

Train to Wayside Communication (TWC) and Track Switching Systems



IRWIN TRANSPORTATION PRODUCTS

An affiliate of IRWIN Car and Equipment

www.irwincar.com

Company Overview

Irwin Transportation Products engineers, manufactures and maintains wayside communication, track switching, digital warning and passenger information systems for metro, light rail vehicles and streetcars. Irwin also offers full-service repair and rebuild of AC and DC traction motors.

The company's acquisition of VECOM USA in early 2015 has made Irwin a single-source supplier to vehicle manufacturers and transit authorities throughout North America.

All products manufactured or sourced by Irwin Transportation Products are Buy America compliant.

The company is an affiliate of Irwin Car and Equipment. For more than 120 years, Irwin has been providing rail-based material handling equipment to customers in the heavy manufacturing, automotive, aerospace and mining sectors. Irwin Car and Equipment is headquartered in Irwin, PA, near Pittsburgh, and operates two manufacturing facilities in Irwin. The company also has plants in Blairsville, PA, and Tampa, FL, with four sites totaling more than 200,000 square feet of production space.



Buy America Compliant Systems for Switch Control & Depot Management

Train to Wayside Communication Systems

With the recent acquisition of VECOM USA, Irwin Transportation Products offers a wide selection of customized train to wayside communication (TWC) systems.

Our TWC systems include:

- VETAG (one-way vehicle tagging)
- VECOM (bi-directional vehicle communication)
- Automatic Loop Scanner
- Priority Switch Control
- Depot Management

Key features of these systems include:

- Data Transmission Between Vehicle Equipment & Wayside System
- Enhanced Transmission Speeds
- Large Antenna Support Capacity
- Tuned Loops 100% of Time Regardless of Conditions

Significant benefits are:

- High Reliability
- Compact
- Cost-Effective





Irwin/VECOM switching and communication systems work seamlessly to enable communication between the Vehicle and Interrogator, and between the Interrogator and the T-3 Track Switch.

Track Switching Systems

Our track switching systems move track easily in all weather conditions.

The T-3 Electric Track Switch Operator offers:

- 100 Years of Solid Reliability
- Solenoid Operation with Spring Holding
- Authoritative Throw with Trailing Ability
- Ability to Operate When Submerged

For higher speeds, our new Locking T-3 provides:

- Solid Point Locking to 20,000 lbs.
- Simple Solenoid & Lever Operation

- Proven Reliability
- Between-the-Rails Mounting
- Easy Hand Throw

Controls for all switching applications include:

- PLC-based Systems
- Vehicle-to-Wayside Radio Control
- Track Circuits & Indicator Control
- Power On/Off Control
- Lane Auto Routing



Train Digital Sound Generator 200/25

Irwin/VECOM train digital sound generators (TDSGs) are digital warning systems mounted on the vehicle. They are used to alert traffic and passengers when transit vehicles arrive at and depart from stops, and at vehicle and pedestrian crossings. The systems provide exterior and interior digital sounds and/or tones.

Our exterior speakers are equipped with audio drivers and horns, and are IP67 compliant to resist dust and immersion.

User-friendly features & benefits of TDSGs include:

- Federal Transit Administration Compliant
- 125dB at 4-foot Distance
- No special software required for maintaining digitally compressed MP3 database — up to 16 different sounds and/or tones
- Accommodates user- and studio-produced sounds or tones
- Internal memory of controller/amplifier can be uploaded from a PC through the USB interface

Advanced Passenger Information Systems

Our Advanced Passenger Information Systems (APIS) is an Ethernet-based solution that combines vehicle communication and passenger information systems. It uses IP-based network architecture for transmission of voice and data.

This totally integrated system provides:

- Communication between Passenger Emergency Intercoms and the Vehicle Operator
- Private Crew Communication between the Operator's Cab and Crew in any Inactive Cab
- Manual PA Announcements from Vehicle Operator to Passenger — Exterior and/or Interior
- Automated Pre-Recorded Announcements, including Special Messages — Exterior and/or Interior

The system's Communication Rack in B and A Cars features:

- DC/DC Converter (PD-3)
- Industrial Computer (PPU-1) – B Rack Only
- Ethernet Switch
- Vehicle Analog/Digital Converter (VADC)
- Optional TDSG

The Operator Control Head (OCH) has a Color Touchscreen that displays:

- Messages Generated by the Information System
- Vehicle Status Messages
- Input Commands for the Information System
- Select Messages or Routes from Access Database

All modules are 19-inch plug-in units which can be accessed easily and exchanged for maintenance.

Traction Motor Repair

We offer full-service repair and rebuild of AC and DC traction railroad motors for mass transit applications.

Our capabilities include:

- Gear Box Repair
- Electromechanical Repairs
- Rebuilding
- Rewinding
- Remanufacturing

To accelerate turnaround time, we perform these services in-house:

- Machining
- Computer Balancing
- Rotor Repair
- Core Loss Analysis
- Truck Assembly



Irwin Transportation Products engineers, manufactures and maintains wayside communication, track switching, digital warning and Ethernet-based passenger information systems for metro and light rail vehicles, and streetcars. In early 2015, the company acquired VECOM USA to become a single-source supplier to vehicle manufacturers and transit authorities throughout North America.

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Irwin Transportation Products offers outstanding customer service by phone or videoconference, as well as onsite.



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