Hairich HRC-SI-34700

Hairich 3/4-Inch Drive Click Torque Wrench User Manual

Model: HRC-SI-34700

1. Introduction

The Hairich 3/4-Inch Drive Click Torque Wrench is a precision tool designed for accurate torque application. This manual provides essential information for the safe and effective use, setup, operation, and maintenance of your torque wrench. It is suitable for both professional and DIY applications requiring precise fastening.

Image 1.1: Hairich 3/4-Inch Drive Click Torque Wrench, showing the overall tool design.

2. Product Features

- **High Precision:** The torque wrench offers a calibration error range of ±3%, ensuring accurate torque application. Each wrench includes a serial number for traceability.
- **Durable Construction:** The main body is constructed from chrome vanadium steel alloy for enhanced strength and durability. The ratchet head features a reversing device to improve work efficiency.
- **Ergonomic Design:** Features a 48-tooth ratchet with a 7.5° ratcheting arc head for fine adjustments. A quick-release button allows for easy loading and unloading of sockets. The aluminum titanium alloy handle is knurled for a comfortable, non-slip grip.
- **Dual Scale Readout:** Equipped with a laser-printed dual-range scale, displaying measurements in both foot-pounds (ft-lb) and Newton-meters (Nm) for clear and direct unit conversion.
- **Audible Click Mechanism:** When the preset torque value is reached, the wrench produces an audible and tactile 'click' to indicate that force application should stop, preventing over-torquing.
- **Secure Locking Mechanism:** A pull-down locking knob allows for easy torque setting. Releasing the knob automatically locks the value, preventing accidental changes during use.
- **Bidirectional Operation:** The ratchet head supports torque measurement in both clockwise and counterclockwise directions.

Image 2.1: Detailed view of the torque wrench features, including the quick release button, reversible switch, ratcheted head, reinforced locking head, and non-slip handle.

3. Setup

Before using the torque wrench, ensure it is clean and free from debris. Familiarize yourself with the components and the torque setting mechanism.

1. **Unlock the Handle:** Locate the locking knob at the base of the handle. Pull down on this knob to unlock the torque adjustment mechanism.
2. **Set the Torque Value:** While holding the locking knob down, rotate the handle to align the desired torque value on the dual-range scale. The main scale indicates major increments, and the micro-scale on the handle provides fine adjustments.
3. **Lock the Setting:** Once the desired torque value is set, release the locking knob. It will automatically spring back into position, securing the set torque value. Verify that the knob is fully engaged to prevent accidental changes during operation.
4. **Attach Socket:** Press the quick-release button on the ratchet head and firmly attach the appropriate 3/4-inch

drive socket. Ensure the socket is securely seated.

Image 3.1: Illustration of the unlock, hold and set, and rebound lock steps for adjusting the torque wrench.

4. Operating Instructions

Follow these steps for accurate and safe torque application:

1. **Prepare the Fastener:** Ensure the fastener and mating surfaces are clean and properly lubricated (if required by the application specifications).
2. **Position the Wrench:** Place the socket onto the fastener. Hold the torque wrench by the handle, ensuring a firm and comfortable grip.
3. **Apply Force:** Apply smooth, steady force to the handle in the desired direction (clockwise or counterclockwise). Do not use extension bars on the handle unless specifically designed for torque wrenches and calibrated for such use.
4. **Listen for the Click:** Continue applying force until you hear and feel a distinct 'click' from the wrench. This indicates that the preset torque value has been reached.

5. **Stop Applying Force:** Immediately stop applying force once the click is detected. Further tightening will result in over-torquing the fastener.
6. **Release and Store:** After use, release the socket by pressing the quick-release button. For storage, it is recommended to set the torque wrench to its lowest setting (but not below it) to relieve spring tension, which helps maintain calibration accuracy over time.

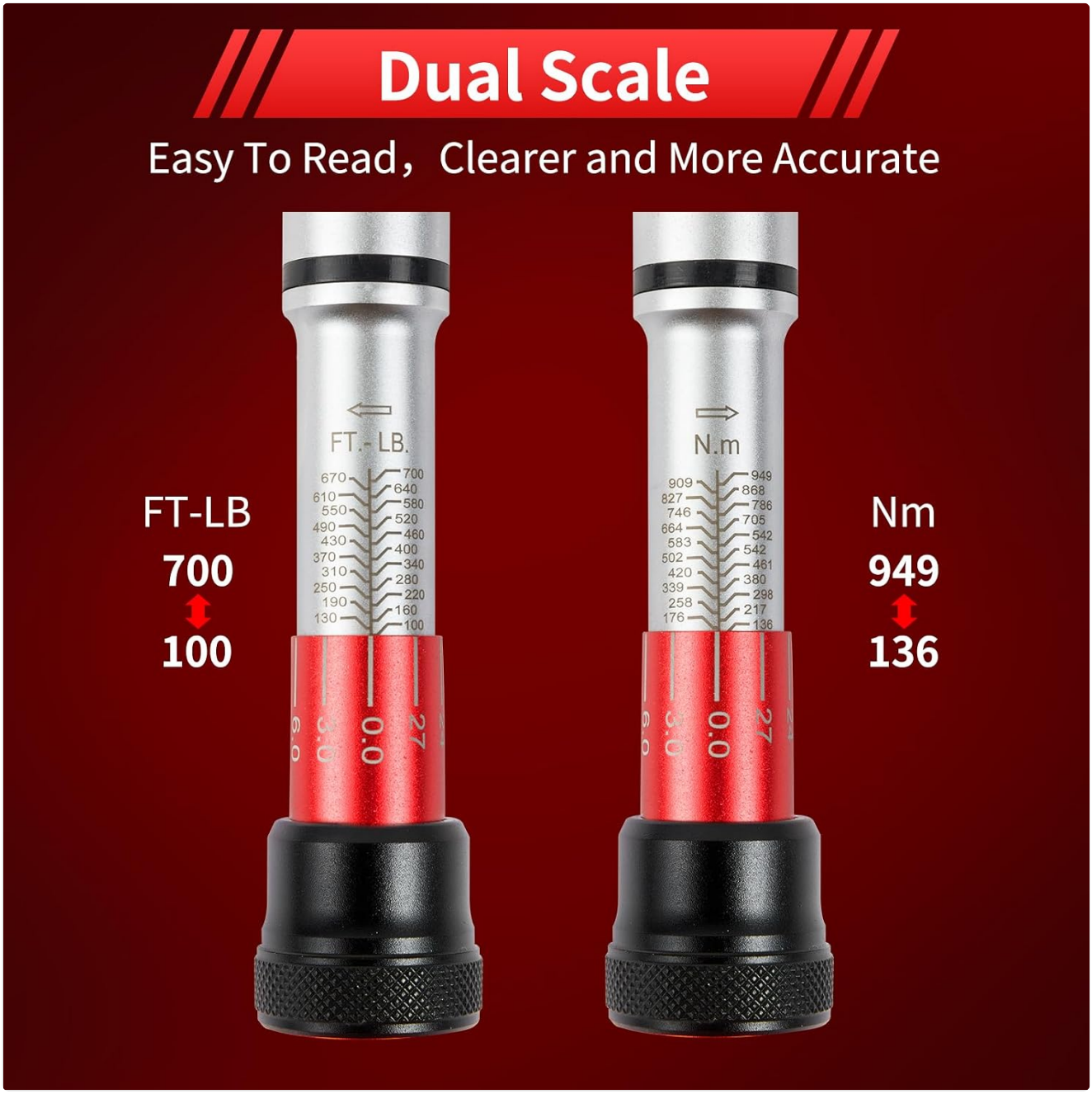

Image 4.1: Close-up of the dual scale, showing both ft-lb and Nm measurements for precise torque setting.

5. Maintenance

Proper maintenance ensures the longevity and accuracy of your torque wrench.

- **Cleaning:** Wipe the wrench clean with a dry, soft cloth after each use. Do not use solvents or harsh chemicals, as these can damage the finish or internal components.
- **Storage:** Store the torque wrench in its provided storage box in a dry, clean environment. Avoid extreme temperatures and humidity. Always set the wrench to its lowest torque setting before storage to relieve tension on the internal spring.

- **Calibration:** Torque wrenches are precision instruments and require periodic calibration to maintain accuracy. It is recommended to have the wrench calibrated annually or after 5,000 cycles, whichever comes first. Refer to the included calibration certificate for initial data.
- **Inspection:** Regularly inspect the wrench for any signs of damage, wear, or loose parts. Do not use a damaged wrench.

Image 5.1: Example of an inspection certificate, indicating the wrench's calibration data and serial number.

6. Troubleshooting

- **Faint Click Sound:** At lower torque settings (e.g., under 5 Nm), the 'click' sound may be very light and difficult to hear. In such cases, pay close attention to the tactile feedback (a slight jolt or release in the handle) to confirm the torque has been reached.
- **Inaccurate Readings:** If you suspect the wrench is providing inaccurate readings, discontinue use immediately. Do not attempt to repair or recalibrate the wrench yourself. Contact customer support for assistance or professional calibration services.
- **Wrench Not Locking:** Ensure the locking knob is fully pulled down when adjusting the torque and fully

released to engage the lock. If the mechanism still does not lock, inspect for debris or damage and contact support.

7. Specifications

Specification	Detail
Model Number	HRC-SI-34700
Drive Size	3/4 Inch
Torque Range	100-700 ft.lb (136-949 Nm)
Precision	±3%
Ratchet Teeth	48-tooth
Material	Chrome Vanadium Steel (body), Aluminum Titanium Alloy (handle)
Length	Approximately 44.88 Inches
Color	Black & Red
Included Components	Torque Wrench, Storage Box, Product Manual, Calibration Certificate

8. Warranty and Support

Warranty: This Hairich torque wrench comes with a 24-month warranty from the date of purchase. This warranty covers defects in materials and workmanship under normal use.
Support: For any product issues, questions, or warranty claims, please contact Hairich customer support. Our team is available to assist you with troubleshooting, parts, or service. Please have your model number (HRC-SI-34700) and purchase information ready when contacting support.

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question