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› Soonkoda Digital Force Gauge User Manual

Soonkoda Digital Force Gauge 3N/0.3kg/0.65lbf/10Oz

Soonkoda Digital Force Gauge User Manual

Model: Digital Force Gauge 3N/0.3kg/0.65lbf/10Oz

Brand: Soonkoda

1. PRODUCT OVERVIEW

The Soonkoda Digital Force Gauge is a compact, versatile, and high-precision instrument designed for measuring push and pull forces. It is widely utilized across various industries including electronics, construction, textiles, automotive, and research institutions for applications such as load testing, insertion force testing, and destructive testing.

This device features a high-resolution digital display, fast sampling speed, and user-friendly operation, making it an efficient and accurate tool for force measurement.



Figure 1.1: Soonkoda Digital Force Gauge with included accessories, including various probes for different measurement applications.

Key Features:

- **Wide Application:** Suitable for electronic appliances, construction hardware, light industrial textiles, auto parts, lighters, fire equipment, pen making, fishing gear, chemical industry, power machinery, and scientific research.
- **Multiple Units:** Supports N (Newton), Kg (Kilogram), Lb (Pound), and Oz (Ounce) with easy conversion.
- **Adjustable Gravity Acceleration:** Allows users to input the accurate local gravity acceleration value for precise testing and unit conversion.
- **Buzzer Alarm:** Configurable upper and lower limits with an audible alarm for statistical analysis.
- **Minimum Force Value Shielding:** Ability to ignore data within a set minimum range.
- **Automatic Shutdown:** Customizable automatic shutdown time to conserve power during periods of inactivity.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the device. Failure to follow these instructions may

result in injury or damage to the device.

- Do not expose the device to extreme temperatures, humidity, or corrosive environments.
- Avoid dropping or subjecting the device to strong impacts.
- Do not attempt to disassemble or modify the device. Repairs should only be performed by qualified personnel.
- Ensure the device is powered off when not in use or during maintenance.
- Use only the specified battery type (2 AAA batteries).
- Keep the device out of reach of children.
- When performing destructive tests, ensure proper safety precautions are in place to prevent injury from breaking materials.

3. PRODUCT COMPONENTS AND LAYOUT

The Soonkoda Digital Force Gauge comes with the main unit and several interchangeable probes to suit various testing needs.

S ~ 3N

REPLACEABLE PROBE

Push, pull and press three measurement methods as you like

Push pull probe

Widely used in high and low voltage electrical appliances, electronic wires Hardware lock, auto parts, lighter and ignition Installation, pen making, light industry construction, fishing gear, textile Push and pull in chemical industry, machinery industry and scientific research institution Load test, insert and pull test, destructive Experiments, etc.

Hook probe

Use with push pull gauge It can measure the weight of objects.

Extension probe

Install the extension rod, which can be extended Measure the distance.



Main Unit Features:

- **LCD Display:** Shows force readings, units, battery status, and other indicators.
- **Connect the connector:** Top threaded connector for attaching various probes.
- **SET Key:** Used for entering menu settings and confirming selections.
- **ZERO Key:** Used to clear the current reading and set it to zero.
- **Power Key (Open the key):** Used to power the device on or off.
- **PEAK Key (mode key):** Toggles between real-time measurement and peak hold mode.
- **UNIT Key:** Cycles through available measurement units (N, Kg, Lb, Oz).

Included Probes:

- **Push Pull Probe:** Standard probe for general push and pull measurements.
- **Hook Probe:** Use with push pull gauge it can measure the weight of objects.
- **Extension Probe:** An extension rod that can be installed to measure distances or reach difficult areas.
- Various other specialized probes for different test applications (e.g., conical, chisel, flat-head).

4. SETUP

4.1 Battery Installation:

1. Locate the battery compartment cover on the back of the device.
2. Slide or unclip the cover to open the compartment.
3. Insert 2 AAA batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
4. Close the battery compartment cover securely.

Note: 2 AAA batteries are included with the product.

4.2 Attaching Probes:

1. Select the appropriate probe for your measurement task.
2. Screw the chosen probe clockwise onto the threaded connector at the top of the force gauge until it is finger-tight. Do not overtighten.
3. To remove a probe, unscrew it counter-clockwise.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off:

- To power on the device, press and hold the **Power Key** (Open the key) for a few seconds until the LCD display illuminates.
- To power off the device, press and hold the **Power Key** again until the display turns off.

5.2 Unit Switching:

The device supports four measurement units: Newton (N), Kilogram (Kg), Pound (Lb), and Ounce (Oz).

- Press the **UNIT Key** to cycle through the available units. The current unit will be displayed on the LCD.

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PRODUCT INFORMATION

Widely used in high and low voltage electrical appliances, electronic wires Hardware lock, auto parts, lighter and ignition Installation, pen making, light industry construction, fishing gear, textile Push and pull in chemical industry, machinery industry and scientific research institution Load test, insert and pull test, destructive



Figure 5.1: Examples of the force gauge display showing different measurement units.

5.3 Zeroing the Reading:

- Before taking a measurement, ensure no force is applied to the probe.
- Press the **ZERO Key** to reset the display reading to zero. This compensates for any minor offsets.

5.4 Peak Hold Mode:

Peak hold mode captures and displays the maximum force applied during a test.

- Press the **PEAK Key** to activate peak hold mode. The display will show "PEAK" or a similar indicator.
- Apply force; the display will hold the highest value reached.
- Press the **PEAK Key** again to return to real-time measurement mode.

5.5 Setting Upper and Lower Limits (Buzzer Alarm):

The device allows setting upper and lower force limits. If the measured force exceeds these limits, a buzzer alarm will

sound.

- Press the **SET Key** to enter the settings menu.
- Navigate through the menu options using the **PEAK Key** or **UNIT Key** (refer to the full manual for detailed navigation).
- Select the option for "Upper Limit" or "Lower Limit" and use the appropriate keys to adjust the values.
- Confirm your settings by pressing the **SET Key**.

5.6 Setting Gravity Acceleration:

For highly accurate measurements and unit conversions, especially between mass and force units, you can input the local gravity acceleration value.

- Access the settings menu by pressing the **SET Key**.
- Locate the "Gravity Acceleration" setting.
- Input the precise gravity acceleration value for your location (e.g., 9.80665 m/s² for standard gravity).
- Save the setting.

5.7 Minimum Force Value Shielding:

This feature allows the device to ignore very small force fluctuations below a set threshold, providing more stable readings for significant events.

- Within the settings menu (accessed via **SET Key**), find the "Minimum Force Shielding" option.
- Set the desired minimum force value. Readings below this value will be disregarded.

5.8 Automatic Shutdown:

To conserve battery life, the device can be configured to automatically shut down after a period of inactivity.

- In the settings menu, locate the "Auto Shutdown Time" option.
- Adjust the duration (e.g., 5 minutes, 10 minutes, or disable).
- Confirm your selection.

6. MAINTENANCE

- **Cleaning:** Wipe the device with a soft, dry cloth. For stubborn dirt, use a slightly damp cloth with mild detergent, then dry thoroughly. Do not use abrasive cleaners or solvents.
- **Storage:** Store the force gauge in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries to prevent leakage.
- **Probe Care:** Keep probes clean and free from debris. Inspect them regularly for any signs of wear or damage.
- **Calibration:** For professional applications requiring high accuracy, periodic calibration by a certified laboratory is recommended.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or dead batteries. Incorrect battery polarity.	Replace batteries with new AAA batteries. Ensure batteries are inserted with correct polarity.

Problem	Possible Cause	Solution
Inaccurate readings.	Device not zeroed. Probe not securely attached. External interference. Needs calibration.	Press the ZERO Key before measurement. Ensure probe is tightly screwed on. Move away from strong electromagnetic fields. Consider professional calibration.
Buzzer alarm sounds unexpectedly.	Force exceeded set limits.	Check and adjust upper/lower limit settings in the menu.
Display shows "OL" or "OVERLOAD".	Applied force exceeds the maximum capacity of the device.	Immediately remove the load. Do not exceed the specified maximum capacity to prevent damage.

8. SPECIFICATIONS

Feature	Detail
Model	Digital Force Gauge 3N/0.3kg/0.65lbf/10Oz
Brand	Soonkoda
Measurement Units	N, Kg, Lb, Oz
Batteries	2 AAA batteries (included)
Product Dimensions (L x W x H)	6 x 3 x 12.4 cm (2.36 x 1.18 x 4.88 inches)
Item Weight	472 g (1.04 lbs)
Material	Acrylonitrile Butadiene Styrene (ABS)
ASIN	B0D3D1L845
UPC	783855600372

S ~ 3N

REPLACEABLE PROBE

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Figure 8.1: Product dimensions for the Digital Force Gauge.

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Soonkoda customer service through the retailer's platform or the official Soonkoda website. Please have your product model and purchase details ready when contacting support.

For the most up-to-date support information, please visit: [Soonkoda Brand Page on Amazon.ca](#)

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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