

**ALTER G<sup>®</sup>**



**User Manual**  
**AlterG Anti-Gravity Treadmill<sup>®</sup> Product**  
**Via 400 and 400X**

This manual covers operation procedures for the following AlterG products:

AlterG Anti-Gravity Treadmill, Via 400 and 400X

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**Note:** The following symbol is used throughout this manual to call attention to Warnings, Cautions or operational procedures that may directly affect the safe operation of the Via 400 Anti-Gravity Treadmill. Read and understand these instructions and statements before operating the Via 400 Anti-Gravity Treadmill.



Warning. Cautionary statement or operational procedure that may directly affect the safe operation of the treadmill.

**Note:** The Via 400 Anti-Gravity Treadmill has been tested to IEC medical standards for electrical safety.



IEC 60601-1:2005 + A1 2012

**IP20**

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## Owner Responsibility

The AlterG® Via 400 Anti-Gravity Treadmill® product will perform as described in this manual and by accompanying labels and/or inserts when it is assembled, operated, maintained and repaired in accordance with the instructions provided. The Anti-Gravity Treadmill must be checked periodically as described in this manual. A defective Anti-Gravity Treadmill should not be used. Parts that are broken, missing, plainly worn, distorted or contaminated should be replaced immediately. Should such repair or replacement become necessary, it is recommended that a request for service be made to AlterG, Inc. The Anti-Gravity Treadmill, or any of its parts, should only be repaired in accordance with instructions provided by AlterG, Inc., authorized representative of AlterG, Inc., or by AlterG, Inc. trained personnel. The Anti-Gravity Treadmill must not be altered without the prior written approval of the AlterG, Inc. Quality Assurance Department.

The owner of this product shall bear the sole responsibility for any malfunction, which results from improper use, faulty maintenance, improper repair, damage, or alteration by anyone other than AlterG, Inc. authorized representatives.

Any unauthorized maintenance, repairs or equipment modification activities may void the Anti-Gravity Treadmill Product Warranty.

## AlterG Contact Information

AlterG welcomes your inquiries and comments. If you have any questions or comments, please contact our service and support team.

### **AlterG Headquarters, Service and Support**

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Fremont, CA 94538 U.S.  
510 270-5900  
[www.alterg.com](http://www.alterg.com)

# Indications and Contraindications for Use

## Statement of Intended Use

The AlterG Via 400 Anti-Gravity Treadmill provides unweighting of the user's body weight in addition to normal treadmill functions. The unweighting allows patients and individuals to do standing exercises, walk, or run with reduced impact on their musculoskeletal system.

## Indications for Use

- Aerobic conditioning Sport specific conditioning programs
- Weight control and reduction
- Gait training and neuromuscular re-education in neurologic patients
- Strengthening and conditioning in geriatric patients
- Rehabilitation following injury or surgery of the lower extremity
- Rehabilitation after total joint replacement

## Precautions for Use

- Cardiovascular disease or respiratory compromise
- Exercise induced asthma or angina
- Acute and chronic back problems
- Ruptured or herniated disc
- Safety and effectiveness in pregnant women has not been established
- Safety and effectiveness for individuals with Functional Independence Measure score of 1 or 2 (dependent of max assist) has not been established
- Treadmill belt does not lock in place. Be sure patient is stable before turning off the treadmill and exiting
- Heart rate monitor is not accurate
- Any condition where increased intra-abdominal pressure may be a concern (for example urinary incontinence, pelvic floor dysfunction, pelvic floor reconstruction, or other conditions)

## Contraindications for Use

- Unstable fracture
- Cardiovascular hypotension
- Deep vein thrombosis

"This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Keep children under the age of 13 away from this machine."

## Safety: Warnings and Cautions

Before using the Anti-Gravity Treadmill, please read this manual. As a physical therapist, trainer, or clinician (the operator of the product), you must understand the safety features and user interface. We want you and your clients or patients (the users of the product) to have a safe and enjoyable exercise experience.



**DANGER: Imminently hazardous situation to be avoided that will result in serious injury or death.**

- DO NOT modify the plug provided with the treadmill. The Anti-Gravity Treadmill requires a 20A 220 VAC outlet protected by a 20-amp circuit breaker. The Anti-Gravity Treadmill comes equipped with a 6-20P NEMA plug. If the provided plug will not fit in the outlet, have a proper outlet installed by a qualified electrician.
- Do not use any electrical adapters. To do so could result in an electrical shock hazard.
- Do not operate the Anti-Gravity Treadmill in wet or damp environments.
- Do not operate the heart rate monitor transmitter in conjunction with an electrical heart Pacemaker or similar device. The transmitter may cause electrical disturbances, which can interfere with pacemaker function.
- **Note:** the disconnect plug is accessible after installation. Always unplug all power to the Anti-Gravity Treadmill before cleaning or servicing.
- Do not soak any part of the Anti-Gravity Treadmill with liquid during cleaning; use a sprayer or damp cloth. Keep all liquids away from electric components. Always unplug the machine before cleaning and maintenance.
- Only an authorized technician should service the system.
- Do not place any liquids on any part of the Anti-Gravity Treadmill.
- Do not unplug or alter any of the internal wiring on the machine after installation.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.



**WARNING: Potentially hazardous situation to be avoided that could result in serious injury or death.**

- Consult with your physician before beginning any exercise program. This is particularly true if you have any of the following: history of heart disease, high blood pressure, diabetes, chronic respiratory disease, elevated cholesterol, if you smoke cigarettes, or have any other chronic disease or physical impairment.
- If you experience dizziness, chest pains, nausea or any other abnormal symptoms while using the treadmill stop immediately. Consult a physician before continuing.
- Close supervision is necessary when this appliance is used by, or near children, invalids, or disabled persons.
- Use this appliance only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.
- Never operate this appliance if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return or call a service center for examination and repair.
- Do not carry this appliance by supply cord or use cord as a handle.
- Keep the cord away from heated surfaces.
- Never operate the appliance with the air openings blocked. Keep the air openings free of lint, hair, and the like.

- Never drop or insert any object into any opening.
- Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- To disconnect, turn all controls to the off position, then remove all power to the unit.

## SAVE THESE INSTRUCTIONS



**CAUTION: Potentially hazardous situation to be avoided that may result in minor or moderate injury.**

- Consult a qualified electrician before using any extension cords. Long extension cords cause a voltage drop to the machine, which may cause it to operate improperly
- ALWAYS USE THE EMERGENCY SAFETY LANYARD SUPPLIED WITH THE ANTI-GRAVITY TREADMILL! It should be attached to the user. This is very important for your safety in case you fall during your workout.
- Read and understand all instructions before using the Anti-Gravity Treadmill.
- Read and understand and test the emergency stop feature.
- Inspect the Anti-Gravity Treadmill for worn or loose components prior to use. Tighten/replace any worn or loose components or bolts prior to use.
- Pregnant women or women who may be pregnant should consult their physician before using the Anti-Gravity Treadmill.
- The Anti-Gravity Treadmill must be used under the supervision of a properly trained operator. At no time should a user of the machine exercise without appropriate supervision; even if having been previously trained in the proper operation of the device.
- Set up and operate the Anti-Gravity Treadmill on a solid, level surface.
- Keep all loose clothing and towels away from the treadmill running surface. DO NOT store anything (like shorts) inside the bag.
- Prior to beginning a workout, check to make sure there is no debris inside the Anti-Gravity Treadmill.
- Always keep the running surface clean.
- Keep the area around the treadmill clear. Make sure you leave at least 2 feet on either side of the Anti-Gravity Treadmill to accommodate bag expansion during inflation.
- Keep hands away from the bag and frame structure during inflation to avoid pinching.
- Keep hands away from all moving parts.
- Do not remove the cover or bag unless instructed to do so by an AlterG Technician.
- Wear proper athletic shoes, such as those with rubber or high-traction soles. Do not use shoes with heels or leather soles. Make sure no stones or sharp objects are embedded in the soles.
- As with any treadmill workout, include a cool-down phase at the end of your exercise session. Return to full body weight and exercise moderately before stopping. Avoid abruptly ending or pausing your workout while at reduced body weight or high speed.
- The safety and integrity of the machine can only be maintained when the Anti-Gravity Treadmill is regularly examined for damage and wear and is properly repaired. It is the sole responsibility of the user/owner or facility operator to ensure that regular maintenance is performed. Worn or damaged components must be replaced immediately, and the Anti-Gravity Treadmill removed from service until the repair is made. Only manufacturer supplied or approved parts should be used to maintain and repair the Anti-Gravity Treadmill.

## SAVE THESE INSTRUCTIONS

# Introduction

## Things to Consider Before Beginning an Exercise Program

### Consult a Physician

Anyone considering an exercise program or an increase in activity should consult a physician. It is highly recommended that users follow the guidance of their physician before and during an exercise program or any other increase in physical activity if they:

- Have heart disease, high blood pressure, diabetes, chronic respiratory disease or elevated cholesterol
- Smoke cigarettes
- Are currently inactive, are obese, or have any other chronic disease or physical impairment, or if there is a history of such disease in their family

### Consult a Professional Fitness Trainer

In addition to following the recommendations of a physician, it is advisable to consult a professional fitness instructor or personal trainer to develop an overall fitness evaluation/wellness program that is tailored to your particular needs.

### Understanding the Importance of Warming Up and Cooling Down

It is important that users gradually warm up, cool down, and incorporate a series of stretches prior to and at the end of each workout. Stretching encourages the necessary flexibility to help prevent sore muscles and injury during daily activities.

Do not abruptly end your exercise session on the Anti-Gravity Treadmill. The user's full body weight should be restored slowly and should include a few minutes of walking at full body weight and low intensity before stopping the workout session.

### How Often and for How Long Should You Exercise?

The American College of Sports Medicine recommends a frequency of 3 to 5 days per week for duration of 20 to 60 minutes, dependent on the intensity of the exercise session.<sup>1</sup> The United States Department of Agriculture suggests that physical activity should be moderate or vigorous and add up to at least 30 minutes a day. The USDA defines moderate as walking briskly at about 3.5 miles per hour while vigorous activity is running or jogging at 5 miles per hour.<sup>2</sup> These are general guidelines; you should determine what is appropriate for you with the help of your physician.

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<sup>1</sup> Medicine & Science in Sports & Exercise. Volume 30 (6) pages 975-991, 1998

<sup>2</sup> [http://www.mypyramid.gov/pyramid/physical\\_activity.html](http://www.mypyramid.gov/pyramid/physical_activity.html)

## Setup and Installation

An AlterG qualified technician will install the AlterG Anti-Gravity Treadmill after delivery. Please make sure that you inspect the Anti-Gravity Treadmill upon delivery for any damage that may have occurred during transportation. Take pictures and immediately report any damage to the shipping company and AlterG. When you sign for the shipment of your Anti-Gravity Treadmill, you are taking responsibility for any damage that may occur before installation.

## Electrical Requirements

The recommended electrical outlet/power source for the AlterG Anti-Gravity Treadmill is a 20 ampere, 220VAC @ 50/60 Hz dedicated circuit with ground. The plug supplied with the AlterG Anti-Gravity Treadmill is designated by the NEMA configuration system as 6-20P. The corresponding receptacle for the plug is a NEMA 6-20R.

International systems are shipped with the NEMA 6-20P. An appropriate plug for the country and facility in question should be wired as follows:

Black Conductor: Line

Black Conductor: Line

Green/Yellow Conductor: Ground

Customer Circuit	Via 400 Rating	Cable (mm <sup>2</sup> )	Connector Type	Region
20A	16A	4 LAPP USA # 321203 ANIXTER # 4A-1203EC-UL	NEMA 6-20P 	US, Canada
16A	12.8A	≥ 1.5 → 2.5 LAPP USA # 321203 ANIXTER # 4A-1203EC-UL	Type F 	EU (DEU)
13A	10.4A	≥ 1.5 → 2.5 LAPP USA # 321203 ANIXTER # 4A-1203EC-UL	Type G 	UK
32A	16A	2.5 LAPP USA # 321203 ANIXTER # 4A-1203EC-UL	No Plug Required on 20A Switch Spur 	UK (ring)
32A	16A	≥ 4.0	IEC 60309 male plug 	UK (ring)

## Ground Requirements

The Anti-Gravity Treadmill must be grounded electrically. If there is an electrical malfunction, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. The Anti-Gravity Treadmill is equipped with a power cord with a grounded plug (domestic systems). This plug must be plugged into an appropriate receptacle (NEMA 6-20R) that is properly installed and grounded in accordance with the current National Electrical Code as well as all local codes and ordinances. If you are at all unsure of these requirements, contact AlterG for clarification.

## Danger

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product; if the plug will not fit the outlet, have a proper outlet installed by qualified electrician.

## Location Requirements

The Anti-Gravity Treadmill is 38" (96.5cm) wide and 84" (213cm) long. It weighs approximately 750lbs (340kg). It needs to be placed on a structurally sound surface. If it is used above ground level it is advisable to place it near the corner of the room or where the floor will be strongest to ensure maximum support during high-speed, high-impact use. The surface should be level to ensure minimal flexing of the Anti-Gravity Treadmill frame. It is recommended that the Anti-Gravity Treadmill be placed on a rubber mat or padded indoor/outdoor style carpet. The front of the Anti-Gravity Treadmill needs to be within 10ft (3.05m) of the proper electrical outlet. Check with a qualified electrician or AlterG if you plan on extending the cord in any way. Make sure you leave at least 24" (61cm) on either side of the Anti-Gravity Treadmill to allow the bag to expand during inflation. Allow 40" (101.5cm) behind the Anti-Gravity Treadmill to accommodate a user getting in and out of the Anti-Gravity Treadmill system safely.

We recommend an area at least 12ft (3.66m) long by 8ft (2.44m) wide to provide adequate space for operation and user access. Also check ceiling height to ensure users will not hit their heads. The treadmill surface is approximately 8" (20cm) off the floor when level and can be higher when the user is running on a grade. An 8ft (2.44m) ceiling may be too low for taller users.

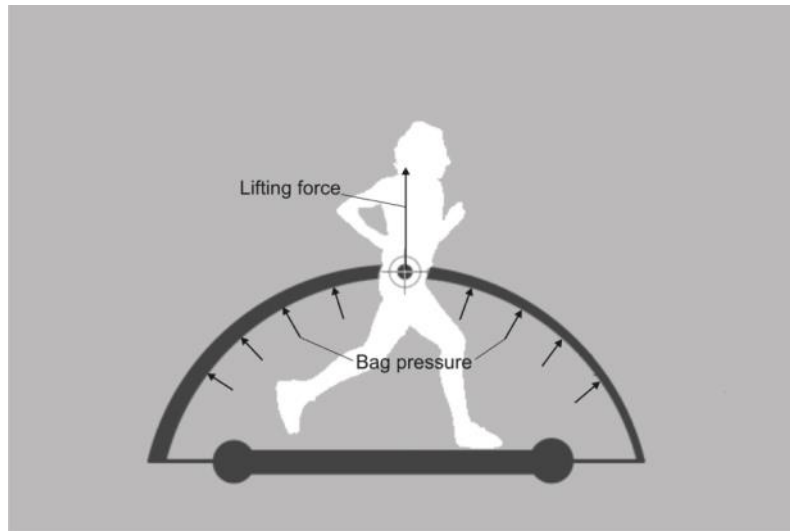
## Transporting Your Anti-Gravity Treadmill

Contact AlterG if you plan on moving your Anti-Gravity Treadmill. Damage sustained by improperly moving the Anti-Gravity Treadmill will not be covered by your warranty.

## Principle of Operations

AlterG's technology was originally conceived as part of an effort to help NASA's astronauts maintain fitness during prolonged space flight. AlterG pioneered the concept of combining this technology with an advanced pressure regulation system and treadmill into a machine that provides the most effective and comfortable body weight support system available today.

## Physics and Technology Behind the Anti-Gravity Treadmill



## Differential Air-Pressure Technology

The physical lifting force generated by the Anti-Gravity Treadmill comes from a difference in air pressure around the user's upper and lower body. The Anti-Gravity Treadmill uses this methodology, known as Differential Air Pressure (DAP) technology to unweight the user.

An inflatable fabric enclosure covers the treadmill. In the middle of the enclosure is a hole through which the user steps onto the surface of the treadmill. The user wears a special pair of shorts, and these shorts are zipped into the hole in the enclosure. A blower is used to inflate the enclosure. The pressure generated in the inflated enclosure provides a lifting force against the body. Because the pressure is only slightly above atmospheric and evenly distributed, the force on the lower body is almost imperceptible. The Anti-Gravity Treadmill provides a level of comfort while exercising unmatched by other unweighting systems.

## Pressure Regulation System

AlterG has developed an advanced and very sophisticated pressure regulation system that ensures the Anti-Gravity Treadmill has extremely accurate weight control with good reproducibility between sessions. When you run in the Anti-Gravity Treadmill, the natural bouncing motion of your body changes the shape and volume of the bag. This effect would change the interior pressure of the bag and your effective exercise weight if it were not for the pressure regulation system in the Anti-Gravity Treadmill that monitors and reacts to these changes. This technology makes rapid adjustments to the bag pressure, maintaining the pressure in the bag and your exercise body weight at near constant levels.

## Air Seal Shorts

To seal users into the Anti-Gravity Treadmill in a comfortable and convenient manner, AlterG has designed a special pair of shorts. These create an airtight environment around the lower body, and the zipper provides a mechanism to quickly attach and detach from the enclosure. The shorts are easy to take on and off and sealing with the machine is as simple as zipping up a jacket. The shorts are similar to those worn by many professional athletes for compression and support during training activities.

Shorts are manufactured using the following materials: 90% Neoprene, 10% Urethane coated Nylon.



# Operating the Anti-Gravity Treadmill

## Powering Up

The main power switch is located at the front over of the Anti-Gravity Treadmill. Switch it on to start the system.



Before you turn on the Anti-Gravity Treadmill, you must do the following:

1. Make sure there is no one standing on the treadmill when you power up the system.
2. Make sure the cockpit is locked in its topmost position, so the inflatable enclosure is not sitting on the treadmill surface.

The computer that controls the Anti-Gravity Treadmill weighs the treadmill when the system is first turned on. The computer will receive an erroneous reading if either the fabric enclosure or an individual is on the surface of the treadmill. The proper location of the cockpit on power-up is shown in the photo.



**Note:** After the power switch is turned on, wait 30 seconds before the user attempts to enter the treadmill. The system requires 30 seconds to run a series of diagnostic tests.

## Putting on the Shorts

Your Anti-Gravity Treadmill comes with dedicated shorts that ensure an airtight seal in the fabric enclosure. Slip the shorts on in the same manner as a conventional pair. The life of the shorts will be extended, and they will be easier to get on if you first remove your shoes.

**Note:** End of Life Product Disposal: AlterG products contain no waste or residual materials. The products have significant recoverable and recyclable elements. Consult your distributor for the safe and appropriate disposal of product no longer in service.

Select a short size that is snug but not uncomfortable and make certain the tag is at your back and on the inside of the shorts. The long tail of the zipper should be in front. It is advisable that you wear a pair of running shorts or tights under the AlterG shorts.

## Stepping into the Treadmill

Lower the cockpit so it compresses the bag against the treadmill surface. Push it all the way down for ease of entry. Enter from the back and step into the opening in the fabric enclosure. It is fine to step on the fabric as you enter, but make sure that you have no rocks or sharp objects embedded in the soles of your shoes that could mar or damage the bag.



## Adjusting the Height of the Cockpit

The cockpit slides up and down on a bearing system and is counter-weighted to make it easy to lift.



**CAUTION:** Before lifting the cockpit, ensure that the cockpit lock is in the open position, all the way to the left side of its travel. If it is not fully locked, it may engage in the lowest position as you lift.



Stand centered in the hole in the fabric enclosure facing forward with both feet on the treadmill belt. Lower yourself by bending at the knees and grasp the cockpit on either side. With a straight back and good lifting technique, lift the cockpit to the appropriate height and engage the lock by pulling the lock lever to the right. Do not force the lever. You may have to “jiggle” the cockpit up and down slightly to get the lock pins to engage. When fully engaged, the lock lever will be positioned all the way to the right in the slot.



There is a range of heights at which the cockpit can be placed. For greatest freedom of movement, place the top of the cockpit frame slightly below the greater trochanter of the femur as shown in the photo.



For more support and stability place the cockpit in a higher position. Some users use the iliac crest as a reference point. Pull up on the zipper sewn to the enclosure and align the zipper with the iliac crest as shown in the photo.



You should never attempt to move the cockpit while the fabric enclosure is inflating or when fully inflated. If you discover while you are exercising that you need to reposition the cockpit, you will have to pause or stop the workout, re-adjust the height of the cockpit and start again.

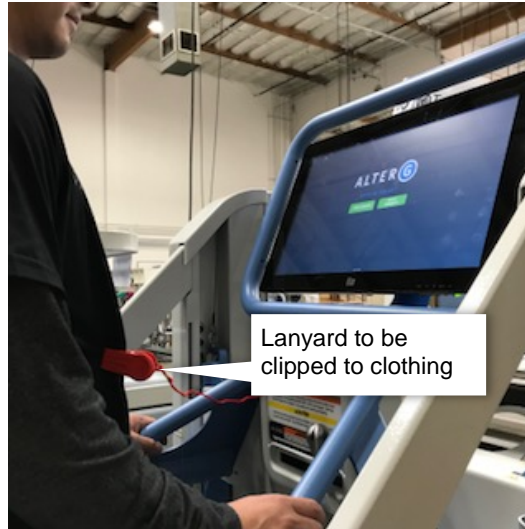
## Zipping into the Fabric Enclosure

When the cockpit is in place, zip yourself into the Anti-Gravity Treadmill. The zipper should be started at the front and center of your body and zipped counterclockwise all the way around until it returns to overlap in the front. Make sure that the zipper is completely closed.

## Using the Safety Lanyard

ALWAYS use the magnetic safety lanyard supplied with the machine. Attach the spring clip to the front of clothing and place the red magnet on the circular locator labeled "Emergency Stop".

The lanyard and magnet serve as a safety switch mechanism. If you become uncomfortable during exercise you can pull on the lanyard to displace the magnet and stop the system. Should you fall while exercising, the magnet will be pulled from the console and the system will stop.

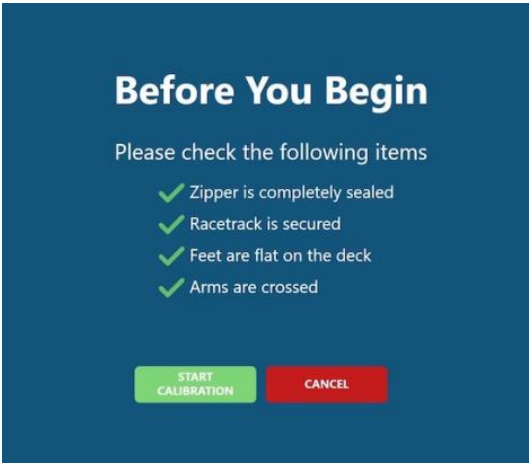
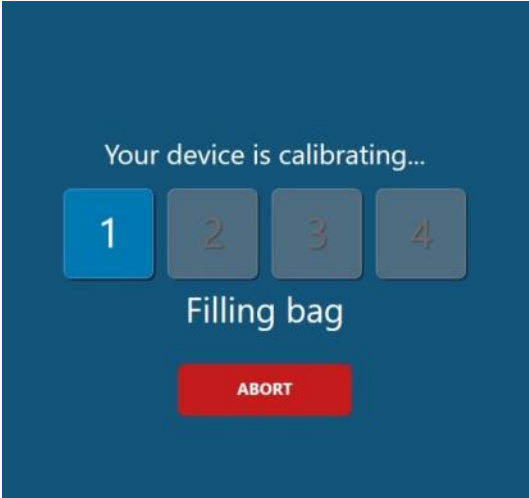
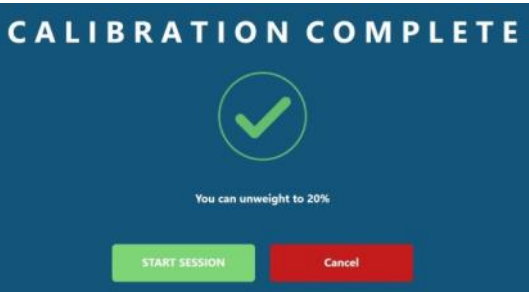


**WARNING: NEVER attempt to defeat this critical safety feature by attaching the lanyard to the structure of the machine or anywhere else besides your clothing.**

## Operating the Treadmill and the Unweighting System



All treadmill and pressure functions are controlled from the touch monitor. Prior to accessing treadmill and gait controls, weight calibration must be done.

Operator or User Action	Screen
<p>1. PREPARATION FOR EXERCISE.</p> <p>Before you begin, stand still on the surface of the treadmill belt. Do not hold onto or support yourself on any part of the system structure. The system weighs you prior to exercise and the treadmill must support your full body weight.</p>	
<p>2. BEGINNING THE EXERCISE SESSION.</p> <p>Tap <b>START CALIBRATION</b> to begin the exercise session. The Anti-Gravity Treadmill will proceed with a calibration routine that allows the system to determine the relationship between enclosure pressure and your body weight. You will feel the pressure in the bag change as the system calibrates. It is best to cross your arms while the routine runs to avoid touching any part of the structure and ruining the calibration.</p>	
<p>You will be promptly notified when the calibration sequence is complete, tap <b>START SESSION</b> to start your workout session. Inactivity will cancel your completed calibration.</p> <p>This screen also displays your lower body weight limit.</p>	

Operator or User Action	Screen
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The controls on the Main Screen are shown below.



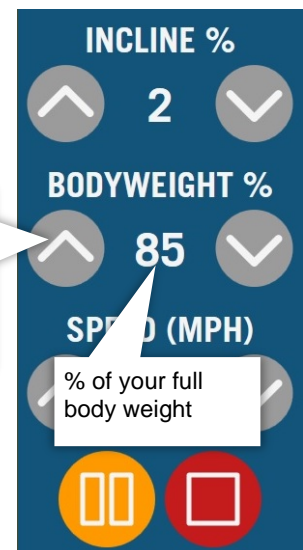
### 3. ADJUST YOUR BODY WEIGHT.

Adjust your body weight with the up arrow and down arrow button controls. Tapping up arrow increases your body weight and tapping down arrow decreases your body weight. Your body weight is displayed as a percentage of your full body weight. You can adjust your body weight at any time during your exercise session.



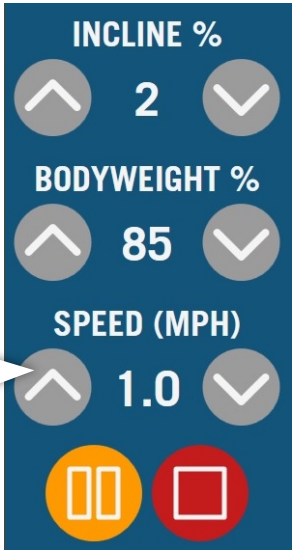
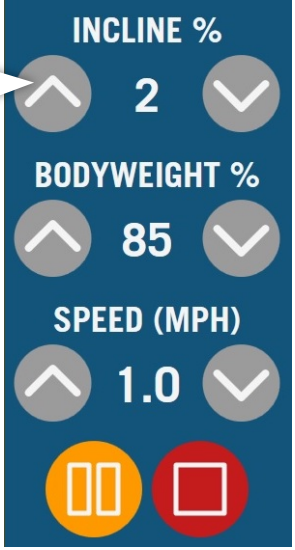
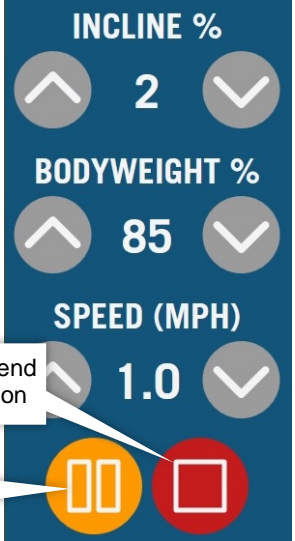
**CAUTION: At 40% body weight and lower, you can become unstable if you jump or perform any other activity besides walking or running. Reduce your body weight percentage slowly so you can become accustomed to the new sensation and adjust your gait mechanics accordingly.**

Tap up arrow to increase body weight, tap down arrow to decrease body weight



### 4. SELECT TREADMILL DIRECTION.

When the treadmill turns on, it is programmed for forward ambulation. To walk backwards, tap down arrow until it displays negative numbers.

Operator or User Action	Screen
<p>5. ADJUST TREADMILL SPEED.</p> <p>Adjust treadmill speed using the up arrow and down arrow button controls. In the forward direction, speed will increase in 0.1mph (0.16km/hr) increments for each button tap. When the treadmill is programmed in reverse, speed will increase in 0.1mph (0.16km/hr) increments up to a maximum of 3mph (4.8km/hr). Holding either button down for more than 2 seconds causes the speed to increment or decrement at a faster rate.</p> <p><b>Note:</b> For speeds above a value of 10 (for both mph and kph), the speed display alternates between the integer and fractional speed setting.</p>	 <p>The screenshot shows a blue control panel with three rows of controls. The first row is labeled 'INCLINE %' and shows an up arrow, the number '2', and a down arrow. The second row is labeled 'BODYWEIGHT %' and shows an up arrow, the number '85', and a down arrow. The third row is labeled 'SPEED (MPH)' and shows an up arrow, the number '1.0', and a down arrow. At the bottom are two large buttons: a yellow one with two vertical bars (Pause) and a red one with a square (Stop). A callout box points to the speed controls with the text: 'Tap up arrow to increase speed, tap down arrow to decrease speed'.</p>
<p>6. ADJUST TREADMILL INCLINE.</p> <p>Tap up arrow to increase incline and tap down arrow to decrease incline. Holding the button down for more than 2 seconds will cause incline to change at a more rapid rate.</p> <p><b>Note:</b> Treadmill incline cannot be adjusted greater than 5% if speed is set for less than 0.5mph (0.8km/hr).</p>	 <p>This screenshot is identical to the one above, showing the same control panel with Incline at 2%, Bodyweight at 85%, and Speed at 1.0 mph. A callout box points to the incline controls with the text: 'Tap up arrow to increase incline, tap down arrow to decrease incline'.</p>
<p>7. ENDING OR PAUSING THE EXERCISE SESSION.</p> <p>Before stopping your session, return the treadmill to 0% incline. Tap <b>STOP</b> to end the exercise session.</p> <p>To place the treadmill in pause mode, tap <b>PAUSE</b>. The tread belt will stop, but all statistical information will be preserved. Body weight support is maintained while the treadmill is paused. To resume the exercise session, tap <b>PAUSE</b>.</p>	 <p>This screenshot is identical to the others, showing the same control panel. Two callout boxes are present. One points to the red Stop button with the text: 'Tap STOP to end exercise session'. The other points to the yellow Pause button with the text: 'Tap PAUSE to pause treadmill'.</p>

## Stepping Out of the Treadmill

1. Wait for the tread belt to stop and the enclosure to fully deflate before exiting the system.
2. Unzip your shorts and pull the top “skirt” of the shorts from under the enclosure lip.
3. Open the cockpit lock to disengage it from its locked position.
4. Lower the cockpit onto the surface of the tread belt, turn around and exit to the rear of the system.
5. After exiting the system, return the cockpit to an upright, locked position.

## Session Metrics

The session screen gives you a graphical overview of body weight, speed, and inclines. It also includes information on your average speed, calories burned, and total distance.

### Session Metrics

The session metrics, by default, is displayed on the top portion of the screen. The session time, calories burned, pace, distance traveled, and heart rate are displayed. Alternative layouts can be set in the facility setting. For more information, see “Adjusting Display Layout – GUI Tab”.



## Calories

The calorie count displayed takes into account your body weight percentage and treadmill speed, incline, and distance. As a result, the calories burned reading is more accurate when compared to exercise equipment that does not include these parameters.

Reference <http://42.195km.net/e/treadsim/> for more information on how the Via 400 calculates calories burned.

## Heart Rate Monitoring

### Heart Rate Monitor

The Anti-Gravity Treadmill display is designed to receive a user's heart rate in conjunction with the use of a Polar® (Chest Strap) Heart Rate Monitor.<sup>3</sup> Polar chest straps can be purchased at most popular sporting goods stores or online. For the screen to correctly display a user's heart rate, the receiver within the display must obtain a stable heart rate signal from the Polar transmitter. The Polar Heart Rate System consists of two elements, 1) the sensor/transmitter and 2) the receiver within the Anti-Gravity Treadmill display.

<sup>3</sup> Polar® is a registered trademark of Polar Electro, Inc. Lake Success, NY

## How to Wear the Chest Strap Transmitter

The Sensor/Transmitter is worn just below the chest and at the top of the abdomen, directly on bare skin (not over clothing). The transmitter should be centered below the pectoral muscles. After you secure the strap around your chest pull it away from your chest by stretching the band, and moisten the conductive electrode strips with plain water. The transmitter operates automatically while you are wearing it; it does not operate while it is disconnected from your body. However, as moisture may activate the transmitter and salt buildup from sweat can be a problem, rinse the transmitter with water and wipe it dry after use. The chest band is washable. After you have detached the transmitter, wash the band in warm water using mild soap and rinse thoroughly in clean water.

## The Receiver

You must be within two and a half feet of the receiver for the signal to be received. Please take note that your transmitter may fluctuate erratically if you are too close to other Polar equipment. Maintain at least a three-foot distance between other Polar units.

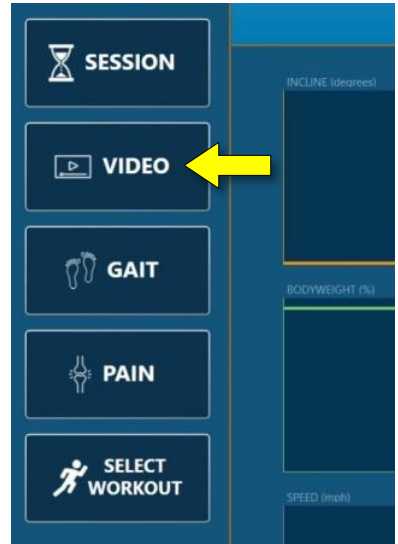
**Note:** Erratic heart rate reception may occur if the Polar Monitor is too close in proximity to strong sources of electromagnetic radiation, such as television sets, Personal Computers, electric motors and some other types of fitness equipment. Only one transmitter should be used inside the range of any one receiver as the receiver may pick up several signals simultaneously, causing an inaccurate readout.



**CAUTION: The heart rate obtained while on the AlterG Treadmill is for reference only. No medical treatment or diagnosis should be based on the Polar Monitor.**

# Operating HD Video Monitoring System

## Getting Started

Operator or User Action	Screen
To view the camera, tap <b>VIDEO</b> on the navigation bar.	 A screenshot of the system's main interface. On the left is a vertical navigation bar with five buttons: 'SESSION' (hourglass icon), 'VIDEO' (play button icon), 'GAIT' (footprints icon), 'PAIN' (joint icon), and 'SELECT WORKOUT' (runner icon). The 'VIDEO' button is highlighted with a yellow arrow pointing to it from the right. To the right of the navigation bar is the main display area, which is currently blank but has labels for 'INCLINE (degrees)', 'BODYWEIGHT (%)', and 'SPEED (mph)'.

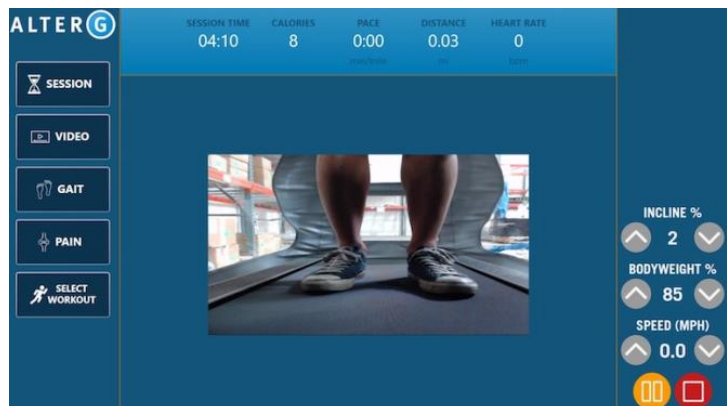
## Focusing and Positioning Cameras

There is a single camera on the Via 400 Anti-Gravity Treadmill. The front camera is mounted on the inside of the bag and focused at the factory before shipment.



## Camera Views

The front camera is permanently affixed inside the treadmill bag. The video feed will be displayed on the touch monitor on the main display window.



# Operating Gait

## Gait Measurements

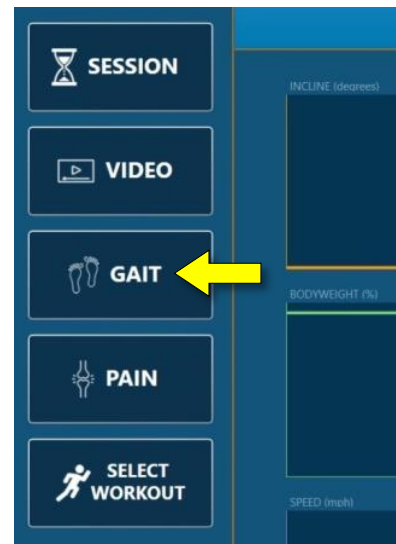
The Anti-Gravity Treadmill measures the following:

- Weight bearing symmetry
- Cadence
- Stance time symmetry
- Step length symmetry

To view Gait, tap **GAIT** on the navigation bar.

Gait measurements are a display of the last 3 steps on each foot.

**NOTE:** Gait features are intended for use at moderate walking speeds only.



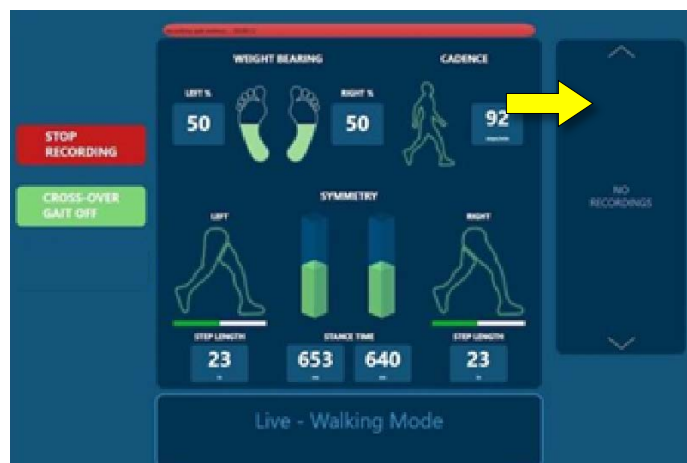
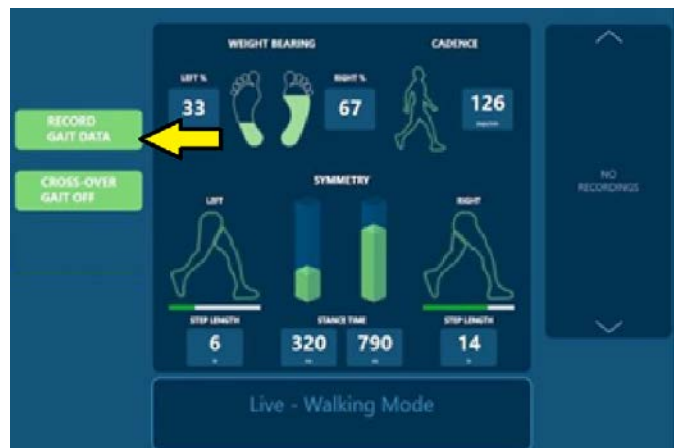
## Gait Recording

Users can record as many gait reports as they want. There is no time limit to the length of the recording. To record a gait report, navigate to the gait page and tap **RECORD GAIT DATA**.

A red bar will appear at the top of the screen signaling that gait is currently being recorded. Tap **STOP RECORDING** when you want to stop recording.

You can adjust any of the treadmill controls while recording (body weight %, incline, and speed). We recommend recording different reports so that you can see the effect of body weight, incline, or speed on gait symmetry.

When you have completed your recording, reports are automatically listed to the right of the data screen.



## Gait Features

There is one additional feature for different use cases on the Gait Screen.

**Cross-over gait.** If you have a patient with scissoring gait (foot crosses the midline when planted), tap **CROSS-OVER GAIT**. The button is highlighted in orange when in effect. This allows the software to identify the right foot when the left load cells detect weight, and the left foot when the right load cells detect weight.



## Gait Reports

To view previous Gait Reports, navigate to the Gait screen. All reports are listed to the right of the Gait Data.

Select which gait report(s) you want to review from the thumbnails.

A summary of that data session will display on the screen. This is an average of each of the gait measurements over the duration of your recording. (i.e., If you recorded for 30 seconds, this is a summary of your gait symmetry over those 30 seconds).

The thumbnails are labeled with the starting body weight % and session time of your recording to allow you to easily locate the report you want to view.

**Note:** You will be able to email or save gait reports at the end of your session (for more information, see "Creating End-of-Session Reports").



# Operating Pain

## Pain Recording

To record pain levels during the exercise session, tap **PAIN** on the navigation bar.

Pain can be recorded on a scale of 0-10 (0 = no pain, 10 = maximum pain). To record pain, select a number from 0-10 and tap **SET PAIN LEVEL**.

There are no prompts during the session to remind you to input pain. It is up to the therapist to ask the patient to set their pain levels throughout the session.

After you have set the pain level, the View Results page is displayed.

**RATE YOUR PAIN**

Rate your pain using the 10-point number scale below, then confirm by selecting "Set Pain Level"

0 1 2 3 4 5 6 7 8 9 10

NO PAIN MILD MODERATE SEVERE VERY SEVERE WORST POSSIBLE

**SET PAIN LEVEL**

## Pain Results

To review previous pain recordings, tap **VIEW RESULTS**.

A graph displays all recorded pain results. The graph displays pain in relation to approximate body weight %. (for example, If you recorded a pain level of 8 at 93% body weight, the number 8 is listed between 90% and 100%).

Tolerance is also displayed. This is a measurement of the body weight % where the patient felt the least amount of pain.

**Note:** Pain results are automatically included when you email or save your end-of-session reports (for more information, see "Creating End-of-Session Reports").



## End-of-Session Reporting

The end-of-session report is a summary of your session details. At the end of your exercise session, you have the opportunity to email or save a copy of your session report, gait data, and pain measurements captured during your session. It will be sent to you by email or saved to USB in PDF format. There will be no patient or athlete name on the report.

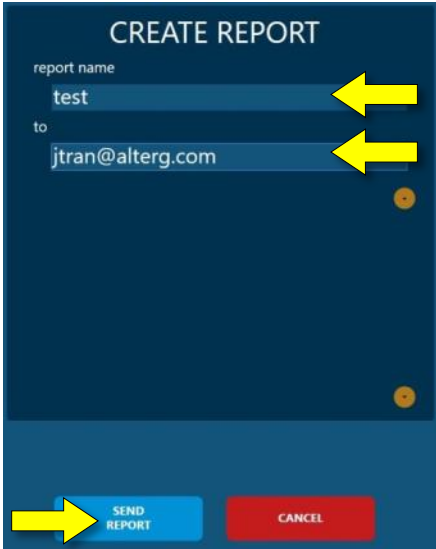
Any session reports not emailed or saved at the end of the session will be deleted.

Estimated wait time to email reports is approximately 20 seconds, depending on your Wi-Fi connection. Please be patient and confirm all data has been sent before exiting the treadmill.


## Creating End-of-Session Reports

Operator or User Action	Screen
1. To create a report, tap <b>CREATE REPORT</b> .	
2. Select the reports you want to email or save by tapping the thumbnails you want. Selected thumbnails are highlighted. You can send as many reports as you want.	
3. After you have selected all of your items, tap <b>SEND BY EMAIL</b> , or tap <b>EXPORT TO USB</b> to save to USB.	

## Emailing Reports

Operator or User Action	Screen
<ol style="list-style-type: none"><li>1. If you select Send by Email, enter a report name in the Create Report screen. We recommend a non-identifiable patient ID (for example, 12345), or the session time and date (for example, 181205 02:00). This will help you identify the patient. We recommend emailing the information to yourself and later attaching it to the patient's EMR.</li><li>2. Enter your email address, and tap <b>SEND REPORT</b>.</li></ol>	

## Saving to USB

Operator or User Action	Screen
<ol style="list-style-type: none"><li>1. If you select Export to USB, enter a report name in the Create Report screen. We recommend a non-identifiable patient ID (for example, 12345), or the session time and date (for example, 181205 02:00). This will help you identify the patient.</li><li>2. Tap <b>SAVE REPORT</b>.</li></ol> <p><b>Note:</b> You can save as many reports as you want, as long as there is enough space on your thumb drive.</p>	

# Emergency Extraction Procedures

In the unlikely event that a patient becomes immobilized in the Anti-Gravity Treadmill, please refer to the urgent steps below to secure the situation before calling +1510.270.5900 or referring to [alterg.com](http://alterg.com).

## IMPORTANT NOTES:

1. Do not unlock the cockpit until you read further.
2. The treadmill belt on the Via series does not lock in place, so secure it by holding your foot against it at the rear of the treadmill.

## Emergency Scenarios

There are two likely scenarios in which a patient may require urgent help with getting out of the Anti-Gravity Treadmill:

### Scenario 1

The patient falls or becomes fatigued to the point of inability to exit the treadmill before the air chamber is inflated with air.

- Option 1: If the patient can stand, stop the treadmill and secure the belt with your foot. Help the patient exit the treadmill.
- Option 2: Prevent the belt from moving by securing it with your foot. Remove the bag rods at the treadmill base.
- Option 3: Prevent the belt from moving by securing it with your foot. Cut the air chamber and help the patient exit the treadmill.

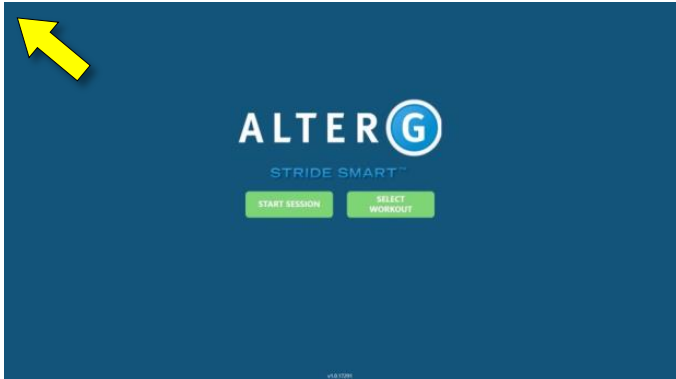
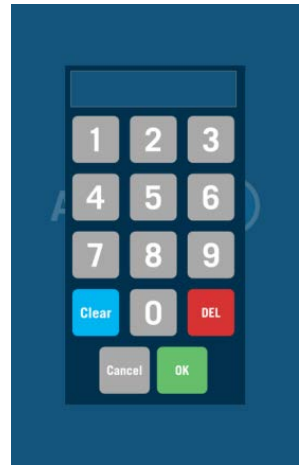
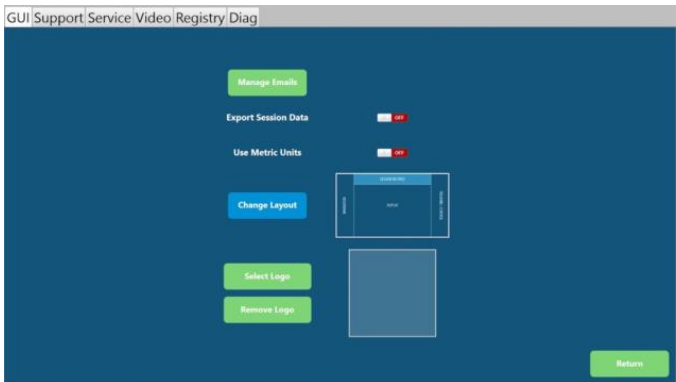


### Scenario 2

The patient becomes fatigued to the point of inability to exit the treadmill after the air chamber is inflated.

Reduce the body weight percentage to less than 40% and have the patient sit down in place until they regain their strength and can exit on their own.

## Facility Settings

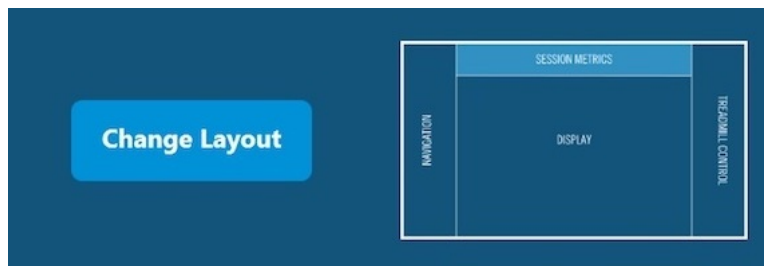
Operator or User Action	Screen
1. To access all setting screens, return to the home screen and double-tap on the upper-left corner of the screen.	
2. A keypad will pop up. Enter code <b>5900</b> .	
Upon entering the Settings menu, you will be greeted with a number of configurations and options.	

## Settings Menu Navigation

Your facility will have limited access to the Settings navigation bar to aid in troubleshooting and diagnostics. You will be granted access to the GUI, Support and Service and other highlighted tabs. Inaccessible Tabs and Buttons will be grayed out.

## Adjusting Display Layout – GUI Tab

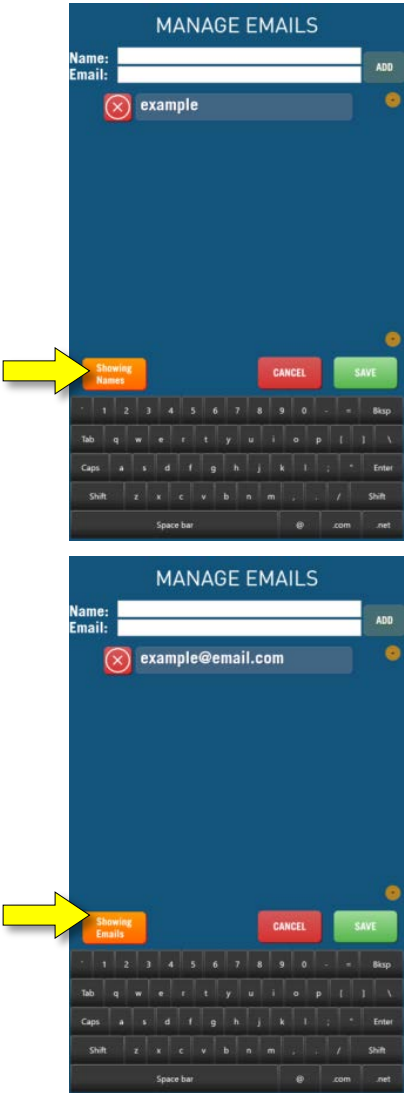
AlterG has set the default layout in the factory to the first setting listed. Alternative layouts can be made to the navigation bar, Session Metrics and the Treadmill controls. Below is an example of a selected session layout.



To select an alternative layout, tap **Change Layout** adjacent to the layout you want.  
 You can also change from Metric or Standard units by toggling the **Use Metric Units** button.

## Manage Emails – GUI Tab


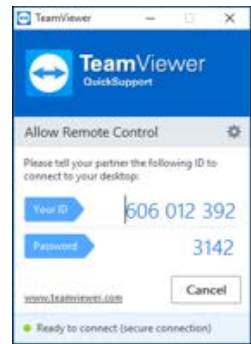
Operator or User Action	Screen
<p>Shorten the End-of-Session process by pre-programming your staff's email addresses. This allows you to select email addresses from a pre-programmed list and reduce the amount of time spent entering data.</p> <ol style="list-style-type: none"> <li>1. Select the GUI Tab.</li> <li>2. Tap <b>Manage Emails</b>.</li> </ol>	<p>The screenshot shows the GUI Tab interface. At the top, there are tabs: 'GUI', 'Support', 'Service', 'Video', 'Registry', and 'Diag'. The 'GUI' tab is selected. Below the tabs, there are several buttons: 'Manage Emails' (highlighted with a yellow arrow), 'Export Session Data', 'Use Metric Units', 'Change Layout', 'Select Logs', and 'Remove Logs'. A 'Return' button is at the bottom right.</p>
<ol style="list-style-type: none"> <li>3. Enter the clinician's name and email address and tap <b>ADD</b>.</li> </ol>	<p>The screenshot shows the 'MANAGE EMAILS' screen. It has a title bar 'MANAGE EMAILS'. Below the title bar, there are two input fields: 'Name:' with the text 'example' and 'Email:' with the text 'example@email.com'. To the right of the 'Email' field is a green 'ADD' button. Below the input fields, there are three buttons: 'Showing Emails' (orange), 'CANCEL' (red), and 'SAVE' (green). At the bottom, there is a virtual keyboard with letters, numbers, and symbols.</p>

Operator or User Action	Screen
4. You have the option of displaying the pre-programmed list by name or by email.	 <p>The screenshots show the 'MANAGE EMAILS' interface. The top screen has 'example' in the email field, and the bottom screen has 'example@email.com'. Both screens have a 'Showing Names' button highlighted with a yellow arrow. The bottom screen also has a 'Showing Emails' button highlighted with a yellow arrow.</p>


## Tech Support – Support Tab

If you are experiencing issues with your Stride Smart system and are connected to Wi-Fi, our Service Team may be able to get remote access and help you troubleshoot your unit.

Please call our Service Team at (510) 270-5369 if you would like to grant them remote access. They can walk you through the procedure below.


Operator or User Action	Screen
1. In Facility Settings under the Support Tab, tap <b>Tech Support</b> .	
<p>Within 5 seconds you should see a TeamViewer window pop up. After another 5-10 seconds, the ID and password fields will auto-populate.</p> <p>2. Read the ID and password back to your technician. This will allow them to connect to your unit and control the screen.</p>	

## Restart App

Operator or User Action	Screen
<p>If you are experiencing issues with Stride Smart, we may ask you to restart your device. To do this, tap <b>Restart App</b>.</p>	

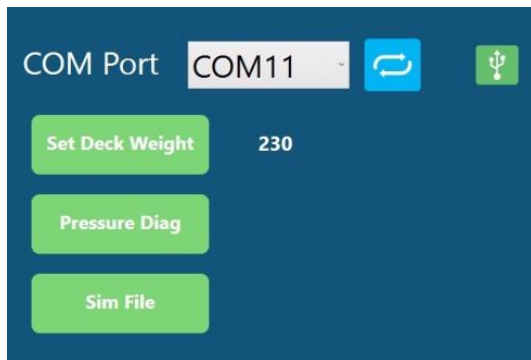
## Shutdown PC

We have designed the Anti-Gravity Treadmill to remain on at all times. The computer and the displays draw exactly 45W, which is less than a 60W light bulb.

Operator or User Action	Screen
<p>Shutdown PC should only be used if Stride Smart and the Anti-Gravity Treadmill must be powered down. Please shut down the unit before unplugging anything from the wall.</p> <p>The system will start automatically after it is plugged back into the wall.</p>	

## Calibrate Deck Weight – Service Tab

If you are experiencing issues with calibration, you may need to recalibrate the deck weight. Please contact AlterG Service prior to resetting the deck weight.

Operator or User Action	Screen
<ol style="list-style-type: none"><li>1. Select the Service Tab.</li><li>2. To recalibrate deck weight, make sure there is no weight on the treadmill deck. There cannot be anyone standing inside or on the sides of the treadmill.</li><li>3. Tap <b>Set Deck Weight</b>. This number should be approximately 200lbs (+/- 50).</li></ol> <p>If calibration issues persist, please contact our AlterG Service Team.</p>	

## Calibration

You may notice differences in the calibration from older model Anti-Gravity Treadmills. We have implemented a smarter calibration process, which can cause:

- Faster calibration process
- Stronger pressure in the calibration process
- More accurate unweighting
- An inability to unweigh every patient to 20%

The inability to reduce a user's body weight to 20% is the result of increased accuracy during the initial calibration process. If the Anti-Gravity Treadmill is unable to reduce the user's body weight to 20% during calibration, it will only allow them to unweight themselves to the *lowest* accurate body weight point. (that is, if a patient is limited at 37% body weight, this means that during calibration the Anti-Gravity Treadmill could not go below 37%.) A few factors that can cause this, and it should not be of concern unless persistent with all users.

The following may cause an inability to reduce body weight to 20%:

- User moving during the calibration process
- Body composition
- Wearing old shorts (with leaks, tears, or holes)
- Old bag (with leaks, tears or holes)
- Wearing shorts that are not properly fitted to the individual
- Incomplete zipping of shorts to the bag
- Poor seating of the shorts on the user

## Wi-Fi Connectivity

The Anti-Gravity Treadmill is Wi-Fi enabled and can be set up upon installation as long as the proper Wi-Fi network information is provided.

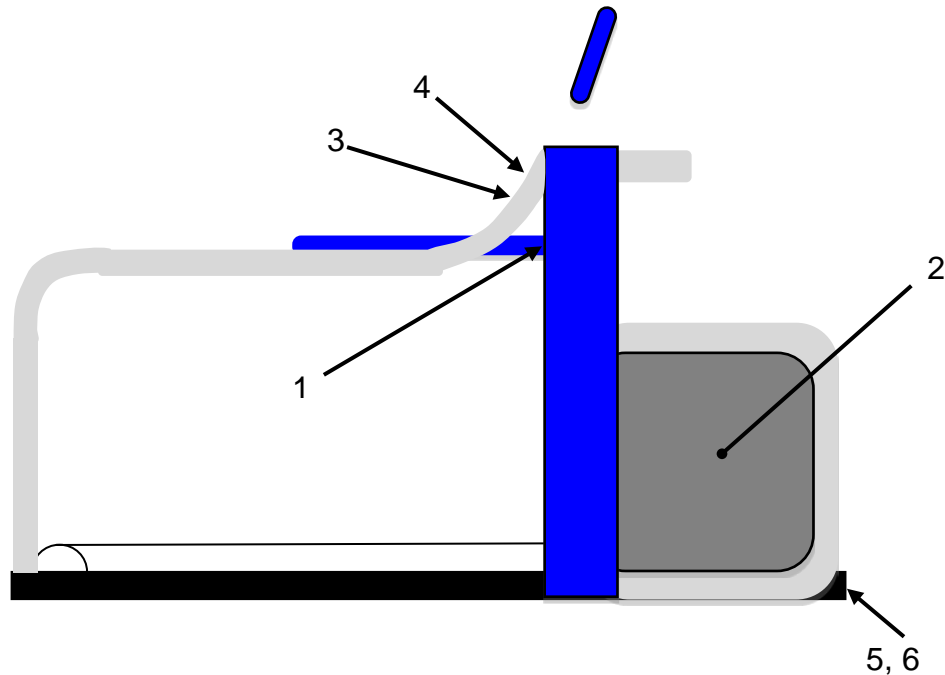
The Wi-Fi connection can be set up after installation if the facility has a USB keyboard and the Wi-Fi network information. Please contact the AlterG Service Team if you need assistance with connecting to your Wi-Fi network.

Please note that if your facility has special permissions and security required for Wi-Fi connectivity, we are happy to work with internal IT departments to connect the Anti-Gravity Treadmill to these networks.

## Labels, Locations, Interpretation

Read and understand the labels on the AlterG Anti-Gravity Treadmill. The labels provide information on the operation of the system and should be followed for a safe and enjoyable exercise experience. Should any of the labels become damaged and unreadable, immediately contact AlterG for replacements.

The locations of the labels are indicated in diagram below. A graphical representation and description of each label follow.



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### Label #1



This label is located on areas of the Anti-Gravity Treadmill frame that present a pinch hazard. Hands or any other part of the body should not be placed in these areas during operation of the system.

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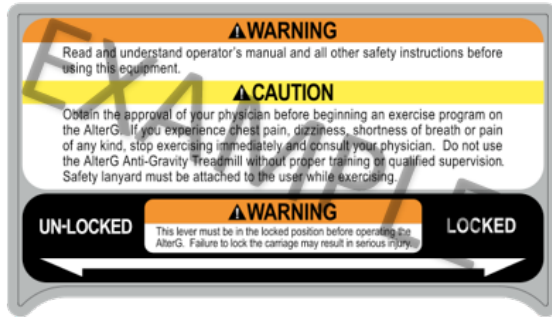
### Label #2



This label is located within the structure of the Anti-Gravity Treadmill and indicates a high voltage is present in that location. If you see this label, do not get close to or disassemble any of the components to which it is attached. The high voltage can cause serious injury or death. Only a qualified AlterG Service Technician should attempt any repairs in these areas.

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### Label #3a



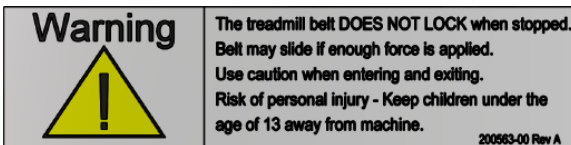
This label is located on the front of the cockpit structure.

You must be in good health to exercise on the Anti-Gravity Treadmill. Consult with your physician before beginning an exercise program. If you experience discomfort or unusual symptoms while exercising on the system, stop immediately and consult your physician before resuming your exercise program. You must be trained in the proper use of the machine and its safety features prior to exercising. Always use the safety lanyard.

Read and understand the Operator's Manual before using the AlterG Anti-Gravity Treadmill.

Lock the cockpit in place by moving the locking lever from left to right. Make sure the lever is all the way to the right prior to operating the system.

### Label #3b



This label is located on the front of the cockpit structure.

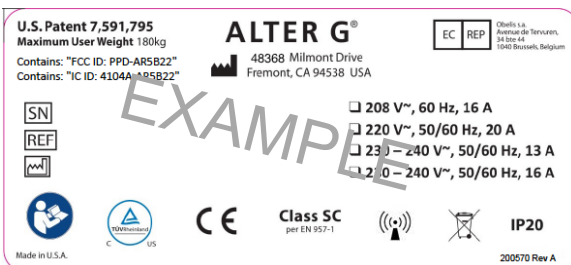
The treadmill belt DOES NOT LOCK when stopped. The belt may slide if enough force is applied. Use caution when leaning on the cockpit for support, in addition to entering and exiting the Anti-Gravity Treadmill.

### Label #4



The emergency stop label indicates where you should place the emergency stop magnet prior to exercising. In use if any sort of emergency should arise, a tug on the attached lanyard will displace the magnet and stop the treadmill. The label is located on the front of the cockpit structure.

### Label #5



This label is located at the front of the treadmill on the base frame. AlterG manufactures the AlterG Anti-Gravity Treadmill in its facilities in Fremont, California, USA.

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### Label #6

**CAUTION** — To reduce the risk of injury from moving parts, unplug before servicing.  
**WARNING** — To reduce the risk of electrical shock, unplug before cleaning or servicing.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference.  
(2) This device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus complies with Canadian ICES-003  
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

115127 Rev A

Located at the front of the treadmill on the base frame. AlterG complies with EMC (Electromagnetic Compatibility) market requirements in the US and Canada.



**CAUTION: To Reduce The Risk Of Injury From Moving Parts, Unplug Before Servicing.**



**WARNING: To Reduce The Risk Of Electrical Shock, Unplug Before Cleaning or Servicing.**

# Anti-Gravity Treadmill Maintenance

To ensure the safe operation and longevity of your AlterG Anti-Gravity Treadmill, periodic maintenance should be performed. For the more complex tasks **AlterG recommends that you employ the services of a qualified technician.**



**WARNING: Make sure the AlterG Anti-Gravity Treadmill is turned off and unplugged before performing any of the maintenance detailed below.**

## General Cleaning and Inspection

Periodic cleaning and inspection will help lengthen the life of your treadmill and keep it looking good. The biggest contributor to the failure of the machine will be dirt and debris accumulation inside the treadmill. To prevent this, ensure users always wear clean shoes while they exercise. Because the Anti-Gravity Treadmill is a sealed system, the presence of dirt and debris greatly reduces the longevity of the product.

Keeping the system clean will also make it easier to spot any problems that might not otherwise be found until it is too late. Below is a general guideline on cleaning and maintenance intervals. If the treadmill is in a dirty environment or under heavy use, cleaning and inspection intervals should occur more frequently. Do not use abrasive brushes or cleaners, as they will mar and scratch the paint and plastic surfaces. Also, do not soak any surface with a liquid, as the electronics can be damaged or when wet may, pose an electrical hazard.

### Daily

1. Inspect the interior of the fabric enclosure for any loose debris and remove.
2. Check for abnormal operation.
3. Ensure that there are no unusual performance characteristics such as:
  - Unusual sounds (from the treadmill, air blower, or fabric enclosure such as hissing or air leaks).
  - Unusual sights or smells that appear out of the ordinary.
  - Any operational characteristics that have changed such as reduced speed of treadmill or erratic or low fabric enclosure pressure (Note that low fabric enclosure pressure can be a cause of a mis-calibration so ensure that you have properly followed the calibration steps before you determine there is a pressurization problem).

### Weekly

1. Check overall condition of the treadmill.
2. Inspect the fabric enclosure for tears or leaks.
3. Wipe down exterior surfaces with a damp cloth. A mild soap solution can be used. IMAR™<sup>4</sup> Strataglass Cleaner is recommended for cleaning the clear windows.
4. Clean the control console with a mild soap solution to remove grime.
5. Vacuum the interior of the fabric enclosure through the access hole in the top. You can position the cockpit in the highest position and crawl inside for better access.
6. Check shorts for rips or holes.

### Monthly

Perform weekly maintenance items, and, in addition, do the following:

Feel the surface of the deck under the tread belt. It should feel slick and slightly moist with lubricant. If there is debris accumulation or if it is dry or tacky perform the following:

1. Wipe the deck and underside of the tread belt with a clean towel. Rotate the belt to expose the remaining section and wipe again.

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<sup>4</sup> IMAR is a trademark of IMAR Products, LLC. Manassas, VA.

2. Apply one 1-ounce packet of SlipCoat<sup>5</sup> under the tread belt. Walk for one minute on the treadmill at a low speed to disperse the lubricant. SlipCoat is very slippery. If you get it on the top surface of the belt or railings, clean with rubbing alcohol and a sponge.

SlipCoat may be found online, or you can order it directly from AlterG.

### **Annually**

**Note:** AlterG recommends that you have a qualified technician perform the annual maintenance.

Perform the following procedures annually:

1. Inspect all nuts and bolts. Tighten any that are loose.
2. Clean the running surface; if necessary, use a bristle brush to remove heavy grime.
3. Check and adjust tread belt alignment if needed.
4. Wipe down the treadmill deck under the tread belt.
5. Lubricate the treadmill deck with SlipCoat.
6. Vacuum under the treadmill motor cover.
7. Adjust the drive belt tension. Replace the belt if worn or damaged.
8. Inspect the treadmill motor brushes and replace if worn below 3/8 inch. Dress the commutator if needed.

### **Seasonally**

In autumn and winter, the drier climate in many regions of the country may cause a static charge build-up to occur when the treadmill is used. Spray the running surface with a Staticide spray to prevent static shock to treadmill users and to prevent interference with the treadmill's electronic systems. A worn-out tread belt can also contribute to a static problem. Examine the belt for excessive wear and replace if necessary.

## **Cleaning the Windows**

The windows on your Anti-Gravity Treadmill are made of Strataglass<sup>TM6</sup>. Special care must be taken to ensure they remain clean and clear. Strataglass recommends the use of IMAR Strataglass Protective Cleaner for general cleaning. Other cleaning products may dull the clear finish. You should do this cleaning regularly (about once a week, depending on usage).

Once annually, apply IMAR Strataglass Protective Polish. A coat of polish protects against pollutants and will help to keep the Strataglass clear and flexible. Both products are available from AlterG.

## **Shorts**

Always remove your shoes when getting in and out of the shorts if at all possible. Keeping your shoes on while putting on the shorts creates a great deal of stress on their seams and **WILL SIGNIFICANTLY REDUCE THE LIFE OF YOUR SHORTS.**

Wash the shorts frequently to keep them sanitary. **HAND WASH OR USE A GENTLE WASH CYCLE WITH COLD WATER AND LET AIR DRY. DO NOT PUT SHORTS IN THE DRYER!**

Lubricate the zipper on the shorts as needed. Zip Care<sup>TM7</sup> is a readily available product designed for this application and is available online or from AlterG.

If any part of the shorts wears out (for example, wire, seams, and so on), discontinue use.

## **Fabric Enclosure Maintenance**

Check the fabric enclosure for any leaks and note any large abnormal hissing sounds. A small leak at the corners of the base or through the shorts and zipper is normal. If these or other leaks start affecting the

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<sup>5</sup> SlipCoat is a product of Landice Inc., Randolph, New Jersey.

<sup>6</sup> Strataglass is a trademark of Strataglass, Inc., Fort Lauderdale, FL

<sup>7</sup> Zip Care is a trademark of McNett Corporation, Inc., Bellingham, WA

maximum pressure capabilities of the Anti-Gravity Treadmill system, contact AlterG for troubleshooting and support.

**Note:** It is highly recommended that you employ the services of a qualified technician to perform the following maintenance tasks.

- Adjusting tread belt tracking
- Adjusting tread belt tension
- Adjusting drive belt tension
- Motor brush inspection/replacement

## Appendix A: Anti-Gravity Treadmill Specifications

### Models Via 400, 400x

Fits individuals from 4'8" (142cm) to 6'4" (193cm); 18.5" (47cm) hip width, 58" (147cm) hip circumference.

### Performance

- User weight capacity: 85 – 400lbs (181.4kg)
- Body Weight Range Adjustment:
  - Up to 320lbs (145.2kg) 20% – 100% of user's body weight
  - >320lbs (145.2kg) 35% - 100% of user's body weight
- Running surface area:
  - 20" (51cm) wide
  - 58" (147cm) long
- Speed range:
  - 400
    - Forward: 0 – 12mph (19.3km/hr)
    - Reverse: 3mph (4.8km/hr)
  - 400x
    - Forward: 0 – 15mph (24.1km/hr)
    - Reverse: 5mph (8.0km/hr)
- Elevation: 0% - 15%

### Dimensions

- Length: 84" (213cm)
- Width: 38" (96.5cm)
- Height: 74" (188cm)
- Weight: 750" (340kg), approximately
- Step-up height: 8" (20cm)

### Recommended Room Dimensions

- Provide a footprint at least 12ft (3.66m) long by 8ft (2.44m) wide for adequate spacing around the machine
- A minimum 8ft (2.44m) ceiling height is recommended

### Electrical

- Power Requirements: 220 VAC 20A, 50/60 Hertz, NEMA 6-20R receptacle
- Locate the front of the system within 10ft (3.05 meters) of the electrical outlet.

### Environmental Operating Conditions:

- Ambient Temperature: 55°F to +84°F (+13°C to +29°C)
- Relative Humidity: 20% to 95%

### Environmental Transportation and Storage Conditions:

- Temperature Range: 0°F to +120°F (0°C to +49°C)
- Relative Humidity: 20% to 95%<sup>f</sup>

## Appendix B: Accessories and Options

### **AlterG Shorts**

Available in the following standard sizes: 3XS, 2XS, XS, S, M, L, XL, XXL, XXXL, 4XL. Performance 2.0 shorts available in the following sizes: 3XS, 2XS, XS, S, M, L, XL, XXL, XXXL. Custom sizes and features are available as options, as well.

### **Replacement Safety Magnet**

The Anti-Gravity Treadmill will not operate without the safety magnet

### **Zip Care Zipper Lubricant**

Prolong the life of your fabric enclosure and zipper.

### **Strataglass Cleaner**

Keep the viewing area clear with this special cleaner.

### **SlipCoat**

One-ounce packets of lubricant made specifically for the Landice Treadmill. Used as recommended will help prevent premature failure due to friction and excessive wear.

*Contact your AlterG Sales representative for pricing and ordering.*

## Appendix C: Troubleshooting

In most cases any repairs to your Anti-Gravity Treadmill will need to be completed by an AlterG qualified technician. There are, however, many things that you can do to troubleshoot problems before a repair technician will be required.

### Repairs

Contact your AlterG representative for any repairs. You may also request repairs at **support@alterg.com**. Before doing so, please investigate the following questions, so that we are able to help you as quickly as possible.

- What is the serial number of the Anti-Gravity Treadmill? This information can be found on the base of the machine. Look for the manufacturer's label.
- What happened prior to the problem?
- Did the problem happen unexpectedly, or did it get progressively worse over time?
- If it is a noise problem, from where does the noise originate?
- Was someone using the treadmill at the time the problem occurred?
- Explain any other symptoms that you feel are relevant.
- Does the screen display any other error messages?

### Diagnostic Codes

The Via 400 series Anti-Gravity Treadmill performs numerous operational checks to ensure the system is working properly. If the pressure control system or the treadmill is not operating within specification, an error code will be displayed on the touch monitor.

Write down any observed error codes prior to calling AlterG Customer Support (510-270-5369).

## Appendix D: EMC Statement

### Warning:

- The VIA 400 Anti-Gravity Treadmill needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this manual.
- Portable and mobile RF communications equipment can affect the Anti-Gravity Treadmill
- The use of accessories, transducers and cables other than those specified by Alter-G Incorporated, may result in increased EMISSIONS or decreased IMMUNITY of the EQUIPMENT.
- This EQUIPMENT should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the EQUIPMENT should be observed to verify normal operation in the configuration in which it will be used.
- List of all cables and maximum lengths. Include manufacturer, model number or part number
- List of all accessories and transducer. Include manufacturer, model number or part number.

Guidance and manufacturer's declaration – electromagnetic emissions		
The EQUIPMENT is intended for use in the electromagnetic environment specified below. The customer or the user of the EQUIPMENT should assure that it is used in such an environment.		
Emissions Test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The EQUIPMENT uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class A	The EQUIPMENT is suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage Fluctuations/ Flicker emissions IEC 61000-3-3	Complies	

Table 1. Electromagnetic Emissions

<b>Guidance and manufacturer's declaration – electromagnetic immunity</b>			
The EQUIPMENT is intended for use in the electromagnetic environment specified below. The customer or the user of the EQUIPMENT should assure that it is used in such an environment.			
<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment – guidance</b>
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical domestic, commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical domestic, commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % <i>UT</i> (>95 % dip in <i>UT</i> ) for 0,5 cycle 40 % <i>UT</i> (60 % dip in <i>UT</i> ) for 5 cycles 70 % <i>UT</i> (30 % dip in <i>UT</i> ) for 25 cycles <5 % <i>UT</i> (>95 % dip in <i>UT</i> ) for 5 sec	<5 % <i>UT</i> (>95 % dip in <i>UT</i> ) for 0,5 cycle 40 % <i>UT</i> (60 % dip in <i>UT</i> ) for 5 cycles 70 % <i>UT</i> (30 % dip in <i>UT</i> ) for 25 cycles <5 % <i>UT</i> (>95 % dip in <i>UT</i> ) for 5 sec	Mains power quality should be that of a typical domestic, commercial or hospital environment. If the user of the EQUIPMENT requires continued operation during power mains interruptions, it is recommended that the EQUIPMENT be powered from an uninterruptible power supply or a battery.
(50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical domestic, commercial or hospital environment.
NOTE <i>UT</i> is the a.c. mains voltage prior to application of the test level.			

Table 2. Electromagnetic Immunity

Recommended separation distances between portable and mobile RF communications equipment and the EQUIPMENT			
The EQUIPMENT is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the EQUIPMENT can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the EQUIPMENT as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.2\sqrt{P}$	80 MHz to 800 MHz $d = 1.2\sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance $d$ in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where $P$ is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.			
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Table 3. Distance Recommendation


Guidance and manufacturer's declaration – electromagnetic immunity			
The EQUIPMENT is intended for use in the electromagnetic environment specified below. The customer or the user of the EQUIPMENT should assure that it is used in such an environment.			
Immunity test	IEC 60601 Test Level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	<p>Portable and mobile RF communications equipment should be used no closer to any part of the EQUIPMENT, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p><b>Recommended separation distance</b></p> <p><math>d = 1.2\sqrt{P}</math></p> <p><math>d = 1.2\sqrt{P}</math> 80 MHz to 800 MHz <math>d = 2.3\sqrt{P}</math> 800 MHz to 2.5 GHz</p> <p>where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey <sup>a</sup>, should be less than the compliance level in each frequency range. <sup>b</sup></p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> <div></div>
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	
<p>NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p> <p><sup>a</sup> Field strength from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the EQUIPMENT is used exceeds the applicable RF compliance level above, the EQUIPMENT should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the EQUIPMENT.</p> <p><sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>			

Table 4. Electromagnetic Immunity

## Appendix E: Wi-Fi Specifications

WiFi portion Specifications:	
Main Chipset	Atheros® AR9462
Tx/Rx	2T2R
Standard Conformance	802.11a, 802.11b, 802.11g, and 802.11n
Frequency Range	<ul style="list-style-type: none"> <li>USA: 2.400 – 2.483GHz, 5.15 – 5.35GHz, 5.47 – 5.725GHz, 5.725 – 5.85GHz</li> <li>Europe: 2.400 – 2.483GHz, 5.15 – 5.35GHz, 5.47– 5.725GHz</li> <li>Japan: 2.400 – 2.497GHz, 5.15– 5.35GHz, 5.47 – 5.725GHz</li> <li>China: 2.400 – 2.483GHz, 5.725 – 5.85GHz</li> </ul>
Form Factor	half mini card
Interface	PCI Express ® mini-card rev. 1.2 (WLAN)
Channel Spacing	20MHz
Operating Channels	<ul style="list-style-type: none"> <li>802.11a/n <ul style="list-style-type: none"> <li>USA/Canada: 12 non-overlapping channels</li> <li>Major Europe Countries: 19 non-overlapping channels</li> <li>Japan: 19 non-overlapping channels</li> <li>China: 5 non-overlapping channels</li> </ul> </li> <li>802.11b/g/n <ul style="list-style-type: none"> <li>USA/Canada: 11 (1-11)</li> <li>Major Europe Countries: 13 (1-13)</li> <li>France: 4 (10-13)</li> <li>Japan: 14 on 802.11b (1-13 or 14th), 13 on 802.11g (1-13)</li> <li>China: 13 (1-13)</li> </ul> </li> </ul>

Table 5. Wi-Fi Specifications

PRODUCT	1X1 802.11b/g/b – BT Combo PCIe minicard
MODEL NO.	AR5B225
FCC ID	PPD-AR5B225
IC ID	4104A-AR5B225
POWER SUPPLY	DC 3.3V from host equipment
MODULATION TYPE	GFSK, $\pi/4$ -DQPSK, 8DPSK
MODULATION TECHNOLOGY	FHSS
TRANSFER RATE	3/2/1 Mbits/s
OPERATING FREQUENCY	2402MHz ~ 2480MHz
NUMBER OF CHANNELS	For Bluetooth 2.1+ EDR: 79 For Bluetooth 4.0: 40 (37 hopping + 3 advertising channel)
MAXIMUM OUTPUT POWER	GFSK: 9.8 mW 8DPSK: 12.4 mW $\pi/4$ – DQPSK: 12.0 mW

Table 6. General Description of Wi-Fi Card

## Appendix F: Warranty

Your Anti-Gravity Treadmill is covered by the following warranty:

- One-year parts and labor for the entire machine.

Warranty: AlterG warrants to Customer that the Anti-Gravity Treadmill is free from manufacturing defects for a period of one (1) year from original date of purchase. The warranty does not cover damage or equipment failure due to misuse, user or other damage, or failure to comply with environmental, electrical requirements and maintenance as outlined in the Anti-Gravity Treadmill User Manual. Any customer modification, disassembly and moving without AlterG Service oversight, or transfer of ownership of the Anti-Gravity Treadmill voids the Warranty and extended Warranty. We invite you to please contact our Customer Success team to allow us to help facilitate the process for you in any circumstance.

### **Via 400 Series**

Extended Warranty:

AlterG offers an Extended Warranty on a year by year basis for the Via 400 Anti-Gravity Treadmill as follows:

If you purchase the Extended Warranty at the time of your purchase, AlterG will provide one (1) free preventative maintenance check and service of the Via 400 by a qualified technician at the end of the first year of use.

An Extended Warranty may be purchased after the sale and installation of the AlterG. For more information, contact your authorized representative or AlterG.

During the Warranty period or Extended Warranty period, AlterG or its authorized service technician will diagnose and repair your Via 400 Anti-Gravity Treadmill including parts and labor. The service can range from phone calls and emails to onsite service visits as necessary. If you choose not to purchase an Extended Warranty from AlterG, you will be billed at the then current rates for parts and labor plus any travel and/or shipping needed for any service of the product after the initial one (1) year Warranty expires.

Neither the Warranty nor the Extended Warranty covers lost business opportunity due to your Via 400 Anti-Gravity Treadmill being out of service, nor do the Warranty or the Extended Warranty cover any damage or equipment failure due to misuse and other user damages. This includes failure to comply with environmental and electrical requirements, as well as the maintenance upkeep protocols outlined in the Via 400 Anti-Gravity Treadmill User Manual. Any customer modification of the Via 400 Anti-Gravity Treadmill voids the Warranty. If you must disassemble the Via 400 Anti-Gravity Treadmill to move it, doing so without an AlterG qualified technician will void the Warranty as well.