

**Intelligent Baby Monitoring Mat**

User Guide

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## About the Manuals

The iBMM comes along with the Quick Start Guide and this User manual.

- The Quick Start Guide explains basic set up and the operations of the iBMM.
- This User Guide explains all the features and functional use, enabling you to make full use of the iBMM and troubleshoot potential operational issues.

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## IMPORTANT INFORMATION ON USAGE CONDITION

Read the instructions carefully before using the **Intelligent Baby Monitoring Mat (iBMM)**. The **iBMM** consists of a remote receiver **IBMM001-R (Parent Control Unit)** and wireless baby movement monitoring mat **IBMM001-T (mat)**.

DO NOT break the warranty seal of the mat packaging until you had tested the functionality of the mat and **Parent Control Unit** with a new set of batteries.

Breaking the warranty seal constitutes acceptance of the product in working condition.

## QUICK START FUNCTIONAL TEST

1. Insert fresh batteries into the battery compartments of the mat and **Parent Control Unit**.
2. Power on the mat and **Parent Control Unit**.
3. The display should indicate ‘-’ scrolling in a circular fashion to indicate a calibration process or ‘M’ logo to indicate movement action on the mat. The product is deemed to be in working condition.

Should the display show an error message, ‘E1’ or ‘E9’, kindly return the product to the service center for support.

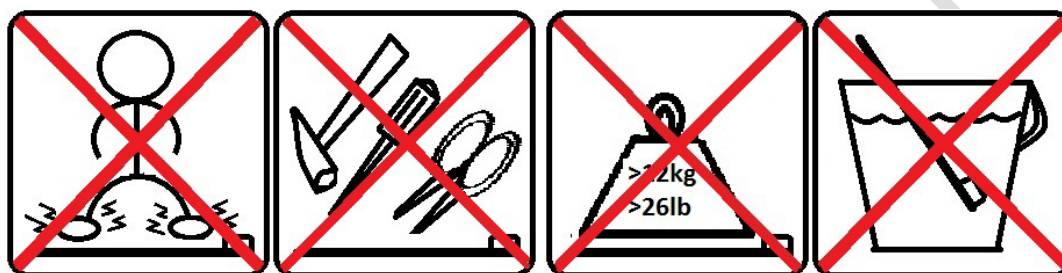
Baby weight limit on the mat for effective monitoring should fall within the range below:

2kg / 4.4lb – 12kg / 26.4lb

- The **iBMM** is NOT a medical device or a diagnostic device to prevent Sudden Infant Death Syndrome (SIDS) or ‘cot death’. Babies with a known predisposition to any breathing abnormality including apnea should be monitored by a doctor. Please seek advice from doctors or health care professional for medical diagnosis or when unsure of any symptoms.
- You should not rely on the **iBMM** for the wellbeing of your baby. It is NOT a substitute for proper adult supervision. It is important that an adult stays within range of the monitor at all times during use.
- It is advisable to use the mat for sleeping purpose and should not be used as a play mat. **DO NOT** stamp or jump on the mat as the action may damage the mat and cause malfunction.
- Avoid major movement activity around the mat as it is highly sensitive and may pick up the movement signal as part of the movement signal of the baby. Patting action, high vibration or motor-running activities will affect the accuracy of the baby movement count.
- **DO NOT** subject the mat to sharp folds other than the mid-point fold and sharp objects as it may damage the sensing element and affect the functionality and sensitivity of the mat.
- **DO NOT** add thick and heavy items such as mattress between your baby and the mat as sensitivity of the mat will be compromised. Adhere to the 2kg - 12kg/26lb weight limitation of the mat. It is not meant for adult use.
- **DO NOT** wash or immerse the whole mat in water. Keep your mat away from sources of moisture. It may cause the electronic control circuit to malfunction

- Any form of spillage or stain should be wiped off immediately with water on a damp cloth to prevent permanent stain on the mat. Avoid using strong detergent. Gentle wipe is sufficient to clean up stains. Excessive scrubbing action may damage the water-resistance property of the mat.
- Observe polarity of the battery placement for proper functioning of the mat.
- **DO NOT** disassemble, crush, short-circuit or incinerate the battery as it may cause fire, injury, burns or other hazards.
- **DO NOT** put the Parents Control Unit near wireless devices or a microwave oven. Such devices can disrupt the transmission of the alarm signal.
- The operating temperature range for the **iBMM** is from 10°C - 40°C. **DO NOT** operate beyond this range as it may not function according to defined specifications.

#### WARNING ON USAGE OF THE MAT



NO JUMPING/STAMPING

NO SHARP HITS

NO HEAVY WEIGHT

NO IMMERSING IN WATER

#### Disposal Instructions

Do not dispose of the mat and **Parent Control Unit** with unsorted waste. Improper disposal may be harmful to the environment and human health. Please refer to your local waste authority for information on return and collection systems in your area.

**TERMINOLOGY USED IN THE USER MANUAL**

<b>Terminology</b>	<b>Definition</b>
Body movement count	Baby is sound asleep
Large movement	Baby has woken up and is moving
No subtle body movement	No subtle body movement of baby detected
Rapid body movement	Baby is sound asleep, with an increasing upward trend of rapid body movement
Slow body movement	Baby is sound asleep, with slow body movement

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## 1. GETTING STARTED

Package contents

Your **iBMM** package includes:

- **iBM**
- **Parent Control Unit**
- User Manual
- Quick Start Guide
- Carrier bag

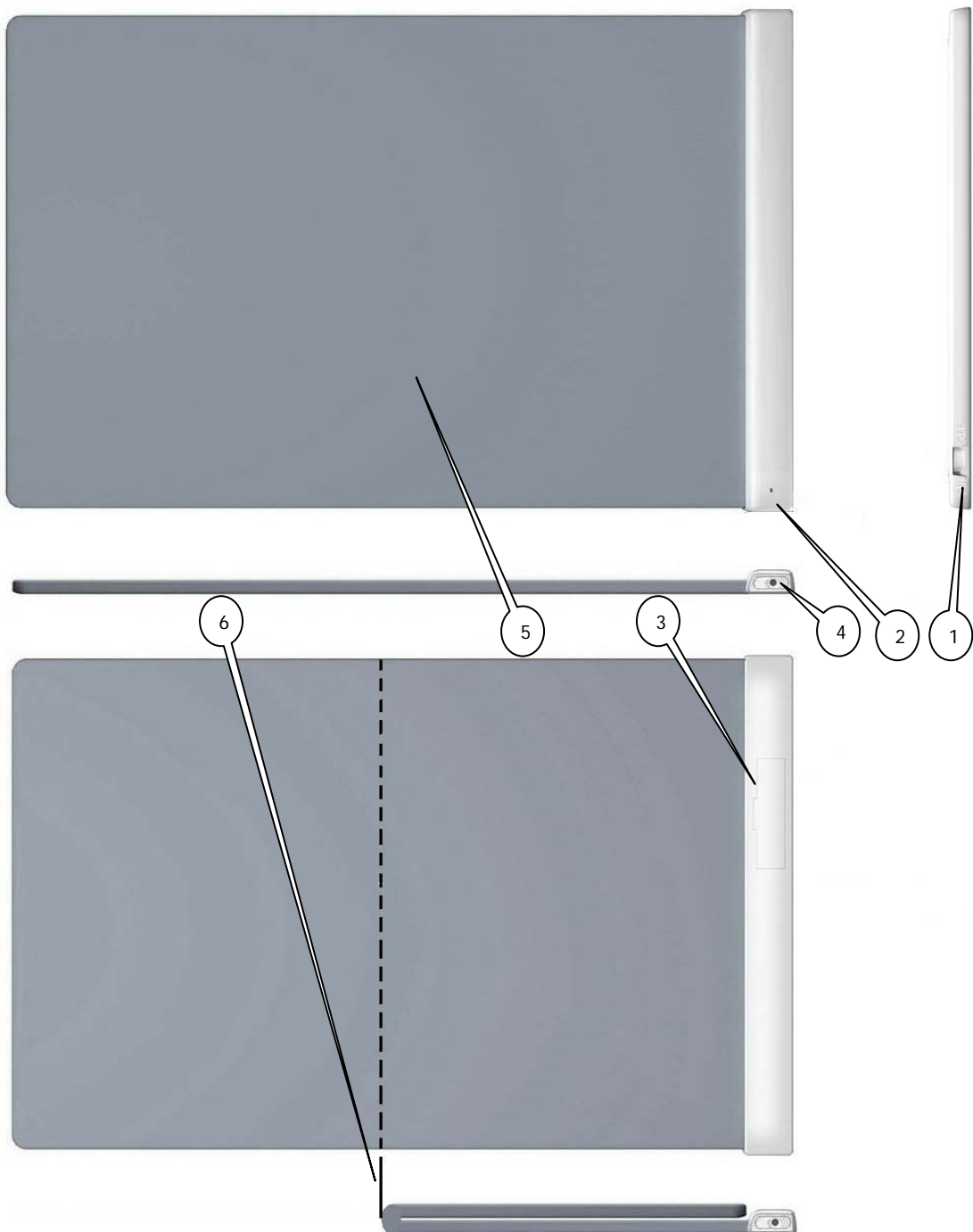
Before you can use the mat, you need the following (not included in the product):

- 4 X AA dry cell battery for the mat
- 2 X AAA dry cell battery for the **Parent Control Unit**

For best performance, Lithium dry cell battery is recommended.

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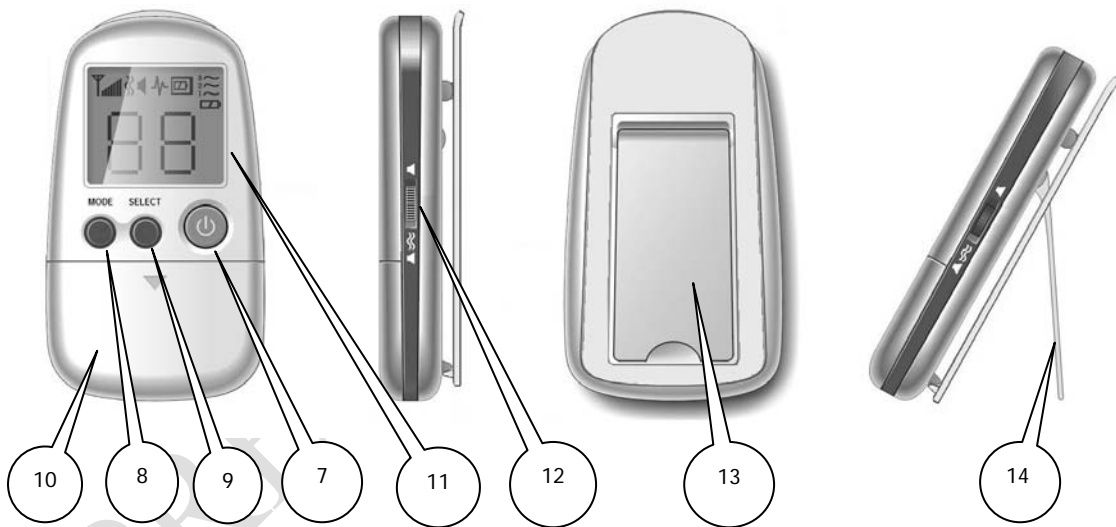
Parts description for the MAT (iBMM-001-T)






1	ON/OFF switch	Turn the mat ON or OFF
2	LED indicator	Mat operation status indication
3	Battery compartment of mat	To insert 4 x AA dry cell batteries for the mat
4	Buzzer	Local audio alarm outlet
5	Mat	To support monitoring of baby
6	Mid-point of mat	Location to fold the mat into half (Other locations of the mat should not be folded)

**Parts description for the Parent Remote Control Unit (iBMM-001-R)**

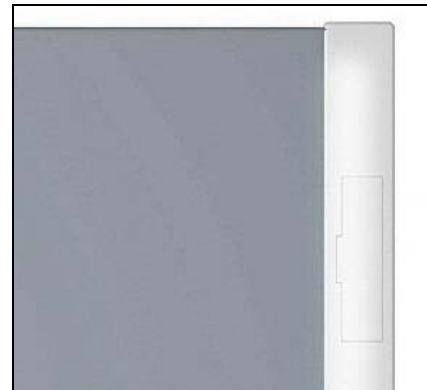


7		Turn ON or OFF Reset alarm (Press and hold the button)
8	MODE button	Toggle between functional modes Reset alarm (Press and hold the button)
9	SELECT button	Toggle between selection in the designated mode Reset alarm (press and hold the button)
10	Battery Compartment	To insert 2 x AAA dry cell batteries
11	LCD display	Display of baby movement status and functional indicators
12	Alarm selector	To select sound or both sound and vibrate alarm
13	Clip	To clip the <b>Parent Control Unit</b> to the body of a caretaker
14	Stand	To leave the <b>Parent Control Unit</b> on a table top or flat surface

## 2. OPERATION OF THE iBMM - SETTING UP

### Insertion of battery on the mat

Flip the mat over to the bottom side. Open up the battery compartment cover.  
Insert the 4 AA batteries.



### Insertion of battery on the Parent Control Unit

Open the battery compartment below the 3 buttons by sliding the cover downwards as shown by the arrow label.  
Insert the 2 AAA batteries.



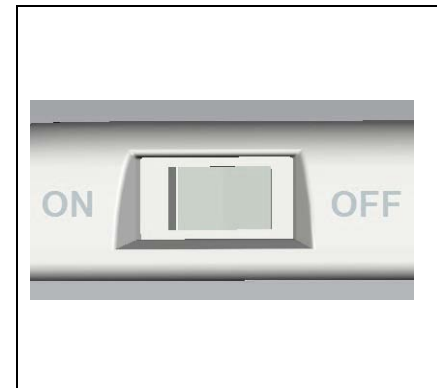
### Power on the iBMM

Place the mat on the cot, mattress or any flat surface. Put your baby on the mat.


Press the ON/OFF switch towards the 'ON' position.

The LED indicator on the top of the sensor box will light up alternating between green and red colour.

The LED indicator will show green colour after connection is established with the Parent Control Unit.



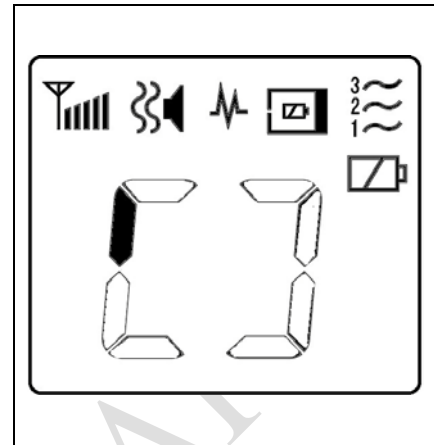
### Power on Parent Control Unit

Press and hold the power  button till the LCD display is lighted up.

The Parent Control Unit will establish connection with the mat automatically. Once connection is established, the current baby status will be displayed.

The display will show 'M' to indicate baby movement detected when the baby is moving.




When an auto-calibration process is in progress, the display will indicate '--' scrolling in a circular fashion for a period of around 30 seconds as shown.

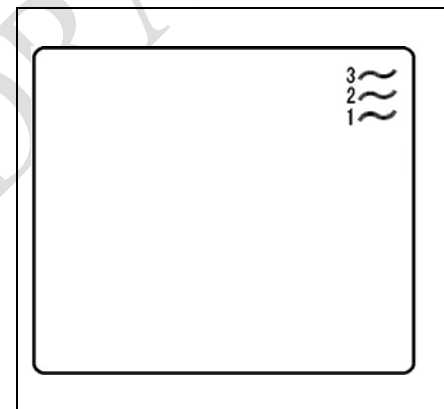


### Mat sensitivity adjustment

To set mat sensitivity, press the MODE button until the mat sensitivity symbol is blinking. Adjust sensitivity by pressing the SELECT button.

Note: The mat will auto-calibrate the sensitivity level. At instances when baby is moving extensively and the display still show subtle body movement count, set higher sensitivity. Set lower sensitivity when baby is sleeping soundly and the display shows 'M' indicating large movement.

Modes	Icon
Sensitivity Level 3 (default)	
Sensitivity Level 2	
Sensitivity Level 1	





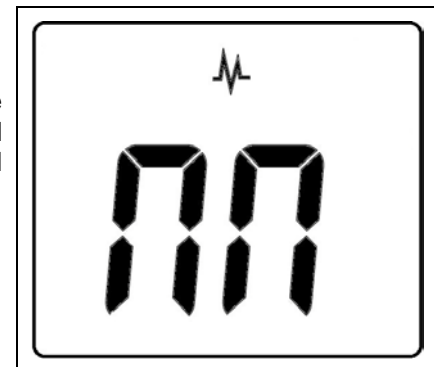
### Baby movement monitor tone

The baby movement alert tone is activated by default when the unit is power on. With the activation, the soft alert tone will sound at 10 seconds interval when the baby is moving. The display will show 'M' to indicate baby movement detected.

To set monitor alert tone, press the MODE button until the monitor alert symbol is blinking.

Press the SELECT button to turn ON/OFF the monitor alert tone.

MODE	SELECT
MONITOR TONE ENABLE	 display: On No  display: Off
SENSITIVITY	Sensitivity Level: 1, 2, 3



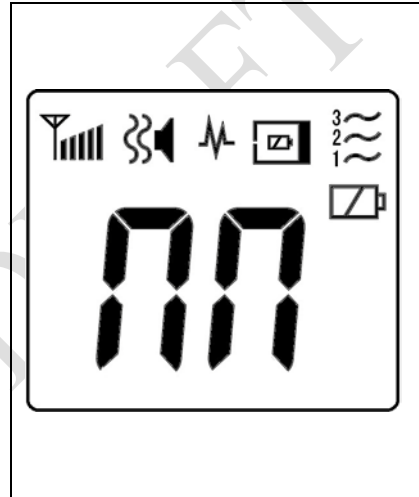
### 3. OPERATION OF THE iBMM - STATUS INDICATION – WHEN BABY IS AWAKE

#### Large movement

The display will show 'M' when large movement (eg. awake, crying) is detected.

When a constant baby movement period of 20 seconds is detected, the alarm will be activated and audio alarm will double beep at 5 seconds interval.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off. Once de-activated, alarm will NOT be triggered by any large movement in the next 5 minutes window.



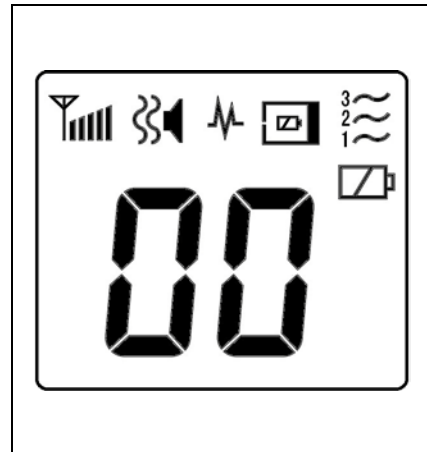
#### No subtle body movement

The display will show '00' when no subtle body movement is detected for consecutive 15 seconds.

The alarm will be activated and audio alarm will sound continuously.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off.

Note: Audio alarm will also be activated on the mat independent on whether the Parent Control Unit is powered on.



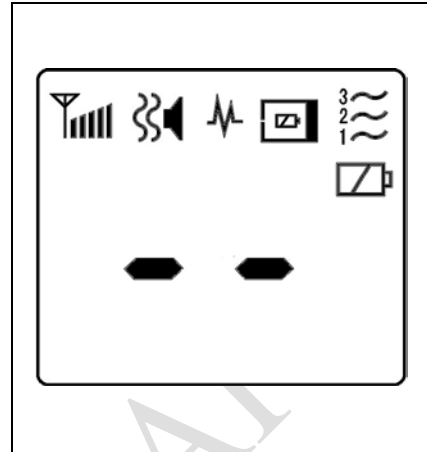
### Baby absence

The display will show '--' when baby is taken out or not on the mat.

The alarm will be activated and audio alarm will double beep at 0.5 seconds interval.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off.

Note: Audio alarm will also be activated on the mat independent on whether the Parent Control Unit is powered on.

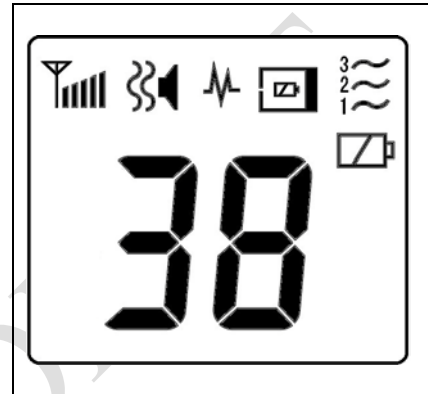


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#### 4. OPERATION OF THE **iBMM** - STATUS INDICATION – WHEN BABY IS ASLEEP

##### Body movement count

The body movement count per minute of the baby is monitored and displayed on the LCD.



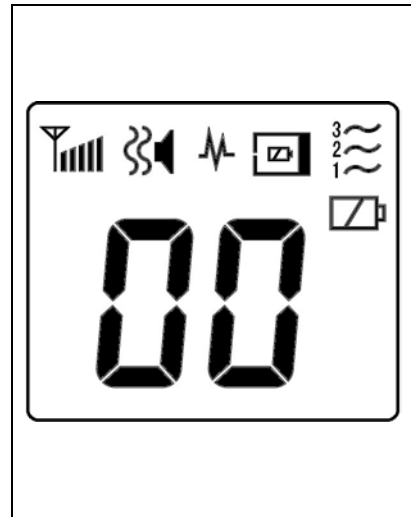
##### No subtle body movement

The display will show '00' when no subtle body movement is detected for consecutive 15 seconds.

The alarm will be activated and audio alarm will sound continuously.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off.

Note: Audio alarm will also be activated on the mat independent on whether the Parent Control Unit is powered on.

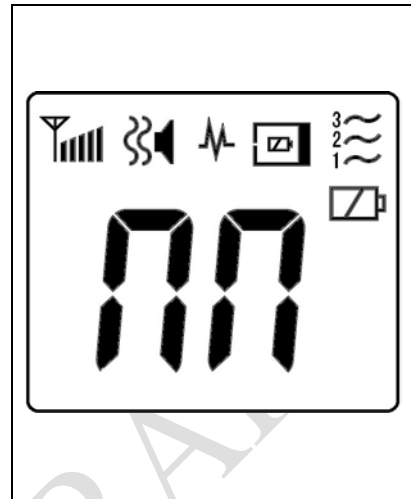


### Large movement

The display will show 'M' when large movement (eg. awake, crying) is detected.

When a constant baby movement period of 20 seconds is detected, the alarm will be activated and audio alarm will double beep at 5 seconds interval.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off. Once deactivated, alarm will NOT be triggered by any large movement in the next 5 minutes window.



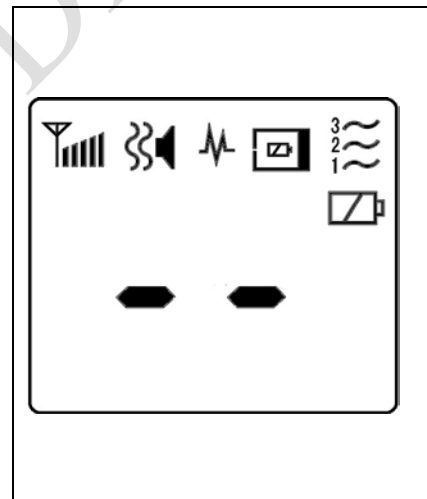
### Baby absence

The display will show '--' when baby is taken out or not on the mat.

The alarm will be activated and audio alarm will double beep at 0.5 seconds interval.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off.

Note: Audio alarm will also be activated on the mat independent on whether the Parent Control Unit is powered on.



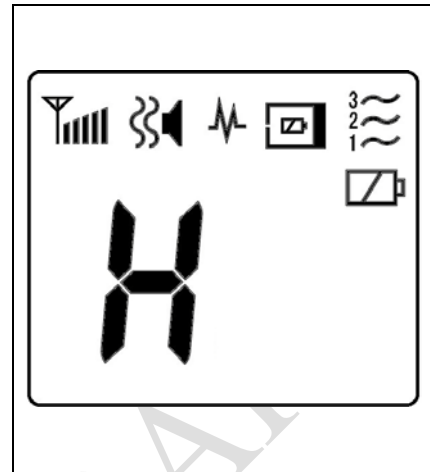


### Upward trend of rapid body movement alert

In the event of upward trend of rapid body movement detected, the display will blink, switching between current body movement count reading and 'H' symbol (to indicate high body movement).

The alarm will be activated and audio alarm will double beep at 5 seconds interval.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off.

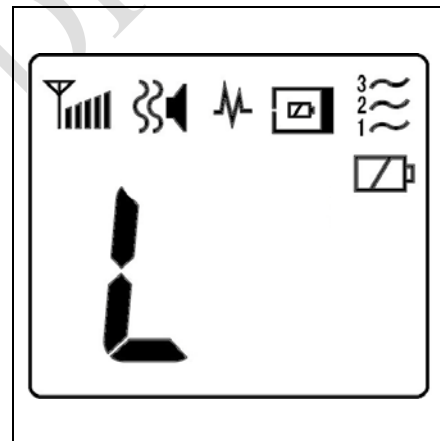


### Slow body movement alert

In the event of slow body movement detected, the display will blink, switching between current body movement count reading and 'L' symbol (to indicate low body movement).

The alarm will be activated and audio alarm will double beep at 5 seconds interval.

Press and hold the MODE, SELECT or POWER button once to de-activate it (normal button functions are disabled at this time). Release the button when the alarm is off.



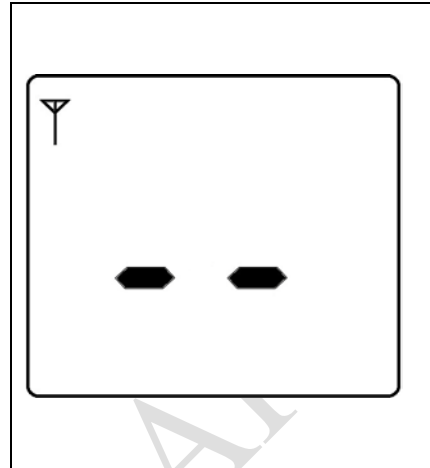
## 5. OPERATION OF THE iBMM - OTHER FORMS OF STATUS INDICATION

### Out of range

The open space distance limit between the **Parent Control Unit** and mat is up to 100m. Indoor limits will be reduced significantly, subject to the layout of the building concrete structure.

The antenna symbol will blink simultaneously when communication cannot be maintained between the **Parent Control Unit** and mat. Walk closer towards the mat with the **Parent Control Unit** to re-establish the link.

Note: Audio alarm will be also activated on the Parent Control Unit when the mat is NOT powered on.

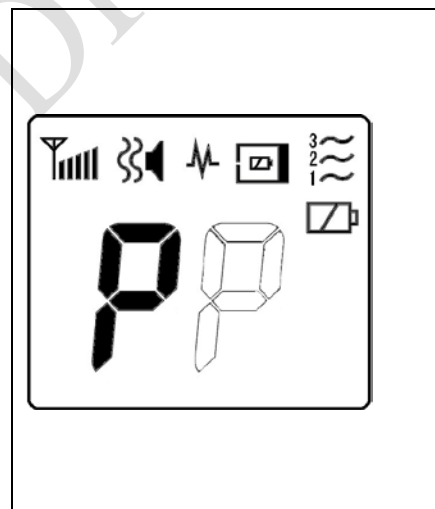


### Manual pairing of iBMM and Parent Control Unit

Each iBMM is automatically pre-paired with each of its **Parent Control Unit**.

Where there is a need to manually pair the units, power off and on the mat again. Power off and on the **Parent Control Unit** as well. Upon powering on, press and hold both POWER and MODE buttons simultaneously. Release buttons when display shows a 'P' symbol alternating between the left- and right-hand sides.

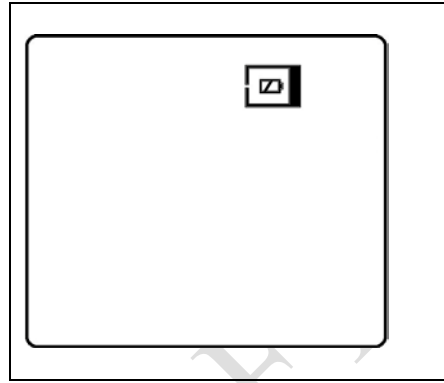
Pairing process will complete automatically and the iBMM will start operation.



### Low battery indication for mat

The low battery indication for the mat will blink simultaneously when battery for the **Parent Control Unit** is low.

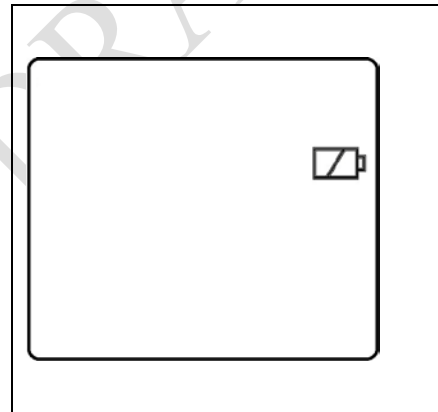
Replace battery for the mat.



### Low battery indication for **Parent Control Unit**

The low battery indication for **Parent Control Unit** will blink simultaneously when battery for the **Parent Control Unit** is low.

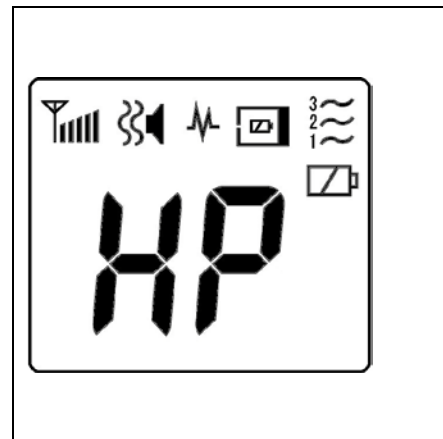
Replace battery for the **Parent Control Unit**.



### Weight limit indication for mat

The weight limit indication for the mat will be shown as 'HP' to indicate high pressure, such as heavy weight on the mat or the baby sitting up.

**Note:** If the indication remains when the baby is in sleeping position, the baby weight had exceeded the defined weight limit of the mat.



## TROUBLESHOOTING AND FAQ

Problem	Possible cause	Remedy
False alarm	<ul style="list-style-type: none"> <li>The baby may have excessive movement when the caretaker/sibling is playing next to the baby or attending to the baby's need (changing diapers, feeding, patting)</li> <li>External event such as patting action, high vibration or motor-running activities near the mat</li> </ul>	<ul style="list-style-type: none"> <li>Switch off the <b>Parent Control Unit</b> when the parent/caretaker/sibling is attending to the baby. Switch it on again to continue monitoring when baby is asleep.</li> </ul>
No alarm tone	<ul style="list-style-type: none"> <li>Battery may be low</li> </ul>	<ul style="list-style-type: none"> <li>Check battery level and replace battery if needed.</li> </ul>
No movement monitor tone	<ul style="list-style-type: none"> <li>The baby movement monitor tone may be off.</li> <li>Battery may be low</li> </ul>	<ul style="list-style-type: none"> <li>Turn on the monitor tone with the <b>MODE</b> button</li> <li>Check battery level and replace battery if needed.</li> </ul>
No movement detected	<ul style="list-style-type: none"> <li>The sensitivity level may be low.</li> </ul>	<ul style="list-style-type: none"> <li>Adjust up the sensitivity level with the <b>SELECT</b> button</li> </ul>
'M' (Movement) display on the <b>Parent Control Unit</b> when baby is sound asleep	<ul style="list-style-type: none"> <li>Baby may have strong movement patterns</li> </ul>	<ul style="list-style-type: none"> <li>Adjust down the sensitivity level with the <b>SELECT</b> button</li> </ul>

Out of range indication	<ul style="list-style-type: none"> <li>• The mat and <b>Parent Control Unit</b> are too far apart.</li> <li>• The mat or <b>Parent Control Unit</b> may be placed near large metal objects.</li> <li>• The link between the mat or <b>Parent Control Unit</b> may be lost</li> <li>• Battery is not inserted on the mat.</li> </ul>	<ul style="list-style-type: none"> <li>• Try to adjust the relative distance nearer between the mat and <b>Parent Control Unit</b>.</li> <li>• Ensure battery is inserted on the mat side.</li> <li>• Power off and on again for both the mat and <b>Parent Control Unit</b> to try establishing the link.</li> <li>• Enable manual pairing by powering on 1 mat and 1 <b>Parent Control Unit</b>. (refer to Section 5: Operation of the <b>iBMM: Other forms of indication</b>)</li> <li>• Ensure battery is inserted on the mat side.</li> </ul>
Wireless link loss	<ul style="list-style-type: none"> <li>• Range too far between mat and Parent Control Unit</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain closer range between mat and Parent Control Unit</li> </ul>
	<ul style="list-style-type: none"> <li>• Low battery</li> </ul>	<ul style="list-style-type: none"> <li>• Replace batteries.</li> </ul>
<b>Error codes</b> (indicated on Parent Control Unit)	<b>Possible cause</b>	<b>Remedy</b>
<b>E1</b>	<ul style="list-style-type: none"> <li>• The fiber sensor is broken</li> </ul>	<ul style="list-style-type: none"> <li>• Mat is no longer functioning. Please contact your service center.</li> </ul>
<b>E2</b>	<ul style="list-style-type: none"> <li>• Extreme low battery level of the mat</li> </ul>	<ul style="list-style-type: none"> <li>• Replace batteries for the mat.</li> </ul>
<b>E9</b>	<ul style="list-style-type: none"> <li>• Device Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Please contact your service center</li> </ul>

## **TECHNICAL SUPPORT**

Before you contact the Technical support, please read the Troubleshooting and FAQ section.

If you have questions about the use or features of the product please contact our Call Center at the following e-mail address: \_\_\_\_\_.

When you call or contact us for support, please include as much information possible from the packaging material. This will help us in speeding the process.

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## MAINTENANCE

- **DO NOT** subject the mat to sharp folds other than the mid-point fold as it may damage the sensing element and affect the functionality and sensitivity of the mat.
- **DO NOT** wash or immerse the whole mat in water. Clean the mat with a soft damp cloth and allow to dry. Avoid using any chemical or cleaning detergent.
- Keep your mat away from sources of moisture. It may cause the electronic control circuit to malfunction.
- **DO NOT** drop the **Parent Control Unit** on the floor as it may damage internal components and cause malfunction.
- Keep the **Parent Control Unit** away from moisture.
- Remove batteries from the **Parent Control Unit** and mat when not in use for a long period of time.
- The operating temperature range for the **iBMM** is from 10°C - 40°C. **DO NOT** operate beyond this range as it may not function according to defined specifications.

## LIMITED WARRANTY

Your **iBMM** is covered warranty for malfunction in the electronic parts only, for a period of 12 months from the date of the original purchase, when used in accordance with the usage condition provided with the unit. Malfunction due to misuse, not in accordance with the usage condition, will not be covered in the warranty.

We will, at our discretion, repair or replace the product free of charge, should it fails to function properly when used as directed within the warranty period.

This warranty does not cover the battery, damaged as a result of accidents, improper maintenance or any other form of misuse. The warranty is also void if the owner attempts to fold the mat when instructed not to as stated in the user manual, repairs or modifies the product in any way. We are not liable for any incidental or consequential damages with regard to this product. The warranty also excludes any liability other than what is stated above.

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This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- EN 60950-1: 2006/A1: 2010
- EN50371 : (2002-03)
- EN 300 220-2 V2.3.2 (2010-02)
- EN 301 489-1 V1.8.1: (2008-04)
- EN 301 489-3 V1.4.1 (2002-08)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment 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 a residential installation. 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 communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

**IMPORTANT NOTE:**

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

For any technical assistance contact the technical support center online at \_\_\_\_\_ or contact our Call Center at the following e-mail address: \_\_\_\_\_.

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