NeuroGym Technologies Inc.

Bungee Mobility Trainer

Product Manual

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Product Overview

The Bungee Mobility Trainer is a versatile body weight support mechanism enabling safe, intensive motor retraining. It's unique design enables the movements necessary to re-train an individual's gait and natural protective reactions by counteracting loss of stability as naturally as possible. In this respect the BW mimics a pool environment in terms of body weight support, without the resistance of water to movement. The unique free-moving and height-adjustable seat in combination with the bungee cord mechanism allows the individual graduated support until they re-develop normal protective reactions such as side stepping when off balance. Full body weight support can be adjusted to occur in the Bungee Mobility Trainer only if the patient completely looses their balance. Other Body-Weight-Support systems that hold the patient from above, do not allow this graduated support, and therefore don't allow the same degree of 'real-life' practice of gait and, most importantly, the protective reactions necessary to prevent falls.

Specifications

28" x 37" x 48"

Weighs 140 lbs

Supports up to 400 lbs

Benefits

ENHANCE REACQUISITION OF MOTOR ABILITIES

Early mobilization of patients is often limited by the lack of a safe, effective way to initiate gait training. The Bungee Mobility Trainer permits graduated weight bearing and provides the safety and mobility necessary to retrain protective reactions like sidestepping and one leg stance.

IMPROVE BALANCE

Static and dynamic stability can be retrained because of the graduated body weight support mechanism which enables the client to increase the amount of weight bearing as their strength, stamina and mobility improve. The rolling wheels allow for movement in any direction, enabling a patient to improve lateral, forward and backward mobility crucial abilities for redeveloping the protective and corrective reactions necessary for safe ambulation.

REDUCE NUMBER OF THERAPISTS NEEDED

The Bungee Mobility Trainer permits safe ambulation with graduated support, allowing patients to move freely and rest as needed on the seat. In some cases the client may even ambulate independently.

IMPORTANT: Read all instructions and precautions prior to using the Bungee Mobility Trainer

List of Precautions for the Bungee Mobility Trainer

1. Inspect the bungee cords regularly to ensure that the rubber has not become weakened or cracked. Also check that the bungee cords are well secured to the clips and that the clips are fastened properly to the Bungee Mobility Trainer.

2. Always use the brakes while bringing an individual into and out of the Bungee Mobility Trainer. The individual should be closely supervised at any point that he/she is not completely fastened into the walker.

3. Unless indicated and supervised by a therapist, the Bungee Mobility Trainer should not be used with individuals who have extremely weak ankles, especially if the individual cannot support his/her body weight with the upper extremity.

4. If the individual has a tendency to fall forward, the pelvic support alone will not prevent the upper body from folding forward. If the therapist/trainer is not positioned in front of the Bungee Mobility Trainer, always use the harness to prevent extreme forward displacement of the upper body.

5. Ensure that the individual does not get his/her foot caught between the base of the Bungee Mobility Trainer and the floor. If the individual naturally assumes a wide stance, widen the frame by opening the legs at the front of the base.

6. While sitting down, make sure that the individual rests his/her back against the backrest and does not lift up his/her feet. It is possible for the individual to partially slip between the space between the seat and the backrest if the above measures are not taken.

7. Supervise the individual at all times that he/she is in the Bungee Mobility Trainer.

8. Take care to provide a safe training environment. The floor should be flat, even and free from debris. The Bungee Mobility Trainer should not be used near a stairway.

9. When training in the Bungee Mobility Trainer at high speed (e.g. running), use caution not to bump into other people or objects.

For Service or Part information call:
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Unpacking Instructions

The Bungee Mobility Trainer is shipped fully assembled on a 4x4 skid. Remove the protective wrapping. Remove and discard the foam pad protecting the Locking Pin Assembly. The information package supplied includes a CD that contains an orientation video on the use of the Bungee Mobility Trainer. This video is also available for viewing on our website:
http://www.neurogymtech.com/video/

After packaging has been removed, unlock the wheels by flipping the wheel lock levers up and roll the walker off the skid. Once off the skid, lock the wheels for the next steps.

During shipping, the handlebars are turned to face backward. These must be removed and turned to face forward. To remove, use the Positioning Pin Assemblies on the handle bars. (See Figure 2). Turn the locker ring half a circle counterclockwise. Then pull out the Positioning Pin to disengage the pin and slide the handlebar up and out of the Bungee Mobility Trainer frame. Turn the handlebar to face forward (Figure 1) and slide back into the Bungee Mobility Trainer frame. Several pre-drilled holes are available to adjust the height of the handlebars according to client needs. Secure the Positioning Pin Assembly by turning the locker ring clockwise until hand-tightened.

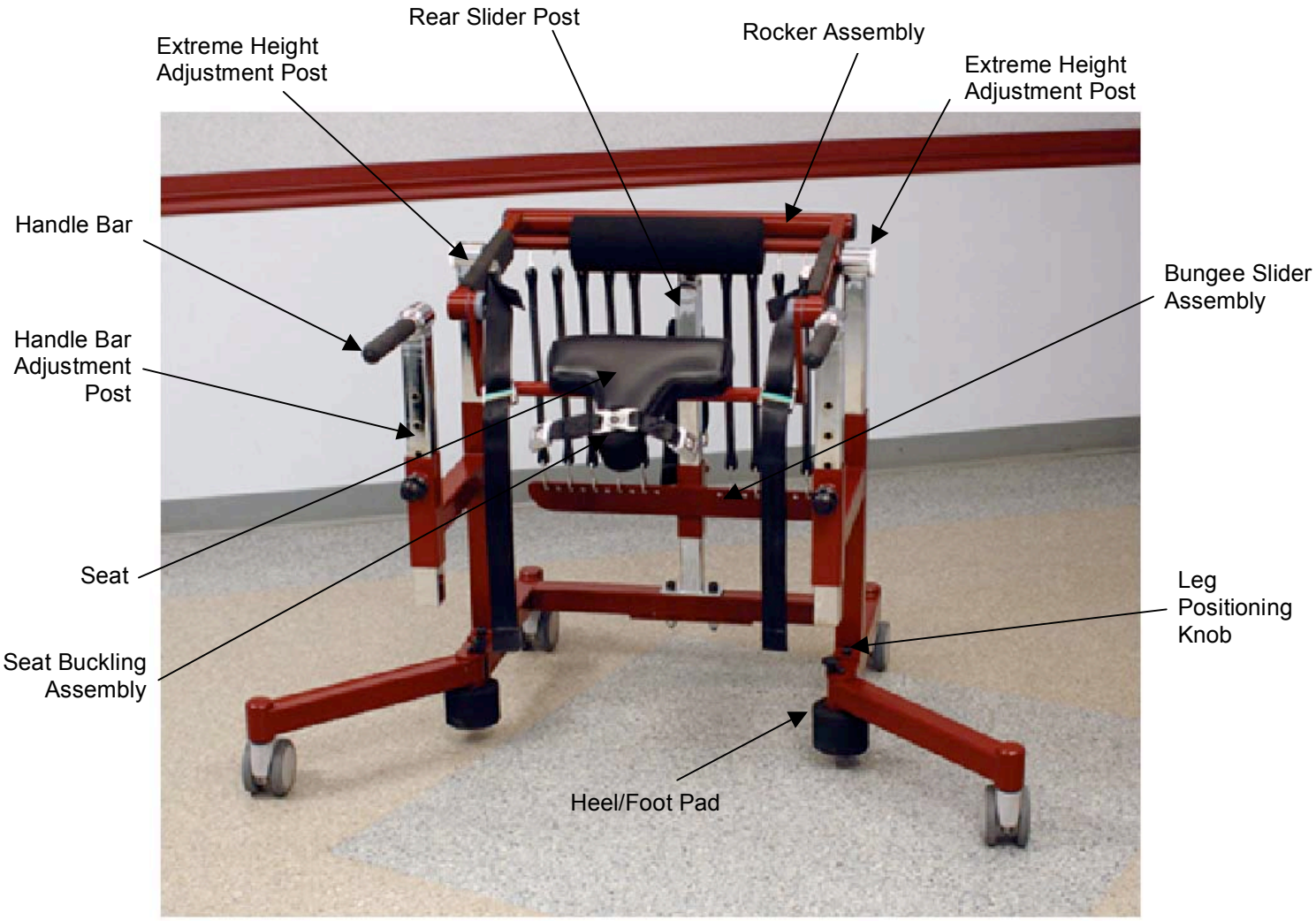
Identifying the Parts of the Bungee Mobility Trainer

(See Figure # 1)

Positioning Pin Assemblies – 5
- 2 Extreme Height
- 2 Handle Bar
- 1 Seat Adjustment

Rocker Assembly
Extreme Height Adjustment Posts – 2
Seat
Seat Buckling Assembly
Bungee Slider Assembly
Bungee Cords – 10
"S" Hooks – 10
Rear Slider Post
Harness Buckling Assembly
Handlebar Adjustment Posts – 2
Leg Positioning Knobs – 2
Heel/Foot Pads – 2
Wheel Locks – 4

Figure #1 – Bungee Mobility Trainer



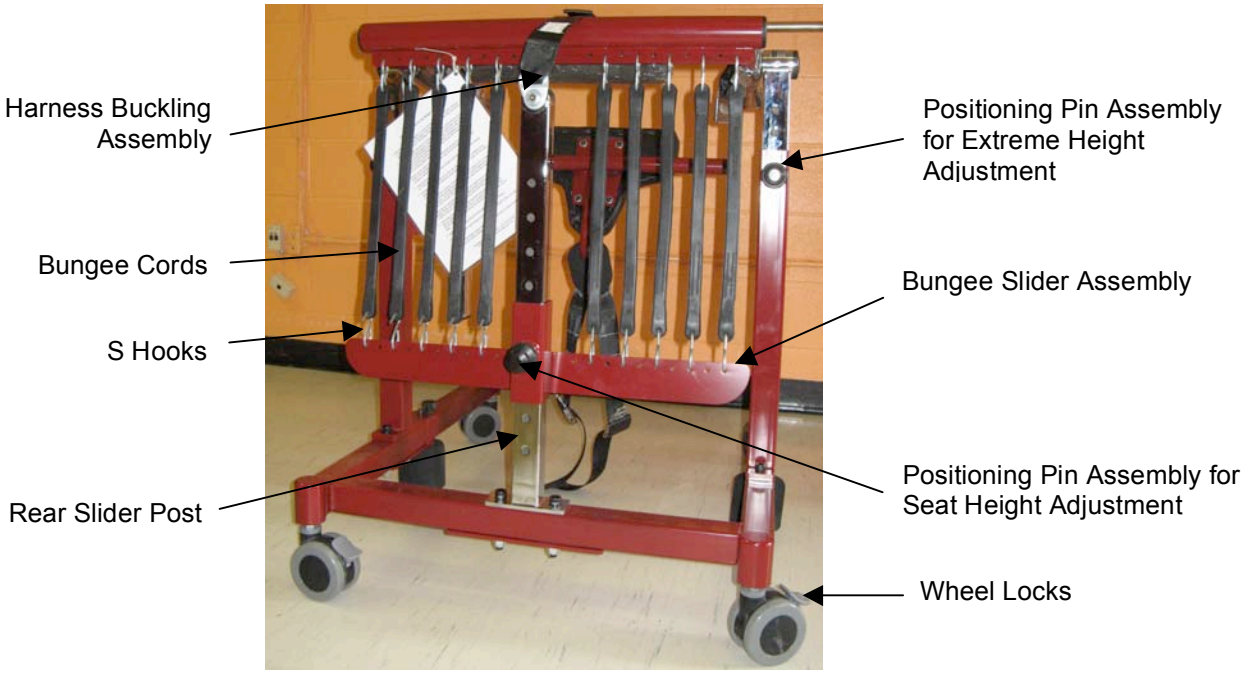
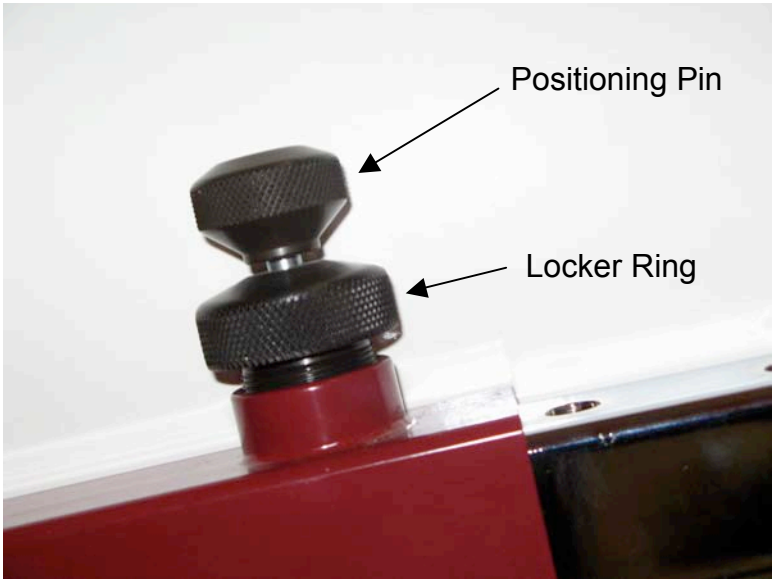


Figure #2 – Positioning Pin Assembly



Instructions for Use

Using the Positioning Pin Assemblies

There are 5 Positioning Pin Assemblies on the Bungee Mobility Trainer. The function of these are to allow adjustments for particular clients. The Positioning Pin Assemblies are composed of two parts, the Positioning Pin and the Locker Ring. (See Figure 2). The Locker Ring is only required to be rotated ½ turn counterclockwise to loosen the Assembly. The Positioning Pin can only be pulled out when the Locker Ring is loosened. After the Locker Ring is loosened, pull the Positioning Pin out and move the desired component up or down. While moving the desired component, let go of the Locking Pin to allow it to drop into the next setting. Once the desired position is achieved, turn the Locker Ring ½ turn clockwise to secure the assembly.

Extreme Height Adjustment Posts

The Bungee Mobility Trainer is shipped pre-adjusted to a standard height (with three holes open). This height is appropriate for the standard height range of most adults (i.e. 5' – 6'2"), therefore the height adjustment posts will not need to be adjusted very often.

When adjusting the height adjustment posts of the Bungee Mobility Trainer seat for very tall or very short users, raise or lower the rocker assembly one hole at a time in a symmetrical manner. At this point ensure that all the bungee S hooks are vertical. This may be more easily done with two people.

Client Transfer into the Bungee Mobility Trainer

Transfer to the Bungee Mobility Trainer can be done from a Neurogym Sit-to-Stand Trainer (see Other Products), a walker, parallel bars or directly from a wheelchair.

Apply harness (white patch should be visible and facing out).
Fasten upper and lower horizontal harness straps. Avoid adjusting vertical harness straps.

Wheel the Bungee Mobility Trainer up behind the standing client and lock all 4 wheels. The client can continue to use the support of a walker, parallel bars, wall railing or grab bar until fully strapped into the Bungee Mobility Trainer.

Buckle harness to the rear slider post bucking assembly to minimize forward trunk flexion. Connect the Harness Buckling Assembly, located on the rear slider post, to the harness. The harness can be adjusted to either lower harness connection ring or upper harness connection ring, if more restriction of forward flexion is required.

The harness may reduce apprehension in some clients by limiting the degree of forward sway. With close supervision and at the clinician's discretion, training can be done without the harness.

Position the Bungee slider post such that the seat & seat buckling assembly is low enough to easily pass between the client's legs. ***Client must remain standing until seat buckling is completed. It is not safe for the client to sit down until seat belt assembly is secure.***

Connect right and left buckles from the seat buckling assembly to the buckles on the rocker assembly and tighten belt until snug. This will minimize lateral movement on the seat.

Adjusting the Bungee Mobility Trainer Seat Height

Selection of seat height is dependent upon how much support is required by the client. Consult a physiotherapist for the optimum body weight support, however, if the client can support his/her weight comfortably, minimal body weight support is a good rule of thumb.

To adjust the seat height, the client must be standing. Use the Positioning Pin Assembly on the Bungee Slider Assembly to make the adjustment. (See Using the Positioning Pin Assemblies).

When the Bungee Slider Assembly is moved down, the seat moves up, providing more support. When the slide assembly is moved up, the seat moves down, such that that client will be supporting more of their weight.

See "Extreme Height Adjustment Post" section if the client requires large seat height adjustments.

Widening the Bungee Mobility Trainer Legs

The front legs of the Bungee Mobility Trainer are shipped in the neutral position. The Leg Adjustment Knobs in the middle of the legs pull up to allow the legs to move outward to a maximum of 45 degrees. When the leg is in the proper position, the knob will pop down into a hole securing the leg. Reverse this operation to put the legs back to the neutral position. Widening the legs allows the client to take wider side steps (e.g., to kick a soccer ball, dance etc.)

Using the Bungee Mobility Trainer

Unlock the wheels by lifting the wheel lock levers into the up position. The client can begin by sitting on the seat and then move to a standing position. The handlebars can be grasped for support. Initial steps forward, backward and sideways will orient the client to the feel of the Bungee Mobility Trainer and support. Assistance can be given if the client has initial difficulty moving the Bungee Mobility Trainer independently. Encourage the client to try falling backwards so that they experience the security of the graduated support from underneath. Note that while seated, the client should not raise their feet off the floor.

Sample Activities

- forward, backward and sideways ambulation with or without hands
- balancing on one foot
- bouncing, hopping or jumping
- dancing/waltzing
- practicing activities such as putting a golf ball
- playing Wii Fit games safely
- catching games
- Balloon badminton
- Kicking a soccer ball

Client Transfer Out of the Bungee Mobility Trainer

Position the client in the Bungee Mobility Trainer in front of support such as walker, Neurogym Sit-to-Stand Trainer (see other products), wall railing or parallel bars.

Lock all 4 wheels.

The client must be standing while seatbelt assembly is unfastened. Undo the seatbelt and remove the Bungee Mobility Trainer from behind the client.

If the client is stable standing, the harness may be removed while they are standing. If the client is tired or unstable, remove the harness after they are seated.

Maintenance

Inspect bungee cords regularly to ensure rubber is not weakened or cracked.

Ensure bungee cords are secured to “S” clips.

Ensure “S” clips are properly secured to frame.

Clean/disinfect seat and handlebars between uses.

Inspect brakes regularly to ensure proper function

Inspect seatbelts to ensure fastening mechanisms are secure.

Sample Evaluation Sheet

(See Chart #1)

The following sample evaluation sheet may be used with the guidance of a health professional to collect relevant objective measurements to record client progress

NeuroGym® Bungee Mobility Trainer

Sample Client Evaluation Form

NeuroGym® Bungee Mobility Trainer

Name:

Functional Measures of Performance:

	Date														
Distance															
Walking with two hands support															
Walking with one hand support															
Walking with no support															
Time															
Speed of walking 10 meters															
Speed of walking 20 meters															
Step Length															
Number of steps in 10 meters															
Mobility															
Sideways- stepping past a line sideways - # of line crossings in 10 sec															
Forward/Backward- stepping past a line in A-P direction - # of line crossings in 10 sec															
Balance															
One leg stance time (could be gradation from one hand to no hands support (sec)															
Standing time feet together no support (sec)															
Agility															
Jumping/hopping ability (unable-0; threshold with 2 hands-1; able with 2 hands-2; able with 1 hand-3; able with no support-4															
MDS Adjusted Measures of Progress															
G1b: Transfer															
G1c: Walk in room															
G1d: Walk in corridor															
Gg: Change in ADL status															
G1i: Toilet use															
H4: Change in urinary incontinence															
(0: no change; 1: improved; 2: deteriorated)															

MDS Adjusted Scale: 0 - No setup or physical help 1 - Setup help only 2 - 1-person physical assist 3 - 2-person physical assist 8 - ADL did not occur during 7 days

Sample Evaluation Form

Other Products

Sit-to-Stand Trainer

Actively assist the standing motion with support at the knee, trunk and arms to promote early mobility. The NeuroGym® Sit-to-Stand Trainer uses a counter-weight mechanism to provide a safe and effective way to strengthen weight-bearing muscles and increase standing stability and endurance.

Ankle Trainer

Strengthen paretic, sprained or post-surgical ankles by isolating and training targeted muscle groups through a complete range of motion. The NeuroGym® Ankle Trainer is a lightweight, portable device with an axle and foot platform that can be locked into place. This unique design permits training in dorsiflexion, plantar flexion, inversion, eversion, internal and external rotation—motions that are difficult to isolate and specifically strengthen.

NeuroGym Trainer

The NeuroGym® Trainer II is a mobile, multi-faceted biofeedback device designed to help clients regain motor control and coordination. The NeuroGym Trainer II uses input from various sensors to control the action of computer games, for instance to move a paddle to intercept a ball or to steer a car along a track.

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