



OS 4[™]
PARAPROG MANUAL

INSTRUCTIONS
VC860300, VC860200

EYE SURGERY. SWISS MADE.



OS 4[™]
PARAPROG MANUAL

INSTRUCTIONS
VV016041

CAUTION:

U.S. Federal Law restricts this device to sale by or on the order of a physician.



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Contact and service:

Oertli Instrumente AG

Customer Service and Support

Hafnerwissenstrasse 4

CH – 9442 Berneck, Switzerland

Tel.: +41 (0)71 747 42 00

Fax: +41 (0)71 747 42 90

E-mail: css@oertli-instruments.com

Website: www.oertli-instruments.com

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1 About this document



WARNING!

- This manual may only be used in connection with the instructions for use of OS 4 (► 11.3 Other relevant documents).
- Read, take note of and follow the instructions for use of OS 4, especially the "Safety" chapter, before adjusting the settings described in this manual.
- Do not adjust ParaProg settings before consulting the surgeon, and tell him/her immediately of any changes made to the ParaProg parameters.

This document will familiarise you with the properties of the OS 4 ParaProg.

The basic OS 4 surgeon settings can be adjusted using ParaProg. Its use is restricted to trained experts such as hospital technicians (► 1.1 Target groups).

This document is part of the device and applies to all OS 4 device variants.

1.1 Target groups

Target group	Task
Operator	<ul style="list-style-type: none"> – Keep this manual close to where the device is used, also for later use. – Tell employees to read and take note of this manual and other relevant documents, especially the safety instructions and warnings (► Instructions for use of OS 4, "Safety" chapter). – Take note of additional device-specific rules and requirements.
Authorised Oertli service technician, specially trained medical or technical personnel, hospital technicians	<ul style="list-style-type: none"> – Read, take note of and comply with this manual and other relevant documents, especially the safety instructions and warnings (► 2 Safety).

Tab. 1 Target groups and their tasks

1.2 Symbols in this manual

Symbol	Meaning
✓	Precondition for action
▶	Separate actions that must be carried out
1., 2., ...	Multiple actions that must be carried out in the order stated
►	Cross-reference
	Information that makes working with the device easier
«Value»	The standard values of individual ParaProg parameters are indicated by «quotation marks».

Tab. 2 Symbols

1.3 Other relevant documents

Document	Document No.	Purpose
Instructions for use of OS 4	VV016040	Instructions for operating OS 4
Service manual for OS 4	VV016042	Instructions for performing service and maintenance (only for service engineers authorised by Oertli).

Tab. 3 Other relevant documents



See the instructions for use of OS 4 for a full list of other relevant documents.

2 Safety



WARNING!

Read, note and follow the information in the "Safety" chapter of the instructions for use of OS 4.

3 Operating concept

The OS 4 user interface is divided into four levels:

- User level: Normal operating range, display and setting of functions and value ranges (► Instructions for use of OS 4)
- Auxiliary menus: Fine-tuning / additional setting options for functions and value ranges (► Instructions for use of OS 4)
- ParaProg: Basic surgeon settings (► This document)
- Service: Access restricted to service engineers authorised by Oertli (► Service manual for OS 4)

The ParaProg settings are adjusted in the device's display and settings area (► 5 Display and settings area in ParaProg).

4 Starting ParaProg

 See the instructions for use of OS 4 to find out how to start up and use OS 4 (► 1.3 Other relevant documents).

- ✓ Device switched on (► Instructions for use of OS 4)
- ✓ The device is in the start condition, as shown below

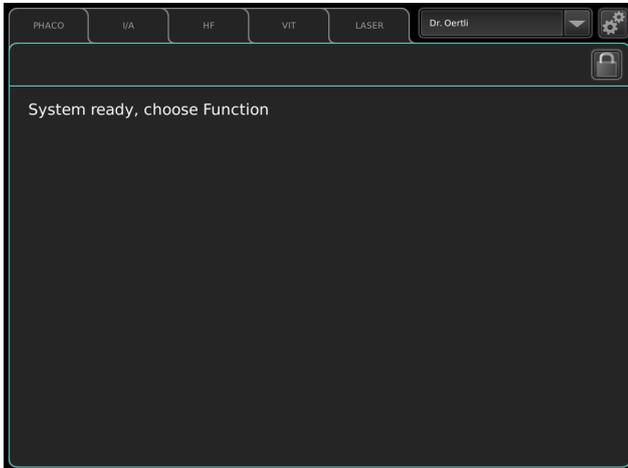
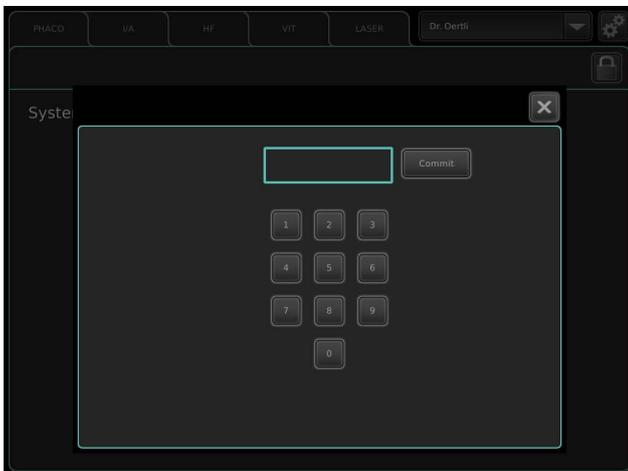


Fig. 1 Start screen

1. Start ParaProg by clicking on the symbol:



The password input dialogue appears:



2. Use the keys to input the following password: 9100
3. Press Commit to confirm password.
ParaProg starts.

5 Display and settings area in ParaProg

i ParaProg is only available in English.
See the instructions for use of OS 4 for information about how to use standard features of the user interface (fields, keys, tabs, windows, setting and saving values etc. (► 1.3 Other relevant documents).
The settings described below can be adjusted individually for each surgeon.
The standard values are shown in the ParaProg manual in «quotation marks».
Some of the settings are fixed standard values which cannot be changed (greyed-out elements).

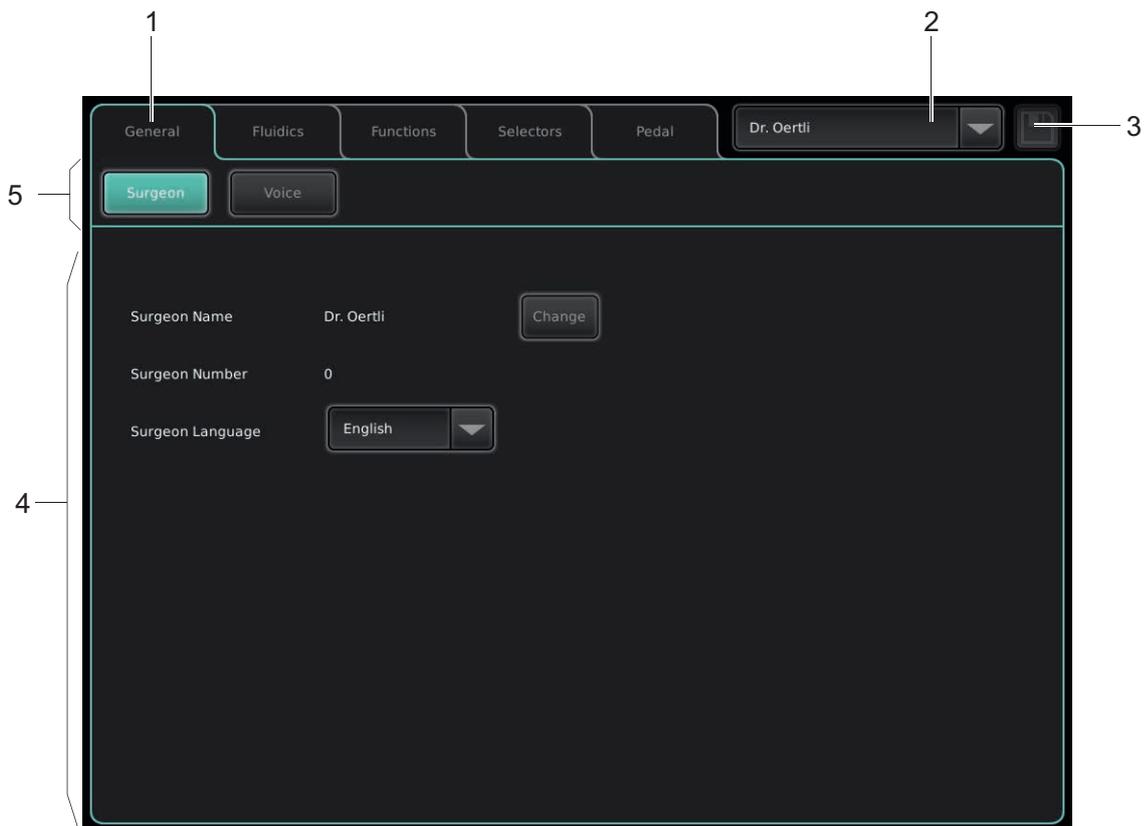


Fig. 2 Display and settings area in ParaProg

No.	Element	References
1	Setting categories	► 8 Setting categories
2	Surgeon memory	► 9.1 ParaProg settings for the surgeon (Surgeon) and ► 6 Adjusting and saving settings
3	SAVE symbol	► 6 Adjusting and saving settings
4	Settings range	► 6 Adjusting and saving settings
5	Sub-groups of the selected setting category	► 8 Setting categories

Tab. 4 Display and settings area in ParaProg

6 Adjusting and saving settings

i Settings can only ever be adjusted for the surgeon selected.

1. Use the surgeon memory to select the surgeon for whom the settings are to be adjusted.



2. Make the desired changes in the relevant setting categories (► 8 Setting categories):
 - General
 - Fluidics
 - Functions
 - Selectors
 - Pedal

i Settings do not need to be saved separately in the individual setting categories. Saving the surgeon set before ending ParaProg or changing to another surgeon is sufficient.

3. Click on this symbol to save changes for the surgeon selected:



i The symbol for saving settings is not activated until at least one setting has been changed.

4. To discard the changes: End ParaProg without saving.
5. To adjust settings for other surgeons: Use surgeon memory to select a new surgeon and proceed as described above.

7 Ending ParaProg

i If a ParaProg parameter has been changed, the change does not become active until after it has been saved. Before ending ParaProg, you are not asked if you want to save the changes. So always save your changes before ending ParaProg. If you want to leave ParaProg without saving the changes, simply press the RESET key.

- Press the RESET key. ParaProg is closed.

8 Setting categories

This is where you can select and set the desired ParaProg parameters.

See the instructions for use of OS 4 for information about using the function display (► 1.3 Other relevant documents).



Fig. 3 Setting categories with sub-groups (for example: Functions setting area with sub-group PHACO)

Function	Description	Reference
General	Basic settings for the surgeon and voice confirmation	► 9 General settings area
Fluidics	Basic fluidics settings (irrigation and aspiration behaviour)	► 10 Fluidics settings area
Functions	Settings for individual OS 4 operating functions (PHACO, I/A, etc.)	► 11 Functions settings area
Selectors	Settings to allow the pedal to be used to change functions, programs etc.	► 12 Selectors settings area
Pedal	Pedal assignments in the individual operating functions	► 13 Pedal settings area

Tab. 5 Setting categories

9 General settings area

This is where the basic settings for the surgeon and voice confirmation can be adjusted.

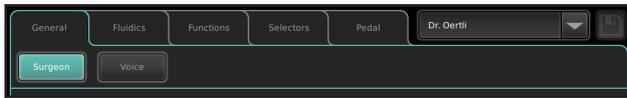


Fig. 4 General settings area (for example: Surgeon)

Key	Description	Reference
Surgeon	Basic settings for the surgeon	► 9.1 ParaProg settings for the surgeon (Surgeon)
Voice	Basic settings for voice confirmation	► 9.2 ParaProg settings for voice confirmation (Voice)

Tab. 6 General settings area

9.1 ParaProg settings for the surgeon (Surgeon)

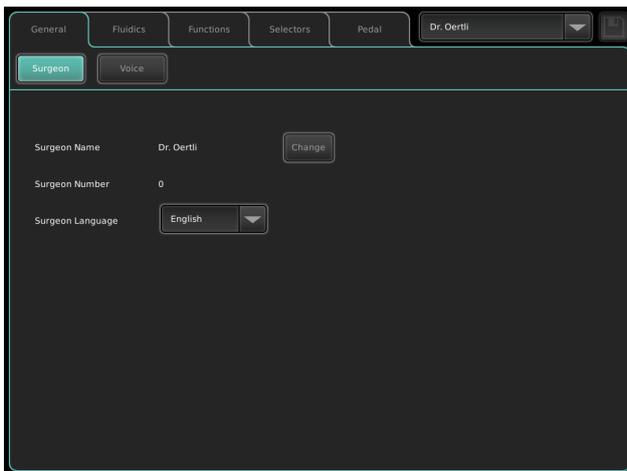


Fig. 5 ParaProg settings for the surgeon (Surgeon)

Parameter	Description	Possible values
Surgeon Name	Surgeon's name. Use the Change key to change the surgeon's name (► 9.1.1 Changing the surgeon's name).	Freely assignable with the following restrictions: <ul style="list-style-type: none"> - No double-barrelled names possible - Length of surgeon's name restricted
Surgeon Number	Location where the surgeon is saved in the system	Pre-assigned, cannot be changed
Surgeon Language	This is used to select the user interface language	<ul style="list-style-type: none"> - «English» - German - French - Italian - Spanish - Portuguese

Tab. 7 ParaProg settings for the surgeon (Surgeon)

9.1.1 Changing the surgeon's name

To change the surgeon's name that has been set, follow the instructions below:

1. Press the Change key.

The dialogue for changing the surgeon's name appears:



2. Use the keyboard keys to enter the surgeon's name.

i Three keys in the bottom right-hand area represent titles which are automatically inserted at the cursor position when you press the key:

- Dr. key: Inserts the title "Dr."
- MD key: Inserts the title "MD".
- Prof. key: Inserts the title "Prof."

Other key functions:

- Shift key: Alternates between upper case and lower case.
- Del key: Deletes the character at the current cursor position.

3. Save changes with symbol:



i If the surgeon's name entered is already present, the following message appears: Surgeon name must be unique. In this case enter another surgeon name which is not already present.

i If the surgeon's name entered is too long, the following message appears: Surgeon name is too long. In this case enter a shorter surgeon name.

4. Close window by tapping on the "X".



9.2 ParaProg settings for voice confirmation (Voice)

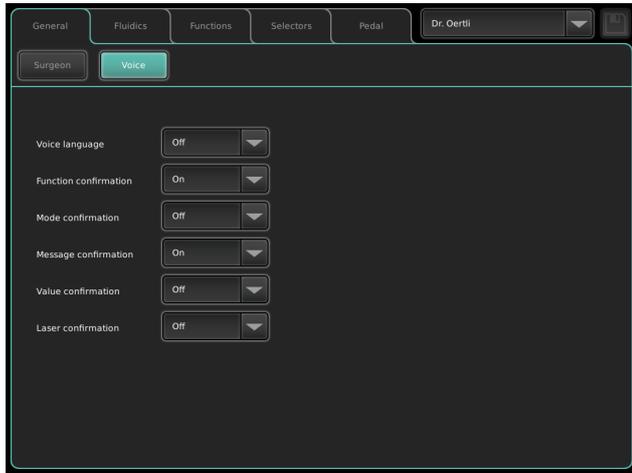


Fig. 6 Voice settings area

Settings for voice confirmation:

Parameter	Description	Possible values
Voice language	User language for the voice confirmation	<ul style="list-style-type: none"> – English – German – French – Italian – Spanish – «Off»: No voice confirmation
Function confirmation	Indication of whether the function and help function selection is confirmed by voice	<ul style="list-style-type: none"> – «On»: Function selection is confirmed by voice – Off: Function selection is not confirmed by voice
Mode confirmation	Indication of whether the mode selection/activation is confirmed by voice	<ul style="list-style-type: none"> – On: Mode selection/activation is confirmed by voice – «Off»: Mode selection/activation is not confirmed by voice
Message confirmation	Indication of whether messages are confirmed by voice	<ul style="list-style-type: none"> – «On»: Messages are confirmed by voice – Off: Messages are not confirmed by voice

Parameter	Description	Possible values
Value confirmation	Indication of whether fluidic and IOP values are confirmed by voice	<ul style="list-style-type: none"> – «On»: Values are confirmed by voice (both value and program changes) – Off: Values are not confirmed by voice – Changes only: Values are confirmed by voice (value changes only)
Laser confirmation	Indication of whether the laser status is confirmed by voice	<ul style="list-style-type: none"> – «On»: Laser status is confirmed by voice – Off: Laser status is not confirmed by voice

Tab. 8 ParaProg settings for voice confirmation (voice)

10 Fluidics settings area

This is where basic fluidics settings (irrigation and aspiration behaviour) can be adjusted.

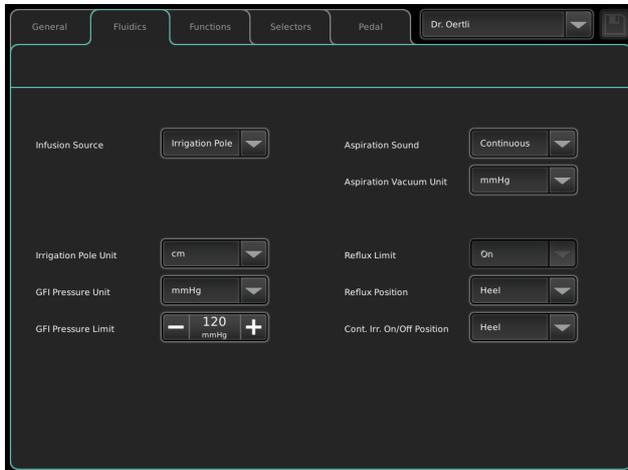


Fig. 7 Fluidics settings area

- ▶ The desired infusion type can be selected via the Infusion Source parameter:
 - IRR Pole = Gravimetric infusion
 - GFI = Active infusion

Settings for gravimetric infusion:

Parameter	Description	Possible values
Irrigation Pole Unit	Unit of measurement for pole height	– «cm» – mmHg

Tab. 9 Settings for gravimetric infusion

Settings for active infusion (GFI):

Parameter	Description	Possible values
GFI Pressure Unit	Unit of measurement for active infusion	– «mmHg» – kPa
GFI Pressure Limit	Maximum permitted pressure	Range: 0–120 mmHg

Tab. 10 Settings for active infusion (GFI)

Other settings in the Fluidics settings area:

Parameter	Description	Possible values
Aspiration Sound	Type of sound during aspiration	– PIP-PIP: Individual sounds, pitch rises corresponding with vacuum – «Continuous»: Constant sound, pitch rises corresponding with vacuum – Off: No sound
Aspiration Vacuum Unit	Unit of measurement for aspiration vacuum	– «mmHg» – kPa
Reflux Limit	Indication of whether a time limit (4 s) is active during reflux	Simply a display, the pre-set value applies: «On»

Parameter	Description	Possible values
Reflux Position	Position of Reflux on the pedal	– «Heel» – Horizontal left (Pos. 0) – Horizontal right (Pos. 0) – Horizontal left (Pos. 0-3) – Horizontal right (Pos. 0-3)

Tab. 11 Other settings in the Fluidics settings area

i If Reflux is set on a horizontal pedal position, functions of the pedal assignments on these positions are replaced by Reflux. Therefore, always check the pedal assignments in the Pedal menu after setting Reflux Position (▶ 13.2 Selecting assignment for vertical and horizontal ranges of movement).

If Cont. Irrigation on/off, Instant Dia and Reflux are assigned to the same pedal position, the following priorities apply:

1. Reflux
2. Cont. Irrigation on/off
3. Instant Dia
4. Program selector

Parameter	Description	Possible values
Cont. Irrigation on/off Position	Position of Cont. Irrigation on/off on the pedal	– «Heel» – Horizontal left (Pos. 0) – Horizontal right (Pos. 0) – Left side switch – Right side switch – Left top switch – Right top switch – Off

Tab. 12 Other settings in the Fluidics settings area (continued)

i If Cont. Irrigation on/off is set on a horizontal pedal position or a pedal switch, functions of the pedal assignments on these positions are replaced by Cont. Irrigation on/off. Therefore, always check the pedal assignments in the Pedal menu after setting Cont. Irrigation on/off Position (▶ 13.2.1 Extra pedal functions).

If Cont. Irrigation on/off, Instant Dia and Reflux are assigned to the same pedal position, the following priorities apply:

1. Reflux
2. Cont. Irrigation on/off
3. Instant Dia
4. Program selector

If Cont. Irrigation on/off and surgery step or function selector are assigned to the same pedal switch, the following priorities apply:

1. Cont. Irrigation on/off
2. Surgery step selector or function selector

11 Functions settings area

This is where the ParaProg settings for the individual OS 4 operating functions can be adjusted.

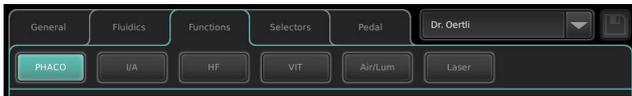


Fig. 8 Functions settings area (for example: PHACO)

i The functions available vary according to the device model (Instructions for use of OS 4 ► 1.3 Other relevant documents). Settings can only be adjusted for functions that are present in the device model in question.

Key	Description	Reference
PHACO	Adjusting and saving settings for the ultrasound phaco function with the PHACO 1, PHACO 2 or PHACO 3 programs	► 11.1 ParaProg settings for the PHACO function
I/A	Adjusting and saving settings for the irrigation / aspiration function with the I/A 1, I/A 2 or I/A 3 programs	► 11.2 ParaProg settings for the I/A function
HF	Adjusting and saving settings for the DIA (diathermy), CAPS (capsulotomy) and HFDS GLAU (High Frequency Deep Sclerotomy) functions	► 11.3 ParaProg settings for the HF function
VIT/VISCO	Adjusting and saving settings for the VIT (vitrectomy), INJECTION(+) (injection of silicone oil), EXTRACTION (extraction of silicone oil) and ENDO PHACO functions	► 11.4 ParaProg settings for the VIT / VISCO / ENDO PHACO functions
Air/Lum	Adjusting settings for the AIR and LUM functions	► 11.5 ParaProg settings for the Air/Lum functions
LASER	Adjusting settings for the LASER function	► 11.6 ParaProg settings for the LASER function

Tab. 13 Functions settings area

11.1 ParaProg settings for the PHACO function

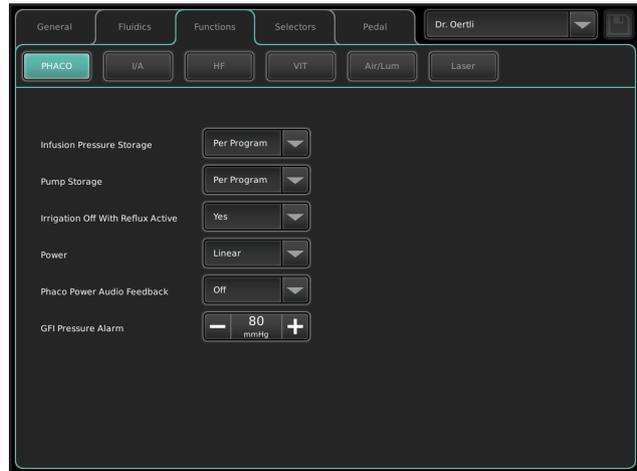


Fig. 9 ParaProg settings for the PHACO function

Parameter	Description	Possible values
Infusion Pressure Storage	Indication of whether and how pole height or active infusion values in the PHACO function should be saved	<ul style="list-style-type: none"> Off: Not saved «Per Program»: For the PHACO program in question
Pump Storage	Indication of whether and how pump selection in the PHACO function should be saved	<ul style="list-style-type: none"> Off: Not saved «Per Program»: For the PHACO program in question
Irrigation Off With Reflux Active	Indication of whether the continuous irrigation is stopped when reflux is active	<ul style="list-style-type: none"> «Yes»: Continuous Irrigation is stopped when reflux is active No: Continuous irrigation is still on when reflux is active
Power	Different modes for phaco power output	<ul style="list-style-type: none"> «Linear»: Linear power output Fix: Power output of pre-set maximum value
Phaco Power Audio Feedback	Audio signal during phaco power output	<ul style="list-style-type: none"> «Off»: Audio signal inactive On: Audio signal active
GFI Pressure Alarm	Pressure threshold for triggering the GFI alarm signal	Range: 0–120 mmHg (Default: 80 mmHg)

Tab. 14 ParaProg settings for the PHACO function

11.2 ParaProg settings for the I/A function

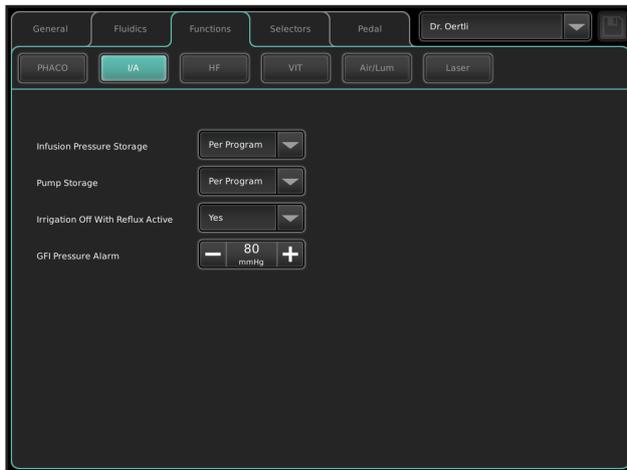


Fig. 10 ParaProg settings for the I/A function

Parameter	Description	Possible values
Infusion Pressure Storage	Indication of whether and how pole height or active infusion values in the I/A function should be saved	<ul style="list-style-type: none"> – Off: Not saved – «Per Program»: For the I/A program in question
Pump Storage	Indication of whether and how pump selection in the I/A function should be saved	<ul style="list-style-type: none"> – Off: Not saved – «Per Program»: For the I/A program in question
Irrigation Off With Reflux Active	Indication of whether the continuous irrigation is stopped when reflux is active	<ul style="list-style-type: none"> – «Yes»: Continuous Irrigation is stopped when reflux is active – No: Continuous irrigation is still on when reflux is active
GFI Pressure Alarm	Pressure threshold for triggering the GFI alarm signal	Range: 0–120 mmHg (Default: 80 mmHg)

Tab. 15 ParaProg settings for the I/A function

11.3 ParaProg settings for the HF function

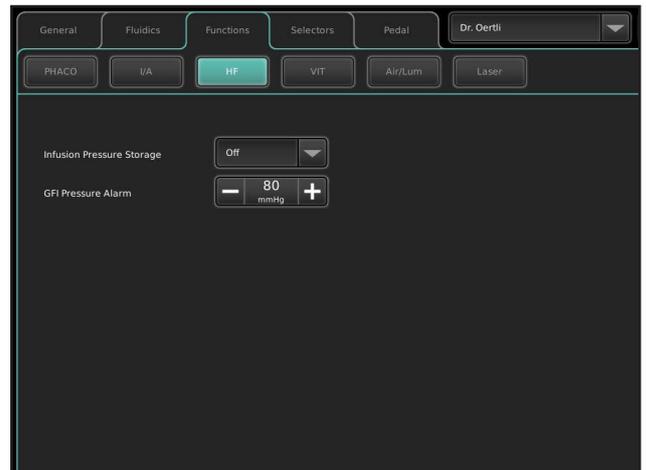


Fig. 11 ParaProg settings for the HF function

Parameter	Description	Possible values
Infusion Pressure Storage	Indication of whether and how pole height or active infusion values in the HF function should be saved	<ul style="list-style-type: none"> – «Off»: Not saved – Per Program: For the HF program in question
GFI Pressure Alarm	Pressure threshold for triggering the GFI alarm signal	Range: 0–120 mmHg (Default: 80 mmHg)

Tab. 16 ParaProg settings for the HF function

11.4 ParaProg settings for the VIT / VISCO / ENDO PHACO functions

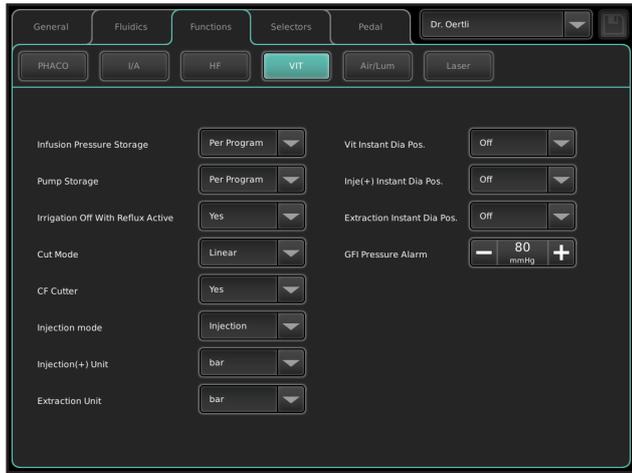


Fig. 12 ParaProg settings for the VIT / VISCO / ENDO PHACO functions

Parameter	Description	Possible values
Infusion Pressure Storage	Indication of whether and how pole height or active infusion values in the VIT, INJECTION, EXTRACTION and ENDO PHACO functions should be saved	<ul style="list-style-type: none"> Off: Not saved «Per Program»: For the program in question
Pump Storage	Indication of whether and how pump selection in the VIT and ENDO PHACO functions should be saved	<ul style="list-style-type: none"> Off: Not saved «Per Program»: For the program in question
Irrigation Off With Reflux Active	Indication of whether the continuous irrigation is stopped when reflux is active	<ul style="list-style-type: none"> «Yes»: Continuous irrigation is stopped when reflux is active No: Continuous irrigation is still on when reflux is active
Cut mode	Different modes for cutting of vitreous body	<ul style="list-style-type: none"> «Linear»: Standard linear control of cutting rate Linear invert: Linear control of cutting rate, starts with pre-set maximum value Progressive: Control of cutting rate on a progressive scale Fix: Fix cutting rate of pre-set maximum value

Parameter	Description	Possible values
CF Cutter	Selects the cutter to be used. In the case of a CF cutter: Select the On setting to double the number of cuts.	<ul style="list-style-type: none"> No: Single number of cuts «Yes»: Double number of cuts
Injection mode	Different modes for injection function	<ul style="list-style-type: none"> «Injection»: Standard injection function is used Injection+: Injection+ function which allows cutting and aspirating while injection is used
Vit Instant Dia Pos.	Position of instant diathermy on the pedal in VIT 1, VIT 2 and VIT 3 programs	<ul style="list-style-type: none"> «Off»: No instant diathermy Left (Pos. 0) Right (Pos. 0) Left (Pos 0–3) Right (Pos. 0–3)
Inje(+) Instant Dia Pos.	Position of instant diathermy on the pedal in INJECTION or INJECTION+ function	<ul style="list-style-type: none"> «Off»: No instant diathermy Left (Pos. 0) Right (Pos. 0) Left (Pos 0–3) Right (Pos. 0–3)
Extraction Instant Dia Pos.	Position of instant diathermy on the pedal in EXTRACTION function	<ul style="list-style-type: none"> «Off»: No instant diathermy Left (Pos. 0) Right (Pos. 0) Left (Pos 0–3) Right (Pos. 0–3)
Injection Unit	Unit of measurement for pressure in the INJECTION function	<ul style="list-style-type: none"> «bar» mmHg psi kPa
Extraction Unit	Unit of measurement for vacuum in the EXTRACTION function	<ul style="list-style-type: none"> «bar» mmHg psi kPa
GFI Pressure Alarm	Pressure threshold for triggering the GFI alarm signal	Range: 0–120 mmHg (Default: 80 mmHg)

Tab. 17 ParaProg settings for the VIT / VISCO / ENDO PHACO functions

i If Instant Dia is set on a horizontal pedal position, functions of the pedal assignments on these positions are replaced by Instant Dia. Therefore, always check the pedal assignments in the Pedal menu after setting Instant Dia Position (► 13.2 Selecting assignment for vertical and horizontal ranges of movement).

If Cont. Irrigation on/off, Instant Dia and Reflux are assigned to the same pedal position, the following priorities apply:

1. Reflux
2. Cont. Irrigation on/off
3. Instant Dia

11.5 ParaProg settings for the Air/Lum functions

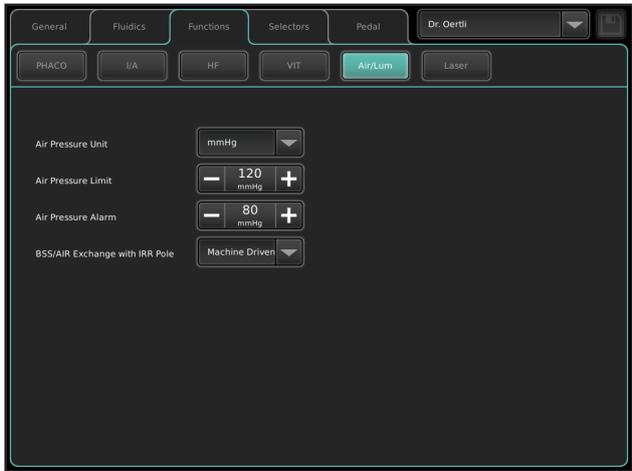


Fig. 13 ParaProg settings for the Air/Lum functions

Parameter	Description	Possible values
Air Pressure Unit	Unit of measurement for pressure in the AIR function	– «mmHg» – psi – kPa – bar
Air Pressure Limit	Maximum pressure limit in the AIR function	Range: 0–120 mmHg
Air Pressure Alarm	Pressure threshold for triggering an alarm signal	Range: 0–120 mmHg (Default: 80 mmHg)
BSS/AIR Exchange with IRR Pole	Indication of whether AIR/BSS exchange can be triggered via the device (user interface) or manually (via the 3-way stopcock)	– «Machine Driven»: AIR/BSS exchange is triggered via the device – Manual: AIR/BSS exchange is triggered via the 3-way stopcock

Tab. 18 ParaProg settings for the Air/Lum functions

11.6 ParaProg settings for the LASER function

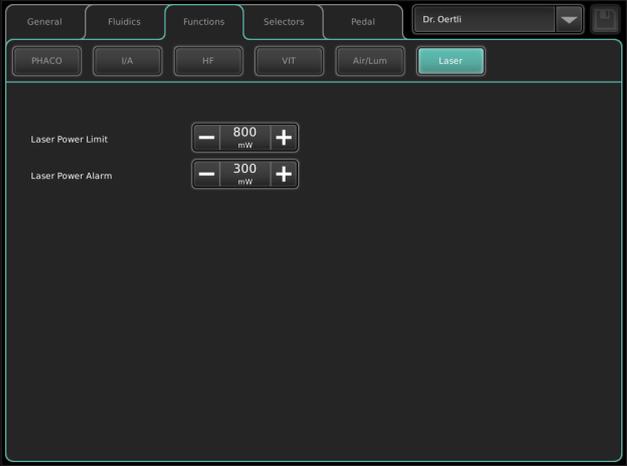


Fig. 14 ParaProg settings for the LASER functions

Parameter	Description	Possible values
Laser Power Alarm	Power threshold for triggering the Laser alarm signal	Range: 50–1500 mW (Default: 300 mW)
Laser Power Limit	Maximum permitted laser power	Range: 50–1500 mW

Tab. 19 ParaProg settings for the LASER functions

12 Selectors settings area

This is where the user can adjust the settings to allow the pedal to be used to switch between functions and programs, or to disable this function.



Fig. 15 Selectors settings area (for example: functions)

Key	Description	Reference
General	Sets the function selector mode and assigns it to the pedal	► 12.1 ParaProg settings in the General settings area
Surgery steps	Sets the order in which surgery steps are switched by the pedal in surgery step mode	► 12.2 ParaProg settings in the Surgery steps settings area
Functions	Sets the order in which operating functions are switched by the pedal in function / program mode	► 12.3 ParaProg settings in the Functions settings area
Programs	Sets the order in which programs are switched by the pedal in function / program mode	► 12.4 ParaProg settings in the Programs settings area
Help functions	Sets the order in which help functions and additional functions are switched by the pedal	► 12.5 ParaProg settings in the Help functions settings area

Tab. 20 Selectors settings area

12.1 ParaProg settings in the General settings area

In this settings area, the user can adjust the function selector mode. It is possible to choose between a combined Function/Program function selector mode or a Surgery steps function selector mode.

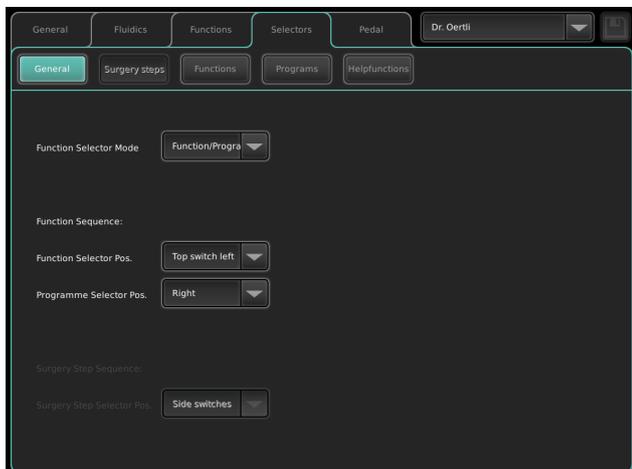


Fig. 16 ParaProg settings in the General settings area

i The settings can only be adjusted for the selected Function Selector Mode parameter.

Parameter	Description	Possible values
Function Selector Mode	Available function selector modes	– «Function/Program» – Surgery steps

Tab. 21 ParaProg settings for the Function Selector Mode parameter

Function sequence

If the Function/Program function selector mode is selected, the position of the selectors on the pedal can be assigned.

Parameter	Description	Possible values
Function Selector Pos.	Position of the function selector on the pedal in all functions	– «Top switch left» – Side switch left – Side switch right
Program Selector Pos.	Position of the program selector on the pedal side deflection in all functions	– «Right» – Left

Tab. 22 ParaProg settings for the Function/Program function selector mode

i Set the order in which the functions and programs are switched according to ► 12.3 ParaProg settings in the Functions settings area and ► 12.4 ParaProg settings in the Programs settings area.

Surgery step sequence

If the Surgery steps function selector mode is selected, the position of the selectors on the pedal can be assigned.

Parameter	Description	Possible values
Surgery Step Selector Pos.	Position of surgery steps selector on the pedal in all functions	– «Side switches» – Top switches

Tab. 23 ParaProg settings for the Surgery steps function selector mode

i Set the order in which the surgery steps are switched according to ► 12.2 ParaProg settings in the Surgery steps settings area.

12.2 ParaProg settings in the Surgery steps settings area

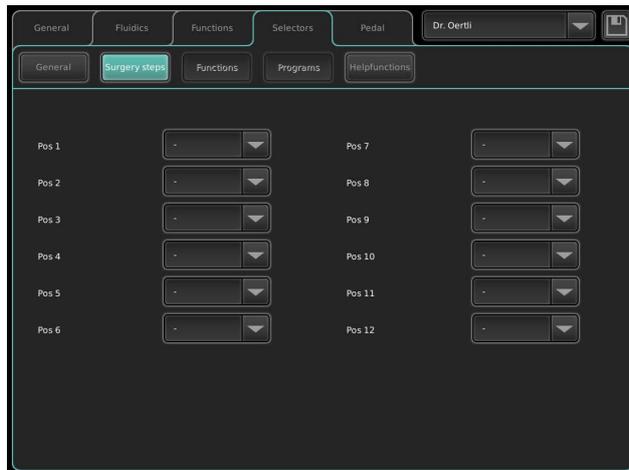


Fig. 17 ParaProg settings in the Surgery steps settings area

12.3 ParaProg settings in the Functions settings area

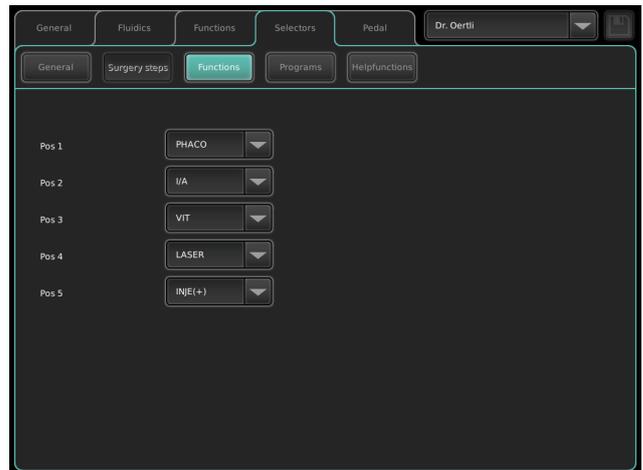


Fig. 18 ParaProg settings in the Functions settings area

Parameter	Description	Possible values
Pos. 1 to Pos. 12	Operating functions, selected with the surgery step selector in the sequence from Pos. 1 to Pos. 12	<ul style="list-style-type: none"> - PHACO 1 - PHACO 2 - PHACO 3 - I/A 1 - I/A 2 - I/A 3 - DIA 1 - DIA 2 - CAPS - HFDS - VIT 1 - VIT 2 - VIT 3 - INJE(+) - EXTR - ENDO PHACO - LASER

Tab. 24 ParaProg settings in the Surgery steps settings area

Parameter	Description	Possible values
Pos 1	Operating function when function selection position 1 is selected	<p>The following values can be set on position 1 of the function selector:</p> <ul style="list-style-type: none"> - «PHACO» - I/A - DIA - CAPS - HFDS - VIT - INJE(+) - EXTR - LASER - -
Pos 2	Operating function when function selection position 2 is selected	<p>The following values can be set on position 2 of the function selector:</p> <ul style="list-style-type: none"> - PHACO - «I/A» - DIA - CAPS - HFDS - VIT - INJE(+) - EXTR - LASER - -

EN

Parameter	Description	Possible values
Pos 3	Operating function when function selection position 3 is selected	The following values can be set on position 3 of the function selector: <ul style="list-style-type: none"> - PHACO - I/A - DIA - CAPS - HFDS - «VIT» - INJE(+) - EXTR - LASER - -
Pos 4	Operating function when function selection position 4 is selected	The following values can be set on position 4 of the function selector: <ul style="list-style-type: none"> - PHACO - I/A - DIA - CAPS - HFDS - VIT - INJE(+) - EXTR - «LASER» - -
Pos 5	Operating function when function selection position 5 is selected	The following values can be set on position 5 of the function selector: <ul style="list-style-type: none"> - PHACO - I/A - DIA - CAPS - HFDS - VIT - «INJE(+)» - EXTR - LASER - -

Tab. 25 ParaProg settings in the Functions settings area

i After changing the function, you always are in program 1 of the selected function.

12.4 ParaProg settings in the Programs settings area

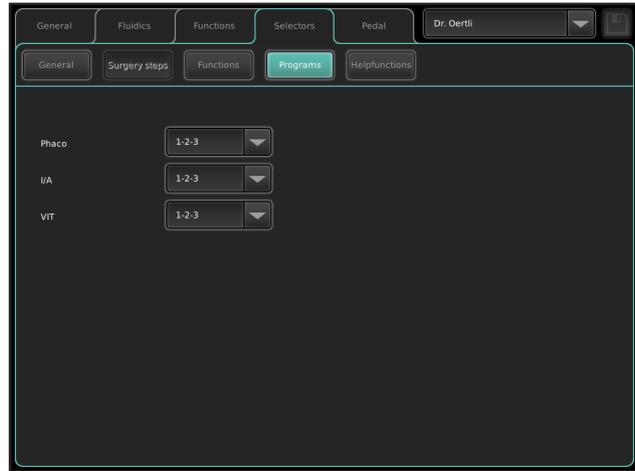


Fig. 19 ParaProg settings in the Programs functions settings area

Parameter	Description	Possible values
PHACO	Program selection for the PHACO function	<ul style="list-style-type: none"> - «1-2-3»: Program selection for all PHACO programs - 1-2: Program selection between PHACO 1 and PHACO 2 - Off: PHACO program selection switched off
I/A	Program selection for the I/A function	<ul style="list-style-type: none"> - «1-2-3»: Program selection for all I/A programs - 1-2: Program selection between I/A 1 and I/A 2 - Off: I/A program selection switched off
VIT	Program selection for the VIT function	<ul style="list-style-type: none"> - «1-2-3»: Program selection for all VIT programs - 1-2: Program selection between VIT 1 and VIT 2 - Off: VIT program selection switched off

Tab. 26 ParaProg settings in the Programs settings area

12.5 ParaProg settings in the Help functions settings area

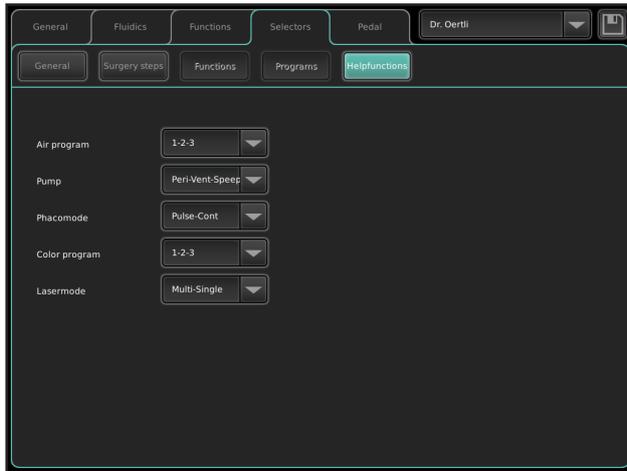


Fig. 20 ParaProg settings in the Help functions settings area

Parameter	Description	Possible values
Air program	Order / program selection for the AIR help function	<ul style="list-style-type: none"> – «1-2-3»: Program selection for all AIR programs – 1-2: Program selection between AIR 1 and AIR 2 – Off: AIR program selection switched off
Pump	Pump selection (peristaltic pump, Venturi pump, SPEEP)	<ul style="list-style-type: none"> – «Peri-Vent-Speep»: Pump selection between peristaltic pump, Venturi pump and SPEEP – Peri-Vent: Pump selection between peristaltic and Venturi pump – Peri-Speep: Pump selection between peristaltic pump and SPEEP – Vent-Speep: Pump selection between Venturi pump and SPEEP – Off: Pump selection switched off

Parameter	Description	Possible values
Phaco mode	Program selection for the modulation types (PULSE, BURST, CMP) and continuous power output, CONTINUOUS (analog PULSE, BURST, CMP)	<ul style="list-style-type: none"> – «Pulse-Cont»: Program selection between PULSE and CONTINUOUS phaco mode – Burst-Cont: Program selection between BURST and CONTINUOUS phaco mode – Pulse-Burst: Program selection between PULSE and BURST phaco mode – Pulse-Burst-Cont: Program selection between PULSE, BURST and CONTINUOUS phaco mode – Off: Program selector for phaco modes switched off
Color program	Program selection for the light	<ul style="list-style-type: none"> – «1-2-3»: Program selection for all color programs – 1-2: Program selection between Color 1 and Color 2 – Off: Color program selection switched off
Laser mode	Program selection for laser pulse modes (single pulse, multi pulse)	<ul style="list-style-type: none"> – «Multi-Single»: Program selection between multi and single pulse – Off: No laser pulse selection available

Tab. 27 ParaProg settings in the Help functions settings area

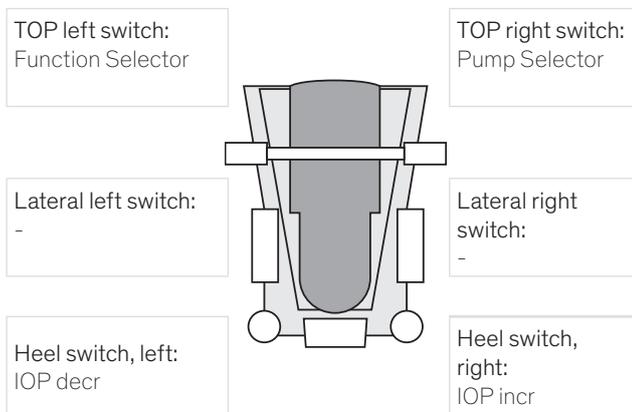
13 Pedal settings area

Pedal settings can be assigned individually in ParaProg for all surgeons and all operating functions (PHACO, I/A, DIA etc.). Function buttons and vertical/horizontal ranges of movement can be assigned independently of one another:

- Function buttons (► 13.1 Selecting function button assignment)
- Ranges of movement (► 13.2 Selecting assignment for vertical and horizontal ranges of movement)

13.1 Selecting function button assignment

You can choose among several predefined function button assignments in every operating function: Example of assignment: PHACO Assignment 1



i The assignment templates cannot be changed.

To change an assignment, follow the instructions below:

- ✓ Pedal settings area selected
- ✓ Desired operating function selected, e.g. PHACO

1. Press the Buttons key.

The current assignment of the function buttons is displayed.



Tab. 28 Example assignment of the function buttons

2. Select among predefined assignments:
 - Press the Assignment 1 key for assignment 1.
 - Press the Assignment 2 key for assignment 2.
 - etc.

The new assignment of the function buttons in the operating function selected is displayed.
3. To invert the key assignment: Press the Mirrored key.
The Mirrored key applies to all button assignments per surgeon.
4. To disable the side buttons at the pedal: Press the Side buttons key.
The Side buttons key applies to all button assignments per surgeon.
5. To disable the heel buttons at the pedal: Press the Heel buttons key.
The Heel buttons key applies to all button assignments per surgeon.
6. Press the symbol below to save the assignment of the operating function:

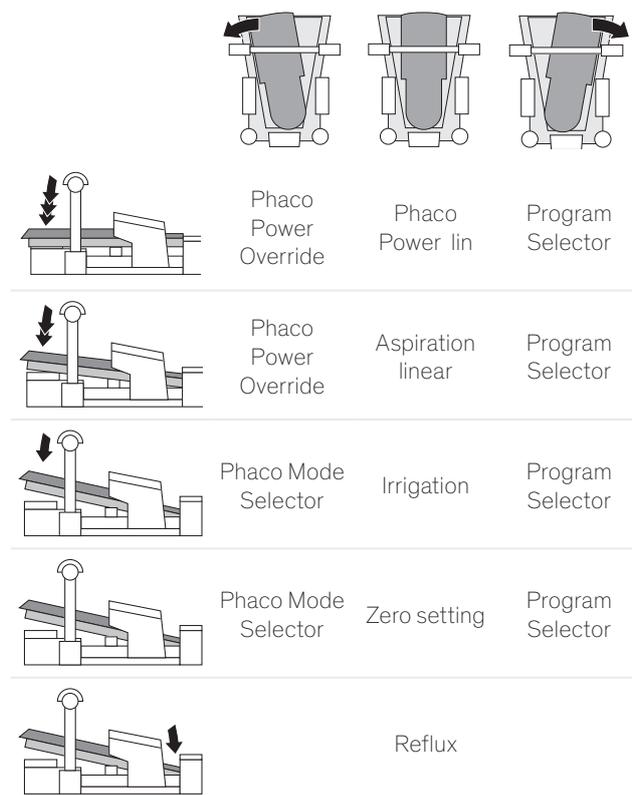


You can now adjust settings for other operating functions.

13.2 Selecting assignment for vertical and horizontal ranges of movement

You can choose among several predefined assignments for vertical and horizontal ranges of movement for each operating function:

Example of assignment: PHACO Assignment 1



i The assignment templates cannot be changed.

To change an assignment, follow the instructions below:

- ✓ Pedal settings area selected
- ✓ Desired operating function selected, e.g. PHACO

1. Press the Sections key.

The current assignment for the vertical and horizontal ranges of movement is displayed:

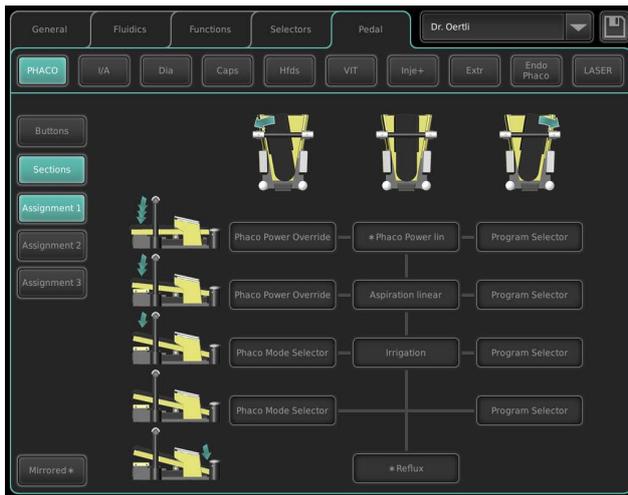


Fig. 21 Example assignments for the vertical and horizontal ranges of movement

2. Select among predefined assignments:

- Press the Assignment 1 key for assignment 1.
- Press the Assignment 2 key for assignment 2.
- etc.

The new assignment for the vertical and horizontal ranges of movement in the selected operating function is displayed.

i Pedal functions that are marked with a "*" are affected by global ParaProg settings (e.g. Reflux Position, Cont. Irrigation on/off Position, Instant Dia Position).

3. To invert the key assignment: Press the Mirrored key.

The Mirrored key applies to all sections assignments per surgeon.

4. Press the symbol below to save the assignment of the operating function:



You can now adjust settings for other operating functions.

13.2.1 Extra pedal functions

The following extra pedal functions are part of the pedal assignments:

Parameter	Description
Cut single	Perform a single cut during vitrectomy.
Cut on/off	Select or deselect cutting during vitrectomy. When cutting is deselected, the value box for the cutting rate on the display is shown grayed out.
Instant Dia	Give linear diathermy output. See the instructions for use of OS 4, chapter 12.4 (► 1.3 Other relevant documents).
Cont. Irrigation on/off	Activate or deactivate continuous irrigation.
Switch I/C/A to I/A/C	Change the order of cut / aspiration to aspiration / cut for the vertical pedal movement in (anterior) vitrectomy. This function can only be used in conjunction with a linear vitrectomy section assignment of the pedal.

Tab. 29 Extra pedal functions



Oertli Instrumente AG
Hafnerwissenstrasse 4
9442 Berneck
Switzerland

T +41 71 747 42 00
F +41 71 747 42 90

www.oertli-instruments.com