KING TONY

Please wear proper safety gear while working.

KING TONY

FULL COLOR
LASER DISTANCE METERS 60M

Single Distance Measure

Continuous Measure

Area Measure

Volume Measure

Digital Level

50 Records

Screen Orientation

Measure Reference

Stake-out

Indirect Measure I

Indirect Measure II

Indirect Measure III

Indirect Measure IV

Indirect Measure V

Indirect Measure VI

Unit
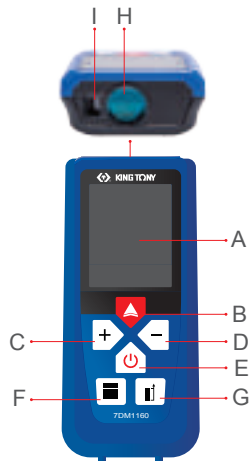GLOBAL UNITS

NO.7DM1160

2.039 m
2.012 m
2.484 m

2.612 m

81°

7DM1160

CE

Overview for device :
• A - LCD
• B - Single measure
• C - Addition
• D - Subtraction
• E - Clear / power
• F - Functions : Single measure,
  continuous measure, area, volume,
  six indirectly height measurements,
  stake-out, level, unit and setting
• G - Reference
• H - Receiving lens
• I - Laser emitted window

LCD
1. Battery status
2. Measuring reference
3. Memory
4. Angle
5. Measuring function
6. Measuring

● For the measurement from the rear edge of the measurer, 90% reflectivity surface (e.g., a white painted wall), low background illumination, operation temperature at 25°C. The tolerances apply from 0.5 meters to 10 meters with a confidence level of 95%. The maximum tolerance must add ±0.15 mm/m between 10 meters to 30 meters and ±0.25 mm/m for distances above 30 meters into the count.

● The measurement from the rear of the measurer, apply with a target with 18 to 100% reflectivity or intense ambient illumination, measuring within temperature at 25°C. The tolerances apply from 0.5 meters to 10 meters with a confidence level of 95%. The maximum tolerance may deteriorate to ±0.4mm/m between 10 meters to 30 meters and ±0.5mm/m for distances above 30 m and after.

● Apply with 100% reflective target, ambient light illumination is approximately 30,000 lux.

Battery & Power Management
1. This laser distance meter uses 2 x AAA Batteries.
2. Remove the battery lid and install the batteries with the correct polarity.
3. The full battery icon ▨ indicates that batteries are full.
4. If the battery icon ▭ appears with one slot left, the laser distance meter can still measure approximately 600 times and prefer to place new batteries.
5. Replace batteries when the empty battery icon ▭ flash on the screen.

Measurement & Functions

● **Power On and Off**

1. If the laser distance meter is off, tap the ⬠ or ⏻ to turn it on.
2. Tap and hold the ⏻ for 3 seconds to turn the laser distance meter off.

● **Select Function Mode**

Tap ▦ to enter mode selection, tap +▷ or ◁− to select
functions, tap ⬠ to enter functions.
Tap ▦ to leave the mode.

● **Single Distance Measurement Mode**

1. Move the laser onto the target and hold the laser
   distance meter steady.
2. Hold your position and click ⬠ to trigger the
   measurement.
3. After a beep, the measured length shows on the screen.
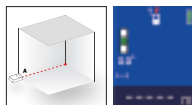
● **Continuous Measurement Mode**

When enter the mode, the laser distance meter keeps measuring.
Using this function to look for preferred distance quickly.
1. Tap ▦ to find the ⋯ icon, then enter to the mode.
2. Tap ⬠ to start the continuous measurement, the
   max and min length display on the screen, on top
   of the current distance.
3. Tap ⏻ to clear the measurement.
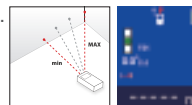
● **Area Measurements Mode**

In Area mode, the laser distance meter calculates the
result automatically after measuring all lengths.
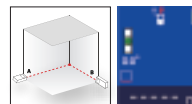
1. Tap ▦ to find the ▣ icon, then enter to the mode.
2. Follow instructions on the screen to measure all necessary lengths; the area
   shows on the screen with length and width.
3. Tap ⏻ to return to the previous step.

● **Volume Measurements Mode**

1. Tap ▦ to find the ▱ icon, then enter to the mode.
2. Follow instructions on the screen to measure all necessary lengths; the area
   shows on the screen with length, width, and height.
3. Tap ⏻ to return to the previous step.
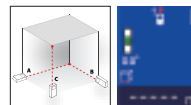
● **Stake-Out Measurement Mode**

Stake-Out splits a distance into several lengths in equal.
1. Tap ▦ to find the ⋮⋮ icon, then enter to the mode.
2. Tap ▦ to move ▮ to the desired set point.
3. Tap +▷ or ◁− to set the lengths.
4. Tap ⬠ to start the measurement.
5. During the measuring.
   a. The numbers on the top are the preset length.
   b. The data in the middle is the multiple of the preset length.
   c. The data at the bottom is the current distance.
   d. There are two arrows on the top and bottom guide the moving direction to
      the next stake.
6. Tap ⬠ or ⏻ to stop the measurement.
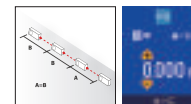
● **Indirectly Height Measurement Mode**

  Indirectly height measurement mode has six types in this mode and is based
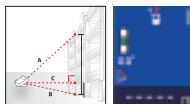
  on pythagorean.

Indirectly Height Measurement 1

1. Tap 🔲 to find the 📊 icon, then enter to the mode.

2. Find the 📊 icon to enable the indirectly height

   Measurement mode 1, which measures the height of

   The triangle.

3. Press the 🔺 measure the length of the hypotenuse and length of the base.

    The height shows on the screen with the length of the hypotenuse and base.

4. Tap ⏻ to return to the previous step.
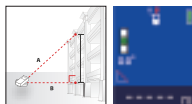
Indirectly Height Measurement 2

1. Tap 🔲 to find the 📊 icon, then enter to the mode.

2. Find the 📊 icon to enter to the indirectly height measurement mode 2,

   which measures the height summary of the two triangles with the same base.

3. Press the 🔺 to measure the two lengths of the hypotenuse and length

   of the base. The height summary shows on the screen with the length of the

    hypotenuse and base.

4. Tap ⏻ to return to the previous step.

Indirectly Height Measurement 3

1. Tap 🔲 to find the 📊 icon, then enter to the mode.

2. Find the 📊 icon to enter to the indirectly height

   measurement mode 3, which measures the height difference of the two

   triangles with the same base.

3. Press the 🔺 measure the two lengths of the hypotenuse and length of the

   base. The height shows on the screen with the length of the hypotenuse and

   base.
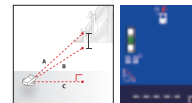
4. Tap ⏻ to return to the previous step.

Indirectly Height Measurement 4

1. Tap 🔲 to find the 📊 icon, then enter to the mode.

2. Find the 📊 icon to enter to the indirectly height measurement mode 4,

   which measures the height of the triangle with angle.

3. Follow the instructions on the screen and measure the length of the

   hypotenuse. The height shows on the screen with the length of the

   hypotenuse and angle.

4. Tap ⏻ to return to the previous step.

Indirectly Height Measurement 5

1. Tap [ ] to find the [ ] icon, then enter to the mode.
2. Find the [ ] icon to enter to the indirectly height measurement mode 5, which measures the height summary of the two triangles with the same base but calculate by angles.
3. Follow the instructions on the screen and measure the two lengths of the hypotenuse. The height shows on the screen with the two lengths of the hypotenuse and angle.
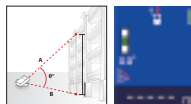4. Tap [ ] to return to the previous step.

Indirectly Height Measurement 6

1. Tap [ ] to find the [ ] icon, then enter to the mode.
2. Find the [ ] icon to enter to the indirectly height measurement mode 6, which measures the height difference of the two triangles with the same base but calculate by angles.
3. Follow the instructions on the screen and measure the two lengths of the hypotenuse. The height shows on the screen with the length difference of the hypotenuse and angle.
4. Tap [ ] to return to the previous step.
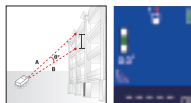
New benchmark of measuring
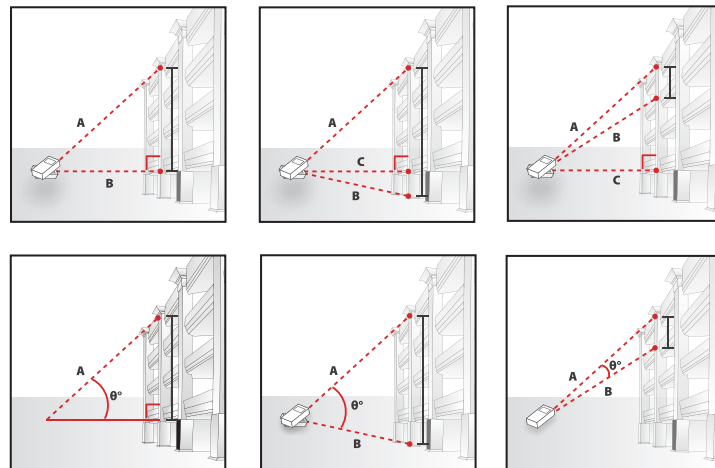
● **Digital Level**

1. With the built-in accelerometer, turns the laser distance meter into a 360-degree digital level.
2. Tap [ ] to find the [ ] icon, then enter to the mode.
3. The level sensor work in the same direction of the laser.
4. Tap [ ] to lock the angle reading.

OPERATION MANUAL

● Unit Setting
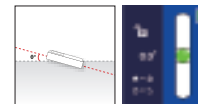1. There are 8 units in the laser distance meter, refer the units table below for details of the 8 units.

	meter	feet	inch	0'0"1/32	inch	inch	inch	尺
Length	m	ft	in	0'0"1/32	1/32in	1/16in	1/8in	10/33
Area	m²	ft²	ft²	ft²	ft²	ft²	ft²	P
Volume	m³	ft³	ft³	ft³	ft³	ft³	ft³	m³

2. Tap [ ] to find the [ ] icon in the setting inside the application menu, tap [+] or [−] to select the preferred unit and press [ ] to complete the setup.

● Buzzer Volume
1. There are three sound volume, low, mid, and high to choose.
2. Tap [ ] to find the [ ] icon, then enter to the mode.
3. Find the [ ] icon and press [ ] in the setting inside the application menu, tap [+] or [−] to select the sound volume.

● 50 Measurement Records
1. The laser distance measurer has 50 memories, and it automatically saves every step during the measuring. You can always go back and see the measurements you made.
2. Tap [ ] to find the [ ] icon, then enter to the mode.
3. Find the [ ] icon and press [ ] in the setting inside the application menu, tap [+] or [−] to look for the measurements you need.

● Calibrate the Digital Level
1. You can always re-calibration the accelerometer before use.
2. Tap [ ] to find the [ ] icon, then enter to the mode.
3. Find the [ ] icon then enter to the calibration mode.
4. Follow the on-screen images and place the laser distance meter in the correct position.
5. Tap [ ] to activate the calibration in this direction.
6. Follow the four steps to complete the calibration.

| Front | Back | Left | Right |
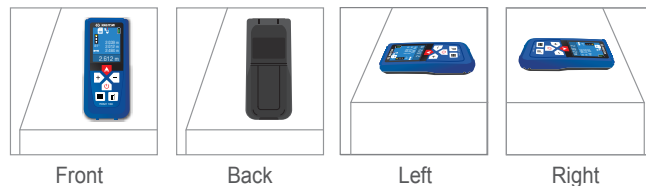
7. After finishing the calibration, press [ ] to leave the mode.

● **Screen Orientation**

The laser distance meter rotates the screen between 0° and 90°.

1.Tap 🔲 to find the 🖼 icon, then enter to the setting mode.

2.Find the 🔼 icon, tap 🔺 to turn on/off auto rotation.

● **Measurement Reference**

1. There are two reference positions. One is the front of the laser distance meter, and the other is the rear of the device.

2. Tap 🔲 to select the proper position.

Error Code

Code	Description	Solution
Err01	Out of measuring range	Measuring in a proper range
Err02	Reflected signal is too weak	Select a better surface
Err03	Out of display range (Max Value: 99999), e.g: result of area or dimension is out of display range.	Divide caculation into intermediate steps
Err04	Pythagorean calculation error	Check and verify values and steps are correct
Err05	Low Battery	Install new batteries
Err06	Out of working temperature	Measure in an environment within specified working temperature
Err07	Ambient light is too strong	Measure in a darker place (shadow target)

Safety Information

1. This laser distance meter has a Class 2 laser inside, laser radiation is emitted from this product and is manufactured to comply with IEC 60825-1: 2007, EN 60825-1:2007, EN 61326-1:2013 and CRF21, parts 1040.10 and 1040.11.
2. The product complies with EMC Test according to EN 61000-6-3:2001+A11:2004, EN 61000-6-1:2001, EN 61326-1:2013, IEC 61326:2012 and FCC Test according to PART 15.
3. Use of controls, adjustment procedures other than those specified herein may result in laser radiation exposure.
4. Never stare directly into the beam or aim the laser beams at others.
5. The product contains semiconductor laser diodes with wavelengths of 650 nanometers.
6. The total continuous output of the beams never exceeds 1.0 milli-watts.

Technical data	
Display	Color LCD
Measuring Range	0.05 m ~ 60 m
Resolution	0.001 m
Accuracy	±1.5 mm
Laser Type	650 nm, Class II, < 1 mw
Unit(Selectable)	m, ft, in, 0'0"1/32, 1/32in, 1/16in, 1/8in, 10/33
Battery Life	Up to 6,000 measures
Operation Temperature	-5°C ~ 40°C
Storage Temperature	-20°C ~ 60°C
Memory	50 set
IP Code	54
Automatic Power-Off	Laser-120 seconds Device-180 seconds
Battery	AAA x 2 PC. Included