LLAVETOR LD001

LLAVETOR Digital Torque Wrench 1/2", 20-400NM Instruction Manual

Model: LD001

1. Introduction

This manual provides detailed instructions for the safe and effective operation, setup, and maintenance of your LLAVETOR Digital Torque Wrench, Model LD001. This electronic torque wrench is designed for precise torque applications across various tasks, from automotive and motorcycle maintenance to bicycle assembly and general DIY projects. Please read this manual thoroughly before using the tool to ensure proper function and to prevent damage or injury.

2. Safety Information

Always observe basic safety precautions when using any power tool. Failure to follow these instructions may result in injury or damage to the tool or workpiece.

- Wear appropriate personal protective equipment, such as safety glasses.
- Ensure the workpiece is stable and secured before applying torque.
- Do not exceed the maximum torque capacity of 400 NM.
- Keep hands and fingers clear of moving parts.
- Do not use the wrench if it is damaged or malfunctioning.
- Store the wrench in a dry, secure place away from children.
- Remove batteries when the tool is not in use for extended periods.

3. Package Contents

Verify that all items are present in the package:

- LLAVETOR Digital Torque Wrench (1/2" drive)
- Storage Case

- Instruction Manual
- Batteries (AAA type, pre-installed or included separately)
- Calibration Certificate

4. Product Overview and Features

The LLAVETOR Digital Torque Wrench offers advanced features for precise and reliable torque measurement.

- **Wide Torque Range:** Measures from 20 to 400 Newton-meters (Nm).
- **High Accuracy:** Provides a precision of ±2% in clockwise direction.
- **Multiple Measurement Units:** Easily switch between ft-lb, Nm, in-lb, and kg-cm.
- **Buzzer and LED Notification:** Audible and visual alerts indicate when the target torque is approached and reached.
- **Track and Peak Modes:**
  - **PEAK Mode:** Records the maximum torque value applied.
  - **TRACK Mode:** Displays real-time torque values during application.
- **Preset Modes (M0-M9):** Store up to 10 frequently used torque settings for quick recall.
- **Durable Construction:** Head made from hardened chrome-vanadium steel with an ergonomic, anti-slip handle.

Figure 1: LLAVETOR Digital Torque Wrench, Model LD001. This image shows the overall design of the digital torque wrench with its display and control buttons.

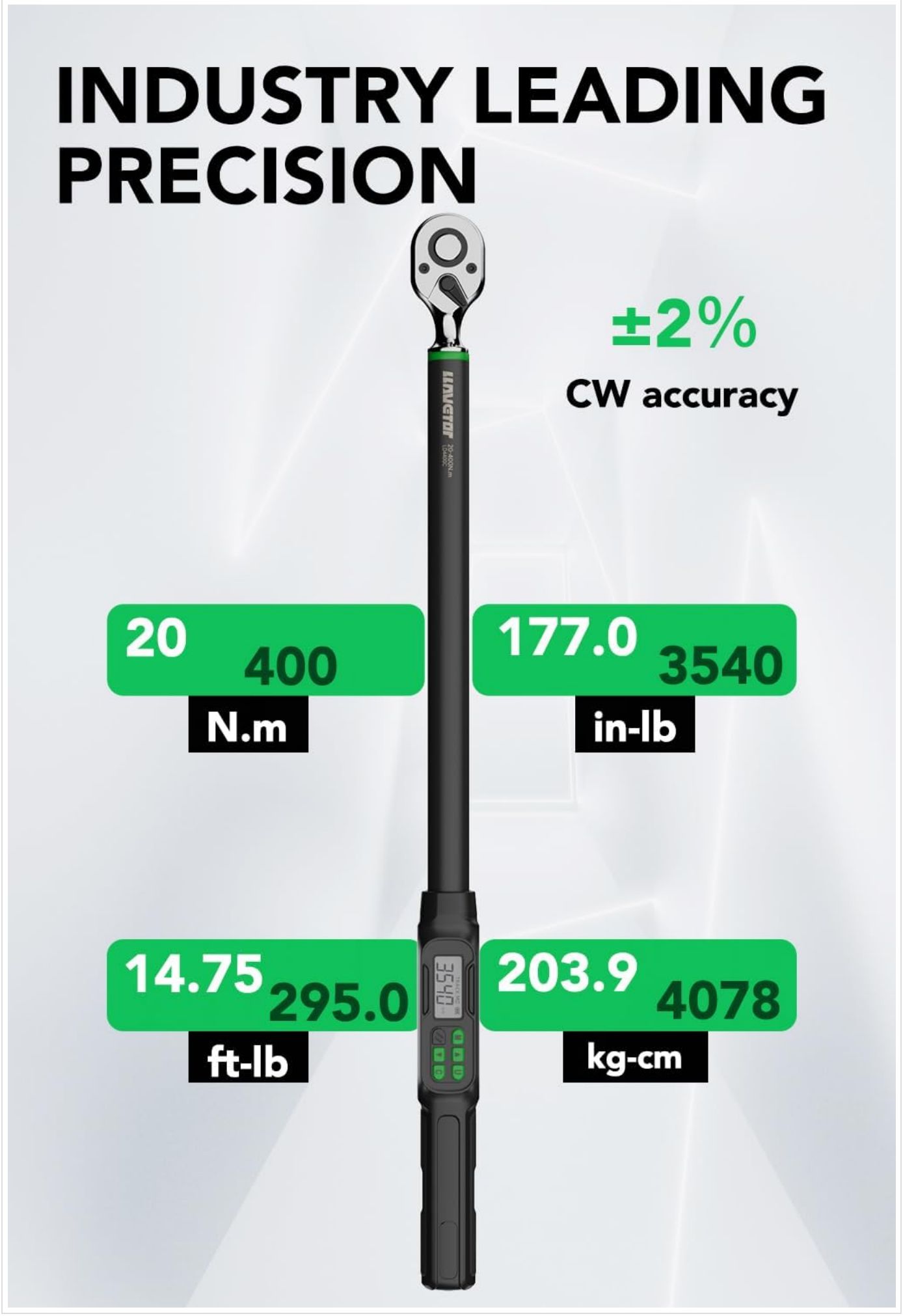

Figure 2: Displaying the wrench's ±2% accuracy and the four available measurement units: N.m (20-400), in-lb (177.0-3540), ft-lb (14.75-

295.0), and kg-cm (203.9-4078).

5. Setup

5.1 Battery Installation

The wrench requires two AAA batteries for operation. If batteries are not pre-installed, follow these steps:

1. Locate the battery compartment cover on the handle.
2. Unscrew the cover (screwdriver not included).
3. Insert two AAA batteries, ensuring correct polarity (+/-).
4. Replace the cover and secure it with the screw.

Note: Remove batteries if the wrench will not be used for an extended period to prevent leakage.

Figure 3: Illustrates the easy battery installation process and highlights features like multifunctional conversion and preset modes (M0-M9).

6. Operating Instructions

6.1 Controls Overview

Figure 4: Close-up view of the control panel, showing the 'M' button for preset modes, 'Up' and 'Down' buttons for value adjustment, 'C' for

- **C Button:** Power On/Off.
- **U Button:** Switch between measurement units (Nm, ft-lb, in-lb, kg-cm).
- **Up/Down Buttons:** Adjust torque values or navigate menus.
- **M Button:** Select and manage preset torque modes (M0-M9).

6.2 Power On/Off

Press the **C** button to turn the wrench on. Press and hold the**C** button to turn it off.

6.3 Selecting Measurement Units

With the wrench powered on, press the**U** button to cycle through the available measurement units: Nm, ft-lb, in-lb, and kg-cm. Select the unit appropriate for your task.

6.4 Setting Target Torque and Operating Modes

The wrench supports both PEAK and TRACK modes.

1. **To set a target torque:** In the desired mode, use the**Up** and **Down** buttons to adjust the target torque value on the display.
2. **PEAK Mode:** This mode captures and displays the maximum torque applied during a tightening operation. It is useful for verifying the peak torque achieved.
3. **TRACK Mode:** This mode displays the torque value in real-time as it is being applied. This is ideal for monitoring torque during the tightening process.

6.5 Buzzer and LED Notification

When approaching the set target torque, the wrench provides both audible and visual feedback:

- As you get closer to the target torque, the buzzer will emit a regular beeping sound.
- The LED indicator will flash green.
- Once the target torque is reached, the buzzer will emit a continuous tone, and the LED light will turn solid red. This indicates that you should stop applying force to prevent over-tightening.

Figure 5: Illustration of the digital display showing the torque value, battery indicator, and the active buzzer and LED light notification

system.

6.6 Using Preset Modes (M0-M9)

The wrench allows you to save up to 10 preset torque values for quick access.

1. Press the **M** button to enter preset mode selection.
2. Use the **Up** and **Down** buttons to select a preset slot (M0-M9).
3. To save a new value, select an empty slot or overwrite an existing one by setting the desired torque value using the **Up** and **Down** buttons, then press and hold the **M** button to save.
4. To recall a preset value, simply select the desired slot using the **M** and **Up**/**Down** buttons.

Figure 6: Visual representation of the 10 available preset modes (M0-M9) on the digital display, designed to save time by storing common

torque settings.

6.7 General Usage

Attach the appropriate socket to the 1/2" square drive. Place the socket onto the fastener. Apply smooth, steady force to the wrench handle. Observe the digital display and listen for the buzzer/LED notifications. Stop applying force immediately when the target torque is indicated to prevent over-tightening.

Figure 7: The LLAVETOR Digital Torque Wrench being used to tighten lug nuts on a car wheel, demonstrating a typical application.

7. Maintenance

- **Cleaning:** Wipe the wrench clean with a soft, dry cloth after each use. Do not use abrasive cleaners or solvents.
- **Storage:** Store the wrench in its protective case in a dry, cool environment. Remove batteries if storing for extended periods.
- **Calibration:** Digital torque wrenches require periodic calibration to maintain accuracy. Refer to the included calibration certificate for details.

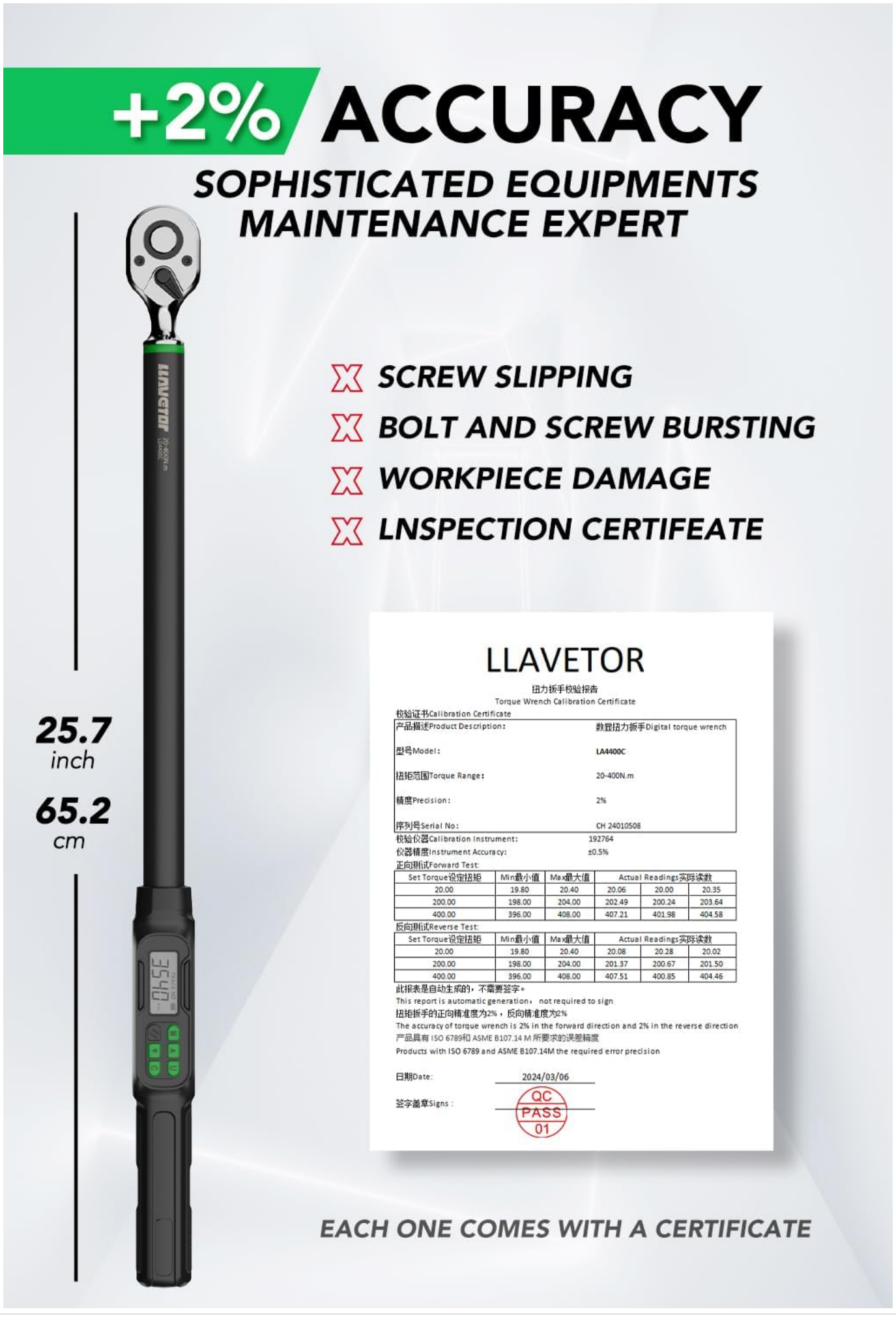

Figure 8: An example of the calibration certificate provided with each torque wrench, confirming its accuracy and adherence to standards.

8. Troubleshooting

Problem	Possible Cause	Solution
Wrench does not power on.	Dead or incorrectly installed batteries.	Check battery polarity. Replace batteries with new AAA batteries.
Display is dim or flickering.	Low battery power.	Replace batteries.
Inaccurate torque readings.	Wrench needs recalibration; improper usage.	Ensure smooth, steady application of force. Refer to calibration instructions or contact support for recalibration.
Wrench turns off unexpectedly during use.	Low battery power; loose battery connection.	Replace batteries. Ensure batteries are securely seated in the compartment.

9. Specifications

Feature	Detail
Model	LD001
Drive Size	1/2 inch
Torque Range	20-400 Nm (14.75-295.0 ft-lb, 177.0-3540 in-lb, 203.9-4078 kg-cm)
Accuracy	±2% (Clockwise)
Measurement Units	Nm, ft-lb, in-lb, kg-cm
Operating Modes	Peak, Track
Power Source	2 x AAA Alkaline Batteries
Material	Chrome-Vanadium Steel (Head)
Color	Black
Dimensions (Approx.)	25.7 inches (65.2 cm) length
Manufacturer	LLAVETOR.Inc

10. Warranty and Support

For warranty information or technical support, please refer to the documentation included with your purchase or contact LLAVETOR customer service. Keep your purchase receipt as proof of purchase.