

PHILIPS

InCourage



Instructions for use

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Introduction

How to contact Customer Support

To have your device serviced, contact the InCourage system Customer Support department at 800.793.1261.

Indications for use

The Philips InCourage system is indicated when external manipulation of the chest is the physician's treatment of choice for increasing the clearance of mucus in patients with pulmonary disorders. The system promotes airway clearance and improves bronchial drainage utilizing high frequency chest wall oscillation (HFCWO), also known as vest therapy.

The InCourage system consists of an inflatable vest, interconnecting hoses and a therapy unit that creates compressions to the chest to help loosen, thin and move mucus throughout the lungs.

This manual includes instructions for setup, use and maintenance of the InCourage system. It is to be used as a reference guide. Please review all sections carefully prior to using the InCourage system.

Warranty provided separately with shipment of device.



Caution: Federal law restricts this device to sale by or on the order of a physician.

Contraindications

The Philips InCourage system is contraindicated (not appropriate for use) if the following conditions are present:

- Head and/or neck injury that has not yet been stabilized
- Active hemorrhage with hemodynamic instability

Relative contraindications*

The decision to use the InCourage system for airway secretion clearance in the presence of the conditions listed below requires careful consideration and assessment of the individual patient's case.

- Intracranial pressure (ICP) > 20 mmHg
- Recent spinal surgery, acute spinal injury
- Bronchopleural fistula
- Pulmonary edema associated with congestive heart failure
- Large pleural effusions or empyema
- Pulmonary embolism
- Rib fractures, with or without flail chest
- Surgical wound or healing tissue, recent skin grafts or flaps on the thorax
- Uncontrolled hypertension
- Distended abdomen
- Recent esophageal surgery
- Active or recent gross hemoptysis
- Uncontrolled airway at risk for aspiration (tube feeding or recent meal)
- Subcutaneous emphysema
- Recent epidural spinal infusion or spinal anesthesia
- Burns, open wounds and skin infections on the thorax

- Recent placement of transvenous pacemaker or subcutaneous pacemaker
- Suspected pulmonary tuberculosis
- Lung contusion
- Bronchospasm
- Osteoporosis, osteomyelitis of the ribs
- Coagulopathy
- Complaint of chest wall pain

*According to the AARC Guidelines for Postural Drainage Therapy

Symbols

This manual contains words and symbols that bring attention to specific statements.



Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

The following symbols are used in this manual and on the Philips InCourage system. Their meanings are as follows:



Attention: Consult accompanying documents



Warning: Risk of electric shock



Upper and lower temperature limits



Manufacturer



Protective earth terminal



Date of manufacture



Serial number



TUV mark



Type BF applied part



Lot number



Reference number



Federal law restricts this device to sale by or on the order of a physician

Components

The Philips InCourage system may include the following components:

Therapy unit

The therapy unit is the main control unit, which creates the pulsating air compressions that are transferred to the vest. It is the source of control for the system.



InCourage comfort vest

The vest is made of multi-layered nylon. It is secured utilizing quickfit straps that allow you to quickly set the vest to the recommended size to optimize the benefits of the pulsating air.



Interconnecting hoses

The two hoses are made of high-strength PVC. The hoses deliver the pulses of air from the therapy unit to the vest.



Locking hose connectors

The connectors are made of high-strength plastic with locking levers.

Power cord

The power cord plugs into the therapy unit and to a grounded, three-pronged outlet. Grounding reliability can only be achieved when the equipment is connected to a properly grounded, three-pronged outlet.



Controls

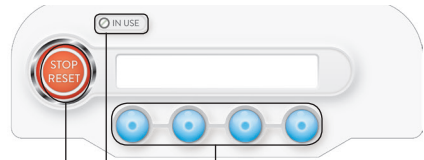
On/off switch

The power to the therapy unit is controlled by the on/off switch located on the back of the therapy unit. on = I off = 0



Control panel

The control panel is located on the top/front of the therapy unit and provides all interactive menus and performance readouts.



Control buttons

The control buttons are located just below the display. As the readout above each button changes, the function of the button changes.

Power indicator

The power indicator glows green when the therapy unit is plugged in and the on/off button is in the on position.

Stop/reset button

This button ends all current functions, resets the control board and returns to the main menu.

Quickfit adjustable straps

These straps allow you to size your vest to the exact, repeatable, recommended therapy spacing.



Air ports

The air ports are located at the front of the therapy unit and on the front of the vest. The interconnecting hoses attach to the ports to complete the connection from the vest to the therapy unit.



Safety instructions



Warning: Do not immerse the therapy unit in water. This could result in electrocution!



Warning: To reduce the risk of electrocution, fire or personal injury, follow these instructions.

- Be sure to read all information and instructions prior to setting up and using the Philips InCourage system. Failure to do so could result in equipment damage, property damage, personal injury or death.
- Close supervision is necessary when this product is used by or near children or individuals incapacitated by a chronic illness or injury.
- Product is to be used only as described in this manual and only as prescribed by a physician. Failure to do so could result in serious injury or death.
- There are several accessories that can be used with the InCourage system. Use only Philips recommended accessories. For full list of accessories, see the InCourage accessories guide.
- Do not use device near flammable substances.

- Inspect power cord and therapy unit prior to use. Do not use this product if any damage has occurred to power cord or any part of the system. Call Customer Support if any damage is suspected. Keep all components of the Philips InCourage system away from heated surfaces to avoid damage and possible injury.
- Do not insert any object into any opening on the system. Do not place objects on or over the top of the InCourage system.
- Always observe all warnings, cautions and notes listed in this manual and posted on the InCourage system.
- Be sure to plug the InCourage system directly into a properly grounded, three-pronged electrical outlet. Grounding reliability can only be achieved when the equipment is connected to a properly grounded, three-pronged outlet.
- Do not use the InCourage system near water or any wet surface. Allow the system to dry completely before plugging it into an electrical outlet if the system becomes wet.
- Place the InCourage system only on a flat and stable surface away from any materials that could block therapy unit air intake or exhaust.
- Never include the InCourage system in checked baggage, always include it in carry-on baggage.
- It is recommended that the owner or renter of the InCourage system insure the device under their renters or homeowner insurance policy to cover non-warranty damage expenses.
- Do not make any attempts to repair the system. Tampering or altering any of the components of the system will void the warranty. If any problems are experienced with the system, contact Customer Support.

System operations

Step 1: Fitting the InCourage comfort vest

Inspect the Philips InCourage comfort vest

Note: Prior to use, the vest should be inspected for any sign of defects. If any of the following defects are found, contact Customer Support for immediate vest replacement:

1. Any size hole found in the vest (inner layer, outer layer, seams or vest ports).
2. Any stitching that has become loose or frayed on the vest.
3. Any damage to the buckles or straps that restricts the function of the strap system.

Adjust the InCourage comfort vest straps

We have taken careful consideration in supplying you with the appropriate size vest based on your information. Please take a moment and review the fitting instructions carefully and consult your physician if any discomfort develops.

Note: We recommend a thin layer of cotton clothing to be worn under the vest for best comfort.

Note: Vest fitting adjustments should be made in the position that therapy will be performed.

To loosen straps: Lift the back of the buckle.

To tighten straps: Hold the buckle and pull the end of the strap to the patient's right.

These instructions refer to how to properly adjust the garment.

1. Put the vest on and connect the buckles located on the front.



2. Set the quickfit tabs to the pre-therapy position by placing the blue tabs over the yellow tabs.

Note: The hook and loop on the straps next to the colored tabs will keep straps in position.



3. Adjust the shoulder straps so the bottom edge of the vest sits at the top of the hipbone.



4. Gently tighten the front straps until each is snug to the chest.



5. Pull each of the quickfit blue tabs off the yellow tabs, then place the blue tabs over the white tabs.



6. You are now ready to connect vest to the therapy unit via the hoses.

Note: After completion of steps 1-6, your vest is now fitted to your specifications. For future use, use buckles only. Vest may be readjusted using steps 1-6, as needed.



Step 2: Plug in the therapy unit

1. Place the therapy unit on a level, sturdy, dry surface, clear of any flammable materials or obstructions.
2. Plug the power cord to the back of the therapy unit.
3. Plug the power cord into a properly grounded, three-pronged outlet. Grounding reliability can only be achieved when the equipment is connected to a properly grounded, three-pronged outlet. See product specifications for power requirements.

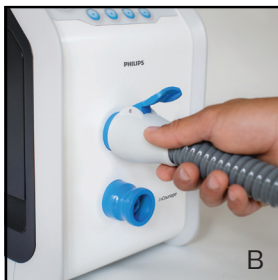


Step 3: Connecting the Philips InCourage comfort vest to the therapy unit

Note: The interconnecting hoses are interchangeable and can be flipped. You do not need to worry about which end of the hose is attached to the therapy unit or the vest.

Note: Prior to use, the hoses should be inspected for any sign of defects. If any defects are found, contact Customer Support for immediate hose replacement:

1. Grasp the sides of the locking hose connector and push hose connector on the device as shown (image A). The blue lever on hose connector will move upward during this process (image B).
2. Continue to push the hose connector firmly against the device until the hose connector has been properly fitted against the device. The lever will move downward.



3. Gently press down on the lever to verify a secure connection (image C). If you experience any unusual resistance, push the hose connector more firmly against the device. Repeat steps 1-3 for connecting the second hose to the device.
4. Grasp the sides of the locking hose connector and push hose connector on the vest port (image D). The blue lever on the hose connector will move upward during this process.
5. Continue to push the hose connector firmly against the vest port until the host connector has been properly fitted against the hose port. The lever will move downward.
6. Gently press the lever down to verify a secure connection (image E). Repeat steps 1-3 for connecting the second hose to the vest.

Note: To disconnect the vest, lift the lever and pull the hose off the vest port.



Operating the Philips InCourage device

Treatment definitions

- Frequency (F) – Represents the number of air pulses that are delivered over a period of time. (The InCourage system represents frequency in hertz (Hz), or the number of pulses per second.)
- Pressure (P) – Represents the force that the system places against your body. (The InCourage system represents pressure as a percentage (%) of the maximum pressure created.)
- Session – A full treatment of individual or combined steps.
- Step – A segment of frequency, pressure and time that together with other steps make up a complete session.

- Ramping – During a step, the Philips InCourage system gradually increases or decreases the frequency to the next step's frequency.
- Auto pause – This session is the quick start program with an automatic feature to pause the session every five minutes. Press “RUN” to resume.
- Multi step – This session is for custom programs that can be saved for future use.
- Quick start – This session is a pre-programmed session that starts immediately.
- Hour meter reading (HMR) – Represents the total use time over the life of the device. This timer cannot be reset.
- Use info – Represents the average session length in minutes and average pressure setting for the previous number of sessions displayed. Only sessions over five minutes will be counted. The user can reset this information.
- Pause time – Allows for automatic continuation of therapy after a pre-programmed pause during an auto pause or multi step session.
- Pressure limit – The maximum allowable pressure setting for all therapy sessions and programming.
- Pressure increment – The amount of pressure percent (%) changed when increasing or decreasing pressure.
- Fast set (FS) programming – A method for creating a customized multi step session of up to 12 steps with alternating frequency with an input of six settings: number of steps, low frequency, high frequency, pressure setting, total program time and auto pausing on or off.



Caution: Use of the system other than as prescribed could result in ineffective treatment. Prescribed settings must be utilized.

Starting a treatment session

The Philips InCourage system is programmed to provide easy-to-follow instructions with an easy-to-understand menu. It has three types of sessions: quick start, auto pause and multi step.

	Quick start	Auto pause	Multi step
Key feature	Instant 30-minute ¹ ramping session	Pauses session every five minutes ¹	Customized therapy with multiple steps and ramping
Program	Pre-programmed	Pre-programmed	Programmable up to 12 steps
Session length	30 minute session divided into 12 steps of 2.5 minutes each ¹	Same as quick start with automatic pause every five minutes ¹	12 user programmable steps up to 99 minutes each
Pressure	Default set at 60% and adjustable during session	Default set at 60% and adjustable during session	Set at desired pressure per step and adjustable during session
Frequency	Ramps from 6Hz to 15Hz over a 2.5 minute period – then ramps from 15Hz to 6Hz over the next 2.5 minutes and repeats for a total of 30 minutes ¹	Ramps from 6Hz to 15Hz over a 2.5 minute period – then ramps from 15Hz to 6Hz for the next 2.5 minutes followed by a pause. Repeats for a total of 30 minutes ¹	User defined per step between 5Hz and 30Hz ramping
Memory	Last pressure setting used is retained for the start of the next session	Last pressure setting used is retained for the start of the next session	Three programmable memory buttons

Note: The therapy unit will generate an audible tone as feedback when pressing any of the front panel buttons.²

1. Quick start and auto pause default duration of 30 minutes can be adjusted by five minute intervals from a minimum of five minutes to a maximum of 90 minutes per session, the number of minutes per step will vary.

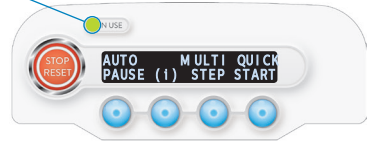
2. By default the audible tone is only generated when pressing one of the front panel buttons. Setting beep control to on will also generate audible feedback at the end of a step.

STEP 1: Turn on the therapy unit

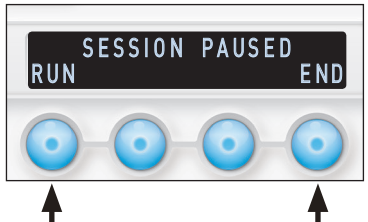
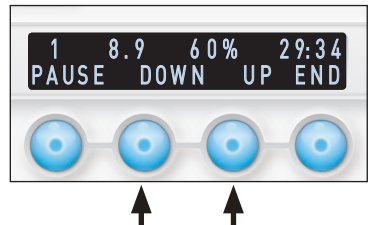
1. Turn the power switch on the back of the therapy unit to the on position (ensure therapy unit is plugged in to a properly grounded three-pronged outlet).



Note: The power indicator light on the control panel will light green to show that the therapy unit is powered on.

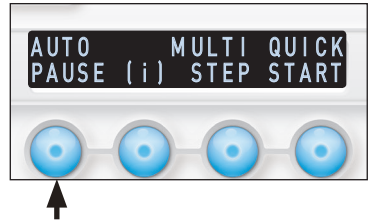
**STEP 2: Choose a session mode (quick start, auto pause or multi step)****To run quick start mode**

1. From the startup screen, select "QUICK START". Quick start session will begin.
2. Adjust pressure by pressing either "DOWN" or "UP". Press "PAUSE" to temporarily stop the session. Press "RUN" to resume the session or "END" to return to the startup screen.
3. When the session pauses, press "RUN" to resume the session or "END" to return to the startup screen.

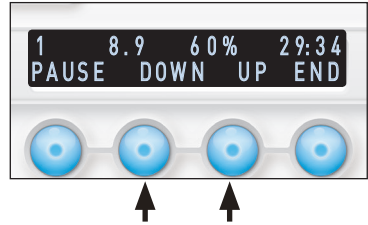


To run auto pause mode

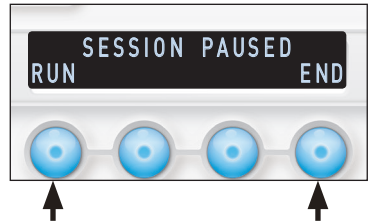
1. From the startup screen, press “AUTO PAUSE”. Auto pause session will begin.



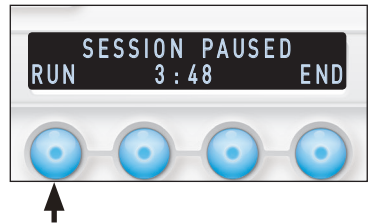
2. Adjust pressure by pressing either “DOWN” or “UP”. Press “PAUSE” to temporarily stop the session or “END” to return to the startup screen.



3. When the session pauses, press “RUN” to resume the session or “END” to return to the startup screen.

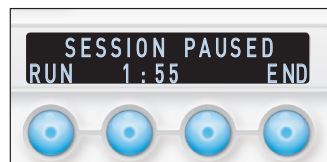
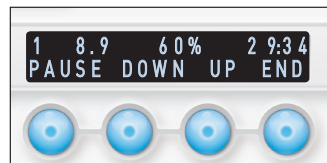
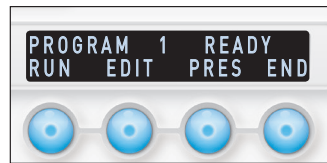
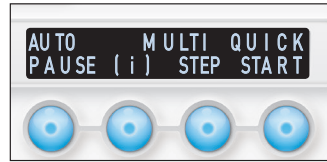


4. When a pause time is set, a countdown to resume will be displayed and therapy will automatically resume when the counter reaches 0:00. The “RUN” button will also continue therapy at any time.



To run multi step mode

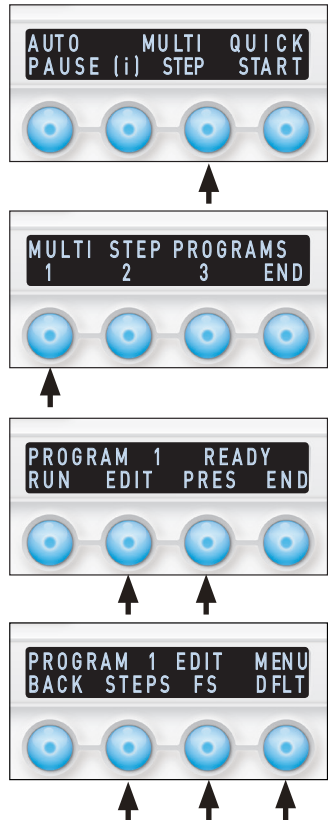
- From the startup screen, press “MULTI STEP”.
- Select the program number you would like to run (program 1 will be used as an example).
- To run the previously saved program, press “RUN”. To edit the previously saved program, see “modify a multi step session” section.
- Program 1 session will begin. Adjust pressure by pressing either “DOWN” or “UP”. Press “PAUSE” to temporarily stop the session or “END” to return to the startup screen.
- If the session is paused, press “RUN” to resume the session or “END” to return to the startup screen.
- When a pause time is set, a countdown to resume will be displayed and therapy will automatically resume when the counter reaches 0:00. The “RUN” button will also continue therapy at any time.



Modify a multi step session

Multi step editing options

1. From the startup screen, press "MULTI STEP".
2. Select the program number you would like to edit (program 1 is used as an example).
3. The program ready screen has two options for editing the selected program. Selecting "EDIT" will continue to the program edit menu. Selecting "PRES" will allow a single pressure to be set for all steps.
4. The program edit menu screen has three options for editing the selected program: "STEPS", "FS" and "DFLT". These options are described in the following instructions.



Fast set (FS) programming for multi step sessions

"FS" creates a customized multi step session of up to 12 steps of alternating frequencies with an input of six settings: even number of steps, low frequency (odd steps), high frequency (even steps), pressure setting, total program time and auto pausing on or off. Total time is divided equally over the number of steps.

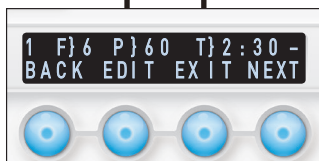
The "FS" menu is accessed as described in the previous multi step editing options section above. "FS" menu screens prompt for setting of "STEP QTY", "LOW FREQ", "HIGH FREQ", "PRESSURE", "TOTAL PRG TIME" and "PAUSE STEPS", "YES" or "NO". Selecting the "SAVE" option in the pause steps menu will store the new selections into the selected program.

Review and adjust multi step session settings

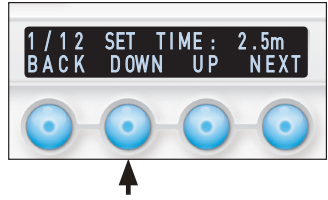
Press: **MULTI STEP** ► **PROGRAM #** ► **EDIT** ► **STEPS**

The steps edit option is used to review or manually change the individual set points for each parameter of each step within a multi step session.

1. “STEPS” edit option from the multi step editing op described in “modify a multi step session” section.
2. After the “STEPS” option is selected, session step quantity is requested for the selected program. Press “DOWN” or “UP” to adjust desired number of steps, then press “NEXT”.
3. The step summary information will then display for the first step as displayed in the example above. The line includes the step number (1), frequency (6), pressure (60), step time (2:30), and pause step (“-” indicates off, “Pse” indicates on). If no selections are made, the top line will begin to scroll providing expanded parameter information about the step. The user can quickly check the settings of each step by pressing “NEXT” after reviewing a step. The “EXIT” button will return to the program ready screen.
4. Select “EDIT” to begin adjusting the parameters of the selected step that is currently displayed.
5. Once in edit mode, pressing “BACK” at any time will return to the step summary for the previous parameter viewed.
6. Press “DOWN” or “UP” to adjust frequency to desired level, then press “NEXT”.
7. Press “DOWN” or “UP” to adjust pressure to desired level, then press “NEXT”.

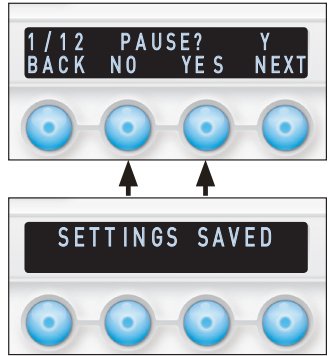


8. Press “DOWN” or “UP” to adjust desired length of time, then press “NEXT”.



9. Press “YES” or “NO” to enable or disable the auto pause, then press “NEXT”.

Note: As you complete programming for each step, the display will briefly show that settings were saved.



10. After a full step is programmed, the display will proceed to the next step.
11. Repeat steps six through nine above to program each of the remaining steps. The screen will automatically bring you to the program ready screen after the final step.

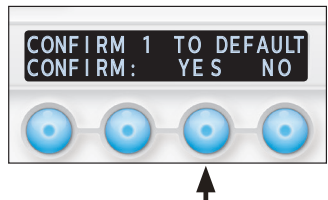


Note: After programming is completed, it is recommended to verify program for accuracy.

Set a multi step session to factory default settings



Selecting “DFLT”, as described in the “multi step editing options” section, will bring up the default confirmation screen. To confirm program reset to default, select “YES”.



System utilities

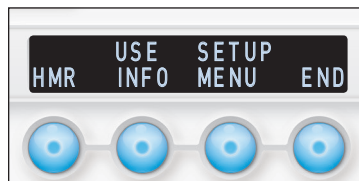
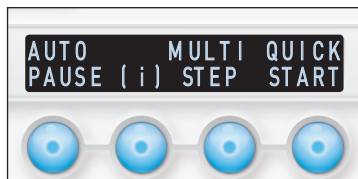
Screen saver

If the device is not actively running a program and a button is not pressed for ten minutes, the display will start a scrolling text. After an additional 20 minutes, the screen will blackout. At any time, press any button to reactivate the display and return to the main menu. The screen saver cannot be modified.

Information menu (i)

The information menu contains options to view the device HMR, average use information and setup menu. The information menu is accessed by pressing (i) from the startup screen.

Selecting “END” will return to the startup screen.

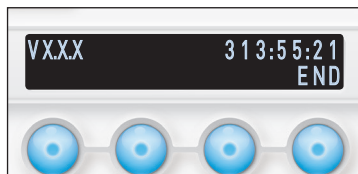


Information menu (i)

To retrieve HMR and device software version



1. Press (i) to display the information menu.
2. Press the “HMR” button.
3. The HMR will be displayed on the right side of the screen, hours : minutes : seconds.



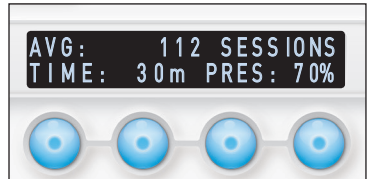
The software version will be displayed on the left side of the screen.

4. Press “END” to return to the information menu. The HMR and software version screen display will remain up until “END” is pressed or the screen saver timeout is reached.

To retrieve device average use information



1. Press (i) to display the information menu.
2. Press "USE INFO".
3. The display will show average session time in minutes and average pressure used over the number of therapy sessions displayed.



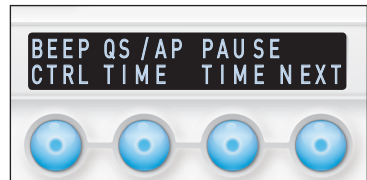
Note: Only sessions over five minutes will be averaged.

4. Press any button to return to the information menu. If a button is not pressed within 30 seconds, the display will return to the information menu automatically. See the "reset defaults" section to clear the session count and average use information.

Setup menu



Select "SETUP MENU" from the information menu. The setup menu contains device operational parameters that can be adjusted. These parameters are: beep control, QS/AP time, pause time, pressure limit, pressure increment, default settings and clear use information. The setup menu is displayed over two menu screens as shown to the right. Selecting "NEXT" from setup menu 1 will display setup menu 2.



Setup menu 1



Setup menu 2

To exit the setup menu, select "NEXT" and/or "END" to return to the information menu and then "END" again to return to the startup screen.

After adjusting a parameter within the setup menu, the display is returned to the setup menu of which that parameter was selected from.

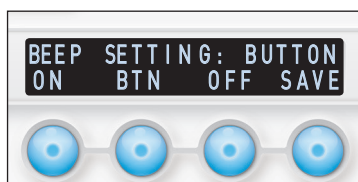
Beep control



This allows the user to control when the audible beep will sound. To set the audible beep, select “BEEP CTRL” from the setup menu 1 screen.

The audible beep has three settings:

- On – Audible beep for button pushes and alternating tones at the end of every session step completed.
- Button (BTN) – Audible beep for button pushes only (default).
- Off – No audible tones will sound.



The current selection for the beep setting is displayed on the top line of the display. Press “SAVE” to exit the menu and to save the selected beep setting.

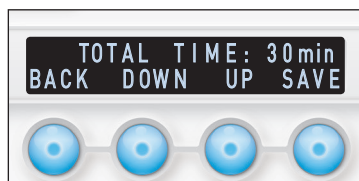
Quick start and auto pause session time



This allows the user to adjust the therapy session length for the one-touch start quick start and auto pause programs. The default 12 step, 30 minute session can be set between five and 90 minutes, in five minute increments. If the session time is less than 30 minutes, the number of the half minute steps is reduced. If session time is greater than 30 minutes, the time is equally divided over 12 steps.

To adjust the quick start and auto pause session time, select “QS/AP TIME” from the setup menu 1 screen.

Select “BACK” to return to setup menu 1 without saving changes.

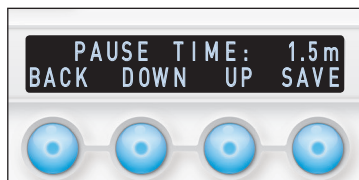


Pause time



When a pause time is set, a session will automatically restart after a programmed pause during an auto pause or multi step session. By default, the pause time is set to off. A session can still be started manually at anytime by pressing “RUN”. When active, a pause time countdown will be shown on the display.

To adjust the pause time, select “PAUSE TIME” from the setup menu 1 screen. Use the “DOWN” and “UP” buttons to set the Pause Time from off to 10 minutes in half minute increments. When the desired setting is shown, select “SAVE”.



Select “BACK” to return to setup menu 1 without saving changes.

Pressure limit



This sets the maximum pressure allowed for all programs and programming. To adjust the pressure limit, select “PRES LIMIT” from the setup menu 2. Use the “DOWN” and “UP” buttons to set the system pressure limit. When the desired setting is shown, select “SAVE”.

Select “BACK” to return to setup menu 2 without saving changes.

Pressure increment



This sets the pressure increment used when adjusting pressure for all running sessions and session programming.

To adjust the pressure increment, select “PRES INC” from the setup menu 2 screen. Use the “DOWN” and “UP” buttons to set the pressure increment to 5% or 10%. When the desired setting is shown, select “SAVE”.

Select “BACK” to return to setup menu 2 without saving changes.

Reset defaults and clear average use

Press: (i) ► SETUP MENU ► NEXT ► RESET DFLTS

This allows the user to reset settings to original factory parameters. There are three reset options. All defaults (ALL DFLTS) resets all programs and setup menu variables. Setup defaults (SETUP DFLTS) resets only setup menu variables. "CLEAR USE" resets the session count and average use information to zero.

To reset settings to original factory defaults, select "NEXT" then "RESET DFLTS" from the setup menu 2 screen. The "RESET DFLTS" menu will display the three reset options to select: "ALL DFLTS", "SETUP DFLTS" and "CLEAR USE". Selecting a reset option will display a confirmation screen to continue. Select "YES" to confirm or select "NO" to cancel.

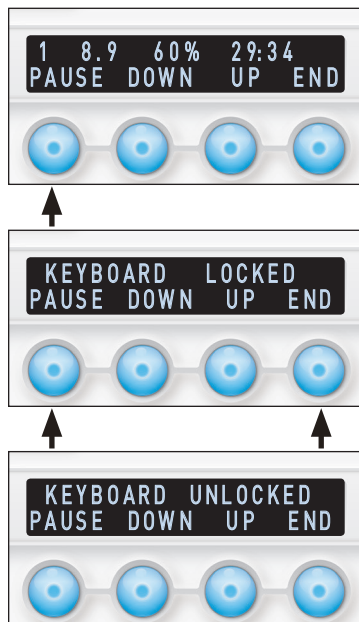
Using the button lock

The button lock feature will prevent certain functions of the system from operating during a treatment session. When enabled, the pressure "UP", "DOWN" and "END" buttons will not function. The "PAUSE" and "RESET" buttons will still function.

To enable or disable the button lock

1. During any treatment session, press and hold the "PAUSE" button.
2. Within one second, press and hold the "END" button.
3. To disable the button lock, repeat steps 1 and 2.

Note: The button lock will be disabled when the Reset button is pressed or when turning the power off.



Maintenance



Warning: Do not immerse the therapy unit in water. This could result in electrocution.

Cleaning the system

Cleaning the therapy unit and hoses

All components of the Philips InCourage system may be cleaned with a damp, soft cloth and mild detergent, or any commercial household/hospital disinfectant. This includes the exterior of the therapy unit and the interconnecting hoses. Always make sure the power cord is removed while cleaning the therapy unit or replacing the filter. Wipe away any residue with a damp cloth and let the components dry thoroughly before use.

Cleaning the InCourage comfort vest

The vest may be machine washed in any commercial or household washing machine by following these steps:

1. Insert the two red plugs (supplied) into both vest ports.

Note: Make sure the rim of the plug fits tightly into the port.



2. Machine wash vest on gentle or normal cycle with a mild detergent in warm water.
3. Remove both plugs from the vest ports and tumble dry vest on low heat setting.
4. To ensure all moisture is removed from the vest, attach one hose onto the top port of the therapy unit. Attach the other end of the hose onto one vest port.
Note: Make sure hose is attached to the top port of the therapy unit and leave the other vest port open.
5. Unbuckle all straps of the vest and lay on flat surface. Run the therapy unit for 20 minutes at a frequency of five Hz and at 100% pressure.



Warning: Choking hazard — Keep small red plugs away from children under three years.

Filter and fuse replacement

Filter replacement

Inspect the air filter regularly. Replace the filter when it appears dirty, shows signs of wear, after 90 hours of use or 90 days of use, whichever comes first.

If a nebulizer is used along with the system, it is recommended that the filters be replaced monthly. Failure to change filter could impede device performance.

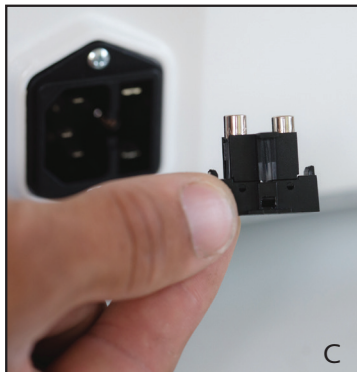
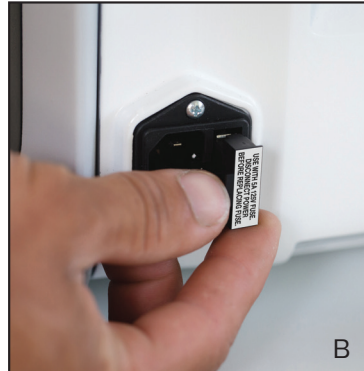
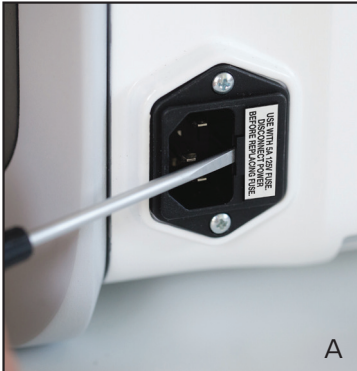
The filter panel is located on the right side of the device when looking at the front of the device.

1. Unplug the therapy unit.
2. Grasp bottom of side panel. Gently pull away from therapy unit until you hear a click (image A).
3. Pull panel down until it is completely disconnected from the therapy unit (image B).
4. Pull out existing filter and replace with new filter. The filter must go behind the four small tabs and in front of the support grate (image C).
5. To reconnect the panel, align the tabs and gently push up and in at the bottom until you hear a click for a secure fit.



Fuse replacement

1. Remove the black fuse holder located on the back of the device using a small flat head screwdriver (images A & B).
2. Replace both fuses with 5 A, 125 VAC, 5 mm x 20 mm, slow blow, 10000 A interruption rated fuses (image C).
3. Insert replacement fuses into holder and place back into therapy unit until you hear a click (image D).



Troubleshooting guide

Condition	Possible cause	Solution
The therapy unit will not turn on	Power cord is not securely inserted into the electrical inlet on the rear panel	Remove power cord from the rear panel and re-insert
	Power cord is not securely inserted into the wall outlet	Ensure power cord is fully plugged into the wall outlet
	Fuse is damaged	Replace fuse with proper fuse (see below)
	Problem still persists	Contact Customer Support
The vest no longer fits	Normal growth	Re-adjust the vest closures to accommodate change in chest size – if the vest still does not fit properly, contact Customer Support
No air is pulsing into the vest	Hoses are not connected to the vest	Connect hoses to the vest and therapy unit
	Hoses are clogged	Clean inside and outside of the hoses, vest ports and therapy unit ports according to maintenance guidelines
	Air filter is clogged	Replace air filter
	Problem still persists	Contact Customer Support
Displayed is unreadable or non-responsive	Internal problem	<ol style="list-style-type: none"> 1. Press Reset 2. Switch power off for 30 seconds, then power back on <p>If problem still persists after completing steps 1-2, contact Customer Support</p>
Display shows error or warning message	Therapy unit error detected	<ol style="list-style-type: none"> 1. Write down error or warning message 2. Switch power off for 30 seconds, then power back on <p>If problem still persists after completing steps 1-2, contact Customer Support</p>

Specifications

Principles of operation

Philips InCourage utilizes three main components:

1. Therapy unit
2. Inflatable vest
3. Interconnecting hoses

These components work in conjunction with each other to deliver pulsating positive pressure air pulses to the patient known as high frequency chest wall oscillation (HFCWO). The rhythmic inflation and deflation of the vest against the patient's chest aids in the mobilization and clearance of bronchial secretions.

Product specifications

InCourage system specifications	
Manufactured by:	Respiratory Technologies, Inc., d.b.a. RespiTech
Mode of operation:	Continuous use
Operating temperature:	50° F to 92° F (10° C to 33° C) Ambient temperature
Storage/transport:	-13° F to 185° F (-25° C to 85° C)
Operating humidity:	20% to 80% RH (non-condensing)

Therapy unit specifications	
Length:	13.5" (34.3 cm)
Width:	9" (22.9 cm)
Height:	13" (33.0 cm)
Weight:	17.5 lbs. (7.94 kg)
Input source:	120 VAC RMS, 50/60Hz, Single phase
Wattage:	500 Watts
Fuses	5 A 125 VAC

Vest specifications	
Outer shell:	1050 denier nylon, PVC-coated
Inner shell:	200 denier nylon, PVC-coated
Straps:	Nylon auto-adjusting securement straps with quick-release connectors
Latex information:	Not made with natural rubber latex

EMC information

Electromagnetic emissions

The Philips InCourage system needs special precautions regarding electromagnetic compatibility (EMC) and must be installed and put into service according to the EMC information provided in the tables below.

Guidance and manufacturer's declaration – electromagnetic emissions

Emissions test	Compliance	Electromagnetic environment guidance
RF emissions CISPR 11	Group 1	InCourage uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	InCourage is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-3	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Electromagnetic immunity

Guidance and manufacturer's declaration – electromagnetic immunity

The Philips InCourage system is intended for use in the electromagnetic environment specified below. The user of the system should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment guide
Electrostatic discharge (ESD) IEC 61000-4-4	±6 kV contact ±8 kV air	A A	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	A N/A	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-11	±1 kV differential mode ±2 kV common mode	A C	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec	A A A A	Mains power quality should be that of a typical commercial or hospital environment. If the user of the InCourage system requires continued operation during power mains interruptions, it is recommended that the system be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	A	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: U_T is the AC mains voltage prior to application of the test level.



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