



SCI's Unified Fleet Modules offers a new and innovative approach for fuel and fleet management. It integrates **any** hardware into a **single** highly advanced yet simple to use web-based software that provides practical and actionable information.

Fuel Shield

AUTOMATIC WIRELESS REFUELING SYSTEM



OVERVIEW:

Fuel Shield gives fleet managers a variety of cost-effective fuel dispensing and record tracking solutions. This is an automatic wireless system with straight forward installation that does not require excavations or infrastructure modification.

Fuel Shield is available for fuel stations with up to 2 nozzles per pump or for mobile tankers.

Fuel Shield can help your organization improve accountability and increase efficiency for consumption of gasoline, diesel, propane, lubricants, and other consumables, which can reduce "shrinkage" by more than 20 percent and reduce consumption by 12 to 15 percent.

KEY BENEFITS:

- Stop fraud and errors in refueling through dispensation of fuel only to authorized vehicles/equipment
- Stop fuel siphoning by shutting off fuel dispensation whenever the nozzle is removed from the vehicle tank
- Comply with state and federal environmental regulations relating to fuel consumption and inventories
- Reduce fuel consumption by reducing downtime and vehicle idling
- Reduce maintenance costs through preventive and predictive maintenance
- Identify vehicle/equipment and track MPG and GPH and usage inefficiencies
- Enable fuel tax recovery per applicable equipment



FEATURES:

- Single or dual nozzles per pump
- Mobile standalone setup for mobile tanker
- One Control Pump Unit can control up to four nozzles
- Allows manual authorization through magnetic cards, key pads, and Dallas iButton
- Wireless communication that is free of weather, electric, and other possible interferences
- Real-time data transmission to local office or back office for instant control, monitoring, and management
- Seamless communication with peripheral data devices such as SCI Level Shield (storage tank inventory)



- Seamless communication and integration with SCI Vision (security video and audio surveillance)
- Automatic retrieval and transmission of multiple telematic data from vehicle/equipment in the vicinity
- Full diagnostic evaluations
- Modification and support accessories
- Backup battery to maintain configuration and transaction data
- Durable construction meets petroleum products' environment specifications
- Web-based software module (UFM Manager), which is part of SCI Unified Fleet Modules
- PC-based standalone management software
- Easy to use, install, and expand

DATA:

- Transaction location, date, and time
- Fuel type
- Fuel amount
- Refueling time duration
- Alert on tampering
- Project ID
- Vehicle ID
- Driver ID
- Pump ID

OPERATION:

Fuel Shield is designed to operate wirelessly and automatically without human intervention, though manual operation is also available.

No fuel can be dispensed unless the Pump Control Unit (PCU) first communicates, identifies, and verifies the vehicle through the Vehicle Identification Unit (VIU) mounted on the fuel tank. Once identification and verification are established, the PCU will instruct the hose to dispense fuel according to predetermined parameters based on the vehicle and driver ID. If the nozzle is removed from the vehicle's fuel tank, communication between the HCU and VIU will immediately terminate, and refueling will stop.

Depending on the configuration and add-on components, the PCU operates as a receiving and transmission hub of other SCI modules such as telematics and Level Shield. Fuel Shield will automatically sync with such modules that are in the vicinity, retrieve the data, and transmit it in realtime to SCI web servers. The PCU is therefore a communication hub with multiple communication capabilities including RF, GPRS, and Wi-Fi.

