

# SMART BABY MAT



## Intelligent Baby Movement Monitor Service Call for Babies



# USER MANUAL

UBC-001 Series

[www.huijia-tech.com](http://www.huijia-tech.com) / [www.ubabycare.com](http://www.ubabycare.com)

## WARNING

### IMPORTANT INFORMATION ON USAGE CONDITION

Read the instructions carefully before using your UBC-001 Series Smart Baby Mat (UBC). UBC has two devices that are Movement Receiver (receiver) and Wireless Movement Optics Mat (mat). Please put the mat on the bed or mattress, and don't put it under the mattress. You can put a sheet or a towel (1cm thickness limit) on top of the mat. For best sensitivity results, please take note of the following. Place your baby on the mat such that the chest/back body area lies on the upper or lower part of the mat. Avoid the mid-point folding area of the mat.

DO NOT break the warranty seal of the **Mat** packaging until you had tested the functionality of the **mat** and **receiver** with a new set of batteries. Breaking the warranty seal constitutes acceptance of the product in working condition.

#### QUICK START FUNCTIONAL TEST

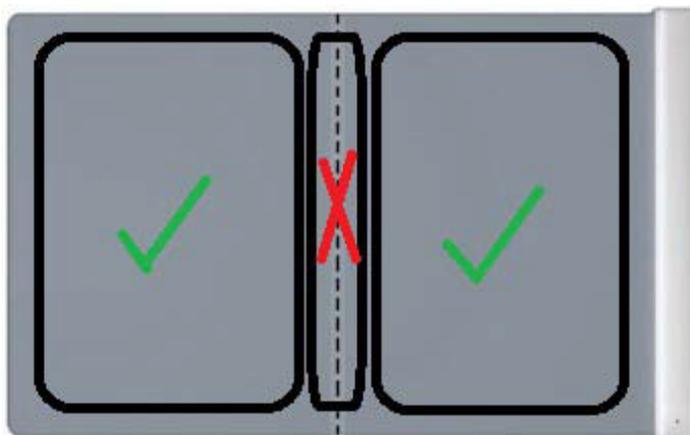
1. Insert fresh batteries into the battery compartments of the **mat** and **Receiver**.
2. Power on the **mat** and **receiver**.
3. The display should indicate '-' scrolling in a circular fashion to indicate a calibration process.

Note: Should the display show an error message 'E1', '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**

Place your baby on the mat such that the chest/back body area lies on the upper or lower part of the mat. Avoid the mid-point folding area of the mat



Avoid placing any cloth material between the baby and the mat. When cloth material is placed on the mat, thickness of the material should be less than 1cm. Recommended materials are bed sheet, bath towel or swaddling cloth. Other unknown materials may compromise the sensitivity.



**NO JUMPING/STAMPING**



**NO SHARP HITS**



**NO HEAVY WEIGHT**



**NO BENDING OTHER THAN THE MID-POINT**



**NO HOLDING OF THE EDGE IN ONE HAND**

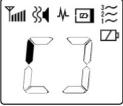
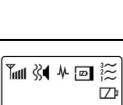
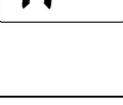


**NO IMMERSING IN WATER**

- The **UBC** 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 **UBC** 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.
- Please handle the mat with two hands. DO NOT hold it by the edge with one hand or bend the mat. Rough handling and bending of the mat other than the mid-point may damage the mat and cause malfunction.
- 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 **UBC** is from 10°C - 40°C. **DO NOT** operate beyond this range as it may not function according to defined specifications.

**Receiver Status Indication Summary Sheet – Commonly occurring states**

Status indication	Event	Remarks
	Calibration in progress	The display will indicate '-' scrolling in a circular fashion for a period of around 30 seconds
	Subtle body movement count	The digit change dynamically depending on the subtle body movement count
	Wake up alarm / Continuous movement	The display will show 'M' blinking whenever the baby moves. After the baby falls asleep, movement alert is activated after a continuous movement period of 20 seconds
	Absence from mat	The display will show '--' blinking and alarm will be activated whenever the baby is out of the mat
	No body movement detected	The display will show '00' and alarm will be activated when no body movement is detected
	High body movement trending up	The display will show alternate blinking of 'H' and current body movement count when high body movement is trending up. Alarm will also be activated
	Low body movement trending down	The display will show alternate blinking of 'L' and current body movement count when downward trending of low body movement is detected. Alarm will also be activated
	High pressure exerted / Weight limit exceeded	The display will show 'HP' to indicate high pressure, such as heavy weight on the mat or the baby sitting up. The alarm will also be activated.
	Error 1: Fiber sensor is broken	Please contact your service centre
	Error 2: Extreme low battery level of the mat	Please replace batteries for the mat
	Error 9: Device Malfunction	Please contact your service centre

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## DISPOSAL INSTRUCTIONS

Do not dispose of this mat and the receiver 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.

## GETTING STARTED

Package contents

Your **UBC-001** package includes:

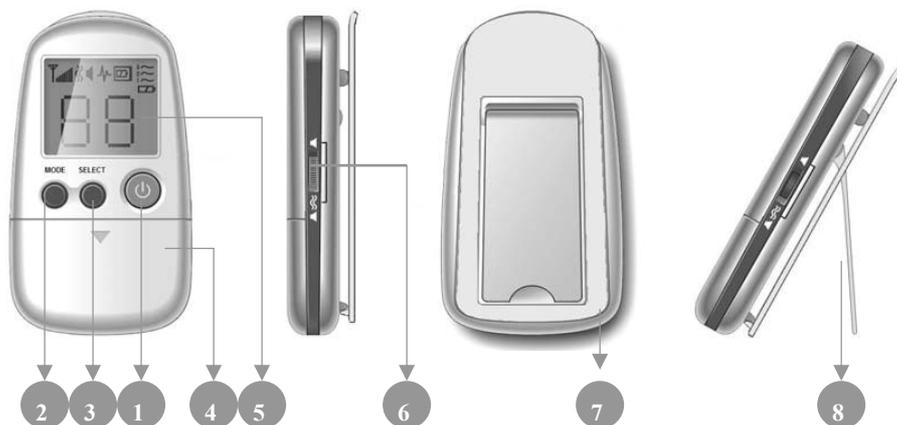
- UBC-001-A Movement Receiver(Receiver)
- UBC-001-B Wireless Movement Optics Mat (Mat)
- User Manual
- Carrier bag

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 Receiver

## SPECIFICATION AND PARTS DESCRIPTION

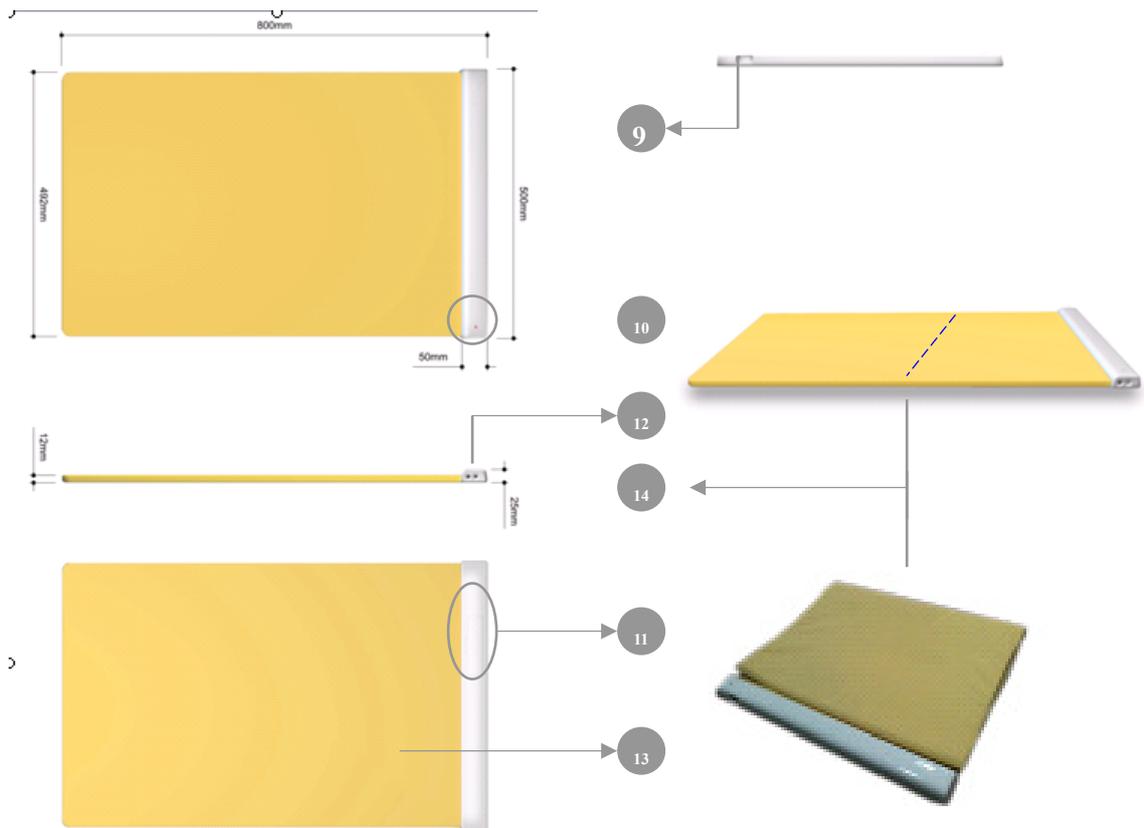
### UBC-001-A Receiver



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

- (1) Battery Type: 2 x AAA Battery
- (2) Size: 10.5cm x 5.6cm x 1.6cm
- (3) Weight: About 60g (not including the batteries.)
- (4) Color: White + Yellow
- (5) Material: ABS Plastic + Rubber Keys

## UBC-001-B MAT



9	ON/OFF switch	Turn the mat ON or OFF
10	Power LED indicator	Mat operation status indication
11	Battery compartment of mat	To insert 4 x AA dry cell batteries for the mat
12	Buzzer	Local audio alarm outlet
13	Mat	To support monitoring of baby
14	Foldable Position	Fold the mat locations (other locations do not fold)

(1) Size:  $81 \pm 2\text{cm} \times 50 \pm 1\text{cm} \times 2.5 \pm 0.5\text{cm}$

(2) Size: About  $42\text{cm} \times 50\text{cm} \times 3\text{cm}$

(3) Weight: about 1100~1200g (Not including the batteries.)

(4) Color: White + Yellow

(5) Materials: ABS Plastic + Latex + Waterproof cloth

### RF Parameter

(1) Frequency: 433MHz, ISM band

(2) Output power: 10dBm

# OPERATION OF THE UBC

- **2Kg~12Kg Baby is suitable (0~12 months)**

### 1. 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.



### 2. Insertion of battery on the Receiver

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



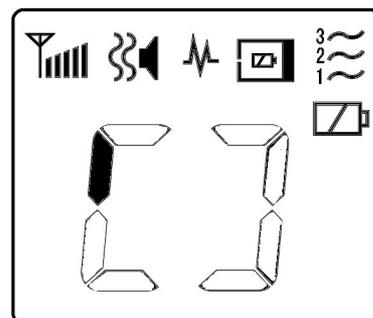
### 3. Power on the Mat

Place 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 color.



### 4. Power on Receiver

Press and hold the power  button till the LCD display is lighted up.  
The receiver will establish connection with the mat automatically. The display will indicate '--' scrolling in a circular fashion during a calibration process of around 30 seconds as shown.  
Once connection is established, the blinking will cease and the baby status will be displayed.  
The display will show 'M' to indicate baby movement detected when the baby is moving

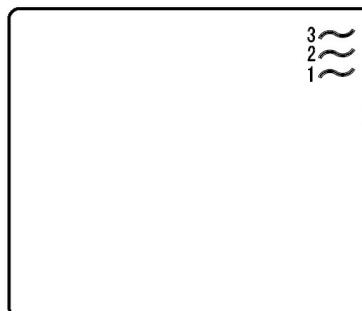


### 5. Mat sensitivity adjustment

To set mat sensitivity, press the MODE button until the mat sensitivity symbol is blinking. Adjust sensitivity by pressing the SELECT button. Set maximum sensitivity and adjust downwards to make sure there is no false alarm.

Below is a general guideline for setting the sensitivity level.

Modes	Age guideline	Weight guideline	Icon Display
Sensitivity Level 3 (default)	< 6 months	< 5 kg	
Sensitivity Level 2	6 – 9 months	5 – 10 kg	
Sensitivity Level 1	9 - 12 month	10 - 12 kg	



### 6. Baby wake up / absence alarm Function Setting

The baby wake up / absence alarm enable function allows caregivers/parents to enable / disable the alarm notification for BOTH the baby wake up AND absence detection

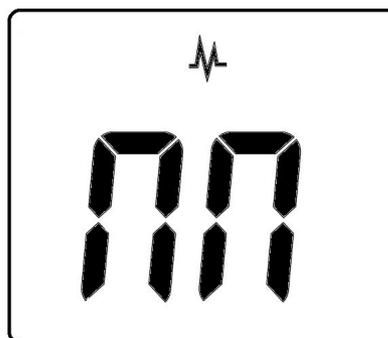
To set the baby wake up / absence alarm enable function, press the MODE button until the function symbol is blinking.

Press the SELECT button to turn ON/OFF the baby wake up / absence alarm enable function.

MODE	SELECT
The baby wake up / absence alarm enable function	Function On:  display
	Function OFF: No  display:

Within the baby wake up / absence alarm enable function is **ON**. When large movement, the display with show 'M' . When baby is taken out or not on the mat, the display with show '--'. Both of the alarm will be activated

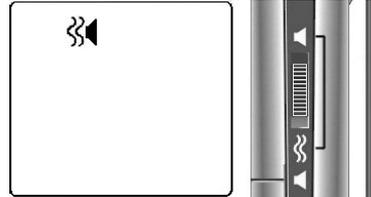
Within the baby wake up / absence alarm enable function is **OFF**, When large movement, the display with show 'M' . When baby is taken out or not on



the mat, the display will show '--'. But No alarm will be activated  
 BOTH the baby wake up and absence detection is disabled by default in factory. When disabled, the baby wake up or absence state will still be indicated visually on the Receiver display.

### 7. Alarm type selection

Adjust the tone selector switch up or down to select sound or both sound and vibration.  
 The sound and vibration functions will be displayed on the LCD.



**WARNING:**

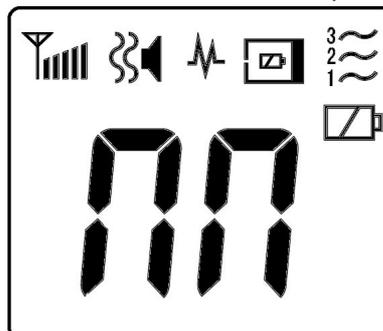
It is advisable NOT to disable alarm when your baby is unwell or need extra attention.

## Functions

### A. Baby Movement Condition: No sleeping (After calibration process)

#### 8. Baby continue movement detect

The display will show 'M' when movement is detected.

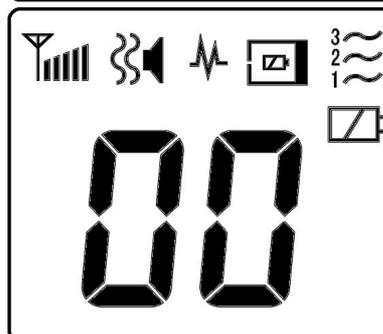


#### 9. No body movement

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

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 receiver is powered on.

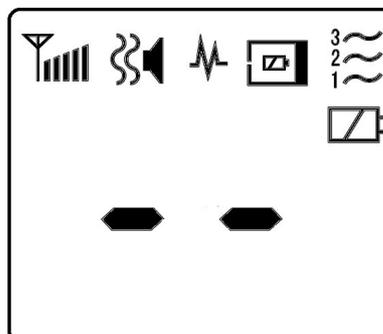


#### 10. Baby absence

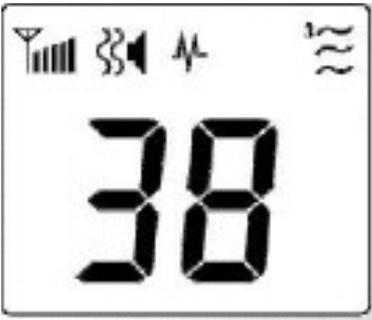
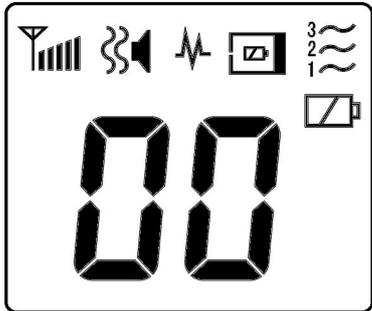
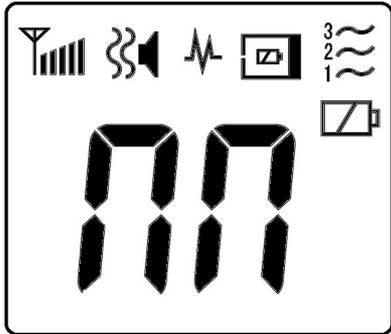
The display will show '--' when baby is taken out or not on the mat.

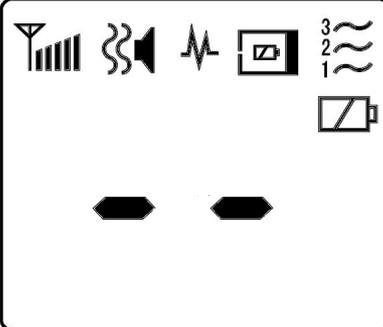
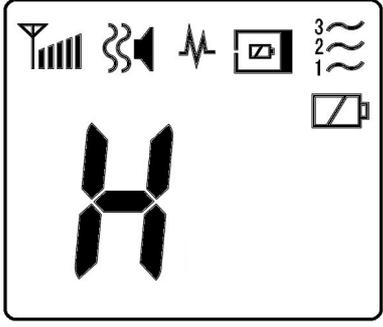
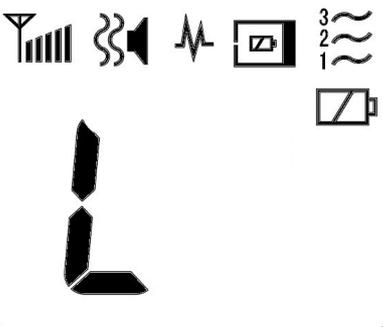
The alarm will be activated..

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



## B. Baby Movement Condition: Sleeping

<p><b>11. Baby movement count</b></p> <p>The baby body movement count per minute of the baby is monitored and displayed on the LCD.</p> <p>Typical body movement count range between 30 and 60.</p>	
<p><b>12.No body movement</b></p> <p>The display will show '00' when no body movement is detected for consecutive 15 seconds. The alarm will be activated. 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.</p> <p>Note: Audio alarm will also be activated on the mat independent on whether the receiver is powered on.</p>	
<p><b>13. Wake up alarm</b></p> <p>The Wake up alarm will be activated only after the baby is asleep for more than 5 minutes. The display will show 'M' when continuous movement (eg. awake, crying) is detected. When a constant baby movement period of 20 seconds is detected, the alarm will be activated. 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, there will be a time-out period of 5 minutes before the alert will be re-enabled.</p>	

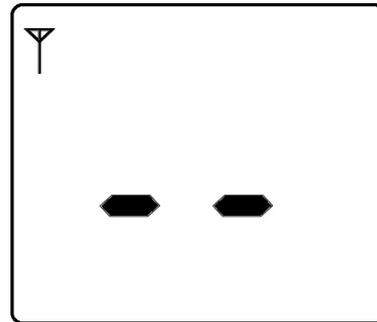
<p><b>14. Baby absence</b></p> <p>The display will show '--' when the baby has rolled or carried out of mat.</p> <p>The alarm will be activated.</p> <p>Press and hold the MODE or SELECT button once to de-activate it. (normal button functions are disabled at this time) Release the button when the alarm is off.</p> <p>Note:</p>	
<p><b>15. Upward trend of rapid body movement alert</b></p> <p>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).</p> <p>The alarm will be activated.</p> <p>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.</p> <p>Note: the function and display will not activated when the baby is not asleep.</p>	
<p><b>16. downward trending of low body movement detection</b></p> <p>In the event of downward trending of low body movement detection, the display will blink, switching between current body movement count reading and 'L' symbol (to indicate low body movement) The alarm will be activated.</p> <p>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.</p> <p>Note: the function and display will not activated when the baby is not asleep.</p>	

## C. Others

### 17. Out of range

The open space distance limit between the Receiver and mat is up to 50 m. Indoor limits will be reduced significantly, subject to the layout of the building concrete structure. The antenna and monitor alert symbols will blink simultaneously when communication cannot be maintained between the Receiver and mat. Walk closer towards the mat with the Receiver to re-establish the link

Note: Alarm will be also activated on the Receiver when the mat is NOT powered on.

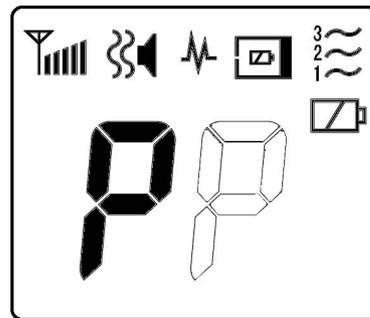


### 18. Manual pairing of mat and Receiver

Each mat is automatically pre-paired with each of its Receiver.

Where there is a need to manually pair the units, power off and on the mat again. Power off and on the Receiver 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 beep tone will sound to indicate that the UBC starts operation.

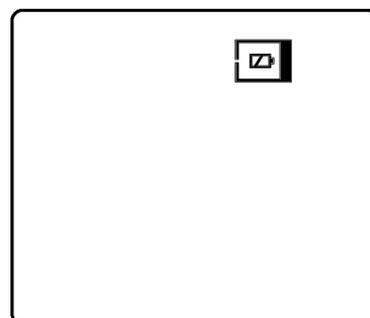


### 19. Low battery indication for mat

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

The audio alarm will be activated independently of the switch selection for the alarm type.

Replace battery for the mat.



## 20. Low battery indication for Receiver

The low battery indication for Receiver will blink simultaneously when battery for the Receiver is low.

The audio alarm will be activated independently of the switch selection for the alarm type.

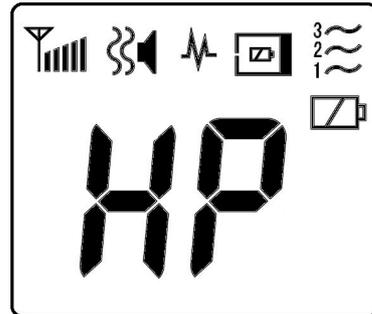
Replace battery for the Receiver.



## 21. 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. The alarm will also be activated.

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



## Warning

There may be exceptional unknown situations eg. where babies toss or rotate such that only part of their body lies on the mat, parent's hands or elbows may press / hit on the mat or on the cot/mattress where the mat is placed when carrying up the baby - rendering the current state of the baby to be non-deterministic.

As a precaution for the unknown states, the display will alternate blinking of out of mat "--" and no body movement "00" on the Receiver to alert parents/care-givers to check on the baby. Please attend to your baby

## Troubleshooting and FAQ

Problem	Possible cause	Remedy
<b>False alarm</b>	<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 Receiver when the parent/caretaker/sibling is attending to the baby. Switch it on again to continue monitoring when baby is asleep.</li> </ul>
<b>No alarm tone</b>	<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>
<b>No movement detected</b>	<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 SELECT button</li> </ul>
<b>'M' (Movement) display on the Receiver when baby is sound asleep</b>	<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 SELECT button</li> </ul>
<b>Out of range indication</b>	<ul style="list-style-type: none"> <li>The mat and Receiver are too far apart.</li> <li>The mat or Receiver may be placed near large metal objects.</li> <li>The link between the mat or Receiver 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 Receiver.</li> <li>Power off and on again for both the mat and Receiver to try establishing the link.</li> <li>Enable manual pairing by powering on 1 mat and 1 Receiver. (refer to Operation of the UBC Section: Other of indication)</li> <li>Ensure battery is inserted on the mat side</li> </ul>
<b>Wireless link loss</b>	<ul style="list-style-type: none"> <li>Range too far between mat and Receiver</li> </ul>	<ul style="list-style-type: none"> <li>Maintain closer range between mat and Receiver</li> </ul>
<b>Low battery indication</b>	<ul style="list-style-type: none"> <li>Low battery</li> </ul>	<ul style="list-style-type: none"> <li>Replace batteries</li> </ul>
	<ul style="list-style-type: none"> <li>Batteries on the mat or Receiver may be low or faulty.</li> </ul>	<ul style="list-style-type: none"> <li>Replace batteries</li> </ul>
<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 player please contact our Call Center at the following e-mail address: support@hujija-tech.com or contact UBabycare agent you buying it from.

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.

## MAINTENANC

- **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. WARRANTY WILL BE VOID ONCE THE MAT IS FOLDED AT ANY PART OF THE MAT OTHER THAN THE DESIGNATED MID-POINT FOLD.
- **DO NOT** wash or immerse the whole mat in water. Clean the mat with a soft damp cloth and allow to dry
- Keep your mat away from sources of moisture. It may cause the electronic control circuit to malfunction.
- **DO NOT** drop the Receiver on the floor as it may damage internal components and cause malfunction.
- Keep the Receiver away from moisture.
- Remove batteries from the Receiver and mat when not in use for a long period of time.
- The operating temperature range for the **UBC** is from 10<sup>0</sup>C - 40<sup>0</sup>C.  
**DO NOT** operate beyond this range as it may not function according to defined specifications.

## LIMITED WARRANTY

Your **UBC** 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 instructions provided with the unit. The mat material is a disposable item which is subject to wear and tear, 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.

Your **UBC** operates on frequency of 433Hz and complies with EN and Part 15 of the FCC rules.

For any technical assistance contact the technical support center: