Tohnichi CEM200N3X19D-G

Tohnichi CEM200N3X19D-G Digital Torque Wrench User Manual

Model: CEM200N3X19D-G

1. Introduction

The Tohnichi CEM200N3X19D-G is a high-precision digital torque wrench designed for accurate torque measurement in various industrial applications. This manual provides essential information for the safe and effective use, setup, operation, and maintenance of your device. Please read this manual thoroughly before using the torque wrench.

2. Safety Information

Always observe the following safety precautions to prevent injury and damage to the tool:

- Do not exceed the maximum torque capacity of the wrench.
- Ensure the interchangeable head is securely attached before use.
- Keep the wrench clean and free from oil, grease, or other contaminants.
- Store the wrench in a dry, safe place away from extreme temperatures and humidity.
- Do not attempt to disassemble or repair the wrench yourself. Refer to qualified service personnel.
- Wear appropriate personal protective equipment (PPE) during operation.

3. Product Overview

The Tohnichi CEM200N3X19D-G is an industrial-grade digital torque wrench featuring:

- Selectable Torque Ranges: 40~200NM, 400~2000kgf.cm, 4.00~20.00kgf.m, 360~1700lbf.in, 30.0~150.0lbf.in.
- Accuracy: +/-1% of indicated value.
- Measurement Modes: CW (Clockwise) & CCW (Counter-Clockwise) testing.
- Data Memory: 999 data points storage.
- Operating Modes: Run/Peak Modes.
- Interchangeable Head: Includes QH19D 1/2" ratcheting square drive head.

- Power: Ni-MH rechargeable battery pack and charger included.
- Data Output: RS232 port for downloading data (cable sold separately).



Figure 3.1: Overview of the Tohnichi CEM200N3X19D-G Digital Torque Wrench, showing its main body, digital display, control buttons, and the attached interchangeable head.

4. Setup

4.1 Battery Installation and Charging

1. Locate the battery compartment on the wrench handle.
2. Insert the Ni-MH rechargeable battery pack, ensuring correct polarity.
3. Connect the charger to the wrench's charging port and plug it into a power outlet. Allow sufficient time for a full charge before first use. The charging indicator will typically show the charging status.

4.2 Attaching the Interchangeable Head

The wrench comes with a QH19D 1/2" ratcheting square drive head. To attach it:

1. Align the square drive of the head with the receiver on the wrench body.
2. Push the head firmly into place until it clicks, indicating it is securely locked.
3. To remove, press the release button (if present) and pull the head off.



Figure 4.1: Illustrates the interchangeable head attachment point on the wrench body, where the QH19D 1/2" ratcheting square drive head connects.

5. Operating Instructions

5.1 Powering On/Off

- To power on, press and hold the **POWER** button until the display illuminates.
- To power off, press and hold the **POWER** button again until the display turns off. The wrench may also have an auto-off feature after a period of inactivity.

5.2 Selecting Torque Units and Range

Press the **UNIT** button to cycle through available torque units (NM, kgf.cm, kgf.m, lbf.in, lbf.ft). The display will show the currently selected unit.

5.3 Selecting Operating Mode (Run/Peak)

- Press the **MODE** button to switch between Run and Peak modes.
- **Run Mode:** Displays real-time torque values during application.
- **Peak Mode:** Captures and displays the maximum torque value achieved during the application.

5.4 Performing Torque Measurement

1. Ensure the correct unit and mode are selected.
2. Place the wrench head onto the fastener.
3. Apply force smoothly and steadily in the desired direction (CW or CCW).
4. Observe the digital display for the torque reading. In Peak mode, the highest value will be held.
5. Release pressure once the desired torque is reached or the measurement is complete.

5.5 Data Memory and RS232 Output

- The wrench can store up to 999 data points. Refer to the on-screen prompts or specific buttons (e.g.,**SAVE** or **MEM**) to save readings.
- To download stored data, connect the wrench to a computer via the RS232 port using the optional #584 cable. Follow the instructions provided with the data management software (sold separately).



Figure 5.1: A simulated view of the digital display during operation, showing a torque value in Newton-meters (NM) and the selected operating mode.

6. Maintenance

6.1 Cleaning

Wipe the wrench with a soft, dry cloth after each use. For stubborn dirt, use a slightly damp cloth with mild detergent, then dry thoroughly. Do not use abrasive cleaners or solvents.

6.2 Battery Care

- Recharge the battery when the low battery indicator appears.
- For long-term storage, charge the battery to approximately 50% and store in a cool, dry place. Recharge every 3-6 months to maintain battery health.

6.3 Storage

Store the torque wrench in its original case or a protective container to prevent damage from impacts or environmental factors. Avoid storing in direct sunlight or areas with high humidity.

6.4 Calibration

Regular calibration is crucial for maintaining the accuracy of your digital torque wrench. A Certificate of Calibration in NM units is included with the product. It is recommended to have the wrench recalibrated annually or after any significant impact or suspected malfunction by an authorized service center.

7. Troubleshooting

Problem	Possible Cause	Solution
Wrench does not power on	Low or depleted battery; Battery not properly installed	Charge the battery; Reinstall battery correctly
Inaccurate readings	Wrench needs calibration; Improper technique; Damaged head	Send for calibration; Ensure smooth, steady application; Inspect and replace head if damaged
Display shows error code	Internal malfunction; Overload	Refer to specific error code in a more detailed service manual or contact support; Do not exceed torque capacity
Data transfer issues	Incorrect cable; Software not installed; Port issue	Ensure #584 cable is used; Install Tohnichi data software; Check RS232 port connection

8. Specifications

Feature	Detail
Model Number	CEM200N3X19D-G
Brand	Tohnichi
Material	Alloy Steel
Item Weight	0.78 Kilograms (1.72 pounds)
Product Dimensions	18.7 x 2.26 x 1.81 inches
Operation Mode	Battery
Finish Type	Powder Coated
Head Style	Flat (with QH19D 1/2" ratcheting sq dr head)
Accuracy	+/-1% of indicated value
Data Memory	999 readings
Connectivity	RS232 port

9. Warranty and Support

Tohnichi products are manufactured to high standards and are backed by a manufacturer's warranty. For specific warranty terms, duration, and conditions, please refer to the warranty card included with your product or visit the official Tohnichi website. For technical support, service, or to inquire about replacement parts and accessories (such as the #584 RS232 cable or other interchangeable heads), please contact Tohnichi customer service or an authorized distributor.

Note: The Certificate of Calibration provided with this product is for NM units only.

Ask a question about this manual

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