

## EXCAVATOR 3D MACHINE CONTROL



### GPS+ based grade reference for reliable, site wide grade control

- Eliminate over excavation
- Cut flat to vertical surfaces
- Multi-boom support
- Bright, easy-to-use color touch screen
- Cut grade fast and accurate, the first time
- Keep the grade checker out of the trench

**It's time.**

**N**ow you can experience the benefits of Topcon's GPS+ grade control in your excavator. 3DXi combines the advantages of our industry leading GPS+ technology together with our industry standard operator interface.

Topcon's 3DXi consists of two GPS+ antenna, four 360° tilt sensors that measure the angles between the cab, boom, stick and bucket, a GPS+ receiver and Topcon's GX-60 colour, touch sensitive Graphical Display.

With 3DXi, you'll eliminate over excavation and control material usage saving you time and money. 3DXi 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 machine's exact position on the site, and the bucket's 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 indicators. The best part is 3DXi virtually eliminates the need for a grade checker to constantly monitor depth, increasing crew safety.

3DXi 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.



## **A combination of reliable, rugged components and unmatched innovation and performance. Topcon's 3D sets the standard for excavator indicate technology.**



### **Graphical Display**

- Touch sensitive display
- 650 MHz, Windows XP operating system
- Bluetooth wireless technology
- USB, Ethernet, RS-485, CAN, & RS-232 ports with USB memory support
- Ambient Light Sensor for Sharp Contrast



### **Tilt Sensor**

- Environmentally sealed
- No moving parts
- 3-axis, 360° sensor
- CAN bus interface
- use as tilt-bucket sensor
- 0.01 degree resolution



### **GPS+ Antenna**

- Single antenna
- GPS + GLONASS
- Earthmoving designed



### **GPS+ Receiver**

- GPS + GLONASS
- Up to 20Hz
- Dual receiver
- Rugged housing
- Integrated Radio receiver

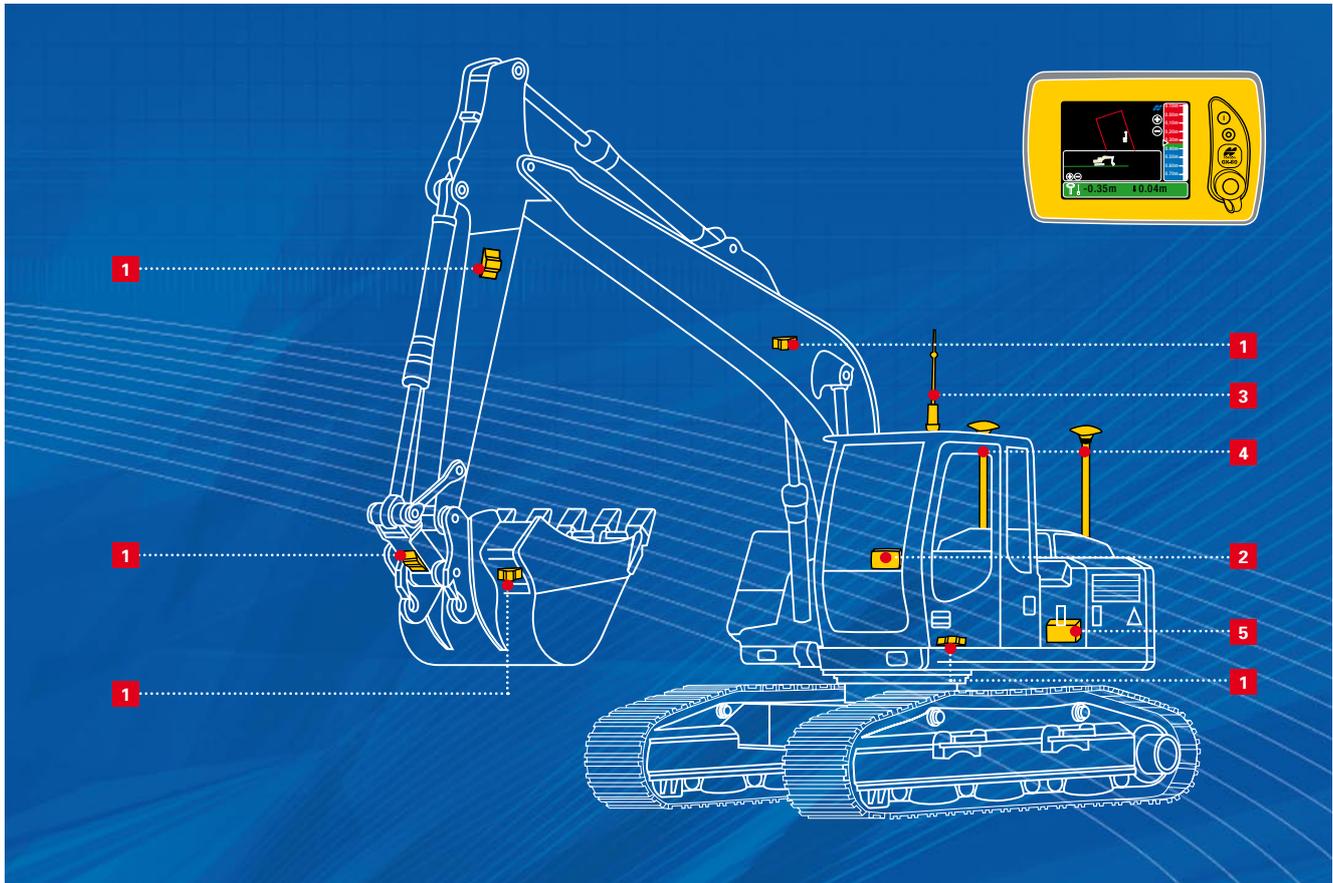
## **Increasing productivity**

With Topcon 3DXi 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 earth moving 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.

3DXi control is the perfect solution. Topcon 3D will not only help the operator in finishing also the planning of dump trucks will be more consistent.

## Topcon's 3DXi excavator indicate systems

Flexible, reliable, durable, and easy-to-use. It's the world's most advanced indicate system, and everything you've come to expect from Topcon.



- |                        |                        |
|------------------------|------------------------|
| <b>1</b> Tilt Sensors  | <b>4</b> GPS+ Antenna  |
| <b>2</b> GX-60 Display | <b>5</b> GPS+ Receiver |
| <b>3</b> Radio Antenna |                        |



### 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.



**It's time.**

### 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, through our dealer network, provides the 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 job site 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 instruments maintains peak performance, your local Topcon dealer offers factory trained and certified service technicians. If service isn't available in your area, our European Service Center offers a repair and return policy second to none.



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### 3DXi GPS+ Excavator Control

#### When you're ready, upgrade 2DXi to the World's most advanced 3D excavator system, Topcon's 3DXi ...

Experience the benefits of Topcon's satellite positioning based 3DXi GPS+ excavator grade control. 3DXi provides all of the advantages of satellite positioning technology with the superior performance and usability of Topcon's 2DXi machine control. In addition to 2DXi features like complex designs, viewable bucket position, and increased safety, 3DXi enables the operator to "see" his machine's exact position within the site. 3DXi also provides for multiple angle views of the machine, perfect when more detailed information is required on complex jobs. Choose from plan, profile, sectional and dual grade indication.



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