

THE EVOLUTION CONTINUES...

THE IMPROVED HTS-580 SERIES TOTAL STATION

**EXTENDED REFLECTORLESS
MEASURING RANGE TO 300M**
(FOR HTS-580AGX SERIES)

**ABSOLUTE ENCODING NOW
A STANDARD IN ALL MODELS**

**UPGRADED SENSORS FOR
TEMPERATURE AND PRESSURE**
(FOR HTS-580AGX SERIES)

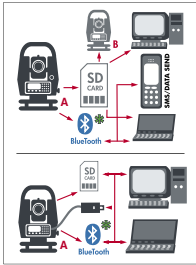
**NEW ON-BOARD PROGRAM
TRAVERSE
ADJUSTMENT**

**NEW ON-BOARD PROGRAM
COGO**

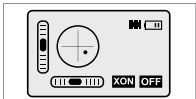
THE ALL NEW & UPGRADED FEATURES



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

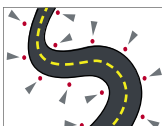


Graphical display capability

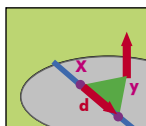
- 1. Wide LCD panel with full background illumination** ensures easy viewing of on-screen data at all times. Redesigned keyboard panels with **ergonomic buttons** and user defined short-cut keys ensure ease of operation.
- 2. Built in SD card interface** allows for easy and convenient data transfer, and facilitates large data storage.
- 3. Built in USB and RS-232 interface.**
- 4. 200m reflectorless range** for the HTS-580ARX and 300m range for the HTS-580AGX.
- 5. Upgraded automatic Temperature and Pressure Sensor** in the HTS-580AGX.
- 6. Dual compensator** used in the HTS-580AGX 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 the HTS-580AGX, allows for **plane viewing of surveyed points** on instrument screen.



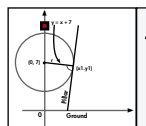
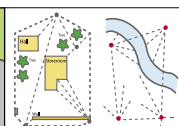
ONBOARD SOFTWARE CHOICES FOR HTS-580A SERIES



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.

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Winner, SPBA - Regional Brands

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EVOLUTION OF HORIZON TOTAL STATION CONTINUES WITH THE NEW HTS-580 SERIES DEBUT..



The new HORIZON HTS-580 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.

The HTS-580 series currently comprises of 3 models in its product line up, namely the HTS-580A, the HTS-580ARX, and the HTS-580AGX. All 3 models are available in 2", 3" or 5" accuracies.

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

HTS-580A series

The basic infra-red total station in the series. This instrument is designed as a simple, straight forward instrument, targeted toward users who are

considering using total stations in their work without stretching their budgets. Despite its competitive pricing, its build quality and operational reliability are never compromised, consistent with HORIZON's policy to deliver its best for its clients at all times.

HTS-580ARX series

A reflectorless total station series, with a measurement range of 200m. Identical to the HTS-580A series except for the increased choice and convenience of measurement utilizing laser in addition to prisms and reflectors.

The HTS-580ARX series is the ideal candidate of the series for users who seek a balance between operational convenience, efficiency and economical considerations.

HTS-580AGX series

An enhanced reflectorless total station series, with a standard measurement range of 300m. 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 HTS-580AGX 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 HTS Series



Charger



Rechargeable Battery



Lens Cover



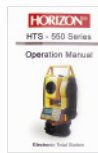
Plumb Bob



Tool Kit



Data Transfer Cable



Operations Manual



HORIZON H-Link Data Transfer Software



2GB Memory Card



Hard Carry Case



Rain Cover

Optional Accessories



Diagonal Eyepiece
For viewing odd angles

	HTS-580A (HTS-582A / HTS-583A / HTS-585A)	HTS-580ARX (HTS-582ARX/ HTS-583ARX/ HTS-585ARX)	HTS-580AGX (HTS-582AGX / HTS-583AGX / HTS-585AGX)
Type	Infra-Red (Requires Reflector)	Reflectorless	
Laser class	IEC 60852-1:2001/ EN 60825-1: 1994 + A11 : 1996		
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: SHEMO09080087001)		
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 level		
Angle Measurement	Photoelectrical absolute encoder scanning. Both circles adopt diametrical detection		
Display resolution	1"/5" selectable		
Angle Accuracy (ISO 17123-3)	Available in 2", 3" & 5"	Available in 2", 3" & 5"	Available in 2", 3" & 5"
Distance measurement	Infra-Red laser	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	2500m	5000m (2" and 3")/ 4500m (5")*1	
b. Triple Prism	6000m (2" & 3")/ 5500m (5")		
c. Mini prism (25.4mm)	1500m (2" & 3")/ 1000m (5")		
d. HORIZON retro target	1200m (2" & 3")/ 1000m (5")		
e. Reflectorless (Long Range)	NA	900m (2" & 3")/ 500m (5")*2	
f. Reflectorless (Standard range)	NA	200m *3	300m *3
g. Display resolution	1mm		
Distance Measuring Accuracy			
a. Fine mode with prism	2mm + 2ppm x D	2mm + 2ppm x D *4	
b. Track mode with prism	3mm + 2ppm x D (2" & 3")/ 4mm + 2ppm x D (5")		
c. Reflectorless mode (LR/SR)	NA	3mm + 2ppm x D/ 5mm + 2ppm x D (2" & 3") / 5mm + 2ppm x D/ 7mm + 2ppm X D (5")	
Measuring time			
a. Fine mode with prism	1.2s (2" & 3")/ 1.4s (5")		
b. Track mode with prism	1s (initial), 0.9s (repeat) (2" & 3") / 1.2s (initial), 1s (repeat) (5")		
c. Reflectorless mode	NA	0.6s (initial), 0.4s(repeat) (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	Single Axis Compensator	Dual Axis Compensator	
Graphical Plan display	NA	LCD graphical survey plan display system of measurements, Points, Lines & Polygons. Zoom in, Zoom out and Pan facility	
General			
Display and keypad	Alphanumeric/Dot Matrix LCD/ Full screen illumination using white backlight/ 28 keys/ dual keypads		
Data storage and transfer	100,000 points internal & external SD card compatibility, RS232c, USB selectable, Bluetooth® (Optional)		
On board software programs	REM, MLM, Area 2D/3D, Point to Line, Layout, Resection, Offsets, Z Coordinates, Volume calculation (Cut & Fill), Road Design, COGO(Traverse, Line, Arc, Point Intersection, Inverse), Lead Traverse (Calculation, Adjustment and Balancing)		
Laser Pointer	No	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	Manual input for temperature and pressure. Refraction and Earth curvature correction: Selectable K=0.14/0.02	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, 2GB SD card, Operational Manual, target board, HORIZON 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)

*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

*2 Using the HORIZON supplied target board, grey side (KODAK Standard A4 x 18% x gray 0.18:). KODAK is a trademark of Eastern Kodak Company

Illustrations, descriptions, and technical specifications are not binding and subject to change without prior notice. HORIZON is a registered trademark of Survey Instruments Services Pte Ltd.

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