

TRU™

Train Recording Unit

TransCore's TRU™ Train Recording Unit captures AEI (Automatic Equipment Identification) tag data and other data to report an accurate train consist to railroad management systems. It is the key component used to implement AEI reader systems for mainline and rail yard systems.

The TRU records detailed information about trains, uses the information to create clean consists, and then transmits consist reports to one or more host computer systems. The TRU can handle single- and multi-track locations.

The TRU is designed to interface with TransCore's MPRX readers, antennas, wheel detectors, presence loops, external device interfaces, communications interfaces, enclosures, standby power and other optional peripherals.

The TRU Maintenance User Interface (MUI) provides local and remote access to the TRU for authorized users. A user can manage configurations, perform diagnostics and maintenance, and view/transfer reports.



Features

- ▶ Supports multiple tenant sessions for reporting to multiple railroads
- ▶ Provides maintenance reporting and records clean-consist train data
- ▶ Supports single and multiple track operations
- ▶ Compatible with TransCore's MPRX (Multiprotocol Reader Extreme)
- ▶ Remote access via network IP connection and local access via console port
- ▶ Meets AREMA C&S Manual Standards for Classes C specifications

Applications

- ▶ Rail AEI
- ▶ Mainline and rail yard systems

TRANSCORE
Trusted Transportation Solutions

TRU™ Train Recording Unit

COMMUNICATION

Communications Interface

RS-232 and 10/100 Ethernet*

*The 10/100 Ethernet port can be used for communicating systems (in multi-track installations) or transmitting consist and maintenance reports using standard FTP to user-configurable host addresses.

HARDWARE FEATURES

Placement

Makes use of existing AEI infrastructure (huts, antennas, etc.)

Existing peripheral equipment may be connected to the TRU using existing wiring and connectors.

Supported Reader Options

TransCore's MPRX

SOFTWARE

Solid state drive for data storage: no magnetic storage media

Operating system, applications, and configuration settings stored in nonvolatile memory (compact flash)

Parameters set locally using a serial port and a terminal

Parameters may be accessed remotely by authorized personnel using a terminal and supervisory-level password

Report customization and transmission for up to 10 host systems

MUI for configuration, diagnostics, maintenance, and report viewing

Extensive remote recovery and diagnostic capabilities

POWER REQUIREMENTS

Power Source

12V to 36V DC nominal

The TRU will not be damaged if the input supply voltage is applied with reverse polarity.

The TRU will automatically restart after power failure and intelligently restart after power failure when battery voltage reaches the lower limit of operational voltage. Setting is 22.5V DC.

PHYSICAL

Dimensions

Size (W x H x L): 15.5 x 12.5 x 10 in (39.4 x 31.8 x 25.4 cm)

Weight: 26.3 lb (12 kg)

Mounting

Designed to be wall-mounted inside standard railroad huts

Enclosure

Hinged-cover NEMA-4 enclosure with quarter-turn fast latches

COMPLIANCE

RF Interference

Units have been tested and are verified to Part 15 of the FCC rules for a Class A digital device.

ENVIRONMENTAL

Operating Air Temperature

-40°F to +160°F (-40°C to +70°C)

Storage Temperature

-67°F to +185°F (-55°C to +85°C)

Humidity

95% noncondensing

Vibration Tolerance

Complies with AREMA C&S Manual, Part 11.5.1, Class C

Shock Tolerance

Complies with AREMA C&S Manual, Part 11.5.1 Class C

STANDARDS

AAR Manual of Standards and Recommended Practices, Railway Electronics, Standard for Automatic Equipment Identification, S-918

AAR Manual of Standards and Recommended Practices, Railway Electronics, AEI Site-To-Host Consist Report Format, S-918A

American Railway Engineering and Maintenance of Way Association (AREMA) 11.5.1 Class C C&S Manual

AEI Reader Equipment Requirements, Recommended Practice, RP-9203

EXTERNAL DEVICE INTERFACE

Supports MRRX via 16-pin multi-conductor circular connector

One standard RJ45 port for connection to LAN or adjacent TRU in a multi-track installation. The TRU Ethernet controller supports 10/100 Mbps.

Four external serial ports:

- One local laptop port
- Reader monitoring/data archival ports
- One auxiliary serial port for data communications between the TRU and an external device

Sufficient digital ports to support wheel detector inputs (SI±, SII±), train presence detection, and train route detection for up to two tracks, as well as system-level AC line voltage monitor (24V AC), and battery charger condition monitor

MODEL PART NUMBER

80-62XX-NNN

For more information:

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