

# Operating Instructions

## *JETCO Torque Wrench*

### *ECLICK Series*



# EN

## Foreword

These operating instructions will help you to use the electromechanical torque wrench

- properly,
- safely and
- economically.

### Target group of these operating instructions

These operating instructions are oriented towards users of the electromechanical torque wrench.

We assume that the users possess general technical knowledge.

Each person who carries out the following activities with the electromechanical torque wrench must have read and understood the full content of these operating instructions:

- Set-up
- Programming
- Operation
- Maintenance or
- Disposal.

If you do not understand individual pieces of information contained in these operating instructions or if information is missing, please contact JETCO Torque Tools LLC.

The full address c

# EN

## Table of contents

### Contents

Introduction to the operating instructions .....	6
Explanation of the safety instructions.....	6
Availability .....	6
Additions .....	6
Structural features.....	6
Basic safety instructions .....	7
Proper use .....	7
Duties when handling these operating instructions .....	7
Safety instructions.....	7
Avoid risks of injury .....	8
Avoiding damage to the torque wrench .....	8
Avoiding malfunctions.....	8
Use of rechargeable batteries and standard batteries .....	8
Transportation, scope of delivery and storage .....	9
Buttons and display .....	10
Buttons .....	10
Display .....	11
Menu structure.....	12
Basic handling principles .....	14
Preparing the torque wrench .....	14
Basic prerequisites .....	14
Power supply .....	14
Inserting rechargeable batteries/standard batteries.....	14
Taring the torque wrench.....	15
Automatic taring.....	15

# EN

Manual taring .....	15
Selection of inserts and socket tools.....	16
Carrying out menu settings .....	17
Settings in delivery condition .....	18
Button lock .....	18
Saving settings.....	18
Setting a torque value .....	18
Setting a unit of measurement.....	18
Setting the function mode.....	18
Setting the bolting tolerance.....	19
Saving values .....	19
Extension correction (not used on fixed and flex head versions) .....	20
Automatic taring.....	21
Switching on the key lock.....	21
Entering/changing the PIN code.....	21
Entering the PIN code.....	22
Quick Start - practical example .....	23
Using the torque wrench.....	25
Taring the torque wrench.....	25
"Click" function mode.....	26
"Indicating" function mode .....	26
Controlled counter clockwise tightening .....	26
Displays and signals during actuation .....	27
"Cut-out" function mode.....	27
"Indicating" function mode .....	27
Manually saving bolting values .....	27
Correcting and saving exceeded torque.....	27

# EN

Power Off.....	28
Connecting the torque wrench to the PC.....	28
Error Codes.....	29
Cleaning.....	29
Repair, maintenance and adjustment.....	29
Adjustment instructions.....	29
Adjusting deviating measured values.....	30
Torque wrench reset.....	31
Specifications.....	32
Identification.....	32
Accuracy.....	33
Technical data.....	33
Accessories.....	34
Disposal.....	35

## Introduction to the operating instructions

### *Explanation of the safety instructions*

These operating instructions contain the following safety instruction categories:

	<b>WARNING</b> Instructions containing the word <b>WARNING</b> warn against dangers which may possibly lead to severe or fatal injuries.
	<b>CAUTION</b> Instructions containing the word <b>CAUTION</b> warn against dangers which may possibly lead to slight or moderate injuries.
	<b>Attention</b> Instructions containing the word <b>ATTENTION</b> warn against dangers which may possibly lead to material or environmental damage.

### *Availability*

If these operating instructions become lost or unuseable, a new copy can be requested from JETCO Torque Tools LLC.

If you have not yet registered the device, you require the following data for re-ordering:

- Serial number of your torque wrench
- Name of your dealer
- Date of purchase of the torque wrench.

The order number for the operating instructions can be found on the bottom right of the title page.

### *Additions*

Regularly add instructions to the operating instructions in the relevant usage location due to

- legal accident prevention regulations,
- legal environmental protection regulations and
- employer's liability insurance association stipulations.

### *Structural features*

Various elements of these operating instructions are provided with defined structural features. This enables you to easily distinguish whether this involves:

normal text,

- lists or
- ▶ action steps.

① Instructions bearing this symbol contain information of a general nature and regarding economic use of the torque wrench.

# EN

## Basic safety instructions

### *Proper use*

The Manoskop® ECLICK electromechanical torque wrench serves to measure torques during the controlled tightening and loosening of threaded connections in the workshop sector. To do this, an appropriate socket tool must be connected to the torque wrench.

Load can also be placed on the Manoskop® ECLICK torque wrench counter to its functional direction.

The maximum permissible nominal torque of the torque wrench must never be exceeded.

Proper use includes complying with the information contained in these operating instructions in full. In particular, also comply with and follow the safety instructions and the technical limit values.

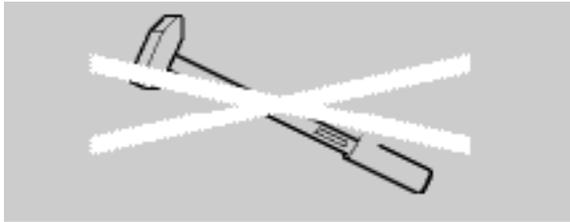
The relevant accident prevention regulations of the responsible employer's liability insurance association and all further applicable safety regulations must also be observed.

The Manoskop® ECLICK electromechanical torque wrench must only be used for the specified purposes.

JETCO accepts no liability for damage which occurs as a result of improper use.

In particular, improper use includes

- the uncontrolled loosening of seized, e.g. rusted, threaded connections
- use as a crowbar
- use as an impact tool.



### *Duties when handling these operating instructions*

For the sake of simplicity, the term torque wrench is used throughout the remainder of these instructions instead of Manoskop®.

The user of this torque wrench is responsible for the fact that these operating instructions are constantly available when working with the torque wrench. Store the operating instructions in the vicinity of the torque wrench.

### *Safety instructions*

The torque wrench is a precision tool, and must accordingly be handled with care. Avoid mechanical, chemical or thermal effects which exceed the stresses involved in proper use.

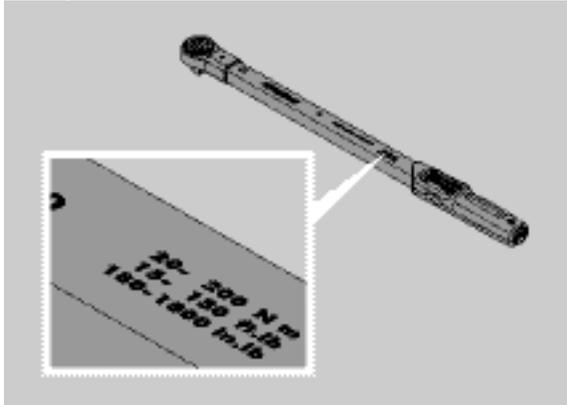


Ensure that extreme climatic conditions such as cold, heat and humidity are unable to influence accuracy.

Do not overload the torque wrench. Adhere under all circumstances to the measuring range specifications of the laser identification on the torque wrench. You may otherwise damage the torque wrench.

# EN

Example of laser identification:



## Avoid risks of injury

- Do not use the torque wrench as an impact tool.
- Check the torque wrench, including accessories, prior to use.
- Never use the torque wrench or accessories if damaged.
- Rechargeable batteries and standard batteries must not fall into the hands of children. Children may place them in their mouths and swallow them.

## Avoiding damage to the torque wrench

- Do not use the torque wrench as an impact tool.
- Check the torque wrench, including accessories, prior to use.
- Never use the torque wrench or accessories if damaged.
- Do not overload the torque wrench. Severe or permanent overloading may lead to damage to the torque wrench.
- Never expose the torque wrench to rain, moisture or other fluids.
- Do not allow foreign bodies to enter the torque wrench housing. Always cover the PC connection socket when not in use.
- Do not use the torque wrench for the uncontrolled loosening of seized - e.g. rusted - threaded connections.
- Never exceed the maximum limit torque of 125% of the nominal value.
- Never open the torque wrench housing.
- Do not press on the display.
- Make sure that all of the socket tools and connectors which are used are firmly connected and correctly inserted.
- Leaking standard batteries and rechargeable batteries may cause damage to the torque wrench. Remove the batteries if the torque wrench is not used for a long period of time.

## Avoiding malfunctions

- Check the cut-out accuracy at regular intervals, see page Adjustment instructions.
- Do not overload the torque wrench. Severe or permanent overloading may lead to torque wrench measurement errors.
- Never exceed the maximum limit torque of 125% of the nominal value. Measured and cut-out values may deviate.
- Do not kink cables or connectors, and never expose these to excessive tensile forces or temperatures.
- Make sure that all of the socket tools and connectors which are used are firmly connected and correctly inserted.
- Make sure that the correct extension is set.

## *Use of rechargeable batteries and standard batteries*

- Rechargeable batteries and standard batteries may contain toxins which harm the environment.

# EN

- Rechargeable batteries and standard batteries must not fall into the hands of children. Children may place them in their mouths and swallow them.
- Leaking standard batteries and rechargeable batteries may cause damage to the torque wrench. Remove the batteries if the torque wrench is not used for a long period of time. If a battery has leaked, put on gloves and clean the battery compartment with a dry cloth.
- Replace weakening rechargeable batteries and standard batteries in good time.
- Always replace all rechargeable batteries and standard batteries at the same time. Use only rechargeable batteries and standard batteries of the same type.
- Only use suitable chargers for charging the rechargeable batteries.
- Do not charge standard batteries.
- Dispose of rechargeable batteries and standard batteries according to the applicable legal regulations under all circumstances.
- Never dispose of rechargeable batteries and standard batteries in the normal domestic waste. Dispose of spent standard batteries and defective rechargeable batteries at a collection point.



## Transportation, scope of delivery and storage

Transport the torque wrench in the original packaging only, and secure it to prevent it from being dropped during transportation.

The following are included in delivery of the ECLICK torque wrench:

- One electromechanical torque wrench
- Two AA/LR6, 1.5V Mignon batteries
- One factory calibration certificate
- These operating instructions.

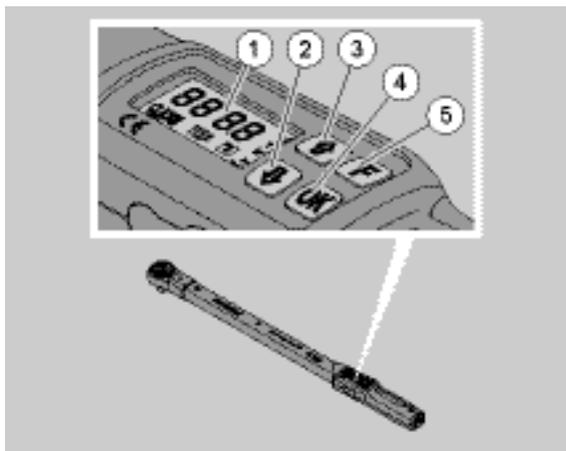
The following are included in delivery of the ECLICKR torque wrench:

- One electromechanical torque wrench
- Two AA/LR6, 1.5V Mignon batteries
- One factory calibration certificate
- These operating instructions.

Store the torque wrench at a temperature of  $-20\text{ }^{\circ}\text{C}$  to  $+80\text{ }^{\circ}\text{C}$ .

# EN

## Buttons and display



- |   |                            |
|---|----------------------------|
| 1 | Display                    |
| 2 | Down arrow button (select) |
| 3 | Up arrow button (select)   |
| 4 | OK button (confirm)        |
| 5 | Function button (F button) |

### *Buttons*

The four buttons on the torque wrench can be used to select functions and carry out settings.

- ① The display lights up for approx. five seconds each time a button is pressed.

### **Torque wrench is switched off**

Each button ► To switch on the torque wrench, press any button for approx. one second.

# EN

## Torque wrench is switched on - outside of a menu

**Confirm software version:**

- ▶ Press this button.

**Confirm bolting application:**

- ▶ Press this button.

**Manual taring:**

- ▶ Press this button for longer than three seconds.

**Display last measured torque value:**

- ▶ Press this button once briefly.

**Save values manually in "Indicating" function mode:**

- ▶ Press this button following the tightening process.

The torque value is displayed.

- ▶ Press this button again as long as the torque value is displayed.

A brief signal tone can be heard.

The value is saved.

**Cancel button lock for entries:**

- ▶ Press this button briefly twice in succession.

**Call up menus:**

- ▶ Press this button until the desired menu is displayed.

**Switch off the torque wrench:**

- ▶ Press this button for approx. two seconds.

## Torque wrench is switched on - within a menu

**Confirm setting and enter basic status:**

- ▶ Press this button.

**Call up menus:**

- ▶ Press this button until the desired menu is displayed.



"Scroll" up or down, e.g. 1, 2, 3 or 3, 2, 1.



Select between two statuses, e.g. On or OFF.

### *Display*

During the tightening process, the current torque is shown in the display. Information on the current settings is also displayed.

# EN



- 1 Current torque value
- 2 Current unit of measurement (N·m, in·lb or ft·lb)
- 3 Data storage set (without the symbol, no data storage)
- 4 Extension set (without the symbol, the standard extension is set) (not used on fixed and flex versions)
- 5 Automatic taring set (without the symbol, no automatic taring)
- 6 Bolting tolerance set (without the symbol, no bolting tolerance)
- 7 Battery consumption display
- 8 PIN code entry required (without the symbol, no PIN code entry required)
- 9 Cut-out mode set (without the symbol, indicating mode)

## Optical display signals

red	The current torque value lies outside of the set tolerance range.
green	The current torque value lies within the set tolerance range.
flashing	The current torque value is outside the calibrated measuring range. Example for MANOSKOP 730/D10: The torque value display flashes for as long as the value is below 10 % of the nominal value, in this example 10 N·m.

## Menu structure

### Set torque value

- Enter torque value

# EN

## Set unit of measurement

- N·m
- ft·lb
- in·lb

## Set function mode

- On (cut-out) 
- OFF (indicating), no symbol in the display

## Set bolting tolerance

- On (with bolting tolerance) 
  - Enter negative tolerance
  - Enter positive tolerance
- OFF (without bolting tolerance), no symbol in the display

## Save values

- On (bolting data are saved) 
  - Enter bolting application number
- ① In delivery condition, the bolting application number is "0000".
- OFF (bolting data are not saved), no symbol in the display

## Extension correction

- On (with extension setting) 
  - Enter extension
- OFF (standard extension), no symbol in the display

## Automatic subsequent taring

- On (automatic subsequent taring switched on) 
- OFF (no automatic subsequent taring), no symbol in the display

## Switch on key lock

- On (key lock switched on) 
  - Define PIN code
- OFF (key lock switched off), no symbol in the display
- ① When the key lock is switched on, the four-digit PIN code must be entered before changing a value.  
In delivery condition, the key lock is switched off, and the PIN code is "0000".

# EN

## Basic handling principles

### *Preparing the torque wrench*

#### Basic prerequisites

- The user must be standing securely during usage.
- The user must have sufficient freedom of movement.
- The usage location must be sufficiently bright.
- The recommended operating temperature is
- $-10\text{ °C}$  to  $+60\text{ °C}$ .
- Prior to use, the torque wrench must be able to adapt to the climatic conditions during subsequent usage for at least one hour.
- The torque wrench must be protected against harmful influences, e.g. due to soiling or moisture.

#### Power supply

- Make sure that the torque wrench's power supply is guaranteed. The following standard battery/rechargeable battery types can be used:
- AA/LR6, 1.5V standard mignon batteries
- AA/LR6, 1.2V rechargeable NiMH mignon batteries



#### **CAUTION**

**Danger due to exploding rechargeable batteries.**

- ▶ Always use the correct charger for charging the different types of rechargeable battery.

#### **Attention**

**Damage to the torque wrench possible.**

- ▶ Make sure that the rechargeable batteries or standard batteries have a maximum voltage of 1.5V.

#### Inserting rechargeable batteries/standard batteries

- ▶ A suitable coin, etc. is required to open the battery compartment cover.

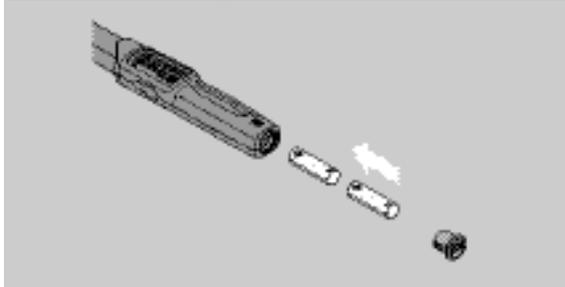
#### **Attention**

**A torque wrench malfunction is possible.**

- ▶ Switch off the torque wrench before changing the rechargeable batteries/batteries.
- ▶ Make sure that the torque wrench is switched off.
- ▶ Turn the cover counter clockwise to stop using the coin.
- ▶ Remove the cover.

# EN

- ▶ Insert the rechargeable batteries or standard batteries, observing the polarity specified on the handle.



- ▶ Insert the cover into the battery compartment recesses.
- ▶ Press gently on the cover using the coin.
- ▶ Turn the cover clockwise to stop using the coin.

## *Taring the torque wrench*

	<b>WARNING</b> Risk of injury due to incorrect measured values during taring.
▶	▶ Make sure that the torque wrench is not moved or placed under strain during the taring process.

To ensure precise measurement, the torque wrench must be tared during each bolting process.

## Automatic taring

- ▶ Switch off the torque wrench and place it on a flat surface.
- ① To tare the torque wrench with an insert tool mounted, allow this to project e.g. over the edge of the bench.
- ▶ Make sure that no forces are acting on the torque wrench.
- ▶ Keep the torque wrench steady throughout the entire taring process.
- ▶ Press any button to switch on the torque wrench.

The software version number is shown in the display.

- ▶ Briefly press the OK button.

If the "Save values" function is switched on, the four-digit bolting application number is displayed.

- ▶ To confirm the bolting application, press the OK button.
- ▶ To create a new bolting application, proceed as described on page To assign the bolting applications during evaluation wi.

The current torque value which is set is displayed.

The "TARA!" symbol flashes in the display. The torque wrench is tared within a few seconds.

If a value of more than 0.1 is displayed in the display, tare the torque wrench manually.

## Manual taring

- ▶ Switch off the torque wrench and place it on a flat surface.
- ① To tare the torque wrench with an insert tool mounted, allow this to project e.g. over the edge of the bench.
- ▶ Make sure that no forces are acting on the torque wrench.
- ▶ Keep the torque wrench steady throughout the entire taring process.
- ▶ Press the OK button for longer than two seconds.

The taring process starts. Four horizontal dashes are shown in the display. The "TARA!" symbol flashes.

If a value of more than 0.1 is displayed in the display, then tare the torque wrench again.

# EN

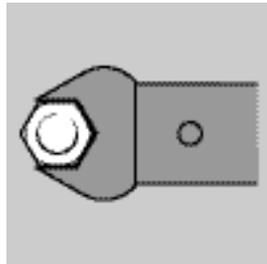
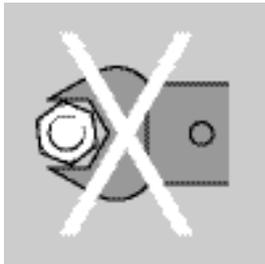
## *Selection of inserts and socket tools*



### **WARNING**

**Risk of injury due to unsuitable inserts and socket tools.**

- ▶ Use only inserts or socket tools whose shape and design are suitable for the intended usage.



- ① JETCO socket tools guarantee the correct lever length, possess the necessary accuracy of fit in all contact areas and have the required material strength.



### **WARNING**

**Risk of injury due to exceeding the maximum load bearing capability of the inserts and socket tools.**

- ▶ Make sure that maximum load bearing capability of the inserts and socket tools is not exceeded.  
This may be lower than the maximum permissible torque of the torque wrench.



### **WARNING**

**Risk of injury due to incorrectly mounted socket tools.**

- ▶ Make sure that the socket tools are secured against pulling off by engaging the retaining pin.



### **WARNING**

**Risk of injury due to incorrectly set extension.**

- ▶ Make sure that the extension appropriate for the socket tool is set on the torque wrench.



### **CAUTION**

**Risk of injury due to internally produced special tools.**

- ▶ Produce special tools in consultation with JETCO only.

# EN



## CAUTION

**Risk of injury due to unsuitable insert tools.**

- ▶ Use only the insert tools recommended in the JETCO catalogue.

## Attention

**Damage to the measurement elements of the torque wrench possible.**

- ▶ Protect the torque wrench e.g. from hard impacts or being dropped.

## Attention

**Damage to the torque wrench possible.**

- ▶ Ensure the following when using inserts with square drive on the torque wrench:
  - That the inserts are designed in accordance with the standards.
  - That the inserts are of the correct shape and size for the joint with the threaded connection which is to be tightened.

## Carrying out menu settings

### Switching on the torque wrench

- ▶ Press any button for approx. one second.

The software version number is displayed in the display.

In the following cases, it can take about one minute until the torque wrench is ready for operation after it has been switched on:

- The first time the torque wrench is put into operation
- If no rechargeable batteries have been put in for over 30 minutes.

- ▶ Press the OK button.

If the "Save values" function is switched on, the four-digit bolting application number is displayed.

- ▶ To confirm the bolting application, press the OK button.
- ▶ To create a new bolting application, proceed as described on page To assign the bolting applications during evaluation wi.

The current torque value which is set is displayed.

The "TARA!" symbol flashes in the display. The torque wrench is tared.

After taring, the torque wrench is in its basic status.



# EN

## Carrying out basic settings

### *Settings in delivery condition*

The "Cut-out" function mode is set in delivery condition.

The description of the functions assumes that the torque wrench is in "basic status". This is the status after switching on the torque wrench and completion of the taring process.

### Button lock

To protect the torque wrench from unintentional changes in the menus, it is equipped with a button lock.

If you want to make settings in the menus, you must first cancel the button lock. Proceed as follows:

- ▶ Briefly press the F button twice in succession.

### Saving settings

If you have carried out settings in a menu item, proceed as follows:

- ▶ To accept the setting and return to basic status, press the OK button.
- ▶ To accept the setting and switch to a different menu item, press the F button until the desired menu is displayed.

### Setting a torque value

- ▶ Press the F button until the torque value is displayed.

The set torque value flashes.

- ▶ Use the arrow buttons to set the desired value.

- ① Each time one of the arrow buttons is touched briefly, the value is adjusted by one division step within the permissible range. The value can be adjusted quickly by pressing the arrow button for a longer time.

- ▶ Save the setting as described on page Sav.

### Setting a unit of measurement

- ① On switching the unit of measurement, the value of the current setting is automatically converted.

#### **Attention**

**Material damage possible due to incorrectly set values.**

- ▶ Make sure that the torque value which is set after changing the unit of measurement is correct.

- ▶ To set the unit of measurement, press the F button until the unit of measurement is displayed.

The set unit of measurement flashes.

- ▶ Use the arrow buttons to select the desired unit of measurement.
- ▶ Save the setting as described on page Sav.

### Setting the function mode

"Cut-out" or "Indicating" function mode can be set.

- ▶ Press the F button until the "Click" symbol is displayed.

"On" or "OFF" flashes.

- ▶ Use the arrow buttons to select the desired function mode.
- ▶ Select "On" to set the "Cut-out" function mode.

- ① The "Cut out" function mode can be recognized by the "Click" symbol in the display.

# EN

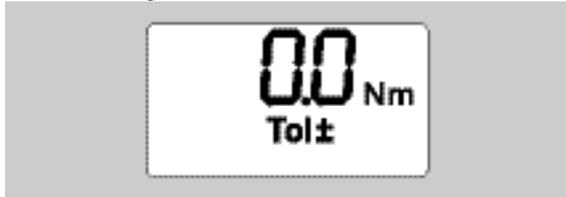


- ▶ Select "OFF" to set the "Indicating" function mode.  
The "Click" symbol is not displayed.
- ▶ Save the setting as described on page Sav.

## Setting the bolting tolerance

This function can be used to set the upper and lower tolerance value for the set torque value.

- ▶ Press the F button until the "Tol±" symbol is displayed.  
"On" or "OFF" flashes.
- ▶ To work without a bolting tolerance, use the arrow buttons to select "OFF".
- ▶ To work with a bolting tolerance, use the arrow buttons to select "On".
- ▶ Press the F button.
- ▶ Use the arrow buttons to set the desired lower tolerance value.
  - ① The lower tolerance value is identified with a minus symbol.
- ▶ Press the F button.
- ▶ Use the arrow buttons to set the desired upper tolerance value.
  - ① A bolting tolerance which has been set can be recognized by the "Tol±" symbol in the display.



- ▶ Save the setting as described on page Sav.

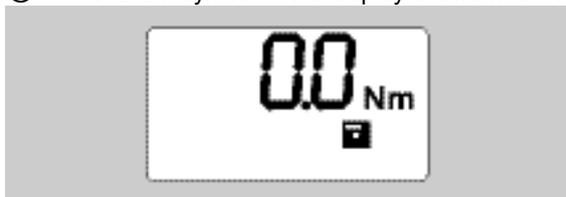
## Saving values

This function can be used to determine whether or not the bolting data are saved. This is carried out automatically in the "Cut-out" function mode. In the "Indicating" function mode, press the OK button twice.

If you would like to assign the saved data to the current time, update the wrench time using the documentation software.

If you switch on the "Save values" function, you may also assign bolting application numbers.

- ▶ Press the F button until the "Disk" symbol is displayed.  
"On" or "OFF" flashes.
- ▶ To save the bolting data, use the arrow buttons to select "On".
  - ① The "Disk" symbol in the display shows whether the bolting data are saved.



- ▶ In order not to save the bolting data, use the arrow buttons to select "OFF".  
The "Disk" symbol is not displayed.
- ▶ Save the setting as described on page Sav.

# EN

To assign the bolting applications during evaluation with the PC, bolting application numbers can be assigned.

① The "Save values" function must be switched on to create a bolting application.

▶ Press the F button until the four-digit bolting application number is displayed.



▶ Press the OK button to confirm the number of the bolting application.

▶ To assign a new number for the bolting application, press the F button.

The first digit of the four-digit bolting application number flashes.

▶ Use the arrow buttons to select the first digit.

▶ Press the F button.

The second digit of the four-digit bolting application number flashes.

▶ Proceed as described above to set the remaining digits for the bolting application number.

▶ Now carry out all of the other menu settings for this bolting application.

① The settings for the current bolting application are saved in the torque wrench.

## Extension correction (not used on fixed and flex head versions)

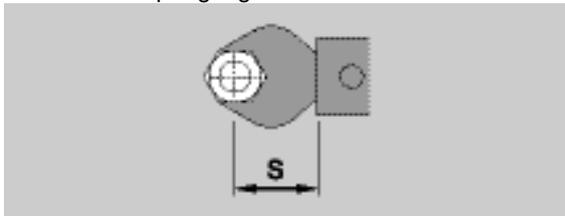
This function can be used to correct socket tools with a deviating extension.



**WARNING**  
**Risk of injury due to incorrectly tightened threaded connections.**

▶ Check the extension in the case of each socket tool which is used.  
▶ Set the extension correctly in the extension correction menu.

▶ Use a calliper gauge to determine the extension S, as shown in the illustration.



In the case of combinations of socket tools and adapters, the sum of all extensions must be taken into consideration.

▶ To select the extension correction menu item, press the F button until the "double arrow" symbol is displayed. "On" or "OFF" flashes.

▶ If you wish to work without extension correction, use the arrow buttons to select "OFF".

▶ If you wish to work with extension correction, use the arrow buttons to select "On".

▶ Press the F button.

▶ Use the arrow buttons to set the desired extension in millimetres.

① An extension correction which has been set can be recognized by the "double arrow" symbol in the display.

# EN



- ▶ Save the setting as described on page Sav.

## Automatic taring

This function can be used to set whether the torque wrench is to subsequently tare itself automatically.

- ▶ To select the automatic taring menu item, press the F button until the "TARA!" symbol is displayed. "On" or "OFF" flashes.
  - ▶ In order not to subsequently tare the torque wrench automatically, use the arrow buttons to select "OFF".
  - ▶ In order to subsequently tare the torque wrench automatically, use the arrow buttons to select "On".
- ① Automatic taring can be recognized by the "TARA!" symbol in the display.

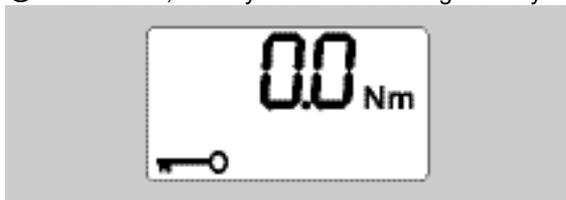


- ▶ Save the setting as described on page Sav.

## Switching on the key lock

This function can be used to lock the setting options for users who do not have access to the PIN code.

- ▶ To select the key lock menu item, press the F button until the "Key" symbol is displayed. "On" or "OFF" flashes.
  - ▶ To work without the key lock, use the arrow buttons to select "OFF".
  - ▶ To switch on the key lock, use the arrow buttons to select "On".
- ① When you have switched on the key lock, you cannot change settings without entering the PIN code. In delivery condition, the PIN code is "0000".
- ① When set, the key lock can be recognized by the "Key" symbol in the display.



- ▶ Save the setting as described on page Sav.

## Entering/changing the PIN code

### Attention

**Limited use of the torque wrench without the correct PIN code.**

- ▶ Store the PIN code in a safe location.
- ▶ If you have forgotten the PIN code, contact JETCO.

- ① In delivery condition, the torque wrench PIN code is set to "0000".

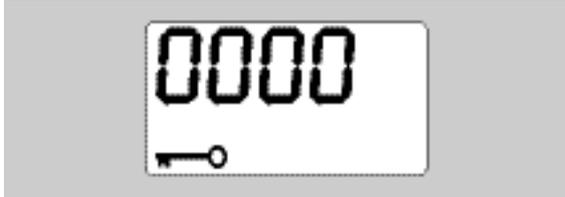
# EN

The PIN code can be set or changed in the "Switch on key lock" menu.

- ▶ Call up the "Switch on key lock" menu.
- ▶ Press the F button until the "Key" symbol is displayed.

"On" or "OFF" flashes.

- ▶ To switch on the key lock, use the arrow buttons to select "On".
- ▶ Press the F button.



The first digit of the four-digit PIN code flashes.

- ▶ Use the arrow buttons to select a digit between 0 and 9.
- ▶ Press the F button.

The second digit of the four-digit PIN code flashes.

- ▶ To set the remaining digits of the PIN code, proceed as described above.
- ▶ After entering the last digit of the PIN code, press the F or OK button.

The PIN code is now saved.

- ▶ Note the new PIN code.

Proceed as follows to change an existing PIN code:

- ▶ Call up the "Switch on key lock" menu.
- ▶ Keep pressing the F button until the "Key" symbol is displayed.

"On" or "Off" flashes.

- ▶ Press the F button.

The first digit of the four-digit PIN code flashes.

- ▶ Use the arrow keys to select the first digit of the old PIN codes.
- ▶ Press the F button.

The second digit of the four-digit PIN code flashes.

- ▶ Repeat the procedure for changing the digits of the PIN code for the remaining digits.
- ▶ Press the F or OK button after entering the last digit of the PIN code.

You can now enter the new PIN code directly.

- ▶ Enter the old PIN code.
- ▶ Confirm the old PIN code.
- ▶ Enter the desired new PIN code in the same way.

The PIN code has been changed.

## *Entering the PIN code*

No settings can be changed in the torque wrench menu without entering the correct PIN code.

① The PIN code is only requested when the key lock has been switched on and a PIN code has been set.

- ▶ Switch on the torque wrench.
- ▶ Press the OK button.
- ▶ Wait until taring has been completed.
- ▶ Press the F button twice.

The first digit of the four-digit PIN code flashes.

① If you do not make an entry within approx. three seconds after pressing the F button, the torque wrench switches back to its basic status.

- ▶ Use the arrow buttons to select the first digit of your PIN code.
- ▶ Press the F button.

# EN

- ▶ The second digit of the four-digit PIN code flashes.
- ▶ To set the remaining digits of the PIN code, proceed as described above.
- ▶ After entering the last digit of the PIN code, press the F or OK button.
- ▶ Settings can now be carried out in the menu.

## Quick Start - practical example

An example of setting the ECLICK/20 torque wrench completely is described in the following. The following data are to be set:

- Torque value 90 N·m
- "Cut-out" function mode
- Bolting tolerance -3 N·m, +5 N·m
- The values which are achieved are to be saved.
- Bolting application number 1000.
- The extension is 40 mm.

- ▶ Place the torque wrench on a flat surface.
- ▶ Make sure that no forces are acting on the torque wrench.
- ▶ Press any button to switch on the torque wrench.

The software version number is shown in the display.

- ▶ Press the OK button.

If the "Save values" function is switched on, the four-digit bolting application number is displayed.

- ▶ To confirm the bolting application, press the OK button.

The current torque value which is set is displayed.

The "TARA!" symbol flashes in the display. The torque wrench is automatically tared within a few seconds.

- ▶ To set the torque value, press the F button until the torque value is displayed.

The set torque value flashes.

- ▶ Use the arrow buttons to set the torque value to 90 N·m.



- ▶ Press the F button.
- ▶ Use the arrow buttons to set the unit of measurement to N·m, if necessary.

### Attention

**Material damage possible due to incorrectly set values.**

- ▶ Make sure that the torque value which is set after changing the unit of measurement is correct.

- ▶ Press the F button.
- ▶ Select "On" to set the "Cut-out" function mode.



# EN

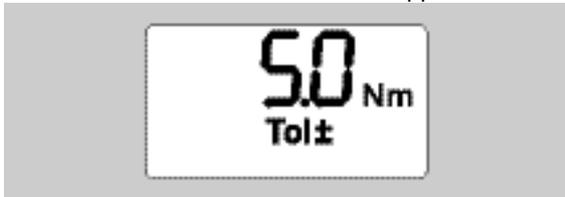
- ▶ Press the F button.
- ▶ To work with a bolting tolerance, use the arrow buttons to select "On".



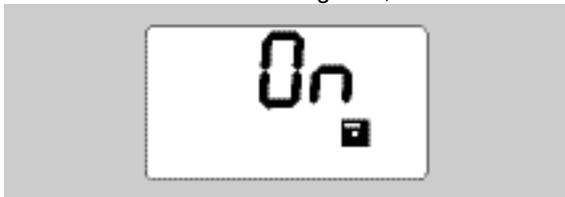
- ▶ Press the F button.
- ▶ Use the arrow buttons to set the lower tolerance range.



- ▶ Press the F button.
- ▶ Use the arrow buttons to set the upper tolerance range.



- ▶ Press the F button.
- ▶ In order to save the bolting data, use the arrow buttons to select "On".



- ▶ Press the F button.
- The first digit of the four-digit bolting application number flashes.
- ▶ Use the arrow buttons to select the first digit.
  - ▶ Press the F button.
  - ▶ The second digit of the four-digit bolting application number flashes.
  - ▶ To set the remaining digits of the bolting application number, proceed as described above.



- ▶ Press the F button.

# EN

- ▶ To work with extension correction, use the arrow buttons to select "On".



- ▶ Press the F button.
- ▶ Use the arrow buttons to set the extension.



- ▶ To accept the setting and return to the basic status, press the OK button.



## Using the torque wrench

### *Taring the torque wrench*

Before starting the bolting process with the torque wrench, the torque wrench must be tared as described on page Taring the torque wrench.

- ① Slight movements or the application of strain on the torque wrench during the taring process lead to measurement errors.

### Actuating the torque wrench



#### **WARNING**

**Risk of injury due to incorrectly mounted socket tools.**

- ▶ Make sure that the socket tools are secured against pulling off by engaging the retaining pin.



#### **WARNING**

**Risk of injury due to incorrectly set torque values.**

- ▶ Make sure that the torque value is set correctly.

# EN

## Attention

### Damage to the torque wrench possible.

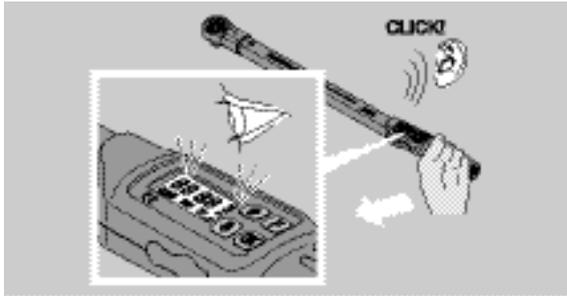
- ▶ Make sure that the torque wrench is not overloaded.
  - ▶ Never exceed the maximum torque which can be set (see laser lettering on the housing tube).
- ▶ Only actuate the torque wrench using the handle.
  - ▶ Grip the handle centrally.
  - ▶ Tighten tangential to the swiveling radius and at an angle to the tightening axis.



## "Click" function mode

- ▶ Tighten evenly and, in the final phase, without interruption, until a jolt is clearly felt and a click is heard. The set torque has been reached.

Following cut-out, the torque wrench is immediately ready for use again.

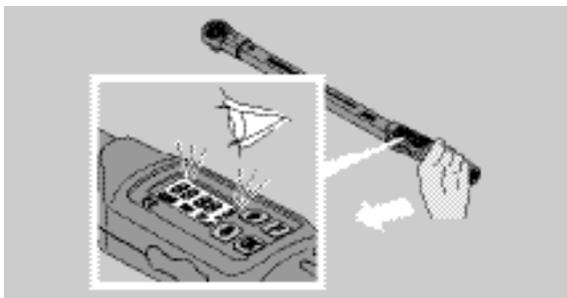


## "Indicating" function mode

- ▶ During tightening, observe the torque values in the display.
- ▶ Tighten evenly and, in the final phase, without interruption, until you see the set or desired torque value or the green light in the display.

① The coloured signals are only output if you have entered values in the "Bolting tolerance" menu.

The set torque has been reached.



## Controlled counter clockwise tightening

Controlled counter clockwise tightening can be carried out without any further settings. If you use ratchet inserts, these must be switched to "left-hand" operating direction.

# EN

## *Displays and signals during actuation*

	<p><b>CAUTION</b> <b>Risk of injury due to overloading the torque wrench.</b></p> <ul style="list-style-type: none"><li>▶ Do not load the torque wrench in excess of the maximum measuring range.</li><li>▶ End the tightening process once the set torque has been reached.</li></ul>
---	--

If the maximum measuring range is exceeded, several signal tones are heard at intervals.

### "Cut-out" function mode

- When tightening a bolt, the torque which is currently present is displayed on the display.
- As soon as the previously set tolerance range is reached, the display lights up green. A short signal tone is additionally sounded.
- As soon as the previously set torque value has been reached, the torque wrench disengages with a perceptible jolt and an audible click.
- If the previously set, upper tolerance value is exceeded, the display lights up red. A long signal tone is additionally sounded.
- If the previously set, lower tolerance value is not reached, the display lights up red.
- ① The coloured and acoustic signals are only output if you have entered values in the "Bolting tolerance" menu.

### "Indicating" function mode

- When tightening a bolt, the torque which is currently present is displayed on the display.
- As soon as the previously set tolerance range is reached, the display lights up green. A short signal tone is additionally sounded.
- If the previously set, upper tolerance value is exceeded, the display lights up red. A long signal tone is additionally sounded.
- If the previously set, lower tolerance value is not reached, the display lights up red.
- ① The coloured and acoustic signals are only output if you have entered values in the "Bolting tolerance" menu.

## Manually saving bolting values

In the "Indicating" function mode, the bolting values can only be saved manually.

Proceed as follows to save the bolting values manually:

- ① "On" must be selected in the "Save values" menu, see page Saving values.
- ▶ Following the tightening process in "Indicating" function mode, press the OK button. The torque last applied is displayed in the display.
- ▶ Press the OK button again as long as the torque value is displayed. A brief signal tone is heard. The value is saved.
- ① The torque value is only saved once even if the OK button is pressed several times.

### *Correcting and saving exceeded torque*

If a threaded connection has unintentionally been tightened with excessive torque, proceed as follows:

- ▶ Loosen the threaded connection.
- ▶ Press the OK button following the loosening process.

# EN

The torque last applied is displayed in the display.

- ▶ Press the OK button again.

A brief signal tone is sounded. The value is saved.

 **WARNING**  
**Risk of injury due to damaged bolts or workpieces.**

- ▶ Before tightening the threaded connection again, check the bolt and the workpiece for damage.
- ▶ If in doubt, use a new bolt.

- ▶ Tighten the threaded connection again.

The saved loosening torque is displayed in negative form in the software on the PC.

## *Power Off*

- ▶ To switch off the torque wrench, press the F button for approx. two seconds.

① If the torque wrench is not used for a long period of time, it switches itself off after approx. five minutes.

## *Connecting the torque wrench to the PC*

If the torque wrench is connected to a PC, the values from the torque wrench memory can be transferred to the PC.

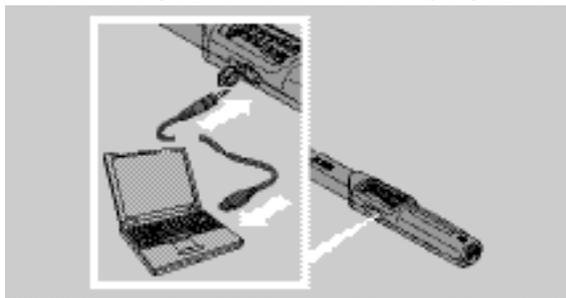
The prerequisites for connection to a PC are:

- A USB interface,
- Microsoft Windows and
- Installation of the software for documenting and processing the saved data.  
The software incl. USB adaptor and jack cable are available as accessories (Item number 7759-5, code number: 96583630) from JETCO.

- ▶ Fold the sealing plug for the PC connection socket to the side.

The socket for connecting the PC is now exposed.

- ▶ In one movement, insert the jack plug to stop into the PC connection socket.
- ▶ Insert the USB connector into the PC's USB connection.



- ▶ Make sure that the connectors are securely seated.
  - ▶ Start the software installed on the PC.
- The link between the torque wrench and the PC is established automatically

① For further information, refer to the description of the software for documenting and processing the saved data.

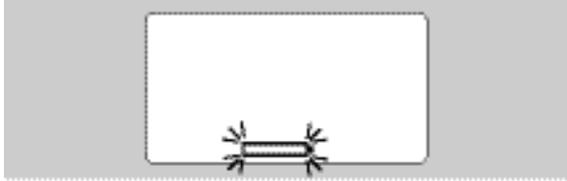
To disconnect the torque wrench from the PC following data transfer, proceed as follows:

- ▶ Pull the jack plug from the PC connection socket on the torque wrench.
- ▶ Seal the PC connection socket with the sealing plug.

# EN

## Error Codes

### The battery symbol in the display flashes



The rechargeable batteries' state of charge is no longer sufficient or the standard batteries are drained.

- ▶ Make new standard batteries or charged rechargeable batteries ready.
- ▶ Replace the rechargeable batteries with charged batteries or insert new standard batteries, see page Inserting rechargeable batteries/standard ba.
- ① The saved bolting data are retained in the event of battery replacement.
- ① If no rechargeable batteries or standard batteries are contained in the torque wrench for longer than 15 minutes, the time must be synchronised with the PC via the installed software following battery replacement.

If the flashing battery symbol is not heeded, the torque wrench switches itself off after a short while.

### The symbol for data storage in the display flashes



The torque wrench memory is full. Further bolting processes can be carried out, but these will no longer be saved.

- ▶ Clear the memory using the software installed on the PC.

## Cleaning

### Attention

**Material damage possible due to incorrect cleaning.**

- ▶ Clean the torque wrench with a dry, clean cloth only.

## Repair, maintenance and adjustment

In the event of damage to the torque wrench or malfunctions, repair with subsequent adjustment is necessary.

Repairs must only be carried out by JETCO.

With the exception of regular calibration, the torque wrench is maintenance-free.

During usage, the interior components of the torque wrench are subject to normal wear. The accuracy of the cut-out values must therefore be checked at regular intervals.

## Adjustment instructions

Calibration or adjustment of the torque wrench must only be carried out using a suitable tester.

# EN

Torque wrenches are inspection, measuring and test equipment. The calibration interval is dependent on factors such as the required accuracy, frequency of use, typical strain during usage, environmental conditions during the working process and storage conditions.

The period of time for calibration and adjustment results from the inspection, measuring and test equipment control process (e.g. ISO 9000 ff) defined within your company. If inspection, measuring and test equipment control is not carried out within your company, have the torque wrench calibrated and adjusted after a maximum of 12 months, starting from initial use, or after 5000 actuations.

- ① If you see "Cal" in the display after switching on the torque wrench, you should have the torque wrench calibrated.
- ▶ To reset the "Cal" display, press the F button whilst "Cal" is displayed.

"Cal" will not appear again until the torque wrench has been actuated a further 5000 times.

## Attention

**Material damage possible due to incorrect inspection values.**

- ▶ Before inspecting the torque wrench, switch off bolting tolerance.

If inspection reveals deviations, the torque wrench must be adjusted. Inspection and adjustment must be carried out according to the specifications of DIN EN ISO 6789.

Additionally adhere to and comply with all further legal specifications and regulations.

## *Adjusting deviating measured values*

Your torque wrench can be sent to JETCO for adjustment. The torque wrench will be returned adjusted and with a new factory calibration certificate.

You may also adjust the torque wrench yourself if you possess a torque tester with corresponding capacity and accuracy.

The JETCO accuracy guarantee expires in this case.

- ① Valid as of software version 1.7.2
- ① In order to update the software if necessary, contact JETCO.

- ▶ Switch the torque wrench on.

The current software version is shown on the display.

- ▶ Press OK to confirm the display.



## WARNING

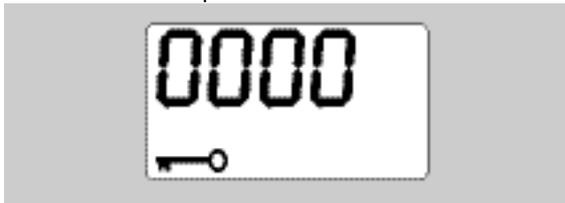
**Risk of injury due to incorrect adjustment of the torque wrench.**

- ▶ Adjust the torque wrench only as described in the following.

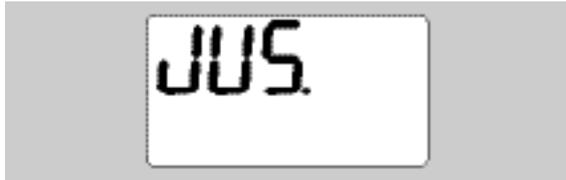
- ▶ Before inspecting the torque wrench, switch off the bolting tolerance.
- ▶ Call up the "Indicating" function mode.
- ▶ Set the torque wrench to the maximum permissible torque value (see laser lettering).
- ▶ Load the torque wrench to its maximum permissible torque value on the tester.
- ▶ Note the value which the tester displays.
- ▶ To access adjustment mode, briefly press the F button, the up arrow button and the down arrow button in succession.

# EN

The PIN code "0000" set in the factory is shown on the display. This PIN code applies to access to the administrator area and the torque wrench lock.



- ▶ Press the OK button four times to confirm the code.
- "On" is shown on the display.
- ▶ Press the arrow button until "JUS." is shown on the display.



- ▶ Press the F button to cancel the process.
- ▶ Press the OK button to carry out settings.

The display lights up red and the torque value flashes.

- ▶ Use the arrow buttons to set the maximum permissible torque value for the torque wrench.
- ▶ Press the F button to cancel the process.
- ▶ Press the OK button to confirm the setting.

The display lights up green and the torque value flashes.

- ▶ Use the arrow buttons to set the torque value which was displayed on the tester.
- ▶ Press the F button to cancel the process.
- ▶ Press the OK button to confirm the setting.

The torque wrench is adjusted.

- ▶ Again check the accuracy of the trigger values according to the specifications of DIN EN ISO 6789. In the event of deviations, the torque wrench must be adjusted again.

## *Torque wrench reset*

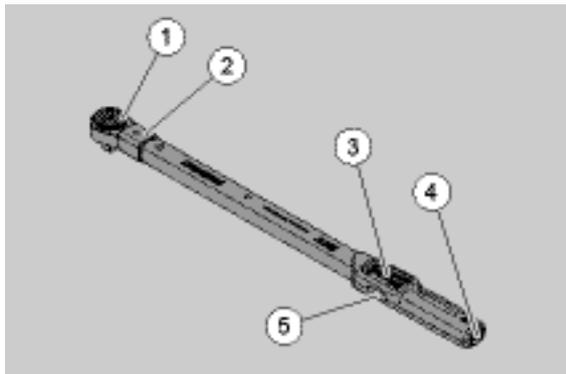
- ▶ To reset the torque wrench software, press all four buttons simultaneously for about 5 seconds.

The software restarts.

- ▶ If the software does not restart, remove the rechargeable batteries or batteries from the battery compartment of the torque wrench.
- ▶ Wait for about 30 minutes
- ▶ Put the rechargeable batteries back in, paying attention to the polarity shown in the battery compartment.
- ▶ Switch on the torque wrench.

# EN

## Specifications



1	Tool
2	Tool mounting
3	Display and buttons
4	Battery compartment
5	PC connection socket

The ECLICK torque wrench is an adjustable, indicating and clicking torque wrench with an audible and perceptible cut-out signal.

Characteristics of the torque wrench:

- Electronically controlled safety cut-out mechanism.
- Fast and precise adjustment of the cut-out values via buttons.
- The set value is electronically saved.
- An automatic button lock prevents unintentional adjustment.
- Pre-settings can be secured via a PIN code.
- Overload protection via an acoustic and optical warning signal.
- Automatic indication of the next calibration date.
- Simple calibration and poss. adjustment with tester No 7707 W without disassembly.
- Once the torque wrench has been relieved, it is immediately ready to function again.
- Clockwise and counter clockwise tightening is possible.
- The display function also works in the case of counter clockwise torques.
- 7500 bolting data can be saved, read out via a USB interface and transferred to a PC for further processing.
- The torque wrench has a QuickRelease safety locking mechanism for simple locking and release of socket tools.
- Safe handling thanks to an ergonomically shaped handle. The correct gripping position can be seen and felt.
- Various units of measurement can be set.
- Extensions for special socket tools can be entered easily.
- Visible, perceptible and audible warning signals are present.

The torque wrench is available in seven different sizes. See page **Fehler! Verweisquelle konnte nicht gefunden werden.**

The torque wrench can be equipped with various insert tools. To achieve this, the head of the wrench is equipped with a square socket with a double-sided detent bore and an insertion groove. This enables controlled counter clockwise tightening in cut-out mode.

### *Identification*

The torque wrench is identified with a serial number. This is stamped in on the side of the torque wrench tube. The serial number is additionally stored in the software. It is transferred to the PC when the measured values are read out.

# EN

## Accuracy

The measuring range is 10 % bis 100 % of the nominal value.

The display deviation of the relevant measured value is  $\pm 2\%$ .

The torque wrench corresponds to DIN EN ISO 6789.

Each torque wrench is supplied with a factory calibration certificate.

## Technical data

ECLICK service/series							
		EC-75F	EC-150F	EC-300F	EC-480F		
Measuring range	[N·m]	10–100	20–200	40–400	65–650		
	[ft·lb]	7,4–75	15–150	30–300	48–480		
	[in·lb]	90–900	180–1.800	360–3.600	560–5.800		
Adjustment/display resolution	[N·m]	0,2/0,1	0,5/0,1	1,0/0,1	1,0/0,1		
	[ft·lb]	0,2/0,1	0,5/0,1	1,0/0,1	1,0/0,1		
	[in·lb]	2/1,0	5/1,0	10/1,0	10/1,0		
Insert square	[in]	Flex 3/8"	Flex 3/8"	1/2"	3/4"		
Length	[mm]	467	548	688	870		
Width	[mm]	28	28	28	30,6		
Height	[mm]	23	23	23	25,6		
Weight	[g]	1.150	1.430	1.830	3.300		
Storage temperature	[°C]	-20 to +80	-20 to +80	-20 to +80	-20 to +80		
Operating temperature	[°C]	-10 to +60	-10 to +60	-10 to +60	-10 to +60		

## Internal software

The torque wrench is equipped with a microcontroller and a memory. The internal software evaluates the measured results and permanently saves these. The information is output via the display, the red or green light and clicking on cut-out.

Software updates can be obtained from JETCO.

## Symbols and identification

The following symbols and identification are listed on the handle of the torque wrench:

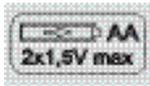
# EN

## CE symbol



The CE symbol confirms complete adherence to the "basic (safety) requirements", which are defined in EU directives.

## Battery symbol



This symbol specifies the number, the type, the polarity and the maximum voltage of the rechargeable batteries or standard batteries to be used.

## Disposal



Do not dispose of the torque wrench in the domestic waste. Dispose of the torque via a registered, specialist disposal company.

## Handle material



This symbol identifies the handle's material (glass fibre-reinforced polyamide) for recycling.

## Accessories

### Inserts with square drive

- For all conventional bolt head shapes and sizes
- Welded-on socket tools.

### For connection to the PC

- USB adaptor, jack cable and software (Item number 7759-5, code number: 96583630)

### For checking and adjusting

- Electronic torque testers 7707 W

### Available services

- Repairs
- Inspection and readjustment (including accuracy guarantee and new factory calibration certificate)
- Training courses
- Service Portal: [service.JETCO.de](http://service.JETCO.de).

# EN

## Disposal



Dispose of the torque wrench via a registered, specialist disposal company. Observe and comply with the relevant regulations. If in doubt, contact your community or municipal administration.

Dispose of spent standard batteries and defective rechargeable batteries at a collection point.

The torque wrench is manufactured from steel.

The handle is manufactured from

- Glass fibre-reinforced polyamide (PA-GF),
- Polymethyl methacrylate (PMMA) and
- Thermoplastic elastomer (TPE).

The torque wrench additionally contains electronic components, which must be disposed of separately.

WEEE registration No.: DE 70431151

WEEE = Waste Electrical and Electronic Equipment

### **JETCO**

**Torque Tools LLC**

**835 Meridian Street**

**Duarte, Ca 91010**

**[www.itorque.com](http://www.itorque.com)**