

I-neb AAD system

User guide



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1 Important

The I-neb is a sensitive medical device and should be handled with care. To make sure that your I-neb works properly and lasts a long time, follow the important instructions in this user guide.

The I-neb is a 'clean, non-sterile' product and is for single patient use only. The I-neb can only be used with the battery and charger supplied. Do not attempt to take the I-neb body apart or tamper with the software or hardware in this product.

Tested to IEC60601-1 and IEC60601-1-2. This device meets IEC60601-1-2 standard for electromagnetic compatibility (EMC). EMC data sheets are available from Philips Respironics customer service.

1.1 Intended use

- The intended purpose of the I-neb AAD system is that it is an ultrasonic (vibrating mesh) nebulizer system designed to aerosolize liquid medication approved for use with the I-neb AAD system, for inhalation by the patient in the home care, nursing home, sub-acute institution, or hospital environment.
- The patient is the intended operator of the I-neb.
- The I-neb has been developed for adults and children aged 2 and upwards who can co-ordinate breathing into a mouthpiece.
- The I-neb should always be used in conjunction with patient data supplied by the specific drug licence.
- I-neb should only be used on conscious and spontaneously breathing patients.
- If you require any further information about your treatments contact your nurse/clinician/healthcare provider.
- If you have any problems with your I-neb, contact patient support.

This user guide will help you use your I-neb. Pay special attention to the notes which will help prevent damage to your I-neb and help you get the best results.

Warnings

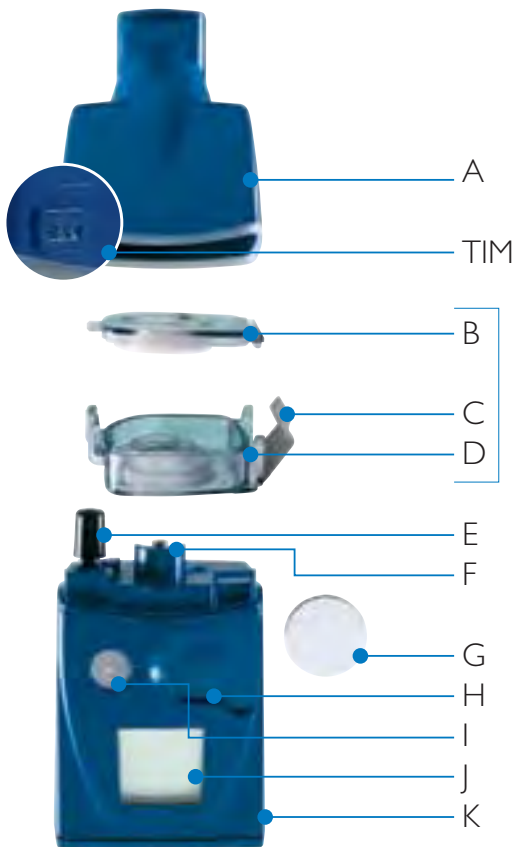
- As with all aerosol drug delivery devices, there is a remote possibility that in a case in which the amount of drug being inserted into the device is greater than the dose that is to be delivered by the device, a device malfunction may result in an overdose of drug being delivered to the user. In the event that you experience any of the overdose symptoms listed in the drug information for the drug you are taking with this device, you should contact your physician immediately.
- The I-neb must not be used in the presence of medical gases or in oxygen enriched atmospheres. Do not run oxygen through the I-neb. If you use a nasal cannula to deliver oxygen, you may continue to use it while taking a treatment with the I-neb. If you use an oxygen conserver (pulsed oxygen), return to a continuous flow oxygen system while taking a treatment.
- Before starting your treatment, make sure there are no mobile or cordless phones within 1 metre of the I-neb. Even when turned off, they may interfere with the operation of the I-neb.
- Modification to I-neb and its accessories is not permitted.
- The user shall not carry out any maintenance or servicing of the I-neb other than the cleaning described in section 6.1.
- Report unexpected operation or events to Philips Respironics 0800 130 0857.
- Do not use accessories, detachable parts and materials not described in the instructions for use.
- Do not interconnect this equipment to other equipment not described in the instructions for use.

Caution

- Operation is subject to the following two conditions:
 1. This device may not cause harmful interference, and
 2. This device must accept any interference received, including interference that may cause undesired operation.
- Refer also to the warnings and cautions throughout this manual.

2 Your I-neb system

The pictures below show all the parts of the I-neb and associated accessories. The I-neb is very easy to use.



I-neb unit

A Mouthpiece

The I-neb mouthpiece determines the mode of operation: Tidal Breathing Mode (TBM) and Target Inhalation Mode (TIM).

TBM delivers medication during normal tidal breathing whereas TIM has been developed to automatically guide individual patients to a slow and deep inhalation. Prolonged slow inhalation can shorten treatment times.

The TIM mouthpiece may be identified by a small square on the bottom left side (see picture). This small square will not be present on the TBM mouthpiece.

Medication chamber assembly, comprising:

B Chamber lid

C Latch

D Medication chamber

E Sensor port cover (do not remove)

F Horn

G Disc

H Disc slot

I ON button

J Display screen

K I-neb body (part number 85-149)

Included in the box

L Drug guide

M Mains power cord

N Battery charger (part number 1100131L)

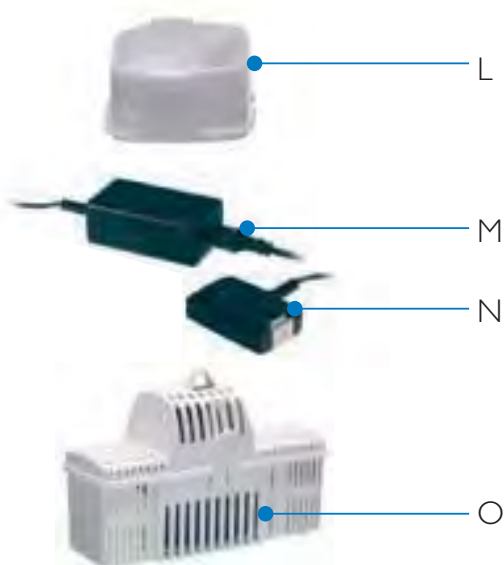
O Washing basket

Included extras

• Protective bag

• User guide

• Emergency disc



2.1 Product features

- Micropore mesh and high frequency horn to make aerosol quietly
- AAD (Adaptive Aerosol Delivery) technology to ensure accurate dosing
- Small in size (about 150mm high)
- Lightweight (about 210g)
- Fully portable
- Battery powered (internal battery) with universal voltage adapter
- Long life battery (between 20-40 treatments)

3 Before you start

3.1 Cleaning

- Before you use the I-neb for the first time or after long storage, wash, rinse and dry the mouthpiece, medication chamber assembly and drug guide (see weekly wash instructions, step 31).
- Never wash the I-neb or parts in a dishwasher.
- Do not place the I-neb in a microwave or regular oven.
- Do not try to dry it in an oven.
- Do not use bleach or any other cleaning agents to clean the I-neb.
- Do not use mineral water to clean or rinse the I-neb.
- Never remove the seal from the medication chamber lid.

3.2 Use

- Never use I-neb to inhale water.
- Never poke the mesh or on button with sharp objects. Handle the chamber lid with care.
- Small parts can be dangerous if inhaled or swallowed.
- The cable, due to its length, may provoke strangulation or asphyxiation.

- Do not leave the device with an unaccompanied child or an individual with a physical impairment/learning difficulty.
- Handle the I-neb with care. Do not shake or drop the I-neb.
- Other electrical equipment may be affected by the I-neb. When using the I-neb, move away from other equipment or turn the equipment off.
- Do not expose the I-neb to high temperatures, high humidity or direct sunlight.
- Do not carry the I-neb with medicine in the medication chamber, it may spill.
- Do not attempt to take apart or change the I-neb.
- Use only original accessories and components supplied by Philips Respironics.
- Use the I-neb in a clean environment, free from dirt and dust.

3.3 Battery care

- Do not wash the battery charger with water.
- Do not handle the battery charger with wet hands. Only use the charger in a dry place indoors.
- Only use the I-neb with the battery charger that is provided.
- Do not connect the internal battery to other equipment.
- Do not short circuit the battery.
- Do not dispose of the battery in fire. It may explode.
- Do not attempt to take apart the battery.
- Do not drop medication on the battery charger. Immediately wipe up spills with gauze or a clean cloth.
- Unplug the battery charger from the electrical outlet after charging.
- The battery is not replaceable by the user.

3.4 Preparing your I-neb

Before you take your first treatment, there are four things you will need to do:

1. charge the battery,
2. insert the dosing disc,
3. wash the mouthpiece, medication chamber and drug guide,
4. and get used to assembling the I-neb.

- 1 Before you take your first treatment, charge the battery for 3-6 hours or until you see the fully charged symbol (below).



- 2 To charge the internal battery, clip the I-neb onto the battery charger and connect the plug to an electrical outlet. When the I-neb is fully charged unplug it from the outlet. Unclip the battery charger by pressing the grey buttons on the side of the charger unit. Always charge your battery when it reaches two bars on the battery indicator. When there is only one bar appearing on the battery indicator, you can continue to use I-neb with the battery charger attached.

! Caution

Do not leave the battery charger plugged into the electrical outlet after charging.



- 3 The disc to operate your I-neb is supplied on a card in your drug pack. There is also an emergency disc should you require it.



- 4 Remove the disc from the card. Keep the card for future reference. Slide the disc fully into the slot at the front of the I-neb. It does not matter which way the disc is inserted.

! Caution

- Leave the disc in place on the I-neb in between treatments.
- If you do not insert a disc, I-neb will not work.



5 Washing the medication chamber assembly:

Before you use the I-neb for the first time or after long storage, you will need to wash, rinse and dry the mouthpiece, medication chamber assembly and drug guide (see weekly wash instructions, step 31).



Assembling the I-neb:

Before you take your first treatment, practice taking the medication chamber assembly apart and putting it back together again.

6 To take it apart, twist the medication chamber assembly in a counter clockwise direction (to the left). Unclip the latch. Carefully take off the chamber lid.

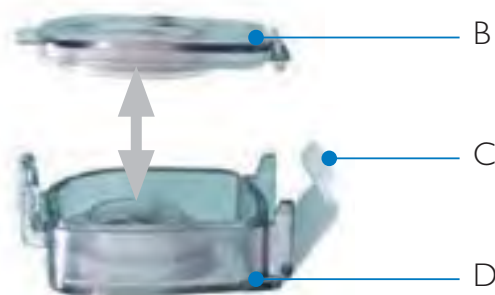
Warning

- Do not lift the seal on the chamber lid.
- Do not damage the mesh in the centre of the lid.



7 The medication chamber assembly (B,C and D) is now completely apart. To put it back together again, follow these steps in reverse order.

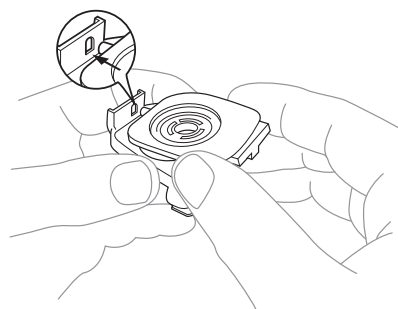
Take time to practice putting the parts of the medication chamber onto the body of the I-neb. The centre of the medication chamber fits over the horn. Once in place, twist the chamber in a clockwise direction (to the right).



To replace the chamber lid (B), place the pin on the lid in the slot on the medication chamber (D). The slot is located on the opposite side of the chamber latch (C). Clip the latch back up over the lid, clipping it into place. Make sure that the latch has snapped tightly shut.

Caution

If the lid is not secure, aerosol may not be produced.



- 8 The latch (C) on the medication chamber will be directly across from the sensor port cover (E).



- 9 To place the mouthpiece on the I-neb, line up the vent hole with the back of the I-neb body. Move it forward to click it into place. Make sure it is firmly in place. There should be no gaps. To remove the mouthpiece after treatments, hold the top of the mouthpiece and roll it forward or rock it from side to side to pull it off.



Tidal Breathing Mode (TBM) mouthpiece

Target Inhalation Mode (TIM) mouthpiece

Located inside the mouthpiece is a flap valve. The position of the valve is important to normal operation of the I-neb. Look at the flap valve before use. Make sure it is not twisted. If it is twisted, place the valve under running water to correct the position.

! Caution

If the flap valve is twisted, the I-neb may not be able to detect your breathing and medication may not be delivered.



3.5 Preparing for your treatment

- 10 Attach the medication chamber by pushing it on the I-neb and twisting it in a clockwise direction (to the right).



⊖ Note

Make sure you have inserted the disc into I-neb.

11 Place the I-neb on a flat surface and remove the chamber lid. Hold the grips at the top of the drug guide and position it on the medication chamber as shown below. Make sure the centre hole is in line with the horn.



13 Leave the I-neb on a flat surface.



Carefully remove the drug guide and replace the chamber lid and mouthpiece. Make sure the I-neb remains upright. You are now ready to start your treatment.

Note

The drug guide is a funnel to help you fill the medication chamber around the horn.



Caution

Never carry the I-neb with medication in the chamber, it may spill.

12 Tip your prescribed medication into the centre of the drug guide and slowly pour all the medication around the horn.



Note

It is important that there are no bubbles in your medication.

4 Using your I-neb

Warning

Before starting your treatment, make sure there are no mobile or cordless phones within 1 metre of the I-neb. Even when turned off, they may interfere with the operation of the I-neb.

14 Turn the I-neb on by pressing the ON button.

Caution

- Make sure the mouthpiece is in place before turning the I-neb on.
- Do not use sharp objects such as pens to turn the I-neb on, they may damage the ON button.



15 Wait until the start up screen appears.



TBM start up screen



TIM start up screen

16 Pick up the I-neb. Hold the I-neb horizontally with the display screen facing down.



17 Exhale fully before the first breath. Seal your lips around the mouthpiece. Breathe in and out through your mouth. Do not breathe through your nose. Hold your nose for a few breaths to make sure you are breathing through your mouth. Release your nose and breathe normally.

Tip

Holding your nose for a few breaths will help you get used to the feeling of breathing in through your mouth. This can help make treatment times shorter.



18 When using a TBM mouthpiece, it will take a few breaths for the I-neb to start delivering medication. When your medication starts to be delivered, you will feel a vibration at the start of each breath. This lets you know the medication is being delivered. When the vibration stops, the I-neb is still delivering medication. Continue to breathe in for as long as possible. During the treatment, the number showing your dose will disappear. The battery symbol and face will remain.



TBM treatment mode

When using a TIM mouthpiece, start to inhale slowly, you may feel some slight resistance, but continue to inhale for as long as you are comfortable or until the I-neb vibrates to tell you that you have achieved your target inhalation time. You should then exhale fully in preparation for your next inhalation.



TIM treatment mode

You can either exhale through the I-neb or remove it from your mouth. When in use the LCD shows three filled segments when the target has been achieved. On first use, the I-neb is set to a target time of 2 seconds.

This target time may increase up to a maximum of 8 seconds if you are able to inhale comfortably for this length of time. The longer inhalation times help to shorten treatment times.

19 Only take your next breath in on the I-neb when you are ready to do so. I-neb will automatically calculate your next target inhalation time and you should continue to inhale for as long as you are comfortable or until I-neb vibrates. If you are unable to reach the vibration or struggle to reach the vibration, continue to breathe deeply, it may take several inhalations for I-neb to adapt to your breathing. Continue until you hear the buzzer. The buzzer lets you know that your medication has been delivered and the treatment is complete. A smiley face will appear on the screen. The I-neb will automatically shut off at the end of the treatment.



5 Pausing your treatment

- 20** You may pause your treatment at any time by removing the mouthpiece from your mouth. If you do not breathe on your I-neb for two minutes, it will go into 'pause mode' (screen flashing). To continue your treatment, pick up the I-neb and start breathing through the mouthpiece. If you do not start the treatment again within 10 minutes, the I-neb will automatically shut off.



TBM pause screen



TIM pause screen

- 21** If the I-neb shuts off, you cannot restart your treatment. You must take it apart, empty the medication chamber, and clean it as shown in step 30.

! **Caution**

If you pause for more than 10 minutes, you will not be able to continue your treatment session.

- 22** To continue your treatment, pick up the I-neb and start breathing through the mouthpiece. I-neb starts delivering medication immediately.



6 Maintenance

6.1 Cleaning

- 23** Place the I-neb on a flat surface.



- 24** Carefully remove the mouthpiece. Hold the top of mouthpiece. Roll it forward or rock it from side to side to pull it off.



- 25** Take the chamber lid off by unclipping the latch and removing.



! **Warning**

Handle the chamber lid with care. The mesh in the centre of the lid is easily damaged.

! **Caution**

Do not remove the medication chamber.

26 The I-neb is very accurate. It delivers the right amount of medication when you breathe in. There will be some medication left in the chamber after your treatment. This is normal. Carefully pour out the medication left in the chamber with the screen facing down.

⚠ Warning
Do not try to re-use any left-over medication.



28 For cleanliness, the mouthpiece, drug guide and all the parts in the medication chamber should be cleaned regularly. To keep the I-neb working properly, you must wash the medication chamber after each treatment. It is also important to boil the mouthpiece, drug guide and medication chamber assembly for 10 minutes once a week (see step 31).



27 Remove the medication chamber by twisting counter clockwise (to the left). Use gauze or an antiseptic wipe to wipe away any moisture around the horn and sensor port cover.

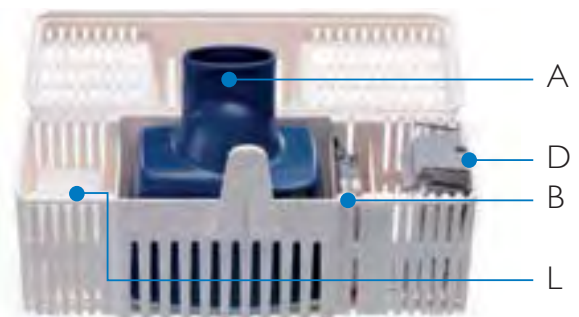
Check the battery level. If you see two bars, your battery is running low. Recharge the battery (see step 2).



29 Place the mouthpiece (A), medication chamber (D), chamber lid (B) and drug guide (L) into the right places in the washing basket.

⚠ Caution

- The basket must be used to protect all parts during washing.
- Do not use bleach or similar products to clean I-neb. Do not use brushes or sharp objects to clean the parts.
- Do not place any of the parts in a dishwasher.



To keep your I-neb working, it must be regularly cleaned as follows:

30 Routine wash

After each use: place the mouthpiece, medication chamber, chamber lid, and drug guide in the washing basket. Submerge the basket in warm soapy water (use 3 drops of liquid detergent). Move the basket back and forth in the water.



Rinse the washing basket containing the parts in soft, distilled or filtered water. If you have hard water, rinse with water that has been boiled and allowed to cool. Shake off excess water and leave parts to air dry.



Warning

Do not place the chamber lid directly under running water.

31 Weekly wash

Once per week: place the mouthpiece, medication chamber, chamber lid, and drug guide in the washing basket. Submerge the basket in a pan of soft, distilled or filtered water with 3 drops of liquid detergent. Bring the water to a boil. Boil for 10 minutes.



Rinse with soft, distilled or filtered water. If you have hard water, rinse with water that has been boiled and allowed to cool. Shake off excess water and leave parts to air dry.

If stored for long periods, complete the weekly wash before using the I-neb (see step 31).

6.2 Periodic maintenance

32 Whenever the body of the I-neb has liquid spilled on it, wipe with a clean damp cloth.



Caution

- Do not put the body of I-neb in water or under running water.
- Do not remove the seal from the chamber lid.



- 33** There is a small valve in the mouthpiece. This valve is important to make the I-neb work correctly. Make sure this is not twisted in any way. If the valve is twisted, run the valve under running water to correct the position.



- 34 Every 6 months**
After 6 months throw away the mouthpiece, drug guide and medication assembly (consisting of: chamber lid with mesh and medication chamber). Replace with new parts.



The expected service life for the I-neb body and disc is up to 5 years.

- 35 Charging the battery**
When the battery symbol shows two bars, clip the I-neb onto the battery charger. Plug the charger into an electrical outlet. Charge the battery for 3-6 hours or until you see the fully charged symbol. When the I-neb is fully charged, unclip the I-neb from the battery charger. Unplug the charger from the electrical outlet.

7 Spare parts

Please consult the following table if you need to order spare parts. Consult the table prior to calling to order spares.

Description	Part number
TIM medication chamber assembly (dove grey latch)	1062260T
TBM medication chamber assembly (dove grey latch)	85-138T
Washing basket	1036199
Drug guide	1036200
Battery charger	1100131L
I-neb pouch	1068938
Mains power cord	RP 6457L

7.1 Chamber information

Chamber latch/lid colour

- Dove grey

Minimum fill volume (ml)

- The medication chamber takes standard sized nebulas up to 5 ml

Maximum fill volume (ml)

- 5 ml

8 Technical information

8.1 Product specification

Power supply

- Part number: 1100131L
- Input: 100-240V, 0.3A
- Output: 6V, 2A (12W maximum power)
- Continuous duty cycle operation
- Class II, double insulated (provides the means of isolation from mains power)

Battery voltage

- 3.8V

Battery charger and charging lead

- 100-240V AC, 50-60Hz

Weight

- 225g (including battery)

Dimensions

- 45 x 65 x 150mm

Storage conditions

Temperature

- -20°C to 60°C

Humidity

- 30%RH to 95%RH

Atmospheric pressure

- 70kPa to 106kPa

Operating conditions

Temperature

- 10°C to 40°C

Humidity

- 30%RH to 75%RH

Atmospheric pressure

- 70kPa to 106kPa

CE 0123

Class II Type BF. This device complies with part 15 of the FCC rules.

The I-neb body and mouthpiece are applied parts.

Compliant with the WEEE/RoHS directives. If you are subject to the WEEE/RoHS directives, contact Respironics for the passport for recycling this product. I-neb and all its parts must be disposed of according to the local regulations in force.

9 Additional information

9.1 Screen display menu

During your treatment different codes and symbols will appear on the I-neb screen. These help you understand how the I-neb is working.

Code 11 screen

Start up error.

Solution: Stand the I-neb upright on a flat surface. Reset the I-neb by pushing the ON button and holding it in. Wait for the start up screen to appear. Pick up I-neb and start your treatment. (Code 11 will remain on the screen for 10 minutes or until the ON button is pressed for 5 seconds as described above. If code 11 remains, contact patient support to arrange return of your I-neb).



Code 22 screen

There is no disc in the I-neb, no treatments left on the disc, disc has expired, I-neb failed to read the disc, or electrical equipment is located nearby and is interfering with the I-neb.

Solution: Stand I-neb upright on a flat surface. Check that the disc is correctly in place. Remove and reinsert or replace the disc. Turn off and move away from any electrical equipment nearby. Reset I-neb by pushing the ON button and holding it in. Wait for the start

up screen to appear. Pick up the I-neb and start your treatment. (Code 22 will remain on the screen for 10 minutes or until the ON button is pressed for 5 seconds as described above).



Code 33 screen

Your I-neb needs maintenance. The I-neb can continue to be used for up to 30 days after the appearance of code 33 is seen on the screen. Pick up the I-neb and start treatment as normal.

Solution: Contact patient support to arrange return of your I-neb.



Code 44 screen

Memory failure.

Solution: Reset by pressing the ON button and waiting for the start up screen to appear. Pick up I-neb and start your treatment. (Code 44 will remain on the screen for 10 minutes or until the ON button is pressed for 5 seconds).



Code 55 screen

There is no medication in the medication chamber at the beginning of treatment.

Solution: Stand the I-neb upright on a flat surface. Add medication to the medication chamber. Reset by pressing the ON button and waiting for start up screen to appear. Pick up the I-neb and start your treatment. (Code 55 will remain on the screen for 10 minutes or until the ON button is pressed for 5 seconds).



Code 66 screen

I-neb is being held at the wrong angle.

Solution: Hold the I-neb horizontally with the screen facing down. Continue to breathe normally through the I-neb (see step 16).



TBM code 66



TIM code 66

Blank screen

Dead battery.

Solution: The I-neb can be used when connected to the battery charger. To continue with your treatment, attach the I-neb to the battery charger and plug into an electrical outlet (see step 2). Switch I-neb on, wait for the start screen to appear. Pick up the I-neb and start your treatment.



Once your treatment is complete, recharge the battery (see step 2).

Start up screen



TBM start up screen



TIM start up screen

Treatment in progress

The mouthpiece vibrates when the medication is delivered.



TBM treatment mode



TIM treatment mode

Treatment successfully completed



Pause mode (screen flashing).

Solution: To continue, you must start breathing within 10 minutes. Pick up the I-neb and start breathing normally. It will take a few breaths for the I-neb to start delivering medication.



TBM pause mode



TIM pause mode

Any other screen display? Contact patient support.

9.2 Audible signals

I-neb will make two audible signals.

Four short beeps when you breathe in through the mouthpiece. This sound is made when the I-neb is being held at the wrong angle. At the same time, the screen will flash code 66.

Solution: Hold the I-neb horizontally with the screen facing down (see step 16).



TBM code 66



TIM code 66

One long continuous tone. This sound is made when you have successfully completed your treatment. At the same time, the screen will show a smiley face.

Solution: Your treatment is complete.

Clean the I-neb following the wash instructions (see step 30).



10 Frequently asked questions

- My treatment time suddenly increases?
- The I-neb does not deliver my medication when I breathe in?
- I feel as if I have to keep up with the medication delivery?
- I feel like the medication is not being delivered (no vibration is felt when I breathe in)?

10.1 Things to check

Make sure you are breathing through your mouth and not your nose. Take slow deep inhalations.



Make sure you are holding the I-neb correctly.



10.2 What if?

If your treatment is taking longer than normal, check to see if there is medication left in the chamber. To check the medication, follow these steps:

1. Stand the I-neb on a flat surface.
2. Remove the mouthpiece and chamber lid.
3. Look inside the chamber to see if there is medication left.



If your treatment is taking longer than normal or there is a problem with the aerosol being produced, the I-neb may need to be cleaned. Follow the instructions for weekly wash (step 31).



Check to make sure the valve in the mouthpiece is not twisted. If the valve is twisted, run the valve under running water to correct the position (see step 33).

[Still experiencing problems? Contact patient support for advice.](#)


















11 Emergency disc

Should you lose your disc, please use the emergency disc supplied.

Note

The emergency disc provides only 30 treatments. Please contact patient support immediately to obtain a replacement disc.

12 Glossary of symbols

-  Refer to instruction manual (user guide)
-  Indoor use only
-  Type BF applied parts (mouthpiece and handset body only)
-  Humidity
-  Atmospheric pressure
-  Temperature limitations
-  Class II protection against electric shock
-  Manufacturer
-  Direct current
-  Alternating current
-  Keep dry
-  Fragile, handle with care
-  This way up
-  Do not use blades to open
-  Compliant with WEEE/RoHS directives / separate collection
-  Federal Communications Commission. Device complies with part 15 of the FCC rules
-  Device complies with the provisions of the EC directive 93/42/EEC and further amendments
- IP22** Housing Ingress Protection Rate (Protected against solid foreign objects of 12.5 mm Ø and greater; Protected against vertically falling water drops when ENCLOSURE tilted up to 15°). I-neb handset and charger form a Medical Electrical System, in which the charger is not Medical Electrical Equipment. The IP22 rating applies to the I-neb handset, the charger rating is IPX0.



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