TOPCON

IS-3
IMAGING STATION

A New Way to Scan

- Scanning, imaging and robotic total station
- Two digital cameras – wide angle and tele-zoom
- Long range scanning
- Dual communication 2.4 GHz radio and Wi-Fi
- 2,000 m reflectorless measurement

The power, accuracy, and speed of a total station with the auto-scanning capabilities of a laser scanner; Topcon's IS-3 takes material management, as-built design, and structural/environmental monitoring out of the clouds and puts it at your fingertip.

Topcon's IS-3 combines the best of two worlds, advanced imaging and high-accuracy surveying, incorporating real-time field imagery with spatial data. The IS-3's powerful functionality is controlled using Topcon's exclusive ImageMaster™ software that produces "photography with dimension", a revolutionary and cost effective alternative to laser scanning.

Long range scanning

Nobody can provide the combination of laser scanning and robotic surveying like Topcon with the IS-3. With the long non-prism range of up to 2,000 m, the robotic instrument can now scan long distances as well. Mining and monitoring applications can be accomplished with the IS-3.

Remote networking

The IS-3 has WLAN capability and can be controlled remotely. Imagine sitting in the comfort of your office or vehicle and being able to scan, measure, control, and see what the IS-3 is seeing.

Continuous monitoring

With a Wi-Fi connection, image-based monitoring can be done continuously and remotely. Whether done with mounted prisms or reflectorlessly, this monitoring function compliments the everyday use function of our robotic surveying. The IS-3 features *Bluetooth*® and Wi-Fi technology making continuous monitoring easy.

Touch Drive - turn and select a point on screen

Simply touch the screen image to drive the cross hairs where you want. For the highest degree of data accuracy, clarity of image is key. That's why Topcon incorporates telescopic zoom with an LCD. Using the telescope, pinpoint features to be measured or monitored precisely up to 2,000 m away.

Spread spectrum wireless
+ Wi-Fi built-in
Powerful 2,000 m
reflectorless EDM
Protected compact
flash card slot
Live color image display and
Windows® CE touch screen
Assist focus with
focus knob
Servo motors
with auto track
Digital camera
wide 4X view
Through the lens
camera 30X view
On-board battery

Angle Measurement	
Method	Absolute Reading
Minimum Reading	1”/5” (0.1 / 0.5 mgon)
Accuracy	1”, 3”, 5” (0.3 mgon)
Tilt Correction	Dual Axis
Compensating Range	± 1.8 m
Distance Measurement	
Prism Mode	
1 prism	3,000 m
3 prism	4,000 m
9 prism	5,000 m
Accuracy (Fine)	± (2 mm + 2 ppmxD) m.s.e.
Non-Prism Mode	1.5 m - 250 m
NP Accuracy (Fine)	± (3 mm) m.s.e.
Non-Prism Long Mode	5.0 m - 2,000 m
NP Long Mode Accuracy	± (10 mm + 10 ppmxD) m.s.e.
Imaging	
Cameras (2)	1.3 megapixel
Image speed	1 - 10 fps
Scanning	Max 20 pts/sec
User Interface	
OS	Microsoft Windows® CE.NET 4.2
Processor	Intel® PXA255 400 MHz
Screen	Full Color Touch-screen

Six on-board scanning methods

- Grid Scan by Specified Plane
- Grid Scan by Square
- Grid Scan by Polygon
- Grid Scan by 1-Line
- Grid Scan by All-Around
- Feature Scan (all the above)

How it works

The Topcon IS-3 features dual digital imaging cameras providing a color, real-time image on the touch LCD display.

To define a scan area, simply tap the image display, or for uniform measurement of an area, select the grid feature. The IS-3 “locks” these points to their exact position on the image, even when the instrument is rotated.

Once all points to be measured are chosen, the IS-3 performs a reflectorless measurement of each point.

2,000 m reflectorless EDM

- Long range power means unsurpassed short range performance
- Most powerful reflectorless EDM available
- Pinpoint accuracy with narrow, focused beam

Integrated radio system

- 2.4 GHz Interference free spread spectrum radio + Wi-Fi
- Optional RC-4 long-range radio and QuickLock
- Optional WT-100 long-range Wi-Fi

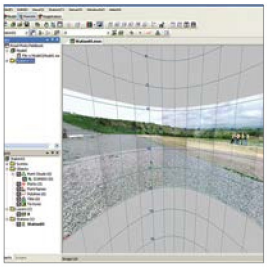

Photo fieldbook

- A 360˚ panoramic image from any occupation point
- Document the jobsite with photographs referenced on the horizontal and vertical angle grid

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For more information:
topconpositioning.com/is-3

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