



- A robotic instrument and much more
- Two digital cameras – wide angle and 30X tele-zoom
- Long range scanning
- Dual communication 2.4 GHz radio and WiFi
- 6,500' (2,000m) reflectorless measurement

Does more than a robotic instrument! Does more than a laser scanner!
The Topcon IS-3 combines the power of both a laser scanner and a robotic instrument into one superior long-range, imaging robotic system.

How it Works

Topcon's 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.



SS Wireless + WiFi
Radio Built-in

Assist Focus with
Focus Knob

Powerful 6,500' (2,000m)
Reflectorless EDM

Protected CF
Card Slot

Servo Motors with
Auto Track

Digital Camera
Wide 4X View

Live Color
Image Display

On-board
Battery

Windows CE
Touch Screen

Through the Lens
Camera 30X View

The new Topcon Imaging Station, the IS-3! The world's first long-range robotic scanning instrument.

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 fingertips...

A new way to scan

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. The long non-prism (6,500' (2,000m)) robotic instrument now can scan long ranges 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.

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 a LCD. Using the telescope, pinpoint features to be measured or monitored precisely up to 6,500' (2,000m) away.

Continuous Monitoring

With a WiFi 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 WiFi wireless technology making continuous monitoring easy.



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)

6,500' (2,000m) Reflectorless EDM Technology

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

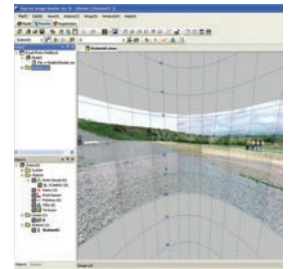


Integrated Radio System

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

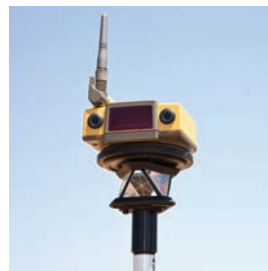
Photo Fieldbook

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



Set points to scan on the LCD with a tap...

Whether monitoring a mine, creating volume calculations, creating an area topo, structural/environmental monitoring, or even documenting as built, Topcon's IS-3 provides a value-priced alternative to laser scanning.



- Advanced new prism tracking
- Maintains lock in tough environments
- Fast and accurate lock
- Extended RC-4 range

Recommended Systems

Robotic Package

- Topcon IS-3
- Robotic Kit
- On-board TopSURV
- ImageMaster IS Version

Applications: Topographic Land Surveys, Boundary Surveys, Construction Layout, Scanning from on-board TopSURV, Scanning from WiFi connected ImageMaster running on a PC.

Scanning Package

- Topcon IS-3
- ImageMaster Standard Version
- On-board TopSURV

Applications:

Long-range Scanning: quarry, mining, construction site, landfills.
Mid-range Scanning: bridge, embankments, dams, levy, monitoring.
Short-range Scanning: interior of buildings, lot as-builts.

The IS-3 and accessories fit into one case

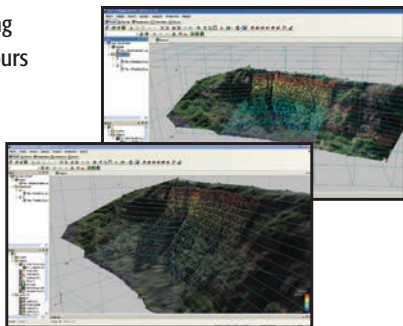
- Imaging Station
- Carrying Case
- (3) Batteries BT-65Q
- (1) Double Charger
- Tribrach
- USB Cable
- On-board TopSURV
- ImageMaster IS
- CDs Support Material
- (2) Carrying Straps
- Sun and Rain Shields



ImageMaster™ Software

ImageMaster provides image and scan control of the IS-3 through WiFi connection providing remote operation from the comfort of your vehicle or even an offsite location. Images are gathered using two digital cameras and stream video up to 10 fps.

- TIN
- Texture Mapping
- Volumes/Contours



SPECIFICATIONS

ANGLE MEASUREMENT

Method	Absolute Reading
Minimum Reading	1"/5" (0.1/0.5mgon)
Accuracy	1", 3", 5" (0.3mgon)
Tilt Correction	Dual Axis
Compensating Range	±6' (1.8m)

DISTANCE MEASUREMENT

Prism Mode	
1 prism	9,840' (3,000m)
3 prism	13,120' (4,000m)
9 prism	16,400' (5,000m)
Accuracy	
Fine	±(2mm+2ppmxD*) m.s.e.
Non-Prism Mode	4.9' - 820' (1.5m - 250m)
NP Accuracy	
Fine	±(3mm) m.s.e.
Non-Prism Long Mode	16.4' - 6,500' (5.0m - 2,000m)
NP Long Mode Accuracy	±(10mm+10ppmxD*) m.s.e.

IMAGING

Cameras	(2) 1.3mp
Image speed	1 - 10fps
Scanning	Max 20 pts/sec

USER INTERFACE

OS	Microsoft Windows® CE.NET 4.2
Processor	Intel® PXA255 400Mhz
Screen	Full Color Touch-screen

The Leader in Positioning Technology...

Topcon offers positioning products that deliver unparalleled site-wide performance and integration. Topcon's history of technological advances and our reputation for superior reliability means there's no other company positioned to provide you with a better "Total Positioning Solution."

From survey to inspection, Topcon dealers throughout the world provide innovative technology that gives surveyors, civil engineers, contractors, equipment owners, and operators the competitive edge by addressing such critical issues as increasing profits, quality craftsmanship, improving productivity, lowering operating costs, and enhancing jobsite safety.

Full positioning integration field-to-finish: That's the goal of Topcon. When it's time for you to step up to the next level, it's time to turn to Topcon.

The Leader in Customer Satisfaction...

To ensure that your Topcon product maintains peak performance, your local Topcon dealer offers factory trained and certified service technicians. If service isn't available in your area, our factory offers a repair and return policy second to none.

Your local Authorized Topcon dealer is:



7400 National Drive • Livermore • CA 94550
(925) 245-8300