



# prismaTSlab

PC Software for Display and Remote Configuration of  
Löwenstein Medical Technology Therapy Devices

**LÖWENSTEIN**  
medical

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# 1 Introduction

This user manual contains information on the operation of prismaTS.

This user manual contains information on the operation of prismaTSlab.

The following information can be found in the separate installation manual:

- Intended use and description of function
- Safety information
- System requirements
- Network settings
- Installation and updating
- Function check
- Faults and their rectification
- Remote maintenance
- Technical specifications



The software version of the screenshots in this document may differ from the installed software version.

## 2 Product description and preparation

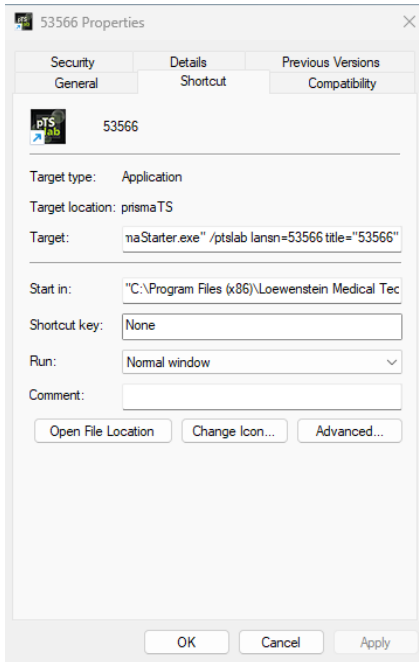
### 2.1 Fixed assignment to patient room (optional)

If required, you can set up a fixed assignment (*1:1 connection*) between a patient room and a prismaTSlab application. If, for example, 1 PC per room (i.e. per therapy device) is available, you can set up prismaTSlab so that the therapy device in the corresponding patient room is automatically selected when the application is started. This reduces the risk of confusion, as there is no need to manually select the respective device.


#### 2.1.1 Setting up 1:1 connection for therapy device types WM100TD

A fixed connection to the patient room is set up with the module that is connected to the network (prismaCONNECT or prisma HUB). The fixed connection only exists to this communication module, regardless of which therapy device is connected to the module.


1. Right-click on the prismaTSlab shortcut on the desktop and select **Properties**.
2. Select **Link**. There will already be a target path in the **Target** field, e.g. "C:\Program Files (x86)\Loewenstein Medical Technology\prismaTS\prismaTSlab.exe".



3. At the end of the target path, enter the serial number of the module used. The serial number can be found on the type plate on the module. A name for the patient room can be entered (optional).
4. Use the following notation:  
**[space] lansn=[module serial number]**  
**[space] title="[desired name for patient room]"**.  
 Entering "title" is optional.
 


 Ensure the correct syntax: Spaces before and after the arguments. No spaces before and after =. Example: `maTSlab.exe" lansn=04219 title="Raum 1"`
5. To save the entry, select **Apply**.
6. To save the entry and close the window, select **OK**.
7. To discard the entry and close the window, select **Cancel**.
8. Restart the prismaTSlab application via the shortcut set up on the desktop.
9. Check that the therapy device connected to the module is selected automatically.

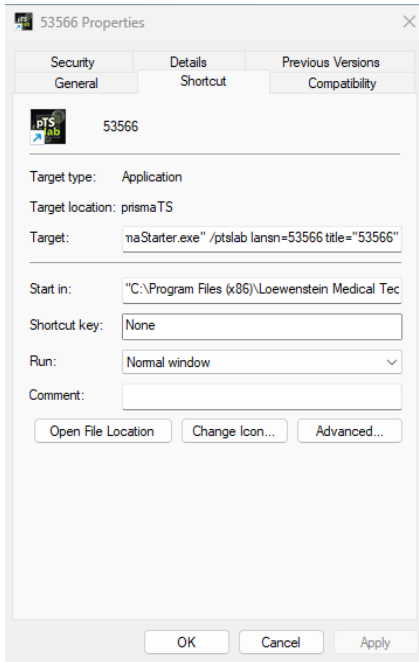
10. To provide additional therapy devices with a fixed connection to a patient room, copy the link from prismaTSlab and enter the corresponding serial number of the module and, if required, the name of the patient room.

 It is no longer possible to manually select devices (See [Manually selecting a therapy device](#) [▶ 13]). The option **Menu > Select device** is no longer available.

### 2.1.2 Setting up 1:1 connection for SOMNO therapy devices

1. Right-click on the prismaTSlab shortcut on the desktop and select **Properties**.
2. Select **Link**. There will already be a target path in the **Target** field, e.g. "C:\Program Files (x86)\Loewenstein Medical Technology\prismaTS\prismaTSlab.exe".

 If both prisma devices and SOMNO devices are connected to the same room, the prisma device (lansn) is searched for first. If none is available, the SOMNO device (comport) is searched for.



3. If WM100TD is also available: At the end of the target path, enter the serial number of the prismaCONNECT module or, if using the prisma HUB module, its serial number. The serial number can be found on the type plate on the module.
4. Enter the COM port number. Obtain the COM port number from the Windows® device manager:
5. Open the device manager (e.g. in Windows® 10: **Start > Control panel > Hardware and sound > Device manager**).
6. Select **Ports (COM & LPT)**. If the USB-RS485 converter cable is connected, the number of the COM port is displayed.
7. If required: Enter a name for the patient room.
8. Use the following notation:  
**[space] lansn=[serial number of prismaCONNECT]**  
**[space] comport="COM[COM port number]**  
**[space] title="[desired name for patient room]"**



Ensure the correct syntax: Spaces before and after the arguments. No spaces before and after =. Example: Ziel: `prismaTS\prismaTSlab.exe" comport=COM3`

9. To save the entry, select **Apply**.
10. To save the entry and close the window, select **OK**.
11. To discard the entry and close the window, select **Cancel**.
12. Restart the prismaTSlab application via the shortcut set up on the desktop.
13. Check that the therapy device connected to the module is selected automatically.

## 2.2 Main window

The screenshot shows the main window of the prismaTSlab application. The window title is '6705 - prismaTSlab [Ver. - X]'. The patient information bar shows 'Mustermann, Maximilian' and 'prismaLAB, SN: 6705'. The therapy mode is 'AcSV Mixed'. A pulse rate of 32 bpm and SpO2 of 96% are displayed. The current therapy mode is EPAP with a pressure of 4 cmH2O. Adjustable parameters include max (13), min (7), PDIFF (2 cmH2O), max (12), norm (5), and Bi softPAP (Off). Respiratory status shows F (32 bpm) and autoF (On). Current values include Ti/T (64%), MV (9.6 l/min), VT (274 ml), and rMV (100%). Leakage is 0 l/min. The bottom of the screen features an 'Apply' button, a power button, a 15-minute timer, and a water drop icon. A status bar at the bottom indicates 'Therapy in progress: humidifier/therapy not in progress: Therapy protocol' and 'Therapy in progress: softSTART/therapy not in progress: Therapy analysis'.















Labels and their corresponding components in the screenshot:



- Access to menu: Menu button
- Info bar: Patient name and device information
- Change therapy mode / therapy program list (only WM110TD/WM120TD): AcSV Mixed button
- Current values: Pulse rate (32 bpm) and SpO2 (96%)
- SCOPE (preset therapy objectives, only WM100TD): EPAP 4 cmH2O
- Adjustable parameters: max 13, min 7, PDIFF 2 cmH2O, max 12, norm 5, Bi softPAP Off
- Respiratory status: F 32 bpm, autoF On
- Current values: Ti/T 64%, MV 9,6 l/min, VT 274 ml, rMV 100%
- Transfer the set parameters to the device: Apply button
- Therapy start / therapy end: Power button, 15 min timer, Water drop icon
- Mask status: Mask status indicator
- Update/reset: Update/reset button
- Therapy in progress: humidifier/therapy not in progress: Therapy protocol: Status bar text
- Therapy in progress: softSTART/therapy not in progress: Therapy analysis: Status bar text

The user interface may look different depending on the selected therapy device and therapy mode.

- Once therapy has started, the Therapy analysis and Therapy protocol buttons change to the softSTART and Humidifier buttons. After the end of the therapy, they switch back again.

### 2.2.1 Main window symbols

Symbol	Designation	Description
	Respiratory status	S = spontaneous
		T=timed (supported respiration)
		/=no respiration
	Mask status	Mask fit is good, no leakage
		Mask fit is inadequate, severe leakage, therapy effectiveness is not guaranteed
	Start and end therapy	Therapy in progress
		Therapy not in progress
	Reset/update	Resets the changed and not yet adopted therapy modes, SCOPE and therapy settings by loading the current device configuration from the device.
	Select SCOPE (only type WM100TD)	Shows preset SCOPES (therapy objectives).
	Humidifier Only type WM100TD: Switches humidifier on or off.	Humidifier is switched on/set humidifier level
		Humidifier is switched off/set humidifier level
		Not enough water in the humidifier
		No humidifier connected
	Print therapy protocol (See <a href="#">Print therapy protocol</a> [▶ 23]).	After starting the therapy, the Therapy protocol button changes to the Humidifier button. After the end of the therapy, they switch back again.


Symbol	Designation	Description
	Switches softSTART on or off	Switches softSTART on or off during therapy (see therapy device instructions for use) If softSTART is switched on, the remaining softSTART time is displayed in minutes.
	Print therapy analysis	The therapy analysis is shown for all modes and for the last therapy night and illustrates in detail relevant respiration parameters and respiratory disorders as well as the leakage depending on the respective pressure/pressure range over the course of the last therapy night. After starting the therapy, the Therapy analysis button changes to the softSTART button. After the end of the therapy, they switch back again.

## 3 Operation

### 3.1 Starting prismaTSlab

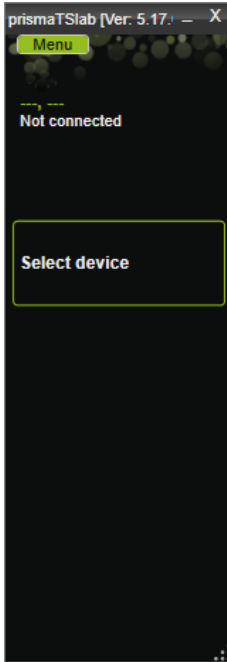
#### Requirement

- ✓ The therapy device is connected to the PC via LAN (see prismaTS instructions for use). (If using the prisma HUB module, see prisma HUBconfig instructions for use).
- ✓ Only SOMNO devices: The therapy device is connected to the PC via USB converter cable (see prismaTS instructions for use).

1. Double-click on the program symbol .
2. If a 1:1 connection is set up (See [Fixed assignment to patient room \(optional\)](#) [▶ 4]), the main window appears.



3. If a 1:1 connection has not been set up, the start window appears in which a therapy device can be selected.



**i** Settings can be made either on the therapy device or in the software. As soon as you set parameters on the therapy device, the prismaTSlab user interface is locked.

4. To remotely control another device at the same time, start another prismaTSlab application (See [Starting prismaTSlab](#) [► 11]).

### 3.1.1 Accessing online help/user manual

- Press the F1 key. Alternatively: Select **Menu** > **Help** .

The user manual in PDF format is located on the installation medium under the **Manuals** folder and on the hard drive under the installation path in the **Manuals** folder. It is identical to the online help.

### 3.1.2 Selecting the user interface language

Various languages are available for the user interface.

1. Select **Menu** > **Change language**.
2. Select the desired language. The selected language is available after restarting the software if not before.

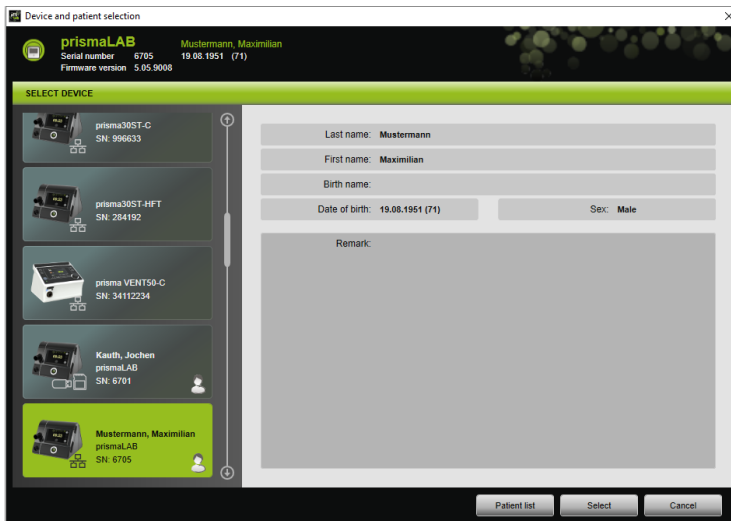
### 3.1.3 Selecting the pressure unit

Various units are available for the displayed pressure values.

1. Select **Menu > Options > Configuration > Display** .
2. Select the required pressure unit.

## 3.2 Manually selecting a therapy device

1. Select **Select device**.
2. If a 1:1 connection is not set up ([See Fixed assignment to patient room \(optional\) \[▶ 4\]](#)), manually select the desired therapy device (**Menu > Select device**).



3. All connected therapy devices are automatically displayed in window **Select device**.
4. To obtain further information on the desired therapy device and a patient assigned to the device, select the corresponding device in the list. The serial number and firmware version are displayed in the info bar at the top. If the selected therapy device is already assigned to a patient, the data for this patient is displayed.
5. To accept the device for the setting, select **Select**. Alternatively: Double-click on the device in the list.

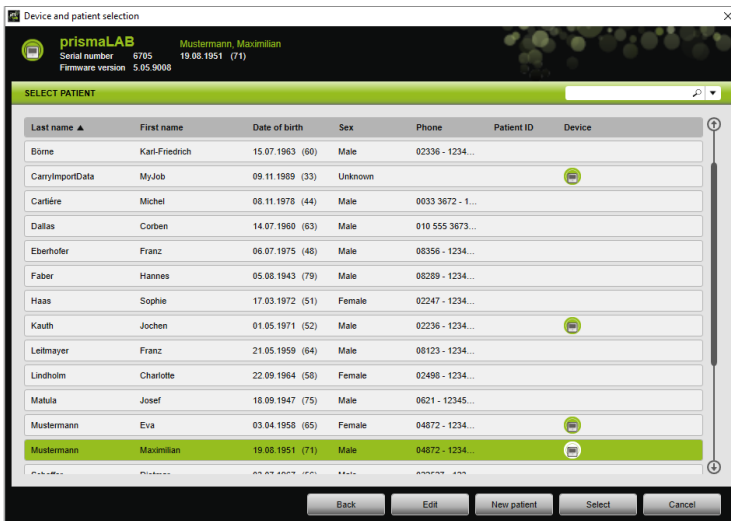
## 3.3 Selecting patients

### 3.3.1 Assigning the therapy device to a patient

To set the selected device for a patient, you can assign it to a patient.

#### Requirement

- ✓ A therapy device is selected (See [Manually selecting a therapy device \[► 13\]](#)) or is automatically connected via a 1:1 connection (See [Fixed assignment to patient room \(optional\) \[► 4\]](#)).
1. In window **Select device** select **Patient list**. Alternatively: **Select Menu > Patient list** (with a 1:1 connection only this option is possible).




2. To assign an existing patient to the selected device, double-click on the corresponding name. Alternatively: Click on the corresponding name and select **Select**.
3. If the patient does not yet exist, add a new patient (See [Adding a new patient \[► 14\]](#)).

### 3.3.2 Adding a new patient

#### Requirement

- ✓ A therapy device is selected (See [Manually selecting a therapy device \[► 13\]](#)) or is automatically connected via a 1:1 connection (See [Fixed assignment to patient room \(optional\) \[► 4\]](#)).

1. In window **Select device** select **Patient list**. Alternatively: Select **Menu** > **Patient list** (with a 1:1 connection only this option is possible).
2. Select **New patient**.

3. Enter the patient's data. The first name, last name and date of birth fields marked with \* are mandatory. The age is automatically calculated from the date of birth.
4. To save a preferred phone number, select the phone number field and select **Specify as standard**. The  symbol shows the preferred telephone number. The preferred telephone number is transferred to the prismaTS info bar and any reports.
5. Save entry.

### 3.3.3 Editing patient data

#### *Requirement*

- ✓ A therapy device is selected (See [Manually selecting a therapy device \[► 13\]](#)) or is automatically connected via a 1:1 connection (See [Fixed assignment to patient room \(optional\) \[► 4\]](#)).
1. In window **Select device** select **Patient list**. Alternatively: Select **Menu** > **Patient list** (with a 1:1 connection only this option is possible).

**Add new patients**

Title:  Sex: Unknown

\*First name:  Patient ID:

\*Last name: Please complete. Attending physician:

\*Date of birth: Please complete. Age: --

Birth name:

Address:

Tel. (private):

Tel. (mobile):

Tel. (office):

Fax:

E-mail:

Remark:

\* Mandatory field

Save Cancel

2. To select an existing patient, select the corresponding name.
3. To edit patient data, select **Edit**.

**Add new patients**

Title:  Sex: Unknown

\*First name:  Patient ID:

\*Last name: Please complete. Attending physician:

\*Date of birth: Please complete. Age: --

Birth name:

Address:

Tel. (private):

Tel. (mobile):

Tel. (office):

Fax:

E-mail:

Remark:

\* Mandatory field

Save Cancel

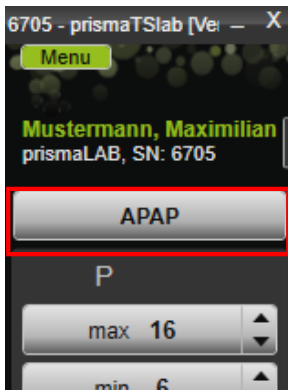
4. Edit the patient's data.
5. Save entry.



## 3.4 Adjusting the therapy settings

- The therapy parameters that can be set for the individual therapy modes can be found in the therapy device instructions for use.
- You can make the most important therapy settings in the main window of the user interface. You can make all therapy settings in window **THERAPY SETTINGS**.
- You can set the therapy settings in standby mode or during ongoing therapy and transfer them to the therapy device. During ongoing therapy, the therapy pressures are adjusted incrementally to the new values over several breaths.

### 3.4.1 Selecting therapy modes

You can select one of the therapy modes offered by the connected therapy device.



1. Select the desired therapy mode from the therapy mode list. When the therapy mode changes, the preset therapy parameters change automatically. Exclamation marks  indicate changed parameters.
2. To transfer the changes to the therapy device, select **\_Apply**.
3. To discard the changes and reset the therapy device to the current device configuration, select **Update/reset** .

### 3.4.2 Configuring therapy programs (WM110TD/WM120TD only)

You can preconfigure up to three therapy programs. If, for example, patients need different therapy settings during the day than at night, they can change the therapy program themselves.

1. Select **Menu > Therapy settings**.
2. Select **Programs** and activate the desired program.
3. Select the desired program in the main window.
4. If required: Configure settings (mode, parameters, alarms).

### 3.4.3 Showing or hiding extended therapy modes (prismaLAB only)

With prismaLAB therapy devices, you can display or hide all available extended therapy modes (marked with the suffix (30)) from the therapy mode list.

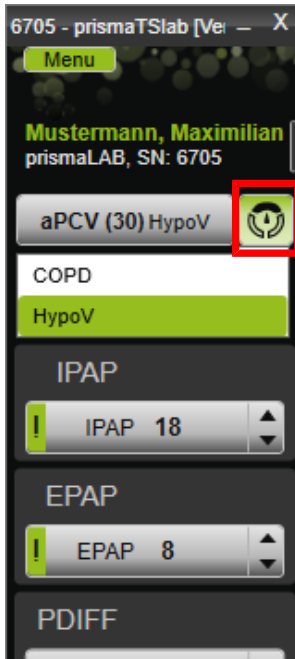
1. To display or hide the extended therapy modes, select **Menu > Options > Show advanced ventilation modes with target volume for prismaLAB**.
2. To show or hide the extended therapy modes, check or uncheck the checkbox.
3. To apply the changes, restart prismaTSlab.



### 3.4.4 Selecting SCOPE (therapy objective) (WM100TD only)

In the AcSV, S/T, autoS/T, S/T (30), autoS/T (30) and aPCV (30) therapy modes, you can select a preset therapy objective.

The therapy device automatically sets certain pressure and therapy parameters to sensible starting values. For many patients, this eliminates the need for time-consuming and complicated optimization of individual parameters. Specific adjustment of parameters is always possible in the case of specific requirements.

You can define and create SCOPES for all modes yourself (See [Adjusting SCOPE \(therapy objective\)](#) [▶ 21]).




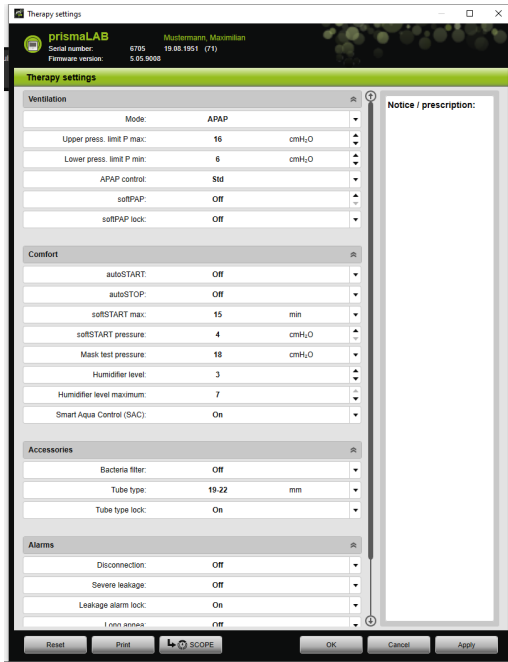
1. Select the desired therapy objective from the SCOPE  list. This SCOPE is displayed in the therapy modes list.
2. To transfer the changes to the therapy device, select **\_Apply**.
3. To discard the changes and reset the therapy device to the current device configuration, select **Update/reset** .

### 3.4.5 Setting therapy parameters

The most important therapy parameters of the selected therapy mode are displayed on the interface.



1. To change a value, select the arrow buttons next to the value. Alternatively: Select the field and enter the value using the keypad.
2. Exit the input field after making the change. The **\_Apply** button becomes selectable.
3. To transfer the changes to the therapy device, select **\_Apply**.
4. To discard the changes and reset the therapy device to the current device configuration, select **Update/reset** .
5. Select **Menu > Therapy settings**.

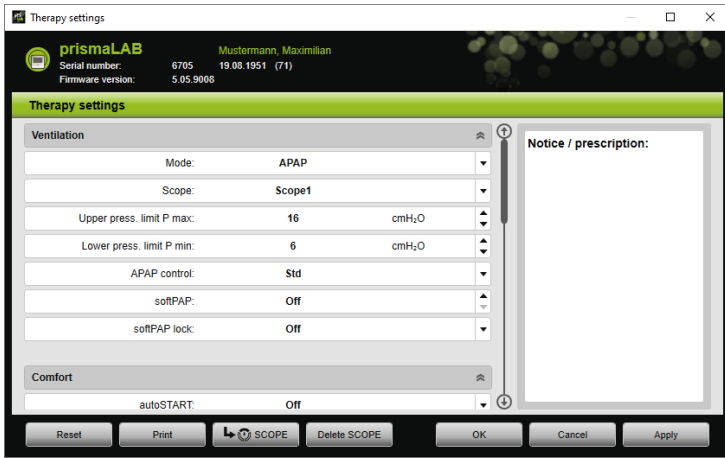


6. To change a value, select the arrow buttons next to the value. Alternatively: Select the field and enter the value using the keypad.
7. To transfer the changes to the therapy device, select **\_OK** or **\_Apply**.
8. To discard the set parameters, select **\_Cancel** or **\_Reset**.

### 3.4.6 Creating SCOPE (therapy objective)

You can define and create therapy objectives for all modes yourself (only devices of type WM100TD and from firmware version 4.05). For many patients, this eliminates the need for time-consuming and complicated optimization of individual parameters. Specific adjustment of parameters is always possible in the case of specific requirements.


1. Select **Menu > Therapy settings**.
2. Make the desired SCOPE settings.



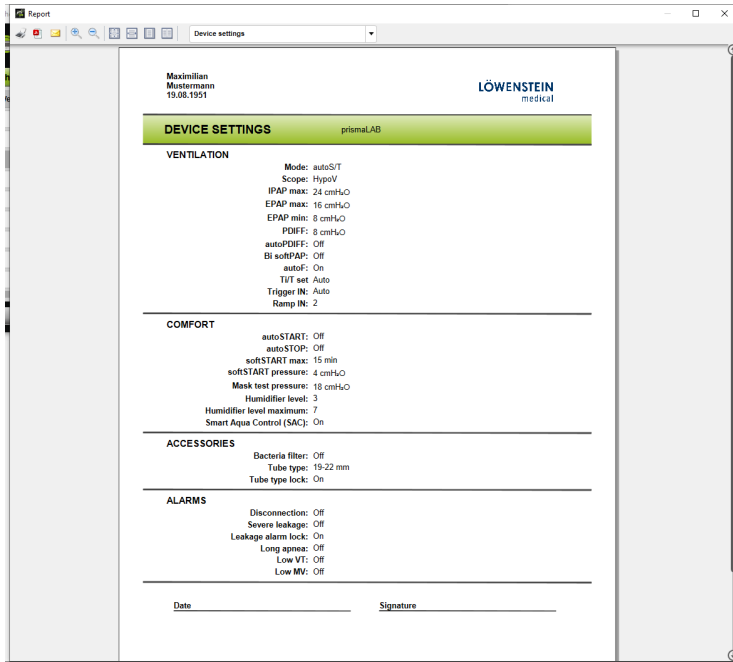
3. To save the currently visible therapy parameter as SCOPE, select **SCOPE**.
4. Give the SCOPE a unique name.  
The SCOPE is saved.
5. To transfer the SCOPE to the therapy device, select **\_Apply**.
6. To customize a user-defined SCOPE, select SCOPE in the **Therapy settings** window in the **SCOPE** field and adjust the settings.
7. To delete a user-defined SCOPE, select SCOPE in the **Therapy settings** window in the **SCOPE** field and select delete SCOPE.

### 3.4.7 Printing a report

You can output therapy data in various reports in order to save them together and in a clear format, print them or send them by e-mail.

 A note or prescription text entered is not saved in prismaTS/prismaTSlab, but only output in the report.

1. Select **Menu > Therapy settings**.



2. Select **Print...**
3. To save the report as a PDF file, select **Save as PDF (Ctrl+E)**.
4. To send the report as a PDF file via e-mail, select **Send as e-mail**. The **Send as e-mail** function can only be used with an e-mail program that supports MAPI (e.g. Microsoft® Outlook).

### 3.4.8 Printing therapy protocol




The therapy protocol contains all events (e.g. alarms, events) of a titration night in tabular form. To list only certain event types, you can filter the types.


1. In signal view, select **Therapy protocol**.
2. To display only selected event types in the therapy protocol, select **Filter**.
3. Select the desired event type.
4. Select **Therapy protocol**.
5. To print out the therapy protocol, select **Print**.


## 3.5 Starting and ending therapy

### Requirement

- ✓ A therapy device is selected (See [Manually selecting a therapy device \[▶ 13\]](#)) or is automatically connected via a 1:1 connection (See [Fixed assignment to patient room \(optional\) \[▶ 4\]](#)).

1. To start therapy, select On-Off .  
During ongoing therapy, the button is green. .
2. To end therapy, select On-Off .

In standby mode, the button is gray: .

-  Once therapy has started, the Therapy analysis and Therapy protocol buttons change to the softSTART and Humidifier buttons. After the end of the therapy, they switch back again.

## 3.6 Switching humidifier on and off

### Type WM100TD





The humidifier switches on automatically when you start therapy (See [Starting and ending therapy \[▶ 24\]](#)).


You can preheat the humidifier so that the water in the humidifier has already reached the desired temperature at the start of therapy. Please note that the humidifier switches off automatically after 45 minutes of preheating.

### Requirement

- ✓ The therapy device is on standby.
- ✓ The humidifier is connected to the therapy device and filled with water (follow the instructions for use for the accessories used).

- ✓ The humidifier level is displayed .

1. To switch the humidifier on, select .  
When the humidifier is switched on, the button is green: .
2. If required: Set humidifier level (**Menu > Therapy settings > Comfort**).
3. To switch the humidifier off, select .
4. The humidifier is switched off. When the humidifier is switched off, the button is gray: .

- When the water level in the humidifier is too low, the therapy device switches off the humidifier automatically. The button is orange: .

#### WM090TD

- Select **Menu > Therapy settings**.
- To switch the humidifier on, select the desired humidifier level.
- To switch the humidifier off, select level 0.

#### Type WM110TD/WM120TD

- Select **Menu > Therapy settings**.
- In the **Comfort** range, for the parameter **Humidifier**, select the value **On** or **Off**.
- Select the humidifier level.

### 3.7 Deleting therapy data in the device

You can use prismaTSlab to delete the therapy data recorded in the therapy device.



Before deleting, import the data from the therapy device into the prismaTS software (see prismaTS online help/user manual). Otherwise the data will be irrevocably deleted.

- Select **Menu > Delete therapy data in the device**.
- Confirm with **\_Yes**.

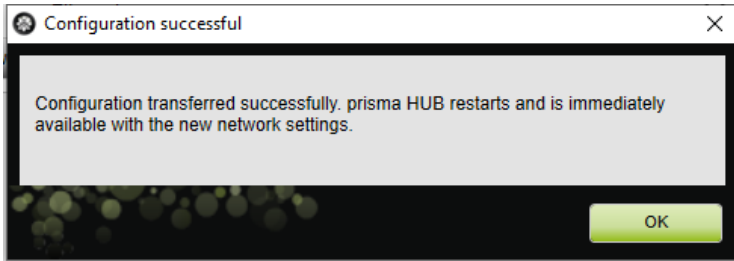
### 3.8 Carrying out PSG test

To check whether the prismaPSG module is connected correctly, you can carry out a PSG test.

#### *Requirement*

- ✓ The therapy device is connected to a prisma HUB module.

- Select **Menu > Outputting PSG test signals...**



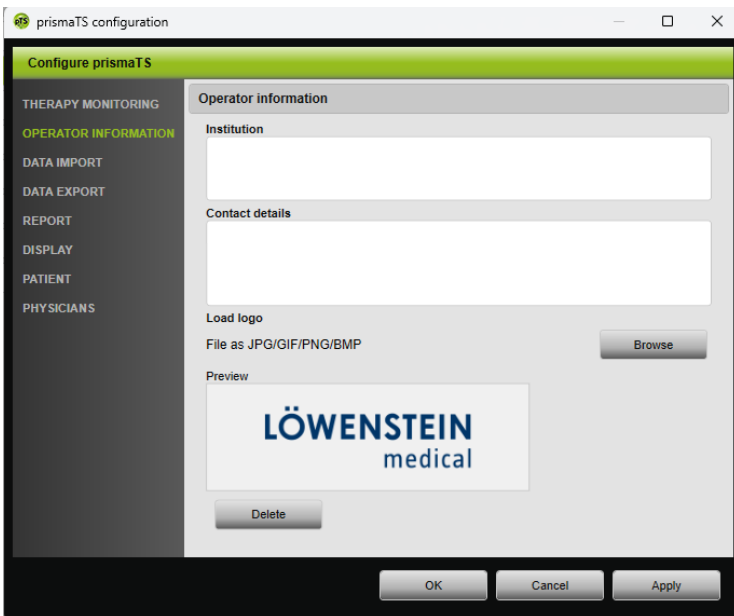
2. Start output of test signals. The PSG test is performed.

## 3.9 Creating reports

### 3.9.1 Customizing report headers

Report headers can be individually customized. This setting applies to all reports.

1. Select **Menu > Options > Configuration**.



2. Select **Operator information**.
3. Enter health institution data in the **Institution** and **Contact details** fields. This data is visible in the report header.
4. To load the logo, select **Browse** and select the logo. The logo is visible in the report header. The size is automatically adjusted.





5. To save the entries, select **\_Apply**.
6. To save the entries and close the prismaTS configuration window, select **\_OK**.
7. To discard the entries and not save them, select **\_Cancel**.

## 4 Annex

### 4.1 Technical specifications

Product class in accordance with directive 93/42/EEC	I Ia
Software risk classification according to IEC 62304	B

### 4.2 Markings and symbols

	Follow Instructions for Use
	Unique device identifier (unique product code for medical devices)
	Indicates the product is a medical device
	CE symbol (confirms that the product conforms to the applicable European directives/regulations)

### 4.3 Declaration of conformity

The manufacturer Löwenstein Medical Technology GmbH + Co. KG (Kronsaalsweg 40, 22525 Hamburg, Germany) hereby declares that the product complies with the relevant regulations of Directive 93/42/EEC governing medical devices. The unabridged text of the Declaration of Conformity can be found on the manufacturer's website.







68061q 06/2025 EN-US

**CE 0197**



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