DATA SHEET

LifeMark®-400

Automated Layout / Re-Stripe System

One integrated Solution

THE LifeMark®-400 Automated Layout & Re-Stripe System

is a fully integrated pavement marking solution that combines advanced auto layout with intelligent, operator-assist re-striping in a single vehicle-mounted platform. Installed through the modification of a customer's new or in-use pavement marking truck, the system is designed to help crews work more consistently and with less strain on operators, while keeping skilled operators in control.

For auto layout, GPS/RTK positioning enables accurate placement of new markings or reproduction of recorded layouts after resurfacing. For re-striping, high-definition cameras and AI-driven processing assist with carriage guidance, positioning, and timing, reducing manual corrections and operator fatigue during long or complex runs.

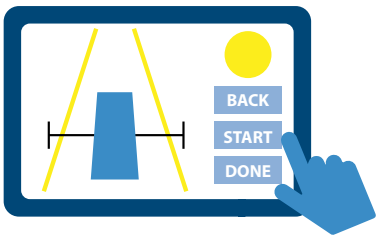
The LifeMark-400 supports Full Auto, Semi-Auto, and Manual operating modes, allowing operators to adapt seamlessly to job conditions and apply professional judgment where needed. When deployed appropriately, the system improves consistency, enhances productivity, and supports high-quality results throughout the workday.

Product Features

- Perform both new layout and operator-assist re-striping with one system.
- Automatically position carriages and control paint and glass bead guns for single, double, or skip lines.
- Specify stripe skip length, and cycle length, or match existing markings.
- Three selectable operating modes: Full Auto, Semi-Auto, Manual.
- Real-time carriage location calculation with GPS + AI guidance.
- In-cab monitoring for immediate operator oversight and adjustments.

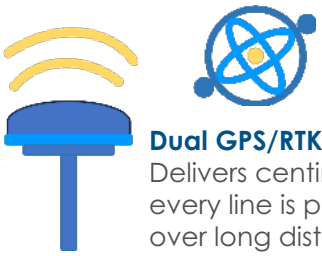
How It Works

1. Layout Mode: GPS/RTK and AI process position data to place markings exactly to recorded coordinates or project specifications.
2. Re-Stripe Mode: Cameras scan existing markings, AI aligns carriage position, and guns fire at precise timing points.
3. Operator Oversight: In-cab touchscreen provides live monitoring and instant switching between Auto, Semi-Auto, and Manual.



Touchscreen Control Monitor

An in-cab monitor provides a central command center for all layout and re-stripe functions, with intuitive menus and live video feeds so operators can monitor performance and make instant adjustments.

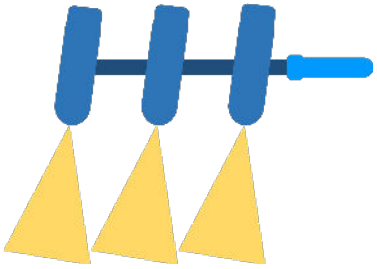


Dual GPS/RTK Antennas with Inertial Navigation System

Delivers centimeter-level positioning accuracy, ensuring every line is placed exactly where it's intended, even over long distances and in challenging environments.

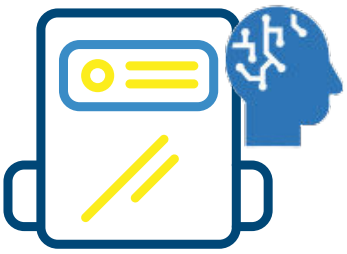
Hydraulic Valve Body for Precision Carriage Control

Regulates carriage movement smoothly and reliably, giving both automation and manual input exact control over lateral positioning.



Smart Carriage Cylinders with Position Sensors

Continuously report carriage location to the control system, allowing precise, automated adjustments for accurate line placement for layout or re-striping operations.



Onboard AI Computer System

A high-performance onboard computer uses advanced AI processing to analyze camera and GPS data in real time, precisely controlling carriage position and gun timing for accurate line placement. The system is housed in a weather-sealed enclosure for reliable operation in demanding environments.

Multi-Camera Vision System

Multiple forward- and rear-mounted HD-cameras configured as a single- or dual-sided system, capture pavement marking imagery and positional data for both auto layout and re-stripe assist functions, while also providing operators with in-cab visual monitoring of paint carriage alignment.

Operational Considerations

- Requires reliable RTK and cellular connectivity
- Performs best with clearly visible pavement markings
- Operator training and judgment remain essential
- Designed as a professional-grade assist system

The LifeMark® system requires continuous services to maintain system functionality, connectivity, and positioning accuracy. Recurring monthly operational costs include a Web Portal access fee, system support services, cellular data service, and RTK subscription or usage-based positioning services.

LimnTech Scientific, Inc.

office 215-703-5510 / Sales@LimnTech.com / 44 Industrial Drive #12 / Doylestown, PA 18901 / LimnTech.com