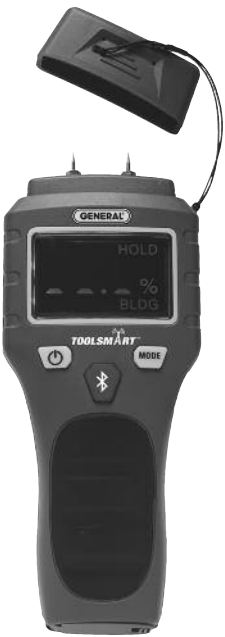
GENERAL

TOOLSMART™

CONNECTED PRECISION

DIGITAL MOISTURE METER

USER'S MANUAL



TS06

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INTRODUCTION

Thank you for purchasing General Tools & Instruments' (General's) TS06 Digital Moisture Meter. Please read this user's manual carefully and thoroughly before using the instrument.

The TS06 can be used as a standalone moisture meter, or with General's free ToolSmart™ app running on your mobile phone. When used in concert with an iPhone® or Android™ smartphone, the meter can stream—via Bluetooth®— to the phone all measurements it makes. The phone initiates the data transfer using the ToolSmart™ app, which can be downloaded from the iTunes® App Store or Google Play Store. The measurements can then be used to tag photos taken by

the phone's camera. For example, the app can attach moisture percentages to icons of different surfaces in a rendering of a room as a way to compare their readiness for finishing.

KEY FEATURES

- Incorporates separate moisture-resistance curves for wood and building materials
- 99.9 count backlit high-contrast reverse-type (black on white) LCD w/0.3 in. high digits
- Audible high moisture alert
- Squeezing trigger holds displayed readings
- Replaceable stainless steel test pins
- Pin cap doubles as calibration checker
- 3-minute Auto Power Off
- 1 year limited warranty

WHAT'S IN THE PACKAGE

The TS06 comes in a display box along with a "9V" battery and an extra set of test pins.

PRODUCT OVERVIEW

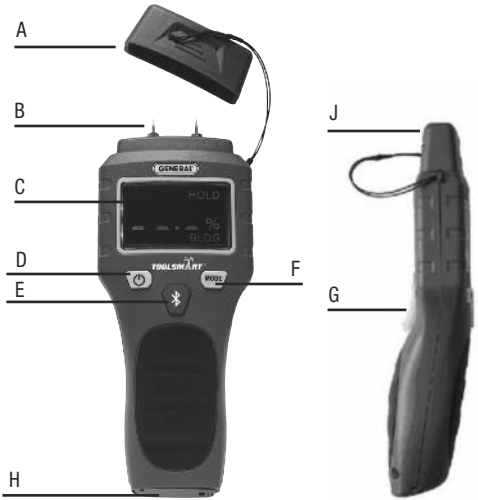

Fig. 1. The controls, indicators and physical structures of the TS06

Fig. 1 above shows all controls, indicators and physical components of the TS06. Fig. 2 on the next page shows all possible indications on the LCD.

A. Protective pin cap with calibrating resistor inside

B. Test pins with black rubber sleeves (sleeves not shown)

C. LCD

D. ⏻ button. **Press briefly** to power meter on; press and hold for >2 seconds to power meter off.

E. ᛒ button. **Press and hold to transmit** moisture level measurements to your smartphone via Bluetooth. **Press and hold again to silence transmission**.

F. **MODE** button. **Press briefly to toggle between wood and building materials** measurement modes. **Press and hold to disable high moisture level alarm**.

G. Measurement hold trigger. Squeeze to freeze displayed reading. Squeeze again to release display.

H. Battery compartment

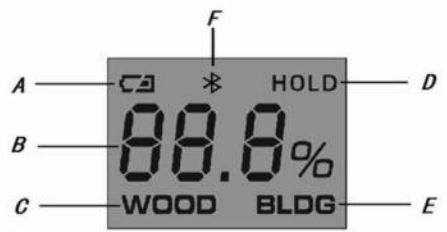

Fig. 2. All possible indications on the TS06 display

A. Low battery indicator

B. Moisture level reading

C. Wood measurement mode indicator

D. Indicates reading is being held

E. Building materials measurement mode indicator

F. Bluetooth enabled indicator

SETUP INSTRUCTIONS

INSTALL BATTERY

Snap the battery compartment (Fig. 1, Callout H) open and plug the included "9V" battery into the wired socket inside. The terminals of the battery and the socket mate in only one way, with the smaller male terminal plugging into the larger female terminal. Close the compartment by snapping its cover shut.

OPERATING INSTRUCTIONS

To measure a moisture level:

1. Remove the protective pin cap.
2. Remove the black rubber protective sleeve from each test pin.
3. Press the ⏻ button to power the meter on. The meter will sound one beep and the LCD will temporarily illuminate with a backlight and the following readout: _ _ . _ % WOOD
4. If you are measuring the moisture content of wood, skip ahead to Step 5. To measure the moisture content of a building material, briefly press the **MODE** button. This will change the display to the following: — — — . — % BLDG
5. Carefully press the test pins into the material whose moisture level you wish to measure. The level will be displayed as a percentage if it is within the measurement range for the selected material:

   For wood, the measurement range of the TS06 is 5 to 50%WME (Wood Moisture Equivalent). A moisture level lower than 5% will produce the following readout: _ _ _%. A level higher than 50% will produce a readout of – – –% and sound the high moisture level audible alarm. The alarm will sound for any wood moisture reading above 15.9%. To silence the alarm, press and hold the **MODE** button.

   For building materials, the measurement range of the TS06 is 1.5 to 33%WME (Wood Moisture Equivalent). A moisture level lower than 1.5% will produce the following readout: _ _ _%. A level higher than 33% will produce a readout of – – –% and sound the high moisture level audible alarm. The alarm will sound for any building

material with a moisture reading above 19.9%. To silence the alarm, press and hold the **MODE** button.

If silenced, the high moisture level alarm will automatically be re-enabled after the TS06 is powered off and powered on again. To re-enable the alarm without powering off the meter, press and hold the **MODE** button.

To hold any reading ("freeze" the display), squeeze the trigger (Fig. 1, Callout G). This will cause the word **HOLD** to appear in the upper right corner of the LCD. To resume measuring, squeeze the trigger again to make **HOLD** disappear. This feature allows you to make a measurement in a dark place or around a corner, hold the reading, and display it within 3 minutes later where the lighting is better. Measurements can be held for up to 3 minutes—the duration of the meter's Auto Power Off trigger.

To power off the meter, press the ⏻ button and hold it for more than 2 seconds.

To use the TS06 with your phone, begin by downloading the ToolSmart™ app from the iTunes Store or Google Play Store and installing it. Then, pair the meter and your phone by activating Bluetooth on your phone and pressing the ᛒ button (Fig. 1, Callout E) on the meter.

Pressing the ᛒ button on the TS06 will cause the ᛒ icon to blink on the LCD for 30 seconds while the meter searches for a device to pair with. If no Bluetooth device is detected within 30 seconds, Bluetooth transmission will cease and the meter's internal Bluetooth circuitry will power down to save battery power.

A tutorial on the app explains how to save moisture level measurements to your phone and overlay them on photos of your project taken by the phone's camera.

CHECKING CALIBRATION

You can verify the accuracy of the TS06's readings by manually checking its calibration at any time. To do so:

1. Remove the protective pin cap and note the small circuit board attached to the inside of its rear wall. The rear wall also has two small holes (left photo below) that provide access to terminals on the circuit board. The circuit board contains a resistor whose fixed value can be used to simulate a precise moisture level and therefore check the calibration of the meter.
2. Power on the meter, remove the black rubber protective sleeves from the test pins, and push the pins into the calibration holes (right photo below). If the meter is properly calibrated, the displayed reading will be between 17.3% and 19.3% in Wood Measurement mode. If you do not obtain a reading within this range and your meter is still under warranty, call General's Customer Service Department at 212-431-6100 to arrange to return the meter for service or replacement.

SPECIFICATIONS

Measurement Range	5 to 50% for wood; 1.5 to 33% for building materials
Measuring Accuracy	±2%
Test Pin Length	9mm (0.35 in.)
Operating Temperature	-4º to 140ºF (-20º to 60ºC) @ <85%RH
Current Consumption	<50mA
Auto Power Off Trigger	3 minutes of inactivity
Backlight Characteristics	20 seconds at full brightness after last button press; switches to half-brightness after 20 seconds
Low Battery Icon Trigger	<5.5V
Dimensions	7.01 x 2.76 x 1.65 in. (178 x 70 x 42mm)
Weight (without battery)	4.1 oz. (115g)
Power Source	“9V” battery (included)

OPERATING, MAINTENANCE & SAFETY TIPS

- Measurements of wood moisture level are skewed by two variables: ambient humidity and the density of the wood species. The best way to compensate for the effect of these variables is to develop your own moisture level curves, based on your experience working with different species of wood on a day-to-day basis in your neighborhood.

  For example, the humidity level affects the dryness of interior wood considered “acceptable” for finishing. In the steamy Deep South, where 60% relative humidity is the norm, fine carpenters have learned how to work with wood

with 11% moisture content. But in bone-dry Nevada, Utah, and Arizona, where 30% humidity is common, the same piece of wood would have to have less than 6% moisture to be considered “ready for finishing”.

- To locate the source of a leak behind wood, plaster, drywall or a ceiling, make measurements at different locations. The leak is where the meter displays the highest reading.
- Never use force to drive the test pins into a hard surface.
- Do not operate the TS06 in the presence of flammable or explosive gases.
- Be careful not to stab yourself with the extremely sharp test pins.
- Replace the protective pin cap and black rubber protection sleeves after making measurements 1) for safety reasons and 2) to avoid bending or dulling the pins.
- After subjecting the meter to a large change in ambient temperature, wait at least 30 minutes before making measurements to guarantee the accuracy of readings.
- Remove the battery when storing the unit or when you do not expect to use it for an extended period of time (months rather than weeks).

WARRANTY INFORMATION

In the U.S, General warrants its instruments and accessories, and digital tools against defects in material or workmanship for one year from the date of purchase unless otherwise stated on the packaging, manual, and/or marketing materials. General also warrants its non-digital tools products against defects in material or workmanship on a limited lifetime term. The company will replace or repair the defective unit, at its option, subject to verification of the defect.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the product.

Any implied warranties arising from the sale of a General product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. General shall not be liable for loss of use of the product or other incidental or consequential damages, expenses, or economic loss, or for any claim of such damage, expenses, or economic loss.

State laws vary. The above limitations or exclusions may not apply to you.

RETURN FOR REPAIR POLICY

Every effort has been made to provide you with a reliable product of superior quality. However, in the event your instrument requires repair, please contact our Customer Service to obtain an RGA (Return Goods Authorization) number before forwarding the unit via prepaid freight to the attention of our Service Center at this address:

General Tools & Instruments
75 Seaview Drive Secaucus, NJ 07094 212-431-6100

Remember to include a copy of your proof of purchase, your return address, and your phone number and/or e-mail address.

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to a different circuit than the one the receiver is connected to.
- Consult your supplier or an experienced radio/TV technician for help.

GENERAL®

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