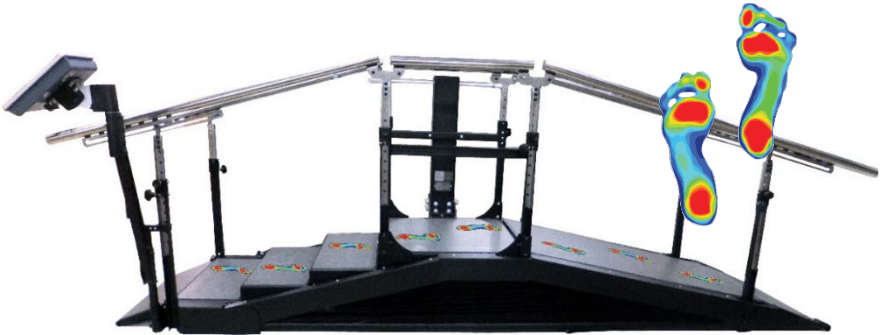


DST Triple Sense User Guide



The scientific way to keep in step



Caution! No one should be on the equipment
while adjusting the stair/ramp height

Admin initial login info
username: admin
password: Aa123456

Contents

1. Introduction.....	3
2. Precautions and Safety Instructions.....	4
3. Getting started.....	5
4. Adjusting the handrails.....	5
5. Adjusting stairs' height and slope's degree.....	5
6. Using the software.....	6
6.1 Introduction.....	7
6.2 Screen settings.....	7
6.3 Operating the Screen.....	7
6.4 Changing the angle of the screen.....	8
6.5 Turning the screen on/off.....	8
6.6 Inserting a Disk-on-key (for downloading data).....	9
6.7 Using the on-screen keyboard.....	9
6.8 Connecting to Wi-Fi:.....	9
6.9 Getting started:.....	9
6.10 Section A - Initial Setup and Admin Options.....	10
6.10 Section B – Physiotherapist Options.....	12
7. Additional information:.....	17
8. Support:.....	18
9. Troubleshooting.....	18
10. Technical Spec.....	19

Please Note

Front ramp, handrails, colors, and features may differ depending on your model and configuration

1. Introduction

Dear Physiotherapist,

Stair climbing and walking on inclined surfaces are basic everyday skills necessary for independence. The sooner patients regain these skills the sooner they can return to normal life.

The DST Triple Sense combines all three mandatory gait functions – flat-surface walking, climbing stairs and negotiating slopes, with the most advanced gait analysis technology, providing a comprehensive, evidence-based treatment. It helps diagnose, treat, and study patients' ambulatory capabilities on neurological, orthopedic, and geriatric rehabilitation.

With a click of a button, you can adjust the degree of the slope and the height of the stairs. Patients benefit from an optimal training regimen, leading to improved performance in less time and effort.

DST Triple Sense features friendly software and user interface to manage and monitor treatments. It displays data from previous sessions to enable easy tracking of patient progress.

Clear and objective progress charts can be quickly generated for all training parameters. Treatments' data can be downloaded or sent via email.

Thank you for choosing to incorporate the DST Triple Sense into your clinic and rehabilitation program. We trust that it will help you provide high quality and successful patient care.

Intended purpose: practicing walking on flat surface, climbing stairs from 0-16.5 cm, and climbing slopes from 0-26 degrees.

Intended users: patients undergoing physical therapy, at the professional discretion of a physiotherapist.

2. Precautions and Safety Instructions

- The *DST* is to be used only under the supervision of an authorized physiotherapist.
- Take extra care if there are children in the surroundings.
- Do not place the *DST* near a window that may interfere with its movement.
- Ceiling height: make sure the patient does not reach the ceiling when the *DST* is fully elevated.
- Do not expose the *DST* to rain/moisture/water.
- Do not use the *DST* when you or the patient are wet.
- Do not place the *DST* near a heating source.
- Do not allow anything to rest on the power cord or leave any cords hanging where people frequently walk.
- Before operating the *DST* make sure no objects or people will interfere with its vertical movement.
- No one should be on the device while adjusting its height.
- Unplug the *DST* before cleaning it.
- Do not attempt to service the *DST* yourself. If the *DST* does not operate, please refer to section 8.
- Unplug the *DST* and contact your authorized representative if one or more of the following occurs: The power cord or plug is damaged; The *DST* has been exposed to water; The *DST* has been damaged/does not operate normally; Unusual noises are heard.
- Disinfection: to maintain patient's hygiene, you can disinfect the handrails of the device before usage.
- In case a serious incident occurs in relation to the device, please report immediately to DPE Medical and the relevant competent authority in your country.

3. Getting started

3.1 Get your technical team's approval that the DST Triple Sense is properly installed and ready to use.

3.2 Before each use, check around the DST to make sure that there are no obstacles nearby that can interfere with the DST's movement.

3.3 No external equipment, elastic band, rope, etc., should be connected or tied to the DST.

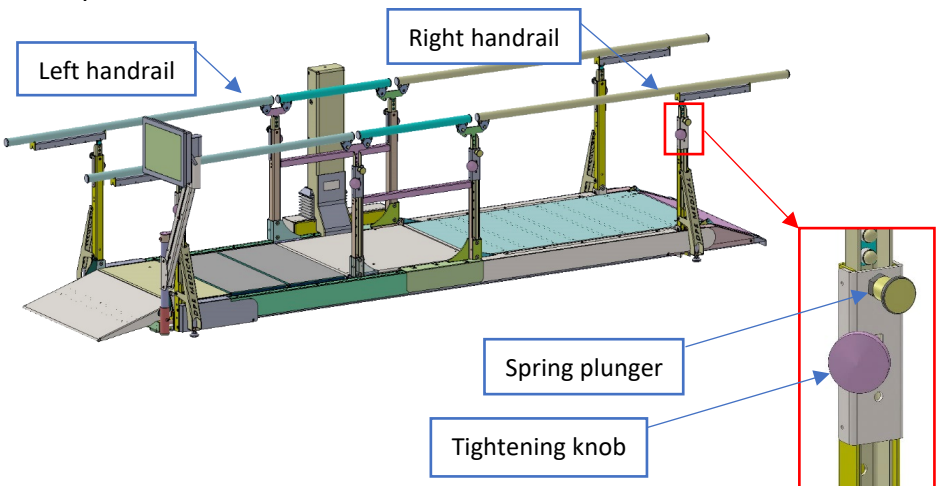
3.4 Before training with a patient, make sure that the handrails are at the appropriate height.

4. Adjusting the handrails

4.1 Make sure that the DST is in a horizontal position (see section 5)

4.2 Every handrail (left or right) is supported by four columns (see drawing below). In order to change the height, adjust each column a few centimeters/inches at a time.

4.3 (1) Release the tightening knob, (2) hold the handrail, (3) pull the spring plunger, (4) and raise or lower the handrail. Engage the spring plunger to the new positioning hole and tighten the knob. Repeat this step for each column.



5. Adjusting stairs' height and slope's degree

5.1 Press and hold the up/down buttons on the hand control until the desired stair height or ramp angle is achieved.

5.2 Monitor the height of the stairs or the angle of the slope by watching the scale located on the central column (centimeters are on the left, while inches are on the right).

Maximum stair height is 16.5 centimeters (6.5 inches) and maximum angle is 26 degrees. You can also monitor the changes on your screen when the software is used.



6. Using the software

6.1 Introduction

The DST Triple Sense software collect and analyze patient's gait performance on stairs, slope, and parallel bars. Recorded data includes: stair usage - ascend/descend height and time; slope usage - ascend/descend degree and time; parallel bars – 3-meter walking-time; right/left weight distribution; anterior/posterior foot distribution; step time; step length; center of mass; feet angle.

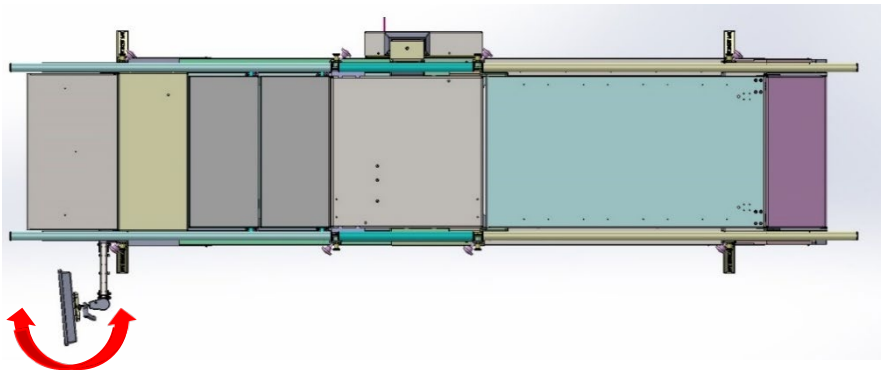
With a click of a button, a patient's progress chart is generated and displayed, including all past sessions' data. The progress chart can be emailed to medical staff for review and evaluation.

6.2 Screen settings

After 20 minutes without use, the display will disappear and the sentence: **Tap to Start** will show on the screen. The software will shut off automatically after 5 hours without use.

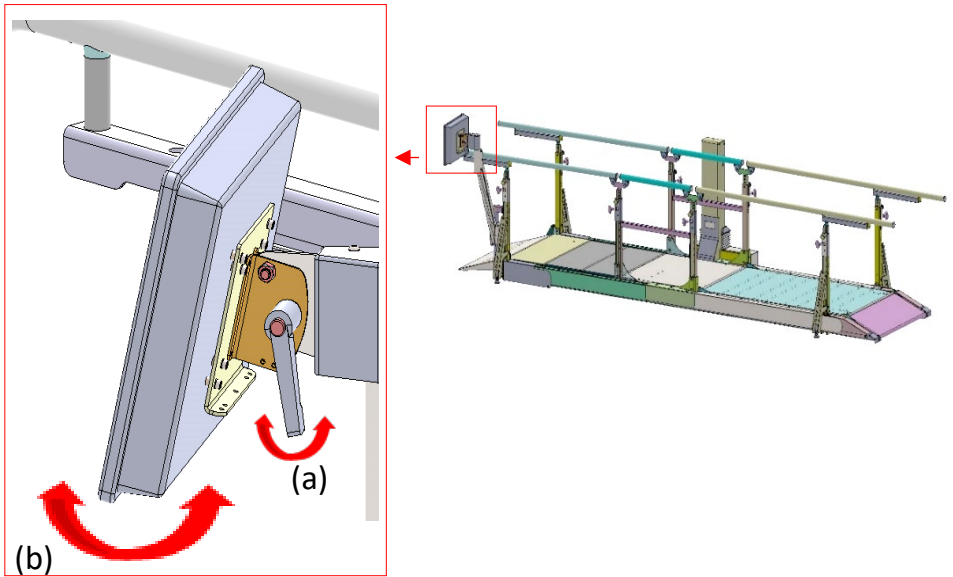
6.3 Operating the Screen

You can rotate the screen. See the red arrows.



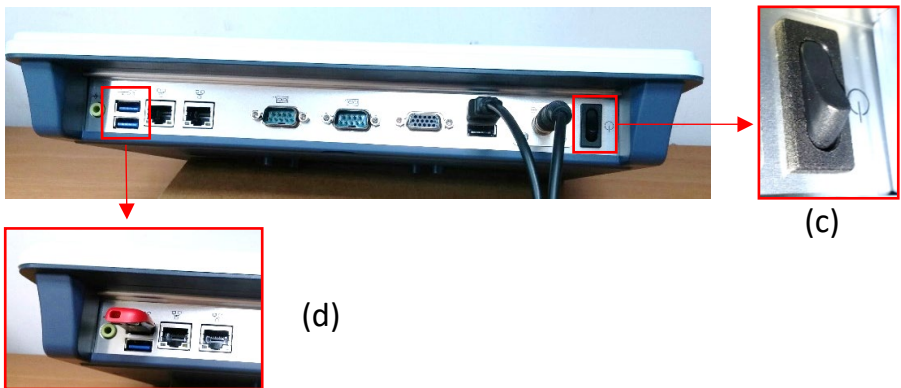
6.4 Changing the angle of the screen

Loosen the lever (a) and adjust the angle of the screen (b). Tighten the lever (a).



6.5 Turning the screen on/off

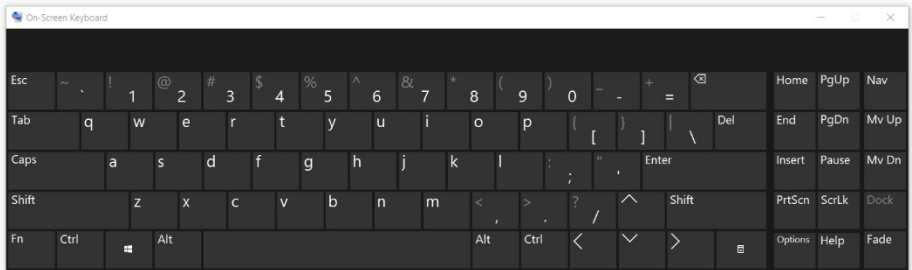
The on/off switch (c) is located at the bottom of the screen on the right. Press once on the switch to turn the screen on or off.



6.6 Inserting a Disk-on-key (for downloading data)

The ports (D/E) for inserting DoK are located at the bottom of the screen on the left (d).

6.7 Using the on-screen keyboard



6.8 Connecting to Wi-Fi:

A Wi-Fi connection is needed for sending data outside the system and is essential for online support. Exit the software to windows Desktop. Press the icon “Network and Sharing...” and select “Connect or disconnect”. Select your preferred Wi-Fi connection. If a password is needed, press “On-Screen Keyboard” to enter a password. After establishing a Wi-Fi connection, press the DST Sense icon to log-in. See “More information” if no Wi-Fi connection is available.

6.9 Getting started:

The first login and initial setup should be done by the Administrator (such as the department head). See Section A - Initial Setup and Admin Options.

If initial setup has already been completed by the “Admin”, continue to Section B - Physiotherapist User Guide.

Important: because the height sensor of the DST is very sensitive the figures after the decimal point may flicker. This is normal and does not affect the DST or the software performance.

6.10 Section A - Initial Setup and Admin Options

A-1 Login

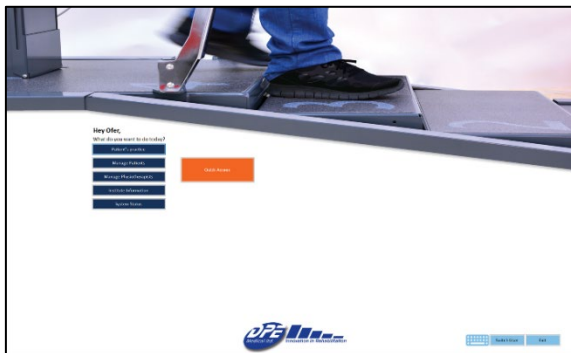


Enter Admin initial login info.

Note:

- Before using the system for the first time, the Admin (such as head of department) must complete the initial setup shown below.

A-2 Admin Homepage



Must completed on initial setup:

- **Agree to terms of use**
- **Change password**
- **A-3 Institute's information.**
- **A-5 System status**

Other options:

- **A-4 Manage physiotherapists**
- **B-2 Manage patients**
- **B-3 Patient' practice**

A-3 Institute Information



- Enter institute's information and device's data.
- Choose measurements units (cm/inches).
- Data can be edited at any time.

A-4 Manage physiotherapists



- To add a PT Press **Add new** and fill PT's name and username below. Username must be unique.
- The system will automatically issue a uniform password for all new PTs. Password: Aa123456
- You can see a list of existing PTs. Click on a PT to present their info or edit their name,

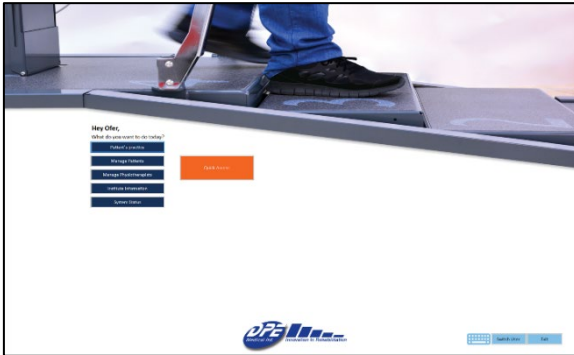
A-5 System status



- When entering 'System Status', the system automatically checks all its functions and provide a visual indication.
- Make sure there is nothing on the DST during the following steps:
 - **Force sensors connection:** Inside the blue boxes (on the left) all sensors' numbers should appear. If not, press **detect**. This will re-connect the sensors. If this does not fix the problem, try disconnecting and reconnecting the USB cables from the computer.
 - **Force sensors calibration:** If you see any data inside the blue boxes other than the sensor's number, such as green/blue/red dots, press **Calibrate sensors**. Make sure there is nothing on the DST. This process takes up to 10 seconds.
 - **Height sensor calibration:** Calibrate the height sensor by lowering the DST to zero (flat position) and pressing **Low calibrate**. Then, rise the DST to the maximum position and press **High calibrate**.

6.10 Section B – Physiotherapist Options

B-1 Physiotherapist Homepage



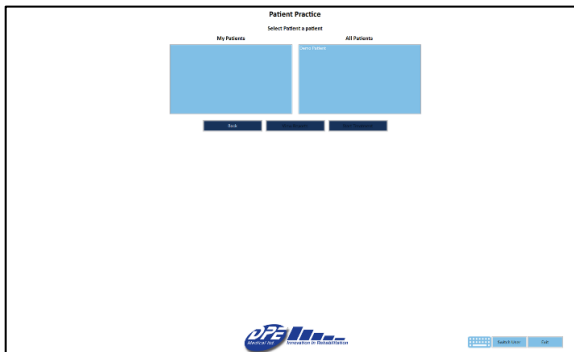
- **Manage patients:** will take you to a list of your patients, to add or edit their data. **See B-2**
- **Patient Practice:** will take you to a list of your patients. You can practice a patient or view past sessions. **See B-3**
- **Quick Start:** will take you to the Quick start practice – where no information is

B-2 Manage Patients



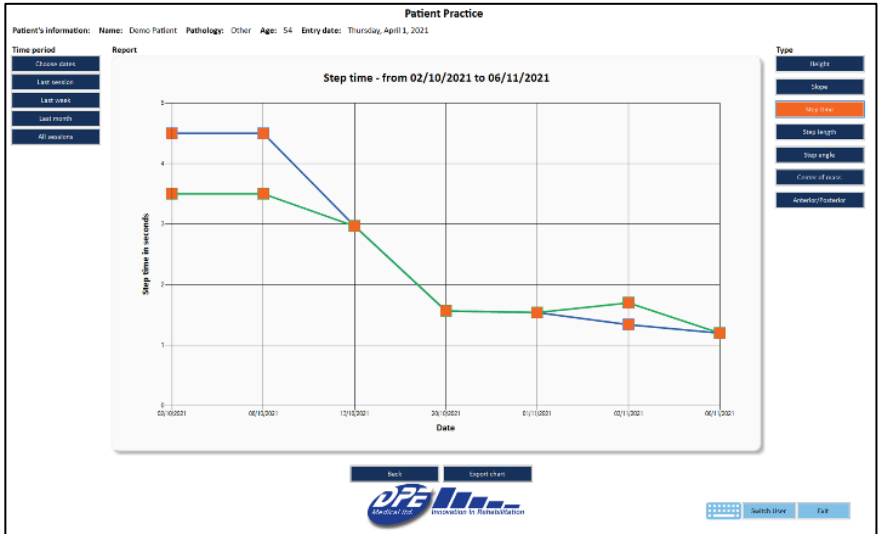
- To add a patient press **Add new** and fill patient's info below. At the bottom you can assign the patient to a specific physician.
- You can see a list of all existing patients. Click on a patient to present or edit their info.

B-3 Patient Practice



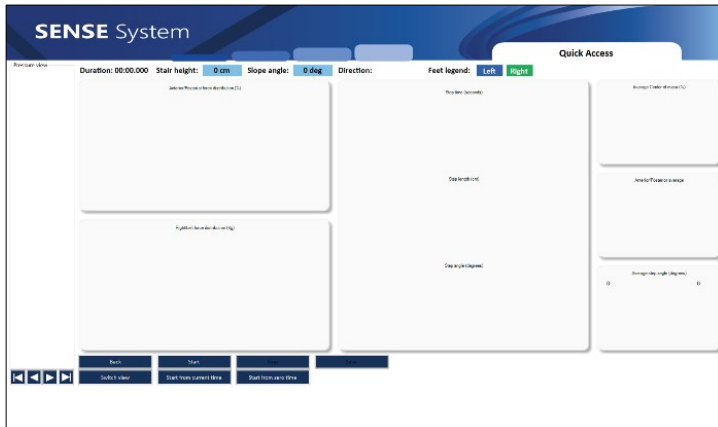
- On the left there is a list of all patients assigned to you. On the right you can see a list of all patients in the system.
- You can choose whether to practice the patient (**B-6, B-7**), or view past sessions (**B-4**).

B-4 Patient Past sessions



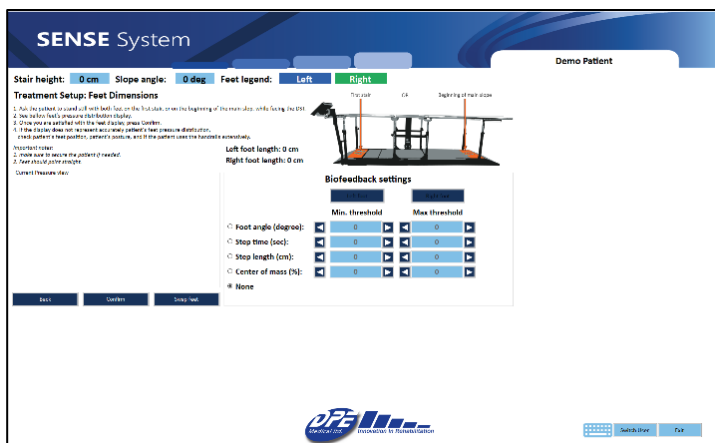
- In order to view patient's past sessions, choose the relevant time period (on the left) and the type of info (on the right).
- The graph in the middle will present the chosen data.
- You can change your choice at any time.
- Press **Export chart** to save current chart as PDF.
- Press **Export raw data** to export all sessions in csv format.
- Pressing on any orange square will open that session's complete data.

B-5 Quick Access



- The quick access option is designed to allow for rapid usage of the system without the need to enter a patient.
- The analyzed parameters are the same as those of the regular practice.
- **NO DATA IS RECORDED**, and is only shown on the screen.
- Treatment setup is required before practicing. **See B-6**

B-6 Treatment Setup



- Before practicing, the system needs to calibrate patient's feet dimensions. Follow instructions on the screen.
- Press **Confirm** to approve calibration and begin treatment.
- Make sure the system identified correctly the Right and Left feet. If not – press **Swap feet** to switch them.
- When not using the biofeedback feature, leave its setting on **None**.

B-7 Practice



The practice screen shows info for current session.

Options on this screen:

- Press **Start** to begin recording data.
- Press **Stop** to stop recording data.
- Press **Save** to save current treatment data. Before pressing **Save** play the session from start to finish.
- Pressure view: On the left vertical rectangle you can see all recorded data. Click on any element to change foot classification (right/left), or to delete non relevant data.
- Press the play/playback/step-back/step-forward icons to view current recorded data.
- If there are overlapping elements in the pressure view: play until the overlap moment, then press **Start from current time** and press **step-back** one time. Now only elements from that time onwards will appear. You can correct the elements if needed, and then press **Start from zero** to view all session's data.
- Press **Back** to return to previous screen.
- Press **Switch view** to change Pressure view – from green/blue feet indications to force distribution indications.

B-8 Biofeedback - Settings

The screenshot displays the SENSE System interface for a 'Demo Patient'. At the top, it shows 'Stair height: 0 cm', 'Slope angle: 0 deg', and 'Feet legend: Left Right'. Below this is the 'Treatment Setup: Feet Dimensions' section, which includes instructions for setting up the patient on the DST. A diagram of the DST is shown with labels for 'Foot size', 'DT', and 'Signaling of main slope'. The 'Biofeedback settings' section is highlighted with a red box and contains the following options:

- Foot angle (degree): Min. threshold: 0 Max. threshold: 0
- Step time (sec): Min. threshold: 0 Max. threshold: 0
- Step length (cm): Min. threshold: 0 Max. threshold: 0
- Center of mass (%): Min. threshold: 0 Max. threshold: 0
- None

At the bottom of the interface, there are buttons for 'Back', 'Confirm', and 'Snap feet', along with the 'DFE Medical Inc.' logo and 'Switch User' and 'Exit' buttons.

With the biofeedback feature PTs can choose a variety of movement patterns for their patients to practice and use real-time feedback to improve upon it.

For example, a PT can decide to focus on the right foot angle, and adjust the acceptable range (in degrees). When the patient rises to the challenge and performs within the range, a positive sound will be heard. If the patient deviates from the accepted range, the positive auditory feedback will stop and a red mark will appear on the screen.

You can only receive biofeedback for the performance of one foot at a time

- First, adjust the biofeedback settings:
 - Choose the parameter you wish to practice, and set the acceptable range.
 - Choose the foot you wish to practice.
 - Choose what sound you wish to hear – positive, negative, or both.
- Second, follow instructions on the screen to calibrate feet dimensions.
- Press confirm and begin treatment.

B-9 Biofeedback Practice



- Press **Start** to activate the biofeedback feature and begin recording.
- When the patient performs within the acceptable range – a positive sound will be heard
- When the patient deviates from the acceptable range – and negative sounds will be heard, and a red mark will

7. Additional information:

1. Patient information generated by the **DST** is confidential. Use discretion and follow your organization's procedures for maintaining confidentiality of patient records and documents.
2. Use of the software is the sole responsibility of the user.
3. If Wi-Fi connection is not available, you can connect the computer to the network using an internet cable or a net-stick. Consult your network technician.
4. The DST can be used without the software.
5. Turn off the computer at the end of each day.
6. Minor visual variances can be between this guide and the displays on screen.
7. It is recommended that physiotherapists enter their patients' details into the system in advance, and not before a session.

8. Support:

1. If you encounter a problem using the software, try turning the computer off and on.
2. If the Admin loses the Password/Username, please contact DPE Medical: info@dpemed.com for new login info.
3. If the problem persists, send email to info@dpemed.com with a description of the problem, your name, email address, phone number and your institute's name and address. We will diagnose and fix the problem remotely and update you.

For remote support Wi-Fi connection is needed and the computer must be turned on.

9. Troubleshooting

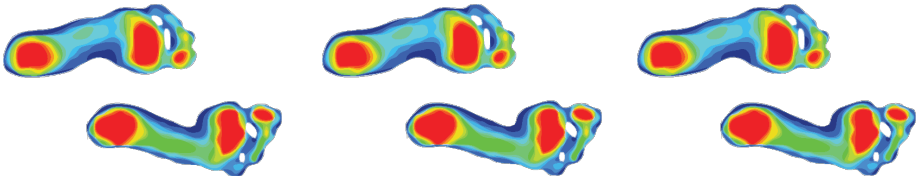
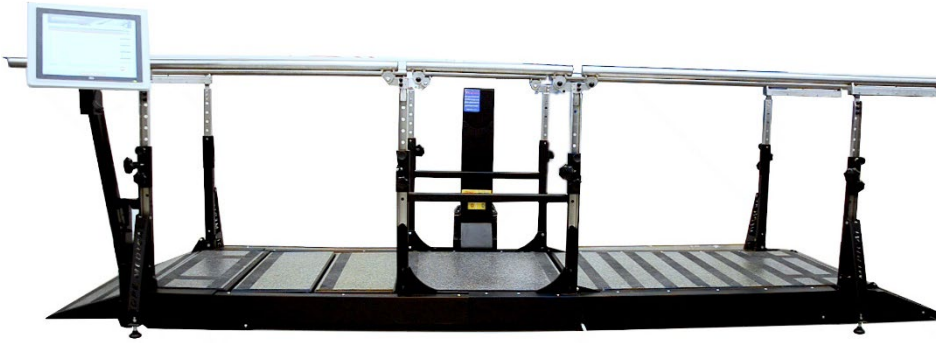
Should the *DST* fail to operate properly please check that:

- The power cord is plugged into the wall outlet.
- The wall outlet has power. Check by plugging another electrical appliance into the outlet.
- The *DST* may be overloaded with excess weight. Clear the *DST* of all users and try again after 3 hours.

If the *DST* still fails to operate after trying all of the above, unplug the cord and contact your authorized *DST* representative.

10. Technical Spec

- Flat walking surface - 3 m/9.8 ft
- Handrails' length - 3.6 m/11.8 ft
- Total length - 3.6 m/11.8 ft
- Total width - 1.6 m/5.2 ft
- Stairs/slope width - 65 cm/25.6 in
- Stairs' height - 0 to 16.5 cm/6.5 in
- Slope angle range - 0 to 26 degrees
- Handrails' height range - 65-93 cm/25.6-36.6 in
- Maximum load - 160 kg / 352 lbs.
- Unit weight - 388kg / 853 lbs.
- Regulatory compliance - IEC 60601-1 3ed, CE, UL (motor, controls)
- Operating interval - 2 min on / 18 min off
- Color, design, specs, and features may vary
- Electrical requirements – 100-240V, 5060Hz
- Self-life – 10 years
- Storage conditions:
 - Temperature: 10° to 40°C (50°-104°F)
 - Humidity: 30% to 85% non-condensing



The DST models are developed and manufactured by:

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info@dpemed.com ; www.dpemed.com

Medical Device

