

**Garant****Electronic torque wrench / rotational angle wrench, maximum torque:  
850N·m****Order data**

|              |               |
|--------------|---------------|
| Order number | 655013 850    |
| GTIN         | 4067263290520 |
| Item class   | 61D           |

**Description****Version:**

- **Display:** Large sharp contrast illuminated 2.8 inch TFT display with double scale with viewing angle stability. With battery display and memory display. Torque and rotational angle both displayed at the same time.
- **Display:** Peak and Track function modes.
- **Modes:** Displaying torque, triggering torque, triggering rotational angle, triggering rotational angle with rotational angle monitoring, triggering rotational angle with torque monitoring. Up to 100 screw tightening profiles can be programmed. Recurrent screw tightening profiles can be summarised into a procedure (up to 10 procedures each with up to 10 screw tightening profiles). Screw tightening profiles and procedures can be programmed directly on the wrench.
- **Memory capacity:** 1000 measurement values with timestamp (incl. date and time).
- **Data output:** Available via USB-C. The data can be exported as a .csv file.
- **Password protection:** available as protection against unauthorised access to the menu (master password) and for verifying screw-tightening cases and procedures. In addition, you can set that reworking a screw connection that has been performed incorrectly requires input of a password.
- **Warning signal outputs** are haptic (vibration), visual (change of colour at the display, visible through 360° in any direction due to the LED ring with "traffic light function") and acoustic (buzzer, beep sound). The pre-warning point can be configured individually. Haptic and acoustic warning signals can be disabled if desired.
- **Easy input of reference dimensions:** For tools with a different pitch setting simply input the new pitch. No laborious calculations with formulae.
- **Protection class IP40**
- **The 2-component handle of the torque / rotational angle wrench ensures specially good ergonomics and high torque transmission.**
- **Resistant to oils, grease, fuel, brake fluid and Skydrol.**

- **Languages: German, English, Spanish, Italian, French.**
- **Factory settings: The wrench can be reset to the factory settings.**
- **Display of the software version with serial number, load cycle counter and calibration date.**
- **Calibration reminder: after number of load cycles.**
- **Units of measure: Nm, lbfft, lbt-in.**

with built-in reversible ratchet.

**Standard:**

Geprüft nach DIN EN ISO 6789.

**Accuracy:**

**Torque:** Clockwise  $\pm 2\%$ , anticlockwise  $\pm 3\%$ .

**Rotation angle:**  $\pm 1^\circ$  for the measurement range up to  $100^\circ$ ,  $\pm 1\%$  for the measurement range  $100^\circ$  and beyond.

**Cutting dataa:**

**Legend for drawing and formula:**

$l_1$  = Lever length without plug-in head

$l_2$  = Adjusted reference dimension on the torque wrench

$l_3$  = Lever length including factory calibration reference dimension

$l_4$  = Reference dimension of the plug-in head

L = Total length of the tool

$T_1$  = Torque to be set

$T_2$  = Specified torque

**Supplied with:**

USB-C data cable, plug-in ratchet (reversible) with ejector, 1 commercially available Li-ion battery type 18650 3.6V / 3400 mAh (can be charged directly within the tool via the USB-C port). Supplied in a sturdy plastic case.

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USB-C data cable, plug-in ratchet (reversible) with ejector, 1 commercially available Li-ion battery type 18650 3.6V / 3400 mAh (can be charged directly within the tool via the USB-C port). Supplied in a sturdy plastic case.

**Note:**

Suitable additional batteries can be found under No. 081574 size 3500. Charger for 4 batteries available as options under: 081590 size 4ULTRA.

## Technical description

|                   |                     |
|-------------------|---------------------|
| Interface         | Bluetooth interface |
| Interface         | USB interface       |
| Exchangeable tool | Plug-in head        |
| Power supply      | Mains operated      |
| Standard          | DIN EN ISO 6789     |

|  |                                 |
|--|---------------------------------|
| Lever length including factory calibration reference dimension [l <sub>3</sub> ] | 1141 mm                         |
| Square drive   | 3/4 in                          |
| Data can be recorded   | yes                             |
| Torque range   | 1505 - 7523 lbfin               |
| Reversible reading   | Nm                              |
| Reversible reading   | lbfft                           |
| Reversible reading   | lbfin                           |
| Measuring accuracy rotational angle  | ± 1 %                           |
| Torque range   | 170 - 850 Nm                    |
| Feedback   | displaying                      |
| Calibration  | O1                              |
| Calibration  | O5                              |
| Measurement process  | Angle of rotation               |
| Measurement process  | Torque                          |
| Setting the trigger value  | digital, adjustable             |
| Resolution   | 0.1 Nm                          |
| Measuring accuracy rotational angle  | ± 1 degrees                     |
| Test certificate   | Manufacturer's test certificate |
| Nominal voltage  | 3.6 V                           |
| Number of rechargeable batteries contained                                       | 1                               |
| Display diagonal   | 2.8 in                          |
| maximum torque   | 850 Nm                          |
| Battery capacity   | 3.4 Ah                          |
| Torque range   | 125 - 627 lbfft                 |
| Torque measuring accuracy  | ±2 %                            |
| Torque measuring accuracy  | ±3 %                            |
| Type of rechargeable battery   | Lithium-ion                     |
| Angular resolution   | 0.1 degrees                     |
| Weight   | 4200 g                          |

|                          |                                     |
|--------------------------|-------------------------------------|
| Measurement technology   | electronic                          |
| Adjustable trigger value | adjustable                          |
| Display                  | digital                             |
| Release signalling       | visual                              |
| Release signalling       | acoustic                            |
| Release signalling       | haptisk                             |
| Connection format        | Push-through square drive (ratchet) |
| Direction of tightening  | For right and left-hand tightening  |
| Overall length L         | 1226 mm                             |
| Trigger principle        | Vibration motor                     |
| Type of product          | Torque Wrench                       |

## Services

|   |               |
|---|---------------|
| CalibrationTorque wrench clockwise / anti-clockwise maximum torque 1000/2 N·m       | 020030 1000/2 |
| DAkkS calibrationTorque wrench clockwise / anti-clockwise maximum torque 1000/2 N·m | 020040 1000/2 |

## Accessories

|  |             |
|--|-------------|
| Li-ion battery cell, rechargeable Capacitance 3500 mAh | 081574 3500 |
| Spare parts assortment for ratchet Square drive 3/4 in | 655556 3/4  |