

# Theodolites



## The HLT Laser Theodolite Series

# THE BEST PERFORMER

## IN ITS PRICE CATEGORY



HORIZON HLT Laser Theodolite

### Product Features

Compactly built for precision, speed and durability the HLT Laser Theodolite series offers many advantages over conventional Electronic Theodolites

Unlike the conventional Electronic Theodolite, which requires you to sight or focus through the eyepiece, the integrated laser beam sights and measures to a specific point. This allows for ultra precise, to-the-point measurements. Because the Laser Beam and Telescope swivel simultaneously all you have to do is to point, focus and mark. This portable unit makes Pointing and Measuring anywhere, even under minimal lighting, a breeze.



A clear and wide LCD screen makes viewing the data even easier.

### Product Advantages

- No guesswork and hassle during bearing set-outs and markings
- Eliminates need to sight and focus optically through the instrument eyepiece. Just swivel, point, and measure
- Greater work efficiency when compared to Electronic Theodolites



Back View



Front View

HLTseries Laser Theodolite Specifications	HLT-02	HLT-05	HLT-10
<b>TELESCOPE</b>			
Image	Erect		
Magnification	30x		
Effective Aperture	45mm		
Resolving Power	4"		
Field of View	1° 30'		
Minimum Focusing Distance	1.5m		
Stadia Ratio	100		
Stadia Constant	0		
Tube Length	155mm		
<b>ANGLE MEASUREMENT</b>			
Measurement Method	Photoelectrical Scanning by Incremental Decoder		
Circle Diameter (VHz)	71mm		
Minimum Reading	1"/5"	1"/5"	5"/10"
Accuracy	2"	5"	10"
<b>DISPLAY</b>			
Display Type	LCD screen, both sides		
<b>COMPENSATOR</b>			
System	Liquid Electric Detection Type		
Compensator Range	±3'		
<b>LASER SPECIFICATIONS</b>			
Wavelength	635nm		
Operating Power	5mW		
Operating Distance	180m (daylight conditions)/ 800m (Night)		
Spot Diameter	3mm/50m, 5mm/100m		
<b>VIAL SENSITIVITY</b>			
Plate Vial	30"/ 2mm		
Circular Vial	8'/ 2mm		
<b>POWER SUPPLY</b>			
Battery	Ni-H Rechargeable Battery		
Output Voltage	6V DC		
Operating Duration	10hrs		
<b>OTHERS</b>			
Data Transfer Interface	RS-232C		
Operating Temperature	-20°C - +50°C		
Physical Dimensions	336mm x 195mm x 158mm		
Weight	4.6kg		

**Class II Laser Product.** Avoid Direct Contact with Eye

## Practical Applications

- Tunnelling survey
- Mining survey
- Piling work
- Fencing
- Marking of Bearings and Points
- Base Line Survey

## Standard Accessories



**Tool Kit**  
for light maintenance



**Hard Carry Case**  
Durable for robust use



**Adaptor**  
for power supply

## Optional Accessories



**Diagonal Eyepiece**  
For viewing odd angles



**Batteries Holder**  
For standard AA Batteries

**Instruction Manual included**

# SETTING THE STANDARD

## FOR ELECTRONIC THEODOLITES WORLDWIDE

### **The HORIZON Electronic Theodolite 1000 Series**

A top Electronic Theodolite in its class. The HORIZON Electronic Theodolite is equipped with a stable Compensator, robust housing, and a tough finishing.

The HORIZON Electronic Theodolite has been tested in markets like USA and Europe to ensure that it stands up to even the most stringent user expectations.

Equipped with simple programs and straightforward button-press operation, the HORIZON Electronic Theodolite is a proven standard mainstay in our continually developing product range.

### **Product Features**

- High Accuracy of - 2", 5" or 10" (model dependent)
- Minimum Reading - 1", 5" or 10" (model dependent)
- Data Communication - RS 232 port for exporting data to PCs
- Built-in reticule illumination for use in poor lighting situations



**HORIZON ET Electronic Theodolite Series**

ET series Electronic Theodolite Specifications	ET 1002	ET 1005	ET 1010
<b>TELESCOPE</b>			
Image	Erect		
Magnification	30x		
Effective aperture	45mm		
Resolving power	3"		
Field of view	1° 30'		
Minimum focusing distance	1.4m		
Stadia ratio	100		
Stadia constant	0		
Tube length	157mm		
<b>ANGLE MEASUREMENT</b>			
Measurement Method	Incremental Encoder		
Circle Diameter (V.Hz)	79mm		
Minimum Reading	1" or 5"	1" or 5"	5" or 10"
Accuracy	2"	5"	10"
<b>DISPLAY</b>			
Display Type	LCD screen, both sides, Double Line, Line		
<b>DATA COMMUNICATION</b>			
Data I/O	RS-232C		
<b>LEVEL</b>			
Plate Levels	30"/ 2mm		
Vertical Tilt Compensation (ET1002/ET1005)	Liquid Type (Electronic)		
Compensator Range	±3'		
Setting Accuracy	1"		
Circular Level	8' per 2mm		
<b>OPTICAL PLUMMET</b>			
Image	Erect		
Magnification	3x		
Focusing Range	0.5m to ∞		
Field of View	5°		
<b>PHYSICAL CHARACTERISTICS</b>			
Operating Temperature	30"/ 2mm		
Display (LCD)	Both Sides		
Internal Power Supply	Rechargeable NiMH		
Voltage	DC 6V		
Operating Time	8hrs		
Dimensions	160 x 150 x 330mm		
Weight	4.9kg/10.8 lbs		

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For viewing odd angles



**Hard Carry Case**  
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## Optional Accessories