PRODUCT INFORMATION

DENTAL UNIT

DIPLOMAT ADEPT DA 370
DIPLOMAT ADEPT DA 380
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1. ABOUT

These Instructions for Use are intended to provide you with a necessary information about DIPLOMAT ADEPT DA 370 and DA 380 dental units. Please, familiarize yourself with information provided in this handout before operating the unit. It is expected, that dental unit will be used by a specialist, familiar with the following instructions for use as well as with the instructions for any other products and applications that are being used in conjunction with a unit. To ensure proper operation and peak performance, installations and/or adjustments should be done by authorized technicians or (licensed) service personnel only. The utility requirements as well as the installation requirements, specified in DIPLOMAT ADEPT DA 370 and DA 380 Instructions for Use must be observed.
2. PRODUCT DESCRIPTION

Diplomat Adept DA 370 and DA 380 are floor mounted dental units with an integrated patient’s chair. The DA 370 model has an overhead delivery system and DA 380 model has bottom-led instrument hoses. Diplomat Adept DA 380 dental unit is also available in a Cart Version. The control panel with instruments and handpieces and console for dental light are mounted on the top of a supporting base spittoon block. In a special mobile Cart Version DA380 features a cart-mounted rear delivery system. Handpieces, except for syringe, saliva ejector, large and small aspirators, polymerizing lamp and intraoral camera (if equipped) are controlled with the foot controller. On the all-in-one control panel there is a touch screen with controlling components and x-ray viewer. The handle enables a smooth repositioning of control panel. Spittoon block is equipped with assistant's control panel and with large and small aspirators. The spittoon bowl, rinsing and cup-filling spouts are detachable. Large and small aspirators’ tips are also detachable and are disinfection- and sterilization-friendly. As an optional furnishing, light console-mounted tray tables as well as the monitors with pantographic holders are available upon request. Both models of Diplomat Adept dental units have a dental syringe on a control panel.

Caution
Saliva ejector's tips are for single use only. They can not be used persistently.

The following control panel configurations are available:

<table>
<thead>
<tr>
<th>max. 5 rotary handpieces</th>
<th>min. 1 dental syringe</th>
</tr>
</thead>
<tbody>
<tr>
<td>max. 6 handpieces with lighting</td>
<td>1 ultrasonic scaler</td>
</tr>
<tr>
<td>max. 5 turbines</td>
<td>1 polymerizing lamp (LED)</td>
</tr>
<tr>
<td>max. 5 micromotors (max.5 x DC motor, max.2 x MX motor)</td>
<td>1 polisher</td>
</tr>
</tbody>
</table>

Important note
For optional and supplementary equipment see current catalogue.

3. TECHNICAL DATA

<table>
<thead>
<tr>
<th>Supply voltage</th>
<th>230V ± 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>50 Hz ± 2 %</td>
</tr>
<tr>
<td>Max. power input at 230V/50 Hz</td>
<td>1900 VA ± 10%</td>
</tr>
<tr>
<td>Input air pressure</td>
<td>0.45 - 0.8 MPa</td>
</tr>
<tr>
<td>Input water pressure</td>
<td>0.3 - 0.6 MPa</td>
</tr>
<tr>
<td>Total weight</td>
<td>210 kg + max.45 kg depending on model</td>
</tr>
<tr>
<td>Type of shock protection</td>
<td>Class 1 equipment</td>
</tr>
<tr>
<td>Degree of shock protection</td>
<td>B type applied parts</td>
</tr>
<tr>
<td>Water temperature for the cup</td>
<td>25 - 45 °C (with water heater fitted)</td>
</tr>
<tr>
<td>Tray table recommended max. load</td>
<td>1.5 kg</td>
</tr>
<tr>
<td>Side table recommended max. load</td>
<td>3 kg</td>
</tr>
</tbody>
</table>

Dental Chair

<table>
<thead>
<tr>
<th>Chair seat lifting range</th>
<th>332 ± 805 mm ± 15 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back rest inclination angle (from vertical position)</td>
<td>13°+ 97 ° ± 2°</td>
</tr>
<tr>
<td>Chair seat inclination angle (from horizontal position)</td>
<td>3°+ 21° ± 2°</td>
</tr>
<tr>
<td>Vertical positioning cycle duration</td>
<td>max. 17 sec</td>
</tr>
<tr>
<td>Backrest positioning cycle duration</td>
<td>max. 18 sec</td>
</tr>
<tr>
<td>Chair swing motion cycle duration</td>
<td>max. 8 sec</td>
</tr>
<tr>
<td>Patient load (EN ISO 6875)</td>
<td>max. 200 kg</td>
</tr>
<tr>
<td>Operating mode</td>
<td>1 : 16 (cycle: e.g. 25s run, 400s rest)</td>
</tr>
<tr>
<td>Noise level</td>
<td>max. 54 dB</td>
</tr>
</tbody>
</table>
Caution
To eliminate the risk of electric shock, equipment must be connected to the mains supply with a reliable connection to protective earth. Operation mode is continuous with intermittent loading, common to the dental practice. Operating mode ratio for the chair is 1:16, meaning, e.g. 25 sec. active motor, 400 sec. rest.

4. GENERAL DESCRIPTION AND DIMENSIONS OF DA 370 DENTAL UNIT

1. Spittoon block with assistant’s console
2. Control panel
3. Foot controller
4. Control panel’s console
5. Dental light
6. Dental light’s console
7. Dental chair
GENERAL DESCRIPTION AND DIMENSIONS OF DA 380 DENTAL UNIT

1. Spittoon block with assistant's console
2. Control panel
3. Foot controller
4. Control panel’s console
5. Dental light
6. Dental light's console
7. Dental chair
GENERAL DESCRIPTION AND DIMENSIONS OF DA 380 CART

1. Spittoon block with assistant's console
2. Control panel
3. Foot controller
4. Cart
5. Dental light
6. Dental light's console
7. Dental chair
4.1 Unit plate

1 – designation of the unit type
2 – basic electrical parameters
3 – serial number
4 – production date
5 - mode of operation of the chair

5. PRE-INSTALLATION REQUIREMENTS

5.1 Environmental conditions
Do not install in the premises with a potential explosion hazard!

5.2 Utilities

Water
It is required to use only pure water with input pressure of 0,3 MPa to 0,6 MPa and with min.4 l/min. flow rate. Water should contain no particles larger than 50 µm or in case of occurrence of such 50 the µm advance filter should be installed so the clogging will not occur (especially important for the pipes with small diameter).
Using water form a central distribution for instrument cooling
The 5 µm advance filter should be installed. If the water contains more than 50 mg of CaO/l or 36 mg of MgO/l, a water treatment system should be installed at the connection point to water distribution. It is strongly required as the hard water can cause the breakdown of the unit. It is also required to install a water treatment system if you are not using distilled water for instrument cooling. Use Copper or PE supply tubes for waterline extension after the filter. A certified main shut-off valve must be installed. (Note: shut-off valve is not supplied with a unit.) It is also required to install backflow prevention device if the unit is connected to the communal water distribution (not supplied with the unit).

Air
Oil-free, clean and dry air, with a minimum flow of 55 l/min and a pressure of 0.45 to 0.8 MPa must be used. The manufacturer recommends using copper and PE tubings.

Suction system
Static vacuum index must be measured at the spot and must be within the range of min. 0.005 MPa (50 mbar) to max. 0.02 MPa (200 mbar). If the static vacuum index is higher than 0.02 MPa, then suction CONTROL valve should be connected to the suction branch in order to limit the max. vacuum to 0.02 MPa. This regulating valve is not a part of the kit. The suction unit must produce the flow rate of at least 450l/min. measured at the spot.

Waste
The waste branch must have continuous slope of min. 1% and min. flow rate of 10l/min. and must have no sharp bends and sections that might cause backflow. Do not use the same waste branch in conjunction with another dental unit or a basin! It is allowed to use polypropylene or cured polyethylene tubes.

Caution
All of the pre-installation and installation operations must be performed in accordance with the applicable standards of the particular country and in coherence with the valid product documentation, which any of the authorized representatives of Diplomat possess.

Important note
If the installation of amalgam separator is required by the local regulations, then the cuspidor block without such must be connected to an external amalgam separator. Amalgam separator should be installed according to the manufacturer's instructions packed with the product.

Recommended mains fuse rating
Recommended fuse rating for the supply main is 16A. (If using a circuit breaker, use circuit breaker "C" type). No other equipment should be connected to the supply main! Max. electrical power input of dental unit is 1900VA. The supply main must conform to prevailing local codes. If all the conditions fit the pre-installation requirements, the dental unit can be installed and connected to the utilities.

Recommendation
The manufacturer recommends using an instantaneous residual-current device with 30mA sensitivity. Only if installation of RCD does not contradict local regulations.

5.3 Floor surface
The floor must have at least 100mm thick concrete foundation. The floor slope should not exceed 1%. Antistatic floor is recommended.
5.4 Environment

- Environment temperature range: from +10°C to +40°C
- Relative humidity range: from 30% to 75%
- Atmospheric pressure range: from 700 hPa to 1060 hPa

6. ASSEMBLY AND INSTALLATION

Unpacking the unit and inspecting the delivery
Examine the package for any outside indication of damage. If any damage is found do not open the package and notify the forwarding agent or the seller immediately. In case no outside damage is found, carefully open the package and unpack the individual parts of the dental unit. Check all the parts for damage, quantity, etc. according to the list provided in chapter 13 of this Instruction for Use and according to the enclosed check-list.
If the touch sense keyboard is the part of package it should be handled especially carefully while unpacking.

7. PUTTING THE UNIT INTO OPERATION

1. Turn on compressor and let it pressurize the system
2. Open central water distribution
3. Turn on suction system (for cuspidor block configuration with large and small aspirators)
4. Turn on the main switch - position I, see picture below
The main switch LED lights up and the following data is displayed:

![Image showing LED display]

The following indicates that the system is ready to operate. The unit is connected to the water and air distribution. **Three short beeps conform that the unit is ready for work.** It is necessary to wait for approx. 10 minutes until the water is warmed up to the desired temperature (only if the electrical water heater of the cup filling is installed). Do not take out any instruments or press keyboard buttons when turning the dental unit on. The foot controller should be at a zero position.

**Caution**
Assistant's arm and panel should be positioned so that they do not obstruct dental chair or dentist's stool motion (see fig.).

![Image showing assistant's arm and panel]

**Caution**
Except for the saliva ejector, large and small aspirators (depending on modification) polymerizing lamp and syringe (on the control panel and on the assistant's panel) only one instrument can be in use or taken out at a time. If 2 handpieces are active at a time the following error message will be displayed:

**Warning! Too many handpieces in use.**
8. OPERATING THE UNIT

8.1 Control panel and instrumentation

The touch screen display is readable from any working position.

8.1.1 Symbol description

Turning the X-Ray viewer On/Off

Use this key to increase display brightness. Clip the x-ray file to the screen with a magnetic
clamp (supplied together with the unit). Press this key again or withdraw a handpiece to
restore previous brightness. You can also turn X-Ray viewer on when a handpiece is not in
the holder.

Cup fill – Water temperature

Press and hold this key for more than 1,5 sec. to activate cup filling. Filling cycle duration will
be saved automatically. Use this key to start the cup filling for the preset duration. Press this
key fast to terminate the cup filling cycle without changing preset cycle duration.

Water temperature settings can be found in the SETUP menu. The temperature adjustment
range is from 25°C to 45°C.

If the water heating system is not installed, information on water temperature is not
displayed.

Bowl swiveling – initial position, limiting preset position and programming.

Press and hold this key for more than 1,5 sec. to activate bowl swiveling. Swiveling cycle
duration will be saved automatically. Release the key as the desired bowl position is
reached. Pressing the key activates swiveling of the bowl towards the patient until the
limiting preset position is reached. For the bowl to return to its home position at the spittoon
block press the button once again. Bowl rinse starts automatically when the bowl is back to
the home position.

Automatic bowl rinse when the bowl reaches “zero position” can be turned off in the Setup
menu. Pressing the button fast during the swivelling cycle will end the cycle without changing
previously set swivel duration.

The bowl swivels until the limiting (end) position is reached. The arrows on the display
indicate swiveling direction.

Caution
Do not activate bowl swivelling while the dental chair is in motion!

**Bowl rinse**
Press and hold this key for more then 1.5 sec. to activate bowl rinse function. Rinsing cycle duration will be saved automatically. Use this key to start the bowl rinsing cycle for the preset duration. Press this key fast during the rinsing cycle to terminate the bowl rinsing cycle without changing preset cycle duration.
Rinsing starts automatically when the bowl is back to the home position.

**Main light**
Three basic modes of illumination brightness:

- **Off**
- **Normal mode**
- **Dim mode** – suitable for working with dental composites

Press the button to turn the dental light on, press this key subsequently to toggle between the modes. Press and hold the button to turn the dental light off.

When using the XENOS operating light with the sensor, only the button is displayed and the light is controlled manually by means of the sensor (see the Instructions for Use of the XENOS dental operating light), or of the button. Press the button to turn the light on; press the button again shortly to change over the light illuminance. Then press the button for longer period (ca 2 seconds) to turn the light off.

**Indicating the unit type DA 370 or DA 380.**

**Current time**

![Current time display](image)

Doorbell - press and hold the key to turn the doorbell relay on. (Relay is inbuilt in the spittoon block).

**Chair positioning**
Use these keys to adjust the chair position as desired. Adjustment is only possible when handpieces are in the holders or the foot controller is in the zero position if a handpiece is withdrawn.
Chair base up  Chair base down  Backrest down  Backrest up  Toeboard up  Toeboard down

**Saving customized settings/quick key for preset positions.**
Use the program key to save your settings or to recall the preset positions.

**Saving customized chair position:**
Adjust the chair to the desired position using the controls and press the following keys subsequently:

[←] + [↑] + one of the keys you wish to customize: [1], [2], [3], [4], [5], [6].

Press and hold the button [←] (for ca. 3sec) until you hear the sound signal: short-long beeps. This sound signal indicates that the programming mode is now active and you can now continue chair programming. Please, follow these instructions to ensure that your new setting will be saved properly.

As every setting is saved, you will hear one long and two short confirmation beeps.

As the setting was not saved, you will hear three long beeps.

**Recalling customized settings:**
Press the following keys subsequently:

[←] + one of the keys for which the desired setting was saved.

The dental light turns on automatically when the chair reaches the desired working position (when repositioning from the Entry-Exit position).

**Entry/Exit position**
Use this key to adjust the chair into the Entry/Exit position. The main light will be turned off and spittoon bowl will return to its home position and rinsed automatically.

The key is active only when handpieces are not in use.

**Programming Entry position:**
Program the Entry position as instructed above, under „Saving customized chair position“, i.e. press the following keys subsequently: [←] + [↑] + [↑].

Press and hold the button (for ca. 3sec) until you hear the sound signal: short-long beeps. This sound signal indicates that the programming mode is now active and you can now continue chair programming. Please, follow these instructions to ensure that your new settings will be saved properly.

As every setting is saved, you will hear one long and two short confirmation beeps.

As the setting was not saved, you will hear three long beeps.

To recall the Entry position simply press [↑] key.

**Mouth wash position**
Use this key to adjust the chair into the programmed mouth wash position. The key is active only when handpieces are not in operation.

**Programming Mouth wash position:**
Program the Mouth wash position as instructed above, under „Saving customized chair position“, i.e. press the following keys subsequently: [←] + [↑] + [↑].

Press and hold the button (for ca. 3sec) until you hear the sound signal: short-long
INSTRUCTIONS FOR USE
DA 370, DA 380

beeps. This sound signal indicates that the programming mode is now active and you can now continue chair programming. Please, follow these instructions to ensure that your new settings will be saved properly. As every setting is saved, you will hear one long and two short confirmation beeps. As the setting was not saved, you will hear three long beeps.

To avoid the chair collision against the spittoon bowl, the maximum chair’s lifting level (when in the Mouthwash position) is limited by the factory settings.

To recall the Mouthwash position simply press key .
Press this key again to adjust the chair back into previous working position.

If the chair motion was interrupted during the mouth wash positioning cycle (caused by accidental handpiece or control key activation, etc.), press again to continue adjustment cycle. Press key to adjust the chair back into working position. Note: this adjustment is only possible if the chair has already reached its mouth wash position.

If the chair motion was interrupted during the adjustment back into working position, press key again to continue adjustment cycle.

Note: As the chair is in the mouth wash position pressing any other key but , will result in skipping the adjustment into working position.

Press "Mouthwash" button to recall Mouthwash position. The bowl will start swiveling towards the patient and dental light will be turned off automatically. The bowl moves back into its home position and the dental turns on automatically when you adjust the chair back into working position. Auto functions are active only on spittoons with built-in actuator. For the manually controlled spittoons: if the spittoon bowl is positioned in such a way that it might obstruct the chair motion the chair motion will be blocked and you will hear the following acoustic signal: continuous short beeps. You will need to return the bowl into its home position manually in order to continue the chair repositioning.

Selection of the memory set of the chair

The chair enables two sets of the program positions of the chair to be stored into the memory. One set consists of six user positions 1 - 6, getting-on position and rinsing position.

To select the desired set, press and hold the button until you hear an audible signal (ca 3 seconds) and then choose the desired set by means of the button or the button. The chosen set is indicated at the right top corner of the button with a number in a circle, i.e. , or .

Anti-shock position (Trendelenburg position)

Press this button to adjust the chair into Anti-shock position. The position's parameters are pre-set and cannot be changed. The bowl returns into its home position automatically when the Anti-shock is being recalled (only for spittoons with built-in actuator). For the manually controlled spittoons: if the spittoon bowl is positioned in such a way that it might obstruct the chair motion the chair motion will be blocked and you will hear the following acoustic signal: continuous short beeps. You will need to return the bowl into its home position manually in order to continue the chair repositioning.

Caution

The programming key is active only within 4 seconds after been pressed, i.e. the successive key should be pressed within 4 seconds to enable programming. Otherwise, the
INSTRUCTIONS FOR USE

Before lifting the chair (or adjusting its position when already elevated to the upper track) make sure, the spittoon bowl is in its home position.

If the bowl is positioned in such a way that it obstructs the chair motion the chair motion will be blocked automatically and the following error message will be displayed E10-BOWL.

Note, that any chair adjustments that require upward motion are impossible until the spittoon bowl is at its home position. Blocking is indicated by repeating short beeps. These beeps will not stop until the bowl is in its home position. Then the chair repositioning will restart. Do not reposition the bowl during the chair adjustment cycle - it results in chair motion blocking! In this case blocking is indicated by short – long – short – long – short beeps. If the spittoon bowl is controlled by engine (motor) then the spittoon bowl rotates away automatically. Bring the bowl back into its home position and then continue chair adjustment cycle. If any object passes against the chair while it is travelling, chair's motion will be terminated and reversed to prevent damage (reverse motion is not activated anytime the backrest collides against an obstacle). Reverse motion will continue until the safety brake switch is released from an obstacle or until the chair will travel to its end-position (if the safety brake switch is not released). This reverse cycle is accompanied by the warning sound - repeating long beep.

Safety brake secures the chair motion downwards, back rest motion backwards and collision against the assistant's panel. In the event of collision against the assistant's panel the error message !! Chair Collision !! – chair motion is blocked accompanied by the sound signal - 2 long beeps is displayed. In this case, "Reverse motion" of a dental chair is not activated.

In order to avoid collisions and possible assistant's panel damage, the manufacturer recommends positioning the assistant's panel (before repositioning the chair) in such a way that it will not obstruct the chair motion.

In case the chair is not maintained properly, an error message will be displayed to inform the user that a problem occurred.

You may receive either of the following error messages:

- E01-EEC RAM error
- E02-EEW an error occurred while trying to save your setting into unit's internal memory
- E03-MOT1 motor1 error
- E04-MOT2 motor2 error
- E05-MOT3 motor3 error
- E06-RNG1 motor1– preset speed limit exceeded
- E07-RNG2 motor2– preset speed limit exceeded
- E08-RNG3 motor3– preset speed limit exceeded
- E09-RNGA autosetup error
- E10-BOWL chair repositioning is impossible because of the bowl position
- E12-COMM error in serial communication
- E13-CON1 cabling error pot1 – fault/disconnection
- E14-CON2 cabling error pot2 – fault/disconnection
- E15-CON3 cabling error pot3 – fault/disconnection
- E16-SSW chair safety brake is squeezed
- E17-ASET autoset did not complete correctly

**Alarm**

Serves as a reminder and has a countdown timer function. Available settings: from 30sec - 1min - 2min - 4min to 16min (factory preset is 2mins). Use the key to start countdown. To
disable countdown press the key again.

**Foot control battery status**

This status bar is shown on the display when using wireless foot controller and displays the current battery percentage:

- - battery is empty
- - 33% full
- - 66% full
- - 100% full

**Setup menu**

**Setup menu. Tab 1**

<table>
<thead>
<tr>
<th>Setup</th>
<th>Programming the bottom left lever of the foot controller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prog L Rinse</td>
<td>Programming the bottom right lever of the foot controller</td>
</tr>
<tr>
<td>Prog R Chipbl</td>
<td>Alarm time setup</td>
</tr>
<tr>
<td>Alarm 02:00</td>
<td>Keypad tone volume setup</td>
</tr>
<tr>
<td>Keypad tone 01</td>
<td>Patient’s cup water temperature setup (if heating system installed)</td>
</tr>
<tr>
<td>Water Cup 37 °C</td>
<td>Language bar</td>
</tr>
<tr>
<td>Language English</td>
<td>Setting the Hygiene cycle duration/if equipped with Hygiene system</td>
</tr>
<tr>
<td>Hygiene Dur. 10 m.</td>
<td>Setting up Water temperature for handpieces (if boiler is installed).</td>
</tr>
<tr>
<td>Water heating Off</td>
<td></td>
</tr>
</tbody>
</table>

If the Hygiene system (available upon request only) is not installed on the unit, menu bar **Hygiene Duration** is inactive and the time status is not displayed (-).

If the water heater for the patient's cup is not installed, than menu bar "Water for the Cup" is inactive and the temperature is not displayed (- - -).

If the water heating system was not installed (upon request only), the menu bar Water heating is inactive and (- - -) symbols are displayed.

Warm water can reach the handpiece only after remaining cold water would be poured out from the hose completely.

**Setup menu. Tab 2**

<table>
<thead>
<tr>
<th>Setup</th>
<th>Light intensity setup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light intensity 00</td>
<td></td>
</tr>
</tbody>
</table>

17/55
Info / SW version number individual modules/

Programming the Left (L) lever of the foot controller.

Setup
Prog L Chipbl
Chipblower is On

Setup
Prog L On/Off
Instrument cooling is On/Off

Setup
Prog L Rever/Rever.
Reverse mode for micromotors/ENDO mode for scaler

Setup
Prog L Lighting
Handpiece lighting is On

Setup
Prog L Main Light
Main light is ON

Setup
Prog L Doorbell
Doorbell is On

Setup
Prog L Cup
Cup filling

Setup
Prog L Rinse
Bowl rinse

Setup
Prog L Prog+
Switching of the programs for the selected instrument

Setup
Prog L Without f.
The button has no function
Programming the Right (R) lever of the foot controller.

(Program the Right lever as instructed above for the Left lever)

Setup

Prog R

Chipbl

Chipblower is On

Parameter Adjustment instructions:
Press the icon of the desired parameter on the display. Choose the desired value or function using keys \(-\), \(+\). Press OK to confirm.

Toggle between Setup Menu tabs 1 and 2.

Setup menu

Info / Software version, etc./Back to the main menu

Increasing parameter value

Confirms parameter programming

Decreasing parameter value

Cancelling programming without saving

8.1.2 Control panel brake button
8.1.3. Setting the Tray – table
The stainless tray is removable from the holder (see fig. on the right). Also the plastic trays with stainless dishes are available upon request. Maximum loading capacity of the tray is 1,5 kg.

8.1.4 Operating individual instruments

Control panel
In addition to below listed instructions, please, reference the manufacturers' user guides that came with handpieces and accessories.

Syringe
The syringe activates automatically after withdrawal from the holder. For air press the right button, for water rinse press the left button and for spray press both buttons simultaneously.
**DC Micromotor**

Display for DC micromotors

<table>
<thead>
<tr>
<th>DC Motor 1</th>
<th>Prog 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>P = 50% max</td>
<td>!Oil!</td>
</tr>
<tr>
<td>T = 100%</td>
<td>Water = 60%</td>
</tr>
</tbody>
</table>

Motor activates automatically after withdrawal from the holder. The setup menu/current settings will appear on the display.

- **P = 50 % max** - output
  
  Use **50 % key** along with **- < / > + keys** to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

- **Prog 0** – number of settings (0 – 9).
  
  Maximum 10 customized settings can be saved in the memory. To choose the setting, press Prog key along with **- < / > + keys**. Select a number (0-9) you wish to assign for that setting and then adjust the desired parameters for the setting. To save the settings into the unit's internal memory: press OK to confirm the changes and then press key to save the settings.

Keep in mind, that while a handpiece is withdrawn any change of setup parameter will be saved automatically (even if the key has not been pressed). Settings will remain until you change them in the handpiece program (Prog 0 – 9) even after a system reboot. Press Prog if you want to return to standard settings. If you want to save the setting permanently for the corresponding program, then adjust desired settings and press key.

- **15%** – preset fixed output value. Use this key to set P = 15% max.
- **50%** – preset fixed output value. Use this key to set P = 50% max.
- **100%** – preset fixed output value. Use this key to set P = 100% max.

- **Torque = 100 %** - maximal torque rate
  
  Use **100 % key** along with **- < / > + keys** to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.
• **Water = 60 %** - amount of water coolant.
  Use 60 % key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

**Water coolant** – water coolant is active, subsequent pressing will activate another cooling mode:

• **Spray = xx %** - spray coolant is active
  Use xx % key along with - < / > + keys to adjust water coolant amount for the handpiece. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

**Spray coolant** – (air & water) spray coolant is active, subsequent pressing will activate another cooling mode:

**Cooling off** – cooling mode is off, subsequent pressing will activate another cooling mode:

**Air coolant** – air coolant mode is active

**Lighting** – handpiece lighting is On/Off
  Use this key to turn handpiece lighting on – ON.
  Subsequent pressing will turn handpiece lighting off – OFF

**Reverse** – use this key to reverse micromotor’s direction. Icon R on display confirms that rotation direction has been changed. The key is active only when the levers of the foot controller are in zero-position.

**Chip ON** – Auto Chipblower is on. This function sets a jet of a cooling air through the handpieces (duration: cca 0,5s) automatically as soon as the foot controller lever/pedal reaches its zero-position. Press the key to disable the function:

**Chip OFF** – Auto Chipblower function is off. Press this key to return to the Chip Delay mode.

**Foot controller is in the analog mode**
  This symbol indicates that the foot controller is working in the Analog (Continuous) mode, i.e. the value is directly dependant on the pressure exerted on the pedal. Press this key to switch to another mode:

**Foot controller is in the discrete mode**
  This symbol indicates ON/OFF modes, i.e. parameter value is independent from the pressure exerted on the pedal and is set to max. preset value as the pedal is activated and remains at a preset value at any pedal position. Press this key again to return to the Analog working mode.

**OK**
  Ending parameter edit

When adjusting parameter's value, keep in mind, that if the corresponding key has not been pressed for more than 4 seconds, the key will become inactive. Press the key again for reactivation.

Withdraw the micromotor from the holder and move the lever of the foot controller to the right/press the pedal of the multi-functional foot controller for activation.
To turn micromotor off release the pedal/lever and bring it to the zero-position. It is recommended to run CHIPBLOWER function after each use. Use - < / > + keys to adjust the output value in a range of 0-100% when the micromotor is withdrawn and idle (the foot controller lever/pedal has to be in its max. position). If the handpiece is in use, the output value can also be adjusted from 0 to maximum by pressing the lever/pedal of the foot controller in the Analog mode.

The message !Oil! and sound alert indicate that it is necessary to lubricate the micromotor. Press the "!Oil!" icon to submit the lubrication and disable the alert, otherwise this message will keep on appearing every time you use the micromotor.

**Mikromotor AC - MX, MX2, MCX (Bien-Air)**

**Display for MX micromotors**

Activate the motor by withdrawing from the holder. The setup menu will appear on the display.

- **Prog 0** - number of saved settings (0 – 9).
  
  Maximum 10 customized settings can be saved in the memory. To choose the setting press Prog key along with - < / > + keys. Select a number (0-9) you wish to assign for that setting and then adjust the desired parameters for the setting. To save the settings into the unit’s internal memory: press OK to confirm the changes and then press key 1 to save the settings.

  Keep in mind, that while a handpiece is withdrawn any change of setup parameter will be saved automatically (even if the key has not been pressed). Settings will remain until you change them in the handpiece program (Prog 0 – 9) even after a system reboot. Press Prog if you want to return to standard settings. If you want to save the setting permanently for the corresponding program, then adjust desired settings and press key.

- **1 : 1** – rotation transmission ratio

  Use 1:1 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key 1 to save the settings.
INSTRUCTIONS FOR USE

Speed ratio: 1:5; 1:4; 1:2; 1:1; 2:1; 7:1; 10:1; 20:1; 30:1; 100:1; 128:1. RPM and torque values convert according to the chosen ratio automatically.

RPM = 40000 – rotations per minute value
Use 40000 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.
Displayed value depends on the currently set speed ratio.
Actual RPM number is displayed when micromotor is in operation.

- T : 3,50 Ncm – preset torque limit (0,35 – 3,50 Ncm at 1:1)
Use 3,50 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.
Displayed value depends on the currently set speed ratio.

RPM and torque values convert according to the chosen ratio automatically.

RPM = 40000 – rotations per minute value
Use 40000 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.
Displayed value depends on the currently set speed ratio.
Actual RPM number is displayed when micromotor is in operation.

- T : 3,50 Ncm – preset torque limit (0,35 – 3,50 Ncm at 1:1)
Use 3,50 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.
Displayed value depends on the currently set speed ratio.

Working mode – use this key to toggle between Normal / ARev / Afor working modes

Normal mode - Normal
MX motor require identical handling as any other micromotor, except the fact that the RPM and torque limits are adjustable. Use T key for adjustment. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

Auto-reverse mode - ARev
The micromotor reverses direction when the file reaches the torque limit (counter clockwise rotation) until the foot controller lever is released. Change of rotation is indicated by blinking handpiece lighting and icon R on the display. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

Auto-forward mode - AFor
The micromotor reverses direction (counter clockwise rotation) when the torque limit is reached and continues backward rotation for the preset period of time, e.g. atf = 3,5 s, then changes back to forward (clockwise) rotation again. This cycle repeats itself until the lever of the foot controller is released. Change of rotation is indicated by blinking handpiece lighting and icon R on the display and sound signals during atf period. This mode allows reverse function timed setting: x,x s. Use 3,5 s key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

5000 – preset fixed RPM. Use this key to set RPM = 5000. Displayed value depends on the currently set transmission ratio.

20000 – preset fixed RPM. Use this key to set RPM = 20000. Displayed value depends on the currently set transmission ratio.

40000 – preset fixed RPM. Use this key to set RPM = 40000. Displayed value depends on the currently set transmission ratio.

Water = 60 % - amount of water coolant.
Use 60 % key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.
**INSTRUCTIONS FOR USE**

**DA 370, DA 380**

**Water coolant** – water coolant is active, subsequent pressing will activate another cooling mode:

- **Spray = xx %** - spray coolant is active
  
  Use **xx %** key along with **← / → +** keys to adjust handpiece water coolant amount. To save the adjusted value: press **OK** to confirm the changes and then press key **** to save the settings.

**Spray coolant** – spray coolant is active, subsequent pressing will activate another cooling mode:

**Cooling off** – cooling mode is off, subsequent pressing will activate another cooling mode:

**Air coolant** – air coolant mode is active

**Lighting** – handpiece lighting is On/Off
  
  Use this key to turn handpiece lighting on – **ON**. Subsequent pressing will turn handpiece lighting off – **OFF**

**Light intensity can be adjusted in the Setup menu.**

**Reverse** – use this key to reverse micromotor’s direction. Icon **R** on display confirms that rotation direction has been changed. The key is active only when the levers of the foot controller are in zero-position.

**Chip ON** – Auto Chipblower is on. This function sets a jet of a cooling air through the handpieces (duration: cca 0,5s) automatically as soon as the foot controller lever/pedal reaches its zero-position. Press the key to disable the function:

**Chip OFF**

Chipblower function is off. Press this key to return to the Chip Delay mode.

**Foot controller is in the analog mode**

This symbol indicates that the foot controller is working in the Analog (Continuous) mode, i.e. the value is directly dependant on the pressure exerted on the pedal. Press this key to switch to another mode:

**Foot controller is in the discrete mode**

This symbol indicates ON/OFF modes, i.e. parameter value is independent from the pressure exerted on the pedal and is set to max. preset value as the pedal is activated and remains at a preset value at any pedal position. Press this key again to return to the Analog working mode.

**OK**

Ending parameter edit

When adjusting parameter’s value, keep in mind, that if the corresponding key has not been pressed for more than 4 seconds, the key will become inactive. Press the key again for reactivation. Withdraw the micromotor from the holder and move the lever of the foot controller to the right/press the pedal of the multi-functional foot controller. To turn micromotor off release the pedal/lever and bring it to the zero-position. It is recommended to run CHIPBLOWER function after each use.

Use **← / → +** keys to adjust the output value in a range of **0-100%** when the micromotor is withdrawn and idle (the foot controller lever/pedal has to be in its max. position). If the
INSTRUCTIONS FOR USE

DA 370, DA 380

handpiece is in use, the output value can also be adjusted from 0 to maximum by pressing the lever/pedal of the foot controller in the Analog mode.
The message !Oil! and sound signal indicate that it is necessary to lubricate the micromotor. Press the "Oil" icon to submit the lubrication and disable the alert, otherwise this message will keep on appearing every time you use the micromotor.
The current condition and status of the MX micromotor are shown on the display. The following error messages can occur:

**Error - Utilities**
Motor is Not Connected
Overvoltage
Undervoltage
Overheat
Call the Service

*Note
Displayed symbols and available setup configurations depend on the type of the micromotor you are using. Read the manufacturer’s documentation carefully to learn about all the features of the corresponding motor type.

Mikromotor AC – NLX (NSK)

Display for MX micromotors

Activate the motor by withdrawing from the holder. The setup menu will appear on the display.

- **Prog 0** - number of saved settings (0 – 9).
  Maximum 10 customized settings can be saved in the memory. To choose the setting press **Prog** key along with + < / > keys. Select a number (0-9) you wish to assign for that setting and then adjust the desired parameters for the setting. To save the settings into the unit’s internal memory: press OK to confirm the changes and then press key ( ) to save the settings.
  Keep in mind, that while a handpiece is withdrawn any change of setup parameter will be saved automatically (even if the key has not been pressed). Settings will remain until you change them in the handpiece program (Prog 0 – 9) even after a system reboot. Press **Prog** if you want to return to standard settings. If you want to save the setting permanently for the corresponding program, then adjust desired settings and press ( ) key.
INSTRUCTIONS FOR USE

- **1 : 1** – rotation transmission ratio
  Use 1:1 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key ( ) to save the settings.
  Speed ratio: 1:5; 1:4; 1:2; 1:1; 2:1; 7:1; 10:1; 20:1; 30:1; 100:1; 128:1. RPM and torque values convert according to the chosen ratio automatically.

  **RPM = 40000** – rotations per minute value
  Use 40000 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key ( ) to save the settings.
  Displayed value depends on the currently set speed ratio.
  Actual RPM number is displayed when micromotor is in operation.

- **T : 4,00 Ncm** – preset torque limit (0,29 – 4,00 Ncm at 1:1)
  Use 4,00 key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key ( ) to save the settings.
  Displayed value depends on the currently set speed ratio.

**Working mode** – use this key to toggle between Normal / ARev / Afor working modes

- **Normal mode - Normal**
  MX motor require identical handling as any other micromotor, except the fact that the RPM and torque limits are adjustable. Use T key for adjustment. This model has a preset torque: 4,00 Ncm. RPM can be adjusted within the following range: 1000 – 40000 (1:1 ratio).

- **Auto-reverse mode - ARev**
  The micromotor reverses direction when the file reaches the torque limit (counter clockwise rotation) until the foot controller lever is released. Change of rotation is indicated by blinking handpiece lighting and icon R on the display. To save the adjusted value: press OK to confirm the changes and then press key ( ) to save the settings. R symbol on the display indicates reversed rotation. Torque limit can also be adjusted while in this mode. RPM can be adjusted within the following range: 100 – 5000 (1:1 ratio).

- **Auto-forward mode - AFor**
  The micromotor reverses direction (counter clockwise rotation) when the torque limit is reached and continues backward rotation for the preset period of time, e.g. atf = 1,0 s, then changes back to forward (clockwise) rotation again. This cycle repeats itself until the lever of the foot controller is released. Change of rotation is indicated by blinking handpiece lighting and icon R on the display and sound signals during atf period. This mode allows reverse function timed setting: x,x s. Use 1,0s key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key ( ) to save the settings.

- **5000** – preset fixed RPM. Use this key to set RPM = 5000. Displayed value depends on the currently set transmission ratio.
- **20000** – preset fixed RPM. Use this key to set RPM = 20000. Displayed value depends on the currently set transmission ratio.
- **40000** – preset fixed RPM. Use this key to set RPM = 40000. Displayed value depends on the currently set transmission ratio.
The parameter changes for 5000 when motor is in ARev or AFor modes (1:1 ratio).

**Water** = 60 % - amount of water coolant.
Use 60 % key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

**Water coolant** – water coolant is active, subsequent pressing will activate another cooling mode:
- **Spray** = xx % - spray coolant is active
Use xx % key along with - < / > + keys to adjust handpiece water coolant amount. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

**Spray coolant** – spray coolant is active, subsequent pressing will activate another cooling mode:
- **Cooling off** – cooling mode is off, subsequent pressing will activate another cooling mode:

**Air coolant** – air coolant mode is active

**Lighting** – handpiece lighting is On/Off
Use this key to turn handpiece lighting on – ON.
Subsequent pressing will turn handpiece lighting off – OFF

*Light intensity can be adjusted in the Setup menu.*
The lighting remains on for 3 sec. approx. after the instrument has been turned off.
The lighting remains on for 10 sec. approx. after the Chipblower function has been activated. Occasional lighting flashing might occur while Chipblower is running. This does not indicate any breakdowns.

**Reverse** – use this key to reverse micromotor's direction. Icon R on display confirms that rotation direction has been changed. The key is active only when the levers of the foot controller are in zero-position.

**Chip ON** – Auto Chipblower is on. This function sets a jet of a cooling air through the handpieces (duration: cca 0,5s) automatically as soon as the foot controller lever/pedal reaches its zero-position. Press the key to disable the function:

**Chip OFF**
Chipblower function is off. Press this key to return to the Chip Delay mode.

**Foot controller is in the analog mode**
This symbol indicates that the foot controller is working in the Analog (Continuous) mode, i.e. the value is directly dependant on the pressure exerted on the pedal. Press this key to switch to another mode:

**Foot controller is in the discrete mode**
This symbol indicates ON/OFF modes, i.e. parameter value is independent from the pressure exerted on the pedal and is set to max. preset value as the pedal is activated and remains at a preset value at any pedal position. Press this key again to return to the Analog working mode.

**OK**
Ending parameter edit
When adjusting parameter's value, keep in mind, that if the corresponding key has not been pressed for more than 4 seconds, the key will become inactive. Press the key again for reactivation. Withdraw the micromotor from the holder and move the lever of the foot
controller to the right/press the pedal of the multi-functional foot controller. To turn micromotor off release the pedal/lever and bring it to the zero-position. It is recommended to run CHiPBlower function after each use. Use < < / > + keys to adjust the output value in a range of 0–100% when the micromotor is withdrawn and idle (the foot controller lever/pedal has to be in its max. position). If the handpiece is in use, the output value can also be adjusted from 0 to maximum by pressing the lever/pedal of the foot controller in the Analog mode. The message !Oil! and sound signal indicate that it is necessary to lubricate the micromotor.

Press the "Oil" icon to submit the lubrication and disable the alert, otherwise this message will keep on appearing every time you use the micromotor.

When working with AC-motors you can see its current status on the display. In case any error occurs one of the following messages will be displayed:  

Error

E0 – HW Error or  
E1 – SW Error, or  
E2 – Low Speed, or  
E3 – Fault, or  
E4 – Overheat, or  
E5 – Over Voltage, or  
E6 – Led error1, or  
E7 – DC bus, or  
E8 – Rotor locking, or  
E9 – Motor startup, or  
EA – Led output, or  
ED – Out of control, or  
EE – Eeprom data  

+ msg Call your service!

If there is more than one error at the time, errors will be displayed as a numeric code:

xxx/xxx.

**Turbine**

Activate the turbine by withdrawing from the holder. The setup menu will appear on the display.

- **Prog 0** - number of set parameters (0 – 9).
  
  Maximum 10 customized settings can be saved in the memory. To choose the setting press Prog key along with < < / > + keys.
Select a number (0-9) you wish to assign for that setting and then adjust the desired parameters for the setting. To save the settings into the unit's internal memory: press OK to confirm the changes and then press key \( \text{ } \) to save the settings. Keep in mind, that while a handpiece is withdrawn any change of setup parameter will be saved automatically (even if the \( \text{ } \) key has not been pressed). Settings will remain until you change them in the handpiece program (Prog 0 – 9) even after a system reboot. Press Prog if you want to return to standard settings. If you want to save the setting permanently for the corresponding program, then adjust desired settings and press \( \text{ } \) key.

- \( P = 100\% \text{max} \) – output value
- \( \text{Water} = 60\% \text{- water coolant amount} \)

Use \( 60\% \) key along with - \(</>/>\) + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key \( \text{ } \) to save the settings.

**Water coolant** – water coolant is active, subsequent pressing will activate another cooling mode:

- \( \text{Spray} = xx\% \text{- spray coolant} \)

Use \( xx\% \) key along with - \(</>/>\) + keys to adjust handpiece water coolant amount. To save the adjusted value: press OK to confirm the changes and then press key \( \text{ } \) to save the settings.

**Spray coolant** – spray coolant is active, subsequent pressing will activate another cooling mode:

**Cooling off** – cooling mode is off, subsequent pressing will activate another cooling mode:

**Air coolant** – air coolant mode is active

**Lighting** – handpiece lighting is On/Off

Use this key to turn handpiece lighting on – ON.

Subsequent pressing will turn handpiece lighting off – OFF

**Foot controller is in the analog mode**

This symbol indicates that the foot controller is working in the Analog (continuous) mode, i.e. the value is directly dependant on the pressure exerted on the pedal. Press this key to switch to another mode:

**Foot controller is in discrete mode**

This symbol indicates ON/OFF modes, i.e. parameter value is independent from the pressure exerted on the pedal and is set to max. preset value as the pedal is activated and remains at a preset value at any pedal position. Press this key again to return to the Analog working mode.

**OK**

Ending parameter edit

When adjusting parameter's value, keep in mind, that if the corresponding key has not been pressed for more than 4 seconds, the key will become inactive. Press the key again for reactivation.

Withdraw the turbine from the holder and move the lever of the foot controller to the right/press the pedal of the multi-functional foot controller for activation. To turn the turbine
off release the pedal/lever and bring it to the zero-position. It is recommended to run CHIPBLOWER function after each use. The output value of the turbine cannot be adjusted! The message !Oil! and sound signal indicate that it is necessary to lubricate the turbine. Press the "Oil" icon to submit the lubrication and disable the alert, otherwise this message will keep on appearing every time you use the turbine.

**Note**
The lighting turns off automatically as the turbine or micromotor are placed back in the holders. Micromotor or turbine can be placed in the holder only when they are inactive (pedal/lever of the foot controller is in zero position).

**Ultrasonic Scaler**

Types of displays for ultrasonic scalers (depending upon model)

```
<table>
<thead>
<tr>
<th>Scal</th>
<th>Prog 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>P = 100% max</td>
<td>Water = 60%</td>
</tr>
<tr>
<td>30% 100%</td>
<td></td>
</tr>
<tr>
<td>Cool. Water</td>
<td></td>
</tr>
<tr>
<td>02:00</td>
<td></td>
</tr>
<tr>
<td>PEDAL</td>
<td></td>
</tr>
</tbody>
</table>
```

Activate the scaler by withdrawing from the holder. The setup menu will appear on the display.

- **Prog 0** - number of set parameters (0 – 9).
  Maximum 10 customized settings can be saved in the memory.
  To choose the setting press **Prog** key along with - < / > + keys. Select a number (0-9) you wish to assign for that setting and then adjust the desired parameters for the setting. To save the settings into the unit's internal memory: press OK to confirm the changes and then press key to save the settings.
  Keep in mind, that while a handpiece is withdrawn any change of setup parameter will be saved automatically (even if the key has not been pressed). Settings will remain until you change them in the handpiece program (Prog 0 – 9) even after a system reboot. Press **Prog** if you want to return to standard settings. If you want to save the setting permanently for the corresponding program, then adjust desired settings and press key.

- **P = 100 % max** – scaler output
  Use 100 % key along with - < / >+ keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.
30% / 100% - use this key to toggle between output settings

**Working mode SP 4055:**
- scaler – normal mode
- endo - endo mode
- paro – paro mode

To confirm and save the working mode: press the desired mode key, then press OK to confirm the changes and key to save the settings.

- **Water = 60 % - water coolant amount**
  Use 60 % key along with - < / > + keys to adjust to the desired value. To save the adjusted value: press OK to confirm the changes and then press key to save the settings.

- **Coolant** – water coolant is active, pressing key for a second time will disable the cooling.

- **Cooling OFF** – cooling is off.

- **Foot controller analog mode**
  This symbol indicates that the foot controller is working in the Analog (Continuous) mode, i.e. the value is directly dependant on the pressure exerted on the pedal. Press this key to switch to another mode:

- **Foot controller discrete mode**
  This symbol indicates ON/OFF modes, i.e. parameter value is independent from the pressure exerted on the pedal and is set to max. preset value as the pedal is activated and remains at a preset value at any pedal position. Press this key again to return to the Analog working mode.

- **OK**
  Ending parameter edit

When adjusting parameter's value, keep in mind, that if the corresponding key has not been pressed for more than 4 seconds, the displayed value will be saved as a setting and the key will become inactive. Press the key again for reactivation. Use - < / > + keys to adjust the output value in a range of 0-100% when the scaler is withdrawn and idle (the foot controller lever/pedal has to be in its max. position). If the handpiece is in use, the output value can also be adjusted from 0 to maximum preset value by pressing the lever/pedal of the foot controller in the Analog mode.
Cauter

Display for Cauter

Activate the Cauter by withdrawing from the holder. The setup menu will appear on the display.

- **P = 100% max** – maximum cauter output
  
  Use 100% key along with - < / > + keys to adjust to the desired value. Press OK to confirm and save.

**Foot controller in the analog mode**

This symbol indicates that the foot controller is working in the Analog (Continuous) mode, i.e. the value is directly dependant on the pressure exerted on the pedal. Press this key to switch to another mode:

**Foot controller in the discrete mode**

This symbol indicates ON/OFF modes, i.e. parameter value is independent from the pressure exerted on the pedal and is set to max. preset value as the pedal is activated and remains at a preset value at any pedal position. Press this key again to return to the Analog working mode.

When adjusting parameter's value, keep in mind, that if the corresponding key has not been pressed for more than 4 seconds, the displayed value will be saved as a setting and the key will become inactive. Press the key again for reactivation.

Withdraw the cauter from the holder and move the lever of the foot controller to the right/press the pedal of the multi-functional foot controller for activation.

Use - < / > + keys to adjust the output value in a range of 0-100% when the cauter is withdrawn and idle (the foot controller lever/pedal has to be in its max. position). If the handpiece is in use, the output value can also be adjusted from 0 to max. preset value by pressing the lever/pedal of the foot controller in the Analog mode.
The setup menu will appear on the display after the polisher is taken from the holder. Symbols on the menu depend upon the polisher model.

- **Water = 60 % - water amount**
  Use 60 % key along with -< / >+ keys to adjust to the desired value. Press OK to confirm and save.
  If the polisher has the function of water amount control, it is anyway recommended to control the water flow from one position: either to adjust a water amount on 100% (Water=100%) and control it with the regulator that is on the polisher, or adjust the polisher regulator to its maximum position and control the water amount supplied to the unit.

**Polisher output**
Press the corresponding symbol to adjust polisher output to the desired value.

**Instrument blow-off**
Use this key to blow off all the dust and clean the polisher. Cycle duration can be adjusted in the Setup menu (0-30 sec). Recommended blow-off cycle duration is 8 sec. It is recommended you run this function every time you stop working with polisher.

It is advised to place the polisher’s tip inside the aspirator’s nozzle to prevent powder from spewing out.

**Instrument rinse**
Use this key to rinse the polisher with water. Overall cycle duration is 80 sec: 60 sec.—rinse, 20 sec.—water blowout. It is strongly recommended to run this function after each patient.

Adjust water regulator to its maximum position and place the polisher’s tip in the spittoon bowl before activating this function.

When adjusting parameter’s value, keep in mind, that if the corresponding key has not been pressed for more than 4 seconds, the displayed value will be saved as a setting and the key will become inactive. Press the key again for reactivation.

You can use either *Chipblower* function or *Blow-off* key (depending on the model) for cleaning the polisher. For more detailed information on polisher maintenance please read the corresponding manuals.
Polymerizing lamp

After withdrawal from the holder the polymerizing lamp is active and the corresponding icon is displayed. The lamp does not have adjustment options and has control button on its handle. Before using polymerizing lamp reference the manual that came with it.

8.2 Foot controller

Use the lever/ pedal to activate the instruments and adjust micromotor’s RPM (from the minimum to the maximum preset limit) and scaler’s output (from the minimum to the maximum preset limit). Only if “Analog mode” is active.

Press the pedal all way down to enable adjustment for the handpiece in use.

Press the pedal/lever shortly to turn on the main light, or to toggle between light intensity modes. Press and hold the pedal/lever for more than 2 sec. to turn off the main light. Only when all handpieces are in the holder.
Use ENTRY-EXIT POSITION, CHAIR PROGRAMMING and JOYSTICK buttons to control the dental chair.

Note, that this function is disabled if any handpiece controlled with a foot controller is active. The chair control is blocked if a handpiece is in use.

Chair programming/mouth wash button has two functions:
If the handpieces are in the holders - Chair programming function is enabled.

The chair programming mode is identical to keyboard programming, i.e. enter the corresponding command combination. **Note, that the mouth wash position can be programmed with a keyboard only!!!**

If any handpiece is withdrawn - Mouth wash position/Back to the working position function is enabled. (Press the button to adjust the chair into the mouth wash position, press the button for the second time to adjust the chair back into working position). Operation rules are the same as for the keyboard. The button is inactive when the handpiece is in use!

Right (R) and Left (L) bottom side buttons have two functions:
As handpieces are in the holders - "Chair base down" for the left-side button and "Chair base up" for the right-side button functions are enabled.
As any handpiece is withdrawn - corresponding programmed function (Setup menu).
Never place foot controller on the wet floor! Especially after cleaning the floor surface (PVC) with cleaning agent!

**UNO wireless foot controller**

Function and maintenance are similar to the wired foot controllers. The only difference between wireless and wired controllers is in data transmission between the controller and the dental unit. When wired controllers transfer the data via the cable, wireless controller transfers data using radio frequencies.

In order to avoid the accumulator discharge during the transport and stock-keeping the foot controller will be delivered with the disconnected accumulator. The accumulator has to be connected to the control electronics before the first using the foot controller.
Process is the service manual for the DC350-DL320 in Sec. R.

**Connecting the wireless foot controller to the dental unit.**

**Transmitter:**
The foot controller works on two NiMH 1,2V / 1800-2400 mAh batteries. The estimated battery life is two months with average use. The flashing red LED on the transmitter indicates that the batteries are close to the end of their life and need to be recharged. You can also check the symbol on the display to find out the current battery
status. The foot control can still be operated for a couple of hours after the first warning. However, batteries should be charged as soon as possible. Connect the foot controller to the dental unit using the cable to recharge the batteries.

**Synchronizing the foot controller with the unit while charging:**

1. To charge the battery, connect the foot controller to the unit using the cable. The RF-foot controller can be operated even while charging. Once the foot controller is connected to the unit, it will take about 3 hours to charge it to 100%. As the charge level reaches 100% the charging stops automatically.

![Diagram 1](image1.png)

2. Charge the foot controller using the power adapter: plug the adapter into the corresponding socket on the footswitch. Plug the power adapter into a working electrical outlet.

![Diagram 2](image2.png)

You need to turn off the dental unit before connecting the cable for safety reasons. The RF-foot controller can be operated even while charging. Once the foot controller is connected to the unit, it will take about 3 hours to charge it to 100%. As the charge level reaches 100% the charging stops automatically.

You can also use a power adapter to charge the batteries. Plug the adapter into the corresponding socket on the footswitch. Foot controller is fully functional while charging.

**To avoid possible short-circuits and possible damages to the equipment remember to plug the connector to the controller first and only then plug the power adaptor into electrical outlet.**

After the batteries are fully charged disconnect the adaptor from the outlet and then unplug the connector from the controller.

In order to assure a failure free operation of the foot controller the adapter should be **connected and disconnected when the dental unit is switched - out.**

It takes about 3 hours to charge the batteries to 100% also when using adapter. This method is very convenient as it does not require any surveillance.
So the controller can be left charging, for example, overnight to replenish the battery charge. Foot controller has a self-control function that runs every time the battery is turned on. If there is any defect in the transmitting element, then the transmitter is not sending data (the green LED is not blinking when pressing buttons on the foot controller). In such case, foot controller can still be operated via the cable.

**Receiver:**

The receiver has two-color LED indication:
- The green LED-diode lights – the receiver is activated and the transmitter is allocated to it.
- The green LED-diode flashes – receiving of a new command signal after changes on the foot controller.
- The red LED - diode lights – the receiver was not allocated/matched to any transmitter
- The red LED - diode flashes periodically – Indication of the charging necessity of the foot controller.

The Orange LED light means that red and green LEDs are illuminated simultaneously.

If the signal is lost or receiver does not receive a confirming signal from a transmitter for a period of 2 seconds the receiver will automatically send a signal identical to *Pedal is in the „zero position“*. This will result in active handpiece deactivation.

**Every transmitter is equipped by a unique and non-recurring address, that will be set by the producer.** The transmitter is matched with the receiver in the production. If the transmitter was not matched with the receiver (the red LED-diode on the receiver is lighting) or after an exchange of the foot controller eventually the receiver it is necessary to match the foot controller with the receiver at first. (The set up should be carried out by the service operator according to the appropriate Service instructions).

**Technical data:**
- Operating frequency: 865,4MHz
- Emitted power: -2dBm
- Number of channels: 10
- Battery charge time: 3 hrs. approx.
- Battery life: 2 months min.
- Coverage range: 2 meters min. (Depending on the obstacles between the transmitter and receiver)

**8.3 Spittoon block**

**Spittoon block configuration**

Distilled water bottle
The distilled water bottle is located inside the cuspidor block and can be accessed after the side door of the spittoon block was opened. Distilled water from the bottle supplies the micromotor, turbine, ultrasonic scaler, syringe and polisher on the dentist's panel and syringe on the assistant's panel.

How to refill distilled water bottle:

- turn off the main switch - position „0“
- open the door on the spittoon block
- screw the water bottle loose
- refill the bottle with distilled water
- screw the bottle. Avoid air leakage during the work
- turn on the main switch, position „I“
- check the bottle for air leakage
- close the door on the spittoon block

In case of air penetration to the water system caused by low water level in the bottle, it is recommended to de-aerate water paths of the instruments. It can be done by letting the water flow through the water paths until there are no traces of air bubbles observed in the water.

Caution
Use caution when refilling the bottle. Do not allow any substances to penetrate the water. Not doing so may cause changes in water quality or in its composition. Only distilled water for medical purposes must be used! Never use water for industrial purposes!

The manufacturer recommends changing the water bottle once a year.

Central water distribution system
It is unnecessary to refill distilled water bottle if you use water from a central distribution system for cooling. Make sure the three-position switch is in the position "CENTRAL". Three-position switch is located inside the spittoon block. Position "Central" is designated by faucet symbol.
8.3.1 Assistant’s Instrumentation

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
<th>Key</th>
<th>Description</th>
<th>Key</th>
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</thead>
<tbody>
<tr>
<td><img src="image" alt="Hygiene" /></td>
<td>Hygiene (if installed)</td>
<td><img src="image" alt="Main light control" /></td>
<td>Main light control</td>
<td><img src="image" alt="Remote Door opener" /></td>
<td>Remote Door opener</td>
</tr>
<tr>
<td><img src="image" alt="Spittoon bowl swivel" /></td>
<td>Spittoon bowl swivel (if installed)</td>
<td><img src="image" alt="Handpiece disinfection" /></td>
<td>Handpiece disinfection (if Hygiene system is installed)</td>
<td><img src="image" alt="Suction decontamination" /></td>
<td>Suction decontamination (If Hygiene system is installed)</td>
</tr>
<tr>
<td><img src="image" alt="Saving settings/quick key for programmed positions" /></td>
<td>Saving settings/quick key for programmed positions</td>
<td><img src="image" alt="Spittoon bowl rinse" /></td>
<td>Spittoon bowl rinse</td>
<td><img src="image" alt="Cup fill" /></td>
<td>Cup fill</td>
</tr>
<tr>
<td><img src="image" alt="Backrest backward" /></td>
<td>Backrest backward</td>
<td><img src="image" alt="Chair Base up" /></td>
<td>Chair Base up</td>
<td><img src="image" alt="Automatic entry-exit chair position" /></td>
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</tr>
<tr>
<td><img src="image" alt="Backrest forward" /></td>
<td>Backrest forward</td>
<td><img src="image" alt="Chair Base down" /></td>
<td>Chair Base down</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Buttons identical to those on dentist's control panel have identical functions. The panel can be supplied with right-side or left-side handle.

**Note**

It is not possible to control the chair adjustments into/from the mouth wash position and „swing“ chair motion from membrane keyboard.
8.3.2 Assistant’s panel with Touch Screen

Auxiliary holder/module

With a handle on the other side.

Assistant’s panel with Touch Screen

Auxiliary extension modules (for syringe, polymerizing lamp or intraoral camera) can be mounted on assistant's panel upon request.

DA 370

Hygiene

12:56

03:00

02:00

25°C
Symbol Description

Main light control
Use this button to control the main light and toggle between 3 modes: low intensity, high intensity and off modes; you need to hold the button for some time until the light turns off (see 8.1.1).

Auxiliary button (e.g. door opener)
Can be used, e.g., to notify the patients in the waiting room or for remote door opening, etc. Factory preset: inactive.

Bowl swivel – Press and hold the button for short time to adjust the bowl into the preset position or into initial position. This function is inactive if the motor is not fitted. Press and hold the button for some time to move the bowl and to adjust rotation angle. This function is inactive if the motor is not fitted.

Cup fill with temperature indicator
Press and hold the button to set the cup fill cycle duration. Press button fast (0.1-1s) to start the cup fill cycle for the preset duration. Press this key fast to terminate the cup filling cycle without changing preset cycle duration. Press the button subsequently to continue the filling cycle. To change the duration setting hold the button for more than 1.5 sec. Cup filling settings are saved in the memory even after the unit is turned off. Maximum programmed cup filling time is 55sec.

Bowl Rinse
Settings and functions are identical to the "Cup Fill" button. Maximum programmed bowl rinse time is 55sec.

Alarm
Press the button to start countdown; when it reaches zero the alarm will beep once. Setting the alarm time: press 02 : 00 icon, after it is highlighted use the keys + / - to adjust to desired value. Adjustment range: from 30sec, 1min, 2min, 4min ... to 16min. Press OK to confirm.

Reminder
Use this button to set a reminder. How to set time for reminder: highlight 03 : xx (hours), then using the keys + / - choose the desired hour, press OK to confirm. Then highlight xx : 00 (minutes), then using the keys + / - set the desired time and press OK to confirm.

Chair positioning
- Chair base up
- Chair base down
- Toeboard up
- Entry/exit position
- Back rest forward
- Back rest backward
- Toeboard down
- Mouth wash position

CHAIR PROGRAMMING INSTRUCTIONS:
Follow the same instructions given for programming the chair from the dentist's control panel. All operations are identical.
Water supply for handpieces. Status icons.

- distilled water in use: bottle is not empty
- distilled water in use: empty bottle
- water from central distribution is in use
- bottle is depressurized (the unit is not connected to any water source)

8.3.3 Assistant’s instrumentation

Saliva ejector
Lift a saliva ejector from a holder for activation. If the output is insufficient, check and clean the sieve. Withdraw a handpiece, remove the tip, take out and clean the internal sieve and assemble back together. Clean the ejector’s sieve at least once a day to avoid contamination.
Return the saliva ejector to the holder to finish the procedure.

Large and small aspirators
Large and small aspirators are activated automatically after lifted from a holder. Return the aspirator to the holder to turn it off. To control the suction, slide the regulating flap on the aspirator up or down (in the lowest position suction is shut down). Clean the sieve at the connection point (aspirators' tubings inlet to the spittoon block) at least once a day. See chapter 10.2 for details.

METASYS amalgam separator and its signal panel
(Only if the METASYS amalgam separator is installed)
The separator is fitted inside the spittoon block
1. solid green control light – device is ready
2. blinking orange control light indicates separator’s breakdown
3. yellow control light and continuous beeping – critical filling: 95% full.
Press the ‘restart’ button to shut down the alert.
When the container is 100% filled alert cannot be turned off and the work cannot be continued.

Polymerizing lamp
Lift a polymerizing lamp from a holder for activation. Please, consult accompanying instructions before using the lamp.

Intraoral camera
The camera serves to provide better visualization during the dental treatment and by no means to establish final diagnosis.

Constituent parts:
- holder
- connector
INSTRUCTIONS FOR USE

- camera

Intraoral camera DP7 controlled from the foot controller

After the camera has been taken out of the holder, the foot controller is switched automatically to the mode for camera control with the following meaning of the controls:
- Cross controller upwards = Image capture button on the camera
- Cross controller downwards = L/M (Life/Memory) button on the camera
- Cross controller to the right = MODE button on the camera
- Cross controller to the left = ROTATE button on the camera
- Memory button = CMC (Clear memory captured) button on the camera

Detailed description of the meaning of the buttons for controlling the camera, see the accompanying documentation to the camera from the manufacturer.

Caution
The product must be protected against water. Keep it dry!

8.4 Filling indication

The “empty bottle” icon on the both doctor's and assistant's control panels (if equipped with touch screen) and sound signal indicate that amount of water in the bottle is insufficient and it needs to be refilled. Bottle refill symbols for the doctor's display are the following:

- distilled water bottle is empty
- bottle for cleaning solution is empty (if hygiene system installed)
- bottle for disinfecting solution is empty (if hygiene system installed)
The symbol displayed instead of the “Cooling” key and the sound signal indicate the insufficient water amount in the water bottle (when a handpiece is withdrawn).

8.5 Dental light
Basic unit equipment includes XENOS dental light. Xenos dental light is controlled from a control panel. Please, consult accompanying instructions before using the dental light.

8.6 CART (only DA 380 – CART version)
The cart with the control panel is connected to the power block by means of a supply harness in a protective hose. The hose protects the harness against mechanical strain, dust, humidity, against abrasion and at the same time it forms a supplementary insulation. The outer sheath of the hose is made of soft PVC. The protective hose contains a built-in inner coil made of hard PVC, which makes it non-yielding in the event an adult person treads upon it. However, the manufacturer recommends not to stand on the hose or to place any objects on it. The protective hose must not be bended to a radius less than 70 mm. To clean the hose, see the instruction in the chapter “Cleaning, disinfection and decontamination of other parts of the dental unit”.

Button to control the lift blocking (CART)

In the CART version, the working height of the control panel can be changed within the range of 200 mm. Grip the control panel (preferably while standing behind it) from the sides with both hands, while pressing (and holding) with a finger the button located on the bottom side of the panel, thus unblocking the mechanism of height adjustment. Re-position the panel gripped in the described way to the desired working height. Block the panel in the desired height by releasing the mechanism button. ATTENTION – do not lean on the side tray at the top of the table!

In the CART version, the foot controller can be connected to the socket on the dental chair or on the cart.
For the foot controller to function correctly during charging by means of the interconnecting cable, it is necessary to disconnect (by unplugging from the connector) the receiver from the dental unit.

When moving the cart, ensure that the connection cable of the foot controller or any other object does not get in touch with the castors of the cart.

If the foot controller is connected to the socket on the cart, the manufacturer recommends when moving the cart to disconnect the foot controller or to place it with sufficiently folded cable in the lower part of the cart (see the illustration).

If the wireless foot controller receiver is connected to the socket on the cart, care should be taken not to damage it by operating personnel, objects or while handling the cart.
8.7 Hygiene
"Hygiene" designates the complex disinfection and decontamination the internal handpiece tubings the dental unit of working tubings and connections. Hygiene system is not a part of the basic configuration of the unit and is available upon request only. When the unit is not equipped with a hygiene system, the corresponding icons on the assistant's screen are crossed out. For more detailed information, please, refer to the "Diplomat ADEPT DA 370/DA 380 Hygiene System".

8.8 Headrest manual adjustment
Manually-adjustable anatomically-designed headrest allows the fixation of the patient's head in the desired convenient position for the treatment. To adjust to the desired high pull the headrest up or push it down until it is in the desired position. To adjust its angle release the adjustment lever (located on the back of the headrest). Use the lever again to fix the position when the desired angle is reached.

Caution
As you have finished your work it is recommended to loosen the clamp, located at the back of the headrest.

8.9 Rightside armrest manual adjustment
Rightside armrests for additional patient's comfort are available upon request. Armrest has two adjustments:
-tilting forward (move no.1)
-tilting down (move no.2)

To tilt the armrest forward (move no.1)
- Grasp the armrest and rotate it toward the toe from position no.1 to position no.4
- To bring the armrest back into standard position lower it from the position no.4 into position no.3 and lift it up until you hear “click” sound, confirming that the armrest is locked in place.

To tilt the armrest down (move no.2)

- Grasp the armrest and lift it from position no.1 into position no.2, then it can be lowered into the position no.3
- To bring the armrest back lift it up from the position no.3 until you hear “click” sound, confirming that the armrest is locked in place.

8.10 Before leaving your workplace

It is important to do the following:

- toggle the main switch to position „0“, to shut down water and air connections and to depressurize the whole system
- shut off the main water supply at the workplace
- turn off the compressor – open the sludge valve
- turn off the aspirator (depending upon the model)
9. PRODUCT MAINTENANCE

For appropriate handpieces and instruments maintenance, please, reference the manufacturer's instructions that came with them. If the cuspidor block is connected to the central distribution system, check the cleanliness of the strainer and the water hardness treatment system condition (please, follow the manufacturer's guidelines).

Inspections within the warranty period

It is required to have the dental unit checked by authorized service technician every 3 months within the warranty period.

The inspection focuses on the following:

- check the chair's backrest tilting mechanism
- check and/or adjust chair's safety components
- check the input filters (with regard to the cleanliness of utilities)
- check the suction system
- check the waste hose
- providing additional information and practical advices concerning the dental unit
- check if the dental unit and the instruments are used and maintained properly (according to the Instructions for Use)
- the manufacturer estimates the duration of a service check to be approx. from 1 up to 1,5 hours
- check and/or adjust all utilities (input, setting of turbine pressures etc.)
- authorized service technician is obliged to confirm the periodical inspection in the warranty card.

Inspection and revision upon the expiration of the warranty period:

It is required to have the dental unit checked by authorized service technician every 6 months.
The following should be done:

- complex inspection of the dental unit and its functional parts
- check the chair's backrest tilting mechanism
- check and/or adjust chair's safety components
- check and adjustment of the water and air working pressure
- check the input air filter in the spittoon block
- check of the integrity of the electronics and wiring (electrical safety)

Electrical safety control

Is performed according to prevailing local codes of the country where the unit is installed.
10. CLEANING, DISINFECTION AND DECONTAMINATION

10.1 Disinfecting the internal handpiece tubings

It is recommended to use Alpron cleaning agent. A 1% Alpron solution with distilled water is poured into reservoir for distilled water and can be used continuously. The 1% concentration is harmless to the patient. The continuous use of Alpron solution helps to keep the cooling system clean and it is not necessary to use other disinfecting agents. Alpron cleaning agent is produced by Alpron (Germany). For additional information and purchase details, please, contact your dealer.

It is required to do the following if you use water from central distribution for instrument cooling:

1. Fill the distilled water container with an Alpron solution at a 1% concentration with distilled water
2. Toggle the 3-position switch to the position designated by "bottle" symbol
3. Rinse the desired handpiece tubings for 30sec, other handpieces connected to water cooling are rinsed for 10sec
4. Toggle the 3-position switch to the position designated by „CENTRAL“ symbol

Perform this procedure at least once a day, preferably at the end of the shift.

10.2 Cleaning and deconaminating aspiration and waste system

Staff should check the rough filters of the large and small aspirators and saliva ejector and clean the filters if needed to avoid contamination. Rinse aspirators' and saliva ejector's tubings with min. 1dcl of water between each patient.
Detail A) Large and small aspirators’ sieve location

1 – large aspirator’s sieve
2 – small aspirator’s sieve

Saliva ejector’s sieve location

Clean the following parts at least once a day (depending upon model):
- aspirators' filter located inside the spittoon block
- saliva ejector sieve
- spittoon bowl sieve
- amalgam catcher inlet filter
- spittoon bowl sieve

Aspirators' sieve location inside the spittoon block
If the unit is equipped with suction system, use the cleaning agent recommended for the particular separator type. For Cattani separators it is recommended to use PULI - JET PLUS cleaning agent. If the dental unit is configured with Metasys amalgam separator use GREEN & CLEAN M2 cleaning agent. For DÜRR CAS 1 amalgam separator use OROTOL PLUS cleaning agent.

**Puli – Jet PLUS cleaning agent. Instructions for use.**

Separator’s manufacturer recommends disinfecting the suction system at the end of each working day and cleaning the system at least once in the middle of the day. How to fill the dozer: place the bottle in the vertical position, preferable on a flat surface. Unscrew the lid and fill the dozer to the edge by squeezing the bottle gently at the points marked with two labels (try not to overfill it). Release the pressure: excessive amount of the liquid returns back to the bottle while the exact amount (10ml) of the concentrate will remain in the dozer. PULI – JET PLUS at 0.8% concentration: cleans and disinfects, at 0.4% can be used only as a sanitizing cleaning agent. For cleaning and disinfection dilute two doses of the dozer (20ml) in 2,5l of warm water (50°C) and suck this solution through the aspirators and 1l through small aspirator and pour the rest 0.5l into the bowl. For the regular system cleaning dilute one dose of the dozer (10ml). Do not rinse. PULI – JET PLUS leaves a residue on the inside of the pipes to prevent the accumulation of bacterial growth.

**Cattani disinfecting anti-foaming tablets for dental aspirators. Instructions for Use**

Even if the unit is regularly and properly cleaned, blood and mucus under negative pressure create a great amount of foam anyway. This may result in frequent undesired abruption of suction. Simply place the tablet (do not remove the protective dissolvable film, that ensures safe keeping and handling, even though the product is not classified as dangerous) in the filter of the tip and suck in the small amount of water through it for immediate antifoaming effect. When placing the tablet in very small slots, protective film should be removed (wear suitable gloves) and the pill broken in two parts (press along the marked line) to allow insertion of the two halves into the filter system. As the liquid passes through the tablet will release disinfecting and anti-foaming agents for the whole working day.

10.3 **Instruments and handpieces**

Before cleaning a handpiece, please, reference manufacturer’s "Care and maintenance instructions" that came with it for the accurate information.

10.4 **Cleaning and disinfecting and other parts of the unit**

Clean the external surfaces of the unit with a wet cloth. Ensure that cleaning products do not penetrate inside the chair and its mechanism. Damp surfaces should always be dried with a cloth. Use the Incidin Foam – spray (HENKEL – ECOLAB) cleaning agent (refer the instructions for use) at least once a day or when the equipment surface has been contaminated with biological material.

**Caution**

Never place foot controller on the wet floor! Especially when cleaning the floor surface (PVC) with cleaning agent! Do not use phenol- and aldehyde-based cleaning agents; they can permanently damage the structure of varnish and plastic surfaces. Never use abrasive cleansers, polishers or other detergents containing acetone, trichloro, perchloro or alcohol (over 10%) because they can permanently scratch or otherwise damage the upholstery.
The manufacturer will take no responsibility for the damage resulted from using inappropriate cleaning agents.

### 11. EQUIPMENT DISPOSAL

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</table>

**Important Note**

Equipment has to be disposed according to the regulations specific to your local area. Clean the surface, rinse the suction and waste systems, remove the amalgam from the trap and pass it on to a scrap material collecting facility. It is recommended to hire a specialist for disposing the unit.

**Caution**

Not to be disposed of with the communal waste! Waste material can be handed in at destined places, e.g. electro waste drop-off!

### 12. REPAIR SERVICE

In case of a breakdown, contact the nearest service centre or your dealer, who will provide you with information about the service network.

### 13. CONTENTS OF THE PACKAGE

#### Standard Configuration

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<tbody>
<tr>
<td>Dental chair</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pantograph* of the control panel with the control panel (*except a CART version)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CART (only DA 380 CART version)</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Spittoon block</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
## INSTRUCTIONS FOR USE

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spittoon bowl</td>
<td>1</td>
</tr>
<tr>
<td>Dental light console</td>
<td>1</td>
</tr>
<tr>
<td>Dental light</td>
<td>1</td>
</tr>
<tr>
<td>Foot controller</td>
<td>1</td>
</tr>
<tr>
<td>Tray table</td>
<td>1</td>
</tr>
<tr>
<td>Rightside armrest (upon request)</td>
<td></td>
</tr>
<tr>
<td>Side table (upon request)</td>
<td>1</td>
</tr>
<tr>
<td>Monitor holder (upon request)</td>
<td>1</td>
</tr>
<tr>
<td>Monitor (upon request)</td>
<td>1</td>
</tr>
<tr>
<td>Intraoral camera (upon request)</td>
<td>1</td>
</tr>
<tr>
<td>Bottom holder/handle for dental light</td>
<td>1</td>
</tr>
<tr>
<td>Instruments/handpieces, accessories, small parts and completion sheet, sealed in cardboard</td>
<td>1</td>
</tr>
</tbody>
</table>

**Accompanying documentation:**
- Instructions for Use
- Warranty Card
- Subcontractors’ manuals
- Completion sheet (sealed together with instruments)

### 14. WARRANTY

The manufacturer covers the warranty in accordance with the warranty card. The responsibility for any damage is shifted to the buyer after the item has been passed over to the forwarding agent for expedition and/or after the item is has been received directly by the buyer.

The information in this Instructions for Use is subject to change subsequently to the further product innovations without notice.

**Caution**

The warranty does not cover the damage resulting from misuse or/and failure to maintain the product in accordance with instructions for use that came with it.
ASSEMBLY PLANS

M8x8 DIN913
M8x12 DIN915
M8x16 DIN7991

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