

a perfect fit®



INSTRUCTION MANUAL

CAMLOG® TORQUE WRENCH

WITH CONTINUOUS TORQUE ADJUSTMENT



Handling
Sterilization
Care

camlog

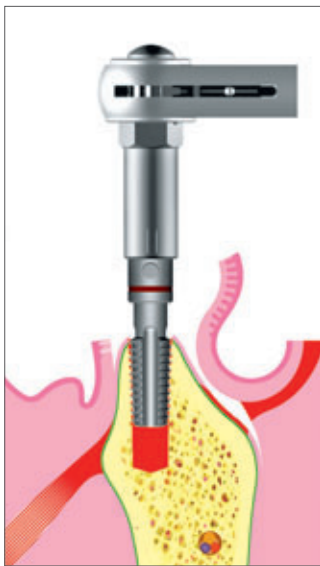
CAMLOG® TORQUE WRENCH WITH CONTINUOUS TORQUE ADJUSTMENT

INTRODUCTION

The torque wrench is a stainless steel multi-component tool designed to accommodate screwdrivers, drivers and adapters. The torque wrench is dismountable into five components for cleaning and care.

SURGICAL USE

The torque wrench is used for manual tapping and manual insertion of CAMLOG® SCREW-LINE, ROOT-LINE, and SCREW-CYLINDER-LINE screw implants into their final position in the bone.



Manual tapping with adapter



Manual insertion of the implant into its final position

PROSTHETIC USE

For the attachment of the final prosthetic restoration, CAMLOG® abutment screws and CAMLOG® abutments must be tightened to a torque defined in Newton centimetres (Ncm). An appropriate tool is inserted into the torque wrench and the abutment screws and abutments are tightened to the specified torque value.

$$\text{Torque} = \text{lever arm} \times \text{force}$$

BENDING DOWN FUNCTION

The torque wrench is provided with a dual direction (insertion/removal function) wrench mechanism. When the selected torque is reached – a choice of 10, 15, 20 or 30 Ncm – the wrench bends down. This prevents application of an undefined torque value.



[a] Ratchet joint
[b] Torque set screw

TOOLS FOR USE WITH THE TORQUE WRENCH



Screwdriver, extra short, short, long



Driver for screw implants, short, long



Adapter, long, Ø 3.3/3.8 mm



Adapter, ISO shaft



Tap adapter, short/long for tap SCREW-LINE



Driver for ball abutment



Driver for Locator®



Driver for bar abutment, Ø 3.3/3.8/4.3/5.0/6.0 mm

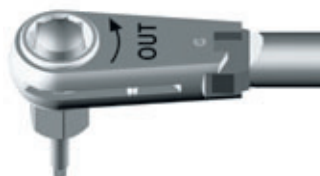
TOOL INSTALLATION IN THE WRENCH HEAD

The tools audibly lock in during their insertion into the wrench wheel.

- For the insertion function: "IN" is visible on the wrench head.
- For the removal function: "OUT" is visible on the wrench head.
- To remove, press with finger on the tool head and remove the tool downwards. Do not use pliers!



Insertion function "IN"



Removal function "OUT"



Remove the tool downwards

SURGICAL USE

MANUAL TAPPING AND IMPLANT INSERTION

The wrench is used in its locked position for these functions.
The lock is set as follows:

1. Loosen the torque setscrew (counterclockwise).



2. Slide back the handle.



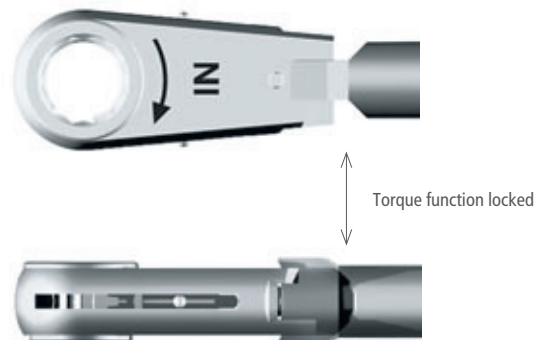
3. Rotate handle 90 degrees.



4. Slide handle forward to the locking position in the wrench head.



5. Fasten the handle with the torque setscrew (clockwise).
The torque function is now locked.



PROSTHETIC USE

SETTING THE TORQUE LIMIT

FOR FINAL FASTENING OF PROSTHETIC COMPONENTS

The release torque (10, 15, 20, or 30 Newton centimetres) is set by screwing in or screwing back the torque setscrew.



The Torque wrench bends down when the release torque is reached. After that, do not tighten further!



[a] Torque setscrew

All abutment and prosthetic screws and abutments must be tightened with the torque wrench at the specified torque for final insertion in the implant.

TORQUE SETTINGS FOR THE TORQUE WRENCH

Implant cover screw	tightened by hand
Healing cap	tightened by hand
Impression post	tightened by hand

ABUTMENT AND PROSTHETIC SCREWS

Temporary abutment	tightened by hand
Ceramic abutment	20 Ncm
Esthomic® abutment	20 Ncm
Telescope abutment	20 Ncm
Universal abutment	20 Ncm
Gold-plastic abutment	20 Ncm
Logfit™ abutment	20 Ncm
Prosthetic screw for bar abutment	15 Ncm

ABUTMENTS

	Ø 3.3 MM	Ø 3.8–6.0 MM
Bar abutment	20 Ncm	30 Ncm
Ball abutment	20 Ncm	30 Ncm
Locator® abutment	20 Ncm	30 Ncm

NOTE: In the laboratory, abutments should not be tightened with the Torque wrench!

The listed values are relevant only for the clinical setting.

IMPORTANT NOTE!

- To obtain maximum preloading values for the screws, abutments must be retightened after approx. 5 minutes with the same torque. This will help prevent screw loosening.
- To ensure optimal preloading, only new abutment screws should be used for the definitive attachment of the abutment.

INFORMATION FOR THE DENTAL ASSISTANT

CLEANING, DISINFECTION, STERILIZATION, AND CARE

The torque wrench is delivered non-sterile and must be cleaned, disinfected, and sterilized before first use and every further use on a patient. After each clinical use, the torque wrench must be cleaned, disinfected, and sterilized in an autoclave. Thorough cleaning and disinfection are essential for an effective sterilization. The following information refers to a manual preparation procedure with a combined cleaning and disinfectant agent.

If a combined cleaning and disinfectant agent is selected, make sure that it is suitable for the cleaning and disinfection of dental instruments. It must be:

- suitable for ultrasonic cleaning (no foam development);
- able to demonstrate proven efficacy for disinfection;
- compatible with the materials of the products to be cleaned and disinfected;
- aldehyde-free (to avoid coagulation of blood, secretions, tissue residues, etc.).

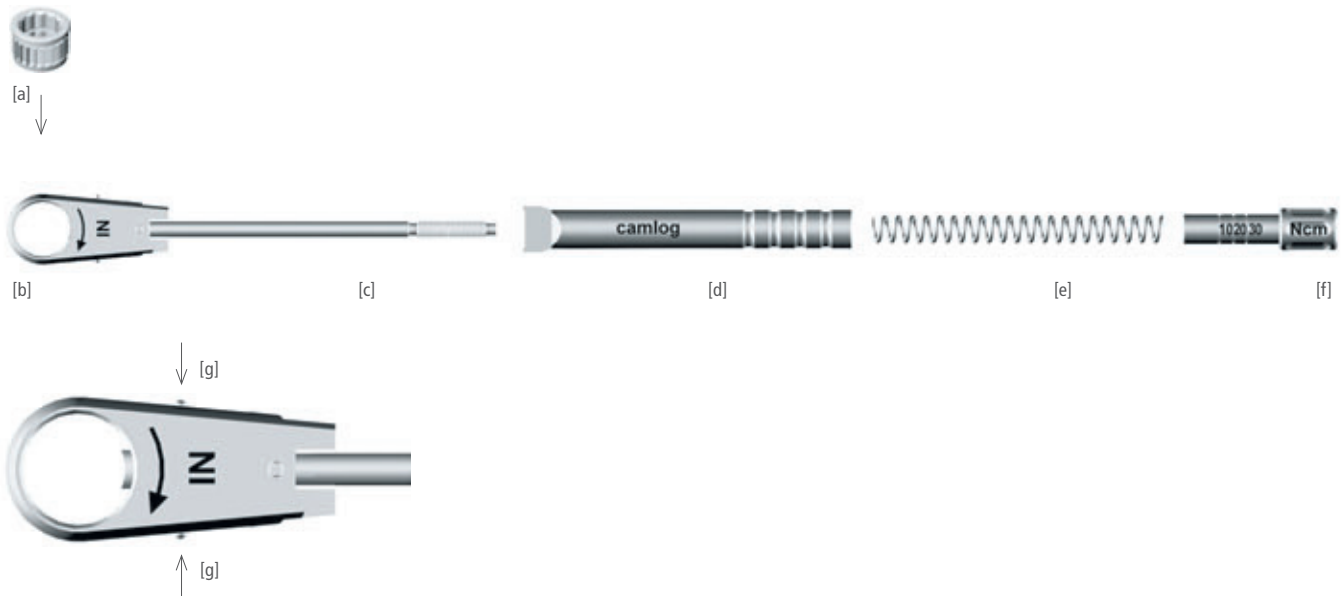
1. INITIAL DISINFECTION

Immediately after use, the torque wrench should be placed in a bath of combined cleaning and disinfectant agent. This ensures personal safety and prevents contaminants from drying out. Adhere to the manufacturer's instructions for concentrations and application times of the combined cleaning and disinfectant agent.

2. DISASSEMBLY

The Torque wrench should be disassembled after disinfection into its five components.

- To do this, completely unscrew the torque setscrew (counterclockwise) and pull out the spring and handle.
- Pull back the fastening pin with your thumb and forefinger and remove the wrench wheel from the wrench head.



- [a] Wrench wheel
- [b] Wrench head
- [c] Push rod
- [d] Handle
- [e] Spring
- [f] Torque set screw
- [g] Fastening pin

3. PRECLEANING

Heavy contaminants must be removed within 2 hours after use at the latest. To completely remove residues, clean the tools with a soft brush (no metal brushes) under running water. Contaminants in difficult-to-reach areas should be removed with tools suitable for this purpose.

4. COMBINED CLEANING AND DISINFECTION

Adhering to the specified application time, place the torque wrench parts in a bath of cleaning and disinfectant agent reserved solely for combined cleaning and disinfection. Ensure that the components are completely covered and do not touch each other. Adhere to the manufacturer's instructions for concentrations and application times for the combined cleaning and disinfectant agent. In the case of obstinate contaminants, use of an ultrasonic bath is recommended.

5. RINSING

Remove the components from the disinfectant or ultrasonic bath and rinse them with deionized water with low bacterial and low endotoxin count (such as Aqua Purificata). Also rinse difficult-to-reach areas.

6. DRYING

Dry the components. For this purpose, use disposable lint-free towels and dry, oil-free, compressed air with low bacterial count. We recommend use of a sterile filter.

7. CHECKS

Check the components for corrosion, surface damage, chipping, and contaminants. Repeat the cleaning and disinfection process for any components that are still contaminated. In the event of damage or corrosion, the torque wrench must be replaced.

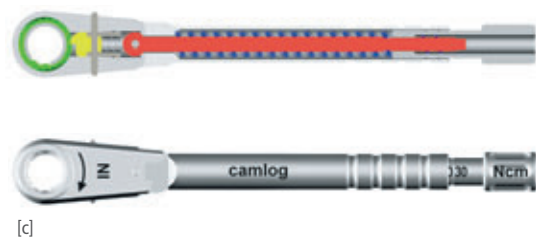
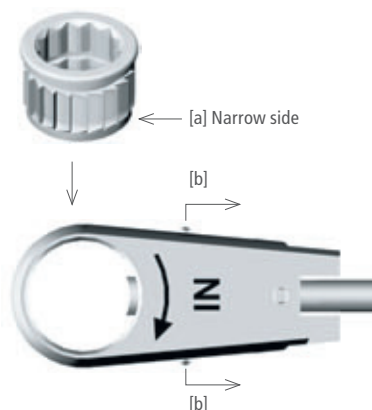
8. CARE AND ASSEMBLY

Before assembly, lubricate the drop-indicated areas with contra-angle handpiece oil or spray.



Assembly of the torque wrench:

- First install the wrench wheel: With your thumb and forefinger, pull back the fastening pin on both sides and insert the wrench wheel narrow side in the wrench head ("IN" must show).
- Then slide the handle back on, insert the spring in the handle, insert the torque set screw and tighten it clockwise.



- [a] Wrench wheel narrow side
- [b] Pull back the fastening pin and insert the wrench wheel
- [c] Assembled Torque wrench



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9. PACKAGING

Wrap the torque wrench for sterilization as soon as possible. We recommend disposable sterilization packages. Make sure that the packaging is suitable for steam sterilization (constant temperature of at least 141°C / 286°F, adequate steam penetrability) and the wrench is adequately protected from mechanical damage.

STERILIZATION

Fractional vacuum procedures are acceptable for steam sterilization (with adequate product drying). Other sterilization procedures are not acceptable.

MAKE SURE THAT

- the steam sterilization procedure is validated;
- the sterilization temperature does not exceed 138°C/280°F;
- the sterilization holding time (exposure time at the sterilization temperature) is at least 20 minutes at 121°C/250°F or at least 5 minutes at 134°C/273°F.

Use of the less effective gravitation procedure must be supported by an additional sterilizer and sterilization procedure validation.

Note: When sterilization is performed in the prosthetic set tray and/or in the surgical set tray, make sure that the trays do not touch the steam sterilizer walls. High local temperatures – over 160°C/320°F – will result in deformation of the plastic.

FURTHER INFORMATION

Further information on our products is available at www.camlog.com or www.camlog.de.

See also "Instruction Manual – CAMLOG® Torque Wrench", Art. No. J8000.0044.

HEADQUARTERS

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