



# Patient **Pocket guide**

English



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## Introduction

The EO-70 Cough Assistance device is an essential element of airway clearance therapy, which is intended to help patients who are unable to independently remove airway secretions and improve their lung volume capacity.

The EO-70 offers INEX and IPPB modes for pediatric and adult patients weighing at least 10 kg (22 lbs).

It could be used either with a mask, mouthpiece or tracheotomy tube.



**Clinicians are advised to read the User Manual (Clinician) before using the EO-70 device.**


The information in the Pocket Guide is not intended to exceed the instructions in the medical prescription and User Manual.

The EO-70 is considered strictly medical device and is intended to be used by trained and qualified personnel under medical supervision.

Install and configure the EO-70 in accordance with the instructions given in the user's manual.


If any operating and maintenance problems are identified, the local representative should be contacted.

## Quick Start

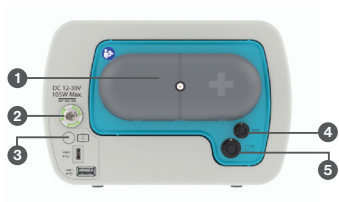
In case of emergency, the ventilation module can be directly turned on simply by pressing the  button on the module keyboard.



2 To start ventilation  
Click on  on the keyboard.

1 Press  on the front panel keyboard to turn on the device. The home screen displays.

## The EO-70 device



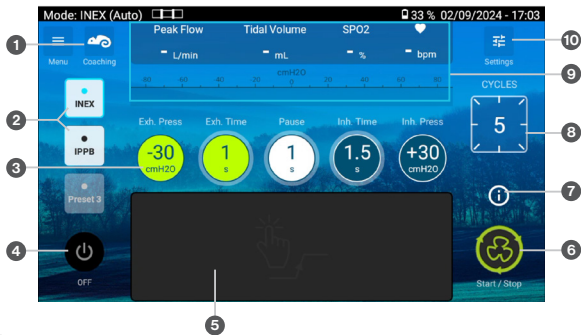
- 1 Turbine Air Inlet
- 2 AC Inlet
- 3 Screen Power Button

- 4 SpO<sub>2</sub> connector
- 5 Remote Control connector



- 1 Display screen
- 2 Device module
- 3 EO device housing unit
- 4 Inspiratory / Circuit Port
- 5 Keyboard

## The home screen



- 1 Menu and Coaching function
- 2 Presets buttons
- 3 Quick settings
- 4 Power OFF button
- 5 Manual PAD
- 6 Start/Stop Therapy
- 7 Settings info
- 8 Cycles counter
- 9 Monitoring panel
- 10 Settings

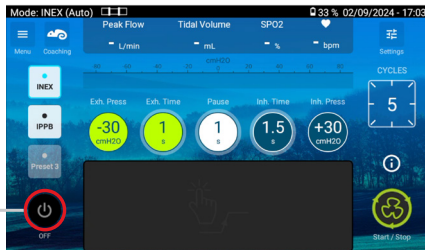
## Turn ON/OFF the device

Turn **ON** the device



Press the  
**ON** button

Turn **OFF** the device



Press the  
**OFF** button  
+ VALIDATE

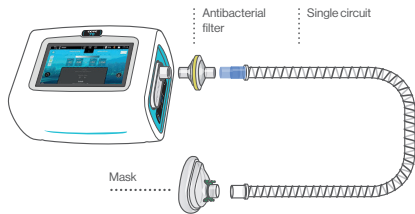
### NOTE:

Unplugging from main power does not power off the device. It will continue to run on the internal battery. The device must be turned off manually before disconnecting from AC power for any extended period of time. The EO-70 will automatically turn off after 15 min of inactivity.



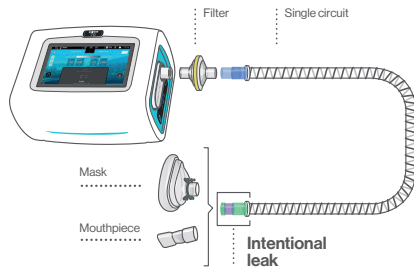
# Circuit Configuration

## INEX Configuration



1. Attach the antibacterial filter to the inspiratory port of the device.
2. Connect the circuit (22 mm) to the other side of the filter.
3. Perform a circuit calibration.
4. Connect the patient interface to the other end of the circuit.

## IPPB Configuration

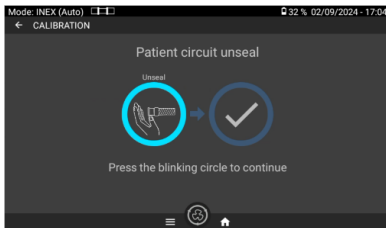


1. Attach the antibacterial filter to the inspiratory port of the device.
2. Connect the circuit (22 mm) to the other side of the filter.
3. Connect the **leak port** to the other side of the patient circuit.
4. Perform a circuit calibration
5. Connect the patient interface to the other end of the circuit.

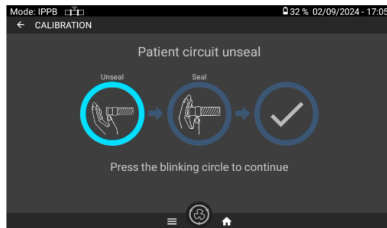
# Circuit Calibration

For the EO-70 to provide expected performances, the patient circuit must be calibrated.

INEX mode



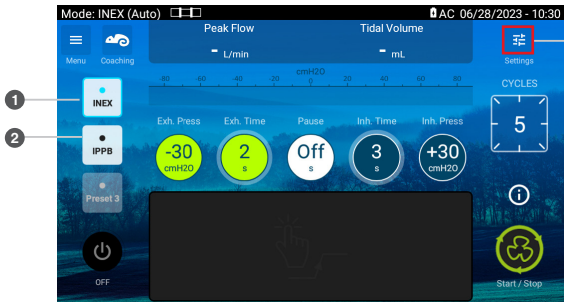
IPPB mode



## Calibration steps:

1. Select the mode and connect the circuit and accessories (without patient interface).
2. Access the calibration Menu.
3. For INEX Mode you only need to follow 1 step and for IPPB Mode there are 2 calibration steps.
4. Wait until the circle is completed and exit the calibration menu clicking on "VALIDATE".

## Select a preset



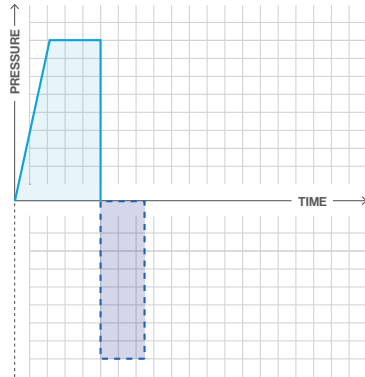
It is also possible to change a preset program from the settings menu.

- 1 Current preset
- 2 Available preset

## INEX mode: Mechanical Insufflation/Exsufflation

Mechanical in-exsufflation provides positive pressure, followed very quickly by negative pressure, which assists coughing.

MI-E simulates coughing due to pressure variation in a non-invasive form.



## INEX mode: Automatic mode

In AUTO mode, the device repeats the sequences defined by the clinician according to the following parameters:

Parameter	Setting
Inspiration pressure (cmH <sub>2</sub> O)	5 - 70
Slope	0 - 5
Inspiration time (s)	0.5 - 5
Inspiration oscillations flow (Hz)	OFF / 4 - 20
Inspiration oscillations Amp.	OFF / 1 - 3
Trigger Not compatible with timed Pause.	OFF / 1 - 3
Exhalation Pressure (cmH <sub>2</sub> O)	0 to -70
Expiration time (s)	0.5 - 5
Expiration oscillations flow (Hz)	OFF / 4 - 20
Expiration oscillations Amp.	OFF / 1 - 3
Pause (s) Not compatible with Trigger.	OFF / 0.5 - 5 (stay hidden when the trigger is set)
PEEP (cmH <sub>2</sub> O)	OFF / 1 to 20
Cycles nb	1 to 20
End of treatment	Inspiration/Exhalation

# INEX mode: Manual mode

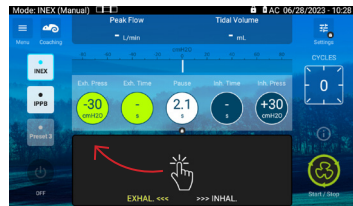
In manual mode, the user controls the insufflation/exsufflation sequences based on the following parameters:

Parameter	Setting
Inspiration pressure (cmH <sub>2</sub> O)	5 - 70
Slope	0 - 5
Inspiration oscillations Flow (Hz)	OFF / 4 - 20
Inspiration oscillations Amp.	OFF / 1 - 3
PEEP (cmH <sub>2</sub> O)	OFF / 1 to 20
Exhalation Pressure (cmH <sub>2</sub> O)	0 - 70
Expiration oscillations Flow (Hz)	OFF / 4 - 20
Expiration oscillations Amp.	OFF / 1 - 3

Once the treatment has started, place your finger on the black touchpad and slide to the right for insufflation, then to the left for exsufflation. The finger can then slide off the black pad if not released.



Insufflation

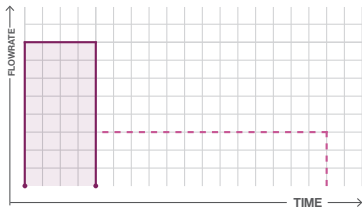


Exsufflation

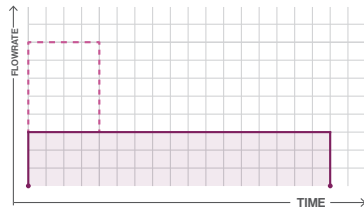
This *recruitment mode* delivers an air volume beyond the patient's current volume. It enables the patient to reach the inspiratory reserve volume. This improves pre-cough volume and mobilizes the thoracic wall.

The selected flow rate modulates **the inspiratory cycle time**

Two possible options depending on the treatment objective



The **high-flow** setting **effectively delivers** a volume of air over a reduced inspiratory time.



**Slow insufflation** allows **maximum intake** in all lung areas to reach the inspiratory reserve volume.

## IPPB mode: Intermittent positive pressure breathing

This mode controls insufflation flow during insufflation time until maximum pressure is reached. The exhalation is controlled by the PEEP. The trigger function allows the patient to initiate a new cycle during the exsufflation phase.

Parameter	Setting
Inspiration flow (l/min)	5 - 100
Inspiration slope	ON / OFF
Max pressure (cmH <sub>2</sub> O)	10 - 50
Inspiration Trigger	OFF / 1 - 8
PEEP (cmH <sub>2</sub> O)	OFF / 4 - 20
Exhalation fall	0 - 5
Max inspiration time (s)	0,5 - 20
Treatment time (min)	OFF / 5-30

### ATTENTION

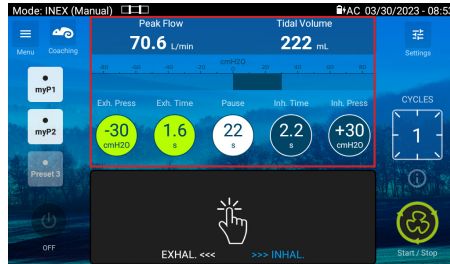
The IPPB mode should always be used with an intentional leak connected to the circuit. For prolonged sessions, we recommend a minimum PEEP setting of 4 cmH<sub>2</sub>O and an expiratory slope setting of 1.



# Data Monitoring

On the Home Screen it is possible to view the data from the last session for:

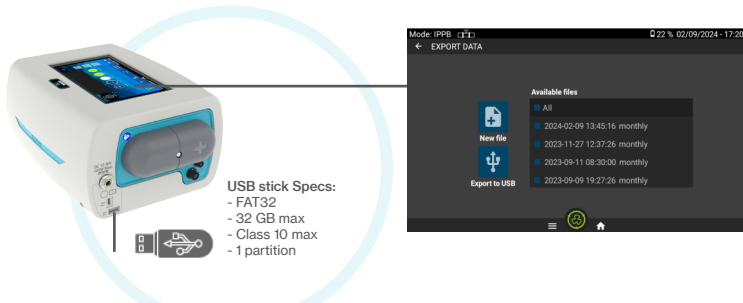
- Inspiratory Tidal Volume (VTI)
- Inspiratory Time (I Time)
- Exhalation Time (E Time)
- Pause Time (P Time)
- Peak Flow



## NOTE:

If Oximetry via NONIN Xpod cable (EO-SPO2CBL) is connected, SpO<sub>2</sub> and heart rate (HR) can be monitored.

## Data Download



1. Insert a USB key in the USB port at the rear of EO-70
2. In the Menu tab, select "EXPORT DATA"
3. Create a new file if required
4. Select one or more files
5. Export the selected files
6. Import the data for EOVE Clinical Software

To access the EO-70 Clinical Software, please contact your local representative.

## Device cleaning and maintenance

It is necessary to clean the EO-70 ventilator regularly in addition to inspecting the condition of the accessories on a weekly basis.



- Clean only exterior surfaces of the EO-70 device.



- If necessary, wipe the exterior of the device with a damp cloth using a mild cleaning solution.



- For all circuit components and hoses, follow the manufacturer's recommendations for cleaning and maintenance.



### **⚠ ATTENTION**

Do not spray any solution inside the docking station when the ventilation module is removed.

If storage is required, ensure that the internal battery is charged to prevent damage.

### **NOTE:**

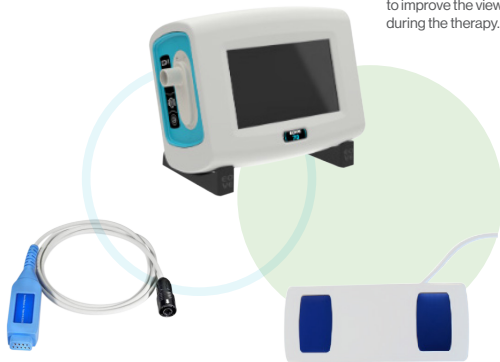
The EO-70 should be regularly serviced by an authorized EOVE technician according to the following schedule. In case of questions or problems always contact the Healthcare provider and more information is available in the User Manual.

## Optional Accessories

- The EO-70 is transportable but should not be operated during the transport. Always use the carry bag.
- To attach a control pedal, connect the plug of the remote-control at the rear of the device.



The travel bag eases transport



SpO<sub>2</sub> can be monitored by the Xpod during therapy, ensuring safety in case of desaturation

Footswitch EO-70

- A vertical support to improve the view during the therapy.

# My prescription

Patient \_\_\_\_\_

Preset \_\_\_\_\_

## INEX

	Manual	Automatic
Mode		
Inspiration pressure (cmH <sub>2</sub> O)	_____ mbar	
Slope	_____ mbar	
Inspiration time (s)	_____ sec	
Inspiration Trigger	_____ sec	
Pause (s)	_____ sec	
PEEP	_____ mbar	
Exhalation pressure	_____ mbar	
Exhalation time (s)	_____ sec	
Freq	_____ Hz	
Amp.	Low	Medium High
Cycles nb	_____	

## IPPB

Flow	_____ L/min		
Max pressure	_____ mbar		
Inspiration time (s)	_____ sec		
Inspiration Trigger	Low	Medium	High
PEEP	_____ mbar		
Exhalation slope	Low	Medium	High
Treatment time (min)	_____		

Notes: \_\_\_\_\_

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## Notes

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**Manufactured by**

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Medical device class IIb - CE 0459 - Manufactured by EOVE. Please read the user manual.