



Certified medical device

nanny



BM-03 Baby breathing monitor



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Prior to using the BM-03 Breathing Monitor, please read the instructions for use and the conditions of its use carefully, as well as the general procedures of first aid and emergency care for children!



If you have any questions about using the monitor, please refer to the contacts provided in this manual.

1. PRODUCT IDENTIFICATION

The BM-03 Baby Breathing Monitor is **a certified Class IIb medical device** that monitors a baby's breathing. It cannot be used to restore vital functions and is not a therapeutic device. It does not replace proper childcare.

It is intended for use by health care providers and for care in the home environment. The product is intended to provide a warning, by an optical and acoustic warning, that the **respiration has stopped or the respiration rate has decreased**. It thus warns of the possible danger of respiratory arrest that may occur in young infants (for example, due to **sudden infant death syndrome - SIDS**) or due to other causes (suffocation, an illness, etc.).

Due to the nature and purpose of use, no side effects and other contraindications are known.

The device is not intended for:

- direct contact or transferred contact with the child's body,
- for monitoring two children at once (for example, twins).

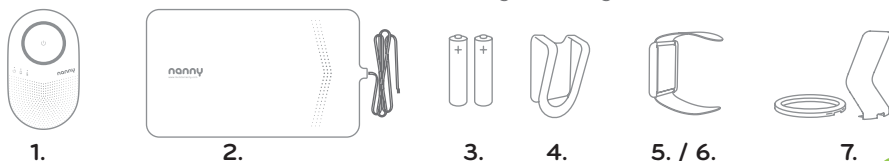
Basic characteristics of the monitor:

- a warning during sudden infant death syndrome or other causes of respiratory arrest;
- health care at home and in a hospital (can be used in an incubator);
- for children over 1 kg;
- does not affect or restrict the child's movement;
- maximum reliability - automatically tests its functionality every time it's turned on and detects the baby's position;
- powered by 2 AA batteries (included);
- easy to use, does not require special maintenance or calibration;
- indicates an uncomfortable room temperature;
- night light;
- Day and Night mode to give you a quiet night's sleep;
- easily portable.

Package contents:

1. control unit,
2. sensor pad with connecting cable,
3. 2x alkaline batteries,
4. accessories - clip for hanging,
5. accessories - Velcro,
6. accessories - control unit holder,
7. accessories - stand.

Fig. 2 Package contents



2. FUNCTIONS AND CONTROLS

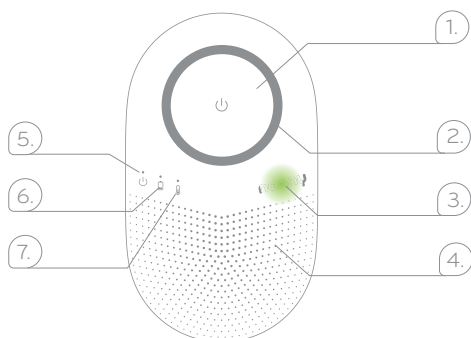


Fig. 3 Control unit - functions and symbols

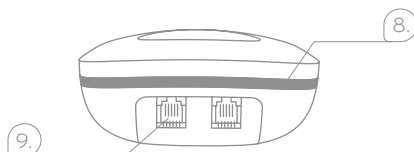


Fig. 4 Control unit - bottom section

1. mechanical on/off button for the monitor
2. optical breathing/alarm signal
3. the NANNY logo works as a capacitive button for light control
4. speaker
5. the indicator light with the power-on symbol - signaling of laying down/ removing the baby, switching from standby to active mode and back or mechanical button jam
6. low battery indicator
7. room temperature indicator
8. lamp light
9. sockets for the sensor pad cable connector

2.1 MAIN FUNCTIONS - BREATHING MONITOR

Based on signals from the sensor pad located under the baby, the device monitors the regularity of breathing and signals respiratory arrest.

Inhalation and exhalation are indicated by a green flash around the monitor's mechanical on/off button. The **alarm** consists of an intense red flash around the mechanical button and a loud acoustic alarm.

The alarm will go off if:

- A) **No inhalation is detected for 20 secs.** 17 secs after the last breath is detected, a pre-alarm is triggered and the alarm then goes off.
- B) **The breathing rate is less than 8 breaths per minute.** In this case, the alarm goes off immediately (with no pre-alarm).

The alarm can be **turned off** by pressing the mechanical on/off button. The monitor operates in active and standby mode. In **active mode**, the monitor detects the baby's breathing movements and additional functions are activated. In **standby mode**, the monitor is switched to power saving mode and the unit evaluates the signals from the pad to be able to draw attention to a baby being placed there.

A quiet beep indicates switching to standby mode.

If the button is constantly pressed it is a defect. If this fault is detected during the automatic test after switching from standby mode, the control unit will not start. If a mechanical button fault is detected in active mode, a critical failure will be reported visually and acoustically. Release the mechanical button to remove the fault.

Automatic functionality test

When switching from standby to active mode or when inserting the batteries, the device automatically tests its functionality. The test checks the batteries, the correct type of pad is connected and its age, the optical and acoustic signal, the notification for the on/off switch being in the incorrect state for the baby's current absence or presence.

Functionality test results:

- A) All indicators flash and short beep = all checks were successful and the device is fully functional.
- B) Flashing lights and repeated warning beeps = error diagnosed but it does not prevent the monitor from being used and maintaining its functionality.

Type of warning	Acoustic indication
None – the device is fully functional	1x beep
The Switch Guard function is deactivated	2x beep
Connected a sensor pad or control unit with possibly exceeded life span	3x beep

- C) Repeated warning beeps and the device does not switch on = a critical fault has been detected (critically low battery), the device cannot be used. Correct the error (insert new batteries), then the device can be used again. If the error persists, send the monitor for a service.

2.2 SUPPLEMENTARY FUNCTIONS

2.2.1 DETECTING WHETHER THE BABY HAS BEEN PLACED ON THE SENSOR PAD OR TAKEN OFF IT (SWITCH GUARD)

When in standby mode the BM-03 Baby Breathing Monitor continuously evaluates signals from the pad and is thus the only device on the market today to point out that the baby was most likely placed on the sensor pad. This prevents tragic consequences if a parent or other caregiver forgets to turn on the device and the baby stops breathing.

It can also warn parents or other caregivers if they remove a baby from the cot and forget to turn off the device.

Warning when the monitor is not turned on

If a parent or other caregiver places a baby in the cot but forgets to turn on the monitor, the orange light with the button symbol (symbol no. 5 in Fig. 3) will flash and a short quiet beep will sound after 30 seconds. The light flashes whilst the device evaluates the excitation on the pad, but the device is not turned on.



To switch on the device, the user must press the mechanical button, the device will not automatically switch from standby to active mode.

Turning the Switch Guard function off and on

The baby location detection function is switched on by default. If you want to turn this feature off or on again, press the mechanical button before inserting the batteries, then insert the batteries and keep the button pressed. After 10 secs, deactivation or reactivation is confirmed by a beep and the indicator light with the button symbol flashing.

If the Switch Guard function is deactivated, a warning beep will sound twice at the end of the automatic test.

Removal detection

If a parent or other caregiver removes a baby from the cot and forgets to switch off the device, the orange light with the button symbol will flash after 10 seconds and a quiet beep will sound. If the device is not switched off, a pre-alarm will sound after 17 secs from the last detection and then the alarm.

2.2.2 NIGHT LIGHT

For your convenience, the breathing monitor is equipped with a light, which is mainly used to check on the baby at night.

Activation and deactivation of the light function

The lamp function is **deactivated by default**. To activate it, simultaneously press the mechanical button and the lamp's capacitive switch, which is located in the middle of the NANNY logo (Fig. 5a), for 10 secs. After activation, the lamp flashes three times.

The light function can be deactivated in the same way. The activation and deactivation of the light function can be done only in the standby mode. The light function is completely deactivated if the batteries are low, except if there is an alarm in night mode.

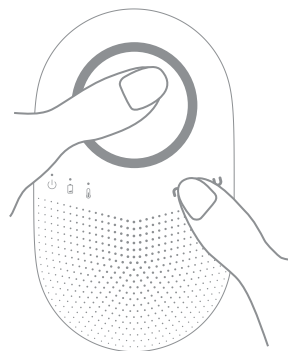


Fig. 5a - Activating/deactivating the light function

Switching the light on and off

The light is switched on and off using the capacitive switch located below the NANNY logo (symbol no. 3 in Fig. 3). The light is switched on and off by touching the light's capacitive switch which is located in the middle of the NANNY logo. Place your fingertip on the center of the NANNY logo and leave it attached for at least 1 second (Fig. 5b). There is no need to press the switch, just place your finger on the surface.

The light is on for a period of 30 secs. If you place your finger on the capacitive switch again within 20 seconds of switching on, the lamp goes out.

After 20 secs, the lamp will gradually dim. If you place your finger on the capacitive switch again as it dims, the light will be restored for another 30 secs, otherwise it will go out after 30 secs.

If the alarm is triggered in night mode, the lamp will turn on automatically.

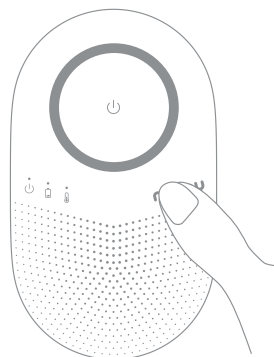


Fig. 5b – Switching the light on and off

2.2.3 MONITORING ROOM TEMPERATURE

The control unit is equipped with a temperature sensor to measure the quality of the environment. It serves to indicate the room is overheating, which may be one of the causes of sudden infant death syndrome. The device can thus indicate a room temperature that is quite likely uncomfortable, however, responsibility for the temperature and quality of the environment lies with the parent or other caregiver (monitor operator).

The temperature range is indicated by the light with the thermometer symbol flashing:

Flashing **blue** = the room temperature is **below 16.5 °C**. It is a cooler environment, but it may be comfortable for you and your baby.

Flashing **orange** = room temperature is **higher than 28 °C**. It is advisable to reduce it, for example by airing or turning down the heating, to prevent the baby from overheating.

2.2.4 DAY AND NIGHT MODE

The device is equipped with an optical sensor to detect day and night, or darkness. Thanks to this, the light diodes light up at night with a lower intensity than during the day to ensure parents or other caregivers have a good night's rest.

Day and Night mode switches automatically.

3. INSTALLATION

Neither the sensor pad nor the control unit need to be specially cleaned or disinfected after unpacking. Before using the monitor, make sure that all parts are undamaged. The device does not require temperature adaptation in connection with its installation and subsequent repeated use.

1. Place the sensor pad under the mattress together with a suitable insulating layer against liquid penetration in the places where the baby will be lying. The pad must be placed on a flat surface with the top print facing up and must not be bent. If the cot only has a slat base, support the pad with a solid board. The board does not have to cover the entire lower part of the bed - it is enough if it exceeds the area of the pad by about 3 cm on each side.

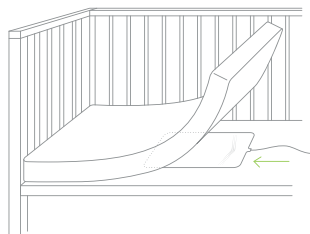


Fig. 6 Location of the sensor pad

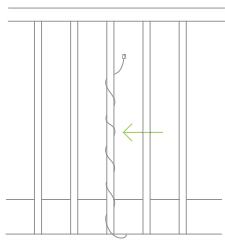


Fig. 7 Securing the connecting cable

3. Remove the battery cover and insert the batteries. The battery compartment has the polarity marked inside for inserting the battery.

2. Route and secure the connecting cable so that the child cannot pull on it and it does not form loose sections or loops. If you do not use the entire length of the cable, roll up the unused part and tighten it tightly with a tie wire. Keep the roll out of the reach of children.

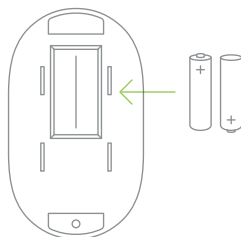


Fig. 8 Inserting the batteries



4. Connect the connecting cable to any socket in the control unit. The connector must click and hold when inserted.

Fig. 9 Connecting the connecting cable to the control unit

5. For your convenience, you can hold the control unit with various accessories:

- a cot holder and Velcro - you can tighten the Velcro to the circumference of the upper edge of the cot;
- holder and double-sided adhesive tape to place it on the side of furniture or another solid surface;
- cot clip;
- a stand for the control unit - it can be placed, for example, on the bedside table next to the bed.

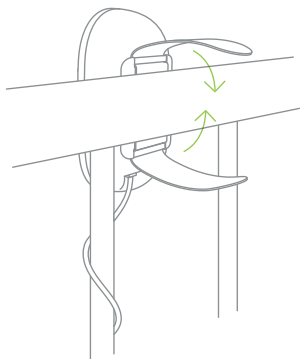


Fig. 10 Holder and Velcro

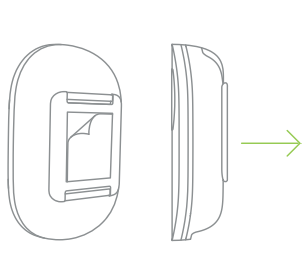


Fig. 11 Holder and adhesive tape

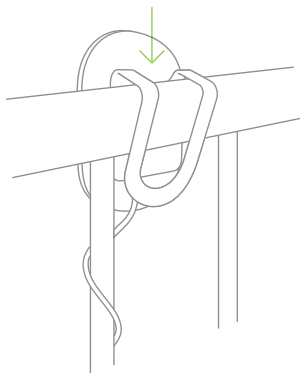


Fig. 12 Cot clip

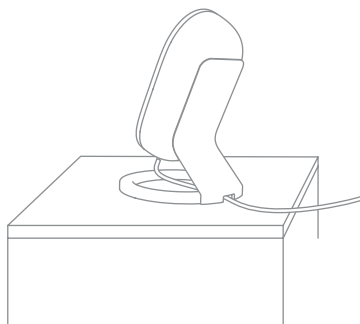


Fig. 13 Stand

Always make sure that you can hear the control unit.

6. **Perform a usability test at the installation site - see next section.**

The monitor is then ready for use.

4. IN SITU MONITOR USABILITY TEST



We recommend performing the usability test daily, but at least when changing the location of the bed or monitor.

- Make sure the green light flashes while the baby is in the cot. The green light reacts by flashing with the baby's breathing or movements. The flashing of the light may not be regular - the frequency corresponds to the baby's movements or breaths.
- Then take the baby out of the cot and move away from the cot. Wait a while for the vibrations from your movements and the mattress to subside.
- If a pre-alarm sounds after 17 secs and an alarm after 20 secs, the monitor has passed the usability test and can be fully relied upon. Verify that the alarm sound can be heard in all areas where the parents or other caregivers are present.



If the green light flashes even when the baby is not in the crib, the monitor is detecting disturbance in the surroundings. Surrounding shocks or vibrations with a similar frequency can be falsely evaluated by the device as the baby's breathing / movements, therefore they must be eliminated in order to ensure the device works reliably and the baby is safe! Disturbance can be caused by intense airflow (fans, air conditioning), walking near the bed, mechanical vibration from household appliances, etc. Eliminate disturbance in the surroundings or relocate the cot!

5. POWER SUPPLY AND REPLACING THE BATTERIES

The device is powered by two alkaline 1.5 V/AA batteries and monitors their power. The device distinguishes between low and critical battery level.

Low battery is indicated by a flashing red light with a picture of a battery. All functions except the lamp are retained. The low battery indication lasts for about 2 weeks before the batteries are completely empty, so you have enough time to replace them. The batteries must be replaced as soon as possible after the red low battery indicator comes on.

In the event of a **critically low battery**, the fault is indicated audibly during the automatic test and the device does not turn on. Replace both batteries immediately!

The batteries need changing depending on the intensity of use - usually after 4-12 months. Before replacing the batteries, switch off the device by pressing the mechanical button. Remove the battery cover and remove the original batteries.

Remove the batteries when you are not using the monitor at all.

6. SENSOR PAD

The sensor pad is included in the package. It can also be bought separately as a spare part labelled BM-03D.

One sensor pad is enough until the baby is about 6 months old. If the baby starts to climb or move in the cot, the monitored area can be enlarged by attaching a second sensor pad. The control unit contains 2 sockets for connecting the sensor pads. The sockets are identical, so the connector can be connected to either of them in any order.

The device will not be in active mode until at least one BM-03D sensor pad is connected.

If any sensor pad is disconnected in active mode, the alarm is sounded immediately. If the pad is disconnected in standby mode, a warning beep will sound and the red light around the mechanical button will flash 3 times.

It is best to buy a set of 2 pads. The second pad can be used in multiple places in the baby's first months of life - for example, in another bed, at its grandparents, etc. In this case, only the control unit is moved. When the baby grows up, the second pad can be attached to the baby's cot together with the original pad.

Both pads are connected to the sockets on the bottom of the control unit. Always keep loose cables or loops out of reach of the baby.

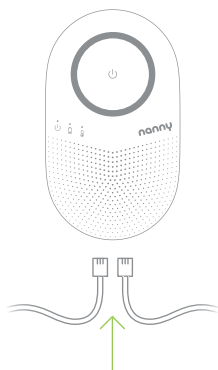


Fig. 14 Connecting two sensor pads to the control unit

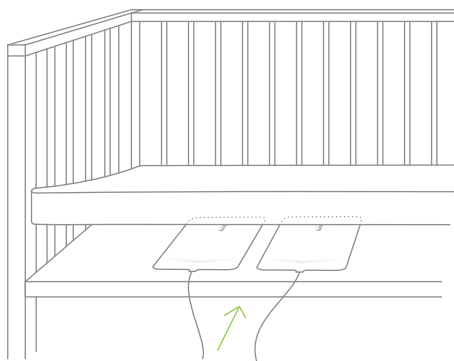


Fig. 15 Using two sensor pads



To monitor twins, a separate breathing monitor is needed for each baby - so it is not possible to use the same control unit for 2 babies at the same time, even though each will lie on its own mat. To use the breathing monitor effectively, babies must always lie in their own cot, otherwise the monitor may detect the other baby's movements.

6.1 LIFE SPAN OF THE SENSOR PAD



The life span of the sensor pad is set at 2 years, after which the pad must be replaced.

As auxiliary data, the Nanny BM-03 breathing monitor also monitors the number of hours the monitor has been in operation - if it is likely the pad has exceeded the specified life span, a warning beep will sound 3 times during each automatic test. However, the date it is put into service is decisive for determining the life span.

The sensor in the pad may wear out over time, so it may not correctly sense your baby's movements and breathing. In this case, the monitor may give false alarms that will cause you unnecessary worries. **False alarms** may not endanger your baby's life or health, but you will hear the alarm so often that you prefer to turn off the monitor or reduce your alertness, which could endanger your child.

7. MAINTENANCE AND CLEANING

The device does not require any special maintenance other than replacing the batteries and cleaning. We simply recommend that you check the sensor pad in the cot from time to time to ensure moisture has not condensed where the pad touches the mattress. It is advisable to turn the mattress 180 ° in the cot once in a while, or turn it upside down or let it air, etc. Only use a slightly damp cloth for cleaning. Avoid wet wipes or other materials that may have loose fibres that can clog the holes in the control unit.

It is not necessary to sterilize the breathing monitor when in medical facilities. The device does not require sterilization or disinfection between use by different patients. The device can be treated with **commonly available disinfectants** at a concentration in line with the manufacturer's recommendations for the given level of disinfection. Keep in mind that moisture entering the battery compartment or the control unit during cleaning can damage the device. Only use a cloth dampened with disinfectant solution for disinfection and only wipe the device lightly.

The frequency of cleaning is not specified by the manufacturer and the frequency of cleaning does not affect the product's life span. As concerns further maintenance, the device does not have a measuring function to be calibrated.



During maintenance, protect the pad, supply cable and connectors from mechanical damage and moisture entering.

8. ALARM STATES

PHYSIOLOGICAL ALARMS

Alarm state	Priority	Light indication	Acoustic indication
Low breathing rate Number of inhalations/exhalations less than 8/min. (evaluated in active mode)	High	Red LEDs flash in a circle around the mechanical button (2.5 Hz, 200 light/200 ms pause)	Alarm - continuous melody 80 dB/m +/- 5%
Respiratory arrest No respiration for more than 17 secs (evaluated in active mode)	High	Red LEDs flash in a circle around the mechanical button (2.5 Hz, 200 ms light/200 ms pause)	Respiratory arrest pre-alarm 7 short tones (200 ms on/200 ms off) after 17 secs of not detecting breathing), then alarm after 3 secs from the start of the pre-alarm - continuous melody 80 dB/m +/- 5%

TECHNICAL ALARMS

Alarm state	Priority	Light indication	Acoustic indication
Sensor pad disconnected Loss of communication with the pad (evaluated in active mode)	Moderate	Orange colour flashes in a circle around the mechanical button (5 Hz, 100 ms light/100 ms pause)	Technical alarm - high intensity intermittent tone (100 ms tone/100 ms pause)
Mechanical switch jam detected in active mode (evaluated in active mode)	Moderate	Orange colour flashes in a circle around the mechanical button (5 Hz, 100 ms light/100 ms pause) and at the same time the indicator light with the power-on symbol flashes orange (5 Hz, 100 ms light/100 ms pause)	Technical alarm - high intensity intermittent tone (100 ms tone/100 ms pause)
Reset caused by a watchdog that monitors the technical state of the device (evaluated after switching on the unit)	Moderate	Orange colour flashes in a circle around the mechanical button (5 Hz, 100 ms light/100 ms pause)	Technical alarm - high intensity intermittent tone (100 ms tone/100 ms pause)

Operator's response to alarm states

High priority: The need for immediate operator response | Moderate priority: The need for rapid operator response

9. OPERATOR WARNING

Event	Light indication	Acoustic indication
Low battery	The indicator light with the battery symbol flashes slowly and red (100 ms light/2 s pause).	No acoustic signal
Critically low battery	The indicator light with the battery symbol flashes quickly and red (100 ms light/300 ms pause)	No acoustic signal
Detecting a child placed on the pad (evaluated in standby mode)	The indicator light with the power-on symbol flashes orange (1 Hz, 500 ms light/500 ms pause)	1x beep - warning after 30 secs from child presence detection, if the child is still detected (1 sec tone)
Detecting a child removed from the pad (evaluated in active mode)	The indicator light with the power-on symbol flashes orange (5 Hz, 100 ms light/100 ms pause) (Ends when breathing detected, but 30 times at most.)	3 notification beeps (300 ms tone/300 ms pause) (ends when breathing detected, but 3 times at most)
Low temperature indication (evaluated in active mode)	The indicator light with the thermometer symbol flashes blue (100 ms light/2 secs pause). (Lasts until the low temperature is no longer detected.)	No acoustic signal
High temperature indication (evaluated in active mode)	The indicator light with the thermometer symbol flashes orange (100 ms light/2 secs pause). (Lasts until the high temperature is no longer detected.)	No acoustic signal
Indication that the sensor pad is disconnected in standby mode (evaluated in standby mode)	3x red flashes in a circle around the mechanical switch (100 ms light/100 ms pause)	1x beep - warning (500 ms tone)
Mechanical button jam detected in standby mode (evaluated in standby mode)	Light with the orange power-on symbol constantly lit. Releasing the button stops the light.	No acoustic signal
Error indication and warnings after automatic functionality test (evaluated and indicated when switching to active mode)	Critical error detected - Red LEDs flash in a circle around the mechanical button Warning detected - no light indication.	Acoustic indication according to the type of error or warning
Indication to enable/disable light functionality	3x flashes of the lamp (300 ms light/300 ms pause)	No acoustic signal
Indication of the Switch Guard function being disabled	3x orange flashes of the indicator light with the power-on symbol (500 ms light/500 ms pause)	2x notification beeps (1 sec tone, 1 sec pause)
Indication of the Switch Guard function being enabled	2x orange flashes of the indicator light with the power-on symbol (1 sec light/1 sec pause).	1x notification beep (3 sec tone)
Indication of unsuccessful light activation or light forcibly turned off due to low/critically low batteries	5 x flashes of the indicator light with the battery symbol in red (100 ms light/100 ms pause)	No acoustic signal

10. IMPORTANT WARNING

Use in an incubator	The Nanny Breathing Monitor can also be used in an incubator. Only the sensor pad can be placed in an oxygen-enriched environment, the control unit must always be located outside. Prior to use, make sure that the incubator does not cause vibrations that could lead to false detection of the child's movement.
Monitoring twins	When using the Nanny BM-03 breathing monitor for twins, the basic condition is that each child must have its own cot, in which a separate breathing monitor is installed. Therefore, the same control unit cannot be connected to 2 sensor pads. For the device to work properly and evaluate the impulses, the cots must not be touching each other.
Age of the baby	Use of the Nanny Breathing Monitor is not determined by the child's age, but by its weight. The manufacturer recommends a Nanny breathing monitor for children from a min. weight of 1 kg and a max. weight of up to 15 kg. A heavier child may cause mechanical damage to the sensor.
Correctly placing the control unit	The acoustic indicator of the monitor's control unit must not face the child and must be placed at least 0.5 meters away from the child's head to prevent possible damage to its hearing.
Correct placement of the cot	The device uses a very sensitive sensor to sense breathing. Its operation may be affected by shocks to the cot, the floor or even the building. The cot must therefore not touch a bed, in which another person is sleeping, nor must it touch or be in the vicinity of any devices that vibrate.
Use in a pram or cradle	We do not recommend this use! A pram or cradle can move spontaneously, which can lead to "false movements" being detected. It is only possible to use the breathing monitor in places where the sleeping area is fixed and does not touch anything.
Using another sensor pad	This medical device is not intended to be used with other medical devices. The monitor will not turn on if a different type of sensor pad or one from a different manufacturer is connected to it. Likewise, the BM-03D sensor pad cannot be used in combination with another type of monitor from another manufacturer.
Mattresses	Most commonly available mattresses can be used with the breathing monitor. The mattress should be 12 cm thick at most. It is not recommended to use mattresses made of too hard a material (polystyrene foam, etc.), which can more easily absorb interfering shocks from the surrounding air moving.

Baby supervision - help within reach	Please note that the device can only alert you, but it does not of itself prevent the risk of respiratory arrest! If the child has a health problem, it is up to you or the doctor to help it. Likewise, do not move too far away from your child so you cannot hear and be able to respond to an alarm. Do not use the monitor in an environment where you may not hear or see the alarm (an environment that is too noisy or too bright). Supervision must be carried out only by sighted and hearing persons who are able to correctly distinguish the alarm and help the child.
Guarantee	The manufacturer is responsible for the functionality of the BM-03 product if it is installed and used according to this manual and its recommendations, otherwise it does not bear any responsibility. The manufacturer is not responsible for the proper functioning of the product if it has suffered mechanical or other damage or if the product's life span has been exceeded. The manufacturer is not responsible for battery defects.
A used or borrowed breathing monitor	The manufacturer strongly discourages buying this product used or getting it from a hire company. If it is handled incorrectly, the sensing device's sensitivity may be reduced leading to, among other things, an increase in false alarms. In these cases, the manufacturer is not responsible for the product's functionality.
Modifying the breathing monitor	Do not open or modify the monitor. Otherwise, the manufacturer cannot guarantee the correct functionality and usability of the monitor and assumes no responsibility.
Mechanical damage to the device	Do not use the monitor in case of mechanical damage, such as breakage of a large part of the device's plastic cover - this could cause excessive release of light or sound, which could harm your child. If the indicator symbols are no longer legible, for example due to careless or incorrect cleaning, only use the device if you can correctly distinguish the light indications of the symbols, or ensure that the symbols are marked in an alternative way (sticker or special marker pen). Otherwise, send the device for service.
Wireless technology in range	Please use wireless communication devices, such as wireless home networks, mobile phones, cordless phones, and their base stations, portable stations, which may affect the proper operation of the monitor, at a distance of at least 1 m from any part of the monitor.
Amateur radio equipment in range	Amateur radio transmitters and their antennas should be at least 10 m away. However, the manufacturer cannot guarantee the proper functioning of the monitor during radio operation due to the various types of equipment, transmission powers and antenna systems.

False alarms - the monitor sounds an alarm although the child is breathing regularly

1) Whilst breathing the **child's movement did not reliably reach the sensor pad.**

- For very small babies, the sensor pad can be placed directly under the sheet (but always use an insulating pad to prevent liquids leaking into the pad). Placing it here minimizes the likelihood of false alarms. When the baby starts to move in the cot, place the sensor pad under the mattress. If the baby lies in an inclined position (if it should have its head raised as part of a doctor's recommendation), there should be good mechanical contact between the baby, the mattress and the sensor pad. Prop up the cot base (not just the mattress) to meet this condition. Or prop up the back legs of the cot.
- Check that the mattress really lies with its entire weight upon the sensor pad. The mattress must not be clamped tightly against the walls of the cot so that it does not "float" above the cot's base.

2) The sensor pad does not sense the baby's breathing properly - the sensor in the pad is probably **mechanically damaged** (for example due to a fall) or the **pad's life span has expired (2 years)** - the sensor pad needs to be replaced.

There was no alarm after taking the baby out of the cot

The sensor pad detects disturbance in the surroundings that need to be removed. Follow section 4.

After switching on, the device indicates empty batteries

Make sure you have not used rechargeable batteries (they have a lower voltage and the device evaluates the situation as low batteries). Only alkaline batteries can be used.

The lamp does not light

The lamp is deactivated at the factory - follow section 2.2.2. to activate it. The lamp is also deactivated when the batteries are low. If you want to continue using it, replace the batteries.

I placed the child on the pad in standby mode, but the unit does not signal the child being placed on the pad

This is correct behavior of the monitor. The monitor is equipped with an intelligent evaluation of the stimulation on the pad, which constantly monitors the environment and tries to distinguish the probable movements of the child on the pad from the surrounding stimulation. It is also equipped with a timer, which repeats the signaling of the laying of the baby only if no signal has been detected for a certain time (10 s) since the previous signaling. Therefore, the monitor will evaluate that the child may have actually been placed on the pad, and only then will it alert you of the possible need to switch the monitor to standby mode. Also check that you have not deactivated the Switch Guard function (see chapter 2.2.1) - this would be signaled by a 2x warning beep after switching on the unit during the automatic functionality test.






12. TECHNICAL SPECIFICATIONS

Power supply	3 V; 2 × 1.5 V alkaline battery type AA (LR6)
Idle consumption	106 µA
Consumption during an alarm	270 mA
Low battery indicator voltage	2.46 V ± 0.15 V
Critically low battery indicator voltage	2.2 V ± 0.15 V
Threshold breathing rate	< 8 breaths/min (i.e. < 0.13 Hz)
Measuring range for room temperature	-40° to 85°C with an accuracy of ± 0.2°C
Typical battery life - home health care	6 months (this is reduced with frequent alarm testing and using the lamp)
Typical battery life - health care provider	4 months (this is reduced with frequent alarm testing and using the lamp)
Sensor pad	Type BM-O3D, dimensions max. 300 × 500 × 15 mm
Acoustic alarm level	80 dB/m ± 5 % dB/m
Electronic control unit - dimensions	max. 140×82×37 mm, weight 125 g + batteries
Operating conditions	+5 °C to +40 °C, RH 15 % - 93 %, 700-1200 kPa
Transport and storage	0 °C to +70 °C, RH 10 % - 85 %, 700-1200 kPa
Ingress protection	IP31
Life span of the sensor pad	2 years from putting into service
Service life of the control unit	10 years
Service life of the device	10 years under the condition of replacing the sensor pad after its life span (i.e. every 2 years)

Meets the following standards:

EN 60601-1:2006/A1:2012/Cor.1:2014
 EN 60601-1-2:2015
 EN 60601-1-6:2010/A1:2015
 EN 60601-1-11:2015
 EN 62366-1:2015; EN 50581:2012
 EN ISO 10993-1:2009/AC:2010
 EN ISO 14155:2011; EN 14971:2019
 EN 14485:2003

13. DEFINITIONS AND SYMBOLS

ME device	Medical electrical device (with attachment that detects energy from the patient)
EMC	Electromagnetic compatibility (a set of normative requirements for a ME device)
SIDS	Sudden infant death syndrome
	Designation of the attachment part type BF
	General sign for compulsory activity
	General warning
	Refer to the operating manual
IP31	The device's immunity to the ingress of foreign bodies and water (Ingress protection class)
 0xxxxnnnnnnnn	Product identification by barcode Prefix: 0xxxx product identification (02594 unit; 02593 pad): Suffix: nnnnnnnn serial number

Certification performed by the notified body EZU Prague No. 1014.
The product has been clinically evaluated and is registered by
the Ministry of Health of the Czech Republic as a medical device class IIb.



JABLOTRON ALARMS a.s. declares that the product BM-03 is designed and manufactured in accordance with the harmonization legislation of the European Union: Directive No. 93/42/ECC, as last amended, when used as intended. The original Declaration of Conformity is at www.monitornanny.com

After use, the battery should not be thrown into the bin, but returned to a collection point. Although it is free of any harmful materials, do not dispose of it in normal waste, but in special containers or collection points for the disposal of small electrical equipment, or hand it over to the dealer or directly to the manufacturer.

PRODUCTION, DISTRIBUTION AND SERVICE:

JABLOTRON ALARMS a.s.

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14. EMC OF A MEDICAL DEVICE

14.1 EMISSIONS LIMITS BY ENVIRONMENT

Phenomenon	Professional medical facilities ^{a)}	Home health care ^{a)}
RF emissions propagated by conduction and radiation	CISPR 11	CISPR 11 ^{c) d)}
Harmonic distortion	see IEC 61000-3-2 ^{b)}	see IEC 61000-3-2
Voltage fluctuations and flicker	see IEC 61000-3-3 ^{b)}	see IEC 61000-3-3

- a) For information on the intended use environment.
- b) his test is not applicable in this environment if the ME devices and ME systems used are connected to the public power supply network and the power supply is otherwise within the scope of the basic EMC standard.
- c) ME instruments and ME systems intended for use in aircraft must meet the requirements of RF EMISSIONS pursuant to ISO 7137. The conducted RF EMISSION test is only performed for ME instruments and ME systems that are intended for connection to an aircraft's on-board network. ISO 7137 is identical to RTCA DO-160: 1989 and EUROCARD ED-14C: 1989. The latest editions are RTCA DO-160G:2010 and EROCAE ED-14G:2011. Therefore, section 21 (category M) of a newer edition, such as [39] or [40], should be used.
- d) Standards applied for other modes or the EM transport environments for which they apply. Examples of standards that could apply are CISPR 25 and ISO 7637-2.

14.2 IMMUNITY REQUIREMENTS - INPUT AND OUTPUT THROUGH THE DEVICE'S COVER

Phenomenon	Basic standard for EMC or test method	Immunity test levels	
		Professional medical facilities	Home health care
Electrostatic discharge	IEC 61000-4-2	± 8 kV or contact charge ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV for air discharge	
RF EM fields propagated by radiation ^{a)}	IEC 61000-4-3	$3 \text{ V/m}^{f)}$ $80 \text{ MHz} - 2.7 \text{ GHz}^{b)}$ $80\% \text{ AM at } 1 \text{ kHz}^{c)}$	$10 \text{ V/m}^{f)}$ $80 \text{ MHz} - 2.7 \text{ GHz}^{b)}$ $80\% \text{ AM at } 1 \text{ kHz}^{c)}$
Near fields from RF wireless communication devices	IEC 61000-4-3	see 8.10.	
Magnetic field of specified mains frequencies ^{d) e)}	IEC 61000-4-8	$30 \text{ A/m}^{g)}$ $50 \text{ Hz or } 60 \text{ Hz}$	

- a) If an interface is used between the simulation of the patient's physiological signal and the ME device or ME system, it must be located within 0.1 m of the vertical plane of the homogeneous field area in one direction with the ME device or ME system.
- b) An ME device or ME system that intentionally receives RF electromagnetic energy for its operation must be tested at the reception frequency. Testing may be performed at other modulation frequencies determined in the risk management process. This test assesses the basic safety and necessary functionality of the intended receiver when the ambient signal is in the passband. It is understood that the receiver may not achieve normal reception during the test.
- c) Testing may be performed at other modulation frequencies determined in the risk management process.
- d) Valid only for ME devices and ME systems with magnetically sensitive components or circuits.
- e) During the test, the ME instrument or ME system may be supplied with any nominal input voltage, but at the same frequency as the test signal.
- f) Before using modulation.
- g) This test level assumes a minimum distance of at least 15 cm between the ME device or ME system and the source of the mains frequency magnetic field. If the risk analysis shows that the ME instrument or ME system will be used closer than 15 cm from the source of the mains frequency magnetic field, the immunity test level must be set as is appropriate for the minimum expected distance.

Test frequency MHz	Band ^{a)} MHz	Service ^{a)}	Modulation ^{b)}	Maximum output W	Distance m	Immunity test level V/m
385	380 to 390	TETRA 400	Pulse modulation ^{b)} 18 Hz	1.8	0.3	27
450	130 to 470	GMRS 460 FRS 460	FM(c) \pm deviation 5 kHz 1 kHz sinusoidal waveform	2	0.3	28
710	704 to 787	LTE Band 13,17	Pulse modulation ^{b)} 217 Hz	0.2	0.3	9
745						
780						
810	800 to 960	GSM 800/900	Pulse modulation ^{b)} 18 Hz	2	0.3	28
870		TETRA 800				
930		iDEN 820 CDMA 1900 DECT LTE Band 5				
1720	1700 to 1990	GSM 1800/1900 CDMA 1900 DECT LTE Band 1,3, 4, 25 UMTS	Pulse modulation ^{b)} 217 Hz	2	0.3	28
1845						
1970						
2450	2400 to 2570	Bluetooth WLAN 802.11 b/g/n RFID 2450 LTE Band 7	Pulse modulation ^{b)} 217 Hz	2	0.3	28
5240	5100 to 5800	WLAN 802.11 a/n	Pulse modulation ^{b)} 217 Hz	0.2	0.3	9
5500						
5785						

NOTE: If necessary to achieve the immunity test level, the distance between the transmitting antenna and the EM device or EM system can be reduced to 1 m. According to IEC 61000-4-3, a distance of 1 m is permitted.

a) For some services, only uplink frequencies are included.

b) The carrier wave must be modulated using a rectangular signal fill factor of 50%.

c) As an alternative to FM, 50% pulse modulation at 18 Hz can be used, because even if it does not represent real modulation, it would be the worst case.

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