DST8000-Triple Pro

User Guide

The scientific way to keep in step

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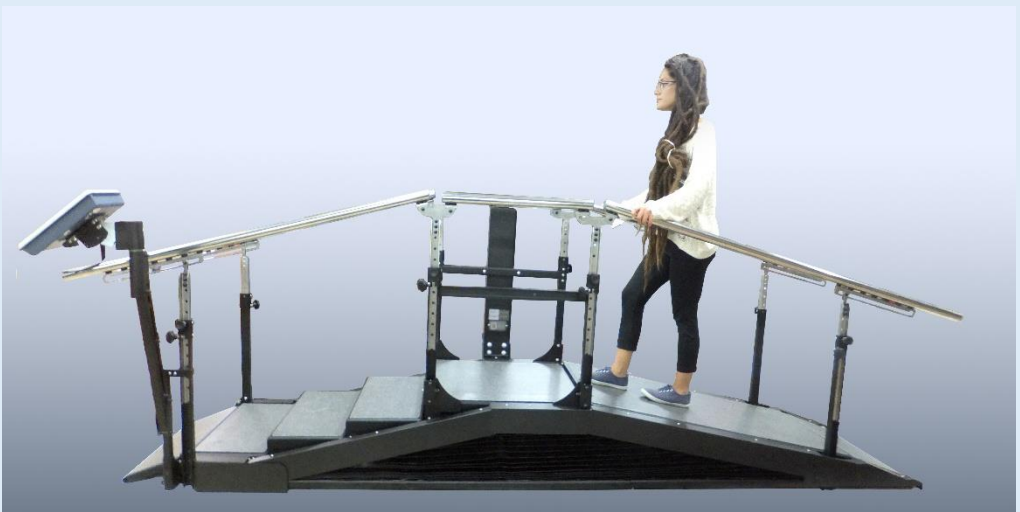
Caution! No one should be on the equipment while **adjusting** the stair/ramp height

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

Table of Contents:

Please Note
Front ramp, handrails, colors and features may differ depending on the *DST8000-Triple* model

1. Introduction

Dear Physiotherapist,

Stair climbing and walking on a flat surface up and down hill are basic everyday skills. The sooner patients can achieve independence while walking and stair climbing, the sooner they can return to normal life.

The revolutionary **DST8000 Triple Pro** was developed in close cooperation with leading physiotherapists. It combines three devices in one, including an adjustable staircase for walking up and down steps, a walking surface inclined at different angles, and a full horizontal parallel bar.

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.

DST8000 Triple Pro 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. Treatment data can be downloaded or sent via email.

Thank you for choosing to incorporate the **DST8000 Triple Pro** into your clinic and rehabilitation program. We trust that it will help you provide high quality and successful patient care.

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 surrounding.
- Do not place the *DST* next to windows that may interfere with its movement.
- Ceiling height: Make sure that when the *DST* is fully elevated, the patient's head does not reach the ceiling when standing on the top stair.
- Do not expose the *DST* to rain or moisture.
- Do not use the *DST* where water spills can occur.
- Do not use the *DST* when you or the patient are wet.
- Do not place the *DST* near heating sources.
- 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 the up/down movement.
- No one should be on the equipment while adjusting the stair/ramp 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; The DST does not operate normally; Unusual noises are heard.

3. <u>Getting started</u>

3.1 Get your technical team's approval that the DST8000 Triple Pro 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. Physiotherapy rooms are usually very crowded. People tend to put all kind of things adjacent or on top of the DST. This can damage the DST or cause injuries.

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

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

4. <u>Adjusting the handrail</u>

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 Turn of the tightening knob, hold the handrail, pull the spring plunger, 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.

Right handrail

Left handrail

Spring plunger

Tightening knob
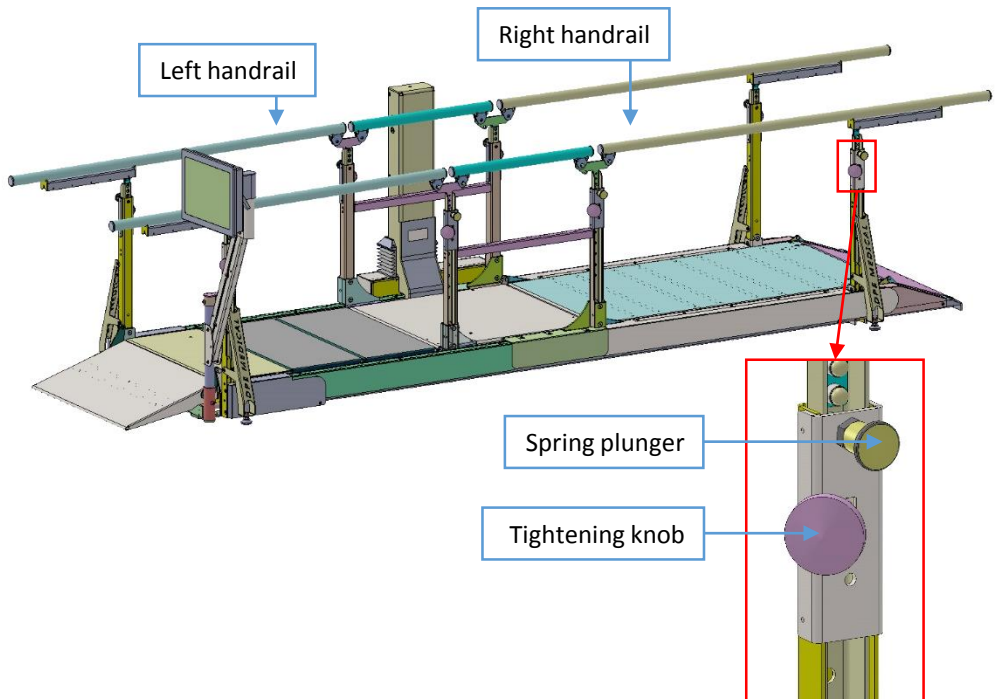
5. Adjusting the stair height and ramp incline

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 ramp by watching the ruler in the window of the center column (centimeters are shown on the left side of the ruler and inches on the right side).

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.

Up   ⬆   ⬇   Down

6. Using the software

Contents: Page

6.1 Introduction

The DST8000-Triple Pro software monitors, records and displays patient performance in past and current treatment sessions. Recorded data includes treatment session dates, stair height, patient's ascent and descent times, patient's ability to climb slopes at different angels and time it takes the patient to walk 3 meters (10 ft.)

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

The DST8000-Triple Pro software calculates a patient's "DST Factor", a unique score that conveniently summarizes the patient's current status and estimated potential for future improvement.

Medical institutions and health care professionals gain access to an invaluable database of thousands of personal Progress Charts, each containing accumulated data of individual patients' progress, according to age, pathology, and treatment duration. The database is extremely beneficial for studies and scientific research.

6.2 <u>What the DST can do for you and your patients</u>?
- Displays information about your patient's previous sessions in graph form before every session.
- Shows your patient's past progress and current status.
- Tells you how long it takes your patients to climb up and down stairs of different heights.
- Tells you how long it takes your patient to climb or descent slopes of different angles.
- Tells you how long it takes your patient to walk 3 meters (10 ft.)
- Tracks and records all your patient's stair climbing treatment sessions.
- Sends your patient's Progress Chart to your email. Data can be printed and professionally presented at meetings.

6.3 <u>What is the DSF-Factor?</u>
- The DST-Factor is a score generated by the DST 8000-Pro comprising a number and a letter that gives you accurate information regarding the patient's current ability to negotiate stairs, together with a forecast of his or her potential to improve.
- The DST-Factor is designated as follows : X-Y, where X is a number between 0 to 16 (0 to 6.5 where inches are used) and Y is a letter (A, B or C). The number represents the most recent stair height the patient climbed, and the letter represents the rate of progress: A-the patient has made significant progress, B-the patient has made moderate progress, and C- the patient has not made any progress in the last 5 sessions.
- The DST-Factor is calculated based on the 5 last sessions, and is therefore shown on the Progress Chart only after the first 5 sessions have been completed.
- Example of a DST Factor: 13-A (Patient mounted stars of 13 cm and likely to further improved)

How the DST-Factor is calculated: (2-for cm. ; 0.8 for inches)

$\triangle$ H - The change in centimeters (inches) between the current stair height and the height the patient climbed 5 sessions ago.
$\triangle$ T - The change in seconds between the time it took the patient to climb the stairs in the current session and the time 5 sessions ago.

|		
If $0 \geq \triangle$ H	Then DST Factor is:	(current height)-C
If $0 < \triangle$ H ≤ 2 (0.8)	Then DST Factor is:	(current height)-B
If (0.8) $2 > \triangle$ H	Then DST Factor is:	(current height)-A
If $0 = \triangle$ H and $\triangle$ T > 0	Then DST Factor is:	(current height)-B

6.4 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.
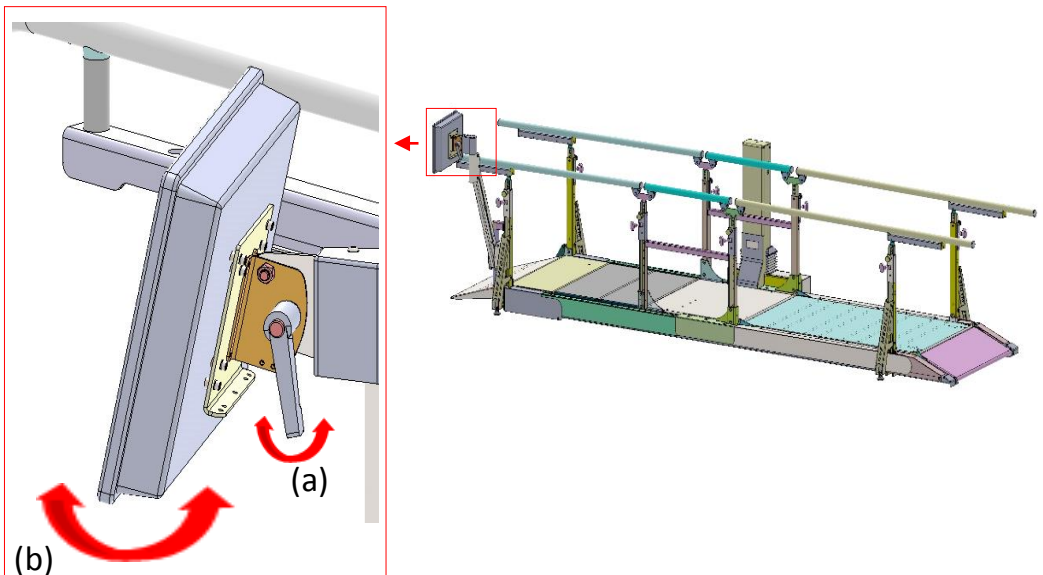
6.5 Operating the Screen

You can rotate the screen. See the red arrows.
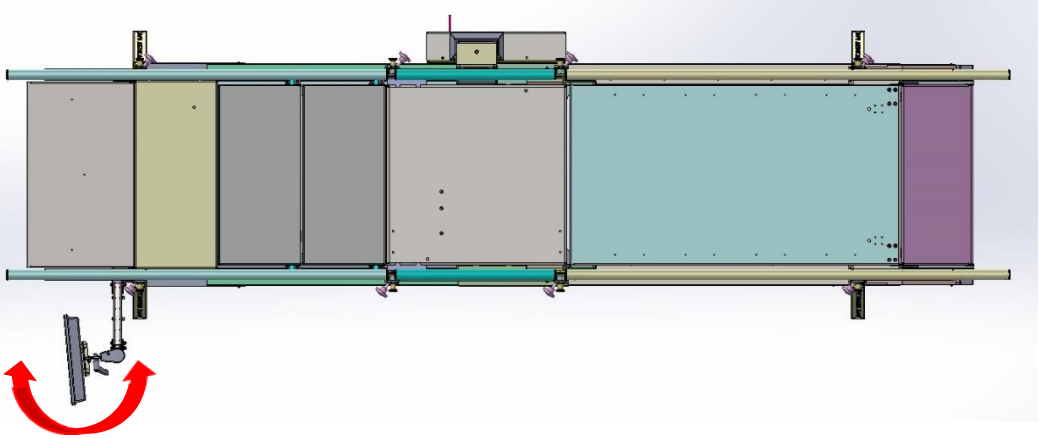
6.6 Changing the angle of the screen

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

(a)

(b)

6.7 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**.
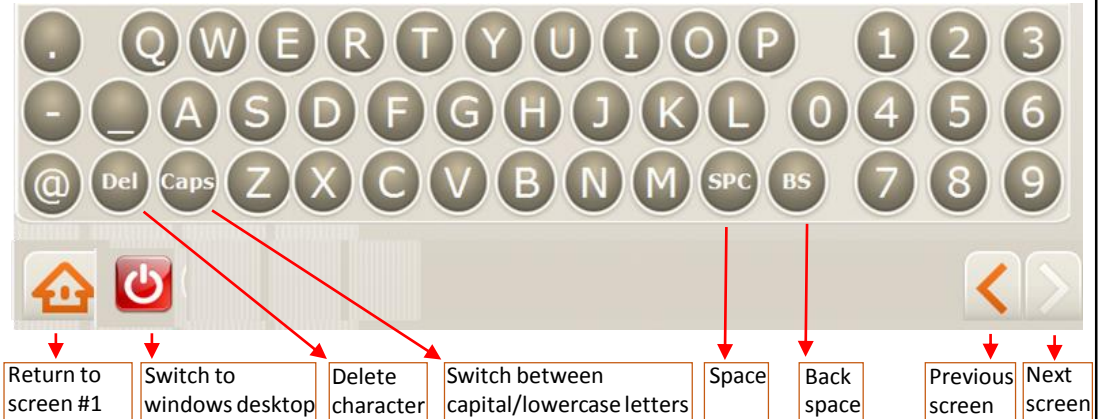

(c)

(d)

6.8 Inserting a Disk-on-key (for downloading Progress Charts)

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

6.9 Using the on-screen keyboard

6.9.1 Keyboard layout (not all characters appear on every screen):

| Return to screen #1 | Switch to windows desktop | Delete character | Switch between capital/lowercase letters | Space | Back space | Previous screen | Next screen |

6.9.2 Connecting to Wi-Fi:

A Wi-Fi connection is needed for sending Progress Charts to pre-entered email addresses and is essential for online support. Press to switch 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 DST8000-Pro icon to log-in.

See "More information" if no Wi-Fi connection is available.

6.9.3 Getting started:

If you are using the *DST8000-Triple Pro computerized system* for the first time, the head of the physiotherapy department ("Admin") must complete the initial setup. 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.

See **User Guide** located in the front pocket of the main column for instructions on operating the DST.

Important: The height sensor of the DST is very sensitive. The figures after the decimal point, indicating the height of the stairs at **B-7**, may flicker. This is normal and does not affect the DST or the software performance.

Section A - Initial Setup and Admin Options

A-1

❑ Enter Username and Password you received with this booklet and confirm.

Note:
➢ Before using the system for the first time, the head of the physiotherapy department ("Admin") must complete the initial setup.

Continue to **A-2**

A-2

❑ Press: "Edit institute data".

Continue to **A-3**

A-3

❑ Enter institute data and confirm.
Note:
➢ Marked field (*) must be filled.
➢ Patient's Progress Chart will be sent to these email addresses.
➢ Choose units for displaying stair height on the Progress Chart (centimeters/inches).
➢ Data can be edited at any time.

Continue to **A-4**

Section A - Initial Setup and Admin Options

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Administrator - options

Edit institute data

Edit physiotherapists and patients

Download

Change password

Calibration

A-4

❑ Press: "Edit physiotherapists and patients".

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Physiotherapists and patients

Physiotherapist: daniel orgal
Username: daniel
Password: 4949
Patients: asaf argas
david ofer

Add physiotherapist   Delete physiotherapist

A-5

❑ During initial setup you must enter the names of the physiotherapists who will have access to the system.
Press "Add Physiotherapist" and continue to **A-6.**

❑ Additional options are available for the Admin on this screen.
See detailed information in **A-8**

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Physiotherapist - Add

New physiotherapist's data

First Name:

Last Name:

Username:

Password:

Q W E R T Y U I O P 1 2 3
A S D F G H J K L 0 4 5 6
@ Del Caps Z X C V B N M SPC BS 7 8 9

A-6

❑ Enter physiotherapists that will have access to the system and assign them a Username and Password. Press ✓

Note:
➢ If you will be treating patients, add yourself as well as the physiotherapist with new login info.
➢ Data can be edited at any time.
➢ Informs your colleagues about their user name and password.
➢ Passwords contain 4 digits.

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Section A - Initial Setup and Admin Options

❑ You have completed the initial
setup and the system is ready
for physiotherapists to start sessions.
Now you can:

➢ Press 🏠 to end. See **B-1**
➢ Insert a disk-on-key and press
"Download" to download
Progress Chart. See **A-9**
➢ Press "Change password" to
change your login info. See **A-10**
➢ For Calibration option, See **A-11**

❑ More Admin options:
➢ To change patient's physiotherapist:
Drag and drop the patient's name
from one physiotherapist to another.
➢ To display patient's Progress Chart:
Tap twice on patient's name.
➢ To change a physiotherapist's name:
Tap twice on physiotherapist's
name and enter change.
➢ To change physiotherapist's
Username:
Tap twice on physiotherapist's
username and enter change.
➢ To change physiotherapist's
Password:
Tap twice on physiotherapist's
password and enter change.

➢ To delete a physiotherapist:
Reassign his patients to other physiotherapists (see above "To change patient's physiotherapist")
then press "Delete physiotherapist". A list of physiotherapists will open. Choose the name of
the physiotherapist to delete and confirm. If this physiotherapist has patients, and you didn't
reassign them earlier, you will be asked to do so now.
➢ Remember: Add yourself as a physiotherapist as well, if you want to treat patients or to send
Progress Charts for printing.
➢ It is recommended to prepare in advance a list of physiotherapists, their user names and 4 digits
passwords, before entering them at **A-5.**
➢ If you have questions, ideas or requests, please contact us at info@dpemed.com

Section A - Initial Setup and Admin Options

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Administrator - options

Warning
Please select drive to copy data

D:\

Ok   Cancel

Calibration

❑ Downloading
To download a patient's Progress
Chart: After pressing "Download",
select the appropriate drive (D or E) and
confirm.

Note:
➢ A new library called:
  ProgressCharts will be created
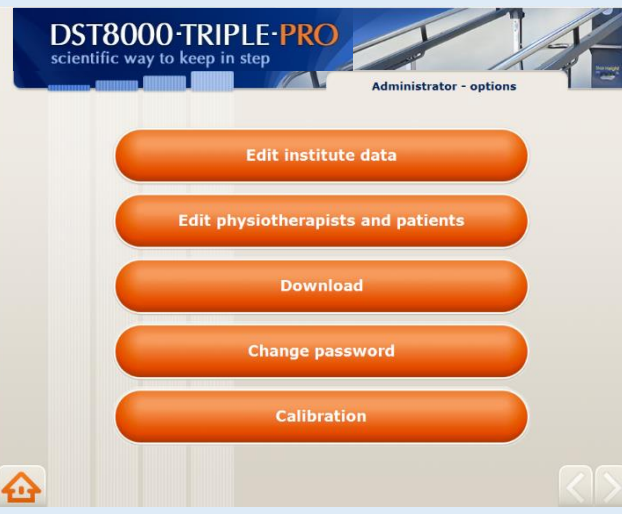 in your DoK and all Progress
  Charts will be saved there.

DST8000-TRIPLE-PRO
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Change password

Username:
Password:
Confirm
Password:

Q W E R T Y U I O P 1 2 3
- _ A S D F G H J K L 0 4 5 6
@ Del Caps Z X C V B N M SPC BS 7 8 9

❑ To change Admin login info:
Enter new Password and confirm.

Note:
➢ Make sure you remember your
  new login info.
➢ See "Support" if you forgot your
  login info.

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Administrator - options

Edit institute data

Edit physiotherapists and patients

Download

Change password

Calibration

❑ Calibration option: Press **A-11**
Calibration and continue to **A-12**

Note:
➢ Calibration is very rarely needed
➢ The need to calibrate can
  occur after displacing the *DST*
  or service.
➢ If the height of the stairs, as
  shown on the Progress Chart, is
  different form the height shown
  on the front window, calibration
  may be needed.
➢ Having Questions? See "Support"

15
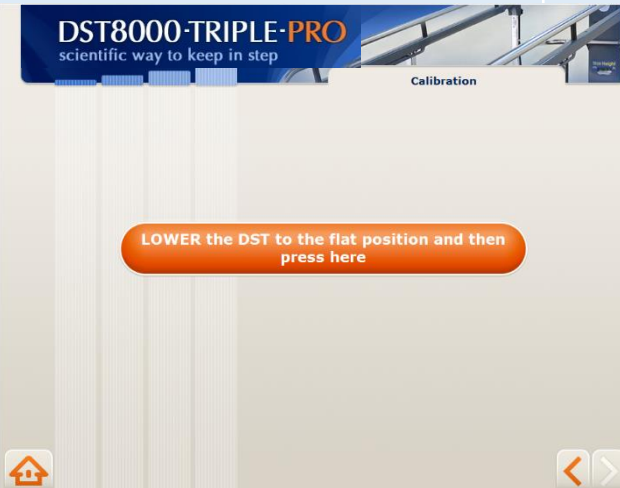
A-12

❑ Lower the DST all the way to the flat position and press as instructed.

LOWER the DST to the flat position and then press here

Continue to **A-13**

A-13

❑ Raise the DST up to the top position and press as instructed.

RAISE the DST up to the top position and then press here

Continue to **A-14**

A-14

❑ Press OK

Information

Calibration completed successfully

Ok

Continue to **A-7** or press 🏠 and Continue to **B-1**

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Section B - Physiotherapist User Guide

B-1

❑ Enter Username and
Password received from
your Admin and press >

Continue to **B-2**

B-2

❑ Press "Add a patient " to add
a new patient and continue to **B-3**

Or

❑ Press "Choose a patient" for
an existing patient and continue
to **B-5**

B-3

❑ To add a new patient:
Enter patient's data and press ✓

Continue to **B-4**

Section B - Physiotherapist User Guide

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Patient - General

Choose a patient

Add a patient

❑ Press "Choose a patient" for an existing patient and continue to **B-5**

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Patients List

asaf argas
dan fogel
david ofer

Demo Patient
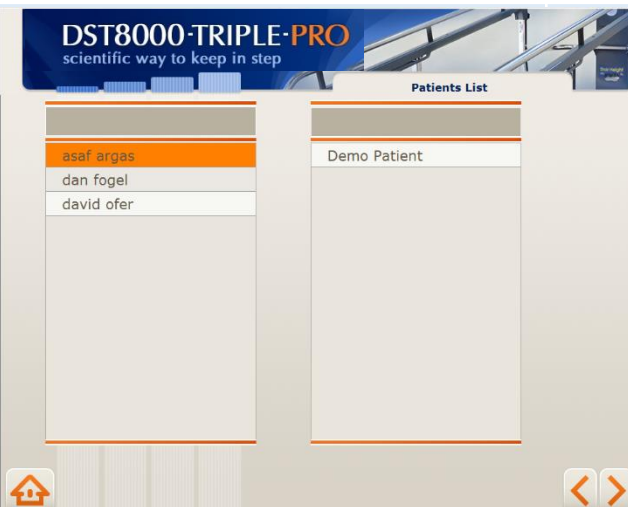
❑ Select a patient by pressing on his/her name and then press **>**

Note:
➢ For your convenience, a list of your patients is displayed on the left, as well as a general list.
➢ Names are listed in alphabetical order.
➢ You can scroll up/down or enter the patient's name in the top empty field.

Continue to **B-6**

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Patient - Options

Patient: dan fogel

Start new session

Edit patient's data

Delete patient's data

❑ Press the desired option.

Note:
➢ If you select "Start new session" continue to **B-7**
➢ If you select "Edit patient data" continue to **B-8**
➢ If you select "Delete patient data" continue to **B-9**

B-7

❑ Progress Chart is displayed.

❑ If previous sessions are available, they will be displayed on the chart.

❑ If this is the first session, the chart will be empty.

❑ To document a treatment session, press the red "Start" button before the patient steps on the first stair.

❑ After the patient climbs up and down the stairs, his/her performance will be displayed on the chart.

❑ You must press "**Start**" whenever you want to record a treatment session.

❑ Press 🏠 if you finish a patient session and want to finish using the *DST*.

❑ Press ‹ if you finish a patient session and want continue working on the *DST* with a new patient.

❑ Press "**Stop**" to reset if patient didn't complete going up/down.

❑ To send the Chart by email for printing, press "Send Progress Chart".

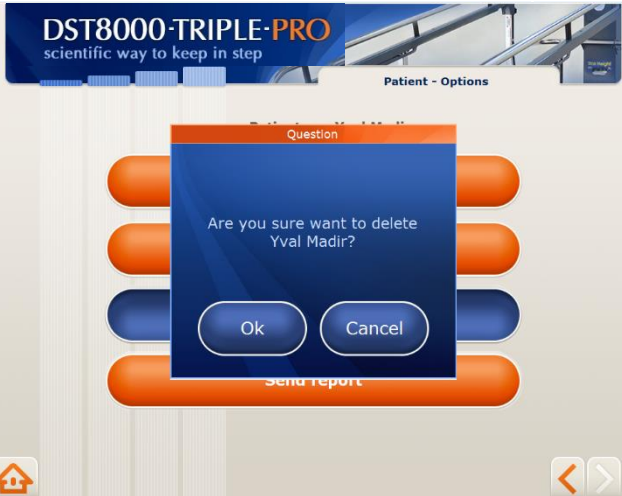❑ For detailed info about the Chart, see page 10.

B-8

Edit patient's data and press ✓

19

B-9

❑ Deleting a patient from the system will delete the patient's data but not his/her Progress Chart

Notes:_____

_____

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Progress Chart Display

Current stair height

Time it took the patient to walk up/down slopes at different angles

Name of physiotherapist

Time it took the patient to climb up/down stairs at different heights

Name of patient

Date of session

Stair progress graph

Back to screen #1

Incline progress graph

Press here to start recording a session

Angle of the incline the patient walked in a specific session

Time it took the patient to walk 3 meters (10 ft.)

Back to patient list

DST-Factor

Height of the stairs the patient climbed in a specific session

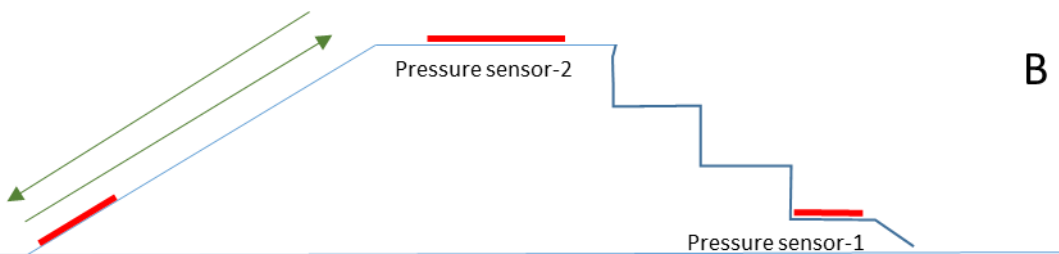The time it took the patient to climb /descend in this session

Incline angle

What and how the DST8000 Triple Pro measures

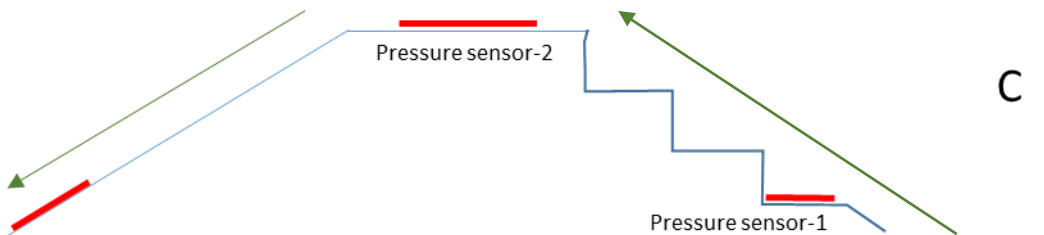## Option 1: Patient is going up/down stairs. Software documents and displays the height of the stairs and the time it took to go up and down

Pressure sensor-2

Pressure sensor-1

Pressure sensor-3

A
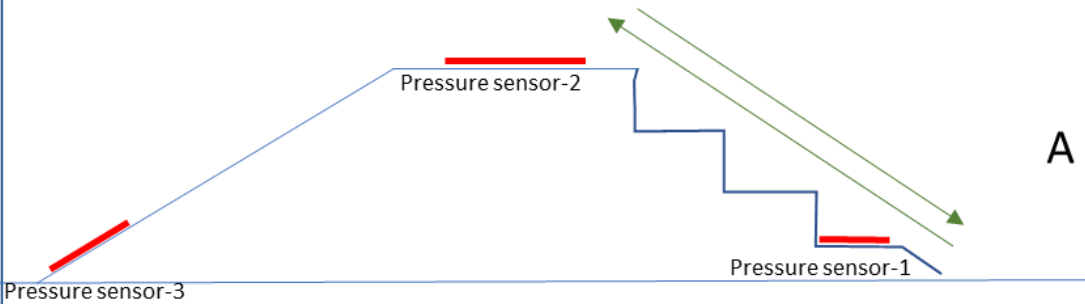
Option 2: Patient is going up/down the ramp. Software documents and displays the angle of the ramp and the time it took to go up and down.

Pressure sensor-2

Pressure sensor-1

B

Option 3: Patient is going up the stairs and going down on the ramp . Software documents and displays the height of the stairs and the time it took to go up.
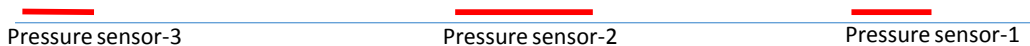
Pressure sensor-2

Pressure sensor-1

C

Option 4: Patient is going up the ramp and going down the stairs . Software documents and displays the angle of the ramp and the time it took to go up.

Pressure sensor-2

D

Pressure sensor-1
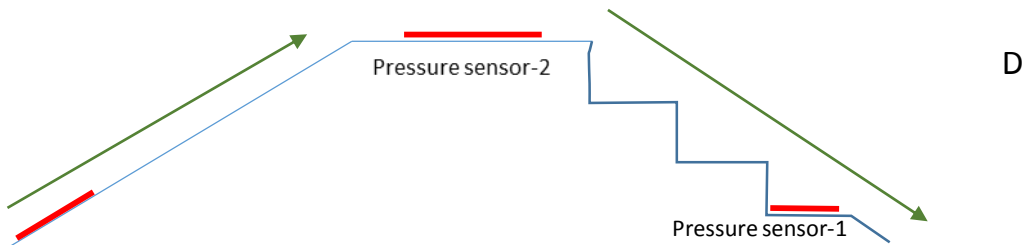
Option 5: At the flat position (parallel bars configuration) patient is going from one side of the unit, to the other side. Software documents the time it took to walk 3 meters (10 ft.).
Note: if a patient does not complete the full 3 meters (10 ft.) , the timer at the display continues to run. Press Stop on the screen.

C

Pressure sensor-3   Pressure sensor-2   Pressure sensor-1

Note
1. In order for the system to accurately documents patient's performance, the physiotherapist must pay attention not to step on the pressure sensors while the patient is on the unit. See the location of the pressure sensors at the above drawings.
2. If data are not documented properly or the timer on the screen dose not stop, just press "Stop" on the touch screen and start over.

Additional information:
1. If the computer is connected to Wi-Fi, a Progress Chart is sent to the designated email addresses each time you press "Send Progress Chart" on screen **B-7**.
2. We recommend using only designated email addresses for receiving information from the DST8000-Pro system.
3. The name of the PDF file containing the Progress Chart is comprised of the patient's name and a serial number.
4. A Progress Chart is created and saved whenever you press "Start" on screen **B-7**.
5. Patient information generated by the *DST* is confidential. Use discretion and follow your organization's procedures for maintaining confidentiality of patient records and documents.
6. Use of the software is the sole responsibility of the user.
7. If Admin loses the Password/Username, please contact DPE Medical: info@dpemed.com for new login info.
8. The aim of the DST-Factor is to provide a score that represents the patient's current stair climbing abilities. However, it does not override or replace your professional judgment.
9. If Wi-Fi connection is not available, you can connect the computer to the network using an internet cable or a Netstick. Consult your network technician.
10. You can always download Progress Charts to a Disk-on-Key. See **A-9**
11. The DST can be used without the software.
12. Do not turn off the computer.
13. Minor visual variances can be between this Guide and the displays on screen.
14. It is recommended that physiotherapists enter their patients' details into the system in advance, and not before a session.
15. Remember: On screen **B-7**, you must press Start before the patient steps on stair #1 in order document the session. You must press Send Progress Chart in order to send the chart by email.

Support:
1. If you encounter a problem using the software, try turning the screen off and on. See page 4.
2. If you forgot your Admin login info, contact us at: info@dpemed.com
3. Calibration: If on **B-7**, 0 (zero) is displayed when the DST is fully down and 16.5 (6.6 in.) is displayed when the DST is fully up, no calibration is needed.
4. 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. **Wi-Fi connection is needed and the computer must be turned on.**

7. <u>Maintenance, Cleaning and Service</u>
The *DST* does not require any maintenance.
Before cleaning, unplug the *DST* from the wall outlet. The outer surfaces of the *DST* may be cleaned with a dry cloth.
When service is required, or if you have any questions, please contact your distributor.
You are more than welcome to contact the manufacturer with comments, questions or requests.

8. <u>Troubleshooting</u>
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.

9. <u>Technical Spec</u>
- 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 - 320 kg/700 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