ZTR

SmartStart

AUTOMATIC ENGINE STOP START

REMOTE REPORTING

FUEL SAVINGS

EMISSION REDUCTION

The Most Trusted AESS System

AUTOMATED IDLING CONTROL WITH MEASURABLE FUEL AND EMISSIONS IMPACT

- Automates engine shutdown and restart based on real operating conditions
- Reduces unnecessary idling and fuel consumption
- Tracks and verifies fuel and emissions savings

EXPANDABLE TECHNOLOGY

SmartStart leverages cutting-edge microprocessor technology, providing you with the flexibility to enhance the system's capabilities through a range of optional features. These options aren't just add-ons; some are strategic investments that pay for themselves by delivering substantial fuel savings.

FLEXIBLE APPLICATIONS

SmartStart can be applied to just about any locomotive-from relay logic to microprocessor-regardless of manufacturer, model, age, or usage. It is a compact system designed to mount easily.

SmartStart is best suited for:

- **High idle time operations**
- **Locomotives with frequent layovers or standby periods**
- **Fleets targeting fuel cost and emissions reduction through notifications via text message or e-mail.**

8000+ gallons of fuel saved annually
30+ years of proven performance

Deployed across global locomotive fleets

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OPERATIONAL IMPROVEMENTS

EPA AESS Certificate: Conform to 40 CFR 1033.115g by re-qualifying your SmartStart system for rebuild and repower applications.

Battery Saver: Reduces unnecessary drain on the locomotive batteries when being left shutdown and unattended for long periods of time.

MONITOR AND MAXIMIZE SAVINGS

Extended Fuel Saver: Includes load shedding of the locomotive lighting circuits, auxiliary load shedding and shutdown time delay override.

APU Interface: Interface SmartStart with an APU system for increased fuel savings.

InteLevel Fuel Measurement Sensor: With ±3% accuracy, this fuel sensor ensures precise fuel measurement and reporting on fuel in the toughest railroad conditions.

SYSTEM MANAGEMENT - REMOTE MONITORING

GPS Location and Geofencing: 24/7/365 access to the latest GPS information and locomotive movement alerts.

Fleet Reports: Find all your SmartStart equipped locomotives at a glance. Export SmartStart Reports to analyze data for continuous improvement.

Automated Alarm Notification: Automated notifications via text message or e-mail.

BENEFITS

- Save more than 8,000 gallons of fuel/year per locomotive
- Increase locomotive availability
- Support your decarbonization goals
- Payback < 1 year
- EPA certified locomotive idle reduction technology
- Real time and historical remote monitoring
- Support condition based maintenance

Scan to Learn More

Contact ZTR:
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