

# **Excavator 3D Machine Control**





- Eliminate Over Excavation
- Cut Flat to Vertical Surfaces
- Bright, Easy-to-use Touch Screen
- Cut Grade Fast and Accurate, the First Time
- Improve Job Safety

## X-63i Machine Control System

Now you can experience the benefits of Topcon's GPS+ grade control in your excavator. X-63i combines the advantages of our industry leading GPS+ technology together with an industry standard operator interface.

Topcon's X-63i consists of two GPS+ antennas, four 360° tilt sensors that measure the angles between the cab, boom, stick and bucket, a GPS+ receiver and Topcon's GX-60 color, touch sensitive Graphical Display.

With X-63i, you'll eliminate over-excavation and control material usage saving time and money. X-63i gets you to grade faster, and keeps you there, even in deep, blind cut situations or when digging under water. The Graphical Display allows the operator to "see" the machines exact position on the site, and the buckets position at all times.

Final grade, and the distance of the bucket teeth from it, is clearly displayed on the Graphical Display, and the cut/fill indicator simply and clearly guides the operator to grade; red = cut, green = on grade, blue = fill. Multiple views can even be used when more detailed information is required including plan, profile, sectional and dual grade indicatons. The best part is, X-63i virtually eliminates the need for a grade checker to constantly monitor depth, increasing crew safety.

X-63i even provides the ability to set up to six different bucket sizes. Need to change buckets during the job? No problem. Simply attach the new bucket, choose it on the control box, and you're on your way.





Touch sensitive display (GX-60)

Environmentally sealed (TS-1)

- 650 MHz, Windows XP operating system
- USB, Ethernet, RS-485, CAN, & RS-232
- Interchangeable with all machine types





#### **GPS** Antenna

**Tilt Sensor** 

No moving parts

3-axis, 360° sensor

CAN bus interface0.01 degree resolution

- Rugged housing to work with any machine control system (PG-S3)
- Lightweight
- Full constellation tracking
- Fence Antenna™ technology



#### **GPS+ Receiver**

- Network modem, UHF and spread spectrum radio options available
- Vanguard Technology™
- Sitelink3D<sup>™</sup> ready
- Single or Dual GNSS options (MC-i3)

#### **Increasing productivity**

With Topcon X-63i systems you will get to grade faster, be more accurate and therefore save time, material and money. Especially road construction, landfill slopes, underwater digging or other earthmoving applications. With an additional standard sensor a tilt bucket can be controlled. In combination, slopes, profiles and flat surfaces can be excavated fast and accurate in any bucket position.

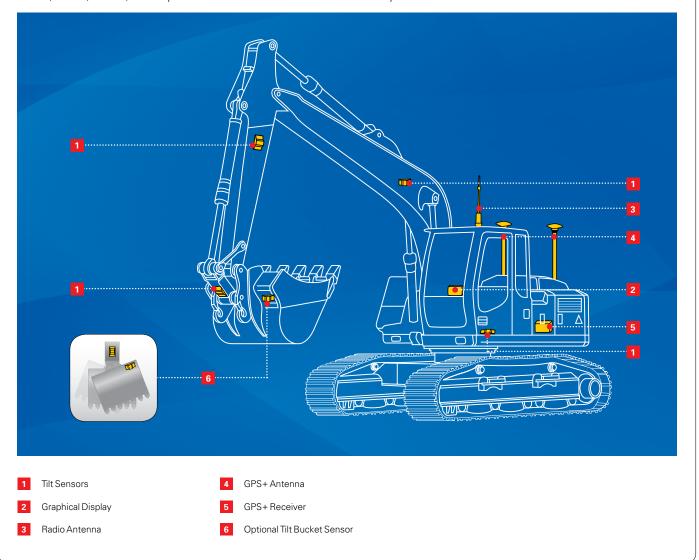
Topcon 3D will not only help in finishing, also the planning of dump trucks will be more accurate.





#### **TOPCON'S X-63i EXCAVATOR INDICATE SYSTEMS**

Flexible, reliable, durable, and easy-to-use. It's the world's most advanced indicate system.



#### **GPS+** Base Station or Reference Network

When using satellite control in real time, centimeter accuracies can be achieved. A GPS+ base station is set over a known point and corrections are calculated and transmitted to machinery and survey crew in real time. The base station can be located several kilometers away, so no line-of-sight is needed. Multiple machines and survey crews can use the same correction signal simultaneously.

When a GPS+ reference network is available, the machine can pick the correction signals up using GSM and N-Trip. Via this way a base station is eliminated and the machine system is even more flexible.





#### **SPECIFICATIONS**

Supply Voltage	10-30 Volts
Environmental	
Operating Temperature	-20°C to 60°C
Water Proof	MIL STD 810D Method 506 or IPX6
Warranty	
Standard	1 Year
Control Box	
Display	VGA full-color touch screen
Data/Memory Port	USB, Ethernet
Operating System	Windows®
Backlight	Auto adjusting

For more specifications information: www.topcon-positioning.eu

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### sitelink3D

**SiteLink3D** connects all parts of a construction site together – people, data, devices, machines – no matter where they are. It's the one system that provides a way to manage construction projects and resources effectively.

What drives the system? - The heart is the Enterprise cloud server that manages data and services. Data and services are securely separated by customer organization and through comprehensive user-access controls. SiteLink3D constantly measures site progress



through volumetric monitoring and provides real-time and ad-hoc volume analysis reports.

**Real-time overview** - The smart thing of SiteLink3D is that it tracks the real-time as-built surface, the only system that has this feature. The system keeps a real-time update of the current state of the job site and the surface. It tracks surface volumes and exactly calculates how much dirt is moved and how much more there is to move and presents this to those that need it; site manager, surveyor and operator. **Site communication** - Every person connected with SiteLink3D is able to communicate and collaborate remotely, no matter where they are. Fewer people will need to waste time driving around the job site, stopping the work to update information as sending files and communication is done directly on the control box or field computer.

**Cloud data** - SiteLink3D uses a seamless cloud model for data warehousing and distribution. By separating data and web services, SiteLink3D sets the benchmark for job site communications and project data management and provides an open architecture for contractors, sub-contractors, surveyors, engineers, OEMs and third-party participants in projects to share data and services.

Topcon Europe Positioning, B.V • Essebaan 11 • 2908 LJ - Capelle a/d IJssel • The Netherlands (+31) 10 4585077

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