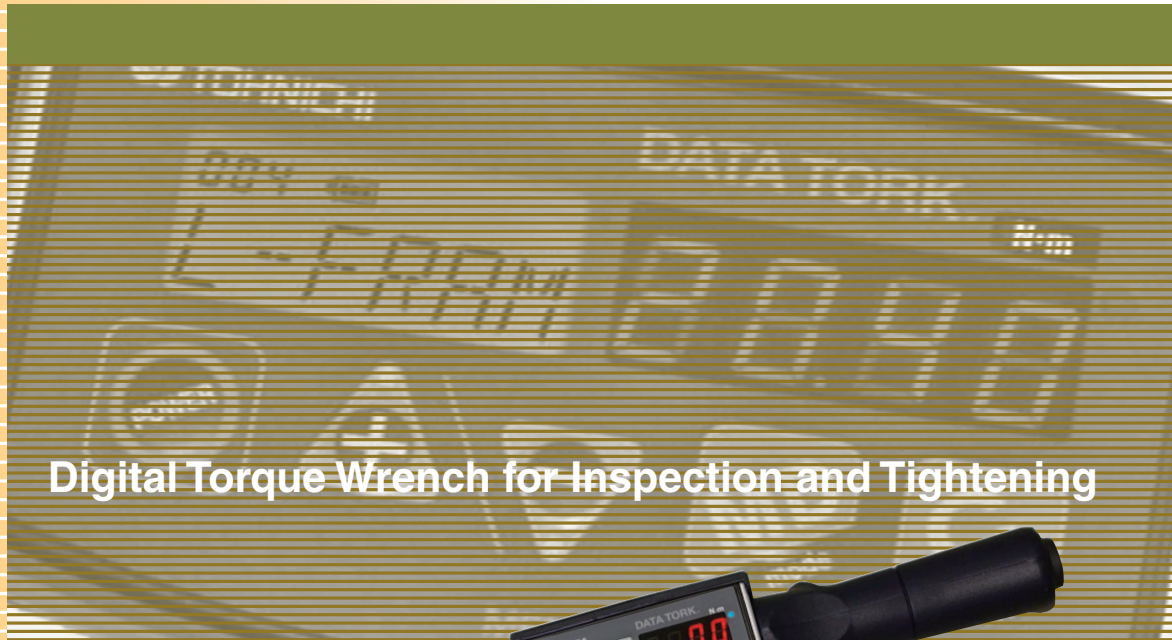


# DATA TORK® CEM3/CEM3-P

PAT. P



Digital Torque Wrench for Inspection and Tightening

## CEM3 Standard Version

- Dual LCD and LED Displays for Optimal Viewing
- User Friendly Operations
- Manage Data with Time and Date Functions
- Various Data Processing Options with PC or Handy Terminal (Model HT)

## CEM3-P Version

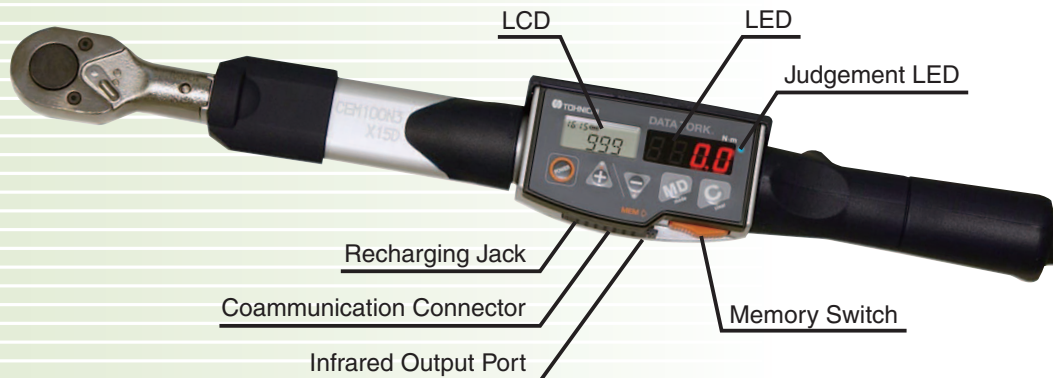
- Expanded Programming Features Link Torque Data to Fastener Information
- Prevent Inspection Errors and Improve Testing Efficiency
- Easy to Create Torque Inspection Routes with Supplied Software





## CEM3 Standard Version

※The display of CEM3 can be switched between LCD (in the power saving mode) and LCD+LED.



### Features of CEM3

- Judgment Function: OK/NG Buzzer and LED light
- Dual Displays: Switch between power saving LCD and LCD+LED for easy viewing
- Measured Data Linked to Time and Date
- 999 Data Storage Capacity
- Preset Value Buzzer and Display Alerts.
- Data Output: RS232C-Compliant (USB 1.1 Compliant) and Infrared
- 20 Hours Battery Life (30 hrs of continuous use in power saving mode)
- Environmentally friendly Ni-MH battery
- LCD Residual Battery Life Indicator
- Light Weight Robust Aluminum Body Construction
- Innovative Handle Design Shows Effective Length Point for Optimal Use
- Statistical Data: Sample Size, Min., Max. and Average Values Displayed
- Download Individual or Selected Range of Data
- Advanced Data Management Options with PC or Handy Terminal (Model HT)

### Dual Mode on your purpose:

#### ■ Inspection

- Perform loosening or retightening test
  - Most common is retightening where you must apply more torque to the bolt until it move, capturing the peak torque.
- For quality control checks

#### ■ Tightening

- Tighten bolt to a specific torque value
- For special tightening applications that require data storage

## CEM3-P

CEM3-P is a programmable version of the CEM3 model. This specialized version has expanded data management functions which are set up through PC software and uploaded to the wrench via cable. (software and #584 cable included)

### Various Data can be set up including:

- Product Category/Route Name,
- Fastener Location,
- Number of Fasteners,
- Torque Hi/Lo Limits,
- Sequence



CEM3-P Example of location information display

The programmed “Torque Route” information is displayed on the wrench which guides the user through a sequence of torque inspections. Judgment alarms can be set up to signal if value is OK or NG. Stored data can then be downloaded to an Excel file through supplied software package.

### Features of CEM3-P

- 6 Character Name Display
- 10 Main Categories (Product/Route Names)
- 10 Different Tightening Jobs
- Up to 99 Fasteners per Job
- Route Completion Indicator
- Main Category Selector
- Repeat Same Torque Route or Toggle To Select
- Ideal for linking product information with torque values
- Easy for users to keep track of various testing routes.

No.	Group	Part Name	Part Display	Sequence	Screw	Direction	Upper Limit	Lower Limit
1	EN1600	Oil Pan	OILPAN	1	16	CW	8.5	4.5
	EN1600	Cylinder Head C:CH-CVR		2	18	CW	18	12
2	EN2000	Oil Pan	OILPAN	1	16	CW	9	5
	EN2000	Cylinder Head C:CH-CVR		2	12	CW	18	12
3	EN2500	Oil Pan	OILPAN	1	16	CW	9.5	5
	EN2500	Cylinder Head C:CH-CVR		2	18	CW	18	12

Example of data management screen on PC.

## Operation Example

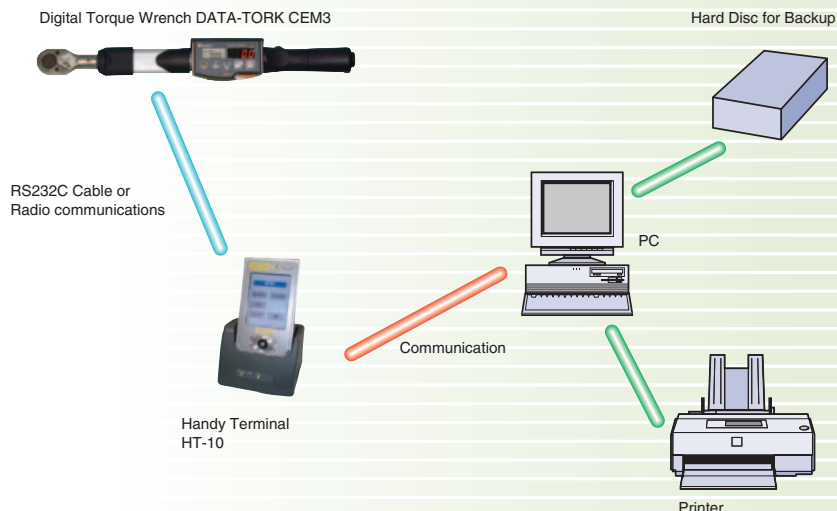
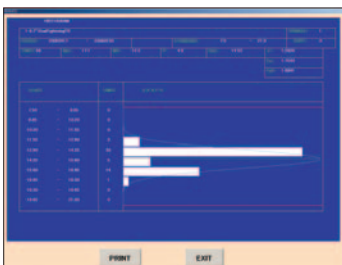
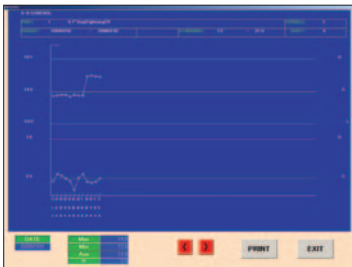
### Customised Optional Interface

Tightening Control System for Statistical Data Processing

#### Overview

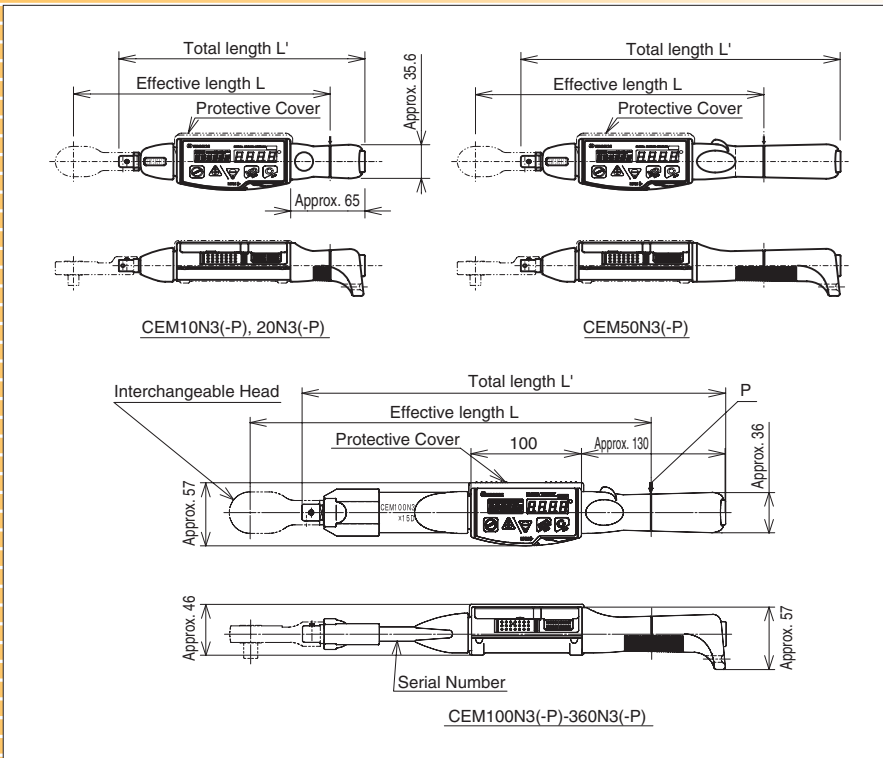
- DFS Software communicates with Handy Terminal
- Measured torque data taken with DATA TORK CEM3 can be filed according to each model.
- Data Search, Statistical Data Processing, Graphing, Daily/Monthly Reports
- Flexible system with Master File maintenance, transmitting and receiving
- Help menu guidance for quick installation and set up

#### Statistic data processing



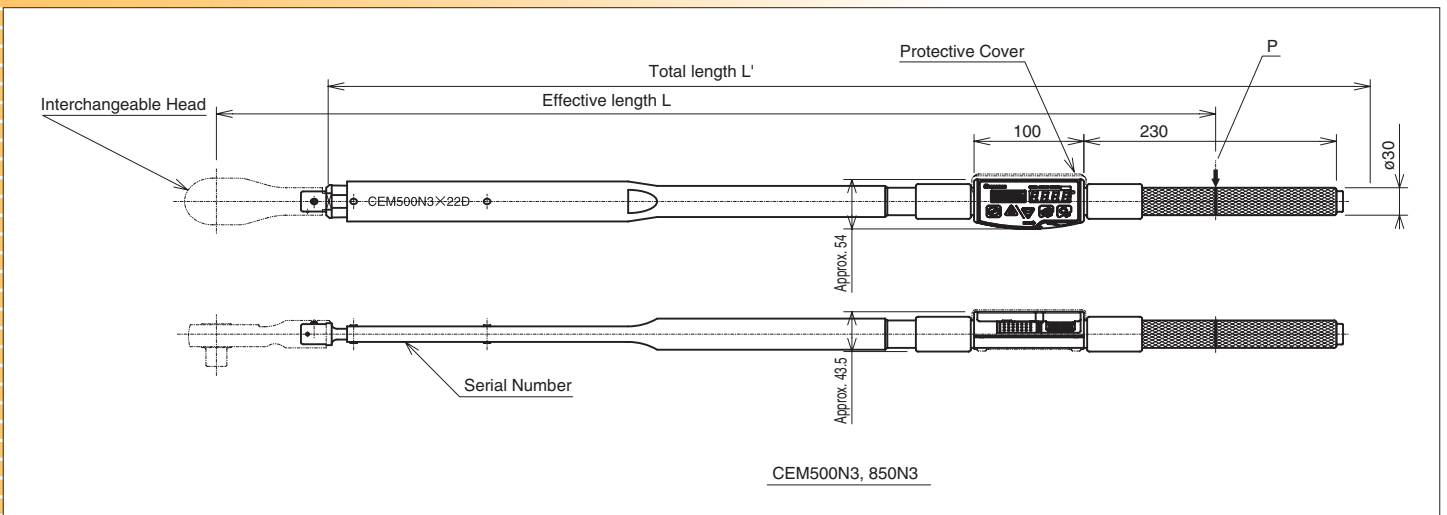
※For more detail information, please contact TOHNICHI dealers.

# Specifications



	CEM3
Accuracy	1% ±1digit
Display (Torque value)	7 segments LED 4 lines**
(Counter)	14 segments LCD 3 lines**
Digit Height (Torque value)	10.16mm**
(Counter)	7mm**
Number of Data Memory	999
Basic Functions	Peak Hold Peak Data Memory Run Mode Auto Memory & Resetting Auto Zero setting Auto Off (3 min) Over Torque Alarm Clock
Communication Functions	RS232C (2400-19200bps) Serial output corresponding to a USB connector
Battery Life Indicator	Available
Power Supply	Ni-MH rechargeable battery
Continuous Use	Approx 20hrs (Recharging 8hrs)
Recharging Time	Approx. 3.5hours
Communication Mode Switch	Key Operation

\*\*LCD+LED mode



Model	Standard		-M		-A				Max force [N]	Dimension		Weight [kg]	Accessories	Interchangeable Head
	MIN-MAX.	1digit	MIN-MAX.	1digit	English					Effective length [mm]	Total length [mm]			
			kgf·cm	kgf·cm	lbf·in	lbf·in	MIN-MAX.	1digit						
CEM10N3X8D(-P)	2- 10	0.01	20- 100	0.1	20-90	0.1			48.1	208	212	0.46	QH8D Battery Charger BC-3-100	(SH,RH,QH,HH)8D
CEM20N3X10D(-P)	4- 20	0.02	40- 200	0.2	36-180	0.2			92.2	217	214	0.47		QH10D
CEM50N3X12D(-P)	10- 50	0.05	100- 500	0.5	100-450	0.5			196.9	254	282	0.58	QH12D 100V or QH15D	(SH,RH,QH,RQH,DH,HH)12D
CEM100N3X15D(-P)	20-100	0.1	200-1000	1	200-900	1	15- 75	0.1	275.5	363	384	0.63		QH19D
CEM200N3X19D(-P)	40-200	0.2	400-2000	2			30-150	0.2	428.3	467	475	0.78	QH22D BC-3-200 220V	(SH,RH,QH,RQH,DH,HH)19D
CEM360N3X22D(-P)	72-360	0.4	720-3600	4			52-260	0.4	498.6	722	713	1.13		QH22D
CEM500N3X22D(-P)	100-500	0.5	kgf·m 10- 50	0.05			72-360	0.5	549.5	910	949	4.00	QH32D	(SH,RH,QH,RQH,DH,HH)22D
CEM850N3X32D(-P)	170-850	1	17- 85	0.1			124-620	1	608	1398	1387	5.14		QH32D

Note : Metric model is named "-M", e.g. CEM10N3X8D-M for 20-100kgf·cm.  
English model is named "-A", e.g. CEM20N3X10D-A for 36-180lbf·in.



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