LLAVETOR LDTA

LLAVETOR Digital Torque Adapter Instruction Manual

Model: LDTA

1. Introduction

This manual provides instructions for the safe and effective use of your LLAVETOR Digital Torque Adapter. This device converts any standard ratchet wrench into a precise digital torque wrench, suitable for various applications including bicycles, motorcycles, automotive repair, and industrial use.

Key features include:

- High-definition LED backlight display for easy reading in dark environments.
- Accuracy of ±2% clockwise and ±3% counter-clockwise.
- Four selectable torque units: N.m, ft-lb, in-lb, kg.cm.
- Compact and lightweight design for portability.
- Includes 1/2", 3/8", and 1/4" adapters for versatility.

Image 1: LLAVETOR Digital Torque Adapter. This image shows the compact design of the digital torque adapter, ready for use with a ratchet.

2. Setup

2.1 Package Contents

Verify that all items are present in the package:

- 1 x 1/2" Digital Torque Adapter
- 1 x 3/8" Adapter
- 1 x 1/4" Adapter
- 2 x AA Batteries
- 1 x Screwdriver

2.2 Battery Installation

The digital torque adapter requires two AA batteries for operation.

1. Locate the battery compartment cover on the back of the device.
2. Use the provided screwdriver to open the battery compartment.
3. Insert two AA batteries, ensuring correct polarity (+/-).

4. Close the battery compartment cover and secure it with the screw.

2.3 Attaching Adapters

The digital torque adapter comes with 1/2", 3/8", and 1/4" adapters to fit various drive sizes.

1. Select the appropriate adapter (e.g., 3/8" or 1/4") if your ratchet or socket is not 1/2".
2. Insert the adapter into the 1/2" square drive of the digital torque adapter.
3. Attach your ratchet wrench to the input square drive of the digital torque adapter.
4. Attach the desired socket to the output square drive of the digital torque adapter (or the attached adapter).

Image 2: Adapter Connections. This image illustrates how to connect the digital torque adapter to a ratchet and how to use the included 3/8" and 1/4" adapters for different socket sizes.

3. Operating Instructions

3.1 Power On/Off

- Press the **M** button to power on the device. The LED display will illuminate.
- To power off, press and hold the **M** button for 3 seconds. The device will also automatically power off after a period of inactivity to conserve battery.

3.2 Unit Selection

The device supports four torque units: N.m, ft-lb, in-lb, and kg.cm.

- Press the **U** button to cycle through the available units. The selected unit will be displayed on the screen.

Image 3: Four Measurement Modes. This image displays the digital torque adapter's screen, highlighting the four selectable measurement units: Newton-meters (N.m), foot-pounds (ft-lb), inch-pounds (in-lb), and kilogram-centimeters (kg.cm).

3.3 Mode Selection (Track Mode / Peak Mode)

The adapter features two operating modes: Track Mode and Peak Mode.

- To switch between modes, press and hold the **U** button for 3 seconds. Use the Up (▲) and Down (▼) buttons to select the desired mode.

Track Mode

In Track Mode, the device displays the torque value in real-time as force is applied. This is useful for monitoring torque during tightening.

Peak Mode

In Peak Mode, the device captures and displays the maximum torque value achieved during the tightening process. This value remains on the screen until reset or a higher peak is reached.

Image 4: Track and Peak Modes. This image illustrates the difference between Track Mode, which shows real-time torque, and Peak Mode, which displays the maximum torque applied.

3.4 Setting Target Torque (Preset Value Mode)

The device allows you to set a target torque value. When the applied torque approaches the target, the device will provide visual and audible alerts.

1. Press the **M** button to enter the preset value setting mode.
2. Use the Up (▲) and Down (▼) buttons to adjust the target torque value.
3. Press the **M** button again to confirm and save the setting.

The device can store up to 6 groups of preset values and 500 groups of stored data.

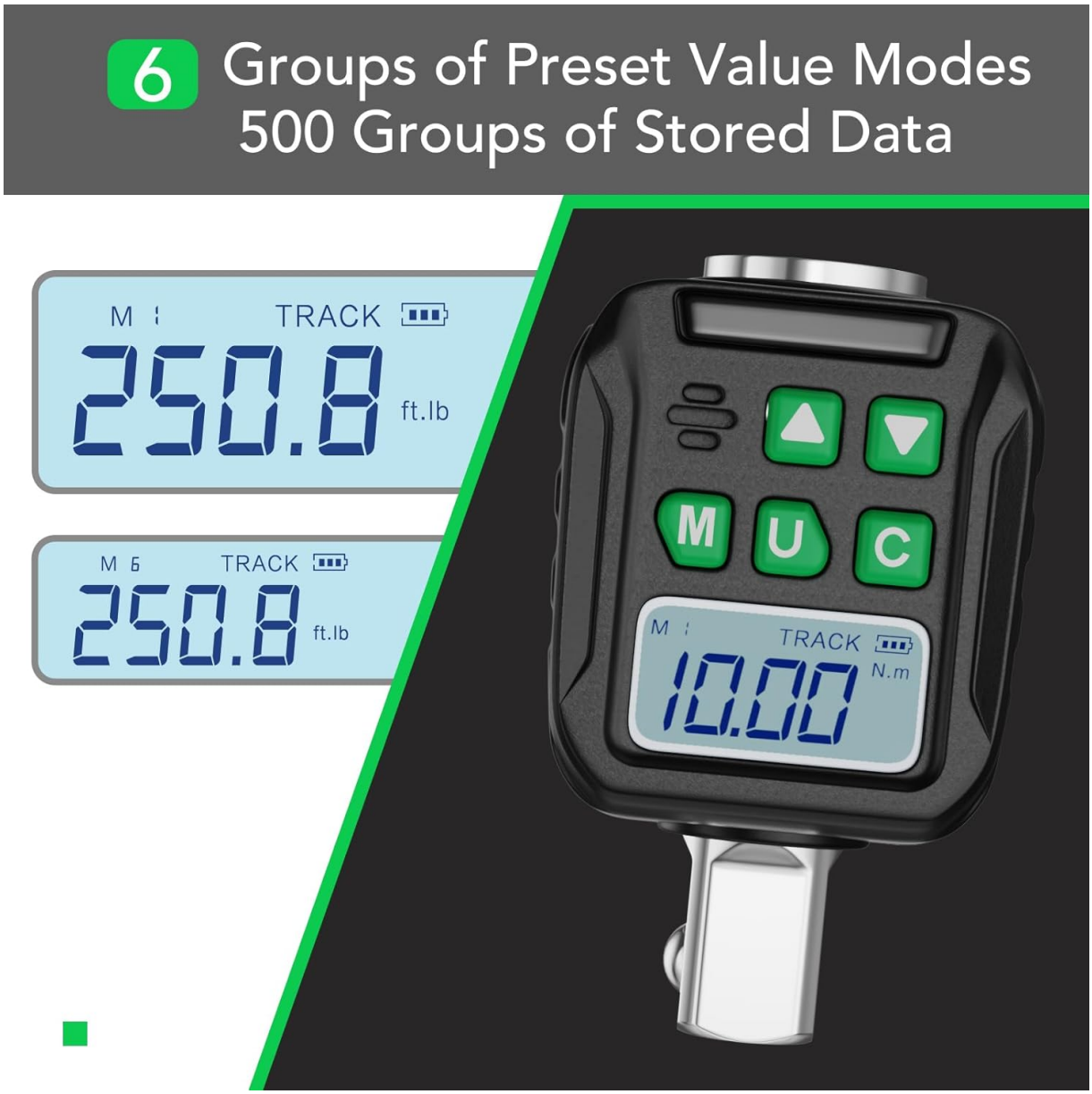

Image 5: Preset Values and Data Storage. This image highlights the device's ability to store 6 groups of preset torque values and up to 500 groups of measurement data.

3.5 Torque Application and Indication

As torque is applied, the LED indicator lights will illuminate, and a buzzer will sound to indicate proximity to the target torque.

- **Green Lights:** Indicate that the applied torque is approaching the target value.
- **Red Lights:** Indicate that the target torque has been reached or exceeded.
- **Buzzer:** Sounds when the target torque is reached.

Image 6: LED Indicators and Buzzer. This image shows the digital torque adapter in use, with its LED indicator lights and an icon representing the audible buzzer, which alert the user when the target torque is reached.

3.6 Clockwise and Counter-Clockwise Torque

The adapter can measure torque in both clockwise and counter-clockwise directions with specified accuracy.

Image 7: Accuracy and Mode Switching. This image emphasizes the device's accuracy of ±3% and visually differentiates between Peak Mode and Track Mode displays, which can be switched by holding the 'U' button.

4. Maintenance

4.1 Cleaning

- Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.

4.2 Storage

- Store the digital torque adapter in a dry place, away from direct sunlight and extreme temperatures.
- Remove batteries if the device will not be used for an extended period to prevent leakage.

4.3 Calibration

- For optimal accuracy, periodic calibration by a qualified technician is recommended.

5. Troubleshooting

5.1 Device does not power on

- Check battery installation and polarity.
- Replace with new AA batteries.

5.2 Inaccurate readings

- Ensure the adapter is securely attached to the ratchet and socket.
- Verify the correct unit of measurement is selected.
- Consider professional calibration if issues persist.

5.3 Display is dim or unreadable

- Replace batteries.
- Ensure the device is not exposed to extreme temperatures.

6. Specifications

Feature	Detail
Model	LDTA
Drive Size	1/2 inch (includes 3/8" and 1/4" adapters)
Torque Range	10-200 Nm (7.38-147.5 Ft-lb)
Accuracy	±2% Clockwise, ±3% Counter-clockwise
Torque Units	N.m, ft-lb, in-lb, kg.cm
Display	LED Backlight
Data Storage	500 groups
Preset Values	6 groups
Power Source	2 x AA Batteries
Material	Iron
Color	Chrome
Operation Mode	Mechanical (Digital Readout)

Note: Specifications are subject to change without notice.

7. Warranty and Support

7.1 Warranty Information

This product is covered by a standard manufacturer's warranty against defects in materials and workmanship. Please refer to the packaging or contact LLAVETOR customer service for specific warranty terms and duration.

7.2 Customer Support

For technical assistance, troubleshooting, or warranty claims, please contact LLAVETOR customer support.

Visit the official LLAVETOR website for contact information and additional resources.