

[Manuals.plus](#) /

› [TGPKPGTCTA](#) /

› PT180 PT181 Digital Protractor Angle Measure Inclinometer User Manual

TGPKPGTCTA PT181

TGPKPGTCTA PT180/PT181 Digital Protractor User Manual

Model: PT181

INTRODUCTION

Thank you for choosing the TGPKPGTCTA PT180/PT181 Digital Protractor. This versatile 3-in-1 tool functions as a digital protractor, angle measure, and inclinometer, designed for precise angle measurements in various applications. Its compact size, durable construction, and clear LCD with backlight make it an essential tool for professionals and DIY enthusiasts alike.

Key Features:

- **Measuring Modes:** Supports both absolute angle and relative angle measurements.
- **Material:** Constructed from durable plastic material for long-lasting performance.
- **Stability:** Engineered for high stability and a long service life.
- **Magnetic Base:** Features built-in powerful magnets for secure attachment to metal surfaces.
- **Display:** Equipped with a large LCD with backlight for clear readability in various lighting conditions.

PRODUCT COMPONENTS

The PT181 Digital Protractor is designed for ease of use and durability. Below are the main components and their functions.



Figure 1: Front View. This image displays the front of the PT181 Digital Protractor, highlighting the large LCD screen which shows angle readings and battery status. Below the screen are three control buttons: Power, ZERO, and UNIT.



Figure 2: Laser Function. This image shows the PT181 from a top-down perspective, demonstrating its laser functionality. A visible red laser line extends from the side of the device, useful for alignment and projection.



Figure 3: Dimensions. This image provides a side view of the PT181, illustrating its compact dimensions of 65mm in length, 65mm in width, and 30mm in height. This highlights its portability and ease of handling.

Control Buttons:

- **Power Button ():** Turns the device ON/OFF.
- **ZERO Button:** Sets the current position as the zero reference for relative angle measurements.
- **UNIT Button:** Toggles between different measurement units (e.g., degrees, percentage).

SETUP GUIDE

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 the required batteries (typically AAA, refer to packaging for exact type) ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

Initial Power On:

Press the Power button () to turn on the device. The LCD display will illuminate and show the current angle reading.

OPERATING INSTRUCTIONS

Absolute Angle Measurement:

In absolute angle mode, the device measures the angle relative to a true horizontal or vertical plane. This mode is typically indicated by "ABS" on the display.

1. Place the base of the protractor firmly on the surface you wish to measure.
2. The display will show the angle relative to the horizontal (0°) or vertical (90°).
3. Ensure the device is stable for an accurate reading.

Relative Angle Measurement:

Relative angle mode allows you to measure the angle difference between two surfaces. This is useful for comparing slopes or setting a specific angle from a non-level reference.

1. Place the protractor on your first reference surface.
2. Press the **ZERO** button. The display will reset to 0.00°, establishing this surface as your new reference.
3. Move the protractor to the second surface you wish to measure.
4. The display will now show the angle difference between the first and second surfaces.

Changing Units:

Press the **UNIT** button to cycle through available measurement units, such as degrees (°) and percentage (%).

Using the Laser (PT181 specific):

The PT181 model includes a laser for alignment and projection. To activate or deactivate the laser, refer to the specific button or combination of buttons indicated in the device's quick start guide or by pressing and holding the UNIT button (common for laser activation on similar devices).

CARE AND MAINTENANCE

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents, as they may damage the display or casing.
- **Storage:** Store the protractor in a dry place, away from direct sunlight and extreme temperatures.
- **Battery Replacement:** If the battery indicator shows low power, replace the batteries promptly to ensure accurate readings and prevent leakage.
- **Handling:** Avoid dropping the device or subjecting it to strong impacts, as this can affect its calibration and functionality.

TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|-------------------------------|---|--|
| Device does not turn on. | Low or dead batteries; incorrect battery installation. | Replace batteries with new ones, ensuring correct polarity. |
| Inaccurate readings. | Device not calibrated; unstable surface; external interference. | Perform a zero calibration on a known level surface. Ensure the device is stable during measurement. Avoid strong magnetic fields. |
| Display is dim or flickering. | Low battery power. | Replace batteries. |
| Buttons are unresponsive. | Software glitch; physical damage. | Remove and reinsert batteries to reset the device. If problem persists, contact customer support. |

TECHNICAL SPECIFICATIONS

| | |
|----------------------------|---|
| Model Number | PT180 / PT181 |
| Dimensions | 65mm x 65mm x 30mm (2.56 x 2.56 x 1.18 inches) |
| Accuracy | $\pm 0.1^\circ$ (at 0° and 90°), $\pm 0.2^\circ$ (for other angles) |
| Resolution | 0.1° |
| Working Range | 4 x 90° |
| Working Temperature | 0°C to 50°C (32°F to 122°F) |
| Working Humidity | $\leq 85\%$ RH |
| Material | Plastic |
| Color | Black |
| Item Weight | 10.6 ounces (approx. 300g) |
| Assembly Required | No |

WARRANTY INFORMATION

This product is covered by a standard manufacturer's warranty against defects in materials and workmanship. Please refer to your purchase documentation or contact the retailer for specific warranty terms and duration. Keep your proof of purchase for warranty claims.

CUSTOMER SUPPORT

For technical assistance, troubleshooting, or warranty inquiries, please contact TGPKPGTCTA customer support through the retailer's platform or the contact information provided with your product packaging. When contacting support, please have your product model number (PT181) and purchase details ready.

For general inquiries, you may visit the manufacturer's website or the Amazon product page for the latest information and FAQs.