



## 3D LPS PAVING SYSTEM



### Economical

*Lowest cost entry point  
for a 3D paving system*



### Pave Anywhere

*System operates  
"indoors" or "outdoors"*



### Open Architecture

*Transferable to your fleet  
of other equipment*



### Interchangeable

*3D controls shared  
between LPS and GPS*

Ligchine International has partnered with Topcon Positioning Systems to offer the revolutionary '3D LPS' system (local positioning system) for Concrete Paving as a ScreedSaver option. The combination of Ligchine's boom operated ScreedSaver machines with Topcon's "LPS system" guarantee you the lowest cost entry point into 3D paving; amazing ease of use; significant labor savings; high volume production; and world class accuracy whether operating **indoors or outdoors**.

This economical Topcon 'LPS' system utilizes an automatic tracking Robotic Total Station to register and maintain screed position from a machine mounted prism and sonic tracker. Height adjustments are transmitted to and from the screed at a rate of 20 times per second via radio signal to maintain accurate specifications on the defined jobsite plan. Since the LPS system does not require a GPS signal, it operates without limitations whether it is indoors, outdoors, or in areas with obstructed GPS satellite reception.

The Ligchine/Topcon LPS system is NOT a proprietary system. The LPS 3D system has been engineered to control Ligchine ScreedSaver machines, but equally important, you can easily move it to your other concrete and/or earth moving equipment to maximize your return on investment.

Already have, or looking to add mmGPS? Easily switch between LPS and mmGPS, or upgrade to mmGPS as each system shares many of the same Topcon hardware and software components resulting in maximum flexibility and cost effectiveness for your business.

Profitability and ROI (Return on Investment) are crucial in the ever-growing, multi-billion dollar industry of concrete overlays and paving. The versatile ScreedSaver machines that place concrete on grade, slope, dual slope and 3D contours will position you to grow your business in affordable steps into a wide variety of profitable opportunities and new markets.

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# 3D LPS COMPONENTS



## MACHINE CONTROL



GX-55 Control Box

The bright and robust GX-55 delivers the highest quality graphical interface experience for modern machine control. The GX-55 was designed to handle rugged field conditions as well as harness powerful processing power needed to instantly display real time position and project design information.



MC-R3 Controller

Topcon's MC-R3 is the heart of Topcon's 3D-MC system. The MC-R3 contains all of the GNSS receivers, radios, and controllers in a single "built to last" housing. A built-in MINTER panel provides status lights and function keys for easy performance verification and system checks. The MC-R3 also features an Ethernet port, increased processing power over the previous generation box, and additional valve drivers to account for the widest array of machine compatibility.



ST-3 Sonic Tracker

Utilizing multiple transducers, the Topcon's ST-3 will update the control box with accurate elevation information over the whole detection range. Its elliptical detection zone combined with the twice as fast pulsing transducers will provide a smoother and more predictable reaction to the detected surface on one side of the screed head.



Screedhead AT Prism

Topcon's 360° Auto Tracking Prism mounted onto the screedhead allows the total station to track and maintain height position for the finished concrete surface.



## SITE CONTROL



GT-1003 Total Station

The GT series of robotic total stations are a trimmed down, high-performance solution that's ready to impress today, yet still grow with you into tomorrow. You get the efficiency of a single-operator robotic system, the power of long range reflectorless measurements, and the ability to perform as a hybrid positioning solution. All in a compact system that's a third smaller and twice as fast.



RC-5 Communication Module

When connected with external data collector, the RC-5 Longlink™ communication provides license free communication. The Longlink communication is built in to the RC-5. The RC-5 has the ability to send a signal to the total station to quickly re-acquire the prism



FC-5000 Field Computer

Powerful, tough, and versatile, the FC-5000 brings the processing speed expected in the office directly to your project site. Your daily field computer just arrived and it set to impress with a sunlight readable 7" display, Intel Atom Z3745 processor, MIL-STD\_810G and IP68 certified, Windows 10 operating system, 8MP rear camera, 2MP front camera, and an Integrated 4G LTE cellular module (optional).