**www.infantguard.com**
**Breathe Detection**
**Intelligent infant Cradle Mat (Active Baby Monitor)**

The world first's Active Baby Monitor for Hightech Mum.
Can give your good rest!

# *InfantGuard™ Infant Cradle Mat (Active Baby Monitor)*

# User Manual

**Change History**

| Version | Date | Current | Changes |
|---|---|---|---|
| 1 | 27-04-2012 | | |

IMPORTANT INFORMATION – PLEASE READ FIRST BEFORE USE

The **intelligent Infant Cradle Mat (**IFG02) consists of a wireless Baby movement monitoring mat INTELLIGENT INFANT CRADLE MAT (ACTIVE BABY MONITOR) IFG02 (mat) which works with an Android-based smart phone Apps for remote control.

The Android-based smart phone OS Version had to be minimum version 2.1 (TBA) in order to be used with the Infant Cradle Mat Apps. The current smart phone models which can support the Apps are listed below.

Supported smart phone models

- Samsung Google Nexus S
- Samsung Galaxy SII
- HTC Wildfire
- HTC Desire HD

All the music file formats supported by Android OS are supported by the music stream function of the Infant Cradle Mat Apps. Some phone models may not support all the music files formats listed.

- MP3
- MIDI
- PCM/WAVE
- AAC LC/LTP
- HE-AACv1 (AAC+)
- AMR-NB
- AMR-WB
- FLAC
- Vorbis

The remote receiver INTELLIGENT INFANT CRADLE MAT (ACTIVE BABY MONITOR)001-R (Parent Control Unit) is an optional accessory sold separately and not included in the product. It can be used in place of the smart phone Apps.

Only either the smart phone Infant Cradle Mat Apps or the Parent Control Unit can be used for communication with the mat at any one time, but NOT both can be used simultaneously.

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

| 2kg / 4.4lb – 10kg / 22lb (TBA) |
|---|

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 (TBA). Recommended materials are bed sheet, bath towel or swaddling cloth. Other unknown materials may compromise the sensitivity.

**Warning and disclaimer**

- The **Intelligent Infant Cradle Mat (Active Baby Monitor)** is NOT a medical device or a diagnostic device to prevent Sudden Baby Death Syndrome (SIDS) or 'cot death'. Babies with a known predisposition to any breathing abnormality including apnea, obstructive sleep 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 **Intelligent Infant Cradle Mat (Active Baby Monitor)** 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.

This mat is constructed with highly sensitive fiber optics technology. To ensure accuracy and durability, please observe the following care and maintenance instructions.

**Care and maintenance of the mat**

NO JUMPING/STAMPING

NO SHARP HITS

NO HEAVY WEIGHT BEYOND LIMIT

NO BENDING

NO HOLDING OF THE EDGE IN ONE HAND

NO IMMERSING IN WATER

- It is advisable to use the mat for sleeping purpose and should not be used as a play mat**.**
- 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** add thick and heavy items such as mattress between your Baby and the mat.
- 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 **Intelligent Infant Cradle Mat (Active Baby Monitor)** is from $10^0$C - $40^0$C. **DO NOT** operate beyond this range as it may not function according to defined specifications.

**Disposal instructions**

Do not dispose of the mat or 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.

**Infant Cradle Smart Phone Apps Status Indication Summary Sheet**

| Status indication | Event | Remarks |
|---|---|---|
| | Calibration in progress | The display will indicate an hour glass rotating in a circular fashion |
| | Sleeping | The display will be shown when Baby is sleeping soundly. |
| | Movement / Wake up alert | The display will be shown whenever the Baby moves. After the Baby falls asleep, wake up alert is activated after Baby sound/cry and continuous movement is detected from the mat |
| | Absence from mat alert | The display will be as shown and alert will be activated whenever the Baby is out of the mat |
| | No body movement detected | The display will be as shown and alarm will be activated when no body movement is detected |

| | | |
|---|---|---|
| | Error 1: Fiber sensor is broken | Please contact your service centre |
| | Error 8: High pressure exerted / Weight limit exceeded | High pressure, such as heavy weight on the mat or the Baby sitting up. The alarm will also be activated. |
| | Other numbered error: Device Malfunction | Please contact your service centre |

Parent Control Unit Status Indication Summary Sheet

| Status indication | Event | Remarks |
|---|---|---|
| | Calibration in progress | The display will indicate an hour glass rotating in a circular fashion |
| | Sleeping | The display will be shown when Baby is sleeping soundly. |
| | Movement / Wake up alert | The display will be shown whenever the Baby moves. After the Baby falls asleep, wake up alert is activated after Baby sound/cry and continuous movement is detected from the mat |
| | Absence from mat alert | The display will be as shown and alert will be activated whenever the Baby is out of the mat |
| | No body movement detected | The display will be as shown and alarm will be activated when no body movement is detected |
| | Error 1: Fiber sensor is broken | Please contact your service centre |
| | Error 8: High pressure exerted / Weight limit exceeded | High pressure, such as heavy weight on the mat or the Baby sitting up. The alarm will also be activated. |
| | Other numbered error: Device Malfunction | Please contact your service centre |

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GETTING STARTED

**Package contents**

Your **Intelligent Infant Cradle Mat (Active Baby Monitor)** package includes:

- Mat
- User Manual

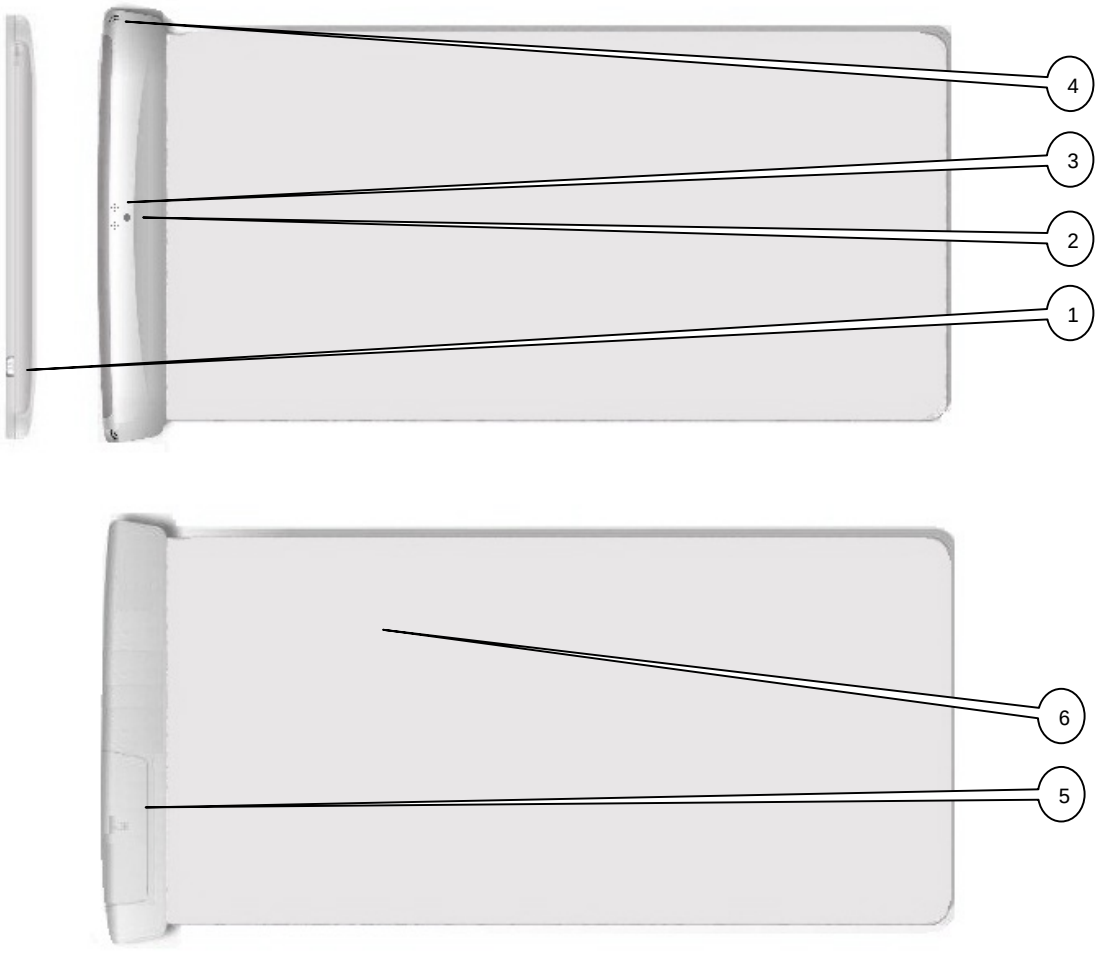
Before you can use the mat, you need the following

(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

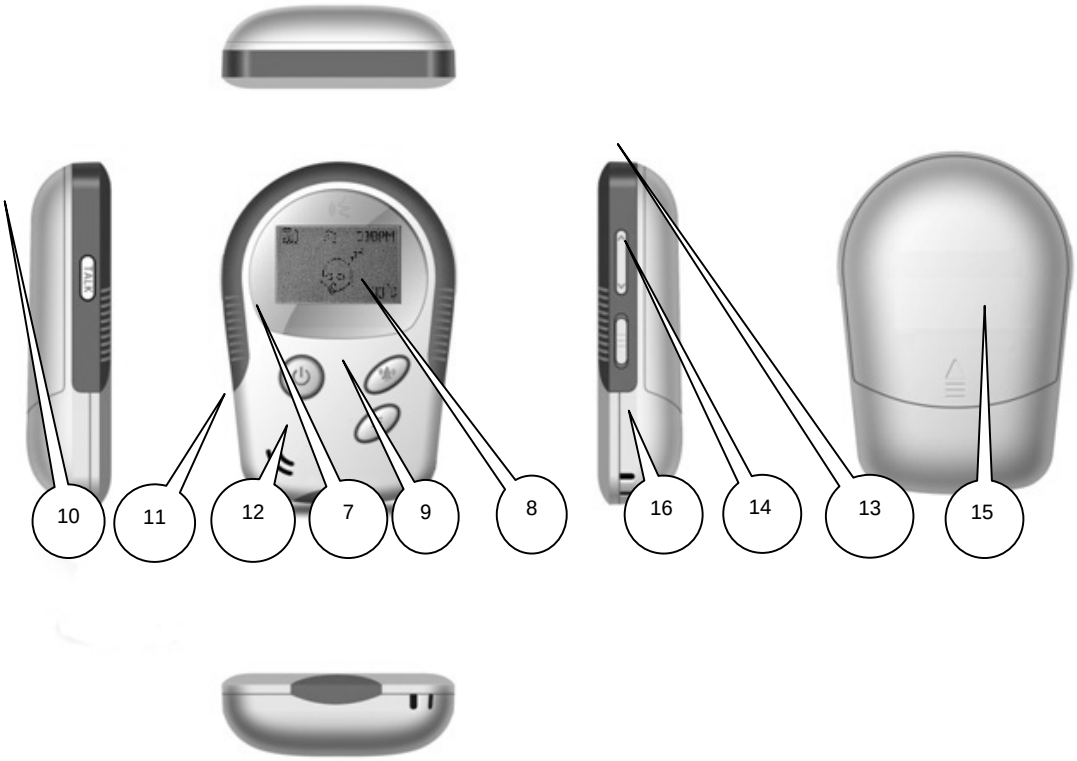
For best performance, Lithium dry cell battery is recommended.

## 1.1 Parts description for the MAT (Intelligent Infant Cradle Mat (Active Baby Monitor) **IFG02**



| | | |
|---|---|---|
| 1 | POWER button | Turn the mat ON or OFF |
| 2 | LED indicator | Mat operation status indication |
| 3 | Microphone | Pick up audio sound from the mat |
| 4 | Speaker | Output lullaby music stream from smart phone (Output care-givers voice output only when Parent Control Unit is used) |
| 5 | Battery compartment of mat | To insert 4 x AA dry cell batteries for the mat |
| 6 | Mat | To support monitoring of Baby |

## 1.2 Parts description for the Parent Remote Control Unit (IFG parent control unit) IFG-PCU02




| | | |
|---|---|---|
| 7 | ⏻ | Turn ON or OFF<br>Reset alarm (Press and hold the button) |
| 8 | ALARM ENABLE button | Turn ON or OFF<br>Reset alarm (Press and hold the button) |
| 9 | SENSITIVITY button | To set mat sensitivity level<br>Reset alarm (Press and hold the button) |
| 10 | TALK button | Press to talk to your Baby remotely |
| 11 | Speaker | Listen to sound from your Baby |
| 12 | Microphone | To talk to your Baby when press & hold on the TALK button |
| 13 | Volume | To adjust volume for the Parent Control Unit |
| 14 | Alarm select switch | To select the alarm type |
| 15 | Battery Compartment | To insert 2 x AAA dry cell batteries |
| 16 | Lanyard hole | To insert a lanyard<br>(Lanyard not included with the product) |

### 1.3 Setting up the mat with the Smart Phone Apps

Insertion of battery on the **mat**

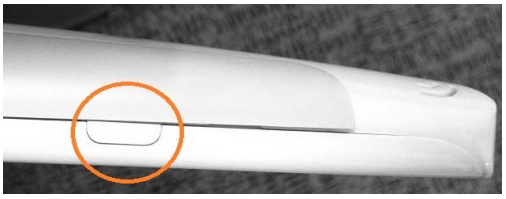
Flip the mat over to the bottom side.
Insert the 4 AA batteries inside the battery compartment. Cover back the battery cover as shown by the arrow.

Power on the **mat**

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

Put your Baby on the mat.

Press the power button at the tip of mat frame as shown. The LED indicator on the top of the mat will light up.



HINT:

Check the mat LED indicator. It will light up alternating between green and red colour during initial pairing mode, will show green colour once connection is established with the smart phone Apps.

Power on the Smart Phone Apps

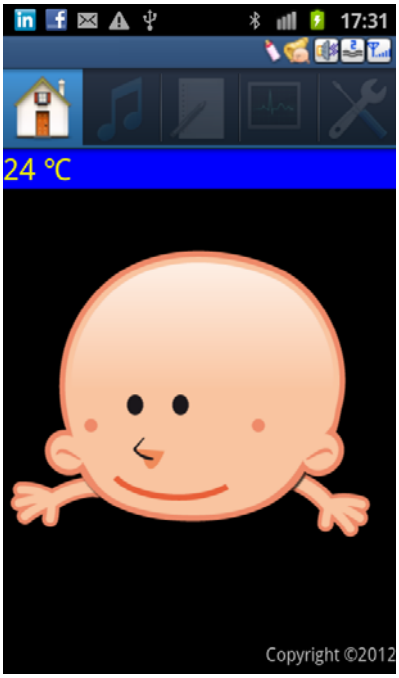
For first time use,

- Download the Infant Cradle Mat Apps from the Google Market.
- Go to Settings -> Wireless & networks -> Bluetooth settings ->
- Tap on "Scan for devices"
- Tap on the Bluetooth device name for the **Infant Cradle Mat** to pair with the mat (while mat is still in pairing mode such that LED is blinking red & green)
  Bluetooth device name for the mat:
  INFANTGUXXX

Tap on the Infant Cradle Mat Apps icon.

The Apps will establish communication with the mat automatically.

Once connected, the current Baby status will be displayed on the Home screen as shown.



WARNING:

The mat will establish communication with only 1 device at one time.

Please ensure the Smart Phone Apps is turned off when the Parent Control Unit is in use and vice versa.

HINT:

For smart phone running on Android OS version 4.0 and above: To ensure the smart phone does not close Infant Cradle Mat Apps when the Apps is shifted to the background on your smart phone, do the following.

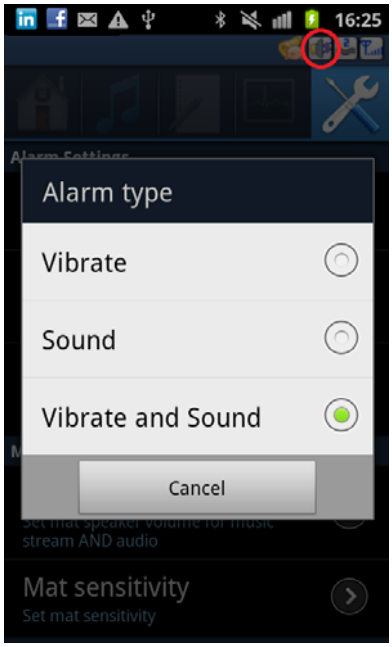
- Go to Settings -> Developer options -> Apps
- Ensure "Don't keep activities" is unchecked
- Under "Background process limit", ensure "No background processes" is unchecked

### 1.4 Settings on the Smart Phone Apps

There are numerous settings available on the "Setting" tab of the Smart Phone App for setting alarms on the Smart Phone, volume and sensitivity control on the mat, feeding reminders, as well as enabling a factory reset. Below is a summary table for the settings and its setting operations are detailed below.

| Setting | Function |
|---|---|
| **Alarm settings**<br>• Alarm type<br>• Alarm volume<br>• Alert enable | Select alarm type, volume and enable alert mode for the Baby sound/wake up movement and Baby absence states |
| **Mat control**<br>• Mat volume<br>• Mat sensitivity | Set mat volume and sensitivity |
| **Feeding schedule**<br>• Feeding reminder<br>• Reminder tone<br>• Reminder interval | Schedule reminders for feeding Baby |
| **General settings**<br>• Temperature unit<br>• Factory reset<br>• Version | Set the unit for ambient temperature display, Reset settings to factory default and check apps version |

Alarm type




There are 3 alarm types to select on the smart phone for the Baby states which require attention.

- Vibrate
- Sound
- Vibrate and Sound (both activated)

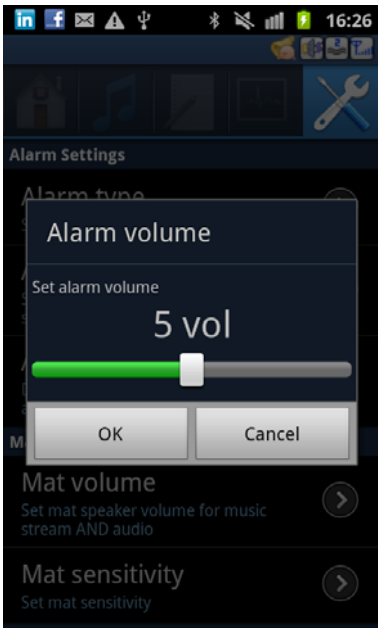
Tap the preferred alarm type to activate it.

The corresponding vibrate and/or sound alarm icons are indicated on the top of the LCD screen as shown (highlighted in red).

HINT:
Consider switching to vibration mode when care-giver/parent needs a rest from looking after the Baby.

WARNING:
Setting for alarm type does not apply to mandatory alarm for no body movement condition. Refer to section 4.2 for details.

Alarm volume




There is a 10-step interval scroll bar for adjusting the alarm volume for the smart phone.

- Tap on “Alarm volume”
- Adjust the volume on the scroll bar
- Tap “OK” to set the alarm volume.

WARNING:
Set to low volume and adjust up slowly to protect your ears.
Setting for alarm volume does not apply to mandatory alarm for no body movement condition. Refer to section 4.2 for details.

Alert enable

The alert enable function is a single control function which activates BOTH the Baby wake up and absence detection.

To enable the alert function,

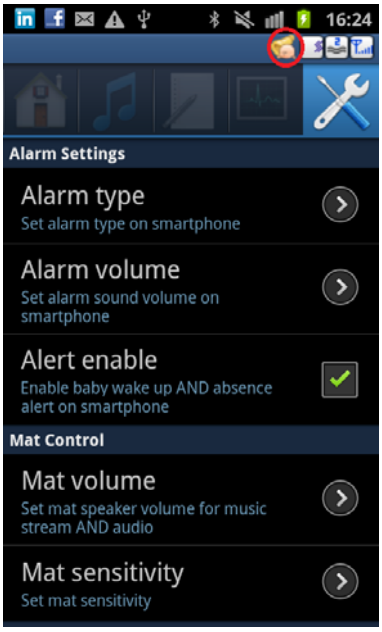
- Tap the checkbox for “Alert enable” as shown.

To disable the alert function,

- Tap the checkbox once till the check mark symbol disappears.
- It is disabled by default.

When enabled, the alert enable icon is indicated on the top of the LCD screen as shown (highlighted in red).

Note: Please refer to section 4.3 and 4.4 for more details on the Wake up and Absence alert notification functions respectively.



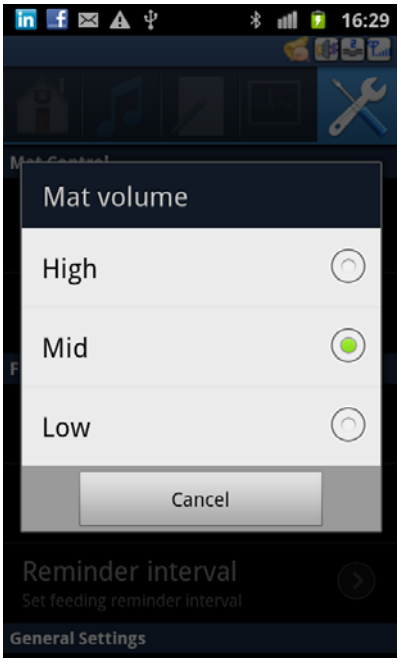

WARNING:
Alert will be disabled during music / lullaby stream to prevent false alert due to sound.
It is advisable NOT to disable alarm when your Baby is unwell or need extra attention.

Mat volume

There are 3 mat volume levels to select for the music stream and transmitting audio sound from the mat.

- High
- Mid
- Low

Tap the preferred volume level to activate it.



WARNING:
Volume is fixed for the mandatory No body movement alarm and cannot be adjusted. Refer to section 4.2 for details.

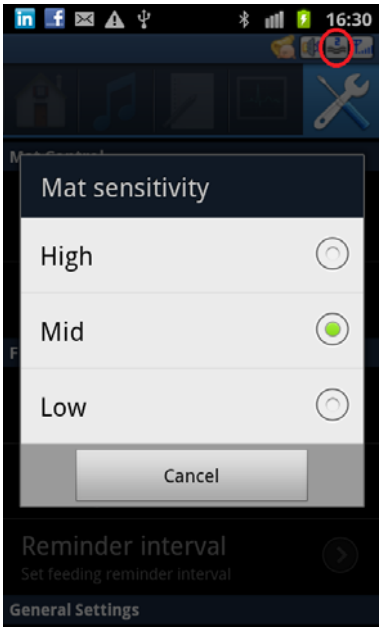
Mat sensitivity

There are 3 mat sensitivity levels.

- High (3, Default)
- Mid (2)
- Low (1)

Tap the preferred sensitivity level to adjust it.

The numerical representation for the sensitivity level is indicated on the top of the LCD screen as shown (highlighted in red).



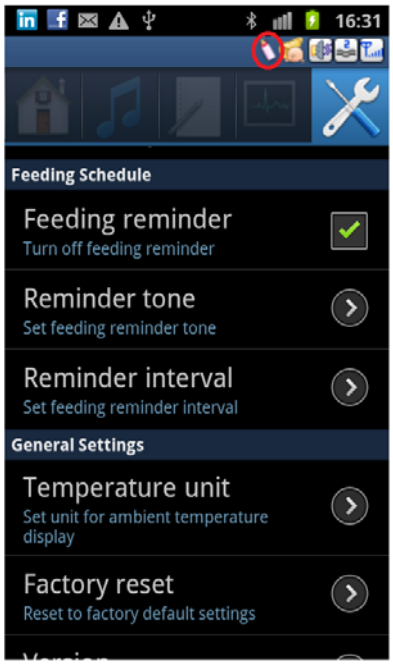

HINT:
When Baby is moving extensively and the display does NOT show strong movement, set higher sensitivity.
Set lower sensitivity when Baby is sleeping soundly and the display shows strong movement.

Feeding schedule

To schedule feeding reminder,

- Tap the checkbox for “Feeding reminder” as shown.
- Select reminder tone
- Select time interval

The feeding reminder activation icon is indicated on the top of the LCD screen as shown (highlighted in red).

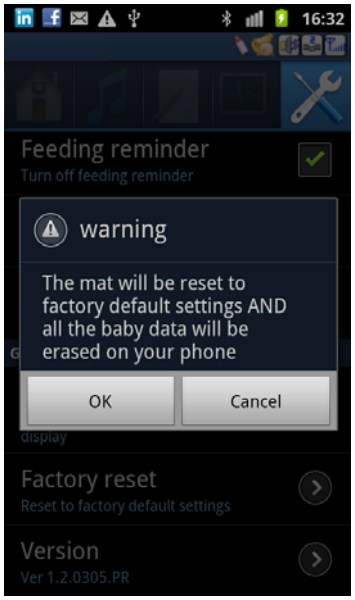


Temperature unit

There are 2 units for selection to display for the ambient temperature, namely Celsius ($^{o}$C) or Fahrenheit ($^{o}$F).

Tap the commonly used unit for your location.

Factory Reset




Current settings can be reset to factory default settings by tapping on “Factory Reset”.

Below are the factory default settings

<u>Smart phone:</u>

Alarm type: vibrate and sound
Alarm volume: 8
Wake up alert: disable
Feeding reminder: Off

<u>Mat:</u>

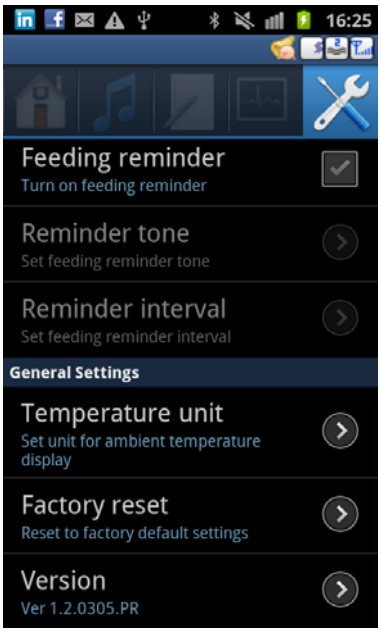
Mat volume: Mid
Mat sensitivity: High
Wake up alert: disable
Activity log: All logged data on the mat will be erased

WARNING:

Existing recorded Baby data stored on the smart phone will be erased during factory reset.

Version

The current version of the Apps is indicated in the Settings tab under “General Settings”.



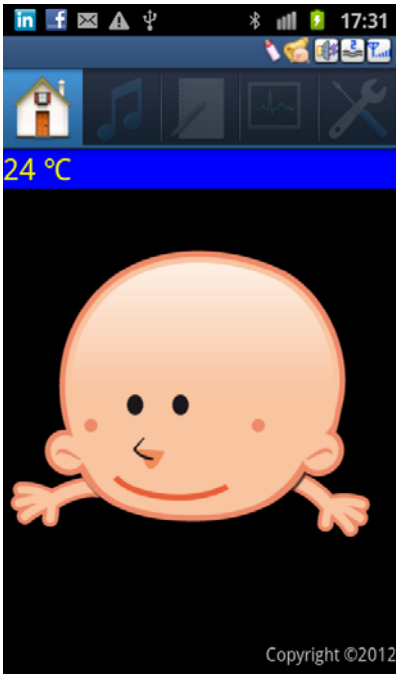

## 2. KEY FEATURES OF SMART PHONE APPS

### 2.1 Baby activity monitor

The various iconic representations of the Baby activity status are display according to the current Baby activity status.

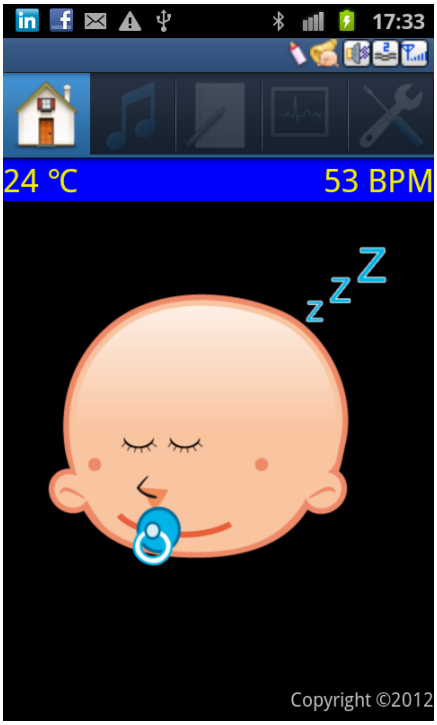
To view the current Baby activity status, tap on the Home tab as shown.

Please refer to the next section 4 for details.



### 2.2 Ambient temperature display

The ambient temperature of the room where your Baby is sleeping is displayed on the top left-hand corner as shown.




WARNING:
Temperature displayed is ambient room temperature and NOT the temperature of your Baby.

### 2.3 Streaming of music / lullaby

Music / Lullaby stored on the smart phone can be streamed to your Baby on the mat.

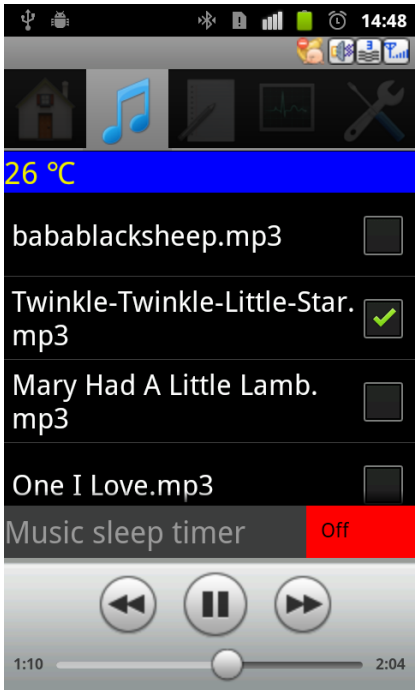
Tap on the Music tab.

To stream a soothing lullaby to calm your Baby,

- Tap the preferred lullaby or playlist on the check box from the list & it will play repeatedly

To set music sleep timer,

- Tap on the “Off” red icon
- Select playing period before turning the lullaby stream off



HINT:
Charge your phone while streaming music to maintain power.
If unable to stream music to mat after a few tries, do the following

- Go to Settings -> Wireless & networks -> Bluetooth settings ->
- Tap on “Scan for devices”
- Tap on the Bluetooth device name for the **Infant Cradle Mat** to pair with the mat

WARNING:
Music stream function is enabled only when the mat is power on.

### 2.4 Baby sleep log

Past 4 days’ daily session of your Baby sleep cycles are log.

Tap on the Sleep log tab.

To select the date for viewing,

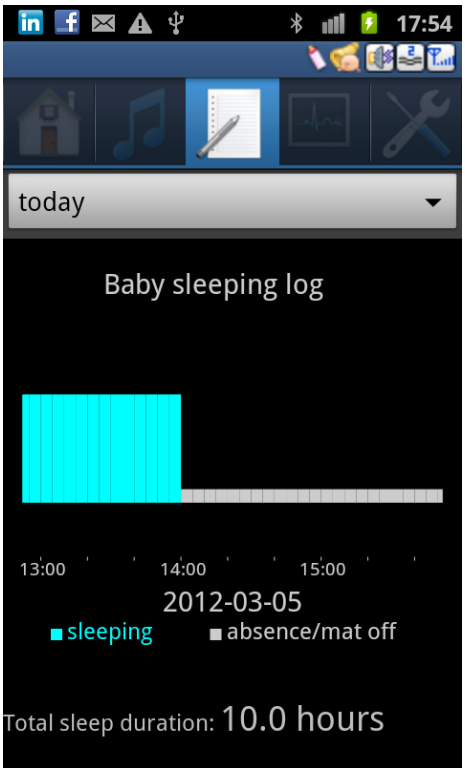
- Tap on the drop down menu (shown by the arrow next to “today”)

To view the sleep session for the selected date,

- Scroll your fingers left or right on the graph

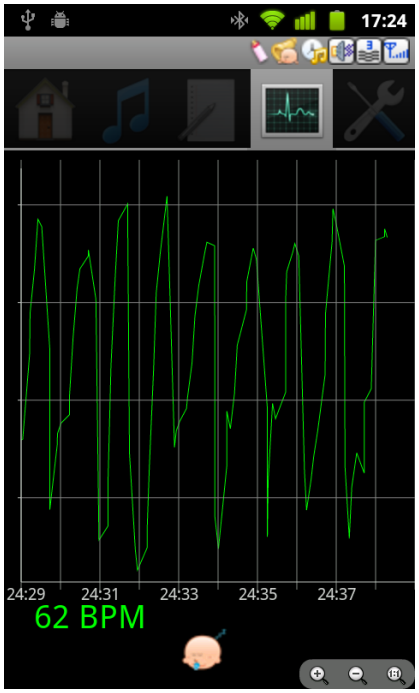
The sleep sessions are displayed graphically by rectangular blue bars

The total sleep duration for the selected day is computed.




WARNING:
Baby sleep log function is enabled only when the mat is power on.

## 2.5 Breath Scope



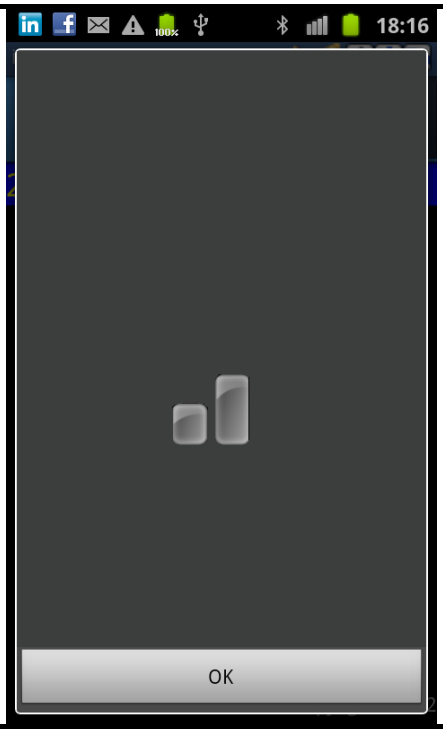

The Baby activity status pattern can be viewed graphically.

Tap on the Breath Scope tab as shown.

The graphical pattern and iconic representation of the current Baby activity will be displayed.

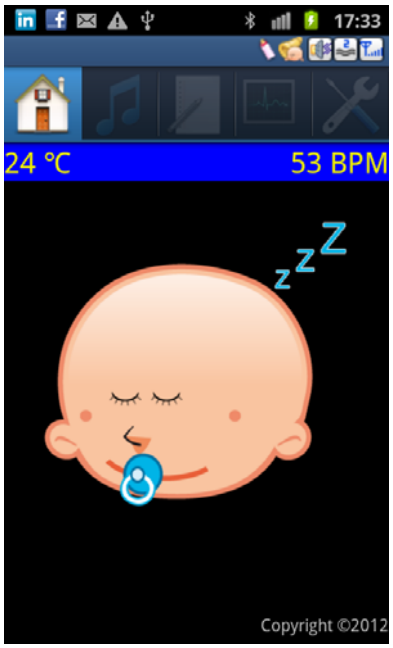
WARNING:
Breath Scope function is enabled only when the mat is power on.
Graphical pattern are based on current Baby activity status and cannot be recorded.

HINT:
The weak signal icon will be as shown when graphical data received as weak. Walk closer towards the mat.



# 3. BABY ACTIVITY STATUS INDICATION ON SMART PHONE

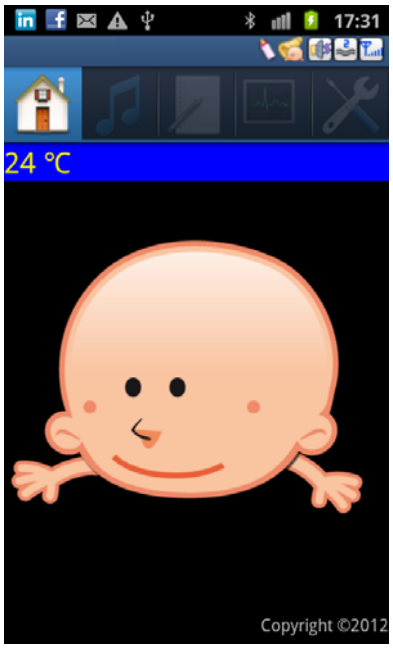
## 3.1 Sleeping




The display will be as shown when your Baby is sound asleep.

The Baby body movement count per minute (BPM) is indicated on the top right-hand corner.

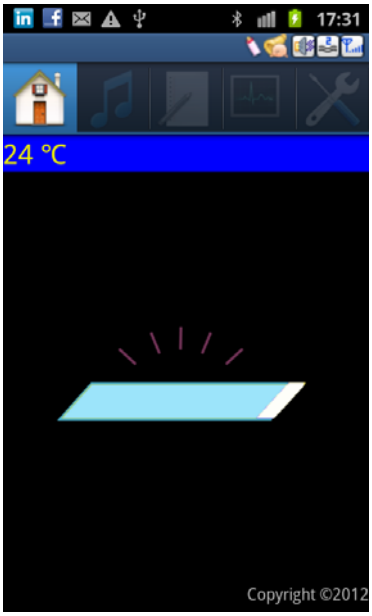
## 3.2 Baby movement




The display will be as shown when your Baby is moving.

### 3.3 Baby absence

The display will be as shown when your Baby is not on the mat

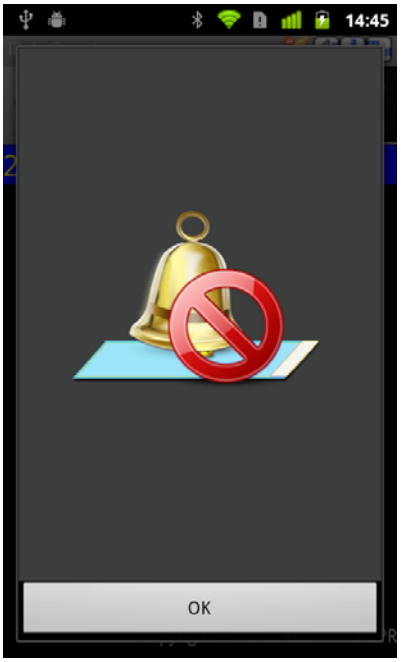



## 4. ALARM CONDITIONS FOR THE SMART PHONE APPS

The Baby activity states which may require attention of parents / care-givers are coupled with alarms.

Alarms for some states can be disabled by parents / care-givers. The mandatory alarm is not user-selectable.

### 4.1 Clearing of alarms

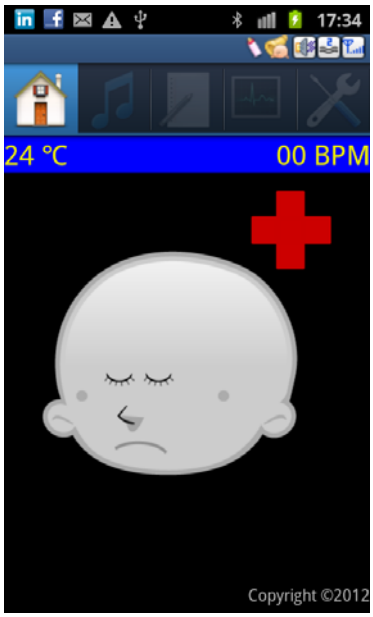



The display will be as shown in any alarm condition.

To clear the alarm,

- Tap ‘OK’
- The current Baby activity state triggering the alarm will be displayed

### 4.2 No body movement




No body movement alarm is a **mandatory alarm** to inform care-givers/parents when no body movement is detected from the Baby.

Alarm will be activated after 15 seconds of no body movement detected.

The display will be as shown after alarm is cleared.

Audio alarm will also be activated on the mat with the red LED blinking.

WARNING:
During no body movement alarm activation,

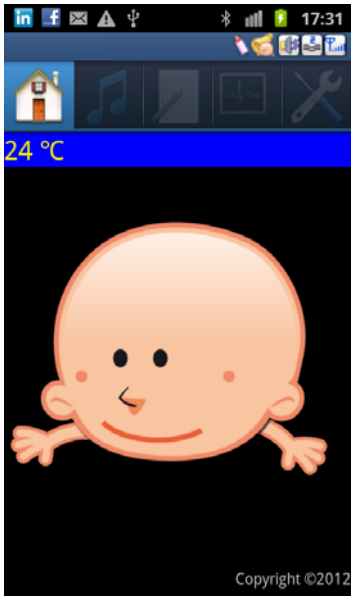
- Smart phone alarm volume is fixed at maximum
- Mat volume is fixed at maximum
- Alarm type is fixed at both sound and vibration
- Music stream is paused

### 4.3 Wake up alert

The wake up alert is meant to inform care-givers / parents when the Baby has woken up and is crying or agitated. It will be activated only after the Baby is asleep for > 5 minutes.

The alarm will be activated when both constant Baby movement period of 20 seconds and Baby sound are detected.

The display will be as shown after alarm is cleared.



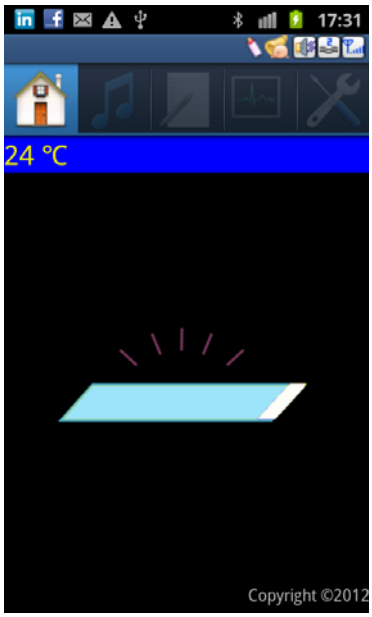

WARNING:
The wake up alert can be enabled or disabled in the Settings tab. Alert will be disabled during music / lullaby stream to prevent false alert due to sound.

HINT:
Only place the Baby on the mat during Baby nap/sleep time

### 4.4 Baby absence alert

The Baby absence alert is meant to inform care-givers/parents when the Baby has rolled / was carried out of mat or is not on the mat

The alert will be activated and the display will be as shown after alarm is cleared.




WARNING:

The absence alert can be enabled or disabled in the Settings tab. Alert is disabled during music / lullaby stream.

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.

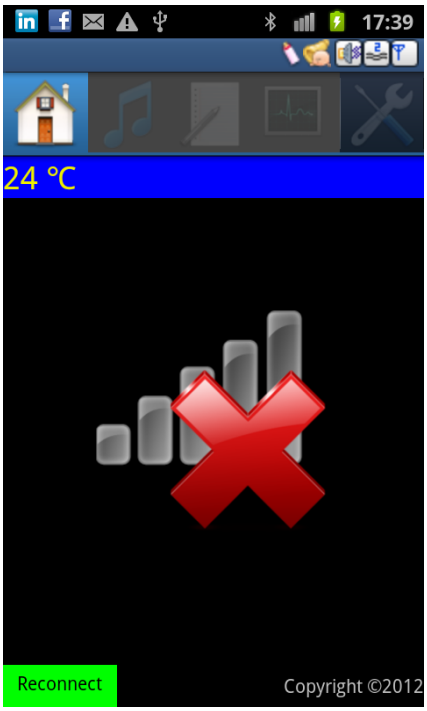
As a precaution for the unknown states, the display will be indicated as shown, to alert parents/care-givers to check on the Baby. Please attend to your Baby.

# 5. OTHER STATUS INDICATIONS ON THE SMART PHONE APPS

## 5.1 Out of range / Link loss

The open space distance limit between the **Smart Phone** and mat is up to 20m(TBA). Indoor limits will be reduced significantly, subject to the layout of the building concrete structure and functional performance of the smart phone used.

When communication between the **Smart Phone** and mat is lost, link loss alarm will be activated and display is as shown.




To maintain connection,

- Walk closer towards the mat with the **Smart Phone**
- Tap the 'Reconnect' button on the **Smart Phone**

The connection period is 5 minutes window. If the link is still not established after 5 minutes,

- Press the power button once on the mat.
- Tap the 'Reconnect' button on the **Smart Phone**

WARNING:
Link loss alarm will be also activated on the **Smart Phone** when the mat is switched off.

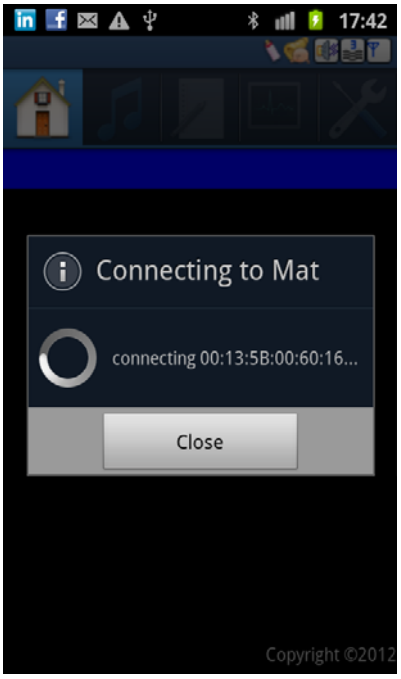
### 5.2 Manual pairing of mat and Smart Phone

To manually pair the mat with another Smart phone, do the following.

- turn off the Infant Cradle Mat Apps on the current phone
- turn off & on the mat again. The LED will be blinking red & green to indicate pairing mode
- turn on the Apps on the new phone

If the pairing is not successful, try the following on your smart phone.

- Go to Settings -> Wireless & networks -> Bluetooth settings ->
- Tap on “Scan for devices”
- Tap on the Bluetooth device name for the **Infant Cradle Mat** to pair with the mat

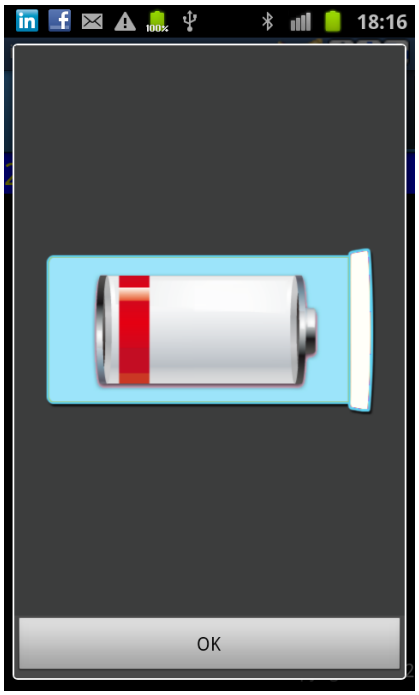



### 5.3 Low battery alert for mat

When the battery for the mat is low, low battery alert for the mat will be indicated as shown.

Tap “OK” to clear alert and return to Baby activity monitor state.

Alert tone will be triggered at every minute interval till mat battery is replaced.




WARNING:
After clearing the alert, low battery indication will also be reflected in the status bar till battery for the mat is replaced.
In the case of no connection between mat and the smart phone during mat low battery state, the mat will alarm and the red LED will blink.

TIPS:
To conserve battery power, switch off the mat after use every day.

### 5.4 Error 1: Fiber sensor is broken

When the fiber sensor is broken, the display will be as shown and alarm will be activated.

- Please contact your service center.

### 5.5 Error 8: Weight limit indication for the mat

The display will be as shown to indicate high pressure, such as heavy weight on the mat or the Baby sitting up. Alarm will be activated.

- Please do not use the mat with weight exceeding limit

WARNING:
If the weight limit error icon remains when the Baby is in sleeping position, the Baby weight had exceeded the defined weight limit of the mat.

### 5.6 Other numbered error: Device malfunction

The product may have malfunction. The display will be as shown with an error number and alarm will be activated.

- Please contact your service center.

## 6. EXCEPTIONS MANAGEMENT FOR SMART PHONE

Below is an outline of the various possible user scenarios during the exceptions on the smart phone such as calling out, receiving call, in power-save mode or using another application, when using the Infant Cradle Mat Apps. The user scenarios may vary for different phone models based on their exceptions management methodology.

### Calling / Receiving call

Alarm condition can trigger the alarm during a call.
Scheduled feeding reminder will also trigger the alarm in similar situation.

### Smart phone in power save / screen save mode

Alarm condition will trigger the audible alarm and the smart phone LCD screen will light up. Enable the smart phone and the alarm condition will be displayed.

Note: Some phone models may not light up the LCD screen when alarm is triggered.

### Using another Apps

**Infant Cradle Mat Apps** needs to be on and should NOT be exited.
Alarm condition will trigger the audible alarm and **Infant Cradle Mat Apps** will be pop up on the display foreground.

### **Infant Cradle Mat Apps** is off

The feeding reminder will trigger the reminder alarm when schedule is up.
Any other Baby alarm will NOT be activated when **Infant Cradle Mat Apps** is off

## 7. SETTING UP THE MAT WITH PARENT CONTROL UNIT

### 7.1 Powering up the Parent Control Unit

Insertion of battery on the Parent Control Unit

Open the battery compartment by sliding the cover upwards as shown by the arrow label.
Insert the 2 AAA batteries.

Insertion of battery on the **mat**

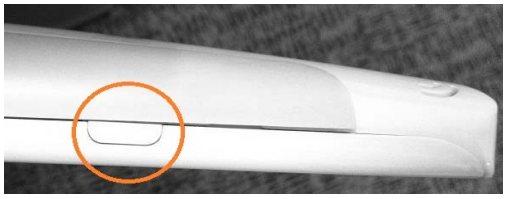
Flip the mat over to the bottom side.
Insert the 4 AA batteries inside the battery compartment. Cover back the battery cover as shown by the arrow.

Power on the **mat**

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

Put your Baby on the mat.

Press the power button at the tip of mat frame as shown. The LED indicator on the top of the mat will light up.



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 indicate Baby sleeping after the Baby had settled down to sleep. Please refer to section 9 for details.

When an auto-calibration process is in progress, the display will indicate an hour glass rotating in a circular fashion.

WARNING:

The mat will establish communication with only 1 device at one time.

Please ensure the Smart Phone Apps is turned off when the Parent Control Unit is in use and vice versa.

### 7.2 Setting up the Parent Control Unit

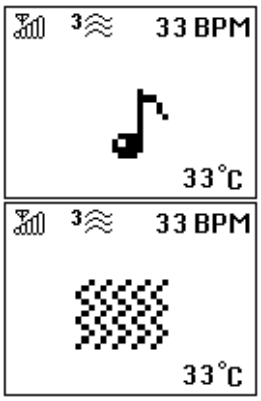
Alarm type

There are 2 alarm types to select for activation of alarm for the designated Baby states which require attention.

Select the switch on the right hand side of the Parent Control Unit in accordance to your preferred alarm type.

- Sound (top position)
- Vibrate (bottom position)

The corresponding vibrate or sound alarm icon for the selected alarm type will pop up on the LCD display accordingly when pushing the switch.




HINT:
Consider switching to vibration mode when care-giver/parent does not want to disturb others around them with the sound alarm.

Volume

There is a 3-step interval bar for adjusting the speaker volume on the Parent Control Unit.

On the top right hand side of the Parent Control Unit, press on the up arrow button to increase volume or down arrow to decrease volume.

To test the volume, power off the mat to trigger 'Link loss' alarm. Adjust volume then power on the mat again to regain connection.

The volume indication bars will pop up on the LCD display when adjusting the volume.

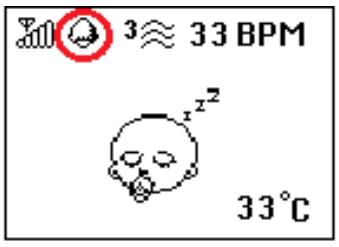
Alert enable

The alert enable function is a single toggle control function which activates BOTH the Baby wake up and absence detection (refer to section 10.3 and 10.4 for more details) at any one time. The alert is disabled by default.

To enable Baby wake up and absence detection alerts,

- Press the alert enable button once

Pressing it again will disable the alert again.



An alert icon will be indicated on the top of the LCD as shown (highlighted in red) when alarm is enabled.

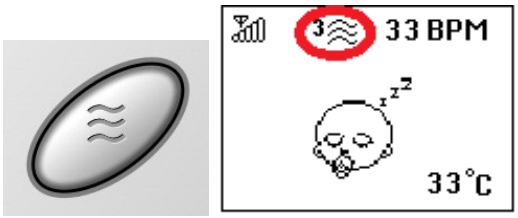
WARNING:
It is advisable NOT to disable alarm when your Baby is unwell or need extra attention.

Mat sensitivity

There are 3 mat sensitivity levels to select.

Press the sensitivity set button to toggle to the preferred sensitivity level. The sensitivity level selected is indicated on the top of the status screen as shown (highlighted in red).

- 3 (High, Default)
- 2 (Mid)
- 1 (Low)




As your Baby grows, there may be a need to tune the sensitivity to maintain high accuracy sensing.

HINT:
When Baby is moving extensively and the display does NOT show strong movement, set higher sensitivity. Set lower sensitivity when Baby is sleeping soundly and the display shows strong movement.

## 8. KEY FEATURES OF PARENT CONTROL UNIT

### 8.1 Audio Monitor

Sound activity from your Baby can be transmitted to the Parent Control Unit.

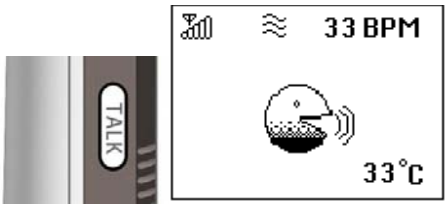
You can hear your Baby activity sound via the speaker outlet as shown.

### 8.2 Speaking to your Baby

Parents / care-givers can communicate to your Baby at any time via the Parent Control Unit.

To talk to your Baby,

- Press & hold the TALK button while speaking via the microphone on the bottom front of the Parent Control Unit.
- The talk icon will pop up as shown when TALK button is pressed.
- Release TALK button when not speaking.



WARNING:
Sound activity from your Baby is not transmitted when the TALK button is pressed.

## 9. BABY ACTIVITY STATUS INDICATION ON PARENT CONTROL UNIT

### 9.1 Sleeping

The display will be as shown when your Baby is sound asleep.

The Baby body movement count per minute (BPM) is indicated on the top right-hand corner.

### 9.2 Baby movement

The display will be as shown when your Baby is moving.

### 9.3 Baby absence

The display will be as shown when your Baby is not on the mat

## 10.ALARM CONDITIONS FOR THE PARENT CONTROL UNIT

The Baby activity states which may require attention of parents / care-givers are coupled with alarms.

Alarms for some states can be disabled by parents / care-givers. The mandatory alarm is not user-selectable.

### 10.1Clearing of alarms

Alarm can be cleared by pressing any of the 3 buttons on the front side of the Parent Control Unit.

WARNING:
The default function for each of the 3 button is disabled during alarm condition and used only to clear alarm.

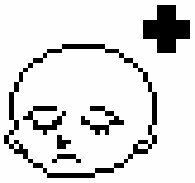
### 10.2No body movement

No body movement alarm is a **mandatory alarm** meant to inform care-givers/parents when no body movement is detected from the Baby.

Alarm will be activated after 15 seconds of no body movement detected.

The activity status for your Baby will be indicated as shown.

Audio alarm will also be activated on the mat with the red LED blinking.



WARNING:
During no body movement alarm activation,

- Parent control unit alarm volume is fixed at maximum
- Mat volume is fixed at maximum
- Alarm type is fixed at both sound and vibration

### 10.3Wake up alert

The wake up alert is meant to inform care-givers / parents when the Baby has woken up and is crying or agitated. It will be activated only after the Baby is asleep for > 5 minutes.

The alarm will be activated when both constant Baby movement period of 20 seconds and Baby sound are detected.

The display will be as shown.

HINT:
Only place the Baby on the mat during Baby nap/sleep time.
This alert can be enabled or disabled with the alert enable button

### 10.4Baby absence alert

The Baby absence alert is meant to inform care-givers/parents when the Baby has rolled / was carried out of mat or is not on the mat

The alert will be activated and the display will be as shown.

HINT:
This alert can be enabled or disabled with the alert enable button

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.

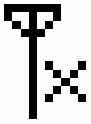
As a precaution for the unknown states, the display will be indicated as shown, to alert parents/care-givers to check on the Baby. Please attend to your Baby.

# 11.OTHER STATUS INDICATIONS ON THE PARENT CONTROL UNIT

## 11.1Out of range / Link loss

The open space distance limit between the **Parent Control Unit** and mat is up to 20m (TBA). Indoor limits will be reduced significantly, subject to the layout of the building concrete structure and functional performance of the smart phone used.

When communication between the **Parent Control Unit** and mat is lost, link loss icon as shown will blink on the display and alarm will be activated.



To maintain connection,

- Walk closer towards the mat with the **Parent Control Unit**

The connection period is a 5 minutes window, after which the **Parent Control Unit** will power off.

If the link is still not established after 5 minutes,

- Press the power button once on the mat.
- Power on the **Parent Control Unit**

WARNING:
Alarm will be also activated on the **Parent Control Unit** when the mat is switched off.

## 11.2Manual pairing of mat and Parent Control Unit

To manually pair the mat with another new **Parent Control Unit** outside the 5 minute connection window,

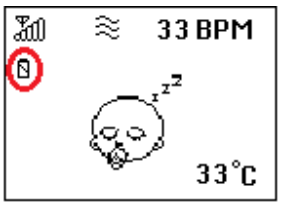
- Power off the original **Parent Control Unit.**
- turn off & on the mat again.
- Power on and hold the POWER button for 5 seconds on the new **Parent Control Unit.**

The display will be indicated as shown when pairing is successful.

### 11.3Low battery indication for Parent Control Unit

The low battery indication for the **Parent Control Unit** will be displayed as shown (highlighted in red) and blink simultaneously when the battery for the **Parent Control Unit** is low.

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

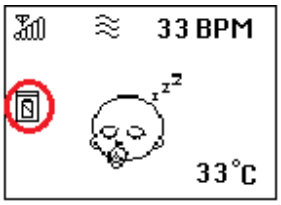



### 11.4Low battery indication for mat

The low battery indication for the mat will be displayed as shown (highlighted in red) and blink simultaneously when the battery for the mat is low.

In the case of no connection of the mat with the smart phone, the mat red LED will blink.

Replace battery for the mat.




TIPS:
To conserve battery power, switch off the mat after use every day.

### 11.5Error 1: Fiber sensor is broken

The display will be as shown blinking when the fiber sensor is broken.

Please contact your service center.

### 11.6Error 8: Weight limit indication for the mat

The display will be as shown blinking 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.

### 11.7Other numbered error: Device malfunction

The product may have malfunction. The display will be blinking as shown with an error number.

Please contact your service center.

## 12.TROUBLESHOOTING AND FAQ

| Problem | Possible cause | Remedy |
|---|---|---|
| False alarm | • 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)<br>• External event such as patting action, high vibration or motor-running activities near the mat | • Switch off the Smart Phone Apps or Parent Control Unit when the parent/caretaker/sibling is attending to the Baby. Switch it on again to continue monitoring when Baby is asleep. |
| No alarm tone | • Battery may be low | • Check battery level and replace battery if needed. |
| No movement detected | • The sensitivity level may be low. | • Adjust up the sensitivity level with the SELECT button |
| Baby movement status indicated on the Smart Phone Apps or Parent Control Unit when Baby is sound asleep | • Baby may have strong movement patterns | • Adjust down the sensitivity level with the SENSITIVITY button |
| Out of range indication | • The mat and Smart Phone/Parent Control Unit are too far apart.<br>• The mat or Smart Phone/Parent Control Unit may be placed near large metal objects.<br>• The link between the mat or Smart Phone/Parent Control Unit may be lost<br>• Battery is not inserted on the mat. | • Try to adjust the relative distance nearer between the mat and Smart Phone/Parent Control Unit.<br>• Ensure battery is inserted on the mat side.<br>• Power off and on again for both the mat and Smart Phone/Parent Control Unit to try establishing the link.<br>• Enable manual pairing (refer to Section 11.2: |

| | | |
|---|---|---|
| | | Other status indication)<br>• Ensure battery is inserted on the mat. |
| **Error codes** (indicated on Smart Phone/Parent Control Unit) | **Possible cause** | **Remedy** |
| **E1** | • The fiber sensor is broken | • Mat is no longer functioning. Please contact your service center. |
| **E8** | • High pressure, such as heavy weight on the mat or the Baby sitting up. | • If the indication remains when the Baby is in sleeping position, the Baby weight had exceeded the defined weight limit of the mat. |
| **E9** | • Device Malfunction | • Please contact your service center |

## 13.MAINTENANCE

- **DO NOT** subject the mat to sharp folds 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 **Intelligent Infant Cradle Mat (Active Baby Monitor)** is from $10^0$C - $40^0$C. **DO NOT** operate beyond this range as it may not function according to defined specifications.

## 14.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: support@ipmhc.com.

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.

## 15.LIMITED WARRANTY

Your **Intelligent Infant Cradle Mat (Active Baby Monitor)** 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
- EN50371
- EN 301489-1
- EN 301 489-17
- EN 300328

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.

For any technical assistance contact the technical support center online at _____ or contact our Call Center at the following e-mail address: support@ipmhc.com.