

THE EVOLUTION CONTINUES...

THE HORIZON H70 SERIES TOTAL STATION. UPGRADED TO SERVE YOU BETTER

EXTENDED REFLECTORLESS
MEASUREMENT RANGE OF 500M

ABSOLUTE ENCODING NOW
A STANDARD IN ALL MODELS

UPGRADED SENSORS FOR
TEMPERATURE AND PRESSURE

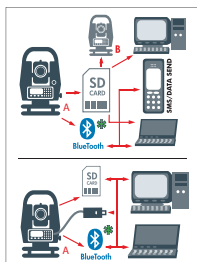
NEW ON-BOARD PROGRAM
TEMPERATURE AND PRESSURE
**TRAVERSE
ADJUSTMENT**

NEW ON-BOARD PROGRAM
COGO

Extended reflectorless range of 500m



New Panel and LCD Design



Data sharing possibilities
using external memory card
(Bluetooth integration is an option &
not incorporated as a standard feature)



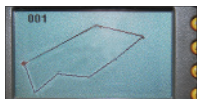
Dual compensator models



Automatic temperature &
pressure sensors



External memory card slot

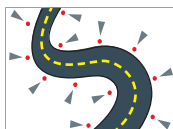


Graphical display capability

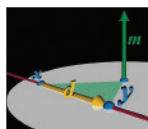
1. **Wide LCD panel with full background illumination** ensures easy viewing of on-screen data at all times. Redesigned keyboard panels with **ergonomic buttons** and user defined short-cut keys ensure ease of operation.
2. Built in **SD card interface** allows for easy and convenient data transfer, and facilitates large data storage
3. Built in **USB and RS-232 interface**
4. 500m reflectorless range
5. **Upgraded automatic Temperature and Pressure Sensor** in H70
6. **Dual compensator** used in H70 ensures added operation stability
7. Selectable language display currently include **English, Portuguese, German, and Chinese**. Display language customization possible
8. Graphical points with lines plotting and display in H70, allows for **plane viewing of surveyed points** on instrument screen.
9. New Upgraded EDM
10. New Rechargeable Li-ion Battery



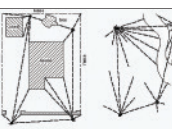
ONBOARD SOFTWARE CHOICES FOR H70 SERIES



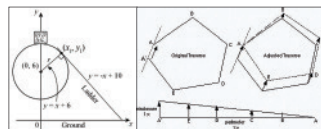
On-board Road Program



COGO Program



Traverse Adjustment



Users can choose either the **Road Design program** or **COGO & Traverse Adjustment Programs** to be included onboard. Please specify upon ordering



ASME LIANHE ZHAOBAO AWARD
2007 Singapore Prestige Brand
Winner, SPBA - Regional Brands

HORIZON®
MEASURE RIGHT

EVOLUTION OF HORIZON TOTAL STATION CONTINUES WITH THE NEW H70 SERIES



The new HORIZON H70 reflectorless series total station is now equipped with absolute encoding in all models to allow for significantly better vertical angle measurement stability, as compared with incremental encoding used in traditional instruments.

The operation simplicity for the instrument range has been retained, to allow for even first-time users to pick up the instrument and operate it with relative ease. In addition, 2 new on-board programs, COGO (Coordinate Geometry) and Traverse Adjustment, have been added to increase the functionality of the instrument, in line with HORIZON's belief in constant evolution in its products.

The instruments in this new range are capable of very rapid measurements like before, even with additional programs loaded on board.

HORIZON is also introducing its multilingual instrument platform, which currently supports English, Portuguese, German, and Chinese. We would be glad to discuss language customization possibilities with you upon request.



H70 reflectorless total station series has a standard measurement range of 500m. In addition, this range topping instrument is equipped with other exclusive features.

These include dual axis compensation for added stability, automatic pressure and temperature sensing, and graphical points and line plotting and viewing.

The H70 remains one of the leading instrument in terms of product features and value for money in the industry, and is designed as an instrument to cater to the rigors and requirements of most surveying and jobs.



Standard Accessories for H70 Series



Charger



Rechargeable Battery



Lens Cover



Plumb Bob



Tool Kit



Data Transfer Cable



Rain Cover



HORIZON H-Link Data Transfer Software



Operations Manual



Hard Carry Case

Optional Accessories



Diagonal Eyepiece
For viewing odd angles

H70 SERIES SPECIFICATIONS

MEASURE RIGHT	H71	H72	H73	H75
Type	Infra-red / Reflectorless			
Laser class	Visible Laser: Class III a (3R) (Reflectorless)/ Class II (2) (Prism, Retro-target)			
Conformity	IEC 60852-1:2001/ EN 60825-1: 1994 +A11 : 1996 (CE - Test Standard: EN 61000-6-1: 2007 & EN 61000-6-1: 2003 as shown in the Test Report Number: SHEMA09080087001)			
Telescope	Fully Transiting, Coaxial sighting and Distance measuring optics. Image: Erect. Magnification 30x. Objective aperture: 45mm (EDM:50mm). Resolving power: 3". Field of view: 1° 30' . Minimum focus: 1.2m, Reticle glass: ∞ mark printed. Reticle illumination: 5 brightness levels			
Angle Measurement	Photoelectrical absolute encoder scanning. Both circles adopt diametrical detection			
Display resolution	1"/5" selectable			
Angle Accuracy (ISO 17123-3)	Available in 1",2", 3" or 5"			
Distance measurement	Modulated laser type: 0.670µm, Basic Frequency: 60MHz, Coaxial EDM, Laser spot: 7 x 14mm/ 20m			
Unit of Measurement	Meters/ Feet Selectable			
Measurement range using:				
a. Single Prism	5000m (1",2" and 3")/ 4500m (5")* ¹			
b. Triple Prism	6000m (1",2" and 3")/ 5500m (5")			
c. Mini prism (25.4mm)	1500m (1",2" and 3")/ 1000m (5")			
d. HORIZON retro target	1200m (1",2" and 3")/ 1000m (5")			
e. Reflectorless (Long range)	900m(1",2" and 3")/500m (5")			
f. Reflectorless (Standard range)	500m* ³			
g. Display resolution	1mm			
Distance Measuring Accuracy				
a. Fine mode with prism	2mm + 2ppm x D (1",2" and 3")/ 3mm + 2ppm x D (5")* ⁴			
b. Track mode with prism	3mm + 2ppm x D (1",2" and 3")/ 4mm + 2ppm x D (5")			
c. Reflectorless mode (LR/SR)	3mm + 2ppm x D/ 5mm + 2ppm x D (1",2" and 3") / 5mm + 2ppm x D/ 7mm + 2ppm X D (5")			
Measuring time				
a. Fine mode with prism	1.2s (1",2" and 3")/ 1.4s (5")			
b. Track mode with prism	1s (initial), 0.9s (repeat) (1",2" and 3") 1.2s (initial), 1s (repeat) (5")			
c. Reflectorless mode	0.6s (initial), 0.4s (repeat) (1",2" and 3") / 0.8s (initial), 0.4 (repeat) (5")			
Vial Sensitivity	Plate vial: 30"/2mm, Circular Vial 8'/2mm			
Compensator				
System	Liquid Electric Detection type with 3' correction range			
Type	Dual Axis Compensator			
Graphical Plan display	LCD graphical survey plan display system of measurements, points lines and polygons. Zoom in, Zoom out, Panning features			
General				
Display and keypad	Alphanumeric/Dot Matrix LCD/ Full screen illumination using white backlight/ 28 keys/ dual keypads			
Data storage and transfer	SD card, RS232 and USB selectable. 100 000 points using SD card			
On board software programs	REM, MLM, Area 2D/3D, Point to Line, Layout, Resection, Offsets, Z Coordinates, Volume calculation, Road Design, COGO(Traverse, Line, Arc, Point Intersection, Inverse), Lead Traverse (Calculation, Adjustment and Balancing)			
Laser Pointer	Yes			
Tribrach type	Premium construction, dust and water proof, 3-pin forced groove detachable			
Plummet type	Selectable between Optical plummet: Erect image 3x magnification, focusing range: 0.3m to ∞, Field view 5° OR Laser plummet (Class II laser)			
Battery and charger	Compact Ni-H battery, 6V DC, Operation duration 8hrs (continuous), 16hrs (dormancy), quick battery charger with power cord, optional external battery (24hrs continuous operation time)			
Operating temperature range	-20°C to +55°C			
Sensors and Corrections	Auto sensing and correction. Refraction and Earth curvature correction: Selectable K=0.14/0.02			
Physical dimensions	200 x 180 x 350mm, 5.8kg weight			
Standard accessories	Carrying case, rain cover, Transfer cables (USB and RS232c), plumb bob, extra battery, charger with power cord, 1GB SD card, Manual, target board, HLink data transfer software			
Waterproofing standard	IP54			

*1 Under good conditions: no haze, overcast or moderate sunlight with very light heat shimmer. Range and accuracy are dependent on atmospheric conditions, background radiations, target used and its characteristics (i.e. color, background, geometric shape, contrast, size, dimensions, material etc)

KODAK is a trademark of Eastern Kodak Company

*2 Using the HORIZON supplied target board, grey side (KODAK Standard A4 x 18% x gray 0.18:).

*3 Under low light conditions or when target is shadowed. The time required to measure may vary according to shape, size, surface are, reflectiveness of target and weather conditions.

*4 D= measured distance, unit: mm

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