

**LASER THEODOLITE**

# DT-110L



Topcon opens the door to the 21st Century In the latest technology of Laser Theodolite with the Introduction of the DT-110L.

Since the introduction of our Waterproof DT-100 Series Digital Theodolite, Topcon has incorporated the same concept in our NEW DT-110L Laser Theodolite. The DT-110L is suitable for wet and damp conditions such as underground tunnel applications.

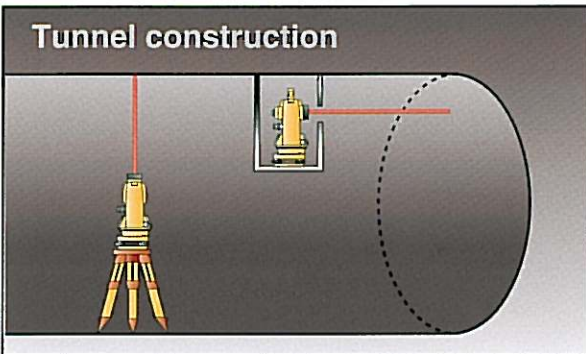
Our laser diode technology replaces the conventional helium neon laser tube. The benefit of using a laser diode in the DT-110L is the compact and light weight design and the instrument consumes less power. The DT-110L is powered by dry cell batteries that last up to 28 hours when only using the laser.

The NEW TOPCON WATERPROOF DT-110L is the most efficient and reliable laser theodolite for the professional engineer.



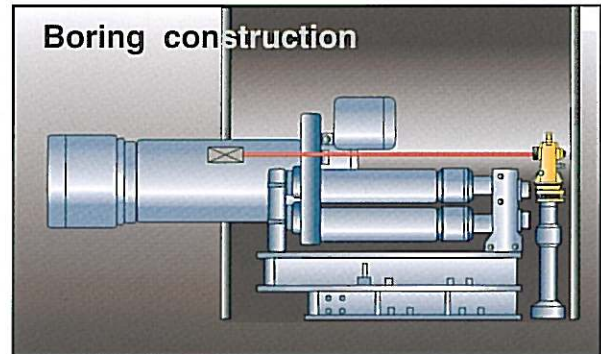
## Field Applications

### Tunnel construction



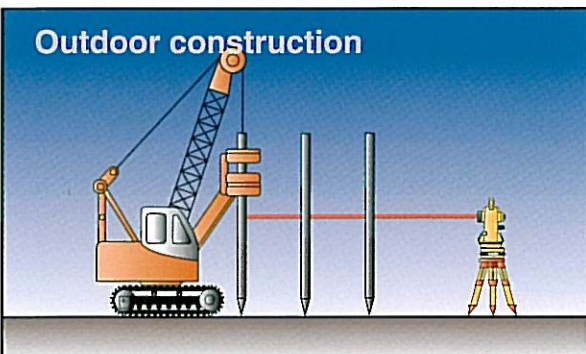
Setting control points and known points

### Boring construction



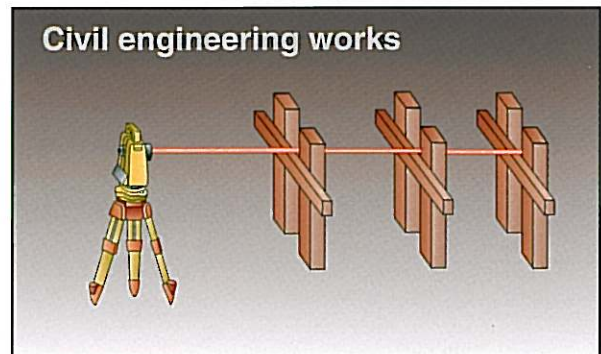
Control boring machine

### Outdoor construction



Vertical setting of steel columns/Plumbing  
Vertical lines

### Civil engineering works



Grade control

# Feature Benefits To Increase Work Productivity

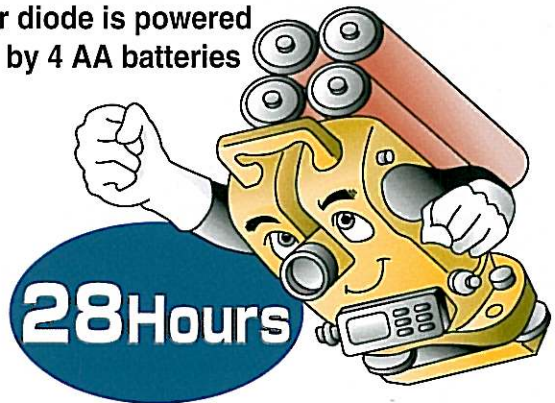
## 1 Waterproof

TOPCON's new Laser Theodolite DT-110L can stand up to any "Wet-Weather" conditions that occur on the job site (IPX-6). This makes the DT-110L particularly suitable for use in damp tunnel conditions where a laser theodolite is the perfect tool.

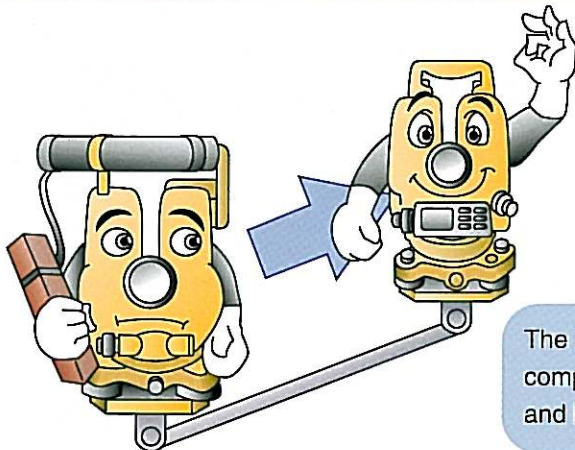


## 2 Longer Use With Dry Battery

※The laser diode is powered by 4 AA batteries



## 3 Compact & Light Weight



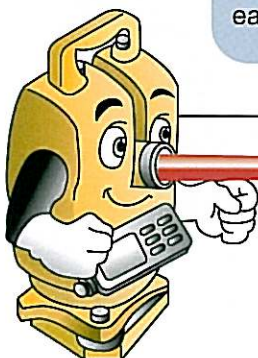
The DT-110L is extremely compact in size for portability and it weighs only 4.3 kg.

## 4 360° Rotating Telescope



## 5 Simple Operation & High Reliability

TOPCON has combined precise measurements in a functional package which is so easy to operate that anyone on the site can use it without the need of special training.



300m

Laser spot

◀12mmΦ

TOPCON uses a laser diode for longer laser life and reliability. A TOPCON laser diode is more convenient to use and easier to maintain than a He-Ne laser.

# SPECIFICATIONS

DT-110L (LASER)		DT-110L Angle Measurement	
Light source	LD	Method	Incremental reading
Wave length	633nm	Detecting	Horizontal : 2 sides
Laser class	Class 2		Vertical : 1 side
Laser diameter		Minimum reading	5"/10"
5m	0.2mmø		(1mgon/2mgon)
20m	0.8mmø	Accuracy *1	5"
50m	2mmø	Level Sensitivity	
100m	4mmø	Plate level	40"/2mm
200m	10mmø	Circular level	10'/2mm
300m	12mmø	<b>Compensator</b>	
<b>(THEODOLITE)</b>		Tilt sensor	Automatic Vertical
<b>Telescope</b>			compensator
Length	149mm	Compensating range	±3'
Objective Lens	40mm	<b>Power Supply</b>	
Magnification	30X	Battery	4 AA batteries
Image	Erect		
Field of view	1°30'	Operating time	28hrs Laser use Only
Resolving power	2.8"		11hrs Laser & Angle use
Minimum focus	1m	<b>Others</b>	
Stadia constant	—	Tribrach type	Detachable
Stadia ratio	—	Instrument height	176mm
<b>Optical Plummet Telescope</b>		Tangent screw	One speed
Magnification	3X	<b>Water Protection</b>	
Field of view	5°		Water proof
Focusing range	0.5m~∞	Standard *2	IPX6

\*1 Standard deviation based on DIN 18723

\*2 Standard based on IEC529

• Designs and specifications herein are subject to change without notice.

**Important** In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.

### STANDARD SET COMPOSITION

DT-110L(with lens cap),Carrying case ,Plumb Bob,Tool kit with case,  
AA battery,AC/DC converter,Silicon cloth,Instruction manual

### OPTIONAL ACCESSORIES

Diagonal eyepiece 13,Trough compass 5,Battery Pack BT-35,  
Battery Charger BC-26B/C, Power Cable PC-16



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