

# CLIP PG2

Wireless PowerG Two-way Curtain PIR Detector



**Visonic**®

Installation Instructions

## 1. INTRODUCTION

The CLIP PG2 is a small and elegant wireless curtain-pattern PIR detector for indoor use and designed for easy installation.

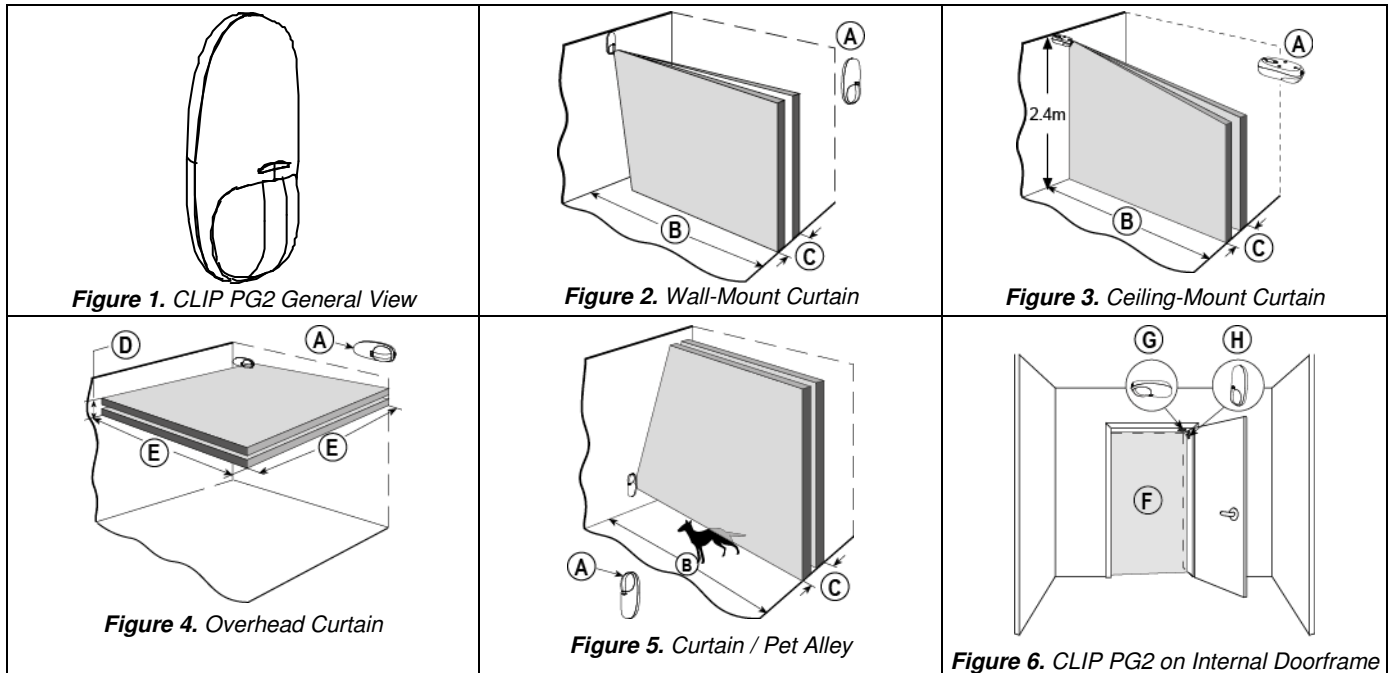
Modern technology is used to include 3 different detectors in a single case, each programmable for optimized performance at the specific mounting location. This results in better catch performance and virtually no false alarms.

The superiority in performance of this detector is achieved by applying an improved version of the patented **True Motion Recognition™** (TMR) algorithm. This advanced motion analysis method allows the CLIP PG2 to distinguish between the true motion of the human body and any other disturbances that cause **false alarms**.

The CLIP PG2 includes the following features:

- 2-way PowerG protocol communication
- Very low current consumption
- Microprocessor-controlled temperature compensation
- Sealed chamber protects the optical system
- Front cover tamper switch
- Optional back tamper switch
- White light protection
- Elegantly styled, sturdy case
- RF Link quality indication

Detailed coverage patterns and mounting alternatives are illustrated in Figures 2 through 6.



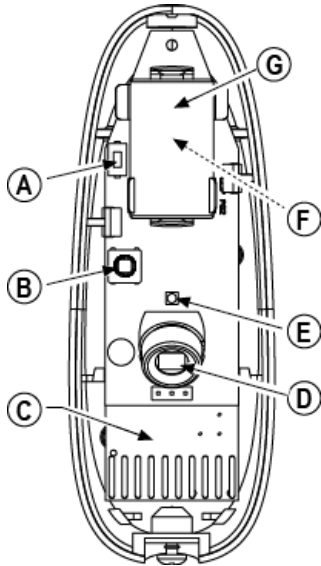
- |                               |                                |
|-------------------------------|--------------------------------|
| A. This side up               | E. 3.6 m (12 ft) max. distance |
| B. 6 m (20 ft) max. distance  | F. Detection curtain           |
| C. 1 m (3.3 ft) max. width    | G. Option A                    |
| D. 0.5 m (1.65 ft) max. width | H. Option B                    |

## 2. INSTALLATION

### 2.1 General Guidelines

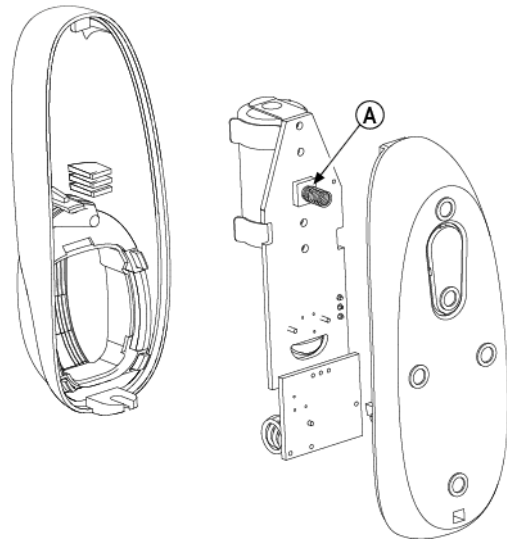


## 2.2 Regular Mounting



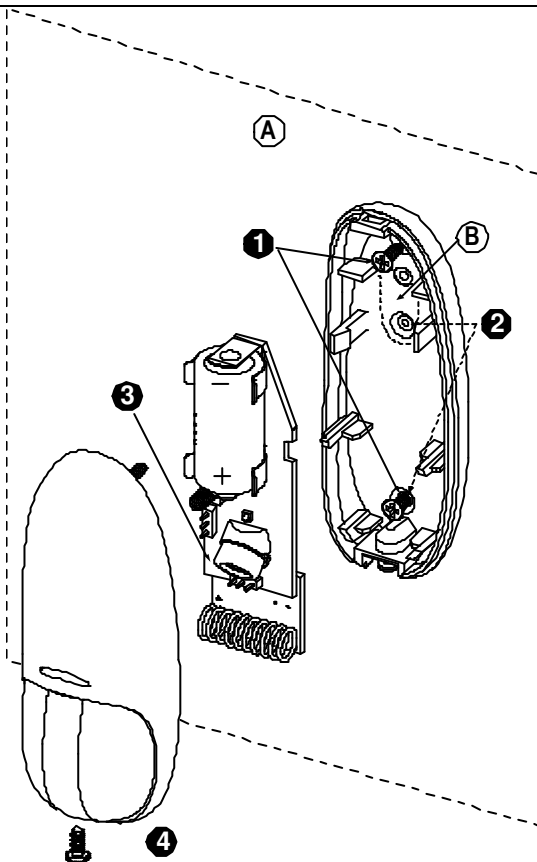
- A. Enroll button  
 B. Front tamper switch  
 C. RF Module  
 D. Sensor  
 E. LEDs  
 F. Back tamper switch (optional)  
 G. 3 Volt Lithium battery

**Figure 7. Internal View**



- A. Back tamper switch  
 A back tamper alert is activated when the base is detached from the wall.

**Figure 8. Back Tamper (Rear) View**



1. Drill two holes in the mounting surface and secure the base with two screws.
2. For back tamper (optional) drill two holes and secure with two screws.
3. Position the PCB in its proper location within the base.
4. Insert the screw to secure the cover with the base.

- A. Mounting surface  
 B. Break-away segment

**Figure 9. Surface Mounting**

### ATTENTION!

The back tamper switch becomes functional only when the break-away segment is secured to the wall with a screw.

### Notes:

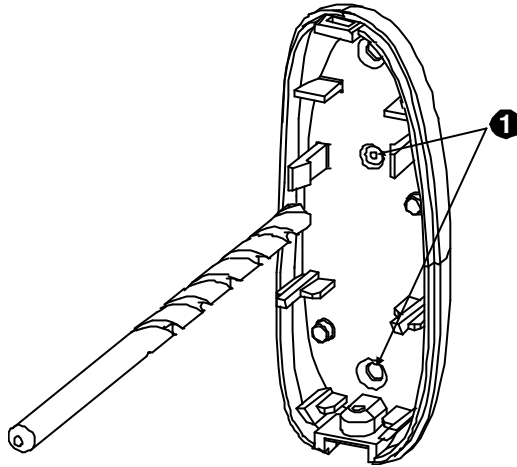
- 1) After mounting, be sure that no gaps remain in the detector housing. For example, in the area around the screw holes.
- 2) Remove the battery using your fingers, and not with a screwdriver.

### Caution!

Risk of explosion if battery is replaced by an incorrect type. Dispose of used battery according to manufacturer's instructions.

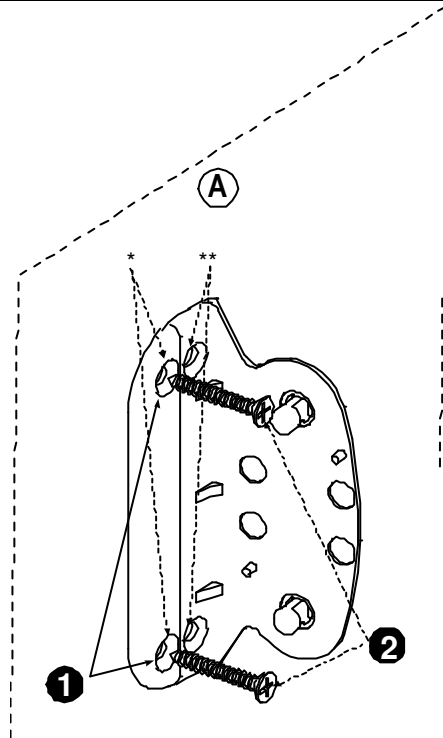
## 2.3 Bracket Mounting

**Note:** When mounting using the bracket, the back tamper becomes inoperative.



1. Drill two 7 mm (1/4") holes at the marked locations

**Figure 10.** Drilling Holes



1. Drill two holes in the mounting surface.
2. Secure the bracket with two screws.

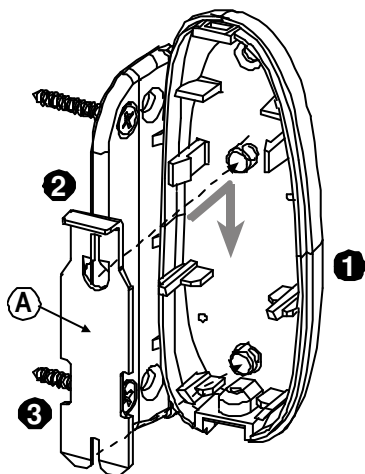
**A.** Mounting surface

**Note:**

The bracket provides two mounting options  
For optimum angle coverage:

- \* use these two holes to increase the coverage range by 5°
- \*\* use these two holes to increase the coverage range by 10°

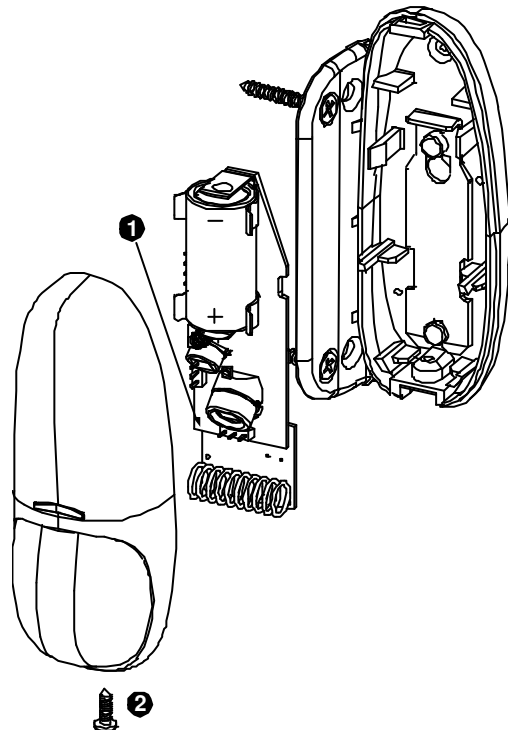
**Figure 11.** Mounting Bracket to Surface



1. Place the base slots over the two bracket pins.
2. Place the locking plate over the two pins.
3. Secure the locking plate by pressing downward.

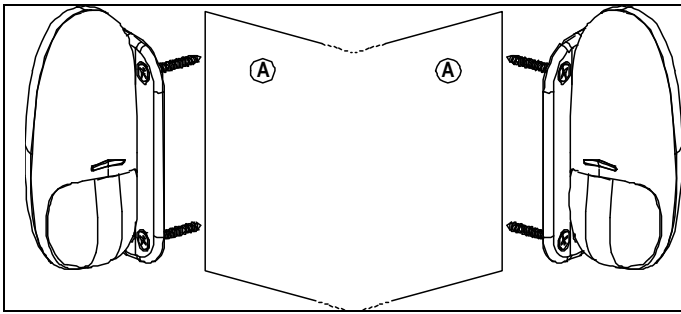
**A.** Locking plate

**Figure 12.** Securing Locking Plate to Base



1. Position the PCB correctly in the base.
2. Insert the screw to secure the cover with the base.

**Figure 13.** Mounting Cover to Base

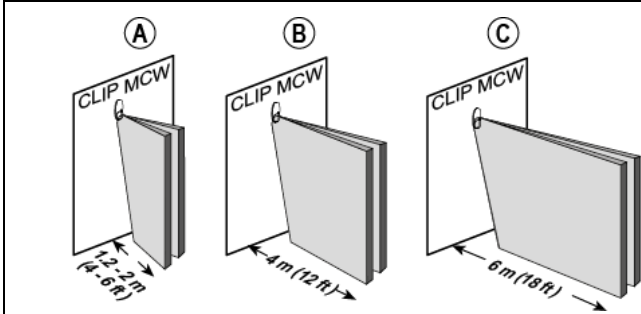


**A. Window**

**Note:** The CLIP PG2 can be mounted on either side of a window.

**Figure 14. Mounting on Both Sides of a Window**

## 2.4 Setting the Coverage Range



The CLIP PG2 can be programmed to select one of three ranges, according to the type of installation, for the curtain beams (see Figure 15 and section 2.7).

- A.** Minimum range
- B.** Medium range
- C.** Maximum range

**Figure 15. Range Setting Diagram**

## 2.5 Walk Testing

- A.** Mount the cover and tighten the screw. Wait for the detector to stabilize (the LED stops flashing approx. 1 minute after the cover is closed).
- B.** Walk slowly across the far end of the curtain pattern (in opposite directions). The LED indicator lights for approx. 3 seconds whenever you enter or exit a curtain beam.

**Important:** Perform walk test at least once a week to assure proper function of the detector.

**Note:** After closing the cover the detector enters a 15 minute walk-test mode. In this mode the LED will flash each time a detection occurs, regardless of LED jumper settings, and the detector will transmit on the occurrence of each detection event.

## 2.6. Enrollment

Refer to the PowerMaster panel's Installer Guide and follow the procedure under the "02:ZONES/DEVICES" option of the Installer Menu. A general description of the procedure is provided in the following flow chart.

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Enter the Installer menu and select "02:ZONES/DEVICES"	Select "ADD NEW DEVICES" Option See Note [1]	Enroll the device or Enter the device ID	Select the desired Zone Number	Configure Location, Zone Type & Chime Parameters	Configure the Detector
02.ZONES/DEVICES	ADD NEW DEVICES ↓ MODIFY DEVICES	ENROLL NOW or ENTR ID:XXX-XXXX	Z03:Motion Sens ID No. 122-XXXX	Z03.LOCATION Z03.ZONE TYPE Z03.SET CHIME Z03.DEV SETTINGS	See Note [2]
⇒ means scroll    ▶▶ and select    OK					

**Notes:**

[1] If the detector is already enrolled you can configure the detector parameters via the "Modify Devices" option – see Step 2.

[2] Select the "Device Settings" option and refer to section 2.7 to configure the detector parameters.

## 2.7. Configuring the Detector Parameters

Enter the **DEVICE SETTINGS** menu and follow the configuration instructions for the CLIP PG2 curtain detector as described in the following table.

Option	Configuration Instructions
Alarm LED	Define whether or not the alarm LED indication will be activated. Optional settings: LED ON (default) and LED OFF.
PIR RANGE	Select one of three ranges, according to the type of installation, for the curtain beams. Select "Maximum" for a range of 6 m, select "Medium" for a range of 4 m, or select "Minimum" for a range of 2 m. Optional settings: Maximum (default), Medium and Minimum.
DISARM Activity	Define whether or not to set the activity time during disarm. Optional settings: NOT Active (default), YES – no delay, YES + 5s delay, YES + 15s delay, YES + 30s delay, YES + 1m delay, YES + 2m delay, YES + 5m delay, YES + 10m delay, YES + 20m delay and YES + 60m delay.

### 3. LOCAL DIAGNOSTICS TEST

- A. Separate the base from the cover (see Fig. 8).
- B. Put back the cover to return the tamper switch to its normal (undisturbed) position, and then secure the front cover to the base with the case closure screw (see Fig. 9).
- C. The CLIP PG2 will enter a 1 min. stability period. During this time the red LED blinks.
- D. Walk-test the coverage area. Walk across the far end of coverage pattern in both directions, The red LED lights each time your motion is detected followed by 3 LED blinks.

The following table indicates received signal strength indication.

LED response	Reception
Green LED blinks	Strong
Orange LED blinks	Good
Red LED blinks	Poor
No blinks	No communication

**IMPORTANT!** Reliable reception must be assured. Therefore, "poor" signal strength is not acceptable. If you receive a "poor" signal from the detector, re-locate it and re-test until a "good" or "strong" signal strength is received.

**Note:** For detailed Diagnostics Test instructions refer to the control panel Installer Guide.

### 4. SPECIAL COMMENTS

Even the most sophisticated detectors can sometimes be defeated or may fail to warn due to: DC power failure / improper connection, malicious masking of the lens, tampering with the optical system, decreased sensitivity in ambient temperatures close to that of the human body and unexpected failure of a component part.

The above list includes the most common reasons for failure to detect intrusion, but is by no means comprehensive. It is therefore recommended that the detector and the entire alarm system be checked weekly, to ensure proper performance.

An alarm system should not be regarded as a substitute for insurance. Home and property owners or renters should be prudent enough to continue insuring their lives and property, even though they are protected by an alarm system.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna.
- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one that supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.

**WARNING!** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**WARNING!** To comply with FCC and IC RF exposure compliance requirements, the device should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.

This device complies with FCC Rules Part 15 and with Industry Canada license-exempt RSS standard(s). Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### APPENDIX: SPECIFICATIONS

#### OPTICAL

Detector Type	Dual element low-noise pyroelectric sensor
Number of Curtain Beams	2
Mounting Positions	See Figures 2 through 6
Range Settings	Maximum (6 m), Medium (4 m) and Minimum (1.2 – 2m) (remotely selected)

#### ELECTRICAL

Internal Battery	3V Lithium battery, type CR-123A or equivalent
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**Note:** For UL installations use Panasonic, Sanyo, GP or Varta only. Use only the above battery.

Nominal Battery Capacity 1450 mA/h  
Battery Life (for typical use) 7 years

## FUNCTIONAL

Visual indications: **Red LED lights** for about 2 seconds upon motion detection in the walk test mode and for about 0.2 sec. for tamper messages.  
**Red LED blinks** during the power-up stabilization period (approx. 1 min), or after restoring the cover (by pressing the tamper switch).  
**Red LED does not light** upon transmission of supervision messages.  
Approx. 2 seconds

## Alarm Period

## WIRELESS

Frequency Band (MHz) **Europe and rest of world:** 433-434, 868-869 **USA:** 912-919  
Communication Protocol PowerG  
Supervision Signaling at 4-min. intervals  
Tamper Alert Reported when a tamper event occurs and in any subsequent message, until the tamper switch is restored

## MOUNTING

Height 1.8 - 2.4 m (6 - 8 ft).

Installation Options See Figures 9 through 13

## ACCESSORIES

**BR-1:** Surface mounted swivel bracket, adjustable 30° down and 45° left/45° right.

**BR-2:** BR-1 with a corner adapter

**BR-3:** BR-1 with a ceiling adapter

## ENVIRONMENTAL

### RFI Protection

Operating Temperatures >20 V/m up to 2000 MHz, excluding inband frequencies

Storage Temperatures -10°C to 50°C (14°F to 122°F) indoor

-20°C to 60°C (-4°F to 140°F)

## PHYSICAL

Size (H x W x D) 105 x 35 x 30 mm (4-1/8 x 1-3/8 x 1-3/16")

Weight (with battery) 60 g (2.1 oz).

Color White

## Compliance with Standards

**Europe (CE):** EN 300220, EN 50131-1 Grade 2, Class II. EN 301489, EN 50130-4, EN 60950, EN 50131-2-2, EN 50130-5, EN 50131-6

**USA:** CFR47 Part 15 (FCC)

**Canada:** RSS 210

## PATENTS

U.S. Patents 5,693,943 ● 6,211,522 ● D445,709 (another patent pending)

## WARRANTY

Visonic Limited (the "Manufacturer") warrants this product only (the "Product") to the original purchaser only (the "Purchaser") against defective workmanship and materials under normal use of the Product for a period of twelve (12) months from the date of shipment by the Manufacturer.

This Warranty is absolutely conditional upon the Product having been properly installed, maintained and operated under conditions of normal use in accordance with the Manufacturers recommended installation and operation instructions. Products which have become defective for any other reason, according to the Manufacturers discretion, such as improper installation, failure to follow recommended installation and operational instructions, neglect, willful damage, misuse or vandalism, accidental damage, alteration or tampering, or repair by anyone other than the manufacturer, are not covered by this Warranty.

The Manufacturer does not represent that this Product may not be compromised and/or circumvented or that the Product will prevent any death and/or personal injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection. The Product, properly installed and maintained, only reduces the risk of such events without warning and it is not a guarantee or insurance that such events will not occur.

**THIS WARRANTY IS EXCLUSIVE AND EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS OR LIABILITIES, WHETHER WRITTEN, ORAL, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. IN NO CASE SHALL THE MANUFACTURER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS WARRANTY OR ANY OTHER WARRANTIES WHATSOEVER, AS AFORESAID.**

**THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OR FOR LOSS, DAMAGE, OR EXPENSE, INCLUDING LOSS OF USE, PROFITS, REVENUE, OR GOODWILL, DIRECTLY OR INDIRECTLY ARISING FROM PURCHASER'S USE OR INABILITY TO USE THE PRODUCT, OR FOR LOSS OR DESTRUCTION OF OTHER PROPERTY OR FROM ANY OTHER CAUSE, EVEN IF MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.**

**THE MANUFACTURER SHALL HAVE NO LIABILITY FOR ANY DEATH, PERSONAL AND/OR BODILY INJURY AND/OR DAMAGE TO PROPERTY OR OTHER LOSS WHETHER DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, BASED ON A CLAIM THAT THE PRODUCT FAILED TO FUNCTION.**

However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty, **THE MANUFACTURER'S MAXIMUM LIABILITY (IF ANY) SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE PRODUCT**, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against the Manufacturer.

When accepting the delivery of the Product, the Purchaser agrees to the said conditions of sale and warranty and he recognizes having been informed of.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so these limitations may not apply under certain circumstances.

The Manufacturer shall be under no liability whatsoever arising out of the corruption and/or malfunctioning of any telecommunication or electronic equipment or any programs.

The Manufacturers obligations under this Warranty are limited solely to repair and/or replace at the Manufacturer's discretion any Product or part thereof that may prove defective. Any repair and/or replacement shall not extend the original Warranty period. The Manufacturer shall not be responsible for dismantling and/or reinstallation costs. To exercise this Warranty the Product must be returned to the Manufacturer freight pre-paid and insured. All freight and insurance costs are the responsibility of the Purchaser and are not included in this Warranty.

This Warranty shall not be modified, varied or extended, and the Manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. This warranty shall apply to the Product only. All products, accessories or attachments of others used in conjunction with the Product, including batteries, shall be covered solely by their own warranty, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Products. This Warranty is exclusive to the original Purchaser and is not assignable.

This Warranty is in addition to and does not affect your legal rights. Any provision in this warranty which is contrary to the Law in the state or country where the Product is supplied shall not apply.

**Warning:** The user must follow the Manufacturer's installation and operational instructions including testing the Product and its whole system at least once a week and to take all necessary precautions for his/her safety and the protection of his/her property.

1/08

The technical documentation as required by the European Conformity Assessment procedure is kept at:

UNIT 6 MADINGLEY COURT CHIPPENHAM DRIVE KINGSTON MILTON KEYNES MK10 0BZ. Telephone number: 0870 7300800, Fax number: 0870 7300801



### W.E.E.E. Product Recycling Declaration

For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. **This product is not to be thrown away with everyday waste.**  
Directive 2002/96/EC Waste Electrical and Electronic Equipment.



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