LUMEX®
by graham-field

SELECT AEROCOMFORT MATTRESS (LS900) USER MANUAL

SAVE THIS MANUAL FOR FUTURE USE.

LX_GF2400146-LS900-LAB-RevA25

CONTENTS

1 INTRODUCTION

Congratulations on your purchase of the Lumex Select AeroComfort Mattress. This guide covers its use. The following pages will provide you with important safety and operating instructions as well as maintenance and warranty information. Read this manual carefully before operating your Mattress and refer to it as often as needed. Consult your authorized distributor and / or healthcare professional with any questions or concerns regarding safe and effective techniques for operating your Mattress.

Please see the list below for model descriptions covered by this user manual:

MODEL	DESCRIPTION
LS900-36	Lumex Select AeroComfort True Low Air Loss AP Mattress System-36" wide
LS900-42	Lumex Select AeroComfort True Low Air Loss AP Mattress System-42" wide
LS900-48	Lumex Select AeroComfort True Low Air Loss AP Mattress System-48" wide

INTENDED USE

The Lumex Select AeroComfort Mattress system is designed for patients who endure pressure ulcer and potential patients who wish to reduce the likelihood of pressure ulcer. The device is intended to prevent and manage pressure ulcers by facilitating blood circulation and decreasing pressure of each tissue's contact area.

INTENDED USERS

The intended user of this medical device is caregiver who has undergone user education and training and has read the instruction manual or a guardian who takes care of patients.

INTENDED PATIENT POPULATIONS

Patients who endure of all categories of pressure ulcer and potential patients who wish to reduce the likelihood of pressure ulcer.

Patient minimum weight (EVENLY DISTRIBUTED): 80 lb (36.28 kg)

Patient maximum weight (EVENLY DISTRIBUTED): 1000 lb (453.59 kg)

CONTRAINDICATIONS

Certain patient conditions are not suitable for using this type of device such as fracture of instable vertebrae and illness of instable vertebrae (include spinal cord injury, cervical traction).

⚠ **WARNING: For Patients with unstable fractures, burns, or an intolerance to motion, need to consult the treating physician prior to patient placement and product use. Individual patient conditions may vary.**

⚠ **WARNING: If patients have other unstable fractures, or conditions which may be complicated by a soft or moving surface, advice should be sought from an appropriate clinician before use.**

⚠ **WARNING: The mattress is not intended for use by patients who need dynamic airflow.**

PRODUCT SYMBOL KEY

SYMBOL	DESCRIPTION
	Caution
REF	Catalogue Number
	Type BF Applied Part
	Manufacturer
SN	Serial Number
	Double Insulated, Class II Equipment
	Follow Instructions for Use
IP21	Protected against ingress of solid foreign objects ≥12.5mm diameter. Protected against vertically falling water drops.
UDI	Unique Device Identifier
#	Model Number
	Do Not Wash
	Do Not Bleach
	Do Not Dry Clean

SYMBOL	DESCRIPTION
	Humidity Low and High Limits
	This Way Up
	Operating Instructions
MD	Medical Device
	Country and Date of Manufacture
	Machine Wash Warm: Max 140°F (60°C)
	Machine Wash Warm: Max 159°F (71°C)
	Do Not Iron
	Tumble Dry Medium - Gentle Cycle
	Hang Dry
	Do Not Use Hooks
	Waste Electrical and Electronic Equipment (WEEE Logo)
	Fragile, Handle with Care
	Keep Away from Rain

2 SAFETY PRECAUTIONS

IMPORTANT: Before using Lumex Select AeroComfort Mattress, read and adhere to the following safety precautions and warnings. Failure to do so could result in serious personal injury or damage to your Lumex Select AeroComfort Mattress system.

⚠ **WARNING: Caregivers should be sure to discuss Safety Information, Risks and Precautions and Contraindications with the patient (or the patient's legal guardians) and the patient's family.**

Always consult your healthcare professional to determine safe methods most suitable for your individual abilities. Protect yourself, your attendant and Lumex Select AeroComfort Mattress by having it serviced regularly. If you experience any malfunction, contact GF Health Products, Inc. ("GF") Tech Support at 1.770.368.4700 or your GF Health Products, Inc. ("Graham-Field") authorized distributor immediately, as a hazardous condition could result, causing personal injury or damage to your Lumex Select AeroComfort Mattress.

Periodic inspection, adjustment and replacement of worn parts are necessary to provide years of excellent service. Refer to CARE AND MAINTENANCE section of this manual. Maintenance MUST be performed by qualified personnel ONLY.

Always consult a physician or health professional before using the Lumex Select AeroComfort Mattress System. Any and all applications outside of the conditions specified above are regarded as unapproved. The user and the operator respectively are exclusively liable for any damage resulting from the unapproved use.

If existing wounds do not improve or the patient's condition changes the overall therapy regimen should be reviewed by the consult physicians.

SIGNIFICANCE OF SAFETY STATEMENTS

Note the following special statements, used throughout this manual, and their significance:

⚠ **WARNING: Indicates a potential hazard situation or unsafe practice that, if not avoided, could result in death or serious personal injury.**

⚠ **CAUTION: Indicates a potential hazard situation or unsafe practice that, if not avoided, could result in minor or moderate personal injury.**

▲ **NOTICE: Indicates a potential hazard situation or unsafe practice that, if not avoided, could result in product or property damage.**

Info: Provides application recommendations or other useful information to ensure that you get the most from your product.

WARNINGS

⚠ **WARNING: If components are damaged or missing, contact your GF authorized distributor immediately. DO NOT use substitute parts. Use only Lumex replacement parts. The use of non-Lumex replacement parts could cause personal injury, property damage, and void the warranty.**

⚠ **WARNING: Unauthorized modification of your Lumex Select AeroComfort Mattress could cause personal injury, property damage, and void the warranty.**

⚠ **WARNING: Strangulation by extra-long cables and hoses : To avoid entanglement, keep children clear of hoses. Choking caused by small parts being inhaled or swallowed : Identify any loose or detached small parts that may be an issue.**

⚠ **WARNING: Protection against strangulation or asphyxiation : Means shall be provided to control the risk of strangulation and asphyxiation of the patient and other to an acceptable level by routing wires or tubing, and using retention devices.**

- **To prevent the effects caused by pets, pests or children.**
- **To avoid the effects of degraded sensors or loosened electrodes, that can degrade performance or cause other problems.**

⚠ **WARNING: Potential allergic reactions to accessible materials used in the equipment : Identify any rubber or latex that could be an issue.**

⚠ **WARNING: Contact Injuries : Check for any skin irritation due to prolonged contact with the equipment.**

⚠ **WARNING: The Lumex Select AeroComfort Mattress models LS1000-36, LS1000-42, LS1000-48, and have a maximum weight capacity of 1000 lb (453.59 kg) and a minimum weight capacity of 80 lb (36.28 kg) EVENLY DISTRIBUTED.**

⚠ **WARNING: GF Health Products, Inc. assumes no responsibility for any damage or injury caused by improper assembly or use of this product.**

⚠ **WARNING: Check all parts for shipping damage before using. In case of damage, DO NOT USE the equipment. Contact the carrier or your GF authorized distributor for further instructions.**

⚠ **WARNING: Patient Entrance / Exit – Caregiver should always aid patient in exiting the bed. Make sure a capable patient knows how to get out of bed safely (and, if necessary how to release the side rails) in case of fire or other emergency.**

⚠ **WARNING: Brakes – Caster brakes should always be locked once the bed is in position. Verify wheels are locked before any patient transfer to or from the bed.**

⚠ **WARNING: Bed Height – To minimize risk of falls or injury, the bed should always be in the lowest practical position when patient is unattended.**

⚠ **WARNING: Head of Bed Elevation – Keep head of bed as low as possible to help prevent patient migration.**

⚠ **WARNING: Bed Frame – Always use a standard healthcare bed frame with safeguards or protocols that may be appropriate. Frame and side rails must be properly sized relative to the mattress to help minimize any gaps that might entrap a patient's head or body. Check the bed frame labeling or with the manufacturer for dimensions prior to mattress placement.**

⚠ **WARNING: Side Rails / Patient Restraints – Whether and how to use side rails or restraints is a decision that should be based on each patient's needs and should be made by the patient and the patient's family, physician and caregivers, with facility protocols in mind. Caregivers should assess risks and benefits of side rail / restraint use (including entrapment and patient falls from bed) in conjunction with individual patient needs and should discuss use or non-use with patient and / or family. Consider not only the clinical and other needs of the patient but also risks of fatal or serious injury from falling out of bed and from patient entrapment in or around the side rails, restraints or other accessories.**

Consult a caregiver and carefully consider the use of bolsters, positioning aids or floor mats, especially with confused, restless or agitated patients. It is recommended that side rails (if used) be locked in the full upright position when the patient is unattended. Make sure a capable patient knows how to get out of bed safely (and, if necessary, how to release the side rails) in case of fire or other emergency. Monitor patients frequently to guard against patient entrapment.

⚠ **WARNING: To help prevent inadvertent bed exits or falls, ensure the distance between the top of side rails (if used) and top of mattress (without compression) is approximately 4.5 inches / 11.4 cm. Consider individual patient size, position (relative to the top of the side rail), and patient condition in assessing fall risk.**

⚠ **WARNING: IV and Drainage Tubes – IV and drainage tubes should always have slack for Alternating Pressure and other patient movements.**

⚠ **WARNING: Skin Care – Monitor skin conditions regularly and consider adjunct or alternative therapies for high acuity patients. Give extra attention to skin over any raised side bolster and to any other possible pressure points and locations where moisture or incontinence may occur or collect. Early intervention may be essential to preventing skin breakdown.**

⚠ **WARNING: Fluids – Avoid spilling fluids on pump controls. If spills do occur, unplug unit immediately and clean fluid from pump wearing rubber gloves while it is unplugged to avoid any possibility of shock. Once fluid is removed, check operation of components in area of spill.**

Fluids remaining on controls can cause corrosion, which may cause components to fail or operate erratically, possibly producing potential hazards for patient and staff.

⚠ **WARNING: Avoid Fire Hazards – To minimize risk of fire, connect the bed's power cord directly into a wall-mounted outlet. Do not use extension cords or multiple outlet strips.**

⚠ **WARNING: No Smoking in Bed – Smoking in bed can be dangerous. To avoid the risk of fire, smoking in bed must never be allowed.**

⚠ **WARNING: Powercord – Ensure power cord is kept free from all pinch points and moving parts and is not trapped under casters. Improper handling of the power cord can cause damage to the cord, which may possibly produce risk of fire or electric shock.**

⚠ **WARNING: General Protocols – Follow all applicable safety rules and institution protocols concerning patient and caregiver safety.**

⚠ **WARNING: SHOCK HAZARD – Electrical shock hazard, DO NOT remove pump case covers. Refer to qualified service personnel.**

⚠ **WARNING: Disposal – At the end of useful life, dispose of waste according to local requirements or contact the manufacturer for advice.**

⚠ **WARNING: OXYGEN USE – DANGER: Risk of explosion if used in the presence of flammable anesthetics. Use of this product's pump in an oxygen enriched environment may produce potential of fire hazard. This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide. Unplug and do not use pump when using oxygen-administering equipment other than the nasal mask, or half-bed length tent type.**

⚠ **WARNING: GF Health Products, Inc. specifically disclaims responsibility for any bodily injury or property damage which may occur during any use which does not comply with federal, state or local laws or ordinances.**

3 EMC COMPLIANCE STATEMENT

Use of accessories and/or cables other than those specified or provided by the manufacturer of the Lumex Select AeroComfort Pump Model LS900P may negatively affect EMC performance.

Power cord set: It is non-shielding, and the typical length of power cord is 4.5m max. molded with EC 60320 C13 connector.

Use of the LS900P adjacent to or stacked with other RF communications equipment (including antennas) should be avoided and to be used no closer than 30cm to any part of the LS900P, including cables specified by the manufacturer because it could result in improper operation.

Medical Equipment Immunity Performance Criteria Unacceptable Operating Conditions:

a. Component failures or error of display numerical value.

b. Change or failure in programmable parameters if any.

c. Initiation of any unintended operation or false audible indicator.

d. Cessation, change or interruption of any intended operating mode.

All necessary instructions for maintaining Basic Safety and Essential Performance with regards to Electro Magnetic Disturbances for the expected service life.

4 HANDLING PROCEDURES

UNPACKING

1. Check for any obvious damage to the carton or its contents. If damage is evident, notify the carrier or your GF authorized distributor.
2. Open shipping container.

▲ **NOTICE: DO NOT use sharp instruments to open boxes. Damage to mattress could result.**

3. Remove contents.
4. Remove Convertible Self-Adjusting Mattress from protective plastic cover.

   The mattress may appear wrinkled when unpacked. To remove wrinkles, allow mattress up to 24 hours to accommodate; see Troubleshooting table for more information. Wrinkles will not affect inflation or function. Mattress may be used immediately if needed.
5. Check mattress surface for tears or cracking; do not use if tears or cracking are present.
6. The zipper cover is partially unzipped during packaging and zipper should be closed completely prior to use.

STORAGE

- When not in use, mattress should be stored flat in a dry, controlled climate room.
- DO NOT place other objects on top of the repackaged Lumex Select AeroComfort Mattress.

DISPOSAL

At the end of its useful life, dispose of the mattress system in accordance with local regulations.

5 SETUP

1. If re-installing the Lumex Select AeroComfort Mattress onto a new frame or for a new patient, check mattress surface for staining and soiling; clean and / or disinfect as required (see Care and Cleaning section).
2. Level bed and lock brakes.
3. Remove existing mattress from bed frame.
4. Place the bedframe in the supine (flat) position.

MATTRESS INSTALLATION

1. Position mattress on bed frame with logo facing up and foot logo at the foot of the bed.
2. Ensure mattress is properly positioned with no gaps between mattress and bed frame or side rails.

⚠ **WARNING: ALWAYS use a standard healthcare bed frame with appropriate safeguards and protocols. Frame and side rails must be properly sized relative to the mattress to help minimize any gaps that might entrap a patient's head or body. Insufficient distance between the top surface of the air mattress and the top of the side rails that may increase the risk associated with fall.**

3. Fasten the mattress with the use of the straps ensuring that the functions and movements of the bedframe are not limited before proceeding to the next step.

▲ **IMPORTANT: Ensure that the straps are affixed properly to the base of the mattress.**

▲ **IMPORTANT: Tucking in the coverlet too tensely significantly reduces the mattress's effectiveness.**

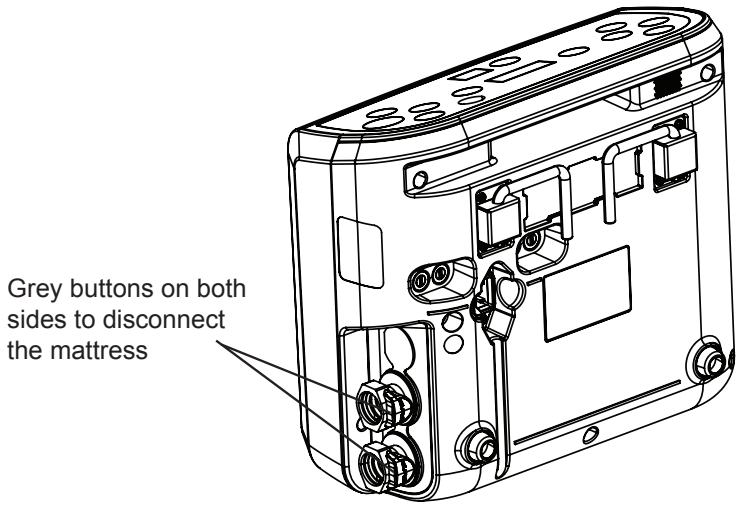
4. Install a bed sheet on the air mattress, to avoid the patient contacting with the air mattress, to reduce the excessively frictional force that acts on the skin of patient that can lead to the deep tissue injury.

PUMP INSTALLATION

1. Place Power Unit on the end of bed frame with built-in hanger hooks.

⚠ **WARNING: Incorrect connection of pump hoses can increase risk of potential patient falls.**

2. Connect the quick coupling hoses of the Mattress firmly into the air outlet of the Power Unit.



▲ **IMPORTANT: Ensure air hoses are not kinked and will not be pinched by any articulated bed mechanisms.**

⚠ **CAUTION: Following storage and/or transport of the Power Unit, allow the device to sit idle at room temperature for at least 3 hours before powering on.**

3. Insert the powercord into a properly grounded wall outlet. Ensure that the powercord is not in the way of the operators and the movement of the bedframe. (Verify power to this outlet is not controlled by a wall switch).

⚠ **CAUTION: Patient hit against the bedframe/floor that may increase the risk associated with injury or bone fracture. Follow the Inspection section to check the strut force of mattress after installing the system.**

⚠ **CAUTION: Contact with damaged powercord may increase the risk associated with an electric shock or burn. Insert the powercord into the cable holders of mattress base to avoid the powercord being trapped between the moving parts of the bed's side rails and then leading a damage.**

⚠ **CAUTION: Loose powercord set may cause tripping and serious injury.**

4. Press Power button to the ON position. Air will begin to flow into mattress.

⚠ **CAUTION: ALWAYS turn off the power unit by using the power button. Failure to do so may cause machine malfunction.**

Electric shock! Touching live parts can result in a death or serious injury by an electric shock. Check for damage of the plug and the main power cable of the power unit before connecting. Damaged components may not be used for connection!

5. In preparation for the patient, press the MAX Inflate button.

⚠ **CAUTION: The air cells should be inflated in advance of patient being transported to the mattress. The head cells should be fully inflated before patient placement to ensure that the head position is stable.**

6. Perform a functional test prior to placing a patient on the mattress, perform a functional test at the initial start-up of the power unit. For function test details, please refer to CONTROL PANEL section under OPERATING INSTRUCTIONS below, please make sure all functions work normally before use.

6 OPERATING INSTRUCTIONS

PATIENT PLACEMENT AND NURSING CARE

Read all sections of this manual before patient placement. Carefully review the Contraindications, Safety Information, and Risks and Precautions sections prior to placing a patient on any Lumex Select AeroComfort Mattress.

1. Transfer patient following all applicable safety rules and institution protocols.
2. Transfer the patient to the mattress by carrying out the positioning of the patient in accordance with your patient care guidance.
3. Center the patient on the mattress, with equal distance from the left and right mattress's sides. The head of the patient should rest fully on the head air cells.

⚠ **WARNING: During the use of the Lumex Select AeroComfort System, the skin of the patient must be regularly checked by medical and nursing staff and caregivers.**

⚠ **WARNING: DO NOT leave a patient unattended on the mattress surface with the safety side rails in the down position. When leaving a patient, secure the safety side rails in the up position. Make sure the safety side rails are high enough to properly protect the patient when the mattress is fully inflated.**

4. Select the appropriate weight setting on the control panel by pressing the + or − buttons.

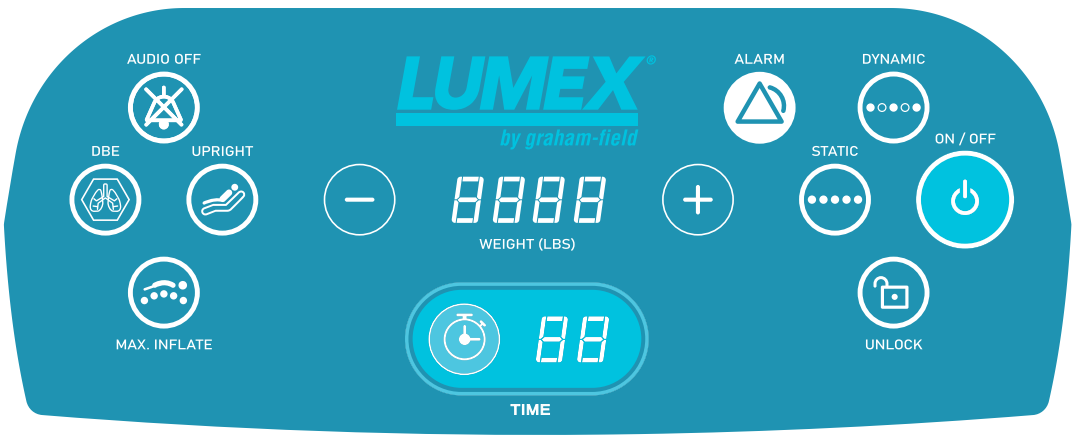
⚠ **WARNING: Weight settings are for reference purposes only and is not to be used to determine any medical procedures or treatments.**

5. If the mattress seems too soft or too rigid, please adjust the weight setting to conform to each patient's requirements. Please adjust the setting one click at a time, and allow time for the mattress to stabilize at each setting before adjusting again.
6. Select the appropriate therapy mode and cycle time.

CPR (IN CASE OF EMERGENCY)

1. Level bed.
2. Press both of the grey buttons on the quick coupling of the power unit and pull out the tube to disconnect from the power unit. This will rapidly deflate the mattress.
3. Begin CPR.
4. After CPR is performed:
   a. Reconnect the tube of mattress to the power unit.
   b. Raise or install side rail if necessary.
   c. Reconfigure bed and accessories as in initial placement.

CONTROL PANEL



Power On/Standby

Press this button to power on, the power unit initializing with the green LED under "ON" will blink. After having finished initializing, the green LED on "ON" will light up.

Weight of Patient (kg)

Press − or + to regulate the weight of patient from 80 lb to 1000 lb. The weight scale is only indicative. If the mattress seems too soft or too rigid, please adjust the weight setting to conform to each patient's requirements.

Max. Inflation

By pressing the Max. Inflation button, the system will rapidly bring the mattress to maximum pressure, which allows caregivers to do nursing job. A green LED indicates the activation of this function, the digital time counter 88 will begin a countdown of 20 minutes. Press this button again to cancel this function or the system will automatically return to previous setting after 20 minutes.

Panel Unlock

When there is no operation after 2 minutes, system will automatically lock the control panel. The lock function can also be activated any time, by pressing the Unlock button. Simply press and hold the Panel unlock button for 3 seconds to release it from locking.

Alarms / Mute

The pump is equipped with an alarm that will help users identify three different conditions: Call for Service, Low Pressure, and Power Failure. If any of these issues are detected, the alarm indicator will flash a yellow light, and an alarm will sound and show the corresponding message. Identify the current alarm status by referring to the digital weight display. Press the Mute key to silence the alarm. NOTE: the alarm indicator will continue flashing until the issue is resolved. (For related troubleshooting methods, please refer to Section 11).

Call For Service

The pump performs a check every 120 seconds to verify whether the rotor valve is functioning properly. If the rotor valve malfunctions, the system will activate an alarm, and the display will show the message CALL.

Low Pressure

When the system detects an abnormally low pressure in the mattress or a detached CPC, an alarm will activate, and the display will show the message LO.

Power Off

Press the will stop the power unit from functioning, pull out the power cord after power unit stopped functioning to shut down the power unit completely.

THERAPY MODE OPERATIONS

⚠ **CAUTION: Ensure to select the appropriate therapy mode and cycle time, according to the physician's decision.**

Static Mode

Static Mode is the low air loss therapy in which all air cells maintain constant low pressure support and maximize patient's contact area to redistribute pressure.

Dynamic Mode

Dynamic Mode is a therapy mode in which air cells continuously alternate in an A-B-A-B (odd and even number of air cell sets) pattern to relief pressure and increase blood flow of the patient tissue. Cycle time of 5, 10 or 15, 20, or 25 minutes may be selected.

Multiple Cycle Time

This key is used to select cycle time in dynamic mode. The number indicators correspond to the time for 1 complete cycle. Five cycle times can be selected: 5, 10, 15, 20 or 25 minutes.

DBE Mode

DBE mode (Deep Breathing Exercise) is a function in which the system will cycle between Max. Inflation and proper weight setting. The system will inflate the mattress to maximum pressure and will keep it for approximately 90 seconds, then release the air to drop the internal pressure back to the proper setting and will keep it for approximately 90 seconds. A complete DBE cycle lasts approximately 3 minutes.

Upright Mode

Upright Mode is used to prevent patient from bottoming out in an upright position. Once upright button is pressed, the green LED will light up to indicate this mode is in operation. Press this button again to stop this function, the system will then return to its previous setting.

Skin Care

- Remove excess moisture and keep skin dry and clean.
- Check patient's skin regularly, particularly in areas where incontinence and drainage occur.
- Ensure linens under patient are not wrinkled.
- Early intervention may be essential to preventing serious skin breakdown.

Incontinence / Drainage

- Use moisture-impermeable underpads for incontinent patients.
- Wipe surface clean and replace bed linens as required (see CARE AND MAINTENANCE / CLEANING)

7 CARE AND MAINTENANCE

Proper care and maintenance are essential to keeping your Lumex Select AeroComfort Mattress in a safe operating condition. In addition to inspecting the unit before each use, periodic maintenance checks should be done.

⚠ **WARNING: It is extremely important that the Lumex Select AeroComfort Mattress be inspected before each use. Ensure that all hardware and accessories are secure and that the actuator is functioning properly. Failure to do so could result in patient / attendant injury or damage to your Lumex Select AeroComfort Mattress. Torn, cut, frayed or broken slings can fail, resulting in serious injury. Only use slings in good condition. Inspect before each use. Destroy and discard old worn and unusable slings.**

⚠ **WARNING: Service and repair of the Lumex Select AeroComfort Mattress MUST be performed by qualified personnel ONLY.**

⚠ **WARNING: Unauthorized modification of the Lumex Select AeroComfort Mattress or the use of non-Lumex replacement parts may change the structure of the mattress and could create a hazardous condition, which may result in serious injury and will void the warranty.**

⚠ **WARNING: The electronics contain no serviceable components. DO NOT attempt to open the electronics or actuator. If service is required, consult GF Tech Support at 1.770.368.4700 for further information.**

When you believe a component or part is not functioning properly, immediately contact GF Tech Support at 1.770.368.4700, as a potentially hazardous condition could exist.

CLEANING

General Guidance: Because of the variety of laundry equipment, chemicals, and conditions in use, you should pre-test cleaning of the cover with your agent of choice to ensure compatibility.

Routine Care: Surface wipe with neutral detergent and lukewarm water. Rinse thoroughly with water and dry thoroughly.

CLEANING AND DISINFECTION

Contact with pollutant that may increase the risk associated with the infection. In order to prevent cross-contamination, the cleaning and disinfection of the entire the Lumex Select AeroComfort System must be carried out between uses with different patients, and the pollutant should be disposed according to the local or facility guidelines for handling infected or bio-hazardous materials.

CHECK ELECTRICAL COMPONENTS

⚠ **WARNING: Electric shock! Water has a high electrical conductivity. Contact with liquid under voltage can lead to a fatal electric shock. For the cleaning and disinfection operations:**

1. Turn off the power unit.

2. Unplug the power cord set from the power socket.

⚠ **CAUTION: Health hazard! The contact with contaminated cleaning fluids can cause infections. Disinfectants can contain harmful substances. Please follow the Instructions for Use of the manufacturer of the disinfectant and the hygiene of the operator during the cleaning and disinfection. Wear personal protective equipment: Safety glasses, Protective gloves, mouth and nose protection.**

▲ **ATTENTION: Incompatible cleaning agents! The components of the Lumex Select AeroComfort System are made of thermoplastic polymers. Solvents can spoil synthetic material and coating. Strong acids or alkalis can cause embrittlement.**

Cleaning the power unit, the mattress (with air cells) and the coverlet:
- DO NOT use hydrocarbon solvents, detergents containing alcohol or acids or alkalis.
- DO NOT use any abrasive cleaning materials.

Incompatible Disinfectants

Cleaning the power unit, the mattress (with air cells) and the coverlet:
- Only use disinfectants without chlorides, halides.
- DO NOT use disinfectants containing gasoline, paint thinner, alkaline, acid, alcohol, or aldehyde (e.g. ethanol, propanol) in order to avoid the embrittlement of thermoplastic materials.

Cleaning

The nature of hygiene measures is determined by the use environment of the device. If the device is used in clinical areas (e.g. hospitals, clinics, nursing homes, elderly homes, etc.) cleaning and disinfection must be carried out on the product or parts only by appropriately qualified personnel who are familiar with relevant hygiene regulations. When using the device in non-clinical areas, users or trained cleaning personnel may clean the device.

⚠ **WARNING: Remove the power cord set from the wall socket before cleaning of the power unit. DO NOT spray any cleaning liquid directly onto the power unit.**

▲ **NOTICE: DO NOT wash Lumex Select AeroComfort Mattress under water pressure or steam clean.**

Cleaning of the Surfaces of the Power Unit

1. Turn off the power unit
2. Disconnect the mattress.
3. Leave the mattress from the footboard frame and ensure the power unit is placed on a stable surface.
4. Unplug the power cord set from the socket.
5. Wet a soft cloth with water, mix it with commercially available washing-up liquid.
6. Wipe off dirt and dust accumulations.
7. Then dry the surfaces with a clean soft cloth.

Cleaning the Coverlet

The coverlet can be easily removed by detaching the straps from the mattress base. The cleaning of the coverlet can be done by using any of the available disinfectants at their usual concentration. At the end, rinse disinfectant off thoroughly with water and leave to dry. Avoid detergents containing phenols or other corrosive substances. Ensure that the mattress and the coverlet are dry before new use. The hygiene regulations of institution are to be followed in the institutional care environments.

1. Wet a soft cloth moderately with water, mix it with commercially available washing-up liquid. Wipe off dirt.
2. Wipe cleaned areas with soft dry cloth.
3. If heavily soiled the coverlet can be washed in the washing machine using commercially available detergent.
4. Washing temperature please follow the instruction on the washing care label.
5. Dry the coverlet thoroughly after washing. Make sure that no moisture remains in folds or creases.
6. DO NOT put the coverlet in the dryer or near sources of heat.

If the coverlet is soiled or loses its water-resistant properties, it must be replaced. Any resulting damage of the mattress caused by a spoiled coverlet will be not covered by the warranty.

Please follow the hygiene control regulations of your local authority.

⚠ **WARNING: If the mattress coverlet is not securely fixed onto the mattress, the air cells and coverlet movement may be unstable and may cause risk of patient injury**

▲ **ATTENTION: Unpermitted after-treatment of the coverlet! As a follow-up treatment of the coverlet:**
DO NOT bleach.
DO NOT iron.
DO NOT dry clean.

DISINFECTION

The operator must be notified about which measures apply to the Lumex Select AeroComfort System and the actual hygiene directives for disinfection. The disinfection of the Lumex Select AeroComfort System or parts of it can be performed only by trained personnel, who are familiar with the hygiene requirements of the institution.

Disinfection procedures

Please follow the procedure required by your local health authority.

⚠ **CAUTION: For repair, please contact your local distributor.**

Please follow the hygiene control regulations of your local authority.

INSPECTION SCHEDULE

The safe operating condition of the Lumex Select AeroComfort System has to be checked at each use by the operator or during use by the patients and at least once in a year in particular with regards to the following:

- Function of the keys of the power unit.
- Condition of the air hoses and quick coupling.
- Condition of the air cells.
- Condition of the coverlet.

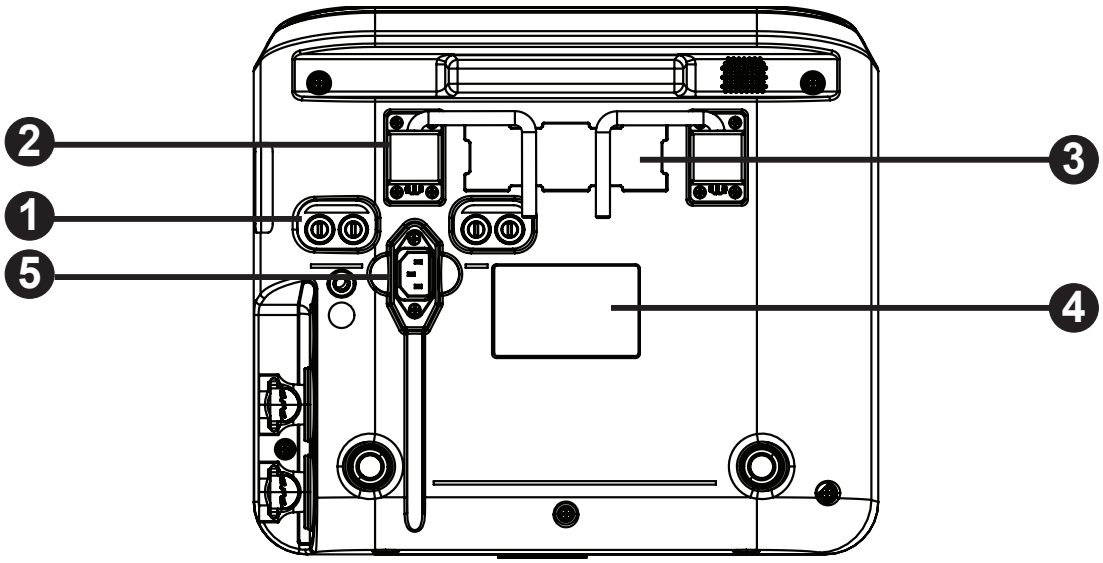
MAINTENANCE SCHEDULE

The expected service life of the Lumex Select AeroComfort System and the parts or accessories shipped is two (2) years.

To prevent an unacceptable risk, all information necessary for correct replacement of detachable or interchangeable parts should be available and replaced by qualified service personnel only.

⚠ **CAUTION: The condition of the mattress and power unit should be checked regularly. If damages and/or wears are found, such as broken quick coupling on the power unit, broken or deform air cells, or broken zipper, please contact your local authorized GF Health Products service center for repair or replacement of damaged items.**

8 REAR PANEL



Fuse Holder (1)

The fuse holder can be replaced with a flat-head screwdriver for inspection or changing of fuses by authorized service personnel only. The fuse rating is marked adjacent to the fuse holder.

Hanger Hooks (2)

The hooks are designed to fit with multiple footboard widths. They are spring-loaded and fold away on the back panel when not in use.

Air Filter (3)

We recommend inspecting and cleaning this filter monthly or more often, depending on the environment the unit is being used. Failure to keep the filter clean will result in shorter life span of the unit and/or unit failure. When replacing, be sure to use Carilex standard filter to optimize the performance of the power unit.

The air filter should be cleaned regularly. It should be checked often, and depending on the usage environment may require to be changed often.

(1) Power off the power unit and unplug the power cord set from the socket.

(2) Remove air filter from the rear panel by opening the air filter cap and clean or replace with a new filter.

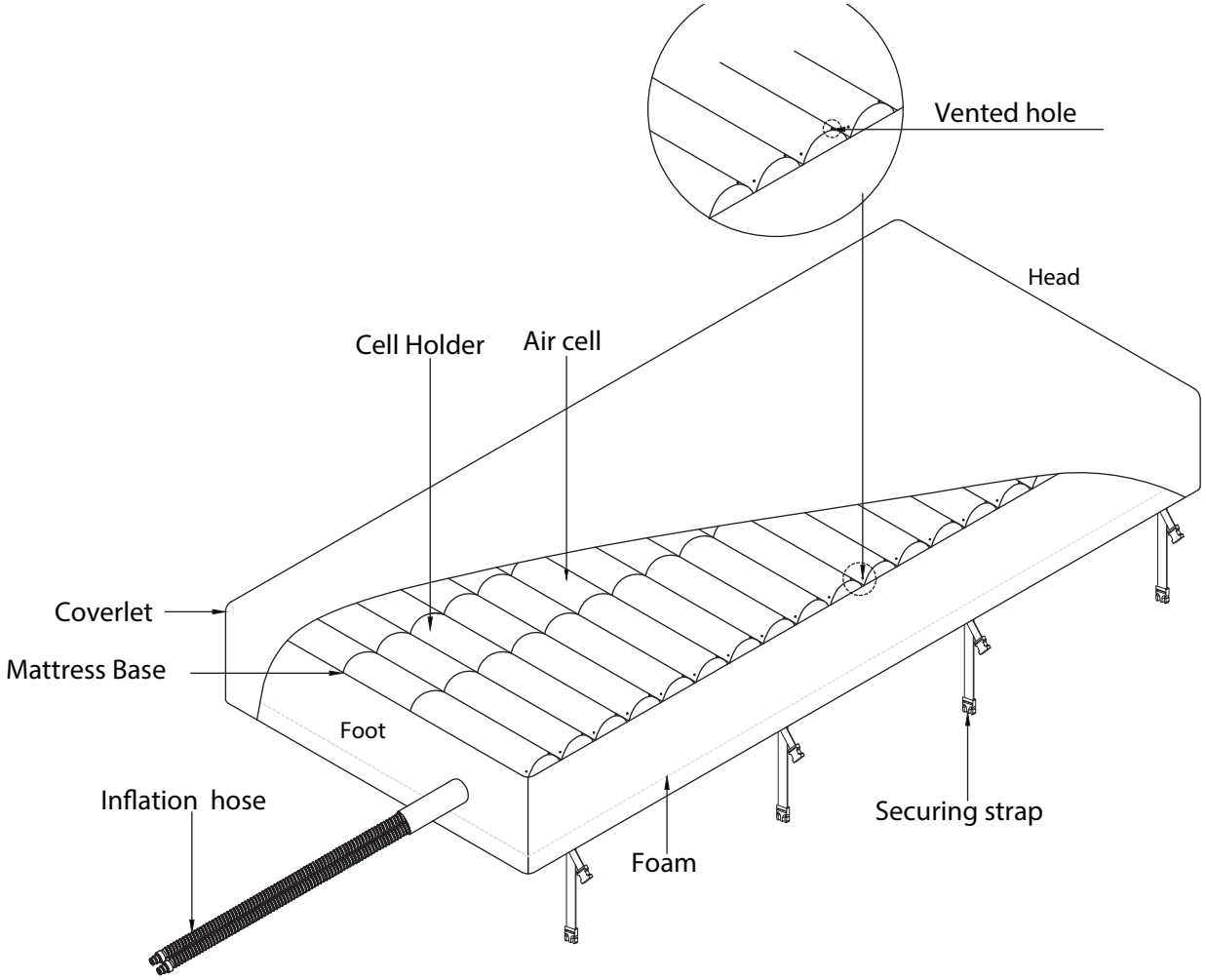
Label (4)

This label includes all the information for medical device and safety requirements.

Power Receptacle (5)

Three pin IEC 60320 C14 AC inlet to accept power cord set with C13 connector.

9 MATTRESS DIAGRAM



10 INSPECTION / SYSTEM CHECK-OUT

Check each of the following before placing the Lumex Select AeroComfort Mattress with a new patient:

1. Check mattress surface for tears or cracking; do not use if tears or cracks are present.
2. Ensure mattress is free of stains and is not overly faded.
3. Ensure air inlet hoses and connectors on mattress and pump are clean and undamaged.
4. Ensure pump and power cord are clean and undamaged.
5. Ensure pump hanger brackets are secure and operate correctly.
6. Ensure OFF / ON Power switch and comfort control knob both operate correctly.
7. Attach pump to the blue Alternating Pressure hoses and power up to ensure there are no air leaks.

11 TROUBLESHOOTING

The following list of problems, their causes and solutions will assist you in determining what may be causing your Lumex Select AeroComfort Mattress not to function as designed. If a problem occurs which is not listed below, contact GF Tech Support at 1.770.368.4700 for further information.

DO NOT attempt to repair components or parts, as this may invalidate your warranty or cause further problems that may result in patient injury. Stop using your mattress immediately if it is not functioning correctly or any warning beeps are heard. If any of the following symptoms occur, follow the steps below to troubleshoot. Review all selections of this manual before troubleshooting any Lumex Select AeroComfort Mattress.

DO NOT attempt any troubleshooting not shown in this manual or where the remedy recommends contacting a GF authorized distributor. Any unauthorized service, modification, alteration, or misuse may lead to serious injury and / or product damage and will void all applicable warranties.

ALARM SCENARIOS AND TROUBLESHOOTING

ALARM SCENARIOS	CONTROL PROCEDURE	POSSIBLE SOLUTION
Low pressure Alarm 	Verify that the quick coupling is correctly connected to the air outlets of power unit.	Firmly connect the quick coupling.
Power Failure Alarm  	Verify that the power cord set is plug into the proper socket.	Insert the power cord set of power unit into an appropriate socket and turn the power on.
	Verify that the power cord set is properly connected to the power unit.	Insert the power cord set into the power unit and turn the power on.
	Verify that the power cord set is not damaged.	Replace with a functioning powercord set.
	The power unit is not responding to the control procedures listed above.	Contact the authorized distributor for technical service
Call for Service Alarm  	The alternating valve is not working correctly.	Contact the authorized distributor for technical service.

TROUBLESHOOTING CONTINUED

PROBLEM	CONTROL PROCEDURE	SOLUTION
The power unit is working but the mattress is not inflating	Verify that air flows liberally across the tubes and the mattress manifold. Check if there are any cuts, blockage, or leakage.	It may be necessary to move the tubes or the manifold if they are kinked or twisted. In case of cuts or rips, replace the air cells or air hoses.
	Verify that the quick coupling is correctly connected to the air outlets of power unit.	Firmly connect the quick coupling.
The patient sinks into the mattress.	Check the weight setting on the power unit.	Increase the patient's weight setting until the correct support pressure is achieved.
	Check for any abnormal air loss from the mattress.	Replace the components that are abnormally losing air with an authentic replacement part.
	Check the air filter.	Clean or replace the air filter.
The power unit cannot power on.	Verify that the powercord set is plug into the proper socket.	Insert the powercord set of power unit into an appropriate socket and turn the power on.
	Verify that the powercord set is properly connected to the power unit.	Insert the powercord set into the power unit and turn the power on.
	Verify that the powercord set is not damaged.	Replace with a functioning powercord set.
	Verify that the fuses are not burned out.	Contact the authorized distributor for technical service.
	The power unit is not responding to the control procedures listed above.	Contact the authorized distributor for technical service.
Require service alarm.	The alternating valve is not working correctly.	Contact the authorized distributor for technical service.

If the troubleshooting procedures do not return the system to normal performance, stop using the system immediately and contact the authorized distributor for technical service.

⚠ **WARNING: If you experience a problem with your Lumex Select AeroComfort Mattress and are unable to service it yourself, contact GF Tech Support at 1.770.368.4700 or your GF authorized distributor.**

12 SPECIFICATIONS

The Lumex Select AeroComfort System is suitable for continuous operation.

POWER UNIT	
MODEL:	**LS900P**
DIMENSIONS (L X W X H)	13.9 in x 12.3 in x 6.8 in
WEIGHT	12.2 lb (5.5 kg)
ELECTRICAL RATING	100-240Vac, 60Hz, 3-1.5A
POWER CONSUMPTION	Max. 400W (normal operation)
FUSE RATING	T5A 250V_F1/F2
	T1A 250V_F3/F4
ELECTRICAL CLASS	Class I
EMI CLASS BY CISPR 11	Class B
APPLIED PART	Type BF Mattress
IP CODE	IP21
REPLACEABLE BATTERY TYPE	NiMH Battery Type AAA600, rated 4.8Vdc, 600mAh

This system is not AP / APG protected

EMC & Safety Certified Standard

Safety: IANSI/AAMI ES60601-1 + A1:2012 + A2:2021

IEC/EN 60601-1

EMC: IEC/EN 60601-1-2_v4.1

MATTRESS			
Model	**LS900MAT36**	**LS900MAT42**	**LS900MAT48**
Dimensions	**36 X 80 X 10 in.**	**42 X 80 X 10 in.**	**48 X 80 X 10 in.**
Mattress Weight	**24 lb (10.8 kg)**	**26 lB (11.8 kg)**	**31 lb (14.1 kg)**
Maximum Weight Capacity (EVENLY DISTRIBUTED)	**1000 lb (450 kg)**		
Min Weight Capacity: (EVENLY DISTRIBUTED)	**80 lb (36.2 kg)**		
Material of Cells	**Nylon with TPU Lamination Material**		
CPR Deflate Time	**≤ 10 Sec.**		
Air Cell Height/Number	**8 in./20**		
Bottoming out Protection	**2 in. Foam Base**		

The Lumex Select AeroComfort System must be decontaminated before disposal.

Disposal of old electrical and electronic equipment - valid in the European Union: WEEE Directive 2012/19/EU.

This symbol on the product or on its packaging indicates that this product should not be treated as household waste. Instead, this product should be taken to the appropriate place of disposal for the recycling of electrical waste and electronic equipment.

13 LIMITED WARRANTY

SCOPE OF WARRANTY

GF Health Products, Inc. ("GF") warrants to the original purchaser only that it will replace or repair components, at GF's sole discretion, that are defective in material or workmanship under normal use and service. All warranties are conditioned upon the proper use of the products strictly in accordance with good commercial practice and applicable GF instructions and manuals, including proper use and maintenance. To the extent that a third party warrants a component, GF conveys all of its rights under that warranty to the original purchaser, to the extent permitted. This limited warranty shall only apply to defects that are reported in accordance with the provisions set forth in this warranty document, within the applicable warranty period and which, upon examination by GF or its authorized representative, prove to be a warranty item. (See Obtaining Warranty Service below) This limited warranty is not transferable.

The warranted components and time periods are set forth below:

Mattress	one (1) year
Pump	one (1) year

* Labor is not included in the warranty.

ǂ Upholstery is only warranted on material supplied by GF.

The applicable warranty period shall commence from date of shipment to the original customer, unless there is an expiration date on the component in which case the warranty shall expire on the earlier of warranty period or the expiration date.

OBTAINING WARRANTY SERVICE

Customers located in the United States who wish to report a warranty issue, must contact GF directly by calling 1.770.368.4700 or by e-mailing a request to cs@grahamfield.com. Customers located outside the United States must contact the Distributor from whom they purchased the products. In both cases, further directions will be provided once the initial contact is made. This limited warranty shall only apply to defects that are reported within the applicable warranty period. Failure to abide by the specific directions will result in denial of the warranty claim. The warranty does not cover and GF shall not be liable for the following:

1. Defects, damage, or other conditions caused, in whole or in part, by misuse, abuse, negligence, alteration, accident, freight damage, tampering or failure to seek and obtain repair or replacement in a timely manner;
2. Products which are not installed, used, or properly cleaned and maintained as required in the official manual for the applicable product;
3. Products considered to be of a non-durable nature including, but not limited to: filters, fuses, gaskets, lubricants, and charts;
4. Accessories or parts not provided by GF;
5. Matching of color, grain or texture except to commercially acceptable standards;
6. Changes in color caused by natural or artificial light:
7. Charges by anyone for adjustments, repairs, replacement parts, installation or other work performed upon or in connection with such products which are not expressly authorized in writing, in advance, by GF;
8. Any labor or shipping charges incurred in the replacement part installation or repair;
9. Costs and expenses of regular maintenance and cleaning; and
10. Representations and warranties made by any person or entity other than GF.

ENTIRE WARRANTY, EXCLUSIVE REMEDY AND CONSEQUENTIAL DAMAGES DISCLAIMER

THIS WARRANTY IS GF'S ONLY WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. GF MAKES NO IMPLIED WARRANTIES OF ANY KIND INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IF ANY MODEL OR SAMPLE WAS SHOWN TO THE CUSTOMER, SUCH MODEL OR SAMPLE WAS USED MERELY TO ILLUSTRATE THE GENERAL TYPE AND QUALITY OF THE PRODUCT AND NOT TO REPRESENT THAT THE PRODUCT WOULD NECESSARILY CONFORM TO THE MODEL OR SAMPLE IN ALL RESPECTS. THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PARTS. GF SHALL NOT BE LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO: DAMAGES FOR LOSS OF PROFITS OR INCOME, LOSS OF USE, DOWNTIME, COVER, OR EMPLOYEE OR INDEPENDENT CONTRACTOR WAGES, PAYMENTS AND BENEFITS. CERTAIN STATES MAY CONFER ADDITIONAL RIGHTS REGARDING WARRANTIES AND IN THOSE STATES GF'S LIABILITY AND THE LIABILITY OF GF'S SUPPLIERS, SHALL BE LIMITED TO THE FULLEST EXTENT PERMITTED BY LAW.

The warranties contained herein, together with GF's current Terms and Conditions, contain all the representations and warranties with respect to the subject matter of this document, and supersede all prior negotiations, agreements and understandings with respect thereto. The recipient of this document hereby acknowledges and represents that it has not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this document.

For additional information on this product or this warranty, please contact a GF Customer Service Representative.

NOTES:

1. Additional terms and conditions may apply. See GF's General Terms and Conditions on its website: www.grahamfield.com.
2. Freight claims must be notated on the appropriate shipping documents and must be made with immediacy. International, federal and state regulations govern specific requirements for freight claims. Failure to abide by those regulations may result in a denial of the freight claim. GF will assist you in filing the freight claim.
3. Claims for any short shipment must be made within three (3) days of the invoice date.

14 INDEX

LUMEX®
by graham-field

Manufactured For:
GF Health Products, Inc.
1 Graham-Field Way, Atlanta, GA 30340
Made in Taiwan

LX_GF2400146-LS900-INS-LAB-RevA25

+1 770.368.4700

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The most current and complete product information can be found on our website.

www.grahamfield.com

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