snuza® | PICO 2

SMART WEARABLE MONITOR

ENGLISH

Instruction Manual
READ INSTRUCTIONS IN FULL BEFORE USE

PP2MGE001

Important

The Pico is a baby-care aid, not a medical device. It is not intended for the diagnosis, prevention, or monitoring of a disease, injury or handicap. The Pico is also not suitable for co-sleeping or bed sharing.

SNUZA is a registered trademark of
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CE ⊠ RoHS
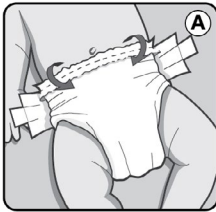
Made in South Africa
Patented

CONTENTS

1. IMPORTANT - PLEASE READ FIRST!

The Pico is designed to attach to your baby's diaper or child's pajama pants while they sleep and will continously monitor breathing motion, skin temperature, sleep position and sleep state. If connected, the information is streamed to your smartphone via BLE (Bluetooth low energy) technology.

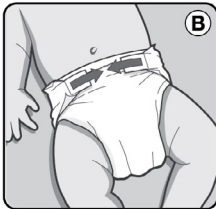Up to four (4) Pico's can be linked to a smartphone at one time.

Only one (1) smartphone can monitor your baby at a time.

ALWAYS:
Use the correct size diaper (nappy) to ensure that the Pico sits securely and squarely on the diaper.

To ensure a firm grip, fold the top of the diaper over before attaching the Pico. If neccesary, use the diaper adjusters to provide a snug fit around your baby's tummy.
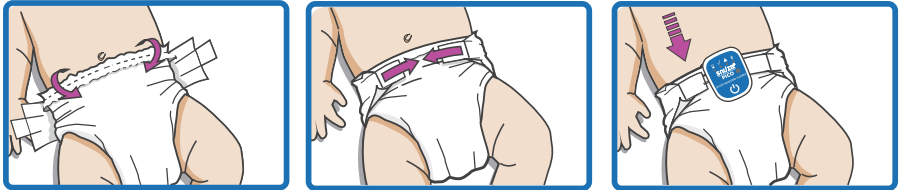
To attach the Pico, lift the top lever to release the clip. Slide the Pico onto the waistband or your child's pants or baby's diaper, placing your fingers between the clip and skin to ensure that the skin does not get pinched between the clip and clothing/diaper. A baby's skin is especially supple

and this can happen quite easily. Close the lever to secure the Pico into place. Double check to ensure that no skin is caught in the clip.

Switch the Pico on by briefly pressing the power button. All indicator lights will flash and a start-up tone will be heard. Alternatively, switch the Pico on by pressing the power button in the app. The start-up tone will be silent if controlled via the app. Immediately after the start-up sequence, the battery light will flash to indicate the battery state of charge. If not already connected to your app, press the "Connect" button in the app overview screen to initiate the connection to your phone.

In order for the Pico to record your baby's position accurately, go to the settings page on the app and set where the Pico has been attached to your baby diaper or child's pajama pants. Depending on your baby's sleep position, you can also place the Pico to the left or right-hand side of the naval. Please make sure that the Pico has been squarely attached to the pants or diaper.

 Always follow the above procedure to ensure your baby's breathing movement is being monitored.

NOTE:
Always handle the Pico with care to prevent damage to clip. When travelling, always store it inside the charging cradle. To avoid false alarms, always pause your Pico when breastfeeding, changing your baby's diaper or holding your baby in your arms.

2. INTRODUCTION

Intended Use:

The Pico is a portable baby breathing motion monitor which safely and conveniently monitors your baby or child's breathing motions while sleeping.

Intended User:

This equipment is intended to be operated by the baby or child's caregiver. The caregiver must have a good understanding of the instructions and safety measures within the user manual. Please familiarize yourself with the instructions and share with anyone caring for your baby or child.

Use Environment:

Home Safety:

The Pico safely and conveniently monitors your baby's breathing motion while sleeping to provide an early intervention opportunity when irregular breathing motion is detected.

The Pico should be clipped onto your baby's diaper (nappy) or child's pajama pants. No cords, wires, sensor pads, or external power are required. The Pico is not suitable for co-sleeping or bed sharing.

The Pico detects even the slightest breathing movement and will alert you if your baby's breathing movement stops for a period of 20 seconds. The Pico will first vibrate gently after 15 seconds in an attempt to rouse the baby.

If the vibration succeeds in rousing the baby and breathing is detected after such an event the Pico will continue to monitor breathing movement. After three vibration/rouse events, the Rouse Warning will alert you to the fact that your baby's breathing movements have stopped for 15 seconds on three occasions.

The Rouse Warning is characterized by a short beep and flashing of the red Movement Indicator Light (1) every 2 seconds. Monitoring will continue when the Rouse Warning is active but will require the caregiver to attend to the baby to investigate. The Rouse Warning alarm can be reset by briefly turning the device off and then back on. The repeat rouse warning feature can be disabled using the application.

The Pico will also measure your the position your baby is in and your baby's skin temperature.

3. PRECAUTIONS AND CONTRAINDICATIONS

- This device is not intended to prevent or monitor a disease or condition such as Obstructive Apnoea.

- Movement from external sources such as being pushed in a pram or travelling in a vehicle or aircraft may be detected by Pico's sensor. The Pico should not be relied upon where external sources of movement are present.

- The monitored baby must sleep in his/her own separate bed as the monitor may detect the breathing motion of any other person sharing the bed with your baby, and will not alarm as long as it detects movement.

- Radio transmitters such as cell phones, audio and video baby monitors, cordless phones, walkie-talkies, wireless routers, etc. may cause interference with the monitor's ability to detect movement. The monitor should not be placed within 2 meters of other transmitting devices or electrical cables.

- No modification of this device is allowed.

- A single device should be dedicated for use with one baby only.

- In the unlikely event that small parts become detached from the Pico, this may result in a choking hazard.

- Small parts that have become detached for some unlikely reason may result in a choking hazard.

- In case your baby develops a skin sensitivity where the device makes contact with his/her skin, refer to section 7.11 in the manual. If the skin sensitivity persists, please contact us at support@snuza.com.

- Keep out of reach of pets, pests and other children as damage to the device might cause malfunction.

- Do not insert anything into the Sound Emission Holes (5).Do not insert anything into the Sound Emission Holes (5).

- Do not allow any liquid to enter the Sound Emission Holes.

- Do not use undue force to bend/open/close the clip (11).

4.   PARTS IDENTIFICATION

FRONT

1 - Battery Indicator Light
2 - Breathing Movement Indicator Light
3 - Alarm Indicator Light
4 - Bluetooth and Notification Light
5 - Speaker Holes
6 - Power Button/Mode Button
7 - Clip Lever

BACK

 8 - Non-contact Sensor
 9 - Charging Pins
10 - Temperature Sensor
11 - Clip

12 - Charging Cable
13 - Power Indicator Light
14 - Charging Cradle

5. QUICK START GUIDE

Step 1: Charge your Pico
Attach the power cord to the charging cradle. Ensure that the Pico is seated on the charging cradle and close the case lid shut. Leave your Pico on charge for 1 hour.

Step 2: Download the Snuza Connect App
Snuza Connect is available on iOS and Android.
View iOS App guide: (insert link)
View Android App guide: (insert link)
smartphone minimum requirements:
- Must support: Bluetooth 4.0
- Apple devices: iOS 8.0 or later
- Android devices: Android 5.0 or later

Step 3: Register your Pico
Go to connect.snuza.com. Select the register new membership option and complete the required fields.

A confirmation email will be sent to your selected email address. Once confirmed, you will be taken to the Snuza Portal. Navigate to the 'Device Registration' tab in the menu.

Enter your device serial number and complete the required detail fields. The serial number can be found on the side of the Pico, or on the side of the Pico packaging.

Step 4: Attach Your Pico
Fold over the top edge and fit the diaper snugly. Lift the clip to release and place the Pico on your baby's diaper. Ensure that the clip is properly closed once placed.

Step 5: Turn on Your Pico & Start Monitoring
Turn on the Pico by pressing the power button down until the start-up tone is heard and all indicator lights flash simultaneously. Immediately after the start-up sequence, the battery light will flash green to indicate that the battery is fully charged. Sync your smartphone with the The Pico by simply pressing the refresh icon on the app screen. You can now start monitoring your baby from your smartphone.

Basic Pico Functions
The Movement Indicator Light flashes green on each movement.
If no movement is detected for 15 seconds, your Pico will vibrate to rouse your baby. If no movement is detected for a further 5 seconds, your Pico will sound an audible alarm.

Basic App Functions
The Snuza Connect App is designed to bring you information on your baby's breathing rate, body position, skin temperature, fall detection, battery levels and alert you if the Pico's clip is open. Customise your warning settings to your preference in the App.

Warnings on the App can be dismissed by swiping them from left to right. This excludes breathing rate and fall detection. These can only be dismissed by pressing the power button on the device. Ensure that your smartphone is connected to the app in order to receive all notifications and warnings.

6. DIAPER FITMENT AND PLACEMENT

Correct diaper fitment is essential for the Pico to work. The thin flap of material at the top of the diaper must be folded over the thicker part before the diaper is closed (this is the section to which the Pico will be attached). The diaper should fit snugly on your baby with the top of the diaper just below his/her belly button. Loose fitting diapers will gape, causing the monitor to lose contact with your baby's skin and false alarm. A very 'full' or wet diaper may also cause it to gape. If your baby sleeps on his or her side, the Pico should be placed to the left or right-hand side of your baby's navel.

- The World Health Organisation recommends that babies sleep on their backs. Place the Pico near the centre of your baby's tummy (1)
- If your baby prefers sleeping on his/her left side, attach your Pico to either position 4 or 2.
- If your baby prefers sleeping on his/her right side, attach your Pico on position 5 or 3.
- If your baby prefers sleeping on his/her tummy, attach your Pico close to position 4 or 5.

7. OPERATION

7.1 Fitting your Pico

When attaching the Pico you should put your fingers in between the baby's nappy and the baby's skin. Make sure that the monitor is clipped securely onto the diaper and away from the baby's skin when clipping on in order not to harm the baby.

Clip the Pico all the way onto the diaper to the full extent of the clip. To attach lift the front lever to release the clip. Place the clip over the folded diaper to the full extent of the clip. Close the clip and click the locking lever closed as shown:

Make sure that the Pico is close to the baby's tummy around the belly button area, although closer to the sides may suit different sleeping positions. The World Health Organisation (WHO) recommends that babies be placed to sleep on their back unless advised otherwise by a doctor. http://www.who.int/en/

• Place on tummy for back sleepers
• Place on side of tummy for belly sleepers

The Pico has a built-in alarm to indicate if the clip has been opened while in use. Before the alarm occurs, the Pico will beep slowly for 7 seconds to warn you to switch it off or to activate the pause function. If the clip remains open for a further 3 seconds, the Clip Open Alarm will be activated.
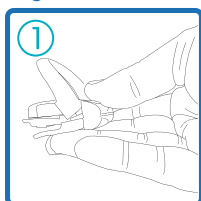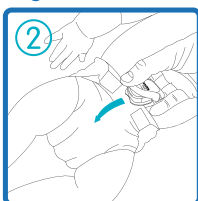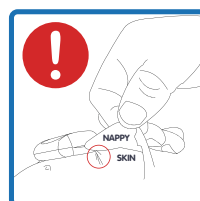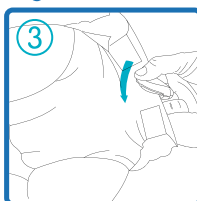
fig. 1   fig. 2   fig. 3

7.2 Switching on / off

The Pico can be turned on by briefly pressing the power button (6) and can be switched off by pressing and holding the power button (6) for 2 seconds. The corresponding startup and shutdown tones will be heard (refer to point 7.5)

Alternatively, the Pico can also be switched on and off directly from the app (if it has been enabled in the app settings). This allows you the convenience of switching it on if you forgot to when you attached it to the diaper, without disturbing your baby.

7.3 Pause

The Pico was designed to monitor your baby's breathing motion, skin temperature and body position while sleeping. However, to prevent false alarms while your baby is not sleeping, (such as while breast feeding, changing the baby's diaper, tummy time, etc.), the "Pause" function will allow you to temporarily pause monitoring for a user-configurable (on the app) time while, for example, breast feeding or diaper changes.

The pause function can be activated directly from the app by tapping the pause button.

7.4 Charging

The Pico's charging cradle (12) is a unique power charger which recharges the built-in battery by simply placing the Pico on the charging cradle.

7.5 Indicator Lights - Startup and shutdown sequences

Startup using power button:
When the Pico is switched ON using the power button (6), the indicator lights (1,2,3,4) will flash in a sequence from left to right, followed by a start-up tone. Immediately after the start-up tone, the battery indicator light (1) will flash to indicate the state of the battery when it is switch on. The battery indication has the following meaning:

	Green	Battery good
	Yellow	Battery is low but should last another few hours
♪	Red	Battery is too depleted for operation and the Pico has automatically shut down. Please charge immediately.

Startup using app:

When the Pico is switched ON using the app, no audible tone is played, but the usual startup indicator light flash sequence will occur. Battery information is displayed on the App dashboard so it is not necessary to observe the battery LED during remote startup. Switch off using button - When the Pico is switched OFF using the button, indicator lights will flash in a sequence from right to left, followed by a shutdown tone.

Switch off using app - When the Pico is switched OFF using the App, no audible tone is heard, but the usual shutdown indicator light flash sequence occurs.

7.6 Movement Indicator Light

The Movement Indicator Light (2) flashes when movement is detected.

	Green	Strong breathing signal detected
	Yellow	Weak breathing signal detected
	Red	Very weak breathing signal detected

7.7 Bluetooth Low Energy

	Blue	Flashes blue every 2 seconds if connected to your smartphone/tablet
	Pink	Flashes blue every 2 seconds if connected to your smartphone/tablet
	Pink Flashing	Flashes pink 6 times immediately after startup to indicate that there is an important notification for you on the server that needs your attention. View this important message by logging into your account on to the Snuza Connect Portal (connect.snuza.com)

7.8 Battery Indications

At startup:
As explained above at "Startup and shutdown sequences" section

When battery level is low (while the Pico is on):
Battery Indicator Light will flash red every 5 seconds and will beep twice every 60 seconds

When battery level is critical (while the Pico is on)"
Battery Indicator Light will flash red every 5 seconds and beep twice every 10 seconds.

When charging:
While charging, the Battery Indicator Light will flash green.
When charging is complete, the Battery Indicator Light on the Pico will remain a constant green colour.

7.9 Alerts and Alarms

Please note: The caregiver should immediately attend to the baby if the alarm sounds. You can customize your warning and alert settings by editing your settings on the app. The Pico will alarm on all critical events whether your Pico is connected to the app or not. The phone will sound warnings and alarms only when connected to the Pico via Bluetooth.

Rouse Vibration:
If no breathing motion is detected for 15 seconds, your Pico will gently vibrate to rouse your baby.

Breathing Motion Alarm:
If there is no breathing motion detected for 20 seconds, your Pico will sound an alarm while the breathing motion Indicator Light flashes simulatenously.

Breathing Motion Rate Alarm:
This alarm can be configured in the app and will be triggered when breathing motion rate falls below or rises above the set thresholds. This alert only presents on the smartphone and will sound only if connected to the Pico via Bluetooth.

Skin Temperature:
The app can be configured to alarm when skin temperature falls below or rises above set thresholds. This alert only presents on the smartphone and will sound only if connected to the Pico via Bluetooth.

Body Position:
This alarm can be set in the app to notify you when your baby moves into a specific body position such as turning onto his/her tummy which is not recommended as part of safe sleeping techniques. This alert only presents on the smartphone and will sound only if connected to the Pico via Bluetooth.

Clip Open:
In the event that the clip accidentally opens, a warning beep will sound for 10 seconds followed by a rouse warning vibration and a succession of 3 beep alarm sounds continously. The warning indicator light will also flash while alarming.

Fall Alert:
Enabling this feature will cause the smartphone to alert you if a fall is detected on the Pico. This alert always presents on the Pico but also on the smartphone if connected via Bluetooth.

Phone Volume Low:
When your phone volume is set too low, an in-app notification will alert you. Please turn the sound up to ensure that you can hear all notifications. The app on your smartphone will alarm in addition to the above alarms. You can set low and high temperature, breathing rate, and body position alarms.

7.10 Charger Indicator Lights

When power is connected to the charger, the Power Indicator Light (14) on the charger will illuminate. The Power Indicator Light (14) on the charger does not change when the Pico is being charged or not. It only indicates if power is applied to the charger. To determine if the Pico is charging when its on the charging cradle, refer to the previous section.

7.11 Clothing

The Pico can be clipped onto the folded waistband of the diaper or the waistband of elasticated pants. It is not recommended to have clothing between the Pico and the skin.

The Pico can be used under clothing, but not over. Too much clothing may attenuate or muffle the alarm. Make sure the alarm can be heard if baby is covered in clothing and/or blankets.

8. ROUSE WARNING

Note: If the smartphone is connected, all warnings and alarms, as well as all real-time data are visible on the app. During monitoring, if no breathing motion is detected for 15 seconds, the Pico vibrates gently in an attempt to rouse your baby.

If breathing motion resumes within the next 5 seconds, the Movement Indicator Light (2) will flash red on each subsequent breathing motion as an indication that there has been an event of no breathing motion for 15 seconds. With the Rouse Warning enabled, after 3 such vibration and successful rousing incidents, the Movement Indicator Light (2) will flash red every 2 seconds with a simultaneous audible beep.

This alerts you to the fact that your baby has stopped moving for 15 seconds on three occasions and has then resumed breathing motion after the Pico has vibrated. Note:- Monitoring will continue while the Rouse Warning is sounding. The Rouse Warning is automatically enabled each time the Pico is switched ON.

9. BATTERY

9.1 Battery Indicator

If the battery becomes depleted during monitoring, the Battery Indicator Light (1) will flash as follows:

Battery Indicator Light (1) will flash red every 5 seconds and will beep twice every 60 seconds. When the battery becomes critical the Battery Indicator Light will flash red every 5 seconds and beep twice every 10 seconds. Charge the battery before further use (see Section 10.3 Charging the Battery) The Beep can be silenced by pressing the power/mode button once.

9.2 Battery Life

The Pico has a rechargeable battery and lasts approximately two weeks on one charge. The battery life is however dependent on usage.

The Pico's carry case is a unique power charger which recharges the built in battery by simply placing your Pico in the carry case.

10. MAINTENANCE

10.1 Disposal:

The device, and packaging material must be disposed of in accordance with your country's laws governing the disposal and recycling of batteries:

10.2 Cleaning and Storage:

- Gently wipe with a damp cloth to remove any dirt. A mild soap may be used for stubborn dirt.
- Do not use any other cleaning agents as they may contain damaging chemicals.
- The Pico is splash resistant, not waterproof. Do not immerse in water. If it gets wet, dry it off immediately.
- When in transit, keep your Pico in its protective case. Do not store your Pico in its charging case for prolonged periods or store it in a damp area.

  To prolong battery life:
- Fully recharge before storing the Pico for long periods.
- Do not let the Pico completely discharge and stay discharged for long periods of time.

11. TROUBLESHOOTING

11.1 Incorrect Fitting

Check incorrect fitment and placing of The Pico on baby's diaper (see Section 6 Diaper/Nappy Fitment and Section 7.1 Fitting your Snuza The Pico).

11.2 Battery failure

The Battery Indicator Light (1) will show red
Please visit www.snuza.com for further information.

12. DISCLAIMER

Customers use this monitor at their own risk. Snuza International (Pty) Ltd, its members, employees, agents, contractors, representatives, manufacturers, distributors and associative (SNUZA) shall not be held liable for any loss, damage or injury suffered by the customer or any other person arising from, or in connection with, the use or manufacturer of the monitor, including loss, damage or injury suffered by the customer or any other person as a result of any defects in respect of the monitor, and all warranties, and any other liability from whatsoever cause arising, are hereby excluded. The customer hereby indemnifies Snuza International (Pty) Ltd in respect of any such liability.

13. GUARANTEE

Snuza International (Pty) Ltd guarantees this product to be free from defects in materials and workmanship for a period of 12 months from the original date of purchase, verified by a sales receipt. Our guarantee liability shall be limited to replacing the unit free of charge and does not include transport costs. Our guarantee extends to all countries in which this product is supplied. By the act of operating this product, the user accepts all resulting liability. We reserve the right to modify the provisions of this guarantee at any time without notice. This guarantee does not cover the battery, incorrect application, tampering, misuse or transport damage.

14. REGULATORY INFORMATION

FCC compliance statement for The Pico and charging cradle.
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
• (2) this device must accept any interference received, including interference that may cause undesired operation.
This device meets the FCC requirements for RF exposure in public or uncontrolled environments.

Canadian regulatory statement for the Pico and charging cradle.
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
• (1) this device may not cause interference
• (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage.
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
CAN ICES-3 (B)/NMB-3(B)

This device complies with the safety requirements for RF exposure in accordance with RSS-102 Issue 5 for portable use conditions. Cet appareil conforme avec les règlements et exigences des radiofréquences en conformité avec CNR-102 5e édition pour condition d'usage portatif

15.TECHNICAL DESCRIPTION

	Type BF applied part
$C\epsilon$	CE marking according to CE 5/1999/EC, 95/2001/EC, 336/89/EEC (TV Rheinland)
FCC	FCC marking according to Federal Communications Commission - USA
IP52	IP52 The enclosure of the monitor is protected against the ingress of dripping water
IC: 21736-01	This device complies with industry Canada licence-exempt RSS standard(s)
IP52	IP52 The enclosure of the monitor is protected against the ingress of dripping water
SN	Device Serial Number (the first two numbers indicate the year of manufacture
	See the Disposal section for proper disposal of the monitor
Typical Service Life:	Snuza The Pico has an expected service life of 5 years from the date of manufacture.

Environmental Conditions:	Permissible environmental operating conditions: · Temperature: 5 ºC TO 40 ºC. · Humidity: %15 TO %93, Non Condensing, · Air pressure: 700HPA TO 1060HPA
Permissible environmental conditions of transport and storage after having removed the device from its protective packaging and subsequently between uses:	· 25 °C without relative humidity control; and °70+C at a relative humidity up to %93, non-condensing;
Power Source:	Internally Powered Battery Specification: Lithium Polymer
Sound pressure level:	85dBm at 10cm

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Contact Us:
For assistance with using or maintaining Snuza The Pico or to report unexpected operation or events, contact us via:

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www.snuza.com/contact

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