

## MOTOR GRADER **LPS CONTROL**



### **Easy to use, flexible 3D control**

- Standard robotic total station
- Modular system
- Indoor and tunnel applications
- Total station accuracy
- 100% slope control
- Advanced graphical display

## It's time.

Topcon's 3D motor grader LPS systems represent a giant leap in motor grader automation. Completely user friendly, user definable and most advanced, they're flexible to apply to even the most difficult jobs. 3D LPS control featuring standard survey total station control, total station accuracy, intuitive software and smooth, consistent hydraulic response – fully exchangeable to Topcon's 2D laser and sonic control or 3DMC GPS+ control. 3D LPS forms the most flexible solution for complete automatic motor grader control and advanced robotic survey.

The 3D LPS control system includes slope, rotation and mainfall sensors to measure the blade's slope, with the total station measuring the blade's position and elevation at all time. The position and elevation is constantly sent to the machines control box via high speed radio link. Comparing the actual blade's position and slope to a pre-defined design model, complete automatic control is there to use in its most accurate and flexible form.

With 3D motor grader LPS 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 equipment, same software

3D LPS gives you the flexibility to use either a motor grader or a survey crews with the same equipment. On top of this, all construction machinery using Topcon's 3D systems are interfaced with the same software. Excavators, motor graders, dozers, pavers and 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
- Easy definable search routines
- Internal memory



### Slope, Rotation and Mainfall sensor

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



### Robotic total station

- Standard robotic total station
- Survey and Machine Control
- 20Hz update rate
- 2,000 meter prism less
- 2.4 GHz Spread spectrum



### Prism

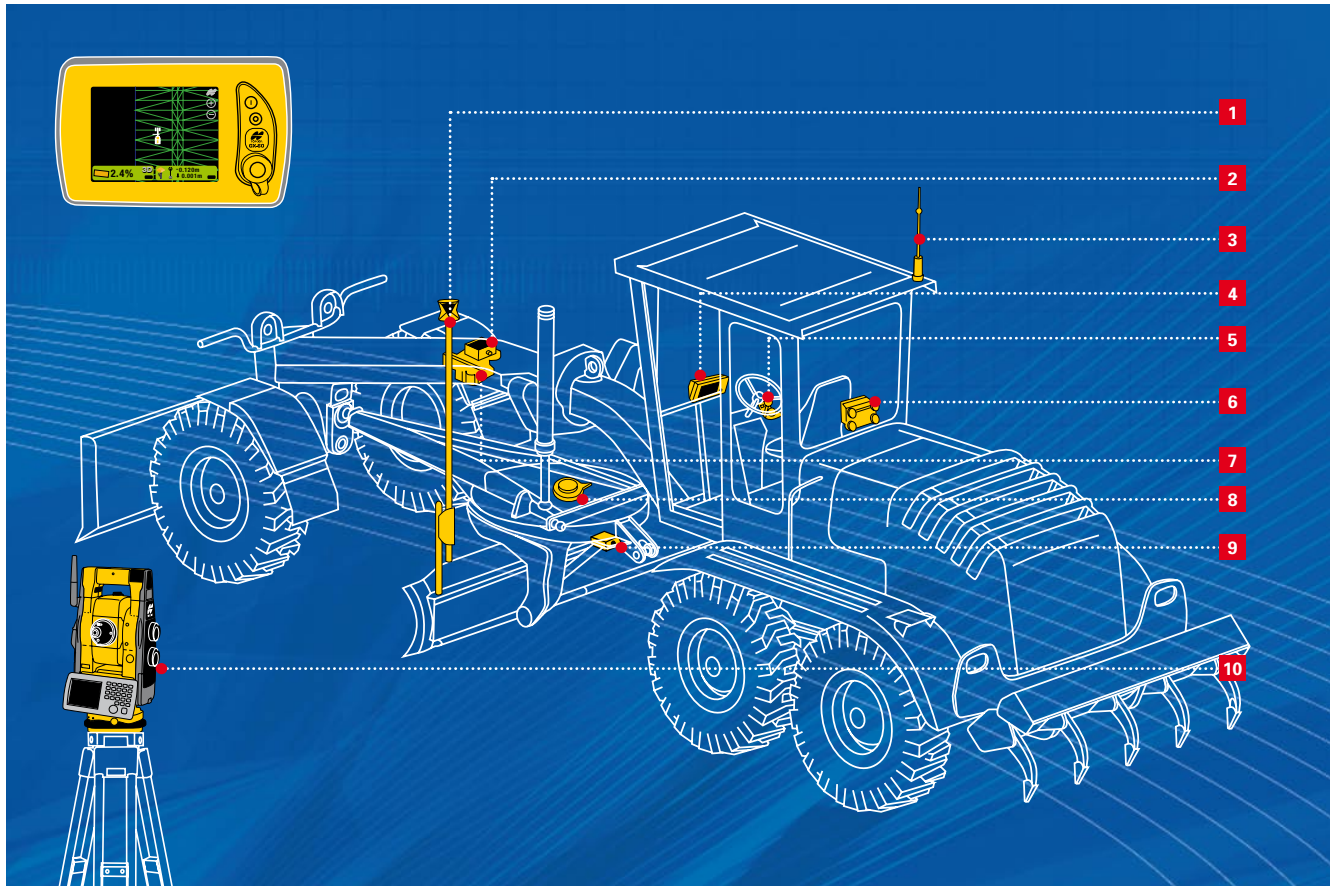
- 360 degree prism
- Shock proof
- Standard survey prism

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

3D LPS control ties in with Topcon's 2D and other 3D control systems. All Topcon machine control solutions are back and forth upgradeable. All motor grader control systems, laser – sonic – GPS+ – mmGPS – LPS, are part of a modular system. It's just a matter of swapping reference sensors. The system will automatically detect the reference used.

## Topcon's LPS grader systems

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



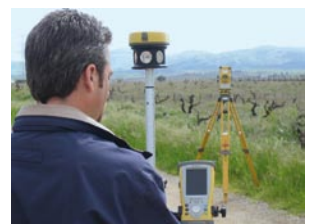
- |                        |                            |                          |                                 |
|------------------------|----------------------------|--------------------------|---------------------------------|
| <b>1</b> Prism 360°    | <b>4</b> Graphical display | <b>7</b> Hydraulic valve | <b>10</b> Robotic total station |
| <b>2</b> Mainfall      | <b>5</b> Automatic switch  | <b>8</b> Rotation sensor |                                 |
| <b>3</b> Radio antenna | <b>6</b> MC-R3 Receiver    | <b>9</b> Slope sensor    |                                 |



### Standard robotic total station

A standard survey total station measures continuously the position of the earth moving machine and sends this over to the operators control box. This robotic total station has been standard for survey and is now also used in 3DMC LPS machine control.

With the usage of the same instrument the usage of such an instrument is guaranteed 100%; either as part of the survey crew or as part of the LPS solution.



**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.



Specifications subject to change without notice.  
©2009 Topcon Corporation. All rights reserved 02/2009



## Upgrade to 3D GPS+ control

### When you're ready, upgrade your LPS control to the most advanced 3DMC motor grader system.

Experience the benefits of Topcon's satellite positioning based 3DMC GPS+ motor grader control. 3DMC provides all the advantages of satellite positioning technology with the superior performance and usability of Topcon's standard machine control.

In addition to LPS control, 3DMC GPS+ features a larger working range, no need of line of sight to base station and constant, immediate 3D information.

3DMC 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.



 **TOPCON**  
[www.topcon.eu](http://www.topcon.eu)

Your local authorised Topcon distributor is: