.0V DC/300mA adaptor into the charge jack.

Plug the mains adaptor into a 240V AC, 50Hz mains power socket with the switch on the socket set to OFF.
Use only the power supply supplied with the Action 1100.

Then switch ON the mains socket.

Charge jack
Headset jack

Battery meter

The battery meter is located in the left lower corner of the LCD Screen. It looks like a battery with three bars inside.These indicate the amount of power available. When the battery level reaches its minimum level in PMR on mode, the unit will emit two beep tones and automatically power off.

The Action 1100 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 Action 1100 will emit a "beep" sound every 10 seconds in normal mode.
Important: Charge the unit for 10-14 hours.
Battery charge at very low level. When the battery level reaches its minimum level during on mode, the unit will emit two "beep's" and automatically turn off the power, and will require charging before further use.

Important: Charge the unit for 10-14 hours.

CAUTION : Risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Binatone Help Line - 0845 345 9677

Battery life

The Action 1100 has a built in power save function to make the batteries last longer. But when you are not using the units, turn them OFF to conserve battery power.

3. Operation

NOTE: Private Mobile Radio (PMR) is an open-band communication system, so other PMR users will be able to listen to or interfere with your conversations.

3.1 Transmitting range

The talk range depends on the environment and terrain. It can reach up to 10km 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 (5 feet) apart, otherwise, you may experience interference.

Important safety warning

- To reduce radio frequency exposure when you are using your Action 1100 , hold the unit at least 5cm (2 inches) away from your face.
- Never use your Action 1100 outdoors during a thunderstorm.
- Don't use the Action 1100 in the rain.
- If your Action 1100 gets wet, turn it off and remove the batteries. Dry the battery compartment and leave the cover off for a fews days. Don 't use the unit until it is completely dry.
- Keep the Action 1100 out of reach of babies/young children.

3.2 Turning the Unit ON/OFF

To Turn ON;
a. Rotate the **POWER/VOL** button clockwise until the LCD Screen turns ON and displays the current channel.
To switch OFF;
b. Rotate the **POWER/VOL** button counter clockwise until the LCD screen turns blank.

Note: Every time you rotate the Power/Vol button to turn ON, the volume will also turn on at its minimum level and will increase as the button is rotated further.

3.3 Changing Channels

Your Action 1100 has 968 Channel Combinations, with CTCSS and DCS being different methods of reducing interference between PMR users. If required, see which works best for you in your environment.

The Action 1100 has 8 available main channels. To communicate with other Action 1100 users within range, you must all have your Action 1100's 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.

3.3.1 Setting the CTCSS sub-channel

Each channel also has 38 sub-channels to let you set up a 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.

Binatone Help Line - 0845 345 9677

Note: Other PMR units may still be able to hear your transmission if they do not have sub-channels, or if the sub-channel function is turned off.

To turn the sub-channel function off, simply set the sub- channel to 0 (zero). You can communicate with any Action 1100 user set to the same channel who also turns off the sub-channel operation (or a has a unit which does not have this 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.

3.3.2 Setting the DCS Advanced Digital Code

Each channel also has 83 digital codes to let you set up a group of users for more secured private communication.

a. Press the **MENU** button 3 times. The current DCS code flashes on the LCD screen.

b. Press the **UP** or **DOWN** button to select the desired DCS code.

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

Transmitting and Receiving

! **The Action 1100** transmission is "one way-at-a-time." While
• you are speaking, you can not receive a transmission.

! **The Action 1100** is an open-license band. Always identify
• yourself when transmitting on the same channel.

3.4 Receiving

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, the "**RX**" icon will be displayed on the LCD Screen.

3.5 Transmitting (sending speech)

a. Press and hold the **PTT** (push to talk) button to transmit your voice. The "**TX**" icon will be displayed on the LCD Screen and transmit LED lights up.

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

c. Release the **PTT** button when you want to finish transmitting.

3.6 Monitor

You can use the monitor feature to listen for weak signals. On the currently set channel

a. Press and hold the **MENU** and **DOWN** buttons at the same time unit the "**RX**" icon is displayed on the LCD Screen. Your Action 1100 will pick up signals on the current channel, including background noise.

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

3.7 Setting the VOX(Voice Activated)Sensitivity

In VOX mode, the Action 1100 will transmit a signal only when it is activated by your voice or other sounds around you. The unit will transmit for a further 2 seconds after 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 noises (including background noise); at the lowest level, it will pick up only quite loud noises.

a. Press the **MEN**U button 4 times, the "**VOX**" icon will be displayed and "OFF" flashes on the LCD Screen.

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

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

VOX operation is not recommended if the Action 1100 will be used in a noisy or windy environment.

3.8 Activating the Auto Channel Scan

Channel scan searches for active signals in an endless loop for all 8 channels, 38 CTCSS codes or all 83 DCS codes.

a. Press the **MENU** button 5 times, **the "SCAN"** icon will display on the LCD Screen.

b. Press the **UP** or **DOWN** button to begin scanning channels. When an active signal is detected, the channel scan pauses on the active channel. Press the **PTT** button to stop the scan on the active channel, or let the scan restart a few seconds after the channel activity stops.

c. Press the **MENU** button six times, the CTCSS flashes on the LCD screen. Press the **UP** or **DOWN** button to begin scanning the CTCSS from 1-38.

d. Press the **MENU** button seven times, the DCS flashes on the LCD screen. Press the **UP** or **DOWN** button to begin scanning DCS code 1-83.

e. Press the **PTT** button to cancel the scans at any time.

4. Call-Ringtone

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

Your ring tone will be sent for about two seconds, while the "TX" icon appears on the LCD Screen and the TX LED turns on. Any other units that are set to the same channel as you will hear the Call-ring tone.

4.1 Selecting a Call-Ring tone

The Action 1100 is equipped with 15 different types of Call-Ring tones.

a. Press the **MENU** button 8 times, "C 01" will flash on the LCD Screen.

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

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

4.2 Setting the Roger Beep

The Roger Beep is a tone which is automatically transmitted whenever the PTT button is released. This informs the receiving party that you have intentionally ended the transimission, and you are now in receive mode. The roger beep is turned on by default, but can be disabled if desired.

a. Press the **MENU** button 9 times, the "r0" icon will be displayed with "On" flashing on the LCD Screen.

b. Press the **UP** or **DOWN** button to select the Roger beep On/Off.

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

4.' Setting the Key Tone On or Off

This feature allows the Action 1100 to emit a confirmation tone after pressing each button, and it is turned on by default, but can be disabled if desired.

a. Press the **MENU** button 10 times, the "t0" icon will be displayed with "On" flashing on the LCD Screen.

b. Press the **UP** or **DOWN** button to select the Key tone On/Off.

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

5. Setting the Dual Watch Mode

Your Action 1100 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 11 times , the " **DCM**" icon will be displayed while " OFF " 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)

e. Press the **MENU** button to change the DCS code (1-83).

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

6. Auxiliary Features

6.1 KeyLock

The Key Lock feature allows the user to disable the UP, DOWN and MENU buttons so that the Action 1100 settings can not be changed accidentally.

a. To activate the Key Lock feature, press and hold the **MENU** button until key lock " 🔒 " icon appears on the LCD Screen.

b. To deactivate the key Lock feature, press and hold the **MENU** button until key lock "🔒 " icon disappears from the LCD Screen.

Note:

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

6.2 LCD Screen Back Light

Every time a button is pressed (except PTT and CALL button), the LCD Screen back light will illuminate for 5 seconds.

6.3 Headset Jack

The Action 1100 is equipped with an auxiliary headset jack located under the rubber cover on the right side of the unit, below the charge socket.

Note:

It requires a headset with a 2.5mm, 3-pole jack connector,which is not supplied with your Action 1100.

7. Specifications

Channels Available	968 Combinations Channels
Main Channels	8 Channels
CTCSS Sub-channels	38 for each Channel
Digital Code channels	83 for each Channel
Output Power (TX)	0.5 W
Range	Up to 10 Kms.

Note:

There are 38 CTCSS sub codes and 83 DCS codes available.
Therefore,you can have:
1. Combination of 8 mains channel and 38 CTCSS sub codes – 304 combinations.
2. Combination of 8 mains channel and 83 DCS sub codes – 664 combinations.

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

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**

8. 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 jewellery, 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.

Binatone Help Line - 0845 345 9677

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.*

9. 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.

10. Guarantee

The Binatone Action 1100 is fully guaranteed for 12 months from the date 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 Binatone Action 1100, 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 Binatone Action 1100 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 Action 1100, using the original packaging. Remember to include the mains 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.
3. In the unlikely event that you need to return your Action 1100 to our Repair Centre while it is under Guarantee, please include the sales receipt. There may be a handling charge for the repair of your unit under Guarantee.

Repair after the Guarantee has expired

1. If the unit is no longer covered by the Guarantee, first follow step 1 as for repair under Guarantee, Then...
2. Call our service Department on 0845 345 9677 and ask for a quotation of the repair charge, and details of where to send your Action 1100 for repair.
3. Return your Action 1100 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.
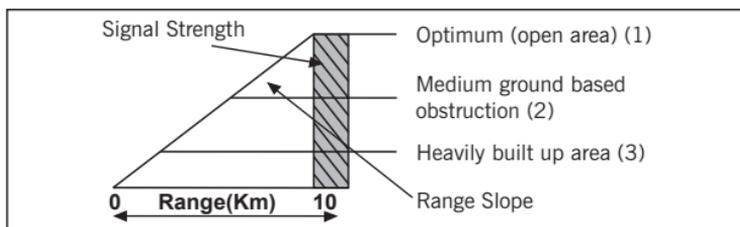
This does not affect your statutory rights.

Binatone Telecom plc operates a policy of continuous product improvement, and so reserves the right to make changes to the product and functions without prior notice.

Binatone Help Line - 0845 345 9677

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) 10 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.

11. Troubleshooting Guide

Symptom	Solution
No power.	• The batteries may be weak. • Check if the batteries are installed properly. Recharge the • batteries or replace with new ones.
Reception is weak.	• Turn the **POWER/VOL** 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.	• Recharge the batteries if the charge level indicator gets low. • The batteries may be weak. • 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. • The radios are too close. Radios must be at least 1.5 metres apart; increase your distance. • The radios are too far apart. Obstacles interfere with transmission. Talk range is up to 10kms in clear unobstructed conditions.
No communication	• Check the Channel and the CTCSS code setting.Both the Transmitting and Receiving PM R units should be tuned to the same Channel and CTCSS code (if applicable).

EC Declaration of Conformity

We the manufacturer / Importer **:**   Binatone Telecom Plc
1 Apsley Way London
NW2 7HF, United Kingdom.

Declare under our sole responsibility that the following product

Type of equipment:	Private Mobile Radio
Model Name:	Action 1100 Series
Country of Origin:	China
Brand:	Binatone

complies with the essential protection requirements of R&TTE Directive 1999/5/EC on the approximation of the laws of the Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to *electromagnetic compatibility (EMC)* and the European Community Directive 2006/95/EC relating to *Electrical Safety.*
Assessment of compliance of the product with the requirements relating to the essential requirements according to Article 3 R&TTE was based on Annex III of the Directive 1999/5/EC and the following standard:

EMC: **EN300 296 -2V1.3.1:(2010-07)**
EN 301 489 -5 V1.3.1:(2002-08)
EN 301 489 -1 V1.8.1:(2008-04)

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

Electrical Safety: **EN60950-1:2006+A11:2009+A1: 2010+A12: 2011**

The product is labelled with the European Approval Marking CE as show. Any Unauthorized modification of the product voids this Declaration.

Manufacturer / Importer
(signature of authorized person)

CE

Signature: (K.H.Mueller, CT0)

London,

Place & Date: 09-Jul, 2013

BTP Ver 1.0 Jul-2013