Wayne FUELING SYSTEMS | DOVER FUELING SOLUTIONS

Wayne iX Fleet™ Fuel Control System

Advanced In-Dispenser Fleet Fueling Control

Access Control at the Point of Fueling

Keeping vehicles fueled is the lifeline of organizations that depend on a fleet for their operations, and it involves much more than simply having fuel dispensers on site. Fuel must be readily accessible to employees who need it to perform their jobs, but also restricted from unauthorized users. Plus, management needs the correct information to maintain fuel inventory and be aware of any vehicle maintenance and operations issues.

The Wayne iX Fleet™ fuel control system, used in conjunction with Wayne Select™ electronic fleet dispensers, helps improve efficiency through sophisticated technology. Consisting of an in-dispenser terminal (IDT) and a controller, the iX Fleet™ fuel control system delivers remote and on-site fleet fueling control and management for one location or many.

Installed in Wayne Select™ electronic fleet dispensers, the IDT helps simplifies installation and the user interface by moving access control directly to the point of fueling. The distributed system architecture allows each dispenser to independently authorize fueling transactions for a quicker response and enhanced up-time. The iX Fleet™ fuel controller uses Microsoft® Windows® operating system and SQL Server databases to capture and store information from the dispenser, as well as provide centralized remote system management. It also delivers advanced reporting functionality, all from an easy-to-use dashboard display interface. Software is pre-loaded on the controller, simplifying, and expediting the system start-up.

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Secure Access Control

The iX Fleet™ fuel control system provides a wide range of controls so you can tightly manage your fueling operation.

Vehicle Controls

- Control which vehicles have fueling access
- Limit the maximum amount of fuel per transaction
- Help ensure accurate odometer entry with odometer reasonability controls
- Specify and restrict fuel type by vehicle
- Flag vehicles in violation of allowable MPG ranges
- Limit fueling locations

Employee Controls

- Control which employees are allowed fueling access
- Restrict the number of times an employee can access fuel per day
- Specify the types of vehicles an employee can fuel
- Limit fueling locations

Dispenser Controls

- Stipulate days of the week and hours per day a dispenser is accessible
- Restrict fill amount per dispenser
- Automatically disable a dispenser after several “no quantity” transactions

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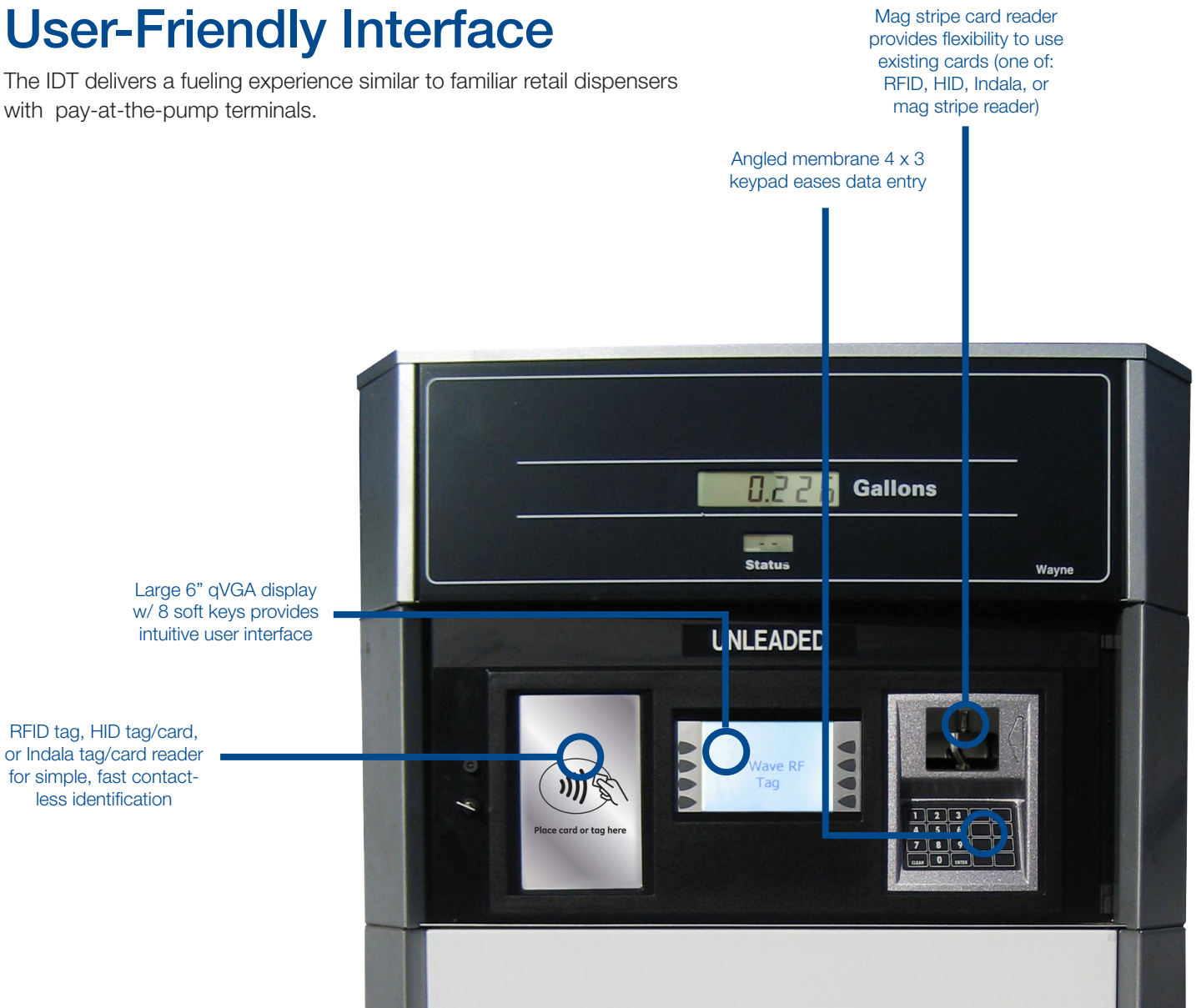
Distributed Dispenser Control

Each Wayne Select™ electronic fleet dispenser is equipped with an IDT for user entries, authorization, control, and transaction recording which provides redundancy to make sure your fleet stays on the road. For the ultimate in convenience, dual hose dispensers may be equipped with an IDT on each side, with access to one or both hoses. Or for a more economical solution, only one IDT may be installed on one side of the dual dispenser, allowing simultaneous control of both hoses. Wayne Select™ electronic fleet dispensers may be ordered from the factory with IDTs, or existing Wayne Select™ electronic fleet dispensers may be easily retrofitted with the terminals.

User-Friendly Interface

The IDT delivers a fueling experience similar to familiar retail dispensers with pay-at-the-pump terminals.



flexibility

Flexibility to Fit Your Requirements

Authenticate access to fuel either by vehicle or user, and select the ideal identification method including:

- Radio Frequency ID (RFID) contactless key fob
- Magnetic stripe card
- HID or Indala proximity card or tag
- Keypad entry

HID, Indala, and mag-stripe options provide the flexibility to use existing building security or national fleet cards for authorizing transactions, eliminating the inconvenience of carrying a second tag or card for fueling authorization. IDs on the tags or cards are linked to the databases on the controller to allow the control of fueling parameters. In addition to authenticating users or vehicles, the iX Fleet™ fuel control system can prompt for additional information at the dispenser such as odometer readings, employee or vehicle identification numbers, or specific details relevant to your organization.

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Centralized Management

The iX Fleet™ fuel controller with department, employee, and vehicle SQL databases puts centralized management control at your fingertips. Access IDs are linked to the databases, and you can easily change fueling parameters at any time. All changes are conveniently entered on the central iX Fleet™ fuel controller and are automatically downloaded to each dispenser, along with the latest odometer information gathered from fueling transactions. Vehicle type and employee templates with common parameters simplify data entry.

The detailed reporting functionality of the iX Fleet™ fuel control system provides further insight into your operations. Using the flexible report writer, users can create custom transaction reports and sort data by department, specified values, ranges, times, and field entry parameters. The system also helps you control your fuel inventory by calculating tank inventories from dispenser transactions and tank delivery and adjustment entries.

Advanced IP Communication

Each IDT and controller are equipped with an IP address.

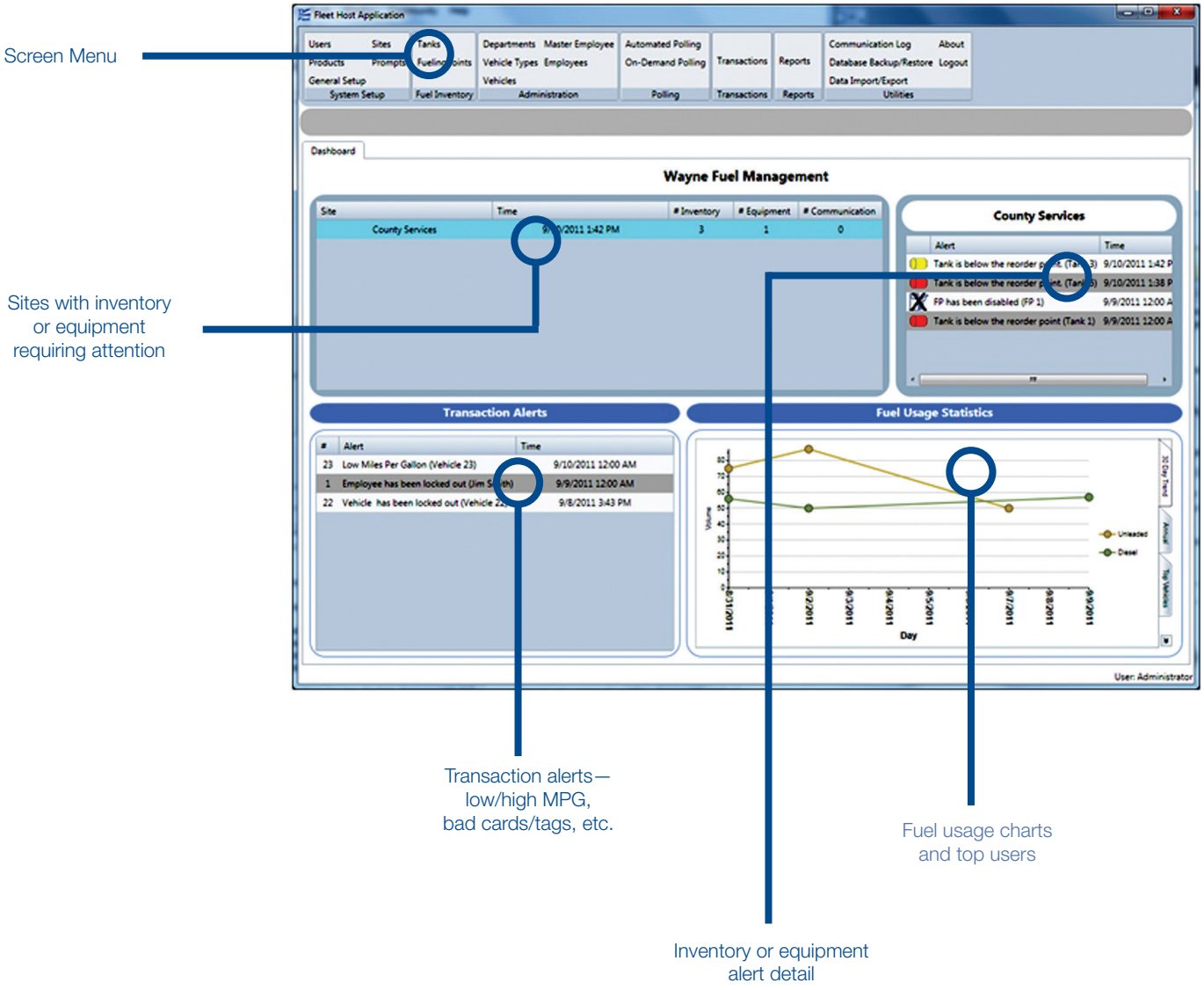
Single Sites: Run Ethernet cables between the IDTs and controller directly or communicate across your network by simply plugging each device into the LAN. Utilize wireless modem option for a convenient communication alternative for extended distances or where direct cabling is prohibitive.

Multiple Sites: Centrally locate the controller and connect to the LAN, and also plug each of the dispensers into the LAN.

Information from the iX Fleet™ fuel controller database is automatically sent to each IDT. Dispenser transactions are then based on the most up-to-date records, such as authorized employees or new vehicles added to the fleet. Similarly, IDT data is automatically gathered by the controller, so you have central access to the latest information from all of your sites. If IDTs lose communication with the controller, they continue to authorize fuelings and store transactions for transmission to the controller once communication resumes.

Management Dashboard Software

The visual dashboard display on the iX Fleet™ fuel controller helps simplify fuel site management by providing a real-time snapshot of items requiring attention in your entire fueling operation on a single screen.



The iX Fleet™ fuel control dashboard helps you answer critical questions at-a-glance.

- Which locations need fuel?
- Are all sites, fueling equipment, and communications functioning properly?
- Were all users able to get fuel? If not, why?
- Do any vehicles require maintenance?
- Are there any potential pilferage issues?
- What is our fuel usage and how does it compare to past records?

Specifications

In-Dispenser Terminal (IDT) Hardware

Location: Factory-installed on Wayne Select™ electronic fleet dispensers or available as a retrofit

Access Identification: One of - RFID contactless key fob (p/n WP000362-0001 – qty of 25), magnetic stripe card, or HID proximity card or tag – plus keypad entry

Display: 6" qVGA monochrome display with eight soft keys for user selections

ID Readers (one of):

RFID Reader: ISO 15693 contactless reader. Reads Wayne® RFID fuel tags.

Mag Stripe Reader: ABA Track I & II, dual head

HID Reader: ProxPoint Plus 6005B 125khz Proximity Reader. Reads HID ProxCard II, ProxCard Plus, Proxkey II key fobs, or MicroProx tags.

Indala Reader: 125khz proximity reader. Reads Indala 26-bit format cards/tags.

Keypad: 4 x 3 membrane keypad. 0-9, enter, & clear keys

CPU: Wayne iX R2 CPU board. 32-bit embedded processor. 5 USB ports. CANbus communication to dispenser.

Transaction Backup: Redundant 128MB flash and 1 GB SD card

Communication: 4-port Ethernet switch for connecting to network, other on-site IDTs, or direct wiring to controller.

Heater: 550W heater fan, thermostatically controlled

Approvals: UL-Listed; CSA

Model Identification

New Dispensers:

Identified in second suffix position of Select dispenser model number - e.g. 3/G7201P/2J/D1J

D1 = RFID reader, one side	D6 = Keypad only, two sides
D2 = RFID reader, two sides	D7 = HID reader, one side
D3 = Mag stripe card reader, one side	D8 = HID reader, two sides
D4 = Mag stripe card reader, two sides	D9 = Indala reader, one side
D5 = Keypad only, one side	D10 = Indala reader, two sides

Retrofit Models:

p/n W2893050-xxx (see xxx suffix below)

-001 Keypad only, one side	-006 RFID reader, two sides
-002 Mag reader, one side	-007 HID reader, one side
-003 RFID reader, one side	-008 HID reader, two sides
-004 Keypad only, two sides	-009 Indala reader, one side
-005 Mag reader, two sides	-010 Indala reader, two sides

IDT Software

System Capacity:

- Up to a total of 6000 vehicles and employees
- Up to 1,000,000 transaction storage if off-line from iX Fleet™ Controller

Access Control: Configurable - set system for one or other

- Access id identifies vehicle with optional manual entry of employee id
- Access id identifies employee with optional manual entry of vehicle id

Vehicle Controls:

- Fuel type restriction
- Fuel site restriction
- Maximum fuel per transaction
- Maximum fuelings per day
- Odometer reasonability
- MPG exception

Employee Controls:

- Maximum fuelings per day
- Vehicle type restriction
- Fuel site restriction

DFS Wireless Modem Kit

Communication: 5 GHz wireless ethernet line of sight communication between iX Fleet controller and IDTs.

Hardware: WU019854-0001 DFS Wireless Access Point is located within building and connects to iX Fleet™ controller. Optional WU021851-0001 DFS Wireless External Antenna is mounted on outside of building and connects to Access Point if reception is not suitable. WU019855-0001 DFS Wireless Subscriber Unit is located within each dispenser. One Access Point can communicate with multiple Subscriber Units.

iX Fleet™ Fuel Controller V3 Hardware

Location: On-site for local control of single site or remote for centralized control of multiple sites.

Hardware: Single board computer controller. Quad core, 64-bit, 2.42GHz, and 4GB memory with 128GB solid state drive. Four USB ports for software loading and backup, keyboard, mouse, and user-supplied printer. One HDMI display connector for monitor. Includes controller, monitor, keyboard, and mouse. (p/n WU028283-0001)

Operating System: MS Windows 10 IoT Enterprise LTSC 2021

Communication: Two Ethernet ports. Can segment IDT and outside communication.

Environmental: 120VAC / 240VAC. 32°F to 104°F (0°C to 40°C), weather-protected.

Dimensions: 13.19"W x 3.8"H x 13"D (335mm x 98mm x 330mm)

iX Fleet™ Fuel Controller Software

Database Software: Microsoft SQL Server Express

User Security: 3 levels - view only, view and modify (except transaction edits and database backup/restore), all

Management Dashboard: Single screen with tank reorder, equipment problem, and transaction error alerts; and fuel usage statistics and charts.

Vehicle Database: Authorized vehicles, descriptive vehicle information, vehicle controls, and entry prompts.

Employee Database: Authorized employees, descriptive employee information, employee controls, and entry prompts.

Department/Account Database: Descriptive department or account information. Discounting option to decrement/increment cents from account's transaction price.

Vehicle Type Database: Groups vehicles by type for reporting and to simplify entry of common vehicle controls.

Transaction Database: Fuel transactions polled from IDTs. Multi-year capacity.

Tank Inventory: Book inventory with delivery and adjustment entries.

Fueling Points: Accumulative totalizer readings with YTD totals. Ability to load price or cost by fueling point on demand or calculate average cost after each fuel delivery cost entry.

Transactions: Transaction log for viewing transactions. Add off-site or off-line transactions to maintain complete vehicle and employee records. Edit transaction capability with audit log.

Communication: Online with IDTs through direct or network connection every five minutes or on demand. If communication is lost, data is retained and transmitted upon resuming communication.

Reports: Wide variety of standard department, vehicle, employee, dispenser, and inventory reports. Also includes report writer for creating custom fuel usage reports by specified sort fields, field values, and time parameters.

Data Import/Export: Import employee and vehicle files using Excel template. Export transactions by date and time range in XML format

Service Utilities: Communication and service logs for determining component status and diagnose problems.

Database Utilities: Backup and restore capabilities