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BIPAP® **Duet® LX**
System

*Operating
Instruction Manual*



RESPIRONICS®

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The BiPAP® Duet® LX bi-level device carries a two-year warranty. See the “Warranty” section of this manual for details. A warranty/ comment card should be included with this manual for your completion. If it is not, contact Respiroics’ Warranty Administrator at 1-800-666-2901 (US and Canada) or 1-412-731-2100 to register your equipment and receive a FREE package of filters.

For Information on Sleep Disorders Contact:

**American Sleep Apnea Association
2025 Pennsylvania Ave. N.W., Suite 905
Washington D.C. 20006
Telephone: 1-202-293-3650**

**National Sleep Foundation
1367 Connecticut Ave., N.W., Suite 200
Washington D.C. 20036
Telephone: 1-202-785-2300**

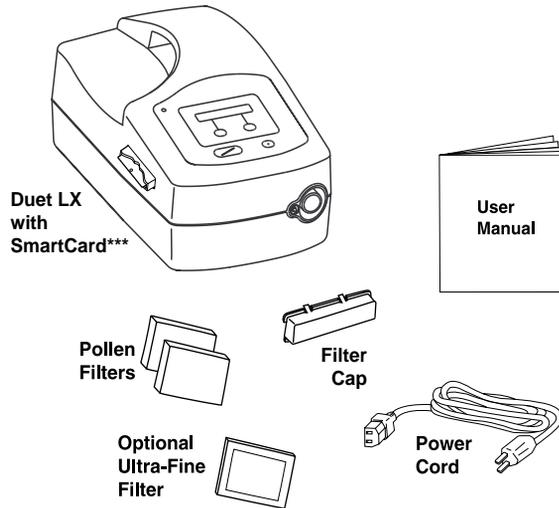
BiPAP Duet LX Bi-level System is the subject of U.S. patents #5148802, 5239995, 5313937, and 5433193.

Other US and foreign patents pending.

Great Performers, Duet, Whisper Swivel, Monarch, GoldSeal, Spectrum, Plateau, and Comfort Flap are trademarks of Respiroics, Inc.

UNPACKING THE SYSTEM

After unpacking the System, check to make sure you have everything shown here:



IMPORTANT!

If any of the above parts are missing, contact your home care provider.

Some Duet LX Systems may also include one or more of the following accessories:

- 6 ft. (1.83 m) Flexible Tubing (22 mm I.D., reusable or lightweight)
- Headgear
- Exhalation Port
- Nasal Mask
- Humidifier
- Carrying Case

***The Encore SmartCard is a feature included with the newest models of the Duet LX which records the device usage. Another new feature is the FOSQ “Quality of Life” questionnaire. Your doctor or home care provider may ask you to periodically complete this questionnaire and send your answers (recorded on the SmartCard). The FOSQ questionnaire is detailed in the enclosed “Sleep Apnea Solutions” brochure. If your Duet LX does not have the SmartCard feature, ignore any instructions pertaining to the SmartCard and FOSQ questionnaire.

INTRODUCTION

Intended Use

The Duet® LX Bi-level System delivers positive airway pressure therapy for the treatment of adult Obstructive Sleep Apnea (OSA) only.

Introduction

The System offers several options in how therapy is delivered, so treatment can be personalized to meet your needs. The System delivers two different positive pressure levels: IPAP (Inspiratory Positive Airway Pressure) and EPAP (Expiratory Positive Airway Pressure). Your home care provider will make the correct pressure settings.

When prescribed by your physician, the ramp function allows you to lower the pressure when you are trying to fall asleep. The air pressure will gradually increase until your prescription pressure is reached. You also have the option of not using the ramp feature at all.

Several accessories are available to make your OSA treatment with the Duet LX System as convenient and comfortable as possible. Contact your home care provider to purchase any accessories not included with the Duet LX System.

IMPORTANT!

Read and understand the entire user's manual before operating this System. If you have any questions concerning the use of this System, contact your home care provider or doctor.

Contraindications

Studies have shown that the following pre-existing conditions may contraindicate the use of positive airway pressure therapy for some patients:

- Bullous Lung Disease
- Pathologically Low Blood Pressure
- Pneumothorax
- Pneumocephalus has been reported in a patient using nasal Continuous Positive Airway Pressure. Caution should be used when prescribing CPAP for susceptible patients such as those with: cerebral spinal fluid (CSF) leaks, abnormalities of the cribriform plate, prior history of head trauma, and/or pneumocephalus. (Chest 1989; 96:1425-1426)

The use of positive airway pressure therapy may be temporarily contraindicated if you exhibit signs of a sinus or middle ear infection. Contact your physician if you have any questions concerning your therapy.

WARNINGS & CAUTIONS

CAUTION!

- U.S. federal law restricts this device to sale by or on the order of a physician.

WARNING!

Indicates the possibility for injury to the user or the operator.

- This device is intended for adult use only.
- This device is not intended for life support.
- Most CPAP and bi-level devices have the potential to allow rebreathing of exhaled air. To reduce this potential, observe the following:
 - Use only Respironics circuit accessories
 - Do not wear the mask and headgear for more than a few minutes while the unit is not operating
 - Do not block or try to seal the vent holes in the exhalation port

As with most CPAP and bi-level devices: At low CPAP pressures, some exhaled gas (CO₂) may remain in the mask and be rebreathed.

- Under certain conditions, the temperature of the air flow from this device can be as much as 18° F (10° C) higher than the air temperature in the room. Caution should be exercised if the room temperature is warmer than 90° F (32° C).
- This equipment is not suitable for use in the presence of a flammable anesthetic mixture in combination with oxygen or air. This equipment is not suitable for use in the presence of nitrous oxide (N₂O).
- To avoid electrical shock, disconnect the power cord before cleaning. **DO NOT** immerse the Duet LX into any fluids.
- The instructions in this manual are not intended to supersede established medical protocols.
- Contact your doctor if symptoms of sleep apnea recur.

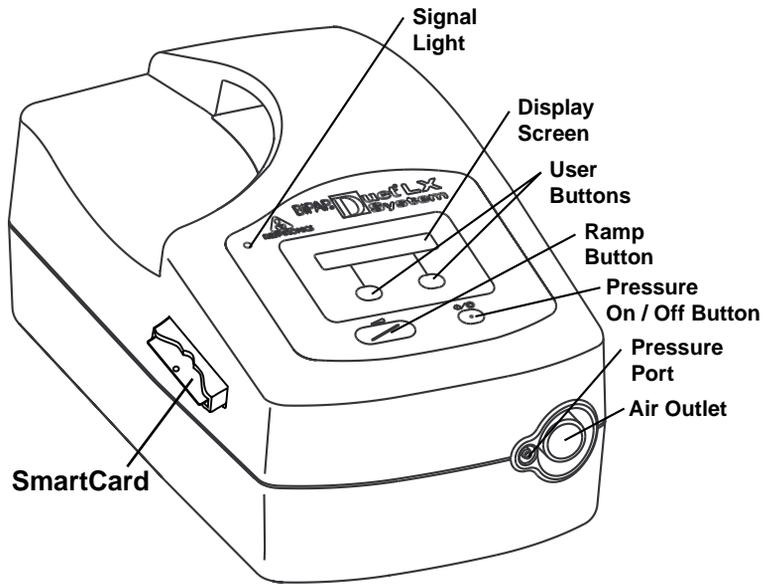
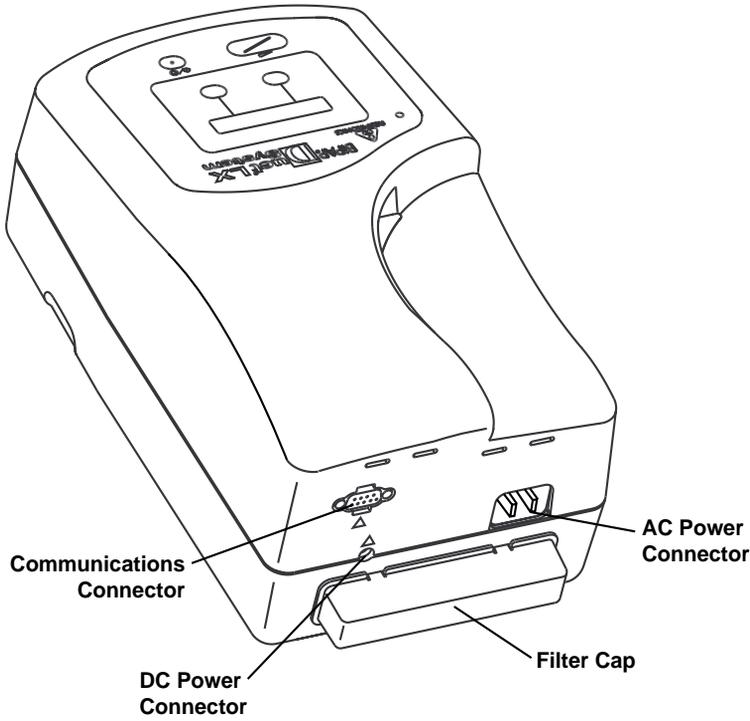
CAUTION!

Indicates the possibility of damage to the device.

- Should the noise level of the Duet LX change to include unusual or harsh sounds during operation, discontinue use and contact your home care provider.
- Discontinue using the Duet LX if any of the parts are damaged. Replace any damaged parts before continuing use.
- Tobacco smoke may cause tar buildup within the Duet LX that may result in the device malfunctioning.
- The Duet LX is powered when the cord is connected to the main supply. The Pressure On/Off button enables/disables the blower only.
- The Duet LX must be positioned on its base for proper operation.

Additional warnings and cautions are located throughout this manual as they apply.

SYSTEM FEATURES



SYSTEM FEATURES

- AC Power Connector** Connect the power cord here.
- Air Outlet** Connect the flexible tubing here.
- Communications**
- Connector** For clinical use only.
- DC Power Connector** Connect the optional DC power cord here.
- Display Screen** All System settings, total operating time, and therapy hours will be displayed here.
- Filter Cap & Filters** The pollen filter screens out normal household dust and pollens. This must be in place at all times when the Duet LX is operating. An optional, ultra-fine filter is also included for more complete filtration of very fine particles.
- Pressure On / Off**
- Button** This button turns the air flow on or off.
- Ramp Button** This button decreases the pressure to the minimum ramp pressure setting.
- Signal Light** The green light signals when the Duet LX is ready for use. The light will go out when the air flow is turned on. A flashing light signals that the Duet LX needs to be serviced.
- SmartCard** The SmartCard records device usage information (e.g., a history of pressure settings and times the system was used for therapy). Contact your home care provider for further information about the SmartCard.
- User Buttons** These buttons can be used to change some of the System settings.

Medical Product Note: For ease at airport security stations, there is a note on the bottom of the Duet LX stating that it is medical equipment. It may help if you also take this manual with you when you travel.

FIRST TIME SETUP

WARNING!

DO NOT use the Duet LX Bi-level System until an appropriate professional adjusts the settings!

To use the system, you will need the following accessories in order to assemble the required patient circuit. **To order any accessories not included with the Duet LX, contact your home care provider.**

- **Respironics 6 ft. (1.83 m) Flexible Tubing**
- **Respironics Mask with Exhalation Port** (e.g., Whisper Swivel II®) or a Respironics Mask with a built-in exhalation port.
- **Headgear**

WARNING!

DO NOT connect any equipment to the Duet LX unless recommended by Respironics or your doctor.

WARNING!

Respironics circuit accessories (i.e., nasal mask, exhalation port, flexible tubing, and Comfort Flap®) are for single patient use only and are not intended to be used on multiple patients.

CAUTION!

If the Duet LX has been exposed to either very hot or very cold temperatures, allow the device to adjust to room temperature (approximately 2 hours) before beginning setup.

CAUTION!

When operating the Duet LX System, make sure bedclothes, curtains, or other items are not blocking the filter cap openings or the vents on the Duet LX. Make sure the Duet LX is away from heating equipment (e.g., forced air vents, radiators).

ATTENTION!

The SmartCard does not need to be installed for the Duet LX to work properly. The SmartCard records device usage information for use by your home care provider. Contact your home care provider if you have any questions about the SmartCard.

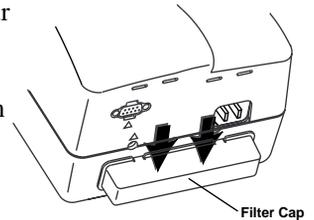
Installing Filters

1. Install the filters in the back of the Duet LX.

The pollen filter must be in place at all times when the Duet LX is operating. The white ultra-fine filter is optional and can be used in addition to the pollen filter. The ultra-fine filter is recommended for people who are sensitive to tobacco smoke or other small particles.

a. **Place one of the pollen filters over the ultra-fine filter.** Or, if you are not using the ultra-fine filter, simply place the pollen filter into the filter area on the back of the Duet LX. An extra pollen filter is included for your convenience.

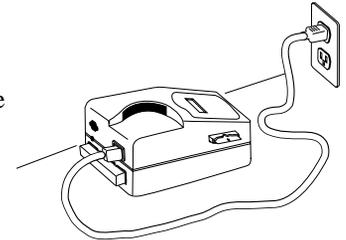
b. **Attach the filter cap.** Insert the cap's bottom tabs into the openings below the filter area. Press down on the cap's top tabs and insert them into the openings above the filter area.



Power Cord

2. Connect the power cord.

Plug the socket end of the power cord into the AC power connector on the back of the Duet LX. Plug the pronged end of the power cord into an electrical outlet.



IMPORTANT!

An international plug adapter may also be required to make your power cord compatible with the electrical outlet of the country you are in. If further assistance is required, contact Respironics International Customer Service department at 1-800-345-6443 (US and Canada) OR 1-412-731-2100.

CAUTION!

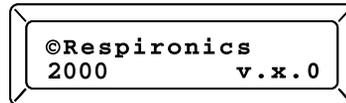
Inspect the power cord often for any signs of damage. Replace a damaged cord immediately.

CAUTION!

The Duet LX is activated when the power cord is connected. The Pressure On / Off button only turns the blower on/off.

FIRST TIME SETUP

After the Duet LX is plugged into an electrical source, it will perform a brief self-diagnostic test. The following message will then appear on the display screen.



IMPORTANT!

DO NOT use the Duet LX if the display is erratic. Contact your home care provider for further instructions.

IMPORTANT!

DO NOT turn the air flow on until the circuit tubing is connected.

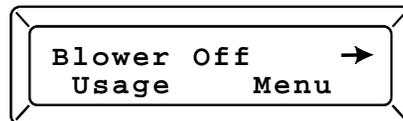
Device Settings

3. Follow the display screens to change the system settings.

IMPORTANT!

Make sure the air flow is turned OFF. You cannot change any settings while the Duet LX's air flow is turned ON.

- a. The blower status will be displayed and the green signal light will be on. **Press the button below "Menu."**



- b. A message will display asking if you want to change the settings. **Press the button below "Yes."**



If you press "No," go to page 13 for instructions.

The Ramp Feature

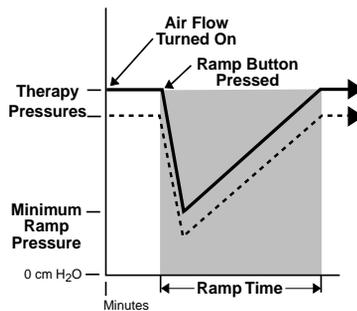
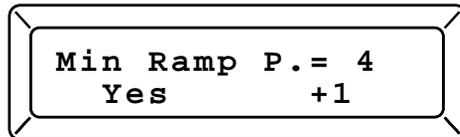
The Ramp feature will reduce the pressures and then gradually increase (ramp) the pressures to the prescription pressure settings so that you can fall asleep more comfortably. *If your physician prescribed ramp for you, the minimum ramp pressure setting will be displayed. If ramp has not been prescribed for you, go to Step d.*

Setting the Minimum Ramp Pressure

- c. The minimum ramp pressure will be displayed. Your home care provider will have already set a minimum ramp pressure. If you feel the minimum ramp pressure is set too low or too high, you can change the setting. (Range: 3 cm H₂O to EPAP pressure setting)

If the minimum ramp pressure is correct, press the button below “Yes.”

To change the pressure in 1 cm H₂O increments, press the button below “+1” until the desired pressure is displayed. Press the button below “Yes” to confirm the setting.



FIRST TIME SETUP

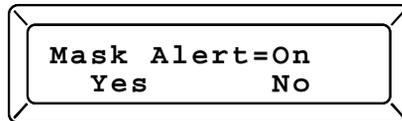
Turning the Alert Tone On or Off

- d. The audible mask alert is a beeping sound that the Duet LX makes when a large, continuous air leak has been detected in the circuit. You have the option of turning the alert tone On or Off.

If the setting is correct, press the button below “Yes.”

To change the setting, press the button below “No.”

Press the button below “Yes” to confirm the setting.



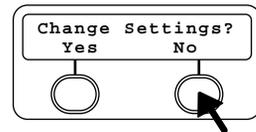
IMPORTANT!

The Mask Alert is a convenience feature that may not work at extreme altitudes or with some mask types or circuit configurations (i.e., pass-over humidifier, full face mask). *This will not adversely affect the therapy you receive from the System.*

FIRST TIME SETUP

FOSQ Test

When “Change Settings” is displayed, if you press the button below “No,” a screen will appear that says “FOSQ Test?” .

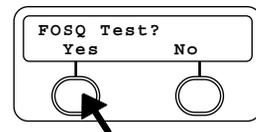


The FOSQ test is a “quality of life” questionnaire designed specifically for people with sleep disorders. The results allow health care professionals to see how therapy has improved the quality of your life. By completing the questionnaire periodically, you can provide valuable information about the effectiveness of your treatment. The Duet LX has the ability to record your answers on the SmartCard for later review by the health care provider. Contact your home care provider for further instructions.

IMPORTANT!

If your doctor or home care provider instructs you to complete the questionnaire, he will provide you with the instructions and the questions and you will enter your answers into the Duet LX. Make sure the SmartCard is installed before answering the questions.

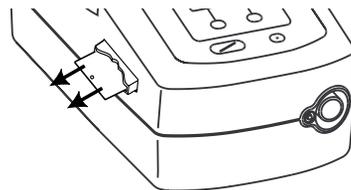
A message will display asking if you want to take the FOSQ test. If you want to take the test, Press the button below “Yes.” (NOTE: This screen will not display if the SmartCard is not installed.)



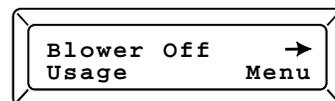
If you do not want to take the test, press the button below “No” and the display will go back to the main screen.

SmartCard

A SmartCard is installed in the side of the Duet LX to record information for the home care provider. Your home care provider may ask you to periodically remove the SmartCard and mail it to him for evaluation.



The arrow in the upper right corner of the display screen signifies that the SmartCard is installed properly.



FIRST TIME SETUP

Assembling the Circuit

WARNING!

4. **Assemble the circuit.** To use the System, you will need the following accessories in order to assemble the recommended circuit.

- **6 ft. (1.83 m) Flexible Tubing**
- **Nasal Mask with Exhalation Port**
- **Headgear**

If the Duet LX is used for multiple persons (e.g., rental devices) a low-resistance, main flow bacteria filter should be installed in-line between the Duet LX and the circuit tubing. Appropriate diagnostic pressures must be determined when a bacteria filter and other optional circuit accessories are in place.

a. Connect the flexible tubing to the air outlet on the front of the Duet LX.

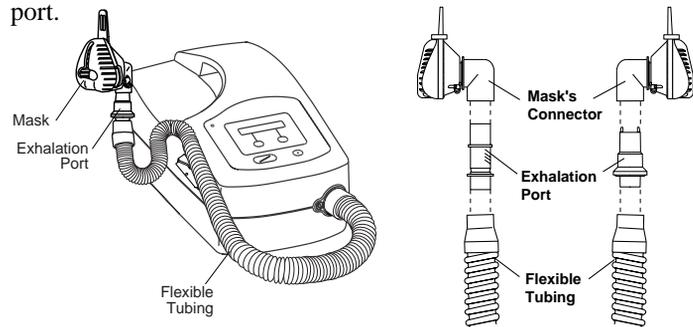
b. **If you are using a mask with a built-in exhalation port:**

Connect the mask's connector to the flexible tubing.

If you are using a mask with a separate exhalation port:

Connect the exhalation port to the end of the flexible tubing.

Position the exhalation port so that the vented air is blowing away from your face. Connect the mask's connector to the exhalation port.



WARNING!

The exhalation port is designed to exhaust CO₂ from the circuit. Continuous flow is required for safe operation. Do not block or otherwise try to seal the air openings on the exhalation port.

WARNING!

If you are using a full face mask (i.e., a mask covering both your mouth and your nose), the mask *must* be equipped with a safety (entrainment) valve.

Contact your home care provider for additional information on the accessories available for the Duet LX System.

Adding a Humidifier Humidifiers are available from your home care provider. The humidifiers may reduce nasal dryness and irritation by adding moisture to the air flow.

CAUTION! For safe operation, the humidifier must always be positioned below the circuit connection at the mask and the air outlet on the Duet LX unit. The humidifier must be level for proper operation.

CAUTION! When using a humidifier, always disconnect the humidifier tubing from the Duet LX System when it is turned off. **DO NOT** use a room humidifier within six feet (1.83 m) from the Duet LX. Moisture can build up in the System and cause damage. Follow the instructions included with the humidifier.

CAUTION! When using a heated humidifier, avoid using the high temperature setting, which may cause water to collect in the tubing.

IMPORTANT! The Mask Alert, Auto-on, and Auto-off are convenience features that may not work at extreme altitude levels or with some mask types or circuit configurations (i.e., pass-over humidifier, full-face mask). If this occurs, press the Pressure On/Off button on the Duet LX to turn the air flow on or off. This will not adversely affect the therapy you receive from the System.

Using a DC Power System You can also use the Duet LX in a stationary recreational vehicle, boat or motor home with a 12 volt DC power source. The Duet LX should not be operated while the vehicle is in motion. Contact your home care provider for additional information.

CAUTION! Only use the Respironics DC Power System available from your home care provider. Use of any other system may cause damage to the Duet LX or your vehicle.

CAUTION! DC Power is not intended to be used as battery back-up. **DO NOT** connect the DC Power System while the Duet LX is operating on AC power.

ACCESSORIES

Adding Oxygen to the System

The oxygen must comply with local regulations for medical oxygen use. The oxygen flow into the patient circuit must not exceed 15 L/min. and the oxygen pressure must not exceed 50 psi. Please note the warnings listed below when using oxygen with the Duet LX System.

WARNING!

When using supplemental oxygen with the Duet LX, a Respironics Pressure Valve must be placed in-line with the patient circuit (between the Duet LX and an O₂ Enrichment Attachment).

WARNING!

Oxygen should be administered only on the order of a physician. Consult with your home care provider if your physician has prescribed oxygen for you.

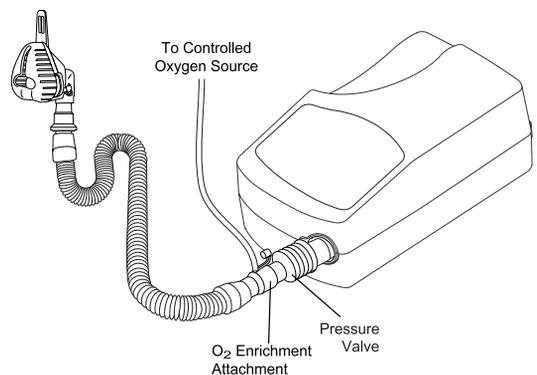
WARNING!

When using oxygen with the Duet LX System, turn the Duet LX on before turning the oxygen on. Turn the oxygen off before turning the Duet LX off. This will prevent oxygen accumulation in the Duet LX.

WARNING!

Oxygen accelerates fires. Keep the Duet LX and the oxygen container away from heat, open flames, or other sources of ignition. DO NOT smoke in the area near the Duet LX or the oxygen.

Connect the oxygen as shown here.



Carrying Case

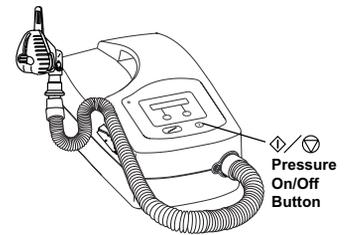
The carrying case holds the Duet LX and accessories. When traveling by airplane, the carrying case is for carry-on luggage only. Never check the Duet LX through the airline baggage department.

Connecting the Circuit

1. **Connect the circuit.** Before each use, examine the flexible tubing for any damage or debris. Replace any damaged tubing.
 - a. Connect the mask to the headgear, following the instructions included with the mask and headgear.
 - b. **If your home care provider has selected the Auto-On feature for you**, put on the mask and headgear, and breathe normally through your nose. The air flow should automatically turn ON when you begin breathing through the circuit. If the air flow does not turn on within four breaths, turn it ON by pressing the Pressure On/Off button on the top of the Duet LX. When operating the System with some mask types, some circuit configurations, or at higher altitudes, the air flow may NOT automatically turn on.

- or -

If your home care provider has not selected the Auto-On feature for you, put on the mask and headgear, and immediately turn the air flow ON by pressing the Pressure On/Off button on the top of the Duet LX. Breathe normally through your nose.



Adjusting the Circuit

2. **Adjust the circuit.**
 - a. Lie down on your bed and adjust the flexible tubing so it is free to move if you turn in your sleep.
 - b. Adjust the mask and headgear until you have a comfortable fit and there are no air flow leaks into your eyes.

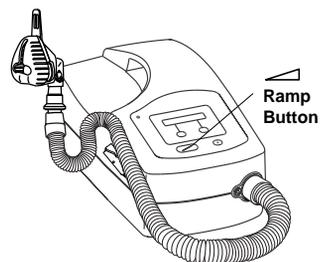
When the air flow is on, the green signal light will go out. The word “Menu” will no longer be displayed, and the pressure setting will now be shown.

ROUTINE USE

Starting Ramp

The Ramp feature will reduce the pressure and then gradually increase (ramp) the pressure to the therapeutic pressure setting so that you can fall asleep more comfortably. If your physician prescribed ramp for you, pressing the Ramp button will reduce the air pressure when you are trying to fall asleep. Note: *The ramp feature is not prescribed for all users.*

3. Press the Ramp button on the top of the Duet LX. You can use the Ramp button as often as you wish during the night.



Turning the System OFF

4. Remove the mask and headgear. The air flow will automatically turn off (in less than 1 minute). If the audible mask alert is turned on, the alert tone will sound (in less than 45 seconds after you remove the mask).

IMPORTANT!

The Auto-off feature may have been disabled by your home care provider. Press the Pressure On / Off button on the top of the Duet LX to turn the air flow OFF.

WARNING!

When using a humidifier, *you must* disconnect the humidifier tubing from the Duet LX System when the air flow is turned off. Moisture can build up in the System and cause damage to it.

Helpful Hints

- If the alert tone sounds, press any button on the Duet LX to silence the alert tone. Refer to the “Screen Messages” section of the manual for further instructions.
- If you want to talk after putting on the mask, and ramp has been prescribed for you, use the Ramp button to reduce the pressure. This will make talking easier.
- Make sure that bedding, curtains, or other items are not blocking the filter or vents of the Duet LX. Air must flow freely around the Duet LX for the System to work properly.
- If the air flow from the Duet LX feels cold, reposition the circuit tubing so that it runs under your bed covers to reduce heat loss while you sleep.

Screen Messages

During use, any of four messages may be shown on the display screen.

1. “Mask Alert” - A large circuit leak, such as mask removal, has been detected.

What will happen:

- The air flow will turn off in less than 1 minute (if the auto-off feature has been turned on).
- The alert tone will sound in less than 45 seconds (if the mask alert feature has been turned on).

What to do:

- Press any button on the Duet LX to silence the alert tone and clear the display screen.
- Check the circuit (flexible tubing, mask) for any leaks and adjust the mask and headgear.
- Press the Pressure On / Off button to restart the air flow.

IMPORTANT!

The audible mask alert setting can be turned on or off. See the “First Time Use” section for instructions.

2. “System Error ###” - The Duet LX is not functioning correctly and may need servicing.

What will happen:

- The air flow will turn off immediately.
- The alert tone will sound.
- The signal light will flash on and off.

What to do:

- Reset the Duet LX by unplugging the power cord from the electrical outlet and then plugging it in again.
- If the message appears again, contact your home care provider or Respironics for directions on having the Duet LX serviced. Please have the serial number of the Duet LX and the error code ready when you call.

IMPORTANT!

This alert setting cannot be turned on or off.

3. “Remote Connected” - This message will appear during clinical use only.

TRAVELING WITH THE SYSTEM

Packing the System

When traveling, the optional carrying case is for carry-on luggage *only*. The carrying case will not protect the System if it is put through checked baggage.

Security Stations

For ease at security stations, there is a note on the bottom of the Duet LX stating that it is medical equipment. It may be helpful to bring this manual along with you to help security personnel understand the Duet LX.

Checking the Power Cord

If you are traveling to another country, an international plug adapter may be required to make your power cord compatible with the power outlets of the country to which you are traveling.

IMPORTANT!

For more information, contact Respironics Customer Service department at 1-800-345-6443 (US and Canada) or 1-412-731-2100.

ROUTINE MAINTENANCE

Cleaning and Replacing the Filters

The **gray pollen filter** should be cleaned at least once every two weeks under normal usage and replaced with a new one every six months. The **white ultra-fine filter** is disposable and should be replaced after 30 nights of use or sooner if it appears dirty. **DO NOT** clean the ultra-fine filter.

CAUTION!

Operating the Duet LX with a dirty filter may keep the system from working properly and damage the Duet LX.

1. Remove the filter cap by gently pressing down on the two latches on the top of the filter cap.

2. Change the filters.

a. Remove the pollen filter by gently pulling around the edges of the filter. Rinse the filter in a steady stream of running water. Squeeze out the water and repeat. Air dry on a rack for 8 to 12 hours or in a clothes dryer for 15 to 20 minutes.

If you are using the white ultra-fine filter, and it appears dirty, discard the filter and replace it with a new one.

b. Place the white ultra-fine filter under the clean pollen filter. Insert the filter(s) into the filter area on the back of the Duet LX.

CAUTION!

Never install a wet filter into the Duet LX. We recommend that you clean the filter in the morning and alternate using the two pollen filters provided with the System to ensure enough drying time for the cleaned filter.

3. Replace the filter cap.

ROUTINE MAINTENANCE

Cleaning the System

WARNING!

To avoid electrical shock, unplug the Duet LX before cleaning. DO NOT immerse the Duet LX into any fluids.

- 1. Disconnect the flexible tubing from the Duet LX. Gently wash the flexible tubing and the tubing swivel in a solution of warm water and a mild detergent. Rinse thoroughly. Air dry.**
- 2. Wipe the outside of the Duet LX with a cloth slightly dampened with water and a mild detergent. Let the Duet LX dry before plugging in the power cord.**
- 3. Inspect the Duet LX and all circuit parts for any damage after cleaning. Replace any damaged parts.**

Reordering

Contact your home care provider to order all accessories or replacement filters (e.g., humidifier, mask).

Service

The Duet LX System does not require routine servicing.

- If symptoms of sleep apnea recur, contact your physician.
- If you feel the Duet LX is not performing properly or delivering the correct air pressure, contact your home care provider or Respironics.
- If the noise level of the Duet LX has changed to include unusual or harsh sounds during operation, contact your home care provider for directions on having the Duet LX serviced.

WARNING!

If the Duet LX malfunctions, contact your home care provider immediately. Never attempt to open the Duet LX's enclosure. If you need technical assistance, call:

**Respironics Technical Service Department
1-800-345-6443 (US and Canada) or 1-412-731-2100**

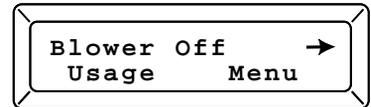
ROUTINE MAINTENANCE

Maintenance Record

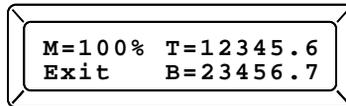
Filter(s) Replaced
 Mask Replaced
 Pressures Checked
 Memory Downloaded
 Memory Reset
 Therapy Hours
 Total Operation Time*

Total Operation Time*

* To display the total operation time, press the button below "Usage." The usage hours will display for 10 seconds and then return to the main screen.



Total Operation Time Display



M = The amount of memory space available. The Duet LX records patient usage information (e.g., a history of pressure settings; number of times the system was used for therapy). Some physicians and home care providers record this information. When "M=000%" is displayed, contact your home care provider if he/she has asked you to monitor the Duet LX's memory level. If "M=!!!" is displayed, contact your home care provider for servicing.

T = The therapy hours are the total number of hours the Duet LX has operated with the air flow turned on. Like a trip meter in a car, the therapy hours can be reset to zero by the home care provider.

B = The total blower time is the total number of hours the Duet LX has been in use. This total includes factory testing time.

Exit = Returns the display to the main screen.

TROUBLESHOOTING

The table below lists common problems you may have with the Duet LX System and possible solutions to those problems. If none of the corrective actions solve the problem, contact your home care provider.

Problem	Solution(s)
Sore or dry eyes	Readjust the headgear. Contact your home care provider to be fitted for a different mask style or size.
Redness on your face where the mask contacts your skin	Loosen the headgear. Check the mask's spacer to see that it is in good condition. Use a barrier between your skin and the mask, such as 3M's Microfoam™ tape, Squibb's Duoderm™ or Hollister's Restore™. If you are using Respiration's Contour Nasal Mask, try adding a Comfort Flap® mask accessory. Contact your home care provider to be fitted for a different mask style or size. Contact your doctor if the problem persists.
Dryness or burning sensation in your throat or nose	Consult with your doctor or home care provider about using a humidifier with the Duet LX. If you are using a nasal mask, you may want to also use a chin strap to help keep your mouth closed during the night.
Nasal, sinus, or ear pain	You may have a sinus infection or middle ear infection. Stop using the Duet LX and contact your doctor.
The pressure being delivered feels different.	Contact your home care provider or Respiration's for directions on having the Duet LX serviced. Please have the Duet LX's serial number ready when you call.
The air flow from the Duet LX seems warm.	Replace or clean the filter. Make sure the Duet LX is away from bedding or curtains that could block the flow of air around the Duet LX. Make sure the Duet LX is away from heating equipment (e.g., forced air vents, radiators).

TROUBLESHOOTING

Problem	Solution(s)
The noise level of the Duet LX has changed to include unusual or harsh sounds during operation.	Contact your home care provider or Respironics for directions on having the Duet LX serviced. Please have the Duet LX's serial number ready when you call.
The Duet LX will not turn on.	Make sure that the Duet LX is plugged into a working outlet. If you are using a DC battery, the battery may need to be recharged or replaced or the fuses may need to be replaced. Contact your home care provider or Respironics for directions on having the Duet LX serviced. Please have the Duet LX's serial number ready when you call.
The Duet LX has hours recorded on the time meter when it is delivered.	The Duet LX is tested at the factory prior to shipment. It may be possible for several hours of testing time to be recorded on the Duet LX.
The "Mask Alert" message appears on the display screen and the alert tone is sounding.	Press any button on the Duet LX to silence the alert tone and clear the display screen. The system has detected a large leak in the circuit or you have taken the mask off without turning the air flow off. Check the circuit connections for leaks.
The Mask Alert is not working.	The Auto-on, Auto-off, and Mask Alert are convenience features that may not work with some mask types, circuit configurations, or at extreme altitudes. This will not adversely affect the therapy received from the System. In the settings menu, make sure the display reads "Mask Alert=On."
Pressing the Ramp button does not reduce the air pressure.	Contact your home care provider. Ramp may not have been prescribed for you. Make sure the ramp pressure setting is lower than your EPAP pressure setting.
The air flow will not automatically turn ON or OFF.	The Auto-on, Auto-off, and Mask Alert are convenience features that may not work with some mask types, circuit configurations, or at extreme altitudes. This will not adversely affect the therapy received from the System. The Auto-on and Auto-off settings may have been disabled by your home care provider.

TROUBLESHOOTING

Problem	Solution(s)
The memory display reads M=000%.”	The Duet LX records patient usage information (e.g., a history of pressure settings, times the system was used for therapy). Some physicians and home care providers record this information to assist in your bi-level treatment. When “000%” is displayed, contact your home care provider if he/she has asked you to monitor the memory level. Information will still be recorded once “000%” is displayed.
The memory display reads M=---”	The SmartCard is not installed in the side of the Duet LX. Your home care provider or doctor may have decided that recording the Duet LX’s usage is not important for your therapy.
The memory display reads M=!!!.”	The Duet LX may not be operating correctly. Contact your home care provider or Respironics for directions on having the Duet LX serviced. Please have the serial number of the Duet LX ready when you call.
The “System Error” message appears on the display screen.	The Duet LX may not be operating correctly. Reset the Duet LX by unplugging the power cord from the electrical outlet and then plugging it in again. If the message appears again, contact your home care provider or Respironics for directions on having the Duet LX serviced. Please have the serial number of the Duet LX ready when you call.
The “Remove Card” message appears on the display screen.	The Encore SmartCard has been inserted improperly. Remove the SmartCard. Reinsert the SmartCard making sure that the printed side of the card is facing up and the end with the arrow goes into the device first. If the message appears again, contact your home care provider or Respironics for directions on having the Duet LX serviced. Please have the serial number of the Duet LX and the error code ready when you call.

SPECIFICATIONS

Device Size

Dimensions: 29x18x14 cm

Weight: 5.8 lbs. (2.6 kg)

Product Use, Transport, and Storage

	Operation	Transport & Storage
Temperature:	41 - 95° F (5 - 35° C)	-4 - 140° F (-20 - 60° C)
Humidity:	30 - 75% Non-condensing	15 - 95% Non-condensing
Atmospheric Pressure:	76.7 - 102 kPascals	50 - 102 kPascals

Power Requirements

The electrical installation of the room must comply with local requirements.

100-240 VAC, 50/60 Hz, 1.0 A max.

12 VDC, 4 A DC max.

Type of protection against electric shock: Class II Equipment

Degree of protection against electric shock: Type BF Applied Part

Degree of protection against harmful ingress of water: Ordinary Equipment (IPX0)

Fuses: There are no user replaceable fuses

DC Cord Fuse (not included): 5 A, Time Delay, Type MDL

EMC Interference: Meets IEC 60601-1-2

Mode of Operation: Continuous

Communications Connector: Connect only to a computer with IEC 60950, EN 60950, or UL1950 approval.

Symbol Key



Pressure ON / OFF



Ramp



DC Power



Type BF Applied Part



Class II (Double Insulated)



**Attention, consult
accompanying documents**



**Conformity mark to the
Medical Device Directive 93/42/EEC**

LIMITED WARRANTY

Respironics, Inc.® warrants that the Duet® LX device shall be free from defects of workmanship and materials and will perform in accordance with the product specifications for a period of two (2) years from the date of sale by Respironics, Inc. to the dealer. If the product fails to perform in accordance with the product specifications, Respironics, Inc. will repair or replace, at its option, the defective material or part. Respironics, Inc. will pay customary freight charges from Respironics, Inc. to the dealer location only. This warranty does not cover damage caused by accident, misuse, abuse, alteration and other defects not related to material or workmanship.

RESPIRONICS, INC. DISCLAIMS ALL LIABILITY FOR ECONOMIC LOSS, LOSS OF PROFITS, OVERHEAD OR CONSEQUENTIAL DAMAGES WHICH MAY BE CLAIMED TO ARISE FROM ANY SALE OR USE OF THIS PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IN ADDITION, ANY IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE ARE LIMITED TO TWO YEARS. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

To exercise your rights under this warranty, contact your local, authorized Respironics, Inc. dealer or Respironics, Inc. at 1001 Murry Ridge Lane, Murrysville, Pennsylvania 15668, 1-800-345-6443 or 1-412-731-2100.

IMPORTANT!

Fill in the information below when you receive the Duet LX System.

Duet LX Serial No.: _____ (Located on the bottom of the Duet LX)

System Prescribed for: _____

Date of Purchase or Rental: _____

Pressure Settings: IPAP _____ cm H₂O EPAP _____ cm H₂O

Mask Type: _____

Mask Size: _____

Comfort Flap® Nasal Mask Accessory: ____ yes ____ no

If you have any questions concerning the System, contact:

• Home Care Company: _____

Telephone Number: _____

• Doctor: _____

Telephone Number: _____

• Respironics, Inc.

1001 Murry Ridge Lane

Murrysville, Pennsylvania

15668-8550 U.S.A.

Customer Service

Telephone Number: 1-800-345-6443 (US and Canada) or 1-412-731-2100