

TTC Series Torque Tool Tester

The TTC Digital Torque Tool Tester is a simple operation test instrument for quickly checking torque tool performance up to 590 ft-lb (800 N-m). The TTC Series provides exceptional accuracy for measuring torque on various products including torque wrenches, manual screwdrivers, electric screwdrivers, pneumatic screwdrivers and other torque controlled power tools.

The TTC's provide long operation life and power flexibility with the ability to work from the internal rechargeable battery or included AC adapter. The TTC's have six modes of operation: Track for live readings, Peak which records the highest level over a test, First Peak which records a reading after a programmed decrease, Auto Peak which resets after a period of time, Auto First Peak which resets the first peak after a period of time, Double Peak which provides two separate peak readings from programmed decreases. Preset operation with programmable tolerance thresholds for quick pass fail tool test is available in all modes.

The analog bar graph on the backlit, reversible LCD aids users by providing the resultant torque's current position compared to the full scale range along with the direction of the force. Pass/fail icons produce live test feedback allowing instant determination of the results.

Every tester comes standard with USB and RS-232 outputs. The TTC's software enables the uploading of data and the additional statistical analysis with its auto-calculation of the selected values.

These excellent features make the TTC Torque Tool Testers a valuable and versatile addition to the production and quality control departments.



**TTC-I Torque Tool Tester
with Internal Sensor**



**TTC-E Torque Tool Tester
with External Sensor**

Features

- Strong, light-weight, compact aluminum enclosure allows portability and usage in any shop environment.
- Flexible six modes of operation: Track, Peak, First Peak, Auto Peak, Auto First Peak, Double Peak
- Backlit graphical, reversible display with analog bar graph plus CW/CCW directional indication provides fast interpretation of tool response. Selectable chart display mode aids viewing performance over the entire test.
- Preset operation with Pass-Fail LED icons enable quick determination of tool performance acceptance.
- Units come standard with USB or RS232 communication output for data upload.
- 1000 memory record storage plus software provides easy data transfer.
- 0.3% of reading accuracy provides a standard for checking tools on ranges up to 590 ft-lb (800 N-m)
- Operation via the rechargeable battery or the AC adapter.
- Available rundown adapter for power tool testing on certain models
- Calibration certificate with data guarantees performance upon purchase.



**TTC with Optional Rundown
Adapter for use with Drivers**

TTC Series Specifications

Accuracy	± 0.3 % of reading over 5 to 100% capacity
Units of Measure	N-cm, N-m, in-lb, ft-lb, kg-cm (depending on range)
Measure Modes	Track, Peak, First Peak, Auto Peak, Auto First Peak & Double Peak
Tool Socket Size	TTC-2/5/10: 1/4" & 1/2" (6.3 & 12.5 mm); TTC-20/50/100/200: 3/8" & 1/2" (10 & 12.5 mm); TTC-500/800: 3/4" (19 mm)
Overload Protection	120% of Full Scale
Sampling Rate	2000 Hz
Peak Capture Rate	0.05 s
Display	160* 128 Dot matrix backlit LCD
Display Update Rate	10 times/sec
Resolution	See Chart
Memory	1000 data
Set Point	Programmable High and Low Limits
Battery Indication	Battery icon flashes when low
Charger/Adapter	Universal USB charger, input 100 - 240 V ac 50/60 Hz
Operating Temperature	14 to 104°F (-10 to 40°C)
Humidity Limit	20 - 80% RH
Power	3.6 V dc 1600 mA Ni-MH
Battery Life	Approx. 16 Hours continuous on full charge
Output	USB, serial port RS-232, High and low limit NPN
Dimensions	Display TTC-I: 7.75 x 7 x 3.3" (197 x 180 x 83 mm); Display TTC-E: 7.75 x 7 x 3" (197 x 180 x 75 mm); External Sensor (50, 100 N-m): 4.3 x 3.3" (110 x 83 mm); External Sensor (200, 500 & 800 N-m): 4 x 3.8" (100 x 98 mm)
Product Weight	TTC-I: 3.3 lb (1.5 kg); TTC-E Display: 2.6 lb (1.2 kg); TTC-E-200/500/800 External Sensor: 4.4 lb (2 kg)
Package Weight	TTC-I: 6.5 lb (3 kg); TTC-E-200/500/800: 10.2 lb (4.6 kg)
Warranty	1 year
Certification	CE
Included Accessories	USB cable, charger adapter, cal. cert. printer cable, square driver adapter connector (Ranges to 200 N-m only)
Optional Accessories	RS-232 cable, Rundown adapters & Printer. Note: Software available for free at www.shimpoinst.com

Ordering Details

Range by Unit (Resolution)					
Model	N-m	N-cm	kgf-cm	in-lbf	ft-lbf
TTC-I-2	0.0020-2 (0.0002)	0.20 -200 (0.02)	0.020 - 20 (0.002)	0.025 - 17.7 (0.002)	0.0020 - 1.48 (0.0002)
TTC-I-5	0.0050 - 5 (0.0005)	0.50- 500 (0.05)	0.050 -50 (0.005)	0.045 - 43.3 (0.005)	0.0040 - 3.7 (0.0005)
TTC-I-10	0.010 - 10 (0.001)	1.0 - 1000 (0.1)	0.10 - 100 (0.01)	0.09 - 88.5 (0.01)	0.007 - 7.4 (0.001)
TTC-I-20	0.020- 20 (0.002)	2.0- 2000 (0.2)	0.20 -200 (0.02)	0.18 - 177 (0.02)	0.014 - 14.8 (0.002)
TTC-I-50	0.050 - 50 (0.005)	5.0 - 5000 (0.5)	0.50 - 500 (0.05)	0.45 - 443 (0.05)	0.035 - 36.8 (0.005)
TTC-I-100	0.10 - 100 (0.01)	10- 10000 (1)	1.0 -1000 (0.1)	0.9 - 885 (0.1)	0.07 - 74 (0.01)
TTC-E-200	0.20 - 200 (0.02)	-	2.0 -2000 (0.2)	1.8 - 1770 (0.2)	0.14 - 148 (0.02)
TTC-E-500	0.50- 500 (0.05)	-	5.0 -5000 (0.5)	4.5 -4425 (0.5)	0.35 - 368 (0.05)
TTC-E-800	1.6 - 800 (0.1)	-	16 -8000 (1)	14 -7080 (1)	1.1 - 590 (0.1)

Accessories

TTC-RD-2	Rundown adapter. 17.7 in-lbf (2 N-m) 1/4" hex male, PH2 4mm female
TTC-RD-6	Rundown adapter. 53.1 in-lbf (6 N-m) 1/4" hex male, 5mm hex female
TTC-RD-40	Rundown adapter 354 in-lb (40 N-m) 17mm hex male, 8mm hex female
TTC-RD-100	Rundown adapter 885.1 in-lb (100 N-m) 21mm hex male, 12mm hex female
TTST-1	TTC Manual Torque Test Stand; 24" (620 mm) Test Distance
TTST-2	TTC Manual Torque Test Stand; 44" (1120 mm) Test Distance



TTST - Manual Test Stand

*Multiple sensors may be used on external models (TTC-E) contact factory for external sensor details.

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TNP Digital Torque Meter

The Series TNP Digital Torque Meter is a precision instrument for measuring OPEN and CLOSE torque values for various applications.

The TNP Torque Meter is used in medical, pharmaceutical, industrial quality control, R&D and countless other torque applications.

As a cap torque analyzer, the TNP repeatedly determines bottle closure and breakaway torque. Its wide memory capacity is capable of storing 1,000 data points, including Average, Maximum and Minimum values. A HI-GO-LO LED comparator feature can be utilized for large batch testing to ensure overall product quality. The TNP is a portable device powered with internal rechargeable batteries or through provided universal AC adapter/charger.

Designed with a small footprint, it can easily be transferred between the shop floor and laboratory taking up little space when operating. The TNP Torque Meter comes standard with USB connection and cable for easy PC/Software interface. Combined with the free "Digitorq" Software, statistical testing, graphing and analysis can be performed.



Features

- Precise $\pm 0.5\%$ F.S. accuracy ensures exact results
- Variety of applications met with ranges from 4.4 in-lb (50 N-cm) all the way to 88.5 in-lb (10 N-m)
- Quick & Easy set up with removable chuck pins that adjust test diameter size
- Memory function allows convenient storage of up to 1000 readings for later retrieval
- One touch operation enables quick reset for subsequent tests
- Large, easy to read LCD displays torque values in four selectable engineering units
- PC connectivity with USB interface and free Digitorq software enables data analysis and graphing on Microsoft® Excel
- Truly portable with compact, light-weight design and internal, rechargeable batteries
- Recharge batteries with included 120/240V AC adapter/charger or utilize adapter for continuous use
- Selectable measuring modes enables capture of Average, Peak Opening or Peak Closing values in either clock-wise (CW) or counter clock-wise (CCW) directions
- Speed up large batch tests with the integral Red/Green LED comparator that responds in accordance to pre-programmed tolerances
- Durable, cast-aluminum heavy-duty construction withstands demanding wear and tear
- Includes Factory Certificate, CE Approval and 2 Year Warranty!

**TNP for Bottle
Cap Removal**



**TNP Checking
Gearbox Torque**



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TNP Series Specifications

Measuring Range	TNP-0.5: 0-50.00 Ncm, 0-500.0 mNm, 0-5099 gcm, 0-4.425 lbin
	TNP-2: 0-2.000 Nm, 0-200.0 Ncm, 0-20.39 kgcm, 0-17.70 lbin
	TNP-5: 0-5.00 Nm, 0-500.0 Ncm, 0-50.99 kgcm, 0-44.25 lbin
	TNP-10: 0-10.00 Nm, 0-1000 Ncm, 0-102.0 kgcm, 0-88.5 lbin
Test Sample Diameter Range	0.39" - 7.48" (10 - 190 mm)
Accuracy	±0.5% / F.S.
Display	Main display: 4-digit LCD display, Character height 0.5" (12 mm)
Comparator Display	HI - GO - LO (green and red LED indicator)
Display Update Time	Select from 0.125 second (8 times/second), 0.25 second (4 times/second), 0.5 second (2 times/second), 1 second (1 time/second). Peak display: 0.125 second
Measuring Mode	Opening Mode: Show max value when opening (peak display) Displays max counterclockwise torque
	Closing Mode: Show max value when closing (peak display) Displays max clockwise torque
	Average Mode: Real time display (average value display) Displays torque in real time
Overload	150% of full scale
Sampling Rate	1000 Hz
Memory	1000 data (max)
Data Output	USB1.1
PC Software	Digitorq software (free, download from web site: www.shimpoint.com)
Power	Built in nickel hydride battery (NiMH) or Auto-ranging AC adapter (AC100 - 240V)
Battery Information	NiMH: 8 hours use after full charge. 16 hour max. recharge time.
Operating Environment	32 - 104°F (0 - 40°C)
Dimensions	12.60" x 8.94" x 4.96" (320 x 227x 126 mm)
Product Weight	TNP-0.5, -2, -5 = Approx. 17.6 lb (8 kg); TNP-10 = 27.5 lb (12.5 kg)
Package Weight	TNP-0.5, -2, -5 = Approx. 19 lb (8.6 kg); TNP-10 = 30.7 lb (13.9 kg)
Software	DigiTorque TNP Free Download from www.shimpoint.com
Included Accessories	USB cable, 120/240 VAC AC adapter, 30mm chuck pin (4pcs)
Certifications	CE
Warranty	2-Year

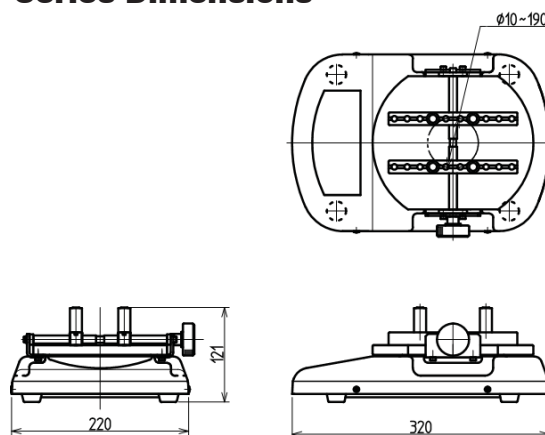
Ordering Details

TNP-0.5	Range of 0-4.425 in·lb (5099 g·cm, 500.0 mN·m, 50.00 N·cm)
TNP-2	Range of 0-17.70 in·lb (20.39 kg·cm, 200.0 N·cm, 2.000 N·m)
TNP-5	Range of 0-44.25 in·lb (50.99 kg·cm, 500.0 N·cm, 5.000 N·m)
TNP-10	Range of 0-88.5 in·lb (102.0 kg·cm, 1000 N·cm, 10.00 N·m)
NIST-TORQUE	NIST traceable certificate of calibration with data

Accessories

TNP-TP30	Set of four 30 mm long (1.18") replacement torque pins
TNP-TP50	Set of four 50 mm long (1.97") torque pins
FG-09V120UC	Universal charger adapter for 120/240 VAC

TNP Series Dimensions



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FG-7000T Digital Torque Gauge

The FG-7000T Series digital torque gauges provide testing flexibility with their external torque sensor input.

Torque sensors with standard chuck adapter are immediately recognized when connected to the display base and are available for your specific testing needs in 1 N-m (9 in-lb) 5 N-m (44 in-lb), 10 N-m (88 in-lb) capacities. The multiple-language FG-7000T's provide menu programming for easy selection and set-up of the instrument to your desired requirements. Four selectable modes of operation include: Track mode for live readings, Peak mode for displaying the maximum reading, First Peak where only the initial peak is recorded once a decrease is sensed and Preset which initiates user-programmed tolerance alarms for go/no go testing. The display has two selectable operations, numerical view with directional bar graph or graphical view with directional bar graph. In graphical view when alarm tolerances are set, the process is plotted in relation to the upper and lower limit graph lines. Combined with the go/no go icons, a simple pass/fail determination is recognized. These high-tech instruments can data log a reading at the push of a button for simple data acquisition or be set to continuous data storage. Data can be viewed on the screen, sent to the optional printer, or loaded to be analyzed and graphed on the free software program. The 1,000 point memory with definable groups allows for multiple tests to be recorded and easily separated upon loading. In addition, the comparator output can be set up for integration of the instrument into a quality system for repetitive testing such as on a production line. The FG-7000T's robust housings are designed to fit perfectly in the operator's hand for portable testing. The large back-lit, 180° auto-reversible display, CW/CCW directional bar graph, combined with the dual labeled key pad allows for usage of the gauge in various positions while still being able to easily view and operate. These various features make the FG-7000T the ideal torque instrument for various applications such as closing or opening analysis of containers, valves and door hardware, failure or destructive torque testing, or almost any torque testing requirement involving incoming quality inspection, finished goods testing to R&D.



**FG-7000T with Included
Accessories and Carry Case**

Features

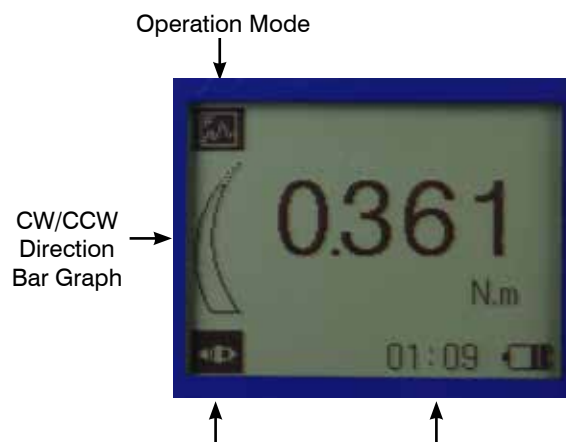
- Display operates in numerical or graph modes, both include a directional bar graph
- Graph mode combined with set point tolerances provides instant recognition of process relation to upper and lower limits
- Four Modes of Operation: Peak, First Peak Preset or Track Mode
- Memory with group categorization to easily separate your tests for review and later download
- Free software for viewing, graphing and analyzing data on PC
- Large, Backlit, Auto-Reversible display with various icons of test status aids user during testing
- Programmable High/Low tolerances combined with comparator NPN/PNP output allow usage in quality control production lines

FG-7000T Series Specifications

Accuracy	± 0.3% F.S.
Selectable Units	N-m, N-cm, kgf-cm, lbf-in (Depending on Range)
Overload Capacity	120% of F.S. (LCD flashes beyond 110% of F.S.)
Measurement method	Peak, First Peak Preset or Track Mode
Data Sampling Rate	1000 Hz
Display	160*128 dot matrix LCD with LED Backlight
Display Update Rate	10 times/second
Resolution	(See page 2 Resolution Table)
Memory	1000 data
Set Point	Programmable high and low limits
Battery Indicator	Display flashes battery icon when battery is low
Power	3.6VDC 800mAH Ni-MH rechargeable batteries
Battery Life	Approximately 16 hours continuous use per full charge
Charger / Adapter	Universal USB/BM charger, Input: 110 ~ 240VAC
Temperature Effects	<0.054% per °F (0.03% FS per °C)
Outputs	USB, Serial Port RS-232, High & Low Limit NPN
Operating Temperature	14 to 104°F (-10 to 40°C)
Storage Relative Humidity	20 to 80%
Housing	Aluminum
Storage Temperature	-4 to 122°F (-20 to 50°C)
Oper. Relative Humidity	5 to 95%
Dimensions	5.7 x 2.9 x 1.4" (145 x 73 x 35.5 mm)
Product Weight	3.7 (1.7 kg)
Package Weight	5.5 (2.5 kg)
Warranty	1 year
Included Accessories	Key Chuck, AC Adapter/Charger, USB cable, calibration cert.

Ordering Details

Model		N-m	N-cm	kgf-cm	lbf-ft	lbf-in	Interface Type
FG-7000T-1	Capacity	1	100	10	-	8.9	Drill Chuck 1-10 mm (0.034 to 0.39 in)
	Resolution	0.001	0.1	0.01	-	0.005	
FG-7000T-2	Capacity	5	500	50	3.68	44.3	
	Resolution	0.001	0.1	0.01	0.001	0.01	
FG-7000T-3	Capacity	10	1000	100	7.38	88.5	Drill Chuck 2-13 mm (0.079 to 0.512 in)
	Resolution	0.01	1	0.1	0.001	0.01	



TRC Digital Torque Tool Checker

Fast, accurate and convenient calibration of torque wrenches, torque drivers, and the Series TRC Digital Torque checker is a user friendly instrument for calibrating or measuring torque values. The single button operation does it all-Zero, Test, Store & Repeat. In addition to Average, Maximum, Minimum, and Peak values, the TRC features Red/Green/Red LED's (HI-GO-LO) combined with an audible alarm that enables quick, large batch testing. The TRC's expansive 3,000 data point storage capacity makes large batch testing possible. The Series TRC is USB ready for easy PC software interfacing with the included cable. Combined with the free DigiTorq software, statistical analysis of the data can be performed and conveniently graphed on Microsoft® Excel. The TRC is a portable device powered with internal, rechargeable batteries or with the included AC adapter/charger. The TRC's small foot print saves valuable lab space. It's low profile, (3.82") rugged design, and included factory certificate promotes proper calibration procedures, ensuring overall test and product quality.



Features

- Precise $\pm 0.5\%$ F.S. ± 1 digit accuracy ensures exact results
- Variety of applications met with ranges from 17.7 in·lb (2 N·m) all the way to 88.5 in·lb (10 N·m)
- Memory function allows convenient storage of up to 3000 readings for later retrieval
- Large, easy to read LCD displays torque values in four selectable engineering units
- Durable, cast-aluminum heavy-duty construction withstands demanding wear and tear
- PC connectivity with USB interface and free DigiTorq software enables data analysis and graphing on Microsoft® Excel
- Truly portable with compact, light-weight design and internal, rechargeable batteries
- Recharge batteries with included 120/240V AC adapter/charger or utilize adapter for continuous use
- Change measuring modes to capture Average, Maximum or Minimum values in both clockwise (CW) & counterclockwise (CCW) directions
- Speed up large batch tests with the integral Red/Green LED comparator that responds in accordance to pre-programmed tolerances
- Includes Factory Certificate, CE Approval and 2 Year Warranty!



TRC Checking
Torque Tool

TRC Series Specifications

Measuring Range	TRC-2: 0.020 - 2.000 Nm, 2.0 - 200.0 Ncm, 0-20.39 kgcm, 0-17.70 lb-in
	TRC-5: 0.050 - 5.000 Nm, 5.0 - 500.0 Ncm, 0-50.99 kgcm, 0-44.25 lb-in
	TRC-10: 0.10 - 10.00 Nm, 10 - 1000 Ncm, 0-102.0 kgcm, 0-88.5 lb-in
Test Sample Diameter Range	1/4" Hexagonal torque driver adapter
Accuracy	±0.5% / F.S.
Display	Main display: 4-digit LCD display, Character height 0.5" (12 mm); Sub display: 3-digit, 0.29" (7 mm)
Comparator Display	LED indicates "NG", "OK", with adjustable alarm
Display Update Time	Select from 0.125 sec (8 times/sec), 0.25 sec (4 times/sec), 0.5 sec (2 times/sec), 1 sec (1 time/sec)
Measuring Mode	MEAN: displays torque value in real time; PEAK: displays peak torque value
Overload	120% of full scale
Sampling	100 Hz
Memory	Total 3,000 data (10 sets with 300 data point per set)
Data Output	USB1.1 (data download by special software)
Power	NiMH rechargeable battery, and AC adapter 100-240vac, 50/60 Hz
Operating Environment	32 -104°F (0 - 40°C) 35 - 85%RH (non condensing)
Dimensions	12.60" x 8.66" x 3.82" (320 x 220 x 97 mm)
Product Weight	Approx. 13.25 lb (6.0 kg)
Package Weight	Approx. 16.2 lb (7.35 kg)
Software	DigiTorque TRC Free Download from www.shimpoinst.com
Included Accessories	Torque adapter for driver, AC adapter/charger, USB cable, Mounting bracket, bolts for mounting bracket (2 pcs)
Certifications	CE
Warranty	2 year

Ordering Details

TRC-2	Range of 0-17.70 in-lb (20.39 kg-cm, 200.0 N-cm, 2.000 N-m)
TRC-5	Range of 0-44.25 in-lb (50.99 kg-cm, 500.0 N-cm, 5.000 N-m)
TRC-10	Range of 0-88.5 in-lb (102.0 kg-cm, 1000 N-cm, 10.00 N-m)
NIST-TORQUE	NIST traceable certificate of calibration with data

Accessories

FG-09V120UC	Universal charger adapter for 120/240 VAC
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TRC Series Dimensions

