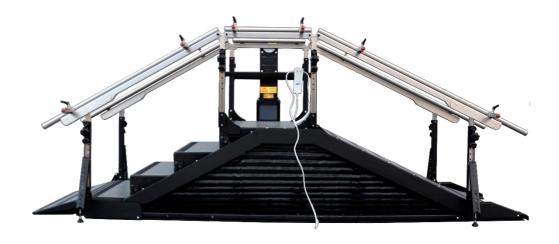


# DST8000 Triple XL DST8000 Triple Pro XL User Guide





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

Admin initial login info

username: a password: 2222

Ver-02-ENG

Nov 2023

Please note: This User Guide is suited both for the **DST8000 Triple** and **DST8000 Triple Pro** (computerized). Section 5 is relevant only for the DST8000 Triple Pro.

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#### 1. Introduction

#### Dear Physiotherapist,

Stair climbing and walking on a flat surface up and downhill 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 XL and DST8000 Triple Pro XL were 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 XL 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 XL and DST8000 Triple Pro XL 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 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 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 7.
- 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.
- 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. Adjusting Stairs' Height / Slope Degree

- 3.1 Press and hold the up/down button on the hand-control until the desired height/angle is achieved.
- 3.2 Monitor the height/angle by watching the scale located on the central column.

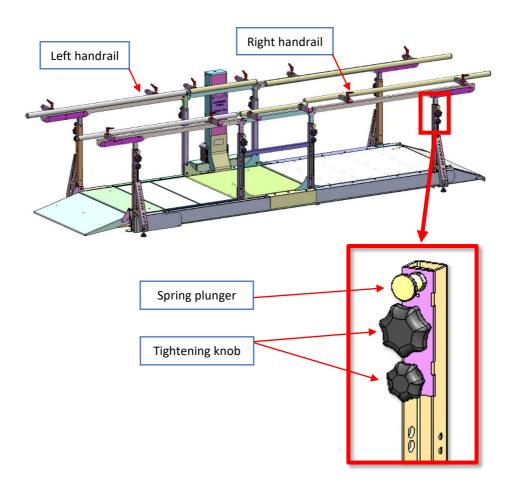
Maximum stair height is 16.5 cm (6.5 inches)/ Maximum slope angle is 26 degrees. You can also monitor the changes on your screen when the software is used.



# 4. Adjusting Handrails

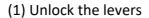
# 4.1 Adjusting Handrails' Height

- 4.1.1 Make sure that the DST is in a horizontal position (see section 5)
- 4.1.2 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.
- 4.1.3 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.



# 4.2 Adjusting the Handrails' Width

- 4.2.1 Each side of the device consist of 3 separate adjustable handrails. All three handrails on each side should be adjusted jointly and similarly.
- 4.2.2 Make sure the DST is in its horizontal position (see section 4).
- 4.2.3 Each handrail is locked by two levers. (1) Unlock both levers, (2) hold the handrail with both hands, (3) and adjust its width. (4) Lock both levers, (5) and repeat for all handrails on the same side.
- 4.2.4 To farther narrow handrails' distance, repeat steps on the other side.





(3) Use both hands to adjust handrail's width



# (4) Lock the levers



(5) Repeat for all handrails



# 5. Using the Software

# 5.1 Pro System Features

- 5.1.1 Displays information about patient's previous sessions in graph form before every session.
- 5.1.2. Shows your patient's past progress and current status.
- 5.1.3. Present how long it takes your patients to climb up and down stairs of different heights and slope of different degrees.
- 5.1.4 Tracks and records all your patient's stair and slope climbing treatment sessions.
- 5.1.5. Generates patient's Progress Chart. Data can be shared and presented at professional meetings.

#### 5.2 What is the DSF-Factor?

- 5.2.1 The DST-Factor is a score, generated by the software, which provides an accurate information regarding patient's current stairs' negotiation ability, together with a forecast of her/his improvement potential.
- 5.2.2 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; C the patient has not made any progress in the last 5 sessions.
- 5.2.3 The DST-Factor is calculated based on the last five sessions and is therefore shown only after 5 sessions have been completed. For example 13-A patient mounted stairs of 13 cm and likely to further improve.

#### **5.2.4** How the DST-Factor is calculated:

 $\Delta H$  - The change in cm/inches between the current stair height and the height the patient climbed in the last five sessions.

 $\Delta T$  - The change in seconds between the time it took the patient to climb stairs in the current session, and the time in the last five sessions.

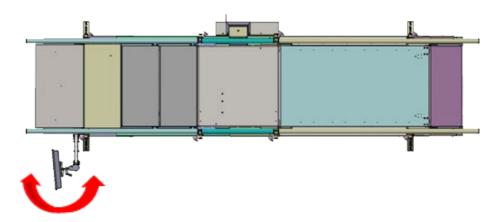
If $\Delta H > 2 \text{ cm } (0.8 \text{ in})$	Then DST Factor is:	(current height)-A	
Patient made significant improvement in stairs' height			
If $0 < \Delta H \le 2 \text{cm} (0.8 \text{ in})$	Then DST Factor is:	(current height)-B	
Patient made mild improvement in stairs' height			
If $\Delta H = 0$ and $\Delta T < 0$	Then DST Factor is:	(current height)-B	
Patient made no improvement in stairs' height, but did improved practice time			
If $0 \ge \Delta H$	Then DST Factor is:	(current height)-C	
Patient made no improvement.			

# 5.3 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.

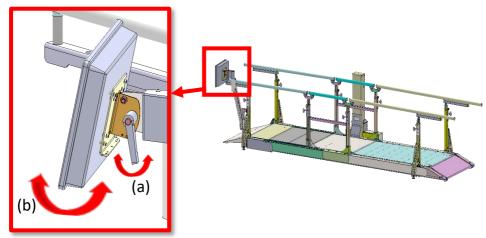
# 5.4 Operating the Screen

You can rotate the screen. See the red arrows.



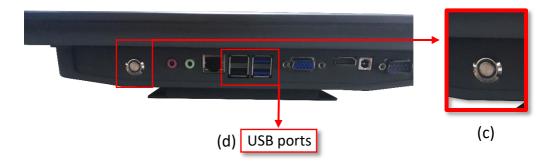
# 5.5 Changing the Angle of the Screen

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



# 5.6 Turning the Screen On/Off

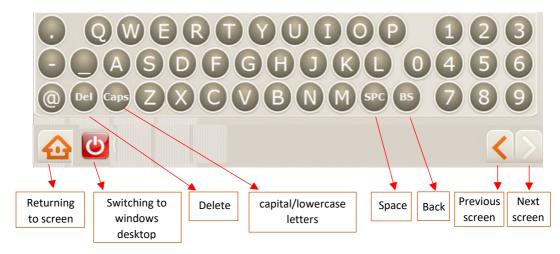
The on/off switch (c) is located at the bottom of the screen on the right. Press once on the switch to turn the screen on or off.



# 5.7 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).

# 5.8 Using the on-Screen Keyboard



#### 5.9 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.

### 5.10 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.

# 5.11 Section A - Initial Setup and Admin Options



#### A-1 Login

Enter Admin initial login info:

username: a password: 2222

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



#### **A-2 Admin Homepage**

Press: "Edit institute data".



#### **A-3 Institute Information**

- Enter institute data and confirm.
- Fields marked (\*) must be filled.
- Patient's Progress Chart will be sent to the email addresses you list here.
- Choose measurement units for stair's height – cm or inches.
- Data can be edit at any time.



#### A-4 Admin Homepage

Press: "Edit physiotherapists and patients".



## A-5 Edit PTs and Patients

- 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.



#### A-6 Add New PT

- Enter physiotherapists that will have access to the system and assign them a Username and Password, Press 🥯
- If you will be treating patients, add yourself as physiotherapist with new login info.
- Data can be edited at any time.
- Inform your colleagues about their username and password.
- Password must contain 4 digits.



#### A-7 Admin Homepage

Press: "Change password".



# A-8 Change Admin Password

- To change Admin login info: enter new Password and confirm.
- Make sure you remember your new login info.
- See "Support" if you forgot your login info.



### **A-9 Calibration**

- Press Calibration and continue.
- Calibration is very rarely needed. The need of calibration can occur after displacing the *DST* or after service.
- If the height of the stairs, as shown at the Progress Chart, is different from the height shown at the front window,



#### Calibration

 Lower the DST to its flat position and press as instructed.



#### **Calibration**

 Raise the DST to its top position and press as instructed.



# A-10 Admin Homepage

You have completed the initial setup and the system is ready for physiotherapists to start sessions.

- For download info see A-11.
- To additional Admin options see **A-12**.
- To vide PTs options, go to section B.



#### A-11 Downloading data

- To download patients' Progress Chart: after pressing "Download". select the appropriate drive (D or E) and confirm.
- A new library called: ProgressCharts will be created at your DoK and all Progress Charts will be saved there.

#### A-12 More Admin options

- Change patient's PT: Drag and drop the patient's name from one physiotherapist to another.
- **Display patient's Progress Chart:** Tap twice on patient's name.
- Change PT's data: Tap twice on physiotherapist's info (name, username, and password) and enter change.



- To delete a PT: Reassign PT's patients to other physiotherapists (see above "To change patient's physiotherapist") then press "Delete physiotherapist". A list of physiotherapists will be opened. Choose the name of the physiotherapist to delete and confirm. If this physiotherapist has patients, and you did not reassign them earlier, you will be asked to do so now.
- **Remember:** if you want to treat patients yourself, add yourself as a physiotherapist as well.
- It is recommended to prepare in advance a list of physiotherapists, their usernames and 4 digits passwords, before entering them at **A-6**.
- If, after using the system for some time, you have questions, ideas, or requests, contact us at info@dpemed.com

# 5.12 Section B – Physiotherapist Options



#### **B-1 Login**

 Enter Username and Password received from your Admin and press



#### **B-2 PT Homepage**

 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.

# DST8000-PRO scientific way to keep in step Patient ID: First Name: Last Name: Pathology: Gender: Birth date (dd/mm/yyyy): Entry date (dd/mm/yyyy): Entry date (dd/mm/yyyy): 19 05 2016 Q W E R T Y U T O P T 2 3 A S D F G H J K L O 4 5 6 Q M S D F G H J K L O 4 5 6 Q M S D F G H J K L O 4 5 6

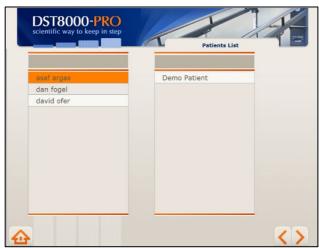
#### **B-3 Add Patients**

 To add a new patient, enter patient's data and press



#### **B-4 PT Homepage**

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



# DST8000-PRO scientific way to keep in step Patient: dan fogel Start new session Edit patient's data Delete patient's data

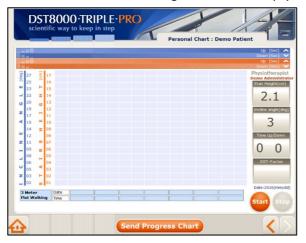
#### **B-5 Patients' List**

- Select a patient by pressing on his/her name and then press
- For your convenience, a list of your patients is displayed on the left, as well as a general list of all other patietns.
- Names are listed in alphabetical order.
- You can scroll up/down or enter the patient's name in the top empty field.

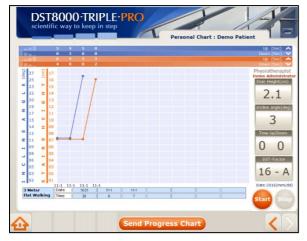
# **B-6 Patient's Options**

- 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.

#### Patient's first session - Progress Chart is empty



# Patient's Progress Chart after several sessions



#### **B-7 Patient's Progress Chart**

- 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 "Start" before the patient steps on the first stair.
- After the patient practice the stairs, his/her performance will be displayed on the chart.
- You must press "Start" whenever you want to record the treatment session.
- Press "Stop" to reset if the patient did not complete the practice.
- To email the chart press "Send Progress Chart".
- For detailed info about the chart see page 21.



# **B-8 Edit Patient's Data**

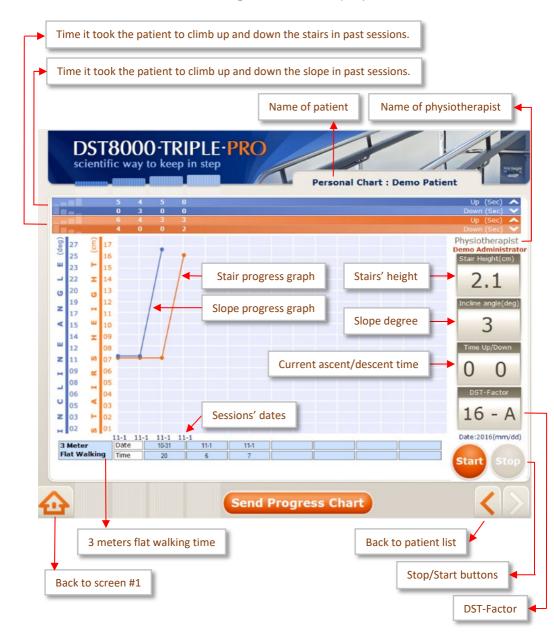
Edit patient's data and press



#### **B-9 Deleting a Patient**

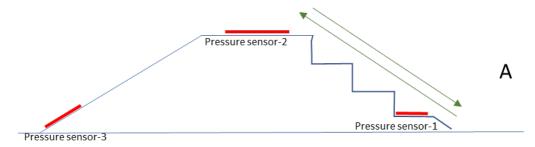
Deleting a patient from the system will not delete their Progress Chart

# 5.13 Progress Chart Display

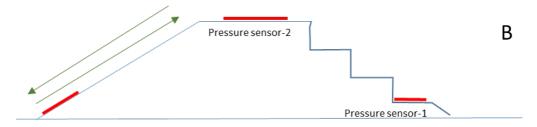


# 5.14 What and how the DST8000 Triple Pro measures

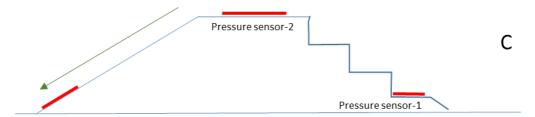
**Option 1**: Patient is going up and down the stairs. Software documents and displays the height of the stairs and the time it took to go up and down.



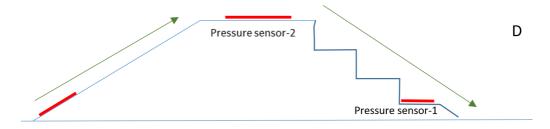
**Option 2**: Patient is going up and down the ramp. Software documents and displays the angle of the ramp and the time it took to go up and down.



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



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



**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 takes to walk 3 meters (10 ft.).

**Note**: if a patient does not complete the full 3 meters (10 ft.), the timer at the display will continue to run. Press Stop on the screen.



#### 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 is not documented properly or the timer on the screen does not stop, just press "Stop" on the touch screen and start over.

C

#### 5.15 Additional information:

- 1. A Progress Chart is created and saved whenever you press "Start" on screen **B-7**.
- 2. If the computer is connected to the internet, each time you press "Send Progress Chart" on screen **B-7** the Progress Chart will be sent to the designated email addresses.
- 2. We recommend using only designated email addresses for receiving information from the Pro system.
- 3. The name of the PDF file containing the Progress Chart is comprised of the patient's name and a serial number.
- 5. Patient's information generated by the *Pro System* 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.
- 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 Net-stick. Consult your network technician.
- 10. You can 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 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/the main slope in order document the session.

# 6. Support:

- 1. If you encounter a problem using the software, try turning the screen off and on.
- 2. If the Admin loses the Password/Username, please contact DPE Medical: <a href="mailto:info@dpemed.com">info@dpemed.com</a> for new login info.
- 3. If the problem persists, send email to <a href="info@dpemed.com">info@dpemed.com</a> 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.

- 4. Before cleaning the device, unplug it from the wall outlet. The outer surfaces of the DST may be cleaned with a dry cloth.
- 5. When service is required, or if you have any questions, please contact your distributor.
- 6. You are more than welcome to contact the manufacturer with comments, questions, or requests. <a href="mailto:lnfo@dpemed.com">lnfo@dpemed.com</a>

# 7. 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.

# 8. Technical Spec

- Flat walking surface 3 m / 9.8 ft
- Handrail's length 3.6 m / 11.8 ft
- Total length 3.6 m / 11.8 ft
- Total width 1.16 m / 3.8 ft
- Stairs/slope width 78.7 cm / 31 in
- Stair's height 0 to 16.5 cm / 0-6.5 in
- Slope angle range 0 to 26 degrees
- Handrail's height range 65-93 cm / 25.6-36.6 in
- Handrails' width range 57.15-74.6 cm / 22.5-29.4 in
- Maximum load 300kg/ 660lb (static)
- · Unit weight:
  - DST8000 Triple XL 413 kg/910 lbs
  - DST8000 Triple Pro XL 428 kg/943 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, 50/60Hz
- Self-life: 10 years
- Storage Conditions:
  - Temperature: 10° to 40°C (50°-104°F)
  - Humidity: 30% to 85% non-condensing

# Pro system video guide

For your convenience, we have created a video user guide for the Pro system. Scan the QR code to watch the clip:



The DST models are developed and manufactured by:

#### **DPE Medical Ltd.**

49 Yefe Nof, Shoeva 9085500, Israel Tel: +972-2-5791177; Fax: +972-2-5791188 info@dpemed.com; www.dpemed.com

#### Medical Device







