BM-02 NANNY BABY RESPIRATION MONITOR

Congratulations on the birth of your baby and thank you for deciding to purchase the Nanny BM-02. Using the Nanny will give you confidence that your sleeping baby is breathing steadily. This in turn will help to give you peace of mind.

DESCRIPTION

The Nanny BM-02 continuously monitors a baby's breathing and movements. In the absence of these indications the Nanny triggers an acoustic and visual alarm. This happens after 20 seconds of not registering any breathing movements or should the breathing rate drop below 8 breaths per minute.
The Nanny's ultra-sensitive pad is designed to be positioned under the mattress of the baby's crib or cot. From this position the pad can detect the smallest movement from the baby as she sleeps. Signals from the sensor are then transmitted to the control unit, a green light on the control unit will pulse in sympathy with any movements or breathing detected by the pad. The Nanny has no physical contact with the baby and the pad does not generate any form of radiant energy.
Warning: The Nanny is designed to alert you to potential problems that your baby may be experiencing with her breathing but it cannot take any action. Practical first-aid advice is provided later on in this manual to help you in case there is an emergency.

INSTALLATION

1. Place the sensor pad on the bottom of the cot as shown in the diagram. Position the pad so that it is directly underneath the area where the baby will be sleeping then place the mattress on top of the sensor pad. Follow these guidelines:

- The center of the sensor pad should be approximately positioned where your baby's chest is.
- The pad should be on a smooth and solid surface – **It must not be bent!**
- If there is only a spring grid on the bottom of the bed, place a solid board (wood, plywood etc.) under the pad.

- If you want to use the Nanny in more than one cot, you may use additional pads (item number BM-02D, sold separately) and then just attach the control unit to the pad in the cot your baby is using. You can also attach two pads to a single control unit so that a larger area of the cot can be monitored, this is particularly useful for older infants who are more likely to move around the cot. Both of the pads connect to the alarm unit via a splitter (supplied).

Using the Nanny BM-02 for twins: Each baby must have its own cot with a separate control unit and sensor pad in each cot. The cots must not touch. For the purposes of monitoring using the Nanny, the twins **must not share the same cot** even if they each have their own Nanny within the cot.

2. Inserting batteries into the control unit:

- The battery compartment is located on the rear of the control unit.
- To open the battery compartment lid, use the palm of your hand and slide it off.
- Use 2 new AA size alkaline batteries.
- The polarity of the batteries is clearly marked in the battery compartment.
- Close the lid and turn the switch to position I.
- The indicators will flash in sequence and you will hear a beep.
- Switch the unit OFF again (position 0).
- If there is no beep after turning ON, check the batteries.

3. Securing the control unit:

- If securing the control unit to the bars of the cot then use the fastening strap (supplied)
- Alternatively the alarm unit can be fixed to a wall using the wall-mount holder (supplied).
- Once attached, the unit should be clearly visible to you and should not be covered.
- We recommend that you position the unit out of the reach of older infants.

4. Connecting the pad's cable to the control unit:

- Wrap the cable around a bar of the cot in such a way that there is no loose cable for the infant to pull on. Insert the cable connector into the alarm unit until you hear a click.
- Any excess cable should be pushed firmly under the mattress.
- Should you wish to position the alarm unit in a different room to the one where the cot is then you can use the 5-meter extension cable (supplied). Do not use more than one extension cable.
- When using two pads in a cot, use the cable splitter supplied.
- To disconnect the cable from the unit – press the connector tab towards the cable and pull.

SWITCH AND INDICATORS

Switch – position 0 = OFF, I = ON

Green indicator (smiley face) – a short flash indicates a breath or a movement of the baby

Red indicator (unhappy face) – flashes when there is an ALARM

Red battery indicator – flashing indicates low batteries

TO OPERATE

1. Lower your baby into the cot.
2. Turn the unit on. The indicators will flash and you should hear a beep.
3. The green indicator will flash as your baby breathes or moves.

ALARM

If your baby stops breathing for more than 20 seconds, or her breathing rate is too low then a loud alarm will sound from the control unit together with a flashing red indicator.
When the alarm sounds check your baby and provide first aid if necessary. Make sure that there are no obstructions in her breathing passages, start resuscitation then call the emergency services. In some cases of apnea (cessation of breathing), the sound of the alarm may rouse the baby sufficiently to get her breathing again. The alarm can be stopped by switching the unit off.
Please note: False alarms may occur if the installation guidelines are not followed or if the infant crawls off the pad.

TESTING

The Nanny BM-02 should be tested once a week by following this procedure:
1. When the baby is in the cot and the unit is ON, the green indicator should flash as the baby breathes and moves.
2. Leave the unit ON and take the baby out of the bed. The green indicator may continue to flash for a short time due to the vibrations caused by the removal of your baby. Do not hold or touch the bed as the device may detect your breathing.
3. When the flashing has stopped for 20 seconds, the unit will emit warning beeps for 5 seconds and then sound the alarm. The red indicator should also be flashing when the alarm is triggered. Stop the alarm by turning the switch on the unit OFF.

If the device does not work as described above, check that:
1. There is a beep after switching it on. If not, check the batteries.
2. After lifting the baby out of the cot the green indicator should stop flashing within a minute or so. If the green indicator continues to flash then the device is detecting environmental vibrations – see the following warning.

Warnings:
- The Nanny is sensitive enough to detect the slightest movement caused by a baby's breathing. Environmental vibrations of the bed, the floor or the entire building can influence its performance. The cot should not be in physical contact with another bed which is being used by another person or animal nor should it be in contact with any device that generates vibrations. Environmental vibrations can also be caused by a powerful air movement, for example; air movement caused by a fan, air-conditioning or even just walking past the cot!

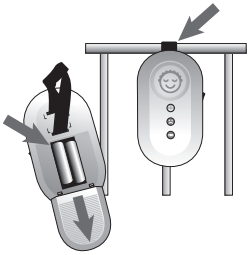
Note: If you need to move the cot to a new location ensure that you test the Nanny has not been compromised by any new and unforeseen environmental vibrations at the new location.

- Do not use a mattress made of a hard material such as expanded polystyrene as this may result in the device malfunctioning, harder materials tend to transmit environmental vibrations more efficiently than softer materials.
- Please be aware that the device can only warn you of an emergency with respect to a baby's low respiration (breathing) rate. Once the alarm is sounded an adult should be close enough to respond quickly and if it is an emergency be prepared to carry out resuscitation on the child and arrange for the emergency services to be called.
- The manufacturer provides a warranty for the Nanny. The warranty does not extend to batteries and the manufacturer is not responsible if it is found that the Nanny has not been used in accordance with the instructions outlined in this manual. The lifetime of the sensor pad is 2 years. At the end of 2-years

we recommend that you purchase a replacement sensor pad as the manufacturer does not guarantee the correct functioning of the sensor pad after 2 years of use.

- The manufacturer does not recommend buying or renting a second-hand product as careless handling of the sensor pad by some users could result in impaired sensitivity. The manufacturer cannot be held responsible for damage or impairment of rental or second-hand devices.

BATTERY REPLACEMENT



If there is no beep sound after turning the unit on and the red indicator flashes then the batteries need to be replaced. Replace with 2 new AA size alkaline batteries (polarity is clearly marked in the battery compartment). Once the batteries have been replaced, switch the Nanny on and check for the beep sound.

Note: Do not use rechargeable batteries.

MAINTENANCE AND CLEANING

The Nanny does not require regular maintenance however it is recommended that the Nanny is tested weekly. To clean, use a soft damp cloth to wipe the device when necessary, aggressive cleaning fluids should not be used. Avoid water or any other liquid getting inside the control unit or inside the sensor pad. **Protect the sensor pad from physical damage. This includes (but not exclusively): impact blows, dropping and bending.**

FAQ

1. Why did the Nanny trigger an alarm, when the baby was breathing normally and regularly?

Answer: Movements of the baby's body during breathing were not reliably being detected by the sensor pad.

Solution:

- Babies up to 3 months of age have a low weight and do not change their position in bed, it is recommended that you place the sensor under the sheet, towel or blanket the baby lies on. This helps to minimize false alarms. Once the infant starts to roll and crawl, place the sensor under the mattress.
- If the baby has to lie on a slope, with his head higher than his body (following doctor's orders), it is still necessary to maintain close contact between the baby, mattress and the sensor pad. Check that the mattress lies entirely on the sensor pad with its own weight. It is better to raise the feet of the cot rather than the mattress.
- The mattress must not be firmly gripped by the sides of the bed and shouldn't be "hanging" above the bed's base.

2. Why wasn't an alarm triggered after taking the baby out of the crib?

Answer: A disruptive vibration was detected by the sensor pad, possibly caused by:

- Are there people walking past the crib? (This is a problem particularly if the crib is on a parquet or laminate floor) To reduce the effect of floor vibrations, place pieces of carpet under the legs of the cot to absorb the vibration.
- Is there an open window near the crib and it is windy outside. It is important to eliminate any disruptive vibrations for Nanny to function properly.
- If the crib is in contact with a fridge or another source of vibration it will be necessary to separate the source of vibration.

3. How can the Nanny be used for twins?
Answer: Each of the twins must have his own crib without any physical contact between them. Each baby must have his own independent Nanny system. It is not possible to use two separate sensor pads connected to one control unit because the movement from one twin would be detected and prevent any potential breathing difficulties being detected from the other twin.
4. Is it possible to use the Nanny in a cradle (swinging), pram or Moses basket?
Answer: It is only possible to use the Nanny in a pram if the pram is not moving and is not being touched by anyone. It needs to be positioned in a quiet place away from environmental vibrations. The same conditions apply for cradles and Moses baskets.
5. Why is there a low battery warning just after switching on the device?
Answer: Ensure that you have not used rechargeable batteries as their voltage is lower and therefore false alarms are triggered. Only use alkaline batteries in the device.
6. Why doesn't the device work properly anymore?
Answer: This can be caused by a damaged cable or its connector. It could be the result of pulling, possibly by the baby, or the cable not being attached to the crib in accordance with the instruction outlined in this manual. Another reason could be damage to the pad caused by careless handling (dropping it on the floor, bending etc).
Solution: Contact the JABLOTRON ALARMS a.s. service department.
7. What should I do if the Nanny is faulty?
If you are experiencing any difficulties with the device, please contact our technical support team before contacting your retailer. The difficulties are often caused by incorrect installation or use of the device. All the installation and correct usage instructions can be found within this manual. Beyond this, we are happy to help with any problems you may be experiencing. If however there is a technical defect in your device, we will try to find the best and fastest solution to suit you so you won't be without your Nanny for too long.

SPECIFICATIONS

Power	*3 V, 2 x 1.5 V AA size alkaline batteries*
Stand-by consumption	*0.2 mA*
Average battery life time	*6 months (frequent testing makes it shorter)*
Recommended weight of baby	*from min. 2 kg to max. 15 kg*
Sensor pad	*model BM-02D, size max. 305 x 500 x 15 mm, weight 1 500 g, made of PVC-P*
Control unit	*size max. 140 x 80 x 35 mm, weight 150 g, made of ABS*
Working environment	*+5 °C to +35 °C, rel. humidity 30 % to 75 %*
Storage environment	*0 °C to +40 °C, rel. humidity 10 % to 85 %*
Lifetime of the product	*2 years*

Contents: *sensor pad, control unit, extension cable, splitting connector and plastic wall mount holder.*
Conformity assessment was done by Notified Body No.1014. CE 1014
It has also been registered by the Ministry of Health Care in the Czech Republic. ***JABLOTRON ALARMS a.s., hereby declares that the BM-02 is in compliance with the essential requirements and other relevant provisions of Directive 1993/42/EC****. The original of the conformity assessment can be found on the web page www.jablotron.com, technical support section.*
Note: *Dispose of batteries safely depending on the type of the batteries and local regulations. Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the manufacturer after use.*

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General procedures of child and infant resuscitation. If your baby is unresponsive: shout for help and then open the airways. If the child is not breathing normally perform 5 rescue breaths. Should the child be still unresponsive after that perform 15 chest compressions and 2 rescue breaths. After one minute call resuscitation team and then continue CPR.

BREATHING EVALUATION:

Look for chest movements. Listen by the child's nose and mouth for breathing sounds. Feel for air movement on your cheek. Look, listen and feel for no longer than 10 seconds before deciding that breathing is absent.

BREATHING PASSAGES, EVALUATION AND RELEASE OF BREATHING PASSAGES:

Unconsciousness may lead to a child's tongue locking and the consequential blockage of the airways. It is essential to open the airways. Carefully tilt the head backwards by placing one hand on the child's forehead and gently tilting the head back. At the same time with your fingertip under the point of the child's chin, lift the chin. Do not push on the soft tissues under the chin as this may block the airway. If you still have difficulty in opening the airway, try the jaw thrust method. Place the first two fingers of each hand behind each side of the child's jaw bone and push the jaw forward **as shown on pictures 1 and 2.**

Picture 1 – *Release the breathing passages by tilting the head backwards and putting the jaw up. The first aider uses one hand to bend the head of the injured person and stretch the neck. Using the forefinger of the second hand he puts up the bottom jaw (up and forward).*

Picture 2 – *Opening the airways by the jaw thrust method. To thrust the jaw use two fingers of each hand.*

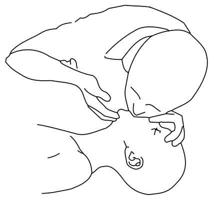
Picture 3 – *Rescue breaths (baby). The first-aider covers the nose and mouth of the child with his mouth. Using one hand he tilts the head of the child backwards while the second hand keeps the jaw upwards.*

When the airway is opened for attempted delivery of rescue breaths, look to see if a foreign body can be seen in the mouth. If an object is seen, attempt to remove it with a single finger sweep. If it appears that the obstruction has been relieved, open and checks the airway as above. Deliver rescue breaths if the child is not breathing. If the child regains consciousness and is breathing effectively, place him in a safe side-lying (recovery) position and monitor breathing and conscious level whilst awaiting the arrival of EMS.

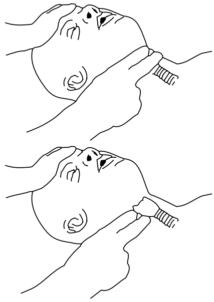
RESCUE BREATHS FOR AN INFANT:

Ensure a neutral position of the head and apply chin lift. Take a breath and cover the mouth and nasal apertures of the infant with your mouth, making sure you have a good seal. If the nose and mouth cannot both be covered in the older infant, the rescuer may attempt to seal only the infant's nose or mouth with his mouth (if the nose is used, close the lips to prevent air escape). Blow steadily into the infant's mouth and nose over 1-1.5 sec sufficient to make the chest visibly rise. Maintain head tilt and chin lift, take your mouth away from the victim, and watch for his chest to fall as air comes out. Take another breath and repeat this sequence 5 times – **see pictures 3 and 4**. If the chest is not moving, the breathing is not effective. If free air circulation cannot be achieved despite the above

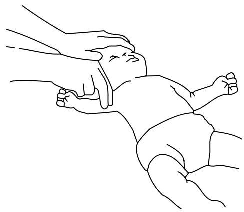
described action, you must **thoroughly check the mouth, for any obstructions** (foreign item – e.g. toy, food residues, etc.) or check the backward bend of the head and position of the bottom jaw. **If the breathing passages are free and we can feel a pulse, perform rescue breaths at a frequency of 20 breaths per minute.**



Picture 4 – *Rescue breaths. (child). The first-aider carefully covers the mouth of the child with his own mouth and uses one hand to keep the head bent backwards and block the nose of the child with his thumb and forefinger.*



Picture 5 – *Pulse examination on the carotid artery.*



Picture 6 – *Pulse examination on brachial artery.*

❥ CHECK FOR SIGNS OF A CIRCULATION:

Take no more than 10 sec to:

Look for signs of a circulation. These include any movement, coughing, or normal breathing (not agonal gasps - these are infrequent, irregular breaths) – **see pictures 5 and 6**. Check the pulse (if you are trained and experienced) **but ensure you take no more than 10 sec to do this**:

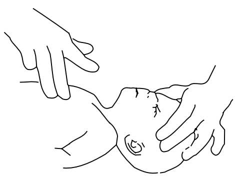
In **a child over 1 year** — feel for the carotid pulse in the neck.
In **an infant** — feel for the pulse on the inner side of the upper arm.

If you are confident that you can detect signs of a circulation within 10 sec:

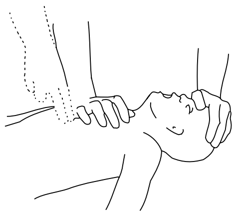
Continue rescue breathing, if necessary, until the child starts breathing effectively on his own.
Turn the child onto his side (into the recovery position) if he remains unconscious.
Re-assess the child frequently.

If there are no signs of a circulation, or no pulse, or a slow pulse, or you are not sure:

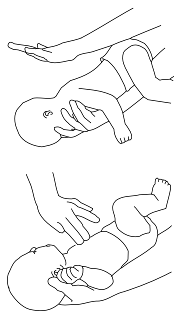
Start chest compression.
Combine rescue breathing and chest compression.



Picture 7 – *Searching for the correct area for heart stimulation of an infant. The second hand of the first-aider should keep the head tilted backwards to facilitate ventilation.*



Picture 8 – *The position of hands during the external heart stimulation of a child. The second hand of the first-aider keeps the tilted backwards to facilitate ventilation.*



Picture 9 – *Hits between the spatulas (up) and pressing the chest (down) to remove a foreign item from the breathing passages of an infant baby.*

FOR ALL CHILDREN, COMPRESS THE LOWER THIRD OF THE BREASTBONE:

To avoid compressing the upper abdomen, locate the lower part of breastbone by finding the angle where the lowest ribs join in the middle. Compress the sternum one finger's breadth above this.
Compression should be sufficient to depress the sternum by approximately one-third of the depth of the chest.
Release the pressure, then repeat at a rate of about 100 min^{-1}.
After 15 compressions, tilt the head, lift the chin, and give two effective breaths.
Continue compressions and breaths in a ratio of 15:2.
Lone rescuers may use a ratio of 30:2, particularly if they are having difficulty with the transition between compression and ventilation.

CHEST COMPRESSION IN INFANTS:

The lone rescuer should compress the sternum with the tips of two fingers.
If there are two or more rescuers, use the encircling technique:
Place both thumbs flat, side by side, on the lower third of the sternum (as above), with the tips pointing towards the infant's head.
Spread the rest of both hands, with the fingers together, to encircle the lower part of the infant's rib cage with the tips of the fingers supporting the infant's back.
Press down on the lower sternum with your two thumbs to depress it approximately one-third of the depth of the infant's chest.

CHEST COMPRESSION IN CHILDREN OVER 1 YEAR:

Place the heel of one hand over the lower third of the sternum (as above).
Lift the fingers to ensure that pressure is not applied over the child's ribs.
Position yourself vertically above the victim's chest and, with your arm straight, compress the sternum to depress it by approximately one third of the depth of the chest.
In larger children, or for small rescuers, this may be achieved most easily by using both hands with the fingers interlocked.
– see picture 8.

FOREIGN BODY OBJECT (TOYS, SMALL OBJECTS ETC):

General signs of FBAO
Witnessed episode
Coughing or choking
Sudden onset
Recent history of playing with or eating small objects

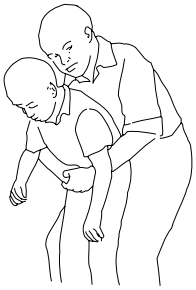
COKING IN AN INFANT:

If there is no breath of baby, you should:
Lay the baby face down along your forearm, with their head low.
Give up to 5 back blows (as shown) between the shoulder blades with the heel of your hand. Check their mouth quickly after each one and remove any obvious obstruction.
If the obstruction is still present.
Turn the baby onto their back and give up to 5 chest thrusts, with 2 fingers in the middle of the chest push inwards and upwards. Check the mouth quickly after each one.
If the obstruction does not clear after three cycles of back blows and chest thrust, dial 999 (or 112) for an ambulance.
Continue cycles of back blows and chest thrusts until help arrives and resuscitate of necessary.
Seek medical advice for any baby who has been given chest thrusts.

CHOCKING IN A CHILD:

Young children are particularly prone to choking. If a child is unable to speak, cough or breathe:
Give up to 5 back blows between the shoulder blades with the heel of your hand.
Check the mouth quickly after each one and remove any obvious obstruction. If the obstruction is still present give up to 5 abdominal thrusts. Place a clenched first between the navel and the bottom

of the breast bone and pull inwards and upwards. Check the mouth quickly after each one. If the obstruction does not clear after three cycles of back blows and abdominal thrusts dial 999 (or 112) for an ambulance.
Continue with cycles of back blows and abdominal thrusts until help arrives and resuscitate if necessary.



Picture 10 – *Belly pressing on a standing or sitting child (conscious).*

Information from the JAMA vocational magazine was used.
General pediatric emergency care.