## ACCUTORQ ${ }^{\text {TM }}$ <br> CLIKKER TORQUE WRENCHES

The Clikker Torque Wrenches are torque-limiting tools. A steel case encloses a power spring, a torque signaling mechanism, a ratchet drive tang at the head of the case, and an adjustable hand grip (with lock) in the handle. The case and grip have a calibration scale that is set and read like a micrometer.


## OPERATING INSTRUCTIONS

## Setting the TORQUE

The following example demonstrates how to set a torque of 64 ft . Ibs.

1. Unlock the handle by holding the tube and firmly pulling the handle back. See Figure A.


FIGURE A
Handle in the Unlocked Position
NOTE: Keep pressure (a rearward pull) on the handle during Steps 2 and 3.
2. Align the thimble edge with the " 60 " graduation cross line on the tube. Align the zero ( 0 ) on the thimble with the vertical line on the tube. See Figure B. The wrench is now set at 60 ft . Ibs.
3. By turning the handle, align the four (4) on the thimble with the vertical line on the tube. See Figure C. The wrench is now set at 64 ft . Ibs.


FIGURE B Set at 60 ft . lbs.


FIGURE C Set at 64 ft . lbs.
4. Push the handle forward until it clicks into the lock position. NOTE: The handle will lock only when a line on the thimble is in line with the vertical line on the tube. See Figure D.


IMPORTANT: The handle must be in the locked position before torque is applied. See Figure D.
5. Apply the wrench to the nut or bolt, and pull until you feel and/or hear the wrench click. Release. The wrench automatically resets for the next operation.

IMPORTANT: To prevent equipment damage,

- do not continue pulling on the wrench after the click.
- use special care at low torque settings to stop pulling after the wrench clicks.


## METRIC SETTINGS

1. The metric graduations are on the reverse side of the barrel and thimble, and the same steps are used to set a metric torque.
NOTE: The metric scale is not in even graduations. Set the torque by aligning the thimble zero (0) with the cross line on the tube that is nearest to the metric setting. See Figure E. Turn the handle to add metric graduations as needed to bring the torque setting as close as possible to the required metric setting. See Figure F.


FIGURE E
Set at 129 Nm


FIGURE F
Set at 134 Nm

## MAINTENANCE

1. If the torque wrench has not been used or has been in storage for some time, use it ten times at a low torque setting. This releases an internal lubricant to coat the internal working parts again.
2. Keep the wrench set at a low torque when it's not being used.
3. Do not turn the handle below the lowest torque setting. If the handle is turned five or six turns below the minimum setting, the handle will disengage.
The handle, when disengaged from the internal screw, turns free on the tube. The handle is held on the tube by an internal spring-lock, and should never be pulled off the wrench. If the handle is accidentally removed, it should be replaced immediately with enough force to overcome the resistance of the internal spring-lock. If the handle is replaced without disturbing its internal parts, the wrench will remain in calibration. Use the following steps to engage the internal screw again:
A. Gently push the handle toward the graduations scale while turning it to engage the internal screw again.
B. After the internal screw has been engaged, turn the handle while pulling backward lightly until the lowest torque reading is set. The wrench can be used again, and the calibration has not been altered.
4. The tool is durable and designed for use in a shop, but the tool is also a precision measuring instrument and should be treated as such.
5. Wipe the wrench clean. Do not immerse the wrench in any type of cleaner that may affect the high pressure lubricant inside the tube.

## Features

- Operates and ratchets in both right- and left-hand directions.
- 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-proofed. Wrench made of highest quality heat-treated steel, and finished with tough, durable chromium-nickel plating
- Hand grip is impervious to fluids such as gasoline, oil, and kerosene.

! CAUTION: To prevent personal injury when using these torque wrenches, wear eye protection that meets ANSI Z87.1 and OSHA standards.


## Certification

This torque wrench was calibrated prior to shipment from the factory with tolerance limits of $\pm 3 \%$ clockwise (right-handed) accuracy of upper $80 \%$ of range.
NOTE: Part No. 7379 has tolerance limits of $\pm 4 \%$ clockwise (right-handed) accuracy, and $\pm 6 \%$ counterclockwise (left-handed) accuracy.

## SPX OIC

Micrometer Adjustable Torque Wrenches

Part Nos. 7375

7377
7378
7379

Operating Instructions

# 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 turn the lock ring clockwise until it stops.

2. Rotate the grip until the " 0 " on the thimble scale reaches the primary number of the desired 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. Referto Examples of Torque Settings section.
4. To lock the wrench, hold the handle grip with one hand, and turn the lock ring counterclockwise until it stops.
NOTE:

- Grasp the GRIP, not the SHAFT.
- Clean thread surfaces and remove burrs from fasteners.
- It is not necessary to return this wrench to its lowest calibrated value after use, unless it will be stored for an extended period of time.


## 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 94 foot pounds, rotate the grip until the " 0 " on the thimble scale is aligned with the " 85 " on the "ft. lb." main scale.

2. Continue rotating the grip clockwise until the " 9 " on the thimble scale is aligned with the center line on the " ft . lb ." main scale. The wrench is now set at 94 ft . lbs. $(85+9=94)$.
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 " $N \cdot m$ " main scale. The wrench is now set at $105.8 \mathrm{~N} \cdot \mathrm{~m}(104.4+1.4=$ 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 or 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.


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.
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.

