

# **DIGITAL TORQUE WRENCH**

Model Nos: PRO236 & PRO237

PART NOs: 1700636 & 1700637

# OPERATING & MAINTENANCE INSTRUCTIONS

GC12/11

# INTRODUCTION

Thank you for purchasing this CLARKE Torque Wrench.

This CLARKE product has been designed to give long and trouble free service. If however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

#### **GUARANTEE**

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for it's intended purpose.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

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# **GENERAL SAFETY PRECAUTIONS**

- Never exceed the permitted maximum torque value for this wrench as given in the Technical Specification. Overloading the wrench could cause damage.
- 2. Ensure that associated adaptors, extensions and sockets are rated to equal or greater than the torque being applied.
- 3. Always use the correct size and type of socket for the nut/bolt.
- 4. Never use sockets showing wear or cracks
- 5. Always pull the wrench towards you. Never push it away and adjust your stance to prevent a fall should something give way unexpectedly.
- 6. Never operate the torque wrench or remove the batteries with wet hands.

#### **ENVIRONMENTAL PROTECTION**



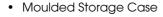
Do not dispose of metal products with general household waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of appropriately according to the laws governing Waste Electrical and Electronic Equipment at a recognised disposal facility.

# **OVERVIEW**

This torque wrench is designed to tighten nuts & bolts with precision, and with careful and considerate use, the wrench will give years of reliable service. Features of the wrench include:

- Audible/light alarm (when pre-set target torque is approaching)
- LED screen with back light (blue)
- Peak Value Hold
- Auto Power-Off
- Low Battery Indication







# **TECHNICAL SPECIFICATIONS**

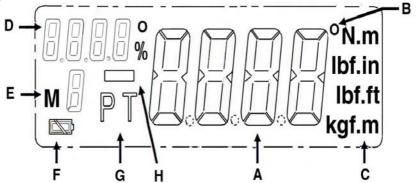
	PRO236	PRO237
Drive Shank Size	3/8"	1/2"
Torque Range	10-135 Nm	20-200 Nm
Selectable Torque Unit	Nm, lb-in, lb-ft & kg-m	Nm, lb-in, lb-ft & kg-m
Torque Fuction in Both Directions	Yes	Yes
Accuracy	+/- 2 %	+/- 2 %
Overall Length	490 mm	608 mm
Weight	1.3 kg	1.5 kg
Batteries Required	4 x AAA batteries	4 x AAA batteries
Battery Life	60 Hr	60 Hr
Operating Temperature	0-40° C	0-40° C

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice.



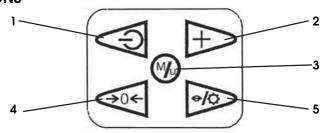
# THE CONTROL PANEL

## THE DISPLAY



- A 'Real time' torque value display
- B The units of 'Angle' (always 0)
- C Unit of measurement
- D Target Torque Indicator
- E Memory Storage numbers
- F Battery Condition Indicator
- G Peak/Track mode Indicator
- H Minus symbol for anti-clockwise operation

#### THE PUSHBUTTONS



- 1. Power ON/OFF button
- 2. Button to select Memory storage /unit selection.
- 3. Button to access & accept the Auto On/Off, Measurement units and Track or Peak mode selection including pre-set torque values.
- 4. Button to zero the selected values.
- 5. Button to illuminate the display / select the next digit.

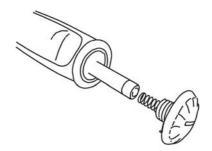




# PREPARATION FOR USE

#### INSTALLING THE BATTERIES

1. Open the cover of the battery compartment by turning it anticlockwise & insert four AAA batteries as shown. Close the compartment cover and the wrench is ready to use.



#### TURNING THE WRENCH ON /OFF

- 1. Press the 🗐 button to turn on.
- The unit will bleep and the complete display screen will momentarily light up.
- 2. Press the jutton again to turn the system off.

## TURNING THE DISPLAY ILLUMINATION ON/OFF

1. The display illumination can be turned on or off by pressing the button.



#### AUTO POWER-OFF SETTING

When enabled, this setting means that the wrench will turn off automatically if no buttons are pressed during a given time. Change the **Auto/Off** setting as follows:

- 1. Once the unit is powered up, press  $(M_{\rm u})$  three times and the default **Auto/Off** time of **5** (5 minutes) is shown on the display.
- 2. Press the button to select the shut-off time of 5 or 15 minutes, or **OFF** to turn off the Auto-Off function.
- 3. Press the  $(M_{\rm u})$  button to confirm the selection. The wrench will return to the measurement mode.

Note: If no buttons are touched for 3 seconds the wrench will return to the measurement mode.



#### SELECTING THE PEAK OR TRACK MODE

- 1. After turning on the display, the system defaults to "Track" mode, i.e. the real-time torque during use will be displayed.
- 2. Enter the mode selection by pressing the  $(M_{\rm u})$  button once.
- 3. Press the button to select **T** (track) mode or **P** (Peak) mode.
- 4. Press the wubbutton three times to confirm the selection and return to the measurement mode.

Note; If no buttons are pressed for 3 seconds the wrench will remain at the last selection of 'Peak' or 'Track' mode and return to Measurement mode.

When in 'Peak' mode, the maximum torque value measured will be saved and be shown on the display untill the next task is performed. You can then proceed to the next action or press to zero the wrench.

#### SELECTING UNITS OF MEASUREMENT

- 1. Press the  $(\mathcal{N}_{u})$  button twice to select "UNIT SELECTION".
- 2. Press the button repeatedly to select either N.m / lbf.ft / lbf.in / kgf.m.
- 3. Press the Mu button twice to confirm the unit selection.

Note: If no buttons are pressed for 3 seconds the wrench will remain at the last unit of measurement selected, and return to 'Measurement' mode.

#### TARGET TORQUE SETTING

The wrench offers 5 pre-set alarm values (M1to M5) for the target torque. These values must always be at least 10% of the maximum capability of the wrench.

The wrench will be delivered with all 5 values pre-set to the maximum permitted (100%). Note that setting these alarm values will not prevent the wrench from measuring to its maximum capability.

If using the wrench with no pre-set alarms in use, one pre-set value must always remain set to 100% of the wrench maximum operating torque. The target torques are alarm values and the unit will always measure throughout its operating range.

When the pre-set alarm values have been set, the wrench will always default to the last value used as indicated by the setting number (M1 to M5).

To set the pre-set alarm values proceed as follows.

- 1. Press the jutton to turn the wrench on.
- 2. Press the button repeatedly to select the pre-set location (M1 to M5)

3.	To set the torque value, press and hold the button for 2 secs.		
	When the next dig	ne desired value is reached, press the button to move to the git. Repeat this for all digits.	
•	SEt	is shown on the screen and the last saved value is displayed with	

- **SEt** is shown on the screen and the last saved value is displayed with the first digit flashing.
- 4. Press the button to zero the digit or repeatedly press the button, to increase the value of the flashing digit.
- 5. When the required torque is set, press (Mu) to save the pre-set value at the current memory location.

Note: "ERRO" will be shown if the pre-set torque is less than the minimum value of 10% capacity or exceeds the 100% maximum capacity. After 3 seconds, the wrench returns to the target torque value setting.

Note: After pressing the button to access the torque SELECT mode, if no selection is made with 3 seconds the wrench will return to the measurement mode.

# **OPERATION**



CAUTION: NEVER USE THE TORQUE WRENCH WHEN THERE IS A LOW BATTERY CONDITION AS THE TORQUE WRENCH ACCURACY WILL BE AFFECTED.



CAUTION: NEVER EXCEED THE PERMITTED MAXIMUM TORQUE VALUE FOR THIS WRENCH. OVERLOADING THE WRENCH COULD CAUSE DAMAGE.

- Select the socket required and attach it to the square drive. If possible, avoid the use of flexible extensions or universal joints which could possibly result in inaccurate torque readings.
- 2. Engage the nut or bolt and apply a steady pull with the wrench.
  - As the torque reaches half the target value, the LED will show a
    yellow light, as the target torque is reached, the LED will illuminate in
    green and the alarm will bleep. When the target is exceeded by
    approximately 2% the LED will show a red light accompanied by a
    continuous alarm tone.
  - If in the PEAK mode, the measured torque will be displayed and the
    highest value measured will remain as a flashing display until the
    wrench is re-set for the next measurement by pressing the outton,
    or the wrench reaches the time limit to automatically power-off.
  - If in the TRACK mode, the actual torque applied at any moment will be displayed.
- 3. When the continuous tone is heard, you have reached/exceeded your target torque, so stop pulling immediately.

Note: if the wrench is operated to its maximum range, the coloured LED will indicate green at 98% of the range, yellow at 100% and then change to red with a continuous tone and 'ERRO' displayed above this point.

#### CARE OF THE TORQUE WRENCH DURING USE

- For assured accuracy of the wrench, periodic self re-setting is necessary as described under MAINTENANCE & CALIBRATION.
- Check that the wrench capacity is adequate for the anticipated load before proceeding and do not exceed the maximum torque setting for the wrench as stated in the Technical Specification.
- 3. Re-set the wrench as described under MAINTENANCE & CALIBRATION, if you believe its capacity may have been exceeded.

- 4. Never apply force with the torque wrench when the power is off. Always turn the unit on before using it.
- 5. Take care not to damage the LCD display.
- 6. Take care not to drop the wrench and re-set it as described under MAINTENANCE & CALIBRATION, should it be subject to sudden shock.
- 7. Never press the justion to turn the wrench off while force is applied.
- 8. Never use the wrench to undo bolts & nuts which may be excessively tight. Very tight nuts and bolts should be loosened with a standard wrench and the torque wrench used only for re-tightening.
- 9. Do not expose the wrench to extreme temperature, humidity or direct sunlight for extended periods.

#### STORAGE

- If the wrench is not to be used for long periods of time it is advisable to remove the batteries to avoid the risk of leaking.
- Store in a clean, dry environment away from excess heat, humidity or dust.

#### **CLEANING**

1. Clean the wrench by wiping the tool and the display with a soft cloth. Never immerse it in water or any type of solvent or cleaning fluid.

#### **MAINTENANCE & CALIBRATION**

- 1. Never attempt to dismantle the wrench.
- 2. To maintain the accuracy of the wrench periodically re-set to zero by holding the and buttons together.
  - The wrench has been calibrated at the factory in order to ensure accurate readings and should not require any re-calibration. The original calibration certificate should be supplied with the unit.
- 3. If inaccuracy is suspected, contact your local Clarke dealer.

### **BATTERY USE AND CARE**

- If when switching on, there is no reading on the display, or the 'Battery Condition Indicator' on the panel is empty, the batteries must be replaced.
- 2. Never combine used batteries with old ones or mix battery types.
- 3. Never use a battery if it is cracked or damaged.
- Always dispose of old batteries appropriately. Never either dump or incinerate old batteries.





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