

ottobock.



CE

connectgo.pro 560X29-2=*

EN Instructions for use (qualified personnel)	3
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1 Foreword

INFORMATION

Date of last update: 2025-09-08

- ▶ Please read this document carefully before using the product and observe the safety notes.
- ▶ Please contact the manufacturer if you have questions about the product or in case of problems.
- ▶ Report any serious incident related to the product, in particular any deterioration of health, to the manufacturer and the competent authority in your country.

The adjustment app "connectgo.pro 560X29-2=" is referred to as the adjustment app/product in the following document.

These instructions for use are available in additional languages online or can be ordered as a printed copy free of charge at "order-ifu@ottobock.com" e-mail address.

Document: 647G1834 **Version:** 05

Download: <https://product-documents.ottobock.com/IFU/INT/560X29-2/647G1834/05/O/S/F>

2 Product description



This adjustment app makes it possible to optimally adjust the component to a user. The adjustment app guides you step by step through the adjustment process.

The adjustment app can also be used to make configurations for the user app.

You have to create a user account prior to first use (registration).

The prosthetic alignment can also be carried out without a user account.

To use the adjustment app, you have to consent to the terms of use for the adjustment app. The adjustment app cannot be used without your consent.

3 Intended use

3.1 Indications for use

Basic functionality of the app

- Adjustment of lower limb exoprostheses/orthoses by qualified personnel via wireless communication between mobile device and prosthesis/orthosis.
- Sharing data to authenticate users.

3.2 Qualification

3.2.1 Qualification of O&P professional

A component may only be configured on the user with the adjustment app after corresponding product training and certification. To do so, select the role "**O&P professional**" (see page 9) in the user role. Additional product training courses/certifications may be required following app updates.

3.2.2 Qualification of qualified therapeutic personnel

The app may only be used as a therapist for the Kenevo knee joint following corresponding product training and certification. To do so, select the role "**Therapist**" (see page 9) in the user role.

4 Safety

4.1 Meaning of warning levels

CAUTION! Failure to follow instructions labelled in this way can lead to accidents and injuries.

4.2 General safety instructions

CAUTION! Possibility of falling

- ▶ A swing phase is not triggered unless components that require calibration are calibrated.
- ▶ The setting for the unit (lbs/kg) must be observed when entering the body weight.
- ▶ Entering incorrect data (foot size, prosthesis dimensions, body weight, etc.) can result in the swing phase not being initiated or being initiated at the wrong time.

5 System Requirements


For information on compatibility with mobile devices and versions, refer to the information in the Apple App Store or Google Play Store.

6 Use

Information on the adjustment app

- The adjustment app can be downloaded free of charge from the respective app store (Apple App Store, Google Play Store). To do so, enter the following search terms: "connectgo.pro", "Ottobock".
- Large font sizes in combination with small screens can cause text on the screen to be cut off or illegible. Information about the functions of the controls and adjustment parameters in the adjustment app is provided in these instructions for use.
- The illustrations in these instructions for use are only examples and may deviate from the respective mobile device being used and the version.
- Always keep the adjustment app up to date.
- Please contact the manufacturer if you suspect cybersecurity problems.

7 Starting the adjustment app

- 1) Tap the icon for the "connectgo.pro" app .
→ The terms of use and privacy policy are displayed.
- 2) Agree to the terms of use by ticking the "**I agree**" box.
- 3) Tap the "**Accept**" button.
→ The screen with the app settings is displayed.
- 4) Select the preferred user interface language and weight unit.
- 5) Select the user role for using the adjustment app (see page 9):
O&P professional: Full access to all functions of the adjustment app
Therapist: Limited access to the functions of the adjustment app
- 6) Tap the "**Next**" button.
→ The following options are available for resuming:
 - **Log in:** Registration of an Ottobock ID account is required to connect to a component (see page 8). The data for the certification of the respective component also has to be entered (see page 9).
 - **Continue without logging in:** Start alignment of the prosthesis without registration and a connection to the component. However, registration of an Ottobock ID account is required to continue using the adjustment app.

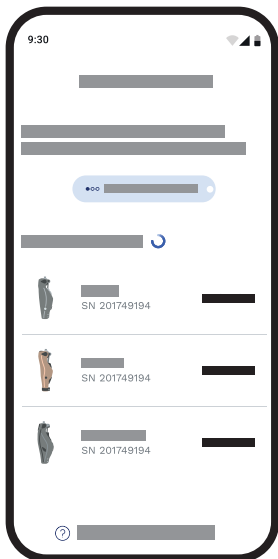
After successful login to the Ottobock ID account, a search for available components takes place.

8 Establishing a Bluetooth connection to the component


Depending on the component, Bluetooth can be switched on in the following ways:

- Rotate the component with pyramid/threaded connector downwards by 180° (pyramid top – pyramid bottom) until an acoustic signal is emitted or a vibration signal is perceptible. The acoustic signal sounds only in basic mode, not in a MyMode. To activate the basic mode, the battery charger/charging adapter has to be connected and disconnected again.
- If the component has buttons to switch on Bluetooth, use them to switch on.

- Connect the battery charger/charging adapter to the component and disconnect it again after about 5 seconds.



Tapping the “**Connect component**” button starts the search for available components.

- 1) From the components that are shown, select the desired component based on the serial number and tap the “**Connect**” button.
→ The animated  icon is displayed while the connection is being established.
- 2) Follow the subsequent instructions on the screen.
→ After a connection is successfully established, the main menu of the adjustment app is displayed with the status of the connected component.

INFORMATION

Switching on the Bluetooth of the component permanently



Switching the component's Bluetooth function on permanently is recommended for the duration of use of the adjustment app. Otherwise, Bluetooth must be activated on the component again for 2 minutes after the connection is interrupted (turn the component over or connect/disconnect the battery charger/charging adapter). For further information, see the section “Switching on Bluetooth” (see page 17).

9 Ottobock ID account

To configure a component with the adjustment app, you have to create a user account and log in with this data.


The prosthetic alignment can also be carried out without registration/logging in.



-  Not yet logged in to an Ottobock ID account.
Tap this icon to log in to an Ottobock ID account or register a new one.
-  Logged in to an Ottobock ID account.
Tapping this icon gives you the following options:
 - **Log out:** Log out of the Ottobock ID account
 - **Account administration:** Manage Ottobock ID account settings, change password or delete account

10 Certification

A component can only be adjusted after certification (expert) for the corresponding component has been completed. The certification data (user name and password) can either be entered when establishing a connection to the component or also be entered in batch form using the menu.

- 1) In the main menu of the adjustment app, tap the icon  ("More") in the bottom line.
- 2) Tap the **"Certification"** menu item.
→ The certifications for the respective components are displayed.
- 3) Certificates can be added by tapping **"Add"**.
If you have an unlock PIN, approval can be given immediately.

11 User role

To use the adjustment app, the certificates have to be entered according to the user role.

O&P professional

As a certified and registered O&P professional, all of the functions of the adjustment app required to adapt the component on the user are available to you.

Therapist

As a certified and registered therapist for the Kenevo knee joint, the following functions of the adjustment app are available to you:

- Switching the activity mode between "A", "B", "B+" and "C" (see page 19)
- Activation/deactivation of various functions (see page 20)
- Limited setting of the parameter **"Stance phase flexion resistance"** (see page 19)
- Manual switch to indoor bicycle mode
- Activation of feedback signals for training certain movement patterns (see page 21)
- Saving, reading and exporting records (see page 11) and creating activity reports.
- Transferring data between components is only possible as a certified O&P professional.


12 Operating elements for the adjustment app

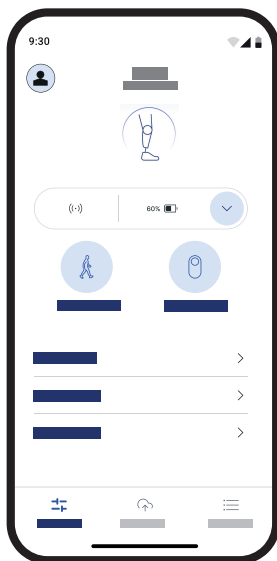
INFORMATION

The menu items listed here may deviate from the menu items actually displayed, depending on the version of the adjustment app and the connected components.

The main menu of the adjustment app is automatically accessed once the connection to the selected component has been successfully established.



The main menu of the adjustment app can be accessed by tapping the icon  **"Settings"**.



- In the upper left corner: Manage Ottobock ID account
- Logged in to the Ottobock ID account
- Not logged in to the Ottobock ID account

The following settings can be configured in the listed menu items:

- “Basic mode”**: Fundamental settings for basic mode and configuration of other parameters in the subsection **“Functions”**.
The available functions/parameters in the user app can also be determined.
- “MyModes”** (component-dependent): MyModes can be configured in this menu, see the section “MyModes” (see page 23). These MyModes are transferred directly to the component.
- “Training mode”** (component-dependent):
Turn training feedback signals for specific movements on/off, see the section “Training feedback signals” (see page 21)

Reset (component-dependent):
Reset the setting you made to the state before starting therapy exercise

Basic data: Enter information about the user and the component data.

Bench alignment: Display of values for the basic structure.

Calibration: (component-dependent) The component must be calibrated before using the prosthesis/orthosis for the first time. This ensures that the prosthesis/orthosis functions in a safe manner from the very start.

Further information on calibrating the individual components:

C-Leg: Section “Calibration (C-Leg)” see page 33

Kenevo: Section “Calibration (Kenevo)” see page 23

C-Brace: Section “Calibration (C-Brace)” see page 49



The following information about the connected component is displayed in the line below the component:

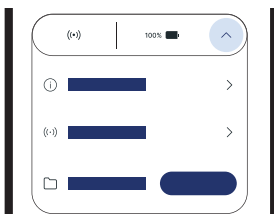
Connection established

Battery charge level

If there is an error in the component, it is indicated by icons:

- Minor error
- Severe error

Open the status bar to display additional menu items or information about errors.



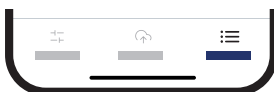
The following options are available in this menu:


Component status: See the section "Querying the status of the component" see page 15

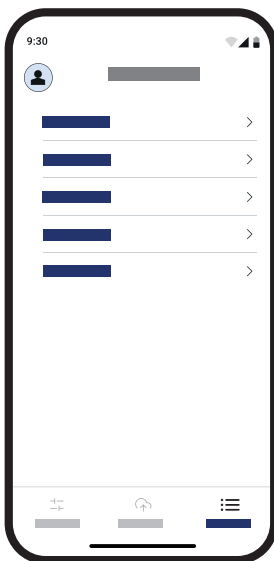
Connections: See the section "Establishing connection with/disconnecting from component" see page 15

Data set: The current data for the component can be saved by tapping the "**Save**" button. For more information on the stored data, see section "Data management" see page 11

12.1 Advanced main menu



► The following menu items are available after tapping the icon  "**More**":



Certification

Certifications for components can be added to the Ottobock ID account.

Instructions for use

Display/download the instructions for use for the adjustment app. An internet connection is required for this.

App Settings

Make additional settings of the adjustment app (e.g. switch units, change language)


New features

Display new functions of this version of the adjustment app

Imprint

Display information/legal notices for the adjustment app.
Display usage and license agreements as well as the privacy policy for the adjustment app.



The main menu of the adjustment app can be accessed by tapping the icon  "**Settings**".

12.2 Data management

The current settings and parameters are automatically saved as a data set in the connected mobile device each time a connection to the component is disconnected.

A data set with the current settings can also be saved at any time (see page 12).


INFORMATION

App always visible


The app must always be open (visible) on the mobile device during data transfer. If the screen of the mobile device switches off, the data connection to the component is interrupted and the data is not saved or loaded.

Only the data already stored in the component are read when the component is connected. Since not all parameters of the connectgo.pro are stored in the component, they are not transferred when establishing a connection. These are, for example: **"Hip flexion contracture (degrees)"**, **"Foot type"**, **"Locked stance phase"**.




- 1) After tapping the icon  **"Data"**, the overview of the saved data sets is displayed with a preselection of filters.
- 2) Select/deselect filters by tapping on them.
- 3) After tapping the **"Apply"** button, the data sets that match the filter criteria are displayed.



The selected data set is opened by tapping the > icon.
The data can be saved, exported or transferred to another component.
By tapping the icon  next to the heading, you can apply a new filter.


12.2.1 Saving data manually



- 1) In the main menu, open the status bar of the component by tapping the  icon.
- 2) In the line **"Data set"**, tap the **"Save"** button.
→ The current settings are saved as a data set.

12.2.2 Filtering data

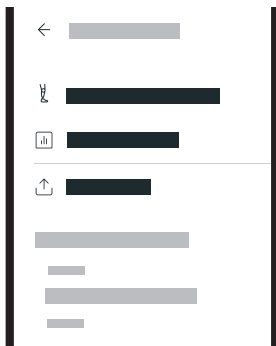


- 1) In the data overview menu, tap the icon  next to the heading.
→ The **"Filter options"** view opens. Some filters are already preselected.
- 2) From the properties displayed, tap the ones you want to filter by. Tapping it again will delete the selected filter.
- 3) The filter is applied by tapping the **"Apply"** button.

12.2.3 Detailed view of a data set

The selected data set is opened by tapping the > icon.

The following menu items are also available for selection:



Transfer to the component: Transfer a saved data set to the currently connected component.

Activity report: By selecting two data sets, the use of the component during this period can be exported as an activity report.

Export data: The saved data set can be exported as a text document, e.g. to send it.

12.2.4 Transferring data to another component

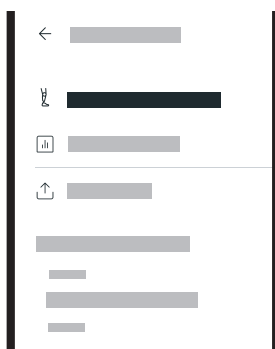
When a new component is connected, a stored data set can be transferred to this component.


The following requirements must be met:

- The data set is from a similar component.
It is not possible to transfer the data set from a 3B5-4 component to a 3C98 component.
- The firmware version of both components is identical.
- The ruleset version of the new component is identical or newer than the version of the component in the data set.

If these prerequisites are not met, a corresponding error message is displayed during import.


Carrying out a data transfer



- 1) Establish a connection to the component (see page 7).
- 2) Call up the data overview by tapping the icon  **"Data"**.
→ The **"Filter options"** page with pre-selected filter settings opens.
- 3) Set the desired filter on page **"Filter options"**.
- 4) Tap the **"Apply"** button.
→ The data sets that match the filter criteria are displayed.
- 5) Tap the **">"** icon for the data set to be transferred.
→ The **"Detail view"** overview opens.
- 6) Tap the **"Transfer to the component"** menu option.
- 7) Start the data transfer by tapping the **"Transfer settings"** button.
→ The Bluetooth PIN of the component is displayed after the data transfer has been successfully completed.
- 8) Tap the **"Basic data"** menu option in the main menu and check the data.
- 9) Make the entries, for example **"Hip flexion contracture (degrees)"**, **"Foot type"**, **"Locked stance phase"**, as these values are not saved in the data set.

13 Establish connection with/disconnect from component



- 1) In the main menu, open the status bar of the component by tapping the  icon.
- 2) Tap the **"Connections"** menu item.

The following functions are available in this menu:

Disconnect: Disconnect the currently connected component

Connect: Establish a connection to components.


The Bluetooth function of the component must be switched on. See the section "Establishing the Bluetooth connection to the component" see page 7.

14 Querying the status of the component

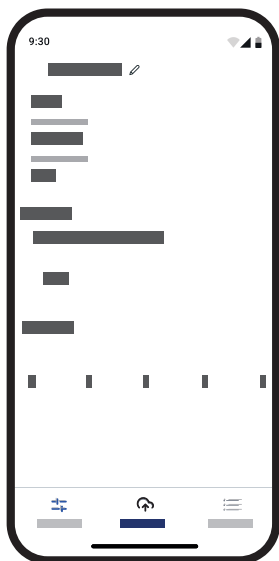
INFORMATION


The menu items listed here may deviate from the menu items actually displayed, depending on the version of the adjustment app and the connected components.



- 1) In the main menu, open the status bar of the component by tapping the  icon.
- 2) Tap the **"Component status"** menu item.

The following menu items are available:



: By tapping this icon, the name (designation) of the currently connected component can be changed for display in the user app.

Component: Designation and serial number of the connected component.

Battery: Display of the charge level of the connected component.

Show deep sleep mode in the user app (component-dependent): This mode can be activated like a MyMode in the user app.

Bluetooth: Activate/deactivate Bluetooth function permanently.

Bluetooth-PIN: Display Bluetooth PIN of the currently connected component.

Manual locking function (component-dependent):

Switching on **"Tapping pattern is recognized"** activates recognition of 3 taps for the manual lock of the knee joint (see page 18). If the knee joint is currently locked, a corresponding message is displayed.

Switching off the component (component-dependent): Switch component off for transport. The battery charger/charging adapter and a power source are required to switch on the component.

Volume: Change the volume of the confirmation signals. The volume of error signals cannot be changed.

Pitch (component-dependent): Change the pitch of the confirmation signals. The pitch of error signals cannot be changed.

Maintenance: Information about maintenance (service inspections).

Component software: Information regarding the component's ruleset and firmware version.


Switch off button (component-dependent):

Switch component off for transport. A live socket, power supply unit and battery charger are required for switching off and on.


15 Changing the component name



The name of the component can be changed in the user app to differentiate between components.

- In the main menu, open the status bar of the component by tapping the  icon.



- 1) Tap the icon  next to the designation (name) of the component.
- 2) Enter the new name.



INFORMATION: If the characters entered do not correspond to the available character set for display in the user app, the input field is displayed with a red frame.

- 3) Save the new name by tapping the **"Save"** button.



16 Switching Bluetooth of the component on/off

The Bluetooth function is used to establish a wireless connection between the component and the adjustment app or the user app. You can turn the Bluetooth function of the component off or on using the adjustment app. If the Bluetooth function is switched off, Bluetooth can be switched on (see page 7) temporarily (for 2 minutes) in order to establish a connection with the adjustment app or the user app. If desired, the component's Bluetooth function can then be activated permanently.

Switching off Bluetooth



- 1) In the main menu, open the status bar of the component by tapping the  icon.
 - 2) Tap the **"Component status"** menu item.
 - 3) Under the section **"Bluetooth"**, drag the switch of the menu item **"permanently activated"** to the left  (switched off).
- After disconnecting the component, the Bluetooth function of the component is permanently switched off.

Switching on Bluetooth

- 1) Rotate the component by 180° or plug in/unplug the charging adapter.
 - Bluetooth is switched on for approx. 2 minutes. During this time, the adjustment app must be started and a connection to the component established.
 - 2) In the main menu, open the status bar of the component by tapping the  icon.
 - 3) Tap the **"Component status"** menu item.
 - 4) Under the section **"Bluetooth"** drag the switch of the menu item **"permanently activated"** to the right  (switched on).
- The Bluetooth function of the component is permanently switched on.

17 Displaying the Bluetooth PIN

A Bluetooth PIN is required to establish a connection with the user app. This PIN is provided on a card included in the scope of delivery. If this card is no longer available, the Bluetooth PIN can be displayed by tapping a button. The Bluetooth PIN is only valid for the currently connected component.

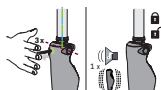
- 1) In the main menu, open the status bar of the component by tapping the  icon.
 - 2) Tap the **"Component status"** menu item.
 - 3) Under the **"Bluetooth"** section, tap the  icon.
- The Bluetooth PIN of the currently connected component is displayed.

18 Manual locking function

(C-Leg, Kenevo)

With the manual locking function, the user can lock and unlock the joint by tapping from the side. This function can be used in situations where an enhanced feeling of safety from the manual lock is required while walking (e.g. on damp or slippery surfaces).

Recognition of the tapping pattern can be turned on or off with the switch "**Tapping pattern is recognized**" under the menu item "**Manual locking function**" in the status display of the component (see page 15). This setting can also be configured in the user app with the setting "**Manual locking function**".



Function activated:

The knee joint can be locked and unlocked again by tapping three times at knee height.

Function deactivated:

The knee joint does not respond to three taps at knee height.

19 Changing settings (Kenevo)

19.1 Select activity mode

19.1.1 Activity mode A (locked mode)

In this mode, the component is locked in the stance and swing phase. Initiating a swing phase is not possible. The component has to be unlocked using a movement pattern in order to sit down.

Application case: Very high need for safety, very low walking speed. The user is not able to walk step-over-step.

19.1.2 Activity mode B (semi-locked mode)

In this mode, the component is locked in the stance phase. The swing phase is triggered when the component is unloaded at the end of the stance phase and moved forward from the step position.

Application case: High need for safety, low walking speed.

19.1.3 Activity mode B+ (semi-locked mode with stance phase flexion)

In this mode, the component is always locked in the stance phase and flexes slightly at heel strike (10° stance phase flexion). The swing phase is triggered when the component is unloaded at the end of the stance phase and moved forward from the step position.

Application case: High need for safety, low walking speed.

After initial knee flexion is activated, the knee joint flexes slightly after heel strike before it is locked.

19.1.4 Activity mode C (yielding mode)

The component is not locked in this mode. The component exhibits high stance phase flexion resistance.

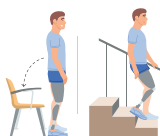
Application case: Walking speed up to 3 km/h, patient has adequate motor control over the residual limb and the need to negotiate ramps, steeper slopes and descending stairs step-over-step in daily life.

19.2 Overview of the adjustment parameters in the activity modes



The parameters of the activity modes describe the dynamic behaviour of the prosthesis in the normal gait cycle. These parameters act as basic settings for automatically adjusting the damping behaviour to the current motion situation (e.g. ramps, slow walking speed,...).

Stance phase flexion resistance



Flexion resistance while sitting down.

In activity mode C (yielding mode), this setting is also effective in the stance phase, while walking on ramps and stairs.

19.3 Overview of the functions in the activity modes

INFORMATION

The following functions have to be switched on in the adjustment app before they can be used in the user app: **"Donning function"**, **"Sitting function"**, **"Wheelchair function"**, **"Intuitive indoor bicycle function"**

Donning function (Mode A, B, B+)



If the knee joint is not loaded for a few seconds after disconnecting the charger, the prosthesis can be flexed. Flexion makes putting on the prosthesis easier. Ending knee flexion or loading the prosthesis immediately reactivates the configured operating state.

Sitting function (Mode A, B, B+, C)



If the knee joint is in a sitting position for more than two seconds, the flexion resistance is reduced when the function is activated and the lower leg can swing smoothly when the function is activated.

Wheelchair function (Mode A, B, B+, C)



This function makes it possible to lock the knee joint in a sitting position between 5° – 45° knee flexion. This is particularly useful if the user is being transported in a wheelchair and it is important to prevent the foot from dragging on the ground or getting caught in the wheelchair.

Stance function



Intuitive stance can be deactivated for training purposes, such as when descending stairs. This function should be activated again once therapy exercises have been completed.

Information: The user must be able to master the stairs with the stance function switched on as well.

Supported standing up is no longer available when the stance function is deactivated.

Added support when going down ramps/stairs (Mode C)



With this function, flexion resistance that increases with the knee angle (starting from the resistance of the parameter "**Stance phase flexion resistance**") to the end of the stance phase is configured.

Intuitive indoor bicycle function (Mode A, B, B+, C)



The change of the knee and leg angle is recognised from a sitting position after a few pedaling motions, followed by automatically switching to minimal resistances in the extension and flexion directions (indoor bicycle mode). For additional prerequisites for switching, see the instructions for use of the knee joint.

When the feet are taken off the pedals and set down on the ground or at a knee angle of less than 15°, the joint switches back to the resistances for walking and standing.

When this function is activated in the adjustment app, the "**Bicycle ergometer**" MyMode can be activated manually in the user app.

19.4 Training feedback signals

Feedback signals for specific movement patterns can be activated for training purposes.

INFORMATION

The "**Load on prosthesis**" and "**Load on prosthesis forefoot – heel**" feedback signals cannot be activated simultaneously.

Sitting down movement detected (Mode A, B, B+)



Single, short beep signal (high tone) as soon as the sitting down movement was detected and the flexion resistance was reduced.

All of the following criteria have to be met to detect sitting down

- Back tilt of the lower leg (do not place prosthesis too close to the chair)
- Loading the prosthesis with 15 % to 70 % of the body weight

Supported sitting down / standing up (Mode A, B, B+)



One short beep signal (low tone) as soon as the knee joint was locked in the flexion direction while sitting down/standing up.

The lock in the flexion direction occurs when the sitting down movement is interrupted between 0° and 45° of knee flexion.

Stance phase flexion (Mode B+/C)



Short beep signal (low tone) immediately after performing stance phase flexion during the gait cycle. Successful stance release has to take place first. The beep signal is generated at the start of the extension movement if the knee joint was slightly flexed previously.

Stance release (Mode B, B+, C)



Acoustic signal when the swing phase is initiated correctly and reliably.

All of the following criteria have to be met to initiate the swing phase:

- Extended knee joint
- **Mode B, B+:** The axial load decreases late in the terminal stance phase (more time for stance release).
- **Mode C:** The axial load decreases after the terminal stance phase.
- Forward tilt of the lower leg
- Forward rotation movement of the lower leg

Swing phase angle too high (Mode C)



Acoustic signal (3x fast beep) when reaching an excessively high swing phase angle.

This could be an indication that the user should use a knee joint with a higher mobility class (e.g. C-Leg, ...).

Load on prosthesis (Mode A, B, B+, C)



Signal of uneven load distribution, prosthesis side – contralateral side. A continuous acoustic signal is emitted depending on the level of load on the prosthesis side.

High tone: 40 % or less load on the prosthesis.

Low tone: 70 % or higher load on the prosthesis.

As soon as a load distribution within the above-mentioned limits is achieved, the signal stops.

This signal is also generated when sitting down up to a knee flexion of 30°. This can be used to practise sitting down evenly.

Load on prosthesis forefoot – heel (Mode A, B, B+, C)



Signal in case of uneven prosthesis load from forefoot to heel.

A continuous acoustic signal is emitted depending on the degree of load on the forefoot and/or heel.

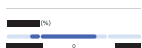
High tone: load on the forefoot

Low tone: load on the heel

If the forefoot and heel are loaded evenly, the signal stops.

19.5 Diagram of the load on the prosthesis

Load on prosthesis



In this section, the current axial prosthesis load between the prosthesis side and the contralateral side is shown graphically. (While sitting down or exercises while standing).

The scale value "100 %" corresponds to the set body weight.

Load on prosthesis forefoot – heel



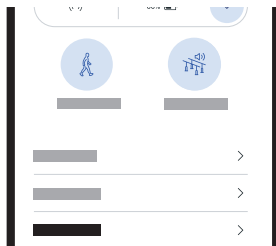
This section shows how evenly the load is distributed between the forefoot and heel.

For better display, the area can be adjusted by tapping the ⊕ or ⊖ icons.

19.6 Calibration (Kenevo)

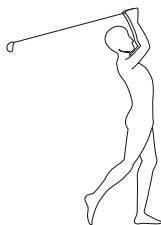
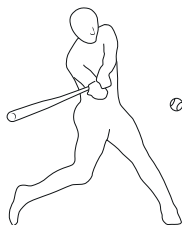
Depending on the clamping forces on the tube adapter, a load may be recognised even though the prosthesis is unloaded. Calibration achieves a zero adjustment of the tube adapter. If no calibration is performed, the function and safety of the prosthesis may be affected as the swing phase may be triggered too soon or not at all. This calibration should always be performed at the start of static alignment optimisation and at the end of dynamic alignment optimisation.

Performing the calibration



- 1) Tap on the "**Calibration**" menu option in the main menu.
- 2) Follow the subsequent instructions on the screen.

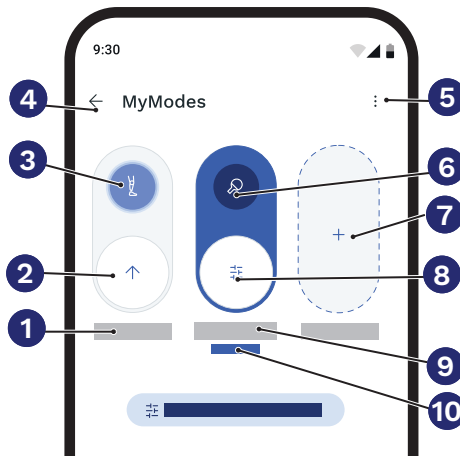
20 MyModes



MyModes are intended for specific types of movement or posture (e.g. golf, basketball, ...). These can be activated and configured in addition to the basic mode (mode 1) using the adjustment app. Switching on the component is done via the user app or via a movement pattern. Switching by using movement patterns has to be activated in the adjustment app. Settings can also be adjusted via the user app.

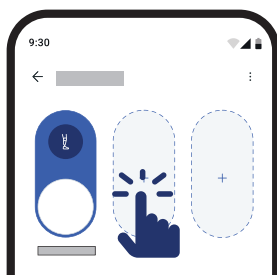


- Tap the ⑧ “MyModes” icon in the main menu of the adjustment app.
- The MyModes menu opens:



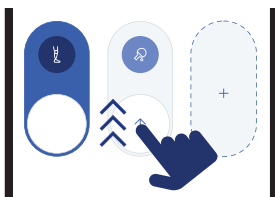
1. Designation (name) of the default mode
2. Slide switch to activate a MyMode by dragging the switch in the direction of the arrow
3. Deactivated MyMode “**Basic mode**”
4. Back to previous menu
5. Open menu for deleting MyModes and viewing additional information about the MyModes
6. Activated MyMode “**Table tennis**”
7. Add new MyMode by tapping the plus icon
8. Change settings of the MyMode that is activated by tapping the icon. Depending on the component, some MyModes cannot be changed.
9. Name of the MyMode (e.g. **Table tennis**)
10. Display of the movement pattern with which this MyMode can be activated (e.g. **3 x bouncing**)

20.1 Add MyMode




- 1) In the field of the new MyMode, tap the plus icon .
 - 2) From the MyModes that are displayed, select the desired MyMode with predefined settings.
The settings for the MyMode “**User defined**” can be freely selected.
- The selected MyMode is transferred to the component and is available in the user app and in the adjustment app.

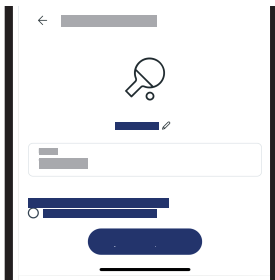
20.2 Adjust MyMode



- Activate the corresponding MyMode by “dragging” the switch up and briefly holding it.
- The component emits a confirmation signal to indicate correct switching.




The following changes can be made after tapping the  symbol or the **“Adjust active mode”** button:



- **“Change image”**: Select an image for identification in the user app
- **“Name”**: Select a designation for identification in the user app. This designation is identical in all languages.
- **“Activate with movement pattern”**: (component-dependent): By activating this selection field, the desired MyMode can be selected using a movement pattern (e.g.: **3 x bouncing**) in addition to the user app.

The following options are available for resuming:

- Save the change by tapping the  icon next to the heading **“Adjust MyMode”** or
- Change the parameters of the MyMode by tapping the **“Adjust MyMode”** button.

20.2.1 Adjustable parameters

C-Leg

See section “Overview of the setting parameters in the MyModes (C-Leg)” (see page 31).

Genium/Genium X3

See section “Overview of the adjustment parameters in the MyModes (Genium, Genium X3)” (see page 36).

Genium X4

See section “Overview of the setting parameters in the MyModes (Genium X4)” (see page 44).

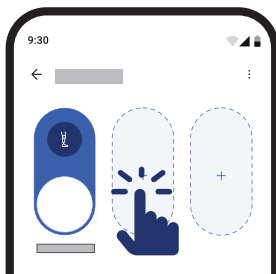
C-Brace

See section “Overview of the setting parameters in the MyModes (C-Brace)” (see page 49).

The parameters of the **“Training mode”** and **“Freeze position”** MyModes cannot be changed.

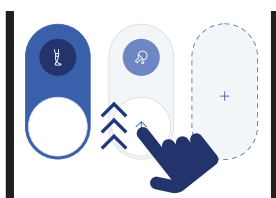
20.3 User defined MyMode

The number of available parameters depends on the respective pre-configured MyModes. If the **“User defined”** MyMode is selected, all parameters are available.



- 1) In the field of the new MyMode, tap the plus icon “+”.
- 2) Select the MyMode “**User defined**” from the MyModes that are displayed.
→ The selected MyMode is transferred to the component.
- 3) Activate this MyMode (drag switch up and hold briefly).
- 4) Tap the “**Adjust active mode**” button or the “⚙️” icon.
- 5) Enter a name, select an image and, if desired, tick the entry “**Activate with movement pattern:**” (depending on the component).
- 6) Tap the “**Adjust MyMode**” button.
- 7) Adapt the MyMode with the displayed parameters.
- 8) Save the MyMode by tapping the “**Save MyMode**” button.

20.4 Activating MyMode



- 1) Tap the “**MyModes**” option in the main menu.
- 2) Activate the corresponding MyMode by “dragging” the switch up.
→ The component emits a confirmation signal to indicate correct switching.

20.5 Delete MyMode



- 1) Activate the “**Basic mode**” mode. A MyMode that is switched on cannot be deleted.
- 2) Tap the “⋮” symbol.
- 3) Tap the “**Delete MyModes**” menu option.
→ The “-” icon appears in the top right corner of the MyMode you are deleting.
- 4) Tap the “-” icon to delete it.
→ The component emits a confirmation signal to indicate the correct deletion of the MyMode.

20.6 Changing the name of a MyMode

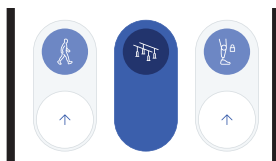


- 1) Tap the “**MyModes**” option in the main menu.
- 2) Activate the corresponding MyMode (drag switch up).
- 3) Tap the “**Adjust MyMode**” button.
- 4) Enter a new name.
INFORMATION: The name cannot be changed for some predefined MyModes.
- 5) Save the change by tapping the “←” icon next to the “**Adjust MyMode**” heading.

20.7 Special features of the MyModes (C-Brace)

20.7.1 MyMode "Training mode"

(if the knee joint is locked during the stance phase and swing phase release is possible)



With this mode, the user is provided with a certain feeling of safety at the beginning of the treatment. The knee joint is blocked in the stance phase because the stance phase resistance is set to maximum. Nevertheless, the swing phase is triggered when walking.

In this mode, walking down stairs or a ramp is only possible one step at a time.

To deactivate the **"Training mode"** MyMode, select either basic mode or a different MyMode. Basic mode can also be selected by turning the component off/on.

INFORMATION

Sitting down despite lock

Sitting down is possible depending on the component version.

CAUTION

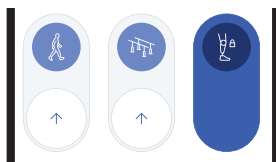
Improper use of the "Training mode" MyMode

Falling due to unexpected product behaviour caused by changed damping behaviour.

- ▶ Make sure that the patient is standing safely when using this MyMode and checks the lock of the knee joint before placing their full weight on the orthosis.
- ▶ Inform the patient that the knee joint is locked in the flexion direction in this MyMode. For information about this mode, see page 27.
- ▶ Switching back to basic mode is mandatory once the activities in this MyMode have been completed.

20.7.2 MyMode "Freeze position"

(if the knee joint is permanently locked)



This MyMode locks the knee joint in its current position and does not permit flexion or extension

To deactivate the **"Freeze position"** MyMode, select either basic mode or a different MyMode. Basic mode can also be selected by turning the component off/on.

CAUTION

Improper use of the "Freeze position" MyMode

Falling due to unexpected product behaviour caused by changed damping behaviour.

- ▶ Make sure that the patient is standing safely when using this MyMode and checks the lock of the knee joint before placing their full weight on the orthosis.
- ▶ Inform the patient that the knee joint is locked in both the flexion and extension direction in this MyMode. For information about this mode, see page 27.
- ▶ Switching back to basic mode is mandatory once the activities in this MyMode have been completed.

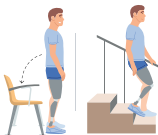
21 Changing settings (C-Leg)

21.1 Overview of adjustment parameters in basic mode



The parameters in basic mode describe the dynamic behaviour of the prosthesis in the normal gait cycle. These parameters act as basic settings for automatically adjusting the damping behaviour to the current motion situation (e.g. ramps, slow walking speed, ...).

Stance phase flexion resistance



Flexion resistance when going down stairs, ramps or sitting down. A suggestion for this parameter was calculated based on the settings **"Body weight with prosthesis"** and the distance **"Knee axis to floor"**.

Safety mode flexion resistance

The **"Adjust resistance"** function must be activated in order to adjust this parameter.

Adjust resistance

If a critical error occurs in the component (e.g. failure of a sensor signal) or if the rechargeable battery is drained, the component switches to a changed flexion resistance (**"Safety mode flexion resistance"**). The extension resistance is low and cannot be changed. Stance release is not possible.

Safety mode can be simulated in order to test this behaviour with the user and to set the flexion resistance.

- 1) Tap the **"Adjust resistance"** button.
- 2) Start safety mode simulation by tapping the **"Simulate mode"** button.
→ The flexion resistance is switched and can now be adjusted.
- 3) Set the desired flexion resistance (**"Safety mode flexion resistance"**) and test it with the user.

CAUTION! If the resistance is set to low, note that the heel strike has to be actively secured through hip extension to prevent falling or unintentional flexing/buckling.

End the setting process by tapping the **"Leave simulation"** and **"Activate basic mode"** buttons.

Swing phase flexion angle (degrees)



Maximum flexion angle in the swing phase. It is approximately 65° for a physiological gait, regardless of the walking speed.

The setting for this parameter also affects the amount of time before the prosthetic leg is extended again at the end of the swing phase. The higher this parameter setting, the later the leg is extended.

21.2 Overview of the functions in basic mode

INFORMATION

The following parameters/functions have to be switched on in the adjustment app before they can be used in the user app: **"Stance function"**, **"Sitting function"**.

Added support when going down ramps/stairs



With this function, flexion resistance that increases with the knee angle (starting from the resistance of the parameter **"Stance phase flexion resistance"**) to the end of the stance phase is configured.

PreFlex



This function ensures that the knee is at 4° of flexion at the end of the swing phase and in preparation for the heel strike. This makes initiating stance phase flexion easier, improves shock absorption and facilitates forward movement.

Stance function

INFORMATION

Stance function with hip disarticulation amputation level

Users with a hip disarticulation may experience difficulties with activating/deactivating the stance function. If these users want to stand with a flexed and locked knee joint for extended periods of time, a MyMode can be configured that can be activated/deactivated via the user app.



The stance function offers the possibility of relaxed standing, even on uneven or sloping surfaces, thanks to locked knee flexion.

Setting: "Intuitive"

The stance function offers the possibility of relaxed standing, even on uneven or sloping surfaces, thanks to locked knee flexion. The stance function is activated as soon as the knee joint is at rest

and under load. It is unlocked again with a forward or backward rollover, or by extending or unloading the knee joint.

Setting: **"Manual"**

Information: The setting "Manual" or "Deliberate" depends on the version of the knee joint. This function is particularly well suited for users with bilateral prostheses. Perform the following steps for activation:

- 1) Flex the joint between 5° and 65° and keep it still for one second.
- 2) Slowly extend the joint up to the desired standing angle.
- 3) In this position, keep the joint still for one second until it vibrates.

→ The blocked joint can now be loaded in the flexion direction.

The lock is deactivated only by consciously and quickly extending the joint or tilting the thigh slightly forward or more than 50° back.

Setting: **"Deliberate"**

Information: The setting "Manual" or "Deliberate" depends on the version of the knee joint. This function is particularly well suited for users with bilateral prostheses. Perform the following steps for activation:

- 1) Assume the desired knee angle.
 - 2) Do not remove the entire load from the prosthesis.
 - 3) Do not change the knee angle for a brief period.
- The blocked joint can now be loaded in the flexion direction.

Only by deliberately extending or unloading the knee joint is it unlocked again.

Sitting function



If the knee joint is in a sitting position for more than two seconds, the flexion resistance is reduced when the function is activated and the lower leg can swing smoothly when the function is activated.

Supported sitting down



To provide additional support for sitting down, the resistance while sitting down can be increased with the increase in the flexion angle.

Function activated:

The resistance while sitting down is increased depending on the knee angle, starting from the setting of the parameter **"Stance phase flexion resistance"**.

Function deactivated:

No increase. The resistance corresponds to the value of the **"Stance phase flexion resistance"** parameter.

Feedback – stance release



An acoustic signal can be activated with this function to check whether the swing phase is initiated correctly and reliably.

Intuitive cycling (region and component-dependent)



The change of the knee and leg angle is recognised from a sitting position after a few pedaling motions, followed by automatically switching to minimal resistances in the extension and flexion directions.



For additional prerequisites for switching, see the instructions for use of the orthosis.

When the feet are taken off the pedals and set down on the ground or at a knee angle of less than 15°, the original resistances for walking and standing are restored.

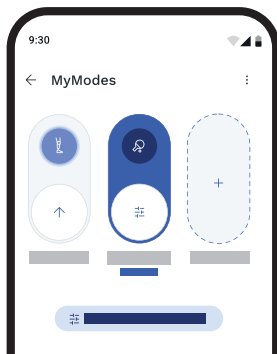
When this function is deactivated, a MyMode has to be configured for cycling, which is activated using the user app.

21.3 Activating deep sleep mode (C-Leg)

Activating this makes a MyMode available in the component, which can be used to place the component into deep sleep mode, in which power consumption is reduced. The component offers no functionality in this mode and exhibits the same behaviour as in safety mode.

- 1) In the main menu, open the status bar of the component by tapping the  icon.
 - 2) Tap the **"Component status"** menu item.
 - 3) Move the switch of the **"Show deep sleep mode in the user app"** menu item to the right  (switched on).
- Deep sleep mode can then be activated in the user app like a MyMode.
To deactivate deep sleep mode in the user app, select either basic mode or a different MyMode.

21.4 Overview of the setting parameters in the MyModes (C-Leg)



The parameters in the MyModes describe the static behaviour of the prosthesis for a specific motion pattern such as golf. Damping behaviour is not automatically controlled and adjusted in the MyModes.

INFORMATION

Depending on the selected MyMode, not all of the settings listed here can be configured.

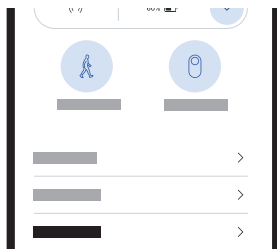
Parameter	Meaning
Basic flexion resistance	Level of flexion resistance when the knee joint begins to flex.
Flexion resistance increase	This parameter influences the increase in flexion resistance (starting with the "Basic flexion resistance" parameter) when flexing the knee joint. The resistance increases continuously until the knee joint locks starting at a certain flexion angle. The flexion angle at which the knee

Parameter	Meaning
	joint locks depends on the settings for the parameters " Basic flexion resistance " and " Flexion resistance increase ".
Flexion locking angle (degrees)	Flexion angle up to which the knee joint can be flexed before it is locked for further flexion. Information: This angle is calculated automatically depending on the configured resistances and cannot be set.
Stance release	If the user makes movements or plays sports with a resistance that is constant or depends on the flexion angle, a swing phase can be initiated regardless of the configured resistance values. The resistance values established by other parameters are ineffective for the duration of the swing phase.
Basic extension resistance	Level of extension resistance
Extension locking angle (degrees)	Angle up to which the knee joint can be extended. Information: If this parameter is greater than 0, the knee joint is locked in a flexed position in the extension direction. To unlock it, take all weight off the prosthesis and tilt it back for at least 1.5 seconds. This may be necessary to switch to basic mode using a movement pattern.

21.5 Calibration (C-Leg)

The individual position of the knee joint on the user has to be calibrated. If calibration on the user is omitted, the swing phase is initiated too early or too late due to incorrect data. This calibration should always be performed at the start of static alignment optimisation and at the end of dynamic alignment optimisation.

Performing the calibration



- 1) Tap on the **"Calibration"** menu option in the main menu.
- 2) Follow the subsequent instructions on the screen.

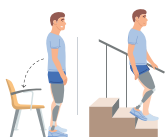
22 Changing settings (Genium, Genium X3)

22.1 Overview of adjustment parameters in basic mode



The parameters in basic mode describe the dynamic behaviour of the prosthesis in the normal gait cycle. These parameters act as basic settings for automatically adjusting the damping behaviour to the current motion situation (e.g. ramps, slow walking speed, ...).

Stance phase flexion resistance



Flexion resistance when going down stairs or ramps or when sitting down.

Safety mode flexion resistance

The “**Adjust resistance**” function must be activated in order to adjust this parameter.

Adjust resistance

If a critical error occurs in the component (e.g. failure of a sensor signal) or if the rechargeable battery is drained, the component switches to a changed flexion resistance (“**Safety mode flexion resistance**”). The extension resistance is low and cannot be changed. Stance release is not possible.

Safety mode can be simulated in order to test this behaviour with the user and to set the flexion resistance.

- 1) Tap the “**Adjust resistance**” button.
- 2) Start safety mode simulation by tapping the “**Simulate mode**” button.
→ The flexion resistance is switched and can now be adjusted.
- 3) Set the desired flexion resistance (“**Safety mode flexion resistance**”) and test it with the user.

CAUTION! If the resistance is set to low, note that the heel strike has to be actively secured through hip extension to prevent falling or unintentional flexing/buckling.

End the setting process by tapping the “**Leave simulation**” and “**Activate basic mode**” buttons.

Swing phase flexion angle (degrees)



Maximum flexion angle in the swing phase. It is approximately 65° for a physiological gait, regardless of the walking speed.

The setting for this parameter also affects the amount of time before the prosthetic leg is extended again at the end of the swing phase. The higher this parameter setting, the later the leg is extended.

22.2 Overview of the functions in basic mode

INFORMATION

The following parameters/functions have to be switched on in the adjustment app before they can be used in the user app: “**Stance function**”, “**Sitting function**”, “**Stairs and obstacles**”.

Supported sitting down



To provide additional support for sitting down, the resistance while sitting down can be increased with the increase in the flexion angle.

Function activated:

The resistance while sitting down is increased depending on the knee angle, starting from the setting of the parameter “**Stance phase flexion resistance**”.

Function deactivated:

No increase. The resistance corresponds to the value of the “**Stance phase flexion resistance**” parameter.

Sitting function



If the knee joint is in a sitting position for more than two seconds, the flexion resistance is reduced when the function is activated and the lower leg can swing smoothly when the function is activated.

Stance function

INFORMATION

Stance function with hip disarticulation amputation level

Users with a hip disarticulation may experience difficulties with activating/deactivating the stance function. If these users want to stand with a flexed and locked knee joint for extended periods of time, a MyMode can be configured that can be activated/deactivated via the user app.



The stance function (standing mode) is a functional supplement to the basic mode (mode 1). This function makes it easier, for example, to stand on an inclined surface for a longer time. The joint is fixed in the flexion direction.

Setting: "Deliberate"

This function is particularly well suited for patients with bilateral prostheses. Perform the following steps for activation:

- 1) Assume the desired knee angle.
 - 2) Do not remove the entire load from the prosthesis.
 - 3) Do not change the knee angle for a brief period.
- The blocked joint can now be loaded in the flexion direction.
Only by deliberately extending or unloading the knee joint is it unlocked again.

Setting: "Intuitive"

Any situation that puts strain on the prosthesis in the flexion direction, but where flexion is not permitted, is recognised. Examples of this include standing on uneven or sloping surfaces. The knee joint is always locked in the flexion direction when the prosthetic leg is not fully extended, is under some amount of load and is at rest. Upon forward or backward rollover or extension, the level of resistance is immediately reduced to stance phase resistance again.

The knee joint is not locked when the above conditions are met and a sitting position is assumed (for example when driving a car).

PreFlex



This function ensures that the knee is at 4° of flexion at the end of the swing phase and in preparation for the heel strike. This makes initiating stance phase flexion easier, improves shock absorption and facilitates forward movement.

Stairs and obstacles



With this function, it is possible to climb stairs step-over-step as well as overcome obstacles.

- 1) Lift the extended prosthesis off the floor and briefly extend the hip.
→ The flexion resistance is decreased in the process.
- 2) Quickly flex the hip.
→ This causes the knee to flex.
- 3) With the knee flexed, step onto the stair or over the obstacle.
→ The extension resistance is increased to allow enough time for climbing to the next step or for crossing the obstacle.
- 4) Place the foot and extend the prosthesis.
→ The flexion resistance is increased to offer adequate stability and safety during extension.
- 5) When the knee joint is fully extended, the initial position has been reached. The user can then ascend the next step or continue walking normally.

Behaviour when going down ramps/stairs



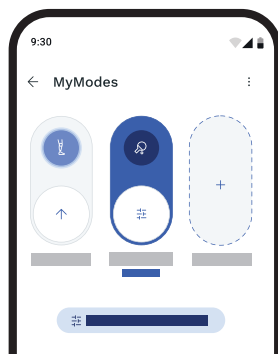
Setting **“Supported”**:

Flexion resistance that increases with the knee angle (starting from the resistance of the parameter **“Stance phase flexion resistance”**) to the end of the stance phase is configured.

Setting **“Dynamic”**:

With this setting, it is possible to swing the prosthesis up at the end of the stance phase on ramps and stairs. This results in more ground clearance during swing-through of the prosthesis.

22.3 Overview of the adjustment parameters in the MyModes (Genium, Genium X3)



The parameters in the MyModes describe the static behaviour of the prosthesis for a specific motion pattern such as golf. Damping behaviour is not automatically controlled and adjusted in the MyModes.

INFORMATION

Depending on the selected MyMode, not all of the settings listed here can be configured.

Flexion

Parameter	Meaning
Basic flexion resistance	Level of flexion resistance when the knee joint begins to flex.

Parameter	Meaning
Flexion resistance increase	This parameter influences the increase in flexion resistance (starting with the " Basic flexion resistance " parameter) when flexing the knee joint. The resistance increases continuously until the knee joint locks starting at a certain flexion angle. The flexion angle at which the knee joint locks depends on the settings for the parameters " Basic flexion resistance " and " Flexion resistance increase ".
Flexion locking angle (degrees)	Flexion angle up to which the knee joint can be flexed before it is locked for further flexion. Information: This angle is calculated automatically depending on the configured resistances and cannot be set.

Extension

Parameter	Meaning
Basic extension resistance	Level of extension resistance
Extension locking angle (degrees)	Angle up to which the knee joint can be extended. Information: If this parameter is greater than 0, the knee joint is locked in a flexed position in the extension direction. To unlock it, take all weight off the prosthesis and tilt it back for at least 1.5 seconds. This may be necessary to switch to basic mode using a movement pattern.


Additional functions

Parameter	Meaning
Stance release	If the user makes movements or plays sports with a resistance that is constant or depends on the flexion angle, a swing phase can be initiated regardless of the configured resistance values. The resistance values established by other parameters are ineffective for the duration of the swing phase.
Brake knee	When the function is activated, the knee joint is locked in the flexion direction when weight is placed on it. Further flexion is possible after taking weight off the joint.

22.4 Switching component on/off

Switching off

In certain cases, e.g. during storage or transport, the component can be switched off. It can only be switched on by connecting it to a live socket, power supply unit and battery charger.

- 1) In the main menu, open the status bar of the component by tapping the  icon.
- 2) Tap the "**Component status**" menu item.
- 3) Tap the "**Switch off**" button.
- 4) Follow the subsequent instructions on the screen.
- 5) To check whether the component has been switched off, hold the component with the pyramid/threaded connector pointing down and note the feedback signals.
→ If no signals are emitted, the component is switched off.

INFORMATION

Output of feedback signals

If you wait too long to disconnect the battery charger, a notification is displayed. In addition, a self-test is performed after the battery charger is disconnected and is confirmed with feedback signals.

To switch off again, tap the **"Switch off"** button and follow the subsequent instructions on the screen.

Switching on

- 1) Connect the power supply unit and battery charger to the wall socket.
- 2) Connect the battery charger to the knee joint.
 - The correct connection of the power supply unit to the knee joint via the battery charger is indicated by feedback (see the instructions for use of the knee joint).
- 3) Disconnect the battery charger from the knee joint.
 - After feedback signals are emitted (self-test), the knee joint is switched on.

INFORMATION

Shipping or storing the component

Before shipping or storing the component, the knee head of the component has to be extended.

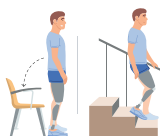
23 Changing settings (Genium X4)

23.1 Overview of adjustment parameters in basic mode



The parameters in basic mode describe the dynamic behaviour of the prosthesis in the normal gait cycle. These parameters act as basic settings for automatically adjusting the damping behaviour to the current motion situation (e.g. ramps, slow walking speed, ...).

Stance phase flexion resistance



Flexion resistance when going down stairs or ramps or when sitting down. For some functions such as "**Late stance phase support**, **Supported sitting down**, ...", this is also the initial resistance from which these functions adjust the resistance.

The flexion resistance increases starting from the value of the parameter "**Basic flexion resistance**" up to this value as the flexion angle increases. Unlike the "**Flexion locking angle (degrees)**" parameter, there is no locking in the flexion direction.

A proposal for this parameter was calculated from the parameters "**Body weight with prosthesis**", "**Knee axis to floor**", "**Amputation (Unilateral/Bilateral)**", "**Foot size**".

Safety mode flexion resistance

The "**Adjust resistance**" function must be activated in order to adjust this parameter.

Adjust resistance

If a critical error occurs in the component (e.g. failure of a sensor signal) or if the rechargeable battery is drained, the component switches to a changed flexion resistance ("**Safety mode flexion resistance**"). The extension resistance is low and cannot be changed. Stance release is not possible.

Safety mode can be simulated in order to test this behaviour with the user and to set the flexion resistance.

- 1) Tap the "**Adjust resistance**" button.
- 2) Start safety mode simulation by tapping the "**Simulate mode**" button.
→ The flexion resistance is switched and can now be adjusted.
- 3) Set the desired flexion resistance ("**Safety mode flexion resistance**") and test it with the user.

CAUTION! If the resistance is set to low, note that the heel strike has to be actively secured through hip extension to prevent falling or unintentional flexing/buckling.

End the setting process by tapping the "**Leave simulation**" and "**Activate basic mode**" buttons.

Swing phase flexion angle (degrees)





Maximum flexion angle in the swing phase. It is approximately 65° for a physiological gait, regardless of the walking speed.

The setting for this parameter also affects the amount of time before the prosthetic leg is extended again at the end of the swing phase. The higher this parameter setting, the later the leg is extended.

23.2 Activating deep sleep mode (Genium)

Activating this makes a MyMode available in the component, with which the user app can be used to place the component into deep sleep mode, in which power consumption is minimised. The component offers no functionality in this mode and exhibits the same behaviour as in safety mode. Deep sleep mode can be ended using the user app or by connecting the battery charger. After ending deep sleep mode, the knee joint is in basic mode again.

- 1) In the main menu, open the status bar of the component by tapping the  icon.
- 2) Tap the "**Component status**" menu item.
- 3) Move the switch of the "**Show deep sleep mode in the user app**" menu item to the right  (switched on).

- Deep sleep mode can then be activated in the user app like a MyMode.
To deactivate deep sleep mode in the user app, select either basic mode or a different MyMode.

23.3 Overview of the functions in basic mode

INFORMATION

The following parameters/functions have to be switched on in the adjustment app or have a value greater than 0 before they can be used in the user app: **Stance function, Start-to-walk, PreFlex, Optimised ascent, Stairs and obstacles, Locked stance phase, Intuitive cycling, Early stance phase support**

Supported sitting down



To provide additional support for sitting down, the resistance while sitting down can be increased with the increase in the flexion angle.

Setting:

Level 0: No increase. The resistance corresponds to the value of the “**Stance phase flexion resistance**” parameter.

Levels 1 through 3: The increase in resistance is greater the higher the level.

Sitting function



If the knee joint is in a sitting position for more than one second, the flexion resistance is reduced depending on the setting.

Setting:

At level 0, the flexion resistance is minimal. At levels 1 through 3, the flexion resistance is increased as the level increases and at level 3, corresponds to the value of the “**Stance phase flexion resistance**” parameter. At level 0, the leg can be freely positioned.

Stance function

INFORMATION

Stance function with hip disarticulation amputation level

Users with a hip disarticulation may experience difficulties with activating/deactivating the stance function. If these users want to stand with a flexed and locked knee joint for extended periods of time, a MyMode can be configured that can be activated/deactivated via the user app.



The stance function offers the possibility of relaxed standing, even on uneven or sloping surfaces, thanks to locked knee flexion.

The stance function is activated as soon as the knee joint is at rest and under load.

It is unlocked again with a forward or backward rollover, or by extending or unloading the knee joint. The required extent of motion for unlocking with a forward or backward rollover is greater the farther the parameter "**Sensitivity**" was set in the "**Deliberate**" direction.

Setting low (Parameter in "Deliberate" direction): This setting leads to a slight delay in activating the stance function. The lower the value, the longer the delay. This prevents unintentional activation. The setting is particularly well suited for bilateral prosthesis wearers.

At the lowest value, the stance function cannot be deactivated by a movement anymore.

Setting high (Parameter in "Intuitive" direction): This setting results in easier deactivation by moving the knee joint, without having to unload or extend the knee joint. The higher the value, the less of a movement is required.

This adjustment option can be enabled for the user app. Inform the user of the effects of the different adjustment levels.

"Start-to-walk" function



With this function, the knee joint can be flexed more easily when starting to take a step without initiating a swing phase. This also makes walking in confined spaces easier since initial flexion is possible not only from the step position via stance release/swing phase initiation but also from the standing position.

PreFlex



This function ensures that the knee is at 4° of flexion at the end of the swing phase and in preparation for the heel strike. This makes initiating stance phase flexion easier, improves shock absorption and facilitates forward movement.

Maximum stance phase flexion (degrees)

INFORMATION

This parameter takes effect only if the parameter "**Early stance phase support**" has been activated (value greater than 0).



This parameter sets the maximum stance phase flexion while walking on a level surface. The higher the configured value for this parameter, the more stance phase flexion is permitted when walking on level surfaces.

Early stance phase support



This function increases flexion resistance in the early stance phase and makes it possible to walk down flat to medium ramps in a slower and more controlled way. This support is automatically reduced as the slope of the ramp increases to allow natural flexion.

The setting (1 low, 3 high) is used to set the maximum resistance level.

The higher the level is configured, the greater the support is in the early stance phase.

A setting of 0 deactivates this function.

Late stance phase support



This parameter sets the flexion resistance behaviour starting in the mid stance phase while walking down ramps and stairs.

The level should be selected so that walking down steep ramps/stairs is sufficiently supported. On flat ramps, the selected level is automatically reduced to ensure sufficient ground clearance in the extension.

Levels 1 through 3: (Dynamic): The **flexion resistance** is **reduced** starting from the value of the parameter "**Stance phase flexion resistance**". The lower the selected level, the greater the flexion resistance reduction. This allows the lower leg to easily swing up to the rear in order to obtain greater ground clearance in the swing phase.

Users with good residual limb strength (or residual limb control) and users who need a high level of dynamics in particular benefit from a more dynamic setting.

Level 4: The **flexion resistance** remains **constant** at the value of the parameter "**Stance phase flexion resistance**".

Levels 5 through 7 (Supported): The **flexion resistance** is **increased** starting from the value of the parameter "**Stance phase flexion resistance**". The higher the selected level, the greater the increase in the flexion resistance. This provides even better support for the user while walking down stairs and ramps, makes it easier to place the foot of the contralateral side and provides further relief for the contralateral side. Bilateral users, users with a short residual limb or reduced residual limb strength in particular benefit from this setting.

Optimised ascent



This function makes it easier to walk up ramps by automatically increasing the Preflex value depending on the angle of the ramp, making an easier rollover possible by shortening the stride and leg length. Adapted stance phase control occurs during forward movement to enable a physiological movement pattern.

Stairs and obstacles



With this function, it is possible to climb stairs step-over-step as well as overcome obstacles.

- 1) Lift the extended prosthesis off the floor and briefly extend the hip.
→ The flexion resistance is decreased in the process.
- 2) Quickly flex the hip.
→ This causes the knee to flex.
- 3) With the knee flexed, step onto the stair or over the obstacle.
→ The extension resistance is increased to allow enough time for climbing to the next step or for crossing the obstacle.
- 4) Place the foot and extend the prosthesis.
→ The flexion resistance is increased to offer adequate stability and safety during extension.
- 5) When the knee joint is fully extended, the initial position has been reached. The user can then ascend the next step or continue walking normally.

Dynamic backward movement



This function makes it possible to walk backwards more quickly without excessive flexing of the knee joint. This is achieved with an increased flexion resistance while walking backwards.

A flexion angle between 15° and 30° can be configured, after which the joint is locked. If the locking effect is bothersome, the maximum angle can be set.

Locked stance phase



When this function is activated in the user app, the joint is locked during the stance phase but initiates a swing phase.

Walking down stairs and ramps step-over-step with knee flexion is therefore not possible. To enable knee flexion while sitting down, the prosthesis must be loaded and the hip must be moved quickly and briefly to the back.

This setting is not active in the component immediately, but first has to be made consciously by the user.

Activating this function opens a dialogue in which the function can be tested directly with the user.

Intuitive cycling



When this function is activated, cycling is detected due to the characteristic cyclical movements of the prosthesis and the resistance in the knee joint is reduced. Upon dismounting from the bicycle, the joint switches back to the resistances for walking and standing.

In addition, it is possible to stand up on the pedals with the activated function while cycling and then sit down with support, without deactivating the function.

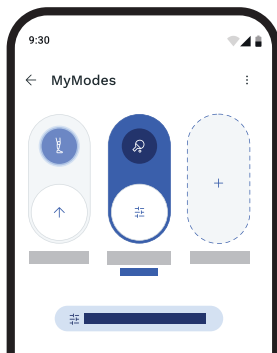
When this function is deactivated, a MyMode has to be configured for cycling, which is activated using the user app or a movement pattern.

Feedback – stance release



An acoustic signal can be activated with this function to check whether the swing phase is initiated correctly and reliably.

23.4 Overview of the setting parameters in the MyModes (Genium X4)



The parameters in the MyModes describe the static behaviour of the prosthesis for a specific motion pattern such as golf. Damping behaviour is not automatically controlled and adjusted in the MyModes.

INFORMATION

Depending on the selected MyMode, not all of the settings listed here can be configured.

Parameter	Meaning
Basic flexion resistance	Level of the flexion resistance in the extended state. Depending on the configured value of the parameter " Flexion locking angle (degrees) " or " Maximum flexion resistance ", the flexion resistance increases starting from this value as the knee flexion increases.
Flexion locking angle (degrees)	Flexion angle up to which the knee joint can be flexed before it is locked for further flexion. Information: This angle is calculated automatically depending on the configured resistances and cannot be set.



Parameter	Meaning
Maximum flexion resistance	Maximum attainable flexion resistance depending on the knee angle. The flexion resistance increases continuously as the flexion angle increases until the configured value is reached at a flexion angle of 70°. Unlike the " Flexion locking angle (degrees) " parameter, there is no locking in the flexion direction.
Basic extension resistance	Level of extension resistance
Extension locking angle (degrees)	Angle up to which the knee joint can be extended. Information: If this parameter is greater than 0, the knee joint is locked in a flexed position in the extension direction. To unlock it, take all weight off the prosthesis and tilt it back for at least 1.5 seconds. This may be necessary to switch to basic mode using a movement pattern.
Brake knee	When the function is activated, the knee joint is locked in the flexion direction when weight is placed on it. Further flexion is possible after taking weight off the joint.
Stance release	If the user makes movements or plays sports with a resistance that is constant or depends on the flexion angle, a swing phase can be initiated regardless of the configured resistance values. The resistance values established by other parameters are ineffective for the duration of the swing phase.

23.5 Switching component on/off

Switching off

In certain cases, e. g. for storage or transportation, the component can be purposely switched off.

It can be switched on only by connecting to the charging adapter and a USB power source.

- 1) Start the adjustment app and establish a connection to the component.
- 2) In the main menu, open the status bar of the component by tapping the "⌵" button.
- 3) Tap the "**Component status**" menu item.
- 4) Under the section "**Switching off the component**", drag the switch of the menu item to the left  (switched off).
- 5) After the information is confirmed, a falling tone sequence  (dee doo day dah) and a long vibration signal are generated. After this, the component is switched off.

Switching on

- 1) Connect the USB power source to the charging adapter.
- 2) Connect the charging adapter to the knee joint.
→ You can tell whether the USB power source is correctly connected to the knee joint via the charging adapter based on feedback (see the instructions for use of the knee joint).

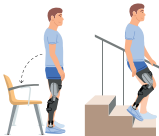
24 Changing settings (C-Brace)

24.1 Overview of adjustment parameters in basic mode



The parameters in basic mode describe the dynamic behaviour of the orthosis in the normal gait cycle. These parameters act as basic settings for automatically adjusting the damping behaviour to the current motion situation (e.g. ramps, slow walking speed, ...).

Stance phase flexion resistance



Flexion resistance when going down stairs, ramps or while sitting down.

Safety mode flexion resistance

The “**Adjust resistance**” function must be activated in order to adjust this parameter.

Adjust resistance

If a critical error occurs in the component (e.g. failure of a sensor signal) or if the rechargeable battery is drained, the component switches to a changed flexion resistance (“**Safety mode flexion resistance**”). The extension resistance is low and cannot be changed. Stance release is not possible.

Safety mode can be simulated in order to test this behaviour with the user and to set the flexion resistance.

- 1) Tap the “**Adjust resistance**” button.
- 2) Start safety mode simulation by tapping the “**Simulate mode**” button.
→ The flexion resistance is switched and can now be adjusted.
- 3) Set the desired flexion resistance (“**Safety mode flexion resistance**”) and test it with the user.

CAUTION! If the resistance is set to low, note that the heel strike has to be actively secured through hip extension to prevent falling or unintentional flexing/buckling.

End the setting process by tapping the “**Leave simulation**” and “**Activate basic mode**” buttons.

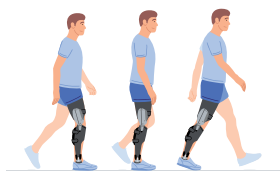
Stance phase flexion resistance Plus



If the parameter "**Stance phase flexion resistance**" for sitting down and negotiating stairs and ramps is set correctly, but the patient sinks down in the stance phase while walking on level ground, the parameter "**Stance phase flexion resistance Plus**" should be adjusted for the patient.

If elevated stance phase flexion resistance for walking on level ground is not wanted, the value of the parameter "**Stance phase flexion resistance Plus**" has to be set equal to the value of the parameter "**Stance phase flexion resistance**".

Stance phase extension resistance



This parameter can decide how quickly the knee joint returns to an extended position again after stance phase flexion. The hardness of the stop can be influenced with this parameter.

Swing phase flexion angle (degrees)



Maximum flexion angle in the swing phase. It is approximately 65° for a physiological gait, regardless of the walking speed.

24.2 Overview of the functions in basic mode

INFORMATION

The following parameters/functions have to be switched on in the adjustment app before they can be used in the user app: "**Stance function**", "**Sitting function**".

Stance function



The stance function offers the possibility of relaxed standing, even on uneven or sloping surfaces, thanks to locked knee flexion. The joint is fixed in the flexion direction at a flexion angle between 5° and 65°.

Setting: "Intuitive"

The intuitive stance function recognises any situation that puts strain on the orthosis in the flexion direction but where flexion is not permitted. Examples of this include standing on uneven or sloping surfaces. The joint is always locked in the flexion direction when the leg with the orthosis is not fully extended and is kept still for a brief moment. The joint is not locked when the above conditions are met and a sitting position is assumed.

Setting: **"Manual"**

- 1) Flex the joint between 5° and 65°.
 - 2) Keep the joint still in this position for one second.
- The blocked joint can now be loaded in the flexion direction.

The manual stance function is automatically deactivated again by extending the knee or by repositioning the leg (e.g. taking a step).

Sitting function



If the orthosis is in a sitting position for more than 2 seconds (thigh is close to horizontal and there is no load on the leg), the flexion resistance is reduced when the function is activated and the lower leg can swing smoothly.

Feedback – stance release



An acoustic signal can be activated with this function to check whether the swing phase is initiated correctly and reliably.

Added support when going down ramps/stairs (component-dependent)



With this function, flexion resistance that increases with the knee angle (starting from the resistance of the parameter **"Stance phase flexion resistance"**) to the end of the stance phase is configured.

Intuitive cycling (component-dependent)



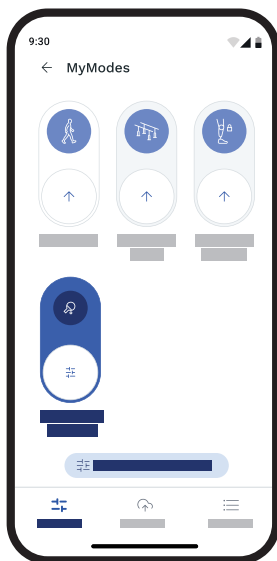
The change of the knee and leg angle is recognised from a sitting position after a few pedaling motions, followed by automatically switching to minimal resistances in the extension and flexion directions.

For additional prerequisites for switching, see the instructions for use of the knee joint.

When the feet are taken off the pedals and set down on the ground or at a knee angle of less than 15°, the original resistances for walking and standing are restored.

When this function is deactivated, a MyMode has to be configured for cycling, which is activated using the user app.

24.3 Overview of the setting parameters in the MyModes (C-Brace)



The parameters in the MyModes describe the static behaviour of the orthosis for a specific motion pattern such as golf. Damping behaviour is not automatically controlled and adjusted in the MyModes.

The parameters of the **"Training mode"** and **"Freeze position"** MyModes are preconfigured and cannot be changed.

For further information about these two MyModes, see the section **"Special features of the MyModes (C-Brace)"** (see page 27).

INFORMATION

Depending on the selected MyMode, not all of the settings listed here can be configured.

Parameter	Meaning
Basic flexion resistance	Level of flexion resistance when the knee joint begins to flex.
Flexion resistance increase	Value for speed at which flexion resistance increases as the knee angle increases.

24.4 Calibration (C-Brace)

The individual position of the joint unit has to be calibrated on the user. If calibration on the user is omitted, the swing phase is initiated too early or too late due to incorrect data.

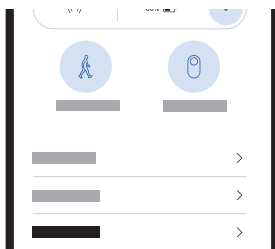
The calibration process must be repeated after every static change on the orthosis (e.g. after adjusting the ankle joint).

The adjustment process can only be continued after completing the calibration.

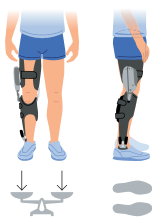
INFORMATION

Do not use the hands to help extend the leg.

Performing the calibration



- 1) Tap on the **"Calibration"** menu option in the main menu.
- 2) Follow the subsequent instructions on the screen.



If the prerequisites listed in the adjustment app are not met, the respective deviations are indicated by a marking. Only after the deviations are corrected can the calibration be restarted.

- **User is standing still and upright**
The user should be standing as still as possible. The support of parallel bars may help.
- **Knee joint extended**
The user should independently bring the orthosis to full extension. If this is not possible, the static alignment has to be corrected (for example by adjusting the ankle joint).
- **Angle of inclination within calibration range**
The user should be standing upright and the feet should be level. Check the static orthosis alignment.

25 Legal information

25.1 Trademarks

All product names mentioned in this document are subject without restriction to the respective applicable trademark laws and are the property of the respective owners.

All brands, trade names or company names may be registered trademarks and are the property of the respective owners.

Should trademarks used in this document fail to be explicitly identified as such, this does not justify the conclusion that the denotation in question is free of third-party rights.

25.2 CE conformity

This product complies with the relevant European requirements for medical devices.

The full text of the EU Declaration of Conformity is available at the following Internet address:
<http://www.ottobock.com/conformity>

26 Technical data

Adjustment app "connectgo.pro"	
Reference number	560X29-2=*
Supported operating systems	For compatibility with the mobile devices and versions, refer to the information in the online store (e.g. Apple App Store, Google Play Store, ...).
App stores for download	Apple App Store (https://www.apple.com/app-store/)/Google Play Store (https://play.google.com/store)

27 Appendix

27.1 Symbols Used



Manufacturer



Declaration of conformity according to the applicable European directives



Medical device



UDI number (Unique Device Identifier)



Article number



Please note the instructions for use



Date of manufacture

27.2 Troubleshooting

Event	Cause	Required action
No connection possible between component and app	Component is not found	<ul style="list-style-type: none">• Activate Bluetooth for the component• Activate Bluetooth for the device• Activate the device location
	No internet connection/server connection	<ul style="list-style-type: none">• Activate internet connection on the device• If the problem persists, contact Ottobock
Ottobock ID registration not possible	No internet connection	<ul style="list-style-type: none">• Activate internet connection on the device
	Confirmation email not received from Ottobock	<ul style="list-style-type: none">• Check spam folder• If email is not received, contact Ottobock



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