



CORNER NUT RUNNER

ELECTRIC NUT RUNNER GNBC Series



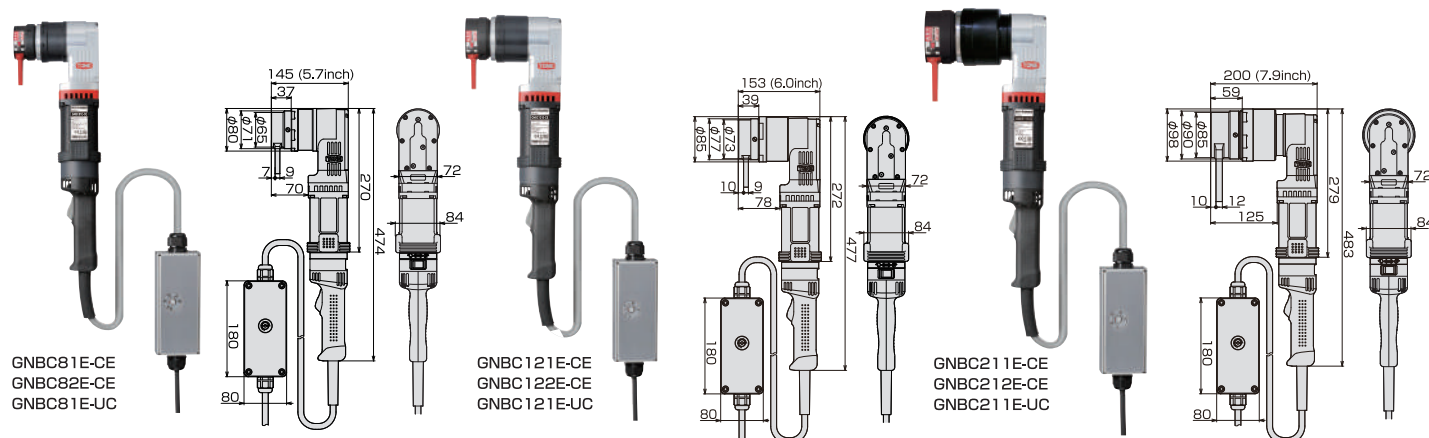
See the demonstration movie at:
<https://youtu.be/H193xh3o6y8>

TONE CO., LTD.

Compact + Powerful Corner NUT RUNNERS

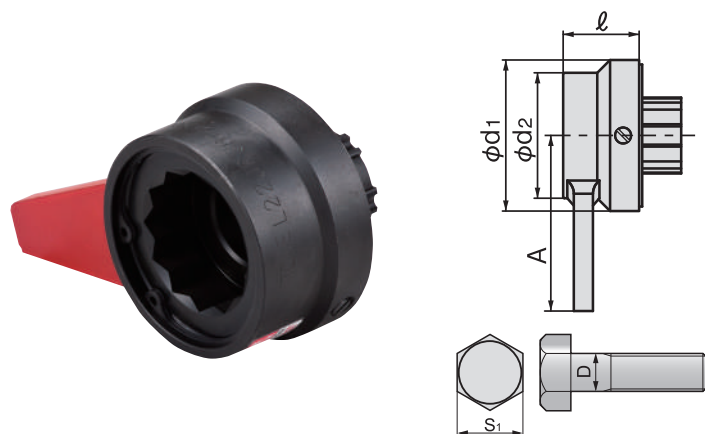
- Short nose and compact socket with integrated reaction arm for narrow space access
- Easy Forward-Reverse direction switch
- Ergonomic design, lower sound level and double insulated protection motor

CORNER NUT RUNNER



Model	GNBC81E-CE	GNBC82E-CE	GNBC81E-UC	GNBC121E-CE	GNBC122E-CE	GNBC121E-UC	GNBC211E-CE	GNBC212E-CE	GNBC211E-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	14A	7A	14A	14A	7A	14A	14A	7A	14A
Rated Input Power	1550W(2s/3s)		1550W	1550W(2s/3s)		1550W	1550W(2s/3s)		1550W
Rated Max. Torque	800N·m		600lbf·ft	1200N·m		900lbf·ft	2100N·m		1550lbf·ft
Repeated Accuracy	±5%			±5%			±5%		
Controllable Torque Range	350~800N·m		250~600lbf·ft	500~1200N·m		370~900lbf·ft	1000~2100N·m		750~1550lbf·ft
No-Load Speed	17min ⁻¹ (rpm)			11min ⁻¹ (rpm)			6min ⁻¹ (rpm)		
Noise & Vibration Level	Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s ²			Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s ²			Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s ²		
Weight(Main Body)	5.3kg		11.7lbs	5.8kg		12.8lbs	7.3kg		16.1lbs
Protection Class	□(class II tool)			□(class II tool)			□(class II tool)		

BAR SOCKET



Bar Socket Code No.	Bolt Size φD		Bolt Across Flat S1		Bar Socket			
	F8T,F10T EN10.9	A325 A490	(mm)	(inch)	φd1 (mm)	φd2 (mm)	A (mm)	l (mm)
for GNBC81E-CE,GNBC82E-CE,GNBC81E-UC								
22UR27T	M16	5/8"	27	1-1/16"	71	59	82.5	36
22UR32T	M20	3/4"	32	1-1/4"	71	59	82.5	36
22UR36T	M22		36		71	65	82.5	39
22URB46T		7/8"		1-7/16"	71	65	82.5	39
for GNBC121E-CE,GNBC122E-CE,GNBC121E-UC								
24UR32T	M20	3/4"	32	1-1/4"	77	65	82.5	41
24UR36T	M22		36		77	73	82.5	41
24URB46T		7/8"		1-7/16"	77	73	82.5	41
24UR41T	M24	1"	41	1-5/8"	77	73	90.0	41
for GNBC211E-CE,GNBC212E-CE,GNBC211E-UC								
30UR41T	M24	1"	41	1-5/8"	88	75	125	42
30UR46T	M27	1-1/8"	46	1-13/16"	88	80	125	45
30UR50T	M30	1-1/4"	50	2"	88	85	125	49

※Make sure Hex Bolt Across Flat size, bolt size and hardness to select right Bar socket.

Manufactured by

TONE CO., LTD.

OSAKA, JAPAN.

web site <http://www.tonetool.co.jp>
e-mail: overseas@tonetool.co.jp

Specifications and design are subject to change without notice.
The company has accreditation to ISO14001 and ISO9001.

Your Distributor



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
 e-mail: 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

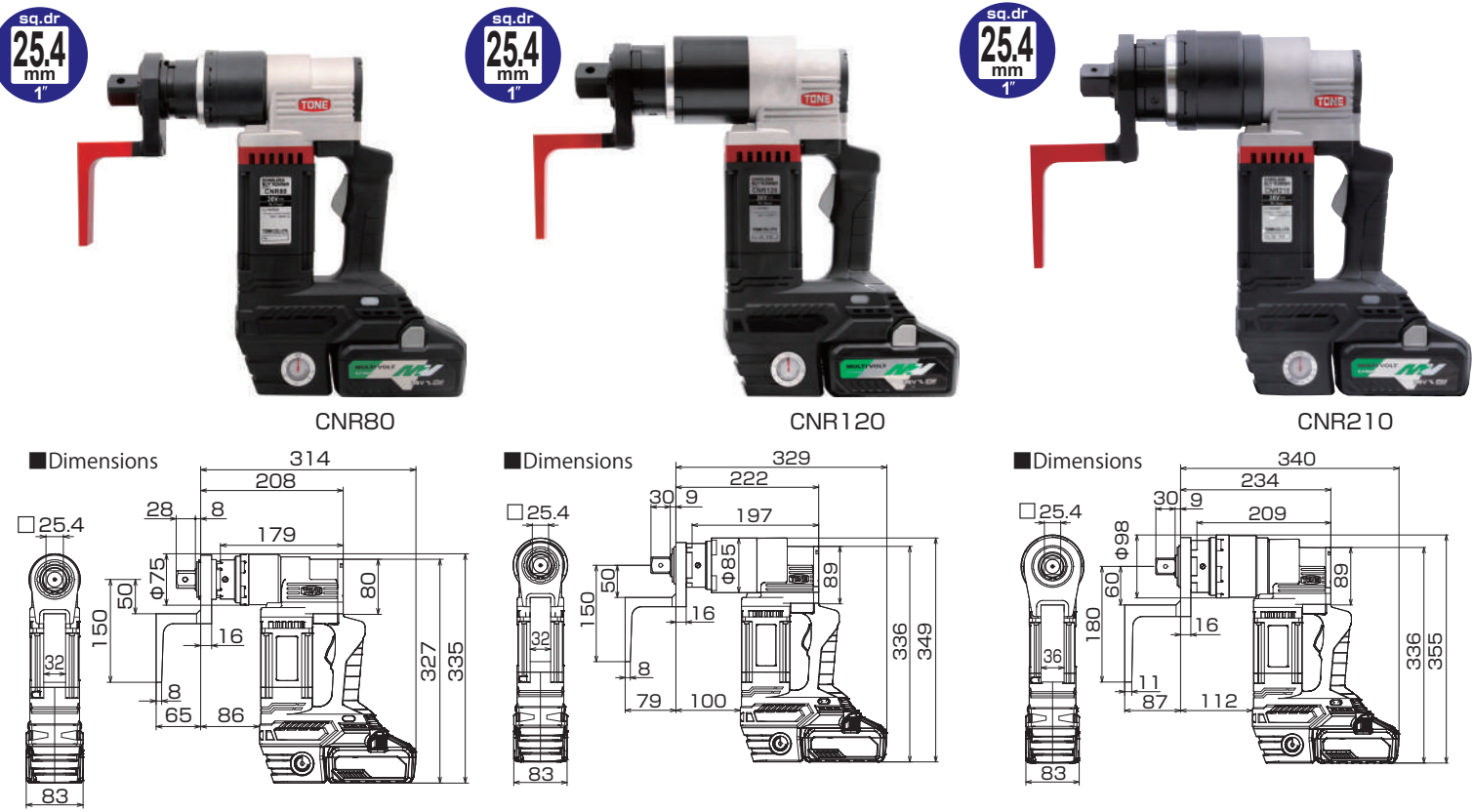
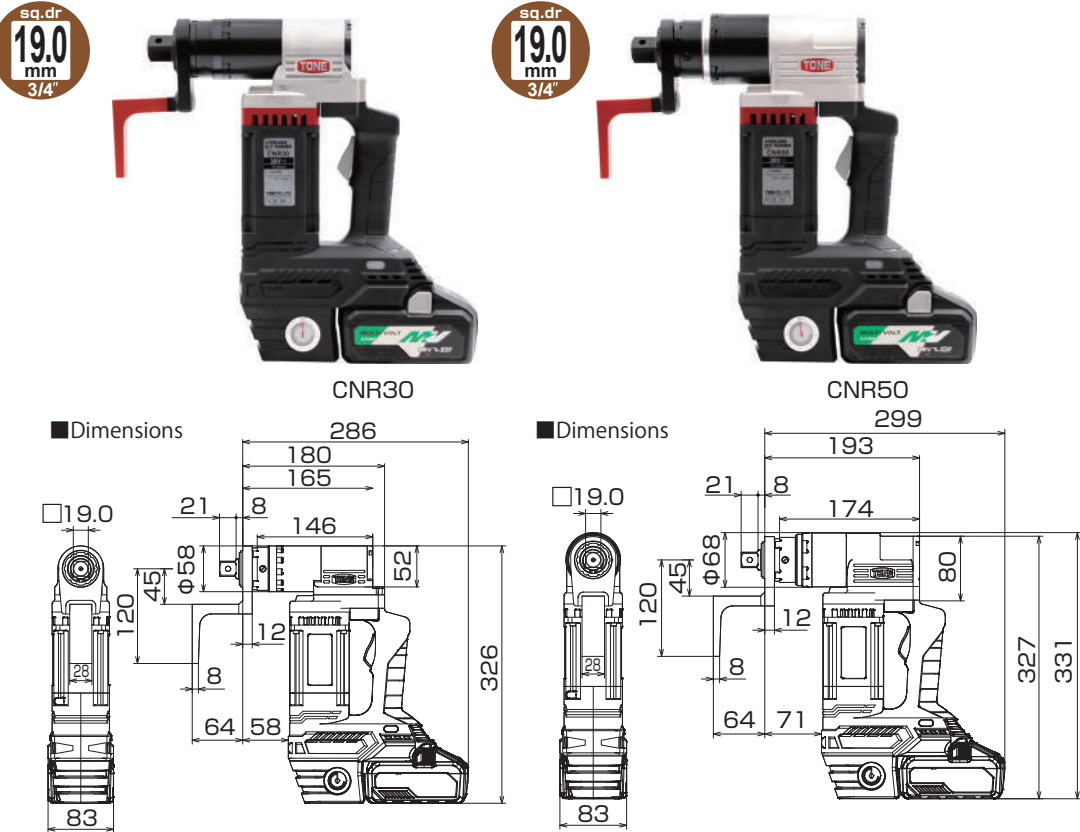
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TONE CO., LTD.

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 (%)	± 5	± 5	± 5	± 5	± 5
No-Load Speed (min ⁻¹ / 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 ±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 UC18×××)
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.

ELECTRIC NUT RUNNER GNR & GNRS Series



GNR Series

150~2100N·m 110~1550lb·ft

GNRS Series

1600~10000N·m 1180~7380lb·ft

***Compact Body!
Light Weight!
High Power!***

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



TONE CO., LTD.

NUT RUNNER (GNR Series)



GNR31E-CE
GNR32E-CE
GNR31E-UC

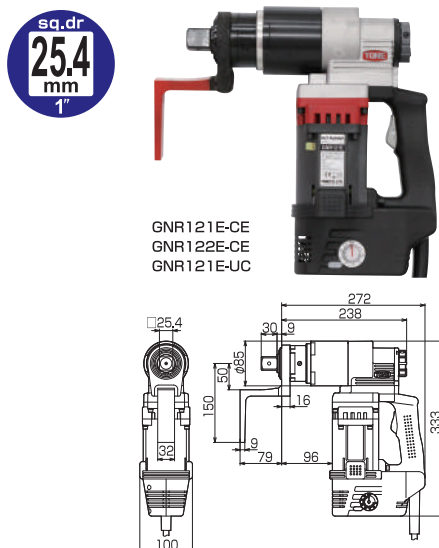


GNR51E-CE
GNR52E-CE
GNR51E-UC

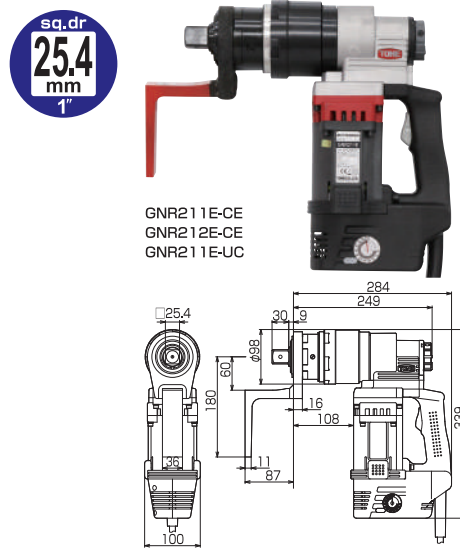


GNR81E-CE
GNR82E-CE
GNR81E-UC

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/s ²			Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s ²			Sound Pressure Level 86dB(A) Sound Power Level 97dB(A) Vibration Level Less than 2.5m/s ²		
Weight(Main Body)	4.5kg		9.9lbs	5.0kg		11.0lbs	5.4kg		11.9lbs
Protection Class	□(class II tool)			□(class II tool)			□(class II tool)		



GNR121E-CE
GNR122E-CE
GNR121E-UC



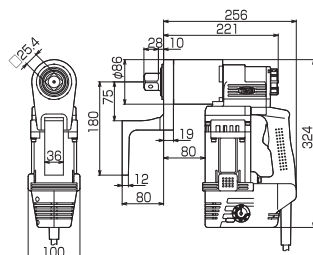
GNR211E-CE
GNR212E-CE
GNR211E-UC

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/s ²			Sound Pressure Level 84dB(A) Sound Power Level 95dB(A) Vibration Level Less than 2.5m/s ²		
Weight(Main Body)	7.3kg		16.1lbs	8.8kg		19.4lbs
Protection Class	□(class II tool)			□(class II tool)		

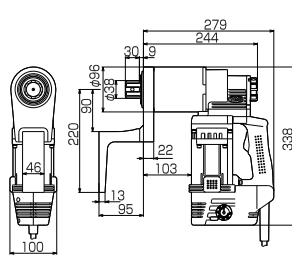
NUT RUNNER (GNRS Series)



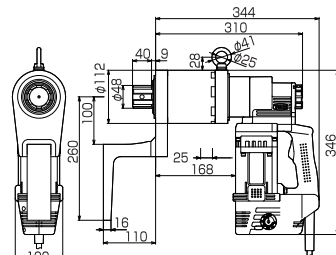
GNRS401E-CE
GNRS402E-CE
GNRS401E-UC



GNRS601E-CE
GNRS602E-CE
GNRS601E-UC



GNRS1001E-CE
GNRS1002E-CE
GNRS1001E-UC



Models	GNRS401E-CE	GNRS402E-CE	GNRS401E-UC	GNRS601E-CE	GNRS602E-CE	GNRS601E-UC	GNRS1001E-CE	GNRS1002E-CE	GNRS1001E-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	18A	9A	18A	17A	8.5A	17A	17A	8.5A	17A
Rated Input Power	1900W(2s/3s)		1900W	1800W(2s/3s)		1800W	1800W(2s/3s)		1800W
Rated Max. Torque	4000N·m		2950lbf·ft	6000N·m		4430lbf·ft	10000N·m		7380lbf·ft
Repeated Accuracy	±5%			±5%			±5%		
Controllable Torque Range	1600~4000N·m		1180~2950lbf·ft	2400~6000N·m		1770~4430lbf·ft	4000~10000N·m		2950~7380lbf·ft
No-Load Speed	4min ⁻¹ (rpm)			2.5min ⁻¹ (rpm)			1.5min ⁻¹ (rpm)		
Noise & Vibration Level	Sound Pressure Level 84dB(A) Sound Power Level 95dB(A) Vibration Level Less than 2.5m/s ²			Sound Pressure Level 84dB(A) Sound Power Level 95dB(A) Vibration Level Less than 2.5m/s ²			Sound Pressure Level 84dB(A) Sound Power Level 95dB(A) Vibration Level Less than 2.5m/s ²		
Weight(Main Body)	9.0kg		19.8lbs	11.4kg		25.1lbs	16.3kg		35.9lbs
Protection Class	Ⓜ(class II tool)			Ⓜ(class II tool)			Ⓜ(class II tool)		

SPLINE SOCKET

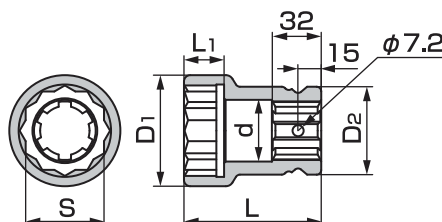


SPS100W85



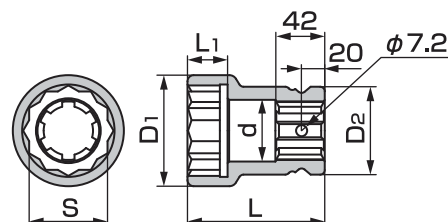
FOR:GNRS601E-CE / GNRS602E-CE / GNRS601E-UC

Models	Across Flat (mm)	Dimensions(mm)						Weight (kg)
		S	D ₁	D ₂	L ₁	L	d	
SPS60W50	50	72	57	26	89	40	1.2	
SPS60W55	55	80	60	29	89	40	1.5	
SPS60W60	60	85	60	31	89	40	1.5	
SPS60W65	65	90	62	34	89	45	1.7	
SPS60W70	70	97	62	36	89	48	1.7	
SPS60W75	75	103	62	38	90	50	1.8	
SPS60W80	80	108	62	42	94	54	1.9	
SPS60W85	85	113	62	45	99	58	2.1	
SPS60W90	90	119	62	48	102	62	2.3	
SPS60W95	95	124	62	51	107	66	2.4	
SPS60W100	100	130	62	54	110	70	2.5	
SPS60W105	105	136	62	58	114	75	2.5	



FOR:GNRS1001E-CE / GNRS1002E-CE / GNRS1001E-UC

Models	Across Flat (mm)	Dimensions(mm)						Weight (g)
		S	D ₁	D ₂	L ₁	L	d	
SPS100W60	60	88	70	31	104	50	2.1	
SPS100W65	65	97	70	34	104	50	2.4	
SPS100W70	70	103	70	36	104	50	2.5	
SPS100W75	75	109	73	38	104	50	2.7	
SPS100W80	80	115	75	42	104	55	3.0	
SPS100W85	85	121	75	45	109	58	3.4	
SPS100W90	90	126	75	48	112	62	3.5	
SPS100W95	95	132	75	51	117	66	3.7	
SPS100W100	100	138	75	54	120	70	4.1	
SPS100W105	105	144	75	58	124	75	4.3	
SPS100W110	110	150	75	61	127	79	4.8	
SPS100W115	115	156	75	64	130	84	4.8	





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OSAKA, JAPAN.

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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

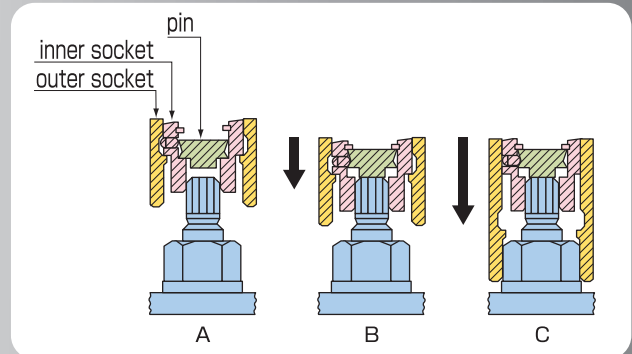
●High workability

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.

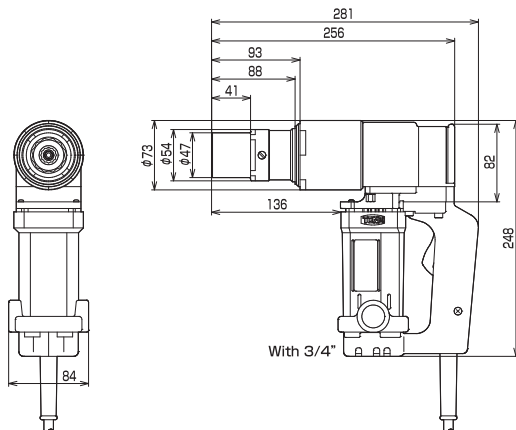
- 1, The inner socket cannot be retreated. (Fig. A)
- 2, When the nut is attached to the projecting pin, the inner socket is retreated. (Fig. B)
- 3, Then, the outer socket fits completely over the nut. (Fig. C)



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

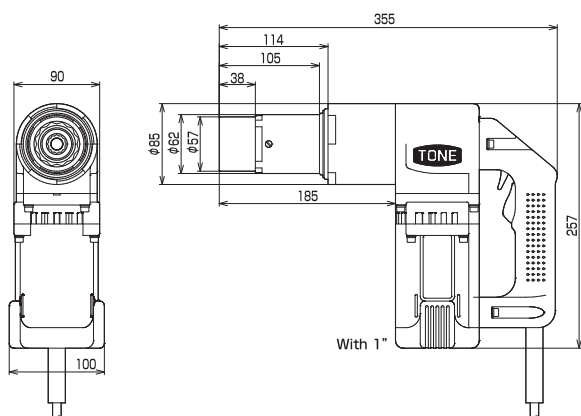
SHEAR WRENCH

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 ⁻¹ (rpm)	20min ⁻¹ (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)	



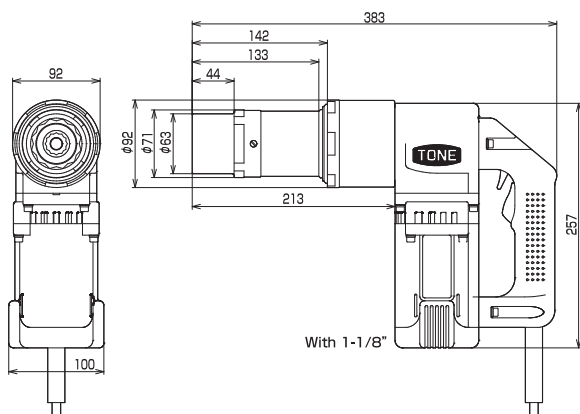
SHEAR WRENCH

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	17min ⁻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	15min ⁻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

With GHC-220EZ

9% higher

With GMC-240EZ

※ Compared with our predecessor model

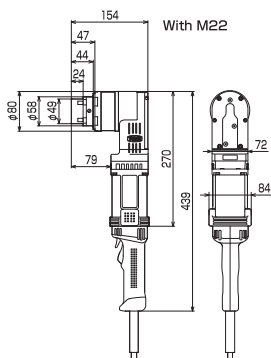
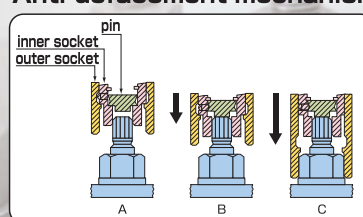
**Compact and lightweight,
yet with high power**



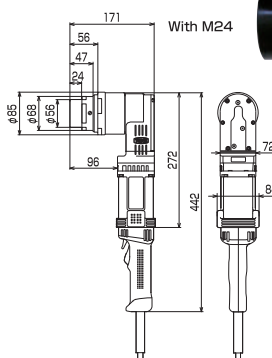
Impressive new radiator design with house mark.

New high-performance aluminum casing motor.

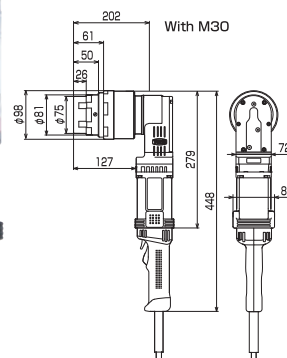
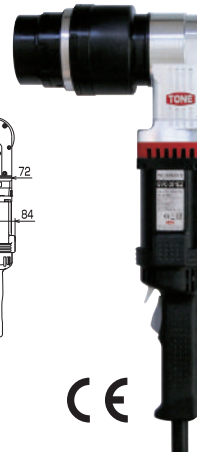
Anti-defacement mechanism



GMC-221EZ
GMC-222EZ



GHC-241EZ
GHC-242EZ



GVC-301EZ
GVC-302EZ

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 ⁻¹ (rpm)		11min ⁻¹ (rpm)		6min ⁻¹ (rpm)	
Adaptable Bolts Dia.	S10T	M16,M20,M22	M16,M20,M22,M24		M24,M27,M30	
	A325	5/8",3/4",7/8"	3/4",7/8",1"		1",1-1/8"	
	A490	5/8",3/4",7/8"	3/4",7/8",1"		1",1-1/8"	
Weight(Main Body)	5.3kg		6.0kg		7.4kg	
Protection Class	□(class II tool)		□(class II tool)		□(class II tool)	

Manufactured by

TONE CO., LTD.

OSAKA, JAPAN.

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

Specifications and design are subject to change without notice.
The company has accreditation to ISO14001 and ISO9001.

Your Distributor

TRIBOLOGYEC

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



Av. De Los Shyris N32-218 y Eloy Alfaro
Edif. Parque Central, Oficina 702
Quito - Ecuador.
L.Montalvan@tribology.ec / ventas@tribology.ec
099 384 5779 / 099 239 1577
www.tribology.ec



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

SNUG MASTER

PRE-TIGHTENING WRENCH

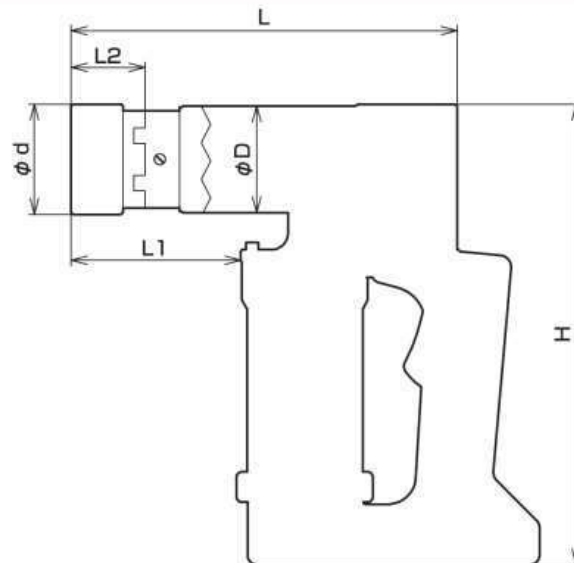
- SungMaster shows up its slim body with full-range of torque coverage suitable for primary-tightening 3/4", 7/8", 1", 1-1/8", M20, M24, M27 and M30.*
 - Control Device is incorporated.
 - Light Weight.
 - Does not sound, nor run riot as impact wrench.
- *SGS-52E only.

Specifications

Model	SGS-31E	SGS-32E	SGS-52E $\text{C}\epsilon$
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 ⁻¹ (rpm)		29min ⁻¹ (rpm)
Repeated Accuracy	±5%		±5%
Weight (Main Body)	3.9 kg (8.6lbs)		4.5 kg (9.9lbs)
Adaptable Bolt Size	S10T	M20, M22, M24, M27	M24, M27, M30
	A325	3/4", 7/8", 1", 1-1/8"	—
	A490	3/4", 7/8", 1", 1-1/8"	—
Protection Class	—		Ⓜ (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"



Manufactured by

TONE CO., LTD.
 OSAKA, JAPAN.




ISO 9001:2008 QMS



Your Distributor

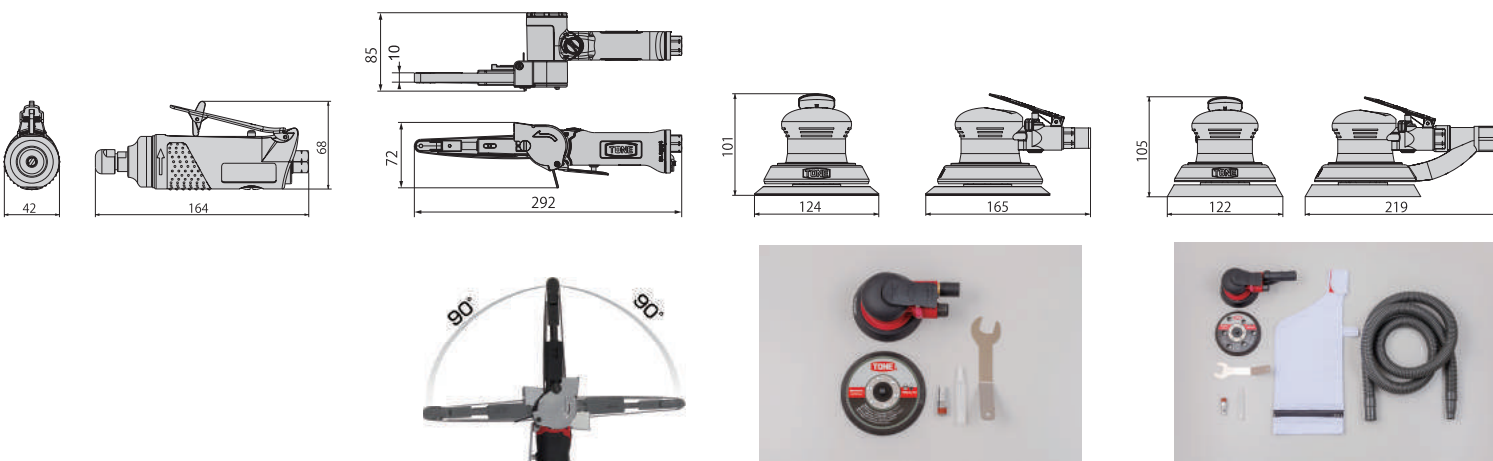
 web site <http://www.tonetool.co.jp>
 e-mail: overseas@tonetool.co.jp

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



ISO 14001:2004 EMS

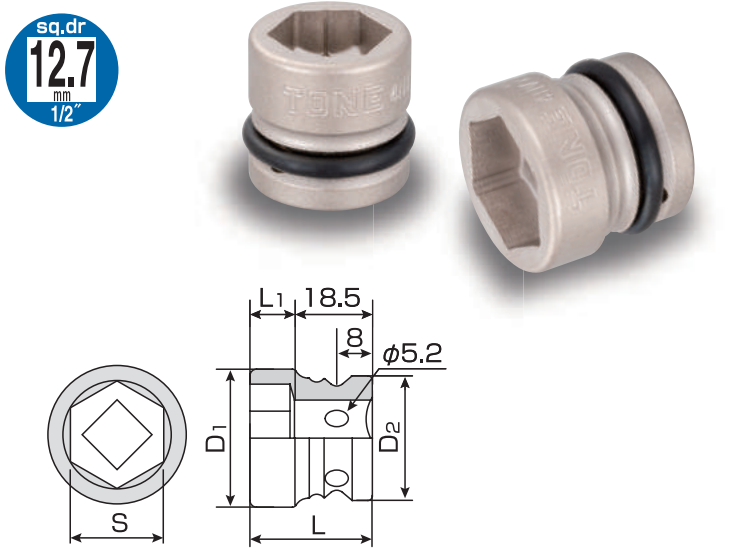
[FLKA004] 14.09.05.TK



	AGRO1	ABS10
No-load Speed	20,000min ⁻¹ [rpm]	18,000min ⁻¹ [rpm]
Air Pressure	0.62MPa	0.62MPa
Max Air Consumption	750 ℓ /min (ntp) 113 ℓ /min (op)	750 ℓ /min (ntp) 92 ℓ /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 ℓ /min (ntp) 57 ℓ /min (op)	379 ℓ /min (ntp) 57 ℓ /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.)]



MODEL	Across Flat (mm)	Dimensions(mm)				Weight (g)
	S	D1	D2	L1	L	
4NV-10SS	10	16	25	5	23.5	43.0
4NV-12SS	12	19.5	25	6.5	25	47.5
4NV-13SS	13	21	25	6.5	25	49.0
4NV-14SS	14	22	25	7	25.5	51.0
4NV-17SS	17	26	26	7	25.5	59.0
4NV-19SS	19	29	28	8	26.5	76.0
4NV-21SS	21	31	28	9	27.5	81.5
4NV-22SS	22	32	28	11	29.5	88.0
4NV-24SS	24	35	28	13	31.5	103.0

TONE® Pneumatic Tools

BOLTING SOLUTION COMPANY

NEW PRODUCT INFORMATION

A wide range of TONE Air Tools

Repair & Replacement

Compact & Lightweight



Manufactured by
TONE TONE CO., LTD.
OSAKA, JAPAN.

web site <http://www.tonetool.co.jp>
e-mail: overseas@tonetool.co.jp

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



Your Distributor

[FLKA009]17.1.27.TC

TONE CO., LTD.

A wide range of TONE Pneumatic Tools



sq.dr
6.35
mm
1/4"

AR2100S



sq.dr
9.5
mm
3/8"

AR3100S



sq.dr
9.5
mm
3/8"

AR3100



sq.dr
12.7
mm
1/2"

AI4200



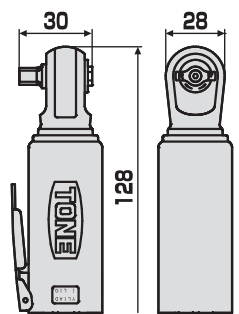
sq.dr
12.7
mm
1/2"

AI4201

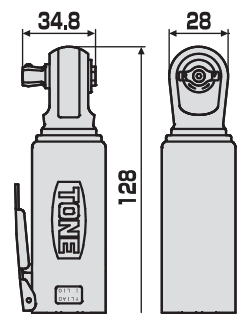


sq.dr
12.7
mm
1/2"

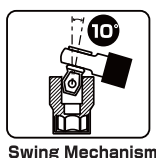
AIA4140



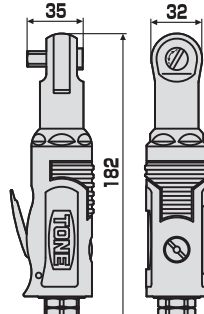
Changeover Switch



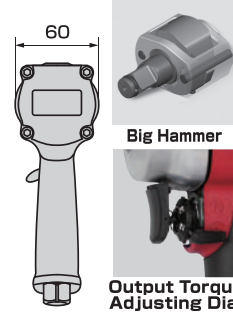
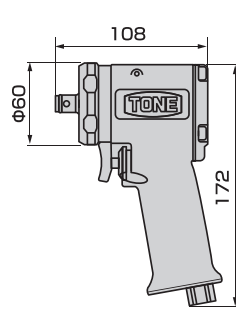
Changeover Switch



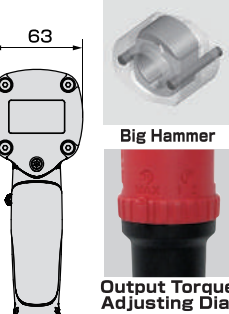
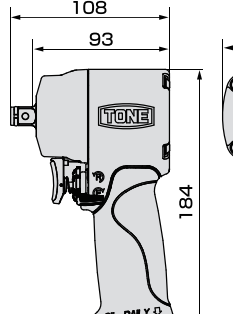
Swing Mechanism



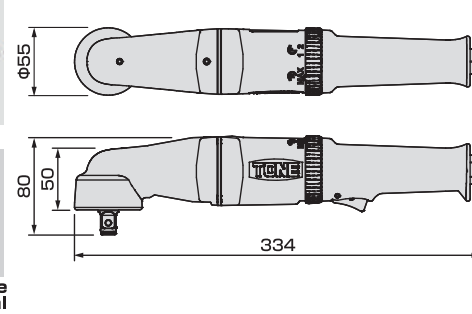
Changeover Switch



Big Hammer
Output Torque
Adjusting Dial



Big Hammer
Output Torque
Adjusting Dial



	AR2100S	AR3100S	AR3100	AI3120	AI4161	AI6300
Rated Max Torque	34N·m 25lbf·ft	34N·m 25lbf·ft	34N·m 25lbf·ft	350N·m 258lbf·ft	Forward 510N·m/ 376lbf·ft Reverse 570N·m/ 421lbf·ft	1,600N·m 1180lbf·ft
No-load Speed	300min ⁻¹ [rpm]	300min ⁻¹ [rpm]	280min ⁻¹ [rpm]	11,000min ⁻¹ [rpm]	10,000min ⁻¹ [rpm] (FW) 11,000min ⁻¹ [rpm] (RV)	5,750min ⁻¹ [rpm]
Air Pressure	0.62MPa	0.62MPa	0.62MPa	0.62MPa	0.62MPa	0.62MPa
Max Air Consumption	510ℓ/min(ntp) 75.4ℓ/min(op)	510ℓ/min(ntp) 75.4ℓ/min(op)	490ℓ/min(ntp) 72.2ℓ/min(op)	720ℓ/min(ntp) 107ℓ/min(op)	915ℓ/min(ntp) 136ℓ/min(op)	1,300ℓ/min(ntp) 193ℓ/min(op)
Air inlet	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)	Rc 3/8(PT3/8)
Air Hose Inner Dia.	10mm	10mm	10mm	10mm	10mm	13mm
Adaptable Bolts	M10 (Class 4.6)	M10 (Class 4.6)	M10 (Class 4.6)	M12 (Auto Wheel Nut)	M16 (Auto Wheel Nut)	M30
Weight	0.48kg/ 1.1lb	0.49kg/ 1.1lb	0.6kg/ 1.3lb	1.1kg/ 2.4lb	1.2kg/ 2.6lb	3.2kg/ 7.1lb

	AI4200	AI4201	AIA4140	AIS8330S	AIS8330L	AIS8500L
Rated Max Torque	Forward 610N·m/ 450lbf·ft Reverse 700N·m/ 517lbf·ft	Forward 610N·m/ 450lbf·ft Reverse 700N·m/ 517lbf·ft	Forward 210N·m/ 155lbf·ft Reverse 250N·m/ 185lbf·ft	2,100N·m 1550lbf·ft	2,100N·m 1550lbf·ft	3,390N·m 2502lbf·ft
No-load Speed	10,000min ⁻¹ [rpm]	10,000min ⁻¹ [rpm]	4,300min ⁻¹ [rpm]	4,500min ⁻¹ [rpm]	4,500min ⁻¹ [rpm]	4,300min ⁻¹ [rpm]
Air Pressure	0.62MPa	0.62MPa	0.62MPa	0.62MPa	0.62MPa	0.62MPa
Max Air Consumption	845ℓ/min(ntp) 127ℓ/min(op)	845ℓ/min(ntp) 127ℓ/min(op)	708ℓ/min(ntp) 105ℓ/min(op)	1,510ℓ/min(ntp) 224ℓ/min(op)	1,510ℓ/min(ntp) 224ℓ/min(op)	1,809ℓ/min(ntp) 269ℓ/min(op)
Air inlet	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)	Rc 1/4 (PT1/4)	Rc 1/2 (PT1/2)	Rc 1/2 (PT1/2)	Rc 1/2 (PT1/2)
Air Hose Inner Dia.	10mm	10mm	10mm	19mm	19mm	19mm
Adaptable Bolts	M20	M20	M14 (Class 10.9)	M33 (Class 8.8)	M33 (Class 8.8)	M50 (Class 10.9)
Weight	1.3kg / 2.9lb	1.0kg / 2.2lb	1.5kg / 3.3lb	6.0kg/ 13.2lb	7.0kg/ 15.4lb	16.2kg/ 35.7lb



sq.dr
9.5
mm
3/8"

AI3120



sq.dr
12.7
mm
1/2"

AI4161

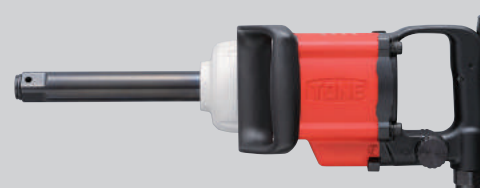


sq.dr
19.0
mm
3/4"

AI6300



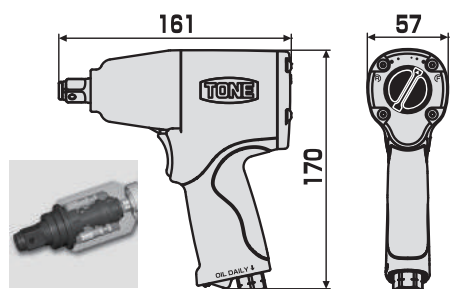
AIS8330S



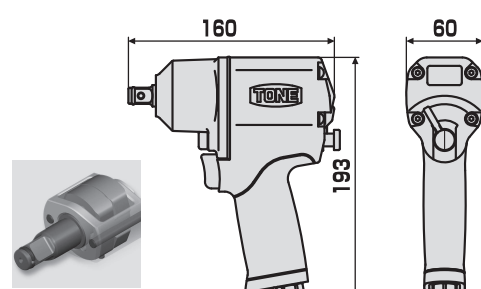
AIS8330L



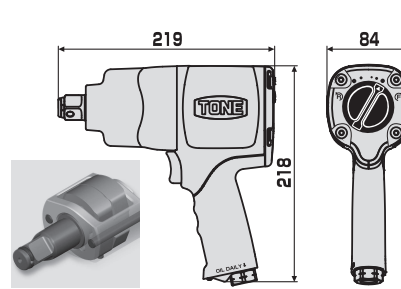
AIS8500L



Pin Clutch



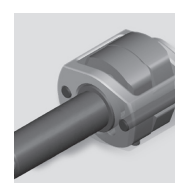
Twin Hammer



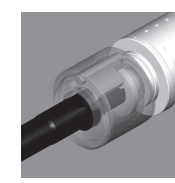
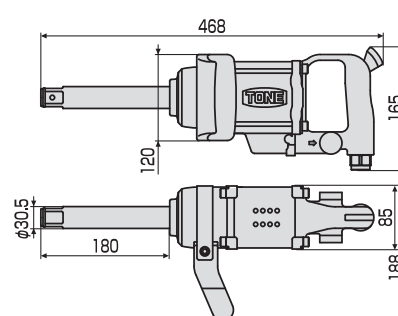
Twin Hammer



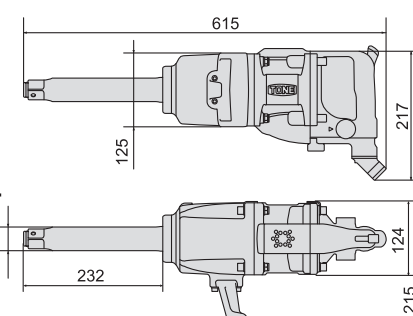
1 Forward/Reverse
Rotation Changeover Switch
2 Output Torque
Adjusting Dial



Twin Hammer



Pin less Hammer



※ 1 Max tightening torque will vary according to working conditions.

※ 2 Max air consumption (ntp) is converted figures of air consumption in the standard reference atmosphere as being 0°C and 0.1 MPa. Max air consumption (op) is measured under standard operation conditions as being 20°C and 0.62 MPa.

※ Use compressor with holding air tank. Motor output of air compressor is recommended to be more than 0.75kW (1PS).

※ Please refer to instruction manual about tightening torque.If tightening torque designated, pre-tighten at low torque and fasten at recommended torque value in a correct order. Extensive tightening of bolts/ nuts may result in crack or breakage.



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)

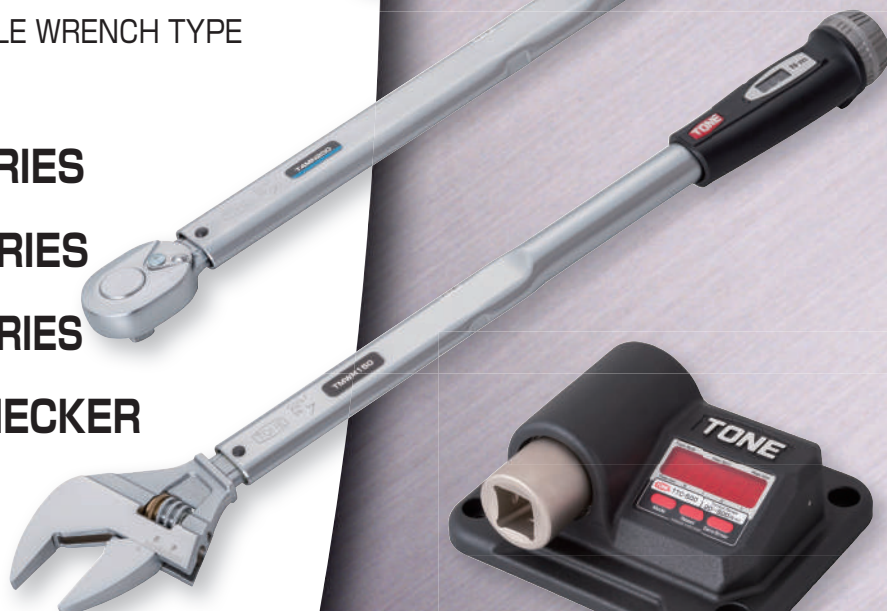
■ DIGITORQON TDT-SERIES

■ 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



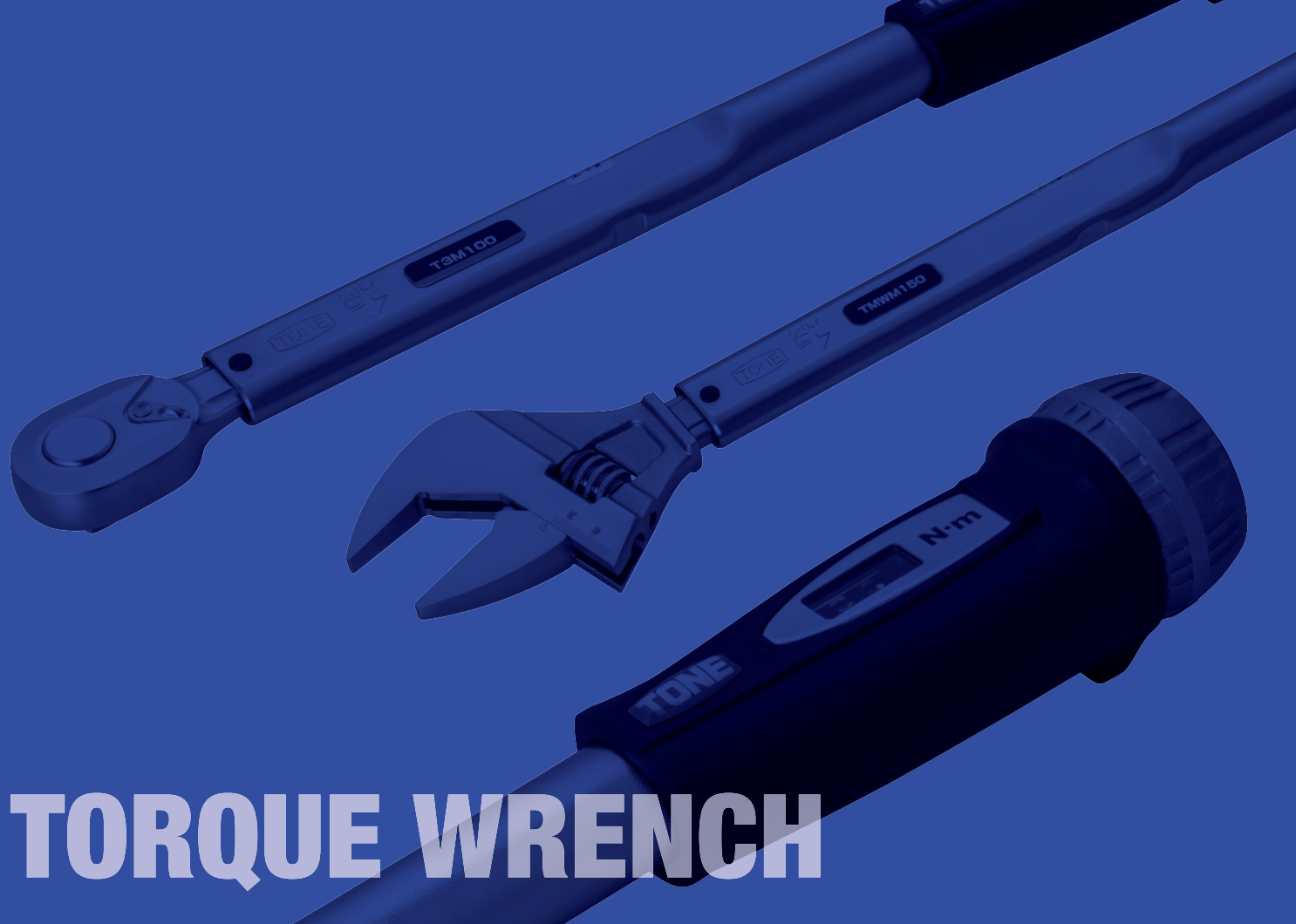
Used in various fields like industry and motor sports (jet ski) etc...



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
HDT-SERIES
P4



DIGITORQON
DBDT-SERIES
P5



TORQUE WRENCH,
PRESET TYPE
P7~12



TORQUE WRENCH,
SINGLE PURPOSE TYPE
P13



TORQUE WRENCH,
PRESET OPEN END
SPANNER
P14



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



TORQUE WRENCH
CHECKER
P16



TORQUE WRENCH
TESTING MACHINE
P17

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.

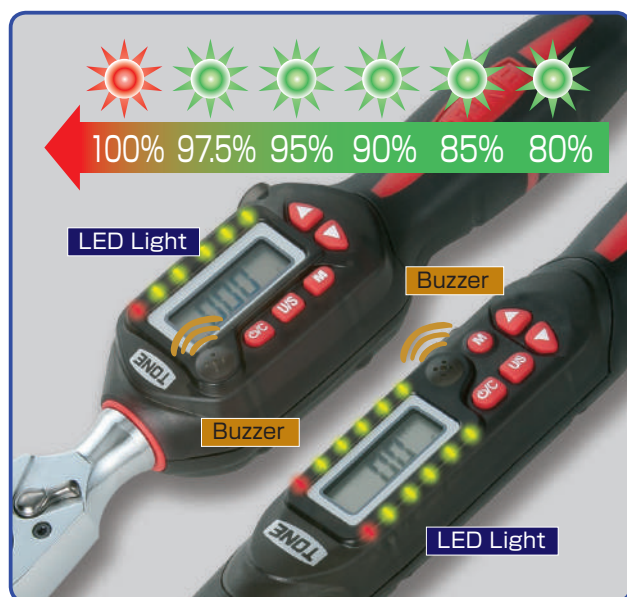
● **Works in both CW and CCW directions.**

● **Measurement Mode Change Function**

"Tracking Mode" and "Peak Mode" available.

● **Calibration Certificate Included**

Calibration Certificate with Traceability based on the National Standard.



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.



Socket Hold Mechanism

Hold socket tightly but easy to exchange.



Hole for safe rope installed

Suitable for the operation at high working place.

Transfer Data
in CSV format



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.



Convenient plastic case for storing or carrying.

DIGITORQON TDT-SERIES

DIGITORQON TDT-series is a digital torque measurement device with ratchet.
Digital LED display enable easy torque management.
Alert by beeping sound when reaching the target torque.
Data transfer function available.



T4DT200H

T3DT60H

Model	Torque Range Min.-Max. (N·m)	Min. Torque (N·m)	Increment (N·m)	Unit (*1)	Handle Type	Square Drive dr. A (mm)	Dimensions (mm)						Weight (kg) (*2)
							B	H	T	W	L	L ₁	
T2DT30H	6 ~ 30	0.3 ~	0.01	N·m	I	6.35	22.5	19.5	10.3	47	221	38	0.36
T3DT60H	12 ~ 60	0.3 ~	0.01	N·m	I	9.5	31.0	26.5	14.5	47	229	42	0.45
T3DT85H	17 ~ 85	3 ~	0.1	N·m	I	9.5	31.0	26.5	14.5	47	271	84	0.51
T3DT135H	27 ~ 135	3 ~	0.1	N·m	I	9.5	31.0	26.5	14.5	47	380	193	0.65
T4DT135H	27 ~ 135	3 ~	0.1	N·m	I	12.7	31.0	30.5	14.5	47	380	193	0.66
T4DT200H	40 ~ 200	5 ~	0.1	N·m	II	12.7	41.0	34.5	18.0	39	520	216	1.28
T4DT340H	68 ~ 340	5 ~	0.1	N·m	II	12.7	41.0	34.5	18.0	39	640	336	1.45
T6DT500H	100 ~ 500	5 ~	0.1	N·m	II	19.0	60.0	55.0	30.0	39	945	634	3.00
T6DT850H	170 ~ 850	5 ~	0.1	N·m	II	19.0	60.0	55.0	30.0	39	1220	910	4.18

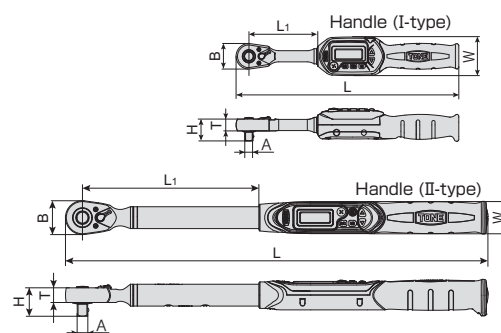
Model	Accuracy	Battery	Battery Life (*3)	Operating Temperature	Storage Temperature	Humidity
T2DT30H T3DT60H T3DT85H T3DT135H T4DT135H	±3%	AAA Alkaline or Manganese or Nickel Metal Hydride Rechargeable Battery x2	Continuous operation: 48 hrs (LED light Off) Standby: 6 months (LED light Off)	-10°C ~ 60°C	-20°C ~ 70°C	Less than 90%RH
T4DT200H T4DT340H T6DT500H T6DT850H	±3.5%		Continuous operation: 110 hrs (LED light Off) Standby: 12 months (LED light Off)			

*1:Selectable Unit: N.m (preset), in-lb, ft-lb, kg-cm

*2:Exclude battery.

*3:Battery life varies depending on conditions. Automatically shut off when the battery life is low.

Accessory	
Communications Software	1
USB Cord	1
AAA Alkaline(T2DT30H ~ T4DT135H)	2
AA Alkaline (T4DT200H ~ T6DT850H)	2
Calibration Certificate W/H Traceability	1
Instruction Manual	1
Plastic Case	1



Expire Date of Calibration Certificate

- Not in Use
1 year from the date on the Calibration Certificate
- Start to use less than a year from the date on the Calibration Certificate.
1 year from the first day of use or up to 10,000 tightening.

Repair·Maintenance

- Repair and Maintenance required when LCD, LED lights or the gear teeth in ratchet head is broken.
Repair work might be impossible depending on the broken condition.
- 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.
- Contact your distributor for details of handling DIGITORQON.

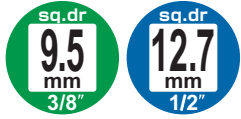
DIGITORQON HDT-SERIES

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.

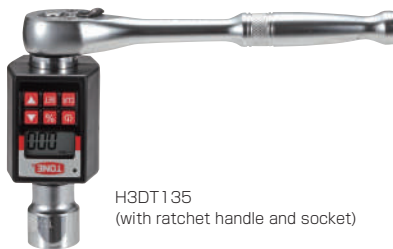
Set the beepsound function arbitrarily between 50% and 95% of the target torque.



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	130 × 107 × 53
H4DT200	20 ~ 200	N · m	12.7	45	45	24	75	0.184	

*Exclude battery.

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

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

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

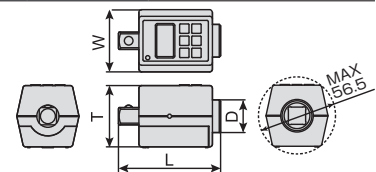
● Loading Direction: Clockwise and Counter-Clockwise Direction

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

● Repeated Accuracy: $\pm 3\%$

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

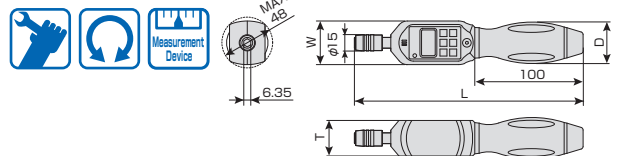
Model	Capacity Torque Range (cN · m) Min. ~ Max.	Unit	A/F of Bit (mm)	Battery	Operating Temperature	Storage Temperature	Dimensions (mm)				Weight (kg)	Case size (mm)
							W	T	D	L		
DBDT3S	30 ~ 300	cN · m	6.35	AAA Alkaline × 2	5~42°C	-20~50°C	40	32	38.5	212	0.15	W250×D100×H50
DBDT6S	60 ~ 600	cN · m	6.35				40	32	38.5	212	0.15	

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

*The Unit on display of DBDT6 (cN · m) : 0.01 increment 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 (BTM6S)
	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



Torque Setting Knob.

Products

TMN • TM • TMNH • TMNR • TMWM

T2MN6

The color shows the size of square drive.

sq.dr
6.35
mm
1/4"

sq.dr
9.5
mm
3/8"

sq.dr
12.7
mm
1/2"

sq.dr
19.0
mm
3/4"

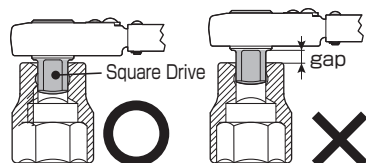
Watch Video

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

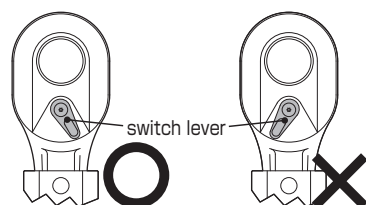
- Preset type torque wrench.
- When reaching preset torque, the wrench makes a click sound as well as a light retroaction.
- Visible Indicator helps to reduce wrong torque setting.

Method of use

1. Insert square drive securely to the socket.

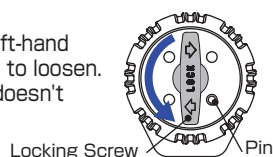


2. Confirm switch lever is located on the right as below chart.



3. Set up the targeted torque value.

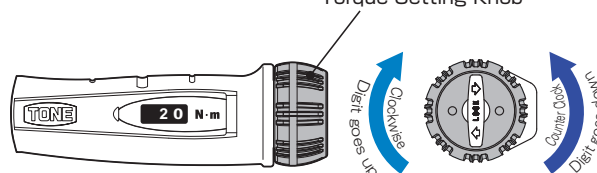
- Turn Locking Screw to the left-hand direction (counter-clockwise) to loosen. When screw hits pin, screw doesn't further move.



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

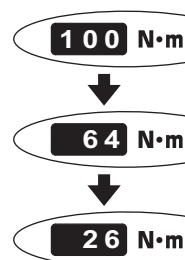
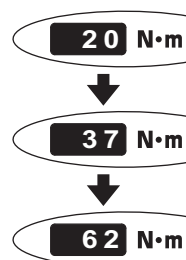


Torque Setting Knob



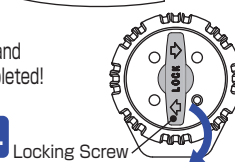
[Examples of torque setting using Model T4MN100]

- 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.

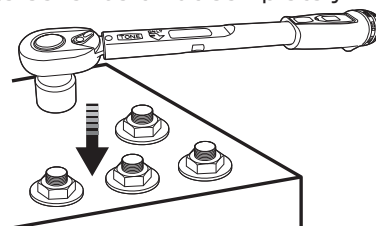


- Lock by turning Locking-screw to the right-hand direction. Now, setting up the torque is completed!

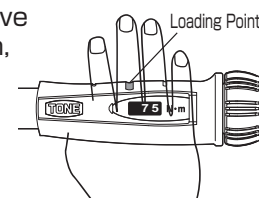
Now the torque setting is completed.



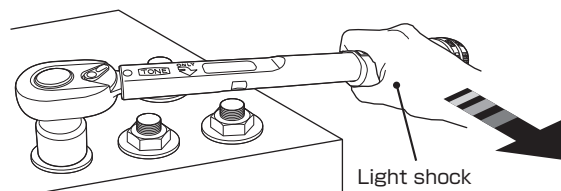
4. Apply socket to cover bolt/nut completely.



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

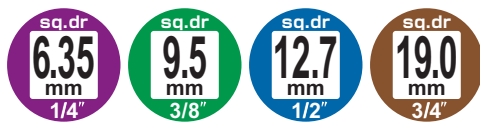


6. When setted torque value is reached, there is a clicking sound and light shock to the hand is felt. At this point, stop loading immediately to avoid over torque.



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.



Visible Indicator



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



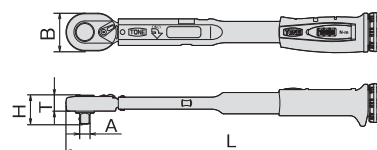
Model	Torque Range Min-Max (N.m)	Increments	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
				B	H	T	L		
T2MN6	1 ~ 6	0.1	6.35	24.0	18.3	10.4	222	0.26	305×97×70
T2MN13	3 ~ 13	0.2	6.35	24.0	18.3	10.4	253	0.29	305×97×70
T3MN20	4 ~ 20	0.2	9.5	24.0	21.5	10.4	253	0.30	305×97×70
T3MN50	10 ~ 50	0.5	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
NEW 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: $\pm 3\%$

- Load direction: to right (clockwise) direction only.

Accessory

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



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

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

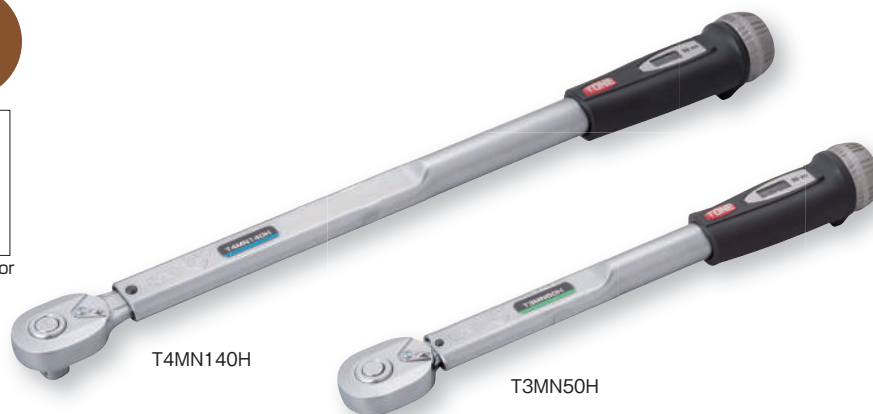
TORQUE WRENCH, PRESET TYPE (DIGITAL READING WITH SOCKET HOLD) is for tightening bolts/nuts. Prevents unintended alteration of setting torque owing to independent handle and setting knob. Prevents mistake in torque setting as torque value can be indicated in self explanatory digits. (system is mechanical, 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



T4MN140H

T3MN50H

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
NEW 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: $\pm 3\%$
- Load direction: to right (clockwise) direction only.

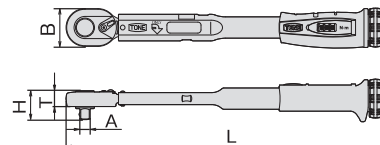
Socket Hold Mechanism



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

Accessory

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



Expire 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.
- 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

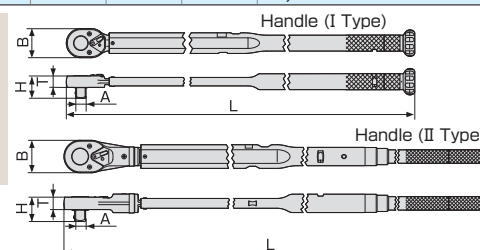
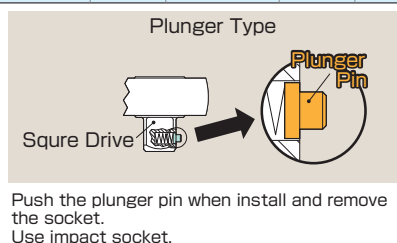
TORQUE WRENCH, PRESET TYPE is for tightening bolts/nuts.
When reaching the preset torque, the wrench makes a click sound as well as light retroaction.



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: $\pm 3\%$
- 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, 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.



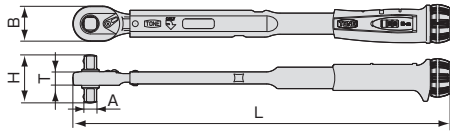
Model	Capacity Torque Range (N · m) Min. ~ Max.	Increments	Unit	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
					B	H	T	L		
T4MN100R	20 ~ 100	1	N · m	12.7	36.0	49.2	14.0	387	0.83	480 × 78 × 49
T4MN140R	30 ~ 140	1	N · m	12.7	36.0	49.2	14.0	450	0.88	480 × 78 × 49
T4MN200R	40 ~ 200	2	N · m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

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

- 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 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.

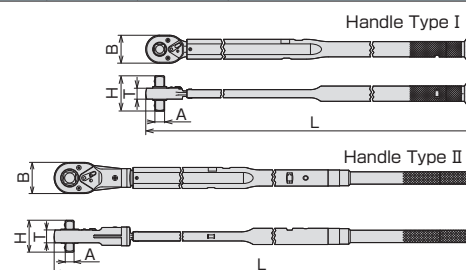


Model	Capacity Torque Range (N · m) Min. ~ Max.	Increments	Unit	Handle Type	Sq. Drive A (mm)	Dimensions(mm)				Weight (kg)	Case Size
						B	H	T	L		
T6L420NR	60 ~ 420	2	N·m	I	19.0	54	69.2	21.0	950	3.4	1050 × 105 × 80
T6L700NR	100 ~ 700	5	N·m	II	19.0	68	69.5	27.5	1,314	6.3	1200 × 180 × 98
T6L850NR	100 ~ 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: $\pm 3\%$

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.

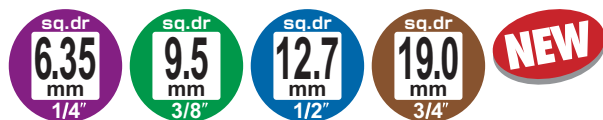
TORQUE WRENCH, PRESET TYPE (DIGITAL READING)

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

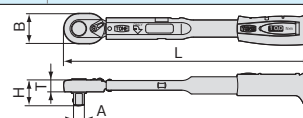


Model	Capacity Torque Range (N · m) Min. ~ Max.	Increments	Unit	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
					B	H	T	L		
T2M6	1 ~ 6	0.1	N · m	6.35	24.0	18.3	10.4	211	0.20	305 × 97 × 70
T2M13	3 ~ 13	0.2	N · m	6.35	24.0	18.3	10.4	240	0.25	305 × 97 × 70
T3M20	4 ~ 20	0.2	N · m	9.5	24.0	21.6	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: $\pm 3\%$

*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 set in requested torque value.

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

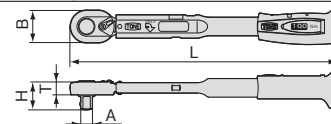


Model	Capacity Torque Range (N · m) Min. ~ Max.	Unit	Sq. Drive A (mm)	Dimensions (mm)				Weight (kg)	Case Size
				B	H	T	L		
T2MP6	1 ~ 6	N · m	6.35	24.0	18.3	10.4	211	0.19	305 × 97 × 70
T2MP13	3 ~ 13	N · m	6.35	24.0	18.3	10.4	240	0.24	305 × 97 × 70
T3MP20	4 ~ 20	N · m	9.5	24.0	21.6	10.4	240	0.25	305 × 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 Torque Setting

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

serial number
T4MP100 in **setting torque**
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.

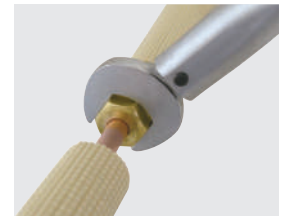
TORQUE WRENCH, PRESET OPEN END SPANNER

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	
TSP16-17	16	36.5	17	7.6	220	0.37
TSP38-22	38	46.5	22	8.5	230	0.41
TSP55-26	55	55.0	26	9.7	286	0.54
TSP75-29	75	62.0	29	9.7	292	0.57

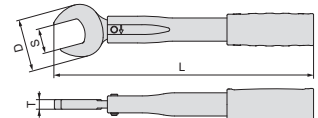
• Repeated Accuracy: $\pm 4\%$

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
TSP16-17	6.35mm (1/4")	17mm	16N · m
TSP38-22	9.5mm (3/8")	22mm	38N · m
TSP55-26	12.7mm (1/2")	26mm *	55N · m
TSP75-29	15.9mm (5/8")	29mm *	75N · m

*Changed according to New Refrigerent

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



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

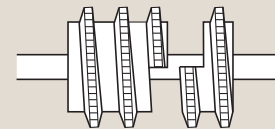
• Repeated Accuracy: $\pm 4\%$ ($\pm 7\%$ for wider jaws-opening type.)

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

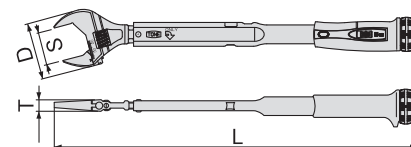


*Need to flip the wrench when using for left handed screw. (Refer to instruction manual)

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

- 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.

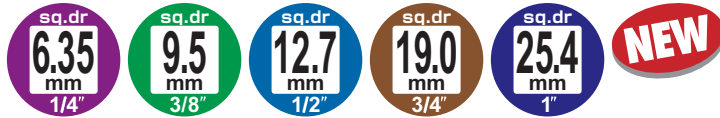
TORQUE WRENCH CHECKER

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 (Peek mode/Track mode/Peek hold mode)

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



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



TTC-60



TTC-500



TTC-1000



Conversion Adaptor Convex Hexiagon Adaptor



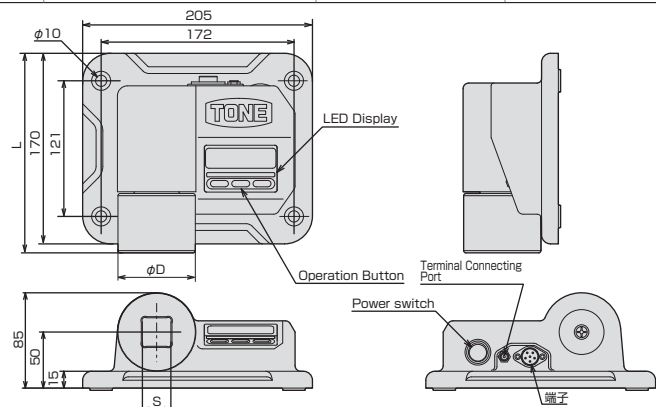
Model	Torque Range Min. ~ Max. (N.m)	Increments	Sq. Drive (mm)	Dimensions(mm)			Measurement	Accuracy	Weight (Main Body Only)
				S	D	L			
TTC-60	2 ~ 60	0.00 ~	0.01	12.7	30.0	155	CW	± 1 % + 1 digit	2.2
TTC-500	20 ~ 500	0.0 ~	0.1	25.4	48.0	173			2.6
TTC-1000	50 ~ 1000	0.0 ~	0.1	25.4	48.0	173			2.8

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

LED Display

- Visuable readout with LED Display.

High Accuracy

- Accuracy: ±1% + 1 digit

Easy Operation

- Easy to operate by power switch and three buttons.

3modes are available for various toque management.

Track Mode

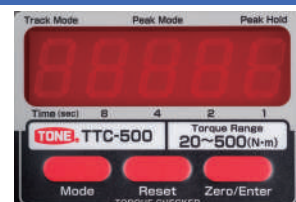
Displayed torque value changes in accordance with the applying torque. The display indicates "0" when stopped applying torque.

Peak Mode

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

Peak Hold

Displayed torque value remains until pushed the bottom.

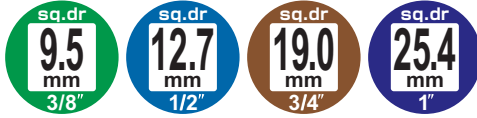


TORQUE WRENCH TESTING MACHINE

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

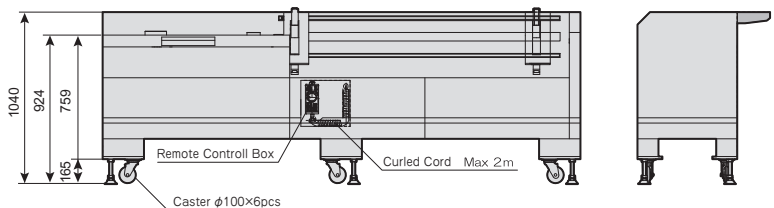
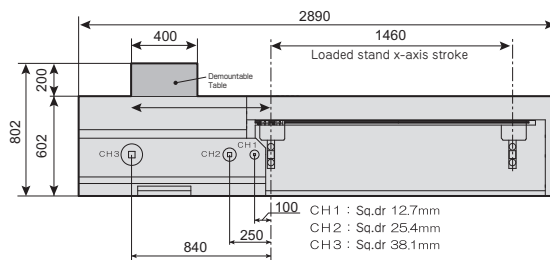


Computer with connection cable



Model	CH	Torque Range Min. ~ Max. (N.m)	Increments (N.m)	Sq. Drive (mm)	Mesurement	Accuracy (%)	Weight (kg)
ATT2100	1	1 ~ 50	0.001	12.7	CW CWW	± 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 ± 20%



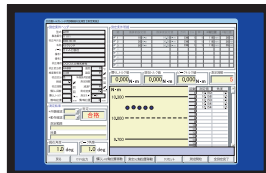
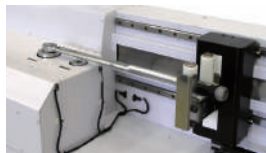
Accessory

- 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 : □ 6.35 mm × □ 12.7 mm, □ 9.5 mm × □ 12.7 mm
- CH2 : □ 9.5 mm × □ 25.4 mm, □ 12.7 mm × □ 25.4 mm, □ 19.05 mm × □ 25.4 mm
- CH3 : □ 19.05 mm × □ 38.1 mm, □ 25.4 mm × □ 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 : ±1%
- Torque measurement range : 1~2100 N·m

Customization

- The machine can be customized the spec. as requested.



ISO 9001



ISO 14001

TONE CO., LTD.



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