Binatone

Action 950
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.

UP/DOWN Buttons – Press to change channels, volume, and to select settings during programming.

Speaker

PWR/VOL Switch – Rotate clockwise/counter clockwise to turn the unit ON or OFF, and adjust the volume.

Ear/Mic/Charge jack

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

Transmit (LED)

MENU Button -Press to switch between Modes.

MIC (Microphone)

Receiver (LED)
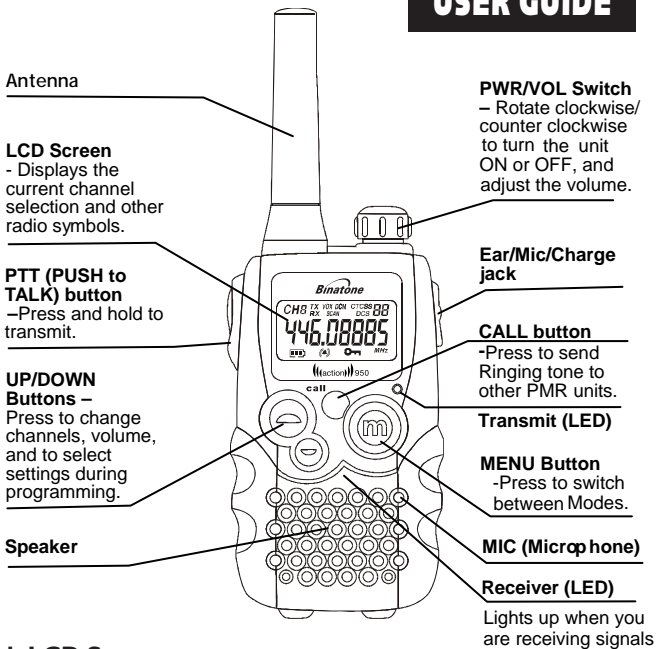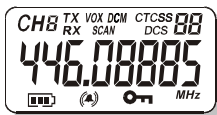Lights up when you are receiving signals

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 reduced, the battery needs recharging.
TX	Displayed when transmitting a signal.
RX	Displayed when receiving a signal.
CTCSS	Displayed when a 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	Displays 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.
🔔	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 up (away from the Action 950)

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.
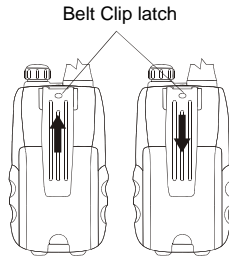A "click" indicates the Belt Clip is locked into position.

Belt Clip latch

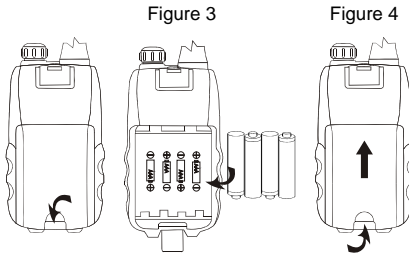Figure 1   Figure 2

2.3 Installing the Batteries

Figure 3   Figure 4

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

- **a.** Unclip the battery cover latch at the bottom of the cover, and lift the battery cover off.
- **b.** Insert the 4 "AAA" size rechargeable batteries by following the +/- polarity marking inside the Battery Compartment as shown in Figure 3.
- **c.** Replace the Battery Compartment Cover. See Figure 4.

Important

Read these Safety Warnings before you charge the batteries.
When placing the Action 950 in the charger, **use only the power supplies listed in the user instructions supplied with the Action 950.**
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.

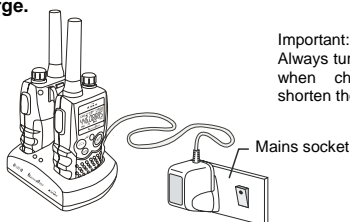**Don't leave dead batteries in your Action 950 units.**
They might leak if you do.

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 main socket with the switch on the socket set to OFF.
- **c.** Switch ON the mains socket.

Use only 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 950 units in the charge cradle in an upright position. **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.**
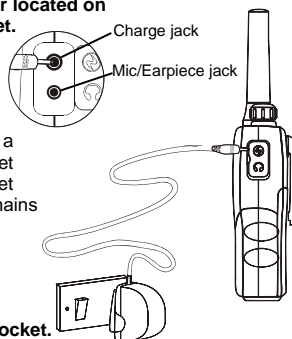
Important:
Always turn off the PMR units when charging. This will shorten the charging time.

Mains socket

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

Charge jack

Mic/Earpiece jack

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. Use only the mains adaptor provided.

Then switch ON the mains 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 reaches its minimum level in PMR on mode, the unit will emit two beep tones and automatically power off.

The Action 950 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 950 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 reachs its minimum level in Action 950 on mode, the unit will emit two beep tones and automatically turn off the power .

Important: Charge the unit for 10-14 hours.

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

Battery life

The Action 950 has a built in power saver 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 environment and terrain. It will reach up to about 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 foot) apart, otherwise you may experience interference.

Important safety warning

- To reduce radio frequency exposure when you are using your Action 950, hold the unit at least 5cm (2 inches) away from your face.
- Never use your Action 950 outdoors during a thunderstorm.
- Don't use the Action 950 in the rain.
- If your Action 950 gets wet, turn it off and remove he 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 Action 950 out of reach babies and 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: When you rotate the **PWR/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 950 has 968 Channel Combinations

The Action 950 has 8 available main channels, To communicate with other Action 950 users within range, you must all have your Action 950 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.

To turn the sub-channel function off, simply set the sub- channel to 0 (zero). You can communicate with any Action 950 user set to the same channel who also turns off the sub-channel operation (or with units that do 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 950** transmission is "one way-at-a-time." While
• you are speaking, you can not receive a transmission.

! **The Action 950** 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 and the receiver LED lights up.

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 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.

3.6 Monitor

Your Action 950 can alert you to incoming signal by emitting an audible call tone signal.

a. Press and hold the **MENU** and **DOWN** buttons at the same time. The "**RX**" icon will be displayed on the LCD Screen, and your Action 950 will pick up signals on the current channel, including background noise.
(Note: Monitor will not work in Dual Watch Mode.)

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

3.7 Setting the VOX(Voice Activated)Sensitivity

In VOX mode, the Action 950 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 second 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 steadily appear on the LCD Screen as long as the VOX feature is activated.

VOX operation is not recommended if the Action 950 will be used in a noisy or windy environment.

Binatone Help Line - 0845 345 9677

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 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, channel scan pauses on the active channel.

c. Or 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. Or 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 stop the scan.

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

You will hear a ring tone for about two seconds; the"**TX**" icon 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.

Note: Your Action 950 can alert you to an incoming signal by emitting an audible tone and/or a vibration signal.

4.1 Selecting a Call-Ring tone

The Action 950 is equipped with 15 different types of Call-Ring tones that you can send to alert other PMR users.

a. Press the **MENU** button 8 times, until "C" is displayed with "01" flashing 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 Activating the Vibrator mode

a. Press the **MENU** button 9 times, until "1","2" or "3", with different icons on the bottom line, flash on the LCD screen.

b. Press the **UP** or **DOWN** button to set "1" (ring tone only), "2" (ring tone + vibrate) or "3" (vibrate only).

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

4.3 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 10 times, the "ON" icon flashes 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.

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4.4 Setting the Key Tone ON or OFF

This feature allows the Action 950 to emit a confirmation tone after pressing each button.

a. Press the **MENU** button 11 times, the "ON" icon flashes 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 950 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 *12 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.

f. Press the **UP** or **DOWN** button to select the desired DCS code (1-83).

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

6. AuxiliaryFeatures

6.1 KeyLock

The Key Lock feature allows the user to disable the **UP**, **DOWN** and **MENU** buttons so that the Action 950 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 form 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 Microphone/Earphone/ChargeJack

The Action 950 is equipped with an auxiliary microphone, earphone, and charge jack located at the opposite side to the PTT button.

Note:
It requires a microphone/earphone with a 2.5mm,3-pole jack connector, and this is not supplied with your Action 950.

7. Specifications

Channels Available	968 Combinations Channels
Main Channel	8 Channels
CTCSS Sub-channel	38 for each Channel
Digital Code channal	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:

Country		Country		Country		Country	
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 Action 950 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 Action 950 in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a Action 950 is placed in the air bag deployment area and the air bag inflates, the Action 950 may be propelled with great force and cause serious injury to the occupants of the vehicle.

Potentially Explosive Atmospheres

Turn your Action 950 OFF when in any area with a potentially explosive atmosphere, as this is not 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 Action 950 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 Action 950, use a soft cloth dampened with water. Do not use cleaners or solvent, which may cause damage that may not be covered by guarantee.

Binatone Help Line - 0845 345 9677

10. Guarantee

The Binatone Action 950 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 950, 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 950 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 950,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 950 to our Repair Centre while it is under Guarantee,please include the sales receipt. There may be a £5 handling charge for repair of unit und Guarantee.
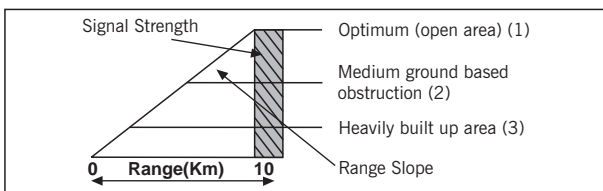
Repair after the Guarantee has expired
1. If the unit is no longer covered by Guarantee, first follow step 1 as for repair under Guarantee, Then...
2. Call our service Department on 0845 345 9677 and ask for a quotation of the repair charge, and details of where to send your Action 950 for repair.
3. Return your Action 950 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.

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.	• Check if the batteries are installed properly. • The battery may be weak. • Replace the old batteries with new ones.
Reception is weak.	• Turn the **PWR/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.	• 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 metres apart; increase your distance. • Radios 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 950 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: **EN 301 489 -5 V1.3.1:(2002-08)**
              EN 301 489 -1 V1.6.1:(2005-09)
              EN 300 296 -2 V1.1.1:(2001-03)

Electrical Safety: **EN 60065-1:2006**

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

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,

Signature: Place & Date: 8th Nov, 2008