Brief Operating Instructions.



16

KaVo. Dental Excellence.

KaVo ESTETICA® E80

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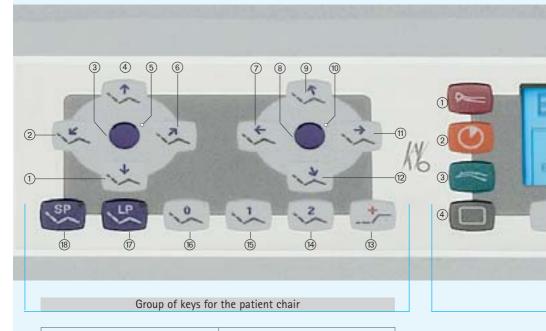
■ Endo function

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These brief instructions for use only contain the essential operating functions. They do not replace the instructions for use included with a delivery.

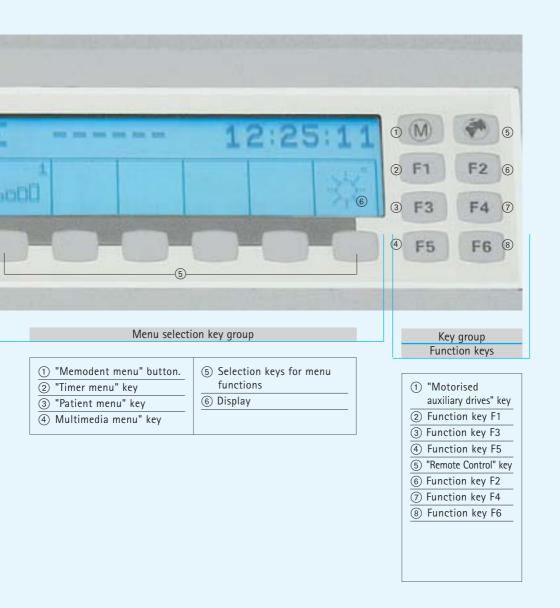
They must be followed to avoid malfunctions and injury.

Overview of the ESTETICA E80 dentist unit



- (1) "Chair down" button
- ② "Backrest down" key
- ③ "Function level" button
 (Four-key wheel 1)
- (4) "Chair up" button
- (Four-key wheel 1)
- 6 "Backrest down" key
- 7 "Horizontal back" key
- 8 "Function level" button (Four-key wheel 2)
- 9 "Seat up" button

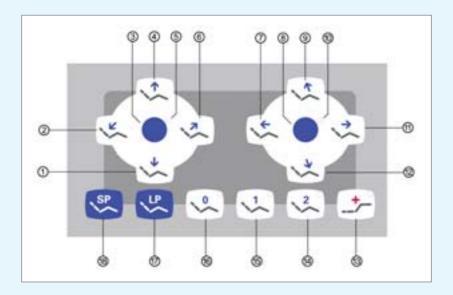
- (10) "Function level 2" LED (Four-key wheel 2)
- (1) "Horizontal forward" button
- (12) "Seat down" button
- (13) Button for "Collapsed position"
- (4) "AP2" key (Automatic position 2)
- (5) "AP1" key (Automatic position 1)
- (automatic position 0)
- (7) "LP" button (last position)
- 18 "SP" key (rinsing position)



Patient chair

Control element

Manually control the patient chair positions



- (1) "Chair down" button
- ② "Backrest down" key
- (3) "Function level" key (four-key wheel 1)
 - LED off: Treatment chair

Normal speed

• LED on: Treatment chair

reduced speed

- (4) "Chair up" button
- (5) "Function level 2" LED (Four-key wheel 1)
- (6) "Backrest down" key
- (7) "Horizontal back" key
- (8) "Function level" key (four-key wheel 2)
 - LED off: Move horizontal and

chair elevation

• LED on: Control of the Somatic

E headrest with electric motor

- (9) "Seat up" button
- (10) "Function level 2" LED (Four-key wheel 2)
- (11) "Horizontal forward" button
- (12) "Seat down" button
- (13) Button for "Collapsed position"
- (4) "AP2" key (Automatic position 2)
- (15) "AP1" key (Automatic position 1)
- (16) "APO" key (Automatic position 0)
- (17) "LP" button (last position)
- (8) "SP" key (rinsing position)

Patient chair

Control element

Save automatic position.

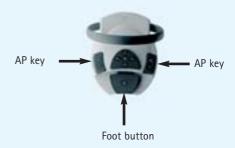
- Adjust desired chair position manually at dentist unit or assistant unit or adjust desired chair position with footswitch with instruments mounted.
- Press target key four seconds until you hear the signal (except for LP).





Assignment of the AP keys on the foot switch.

Press and hold footswitch and desired AP key and also press desired target key (e-i) on dentist unit or assistant unit until you hear a signal.



Call automatic position.

- Press desired automatic position key and release.
 - or
- with mounted instruments call desired automatic position with dentist unit and assistant unit.



With mouth rinsing basin in place the movement of the chair is restricted.

Motorised headrest

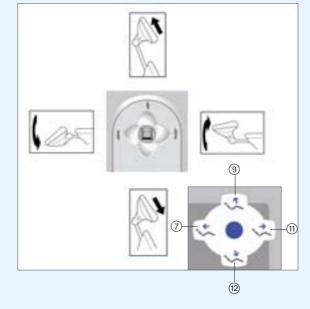
Control element

Operation with the joystick.

bar length up/down Tilt: left/right

Special functions

- Press once: for small persons (compensation off)
- Press twice:AP positionChild treatment



Programming

 Bring chair and headrest to desired position and save to the selected AP-O to AP-2 and SP.



With compensation off:
All LEDs of the automatic positions on the dentist and assistant unit flash simultaneously, press again to switch on compensation.



With child treatment activated: LEDs at automatic positions on dentist and assistant units show a running light.

To terminate child treatment: press button and return headrest to normal treatment position.

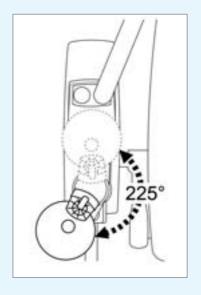
Motorised patient unit

Control element

Select rinsing position with SP key.

The patient part moves into the rinse position after the chair has stopped moving (programmable position).

When pressed with APO, AP1 or AP2 the patient part moves back to the resting position where it was before moving to automatic position.

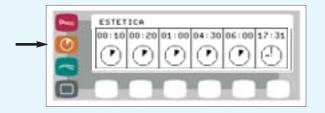


Menu preselection

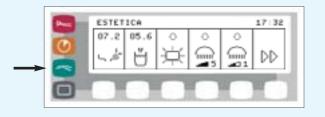
Control element/display

Memodent menu

■ Timer menu



Patient service and hygiene menu



■ Multimedia ERGOcom-menue 2 ---- 17:33:12

Defining default menu display for dentist unit/assistant unit

Control element/ Display

 Press stirrup switch and corresponding menu key simultaneously (4 seconds)

Defined default menu is saved and acknowledged with

audible signal.

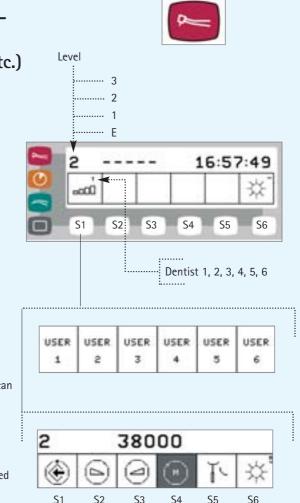


The preselected menu opens every time the device is switched on and the instruments are mounted.

Memodent menu

Control element/display

- Setting instrument– specific values. (speed, intensity, etc.)
- Dentist/program Level selection.
- Select level.
- Briefly press S1
 or the footswitch with
 instruments mounted.
 The next level is displayed.
- Select dentist 1 to dentist 6.
- Press S1 key with instruments mounted until you hear the signal.
 (4 seconds) Then select
 S1 S6. The number of users can be adjusted by a technician.
- Save instrument values.
- When the instrument is removed from the holder press S1 until you hear the signal.
 (4 seconds)
- Press S2-S6 to set the values.
- Press S1 to save the values.



Every instrument can be individually programmed on levels 1-3 for different indications. Speed and intensity values cannot be saved in level E.

Timer menu

Control element/display

Setting timers and time (real time)

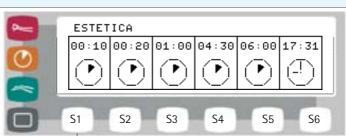


time (real time)

Calling up a function

 Briefly press key S1 ... S5. The timer is started. Press again to stop the timer.

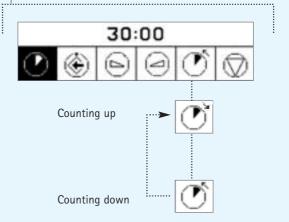
After starting the timer an audible signal sounds.



Setting the timer

- Select the desired timer with the S1 to S5 key, press key until the signal sounds.
- Configure timer and save values by pressing S2.

In the setting menu (S5) a timer that counts up or down can be set.

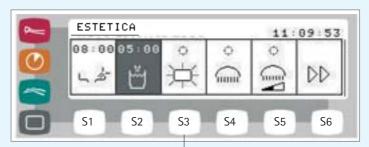


Patient menu

Control element/display

 Adjust the time for bowl rinsing and tumbler filling.

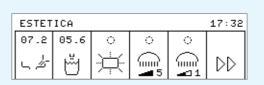




- Set tumbler filling time.
- ► For example, press S2 for 4 seconds, and a beep sounds. Filling times are defined in seconds depending on the number of beeps (1 beep = 1 sec.) and automatically saved when S2 is released.

 Use the same principle to set the time for setting the bowl rinsing time by pressing S1.
- Setting treatment ligh

Press S4 to set the basic brightness of the treatment light. Press S5 to set the dimming level of the treatment light.



Press and hold S4 to adjust by one level.
 Five different levels can be set by beeps. Press and hold S5 to adjust by one dimming level.

HYDROcolloid can be saved for max. 8.5 minutes. The maximum time for the time for the bowl and tumbler is 51 seconds.

control element / Instrument-specific calling values **Display** Remove the instrument. Preset level. 38000 Saved values are displayed. **S**3 • For the motor: Change the direction Counter-clockwise of rotation. rotation of motor S4 Clockwise rotation of motor For the multifunctional syringe: Switch air and water heating on and off. off on • For the motor/turbine: Setting the cooling level. or S₅ Spray • Set cold light - (Off), 1 (min) 2 - 9 (max)

Programming the function keys

control element / Display



Group of keys for the patient chair

Menu selection key group

Basic menus can be opened directly with the function keys.

Six memories

(F1 to F6) are available.

Programming the F keys

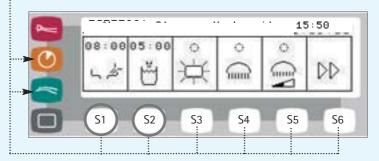
► Hold down the start pedal, then press and hold additional

desired F key and press desired function (S1-S6) on Memodent display, e.g. timer or tumbler etc.

A buzzer confirms the successful programming.





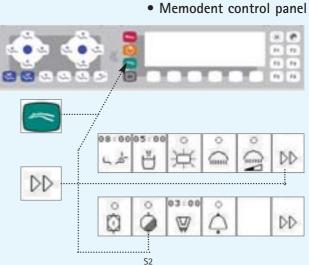


Hydroclean function

Control element/display

Calling up a function

- Briefly press the amalgam separator key (preparation). The LED flashes.
 Suction hoses inactive (in holders).
 Press key again.
 Hydroclean function
 - starts. LED on.
- Press again to stop the function.



Memospeed control panel



The suction lines (from the filter housing to the separator system) are rinsed automatically for approx. 150 seconds with pure water by activating the selective valves and the suction machine.

The bowl rinse is turned on and off several times.



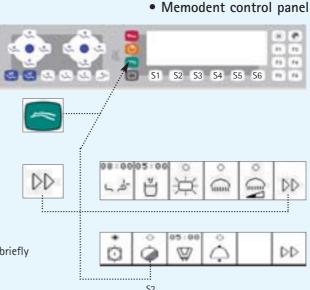
Hydroclean function with Tube washing

control element / Display

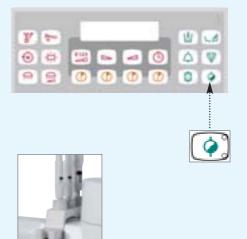
- Open function.
- Press patient menu

key. The display switches to the patient menu.

- Press Continue to switch the display further.
- Press the Hydroclean key briefly (amalgam separator key)
 LED flashes (preparation).
- Press the Hydroclean key briefly (amalgam separator key) LED flashes (preparation).
- Then place the suction hoses on the tube washing device.
 Press Hydroclean key again.
 The tube washing function starts.
 LED on. Press again to stop the function.
- The suction hoses, drain and separation system are rinsed in a single step and automatically disinfected with DEKASEPTOL.



Memospeed control panel



Intensive sterilisation

Control element/display

Memodent control panel

08:00|05:00|

Prepare function.

 Press patient menu key. The display switches to the patient menu.
 Press Continue to switch the display further.

 Press the intensive sterilisation key until the signal sounds and the LED for intensive sterilisation flashes.

 Insert instruments into holder on the mouth rinsing bowl.

I the let LED for in flashes.

Into holder g bowl.

• Memospeed control panel

If the suction hoses are inserted into the tube washing device, the hydroclean function also includes tube washing.

Start the function.

Press the intensive sterilization key again.
 Intensive sterilization runs automatically.

After rinsing all systems for delivering spray and tumbler water with high oxygenal concentration the exposure time start is marked by a 4-second signal tone. The dwell time is 30 minutes. During this time, the device can be turned off. At the end of the intensive sterilisation the green LED and the yellow LED flash. After placing the instruments in their holders, the device is ready for operation.





DD







Intensive disinfection – Skip exposure phase

control element / Display

Function

is in step 4:

• The intensive sterilisation

 Press intensive sterilisation key and hydrocolloid key simultaneously and hold them.

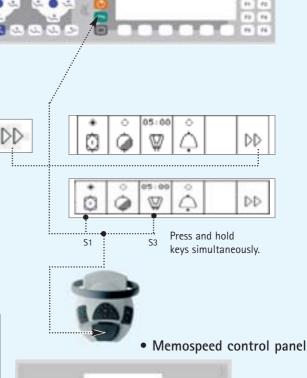
Press footswitch simultaneously until you hear a signal.
Intensive disinfection switches to step 3.6.

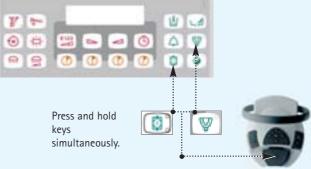
or

- The intensive sterilisation is in step 8-5:
- Turn the machine off and off. Intensive sterilisation switches to step 3.6. The automatic rinsing process starts.
 - Cancel intensive disinfection with:
 - ▶ intensive sterilisation key +
 - ► amalgam separator key +
 - ▶ starter ON.

This function is necessary when intensive sterilisation has already started, and the treatment unit has to be used (for example: in emergencies, in hospitals, etc.). After intensive sterilisation, the Oxygenal concentration is higher. Therefore the automatic rinsing process must run (approximately 6 minutes).

Memodent control panel





Warning messages

Display

Safety shutoffs.

A safety shutoff is active when one of the LEDs of the automatic position keys flashes.

If a person or object actuates a safety shutoff, the chair immediately stops moving. The directly actuated safety shutoff is displayed by the relevant display on the dentist or assistant unit flashing.

Mat. No. Description:

- Seat base
- (1) Stand cover (assistant side only)
- 4 Assistant unit (assistant side only)
- (8) Seat



(5) Arm rest



9 Chair holder covers

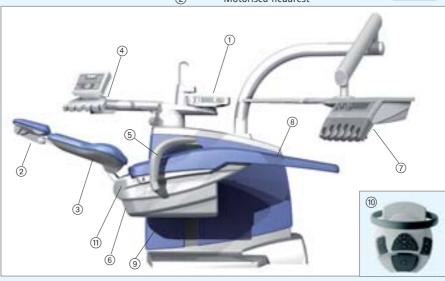


- 1 Patient unit (assistant side only)
- (3) Backrest
- 11) Trendelenburg cover



- Stirrup of multi-functional foot control (assistant side only)
- (2) Motorised headrest





- (1) Patient unit (assistant side only)
- (2) Motorised headrest
- (3) Backrest
- (4) Assistant unit (assistant side only)
- (5) Arm rest
- (6) Seat base

- (7) Dentist unit
- 8 Seat
- (9) Chair holder covers
- Stirrup on multifunctional foot control (assistant side only)
- (11) Trendelenburg cover

Additional warning messages

Display

OXYGENAL container empty.

LED lights and signal sounds at 10-second intervals..



• MEMOspeed display



Memodent display

Amalgam separator.

LED on. It only refers to a malfunction of the amalgam separator. For detailed information see the amalgam separator display and the relevant manual.



MEMOspeed display



Memodent display

Bowl suction valve overfilled.

The LED Service flashes for 10 seconds. Emergency off for bowl suction valve is actuated. Water for bowl rinsing, tumbler filler and hydrocolloid is turned off.



MEMOspeed display



Memodent display

Additional warning messages

Display

Replace DEKASEPTOL gel bottle.



• MEMOspeed display



• Memodent display

 Remove cover on base of device.



 Unscrew cover of new DEKASEPTOL gel bottle.



 Position extraction point and standpipe and insertion bottle into suction device from below.



Additional warning messages

Replace OXYGENAL bottle.

Use only OXYGENAL 6 (mat. no. 0.489.3451) in KaVo water purification systems.

Remove cover on device base.



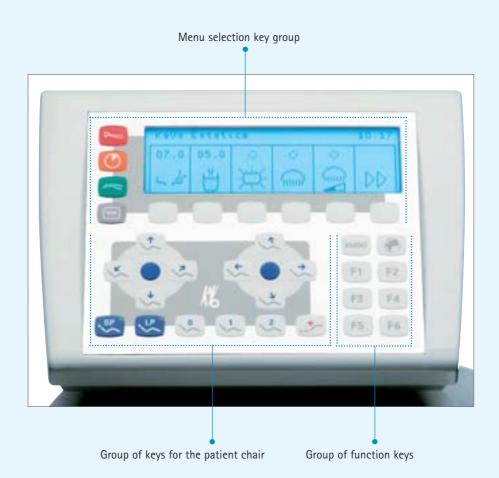
Unscrew cover of new OXYGENAL bottle.



Insert original bottle into the suction point from below.

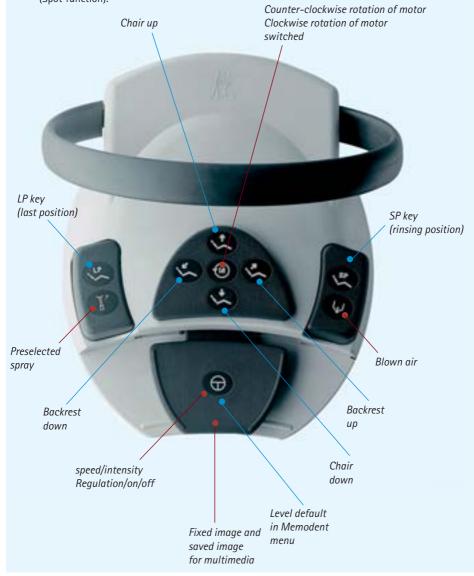


Overview of the ESTETICA E80 MEMODENT



Functions of the multi-function unit

- Functions only when the instruments are in the holders
- Functions only when the instruments are removed from the holders
 The instrument light can be turned on and off with "Backrest down".
 The light can be turned on in the same manner as with pen lights with "Backrest up" (Spot function).



Functions of remote multifunctional foot control

Charge battery.

The remote multi foot control can remained switched on at all times. The battery can also be charged when it is switched off.

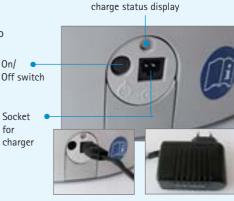
The device should be switched off if not used for an extended period to avoid deep discharge. The device must be switched off for transport.



Critical charge status of battery.

If the battery reaches a critical charge status, a signal is sounded every time a function key is pressed.

Always charge batteries when necessary.



Status display /



Battery is being Battery is charged fully charged

Charge status of battery.

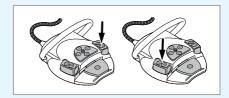
The charge status of the battery is indicated by the LED display on the multi-functional foot control and signalled by a sound.

• Remaining capacity	Status of foot control	 Status display/ charge status 	• Signal tone
< 100 %	Rest stateFoot control switched onActive actuation	flashes green (interval approx. 2 sec.) flashes green (interval approx. 200 ms)	-
< 30 %	Rest stateFoot control switching on	flashes yellow (interval approx. 2 sec.)	One short signal tone on successful data transmission.
	 Active actuation 	flashes yellow (interval approx. 200 ms)	• One short signal tone on successful data transmission.
< 10 %	Rest stateFoot control Switching on	flashes yellow	• Two short signal tones on successful data transmission
	- Active actuation	flashes yellow (interval approx. 200 ms)	• Two short signal tones on successful data transmission

Operation of multifunctional foot control

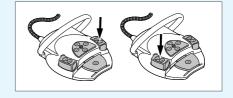
Call automatic chair position.

Press the SP footswitch.Press the LP footswitch.The chair moves into the saved position.



Save automatic chair positions.

Press and hold foot pedal and SP or LP footswitch and at the same time press any key for an automatic position (SP, LP, AP 0 to AP 3 or collapse position) on the dentist or assistant unit until a signal sounds.
The automatic position is saved in the



Starting and controlling instruments.

footswitch.

- Remove the instrument (such as turbine, motor, PIEZOlux, etc.) from the holder. The instrument is active.
- Press the foot pedal The removed instrument runs at the set speed or intensity. Change the speed with the foot pedal. The left stop corresponds to the minimum speed/intensity. The right stop corresponds to the maximum speed/intensity.



Preselect counterclockwise motor rotation.

Remove the motor from the holder. Push the cross switch upward. The direction of motor rotation is switched every time the cross switch is pressed: clockwise rotation and counterclockwise rotation. The rotational direction of the motor is displayed on the dentist's and assistant's unit.



Surgery and ENDO functions

The following pages have all short operating instructions for Surgery and ENDO operation



Open surgery mode

Control element/display



- The surgical motor is connected.
- No instrument is removed from the holder.

Contra-angle handpiece 27:1 must be plugged in, otherwise the message:



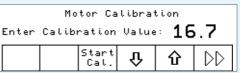
Press the "Motorised auxiliary drives" key will be shown.



The display changes in Calibration mode.

Calibration.

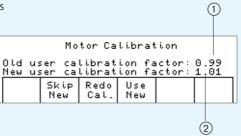
- Read the calibration value (such as 16.7) on the bottom of the calibration device and enter it using the "UP" or "DOWN" key.
- Insert catch pin into instrument 27:1 and then plug it into the calibration device.
- Place the calibration device on a fixed base and hold.
- Press the "Start Cal." key.
 The countdown starts. The motor starts in 5 seconds. The motor starts. The progress is shown on the display.
- After completion of calibration the display shows the following:
- 1 Previous corrected value
- (2) New corrected value





Start

Cal.

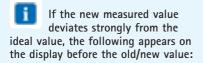


Calibration

Control element/display

Change and use values.

- To reject a value, press key
- to repeat the calibration press the "New Cal." key or
- to use the measured value, press key.

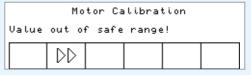


Press the "Continue" button.

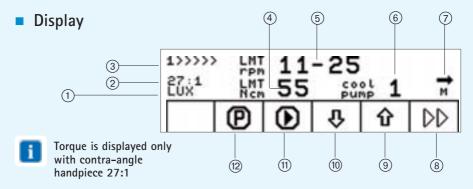








DD



- 1 Light
- (2) Transfer ratio
- (3) Step in the "Program" mode
- 4 Torque, with 27:1 only
- (5) Speed
- (6) Cooling pump On/Off

- (7) Motor rotational direction
- (8) Enter / Continue
- (9) UP key
- ① DOWN key
- (1) Select parameter selection key
- (12) Program selection key

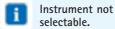
Set parameters

Control element/display

- The following parameters can be modified in "Free use" mode:
- Speed range min/max
- Torque range (27:1 only)
- Direction of rotation
- Cooling pump On/Off
- Change and save parameters.
- Press the key for "Select parameters" to select the desired parameter. An arrow flashes next to the modifiable parameter(►).
- Press selection key for UP or DOWN to modify the selected parameter.
- To save the parameters, press the "Enter" key.
 The signal sounds. The set values are activated. (program mode).

Parameters are not saved in "Free use" mode.

- Change direction of rotation of motor.
- Slide the cross switch upward. The rotational direction of the motor is advanced each time the cross-switch is activated: Clockwise rotation and counterclockwise rotation of the motor.
- A signal sounds every time the direction of rotation is switched from clockwise to counterclockwise.
- A tone sounds when the motor is start-















Surgical motor in the mode Use program

Control element/display

In Program mode six steps can be programmed.

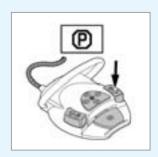
The current step is shown in the display.

- Press the "Program" key to switch to "Program" mode.
- Press the SP footswitch.
- Press the "Program" key again to switch from "Program" mode to "Free use" mode.

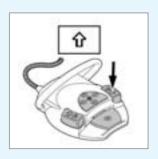
Select step.

- Press the UP key to move one step forward or
- press the SP footswitch briefly signal sounds.
- Press the DOWN key to go back a step or
- press and hold the SP footswitch signal sounds.
- The setting of the parameters
 Maximum speed/torque, direction
 of rotation and cooling pump
 On/Off is the same as in "Free use" mode.











Surgical motor in the mode Control element/display Use program

- Limit the number of steps.
- Example: The number of steps should be limited to four.
- ▶ Select step 4
- press the "Program" key for 2 seconds until you hear a signal. Only the first four steps can be selected.



Remove restriction

 press the "Program" key for 2 seconds until you hear a signal. The restriction is cancelled.

Request maximum torque

After the motor stops, press the "Continue" key.

The maximum torque value of all steps are displayed in Ncm.

Press the "Enter/Save" key to leave the display.







- When the motor is started in the same step, the highest torque is always saved.
- Press the CLEAR key to clear all values.
 If a memory is selected beforehand with the parameter key, only this memory is cleared.



Special functions

Control element/display

- Activate the rinsing function.
- Press the "Spray selection" footswitch for 4 seconds to select the rinsing function.



Rinsing function is shown in the display.



Press the foot pedal to start coolant removal.



Press the "Spray selection" footswitch briefly to stop the rinsing function.



- Ending surgical mode
- Press the "Motorised auxiliary drives" button.



ENDO functions

Control element/display

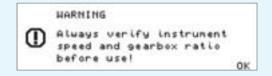
- Open ENDO mode.
- Remove INTRAmatic LUX KL 702 motor from the tray.



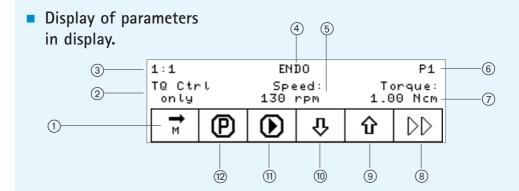
Press the "Motorised auxiliary drives" button The display changes to the ENDO menu.



If the ENDO warning is enabled, it appears in the display when switching to ENDO mode.



It must be confirmed by pressing the selection key for OK.



- (1) Motor rotational direction
- (2) Torque mode
- (3) Transfer ratio
- (4) ENDO operation
- (5) Speed
- 6 Program step memory
- (7) Torque

- (8) Option menu
- 9 UP key
- ① DOWN key
- (1) Select parameter selection key
- ② Selection key/memory key for program step

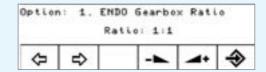
ENDO functions

Control element/display

Open option menu.

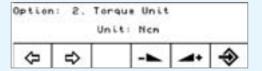


- Option 1: ratio
- Setting the transmission factor to 1:1 or 3:1

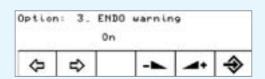


- Option 2: Torque
- Setting the display of the torque to Ncm or %

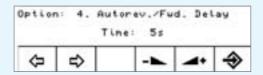
1:1 ratio: 100% = 2.5 Ncm 3:1 ratio: 100% = 8 Ncm



- Option 3: warning screen
- Activate or deactivate the ENDO warning
- With active ENDO warning it appears in the display when switching to ENDO operation.



- Option 4: Autorev. / Fwd. time
- ▶ In Autorev./Fwd. mode time is can be set (1 s to 10 s) after which the motor automatically rotates clockwise and therefore it is not necessary to stop it with the multi-function footswitch.



Settings option 1 to 4

Control element

Manual control

- The selection keys for "Increase value" and "Decrease value" can be used to modify the parameters of the option.
- Press the "Enter" selection key to leave the option menu. The modified parameters are saved.
- Options 1, 2, 3 or 3 can be selected by pressing the "Back" and "Forward" keys.





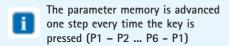




Set parameters.

The following parameters can modified:

- Speed
- Torque
- Torque mode
- Press the "Program" key to open the desired parameter memory (P1 to P6).



- Press the key for "Select parameters" to select the desired parameter. The cursor flashes on the parameter to be changed.
- Press the "UP" or "DOWN" key to change the selected parameter.
- To save the selected parameter in the current program step, press the selection key for "Program" key for 2 seconds until you hear a signal.











Set parameters

Control element

Fine adjustments

Speed

The speed can be adjusted as follows: in steps of ten:

- in steps of ten: in the range of 100 min⁻¹ to 500 min⁻¹
- in steps of 50: in the range of 500 min⁻¹ to 1000 min⁻¹
- in steps of 100: in the range of 1000 min⁻¹ to 6000 min⁻¹

Torque

1:1 transmission ratio

- in steps of 0.05 Ncm: in the range of 0.15 Ncm to 2.5 Ncm or
- in percentage steps: in the range of 1% to 100%

3:1 transmission ratio

- in steps of 0.05 Ncm: in the range of 0.4 Ncm to 8 Ncm or
- in the range of 1% to 100%

Torque mode

Three different torque modes are available:

- Torque only
- Autoreverse
- Autoreverse / Forward

Leaving ENDO Mode

Press the "Motorised auxiliary drives" button





