LIMITED WARRANTY
The CDI Heavy-Duty Torque and Angle Electronic Torque Wrench is backed by a one year warranty. This warranty covers manufacturer defects and workmanship. The warranty excludes misuse, abuse and normal wear and tear. Exclusion is not allowed in some states and may not apply. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

IMPORTANT ENVIRONMENTAL NOTES:
1. This equipment may contain hazardous materials which can be harmful to the environment.
2. Do not dispose of this equipment as municipal waste. Return it to the distributor or a designated collection center. Thank you for caring about our environment!
SAFETY MESSAGES

WARNING - Risk of flying particles
Over-torquing can cause breakage. An out
of calibration angle wrench can cause part
or tool breakage. Broken hand tools, sockets
or accessories can cause injury. Excess force
can cause crow foot or flare nut wrench
slippage.

READ THIS MANUAL COMPLETELY BEFORE
USING THE CDI HEAVY-DUTY WRENCH
• To insure accuracy, work must not move in
angle mode.
• For personal safety and to avoid wrench
damage, follow good professional tool and
fastener installation practices.
• Periodic recalibration is necessary to
maintain tool accuracy.

USERS AND BYSTANDERS SHOULD ALWAYS
WEAR EYE PROTECTION
• Be sure all components, including
adapters, extensions, drivers and sockets
are rated to match or exceed the torque
being applied with tool.
• Observe all equipment, system and
manufacturer’s warnings, cautions and
procedures when using this wrench.
• Always use the correct size socket for the
fastener being torqued.
• Do not use damaged sockets, showing
signs of wear or cracks.
• Always replace damaged fasteners before
applying torque.

WARNING - To avoid damaging Heavy-Duty
Wrench
• Never operate wrench when powered OFF.
Always power wrench ON prior to applying
torque.
• Do not press ON/OFF key while torque is
being applied.
• Never use this wrench to loosen fasteners.

WARNING - Electrical Shock Hazard
• Electrical shock can cause injury.
• Plastic handle is not insulated.
• Do not use on live electrical circuits.

MAINTENANCE / SERVICE
1. IMPORTANT - Service, repair and calibration are
to be performed by CDI Torque Products only.
Calibration by the user is recorded in the wrench
and voids factory certification.

2. To safely clean the torque wrench, wipe with a damp
cloth. NEVER use solvents, thinners, or engine
cleaners of any kind. NEVER immerse the torque
wrench in liquids of any kind.
INTRODUCTION

The CDI Heavy-Duty wrenches digitally display and monitor fastener torque and angular rotation (turn).

DISPLAY MODES

TORQUE - wrench functions as an adjustable torque wrench.

ANGLE - wrench functions as an adjustable angle wrench and simultaneously monitors torque to prevent fastener or wrench overload.

SETTINGS - Adjustable torque and angle settings for fastener installation specifications. The preset values are programmable from 5% to 100% of full-scale torque and 5 to 360 degrees of rotation. The scrolling display rolls-over at both ends for convenient and quick setting.

OVERLOAD - If the wrench is used beyond 100% torque capacity, the audible tone will pulse rapidly to warn the user to stop.

ZERO/RESET - Automatic self-check, torque zero and angle reset at power-on and anytime the ON/OFF key is pushed. (This is not a calibration check).

FUNCTION DETAILS

To PRESET the wrench, select the UNIT of measure (Nm, ft-lb, in-lb or degrees) desired. Use the UP and DOWN keys to set the required torque or angle.

In the Torque Display Mode, the display shows the torque PRESET value until 5% or more of full scale torque is applied. The display then switches to TRACK mode showing the applied torque in real time. When applied torque is within -10% of the preset value, the Yellow LED turns ON. When applied torque is within +/-4% of the preset value, the Green LED turns ON and the buzzer sounds for 1/2 second until torque is released. If torque is re-applied, the display will immediately switch to TRACK mode. If torque exceeds +4% of the preset value, the Red LED turns ON and the buzzer pulses until torque is released. Exceeding 125% of full scale the display will lockup showing “--- ---” and the buzzer pulses. The wrench must be reset by pushing the ON/OFF button.

In the Angle Display Mode, the display shows the angle PRESET value until 5% or more of full scale torque is applied. Rotation is accumulated in angular degrees. When torque is released, the accumulated torque and angle values will flash alternately for 10 seconds. The display will continue to accumulate if torque is reapplied within 10 seconds. This allows time for reverse (ratchet) motion. When the accumulated angle is within -10 degrees of preset value, the Yellow LED turns ON. When the accumulated angle is within -5 degrees of preset value, the buzzer turns ON while the Yellow LED remains ON. When accumulated angle is within -1 degree of preset value, the Green LED turns ON and the buzzer sounds for 1/2 second until torque is released. If accumulated angle exceeds +2 degrees of the preset value, the Red LED turns ON and the buzzer pulses until torque is released. If angle preset is reached and torque is released, angle accumulation is reset to zero automatically. This allows moving on to the next fastener immediately.
1. Turn the wrench **ON** by momentarily pushing the 
**ON/OFF** key. The display will return to the mode of 
operation and preset values previously set up.

2. To change the mode of operation, **TORQUE** or 
**ANGLE**, scroll the selections by momentarily 
pushing the **UNITS** key. The preset values for each 
mode will be displayed.

3. Use the **UP** and **DOWN** keys to change the preset 
values.  
(Note: **TORQUE** is also measured in **ANGLE** mode).

4. Grasp the center of the handle and slowly apply torque to the fastener until the **Green LED** or audible 
buzzer alerts you to stop.

5. Release torque. Note the **PEAK** reading flashing on 
the display for 10 seconds, unless torque is re-
applied or the **ON/OFF** key is pushed to clear the 
display.

6. In **ANGLE** mode, place the wrench on a flat surface 
during **ZEROTARE**.

7. The **BAR GRAPH** shows measured **TORQUE** or **ANGLE** 
as a percentage (10-100%) of Preset.

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### USE OF ADAPTERS, EXTENSIONS AND UNIVERSALS

Anytime an adapter, extension or universal is used 
with a torque wrench in such a way that the fastener 
distance is different that the torque wrench square 
drive distance, an adjustment to the set torque is 
required to get proper fastener torque.

- Fastener torque equals torque wrench square drive 
torque. Wrench setting is equal to desired fastener 
torque.

- Fastener torque is greater than torque wrench square drive 
torque. Calculated setting will be lower than 
desired fastener torque.

- Fastener torque is less than torque wrench square drive 
torque. Calculated setting will be higher than desired 
faster torque.

When using a universal or wobble extension, do 
not exceed more than 15 degrees of offset from 
perpendicular drive.

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Install four fresh “AA” alkaline cells into the handle of the wrench.
**SPECIFICATIONS**

**RATCHET HEAD** - Square drive, 40 teeth, sealed flex

**DISPLAY** - 4-digit LCD, torque units, CCW and battery condition flags

**SEALED KEY PAD**
- **POWER** - ON/OFF - auto self check - torque zero - angle reset
- **UP** - increments torque and angle setting
- **DOWN** - decrements torque and angle setting
- **UNITS** - unit mode select (ft-lb, in-lb, Nm, °)

**FUNCTIONS**
- **SET** - torque and angle - adjustable - audible and visual alert
- **TRACK** - accumulated angular rotation with real time update
- **PEAK HOLD** - 10 sec. flashing at torque release

**ACCURACY (72° F)**
- **ANGLE:** +/-1% of reading +/-1° @ angular velocity > 10°/sec < 180°/sec
- **TORQUE:**
  - CW CCW
  - +/-2% +/-3% of reading, 20% to 100% of full scale
  - +/-4% +/-6% of reading, 10% to 19% of full scale
  - +/-8% +/-10% of reading, 5% to 9% of full scale

**PRESET RANGE**
- **ANGLE:** 5 to 360° CW or CCW (Display Resolution 1°)
- **TORQUE:** (Display Resolution as shown below)

<table>
<thead>
<tr>
<th>Model</th>
<th>ft-lb</th>
<th>Nm</th>
<th>in-lb (ft-lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6004TAA</td>
<td>60.0-600.0</td>
<td>81.3-813.5</td>
<td>720-7200 750</td>
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</tbody>
</table>

**OPERATING TEMPERATURE:** 55° to 95° F (13° to 35° C)

**STORAGE TEMPERATURE:** -1° to 122° F (-20° to 50° C)

**MEASUREMENT DRIFT**
- **ANGLE:** -0.12 Angular Degrees per Degree C
- **TORQUE:** +0.01% of reading per Degree C

**HUMIDITY** - up to 90% non-condensing

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**SPECIFICATIONS**

**DIMENSIONS**
- **PART NUMBER**
  - **DRIVE**
  - **LENGTH**
  - **WEIGHT**

<table>
<thead>
<tr>
<th>Model</th>
<th>Drive</th>
<th>Length</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>6004TAA</td>
<td>3/4”</td>
<td>49 in.</td>
<td>11 lbs.</td>
</tr>
</tbody>
</table>

**BATTERY** - Four (4) “AA” Alkaline cells, up to 80 hours continuous operation.

**AUTO SHUT-OFF** - Auto power OFF will occur after 2 minutes of non-usage to conserve battery power.

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**PLEASE NOTE**

1. **NOTES**
   - If the display shows “Err0” at power on, the wrench is damaged and must be returned to CDI Torque Products for repair.
   - If the display shows “ErrA” in the angle mode, fastener rotation speed has exceeded the capacity of the wrench.
   - The wrench must be held still during angle mode reset. Motion is indicated by alternating outside center segments of the display “- -”
   - Remove battery when stored for extended periods.

2. **BATTERY REPLACEMENT** - Replace with four “AA” Alkaline cells only (Available anywhere).
CERTIFICATION

This torque-angle wrench was calibrated at the factory using angular displacement and torque measurement instruments that are traceable to the National Institute of Standards and Technology (N.I.S.T.). Torque parameters comply with current ISO and ASME specifications. Note: No U.S. or International Standards exist for angle wrenches.

CONVERSION TABLE

<table>
<thead>
<tr>
<th>To Convert From</th>
<th>To</th>
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<tbody>
<tr>
<td>in. oz.</td>
<td>in. lb.</td>
<td>0.06250</td>
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<tr>
<td>in. lb.</td>
<td>in. oz.</td>
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<td>in. lb.</td>
<td>ft. lb.</td>
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<tr>
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