

# DB/DBE/DBR

Inspection

Dial Indicating

Direct Reading

RoHS

Direction

Dial Indicating Torque Wrench



DB12N4



DB100N



DBE700N



Memory Pointer (Red needle)

- Memory pointer for easy torque reading
- Ideal for torque measuring and quality check applications

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
DB1.5N4-S	0.2-1.5	0.02	15DB4-S	2-15	0.2	DB131-2AS	0-13	0.2			
DB3N4-S	0.3-3	0.05	30DB4-S	3-30	0.5	DB261-2AS	0-26	0.5	205	6.35	0.4
DB6N4-S	0.6-6	0.1	60DB4-S	6-60	1	DB401-2AS	0-40				
DB12N4-S	1-12	0.2	120DB4-S	10-120	2	DB751-2AS	0-75	1			
DB25N-S	3-25	0.5	230DB3-S	30-250	5	DB1501-3AS	0-150	2	245		
DB50N-S	5-50		450DB3-S	50-500		DB3001-3AS	0-300	5	320	9.5	0.6
-	-	-	-	-	-	DB6001-3AS	0-600	10	400		
DB100N-S	10-100	1	900DB3-S	100-1000	10	DB6001-4AS	0-600			12.7	0.7
-	-	-	-	-	-	-	lbf-ft	lbf-ft			
-	-	-	-	-	-	DB25F-3AS	0-25		320	9.5	0.6
-	-	-	-	-	-	DB50F-3AS		0.5	400		0.7
-	-	-	-	-	-	DB50F-4AS	0-50			12.7	
DB200N-S	20-200	2	1800DB3-S	200-2000	20	DB100F-4AS	0-100	1	500		1.0
-	-	-	-	kgf-m	kgf-m	-	-	-	-	-	-
-	-	-	-	-	-	DB175F-4AS	0-175	2	540	12.7	1.0
DB280N-S	30-280	5	2800DB3-S	3-28	0.5	DB250F-6AS	0-250	5	690		1.65
DB420N-S	40-420		4200DB2-S	4-42		DB350F-6AS	0-350		890	19.0	2.5
DBE560N-S	50-560		5600DBE2-S	5-56		-	-	-	1100		4.0
DBE700N-S	70-700		7000DBE2-S	7-70		DB500F-6AS	0-500	10	1260		5.5
DBE850N-S	100-850	10	8500DBE2-S	10-85	1	-	-	-	1360		6.1
DBE1000N-S	100-1000		10000DBE2-S	10-100		DB800F-8AS	0-800	10	1490	25.4	6.4
DBE1400N-S	200-1400	20	14000DBE2-S	20-140	2	DB1000F-8AS	0-1000		1740		8.6
DBE2100N-S	200-2100		21000DBE2-S	20-210		DB1500F-8AS	0-1500		2140		12.8
DBE2800N-S	300-2800		28000DBE2-S	30-280		DB2000F-12AS	0-2000		2380		16.8
DBR4500N-S	500-4500	50	45000DBR-S	50-450	5	DB3000F-12AS	0-3000	50	1285	38.1	24.5
DBR6000N-S	600-6000		60000DBR-S	60-600		-	-	-	1585	44.5	25.5

Note

1. "Without memory pointer" models are available. Remove "-S" from the model name when ordering. (Ex. DB100N)
2. DBR models require winch or mechanical loading device.
3. DBR Models are supplied upon request.
4. For models having over 25.4mm square drive, use with a through-hole socket.

# CDB-S

Interchangeable Head Type Dial Indicating Torque Wrench

Direction



CDB14N4x8D-S



CDB100N15D-S

Inspection

Dial Indicating

Interchangeable

Direct Reading

Memory Pointer

RoHS

- Interchangeable head version of DB
- Ideal for torque measuring and quality inspections

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Weight [kg]	Tohnichi Head Size
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
CDB70N4x8D-S	0.7-7	0.1	70CDB4-S	7-70	1	70CDB4-A-S	6-60	1			
CDB14N4x8D-S	2-14	0.2	140CDB4-S	20-140	2	140CDB4-A-S	20-120	2	215	0.45	8D
CDB25N10D-S	3-25	0.5	250CDB-S	30-250	5	250CDB-A-S	30-220	5	255	0.48	10D
CDB50N12D-S	5-50		500CDB-S	50-500		500CDB-A-S	40-430		330	0.53	12D
CDB100N15D-S	10-100	1	1000CDB-S	100-1000	10	1000CDB-A-S	7-70	1	415	0.76	15D
CDB200N19D-S	20-200	2	2000CDB-S	200-2000	20	2000CDB-A-S	14-140	2	525	1.0	19D
CDB300N22D-S	30-300	5	3000CDB-S	3-30	0.5	3000CDB-A-S	20-220	5	720	1.65	22D
CDB420N22D-S	40-420		4200CDB-S	4-42		4200CDB-A-S	30-300		920	2.7	

Note

1. Overall length does not include interchangeable head.
2. PH (Pipe wrench head) type interchangeable head is not available for this model.
3. Interchangeable heads are optional.

# SCDB-S

European Style  
Interchangeable  
Head Type  
Dial Indicating  
Torque Wrench

Direction



SCDB50N-S

Inspection

Dial Indicating

Interchangeable

Direct Reading

Memory Pointer

RoHS

- Specialized version of DB
- Accepts DIN interchangeable head connection

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Head Size [mm]	Overall Length [mm]	Weight [kg]
	Min.-Max.	Grad.			
SCDB25N-9x12-S	3-25	0.5	9x12	271	0.48
SCDB50N-9x12-S	5-50		9x12	342	0.53
SCDB100N-9x12-S	10-100	1	9x12	422	0.76
SCDB200N-14x18-S	20-200	2	14x18	535	1

Note

1. Overall length does not include interchangeable head.
2. Applicable to European style head. Tohnichi's interchangeable heads are not available for this model.

# T-S

T-Handle Dial Indicating  
Torque Wrench

Direction



T90N-S

Inspection

Dial Indicating

Direct Reading

Memory Pointer

RoHS

- Dual handle for increased stability
- Memory pointer for easy reading

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Neck Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.				
T23N-S	3-23	0.5	230T-S	kgf·cm	kgf·cm	T200I-3AS	lbf·in	lbf·in	205	71	9.5	0.41
T45N-S	5-45		450T-S	30-230	kgf·cm	5	T2400I-3AS	20-200	2	261		82
T90N-S	10-90	1	900T-S	100-900	10	T65F-4AS	lbf·ft	lbf·ft	376	102.5	12.7	0.8
T180N-S	20-180	2	1800T-S	200-1800	20	T130F-4AS	10-65	1	656	118.5		1.2
T700N-S	70-700	10	7000T-S	kgf·m	kgf·m	7000T-A-S	50-500	5	1300	19.0	4	4
T1000N-S	100-1000		10000T-S	7-70	1	10000T-A-S	50-700	5	1630			4.8
T1400N-S	200-1400	20	14000T-S	20-140	2	14000T-A-S	100-1000	10	1880	25.4	6.2	10
T2100N-S	200-2100		21000T-S	20-210		21000T-A-S	200-1500	20	2500			15.5
T2800N-S	300-2800	50	28000T-S	30-280	5	28000T-A-S	200-2000	20	2960	38.1	21.5	15.5
T4200N-S	400-4200		42000T-S	40-420		42000T-A-S	400-3000	50	3660			21.5

Note

1. T700N-S to T4200N-S models are supplied upon request.
2. For models having over 25.4mm square drive, use with a through-hole socket.

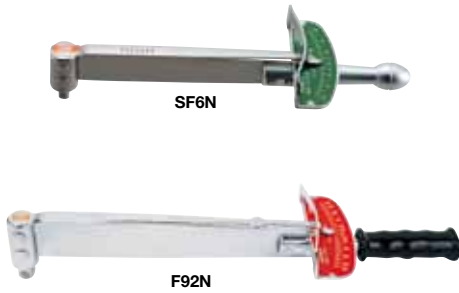
Torque Wrench for  
Quality Inspection



# SF/F/FR

Beam Type Torque Wrench

Direction



SF6N

F92N

Inspection Beam Direct Reading RoHS

- Direct reading torque wrench with scale plate
- For measuring and tightening applications

Accuracy ±3%

S.I. Model	Torque Range [N-m/N-m]		Metric Model	Torque Range [kgf-cm/kgf-m]		American Model	Torque Range [lbf-in/lbf-ft]		Overall Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
SF40CN	8-40		4SF	kgf-cm	0.8-4	4SF-A	lbf-in	0-3.4	115		0.04
SF70CN	10-70	2	7SF	kgf-cm	1-7	7SF-A	lbf-in	0-6	135		0.05
SF1.5N	N-m	N-m	15SF	kgf-cm	2-15	15SF-A	lbf-in	0-13	145	6.35	0.07
SF3N	0.5-3	0.1	30SF	kgf-cm	5-30	30SF-A	lbf-in	0-26	175		0.09
SF6N	0.6-6	0.2	60SF	kgf-cm	6-60	60SF-A	lbf-in	0-50	205		0.2
SF12N	2-12	0.5	120SF	kgf-cm	20-120	120SF-A	lbf-in	0-100	235		0.25
F23N	3-23		230F	kgf-cm	30-230	230F-A	lbf-in	0-200	295	9.5	0.4
F46N	5-46	1	460F	kgf-cm	50-460	460F-A	lbf-in	0-400	355		0.6
F92N	10-92	2	920F	kgf-cm	100-920	920F-A	lbf-in	10-66	400		0.95
F130N	20-130		1300F	kgf-cm	200-1300	1300F-A	lbf-in	10-95	445	12.7	1.2
F190N	30-190		1900F	kgf-cm	300-1900	1900F-A	lbf-in	25-135	490		1.5
F280N	50-280	5	2800F	kgf-cm	5-28	2800F-A	lbf-in	30-200	565		2.2
F420N	70-420		4200F	kgf-cm	7-42	4200F-A	lbf-in	30-300	825		3.5
F560N	100-560	10	5600F	kgf-cm	1000-5600	5600F-A	lbf-in	50-400	945	19.0	4.0
F700N	100-700		7000F	kgf-cm	1000-7000	7000F-A	lbf-in	50-500	1175		6.0
F850N	100-850		8500F	kgf-cm	10-85	8500F-A	lbf-in	60-600	1410		7.8
F1000N	100-1000	20	10000F	kgf-cm	10-100	10000F-A	lbf-in	70-700	1640		8.8
FR1050N	100-1050		10500FR	kgf-cm	10-105	10500FR-A	lbf-in	100-750	835	25.4	8
FR1400N	200-1400		14000FR	kgf-cm	20-140	14000FR-A	lbf-in	100-1000	981		11.5
FR2100N	300-2100	50	21000FR	kgf-cm	30-210	21000FR-A	lbf-in	200-1500	1148		14.5
FR2800N	300-2800		28000FR	kgf-cm	30-280	28000FR-A	lbf-in	200-2000	1292		20
FR4200N	400-4200	100	42000FR	kgf-cm	40-420	42000FR-A	lbf-in	300-3000	1460	38.1	28
FR6000N	600-6000		60000FR	kgf-cm	60-600	60000FR-A	lbf-in	400-4300	1624		30

Note

1. FR models are supplied upon request.
2. FR models require winch or mechanical loading device.
3. For models having over 25.4mm square drive, use with a through-hole socket.

# CSF/CF

Interchangeable Head Type Beam Type Torque Wrench

Direction



CSF7N x 8D

CF25N x 10D

Inspection Beam Interchangeable Direct Reading RoHS

- Interchangeable head version of SF/F
- For measuring and tightening applications

Accuracy ±3%

S.I. Model	Torque Range [N-m]		Metric Model	Torque Range [kgf-cm/kgf-m]		American Model	Torque Range [lbf-in/lbf-ft]		Overall Length [mm]	Tohnichi Head Size	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
CSF7N x 8D	1-7	0.2	70CSF	kgf-cm	10-70	70CSF-A	lbf-in	2	220	8D	0.2
CSF14N x 8D	2-14	0.5	140CSF	kgf-cm	20-140	140CSF-A	lbf-in	5	250		0.25
CF25N x 10D	5-25	1	250CF	kgf-cm	50-250	250CF-A	lbf-in	10	320	10D	0.4
CF50N x 12D	10-50		500CF	kgf-cm	100-500	500CF-A	lbf-in	20	380	12D	0.6
CF100N x 15D	10-100	2	1000CF	kgf-cm	100-1000	1000CF-A	lbf-in	2	435	15D	1.0
CF150N x 19D	20-150		1500CF	kgf-cm	200-1500	1500CF-A	lbf-in		480	19D	1.3
CF230N x 22D	30-230	5	2300CF	kgf-cm	3-23	2300CF-A	lbf-in	5	530		1.6
CF420N x 22D	70-420	10	4200CF	kgf-cm	7-42	4200CF-A	lbf-in		725	22D	3.1
CF850N x 32D	100-850	20	8500CF	kgf-cm	42-85	8500CF-A	lbf-in	20	1260	32D	7.1

Note

1. Overall length does not include interchangeable head.
2. Interchangeable heads are optional.

# QF/QFR

Ratchet Head Beam Type Torque Wrench

Direction



QF120N

Inspection Beam Ratchet Head Direct Reading RoHS

- Fixed ratchet head flat beam style
- Ideal for working in narrow spaces

Accuracy ±3%

S.I. Model	Torque Range [N-m]		Metric Model	Torque Range [kgf-cm/kgf-m]		American Model	Torque Range [lbf-in/lbf-ft]		Overall Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
QF60N	6-60	1	600QF	kgf-cm	60-600	600QF-A	lbf-in	10	455	9.5	0.8
QF120N	10-120	2	1200QF	kgf-cm	100-1200	1200QF-A	lbf-in	6-86	515	12.7	1.2
QF220N	30-220	5	2200QF	kgf-cm	300-2200	2200QF-A	lbf-in	25-160	580		1.8
QF320N	40-320		3200QF	kgf-cm	6-32	3200QF-A	lbf-in	40-230	655		2.6
QF420N	70-420	10	4200QF	kgf-cm	7-42	4200QF-A	lbf-in	30-300	825	19.0	3.4
QF560N	100-560		5600QF	kgf-cm	10-56	5600QF-A	lbf-in	50-400	950		4.3
QF700N	100-700		7000QF	kgf-cm	10-70	7000QF-A	lbf-in	50-500	1170		6.5
QF850N	100-850		8500QF	kgf-cm	10-85	8500QF-A	lbf-in	60-600	1400		8.5
QFR1050N	100-1050	20	10500QFR	kgf-cm	10-105	10500QFR-A	lbf-in	100-750	845	25.4	8.5
QFR1400N	200-1400		14000QFR	kgf-cm	20-140	14000QFR-A	lbf-in	100-1000	992		12.5
QFR2100N	300-2100	50	21000QFR	kgf-cm	30-210	21000QFR-A	lbf-in	200-1500	1158		15.5
QFR2800N	300-2800		28000QFR	kgf-cm	30-280	28000QFR-A	lbf-in	200-2000	1305		21
QFR4200N	400-4200	100	42000QFR	kgf-cm	40-420	42000QFR-A	lbf-in	300-3000	1473	38.1	30
QFR6000N	600-6000		60000QFR	kgf-cm	60-600	60000QFR-A	lbf-in	400-4300	1624		32

Note

1. QFR models are supplied upon request.
2. QFR models require winch or mechanical loading device.
3. For models having over 25.4mm square drive, use with a through-hole socket.

# CEM3-G

DATA TORK  
(Digital Torque  
Wrench)

Direction



NEW



CEM100N3x15D-G



## Common Specifications

Display	7 segments LED 4 lines 10mm (Torque value)
	14 segments LCD 3 lines 7mm (Counter)
	7 segments LCD 4 lines 3mm (Clock)
	Battery life indicator (4 steps)
	Judgment LED RED/BLUE
Number of Data Memory	999 (M-2 mode: 99 data)
Communication Functions	RS232C (2400-19200bps) Serial output corresponding to a USB connector
Power Supply	Ni-MH rechargeable battery
Continuous Use	Approx. 20 hrs with fully charged (8 hours by 1 hour recharging)
Recharging Time	Approx. 3.5 hours
Operation Temperature	0-40 Celsius no condensation
Basic Functions	Peak Hold, Auto memory & resetting, Tightening completion buzzer, Judgment of measured data, Auto zero setting, Auto off (3 minutes), Clock

- Note**
- Overall length does not include interchangeable head.
  - For interchangeable heads, refer to pages 32-35.
  - For infrared data transfer, use with R-DT999. (Refer to page 56)
  - For USB data transfer, use with No. 584 connecting cable (Optional).
  - PH (Pipe wrench head) type interchangeable head is not available for this model.

- Standard Accessories**
- Battery pack (BP-5)
  - QH interchangeable head (Refer to page 34)
  - Quick battery charger BC-3-G (100-240V)

## Handy Terminal

### HT-S5

- Compact data collection device for CEM3-G
- Upload & download torque measuring information
  - Guides user through torque assembly & quality inspection processes
  - Statistics and charting capabilities



Inspection Digital Interchangeable Direct Reading Re-Chargeable RoHS

- Dual LED & LCD displays for optimal viewing
- 999 memory storage capacity
- For inspection and tightening

Model	Torque Range										Hand Force [N]	Overall Length [mm]	Weight [kg]
	N-m		kgf-cm		kgf-m		lbf-in		lbf-ft				
	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit			
CEM10N3x8D-G	2-10	0.01	20-100	0.1	0.200-1.000	0.001	20.0-90.0	0.1	1.50-7.30	0.01	48.1	212	0.46
CEM20N3x10D-G	4-20	0.02	40-200	0.2	0.400-2.000	0.002	36.0-180.0	0.2	3.00-14.50	0.02	92.2	214	0.47
CEM50N3x12D-G	10-50	0.05	100-500	0.5	1.000-5.000	0.005	100.0-440.0	0.5	7.50-36.00	0.05	196.9	282	0.58
CEM100N3x15D-G	20-100	0.1	200-1000	1	2.00-10.00	0.01	200-880	1	15.0-73.0	0.1	275.5	384	0.63
CEM200N3x19D-G	40-200	0.2	400-2000	2	4.00-20.00	0.02	360-1700	2	30.0-150.0	0.2	428.3	475	0.78
CEM360N3x22D-G	72-360	0.4	720-3600	4	7.2-36.00	0.04	650-3100	4	52.0-260.0	0.4	498.6	713	1.13
CEM500N3x22D-G	100-500	0.5	1000-5000	5	10.00-50.00	0.05	890-4400	5	73.0-360.0	0.5	549.5	949	4.00
CEM850N3x32D-G	170-850	1	-	-	17.0-85.0	0.1	-	-	124-620	1	608	1387	5.14

**Standard Accessories** Battery Pack (BP-5), QH interchangeable head, Quick battery charger BC-3-G (100-240V)

## CEM3-P RoHS

- Programmable version of CEM3 with data management software that links work name with test results

Torque Accuracy	±1%
Portion Registration Memory	Max. 100 parts (Part name, number of screws, tightening direction, high/low torque, measuring order)
Measurement Data Storage	Up to 3,000 screw data (vary depending on parts registered), measurement part name, measured value, pass/fail judgment, measurement time and date)

Model	Model	Model
CEM10N3x8D-P	CEM100N3x15D-P	CEM500N3x22D-P
CEM20N3x10D-P	CEM200N3x19D-P	CEM850N3x32D-P
CEM50N3x12D-P	CEM360N3x22D-P	

### Battery Pack (P.39)

Model
BP-5

### Quick Battery Charger (P.39)

Model	Description
BC-3-G	100V-240V

### Printer (P.57)

Model
EPP16M2

### Connecting Cable (P.39)

Part #	Applicable Model
③79	CEM2, CEM3, R-DT999 → EPP16M2
⑤75	CEM2, CEM3, R-DT999 → PC (D-sub 9 Pin Female)
⑤84	CEM3, R-DT999 → PC (USB A type)

### Data Filing System (P.56)

Model	Media
DFS	CD-ROM

# CTB2-G

Digital Retightening  
Torque Wrench

Direction



NEW



CTB100N2x15D-G



CTB850N2x32D-G

## Common Specifications

Data Memory	999 data (T-point torque)
Arithmetic Function	Sampling, Maximum, Minimum, Means
Measurement Mode	Peak/Run
Data Output	RS232C I/F, USB serial output
Zero Adjustment	Auto zero function (C key)
Other Function	Auto power off (3 min./10 min./30 min./non)
Power Source	Ni-MH Nickel metal-hydrate battery
Continuous Use	Approx. 20 hours (8 hours by 1 hour charging)
Battery Charge	Approx. 3.5 hours
Operating Condition	0-40 Celsius

Inspection Digital Interchangeable Signal Re-Chargeable RoHS

- Detects movement of fastener for more accurate testing
- Software converts measured torque to initial tightening torque value.

Model	Torque Range										Hand Force [N]	Overall Length [mm]	Weight [kg]
	N-m		kgf-cm		kgf-m		lbf-in		lbf-ft				
	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit			
CTB10N2x8D-G	2-10	0.01	20-100	0.1	0.2-1	0.001	20-90	0.1	1.5-7.3	0.01	48.1	212	0.46
CTB20N2x10D-G	4-20	0.02	40-200	0.2	0.4-2	0.002	36-180	0.2	3-14.5	0.02	92.2	214	0.47
CTB50N2x12D-G	10-50	0.05	100-500	0.5	1-5	0.005	100-440	0.5	7.5-36	0.05	196.9	282	0.58
CTB100N2x15D-G	20-100	0.1	200-1000	1	2-10	0.01	200-880	1	15-73	0.1	275.5	384	0.63
CTB200N2x19D-G	40-200	0.2	400-2000	2	4-20	0.02	360-1700	2	30-150	0.2	428.3	475	0.78
CTB360N2x22D-G	72-360	0.4	720-3600	4	7.2-36	0.04	650-3100	4	52-260	0.4	498.6	713	1.13
CTB500N2x22D-G	100-500	0.5	1000-5000	5	10-50	0.05	890-4400	5	73-360	0.5	549.5	949	4.00
CTB850N2x32D-G	170-850	1	-	-	17-85	0.1	-	-	124-620	1	608	1387	5.14

- Note**
- Overall length does not include interchangeable head.
  - For interchangeable heads, refer to pages 32-35.
  - For infrared data transfer, use with R-DT999. (Refer to page 56)
  - PH (Pipe wrench head) type interchangeable head is not available for this model.

- Standard Accessories**
- Battery Pack (BP-5)
  - QH interchangeable head (Refer to page 34)
  - Quick battery charger BC-3-G (100-240V)

### Battery Pack (P.39)

Model
BP-5

### Quick Battery Charger (P.39)

Model	Description
BC-3-100	100V
BC-3-200	200V-240V

### Printer (P.57)

Model
EPP16M2

### Connecting Cable (P.39)

Part #	Applicable Model
③79	CTB2-G → EPP16M2
⑤75	CTB2-G → PC (D-SUB 9 Pin Female)
⑤84	CTB2-G → PC (USB A type)

### Data Filing System (P.56)

Model	Media
DFS	CD-ROM