

Instructions for use
EXPERTmatic contra-angle E61 C - REF
1.008.4999



KaVo. Dental Excellence.

Distributed by:

KaVo Dental GmbH
Bismarckring 39
D-88400 Biberach
Phone +49 7351 56-0
Fax +49 7351 56-1488

Manufacturer:

Kaltenbach & Voigt GmbH
Bismarckring 39
D-88400 Biberach
www.kavo.com



Table of contents

1	User instructions	4
2	Safety	6
2.1	Description of safety instructions	6
2.2	Safety instructions	8
3	Product description	12
3.1	Purpose – Intended use	13
3.2	Technical data	15
3.3	Transportation and storage conditions	17
4	First use	19
5	Operation	20
5.1	Attach the medical device	20
5.2	Remove the medical device	22

5.3	Inserting the file	22
5.4	Removing the file	26
5.5	Application	28
6	Preparation methods according to ISO 17664	30
6.1	Preparations at the site of use	30
6.2	Cleaning	31
6.2.1	Cleaning: Manual cleaning - external	31
6.2.2	Cleaning: Automated external cleaning	32
6.2.3	Cleaning: Manual cleaning - internal	33
6.2.4	Cleaning: Automated internal cleaning	35
6.3	Disinfection	36
6.3.1	Disinfection: Manual disinfection - external	37
6.3.2	Disinfection: Manual disinfection - internal	38
6.3.3	Disinfection: Machine disinfection - external and internal	39

6.4	Drying	40
6.5	Care products and systems - Servicing	41
6.5.1	Care products and systems - Servicing: Care with KaVo Spray	42
6.5.2	Care products and systems - Servicing: Care with the KaVo SPRAYrotor	42
6.5.3	Care products and systems - Servicing: Care with KaVo QUATTROcare	43
6.6	Packaging	45
6.7	Sterilisation	46
6.8	Storage	48
7	Tools	50
8	Warranty terms and conditions	52



1 User instructions





Dear User

Congratulations on purchasing this KaVo quality product. By following the instructions below you will be able to work smoothly, economically and safely.

© Copyright by KaVo Dental GmbH

Symbols

	Refer to the Chapter on Safety/Warning symbol
	Important information for users and service technicians

	Action request
	CE mark (European Community). A product bearing this mark meets the requirements of the applicable EC directive.
	Can be steam-sterilised at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F)
	Thermodisinfected

Target group

This document is intended for dentists and their assistants. The section on starting up is also intended for service technicians.

2 Safety

2.1 Description of safety instructions



Warning symbol

Structure



DANGER

The introduction describes the type and source of the hazard.
This section describes the potential consequences of non-observance.

- The optional step includes necessary measures for hazard prevention.

Description of hazard levels

The safety instructions listed here, together with the three levels of danger will help avert property damage and injury.



CAUTION

CAUTION

indicates a hazardous situation that can cause damage to property or mild to moderate injuries.



WARNING

WARNING

indicates a hazardous situation that can cause death or serious injury.

**⚠ DANGER****DANGER**

indicates a hazardous situation that can directly cause death or serious injury.

2.2 Safety instructions

**⚠ WARNING****Hazard to the care provider and patient.**

In case of damage, irregular noise during operation, excessive vibration, atypical heating or when the file cannot be firmly held.

- Stop working and contact service support.

**⚠ CAUTION**

Burning hazard from hot instrument head and instruments cover.
If the instrument overheats, burns may arise in the oral area.

- ▶ Never contact soft tissue with the instrument head.

**⚠ CAUTION**

Premature wear and malfunctioning from improper storage during long periods of nonuse.
Reduced product life.

- ▶ The medical device should be cleaned, serviced and stored in a dry location, according to instructions, before long periods of nonuse.

**Note**

Before each treatment, insert a dental dam for safety reasons.

The following individuals are authorized to repair and service KaVo products:

- Technicians at KaVo branches throughout the world
- Technicians specially trained by KaVo

To ensure proper function, the medical device must be set up according to the reprocessing methods described in the KaVo Instructions for Use, and the care products and care systems described therein must be used. KaVo recommends specifying a service interval at the dental office for a licensed shop to clean, service and check the functioning of the medical device. This service interval depends on the frequency of use and should be adjusted accordingly.

Service may only be carried out by KaVo-trained repair shops using original KaVo replacement parts.

3 Product description



EXPERTmatic contra angle E61 C (**Mat. no. 1.008.4999**)

3.1 Purpose – Intended use

Purpose:

This medical device is

- intended for dental treatment only. Any other type of use or alteration to the product is impermissible and can be hazardous. Depending on the files employed, the medical device can be used for the finishing of box preparations, for bevelling in composite fillings and inlays / onlays, for edge finishing in crowns as well as for the removal of rough, proximal filling surfaces and edges of crowns.
- A medical device according to relevant national statutory regulations.

Proper use:

According to these regulations, this medical device may only be used for the described application by a knowledgeable user. The following must be observed:

- the applicable health and safety regulations
- the applicable accident prevention regulations
- these instructions for use

According to these regulations, it is the responsibility of the user to:

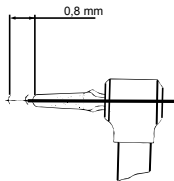
- only use equipment that is operating correctly,
- use the equipment for the proper purpose,
- protect him or herself, the patient and third parties from danger, and
- avoid contamination from the product.

3.2 Technical data

Drive speed	max. 40,000 rpm
Axial stroke movement	0.8 mm
Identification	1 yellow ring
Transmission ratio	2.7 : 1

36 latched positions.

Shock absorption due to spring.



A rotational movement inside the handpiece is converted to a damped axial stroke movement.

The contra-angle handpiece can be mounted on all INTRAmatic (LUX) motors, and motors with a connection in accordance with ISO 3964 / DIN 13940.

3.3 Transportation and storage conditions



⚠ CAUTION

It is hazardous to start up the medical device after it has been stored strongly refrigerated.

This can cause the medical device to malfunction.



- Prior to start-up, very cold products must be heated to a temperature of 20°C to 25°C (68°F to 77°F).



Temperature: -20°C to +70°C (-4°F to +158°F)



Relative humidity: 5% RH to 95% RH absence of condensation

	Air pressure: 700 hPa to 1060 hPa (10 psi to 15 psi)
	Protect from moisture

4 First use



WARNING

Hazard from nonsterile products.

Infection danger to the care provider and patient.

- ▶ Before first use and after each use, prepare and sterilise the medical device if needed.

5 Operation

5.1 Attach the medical device



WARNING

Release of the medical device during treatment.

A medical device that is not properly locked in place can release from the motor coupling and fall off.

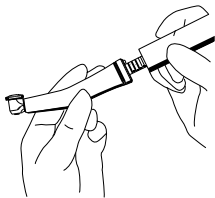
- ▶ Carefully pull on it before each treatment to ensure that the medical device is securely locked on the motor coupling.

**⚠ CAUTION**

Removing and attaching the contra-angle handpiece while the drive motor is rotating.

Damage to the drive.

- ▶ Never attach or remove the contra-angle handpiece while the drive motor is rotating!



- ▶ Place the medical device on the (LUX) motor coupling and lock it into place.

- ▶ Before each treatment, pull on the medical device to check that it is securely seated in the motor coupling.

5.2 Remove the medical device

- ▶ Unlock the medical device from the (LUX) motor coupling by twisting it slightly and then pulling it along its axis.

5.3 Inserting the file



Note

Manufacturer of files: Intensiv

**⚠ WARNING****Use of non-approved files.**

Injury to the patient or damage to the medical device.

- ▶ Only use files that do not deviate from the specified data.

**⚠ CAUTION****Danger of injury from files**

Infections or cuts.

- ▶ Wear gloves or finger stalls.

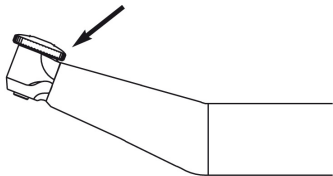


- Push the file into the segment in the retaining bore in the head and press it against the stop.

**⚠ CAUTION****Hazard to patients**

A loosened file can lead to injury.

- Check that the file is firmly attached to the head by pulling on it.



- ▶ Turn the knurled wheel to position the file. 36 individual locking positions can be selected.

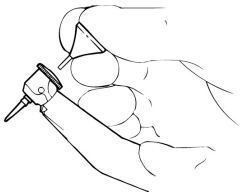
5.4 Removing the file



WARNING

Danger from axial movement of file.
Lacerations.

- ▶ Do not touch file when moving in axial direction!
- ▶ Never eject file while in mouth.
- ▶ Remove the file from the medical device after treatment to avoid injury and infection during storage.



- ▶ When the file has stopped moving, push file out of the head with ejector and remove it.

5.5 Application

The **EXPERTmatic contra angle E61 C** with fixing head can be used with different files from Intensiv in the following areas:

- Finishing box preparations with the Cavishape® file.
- Bevelling edges in composite fillings and inlays / onlays and in edge finishing for crown preparations with the Bevelshape® file.
- The removal of proximal fillings surfaces and crown edges with the Proxoshape® file.
- Removal of supragingival and subgingival plaque as well as root planing with the Rootshape® file

You can obtain further information under www.intensiv.ch

**⚠ CAUTION**

Overheating of the tooth due to lack of cooling water.

Thermal damage to the dental pulp.

- ▶ Adjust the water amount for the spray cooling to a minimum of 50 cm³/min

**Note**

Before each treatment, insert a dental dam for safety reasons.

- ▶ Use files with light pressure.
- ▶ For the specific method of operation, please refer to the description contained in the respective file kit.

6 Preparation methods according to ISO 17664

6.1 Preparations at the site of use



WARNING

Hazard from nonsterile products.

There is a risk of infection from contaminated medical devices.

- ▶ Take suitable personal protective measures.
- ▶ Remove all residual cement, composite or blood without delay.
- ▶ The medical device must be dry when transported for reconditioning.
- ▶ Do not place it in a solution or similar.
- ▶ Recondition the medical device as soon as possible after treatment.
- ▶ Remove the file from the medical device.

6.2 Cleaning



⚠ CAUTION

Malfunctions from cleaning in the ultrasonic unit.

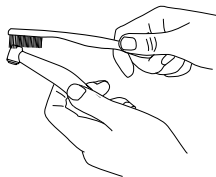
Defects in the product.

- ▶ Only clean manually or in a thermodisinfectant.

6.2.1 Cleaning: Manual cleaning - external

Accessories required:

- Tap water $30\text{ °C} \pm 5\text{ °C}$ ($86\text{ °F} \pm 10\text{ °F}$)
- Brush, e.g. medium-hard toothbrush



- Brush off under flowing tap water.

6.2.2 Cleaning: Automated external cleaning



KaVo recommends thermodesinfectors in accordance with EN ISO 15883-1 that are operated with alkaline cleaning agents at a pH value of max. 10 (e. g. Miele G 7781 / G 7881 – validation was performed with the "VARIO-TD" program, "neodisher® mediclean" cleaning agent, "neodisher® Z" neutralisation agent and "neodisher® mielclear" rinsing agent and extends only to the compatibility of materials with respect to KaVo products).

- ▶ For program settings as well as cleansers and disinfectants to be used, please refer to the Instructions for Use of the thermodisinfectant (complying with max. pH value of 10).
- ▶ In order to prevent negative effects on the medical device, make sure that the interior and the exterior of the medical device are dry, and then lubricate immediately with care agents from the KaVo care system.

6.2.3 Cleaning: Manual cleaning - internal

Can only be done with KaVo CLEANspray or KaVo DRYspray.

- ▶ Cover the medical device with the KaVo CLEANpac bag, and place it on the corresponding care adapter. Press the spray button three times for 2 seconds each time. Remove the medical device from the spray attachment and let the cleaner work for one minute.

- Afterwards, rinse for 3-5 seconds with KaVo DRYspray.

See also: KaVo CLEANspray / KaVo DRYspray Instructions for Use



Note

KaVo CLEANspray and KaVo DRYspray for manual interior cleaning are only available in the following countries:

Germany, Austria, Switzerland, Italy, Spain, Portugal, France, Luxembourg, Belgium, Netherlands, United Kingdom, Denmark, Sweden, Finland and Norway.

In other countries, only automated interior cleaning with thermodisinfectors in accordance with ISO 15883-1.



6.2.4 Cleaning: Automated internal cleaning

KaVo recommends thermodesinfectors in accordance with EN ISO 15883-1 that are operated with alkaline cleaning agents at a pH value of max. 10 (e. g. Miele G 7781 / G 7881 – validation was performed with the "VARIO-TD" program, "neodisher® mediclean" cleaning agent, "neodisher® Z" neutralisation agent and "neodisher® mielclear" rinsing agent and extends only to the compatibility of materials with respect to KaVo products).

- For program settings as well as cleansers and disinfectants to be used, please refer to the Instructions for Use of the thermodesinfector (complying with max. pH value of 10).

- ▶ In order to prevent negative effects on the medical device, make sure that the interior and the exterior of the medical device are dry, and then lubricate immediately with care agents from the KaVo care system.

6.3 Disinfection



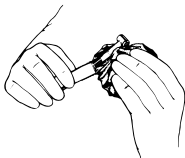
CAUTION

Malfunctioning from using a disinfectant bath or disinfectant containing chlorine.

Defects in the product.

- ▶ Only disinfect in a thermodisinfectant or manually.

6.3.1 Disinfection: Manual disinfection - external



KaVo recommends the following products based on material compatibility. The microbiological efficacy must be ensured by the disinfectant manufacturer.

- Mikrocid AF Liquid made by Schülke & Mayr
- FD 322 made by Dür
- CaviCide made by Metrex

Consumables required:

- Cloths for wiping off the medical device.

- ▶ Spray the disinfectant on a cloth, then wipe down the medical device and allow the disinfectant to act according to the instructions of the disinfectant manufacturer.
- ▶ Follow the instructions for use of the disinfectant.

6.3.2 Disinfection: Manual disinfection - internal

The efficacy of manual internal disinfection must be demonstrated by the manufacturer of the disinfection agent. With KaVo products, use only disinfection agents that have been released by KaVo with respect to the compatibility of materials (e.g. WL-cid / made by ALPRO).

- ▶ Immediately after internal disinfection, lubricate the KaVo medical device immediately with care agents from the KaVo care system.

- ▶ Follow the instructions for use of the disinfectant.

6.3.3 Disinfection: Machine disinfection - external and internal



KaVo recommends thermodesinfektors in accordance with EN ISO 15883-1 that are operated with alkaline cleaning agents at a pH value of max. 10 (e. g. Miele G 7781 / G 7881 – validation was performed with the "VARIO-TD" program, "neodisher® mediclean" cleaning agent, "neodisher® Z" neutralisation agent and "neodisher® mielclear" rinsing agent and extends only to the compatibility of materials with respect to KaVo products).

- ▶ For program settings as well as cleansers and disinfectants to be used, please refer to the Instructions for Use of the thermodesinfektor (complying with max. pH value of 10).

- ▶ In order to prevent negative effects on the medical device, make sure that the interior and the exterior of the medical device are dry, and then lubricate immediately with care agents from the KaVo care system.

6.4 Drying

Manual Drying

- ▶ Blow off the outside and inside with compressed air until water drops are no longer visible.

Automatic Drying

The drying procedure is normally part of the cleaning program of the thermodisinfectors.

- ▶ Follow the instructions for use of the thermodisinfectors.

6.5 Care products and systems - Servicing



CAUTION

Premature wear and malfunctions from improper servicing and care.
Reduced product life.

- Perform proper care regularly!



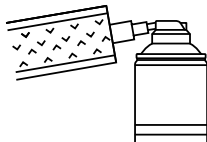
Note

Removing the file for conditioning.



Note

KaVo only guarantees that its products will function properly when the care products used are those listed as accessories, as they were tested for proper use on our products.



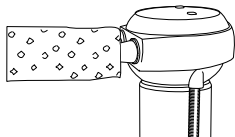
6.5.1 Care products and systems - Servicing: Care with KaVo Spray

KaVo recommends servicing the product after each time it is used, i.e. after each automatic cleaning and before each sterilisation.

- ▶ Remove file.
- ▶ Cover the product with the Cleanpac bag.
- ▶ Place the product on the cannula, and press the spray button for one second.

6.5.2 Care products and systems - Servicing: Care with the KaVo SPRAYr-otor

KaVo recommends servicing the product after each time it is used, i.e. after each automatic cleaning and before each sterilisation.

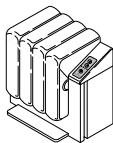


- ▶ Remove file.
- ▶ Place the product on the appropriate coupling of the **KaVo SPRAYrotor** and cover it with a Cleanpac bag.
- ▶ Servicing the product.

See also: Instructions for use **KaVo SPRAYrotor**

6.5.3 Care products and systems - Servicing: Care with KaVo QUAT-TROcare

Cleaning and care unit with expansion pressure for effective cleaning and care.



KaVo recommends servicing the product after each time it is used, i.e. after each automatic cleaning and before each sterilisation.

- ▶ Remove file.
- ▶ Servicing the product.

See also: Instructions for Use KaVo QUATTROcare

6.6 Packaging



Note

The sterilisation bag must be large enough for the handpiece so that the bag is not stretched.

The quality and use of the sterilisation packaging must satisfy applicable standards and be suitable for the sterilisation procedure!

- Individually weld the medical device in the sterilised item packaging (such as KaVo STERiclave bags **Mat. no. 0.411.9912**)!

6.7 Sterilisation

**Sterilisation in a steam steriliser (autoclave) in accordance with EN 13060/
ISO 17665-1**



CAUTION

Premature wear and malfunctions from improper servicing and care.
Reduced product life.

- ▶ Before each sterilisation cycle, service the medical device with KaVo care products.

**⚠ CAUTION**

Contact corrosion due to moisture.

Damage to product.

- ▶ Immediately remove the product from the steam steriliser after the sterilisation cycle!

135 °C



The KaVo medical device has a maximum temperature resistance up to 138 °C (280.4 °F).

(Depending on the available autoclave,) select a suitable procedure from the following sterilisation processes:

- Autoclave with three times initial vacuum:
 - at least 3 minutes at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F)
- Autoclave using the gravitation method:
 - at least 10 minutes at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F)

- ▶ Use according to the manufacturer's Instructions for Use.

6.8 Storage

- ▶ Reprocessed products should be stored protected from dust with minimum exposure to germs in a dry, dark and cool space.

- ▶ Comply with the expiry date of the sterilised items.

7 Tools

Available from dental suppliers.

Material summary	Mat. no.
Instrument stand 2151	0.411.9501
Cleanpac 10 units	0.411.9691
Cellulose pad 100 units	0.411.9862
Set of files	1.003.5452
Pusher	0.410.0634

Material summary	Mat. no.
KaVo CLEANspray 2110 P	1.007.0579
KaVo DRYspray 2117 P	1.007.0580
KaVo Spray 2112 A	0.411.9640
ROTAspray 2 2142 A	0.411.7520

Material summary	Mat. no.
QUATTROcare plus Spray 2140 P	1.005.4525
STERIclave bags	0.411.9912

8 Warranty terms and conditions

The following warranty conditions apply to this KaVo medical device:

KaVo provides the end customer with a warranty of proper function and guarantees zero defects in respect of material and processing for a period of 18 months from the date of the invoice, subject to the following conditions:

In case of justified complaints, KaVo will honour its warranty with a free replacement or repair. Other claims of any nature whatsoever, in particular with respect to compensation, are excluded. In the event of default, gross negligence or intent, this shall only apply in the absence of mandatory legal regulations to the contrary.

KaVo shall not be liable for defects and their consequences that have arisen or may arise from natural wear, improper handling, cleaning or maintenance, non-compliance with operating, maintenance or connection instructions, calcination or corrosion, contaminated air or water supplies or chem-

ical or electrical factors deemed abnormal or impermissible in accordance with KaVo's instructions for use or other manufacturer's instructions. The warranty granted does not usually extend to lamps, light conductors made of glass and glass fibres, glassware, rubber parts, and the colourfastness of plastic parts.

All liability is excluded if defects or their consequences originate from manipulations or changes to the product made by the customer or a third party that is not authorised by KaVo.

Warranty claims will only be accepted if the product is submitted along with proof of purchase in the form of a copy of the invoice or note of delivery. The dealer, purchase date, type, and serial number must be clearly evident from this document.



KaVo. Dental Excellence.