



# PROTECTOR® IV Top of Rail

## Trackside friction management system for the top of rail

**SECTOR**

Friction Management

**AVAILABLE**

Worldwide

The **PROTECTOR IV Trackside Top of Rail Friction Management System** was developed by L.B. Foster to provide effective friction control at the wheel/rail interface.

L.B. Foster Rail Technologies is recognized globally as the leading expert in managing friction at the wheel / rail interface. After 40 years of continuous technological innovation, the **PROTECTOR IV system** remains the state-of-the-art electronic top of rail friction control system.

The **PROTECTOR IV system** automatically applies a precise amount of friction modifier to the wheel tread / top of rail interface and adjusts the amount applied based on train length. Our innovative control system uses proprietary compensation algorithms to seamlessly adapt to changing operating conditions and consistently outputs the correct amount of friction modifier.



### PROTECTOR IV TOP OF RAIL SYSTEM BENEFITS

- ✓ Extends wheel and rail life
- ✓ Reduces fuel consumption
- ✓ Reduces squeal noise
- ✓ Reduces corrugation
- ✓ Reduces derailment potential
- ✓ Reduces RCF development

## Key Design Features

- > An efficient, compact design that allows for easy installation and maintenance.
- > The friction modifier tank and electronic controls compartments are separate, with individual sealed, weatherproof, and lockable access doors.
- > Available as either a 12 Volt DC solar-powered, battery-operated system or a 110 Volt / 220 Volt AC powered system.
- > Available in three friction modifier capacities - 25 USG (100 L), 100 USG (380 L), and 200 USG (760 L).
- > The 100 USG (380L L) and 200 USG (760 L) version is available as a dual unit which can service 2 tracks from the same system.
- > Additional configurations available.

## KEY COMPONENTS OF THE PROTECTOR IV TOP OF RAIL SYSTEM

- > L.B. Foster's innovative Top of Rail (TOR) **Foam Bars** are field proven to consistently and effectively deliver friction modifiers directly to the top of rail surface.
- > Our innovative **Digital Control Box II** uses proprietary compensation algorithms to consistently output the correct amount of product regardless of changing operating conditions. This includes automatic output adjustments for the following conditions to ensure the desired amount of product is always dispensed to the rail:
  - Ambient temperature variations
  - Battery voltage variations
  - System configuration changes (e.g. product type, hose lengths)
- > **Smart Wheel Sensor** - A non-contact wheel detection sensor.
- > The optional **Remote Performance Monitoring (RPM)** system is a remote asset management feature developed by L.B. Foster which allows users to monitor and manage their wayside systems throughout the complete equipment life cycle. RPM provides:
  - Insight into current equipment performance
  - Alerts to problem conditions
  - A comprehensive range of data inputs supporting effective work task prioritization / optimized maintenance resource efficiencies

The RPM system enables PROTECTOR equipment owners to maximize the operating uptime of their units and ensure expected benefits of incorporated friction management programs are consistently, effectively achieved.

# LB Foster®

L.B. Foster's Friction Management products are backed by market-leading experience in wheel / rail interface issues. Our team of professionals can provide the service and technical expertise necessary to achieve the optimum performance of your equipment throughout its life cycle.

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