
Overview

Q. What is ZeroG-Passive?

ZeroG-Passive is an easy-to-use system that provides patients the ability to safely practice overground walking and balance activities. The patient's harness connects to the small ZeroG-Passive trolley that glides smoothly along a ceiling-mounted track. This results in full protection against falls while maintaining its orientation above the patient. Because the Passive trolley weighs less than 5 pounds and uses wheels with precision bearings, it is nearly imperceptible to patients.

Q. Is ZeroG-Passive registered with the FDA?

Yes, ZeroG-Passive is listed with the FDA under Aretech's registration number (3007797030).

Q. How is ZeroG-Passive different from the full ZeroG System?

ZeroG-Passive provides only static body weight support and does not have any motors, electronics or computers. The therapist manually adjusts the Passive's harness straps in order to adjust the amount of tension the subject receives. In addition, as the patient walks, ZeroG-Passive moves along the track due to tension in the unloading ropes rather than being actively moved with a motor.

Conversely, ZeroG is controlled through software by a therapist where the type of body-weight support (e.g. static vs dynamic) as well as the trolley behavior can be adjusted with the press of a button on the computer. Also, the active trolley of ZeroG automatically moves the system as the subject walks and can create soft walls around the patient when in balance mode.

Q. What is included in a complete ZeroG-Passive system?

The complete ZeroG-Passive system comes with the following:

- a. Two Passive trolleys capable of static unloading a patient up to 450 lbs
- b. Custom powder-coated aluminum track system installed in customer facility per client's request for shape and length (up to 50 feet included, additional installation costs may apply)
- c. Installation process approved by licensed structural engineer
- d. Three Aretech harnesses (medium, large, x-large. Other sizes can be substituted per customer's request)
- e. Detailed user manual
- f. 2-year warranty on all parts
- g. Free telephone support (M-F, 8 am – 8 pm EST)

Q. Can ZeroG-Passive be purchased by customers who have ZeroG?

Yes. ZeroG-Passive and ZeroG utilize the same type of track. For current or future ZeroG customers, ZeroG-Passive trolleys can be purchased as an accessory to ZeroG. Installation of ZeroG-Passive on the ZeroG track can be done within minutes.

Q. Can facilities upgrade to ZeroG if they first purchase ZeroG-Passive?

Yes. Since both systems utilize the same type of track, customers can upgrade to ZeroG after purchasing ZeroG-Passive. The upgrade can normally be done in one day, minimizing disruptions to the clinical treatment schedule.

Clinical Use

Q. What patient populations are appropriate to use ZeroG Passive?

ZeroG-Passive is a highly versatile gait rehabilitation tool that may be used by any patient population that could benefit from body-weight support while performing locomotion or other weight bearing exercises, including stroke, traumatic brain injury, spinal cord injury, multiple sclerosis, cerebral palsy, orthopedic patients, and amputees.

Q. Can ZeroG-Passive training be billed to health-care providers and Medicare?

Yes, ZeroG-Passive gait training is normally billed using standard gait training codes.

Q. What is the biggest patient that can use ZeroG-Passive?

The largest patient that can use ZeroG-Passive is 400 lbs.

Q. Since Passive is not motorized, does the patient need enough strength to pull the trolley along?

Yes, however because there is minimal friction in the trolley, very little strength is required.

Q. How fast can patients walk in ZeroG-Passive?

Since ZeroG-Passive moves along the rail through tension in the straps that connect to the patient's harness, there is no limit in movement speed. Essentially ZeroG-Passive can move as fast as the patient, even if they run in the system.

Q. How is the amount of tension adjusted in ZeroG-Passive?

ZeroG-Passive provides patients static body-weight support during gait and balance activities. The system is designed for easy adjustment of rope length and tension using ratcheting mechanisms. Throughout a therapy session, the rope tension can easily be adjusted depending on how well the patient is doing.

Q. Can I use multiple ZeroG-Passive trolleys on the same track?

Yes. The complete ZeroG-Passive system comes with 2 trolleys. If more than 2 ZeroG-Passive trolleys are going to be used on the same track, this will increase the installation costs since the track will have to be supported more frequently.

Q. Since Passive does not have dynamic body weight support, does it give an abrupt stop or 'jerk' when preventing a fall?

In addition to a small amount of elasticity in the rope, the harness placed around the patient's torso normally distributes the pressure over a wide area, providing a cushioning effect during a fall.

Q. Does the ZeroG-Passive Trolley have a braking mechanism?

The trolley itself does not have any braking or stopping mechanisms. In fact, the trolley rolls with minimum friction even when fully loaded, which enables patients to perform locomotion exercises even with a significant amount of body weight support. For patient safety, however, the Passive system does include track-mountable bumpers that limit the range of trolley movement.

Q. Can ZeroG-Passive be used with a treadmill?

Yes. Woodway treadmills are sold as accessories for ZeroG and ZeroG-Passive.

Q. Other advantages of ZeroG Passive?

Unlike gantry-based gait training systems, there is no heavy device that the therapist must move along as the patient walks. ZeroG-Passive glides along the overhead track. Also, since there are no barriers between the patient and the therapist, this truly encourages patient-therapist interaction.

Installation and Facility Facts

Q. What are the ceiling height requirements in order to install ZeroG-Passive?

The minimum ceiling height, from floor to the drop down tiles, is 8 feet. If possible, the optimal ceiling height is 10 feet. Most hospitals will have a drop down ceiling below the main substrate, such as concrete or I-beams. The maximum distance between the floor and the main substrate (e.g. the concrete slab or I-beams) is 17 feet. If the distance is greater than this, the customer should consider a floor-mounted, free-standing system. Aretech will work with the facility to determine the proper installation method.

Q. How is the system attached to the ceiling?

Most hospitals have concrete floors or I-beams as their main structure, which are hidden by the drop down ceiling tiles. The track of ZeroG-Passive is mounted directly to the main structure of the building (e.g. the concrete or I-beams), making it very strong. A licensed structural engineer designed the track mounting system, which meets Federal building codes.

Q. What kinds of substrate can ZeroG-Passive be installed in?

We can install our system into buildings that have steel reinforced concrete, steel corrugated pan, I-beams and even wood. For the first two kinds of substrate, we drive Hilti anchors into the concrete and then suspend the beam from these anchors. For I-beams, we simply clamp our track to the I-beams while for wood, we utilize special bracing. A licensed structural engineer designed our support system and reviews each installation. If the hospital does not have one of these substrates, contact us and we can work with our engineers to see if a solution can be found. A free-standing option is also available.

Q. How long does it normally take to install the ZeroG-Passive track?

On average, it takes about 25-30 hours to install the track in the customer's facility. We require the area where the system will be installed closed off for safety reasons. We work closely with the clinical staff to try and minimize the inconvenience to the staff during the installation process.

Q. Can installations be done over a weekend?

Yes, our installation team is available to install systems over weekends at no additional costs.

Q. Does the price of ZeroG include installation and is it the same price for any length & shape track?

The price of ZeroG-Passive includes a powder-coated track installed at the customer's facility that is up to 50 feet long. However the included cost is for a 30-hour installation in a facility that has steel reinforced concrete or steel corrugated pan. Additional installation costs may occur if any of the following is true:

- The building has asbestos or other hazardous materials
- The installers have restricted access to the space where the system will be installed (e.g. less than 10 hours per day)
- The track needs to be installed in anything but concrete (e.g. I-Beams or wood)
- The location where the track will be installed is changed requiring modifications to the track already built (based on site survey) and/or change in installation method (e.g. different substrate, presence of hazardous materials, etc)
- Information provided to Aretech prior to the installation is incorrect which delays the installation beyond 30 hours
- Delays due to facilities personnel halting an installation who:
 - Request information that should have been asked for prior to installation (e.g. details of installation methods, documentation, etc).
 - Specify facility policies that are not consistent with OSHA regulations

During the site-survey of the customer's facility, we will determine what, if any, additional installation costs will occur. These additional costs will be included in the quotation. If delays occur due to the last point, costs will be added to the final invoice per the Terms and Conditions included in the quotation.

Q. Can ZeroG-Passive be installed in buildings that have asbestos?

Yes, our installers have extensive training installing our systems in ceilings that contain asbestos. The customer is expected to seal off the room and have an asbestos abatement team available during the installation.

Q. What are the options for track length and shape?

There is no maximum length for the ZeroG-Passive track. A 50-foot track is included in the price however additional lengths and/or curves can be added for additional costs. Tracks can be straight, have curves, or even be an oval or closed loop path.

Q. Is there a free-standing option that is not mounted to the ceiling?

Yes, we can mount the track on floor-mounted gantries as well as booms that can be mounted off the walls. Please contact us to discuss track-mounting options.

Q. What kind of training do therapists require to use ZeroG-Passive?

ZeroG-Passive is extremely easy to use. With each system, we include a DVD therapist training video that carefully explains how to use ZeroG-Passive. Each system also comes with a detailed user manual describing step by step instructions outlining the system's use. Aretech's clinicians are also available to help answer any questions regarding training patients with ZeroG-Passive.

Q. How often does ZeroG-Passive need to be serviced?

After the system is installed, routine inspections of the system should be done. This includes checking the straps on the harnesses, the rope ratchets and other components. We also recommend that the maintenance staff check the track installation hardware every 12-months to be sure nothing is loose or worn.

Q. Is there a service contract available for ZeroG-Passive?

No, there is no service contract for ZeroG-Passive. We ask the facility to perform routine inspections on the system and semi-annual inspections on the track hanging hardware. If any problems are found on the system, the customer can ship ZeroG-Passive back to Aretech for service and repair. They will be responsible for shipping costs as well as parts and labor. If problems are found with the track, the customer can request a certified Aretech technician to come to their facility however they will be required to pay for the technicians travel expenses (air, hotel and food) as well as a daily rate of \$750.