

TOPEX

SKU:TXDMLAS192

TX192

OWNER'S MANUAL

60M LASER MEASURER



Thank you for buying this **LASER DISTANCE METER!**
Please read this manual carefully before using the product.

DESCRIPTION OF SYMBOLS

v	Volts	W	Watts
dc/—	Direct current		Read instruction manual
mW	Milliwatt		Regulatory Compliance Mark (RCM)
	Warning		Indoor use only
	Laser Light Laser Radiation		Do not put in the rubbish



GENERAL POWER TOOL SAFETY WARNINGS

⚠ WARNING

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. WORK AREA SAFETY

a. Keep the work area clean and well lit. Cluttered or dark areas invite accidents.

b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

c. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2. ELECTRICAL SAFETY

a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adaptor plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

b. Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use, reduces the risk of electric shock.

f. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

3. PERSONAL SAFETY

a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

b. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.

c. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

f. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

4. POWER TOOL USE AND CARE

a. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c. The plug must be removed from the socket-outlet before cleaning or maintaining the appliance.

d. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

e. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges

g. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5. Service

a. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

LASER DISTANCE METER SAFETY WARNINGS

Safety Rules

- Please do read all the clauses and operating instructions in the user manual before you use the product. Noncompliance of these safety terms may result to dangerous laser emission damage, electric shock and personal injuries.
- Don't try any ways to change the performance of the laser, which would cause the danger arisen by laser exposure. Turn on the laser only when you need to use the product.
- Besides, don't look straight at the laser light. The Laser Distance Meter needs safekeeping in case used by irrelevant personnel.
- Don't irradiate anyone in darkness deliberately.
- Don't irradiate onto the object with high reflective surface. Don't put it in the place where a child can reach it.
- Don't repair the meter without authorization. If it is damaged, please contact with local dealers.
- Electromagnetic radiation may interfere other equipments and device (for instance the medical instrument like pacemaker or hearing aid)
- Don't use the meter in flammable and explosive environment.
- Don't use the meter near medical instruments.
- Don't use the meter in a plane.
- Your disposal of the discard meter should be accordance with the local regulation.

BATTERY & LASER SAFETY WARNINGS

THIS MANUAL CONTAINS IMPORTANT SAFETY AND OPERATING INSTRUCTIONS FOR YOUR TOOL AND BATTERY

- DO NOT store or use the tool and battery pack in locations where the temperature may reach or exceed 40°C (such as inside sheds or metal buildings in summer).
- Do not incinerate the battery pack even if it is seriously damaged or is completely worn out. The battery can explode in a fire.

Additional safety instructions for laser lights

The laser light/laser radiation used in this laser unit is Class 2 with maximum 1mW and 650nm wavelengths. These lasers do not normally present an optical hazard, although staring at the beam may cause flash blindness.



WARNING! Do not stare directly at the laser beam. A hazard may exist if you deliberately stare into the beam. Please observe all safety rules as follows:

- The laser shall be used and maintained in accordance with the manufacturer's instructions.
- Never aim the beam at any person or an object other than the work piece.
- The laser beam shall not be deliberately aimed at personnel and shall be prevented from being directed towards the eye of a person for longer than 0.25s.
- Always ensure the laser beam is aimed at a sturdy work piece without reflective surface, i.e. wood or rough coated surfaces are acceptable. Bright shiny reflective sheet steel or the like is not suitable for laser use as the reflective surface could direct the beam back at the operator.
- Do not change the laser light assembly with a different type. Repairs must only be carried out by a power tool repairer.

Caution: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Please refer to the relevant Australian standards, AS 2397 and AS/NZS2211 for more information on Lasers.

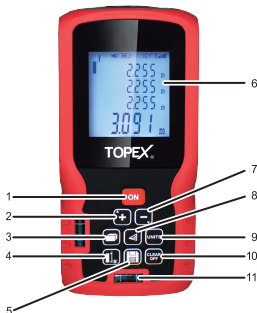
BELOW MATTERS ARE NOT ALLOWED TO BE PICKED UP

- Dry dust
- Big quantity of powder
- Big quantity of sand and stones
- Big quantity of rubbish
- Metal matters like needles, pins
- Big polybag and stockings
- Things easy to be dumped inside

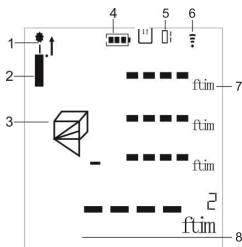
CAUTION

- Do not use it other than cleaning.
- This machine is for household use only.
- Do not heat the appliance or put it close to fire.
- Stop working if the water sprayer is blocked.
- Stop working if any foreign matters are taken in.
- Empty the tank before using again if anything blocked inside.
- Do not slant or ride on the machine.
- Do not use it in the scope touchable for kids.
- Not for outdoor use.
- Do not continue to use when the suction hole is blocked.

KNOW-HOW OF THE MACHINE



1. Measuring & Turn on
2. Addition
3. Area/Volume
4. Reference Point
5. Save
6. LCD Display
7. Subtraction
8. Pythagorean Mode
9. Units
10. Clear
11. Bubble Level



Display Screen

1. Laser on Indicator
2. Reference Edge Measuring Indicator
3. Area/Volume/Legs of A Triangle Laying Off Indicator
4. Battery Level Indicator
5. Storage Number Indicator
6. Signal Strength Indicator
7. Unit Indicator (Including Power and Cube)
8. Main Display Area

Measuring standard switch

Data clearing

Battery indicator

Signal strength indicator

Data storage

Continuous measurement(max/min)

Addition/subtraction

Volume/area/ Pythagorean measurement function

Button lifespan

1 billion times

Battery type and lifespan AAA alkaline battery (2*1.5),
until 15 thousand times

Weigh

104 g

Working temperature range

0 °C - 40 °C

Storage temperature range

-25 °C - 60 °C

SPECIFICATIONS

Technical reference

Measurement accuracy	+/-2 mm*
Unit	m/in/ft
Measurement range (no reflector)	60 m
Measurement time	0.1-3 s
Laser light level	II
Laser light type	635 nm,<1 mw
Dust proof and waterproof	IP54
Turn off the laser light automatically	17 s
Shutdown automatically	50 s
Illumination	white LED


*In unfavorable conditions(such as excessively strong ambient light, or excessively large or small of diffuse reflectance of the measuring position), the error will increase:+ 1 mm + 40 PPM

** In the unfavorable condition in which the sunlight is to excessive or the reflective light is weak, please use sighting target.

SETUP & PREPARATION

Stating up



Install/replace battery

Open the cover of the battery and put the battery into the battery compartment correctly, then close the cover. When the battery level is too low, the indicator for battery  will appear on the display. Please replace new battery as soon as possible at this time.



- Alkaline battery is suggested being used. In this way, the measure of the alkaline battery will relatively be reduced.
- When the meter will be out of use for a long period, please take out the battery.

Operation


Starting up/ shutdown

When the battery is installed, the meter will be on. If you long press , the meter will be shut down. Press the  when the meter is shutdown, and the meter will be on. The laser light and the backlight will turn off automatically within 60 seconds if there is no operation, and 6 minutes, shutdown itself.


Set

Long press  unit the icon on the display flickers. Then you can set the automatic turn on or turn off of the laser light and the buzzer, reference correction. You can press the + - to set the parameters and shortly press  to switch function set.

Reference edge

The reference edge by default is the back end of the meter. You can switch the reference edge by pressing . The default will be restored when the meter is shutdown.

Unit


Long press  can switch 6 kinds of units (as the below figure). The meter will remember the the last displayed unit.

Battery level indicator


When the three segment codes in the battery boxes all display, it indicates that the battery level is relatively full. The fewer segment codes displayed the lower battery level. When the boxes are empty, the battery should be replaced.

length	area	volume
0.000 m	0.000 m ²	0.000 m ³
0.00m	0.00 m ²	0.00 m ³
0.00 ft	0.00 ft ²	0.00 ft ³
0' 0" ^{1/16}	0.00 ft ²	0.00 ft ³
0.0in	0.00 ft ²	0.00 ft ³
0" ^{1/8} in	0.00 ft ²	0.00 ft ³

Clear function

Shortly press  the last indication. The clear button can clear the measuring result of a single measurement (area or volume) with same function in order to go to the next measurement.



Illumination

Long pressing  can turn on or turn off the display illumination.



When the five signals segments all displays, it means that the measuring signal strength is high. The fewer segments signals, the weaker measuring signal strength.


Measurement

Signal measurement

When the laser light is off, hort  can turn on the laser light. Then the laser indicator in the display will flicker. Short pressing  can measure again. The meter will save the normal measuring result automatically.


Continuous measurement

Shortly press  to turn on the laser light. And long press  to start continuous measurement. If you want to stop continuous measurement, stop pressing the button. During continuous measurement, the real time measurement value is shown in the main display area. And the maximum value (MAX) and the minimum value (MIN) are displayed in the secondary display area.

When continuous measurement in general measuring pattern, the secondary display area shows the minimum value; when continuous measurement in functional measuring pattern, the secondary display areas displays the maximum default of the hypotenuse measurement, and displays the minimum default of horizontal measurement. Long press  during measurement can switch between the maximum value and the minimum value.

Function

Addition/Subtraction

The measurement of the single distance, area and the volume can be measured through cumulative, regressive by the the addition/subtraction. Shortly pressing  can switch between addition and subtraction. Operational symbol will be displayed in the main display area.

Tips code and solution

During the use of the instrument, the instrument may appear the prompts as followed:

Information	reason	solution
b.L	The battery level is too low	Replace with a new battery
t.L	The temperature is too low	Raise the meter temperature
t.h	The temperature is too high	Lower the meter temperature
S.L	The signal is too weak	Measure the target portion with strong reflective ability or use the sighting target.
S.H	The signal is too strong	Measure the target portion with weak reflective ability or use the sighting target.
H.F	Wrong hardware	Restart the meter. If many times of startup & shutdown can't solve the problem, please contact with the local dealer.

TROUBLESHOOTING

Laser does not turn on

The batteries may be depleted, Ensure you have inserted 2 x AAA batteries with a full charge.

Make sure the batteries are in the correct direction as indicated by the engraving on the bottom metal plate inside the battery compartment.

The reference point will not change

The mode & reference button must be held down to change the measuring reference point.

Err 16

The measurement is outside the lasers working range.

MAINTENANCE

The batteries may be depleted, Ensure you have inserted 2 x AAA batteries with a full charge.

Make sure the batteries are in the correct direction as indicated by the engraving on the bottom metal plate inside the battery compartment.

CARING FOR THE ENVIRONMENT



Power tools that are no longer usable should not be disposed of with household waste but in an environmentally friendly way. Please recycle it where facilities exist. Check with your local council authority for recycling advice.



Recycling packaging reduces the need for landfill and raw materials. Reuse of recycled material decreases pollution in the environment. Please recycle packaging where facilities exist. Check with your local council authority for recycling advice.

WARRANTY

Your warranty form should be retained by you at all times. In order to make a claim under this warranty, you must return the product with your receipt of purchase. Prior to returning your product for warranty. Please contact us via our after sales support services.
EMAIL: support@topto.com.au

1 YEAR REPLACEMENT WARRANTY

Your product is guaranteed for a period of 12 months from the original date of purchase and is intended for DIY (Do It Yourself) use only. If a product is defective, it will be replaced in accordance with the terms of this warranty. Warranty excludes consumable parts, for example: driver bits.

WARNING

1. The following actions will result in the warranty being void.
Professional, Industrial or high frequency use.
2. If the tool has been operated on a supply voltage other than that specified on the tool.
3. If the tool shows signs of damage or defects caused by or resulting from abuse, accidents or alterations.
4. Failure to perform maintenance as set out within the instruction manual.
5. If the tool is disassembled or tampered with in any way.

How to get 1 extended year warranty?

This product comes with 1 year replacement warranty. However, you may get 1 extra year warranty with conditions. Please ask for detail by sending an email to **support@topto.com.au**



CUSTOMER SERVICE
& PARTS

Contact: support@topto.com.au