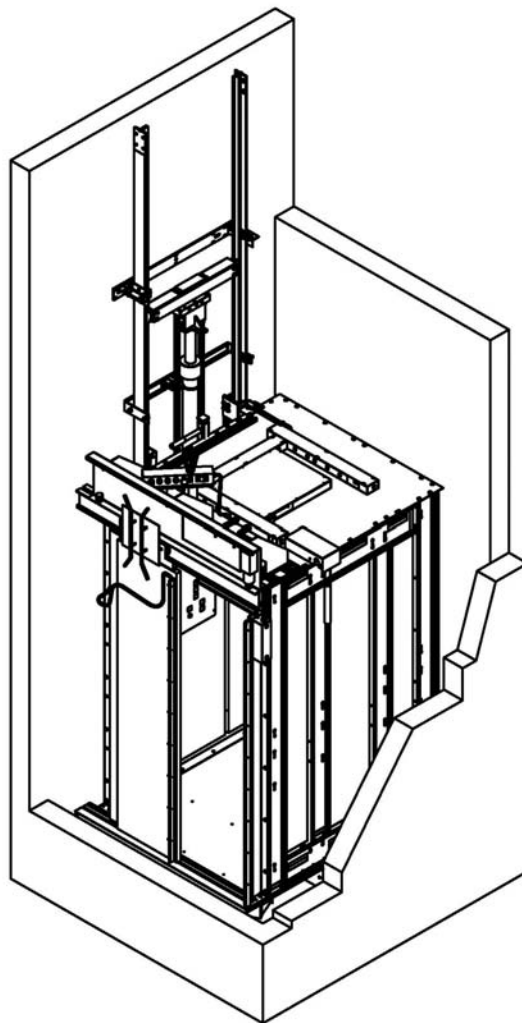


# Garaventa Elvoron LU/LA

(Limited-Use/Limited-Application)

Compact Elevator

## Owner's Manual



# The Garaventa Elvoron LU/LA

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Congratulations on the purchase of your new Elvoron LU/LA – Compact Elevator. This manual describes the many features of the Elvoron LU/LA, including how to operate it properly and how to perform simple safety and maintenance checks. Please make sure that you read this Manual before operating the elevator.

The serial number will be required when discussing service issues with your local Garaventa dealer or Garaventa factory technicians. Please make a note of the serial number in this Manual. It is printed on a label on the inside of the control box. Also, please record the date on which your Elvoron LU/LA was installed. This is important for warranty reference.

**Lift Serial Number:** \_\_\_\_\_

**Date of Installation:** \_\_\_\_\_

Your Elvoron LU/LA has been designed to provide years of reliable performance. However, it will require maintenance and service. Your Garaventa dealer is knowledgeable about the maintenance and service requirements of your lift. Please make note below for future contact.

## Local Authorized Garaventa Dealer:

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

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# 1. Safety First

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The warning symbol to the left is used throughout this Owner's Manual to draw your attention to procedures that must be followed to avoid possible danger and injury.

The following procedures are very important to ensure the safe operation of your Garaventa Elvora LU/LA.



## Alarm Button

User operated to signal for assistance when required.

## Operate and Maintain the Elevator Regularly

Operate the lift on a regular basis and check that everything is working normally.

Routine preventive maintenance will ensure the lift is running properly and help avoid expensive breakdowns and repairs. Garaventa recommends maintaining your lift at least twice per year, but your authorized Garaventa dealer is better suited to recommend a maintenance program for your lift.



Do not operate the lift if it has been damaged. If you hear unusual noises or feel vibrations, contact your Garaventa dealer immediately.

Follow any recommendations of local elevator safety authorities that inspect the lift for potential safety issues.

## Do Not Overload the Elevator

Your Elvora LU/LA elevator is equipped with a capacity plate in the car which will show the capacity for your elevator, either 750 lbs. (340 kgs.), 1000 lbs. (454 kgs.) or 1400 lbs. (635 kgs.). **DO NOT EXCEED THIS CAPACITY!**



## CHILDREN ARE NOT CARELESS....ONLY CARE-FREE AND THEY...

*...MUST NOT BE ALLOWED TO PLAY ON YOUR ELEVATOR.*

*...MUST ALWAYS BE WITH AN ADULT WHEN USING YOUR ELEVATOR.*

*...MUST NEVER BE IN THE VICINITY OF THE ELEVATOR MACHINERY.*

*...MUST NEVER TRY AND SQUEEZE INTO THE SPACE BETWEEN THE INSIDE OF THE LANDING DOOR AND THE ELEVATOR CAR GATE OR HALL DOOR.*



## Safety Features – “Do Not Tamper with Safety Features”

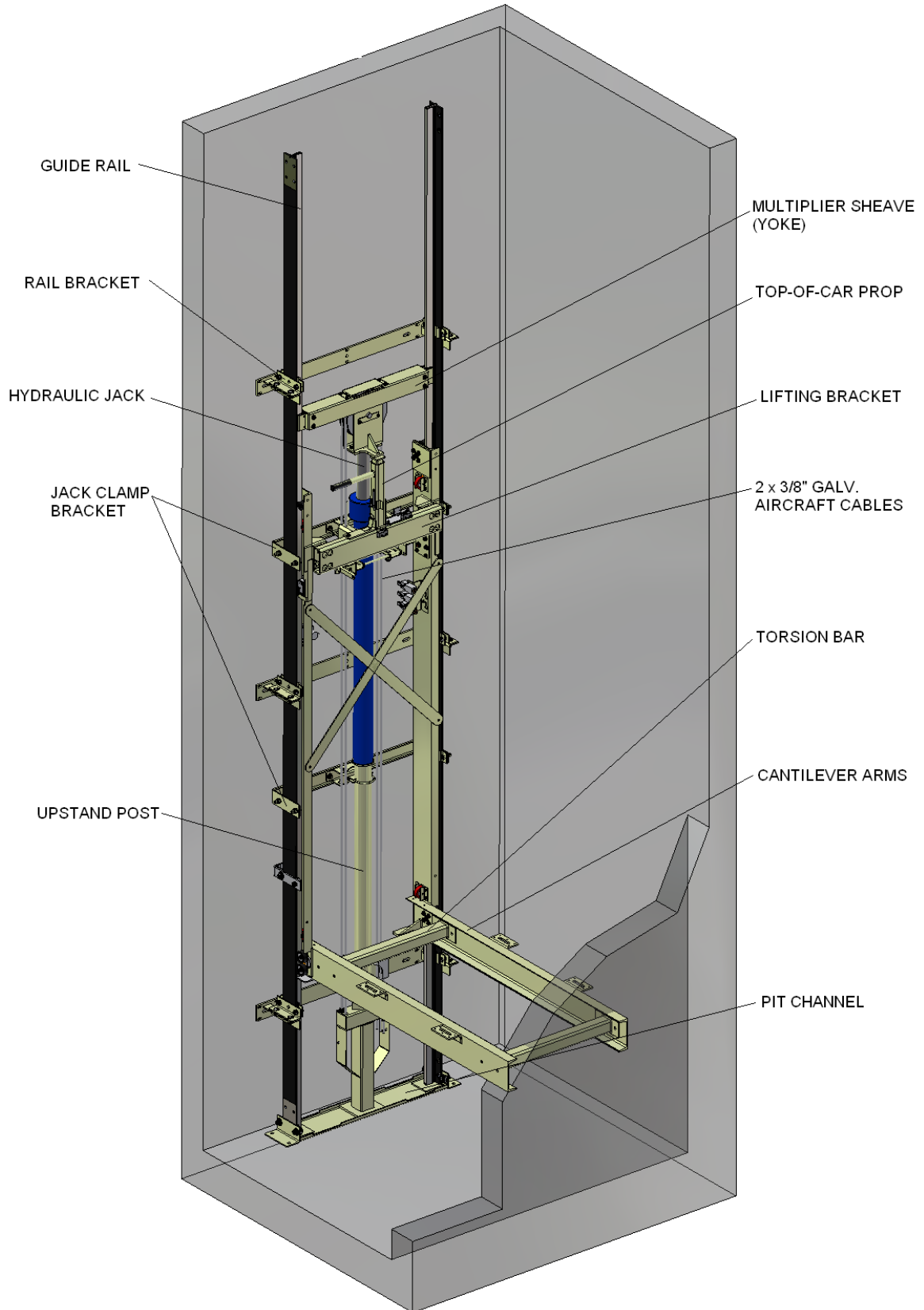
***DO NOT PERMIT ANYONE OTHER THAN A TRAINED, EXPERIENCED ELEVATOR TECHNICIAN TO ADJUST OR SERVICE YOUR ELEVATOR.***

## Pump & Motor Area Clear

Keep the area around the pump and controller clear of all debris. Do not use as a storage room. In an emergency, a technician may have to access the main controls in a hurry!

## 2. Component Identification

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# 3. Basic Operating Instructions

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## Hall Station

1 The ELVORON LULA is typically an automatic operation elevator. Simply press and release the single button mounted at each landing operating control adjacent to the elevator doors. The button will illuminate to indicate that a call has been registered for that floor. The elevator controls will recognize the signal from the pressed button and send the elevator to you.



2 On some installations a key switch or other restrictive device may be installed to control use of the elevator. In this case, turn on the key or other device prior to placing a call as described in item 1.

3 When the elevator arrives in response to your call, the landing control button light will extinguish and the elevator doors will start to open. A single chime will sound to indicate to a visually impaired person on the landing that the car is traveling in the UP direction. Two chimes will indicate that the elevator is traveling in the DOWN direction. The elevator doors will remain open for a pre-determined amount of time (usually about 6 to 8 seconds) and then will start to close.

4 Enter the elevator cab when the doors have fully opened. If the doors start to close again while you are entering the cab, infra-red sensors will detect your presence if you are in the path of the closing doors. The doors will then stop and re-open. They will remain open as long as the infra-red signal is blocked. After 20 seconds of a blocked signal, a buzzer will sound and the doors will “force” themselves closed. This is called “nudging” and is normal. It is intended to inform persons standing in the doorway and blocking the infra-red signals to either get in the cab or step away from the elevator entrance and allow the doors to close.



***Each landing door is provided with a code compliant electro-mechanical locking device that is designed to maintain the landing door in a closed and locked position when the elevator is away from the landing. This safety locking device is extremely important for the proper and safe operation of this elevator. **DISABLING OR BYPASSING THE INTENDED USE OF THE LANDING DOOR LOCKING DEVICES MAY RESULT IN SERIOUS INJURY OR DEATH!*****

***Where power operated wheeled assistive devices are used, the brakes must be set and the power switch turned to OFF while riding inside the elevator cab.***

***Where manual wheeled assistive devices are used, the wheel-brakes must be set while riding inside the elevator cab.***

## Car Controls

1 The ELVORON LULA is typically an automatic operation elevator. Simply enter the elevator cab and choose a floor button to press. The button will illuminate to indicate that a call has been registered to that floor. The elevator controls will recognize the

signal from the pressed button and once the doors have closed, the elevator will start and take you to your selected destination.

2 On some installations a key switch or other restrictive device may be installed to control use of the elevator. In this case, turn on the key or other device prior to placing a call as described in item 1.

3 Observe the floor indicator display mounted on the operating control panel to watch the floor numbers change as the cab passes each floor on the way to your destination. A chime will sound as the cab passes each floor as an assist to the visually disabled. (On arrival at the floor and as the door opens, a direction chime will sound. A single chime indicates to a visually impaired person on the landing that the car is traveling in the UP direction. Two chimes indicates that the next trip for the elevator is in the DOWN direction.) When the elevator arrives at the selected destination, the button light will extinguish and the elevator doors will start to open. The elevator doors will remain open for a pre-determined amount of time (usually about 6 to 8 seconds) and then will start to close. The "DOOR OPEN" button mounted on the cab operating control panel can be pressed to re-open the door while the elevator is stationary at a floor landing. The indicated STOP button is key operated and is intended for use only by emergency personnel, service persons and the owner's representatives.



4 Exit the elevator cab when the doors have fully opened. If the doors start to close again while you are exiting the cab, infra-red sensors will detect your presence if you are in the path of the closing doors. The doors will then stop and re-open. They will remain open as long as the infra-red signal is blocked. After 20 seconds of a blocked signal, a buzzer will sound and the doors will "force" themselves closed. This is called "nudging" and is normal. It is intended to inform persons standing in the doorway and blocking the infra-red signals to either get in the cab or step away from the elevator entrance and allow the doors to close.

5 An ALARM button is provided in the cab of each ELVORON LULA elevator in the event that assistance is required for any reason. Simply press and hold the ALARM button. To silence the ALARM, simply release the button.

### **Cab Controls**

<b>Floor Buttons</b>	One for each landing or floor served by the elevator.
<b>ALARM button</b>	User operated to signal for assistance when required
<b>DOOR OPEN</b>	User operated to re-open the cab doors from the closed position or while closing
<b>Floor indicator</b>	Visually indicates to the occupants the position of the elevator as it travels up and down the hoistway.
<b>STOP Switch</b>	Keyed switch for use by authorized personnel only.
<b>Telephone</b>	Intended for emergency use only. (May also be an intercom or other two way communication device in

## 4. Additional Instructions for Optional Features

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### Uninterruptible Power Supply (UPS)

**GARAVENTA** provides a UPS as standard equipment. It is intended to provide a continuous source of backup power to the controller in the event of a building power failure. The power supply for the UPS is from the main controller. This will maintain the battery charge at the level required to ensure operation in an emergency situation.

If the UPS charge starts to deplete below a set level or it is disconnected from the controller power supply, it will emit a beeping sound as a warning indicator.

The UPS provides power for the warning alarm and the cab lighting for approximately four hours after a power failure.

If the main building power supply fails, the operating controls will remain operable under battery power and the user will be able to move the elevator to any floor **below** the present location of the cab, using the previous procedures for operation. If a user is within the cab when the power failure occurs, this feature will allow him/her to travel to a lower floor and exit the elevator.

**NOTE:** *The elevator cannot travel in the UP direction when the UPS has activated in response to a building power failure.*

All electrical safety features remain in place during operation of the UPS.

### PLC Controller (PLC)

The Elvoron uses a two speed hydraulic valve for smooth stops starts and leveling and a shaft encoder system for accuracy, ease of installation and servicing. In addition, the Elvoron is provided with a sophisticated Programmable Logic Controller (PLC) that is programmed to visually display and identify in plain English any service problems that may occur.

### Emergency Lighting

In the event of a main power failure, the car lights will remain illuminated when the UPS emergency Power Supply activates.

### Warning Alarm

The elevator warning alarm, which may be a bell or a buzzer, will remain operational in the event of a building power supply failure for a minimum four hour period under intermittent use.

### Two Way Communication Device

The ASME A17.1 in the USA and the CSA B44 in Canada require that an emergency communicating device be installed in the elevator cab in addition to the alarm. This device is not standard equipment on a **GARAVENTA** Elvoron LULA elevator although wiring provisions are provided. If not optionally provided, your authorized **GARAVENTA** dealer can assist with the supply and installation of the two way emergency communication device. There may be an additional cost from the installer for this

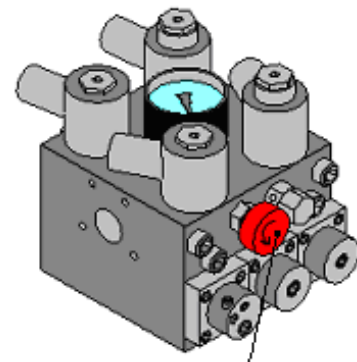
assistance. There may be additional costs involved with the installation and ongoing fees for the telephone from your local telephone provider.

See ASME A17.1 or CSA B44 Section 2.27.1 for the requirements for a two way emergency communication device.

## 5. Instructions for Emergency Manual Lowering

In an extreme emergency, the elevator cab can be lowered manually in order to evacuate a stranded passenger. It is preferable to call a trained technician prior to using the manual lowering device. However, if time is of the essence then the elevator can be lowered manually using the following method. Do not attempt to use the manual lowering device unless you have been instructed in its safe operation and use.

1. Talk to the person in the elevator and tell them what you are about to do. Tell them to remain calm and to stay well back and clear of the car entrance.
2. Go to the pump and control room and **TURN OFF THE MAIN POWER SUPPLY AT THE CIRCUIT BREAKER OR THE DISCONNECT SWITCH.**
3. Locate the main hydraulic control valve on the top of the pump unit oil reservoir and note the RED round handle/knob as shown in the adjacent illustration.
4. Initiation of the manual lowering feature requires that the RED handle/knob be turned counter-clockwise until it reaches its mechanical stop. The red handle/knob is spring-loaded and upon release, it will return to the OFF position and the cab will stop immediately.
5. Before moving the elevator with the manual lowering device, alert the occupant(s) of your intentions and tell them that the elevator will be descending.
6. Turn the handle/knob and lower the elevator to the bottom floor. **RELEASE THE RED HANDLE TO STOP THE ELEVATOR.**
7. The landing doors can be opened from inside the elevator cab providing the cab floor is within 18 inches of the landing level. (See note below)



RED round handle

BLAIN EV100-3/4in. control valve

**NOTE:** This elevator is provided with a door restriction device. This device will prevent the inside car door(s) from being forced open in excess of 4 inches (100 mm) in the unlikely event of the elevator stalling more than 6 inches (457 mm) above or below a floor level. This is a safety feature intended to prevent a stranded passenger from attempting to climb out of the elevator in an emergency situation such as a power failure. This meets the requirements of the ASME A17 and the CSA B44 National Elevator Codes.

**As a safety measure, stranded passengers should always remain in the elevator car until trained help arrives....it is the safest place to be!**

## 6. Preventive Maintenance

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Regular maintenance will keep your Garaventa Elvoron LU/LA in proper operating condition. Like all mechanical devices, your Elvoron requires a regular procedure of inspection and maintenance to ensure continued operation in top condition. To verify proper operating condition of your unit, the items listed below must be inspected and, if necessary, serviced every six (6) months. Additional inspections may be required depending on usage.

***Very Important: Only authorized Garaventa technicians should be permitted to service the landing door locking device.***

1. Listen for any unusual noises or bumps and scrapes. These may indicate certain components are starting to wear and require changing. Alert your servicing contractor if this occurs.
2. Test and verify that the emergency telephone, alarm, back-up power and manual lowering system are operational.
3. Check each landing door electro-mechanical locking device for proper operation. The elevator must not move away from the floor if a door or gate is open. Verify that the door is locked when the elevator is away from the floor.
4. Use a Flannel cloth and a light detergent to clean the surface of the car wall panels. Do not use an abrasive cleaner.
5. Wipe stainless steel, brass or glass with a soft, lint free cloth and a non-abrasive cleaner such as window cleaner. Brass has been surface treated for long, bright life.
6. The high intensity 24 volt Halogen or Xenon lights used for the car lighting require special handling. Follow the instructions on the carton of the replacement lamps.



**REPLACE WITH 24 VOLT LAMPS ONLY -  
INSTALLING A LAMP WITH ANY OTHER VOLTAGE  
MAY DAMAGE THE EQUIPMENT AND VOID THE  
WARRANTY.**

7. Keep the area around the pump and controller clear of all debris. Do not use as a storage room. In an emergency, a technician may have to access the main controls in a hurry!

## Some reflections on Safety with your LU/LA Elevator

Your authorized Garaventa dealer has a responsibility to give you the following tour of your elevator prior to turnover. He must show and explain the operation of the elevator controls as well as alerting you to the potential hazards that may be encountered during use. He should review the safety notices in the Owner's Manual with you at the same time. In addition, he should review the minimum maintenance requirements of the elevator in order to keep it in "like new" condition.

Ensure your installer points out and describes the following for you, including, as applicable, its proper use and the hazards associated with improper use:

1. The cab gate and its safety switch.
2. The landing doors, jambs and their electro-mechanical locking devices.
3. The manual lowering procedure.
4. Procedure for opening hall door with emergency release from inside and outside cab.
5. The rated capacity and the hazards of overloading.
6. The cab or landing restricted access devices (key switches, etc.) Where provided.
7. Fuses and circuit breakers in the elevator controls and the main power supply.
8. The hazards of improper storage of non-elevator equipment in the machine area or room.
9. The importance of regular maintenance.
10. Proper use of cab operating controls.
11. Proper use of landing operating controls.
12. Emergency communication devices. (telephone, audible alarm, etc.).
13. Emergency Power Supply (Battery backup, etc.). (If provided).
14. Procedure for evacuating stranded passengers in an emergency.
15. Who to call in an emergency and the emergency numbers. It's best to sign only with company that offers "round the clock" emergency service...breakdowns don't happen at your convenience!
16. The hazards particular to power operated landing and car doors.
17. The landing doors and jambs and their electro-mechanical locking devices.
18. The re-opening devices particular to power doors and their operation.
19. The dangers of accessing and entering the pit area.
20. The dangers of accessing and entering the top of the car.
21. Attempting to open a landing door when the elevator is not present.
22. The use of glass in the car interior.
23. Adjustment of the elevator electrical controls and components by inexperienced persons
24. Adjustment of the elevator machine controls and components by inexperienced persons
25. Modifications to any part of the elevator by inexperienced persons.
26. Emergency Battery Lowering.

# 7. Warranty Information

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## Two Year Limited Warranty

Garaventa Lift warrants this elevator to be free of defects in materials and workmanship under normal use and service for a period of two years from the date of purchase, reasonable wear and tear excluded. Proof of purchase showing the purchase date is required to validate the warranty.

This Warranty does not extend to any elevator that has been subjected to misuse, neglect, accident, modifications, or damage from fire, lightning, or water, or used in violation of the instructions furnished, nor units repaired or altered by other than an authorized Garaventa Lift dealer. This warranty does not cover service work, oiling, cleaning and minor adjustments that are required from time to time. Consult your local authorized Garaventa Lift dealer.

Garaventa Lift's liability hereunder is limited to repair and replacement only. Transportation and local labor charges are not covered. Garaventa Lift accepts no liability for any loss or damage resulting from the use or misuse of the Elvoron, whether such loss or damage is direct, indirect or consequential. All other express or implied warranties, statutory or otherwise, are excluded.

Note that validation of the warranty and the extended warranty programs require that an authorized technician properly maintain your elevator in accordance to the recommendations found in Section 6.

## Warranty Registration

A warranty registration page is enclosed with this Owner's Manual. Please complete and return it to Garaventa within 10 days of purchase.

## Optional Extended Warranty Protection (Canada & USA Only)

As an option, you are able to purchase extended warranty protection for your Garaventa Elvoron (***Preventive Maintenance Agreement required***). This will extend your warranty from two years to 7 years (warranty details available). The extended warranty covers all major components.

**Important Note:** The extended warranty protection plan (***Preventive Maintenance Agreement required***) is available for purchase for up to 30 days after lift installation. An extended purchase availability of up to 90 days after installation is available for an additional cost.

Protect your investment. Contact your local Garaventa dealer or Garaventa Lift for more information.

Thank you for purchasing your Garaventa Elvoron. We welcome your comments on this product or any of the related instructional material.