Pierce
RPM
749 RPM
PUMP ENGAGED
NO
ENGINE HOURS
56.2 HRS
ENG BRK ON/OFF
ENG BRK LO/MED/HI
MIRROR HEAT
OFF-ROAD TRACTION
PUMP HOUSE HEATER

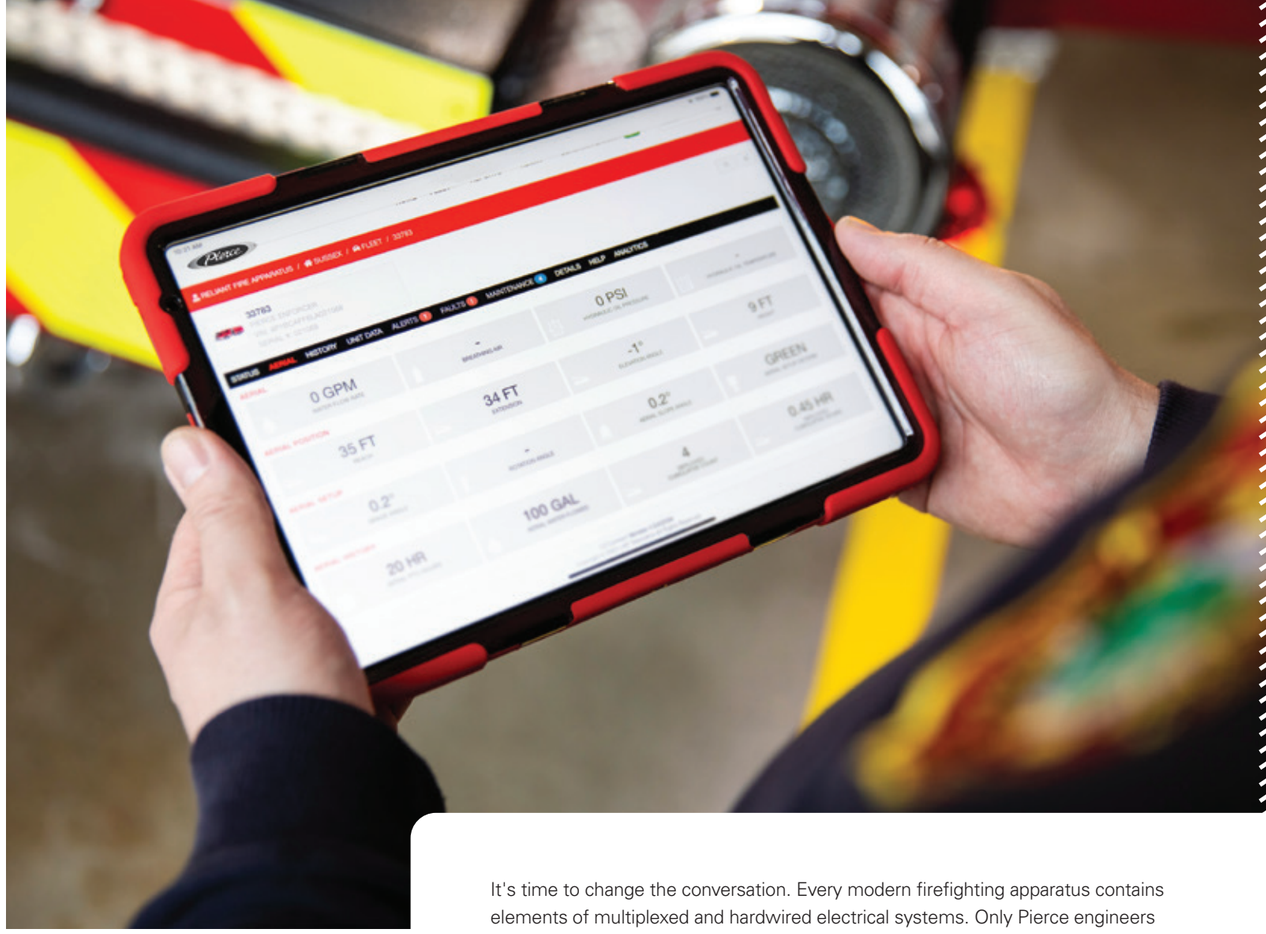
ONE SOURCE. ONE INTUITIVE,
SINGULAR SYSTEM.
NO COMPROMISES.

PIERCE® ELECTRICAL SYSTEMS

RELIABLE
Validation Testing
Component Protection
Custom Programming
Virtual Switching

CONFIGURABLE
Strategically Located
Scalable Power Distribution
Debug Mode
Live Data

MAINTAINABLE
Accessible Components
Component Labeling
Telematics Dashboard
Real-Time Analytics



It's time to change the conversation. Every modern firefighting apparatus contains elements of multiplexed and hardwired electrical systems. Only Pierce engineers systems that are purpose-built to serve the fire industry with features poised to seamlessly evolve with technology.

No clunky retrofits or complicated third-party software. No troubleshooting your troubleshooting. Utilizing proven military-grade hardware and wire harnesses, Pierce® electrical systems give you technology built from the ground up for your department. If you have questions, you speak directly to the people who engineered your system, who just so happen to have lunch with the people who welded your frame rails.

One source. One intuitive, singular system. Available in feature packages that provide your desired level of interface, diagnostics, prognostics, maintenance, navigation, and more.

FEATURE PACKAGES

Reliable, maintainable, configurable.

Pierce's electrical systems are purpose-built to evolve with technology in the fire industry, but it all starts with a reliable, maintainable, and configurable foundation comprised of proven military-grade hardware and wire harnesses.

Integrated into this foundation are available Command Zone™ features designed to provide an enhanced vehicle interface experience. Ranging from the 7" color touchscreen display to the full ClearSky™ telematics solution, Pierce offers the level of control, diagnostics, real-time data, and prognostics your department needs.

ELECTRICAL SYSTEM FOUNDATION

Every Pierce® custom chassis comes standard with:

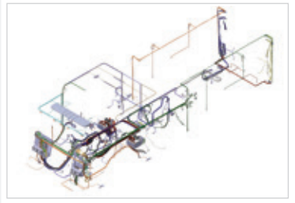
- Electrical distribution centers located strategically throughout the vehicle
- Serviceable electrical components that are readily accessible
- Power/signal protection and control components protected against corrosion, heat, vibration, physical damage, and water spray
- Distribution centers that contain battery power and ground studs for ease of customer supplied component installation
- Wiring run in conduit or loom where exposed; wire raceways built into cab structure
- IP67 waterproof connectors specified throughout the chassis

Component Specification

- Circuit breakers that conform to SAE standards; harnesses conform to SAE, NFPA, NEC, UL, ASTM, & WHMA standards
- Wire, relays, and solenoids sized to 125% of maximum current
- Wire insulation is high temperature crosslink
- Wire harnesses that include color, function, and number coding; function and circuit number stamped at 2" intervals.

Validation

- Voluntary third party (UL) auditing for electrical compliance to NFPA 1901
- Third party EMI/RFI chamber testing to ensure emissions are suppressed at the component source
- R&D cycle testing of new components



WIFI/TOUCHSCREEN

Provides a higher level of apparatus interface via a locally connected WiFi-enabled device or an optional 7" color touchscreen.

Including:

- Connect up to five WiFi-enabled devices within 300' of the vehicle
- View active or historic faults with text descriptions & real time J1939 driveline data bus information
- Auto day/night display backlight mode
- Administrator setup features accessed through a configurable password security level
- Opportunity to integrate seat belt monitoring, tire pressure monitoring, and camera images in a single touchscreen display
- Primary Display Screens: transit gauges, scene gauges, notifications/faults, diagnostics, timer/clock/date, OneTouch camera selection

Hardware

- 7" color resistive television
- Telematics Control Unit (TCU)
- Control module
- Roof mounted WiFi/GPS antenna

Control

- Heat, defrost, and air conditioning control from touchscreen and WiFi enabled device

Diagnostics

- View active or historic faults with text descriptions & real time J1939 driveline data bus information

Optional Integration Packages

- Bendix SmartTire tire pressure monitoring
- Camera systems

COMMAND ZONE™

Provides the highest level of Command Zone interface, control, diagnostic, and prognostic capability. Includes the features of WiFi/ Touchscreen along with the features below:

- Full complement of solid state Command Zone input/output modules located strategically throughout the apparatus to reduce wire bulk
- Virtual switch panels for touchscreen control & WiFi-enabled device
- Virtual switch panel configuration through the administrator setup menu
- Dynamic or static graphical "Do Not Move Truck" screen
- Command Zone debug diagnostics available on the password protected touchscreen and WiFi-enabled device menu
- Connect cellular telematics hardware is included. Access to Connect is available through the Internet dashboard subscription
  - View real time vehicle/fleet status from the secure Internet dashboard
  - Receive customizable e-mail notifications for vehicle alerts, faults, and maintenance notifications

Hardware

- D-Series power, input, and output modules
- 7" color resistive touchscreen
- Telematics Control Unit (TCU)
- Control module
- Roof mounted WiFi/GPS antenna

Control

- Heat, defrost, and air conditioning control from touchscreen and WiFi enabled device
- Virtual switch panels on display and WiFi enabled devices
- Truck-specific I/O configuration

Diagnostics

- Visual "Do Not Move Truck" indication
- Command Zone I/O debug mode
- Load manager status
- Pump and throttle interlock status

CLEARSKY™ TELEMATICS SOLUTION

CLEARSKY™

Remotely access fire apparatus data through a computer or portable electronic device with the ClearSky™ web-portal. Users have the ability to view, track, diagnose and assist with troubleshooting, expediting service support, intervening when critical failures occur to prevent further damage, improving budget forecasting, maintenance planning, geofencing, and more.

Standard options include:

- Receive customizable alert notifications for fleet metrics, real-time alerts, and maintenance notifications via e-mail
- Reduce maintenance downtime by developing preventative maintenance schedules
- Create scheduled fleet status reports
- Monitor fleet status with geofencing
- View fleet metrics
- View real-time data points for engine, pump, and aerial status/history
- Remotely view active and historic faults

Hardware

- Command Zone™ equipped apparatus

Connectivity

- Uses 4G LTE cellular network and web-portal to display vehicle information
- TCU transmits data via 4G LTE to the web-portal for access
- Subscription required

Optimized Capabilities

- Remotely diagnose and monitor faults via web-portal
- Receive alert notifications via email or access web-portal
- Create maintenance plans and reminders
- Remotely access active/historic apparatus data via web-portal
- Receive alerts, fault and maintenance messages via email
- Track, manage, monitor a single apparatus or an entire fleet

Antenna

TCU

OPTIONAL INTEGRATION FEATURES

ASCENDANT® CLASS OF AERIALS

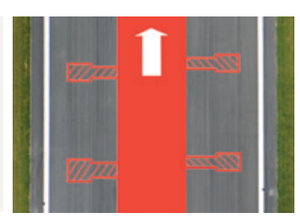
Setup determination and aerial information on chassis touchscreen

- Understand if the vehicle is properly placed to use the aerial prior to leaving the cab

AERIAL STABILIZER CAMERAS

Provides a top down view of where the aerial stabilizers will be planted

- Outline of extended stabilizers overlaid on camera image



TIRE PRESSURE MONITORING

Bendix SmartTire system monitors each tire's pressure and temperature

3 Alert Levels

- Critical low pressure
- Pressure deviation
- High temperature

IDLE REDUCTION TECHNOLOGY(IRT)

IRT pairs automatic diesel engine controls with high-performance lithium-ion batteries and lead-acid batteries to:

- Reduce idle engine hours and fuel costs
- Reduced CO^2 emissions
- Reduced on-scene noise

**Only available with the Full Command Zone package.*
***Aftermarket solutions available.*

- Operator on/off control
- Operator HVAC climate control
- Battery system state-of-charge level
- Chassis electrical load

www.piercemfg.com

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PERFORM. LIKE NO OTHER.™

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P-0125-CZELSYSTBR 4/23