

## TRUCHECK™ & TRUCHECK™ PLUS



# CONTENTS

<b>Installation (All 3, 10 &amp; 25 N·m models)</b>	<b>2</b>
<b>Operation (43250, 43251 &amp; 43252)</b>	<b>3</b>
MODE Button	3
UNIT Button	3
RESET Button	3
LIMIT Button	3
Using the Instrument	3
Serial Port	3
<b>Operation (43253, 43254 &amp; 43255)</b>	<b>4</b>
<b>Technical Specification (All 3, 10 and 25 N·m models)</b>	<b>4</b>
Environmental Conditions	4
<b>Calibration</b>	<b>4</b>
<b>Repair</b>	<b>5</b>
<b>Cleaning</b>	<b>5</b>
<b>Warning</b>	<b>5</b>
<b>Disposal</b>	<b>5</b>
<b>Installation (All 350, 1000, 2000 N·m, and 250 &amp; 750 lbf·ft models)</b>	<b>6</b>
<b>Operation (43222, 43231 &amp; 43245)</b>	<b>7</b>
MODE Button	7
UNIT Button	7
RESET Button	7
LIMIT Button	7
Using the Instrument	7
Serial Port	7
<b>Operation (43227 &amp; 43238)</b>	<b>8</b>
<b>Technical Specification (All 350, 1000, 2000 N·m, and 250 &amp; 750 lbf·ft models)</b>	<b>8</b>
Environmental Conditions	9
<b>Calibration</b>	<b>9</b>
<b>Repair</b>	<b>9</b>
<b>Cleaning</b>	<b>9</b>
<b>Warning</b>	<b>9</b>
<b>Disposal</b>	<b>9</b>



Part Number	Description
43250	TruCheck™ Plus 0.1 – 3.0 N·m
43251	TruCheck™ Plus 1 - 10 N·m
43252	TruCheck™ Plus 1 – 25 N·m
43253	TruCheck™ 0.1 – 3.0 N·m
43254	TruCheck™ 1 - 10 N·m
43255	TruCheck™ 1 – 25 N·m

## INSTALLATION (ALL 3, 10 & 25 N·m MODELS)

1. Identify a suitable surface and position to mount the instrument.
2. Using the template at the back of this manual, mark the position of the 2 mounting holes.
3. Drill (or drill and tap) the 2 mounting holes suitable for 6 mm fasteners (M6; Grade 8.8 minimum; cap head type are recommended or the equivalent).
4. Fix instrument in position using fasteners at a torque of 7.3 to 8.4 N·m (5.4 to 6.2 lbf·ft).
5. Connect power supply (supplied) to the instrument. All display segments will light and buzzer will sound briefly. The instrument is ready for use.



**WARNING: ENSURE THE MOUNTING SURFACE IS CAPABLE OF SUPPORTING THE INSTRUMENT WHEN THE RATED CAPACITY TORQUE IS APPLIED.**

**ONLY USE THE POWER SUPPLY PROVIDED.**

**DO NOT APPLY TORQUE ABOVE THE RATED CAPACITY.**

TruCheck™ intended for testing torque tools.

# OPERATION (43250, 43251 & 43252)

## MODE Button

1. Press MODE button briefly to display current mode of operation.
2. Press and hold MODE button to change mode of operation. Release button at required mode to accept.
3. Modes of operation.
  - Track Mode ('trAC' is displayed).  
Display follows torque applied
  - Click Mode ('CLIC' is displayed).  
Display shows first peak of torque applied. Serial data output of peak torque is automatically transmitted. Display automatically resets after 3 seconds.  
For use with 'click' type torque wrenches.
  - Dial Mode ('dIAL' is displayed).  
Display shows peak of torque applied. Press RESET to clear the display.  
For use with 'dial' and 'electronic' type torque wrenches.

## UNIT Button

Press UNIT to change units of measurement.

## RESET Button

Press RESET to reset display in Dial mode. Serial data output of peak torque is also transmitted.

Press RESET to transmit serial data in Track mode.

## LIMIT Button

1. Press LIMIT to enter target torque setting.  
Display flashes between '**SEt**' and the target torque setting.
  - Press MODE to increase target setting. Hold to increase speed of change.
  - Press UNIT to decrease target setting. Hold to increase speed of change.
2. Press LIMIT to enter  $\pm$  percentage tolerance setting from 1 to 10%. Enter '**0**' for no limits.  
'%' and the  $\pm$  percentage tolerance setting is displayed constantly.
  - Press MODE to increase  $\pm$  percentage tolerance setting.
  - Press UNIT to decrease  $\pm$  percentage tolerance setting.
3. Press LIMIT to finish. Display shows '**FIN**' for 1 second.

## Using the Instrument

1. Select mode of operation.
2. Place screwdriver / wrench in the instrument and operate in desired direction. Remove screwdriver / wrench and zero the display (if required) by pressing the RESET and LIMIT buttons together. '**SEt0**' is displayed for 1 second.
3. Place screwdriver / wrench in the instrument and operate in desired direction.

## Serial Port

Connect lead (supplied) between TruCheck™ Plus serial port and computer/ printer.

Communication settings: 9600 Baud, 8 data bits, 1 stop bit, no parity.

## OPERATION (43253, 43254 & 43255)

1. Place screwdriver / wrench in the instrument and operate in the desired direction. Remove screwdriver / wrench and zero the display (if required) by pressing the red button located on the side of the instrument.
2. Place screwdriver / wrench in the instrument and operate in the desired direction.

## TECHNICAL SPECIFICATION (ALL 3, 10 AND 25 N·m MODELS)

Display:	4 digit, 7 segment LED.
Display update rate:	2 readings per second (2Hz).
Zero suppression:	± 2 least significant digits
Auto reset hold time:	2 seconds.
AC power adapter:	230 Volts AC at 50 Hz input (UK / Europe). 240 Volts AC at 50 Hz input (Australia). 120 Volts AC at 60 Hz input (USA / Canada). 100 to 240 Volts AC at 50-60 Hz input. (World). 6V, 300 mA DC output (centre positive).
Power consumption:	1.8 W - maximum.
Weight:	2 kg shipping weight.
Dimensions (mm):	175 (L) x 63.5 (W) x 63.5(H)
Case materials / finish:	Powder coated aluminium housing. Stainless steel transducer shaft.
Electromagnetic Compatibility:	In conformance with EN 61326-1.
Low voltage directive:	In conformance with EN 61010-1.

## Environmental conditions

- a) Indoor use. IP 40.
- b) Altitude up to 2000 m.
- c) Temperature 5°C to 40°C.
- d) Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.
- e) Mains supply voltage fluctuations up to ±10% of nominal voltage.
- f) TRANSIENT OVERVOLTAGES up to the levels of OVERVOLTAGE CATEGORY II

**NOTE: Due to continuous improvement all specifications are subject to change without prior notice.**

## CALIBRATION

Your instrument has been supplied with a certificate of calibration. To maintain the specified accuracy it is recommended that the instrument is recalibrated at least once per year. Recalibration should be carried out by the Supplier or by the Supplier approved agent, where all the facilities to ensure the instrument is functioning at maximum accuracy are available.

Do not remove front panel or case as there are no calibration settings inside.

## REPAIR

Repair should be carried out by the Supplier or by the Supplier approved agent, where all the facilities to ensure the instrument is functioning at maximum accuracy are available.

There are no parts for user repair inside the case.

## CLEANING

Do not use abrasives or solvent based cleaners.

## WARNING

If the instrument is used in a manner not specified by the Manufacturer, the protection provided by the equipment may be impaired.

## DISPOSAL:-



This symbol on the product indicates that it must not be disposed of in the general waste.

Please dispose of according to your local recycling laws and regulations.



Part Number	Description
43221	TruCheck™ 10 – 350 N·m
43222	TruCheck™ Plus 10 – 350 N·m
43226	TruCheck™ 10 – 250 lbf·ft
43227	TruCheck™ 10 – 250 lbf·ft F/W RS232
43230	TruCheck™ 100 – 1000 N·m
43231	TruCheck™ Plus 100 – 1000 N·m
43237	TruCheck™ 75 – 750 lbf·ft
43238	TruCheck™ 75 – 750 lbf·ft F/W RS232
43244	TruCheck™ 200 – 2000 N·m
43245	TruCheck™ Plus 200 – 2000 N·m

## INSTALLATION (ALL 350, 1000, 2000 N·m, AND 250 & 750 lbf·ft MODELS)

1. Identify a suitable surface and position to mount the instrument.
2. Using the template at the back of this manual, mark the position of the 4 mounting holes.
3. Drill (drill and tap) the 4 mounting holes suitable for 10.0 mm ( $\frac{3}{8}$  inch) fasteners (M10; Grade 8.8 minimum; cap head type are recommended or the equivalent  $\frac{3}{8}$  inch).
4. Fix instrument in position using fasteners at a torque of 35 to 40 N·m (25 to 30 lbf·ft).
5. Connect power supply (supplied) to the instrument. All display segments will light and buzzer will sound briefly. The instrument is ready for use.



**WARNING: ENSURE THE MOUNTING SURFACE IS CAPABLE OF SUPPORTING THE INSTRUMENT WHEN THE RATED CAPACITY TORQUE IS APPLIED.**

**ONLY USE THE POWER SUPPLY PROVIDED.**

**DO NOT APPLY TORQUE ABOVE THE RATED CAPACITY.**

TruCheck™ intended for testing torque tools.

# OPERATION (43222, 43231 & 43245)

## MODE Button

1. Press MODE button briefly to display current mode of operation.
2. Press and hold MODE button to change mode of operation. Release button at required mode to accept.
3. Modes of operation.
  - Track Mode ('trAC' is displayed).  
Display follows torque applied
  - Click Mode ('CLIC' is displayed).  
Display shows first peak of torque applied. Serial data output of peak torque is automatically transmitted. Display automatically resets after 3 seconds.  
For use with 'click' type torque wrenches.
  - Dial Mode ('dIAL' is displayed).  
Display shows peak of torque applied. Press RESET to clear the display.  
For use with 'dial' and 'electronic' type torque wrenches.

## UNIT Button

Press UNIT to change units of measurement.

## RESET Button

Press RESET to reset display in Dial mode. Serial data output of peak torque is also transmitted.

Press RESET to transmit serial data in Track mode.

## LIMIT Button

1. Press LIMIT to enter target torque setting.  
Display flashes between '**SET**' and the target torque setting.
  - Press MODE to increase target setting. Hold to increase speed of change.
  - Press UNIT to decrease target setting. Hold to increase speed of change.
2. Press LIMIT to enter  $\pm$  percentage tolerance setting from 1 to 10%. Enter '**0**' for no limits.  
'%' and the  $\pm$  percentage tolerance setting is displayed constantly.
  - Press MODE to increase  $\pm$  percentage tolerance setting.
  - Press UNIT to decrease  $\pm$  percentage tolerance setting.
3. Press LIMIT to finish. Display shows '**FIN**' for 1 second.

## Using the Instrument

1. Select mode of operation.
2. Place wrench in the instrument and operate wrench in desired direction. Remove wrench and zero the display (if required) by pressing the RESET and LIMIT buttons together. '**Set0**' is displayed for 1 second.
3. Place wrench in the instrument and operate wrench in desired direction.

## Serial Port

Connect lead (supplied) between TruCheck™ Plus serial port and computer/ printer.

Communication settings: 9600 Baud, 8 data bits, 1 stop bit, no parity.



## OPERATION (43221, 43226, 43230, 43237 & 43244)

1. Place wrench in the instrument and operate wrench in the desired direction. Remove wrench and zero the display (if required) by pressing the red button located on the side of the instrument.
2. Place wrench in the instrument and operate wrench in the desired direction.

## OPERATION (43227 & 43238)

1. Place wrench in the instrument and operate wrench in the desired direction.  
Remove wrench and zero the display (if required) by pressing the red button located on the side of the instrument.
2. Place wrench in the instrument and operate wrench in the desired direction.  
Display shows first peak of torque applied. Serial data output of peak torque is automatically transmitted.

## Serial Port

Connect lead (supplied) between TruCheck™ serial port and computer/ printer.

Communication settings: 9600 Baud, 8 data bits, 1 stop bit, no parity.

## TECHNICAL SPECIFICATION

(All 350 N·m, 250 lbf·ft, 1000 N·m, 750 lbf·ft and 2000 N·m models)

Display:	4 digit, 7 segment LED.
Display update rate:	2 readings per second (2Hz).
Zero suppression:	± 2 least significant digits
Auto reset hold time:	2 seconds.
AC power adapter:	230 Volts AC at 50 Hz input (UK / Europe). 240 Volts AC at 50 Hz input (Australia). 120 Volts AC at 60 Hz input (USA / Canada). 100 to 240 Volts AC at 50-60 Hz input. (World). 6V, 300 mA DC output (centre positive).
Power consumption:	1.8 W - maximum.
Weight:	Instrument up to 400 N·m capacity: 3.2 kg shipping weight. Instrument above 400 N·m capacity: 4.8 kg shipping weight.
Dimensions (mm):	Instrument up to 400 N·m capacity: 145.5 (d) x 150 (w) x 85 (h). Instrument above 400 N·m capacity: 145.5 (d) x 175 (w) x 85 (h).
Case materials / finish:	Self coloured rigid polypropylene case. Stainless steel transducer shaft and zinc plated steel base plate.
Electromagnetic Compatibility:	In conformance with EN 61326-1.
Low voltage directive:	In conformance with EN 61010-1.

## Environmental conditions:

- a) Indoor use. IP 40.
- b) Altitude up to 2000 m.
- c) Temperature 5°C to 40°C.
- d) Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.
- e) Mains supply voltage fluctuations up to  $\pm 10\%$  of nominal voltage.
- f) TRANSIENT OVERVOLTAGES up to the levels of OVERVOLTAGE CATEGORY II

**NOTE:** Due to continuous improvement all specifications are subject to change without prior notice.

## CALIBRATION

Your instrument has been supplied with a certificate of calibration. To maintain the specified accuracy it is recommended that the instrument is recalibrated at least once per year. Recalibration should be carried out by the Supplier or by the Supplier approved agent, where all the facilities to ensure the instrument is functioning at maximum accuracy are available.

Do not remove front panel or case as there are no calibration settings inside.

## REPAIR

Repair should be carried out by the Supplier or by the Supplier approved agent, where all the facilities to ensure the instrument is functioning at maximum accuracy are available.

There are no parts for user repair inside the case.

## CLEANING

Do not use abrasives or solvent based cleaners.

## WARNING

If the instrument is used in a manner not specified by the Manufacturer, the protection provided by the equipment may be impaired.

## DISPOSAL



This symbol on the product indicates that it must not be disposed of in the general waste.

Please dispose of according to your local recycling laws and regulations.



**NORBAR TORQUE TOOLS LTD**

Wildmere Road, Banbury,  
Oxfordshire, OX16 3JU  
UNITED KINGDOM  
Tel + 44 (0)1295 270333  
Email [enquiry@norbar.com](mailto:enquiry@norbar.com)



**NORBAR TORQUE TOOLS PTE LTD**

194 Pandan Loop  
#07-20 Pantech Business Hub  
SINGAPORE 128383  
Tel + 65 6841 1371  
Email [enquires@norbar.sg](mailto:enquires@norbar.sg)



**NORBAR TORQUE TOOLS**

45–47 Raglan Avenue, Edwardstown,  
SA 5039  
AUSTRALIA  
Tel + 61 (0)8 8292 9777  
Email [norbar@norbar.com.au](mailto:norbar@norbar.com.au)



**NORBAR TORQUE TOOLS (SHANGHAI) LTD**

7 / F, Building 91, No. 1122, Qinzhou North  
Road, Xuhui District, Shanghai  
CHINA 201103  
Tel + 86 21 6145 0368  
Email [sales@norbar.com.cn](mailto:sales@norbar.com.cn)



**NORBAR TORQUE TOOLS INC**

36400 Biltmore Place, Willoughby,  
Ohio, 44094  
USA  
Tel + 1 866 667 2279  
Email [inquiry@norbar.us](mailto:inquiry@norbar.us)



**NORBAR TORQUE TOOLS INDIA PVT. LTD**

Plot No A-168, Khairne Industrial Area,  
Thane Belapur Road, Mahape,  
Navi Mumbai – 400 709  
INDIA  
Tel + 91 22 2778 8480  
Email [enquiry@norbar.in](mailto:enquiry@norbar.in)

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