

CPS BTLDTW

CPS BLACKMAX BTLDTW Digital Electronic Torque Wrench User Manual

Model: BTLDTW

1. INTRODUCTION

This manual provides detailed instructions for the safe and effective operation, maintenance, and troubleshooting of your CPS BLACKMAX BTLDTW Digital Electronic Torque Wrench. Please read this manual thoroughly before using the tool to ensure proper function and to prevent damage or injury.

The CPS BLACKMAX BTLDTW is designed for precise torque applications, particularly in HVAC mini-split installations and other scenarios requiring adherence to OEM torque specifications. It offers advanced features such as digital display, multiple torque units, and tactile, audible, and visual alerts.

2. PACKAGE CONTENTS

Upon opening the package, verify that all components are present and undamaged. The standard package includes:

- CPS BLACKMAX BTLDTW Digital Electronic Torque Wrench
- Protective Carrying Case
- User Manual (this document)



Image 2.1: The CPS BLACKMAX BTLDTW Digital Electronic Torque Wrench stored in its protective carrying case.

3. PRODUCT OVERVIEW

The BTLDTW features a robust design with an adjustable jaw and an integrated digital display for clear torque readings. Key components include:

- **Adjustable Jaw:** For gripping various fastener sizes.
- **Digital Display:** Shows real-time torque values, unit settings, and battery status.
- **Control Buttons:** For power, unit selection, preset management, and mode selection.
- **Ergonomic Handle:** Provides comfortable and secure grip.
- **Battery Compartment:** Houses the power source for the electronic components.



Image 3.1: Detail of the digital display and control buttons on the CPS BLACKMAX BTLDTW.

4. SETUP AND INITIAL USE

4.1 Battery Installation

1. Locate the battery compartment cover, typically on the handle.
2. Open the cover and insert the required batteries. Ensure correct polarity.
3. Close the battery compartment cover securely.

4.2 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 until the display turns off. The wrench may also feature an automatic shut-off function after a period of inactivity.

4.3 Unit Selection

The BTLDTW supports multiple torque units. To change the unit:

1. With the wrench powered on, press the "Unit" button (or equivalent, refer to button labels on your device).
2. Cycle through the available units: Lbf.ft, Lbf.in, N-m, Kgf.m.
3. Release the button when the desired unit is displayed.

5. OPERATING INSTRUCTIONS

5.1 Setting Target Torque

The wrench allows setting a target torque value. This value can be set manually or by recalling a preset.

1. **Manual Setting:** Use the up/down arrow buttons to adjust the target torque value on the display.
2. **Using Presets:** The BTLDTW stores 5 factory and 5 user-defined presets.
 - To recall a preset, press the "Preset" button (or equivalent) and use the arrow buttons to select the desired preset number.
 - To save a user-defined preset, set the desired torque value manually, then press and hold the "Preset" button until the display indicates the value has been saved to a user slot.

5.2 Applying Torque

When applying torque, the wrench provides audible, visual (LED), and tactile (vibration) alerts to indicate proximity to and achievement of the target torque.

1. Select the appropriate jaw opening for the fastener. The jaw opening ranges from 3/16 to 1-7/16 inches (5 to 35mm).
2. Position the wrench securely on the fastener.
3. Apply steady, smooth force to the wrench handle. The digital display will show the real-time torque being applied.
4. As you approach the target torque, the wrench will provide advance warnings (e.g., slower beeps, flashing LED).
5. Upon reaching the target torque, a continuous tone, solid LED, and sustained vibration will activate. Stop applying force immediately.

5.3 Peak and Track Modes

The BTLDTW offers "Peak" and "Track" modes for torque data viewing:

- **Track Mode:** Displays the real-time torque value as it is being applied.
- **Peak Mode:** Displays the maximum torque value achieved during the application. This value remains on the display after the force is removed, allowing for review.
- Toggle between these modes using the designated "Mode" button (or equivalent).

6. MAINTENANCE

6.1 Cleaning

- Wipe the wrench clean with a soft, dry cloth after each use.
- Do not use abrasive cleaners or solvents, as these can damage the display or finish.
- Ensure no liquids enter the electronic components.

6.2 Storage

- Store the wrench in its protective carrying case when not in use.
- Keep the wrench in a dry environment, away from extreme temperatures and direct sunlight.
- Remove batteries if the wrench will not be used for an extended period to prevent leakage.

6.3 Calibration

Digital torque wrenches require periodic calibration to maintain accuracy. Refer to the manufacturer's recommendations or contact authorized service centers for calibration services. Regular calibration ensures the wrench continues to meet specified torque standards.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Wrench does not power on.	Dead or incorrectly installed batteries.	Check battery polarity. Replace batteries with new ones.
Inaccurate torque readings.	Wrench requires calibration; improper use.	Ensure proper technique (smooth, steady pull). Contact service for calibration.
Alerts (audible, visual, tactile) not functioning.	Alerts disabled; low battery; internal fault.	Check settings to ensure alerts are enabled. Replace batteries. If problem persists, contact support.
Display is dim or flickering.	Low battery power.	Replace batteries.

If you encounter issues not listed here or if solutions do not resolve the problem, please contact CPS customer support.

8. SPECIFICATIONS

- **Model:** BTLDTW
- **Brand:** CPS BLACKMAX
- **Type:** Digital Electronic Torque Wrench
- **Jaw Opening:** 3/16 to 1-7/16 inches (5 to 35mm)
- **Torque Units:** Lbf.ft, Lbf.in, N-m, Kgf.m
- **Presets:** 5 Factory, 5 User-defined
- **Alerts:** Audible (tone), Visual (LED), Tactile (vibration)
- **Modes:** Peak, Track

- **Material:** Alloy Steel
- **Item Length:** 19.1 Inches
- **Item Weight:** 3.04 pounds
- **Power Source:** Batteries (type not specified in input, refer to product packaging)
- **Average Battery Life:** Approximately 96 Hours

9. WARRANTY AND SUPPORT

CPS products are designed for durability and performance. For warranty information, please refer to the warranty card included with your product or visit the official CPS website. Keep your purchase receipt as proof of purchase.

For technical support, service, or parts inquiries, please contact CPS customer service through their official website or the contact information provided in your product packaging. When contacting support, please have your model number (BTLDTW) and purchase date available.

Manufacturer: CPS

Website: www.cpsproducts.com