

## DOZER GPS+ CONTROL



### Easy to use, flexible 3D control

- GPS + GLONASS coverage
- Advanced user interface
- Multiple jobsite view
- cm level accuracy
- Variable application systems

## It's time.

**T**opcon's 3D dozer GPS+ systems represent a giant leap in dozer automation. Completely user friendly, user definable and upgradeable, they're flexible to apply to even the most difficult jobs. 3D GPS+ control featuring GPS and GLONASS dual constellation, intuitive software and smooth, consistent hydraulic response – fully exchangeable to Topcon's 2D laser control or 3DMC LPS total station control. 3D GPS+ forms the ultimate platform for complete automatic dozer control.

The 3D GPS+ control system includes a 100% slope sensor to measure the blade's slope, in case one GPS+ receiver is used. When using two masts and two GPS+ receivers the slope sensor is not needed. The system will calculate slope, elevation and direction automatically. Comparing the actual blade's position and slope to a pre-defined design model, complete automatic control is there to use.

With 3D dozer GPS+ control, you'll eliminate over cutting and control material usage saving you time and money. With these systems the operator is really in control. Slope, elevation, speed and efficient.

### Same reference, same software

3D GPS+ gives you the flexibility to use multiple machines and survey crews with the same reference. On top of this, all construction machinery using Topcon's 3D systems are interfaced with the same software. Excavators, dozers, motor graders, pavers and even survey crews, all work with the same user-friendly software.

## A combination of reliable, ruggedized components, unmatched innovation and performance.



### Graphical display

- High resolution, touch screen
- Easy to view graphical information
- Smooth, consistent hydraulic response
- Internal memory



### Slope sensor

- Waterproof
- Dustproof
- No manual adjustment
- Up to 100% slope



### GPS+ receiver

- GPS + GLONASS
- Up to 20Hz
- Single or dual receiver
- Rugged housing
- Integrated radio and SIM slot
- Integrated valve drivers



### GPS antenna

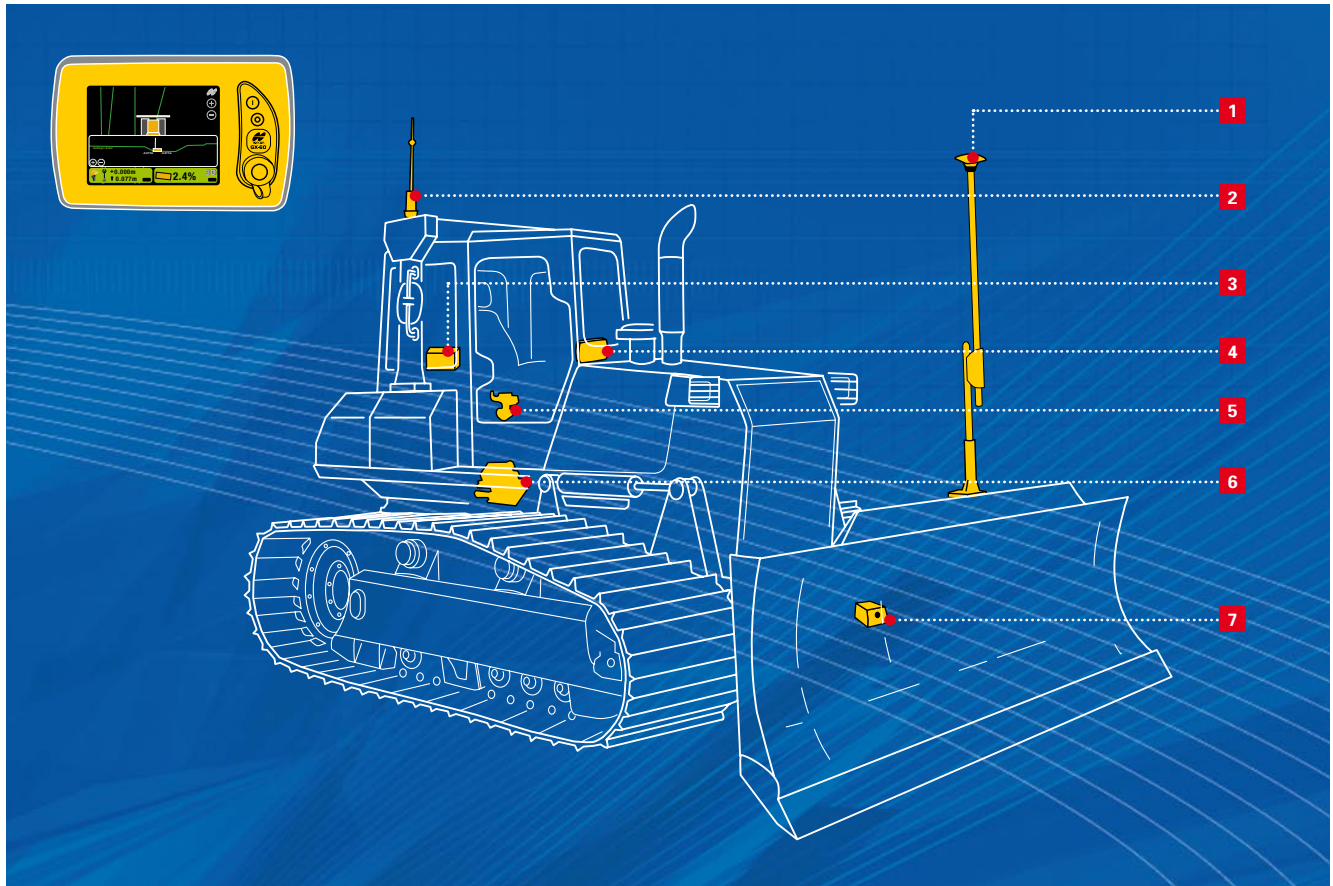
- Single antenna
- Twin antenna
- Earth-moving designed
- Dual mast/antenna

### 3D GPS+ control – the system that grows as you grow

3D GPS+ control ties in with Topcon's 2D laser control systems. All Topcon machine control solutions are back and forth upgradeable. In case mm accuracy in elevation is required, the LazerZone technology can be added. By setting up the LazerZone and sensor on the machine, you finish grade with all the benefits of GPS+ and the accuracy of a laser.

## Topcon's GPS+ dozer systems

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



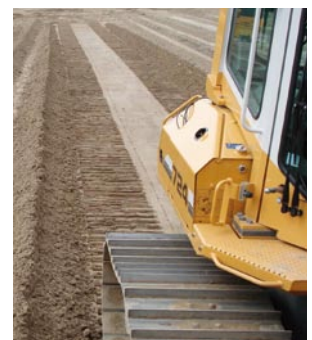
- |                        |                            |                       |
|------------------------|----------------------------|-----------------------|
| <b>1</b> GPS+ antenna  | <b>4</b> Graphical display | <b>7</b> Slope sensor |
| <b>2</b> Radio antenna | <b>5</b> Automatic switch  |                       |
| <b>3</b> GPS+ receiver | <b>6</b> Hydraulic valve   |                       |



### 3DMC<sup>2</sup>

When adding Topcon's state of the art 3DMC<sup>2</sup> sensor, the fine grading speed of the dozer will be improved to third gear reaching mm accuracies.

The technology driving 3DMC<sup>2</sup> combines cutting-edge hydraulic control software, the latest in inertial sensor technology and the industry's leading GNSS receivers to provide more than 100 blade position checks per second; giving perfect results in high speed operation!



**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 maintain 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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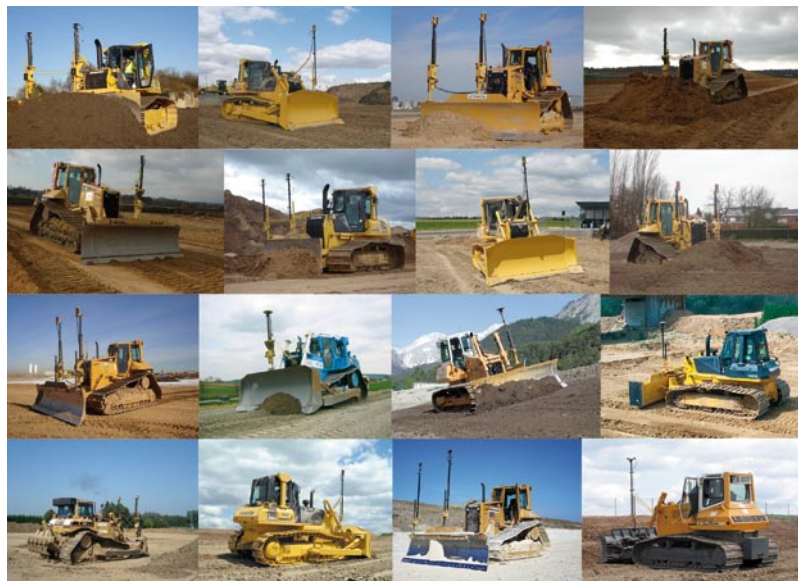


## Upgrade to 3D mmGPS or LPS control

### When you're ready, upgrade GPS control to the most advanced 3DMC mmGPS or LPS dozer system.

Experience the benefits of Topcon's Laserzone with satellite positioning based mmGPS or standard robotic total station based LPS dozer grade control. 3DMC provides all the advantages of satellite positioning technology and standard survey possibilities and accuracies with the superior performance and usability of Topcon's standard machine control.

In addition to GPS+ control, mmGPS features up to 4 transmitter working range, 10 meter working window. As where LPS uses standard survey robotic total stations, so that either machine or surveyor can work with the same instrument.



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