

TRUSTED TRACKS AHEAD

Intertech® Rail®

Company Profile

 <http://www.intertechrail.com>

 sales@intertechrail.com

 1501 Venera Ave, Suite 240,
Coral Gables, FL 33146, USA

Introducing Intertech®Rail®

AROUND THE WORLD



PRODUCTION FACILITIES – U.S.A.

- Albuquerque, NM
- Rochester, NY
- Kenosha, WI



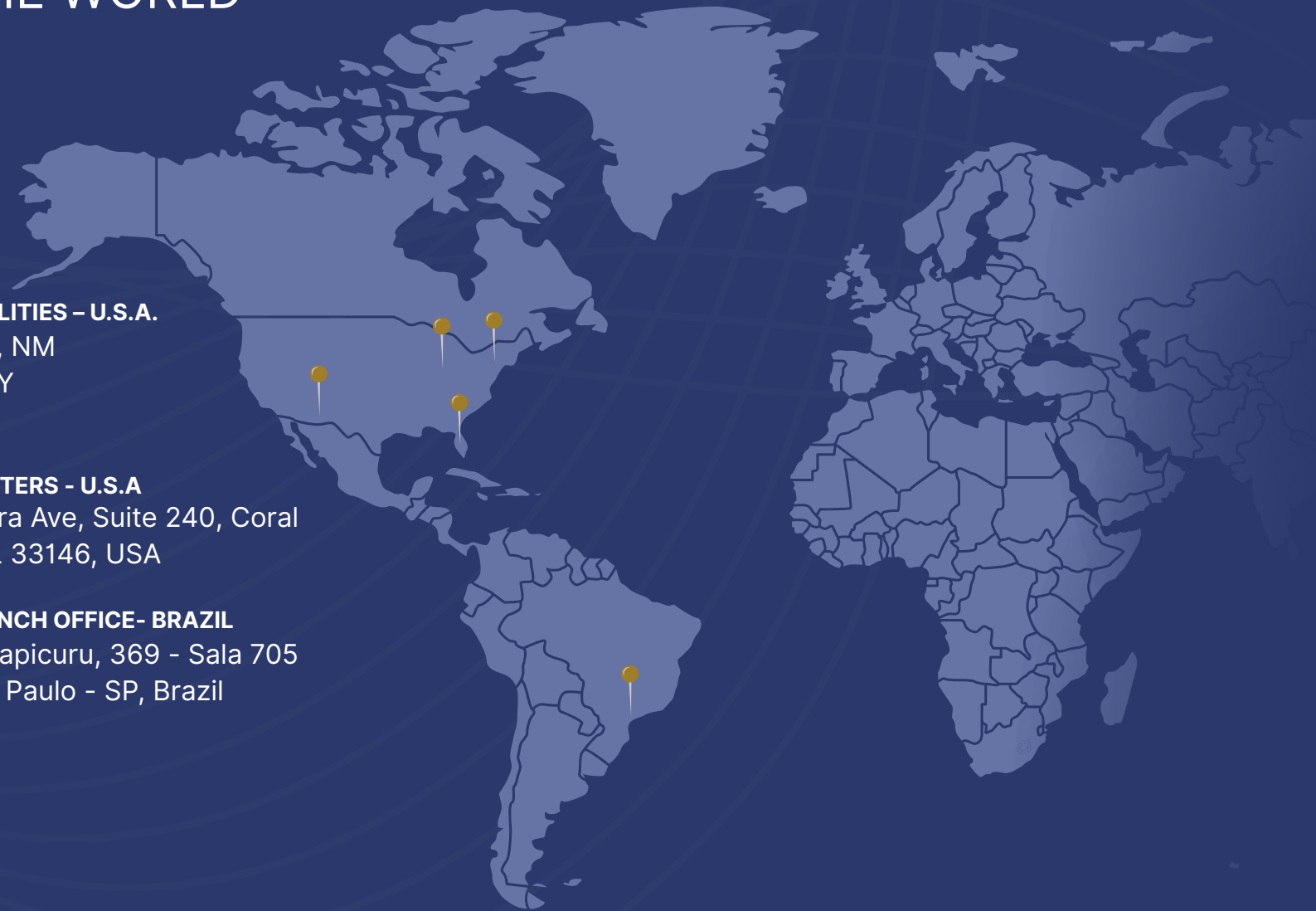
HEADQUARTERS - U.S.A

1501 Venera Ave, Suite 240, Coral
Gables, FL 33146, USA



BRANCH OFFICE- BRAZIL

R. Itapicuru, 369 - Sala 705
São Paulo - SP, Brazil



Foundation and Purpose

Built on a Practical Mission

Founded in 2004, IntertechRail began with a focused mission: to support the largest RFID and AEI (Automatic Equipment Identification) network in South America. Acting as a distributor and integrator for TransCore, we built our foundation on practical field experience and a commitment to improving rail operations through solid, reliable technology.

Global Presence

Practical solutions for rail operations across continents

With over 20 years in the rail sector, IntertechRail supports railroads and transportation companies across the Americas, Europe, Africa, and beyond. Our team combines technical know-how with field experience to deliver systems that simplify complex operations, improve safety, and reduce long-term costs. All our products are designed and manufactured in the USA, ensuring high quality and reliability. Whether through full project integration or component-level support, we work closely with each client to ensure dependable performance in mission-critical environments.

Intertech®Rail®

Focused on What Moves Rail Forward

Efficient, safe, and reliable rail solutions.

Our portfolio covers key rail infrastructure areas:

- AEI (Automatic Equipment Identification)
- Rail Yard Management System
- Balise System
- Signaling Fail-Safe Relays
- Switch Machine



20 YEARS OF FORGING SAFER AND RELIABLE RAILWAYS

AEI - Automatic Equipment Identification

A photograph of railroad tracks curving into the distance under a blue sky with light clouds. On the right side of the tracks, there is a tall, thin metal pole with a solar panel mounted at the top. Below the solar panel, there is a small white rectangular box and a black rectangular box. On the left side of the tracks, there is a similar white rectangular box. The tracks are surrounded by dry grass and some trees in the background.

Maximize Operational Efficiency and Reduce Costs

With billions of dollars in equipment and cargo moving across rail networks at any given moment, operational efficiency isn't just a goal—it's a necessity. Every delay, re-handle, and inefficiency impacts your bottom line and your reputation.

IntertechRail, a trusted partner of TransCore, delivers seamless and intelligent equipment tracking solutions powered by TransCore's industry-leading **RFID Automatic Equipment Identification (AEI) system**. This proven technology optimizes equipment utilization, minimizes dwell time, and reduces overhead costs—ensuring a **more reliable, cost-effective, and high-performing freight rail operation**.

By integrating **real-time, automated visibility** into your rail operations, we help you drive greater productivity, reduce inefficiencies, and enhance decision-making at every level.





Automatic Equipment Identification (AEI)

- Railcar and equipment tracking.
- Yard management and equipment inventory control.
- Wayside integration (hotbox, wheel scanner, weighting system)

Key Features

- Allows real-time classification, tracking, and status updates.
- Improves data collection accuracy.
- Streamlines data collection and record management.
- Reduces dwell time and labor costs



Rail-ID® Yard Manager & Dispatcher System

- Fully integrated with our readers
- Cloud Server, accessible anywhere in the world
- Available on cloud and on-premises installations

Rail-ID® Software WWW.RAIL-ID.COM

CLOUD SERVER:

- Service for reading and processing Automatic Equipment Identification
- API and database connection to any customer system
- Dashboard for data control and visualization

CARGO RECOGNITION & CAMERA :

- Load reading and identification via camera
- Automated load verification aligned with scales
- Wagon reading with camera for asset control

TRAIN CONSIST:

- Asset management for locomotives and wagons
- Control of train compositions using RFID tags



Xtreme Multiprotocol Reader

- Rugged RFID reader with IP65/67 rating
- Manages up to four antennas
- Wide power range (12 a 110 VDC)
- Programmable RF attenuation and frequency
- Complies with AREMA



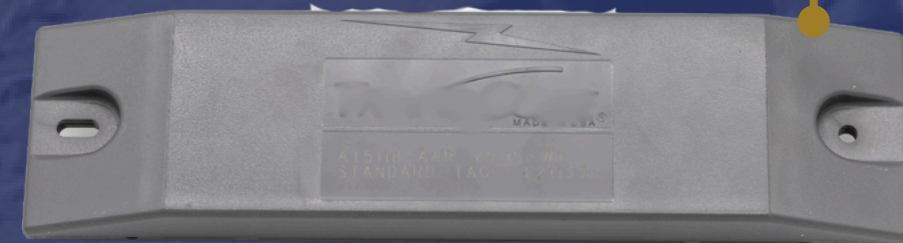
Yard Reader

- Integrated RFID all-in-one, easy installation and maintenance
- Integrated RFID reader for yard management and mainline asset control.
- Supporting multiple protocols (SeGo, eGo, ATA/AAR, IAG) with built-in translator.
- Programmable RF settings
- Water-resistant enclosure, available with internal and external antennas
- Fully integrated to Rail-ID Cloud Server and modules



Harsh Environment Tag

- Beam-powered RFID tag for harsh environments
- 915 MHz and 870 MHz frequency, weatherproof shell
- 1088-bit capacity, no battery needed
- Mutual authentication for data security
- Compatible with Amtech® and TransCore® readers



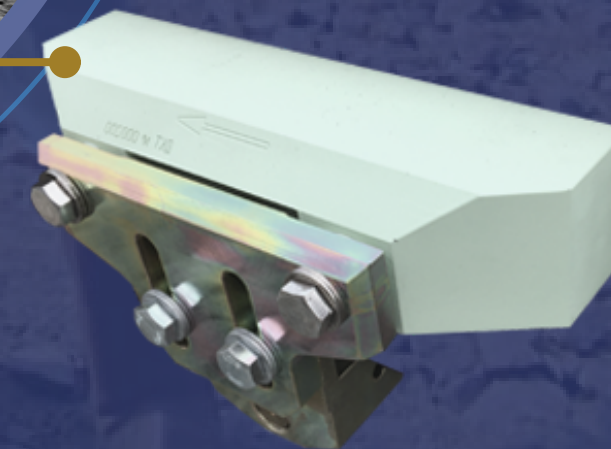
High-Temperature Tag

- High-temperature resistant RFID tag
- Operates up to 350°F (177°C)
- Beam-powered, no internal battery
- Data security with factory-locked and user-programmable fields
- Weather-resistant construction



Wheel Sensor

- Detects wheel presence counts axles, and measures movement
- Real-time data transmission via RS-485.
- Integrates with TransCore Readers
- Easy installation with claws
- Supports speeds up to 360 km/h, and operates in temperatures from -60°C to +70°C

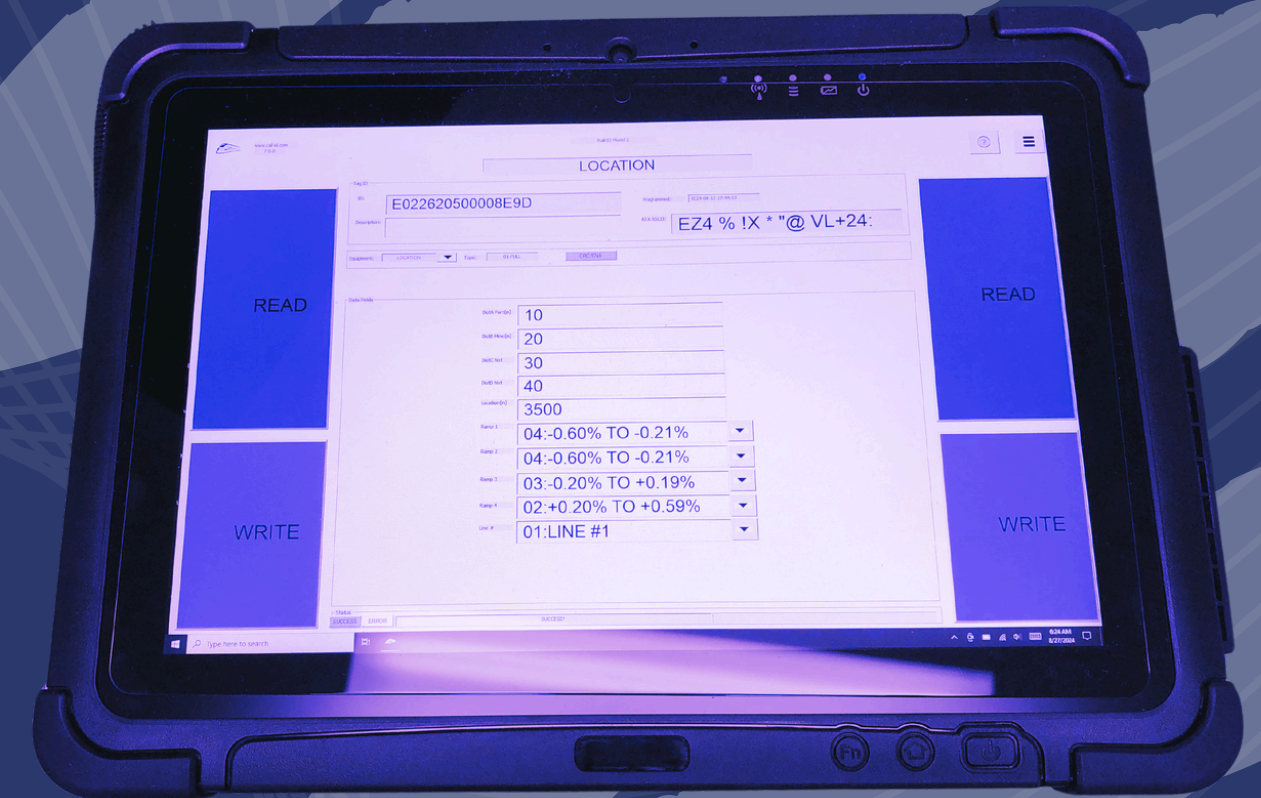


Smart Mobility for Tough Environments

MEET THE MODEL 2

RFID Programmer

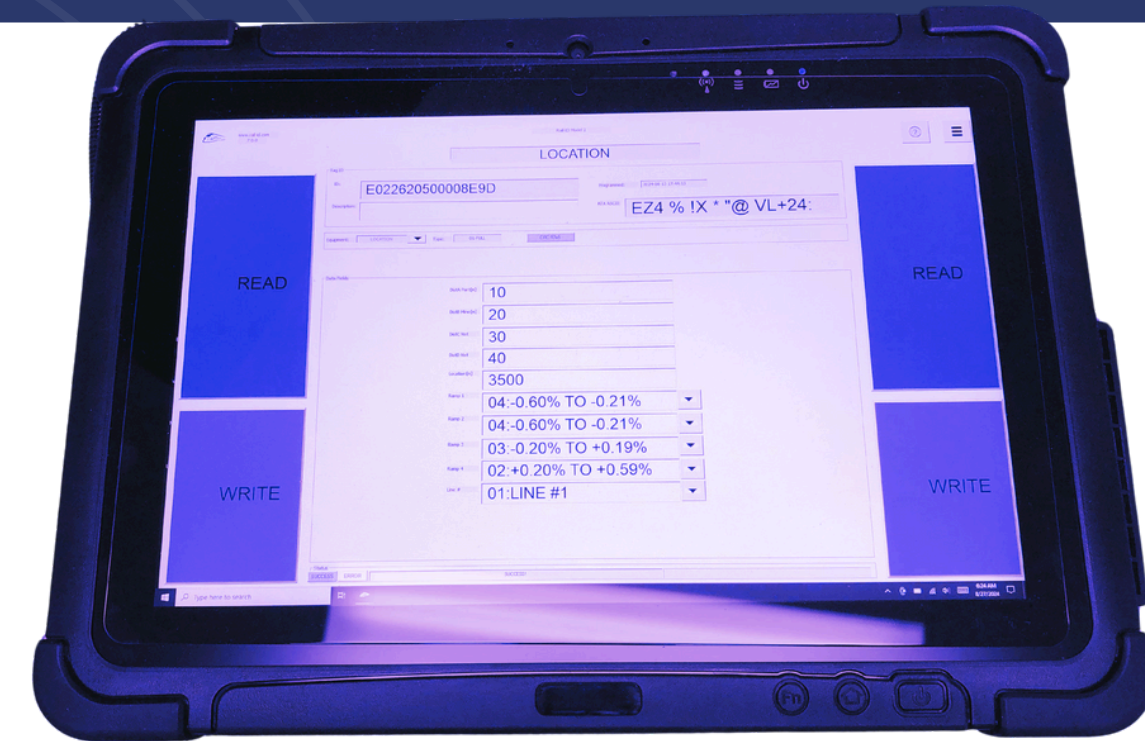
The Model 2 Rugged Tablet is a versatile, industrial-grade mobile computing device engineered to perform in the harshest environments. Designed by TransCore® and distributed by IntertechRail, this solution combines a powerful Windows-based tablet with an integrated multi-protocol RFID reader, enabling seamless data collection and equipment identification across critical applications.



MEET THE MODEL 2

Purpose and Applications

- Automatic Equipment Identification (AEI) for rail yard operations
- Remote and field programming of RFID tags and systems
- Toll and HOT lane enforcement for transportation infrastructure
- Access control and parking management
- Warehouse inventory tracking and logistic



Key Features

- 10.1" sunlight-readable touchscreen with optical bonding
- Integrated multi-protocol RFID reader (SeGo, ISO 18000-6B, ATA/AAR, etc.)
- Wi-Fi, Bluetooth®, GPS (GNSS), 4G, barcode scanner, and dual cameras
- Rugged design – IP65 and MIL-STD 810G certified
- Fanless cooling and hot-swappable battery (up to 16 hours)
- Windows 10 IoT Enterprise, TPM 2.0, and SOTI MobiControl support

Automatic & Fail-Safe

Wheel Sensors and Axle Counters

The DKU Wheel Sensor is a smart and reliable solution for detecting train presence and movement in both mainline and industrial railways. It supports automation and safety by identifying approaching trains, signaling level crossings, and using axle counting to confirm that the entire train has passed.

Key Benefits

- Detects wheel movement, direction, and speed
- Signals train approach and confirms full consist has passed
- Operates independently, reducing system load
- Direct connection—no extra hardware required
- Reliable even in extreme conditions
- Fully compatible with TransCore® Readers (MPRX, Encompass 4)

Specifications

- Power: 18–36 V DC, max 3 W
- Speed range: 0–360 km/h
- Wheel diameter: 300–1500 mm
- Temperature: -60 to +70 °C
- Interface: RS-485 (Modbus MTU)
- Models:
 - 2-07-3-8010 (for TransCore® Readers)
 - 2-07-3-8011 (for general use)





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PESQUISAR VIA, VAGÃO OU SENSOR PELO NOME...



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ATIVOS DO PÁTIO

INSERÇÕES

RASTREAMENTO DE MOVIMENTO

SIMULAÇÃO DE PÁTIO

QPM



GRADE



MAPA



ID VAGÃO



CONTAGEM VAGÕES

ZOOM



VIAS

TRACK 1



+ 100

TRACK 2



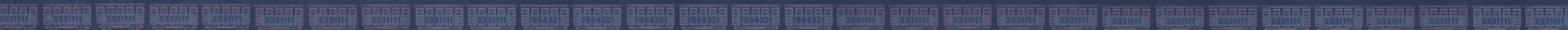
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TRACK 3



+ 37

TRACK 4



+ 1972

KENV



+ 1515

FCA



+ 8

FCA



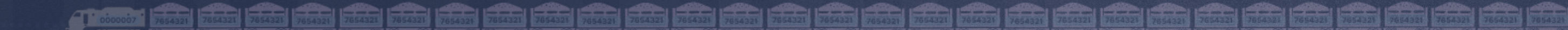
+ 101

TRACK 9



+ 510

FIOL



+ 37

EF-315



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SERRA
DO MAR



+10

YARD MANAGEMENT

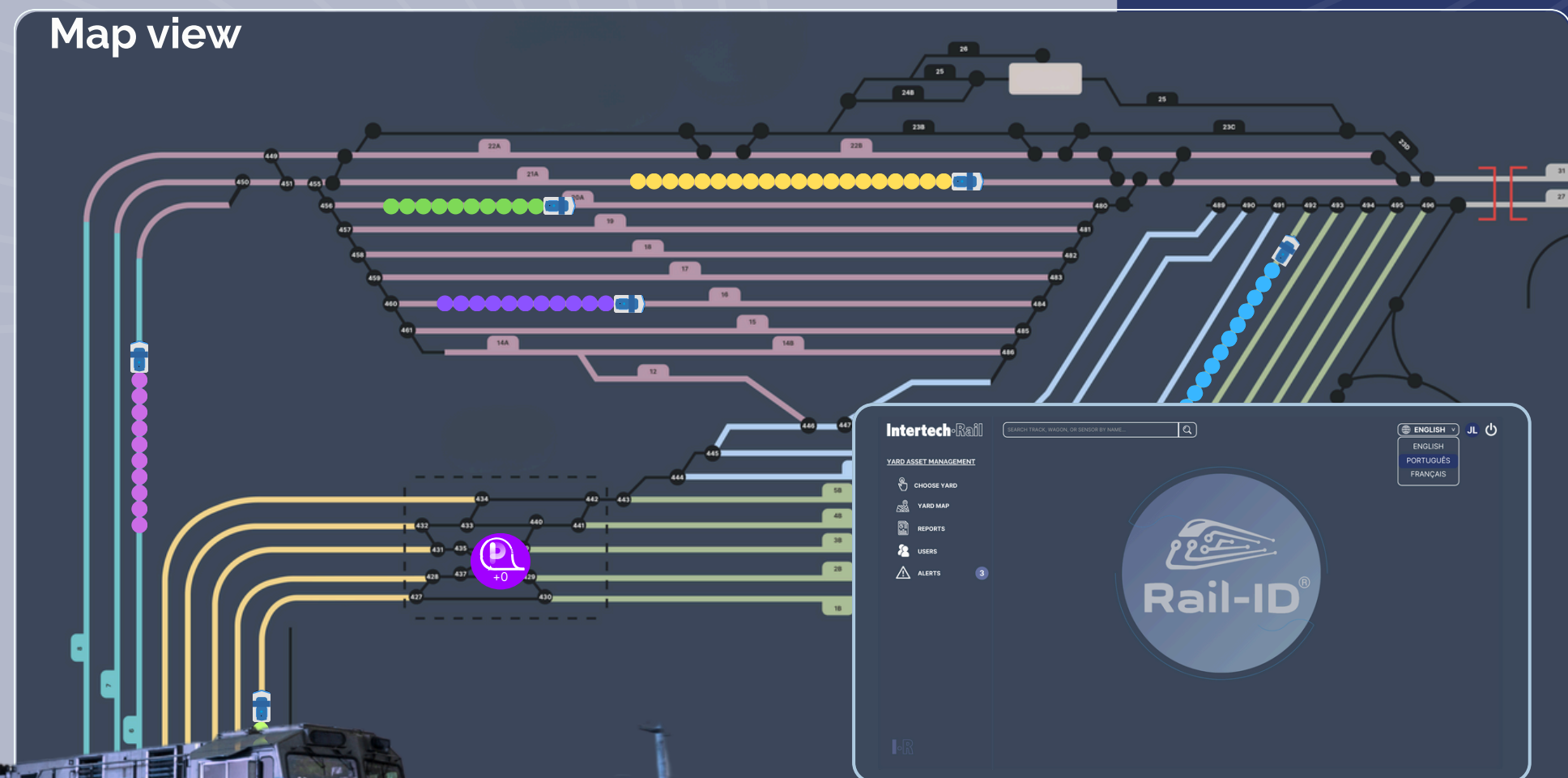


Gain real-time visibility and control over your rail yard.

Track every car, streamline operations, and reduce delays: for safer, faster, and more efficient performance

- Real-time train positioning
 - Railcar Component Tracking
 - Handles complex, high-volume traffic
 - AI integration for maneuver suggestions
 - Centralized control interface
-
- Scalable to any yard size
 - Smooth, reliable performance
 - Streamlined workflow, higher productivity
 - Reduced delays through better visibility
 - Safer, more organized yards

Map view




Customizable reports (KPIs)
Generate reports tailored to your operational goals, with key performance indicators

Seamless integration
Easily connects with AEI systems and existing infrastructure.


Detailed Car Positioning & Railcar Information
View precise wagon locations and access comprehensive, real-time data.


Enhanced Yard Safety
Avoid traffic congestion and operational hazards using system insights.

Track View



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PESQUISAR VIA, VAGÃO OU SENSOR PELO NOME...

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ATIVOS DO PÁTIO INSCRIÇÕES RASTREAMENTO DE MOVIMENTO SIMULAÇÃO DE PÁTIO


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☒ GRADE ☐ MAPA ☒ ID VAGÃO ☐ CONTAGEM VAGÕES


ZOOM


All Wagons (30)

Image	Train ID	Car Number	Bearing Type	Length	Number of Axis	Platform Code	Side Indicator	Tag ID
	352	XY 30	3	511	11	13	1	9DCBE580007BFF44BD0000000000003
	351	XY 29	3	511	11	13	1	9DCBE5800077FF44BD0000000000003
	350	XY 28	3	511	11	13	1	9DCBE5800073FF44BD0000000000003
	349	XY 27	3	511	11	13	1	9DCBE580006FFF44BD0000000000003
	348	XY 26	3	511	11	13	1	9DCBE580006BFF44BD0000000000003
	343	XY 25	3	511	11	13	1	9DCBE5800067FF44BD0000000000003
	342	XY 24	3	511	11	13	1	9DCBE5800063FF44BD0000000000003
	341	XY 23	3	511	11	13	1	9DCBE580005FFF44BD0000000000003
	340	XY 22	3	511	11	13	1	9DCBE580005BFF44BD0000000000003
	339	XY 21	3	511	11	13	1	9DCBE5800057FF44BD0000000000003



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PESQUISAR VIA, VAGÃO OU SENSOR PELO NOME...

PT JL

ATIVOS DO PÁTIO INSCRIÇÕES RASTREAMENTO DE MOVIMENTO SIMULAÇÃO DE PÁTIO

QPM

☒ GRADE ☐ MAPA ☒ ID VAGÃO ☐ CONTAGEM VAGÕES

ZOOM

VIAS

TRACK 1

TRACK 2

TRACK 3

TRACK 4

KFNV

FNS

EFVM

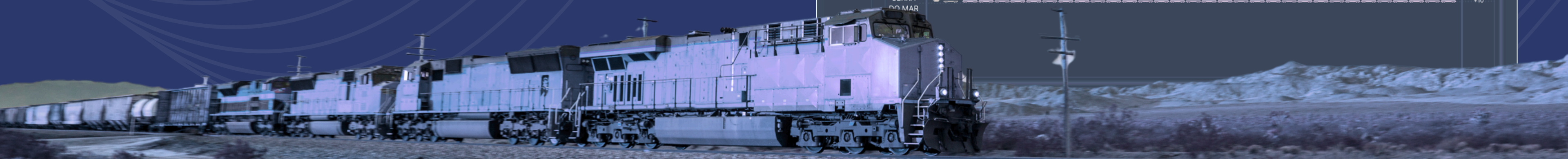
FCA

TRACK 9

FIOL

EF-315

SERRA DO MAR



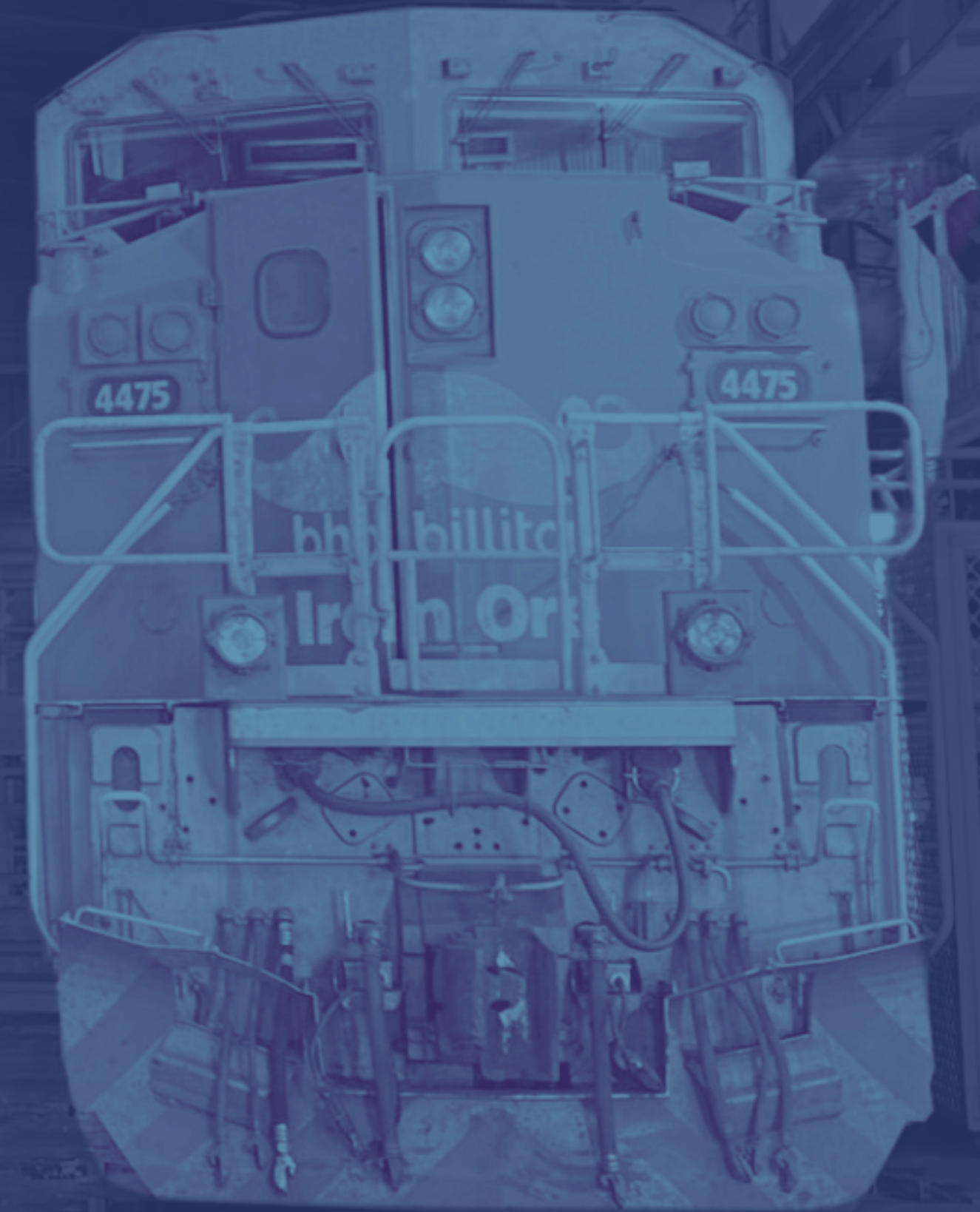
BALISE SYSTEM



Precise Location for Safer Railways

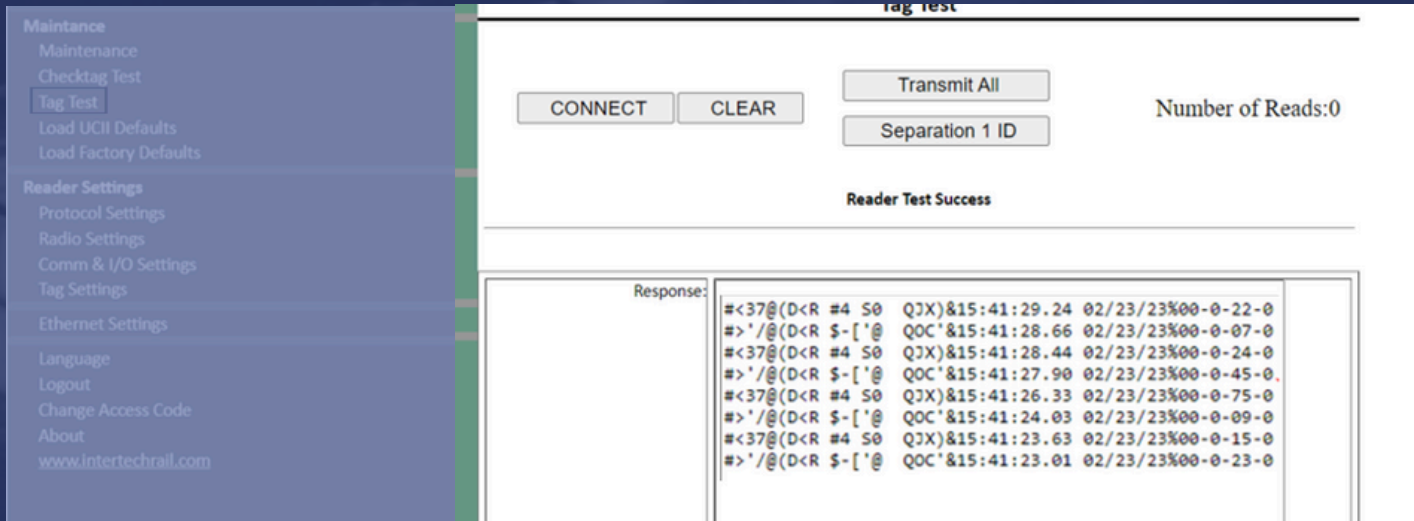
- BALISE SYSTEM

Integrates ATC systems with RFID Balises and locomotive readers, relaying critical information such as speed limits and track conditions. This enables automatic speed control and emergency braking, enhancing safety, optimizing train headway, and boosting productivity. The system is extensively compatible with various ATC/ATO systems.



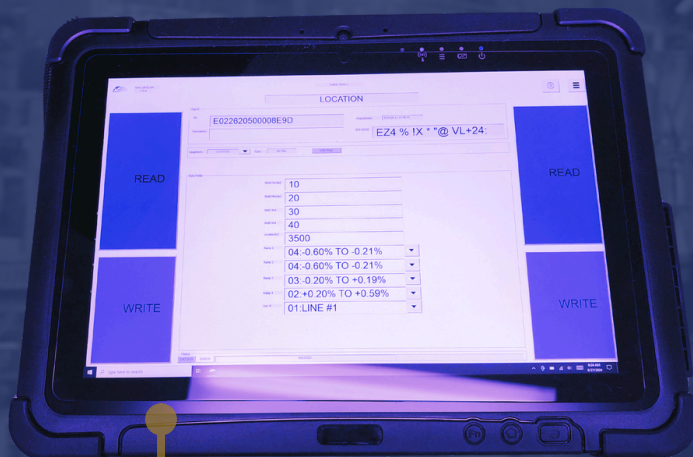
TransCore's **Radio Frequency Identification (RFID)** solutions can help improve operational efficiency for mass transit systems. Location and time data collected by our technology enable better management and improved performance, enhancing train operation monitoring and control functions to ensure safe and functional operations.

Our systems also enhance train operation management by providing automatic train positioning for **Communications-Based Train Control (CBTC)** applications. Our onboard interrogators (readers) and track bed-mounted transponders (RFID tags) can also activate subsystems such as audio and visual annunciation.



Rail ID WCS

- Tag programming and reading
- Functional testing of tags
- Remote update of MPRX firmware
- Functional testing of MPRX



Model 2 - RFID Programmer

- Rugged tablet with TransCore RFID technology
- Supports 915MHz and 870MHz RFID variants
- Durable for extreme temperatures, dust, and moisture
- Connectivity: WiFi, Bluetooth®, USB, RS232
- Includes barcode scanner, front and rear cameras, and GPS

- BALISE SYSTEM

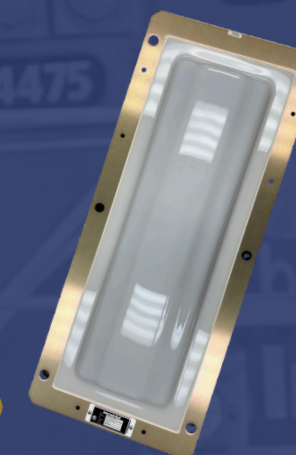
Multiprotocol Reader

- Rugged RFID reader with IP65/67 rating
- Wide power range (24-110V DC and 12-24V DC)
- Programmable RF attenuation and frequency
- Complies with AREMA
- Protocols: ATA/AAR, SeGO, eGO



Heavy Rail Antenna

- Robust 870/ 915 MHz antenna for train undercarriages
- High shock and vibration resistance
- Accurate location tracking and AEI
- Weather-resistant radome
- High-speed reading up to 75 mph
- Corrosion and chemical-resistant



Harsh Environment Balise

- Beam-powered RFID tag for harsh environments
- 915 MHz frequency, weatherproof shell
- 1088-bit capacity, no battery needed
- Mutual authentication for data security
- Compatible with Amtech® and TransCore® readers



Signal Tag

- Externally-powered RFID tag for rail traffic monitoring
- Connects to rail signal light systems
- Operates on AC or DC power
- Weather-resistant includes 37-inch two-wire interface cable





SIGNALLING

Fail-Safe Relays

Fail-Safe Rail Relays are crucial for ensuring safety throughout all railroad configurations. With over 2,500 alternatives, they are designed to default to the safest position utilizing gravity in the event of equipment failure. Personalized orders for all relay types, including the well-known GRS, B1, B2 versions, and SafeTran ST1 & ST2 are available on request.



Mounting Types:

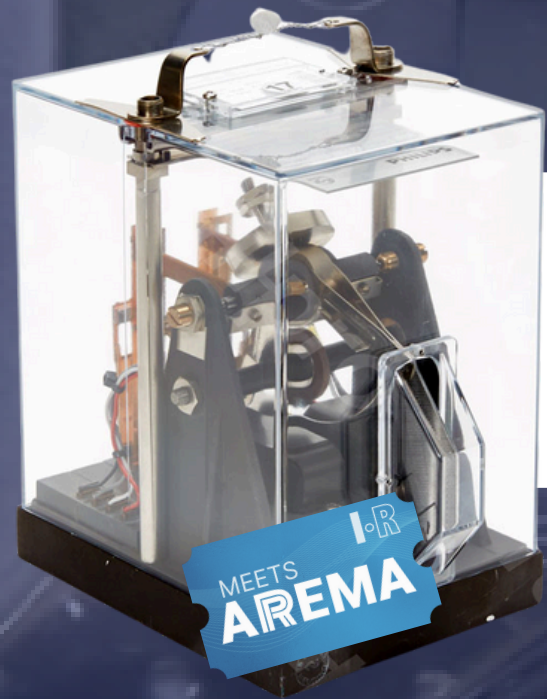
- PLUG-IN
- SHELF MOUNT

Functions:

- CODE TRANSMITTERS
- CODE RESPONSIVE
- CODE FOLLOWING TIMERS
- SEARCHING MECHANISMS

Models:

- VTB (VITAL TIMER RELAY)
- AC VANE RELAY
- NEUTRAL LINE RELAY
- POLARIZED RELAY/MAGNETIC STICK
- BIASED NEUTRAL RELAY



AC Vane Relay:

- Used in track circuit signaling systems.

Biased Neutral Relay:

- Used in signaling systems where it is essential to ensure that the relay only changes state under specific current or voltage conditions.
- Combines the features of neutral and polarized relays, using a bias to ensure that the relay only operates when conditions are precisely as designed, thereby providing a more robust fail-safe mechanism.



Vital Timer Relay:

- Electronically controlled to provide operation after a preset time.



Polarized Relay/Magnetic Stick :

- Used in signaling systems where it is necessary to detect the direction of the current or maintain a safe position even when power is removed.
- This relay is polarized to respond to different current directions, ensuring that any failure drives the system to a safe position.



Neutral Line Relay:

- Employed in signaling systems where precise and secure control of signal positions is required.
- Types of Neutral Line Relays:
 - Flasher Relays
 - Switch Control Relays
 - Switch Overload Relays
 - Power Transfer Relays



VITAL RELAYS

PN Intertech	Siemens Relay	GRS Relay	Relay Type	Contact Arrangement	Coils Resistance
2-04-3-1-951-01	400000	A62-262	Neutral	6FB	500
2-04-3-1-783-01	400003	A62-308	Neutral	4FB-2F-1B	900
2-04-3-1-783-02	400004	A62-277	Neutral	4FB-2F-1B	500
2-04-3-1-787-01	400011	A62-276	Neutral	4FB-2F-1B	4
2-04-3-1-714-03	400013	A62-260	Neutral	6FB	1.8
2-04-3-1-762-01	400017	A62-296	Neutral	6FB	900
2-04-3-1-822-02	400020	A62-310	Neutral	4FB-2F-1B (HD)	500
2-04-3-1-822-01	400022	A62-311	Neutral	4FB-2F-1B (HD)	900
2-04-3-1-978-01	400023	A62-580	Neutral	6FB (HD)	500
2-04-3-1-917-01	400025	A62-427	Neutral— Sw. Control	4FB (HD)	500
2-04-3-1-822-06	400027	A62-309	Neutral	4FB-2F-1B (HD)	350
2-04-3-1-736-01	400100	A62-345	Slow Pickup	6FB	220
2-04-3-1-790-01	400101	A62-341	Slow Pickup	4FB-2F-1B	300
2-04-3-1-774-01	400200	A62-360	Slow Release	4FB	194
2-04-3-1-780-01	400210	A62-359	Slow Release	6FB	194
2-04-3-1-851-01	400211	A62-357	Slow Release	4FB-2F-1B	194
2-04-3-1-792-02	400212	A62-358	Slow Release	4FB-2F-1B	194
2-04-3-1-785-61	400302	A62-217	Light Out (Relay Only)	4FB	450/.069
2-04-3-1-922-07	400500	A62-125	Biased Neutral	6FB	500
2-04-3-1-922-05	400501	A62-140	Biased Neutral	6FB	63
2-04-3-1-921-07	400502 -	A62-122	Biased Neutral	4FB-2F-1B	500
2-04-3-1-927-01	400503	A62-552	Biased Neutral	2FB-4F-2B	1000
2-04-3-1-963-01	400507	A62-637	Biased Neutral	5F-4B	4
2-04-3-1-961-01	400508	A62-639	Biased Neutral	5F-4B	0.5
2-04-3-1-933-01	400509K	A62-555	Biased Neutral	2FB-4F-2B	2100
2-04-3-1-965-01	400515	A62-633	Biased Neutral	5F-4B	0.5
2-04-3-1-926-01	400520	A62-429	Biased Sw. Control	2F-2B (EHD)	500
2-04-3-1-785-01	400600	A62-432	Switch Overload	2B (EHD)	.068/1225
2-04-3-1-985-01	400700	A62-577	Flasher Relay	4FB	60



MEETS
AREMA

Automatic Switch Machines

Reliable for freight, load, and passenger trains. Fail-Safe, SIL4 compliant, and meets AREMA & CENELEC standards. Available in electric or manual, with precise SIL4 needle point detection.

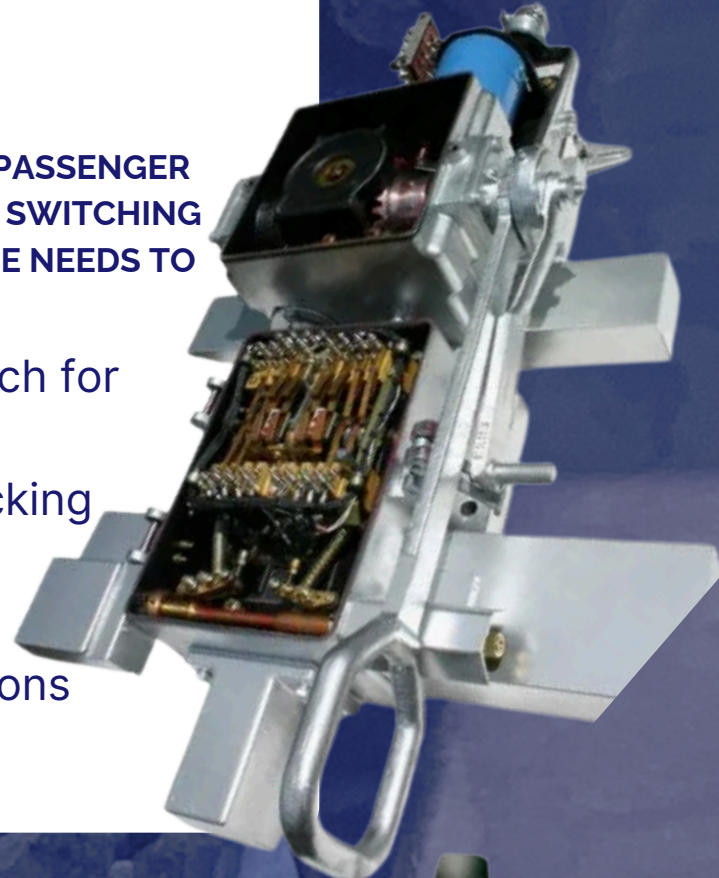


IRM23

Mainline Switch Machine

PRIMARY LINES FOR FREIGHT OR PASSENGER TRAINS WHERE FREQUENT TRACK SWITCHING IS NECESSARY, AND MAINTENANCE NEEDS TO BE MINIMIZED.

- Dual-control electric switch for mainline tracks
- Features independent locking
- Precise point detection
- Customizable options
- Meets AREMA specifications
- Bestseller in America

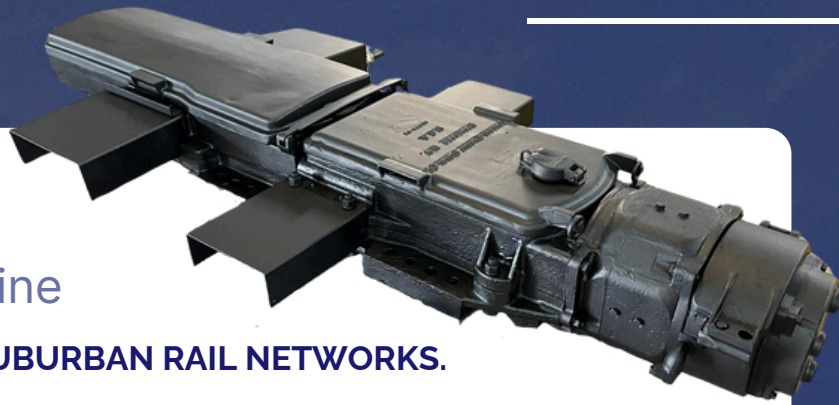


IRM5G

Point Machine

URBAN OR SUBURBAN RAIL NETWORKS.

- Fail-safe for mainline and transit systems
- Precision measurement for reliable operation
- Efficient maintenance
- Internal, biased, and neutral Motor Controller
- Meets AREMA
- Low Profile



IRM3

Electric Switch Machine

HEAVY RAIL TRANSIT.

- Fail-safe electric machine for mainline
- Interlocking, and rapid transit
- Precise point detection
- Customizable options
- Low Profile
- Meets AREMA

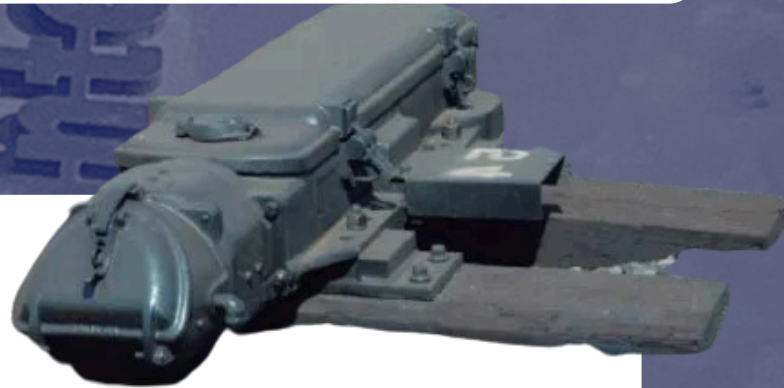


IRM6

Switch Machine

CLASSIFICATION OR MARSHALING YARDS, WHERE HIGH SPEED AND EXTREME DURABILITY ARE NECESSITIES.

- Designed for yard operations
- Robust
- Automated
- Integrates with control systems
- Ensures precise switching and enhanced safety



	Mainline	Trailable	Low Profile	Dual Control	Meets AREMA	Independent Locking	High Speed Operation	Independent Point Detection
IRM23	✓			✓	✓	✓		✓
IRM3	✓		✓	✓	✓	✓		✓
IR5G	✓		✓	✓	✓	✓		✓
IRM6	✓	✓			✓		✓	



IR100

Switch Circuit Controllers

ESSENTIAL FOR PRECISE MONITORING AND CONTROL OF RAIL SWITCHES.

- Rail Mounted
- Exceptionally precise & reliable point monitoring



CLIENT PORTFOLIO

CLIENT PORTFOLIO



LET'S TALK ABOUT REAL RAILWAY SOLUTIONS




Whether you're looking to improve safety, modernize operations, or implement reliable AEI tracking, we're here to help.

All IntertechRail products are designed and manufactured in the USA, meet AREMA standards, and many are SIL4-certified to ensure maximum reliability and safety in mission-critical environments. As a proud member of RSSI, we stand alongside the industry's most trusted suppliers.

Let's build the future of rail, together.

 sales@intertechrail.com

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