

FleetLink Fuel Control System



The Easy-to-operate

Non-Intervention System

for Fleet Fueling

Operations



Phoenix data access

Sites	Accounts	Cards	Transactions
CardNumber	Name	LastDate	Odometer
0018	Smith	12/04/99 2:58:00 PM	000
588	99Chevy	10/08/99 1:05:00 PM	160678
888	96Ford	10/17/99 2:39:00 PM	13500
9659	94GMC	12/04/99 2:58:00 PM	17186

Account: 2035, County Maintenance

Card Type: All Cards

Card #: 588

Name: 99Chevy

Short Name: 99CHEVY

Card Status: Valid

PIN:

Prod. Restrict: Unleaded

Exp. Date: 09/08/20

Qty. Restrict: 120

Odometer: 160678

Reasonability:

Monthly Alloc: 1000

Daily Alloc: 50

Estimated MPG: 20

SHERIFF
Buckner County

UNLEADED

NO SMOKING
STOP ENGINES

FleetLink Fuel Control System

FleetLink – Automatically Capture Data with the Fuel Nozzle, Directly From Your Vehicles

With Petro Vend's FleetLink™ Fuel Control System, security, accountability and control for your unattended fleet fueling operation has never been easier. The system uses radio-wave technology to automatically receive vehicle I.D., mileage and other important information right at the vehicle's fuel fill tube. Authorization is automatic so there's no need for your drivers to insert a card, key or manually enter mileage and engine hours. As your drivers fuel, FleetLink automatically obtains vehicle identification and odometer readings to help you better maintain your fleet and ensure accurate fleet maintenance scheduling, vehicle accountability, site security and fuel control. It's easy to use and the non-intervention technology ensures vehicle data accuracy.

Proven System2 Reliability

FleetLink is part of Petro Vend's System2™ family of fuel control systems and easily retrofits to existing System2 installations; you can convert all of your vehicles at once or as many as you choose. With the addition of C/OPT™ Fuel Island Terminals at the pump, any combination of fueling I.D. methods can be used: cards, ChipKeys®, Cardless PIN access as well as radio-wave technology (see the System2 Fleet brochure for more C/OPT details).

The System2 Fuel Site Controller

At the heart of every FleetLink system is the System2 Fuel Site Controller. The Fuel Site Controller stores transaction data and driver and vehicle records, including fueling restriction data critical to proper fleet management. This desktop controller is kept indoors, away from the hazards of a 24-hour fueling island so your valuable data stays safe. The Fuel Site Controller can store over 100,000 proprietary cards and thousands of transactions, so even the largest operations have room to expand. Programming is done right from your PC, either locally or over phone lines using a modem. Simple menu choices guide you through set-up and daily operations. No formal computer training is needed.

Here's How it Works

Your driver starts the fueling process by removing the nozzle from the dispenser and inserting it into the vehicle's fuel fill tube. All information is automatically sent from the Vehicle Identification Unit through the Tank Transceiver Loop and Nozzle Adaptor antennas to the Vehicle Identification Terminal. The Vehicle Identification Terminal sends the information to the System2 Fuel Site Controller, which authorizes fueling and automatically records the vehicle and transaction data. The fueling transaction is automatically ended when the nozzle is removed from the fuel fill tube, so fuel cannot be dispensed into an unauthorized vehicle or container. All transactions are stored in memory for retrieval and report printing.

FleetLink Benefits

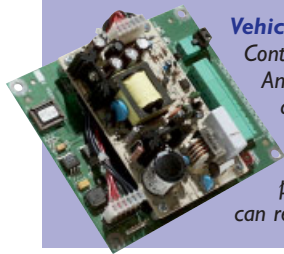
- Automatically captures fueling data with the fuel nozzle, directly from your vehicle for complete reporting accuracy
- Increases productivity by eliminating the need for cards, keys or manual entries
- Accurate data retrieval ensures accurate fleet maintenance scheduling, vehicle accountability, site security and fuel control
- Works with the System2 family of fuel management systems and retrofits to existing sites for easy installation
- Uses hand-held PDA for easy step-by-step vehicle identification programming
- Bi-colored Nozzle Adapter LEDs communicate operating and error messages to drivers

System2 Fuel Site Controller Benefits



- Compact desktop unit has status display, test and reset controls on front panel for easy access
- Communication ports allow for journal printer, PC, serial pass-through port, modem and Petro-Net connection
- Individual drivers and vehicles can be grouped into accounts for easier control of group restrictions and lockouts
- Extensive reporting capabilities
- Optional report package generates reports by driver, vehicle and account
- Daily and monthly credit allocations per card/key/account lets you set fueling restrictions

System Components



Vehicle Identification Terminal (VIT)
Controls communication for up to 32 Nozzle Antenna Adapters (8 per VIT—4 VITs per system) allowing you to outfit virtually any size site with a single Fuel Site Controller. The VIT mounts directly in a C/OPT Fuel Island Terminal pedestal or remotely, in its own cabinet, so you can retrofit any existing System2 site.

Intrinsically Safe Barrier
Installed directly in the pump junction box for intrinsically safe operation.



Tank Transceiver Loop Antenna
Mounts around the vehicle's fuel fill tube. Adaptable to any vehicle.



Nozzle Antenna Adapter
Mounts on the base of the nozzle spout and fits most nozzle styles. Features bi-colored LEDs that transmit operating and error messages to drivers.

Vehicle Identification Unit (VIU)
Easily mounts in the vehicle's trunk or passenger compartment—no matter what type of vehicle is being outfitted. It's powered by the vehicle's battery; no other power source is needed. (In the event of loss of power, all important data is stored in non-volatile memory.) The VIU contains all the important data, such as vehicle and fleet I.D., mileage and engine hours.



Universal Speed Sensor
This unit is installed on the drive shaft of the vehicle and allows FleetLink to accurately gauge mileage. It works on any vehicle, front or rear-wheel drive, counting mileage without tampering with the vehicle's computer.



VIU Programmer
A hand-held PDA system features step-by-step prompts that make programming the Vehicle Identification Unit easy. The software works on the Palm™ operating system.

Management Reports Produce Valuable Data

Fueling data can be processed using the standard management reports and easily transferred to another computer for processing or printed using the journal printer provided.

Transaction Data Records

System2 automatically generates a transaction journal by printing information after each transaction. The user can configure this printout to include selected fields or all of the following transaction data:

```

0023I 03FEB02 10:55A 0300000000000002 P#1-1 PR#1 QT:22.000 $22.00
ACC:ACME TRUCKING DRV:GEORGE S VEH:TRUCK 1 ODOM:4250 MISC:
ACCOUNT #:1000 CARD2:0300000003

0024I 03FEB02 10:58A 0300000000000001 P#2-1 PR#2 QT:16.000 $16.00
ACC:ACME TRUCKING DRV:JOHN DOE VEH:TRUCK 2 ODOM:14000 MISC:
ACCOUNT #:1000 CARD2:
    
```

Because System2 stores transaction data in memory, these records can be recalled and printed, or displayed on a PC for review on demand.

```

SEQUENCE #: 23
REASON FOR TERMINATION: NORMAL
ACCOUNT: ACME TRUCKING
DRIVER: GEORGE S
VEHICLE: TRUCK 1
FEB 03,2002 10:55 AM
TRANSACTION #: 19
CARD #1: 0300000000000002
CARD #2: 0300000000000003
FUELTYPE: PREMIUM
PUMP #: 1
QUANTITY: 22.000 GALLON
PRICE: $1.000
TOTAL: $22.00
ODOMETER: 4250
DISTANCE PER UNIT: 22.7 LPHKM: 4.4
MISCELLANEOUS:
--RECEIPT ISSUED
ACCOUNT #: 1000
    
```

Declining Inventory Report (With Low Level Notification)

System2 tracks the current product inventory for up to 8 tanks. This report also lists the user-determined "low level" limits for each tank. Low tank levels are also indicated on the system.

```

TANK #1 PREMIUM QUANTITY: 11748.0 LOW LEVEL: 2000.0
TANK #2 UNLEADED QUANTITY: 10900.0 LOW LEVEL: 2000.0
TANK #3 REGULAR QUANTITY: 10000.0 LOW LEVEL: 2000.0
TANK #4 MRKD FUEL QUANTITY: 10000.0 LOW LEVEL: 2000.0
TANK #5 #1 DIESEL QUANTITY: 11000.0 LOW LEVEL: 2000.0
TANK #6 #2 DIESEL QUANTITY: 12000.0 LOW LEVEL: 2000.0
TANK #7 GASOHOL QUANTITY: 12000.0 LOW LEVEL: 2000.0
TANK #8 ALCOHOL QUANTITY: 10000.0 LOW LEVEL: 2000.0
    
```

Optional Report Package

The activity report sorts the transactions of a particular card or groups of cards, based on driver, vehicle or account number. This flexible report can be formatted to produce summary information (cost per mile, miles per gallon and average price per gallon) regarding groups of users within an account and specific discount totals. Customizable headings, price extensions and total quantity dispensed are also included.

Additional System2 Reports Include: System Status Reports (including Fuel Island Terminal and Pump Control Terminal Reports), Pump Totals, Transaction Summary, Transaction Receipt, Card Information Reports

```

ACME INC.
1234 Main Street
Benton Harbor, MI

Account Name: ACME TRUCKING
Account # 1000
Vehicle: TRUCK 1
Vehicle card # 0300000000000003

Subtotals: quantity 98.30 cost 98.20
miles 1002 avg mpg 10.1 cpm 0.09 avg ppg 0.999

Vehicle: TRUCK 2
Vehicle card # 0300000000000004

Subtotals: quantity 101.90 cost 101.80
miles 1016 avg mpg 9.9 cpm 0.10 avg ppg 0.999

Vehicle: TRUCK 3
Vehicle card # 0300000000000005

Subtotals: quantity 125.50 cost 125.37
miles 1514 avg mpg 12.1 cpm 0.12 avg ppg 0.999

Vehicle: TRUCK 4
Vehicle card # 0300000000000006

Subtotals: quantity 137.30 cost 137.16
miles 1297 avg mpg 9.4 cpm 0.09 avg ppg 0.999

Vehicle: TRUCK 5
Vehicle card # 0300000000000007

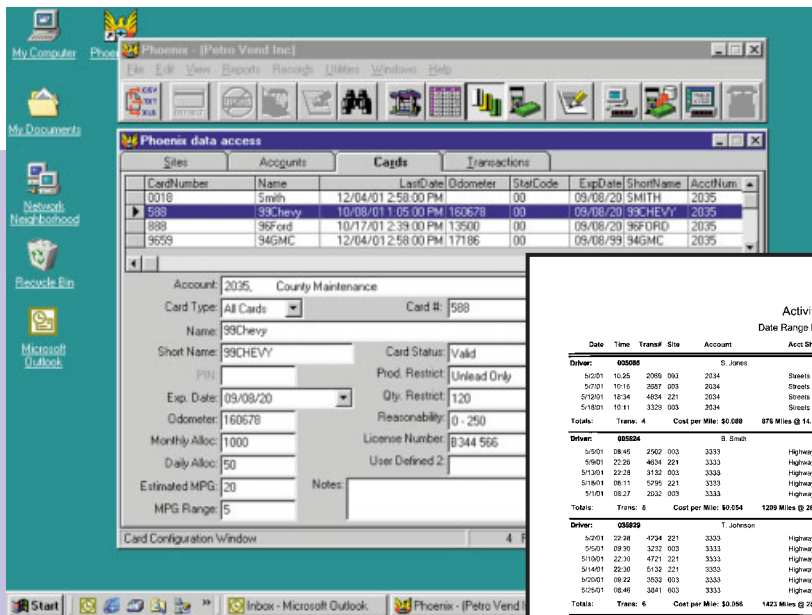
Subtotals: quantity 87.30 cost 87.21
miles 763 avg mpg 8.7 cpm 0.08 avg ppg 0.999

PRODUCTS TOTAL QTY. TOTAL COST
UNLEADED 550.30 549.74
549.74
Total after 10% discount: 494.77
    
```

Phoenix for Windows Software for Advanced Management

Phoenix™ for Windows® and Phoenix Plus™ for Windows are powerful fuel management tools. The intuitive user interface lets you easily navigate between System2 site, account, card and transaction screens. Phoenix for Windows features back-up and restore, terminal emulation and on-demand transaction polling. Phoenix Plus for Windows is

a powerful data management and communications software package that gives you total, centralized control over your fueling operations. Most data can be exported to third-party database, spreadsheet and fleet maintenance programs for further processing.



(Note: Windows is a registered trademark of Microsoft Corp.)

Activity Detail Report By Single Cards
Date Range From: 05/01/01 00:00:00 To: 05/31/01 23:59:59

Date	Time	Transf	Site	Account	Acct Short Name	Prod	Pump	MPG	Odom	Misc KeyBrd	Price	Qty	Amount	
Driver: 000000 B. Jones														
5/02/01	10:25	2069	003	2034	Streets	01-1	14.8	84232	254	11219	\$1,200	15.800	\$20.52	
5/07/01	10:16	2067	003	2034	Streets	01-1	14.1	84423	191	11219	\$1,200	13.800	\$17.24	
5/09/01	10:34	4034	221	2034	Streets	01-1	14.9	84647	224	11219	\$1,200	15.000	\$18.49	
5/18/01	10:11	3329	003	2034	Streets	01-1	14.7	84876	229	11219	\$1,200	15.500	\$20.13	
Totals: Trans: 4 Cost per Mile: \$0.028 876 Miles @ 14.6 MPG Avg MPG: 14.6 876 Avg Price: \$1,200 \$9,808 \$77.69														
Driver: 005524 B. Smith														
5/05/01	08:45	2502	003	3333	Highway	UPH	05-1	26.4	10454	220	3535	\$1,350	8.342	\$11.34
5/06/01	22:56	4031	221	3333	Highway	UPH	05-1	26.5	10593	225	3535	\$1,350	8.600	\$11.42
5/13/01	22:28	3132	003	3333	Highway	UPH	06-1	26.1	10901	221	3535	\$1,350	8.363	\$11.54
5/16/01	08:11	5795	247	3333	Highway	UPH	04-1	26.5	11188	297	3535	\$1,350	11.700	\$15.09
5/16/01	09:27	2032	003	3333	Highway	UPH	06-1	26.2	10234	245	3535	\$1,350	11.900	\$16.36
Totals: Trans: 6 Cost per Mile: \$0.054 1209 Miles @ 26.4 MPG Avg MPG: 26.4 1209 Avg Price: \$1,350 48,008 \$65.24														
Driver: 030929 T. Johnson														
5/01/01	02:28	4724	221	3333	Highway	Prm	02-3	26.7	40211	235	58242	\$1,450	9.455	\$12.79
5/05/01	09:30	3272	003	3333	Highway	Prm	06-3	23.6	40438	227	58242	\$1,450	8.854	\$12.92
5/10/01	22:30	4721	221	3333	Highway	UPH	03-1	26.6	40660	245	58242	\$1,350	9.000	\$12.23
5/14/01	22:30	5132	221	3333	Highway	UPH	04-1	25.1	40905	225	58242	\$1,300	8.990	\$12.18
5/20/01	08:22	3030	003	3333	Highway	Prm	00-3	25.2	41147	242	58242	\$1,450	9.800	\$14.01
5/25/01	08:46	3041	003	3333	Highway	Prm	01-3	25.4	41294	240	58242	\$1,450	9.800	\$14.20
Totals: Trans: 6 Cost per Mile: \$0.096 1423 Miles @ 25.8 MPG Avg MPG: 25.8 1423 Avg Price: \$1,426 \$9,988 \$79.45														
Driver: 4308 Chief Mechanic														
5/1/01	08:53	2049	003	Maintenance Card	01-1	0.0	0.0	0	0		\$1,200	6.400	\$8.31	
5/3/01	10:01	2043	003	Maintenance Card	06-1	0.0	0.0	0	0		\$1,350	8.450	\$11.49	
5/10/01	09:43	3280	003	Maintenance Card	Prm	05-3	0.0	0.0	0		\$1,450	9.500	\$12.86	
5/11/01	17:24	0560	003	Maintenance Card	UPH	05-1	0.0	0.0	0		\$1,350	8.490	\$11.48	
Totals: Trans: 4 Cost per Mile: \$0.009 0 Miles @ 0.0 MPG Avg MPG: 0.0 0 Avg Price: \$1,300 \$2,800 \$45.14														

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Phoenix for Windows includes a new Autopoll Scheduler that lets you schedule activities to be automatically performed daily, weekly or monthly. These activities include: capturing transaction data, backing up site configurations and backing up or updating card records. There's also a built-in help feature to assist you with each option. You can store address, phone number, tank, site employee and fuel provider information for each site. Phoenix even lets you export your transactions in Excel 5.0, HTML, dBASE IV, FoxPro 2.5, Lotus 1-2-3 WK3, Paradox 4.x and two ASCII formats; CSV (comma separated variable width) and SDF (space delimited fixed width).

With Phoenix Plus for Windows you get all of the above—plus the following features:

■ Card Management

This feature lets you make changes to your card database in one central location for multiple sites. System2's are then automatically updated during routine polling.

■ Reporting

This feature consolidates data from multiple sites at one time with the click of a button and schedule the printing of reports and export data. This reporting capability also includes any network transactions that are found in Fuel Site Controller software versions like VisaNet and Multi-Trucking. Phoenix allows you to choose from over 60 different types of reports. They include: Account, Card 1 and Card 2 Master File Listing, Site Sales, Product Sales, Account Sales, Transaction and Pump Total reports.

■ Enhanced Odometer Checking

This feature lets you easily find obvious, incorrect mileage entries such as single, sequential or repeated numbers. You can define an average MPG with a tolerance for each card, which is then used to verify the amount fueled against the odometer entry.

FleetLink Fuel Control System

Vehicle Identification Unit Specifications

12 to 24 volts DC
Vehicle Number (nine digits)
System ID (four digits)
Fleet Code (four digits)
Fuel Type
Vehicle Mileage
Engine Hours Input

Tank Antenna Coil

For fuel neck sizes 2" to 4.25"

Vehicle Information Terminal

8 Nozzle Inputs Per VIT- 4 VITs Max

Remote Cabinet Dimensions:

11.5" H x 12" W x 6" D (29cm H x 31cm W x 15cm D)

Power Requirements:

85-265 VAC, 50/60 Hz; 25 watts max.

Operating Temperature Range:

-22° F to 158° F (-30° C to 70° C)

Serial Communication Ports:

Petro-Net (RS-485)

Fuel Site Controller Specifications

Cabinet Dimensions:

2" H x 10" W x 11" D (5cm H x 25cm W 28cm D)

Power Requirements:

120 VAC, 60 Hz; 50 watts max. (standard)
240 VAC, 50 Hz; 50 watts max. (optional)

Operating Temperature Range (indoors):

32° F to 122° F (0° C to 50° C)

Serial Communication Ports:

Petro-Net (RS-485)
Printer (RS-232)
Terminal (RS-232)
Modem (RS-232)
Pass-through (RS-232)
2 Auxiliary Ports (RS-232)

Maximum Petro-Net Distance: 5000 feet (1524m)

Phoenix for Windows Minimum PC Requirements:

A Pentium processor, 32 MB RAM, CD-ROM drive, 100 MB hard disk space, SVGA monitor, Windows 95, Windows 98, Windows 2000, Windows NT®, Windows ME® or Windows XP® operating system and an available communications port.



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