GOYOJO GT129A

GOYOJO Digital Tesla Meter GT129A Instruction Manual

Model: GT129A

1. INTRODUCTION

This manual provides detailed instructions for the safe and effective operation of your GOYOJO Digital Tesla Meter, model GT129A. This high-precision handheld device is designed for accurate measurement of magnetic field strength and automatic detection of magnetic pole polarity (N/S poles). It features a wide measurement range, multiple measurement modes, automatic range switching, unit conversion, a backlight display, and an automatic power-off function for extended battery life. Please read this manual thoroughly before use and keep it for future reference.

2. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, please contact customer support.

- Main unit x1
- Magnetic probe x1
- Storage case x1
- Screwdriver x1
- 9V battery x1
- Instruction manual (Japanese compatible) x1

商品仕様

モデル	GT129 A	GT129 B	GT129 C
精度	±1.0%	±2.0%	±2.0%(0-1000mT) ±5.0%(1000mT-2000mT)
測定範囲	0-2000mT(20000Gs)	0-2000mT(20000Gs)	0-2000mT(20000Gs)
分解能	200mT分解能：0.01mT(0.1G) / 2000mT分解能：0.1mT(1G)		
レンジ	200mT(2000Gs) / 2000mT(20000Gs)		
レンジ自動切り替え	200mT未満の測定範囲は200mT表示。200mT以上は測定範囲は自動的に2000mTに切り替え。		
測定センサ	高精度ホールセンサ、線長約1m		
単位	2種類mTとGs切り替え可能、1mT=10Gs		
バックライト	付き		
Peakホールド	Peakモード最大値をホールド可能		
自動OFF	5分間		
電源	9V電池*1		
使用環境	0°C〜50°C, 20%〜85%R・H, 結露しない		
保存環境	-20°C〜70°C, <85%R・H, 結露しない		
サイズ	160mm × 75mm × 34mm		
重さ	約260g		

Figure 2.1: Contents of the product package.

3. PARTS DESCRIPTION

Familiarize yourself with the different parts of the Tesla Meter:

各部の名前

- バッテリー収納部
- ホールプローブ接続部
- 液晶表示部
- ホールセンサー
- ピークモード切替ボタン
- ワンタッチゼロ設定ボタン
- スイッチボタン
- バックライトオンボタン
- 単位切替ボタン

GOYOJO

200mT

N

105.01mT

DIGITAL TESLA METER

PEAK   ZERO

ON/OF

UNIT   LIGHT

Measurement Range 0-2000mT

Figure 3.1: Overview of the Tesla Meter's components.

- **Battery Compartment:** Located at the top rear of the device.
- **Hall Probe Connection Port:** Connects the external Hall probe to the main unit.
- **LCD Display:** Shows measurement values, units, battery status, and mode indicators.
- **Hall Sensor:** The tip of the probe used to detect magnetic fields.
- **PEAK Button:** Toggles between Peak mode and Real-time mode.
- **ZERO Button:** Performs one-touch zero setting.
- **ON/OFF Button:** Powers the device on or off.

- **LIGHT Button:** Toggles the display backlight on or off.
- **UNIT Button:** Switches between mT (millitesla) and Gs (Gauss) units.

4. SETUP

4.1 Battery Installation

The device requires one 9V battery (included). To install the battery:

1. Locate the battery compartment cover on the back of the device.
2. Use the provided screwdriver to open the battery compartment.
3. Insert the 9V battery, ensuring correct polarity.
4. Close the battery compartment cover and secure it with the screw.

Your browser does not support the video tag.

Video 4.1: This video demonstrates the battery installation process for a similar Tesla meter. Note that due to transportation policies, batteries may not be pre-installed in the package.

4.2 Probe Connection

Connect the Hall probe to the main unit before operation.

1. Align the connector of the Hall probe with the Hall Probe Connection Port on the main unit.
2. Gently push and twist the connector to secure the probe.

高標準径向ホールプローブ
高精度ホールセンサー

ホール効果の原理を利用して、磁場の強さを測定します。

※磁場測定する場合は、ホールセンサーを磁場
に対して垂直に保つようにしてください。

Figure 4.2: Connecting the high-precision radial Hall probe.

5. OPERATING INSTRUCTIONS

5.1 Power ON/OFF

Press and hold the **ON/OFF** button to turn the device on or off. The device features an automatic power-off function after 5 minutes of inactivity to conserve battery life.

5.2 Backlight Function

Press the **LIGHT** button to toggle the display backlight on or off. This improves readability in low-light conditions.

Figure 5.1: Backlight function for enhanced visibility.

5.3 Measurement Modes (Peak/Real-time)

The device offers two measurement modes:

- **Peak Mode:** Captures and displays the maximum magnetic field strength detected. Press the **PEAK** button once to enter this mode.
- **Real-time Mode:** Monitors and displays instantaneous changes in magnetic field strength. Press the **PEAK**

button again to switch to this mode.

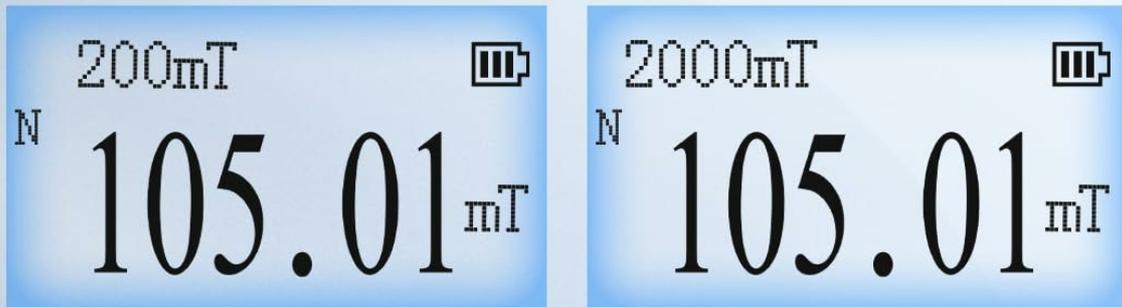Figure 5.2: Switching between Peak and Real-time measurement modes.

5.4 One-Touch Zero Setting

To ensure accurate measurements, perform a zero setting before use. Simply press the **ZERO** button to reset the display to 000.00.
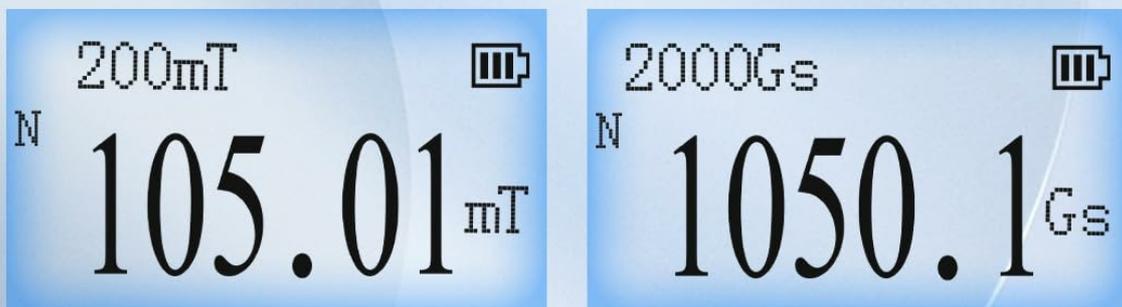
5.5 Unit Switching (mT/Gs)

Press the **UNIT** button to easily switch between millitesla (mT) and Gauss (Gs) units. (1 mT = 10 Gs).

Figure 5.3: Automatic range switching and unit conversion.

5.6 Automatic Range Switching

The device automatically switches its measurement range. If the magnetic field strength exceeds 200mT, the meter will automatically switch to the 2000mT range to provide accurate readings and prevent overflow errors.

5.7 Automatic N-pole/S-pole Detection

The Tesla Meter can automatically detect and display the polarity of the magnetic field. When the magnetic field passes through the front of the Hall sensor, 'N' (North pole) is displayed. When it passes through the back of the sensor, 'S' (South pole) is displayed.
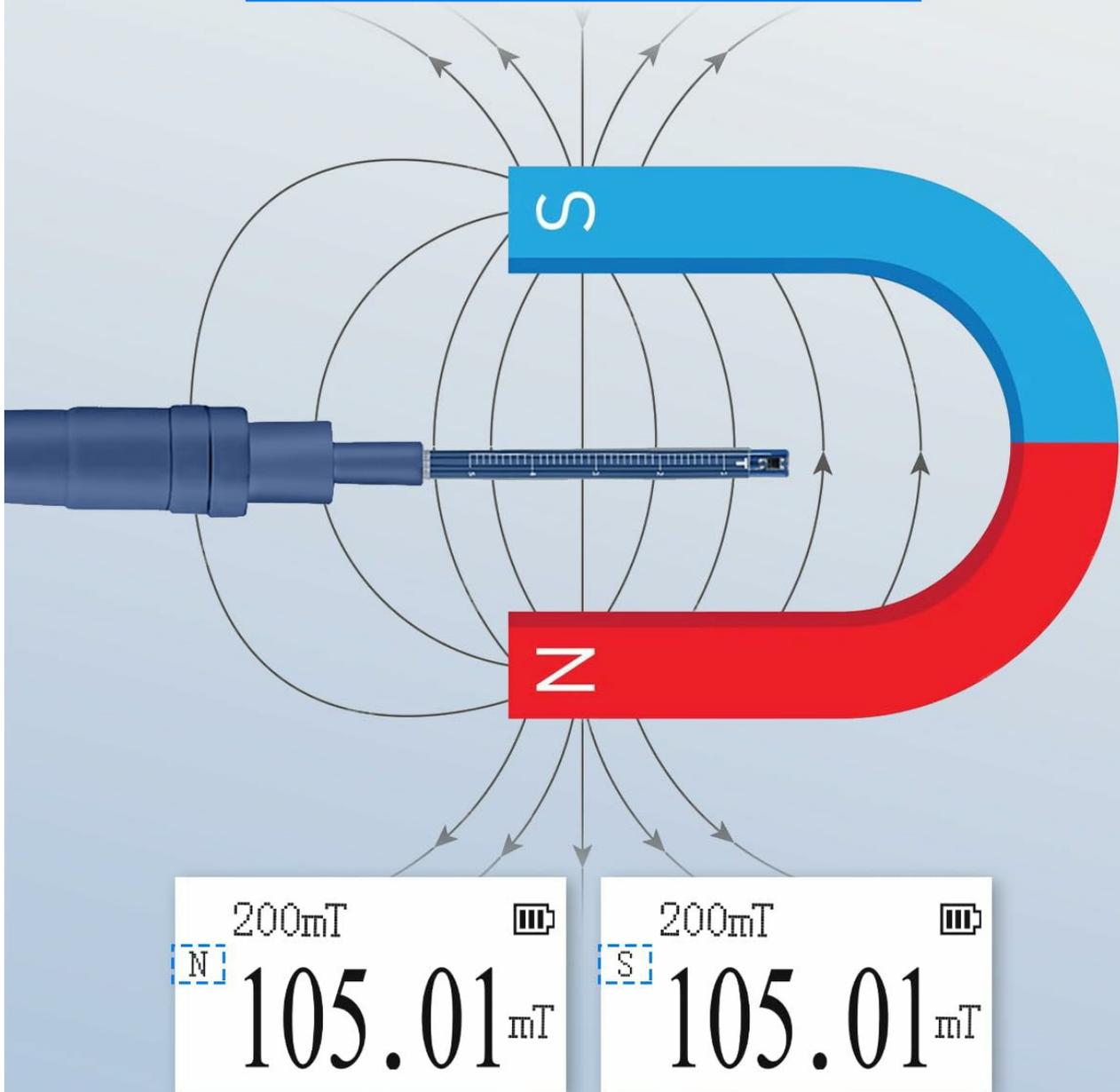
Figure 5.4: Automatic N-pole/S-pole detection.

5.8 Performing a Measurement

To perform a measurement:

1. Ensure the Hall probe is securely connected and the device is powered on.
2. Perform a one-touch zero setting by pressing the **ZERO** button.
3. Place the Hall sensor (tip of the probe) into the magnetic field you wish to measure.
4. Wait for the displayed value to stabilize.
5. Read the measurement value from the LCD display. The unit and polarity (N/S) will also be shown.

6. You can switch between Peak and Real-time modes using the **PEAK** button as needed.

7. You can switch between mT and Gs units using the **UNIT** button.

Figure 5.5: Performing a magnetic field measurement.

Your browser does not support the video tag.

Video 5.2: This video demonstrates the operation of a digital Tesla meter, including measurement and unit switching. Note that this video is for a similar product, but the core functionality is comparable.

6. APPLICATIONS

The GOYOJO Digital Tesla Meter is a versatile tool suitable for various applications, including:

- Measuring working magnetic fields in production and engineering.
- Analyzing surface magnetism and residual magnetism in laboratories.
- Testing guitar pickups, permanent magnets, and speakers.
- Inspecting magnetic separators, iron removers, and DC motors.

Figure 6.1: Diverse applications of the Tesla Meter.

7. SPECIFICATIONS

Feature	GT129A	GT129B	GT129C
Accuracy	±1.0%	±2.0%	±2.0% (0-1000mT), ±5.0% (1000-2000mT)
Measurement Range	0-2000mT (20000Gs)		
Resolution	200mT resolution: 0.01mT (0.1G)	200mT resolution: 0.01mT (0.1G)	200mT resolution: 0.1mT (1G)
Range	200mT (2000Gs) / 2000mT (20000Gs)		
Auto Range Switching	For measurements below 200mT, 200mT is displayed. For measurements above 200mT, it automatically switches to 2000mT.		
Measurement Sensor	High-precision Hall sensor, cable length approx. 1m		
Unit	2 types (mT and Gs) switchable, 1mT = 10Gs		
Backlight	Included		
Peak Hold	Can hold maximum value in Peak mode		
Auto OFF	5 minutes		
Power Supply	9V battery x1		
Operating Environment	0°C ~ 50°C, 20% ~ 85% RH, non-condensing		
Storage Environment	-20°C ~ 70°C, <85% RH, non-condensing		
Size	160mm × 75mm × 34mm		
Weight	Approx. 260g		

8. MAINTENANCE

To ensure the longevity and accuracy of your Tesla Meter, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Storage:** When not in use, store the device in its provided storage case in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Battery:** Remove the battery if the device will not be used for an extended period to prevent leakage.
- **Probe Care:** Handle the Hall probe with care. Avoid bending or subjecting it to excessive force, as this can damage the sensitive sensor.

9. TROUBLESHOOTING

If you encounter issues with your Tesla Meter, refer to the following common problems and solutions:

- **Device does not power on:**

- Check if the 9V battery is correctly installed and has sufficient charge. Replace if necessary.
- Ensure the ON/OFF button is pressed and held for a few seconds.

- **Inaccurate readings:**

    - Perform a one-touch zero setting by pressing the ZERO button in an area free of magnetic fields.
    - Ensure the Hall sensor is positioned correctly relative to the magnetic field (perpendicular for optimal reading).
    - Check for any physical damage to the Hall probe.

- **Display is dim or unreadable:**

    - Press the LIGHT button to activate the backlight.
    - Check battery level; a low battery can affect display brightness.

- **No N/S pole detection:**

    - Ensure the magnetic field is strong enough for detection.
    - Verify the Hall sensor is passing through the magnetic field in the correct orientation.

If the problem persists after trying these steps, please contact customer support for further assistance.

10. WARRANTY AND SUPPORT

1-Year Manufacturer Warranty: If a defect occurs in a Gauss meter purchased from our store, we will resend the product or parts free of charge within one year from the order date.
How to Contact Manufacturer: Please contact us from 'Order History' -> 'Seller' -> 'Ask a Question' within your Amazon account service. We provide support 365 days a year and will respond within 10 hours.