

Critical fleet data without human intervention

Tracking critical fleet data has never been easier: simply fuel up and drive away. FuelZone automatically and transparently captures fuel and vehicle data: accurate information is guaranteed, no human intervention is required.

What can FuelZone do for you?

- ✓ Provide 24/7 unattended secure access to fuel
- ✓ Physically guarantee that fuel is dispensed to authorized vehicles only
- ✓ Eliminate spillage by cutting off the flow of fuel whenever nozzle is removed from authorized vehicle
- ✓ Satisfy environmental agencies regulations by automatically recording and reconciling fuel consumption to inventories
- ✓ Reduce fuel consumption by cutting down vehicle idling
- ✓ Speed up fueling
- ✓ Enhance safety by immediate notification of storage tanks leaks



Major Features

- ✓ Delivers all of the advantages of the FleetZone platform
- ✓ Wireless installation is economical, non disruptive, and provides protective electrical isolation from outdoor equipment
- ✓ Automatically records all data needed for fuel inventory reconciliation including storage tank levels, product deliveries and pump totalizers: no human action required!
- ✓ Immediately notifies you of storage tank leaks
- ✓ Automatically captures complete vehicular information: not only mileage and engine hours but also idling, fault codes and more
- ✓ No special dispenser nozzle, hose or fittings needed
- ✓ Plug-and-play Vehicle Data Unit installation

Automatic fuelling
No battery
No hose cable,
No messy hose retrofit

 **Coencorp**

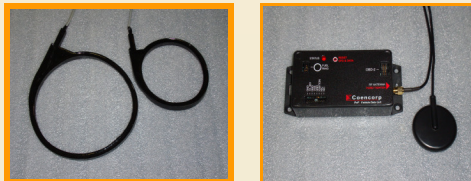
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The FleetZone platform

FuelZone is a component of the FleetZone platform, an integrated suite of automated fleet management products. All of FleetZone subsystems are built on a technological platform that pack some outstanding features not specific to any one module but common to all fleetZone subsystems:

- ❑ Wireless installation
- ❑ Automatic data collection
- ❑ Unlimited capacity
- ❑ Centralized management
- ❑ Integrates to any network
- ❑ Scalable to other FleetZone modules

Vehicle kit consists of a Vehicle Data Unit (VDU), a nozzle tag reader and a ring antenna.



Nozzle tag: slips onto the nozzle and you are ready to operate. No battery, no cable, no messy hose retrofit



RF data collector

Wireless link between the vehicle and the site controller.



Optionally

- GCC-100 wireless fuel island terminal
- Automatic capture of pump totalizers
- Electronic gauging interface
- Leak alarm management and notification



Installation

- Connects directly to the engine computer (OBD, J1708)
- Plug and play installation, no configuration or calibration
- Supports speed and ignition sensor on older equipment

Operation

Fuelling your vehicles has never been easier:

- Insert the nozzle in the vehicle fill pipe and fill up
- Data is automatically collected from the vehicle:
 - Odometer
 - Engine hours
 - Idle
 - Engine fault codes
- The pump stops when the nozzle is removed
- Fuel dispensed and collected data is stored on a central database



System specifications

Site controller

Power rating: 100-240VAC, 1.6 A max
Dimensions: 12.7" x 10.5" x 2.7" (323mm x 267mm x 69mm)
Environment: operational 0..+50 C, storage -20.. +60 C, humidity 10..90% (non-condensing)
Connections: 2x Ethernet, 4x serial RS232 (expandable)
Operating system: Windows XP embedded
Regulation approvals: UL/CE/CSA/FCC

RF server modem

Power rating: 12VDC, 1A max
Dimensions: 9" x 9" x 4.6" (approx. 229mm x 229mm x 117mm)
Environment: Operational -40..+60 C, Storage -40..+60 C
Host communication: RS-232 to the SiteController
RF Band: 2.4 GHz ISM
RF Range: 200 m (600 ft) max
Regulation approvals: FCC/IC/CE

RF vehicle data collector - needed to read the VDUs

Power rating: 12VDC, 1A max
Dimensions: 9" x 9" x 4.6" (approx. 229mm x 229mm x 117mm)
Environment: Operational -40..+60 C, storage -40.. +60 C
Host communication: RS-232 or RS-485 to the SiteController
RF band: 910-920 MHz or 868-870 MHz
RF Range: 150 m (500 ft) max
Regulation approvals: FCC/IC/CE

Fuel Island Terminal

Power rating: 100-240VAC, 1.0 A max, UL/CE/CSA listed
Dimensions: 12" x 16" x 8.1" (approx. 305mm x 406mm x 206mm)
Environment: operational -40..+60 C, storage -40.. +60 C
Display: 2x20 characters, 40mm x 180mm viewable, monochrome LCD with backlight
Keypad: metallic, alphanumeric 4x4 keys, vandal resistant
Proximity card reader: HID/Indala-compatible
Industrial pump control: 2 channels single-phase 230VAC, 40A + pulsar inputs
Host communication: RS-232 or RF client modem (2.4 GHz ISM)
Secondary communication: RS-485 to expansion PCUs
Wireless communication: RF Band: 2.4 GHz ISM
RF Range: 200 m (600 ft) max
Optional magnetic card reader (track 2)
Regulation approvals: UL/CE/CSA/FCC/IC

System specifications

Pump Control Unit (PCU)

Power rating: 100-240VAC, 1.0 A max

Dimensions: 12" x 16" x 8.1" (approx. 305mm x 406mm x 206mm)

Environment: operational -40..+60 C, storage -40.. +60 C

Industrial pump control: 2 or 4 channels single-phase 230VAC, 40A + pulsar inputs

Host communication: RS-232 or RS-485 from master terminal

Regulation approvals: UL/CE/CSA

Nozzle tags

Type: Passive, RFID interface frequency: 125 kHz

Nozzle tag range: 2" max

Power requirement: None

Environment: operational -50..+70 C, storage -50.. +70 C

Operational life: unlimited

Shelf life: unlimited

Regulation approvals: FCC/IC/CE

Vehicle Data Unit (VDU)

Power rating: 9-30 VDC, 10-100 mA

Dimensions box: 1.4" x 2.4" x 4.4" (approx. 36mm x 61mm x 112mm)

Space required for installation: 2.0" x 2.5" x 5.9" (approx. 51mm x 64mm x 150mm)

Environment: operational -40..+70 C, storage -40.. +60 C, humidity 10..90% (non-condensing)

RF band: 910-920 MHz or 868-870 MHz

RF antenna: windshield patch 2" (51 mm) diameter

RF antenna cable: 6' (1.8 m) min

Vehicle interface:

- a) Discrete VSS and/or Ignition signals
- b) Heavy engine ECM bus SAE J1708/J1587
- c) Heavy engine ECM bus SAE J1939 (also supports SAE J1708/J1587)
- d) Light engine OBD-II standards: ISO-9141, ISO-14230, ISO-15675, SAE J1850"

Nozzle tag RFID interface frequency: 125 kHz

Nozzle tag range: 2" max

Nozzle tag antenna - ring to be mounted around the fuel pipe: diameter 3.75" (95 mm) or 5.0" (127 mm)

Nozzle tag antenna cable: 22' (6.7 m)

Regulation approvals: FCC/IC/CE

VDU Application guide

	Vss VDU	J1708 VDU	J1939 VDU	OBDII VDU
Captured Data	Vehicle ID Total mileage Total engine hours Trip mileage Trip engine hours Engine idling hours	Vehicle ID Total mileage Total engine hours Trip mileage Trip engine hours Engine idling hours Engine fault codes Fuel consumption PTO hours	Vehicle ID Total mileage Total engine hours Trip mileage Trip engine hours Engine idling hours Engine fault codes	Vehicle ID Total mileage Total engine hours Trip mileage Trip engine hours Engine idling hours Engine fault codes
Installation	Stick-on windshield antenna	Stick-on windshield antenna	Stick-on windshield antenna	Stick-on windshield antenna
Vehicle I/F	2 wires spliced to power 1 or 2 wires spliced to Vehicle Speed Signal 1 or 2 wires spliced to "engine running" signal	Quick connect plug to J11708 connector 4 wires soldered to backside of J1708 diagnostics connector or 2 wires spliced to power 1 or 2 wires spliced to Vehicle Speed Signal 1 or 2 wires spliced to "engine running" signal	Quick connect plug to J1939 connector 4 wires soldered to backside of J11939 diagnostics connector or 2 wires spliced to power 1 or 2 wires spliced to Vehicle Speed Signal 1 or 2 wires spliced to "engine running" signal	Quick connect plug to OBD2 connector Quick connect plug to J11708 connector 4 wires soldered to backside of J1708 diagnostics connector or 2 wires spliced to power 1 or 2 wires spliced to Vehicle Speed Signal 1 or 2 wires spliced to "engine running" signal
Setup	None (plug & play)	None (plug & play)	None (plug & play)	None (plug & play)
Automatic fuelling	Yes	Yes	Yes	Yes
In transit data capture (DataZone)	Yes	Yes	Yes	Yes