



Real-time Biofeedback System

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Introduction

Thank you for purchasing TRANSITT[™] from NuStep, LLC.

TRANSITT's innovative technology combines advanced software and responsive hardware with strategically placed sensors to create a versatile isometric and dynamic training system that provides unique performance measurement, training strategies and solutions for outcome-driven wellness and physical training.

NuStep designed and developed TRANSITT based on scientific research and with years of feedback from health care providers and fitness experts working with clients in a variety of settings. TRANSITT offers an innovative approach to training that engages the exerciser and supports improved outcomes.

TRANSITT works to:

- Provide a versatile, safe and easy-to-use tool for physical training and testing
- Offer useful biofeedback to empower users to take control of, and comply with, their training program
- Support identification and correction of asymmetries and deficits to facilitate improvement in user outcomes
- Provide objective data for assessing effectiveness of training programs

Key Features and Benefits:

- **Real-time visual biofeedback** Purposeful displays of real-time objective data for testing and training:
 - Motor control
 - Strength
 - Endurance
- **Easy-to-use and versatile** User friendly menu systems offer significant flexibility in training, with easily programmable tasks for dynamic and isometric, bilateral and unilateral coordinated exercise at varying levels of difficulty.

Welcome to the growing network of NuStep users and thank you for your business.



Important Safety Instructions

A		
This is the safety alert symbol. It is used to call attention to instructions concerning personal safety. Read and obey all safety messages that follow this symbol to avoid possible injury or death resulting from misuse.	CAUTION indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.	WARNING indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

WARNING

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Do not modify this equipment without authorization of the manufacturer.

Use this equipment only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.

Never operate this equipment if it has a damaged cord or plug.

Keep the cord away from heated surfaces.

Never drop or insert any object into any opening.

Do not use outdoors.

Injuries to health may result from incorrect or excessive training.

Heart rate monitoring systems may be inaccurate. Over exercising may result in serious injury or death. If you feel faint stop exercising immediately.

Important Safety Instructions

CAUTION

See your physician before beginning any exercise program.

Supervision is required for users with a disability or medical condition.

Stop exercising if you feel faint or dizzy while using this product, and seek medical help or advice.

Use this product only as directed by your physician if you have any type of heart disease, hypertension, diabetes, respiratory disease, or any other medical problem, or if you are pregnant.

Read this manual before using this product and save it for future reference.

Always wear shoes and proper clothing when exercising.

Do not operate this product if it appears damaged or inoperable. Examine product regularly for damage and wear. Ensure defective components are replaced immediately.

Do not perform maintenance or repairs on this product while it is in use. Unplug from outlet before performing maintenance or repairs.

Make sure the seat position and upper arm position are correctly setup for you. Do not overextend your legs or your arm reach.

Do not let children use this product.

Do not use this product in the

CAUTION

presence of children and/or pets.

The heart rate, watts, calories, user weight, and force measurement displays are not suitable for use in applications where the health and safety of the user may be dependent on the accuracy of those parameters.

The maximum user weight limit for this product is 400 lbs (181 kg).

Do not lift this product by yourself. The product is very heavy; it weighs 340 lbs (154 kg).

To avoid injury, or damage to the product, always obtain assistance to move this product. Use proper lifting techniques.

To avoid injury, do not insert hands in any cover openings.

To ensure safe operation of this product, place on a flat, stable surface. Adjust leveler feet as required.

This product is intended to be connected to AC mains power through the furnished AC adapter only.

Do not apply more than 300 lbs (136 kg) of force on either foot pedal under any use condition.

SAVE THESE INSTRUCTIONS.

Installation and Placement

Carefully unpack the Transitt from the shipping container and transport the product to the installation location. The Transitt is designed for indoor use only.

Place equipment mat under the Transitt to protect floor, reduce vibration and ensure normal operation.

To ensure safe and effective operation of your Transitt, place on a flat, stable surface. Adjust leveler feet as required.

The minimum amount of required free space around the equipment is 24 inches (61 cm) for the sides, and 12 inches (30 cm) for the front and rear. Additional free space is necessary to accommodate wheelchair access.

The Transitt is very heavy; it weighs 340 lbs (154 kg).

To avoid injury, or damage to the product, always obtain assistance to move this product.

Use proper lifting technique.



The Transitt is powered by an AC adapter. Use the adapter provided with the equipment. The AC adapter may be plugged into the front or rear jacks of the Transitt. Plug the adapter into an appropriate power outlet. Ensure power cable is routed in a manner that prevents tripping hazards and prevents damage to the adapter. Avoid placing any pressure or strain on adapter cables, jacks, or plugs. When not in use, store the AC adapter in the Transitt accessory bag.

For adapter specifications, please refer to the technical data section of this manual.





Feature Overview



StrideLock®

The StrideLock feature allows users to lock the Transitt's arm handles and foot pedals. Locking the arms and pedals stabilizes the product and makes it easier for users to get on and off the Transitt.

NOTE: The StrideLock is engaged (locked) for all the isometric programs on the TRANSITT.

To engage StrideLock:

- Use the arm handle grips to push or pull the arms and pedals to the desired position.
- Push down on the green StrideLock lever located under the grab ring and release. The lever will be in an UP position when locked.
- 3. Verify that StrideLock is engaged by pushing or pulling on the arm handles they should not move.



StrideLock lever is in an UP position when engaged.

To disengage StrideLock:

 Push down on the StrideLock lever again. The lever will be in the *DOWN* position when *unlocked.*



StrideLock lever is in a DOWN position when disengaged.

NOTE: Do not attempt to lock the StrideLock while the arms and pedals are in motion.

Making Adjustments

Adjusting Seat Distance

- 1. Place feet on pedals.
- 2. Lift the front green lever to unlock seat.
- 3. Using feet, slide seat forward or backward to adjust distance.
- 4. Check that knee has a slight bend when leg is *nearly* fully extended.
- 5. Release the lever to lock seat in position.



Lift front lever to adjust seat distance.



Knee has slight bend when leg is *nearly* fully extended.

Adjust Seat Back Angle (optional)

- 1. Place both feet on pedals
- 2. Lift the black lever on the green rail left side of the seat.
- 3. To increase recline, push on seat back up to 12° recline possible.
- 4. Release seat recline lever to lock in position.



Lift black lever on left side to adjust seat back.



Push on seat back to adjust recline angle.

Making Adjustments

Adjust Arm Handle Length

- 1. Pull the green release lever up on the arm handle to unlock.
- 2. Slide handle in or out to adjust length.
- 3. Check that elbow is slightly bent when arm is fully extended (for many people this may be the same number as their seat position).
- 4. Press down on the green release lever to lock the handle in place.



Pull up on lever to unlock.



Push down on lever to lock.

Swivel Seat Operation

- 1. Lift the rear green release lever to unlock seat.
- 2. Swivel the seat in either direction (seat swivels 360° and locks every 45°).
- 3. Release the lever to lock seat in position. **NOTE:** The seat can be rotated with or without a user seated on the machine.



Lift rear lever to unlock seat.



Seat swivels 360 $^{\circ}$ in either direction and locks in place every 45 $^{\circ}.$

Exercise Positions

Because Transitt features dynamic and isometric exercise programs, the exerciser's body position and physical set up on the machine will vary, depending on the program and the exerciser's needs. Use the information that follows as a *general guide or starting point* for set up and positioning.

NOTE: On-screen instructions specific to each program can be accessed by tapping on the TRANSITT icon in the upper right corner of the screen.



Dynamic Exercise

Dynamic stepping exercises on the TRANSITT use the same physical set up. After adjusting arm handles and seat distance, there should be a slight bend in the exerciser's knees and elbows at nearly full extension when performing dynamic stepping exercises. The arm handles and foot pedals are not locked, i.e., StrideLock is not engaged.



Knee with slight bend

Elbow with slight bend

Injuries to health may result from incorrect or excessive use.

CAUTION

Ensure the seat and arms are set up in biomechanically correct positions.

Do not over-extend your leg or arm reach distance.

Isometric Exercise

All isometric programs require the StrideLock feature to be engaged (arm handles and foot pedals are locked and do not move during exercise). The seat and handle positions for the isometric exercise programs are *specific to each program and will depend on the goals of the exercise.*

Start Up

1. Press the power button located on the back of the console to turn the TRANSITT on or off.



2. Once TRANSITT powers up, the initialization screen opens. Press *Tap to Initialize* to begin the initialization process.

NOTE: Make sure no one is sitting on or touching the TRANSITT during this process.



- 3. After the initialization process completes, the exerciser can sit on the TRANSITT.
- 4. Once seated, the exerciser will be instructed to complete three full cycles of the pedals or handles to initialize the position sensors.



NOTE: The TRANSITT can remain on during the day (with exercisers logging out after their session), but should be shut down at the end of the day.

Shut Down

1. Tap on the *Log Out* button in the lower right-hand corner of the screen.



2. Press the power button on the back of the console to turn off.

Creating User Accounts

New exercisers can create a user account and log in. With user accounts, exercisers can save their settings and store last used settings.

Part 1. Create an Account

1. Touch the screen, the log-in screen opens.

Enter your email/ Press your finger to	password to login. the scanner to login.	
Email Address		
Password		
1.0.5_qc	3	
Guest	New User	← New User
Passwo	rd Reset	

- 2. Tap on the New User tab to open the User Enroll screen.
- 3. Tap on the screen to open the keypad.

NOTE: To move from field-to-field, either tap in each field or tap the **Next** key on the keyboard.

4. Enter the exerciser's first and last name, email address and a password (the email and password are case sensitive).

NOTE: If the exerciser does not have an email address, they will log in as a Guest (see page 19).

	User Enroll	
	First Name Joan Last Name Smith Email Address jsmith@nustep.com Password Confirm Password	
Click to agree.	➤ Click here to indicate that you have read and agree to the terms presented in the Terms and Conditions agreement and the Privacy Policy. Complete EnrolIment	Tap on <i>Terms and</i> <i>Conditions</i> and <i>Privacy Policy</i> to review.

- 5. Before completing enrollment, review two documents, *Terms and Conditions* and *Privacy Policy* and agree to the terms presented.
 - a. Tap on the *Terms and Conditions* link to review that document. Press *Continue* to return to the enroll screen.
 - b. Tap on the *Privacy Policy* link to review that document. Press *Continue* to return to the enroll screen.
 - c. Click in the box to indicate agreement to the terms presented in both documents.
- 6. Tap on Complete Enrollment. The Fingerprint Enroll screen opens.



Part 2. Fingerprint Log-In Enroll

Using the fingerprint log in feature is optional. If an exerciser declines to use this feature, they will be required to enter their email and password each time they log in. To enroll:

- 1. Tap Yes to proceed with the fingerprint enrollment.
- 2. Follow the screen prompts and, when directed, press finger on the sensor (located just under the display console).



3. Follow screen prompts to press finger on the scanner. Multiple prints will be collected.



Part 3. Complete Account Setup

1. Sit with both feet on the pedals, then press *Continue* to measure weight.



1. Tap *Continue* to finish. The *Main Menu* screen opens.



Logging In

Once the exerciser has an account, they can log in either by entering their email address and password on the log-in screen or by placing their finger on the fingerprint scanner (if this was set up during the enrollment process).

Enter your email. Press your finger to	Enter your email/password to login. Press your finger to the scanner to login.	
Email Address		
Password		
1.0.5_qc	3	
Guest	New User	
Passwo	ord Reset	
	Enter your email Press your finger to Email Address Password 105_se Guest Password	

After logging in for the first time, the exerciser's weight will be captured. The exerciser's weight is used to calculate calories expended, elevation, Watts, and to set the default values for relevant testing and training programs.

To Proce	eed .
Please be seated with bot Then press Continue to r	th feet on the pedals. neasure your weight.
Log Out	Continue

1. Tap *Continue* to proceed.

Guest Exerciser

An exerciser without an account can log on to TRANSITT as a guest. Settings and data are not saved for subsequent sessions.

1. Tap on the *Guest* tab.

	Enter your email/password to login. Press your finger to the scanner to login.	
	Email Address	
	Password	
	1.0.5_qc	3
Guest	Guest	New User
	Passwo	rd Reset

2. Place both feet on the pedals. The system will calculate the exerciser's weight.

NOTE: If the guest user opts out of being weighed, the system will use the default weight of 150 pounds for all exercise parameters and default settings.

3. The Main Menu screen opens.



Session Timed Out

If the exerciser is off the TRANSITT longer than 5 seconds, the *Session Timed Out* window appears. The exerciser will be prompted to log off or continue.

To continue, the exerciser *with a user account* will be required to re-enter their email and password or use the fingerprint scanner. This step is provided to safeguard exerciser data.



When a guest exerciser's session times out, they will press *Continue* to return to their session.



Admin Controls

This application should be accessed and administered by assigned users only.



1. From the Main Menu, tap on the *Admin Controls* icon to open.



K Admin Controls		
	Unit Sr T12	arial Number 1 34567
Set Minim	um Step Length	Sensor Health Panel
Zero Limb	Force Sensors	Pedal Position
Zero We	eight Scale	Enroll Instructor

Serial Number – serial number of TRANSITT unit. The serial number can also be found on the back of the unit (see Warranty section).

Set Minimum Step Length – Use to set the minimum distance the pedal has to move in one direction for the step to be counted.

NOTE: The minimum step length can be adjusted to address the goals, needs and limitations of the exerciser.

Zero Limb Force Sensors – Use when the force sensor readout for the pedals or handles is not zero (0) when they are unloaded (feet are not on the pedals or hands are not on handles).

Note: Plus (+) or minus (-) one pound is acceptable.

Admin Controls

Zero Weight Scale – Use when the exerciser weight readout does not register zero when there is NO weight on any part of the system.

Sensor Health Panel - Use for system diagnostics.

Pedal Position - Displays pedal positions.

Enroll Instructor - Use to enroll individual assigned to the role of instructor/administrator.

	Enter your information to enroll. All fields are required.
	First Name
	Last Name
	Email Address
	Password
	Confirm Password
Enroll	 Enroll as Instructor Click here to indicate that you have read and agree to the terms presented in the Terms and Conditions agreement and the Privacy Policy.
	Complete Enrollment

Main Menu

After logging in, the Main Menu opens and displays program options. The options are organized by *Exercise Type* and *Body Region.*



Main Menu screen

Exercise Type

Use to select the type of exercise/training. Options include: *Cardio, Motor Control* and *Strength*. To view a menu of programs within each category, tap on the corresponding icon.

Body Region

Use to select exercise/training based on body region. Options include: *Upper Body & Core, Lower Body* or *Foot & Ankle.* To view a menu of programs within each body region, tap on the corresponding icon.

Admin Controls

Available to authorized users.

User Weight

Use anytime to record the exerciser's weight and view their weight history.

Logout

Use to close the current user's exercise session and store their session data.

Program Menus

1. To select a program from the Main Menu, e.g., *Cardio*, tap on the Cardio icon. The *Cardio* exercise menu opens:





2. To select a program from the menu, e.g., *Balanced Power*, tap on the icon to open that program.

NOTE: If an icon is not visible, swipe screen to the left.

Program Screens

Program screens share the same format: a *title bar* at the top, a *program dashboard* in the center and a *metric bar* at the bottom.

NOTE: Some isometric programs and tests do not have a metric bar.



Title Bar

The Title Bar displays information, actions and options relevant to the selected program.



Other Title Bar icons

Info - Provides detailed information about the program and its uses.



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Settings - For programs with multiple modes or adjustment settings.

Program Dashboard

The Program Dashboard displays bar graphs and data in real-time to provide visual feedback related to the exerciser's performance during the exercise session.



Metric Bars

The Metric Bar, located at the bottom of the screen, displays functions, settings and exercise metrics relevant to the selected Dynamic or Isometric exercise program.

Dynamic Metric Bar

All dynamic exercise/training programs share a common metric bar:



Timer

Tap the timer field to set the *Count Down* timer or *Count Up* timer.

- a. Select Count Up to track the time of all stepping for the entire session.
- b. Select Count Down to set the timer for a defined period of time.



Exercise Metric Displays

Tap the center metric display fields to open an expanded list of metric options. Select the metric that will display during exercise. Options include: *Elevation, Kcal, Miles, ROM* (range of movement), *Steps, SPM* (steps per minute) and *Watts.*



Load Level

Tap the *Load* field to set the resistance of the dynamic exercise. The load levels range from 1 to 15 in increments of 0.5.



Isometric Metric Bar

The metric bars for isometric programs are customized to display information specific to the chosen program. *See each isometric program for more information.*

TRANSITT[™] Programs

The TRANSITT features 12 dynamic and isometric exercise and training programs.







Quick Facts

Exercise Type







Main Purpose

To train motor control and movement of the foot and ankle using real-time visual biofeedback.

Activity Description

Isometric - Exerciser shifts the center-ofpressure applied by the foot to the pedal to cross target boundary lines.

Common Use Cases

- Painful or limited range of motion
- Decreased strength
- Decreased motor control
- Decreased proprioception
- Decreased lower extremity sensation

Ankle Contr



Navigate to the Program

- 1. Sit with both feet on the pedals and log in.
- 2. Press Continue after the system calculates the weight.

NOTE: This applies to new users logging in for the first time or guest users who choose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on the *Motor Control* or *Foot & Ankle* icon (shown above) to open the program menu.
- 4. Tap on the Ankle Control icon to open the program.

NOTE: If an icon is not visible, swipe screen to the left.



Physical Set Up

Positions for this training may vary depending on the exerciser's goals or limitations or the trainer's discretion. The information *regarding positioning is suggested as a starting point.*

1. Move right and left pedals so they are adjacent to each other.

NOTE: The position of the right pedal will be shown as 0.0 on the screen when

adjacent to the left pedal.



2. Lock the arm handles and foot pedals in place by pressing down and releasing the StrideLock lever. It will be in the **UP** position.



3. Place NuStability pads on pedals.

NOTE: The pads facilitate ankle movement. Foot straps are not used.



4. Adjust seat distance. In a typical position for Ankle Control, the leg is nearly straight when at full extension.

NOTE: This permits more ankle motion and limits compensatory leg movement.

5. Rest arms at sides, on lap or arm rests during the exercise.



Legs are nearly straight at full extension



Program Setup

Part 1. Adjust Boundary Lines

Boundary lines can be adjusted to accommodate foot size along with the comfort, goals, limitations and needs of the exerciser.

1. Tap on the *Settings* icon in the upper right corner of the screen to open the *Adjust Boundary Lines* screen.



- 2. Adjust boundaries in one of two ways:
 - a. To move horizontal or vertical boundary lines, touch and drag a corner circle.
 - b. To move the entire boundary area, touch and drag the center of a box to the desired location.



3. Press Continue to return to the Ankle Control program screen.

NOTE: (Optional) Boundary line adjustments can be customized in several ways:

- a. To adjust the bottom boundary line, shift the pressure applied by the foot on the pedal towards the heel (dorsiflexing). Then, drag the bottom boundary line to the desired target position relative to the ball.
- b. To adjust the top boundary line, shift the applied pressure towards the toes (plantar flexing).
- c. To adjust the right and left boundary lines , shift applied pressure towards the outside and inside of the foot (inverting and everting).



Using the Program

1. Tap the right arrow in the lower left corner of the screen to begin.



2. Shift the pressure applied by the foot on the pedal(s) to move the center-ofpressure indicator (green ball for left foot and yellow ball for right foot).

NOTE: The movement of the ball is controlled by shifting the location of the center-of-pressure applied to the pedal; it is **not** controlled by how much force is applied to the pedal.

a. To move the ball up and down, shift the pressure between the heel and toes (dorsiflexion and plantar flexion).



Up-Down Movement



b. To move the ball from side-to-side, shift the pressure between the outside of the foot and the inside of the foot (inversion and eversion).



Side-to-Side Movement

3. To complete a rep, move the center-of-pressure pressure indicator to cross both the horizontal target boundary lines, or both the vertical target boundary lines.

NOTE: This program can also be used to work combined movement of the ankle by crossing the boundary lines diagonally.

Related TRANSITT[™] program:





Balanced Power



Main Purpose

To identify work imbalances between the left and right limbs and to encourage symmetrical use of the left and right limbs during exercise.

Activity Description

Dynamic - exerciser steps using arms and/ or legs and tries to achieve, or improve, balance in the power output between opposing limbs.

Quick Facts



Common Use Cases

- Compensatory movement
 patterns
- Strength and power imbalances
- Poor motor control



Navigate to the Program

- 1. Sit with both feet on the pedals and log in.
- 2. Press Continue after the system calculates exerciser's weight.

NOTE: This applies to new users logging in for the first time or guest users who choose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on one of the *Exercise Type* or *Body Region* icons (shown above) to open the program menu.
- 4. Tap on the *Balanced Power* icon to open the program. *NOTE:* If an icon is not visible, swipe screen to the left.



Physical Set Up

Positions for this training may vary depending on the exerciser's goals or limitations or the trainer's discretion. The information *regarding positioning is suggested as a starting point.*

Balanced Power

1. Unlock the arm handles and foot pedals by pressing down on the green StrideLock lever. It will be in the **DOWN** position.



2. Place NuStability foot pads on the pedals and attach foot straps.



3. Adjust seat so that knees have a slight bend when nearly fully extended.



Knee with slight bend

Balanced Power

4. Adjust handles so elbows have a slight bend when the handle is at its furthest point.





Program Setup

Part 1. Set Initial Load Level

The *Load* option sets the resistance of the dynamic exercise. The load levels range from 1 to 15 in increments of 0.5 and can be changed at any time.

1. Tap on *Load* in the Metric Bar to open the option.



2. Use the up/down arrows to set initial resistance.


Part 2. Set timer type

There are two possible timer settings: Count Up and Count Down.

3. Tap on the *Timer* button to switch between the options.



- 4. Select timer option.
 - a. Select *Count Up* to track the time of all dynamic stepping for the entire exercise session.
 - b. Select *Count Down* to set the timer for a defined period of time.



Part 3. Change Exercise Metric Displays

On the Metric Bar, there are options to display three different exercise metrics. All the possible metrics include:

Kcal	Miles	Steps	Elevation
SPM (Steps pe	r Minute)	RO	M (Range of Movement)

5. To change one of the three displays, tap on a metric in the Metric Bar to open an expanded list.



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Balanced Power

6. Select the metric to display.





😼 Using the Program

1. Begin stepping using arms and/or legs. The goal is to work the left and the right arms equally and the left and the right legs equally.

NOTE: It is not necessarily desirable to have the arms and the legs contribute equally.

2. Watch the blue *Current Power* (Watts) bar graphs for real-time feedback on the amount of power being produced by each limb during dynamic stepping.

NOTE: Current power is presented as a rolling average of six steps. No data will display until the exerciser has completed six steps.



3. Refer to the *L vs R of Total Exercise* balance bars for a running total of the relative contributions (balance) made by the left and right limbs.

Balanced Power

NOTE: Since this program collects and stores balance information while the exerciser uses other dynamic stepping programs, it can be used to identify imbalances over the duration of the entire exercise session.

4. Use the *Goal* indicator as a visual target for using left and right limbs equally.

NOTE: The default goal tolerance setting is 10%. To be balanced, the percent difference of work performed between the right and left limbs cannot be greater than 10%. If the percent difference between the left and right limbs is greater than the goal tolerance, the work performed will be considered unbalanced.

- a. The display will be green and balanced when the exerciser's left limb and right limb contribute equally, within the selected tolerance.
- b. The display will be red and unbalanced when either the left or right limb has contributed more than the other side, outside of the selected tolerance.



5. To reset the *L vs R* percentages to 50%-50% (balanced), tap the *Reset* icon in the upper right corner of the screen.

NOTE: Any dynamic exercise completed prior to resetting will not be used in subsequent calculations for L V R of Total Exercise percentages.

Additional Information

Most exercisers will use the default goal tolerance setting. In some cases, an exerciser with extreme weakness may benefit when the goal tolerance is adjusted. To adjust:

- 1. Tap on the Overflow icon in the upper right corner to open.
- 2. Tap on the *Settings* icon to open.



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••••

Balanced Power



- 3. Use the up/down arrows to increase or decrease goal tolerance for the arms and/ or legs.
- 4. Tap Continue.

NOTE: To return to the default value of 10%, tap Reset to Defaults. Tap Continue.

All dynamic stepping exercise is tracked and stored together during each exercise session.

All dynamic stepping exercises will be used to calculate the *L vs R of Total Exercise.* This allows the exerciser to use other dynamic stepping programs while continuing to monitor the power contributions of the left and right limbs.

Related TRANSITT[™] programs:







Intensity & Duration





Quick Facts



Main Purpose

To build cardiovascular endurance and for strength training.

Activity Description

Dynamic – exerciser steps to reach elevation milestones.

Common Use Cases

- Cardio fitness
- Muscle strength
- Endurance
- Long-term management of chronic conditions

Navigate to the Program

- 1. Sit on the unit with both feet on the pedals and log in.
- 2. Press Continue after the system calculates weight.

NOTE: This applies to new users logging in for the first time or guest users who choose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on one of the *Exercise Type* or *Body Region* icons (shown above) to open the program menu.
- 4. Tap on the *Climbing* icon to open the program. **NOTE**: If the icon is not visible, swipe screen to the left.





Physical Set Up

Positions may vary depending on the exerciser's goals or limitations or the trainer's discretion. The information *regarding positioning is suggested as a starting point.*

1. Unlock the arm handles and foot pedals by pressing down on the green StrideLock lever. It will be in the **DOWN** position.



2. Place NuStability foot pads on the pedals and attach foot straps (optional). *NOTE:* Use of foot pads and foot straps is goal dependent.





Attach foot straps

3. Adjust seat so knees have a slight bend when leg is nearly fully extended.



Knee with slight bend

4. Adjust handles so elbows have a slight bend when arm is nearly fully extended.



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Program Setup

Part 1. Set Initial Load Level

The *Load* option sets the resistance of the dynamic exercise. The load levels range from 1 to 15 in increments of 0.5 and can be changed at any time.

1. Tap on *Load* in the Metric Bar to open the option.



Part 2. Set Timer Type

There are two possible timer settings: Count Up or Count Down.

3. Tap on the Timer option to switch between timer types.



- 4. Select timer option.
 - a. Select *Count Up* to track the time of all dynamic stepping for the entire session.
 - b. Select *Count Down* to set the timer for a defined period of time.

Part 3. Change Exercise Metric Displays

On the Metric Bar, there are options to display *three* different exercise metrics. All the possible metrics include:

Count Up

Count Down

Timer 03:37

Kcal	Miles	Steps	Elevation
SPM (Steps pe	r Minute)	RC	M (Range of Movement)

5. To change one of the displays, tap on a metric in the Metric Bar.



6. Select the metric to display from the expanded list of options.





🔄 Using the Program

1. Begin stepping. The goal is to climb (by stepping) and reach higher elevation milestones. Images and trivia relevant to the last elevation goal achieved are displayed.



2. Note the *Climbing Rate* to see how many feet the exerciser is climbing per minute.

NOTE: The rate is calculated using the exerciser's body weight and power output.

3. Refer to the goal flags to see how much the exerciser needs to climb to reach the next milestone.

NOTE: The exerciser can reach milestones faster by increasing their exercise intensity. To increase intensity (Watts), increase one or more of the following: load level, limb force, steps per minute or the length of each step.

4. Tap in the *Time Frame* field to change the time frame for the *Total Elevation* display. Options include Today and Lifetime.

NOTE: The total elevation is displayed on the left side of the screen.

- a. Today includes all stepping completed during that day's exercise session, i.e., the stepping completed in other TRANSITT programs contributes to the overall elevation gained for that day.
- b. Lifetime includes all stepping completed since the exerciser created an account.

Related TRANSITT[™] programs:















Quick Facts

Exercise Type





Lower Body

Main Purpose

To obtain repeatable and objective measures of the isometric force production of the right and left legs.

Activity Description

Isometric - Exerciser applies push or pull force to the pedals with a controlled effort to reach a target.

Common Use Cases

- Identify asymmetry in leg strength
- Determine improvement or decline in leg strength over time

Navigate to the Program

- 1. Sit with both feet on the pedals and log in.
- 2. Press *Continue* after the system calculates exerciser weight.
- 3. From the *Main Menu,* tap on the *Strength* icon or the *Lower Body* icon (shown above) to open the program menu.
- 4. Tap on the *Controlled Leg Force Test* icon to open the program. *NOTE:* If the icon is not visible, swipe screen to the left.



P

Physical Setup

To ensure repeatability for this test, a series of screens walk the exerciser through the physical set up. The following information provides more detail on each step.

1. Move right and left pedals so that they are adjacent.

NOTE: The position of the right pedal will be shown as 0.0 on the screen.



2. Lock the arm handles and foot pedals by pressing down and releasing the green StrideLock lever. It will be in the *UP* position.





Program Setup

PART 1. Select Test Mode

1. Tap on *Push* or *Pull* to select test mode. Tap *Continue*.



2. Adjust the seat position.

NOTE: Seat positions may vary depending on the exerciser's goals or limitations or the trainer's discretion. They also depend on the test mode selected. The information regarding positioning is suggested as a starting point.

a. For *Push* mode, position the seat so that both knees are bent.



Knees are bent

b. For the Pull test, position the seat so that the legs are nearly straight and attach foot straps.



Legs are nearly straight

NOTE: Adjust as needed if any position increases joint pain.

- 3. Rest arms at sides, on lap or arm rests during test.
- 4. Enter the target force goal in the keypad that opens. Press *Continue*.

NOTE: The target force defaults to 100 lbs. The system is limited to a maximum of 300 pounds of push force applied to each pedal.



5. Sit with feet on the pedals and legs completely relaxed to measure the resting leg force. Tap *Continue* when ready.





🔄 Using the Program

1. Apply a push or pull force to the pedals with a controlled effort. The goal is to move the blue bar graphs up to the green target bands.

NOTE: This is not a timed test so the exerciser can make multiple attempts to push or pull the force band up to the target band.



- 2. The Active Max displays the maximum force the exerciser has produced in the current session. It does not include the resting force of the feet on the pedals.
 - a. To reset the black Active Max line, tap Reset Max.
 - b. To get the resting leg force, tap Get Rest Force.



- 3. Adjust goal, if desired, for subsequent attempts. Adjustments can be made in one of the following ways:
 - a. Tap on the scale between the two bar graphs and slide to the desired level. This sets the goal for both legs.
 - b. Press and hold the green target band for the left or the right leg, then slide to the desired level. This sets the goals for the individual legs.
 - c. Tap on the *Target* box and enter the desired value from the numeric keypad that opens. Press *Continue*.



Related TRANSITT[™] programs











Main Purpose

For strength and muscle endurance training of the arms and legs.

Activity Description

Dynamic – exerciser steps using either push or pull force to reach a force goal.





Navigate to the Program

- 1. Sit on the unit with both feet on the pedals and log in.
- 2. Tap *Continue* after the system calculates weight.

NOTE: This applies to new users logging in for the first time or guest users who choose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on one of the *Exercise Type* or *Body Region* icons (shown above) to open the program menu.
- 4. Tap on the Force Goals icon to open the program. **NOTE**: If an icon is not visible, swipe screen to the left.



Physical Setup

Positions for this training may vary depending on the exerciser's goals or limitations or the trainer's discretion. The information *regarding positioning is suggested as a starting point:*

1. Unlock the arm handles and foot pedals by pressing down on the green StrideLock lever. It will be in the **DOWN** position. *See image on following page.*



2. Adjust seat so knees have a slight bend when pedals are at their furthest point.



Knee with slight bend

3. Adjust handles so elbows have a slight bend when the handles are at their furthest point.





Program Setup

PART 1. Select Mode

The program can be used for training of the arms or legs, in either push or pull modes.

1. Tap *Push* or *Pull* to select the training mode.



2. Tap Arms or Legs to select the body region to work.



a. For *Legs* mode, place feet on the pedals, relax legs and tap the *Zero Legs* button to open the *Resting Leg Force* screen



b. Tap *Continue* when ready.



b. For Pull training of the legs, place NuStability foot pads on the pedals (optional) and attach foot straps.

NuStability foot pads (optional)





Attach foot straps for Pull training

PART 2. Set Goal Target

The green target band represents the force goal the exerciser is trying to reach.

- 3. Set the goal target using one of the following ways.
 - a. Tap on the scale between the two bar graphs and slide to the desired level. This sets the goal for both limbs.
 - b. Tap on the green goal band *in the bar graph* (right or left) and slide to desired goal. This sets the goal for the right or the left limb individually.
 - c. Tap on the *Goal* box for each limb and enter the desired value from the numeric keypad that opens. Then tap *Set Goal*.



PART 3. Set Initial Load Resistance

The *Load* option sets the resistance of the dynamic exercise. The load levels range from 1 to 15 in increments of 0.5 and can be changed at any time.

4. Tap on *Load* in the Metric Bar to open the option.



PART 4. Set Timer Type

There are two possible timer settings: Count Up or Count Down.

6. Tap on the *Timer* option to switch between the timer types.



- 7. Select timer option.
 - a. Select Count Up to track the time of all stepping for the entire session.
 - b. Select *Count Down* to set the timer for a defined period of time.



Part 5. Change Exercise Metric Displays

On the Metric Bar, there are options to display three different metrics during exercise. All the possible metrics include:

Kcal	Miles	Steps	Elevation	
SPM (Steps pe	r Minute)	RC	M (Range of Movem	ent)

8. To change one of the three displays, tap on a metric in the Metric Bar.



9. Tap on the desired metric to display.





- 1. Begin stepping. The goal is to push the black *Max Force line* above the green *Goal band* for the selected limb and mode.
- 2. Watch the blue bar graphs for real-time feedback on the amount of power being produced by each limb while stepping.
- 3. Refer to the *Steps Over Goal* for the number of times the exerciser reached the force goal.

NOTE: Increasing the load level facilitates reaching the goal with each step.

4. Refer to the *Total Steps* display for the total number steps completed during the entire exercise session.



Related TRANSITT[™] programs









D

















Quick Facts







Main Purpose

To monitor exercise intensity or range of limb movement and to provide feedback on the quality of exercise performed.

Activity Description

Dynamic - stepping, within a variety of selectable intensity parameters, towards a time goal.

Common Use Cases

- Cardio fitness
- Strength training
- Increasing range of limb movement
- Long-term management of chronic conditions



Navigate to the Program

- 1. Sit on the unit with both feet on the pedals and log in.
- 2. Tap *Continue* after the system calculates weight.

NOTE: This applies to new users logging in for the first time or guest users who chose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on one of the *Exercise Type* or *Body Region* icons (shown above) to open the program menu:
- 4. Tap on the *Intensity & Duration* icon to open the program. **NOTE:** If an icon is not visible, swipe screen to the left.



Physical Setup

Positions for this training will vary depending on the exerciser's goals or limitations or the trainer's discretion. The following information *regarding positioning is suggested as a starting point.*

1. Unlock the arm handles and foot pedals by pressing down on the green StrideLock lever. It will be in the **DOWN** position.



2. Place NuStability foot pads on the pedals (optional).



3. Adjust seat so knees have a slight bend when the pedals are at their furthest points.



Knee with slight bend

4. Adjust handles so elbows have a slight bend when the handle are at their furthest points. Elbow with slight bend





Program Setup

PART 1. Select Intensity Parameter

This selection changes how the exercise intensity is displayed on the graphs. There are nine parameter options.

1. To change the intensity parameter, tap the down arrow to open the option menu.



2. Tap on the parameter to display.

Intensity Parameter
Watts Left & Right Legs 🔻
Leg Extension (inches)
Load Level
SPM
Step Length
Watts Arms & Legs
Watts Left & Right Arms
Watts Left & Right Legs
Total Watts

PART 2. Set Exercise Time Goal

A time goal can be set when the goal is to maintain a specific intensity or range of movement for set duration of time. The default exercise time is 5 minutes.

NOTE: The Intensity & Duration timer is independent of the metric bar Count Up and Count Down timer options (see Part 4).

3. To change the exercise time goal, tap the up or down arrows.



4. Note how the number of goal indicator bins increase or decrease depending on time spent in dynamic exercise.



PART 3. Set Initial Load Level

The *Load* option sets the resistance for the dynamic exercise. The load levels range from 1 to 15 in increments of 0.5 and can be changed at any time.

5. Tap on *Load* in the Metric Bar to open the option.



6. Use the up/down arrows to set initial resistance.

PART 4. Set Timer Type

There are two possible timer settings: Count Up and Count Down.

NOTE: The Count Up and Count Down time options are independent of the Intensity & Duration timer (see Part 2).

Load

7. Tap on the Timer option to switch between the timer types.



- 8. Select timer option.
 - a. Select *Count Up* to track the time of all stepping for the entire session.
 - b. Select *Count Down* to set the timer for a defined period of time.

🗸 Count Up
Count Down
Timer 03:37

PART 5. Change Exercise Metric Display

On the Metric Bar, there are options to display three different exercise metrics. All the possible metrics include:

Kcal	Miles	Steps	Elevation	
SPM (Steps pe	r Minute)	RC	M (Range of Mov	ement)

9. To change one of the three displays, tap on a metric in the Metric Bar.



10. Select metric to display.





Using the Program

1. Begin stepping. Watch the bar graphs for real-time feedback on the amount of power (Watts) produced by the arms and legs over time.

NOTE: The exerciser can use the feedback to adjust the intensity of their exercise to meet their specific goals, needs or limitations.

2. Refer to the *Time to Goal* display to show the number of minutes left to reach the goal.

NOTE: The timer and data collection start when the exerciser begins stepping and pauses if the exerciser stops stepping.





(i) Additional Information

All dynamic stepping exercise is tracked and stored together during each exercise session. The exerciser can open the Intensity & Duration program and view the intensity data for the exercise that has been completed in other programs.

Related TRANSITT[™] programs:











Iso Arm Strength



Main Purpose

For highly controlled isometric strength, muscle activation and endurance training of the arms.

Activity Description

Isometric – Push or pull locked handles for a selected number of reps and sets to reach goal.

Quick Facts Exercise Type

•**@**•

Strenath



Upper Body & Core

Common Use Cases

- Shoulder instability
- Core weakness
- Strengthening option for individuals with significant pain or weakness
- Training for muscle activation and relaxation



Navigate to the Program

- 1. Sit on the unit with both feet on the pedals and log in.
- 2. Tap Continue after the system calculates weight.

NOTE: This applies to new users logging in for the first time or guest users who chose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on the *Strength* or *Upper Body & Core* icon (shown above) to open a program menu.
- 4. Tap on the *Iso Arm Strength* icon to open the program. **NOTE**: If an icon is not visible, swipe screen to the left.



E

Physical Setup

Positions for this training will vary depending on the exerciser's goals or limitations or the trainer's discretion. The information *regarding positioning is suggested as a starting point.*

Iso Arm Strength

- 5. Adjust the right and left handles to the desired length. Optimal arm position depends on desired training goal.
- 6. Move right and left pedals so that they are adjacent.

NOTE: The right pedal position is shown as 0.0 on the screen.



7. Lock the handles by pressing down and releasing the StrideLock lever. It will be in an **UP** position.



8. Adjust the seat to the desired position.



Program Setup

Part 1. Select Training Mode

1. Tap on Push or Pull to select training mode.



Part 2. Rep & Set Options

Use this settings panel to define how many reps and sets the exerciser needs to complete, as well as the hold and rest times.

2. Tap on *Rep & Set Options* to open menu.

Rep & Set Options

Iso Arm Strength

- 3. In the *Number of Sets* and *Number of Reps* sections, tap on the up/down arrows to define the number of sets and reps required to complete the exercise.
- 4. In the *Rep Hold Time* section, tap on the up/down arrows to adjust how long the exerciser needs to hold at, or above, the goal band in a single rep.
- 5. In the *Set Rest Time* section, tap on the up/down arrows to set the length of rest time between sets.



Part 3. Set Goal Target

The green goal target band represents the level of force (represented in pounds) the exerciser tries to reach applying a push or pull force to the handles.

- 6. Set the goal target one of the following ways:
 - a. Press and hold the green target band for the left or the right arm, then slide to the desired level. This sets the goals for each arm individually.
 - b. Tap on the scale *between the two bar graphs* and slide to the desired level. This sets the goal for both arms.
 - c. Tap on the *Goal* box and enter the desired value from the numeric keypad that opens. Tap *Set Goal.*





Using the Program

- 1. Apply push or pull force to the handles with a controlled effort. The goal is to move the blue active force bars up to the green target bands.
- 2. Hold the blue active force bar at, or over, the green target band for the set hold time.

NOTE: Screen prompts will communicate when the exerciser completes the reps and sets.



3. Continue until the selected number of reps and sets are complete.





(i) Additional information

- Different muscle groups can be targeted by adjusting the seat and/or the handle positions as well as the exerciser's position on the seat.
- The handles can be offset by changing the length of one handle or the pedal position to address the limitations, needs and goals of the exerciser.
- Isometric strengthening is frequently used by individuals with painful or very weak muscles and/or joints.

Related TRANSITT[™] programs:









Quick Facts

Exercise Type







Main Purpose

This test provides objective, controlled and repeatable measures of isometric muscle endurance for the left and right legs.

Activity Description

Isometric - Exerciser holds an isometric contraction of the lower extremities until fatigue.

Common Use Cases

- To obtain objective measures of lower extremity endurance
- To monitor changes in functional leg strength over time
- To use in place of a wall sit.



Navigate to the Program

- 1. Sit with both feet on the pedals and log in.
- 2. Press *Continue* after the system calculates weight.

NOTE: This applies to new users logging in for the first time or guest users who chose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on either the *Strength* or *Lower Body* icon (shown above) to open the program menu.
- 4. Tap on the *Isometric Leg Endurance Test* icon to open the program. **NOTE**: If an icon is not visible, swipe screen to the left.



🖄 Physical Setup

To ensure repeatability for this test, a series of screens walk the exerciser through the physical set up. The following information provides more detail on each step.

1. Move the pedals to an adjacent position.

NOTE: The right pedal position is shown as 0.0 on the screen.

Isometric Leg Endurance Test



2. Lock the handles and pedals, by pressing down and releasing the StrideLock lever. It will be in the **UP** position.



3. Position seat so that knees are bent.

NOTE: Adjust as needed if this position increases joint pain. The position of the seat strongly influences the exerciser's ability to hold the force.



Knees are bent



Program Setup

Part 1. Threshold Test

Step-by-step instructions on the console guide the exerciser through the test procedure which begins with a threshold test. The results of the threshold test determine the target force for the endurance test.

Isometric Leg Endurance Test

- 1. The exerciser is weighed to determine the target force for the threshold test. *NOTE:* The target is set at 0.625 x body weight for each leg.
- 2. Select leg to test. The program allows for testing one or both legs. Tap Continue.



3. Using one or both legs, press on the pedal(s) to move the blue force bar(s) up to the green threshold line(s).



a. If the exerciser reaches the target threshold, tap *Continue to Endurance Test.* The Endurance Test will be performed using 0.5 x body weight as the target for each leg.



b. If the exerciser does not reach the target threshold with both legs, the Endurance Test will be performed using 80% of the maximum force achieved by the weaker leg.
Isometric Leg Endurance Test



Endurance Test

- 1. Push the legs with a controlled effort. The goal is to move the blue force bars up to the green target bands.
- 2. Hold the blue force bar inside of the green goal bar for as long as possible. *NOTE:* Each leg is tested independently.



- 3. The test will end for each leg when the blue force bar for that leg drops below the green target band for more than two consecutive seconds.
- 4. Refer to the *Hold Time* display for performance results once the endurance test has been completed.



Isometric Leg Endurance Test

5. If desired, tap *Redo Test* to perform the test again.

Related TRANSITT[™] programs:







Iso Leg Strength



Main Purpose

For highly controlled isometric strength, muscle activation and endurance training of the legs.

Activity Description

Isometric - Apply a push or pull force to locked pedals for a selected number of reps and sets to reach specified goal.

Quick Facts

Exercise Type







Common Use Cases

- Strength training in a closed-chain position at varying degrees of hip, knee and ankle flexion
- Ankle and knee instability
- Strengthening option for users with significant pain or weakness
- Can be used to train muscle activation and relaxation



Navigate to the Program

- 1. Sit on the unit with both feet on the pedals and log in.
- 2. Tap *Continue* after the system calculates weight. *NOTE:* This applies to new users logging in for the first time or guest users who chose to be weighed. Returning users are weighed every 60 days.
- 3. From the *Main Menu,* tap on the *Strength* or *Lower Body* icon (shown above) to open the program menu.
- 4. Tap on the *Iso Leg Strength* icon to open the program. **NOTE**: If an icon is not visible, swipe screen to the left.





Physical Setup

Positions for this training will vary depending on the exerciser's goals or limitations or the trainer's discretion. The information *regarding positioning is suggested as a starting point.*

5. Move the left and right pedals to an adjacent position.

NOTE: The right pedal position is shown as 0.0 on the screen when it's adjacent to the left.



6. Lock foot pedals by pressing down and releasing the StrideLock lever. It will be in the **UP** position.



7. Adjust seat to desired position.

NOTE: Seat positions will vary depending on what exerciser is trying to achieve.

8. Place NuStability pads on pedals (optional).



Iso Leg Strength

9. For *Pull* training, fasten the foot straps.





Program Setup

PART 1. Set up screen

1. Sit with feet on the pedals and legs completely relaxed to measure resting leg force. Tap *Continue* when ready.



PART 2. Select Push or Pull

Select whether this will be *Push* or *Pull* training.
 NOTE: Fasten foot straps for *Pull*-training.



PART 3. Rep & Set Options

Use this settings panel to define the number of reps and sets to complete, as well as the hold times and rest times. Changes to these settings can be made at any time.

3. Tap *Rep & Set Options* to open.

Rep & Set Options

Iso Leg Strength

- 4. Tap on the *up/down* arrows to adjust the number of sets and reps required to mark the exercise as complete.
- 5. Tap on the up/down arrows to adjust the hold time for the exerciser to reach above the goal band in a single rep.
- 6. Tap on the arrows to set the rest time between sets.



PART 4. Set Goal Target

The green target band represents the force the exerciser is trying to reach.

- 7. Set the goal target using one of the following methods.
 - a. Tap on the scale between the two bar graphs and slide to the desired level. This sets the goal for both arms.
 - b. Press and hold the green target band for the left or the right leg, then slide to the desired level. This sets the goals for the individual legs.
 - c. Tap on the *Goal* box and enter the desired value from the numeric keypad that opens. Tap *Set Goal*.





🗔 Using the Program

1. Apply a push or pull force to the pedals with a controlled effort. The goal is to move the blue bar graphs up to the green target bands.

NOTE: Fasten foot straps for Pull training.

- 2. Hold the blue active force bar at, or over, the green target band for the set hold time.
- 3. Repeat the exercise for the selected number of reps and sets.

NOTE: Screen prompts will communicate when the exerciser completes the reps and sets and the program.



Related TRANSITT[™] programs:











Main Purpose

For reaching and maintaining a set stepping pace and monitoring the extension length of each step.

Activity Description

Dynamic – exerciser steps to maintain a target pace around a track.



Exercise Type



Common Use Cases

- Improve cardiac fitness
- Long-term management of chronic conditions
- Improve awareness of step length to encourage full and equal stepping



- 1. Sit with both feet on the pedals and log in.
- 2. Tap *Continue* after the system calculates weight.

NOTE: This applies to new users logging in for the first time or guest users who chose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on one of the *Exercise Type* of *Body Region* icons (shown above) to open the program menu:
- 4. Tap on the *Pace Partner* icon to open the program *NOTE: If an icon is not visible, swipe screen to the left.*





Positions for this training will vary depending on the exerciser's goals or limitations and/or the trainer's discretion. The information *regarding positioning is suggested as a starting point.*

5. Unlock the arm handles and foot pedals by pressing down on the StrideLock lever. It will stay in the **DOWN** position.



6. Place NuStability pads on the pedals (optional).



7. Adjust seat so there is a slight bend in the knees when the pedals are extended to their furthest points.



Knee with slight bend

8. Adjust handles so there is a slight bend in the elbows when the handles are extended to their furthest points.





Program Setup

PART 1. Select Target Pace

The program defaults to a pace of 60 steps per minute (SPM). To adjust the target stepping pace:

- < 🗴 🗶 🗄 Pace Partner Set Pace Current Pace 🚺 Set Pace 60 Extension Length (in) Left Step End Right Step End 0.0 0.0 0 \bigcirc SPM 🔺 Watts 🔺 Load 🔺 Timer 🧸 Steps 🔺 00:08 0 3 0 1.0
- 1. Tap Set Pace to open.

2. Tap on the blue ball and slide to desired target pace. Press Continue.

NOTE: The pace target circle can be turned off by sliding the ball all the way to the left.



PART 2. Set Extension Length Target

The *Extension Length Target* display provides visual feedback of step length. It can be used to encourage full and equal step length of the right and left limbs and discourage short, choppy stepping patterns.

Full extension beyond the zero-pedal position is approximately 4.4 inches. The extension length can be adjusted to address the needs, goals or limitations of the exerciser.

3. Tap on the green target bands and slide to adjust extension length.



PART 3. Set Initial Load Level

The *Load* field sets the resistance of the dynamic exercise. The load levels range from 1 to 15 in increments of 0.5.

4. Tap on the *Load* option on the Metric Bar.



5. Use up/down arrows to set initial resistance.



PART 4. Set Timer Type

There are two possible timer settings: Count Up or Count Down.

6. Tap on the *Timer* option to switch between timer types.



- 7. Select timer option.
 - a. Select *Count Up* to track the time of all stepping for the entire exercise session.
 - b. Select *Count Down* to set a timer for a defined period of time.



PART 5. Change Exercise Metric Displays

On the Metric Bar, there are options to display three different exercise metrics. All the possible metrics include:

Kcal	Miles	Steps	Elevation	
SPM (Steps per Minute)		ROM (Range of Movement))

8. To change one of the three displays, tap on a metric in the Metric Bar.



Using the Program

- Begin stepping. The exerciser's SPM pace is represented by the green ball. The target pace is represented by the white circle. The goal is to keep the green ball inside the white circle. When the green ball is inside the white circle, the exerciser is stepping at the selected target SPM.
 - a. If the exerciser steps slower than the target SPM, the ball will fall behind the circle and turn orange.



b. If the exerciser steps faster than the target SPM, the ball will move ahead of the target circle and turn red.



- 2. Compare the *Set Pace* to the exerciser's *Current Pace*.
- 3. Refer to the *Extension Length* display. The green target bands represent the preferred stepping extension length. The blue bar columns provide feedback on the stepping length performance of the left and right legs.
- 4. Refer to the Laps display to see how many laps have been completed.



Related TRANSITT[™] programs:







Quick Facts

Exercise Type





Main Purpose

Training for motor control, muscle endurance and strength for arms, legs, ankles and feet.

Activity Description

Isometric – Use push or pull force in a variety of modes to move paddle(s) and keep ball in motion.

Common Use Cases

- Ankle, knee, shoulder and core stability training
- Motor control training
- Muscular endurance training



Navigate to the Program

- 1. Sit with both feet on the pedals and log in.
- 2. Press *Continue* after the system calculates exerciser weight.

NOTE: This applies to new users logging in for the first time or guest users who chose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on one of the *Exercise Type* or *Body Region* icons (shown above) to open the program menu.
- 4. Tap on the *Paddle Ball* icon to open the program. *NOTE:* If an icon is not visible, swipe screen to the left.



Physical Setup

There are multiple limb modes and paddle modes for *Paddle Ball*. Body positions may vary between the different modes and depend on the exerciser's goals or limitations and/or the trainer's discretion. The information *regarding positioning* is suggested as a starting point.

Arm Modes

- 1. Adjust handles to the same length.
- 2. Move the left and right pedals to an adjacent position. **NOTE:** The right pedal position is shown as 0.0 on the screen when adjacent to the left.

Right PedalPreviousCurrent-0.10.0

3. Lock arm handles and foot pedals by pressing down and releasing the StrideLock lever. It will be in the **UP** position.



4. Move seat to desired position.

Legs Mode

- Move right and left pedals so that they are adjacent.
 NOTE: The position of the right pedal should show as 0.0 on the screen.
- 2. Lock arm handles and foot pedals by pressing down and releasing the StrideLock lever. It will be in the **UP** position. *See image above.*
- 3. Position seat so that knees are bent.

NOTE: Adjust as needed if this position increases joint pain.



Rest arms at sides or on arm rests

Knees are bent

4. Fasten foot straps for *Pull* exercise.

Leg modes targeting ankle movement

1. Move right and left pedals so that they are adjacent.

NOTE: The right pedal position is shown as 0.0 on the screen See image on previous page.

- 2. Lock arm handles and foot pedals by pressing down and releasing the StrideLock lever. It will be in the **UP** position. *See image on previus page*
- 3. Place NuStability pads on pedals for *Heel-Toe* and *Left-Right Balance* Leg modes. *NOTE:* This facilitates ankle movement.



4. Move the seat back so that the legs are nearly straight to permit more ankle motion and limit compensatory leg movement.

NOTE: Foot straps are not used.



Legs are nearly straight

5. Rest arms at sides, on lap or arm rests to keep movement restricted to legs.



Program Setup

Part 1. Define program settings

Paddle Ball has nine modes that use push and/or pull exercises for arms and/or legs.

1. Tap the *Settings* icon to open the menu.





- 2. Select Arms or Legs mode.
- 3. Tap in the exercise mode field to open the drop-down menu.

Up-Down Push-Pull	▼	
Left vs Right Push		
Left vs Right Pull		
Left vs Right Push-Pull		
Left vs Right Heel-Toe		
Left-Right Balance		
Heel-Toe Balance		
Up-Down Push		
Up-Down Pull		

4. Select exercise mode. There are 4 two-paddle modes and 5 single-paddle modes.

Two-paddle options

The left limb competes against the right. The left limb controls the paddle on the left side of the screen and the right limb controls the paddle on the right.



Two-paddle options include:

Left vs Right Push – Arms or Legs. The up-down motion of the paddles is controlled by how much push force is applied to the pedals or handles. The paddles move upward with increasing push force.

Left vs Right Pull – Arms or Legs. The up-down motion of the paddles is controlled by how much force is applied to the pedals/handles. Paddles move downward with increasing pull force. Pull forces are displayed as negative numbers.

Left vs Right Push-Pull – Arms or Legs. The paddles are controlled by push and pull forces. Push forces greater than zero move the paddles upward. Pull forces, displayed as negative numbers, move the paddles downward.

Left vs Right Heel-Toe – Legs only. The up-down motion of the paddles respond to shifts in the center-of-pressure applied by the feet on the pedals. Shifting the center-of-pressure on the pedal towards the toes (plantar flexion) moves the paddles upward. Shifting the center-of-pressure on the pedal towards the heel (dorsiflexion) moves the paddles downward.

Single-paddle options

The left and the right limbs work together to control the movement of the paddle - regardless of which paddle (left or right) is active.



Single-paddle options include:

Left-Right Balance – Arms or Legs. The left-right motion of the paddle is controlled by the balance of force applied to the handles or pedals by the left and right limbs.

To move the paddle to the left side of the screen, the left limb applies more force than the right. To move the paddle to the right, the right limb applies more force than the left.

The side-to-side motion of the center-of-pressure of the foot on the pedal also contributes to paddle movement.

Heel-Toe Balance - Legs only. The paddle moves in response to shifting the center-of-pressure on the pedals from the heels (dorsiflexing) to the toes (plantar flexing). The paddle can be controlled with one or both feet.

Up-Down Push – Arms or Legs. Pushing one or both limbs with more force moves the paddle upward.

Up-Down Pull – Arms or Legs. Pulling one or both limbs with more force moves the paddle downward.

Up-Down Push-Pull - Arms or Legs. A combination of the two above modes.

Part 2. Adjust Paddle Controls

The size of the paddles can be adjusted to increase or decrease the level of difficulty.

5. While in the Settings screen, tap Paddle Controls to open the menu.



6. Use the up/down arrows to increase or decrease the paddle size. Tap *Continue.*



Part 3. Adjust Boundaries

This screen allows the exerciser to adjust the amount of force needed to get the *center* of the paddle to the top (ceiling) and bottom (floor) of the screen.

7. Tap Adjust Boundary to open the menu.



8. Move the sliders to set the force for Ceiling (up) and Floor (down) movement. Tap *Continue*.



- 9. The minimum and maximum forces represent the range of force needed to get the middle of the paddle to the top and bottom of the screen.
 - a. For Legs modes, the force of the legs resting on the pedals should be considered in adjusting to the boundaries. If the minimum value is set too low (less than the force produced by the leg resting on the pedal), the exerciser will need to lift their legs off the pedals to reach the bottom of the screen. On average, the resting force of one leg is approximately 12% of the person's body weight. The default boundaries are calculated using the exerciser's weight.
 - b. For Heel-Toe options, the lower boundary can be adjusted by shifting the center-of-pressure on the pedal to the heel and dragging the line to a reachable position. The upper boundary line can be adjusted by shifting the center-of-pressure on the pedals to the toes and dragging the line to a reachable position.

Part 4. Adjust Ball Speed

The speed of the ball can be adjusted to increase or decrease the level of difficulty. 10. Tap on *Adjust Ball Speed* to open menu.



11. Select desired speed. Tap Continue.





Using the Program

1. Tap the start button in the lower left corner to begin. The green ball will begin moving across the screen.



2. Depending on the limb mode and paddle mode, apply force or shift the centerof-pressure on the pedals to move the paddle(s).

a. Left vs Right Push (Two-paddle mode)

The paddles will move upward with increasing push force.

b. Left vs Right Pull (Two-paddle mode)

The paddles will move downward with increasing pull force.

c. Left vs Right Push-Pull (Two-paddle mode)

The paddles will move upward with increasing push force, and downward with increasing pull force.

d. Left vs Right Heel-Toe (Two-paddle mode)

The paddles will move upward when the center-of-pressure shifts toward the

toes, and downward when the center-of-pressure shifts toward the heel.

NOTE: The amount of force applied to the pedal does not contribute to paddle movement. Only the foot's center of pressure will affect the paddle.

e. Left-Right Balance (Single-paddle mode)

To move the paddle to the left, apply more force with the left arm or leg than with the right arm or leg. To move the paddle to the right, apply more force with the right arm or leg.

f. Heel-Toe Balance (Single-paddle mode)

The paddle moves with shifting pressure from heels to toes. The paddle can be controlled by one foot or both feet.

g. Up-Down Push (Single-paddle mode)

The paddles will move upward with increasing push force with one or both arms, or one or both legs.

h. Up-Down Pull (Single-paddle mode)

The paddles will move downard with increasing pull force with one or both limbs.

i. Up-Down Push-Pull (Single-paddle mode)

The paddles will move upward with increasing push force from one or both limbs, and downward with increasing pull force with one or both limbs.



- 3. Note the score.
 - a. For two-paddle modes, a point is scored when the left or the right side misses the ball. The point is awarded the other side.
 - b. For single-paddle modes, the score is the number of consecutive hits for the current volley.
- 4. Note the streaks.
 - a. The *Hit Streak* is the number of consecutive hits for the exercise session.
 - b. The *All-Time Streak* is the most consecutive hits achieved by the exerciser. An exerciser with an account will continue to accumulate hits with each session.
- 5. Note the *Force Readouts* to see how much force is being applied by each limb.
- 6. Note the *Runtime* as it counts up during the exercise session.

Related TRANSITT[™] programs:







Main Purpose

or both legs.

Activity Description

To allow isometric and dynamic training for

exercisers with weight bearing limits for one

Isometric and Dynamic - The exerciser

is notified when the force applied to the

pedal(s) exceeds the set weight bearing limit. *It does not actively limit the force.*



Exercise Type







L

Foot & Ankle



Navigate to the Program

- 1. Sit with both feet on the pedals and log in.
- 2. Press *Continue* after the system calculates exerciser weight.

NOTE: This applies to new users logging in for the first time or guest users who chose to be weighed. Returning users are weighed every 60 days.

- 3. From the *Main Menu*, tap on one of the *Exercise Type* or *Body Region* icons (shown above) to open the program menu.
- 4. Tap on the *Weight Bearing* Program icon to open the program. **NOTE:** If the icon is not visible, swipe screen to the left.

🄰 Physical Setup

For Isometric Exercise:

 Move the pedals so that they are adjacent.
 NOTE: The right pedal position is shown as 0.0 on the screen when it's adjacent to the left.





Weight Bearing Program

2. Lock arm handles and foot pedals by pressing down and releasing the StrideLock lever. It will be in the **UP** position.



3. Move the seat and handles to the desired position for isometric exercise.

For Dynamic Exercise:

1. Unlock arm handles and foot pedals by pressing down on the StrideLock lever. It will be in the **DOWN** position.



2. Move the seat and handles to the desired position for dynamic exercise.



Program Setup

PART 1. Turn on Notifications

The program is appropriate for exercisers who need to limit weight bearing of one or both legs during cardiovascular, motor control, strength or endurance training. Once set, this program notifies exercisers when they exceed the set limit.

NOTE: This program does not actively limit force.

1. Tap *On* (left or right toggle) to turn on the notification.



PART 2. Set Force Limits

The limit is displayed in percentage of body weight (%BW).



2. Enter the limit. Tap Set Limit.

NOTE: Setting force limits for one leg will automatically set the same force limit for the other. The limit notification for the other leg will not be active until the toggle is switched to *On*.





Using the Program

- 1. Push isometrically or step dynamically while trying to keep the blue bar graph below the red force limit line.
- 2. Note the notification that pops up when the exerciser exceeds the set weight bearing limit.

Weight Bearing Program



- 3. Refer to *Count Over Limit* for the number of times the force limit was exceeded in the Weight Bearing program and while using other TRANSITT programs.
- 4. Refer to *Seconds Over Limit* for the number of seconds spent over the limit in the Weight Bearing program and while using other TRANSITT programs.

Using Other Programs with Weight Bearing

Weight Bearing can run in the background while the exerciser uses other programs and will notify the exerciser when they've exceeded the force limit.



Follow the same steps found on the preceding pages to set up the program. Once set, return to the *Main Menu* and select the desired program. Follow the instructions for that program. Afterwards, return to Weight Bearing to review data.

Maintenance

TRANSITT is a high quality, durable piece of equipment that is suitable for commercial use. A few tasks are recommended to ensure safe operation and increase the useful life of the TRANSITT. Please follow the recommended preventive maintenance intervals according to the amount of usage that the product receives. These are estimated intervals and you may need to increase or decrease the time period between preventive maintenance depending on your actual use.

ITEM	ТАЅК	FREQUENCY
Console	* Clean	Weekly
Covers and Frame	* Clean	Weekly
Seat and Hand Grips	* Clean	Weekly
AC Adapter	Inspect for signs of wear or damage.	Weekly
Transitt	Perform test ride and inspection to verify that all functions and features of the Transitt properly operate in accordance with this manual.	Quarterly
Transitt	Verify force measurement sensor health. Check sensor health in accordance with the applicable instructions published by NuStep.	Varies depending on type and frequency of use. Recommend quarterly checks at minimum.
* Use a non-abrasive spray cleaner and a soft cloth to clean the Transitt. Unplug the equipment before cleaning.		

Warranty

To view or print your Transitt warranty or software end user license (EULA) online, go to: www.nustep.com

If you have any questions about your warranty or EULA, please contact Customer Service, 800-322-4434 or support@nustep.com.

Customers outside the United States and Canada may obtain warranty information from the local distributor in the country where the product was sold.

Serial Number Information

Location on the product:

The Transitt serial number is located on the lower back (see image).





Α	Manufacturer's name and address
В	Model number and description of product
С	Compliance with standards
D	Compliance with standards
E	Quality management standard registered to ISO standard
F	Serial number
G	Patent protection for the product
н	Date of manufacture
I	Consult the user manual before use
J	Attention: read accompanying documents

Customer Service

Contact NuStep, LLC customer service for assistance with your Transitt.

Please have the serial number and a complete description of the problem so our product specialists can better assist you.

Product specialists can be reached via e-mail or phone at:

E-mail: support@nustep.com

Phone: 800-322-4434 or

734-769-4400

Address: NuStep, LLC 5111 Venture Drive, Suite 1 Ann Arbor, MI 48108 USA

Web: www.nustep.com

Customers outside the US and Canada, may obtain customer service by contacting their local NuStep distributor.

Technical Data

Maximum User Weight	400 lbs (181 kg)	
User Height Range	4'6"- 6'7" (137 cm - 200 cm)	
Weight of Equipment	340 lbs (154 kg)	
Dimensions: (length/height/width)	73" (185 cm) 49" (125 cm) 30" (76 cm)	
USB Port	The Transitt console includes a USB host port.	
Standards	UL 1647, CSA C22.2#68	
Generator resistance	Range 0 - 1400 watts	
Braking system and stepping action	The Transitt features a speed independent braking resistance system, and dependent stepping action. The stepping range is 2 - 8.5 inches (5 - 21.5 cm).	
Marks	ETL	
AC Adapter	Class 2 (UL 1310) Output 36 Vdc 2.5A, 90W Input 100 - 240 VAC ~ 50 - 60 Hz 1.5A	
Specifications of environmental conditions of transport, storage and operation	Transport and Storage: -10 to 50 degrees celsius < 95% non-condensing humidity 20 to 107 kPa Operation: 5 to 35 degrees celsius < 85% non-condensing humidity 60 to 107 kPa	

US FCC Compliance

US FCC Compliance Statement:

Note: This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can generate radio frequency energy and, if not installed and used in accordance with the installation instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference may not occur in a particular installation. If the equipment causes harmful interference to radio or television reception, which can be determined by turning this equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit which is different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



NuStep, LLC 5111 Venture Drive, Suite 1 Ann Arbor, MI 48108 U.S.A. (800) 322-4434 (734) 769-4400 www.nustep.com

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Patents 9,757,612 B2; 6,666,799; 7,775,942; D610,635 and patents pending.

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