

Cementex

The Safety Tool Specialists

OPERATING INSTRUCTIONS: Micrometer Adjustable Torque Wrenches



This manual covers all Cementex torque wrench models with the exception of Preset or Non-Ratcheting (NR) models.

All drives and profiles will operate the same. Some models are clockwise only.

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30250-40200-50250 TW Operating Instructions
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CERTIFICATION

These torque wrenches are calibrated prior to shipment from the factory with a tolerance of +/- 3% clockwise (right-hand) accuracy of upper 80% range.

NOTE: All mechanical torque wrenches have tolerance limits of +/- 4% accuracy in clockwise (right-hand) setting.

LIMITED LIFETIME WARRANTY:

Our commitment to quality enables us to offer an unparalleled warranty. The Cementex Limited Lifetime Warranty guarantees the mechanical parts of the tools for life, provided they are used for the purpose for which they are intended. Insulation is guaranteed to be free from defects in material and workmanship for a period of two (2) years from the date of the shipment. Insulation is guaranteed to pass a 10,000 VAC proof test in accordance with applicable U.S. and International Standards and rated for application to 1000 VAC I 1500 VDC.

Prior to each use each insulated tool is to be inspected for cuts, cracks, or other damage. If the yellow insulation becomes visible through the orange outer layer, the tool is not repairable and must be removed from service immediately. Insulated tools are to be used as secondary protection and are not meant to be used in place of other personal protective equipment. Cuts, cracks, or other damage to the tool insulation caused by usage of the tool is not covered under warranty.

Torque Wrench repairs are covered by warranty so long as the torque wrench is within its annual calibration timeframe.

Our RMA Request Form can be found on the Contact Us page of www.cementexusa.com

FEATURES

- Operates and ratchets in both right- and left-hand directions (clockwise and counterclockwise).
- May be used for uncontrolled wrenching as long as torque does not exceed maximum capacity.
- Lock ring prevents accidental change of torque setting.
- All parts corrosion-protected. Wrench made of highest quality heat-treated steel, and finished with tough, durable chromium-nickel plating.



To help PREVENT personal injury when using torque wrenches, please use personal protection that meets OSHA standards, CSA Z462 & NFPA 70E Workplace Guidelines.

ADJUSTING THE TORQUE WRENCH

IMPORTANT: To prevent damage to the adjusting mechanism. Do NOT turn the GRIP with the LOCK RING in the lock position.

1. To unlock the torque wrench, hold the handle grip with one hand, and pull the lock ring down until it stops.
2. Rotate the grip until the "0" on the thimble scale reaches the thimble scale reaches the torque value on the shaft main scale
3. Continue rotating the grip if the desired torque value is between the primary numbers on the main scale. Add the secondary number on the thimble scale to the primary number on the main scale to achieve the desired torque value. Refer to *Examples of Torque Settings* section.
4. To lock the wrench, hold the handle grip with one hand, and push the lock ring up until it stops.



TIPS FOR PROLONGING TORQUE WRENCH LIFE:

- Grasp the GRIP, not the SHAFT.
- Clean thread surfaces and remove burrs from fasteners.
- Return this wrench to its lowest calibrated value after use.
- Do not force handle past lowest setting.
- Make minor adjustments both before and after using the wrench.
- Use unit for intended purposes only. Banging or dropping may result in loss of precision.
- Annual calibrations are required to maintain integrity as well as warranty.

EXAMPLES OF TORQUE SETTINGS

The main scale American Standard graduations are on the front of the shaft, and the thimble scale graduations are closest to the beveled edge.

The main scale Metric graduations are on the reverse side of the shaft, and the thimble scale Metric graduations are below the American Standard graduations.

AMERICAN STANDARD:

1. For a torque setting of 64 foot pounds, rotate the grip until the "0" on the thimble scale is aligned with the "60" on the "ft. lb." main scale
2. Continue rotating the grip clockwise until the "4" on the thimble scale is aligned with the center line on the "ft. lb." main scale. The wrench is now set at 64 ft. lbs. ($60 + 4 = 64$).
3. Put the lock ring in the lock position before using the wrench.



METRIC:

1. For a torque setting of 105.8 Newton meters, rotate the grip until the "0" on the thimble scale is aligned with the "104.4" on the "N•m" main scale.
2. Continue rotating the grip clockwise until the "1.4" on the Metric thimble scale is aligned with the center line on the "N•m" main scale. The wrench is now set at 105.8 N•m ($104.4 + 1.4 = 105.8$).
3. Put the lock ring in the lock position before using the wrench.



IMPORTANT: To prevent damage to the torque wrench, NEVER apply more torque than the rated capacity of the wrench.

HOW TO APPLY TORQUE

The Micrometer Torque Wrenches are designed to give an audible signal and/or impulse when force has been correctly applied to the hand grip, and the desired torque attained. Do NOT pull beyond this point.

IMPORTANT:

- The audible signal/impulse is an indicator that the correct torque has been reached. Over-torquing beyond this point could cause fastener failure.
- Do NOT tilt the torque wrench handle during a torquing operation. Tilting the handle can result in inaccurate torque and/or over-torquing damage.

NOTE: When the wrench is set at the low end of the torque range, the degree of signal/impulse will be less than when the wrench is set at the high end of the range. Therefore, take special notice at the low end of the scale to hear the signal/feel the impulse.

1. Securely attach a socket to the torque wrench square drive.
2. Position the socket squarely on a fastener.
3. Grasp the center of the hand grip, and apply a force perpendicular (90 degrees) to the torque wrench body, and perpendicular (90 degrees) to the center line of the square drive, socket, and fastener.



4. Turn the fastener down using a smooth and even force applied to the handle of the torque wrench. As turning resistance increases, pull more slowly. To ensure accuracy, the fastener must be in motion when the torques measurement is made.

NOTE: Maintain the common center line of the square drive, socket, and fastener while applying a steadily increasing force – this ensures an accurate torque reading.