



# CORNER NUT RUNNER

## ELECTRIC NUT RUNNER GNBC Series



See the demonstration movie at:  
<https://youtu.be/H193xh3o6y8>

TONE CO., LTD.



# TONE CORDLESS NUT RUNNER

## BATTERY NUT RUNNER CNR Series



**Versatile Bolting Works!  
Simple Functions & Easy Operation!  
Ergonomic specs!**

- Cordless nut runner for versatile works anywhere without power source.
- Easy set shut-off torque, Easy switch forward and reverse rotations. LED's safely show proper bolting work (green) or irregular work (red).
- Compact shaped ergonomic design, High-power driven brushless motor, Low vibration and Less noise.

**CNR Series  
150~2100N·m**

Models	Controllable torque range
CNR30 (3/4" Sq.Dr.)	▶ 150~300(N·m)
CNR50 (3/4" Sq.Dr.)	▶ 200~500(N·m)
CNR80 (1" Sq.Dr.)	▶ 350~800(N·m)
CNR120(1" Sq.Dr.)	▶ 500~1,200(N·m)
CNR210(1" Sq.Dr.)	▶ 1,000~2,100(N·m)



Dial to set shut-off torque



Optional digital torque display DIGITORQON available

Manufactured by

**TONE TONE CO., LTD.**  
OSAKA, JAPAN.



web site: [www.tonetool.co.jp](http://www.tonetool.co.jp)  
e-mail: [overseas@tonetool.co.jp](mailto:overseas@tonetool.co.jp)

Specifications and the design are subject to change without notice.  
TONE is certified to ISO9001:2015 and ISO14001:2015.

Your Distributor

**TRIBOLOGYEC**  
CIENCIA, TECNOLOGÍA Y ECONOMÍA A SU SERVICIO

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Teléfonos: +593 993645779

[FLKA026] 23.03

**TONE CO., LTD.**

## SPECIFICATIONS & DIMENSIONS

Models	CNR30-BTL	CNR50-BTL	CNR80-BTL	CNR120-BTL	CNR210-BTL
Square Drive	3/4"	3/4"	1"	1"	1"
Controllable Torque Range (N · m)	150 — 300	200 — 500	350 — 800	500 — 1200	1000 — 2100
Repeated Torque Accuracy (%)	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 5$
No-Load Speed (min <sup>-1</sup> / rpm)	32	22	17	10	5
Weight (kg) *	4.9	5.5	5.9	7.4	8.9
Ref. Full Battery Capacity (4.0Ah, Number of bolts & Dia.)	240 (M16)	200 (M20)	180 (M22)	140 (M24)	80 (M30)

\* Weight include battery BSL36B18, not include impact socket .

## OPTIONAL ACCESSORIES & ATTACHMENTS

### TONE IMPACT SOCKET

TONE original impact sockets plated for anti-corrosion, anti-rust and shiny appearance.  
Available Sq. Drive 3/8" to 2-1/2", Hexagon bit sockets Long & Short sockets, Sq. Drive Adaptors and etc.



### DIGITORQON-DTM Series

Digital device visible real-time tightening torque at  $\pm 3\%$  accuracy, save tightening torque data to SD card and compatible use with GNR, GSR electric nut runner equivalent models.

Models	Torque Range	Adaptable Models
DTM5EN	100 - 550 Nm	CNR30-BTL, CNR50-BTL
DTM8EN	250 - 850 Nm	CNR80-BTL
DTM12EN	550 - 850 Nm	CNR120-BTL
DTM21EN	840 - 2160 Nm	CNR210-BTL



### SPECIAL ATTACHMENTS

Special applications attachments;

- Plate-Heat-Exchanger Offset adaptor
- Truck & bus wheel bolts Extension Arm
- Rebar Coupler and etc. etc.



### BATTERY & CHARGER

#### BATTERY

Battery Ref. Models	Current by Voltages	Time to full-charge (with UC18XXX)
BSL36A18	18V-5.0Ah, 36V-2.5Ah	25 min
BSL36B18	18V-8.0Ah, 36V-4.0Ah	40 min



#### CHARGER

Find HiKOKI UC36xxx or UC18xxx series charger with proper voltage and plug at your local.



# NUT RUNNER

## ELECTRIC NUT RUNNER GNR & GNRS Series

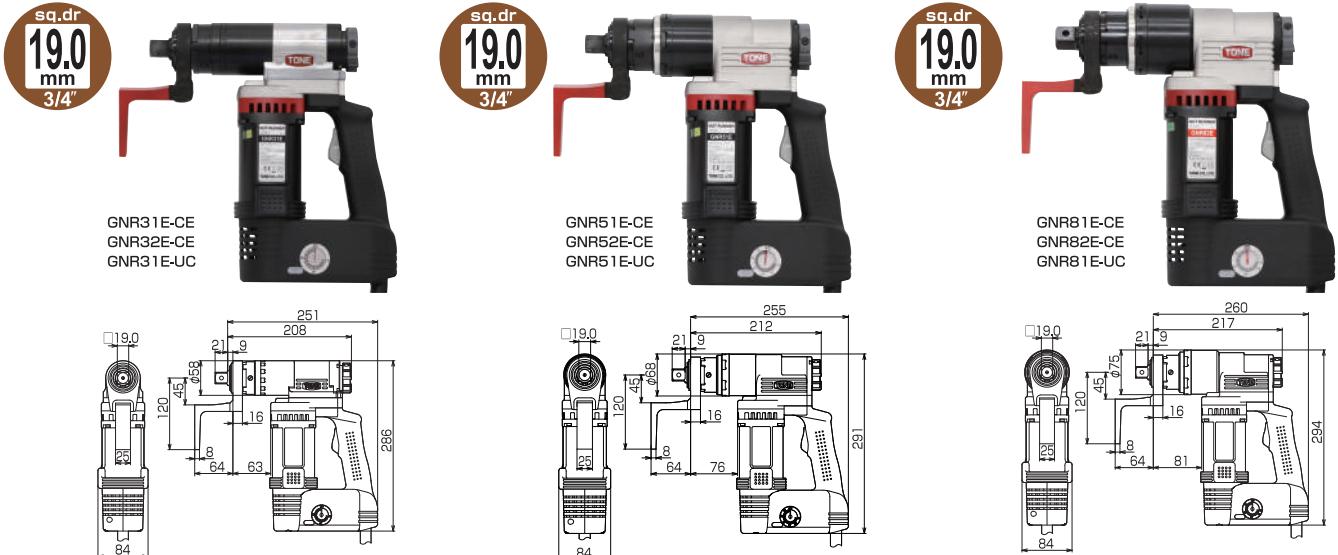
**GNR Series**  
150~2100N·m / 110~1550bf·ft

**GNRS Series**  
1600~10000N·m / 1180~7380bf·ft

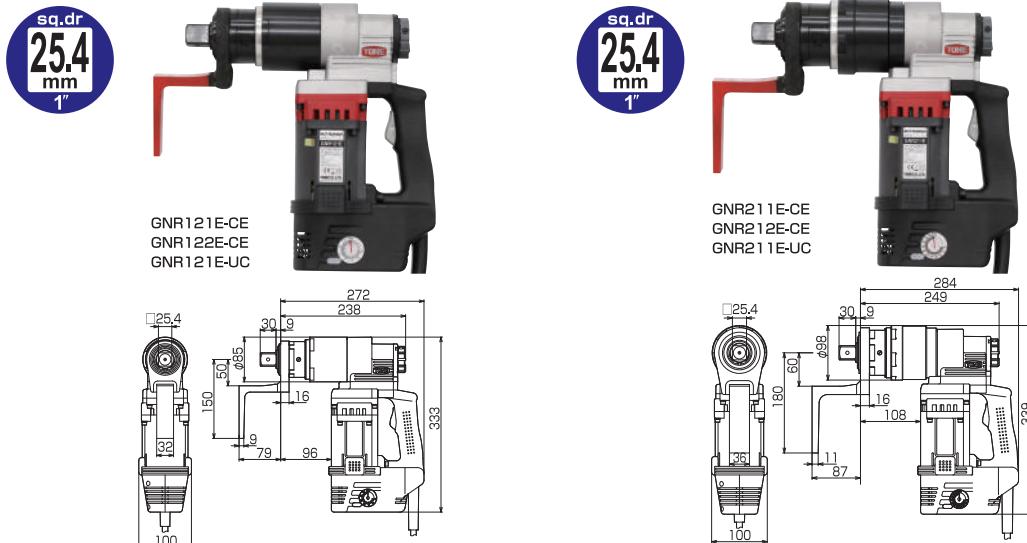
**TONE CO., LTD.**

- Simple & Easy operation.
- Easily set your target torque, Easy switch Forward-reverse directions.
- Ergonomic design, lower sound level and double insulated protection motor.

# NUT RUNNER (GNR Series)



Models	GNR31E-CE	GNR32E-CE	GNR31E-UC	GNR51E-CE	GNR52E-CE	GNR51E-UC	GNR81E-CE	GNR82E-CE	GNR81E-UC
Frequency	50-60Hz			50-60Hz			50-60Hz		
Rated Voltage(Single Phase)	110-120V	220-230V	110-120V	110-120V	220-230V	110-120V	110-120V	220-230V	110-120V
Max.Current	10.5A	5.5A	10.5A	14.5A	7.5A	14.5A	14.5A	7.5A	14.5A
Rated Input Power	1150W(2s/3s)		1150W	1650W(2s/3s)		1650W	1650W(2s/3s)		1650W
Rated Max. Torque	300N·m		220lbf·ft	500N·m		370lbf·ft	800N·m		600lbf·ft
Repeated Accuracy	±5%			±5%			±5%		
Controllable Torque Range	150~300N·m		110~220lbf·ft	200~500N·m		150~370lbf·ft	350~800N·m		250~600lbf·ft
No-Load Speed	35min⁻¹ (rpm)			29min⁻¹ (rpm)			19min⁻¹ (rpm)		
Noise & Vibration Level	Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s²			Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s²			Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s²		
Weight(Main Body)	4.5kg		9.9lbs	5.0kg		11.0lbs	5.4kg		11.9lbs
Protection Class	<input checked="" type="checkbox"/> (class II tool)			<input checked="" type="checkbox"/> (class II tool)			<input checked="" type="checkbox"/> (class II tool)		



Models	GNR121E-CE	GNR122E-CE	GNR121E-UC	GNR211E-CE	GNR212E-CE	GNR211E-UC
Frequency	50-60Hz			50-60Hz		
Rated Voltage(Single Phase)	110-120V	220-230V	110-120V	110-120V	220-230V	110-120V
Max.Current	18A	9A	18A	18A	9A	18A
Rated Input Power	1900W(2s/3s)		1900W	1900W(2s/3s)		1900W
Rated Max. Torque	1200N·m		900lbf·ft	2100N·m		1550lbf·ft
Repeated Accuracy	±5%			±5%		
Controllable Torque Range	500~1200N·m		360~900lbf·ft	1000~2100N·m		750~1550lbf·ft
No-Load Speed	16min⁻¹(rpm)			8min⁻¹(rpm)		
Noise & Vibration Level	Sound Pressure Level 84dB(A) Sound Power Level 95dB(A) Vibration Level Less than 2.5m/s²			Sound Pressure Level 84dB(A) Sound Power Level 95dB(A) Vibration Level Less than 2.5m/s²		
Weight(Main Body)	7.3kg		16.1lbs	8.8kg		19.4lbs
Protection Class	<input checked="" type="checkbox"/> (class II tool)			<input checked="" type="checkbox"/> (class II tool)		





Manufactured by

**TONE CO., LTD.**

OSAKA, JAPAN.

web site <http://www.tonetool.co.jp>  
e-mail: [overseas@tonetool.co.jp](mailto:overseas@tonetool.co.jp)

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Your Distributor



# SHEAR WRENCH CORNER SHEAR WRENCH



TONE CO., LTD.

# **TONE Outstanding Features**

## **●Adaptable for all TC bolts**

Designed for all kind of tension control, or twist off type bolts.

## **●Great variety**

You can choose a suitable model from a range of lineup, according to bolt sizes or situations.

## **●Strong and long lasting**

Manufactured with special steel and huge improvement on heat treatment, trust weight and sliding portion for strength and durability

## **●High workability**

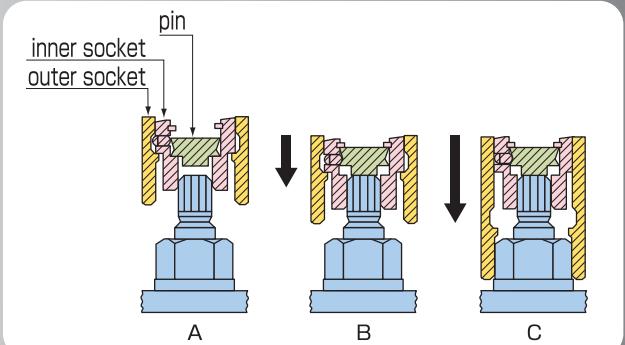
Reduce burden of users with low counter force.



## **●Anti-defacement mechanism and tip ejector installed**

Projecting pin prevents bolt pintails from slipping caused by the improper inner socket engagement.

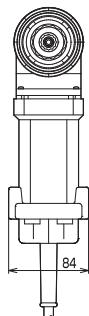
1. The inner socket cannot be retreated. (Fig. A)
2. When the nut is attached to the projecting pin, the inner socket is retreated. (Fig. B)
3. Then, the outer socket fits completely over the nut. (Fig. C)



# **S-series & GS-series New Model Shear Wrenches Coming !!!**

## **| SHEAR WRENCH**

Model	S-61EZ	S-62EZ
Frequency	50-60Hz	
Voltage	115V	220V
Max.Current	13.5A	5.5A
Rated Max. Torque	435lbf.ft(588N·m)	
Rated Input Power	1300W	1100W
No-Load Speed	22min <sup>-1</sup> (rpm)	20min <sup>-1</sup> (rpm)
Weight (Main Body)	5.5kg	
Adaptable Bolts Dia.	TC bolts (S10T) : M16 , M20 TC bolts (A325/A490) : 5/8" , 3/4" , (7/8" A325 only)	
Accessories	Inner Socket·Outer Socket Instruction Manual·Metal Case (-)Screw Driver Connector(S-62EZ only)	



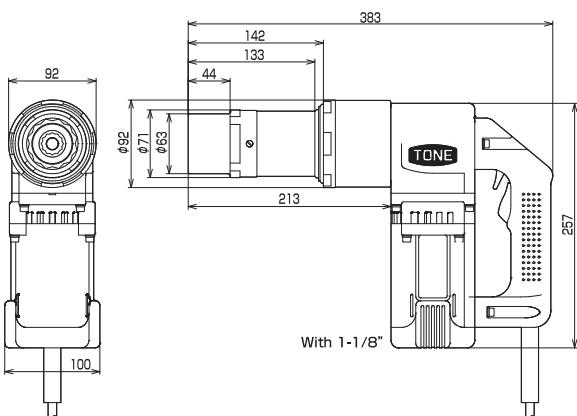
## SHEAR WRENCH

Model	GS-91EZ	GS-92EZ
Frequency	50-60Hz	
Voltage	110-120V	220-230V
Max.Current	17A	8.5A
Rated Max. Torque	810lbf.ft(1100N·m)	
Rated Input Power	1750W	
No-Load Speed	$17\text{min}^{-1}$ (rpm)	
Weight (Main Body)	7.6kg	
Adaptable Bolts Dia.	TC bolts (S10T) : M16, M20, M22 TC bolts (A325/A490) : 5/8", 3/4", 7/8", 1"	
Accessories	Inner Socket·Outer Socket Instruction Manual·Metal Case (-)Screw Driver	



## SHEAR WRENCH

Model	GS-111EZ	GS-112EZ
Frequency	50-60Hz	
Voltage	110-120V	220-230V
Max.Current	19A	9.5A
Rated Max. Torque	1030lbf.ft(1400N·m)	
Rated Input Power	2000W	
No-Load Speed	$15\text{min}^{-1}$ (rpm)	
Weight (Main Body)	8.7kg	
Adaptable Bolts Dia.	TC bolts (S10T) : M22, M24 TC bolts (A325/A490) : 3/4", 7/8", 1", 1-1/8"	
Accessories	Inner Socket·Outer Socket Instruction Manual·Metal Case (-)Screw Driver	



# Compact + Powerful Corner Shear Wrench

Short nosed gearbox enhances workability and accessibility.  
Perfect tools for confined space bolting applications.

## Short Nose!

	GM-221ZA GM-222ZA	GH-241ZA GH-242ZA	GV-301ZA GV-302ZA
L(mm)	241	304	312
	GMC-221EZ GMC-222EZ	GHC-241EZ GHC-242EZ	GVC-301EZ GVC-302EZ
L(mm)	154	171	202



## High Performance

Output torque

**37% higher**

Compact and lightweight,  
yet with high power.

With GHC-220EZ

**9% higher**

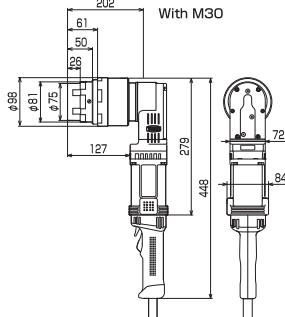
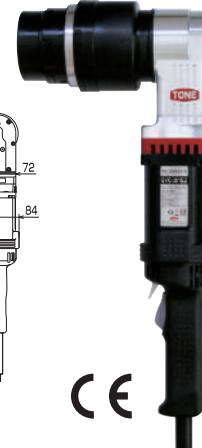
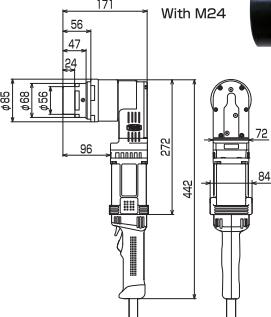
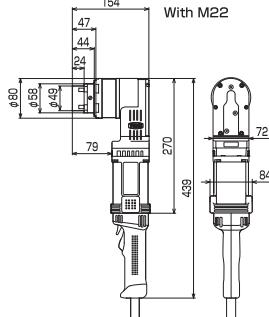
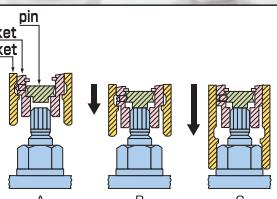
With GMC-240EZ

※Compared with our predecessor model

Impressive new radiator design with house mark.

New high-performance aluminum casing motor.

Anti-defacement mechanism



## CORNER SHEAR WRENCH

Model	GMC-221EZ	GMC-222EZ	GHC-241EZ	GHC-242EZ	GVC-301EZ	GVC-302EZ
Frequency	50-60Hz		50-60Hz		50-60Hz	
Rated Voltage(Single Phase)	110-120V	220-230V	110-120V	220-230V	110-120V	220-230V
Max.Current	14 A	7.5A	14.5A	7.5A	14A	7A
Rated Input Power	1550W		1650W		1550W	
Rated Max. Torque	800N·m		1250N·m		2150N·m	
No-Load Speed	17min <sup>-1</sup> (rpm)		11min <sup>-1</sup> (rpm)		6min <sup>-1</sup> (rpm)	
S10T	M16,M20,M22		M16,M20,M22,M24		M24,M27,M30	
Adaptable Bolts Dia.	A325 A490	5/8",3/4",7/8" 5/8",3/4",7/8"	3/4",7/8",1" 3/4",7/8",1"	1",1-1/8" 1",1-1/8"		
Weight(Main Body)	5.3kg		6.0kg		7.4kg	
Protection Class	<input checked="" type="checkbox"/> (class II tool)		<input checked="" type="checkbox"/> (class II tool)		<input checked="" type="checkbox"/> (class II tool)	

Manufactured by

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web site <http://www.tonetool.co.jp>

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Your Distributor

**TRIBOLOGYEC**

Luis Alberto Montalván C.  
Ing. Mecánico, MBA  
Soporte, ventas y servicios



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# SNUG MASTER PRE-TIGHTENING WRENCH

Realizes torque-controlled  
primary tightening



**Bolts size  
Which can be used**

M20~M30 (S10T)  
3/4"~1 1/8" (A325,A490)



*Only for TC bolts*

 **TONE CO., LTD.**

# SNUG MASTER

## PRE-TIGHTENING WRENCH

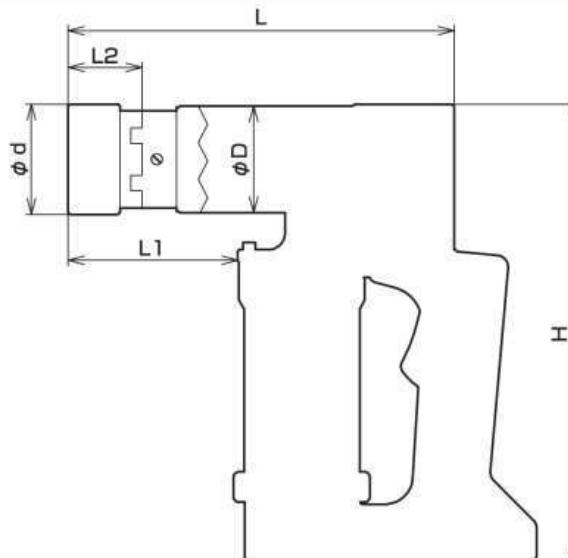
- SungMaster shows up its slim body with full-range of torque coverage suitable for primary-tightening 3/4", 7/8", 1", 1-1/8", M20, M24, M27 and M30.\*
  - Control Device is incorporated.
  - Light Weight.
  - Does not sound, nor run riot as impact wrench.
- \*SGS-52E only.

### Specifications

Model	SGS-31E	SGS-32E	SGS-52E (€)
Rated Voltage (Single Phase)	115V	220V	230V
Max. Current	13.5A	6.5A	6A
Max. Input Power	1100W	1100W	1350W
Controllable Torque Range	135~265lbf·ft	180~360N·m	200~500N·m
No-Load Speed	31min <sup>-1</sup> (rpm)	29min <sup>-1</sup> (rpm)	
Repeated Accuracy	±5%	±5%	
Weight (Main Body)	3.9 kg (8.6lbs)	4.5 kg (9.9lbs)	
Adaptable Bolt Size	S10T A325 A490	M20, M22, M24, M27 3/4", 7/8", 1", 1-1/8" 3/4", 7/8", 1", 1-1/8"	M24, M27, M30 — —
Protection Class	—	—	回 (class II tool)

### External Dimension

SGS-31E · SGS-32E		
	mm	inch
L	197~209	7-13/16"~8-15/64"
L1	80~92	3-3/16"~3-5/8"
L2	22~34	1-1/8"~1-9/16"
D	58	2-9/32"
d	46~60	1-13/16"~2-3/8"
H	251	9-7/8"
SGS-52E		
	mm	inch
L	205~217	8-5/64"~8-35/64"
L1	88~100	3-15/32"~3-15/16"
L2	30~42	1-3/16"~1/21/32"
D	68	2-11/16"
d	55~65	2-11/64"~2-9/16"
H	286	11-17/64"



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 OSAKA, JAPAN.


Your Distributor

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 e-mail: [overseas@tonetool.co.jp](mailto:overseas@tonetool.co.jp)


Specifications and the design are subject to change without notice.  
TONE is certified to ISO9001:2008 and ISO14001:2004.



ISO 14001:2004 EMS

[FLKA004] 14.09.05.TK



BOLTING SOLUTION COMPANY

## NEW PRODUCT INFORMATION

# TONE Pneumatic Tools

AGR01



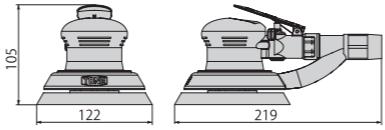
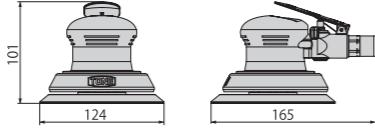
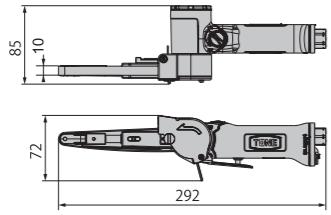
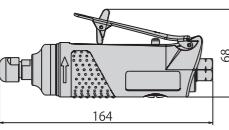
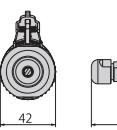
ABS10



ADS50M



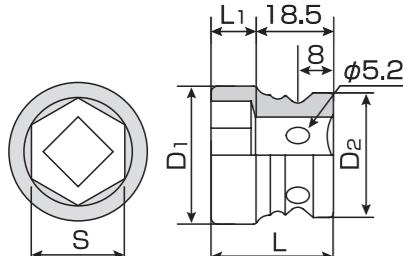
ADS50MS



	AGR01	ABS10
No-load Speed	20,000min⁻¹ [rpm]	18,000min⁻¹ [rpm]
Air Pressure	0.62MPa	0.62MPa
Max Air Consumption	750 ℥ /min(ntp) 113 ℥ /min(op)	750 ℥ /min(ntp) 92 ℥ /min(op)
Air inlet	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)
Air Hose Inner Dia.	10mm	10mm
Weight	0.55kg/ 1.2lb	0.82kg/ 1.8lb

	ADS50M	ADS50MS
The Pad Size	φ 125	φ 125
The orbit diameter	φ 5	φ 5
No-load Speed	12,000min⁻¹ [rpm]	12,000min⁻¹ [rpm]
Air Pressure	0.62MPa	0.62MPa
Max Air Consumption	379 ℥ /min(ntp) 57 ℥ /min(op)	379 ℥ /min(ntp) 57 ℥ /min(op)
Air inlet	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)
Air Hose Inner Dia.	10mm	10mm
Weight	0.7kg/ 1.5lb	0.74kg/ 1.6lb

## OPTION | SHORT IMPACT SOCKET (6PT.)



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OSAKA, JAPAN.

Your Distributor

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e-mail: [overseas@tonetool.co.jp](mailto:overseas@tonetool.co.jp)Specifications and the design are subject to change without notice.  
TONE is certified to ISO9001:2008 and ISO14001:2004.

ISO 14001:2004 EMS

[FLKA009]17.1.27.TC

Repair &amp; Replacement

## A wide range of TONE Air Tools



AI3120



AI4161



AI4201

**Compact & Lightweight**

AIA4140



AI6300

AIS8330S



AIS8330L

AIS8500L



ADS50M



AR2100S



AR3100S



AR3100



ABS10



AGRO1



ADS50MS

**TONE CO., LTD.**





BOLTING SOLUTION COMPANY

# TORQUE WRENCH CATALOG

## ■ TORQUE WRENCH

TORQUE WRENCH, PRESET TYPE

TORQUE WRENCH, PRESET TYPE

(DIGITAL READING)

TORQUE WRENCH, PRESET TYPE

(FOR BOTH OF R&L HAND THREADS)

TORQUE WRENCH, PRESET TYPE

(DIGITAL READING FOR BOTH OF  
R&L HAND THREADS)

TORQUE WRENCH, SINGLE PURPOSE TYPE

TORQUE WRENCH, PRESET OPEN END SPANNER

TORQUE WRENCH, ADJUSTABLE WRENCH TYPE

(DIGITAL READING)



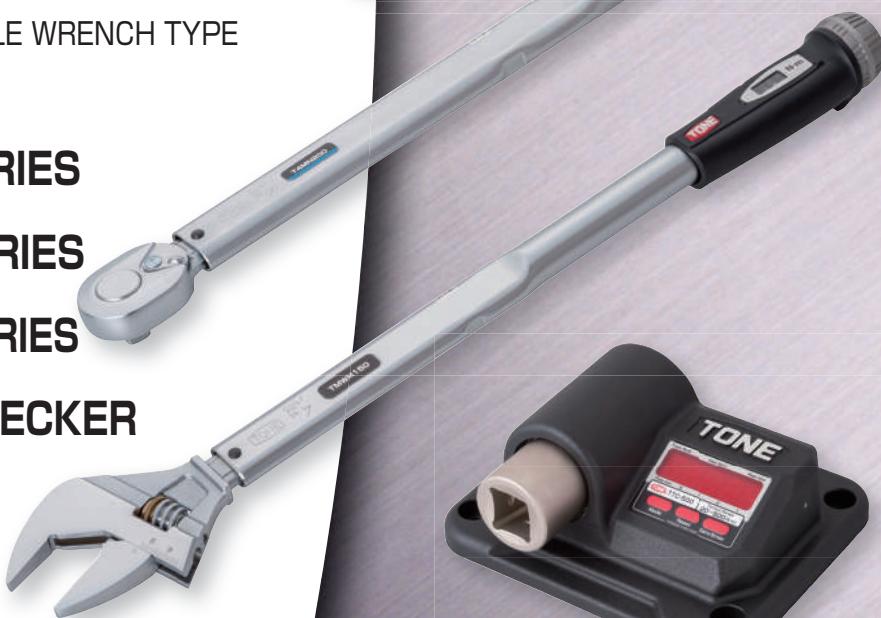
## ■ DIGITORQON TDT-SERIES

## ■ DIGITORQON HDT-SERIES

## ■ DIGITORQON DBDT-SERIES

## ■ TORQUE WRENCH CHECKER

## ■ TORQUE WRENCH TESTING MACHINE



# No.1505

TONE CO., LTD.

# BLACK&RED

## RENOVATION COLOR



### STYLISH BLACK COLOR

Sticker color shows the size of square drive.

NEW PRODUCT  
For R&L Hand Threads  
Single Purpose Type



### CLICK SOUND & LIGHT RETROACTION

TONE torque wrench is first in the industry!

Easy to set the torque by turning the torque setting knob  
and prevents unintended alteration of setting torque.



Visible Indicator



Used in various fields like industry and motor sports (jet ski) etc...



### This test machine is easy to check torque at any time.

Easy to read on the LED screen and realizes high accuracy  
( $\pm 1\%$ ).

Compact size realizes install many testers in space saving.  
TONE focus on not only torque wrench but also peripheral  
equipments.



# TORQUE WRENCH

## TORQUE WRENCH



DIGITORQON  
TDT-SERIES  
**P3**



DIGITORQON  
DBDT-SERIES  
**P5**



TORQUE WRENCH,  
SINGLE PURPOSE TYPE  
**P13**



TORQUE WRENCH,  
ADJUSTABLE WRENCH TYPE  
(TORQUE WRENCH, PRESET  
OPEN END SPANNER) **P15**



TORQUE WRENCH  
TESTING MACHINE  
**P17**



DIGITORQON  
HDT-SERIES  
**P4**



TORQUE WRENCH,  
PRESET TYPE  
**P7~12**



TORQUE WRENCH,  
PRESET OPEN END  
SPANNER  
**P14**



TORQUE WRENCH  
CHECKER  
**P16**

### DIGITORQON TDT-series Functions and Features

A wide range of controllable torque (6 N.m~850N.m) available with 9 models.



#### ● Tightening Condition Monitoring Function

LCD display, beep sound and LED light alert when reaching the target torque.

#### ● Pass & Fail Function

Total 9 preset torque values registrable.

#### ● USB Data Transfer Function

Connect to PC by USB cable. Tightening torque date stored on the PC in CSV format.

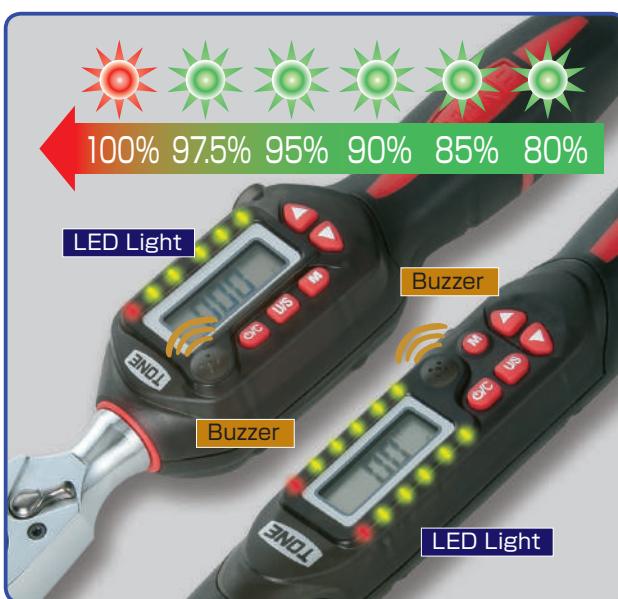
#### ● Measurement Mode Change Function

"Tracking Mode" and "Peak Mode" available.

#### ● Calibration Certificate Included

Calibration Certificate with Traceability based on the National Standard.

#### ● Works in both CW and CCW directions.



#### LED Light (Red & Green) · Beep Sound

LED Light (Red & Green), Beep Sound and LED display notify the tightening status. When reaching 80% of the target torque, Green LED light is ON. Beep Sound is also ON and OFF. LED Light: Red LED is ON at 100% of the target torque.



#### Data Transfer Function

Transfer Data in CSV format to PC.

**Track Mode** Displayed torque value in accordance with applying torque.

**Peak Mode** Display the max. torque applied.



#### Socket Hold Mechanism

Hold socket tightly but easy to exchange.



#### Hole for safe rope installed

Suitable for the operation at high working place.



#### Convenient plastic case for storing or carrying.



## TORQUE WRENCH

## DIGITORQON HDT-SERIES

DIGITORQON HDH-series is a digital torque measurement device mounted between the manual handle, such as a ratchet handle, a spinner handle, etc., and the socket.

2 measurement modes (peak & tracking) available in both CW and CCW directions.

Alert by beeping sound when reaching the target torque.

Set the beepsound function arbitrarily between 50% and 95% of the target torque.



H3DT135



H4DT200

H3DT135  
(with ratchet handle and socket)H4DT200  
(with ratchet handle and socket)

Model	Capacity Torque Range (N · m) Min. ~ Max.	Unit	Square Drive Male/Female (mm)	Dimensions (mm)				Weight (kg)	Case Size (mm)
				W	T	D	L		
H3DT135	10 ~ 135	N · m	9.5	45	45	24	75	0.194	
H4DT200	20 ~ 200	N · m	12.7	45	45	24	75	0.184	130×107×53

\*Exclude battery.

● Repeated Accuracy: ± 3% ● Battery: AAA Alkaline Battery × 2 ● Torque Readout (Unit: N · m)

H3DT135: 0.01 increment (from 10.00 to 99.99N · m), 0.1 increment (from 100.0 to 135.0N · m)

H4DT200: 0.01 increment (from 20.00 to 99.99N · m), 0.1 increment (from 100.0 to 200.0N · m)

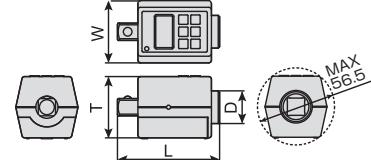
● Loading Direction: Clockwise and Counter-Clockwise Direction

● Operating Temperature: 5°C~42°C ● Storage Temperature: -20°C~50°C

● Repeated Accuracy: ± 3%

Accessory

Calibration Certificate W/H Traceability	1
Instruction Manual	1
Plastic Case	1
AAA Alkaline Battery	2



## Expire Date of Calibration Certificate

1. Not in Use

1 year from the date on the Calibration Certificate

2. Start to use less than a year from the date on the Calibration Certificate.

## Repair·Maintenance

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not use properly.

Contact your distributor periodically to keep the accuracy of the tools.

■ Carry out overhaul once a year or every 10,000 tightening.

■ Contact your distributor for reissuing the calibration certificate.

## CAUTION

• Do not input power to "DIGITORQON" by using power tools.



## DIGITORQON DBDT-SERIES

DIGITORQON DBDT-series is Digital Torque Screwdriver with bit changeable function. Over-Torque preventing function installed. Alert by beeping sound and Red LED when reaching the target torque. Set the over-torque preventing function arbitrarily between 50% and 95% of the target torque.



DBDT3S



DBDT6S

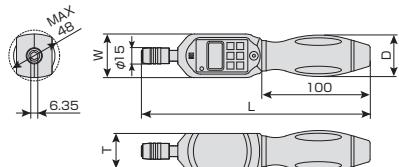
Model	Capacity Torque Range (cN·m) Min. ~ Max.	Unit	A/F of Bit (mm)	Battery	Operating Temperature	Storage Temperature	Dimensions (mm)				Case size (mm)
							W	T	D	L	
DBDT3S	30 ~ 300	cN·m	6.35	AAA Alkaline×2	5~42°C	-20~50°C	40	32	38.5	212	0.15
DBDT6S	60 ~ 600	cN·m	6.35				40	32	38.5	212	0.15

\*The Unit on display of DBDT3 (cN·m) : 0.01 ubcrenebt between 30 and 99.99, 0.1 increment between 100.0 and 300.0

\*The Unit on display of DBDT6 (cN·m) : 0.01 ubcrenebt between 60 and 99.99, 0.1 increment between 100.0 and 600.0

\*The weight values exclude battery. \*Battery life varies depending on conditions.

• Unit:cN·m	Accessory
• Accuracy: +/-3%	
Screwdriver Bit Set (BTPM6S)	
Screwdriver Bit (+) BT-P1, P2, P3	
Screwdriver Bit (-) BT-M5.5, M6, M8	
Bit Holder BTB6	
Calibration Certificate W/H Traceability	1
Instruction Manual	1
Plastic Case	1
AAA Alkaline Battery	2



### Expire Date of Calibration Certificate

1. Not in Use  
1 year from the date on the Calibration Certificate
2. Start to use less than a year from the date on the Calibration Certificate.

### Repair·Maintenance

■Accuracy might become inaccurate in case that the tools are not in use for a long time or are not use properly.  
Contact your distributor periodically to keep the accuracy of the tools.

■Carry out overhaul once a year or every 10,000 tightening.  
■Contact your distributor for reissuing the calibration certificate.

### WARNING

- Plastic handle is not for insulated. Do not use on live lines.

# Digital indication helps the accurate torque setting.

The first in  
the industry! Visible Indicator



Products

TMN • TM • TMNH • TMNR • TMWM

T2MN6

The color shows the size of square drive.



Watch Video

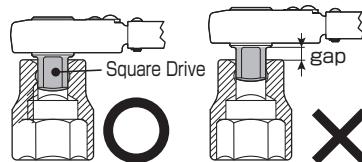
<http://youtu.be/YZi-bY7T3Vh>

- Preset type torque wrench.
- When reaching preset torque, the wrench makes a click sound as well as a light retroaction.
- Visible Indicator helps to reduce wrong torque setting.

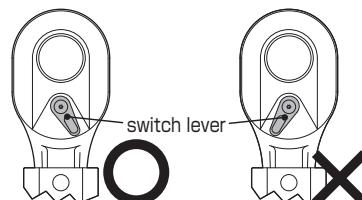


## Method of use

1. Insert square drive securely to the socket.



2. Confirm switch lever is located on the right as below chart.

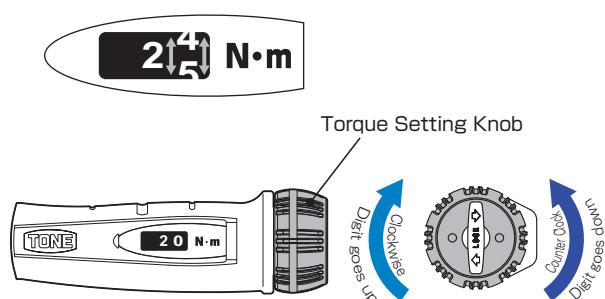


3. Set up the targeted torque value.

- Turn Locking Screw to the left-hand direction (counter-clockwise) to loosen. When screw hits pin, screw doesn't further move.

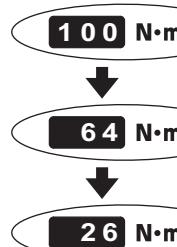
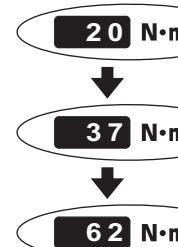


- Turn Torque Setting Knob to set target torque value. The digits in the window indicate setting torque.

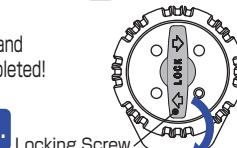


## [Examples of torque setting using Model T4MN100]

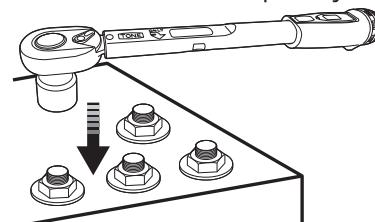
- Setting up torque at 62N·m starting from actual reading of min. 20N·m. Turn Torque Setting Knob to the clockwise direction.
- Setting up torque at 100N·m starting from actual reading of max. 26N·m. Turn Torque Setting Knob to the counter-clockwise direction.



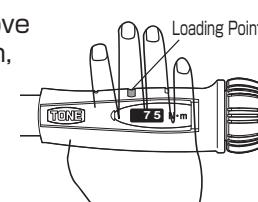
- Lock by turning Locking-screw to the right-hand direction. Now, setting up the torque is completed!



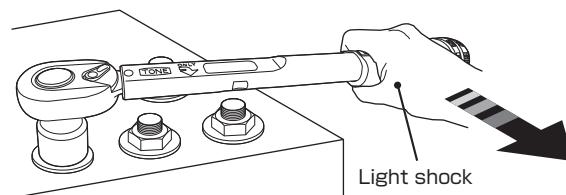
4. Apply socket to cover bolt/nut completely.



5. Apply the middle finger above loading point on the wrench, grip handle and pull to clockwise direction.



6. When setted torque value is reached, there is a clicking sound and light shock to the hand is felt. At this point, stop loading immediately to avoid over torque.



## TORQUE WRENCH, PRESET TYPE (DIGITAL READING)

TORQUE WRENCH, PRESET TYPE (DIGITAL READING) is for tightening bolts/nuts. Prevents unintended alteration of setting torque owing to independent handle and setting knob. Prevents mistake in torque setting as torque value can be indicated in self explanatory digits. When reaching the preset torque, the wrench makes a click sound as well as light retroaction.



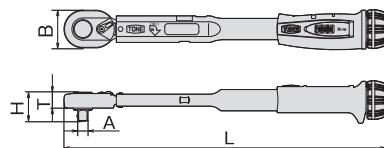
Watch Video  
<http://youtu.be/YZi-bY7T3Vk>



Model	Torque Range Min-Max (N.m)	Increments	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
				B	H	T	L		
T2MN6	1~ 6	0.1	6.35	24.0	18.3	10.4	222	0.26	305×97×70
T2MN13	3~ 13	0.2	6.35	24.0	18.3	10.4	253	0.29	305×97×70
T3MN20	4~ 20	0.2	9.5	24.0	21.5	10.4	253	0.30	305×97×70
T3MN50	10~ 50	0.5	9.5	36.0	26.4	14.0	308	0.52	355×97×70
T4MN50	10~ 50	0.5	12.7	36.0	30.4	14.0	308	0.55	355×97×70
T3MN100	20~100	1	9.5	36.0	26.4	14.0	387	0.75	505×97×70
T4MN100	20~100	1	12.7	36.0	30.4	14.0	387	0.77	505×97×70
T4MN140	30~140	1	12.7	36.0	30.4	14.0	450	0.82	505×97×70
T4MN200	40~200	2	12.7	45.2	34.0	17.8	526	1.40	765×97×70
<b>NEW</b> T4MN300	60~300	2	12.7	45.2	34.0	17.8	716	1.88	765×97×70
T6MN300	60~300	2	19.0	45.2	41.5	17.8	716	1.89	765×97×70

- Repeated Accuracy: ± 3%
- Load direction: to right (clockwise) direction only.

Accessory
Calibration Certificate W/H Traceability
Instruction Manual
Plastic Case



### Expire Date of Calibration Certificate

1. Not in Use  
2 year from the date on the Calibration Certificate

2. Start to use less than 2 year from the date on the Calibration Certificate.  
1 year from the first day of use or up to 100,000 tightening.

### Repair·Maintenance

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not used properly.  
Contact your distributor periodically to keep the accuracy of the tools.

■ Contact your distributor for reissuing the calibration certificate.  
■ Carry out overhaul in case the wrench doesn't sound click or shock.

## TORQUE WRENCH

**TORQUE WRENCH, PRESET TYPE (DIGITAL READING WITH SOCKET HOLD)**

TORQUE WRENCH, PRESET TYPE (DIGITAL READING WITH SOCKET HOLD) is for tightening bolts/nuts. Prevents unintended alteration of setting torque owing to independent handle and setting knob. Prevents mistake in torque setting as torque value can be indicated in self explanatory digits. (system is mechanical, not electronical)  
When reaching the preset torque, the wrench makes a click sound as well as light retroaction.  
Socket Hold Mechanism is installed.  
Hold socket tightly but easy to exchange.



Visible Indicator

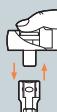


Model	Capacity Torque Range (N · m) Min. ~ Max.	Increments	Unit	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
					B	H	T	L		
T3MN20H	4 ~ 20	0.2	N · m	9.5	24.0	21.4	10.4	253	0.30	355 × 97 × 75
T3MN50H	10 ~ 50	0.5	N · m	9.5	36.0	26.3	10.4	303	0.52	355 × 97 × 75
T4MN50H	10 ~ 50	0.5	N · m	12.7	36.0	30.0	14.0	303	0.55	355 × 97 × 75
T3MN100H	20 ~ 100	1	N · m	9.5	36.0	26.3	10.4	387	0.75	505 × 97 × 75
T4MN100H	20 ~ 100	1	N · m	12.7	36.0	30.0	14.0	387	0.77	505 × 97 × 75
T4MN140H	30 ~ 140	1	N · m	12.7	36.0	30.0	14.0	450	0.82	505 × 97 × 75
T4MN200H	40 ~ 200	2	N · m	12.7	45.2	34.0	17.8	526	1.33	765 × 97 × 75
<b>NEW</b> T4MN300H	60 ~ 300	2	N · m	12.7	45.2	34.0	17.8	716	1.84	765 × 97 × 75
T6MN300H	60 ~ 300	2	N · m	19.0	45.2	40.5	17.8	716	1.85	765 × 97 × 75

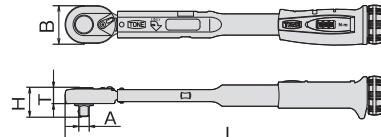
- Socket Hold Mechanism
- Repeated Accuracy: ± 3%
- Load direction: to right (clockwise) direction only.

Accessory	ONLY
Calibration Certificate W/H Traceability	1
Instruction Manual	1
Plastic Case	1

## Socket Hold Mechanism



\* Make sure to press the push button when install/remove the socket.

**Expire Date of Calibration Certificate**

1. Not in Use  
2 year from the date on the Calibration Certificate
2. Start to use less than 2 year from the date on the Calibration Certificate.  
1 year from the first day of use or up to 100,000 tightening.

**Repair·Maintenance**

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not used properly.  
Contact your distributor periodically to keep the accuracy of the tools.

■ Contact your distributor for reissuing the calibration certificate.  
■ Carry out overhaul in case the wrench doesn't sound click or shock.

**CAUTION**

- If the ball groove of sq. drive of socket or accessory is different from standard, holding mechanism often does not work.
- Strong shock often causes malfunction of holding mechanism.

## TORQUE WRENCH, PRESET TYPE

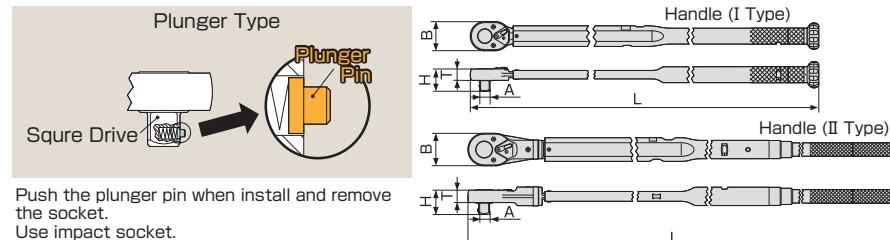
TORQUE WRENCH, PRESET TYPE is for tightening bolts/nuts.  
When reaching the preset torque, the wrench makes a click sound as well as light retroaction.



Model	Capacity Torque Range (N · m) Min. ~ Max.	Increments	Unit	Handle Type	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
						B	H	T	L		
T6L420N	60 ~ 420	2	N · m	I	19.0	54	42.7	21.0	950	3.3	1,050 × 105 × 80
T6L700N	100 ~ 700	5	N · m	II	19.0	68	49.5	27.5	1314	6.2	1,200 × 180 × 98
T8L850N	100 ~ 850	5	N · m	II	25.4	76	58.0	29.0	1388	8.5	1,200 × 180 × 98
T8L1000N	100 ~ 1,000	5	N · m	II	25.4	76	58.0	29.0	1538	8.8	1,200 × 180 × 98
T8L1400N	200 ~ 1,400	10	N · m	II	25.4	87	61.0	32.5	1844	14.0	1,200 × 180 × 98
T8L2100N	700 ~ 2,100	10	N · m	II	25.4	87	61.0	32.5	2064	19.5	1,770 × 176 × 90

\*T8L850N ~ T8L2100N is plunger type.

- Repeated Accuracy: ± 3%
- Load direction: to right (clockwise) direction only.



Accessory (1 pc each)						
	T6L420N	T6L700N	T8L850N	T8L1000N	T8L1400N	T8L2100N
Extension Handle	—	○	○	○	○	○
Box Wrench	—	8mm	8mm	8mm	10mm	10mm
Calibration Certificate W/H Traceability	○	○	○	○	○	○
Instruction Manual	○	○	○	○	○	○
Metal Case	○	○	○	○	○	—

\*T8L2100N is Carton box case

### Expire Date of Calibration Certificate

1. Not in Use  
2 year from the date on the Calibration Certificate

2. Start to use less than 2 year from the date on the Calibration Certificate.  
1 year from the first day of use or up to 100,000 tightening.

### Repair • Maintenance

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not use properly.  
Contact your distributor periodically to keep the accuracy of the tools.

- Contact your distributor for reissuing the calibration certificate.
- Carry out overhaul in case the wrench doesn't sound click or shock.

## TORQUE WRENCH

**TORQUE WRENCH, PRESET TYPE (DIGITAL READING FOR BOTH OF R&L HAND THREADS)**

TORQUE WRENCH, PRESET TYPE (DIGITAL READING FOR BOTH OF R&L HAND THREADS) is for tightening bolts/nuts.

When reaching preset torque, the wrench makes a click sound as well as a light retroaction.

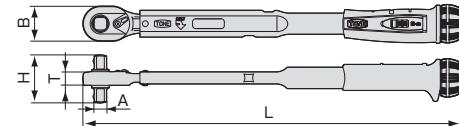
Need to flip the wrench when used for left handed screw.



Model	Capacity Torque Range (N · m) Min. ~ Max.	Increments	Unit	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
					B	H	T	L		
<b>T4MN100R</b>	20 ~ 100	1	N · m	12.7	36.0	49.2	14.0	387	0.83	480 × 78 × 49
<b>T4MN140R</b>	30 ~ 140	1	N · m	12.7	36.0	49.2	14.0	450	0.88	480 × 78 × 49
<b>T4MN200R</b>	40 ~ 200	2	N · m	12.7	45.2	52.7	20.5	526	1.42	625 × 78 × 59
<b>T6MN300R</b>	60 ~ 300	2	N · m	19.0	45.2	65.2	20.5	716	1.96	795 × 105 × 80

● Repeated Accuracy: ± 3%

Accessory
Calibration Certificate W/H Traceability 1
Instruction Manual 1
Plastic Case 1



\*Blow case for T4MN100R, T4MN140R and T4MN200R.  
Metal case for T6MN300R.

**Expiry Date of Calibration Certificate**

- Not in Use  
1 year from the date on the Calibration Certificate
- Start to use less than 1 year from the date on the Calibration Certificate.  
1 year from the first day of use or up to 100,000 tightening.

**Repair·Maintenance**

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not used properly.  
Contact your distributor periodically to keep the accuracy of the tools.

■ Contact your distributor for details of handling the torque wrench.

## TORQUE WRENCH, PRESET TYPE (FOR BOTH OF R&L HAND THREADS)

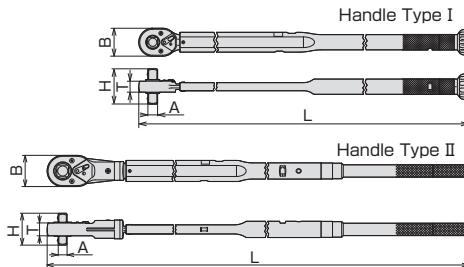
TORQUE WRENCH, PRESET TYPE (FOR BOTH OF R&L HAND THREADS) is for tightening bolts/nuts. When reaching preset torque, the wrench makes a click sound as well as a light retroaction. Need to flip the wrench when used for left handed screw.



Model	Capacity Torque Range (N·m) Min. ~ Max.	Increments	Unit	Handle Type	Sq. Drive A (mm)	Dimensions(mm)				Weight (kg)	Case Size
						B	H	T	L		
T6L420NR	60 ~ 420	2	N·m	I	19.0	54	69.2	21.0	950	3.4	1050 × 105 × 80
T6L700NR	100 ~ 700	5	N·m	II	19.0	68	69.5	27.5	1,314	6.3	1200 × 180 × 98
T6L850NR	100 ~ 850	5	N·m	II	19.0	76	75.0	29.0	1,388	8.6	1200 × 180 × 98
T8L850NR	100 ~ 850	5	N·m	II	25.4	76	85.0	29.0	1,538	8.9	1200 × 180 × 98

• Repeated Accuracy: ± 3%

Accessory	
Calibration Certificate W/H Traceability	1
Instruction Manual	1
Metal Case	1



### Expiry Date of Calibration Certificate

- Not in Use  
1 year from the date on the Calibration Certificate
- Start to use less than 1 year from the date on the Calibration Certificate.  
1 year from the first day of use or up to 100,000 tightening.

### Repair·Maintenance

- Accuracy might become inaccurate in case that the tools are not in use for a long time or are not use properly.  
Contact your distributor periodically to keep the accuracy of the tools.
- Carry out overhaul in case the wrench doesn't sound click or shock.

## TORQUE WRENCH

## TORQUE WRENCH, PRESET TYPE (DIGITAL READING)

TORQUE WRENCH, PRESET TYPE (DIGITAL READING) is for tightening bolts/nuts.

Visible Indicator helps to reduce wrong torque setting.

When reaching preset torque, the wrench makes a click sound as well as a light retroaction.

Used best in assembly line where required constant torque value.



Digital Display



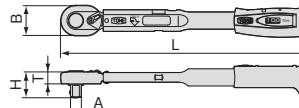
Model	Capacity Torque Range (N · m) Min. ~ Max.	Increments	Unit	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
					B	H	T	L		
T2M6	1 ~ 6	0.1	N · m	6.35	24.0	18.3	10.4	211	0.20	305 × 97 × 70
T2M13	3 ~ 13	0.2	N · m	6.35	24.0	18.3	10.4	240	0.25	305 × 97 × 70
T3M20	4 ~ 20	0.2	N · m	9.5	24.0	21.6	10.4	240	0.26	305 × 97 × 70
T3M50	10 ~ 50	0.5	N · m	9.5	36.0	26.4	14.0	291	0.50	355 × 97 × 70
T4M50	10 ~ 50	0.5	N · m	12.7	36.0	30.4	14.0	291	0.68	355 × 97 × 70
T3M100	20 ~ 100	1	N · m	9.5	36.0	26.4	14.0	369	0.51	505 × 97 × 70
T4M100	20 ~ 100	1	N · m	12.7	36.0	30.4	14.0	369	0.69	505 × 97 × 70
T4M140	30 ~ 140	1	N · m	12.7	36.0	30.4	14.0	432	0.81	505 × 97 × 70
T4M200	40 ~ 200	2	N · m	12.7	45.2	34.0	17.8	505	1.40	765 × 97 × 70
T6M300	60 ~ 300	2	N · m	19	45.2	40.5	17.8	696	1.87	765 × 97 × 70

- Repeated Accuracy: ± 3%

\*Hex key (A/F 5mm) is required to set torque.

## Accessory

Tool for torque setting	1
Calibration Certificate W/H Traceability	1
Instruction Manual	1
Plastic Case	1



## Expiry Date of Calibration Certificate

- Not in Use  
2 year from the date on the Calibration Certificate
- Start to use less than 2 year from the date on the Calibration Certificate.  
1 year from the first day of use or up to 100,000 tightening.

## Repair·Maintenance

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not use properly.  
Contact your distributor periodically to keep the accuracy of the tools.

■ Carry out overhaul in case the wrench doesn't sound click or shock.

**CAUTION**

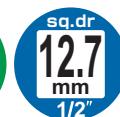
- If the ball groove of sq.drive of socket of accessory is different from standard, holding mechanism often does not work.
- Strong shock often causes malfunction of holding mechanism.

## TORQUE WRENCH, SINGLE PURPOSE TYPE

TORQUE WRENCH, PRESET TYPE (TORQUE WRENCH, SINGLE PURPOSE TYPE) is for tightening bolts/nuts.

This torque wrench is setted in requested torque value.

When reaching preset torque, the wrench makes a click sound as well as a light retroaction.

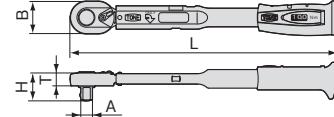


Model	Capacity Torque Range (N · m) Min. ~ Max.	Unit	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
				B	H	T	L		
T2MP6	1 ~ 6	N · m	6.35	24.0	18.3	10.4	211	0.19	305 × 97 × 70
T2MP13	3 ~ 13	N · m	6.35	24.0	18.3	10.4	240	0.24	305 × 97 × 70
T3MP20	4 ~ 20	N · m	9.5	24.0	21.6	10.4	240	0.25	305 × 97 × 70
T3MP50	10 ~ 50	N · m	9.5	36.0	26.4	14.0	291	0.49	355 × 97 × 70
T4MP50	10 ~ 50	N · m	12.7	36.0	30.4	14.0	291	0.50	355 × 97 × 70
T3MP100	20 ~ 100	N · m	9.5	36.0	26.4	14.0	369	0.67	505 × 97 × 70
T4MP100	20 ~ 100	N · m	12.7	36.0	30.4	14.0	369	0.68	505 × 97 × 70
T4MP140	30 ~ 140	N · m	12.7	36.0	30.4	14.0	432	0.80	505 × 97 × 70
T4MP200	40 ~ 200	N · m	12.7	45.2	34.0	17.8	505	1.39	765 × 97 × 70
T4MP300	60 ~ 300	N · m	12.7	45.2	34.0	17.8	696	1.82	765 × 97 × 70
T6MP300	60 ~ 300	N · m	19.0	45.2	40.5	17.8	696	1.86	765 × 97 × 70

● Repeated Accuracy: ± 3%

### Accessory

Tool for torque setting	1
Instruction Manual	1
Plastic Case	1



### How to Order Toque Setting

Please provide **serial number** and **setting torque** when placing your order.

**serial number**  
**T4MP100**

**setting torque**  
**in 100N·m**

### CAUTION

1. Be sure to provide torque unit.
2. Note that 3 business days is required to set the torque.
3. Calibration certificate is provided when torque setting is conducted by TONE.

### Expiry Date of Calibration Certificate

#### 1. Not in Use

1 year from the date on the Calibration Certificate

#### 2. Start to use less than 1 year from the date on the Calibration Certificate.

1 year from the first day of use or up to 100,000 tightening.

### Repair·Maintenance

■ Be sure to provide the torque value when you require repair and maintenance service, as well as reissuing calibration certificate.

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not use properly.

Contact your distributor periodically to keep the accuracy of the tools.

■ Carry out overhaul in case the wrench doesn't sound click or shock.

## TORQUE WRENCH

## ■ TORQUE WRENCH, PRESET OPEN END SPANNER

TORQUE WRENCH, PRESET OPEN END SPANNER is specialized for tightening flare joints/nut on air conditioner units.

The torque value is setted by TONE for flare joints/nuts. (Cannot be changed.)

When reaching preset torque, the wrench makes a clicking sound as well as a light retroaction.

Used for new refrigerant device



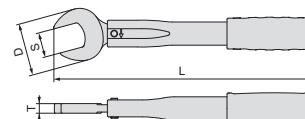
Model	Capacity Torque (N · m)	Dimensions(mm)				Weight (kg)
		D	S	T	L	
<b>TSP16-17</b>	16	36.5	17	7.6	220	0.37
<b>TSP38-22</b>	38	46.5	22	8.5	230	0.41
<b>TSP55-26</b>	55	55.0	26	9.7	286	0.54
<b>TSP75-29</b>	75	62.0	29	9.7	292	0.57

● Repeated Accuracy:  $\pm 4\%$

Accessory	
Calibration Certificate W/H Traceability	1
Instruction Manual	1



\*Need to flip the wrench when using for left handed screw. (Refer to instruction manual)  
Standard Tightening Torque Value for New Refrigerant Devices (Reference)



## ■ Standard Tightening Torque Value for flare nut

Model	Size	Flare Size	Standard Tightening Torque Value
<b>TSP16-17</b>	6.35mm (1/4")	17mm	16N·m
<b>TSP38-22</b>	9.5mm (3/8")	22mm	38N·m
<b>TSP55-26</b>	12.7mm (1/2")	26mm *	55N·m
<b>TSP75-29</b>	15.9mm (5/8")	29mm *	75N·m

\*Changed according to New Refrigerant

## ■ Expiry Date of Calibration Certificate

- Not in Use  
1 year from the date on the Calibration Certificate
- Start to use less than 1 year from the date on the Calibration Certificate.  
1 year from the first day of use or up to 100,000 tightening.

## ■ Repair·Maintenance

- Contact your distributor periodically to keep the accuracy of the tools.

## TORQUE WRENCH, ADJUSTABLE WRENCH TYPE (TORQUE WRENCH, PRESET OPEN END SPANNER)

TONE has specially developed the adjustable wrenches which maintains the torque accuracy regardless of bolt sizes.

The head of adjustable wrench adopt backrush-less mechanism to fix the bolt/nut firmly.

Visible Indicator helps to reduce wrong torque setting.

Multipule uses in various field, such as for plumbing of air conditioner, automobile and motor-bike, communicaiton devices or anchor bolt etc.

Regardless of measurement system, these wrenches are adjustable to any type of bolts/nuts.



Digital Display



TMWM25W

TMWM100

TMWM150

TMWM150W

Model	Capacity Torque Range (N·m) Min. ~ Max.	Increments	Unit	Dimensions(mm)				Weight (kg)	Case Size
				D	S	T	L		
<b>TMWM15</b>	3 ~ 15	0.2	N·m	49.3	10 ~ 27	9.9	289	0.32	355 × 117 × 70
<b>TMWM25</b>	5 ~ 25	0.2	N·m	49.3	10 ~ 27	9.9	330	0.46	355 × 117 × 70
*1 <b>TMWM25W</b>	5 ~ 25	0.2	N·m	66.8	17 ~ 38	13.3	346	0.55	355 × 117 × 70
<b>TMWM50</b>	10 ~ 50	0.5	N·m	49.3	10 ~ 27	9.9	330	0.46	355 × 117 × 70
*1 <b>TMWM50W</b>	10 ~ 50	0.5	N·m	66.8	17 ~ 38	13.3	346	0.55	355 × 117 × 70
<b>TMWM60</b>	15 ~ 60	0.5	N·m	49.3	10 ~ 27	9.9	330	0.46	355 × 117 × 70
<b>TMWM100</b>	20 ~ 100	1	N·m	66.8	17 ~ 38	13.3	420	0.74	545 × 132 × 70
*1 <b>TMWM100W</b>	20 ~ 100	1	N·m	83.3	27 ~ 48	16.0	438	0.92	545 × 132 × 70
<b>TMWM115</b>	25 ~ 115	1	N·m	66.8	17 ~ 38	13.3	420	0.74	545 × 132 × 70
<b>TMWM150</b>	50 ~ 150	1	N·m	66.8	17 ~ 38	13.3	483	0.82	545 × 132 × 70
*1 <b>TMWM150W</b>	50 ~ 150	1	N·m	83.3	27 ~ 48	16.0	500	1.00	545 × 132 × 70
<b>TMWM200</b>	40 ~ 200	2	N·m	83.3	27 ~ 48	16.0	570	1.51	618 × 130 × 70

\*1 Model having suffix "W" are wider jaws-opening type.

\*2 "TMWM60" and "TMWM115" are enabled model for new refrigerant device.

● Repeated Accuracy: ± 4% (± 7% for wider jaws-opening type.)

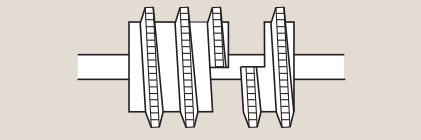
### Accessory

Calibration Certificate W/H Traceability	1
Instruction Manual	1
Plastic Case	1

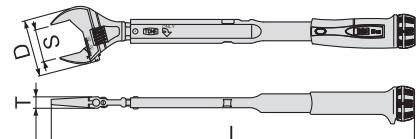


\*Need to flip the wrench when using for left handed screw.  
(Refer to instruction manual)

### Backrush-less mechanism



Divided worms catch the rack on lower jaw firmly.  
This mechanism enables not to loosen the wrench.



### Standard Tightening Torque Value for flare nut

Model Size	Flare Size	Standard Tightening Torque Value
6.35mm (1/4")	17mm	16N·m
9.5mm (3/8")	22mm	38N·m
12.7mm (1/2")	26mm *	55N·m
15.9mm (5/8")	29mm *	75N·m
19.0mm (3/4")	36mm	110N·m

\* Changed according to New Refrigerent

### Expiry Date of Calibration Certificate

#### 1. Not in Use

2 year from the date on the Calibration Certificate

#### 2. Start to use less than 2 year from the date on the Calibration Certificate.

1 year from the first day of use or up to 100,000 tightening.

### Repair・Maintenance

■Accuracy might become inaccurate in case that the tools are not in use for a long time or are not used properly.

Contact your distributor periodically to keep the accuracy of the tools.

■Carry out overhaul in case the wrench doesn't sound click or shock.

## TORQUE WRENCH CHECKER

## TORQUE WRENCH CHECKER

Check at anytime the actual torque value before using torque wrench in the field.

Visible LED Display prevents mistake in reading the torque value.

3 measurement mode are installed (Peak mode/Track mode/Peak hold mode)

Available for various size and head of the wrench by using Adaptors.



**NEW**



Watch Video  
<http://youtu.be/sp-iRroH2FM>



TTC-1000



TTC-60



Conversion Adaptor Convex Hexagon Adaptor



Model	Torque Range Min. ~ Max. (N.m)	Increments	Sq. Drive (mm)	Dimensions(mm)			Mesurement	Accuracy	Weight (Main Body Only)
				S	D	L			
TTC-60	2 ~ 60	0.00 ~	0.01	12.7	30.0	155			2.2
TTC-500	20 ~ 500	0.0 ~	0.1	25.4	48.0	173	CW	± 1 % + 1 digit	2.6
TTC-1000	50 ~ 1000	0.0 ~	0.1	25.4	48.0	173			2.8

- Voltage : 100V ~ 240V
- Operating temperature : 5°C ~ 40°C
- Storage temperature : -20°C ~ 70°C
- Measurement Mode: Peak mode/Track mode/Peak hold mode



## Accessory

 Conversion Adaptor (1pc each)

TTC-60 : □ 6.35mm × □ 12.7mm, □ 9.5mm × □ 12.7mm

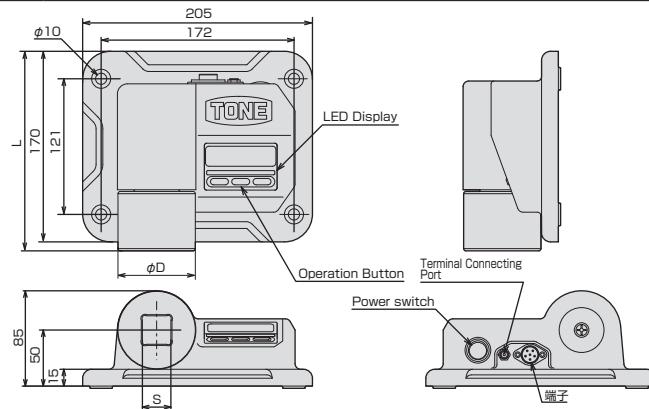
TTC-500, TTC-1000 : □ 9.5mm × □ 25.4mm, □ 12.7mm × □ 25.4mm,

□ 19.0mm × □ 25.4mm

 Convex Hexagon Adaptor (1pc each)

TTC-60 : □ 19mm × □ 12.7mm, □ 27mm × □ 12.7mm

TTC-500, TTC-1000 : □ 27mm × □ 25.4mm, □ 38mm × □ 25.4mm

 AC adaptor 100V ~ 240V/50-60Hz Fixing Bolt : M10 × 40 Cap Bolt (with Washer, Nut) 4 Instruction Manual  Calibration Certificate W/H Traceability

## Repair·Maintenance

■ Accuracy might become inaccurate in case that the tools are not in use for a long time or are not used properly.

Contact your distributor periodically to keep the accuracy of the tools.

■ Carry out overhaul in case the wrench doesn't sound click or shock.

## LED Display

● Usable readout with LED Display.

## High Accuracy

● Accuracy: ±1% + 1 digit

## Easy Operation

● Easy to operate by power switch and three buttons.

## 3 modes are available for various torque management.

## Track Mode

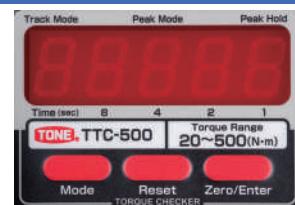
Displayed torque value changes in accordance with the applying torque. The display indicates "0" when stopped applying torque.

## Peak Mode

The tool resets automatically as the seconds set in advance. (Can be chosen from 1, 2, 4 and 8 sec.)

## Peak Hold

Displayed torque value remains until pushed the button.



# TORQUE WRENCH TESTING MACHINE

Used in  
TONE  
Factory

User-Friendly TORQUE WRENCH TESTING MACHINE available from TONE.

Totally simple operations based on JIS B 4652.

\*JIS B 4652 : Hand torque tools -Requirements and test methods



Computer with connection cable



Model	CH	Torque Range Min. ~ Max. (N·m)	Increments (N·m)	Sq. Drive (mm)	Measurment	Accuracy (%)	Weight (kg)
ATT2100	1	1 ~ 50	0.001	12.7	CW CWW	$\pm 1$	750
	2	20 ~ 500	0.01	25.4			
	3	200 ~ 2100	0.1	38.1			

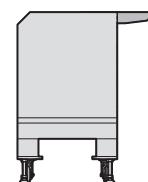
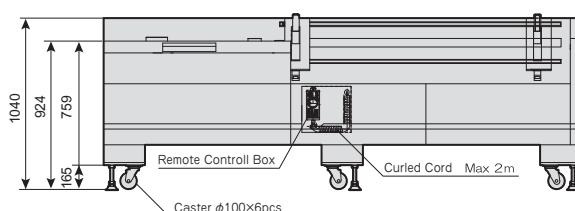
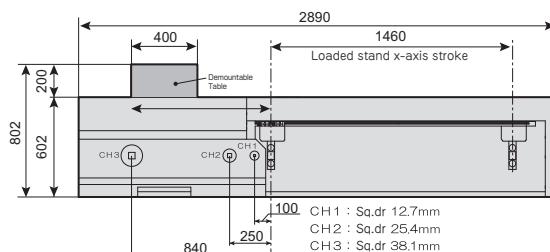
- Voltage : three-phase 200V, 30A
- Operating temperature : 18°C ~ 28°C
- Operating humidity : 50% RH  $\pm$  20%



## Accessory

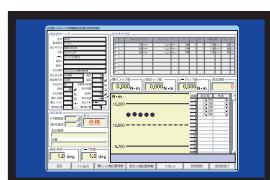
- Table
- Reaction bar for offset
- Hex socket head cap bolt M12 × 35 (6pcs)
- Computer with connection cable (software is installed)
- Monitor (liquid crystal), mouse, key board
- Cable 9pin (4m)
- Square Drive convert adaptor for measurement channel (each 1 unit)
- CH1 :  $\square$  6.35 mm  $\times$   $\square$  12.7 mm,  $\square$  9.5 mm  $\times$   $\square$  12.7 mm
- CH2 :  $\square$  9.5 mm  $\times$   $\square$  25.4 mm,  $\square$  12.7 mm  $\times$   $\square$  25.4 mm,  
 $\square$  19.05 mm  $\times$   $\square$  25.4 mm
- CH3 :  $\square$  19.05 mm  $\times$   $\square$  38.1 mm,  
 $\square$  25.4 mm  $\times$   $\square$  38.1 mm
- Instruction Manual / Calibration Certificate W/H Traceability

\*Printer is not mounted



## Automatic measurement & Judgement function mounting

- Registration possible (Model, accuracy, loaded location)
- Automatic Judgement according to the model
- Measurement data is conservable
- Calibration Certificate issuable (need a printer)



## High Accuracy and Durability

- Measurement points are configurable maximum 8 points
- Measurement is enable max. 50 times in one measurement point.

\*Calibration Certificate shows up to 10 times in one measurement point.

## High Accuracy : Wide Range

- Accuracy :  $\pm 1\%$
- Torque measurement range : 1~2100 N·m

## Customization

- The machine can be customized to the specification as requested.



ISO 9001

ISO 14001

# TONE CO., LTD.

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