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› Neoteck ST99GL 225° Digital Angle Finder with Laser User Manual

Neoteck ST99GL

Neoteck ST99GL 225° Digital Angle Finder with Laser User Manual

1. INTRODUCTION

The Neoteck ST99GL 225° Digital Angle Finder with Laser is a versatile tool designed for precise angle measurement and alignment in various applications, including woodworking, construction, tile installation, and picture hanging. It combines a digital protractor, a laser line, and integrated bubble levels to streamline your projects.

This manual provides detailed instructions for the safe and effective use of your digital angle finder.

2. SAFETY INFORMATION

WARNING: CLASS 2 LASER PRODUCT

- This device emits a Class 2 laser (<1mW output).
- Avoid direct eye exposure to the laser beam.
- Do not stare into the laser aperture.
- Do not aim the laser at people or animals.
- Use the device only as described in this manual.
- Keep out of reach of children.

Always ensure the work area is clear and stable before taking measurements.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Neoteck Digital Angle Finder (Model: ST99GL)
- 1 x Portable Carrying Bag
- 1 x 9V Battery
- 1 x User Manual



Figure 3.1: Neoteck Digital Angle Finder and included accessories.

The image above shows the Neoteck Digital Angle Finder, its protective carrying bag, and the included 9V battery, all as part of the standard package contents.

4. PRODUCT FEATURES

- **Laser-Aim Digital Angle Finder:** Integrated Class 2 laser (<1mW) projects a clear line up to 3 meters for direct visual marking and alignment, reducing measurement transfer errors.
- **0-225° High-Precision Digital Protractor:** Offers a professional measuring range with $\pm 0.5^\circ$ precision and 0.1° incremental adjustment.
- **Built-in Bubble Levels:** Includes horizontal and vertical spirit vials for quick level and plumb checks without additional tools.
- **User-Friendly Controls:** Features a HOLD button to freeze readings, a mechanical lock knob for stability, a blue backlit LCD for readability in dim conditions, and an automatic power-off function after 5 minutes to conserve battery life.
- **Durable Construction:** Made with a robust aluminum alloy frame for jobsite toughness and long-term reliability.

5. SETUP

5.1 Battery Installation

The Neoteck Digital Angle Finder requires one 9V battery (included). Follow these steps to install the battery:

1. Locate the battery compartment cover on the back of the device.
2. Slide or unclip the cover to open the compartment.
3. Connect the 9V battery to the battery clip, ensuring correct polarity (+ to + and - to -).
4. Place the battery inside the compartment and close the cover securely.



Figure 5.1: Battery installation in the Neoteck Digital Angle Finder.

The image illustrates the process of installing the 9V battery into the designated compartment of the angle finder. Ensure the battery is properly seated and the cover is closed.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off

Press the **ON/OFF** button to turn the device on or off. The device will automatically power off after 5 minutes of inactivity to save battery.

6.2 Measuring Angles

To measure an angle:

1. Open the arms of the angle finder to the desired position.
2. The LCD display will show the angle in degrees.
3. For precise measurements, ensure both arms are flush against the surfaces being measured.



Figure 6.1: Measuring an angle with the digital angle finder.

This image demonstrates the angle finder in use, showing how it measures and displays the angle between two surfaces, such as a wall and a floor.

6.3 Using the Hold Function

Press the **HOLD** button to freeze the current angle reading on the LCD display. This is useful for recording measurements or transferring them without the risk of accidental changes. Press **HOLD** again to release the reading.

6.4 Using the Mechanical Lock Knob

The mechanical lock knob allows you to secure the arms at a specific angle. Turn the knob clockwise to tighten and lock the arms, preventing movement. Turn counter-clockwise to loosen and adjust the angle. This ensures stability when transferring angles.

6.5 Using the Laser Line

Press the **Laser** button (often combined with the Backlight button) to activate the laser line. The laser projects a horizontal line, aiding in precise alignment for tasks like hanging pictures or installing tiles.



Figure 6.2: Using the laser line for horizontal alignment.

The image demonstrates the angle finder projecting a clear red laser line onto a wall, which can be used as a visual guide for precise horizontal alignment of objects like picture frames.

Video 6.1: Demonstration of the Neoteck Digital Angle Finder's features, including backlit LCD, data hold, laser line, and bubble levels for various applications.

This video provides a comprehensive overview of the Neoteck Digital Angle Finder, showcasing its backlit LCD, data hold function, horizontal laser line for alignment, and the use of its bubble levels for both horizontal and vertical checks. It also demonstrates the wide range of angles it can measure and the stability provided by the locking knob.

6.6 Using the Bubble Levels

The angle finder includes both horizontal and vertical bubble levels. These allow for quick visual checks to ensure surfaces are level or plumb. Position the device against the surface and observe the bubble's position within the vial. The bubble should be centered for a perfectly level or plumb surface.

6.7 Backlight Function

Press the **Backlight** button (often combined with the Laser button) to illuminate the LCD display. This

improves readability in low-light conditions.

7. MAINTENANCE

- Keep the device clean and dry. Wipe with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Store the angle finder in its protective carrying bag when not in use to prevent damage.
- Remove the battery if the device will not be used for an extended period to prevent leakage and corrosion.
- Avoid dropping the device or subjecting it to strong impacts, as this can affect its accuracy.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Battery is dead or incorrectly installed.	Check battery polarity. Replace with a new 9V battery.
Inaccurate angle readings.	Device not properly calibrated or damaged.	Ensure arms are flush against surfaces. If persistent, contact support.
Laser line is dim or not visible.	Low battery or bright ambient light.	Replace battery. Use in appropriate lighting conditions.
LCD backlight not working.	Low battery or backlight function not activated.	Replace battery. Press the Backlight button.

9. SPECIFICATIONS

Feature	Specification
Model Number	ST99GL
Measuring Range	0-225°
Accuracy	±0.5°
Laser Class	Class 2 (<1mW)
Laser Working Distance	3-5 meters
Power Source	1 x 9V Battery
Automatic Shut-off	5 minutes
Material	Aluminum Alloy
Item Weight	1.21 pounds (approx. 0.55 kg)
Package Dimensions	17.48 x 2.64 x 1.85 inches (approx. 44.4 x 6.7 x 4.7 cm)

10. WARRANTY AND SUPPORT

The Neoteck ST99GL Digital Angle Finder comes with an **18-month warranty** from the date of purchase. This warranty covers manufacturing defects and material faults under normal use.

For technical support, warranty claims, or any questions regarding the product, please contact Neoteck customer service through the retailer where the product was purchased or visit the official Neoteck website for contact information.