# MobiFill



### **Product Features**

### **MobiFill**



- uses RFID contactless technology to eliminate fraud
- is an innovative automatic vehicle identification and fuel monitoring system
- speeds up fuelling by automating pre-fuel checks
- uses passive batteryless tags requiring no connection to the target vehicle electrical system
- ♦ GPS tracking of vehicle and events (sales, exceptions)
- it is simple, quick and inexpensive to fit, requires little downtime
- has virtually unlimited life for batteryless vehicle tag
- ♦ tags are rendered inoperative if removed from vehicle
- optional pinpad odometer reading entry for fuel usage reporting
- virtual tank leveling (when used with Crossecom FASTFILL site system)





- minimises filling attendant intervention
- reduces fuel skrinkage
- optimizes control over fuel sales
- reduces filling process time
- improves fleet fuelling security
- onsures only authorised vehicles are fuelled
  - allows budgeting of fuel usage for individual vehicles or groups
- eliminates need for logbook documentation
- ♦ provides full audit trail
- allows emergency fillings of non-authorized vehicles when necessary with full audit trail



## **System Components**

#### **VEHICLE TAG**

This is a small batteryless electronic data storage unit (20-50mm in diameter) epoxied to the vehicle near the fill pipe. It can contain information such as vehicle details, owner identification, driver identification, fuel type etc. The tag uses RFID contactless communication techniques to release its details to the authorising reader. This technique employs two-way authentication allowing only genuine authorised tags to ensure the correct fuel is pumped into the authorised vehicle. To prevent fraud, a high security challenge and response crypto-algorithm is used.





#### **NOZZLE ANTENNA / READER**

The antenna, mounted conveniently on the dispensing nozzle spout, comprises a small loop antenna with its low power electronic components. It is connected to the reader (mounted inside the pump housing) via a special petroleum resistant cable.

An optional panel reader (with or without pinpad for odometer entry if required) can be mounted on the pump itself for driver identification purposes. It can also be used to authorise fuel deliveries if the additional security offered by the vehicle mounted tag is not required.

#### **CONTROLLER**

The System Controller stores information on all authorised vehicles and their respective owners as well as the fuelling requirements for each vehicle. This information is continually updated and shared between all devices on the network using the cellular network.

The Site Controller checks the data obtained from the tag against available information on that particular vehicle to determine if fuelling is permitted. In the case where the vehicle is not authorised for fuelling or if it has been reported stolen or missing, a suitable alert can be raised.

This system enables vehicles to be fuelled even if communication with the Head Office system is temporarily unavailable by keeping a local copy of the database, but will be updated as soon as communications is restored. Sales and other events are transferred to Head Office for reporting and analysis



#### **HEAD OFFICE**

The Head Office System comprises a number of different applications that control the overall operation. These applications are responsible for the tag information database & authorisation process as well as the production of various management reports for sales, vehicle usage, GPS mapping of events etc. Exports to third party systems are supported

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## **MOBIFILL**

# Benefits of MobiFill - to Fleet managers / owners

- o ensures fuel actually pumped into correct machine
- better monitoring of fleet fuel consumption
- improved data collection
- reduced errors due to minimised human intervention
- elimination of plastic cards or paper coupons
- minimisation of fuelling to non-authorised vehicles
- elimination of stolen cards problem
- ♦ reduced disputes on unauthorised fuel transactions
- reduction of manpower requirements
- ♦ 24x7 operation
- auditable "Super tags" allow filling of un-tagged vehicles
- ♦ full auditing of every litre of fuel dispensed
- online GPS tracking of vehicles and events
- allows vehicle performance analysis
- ♦ EVERY LITRE PUMPED IS AUTOMATICALLY RECORDED TO AN AUTHORISED TAG OR SUPER TAG

## to drivers / machine operators

- ♦ reduced process time
- elimination of paperwork and logbooks
- elimination of signed chits or plastic cards
- no disputes over fuel allowances
- automatic vehicle/machine identification

#### SOME OTHER PRODUCTS AVAILABLE FROM CROSSECOM

 $\underline{\mathsf{ISSAS}}$  — Integrated Service Station Accounting System comprising a comprehensive suite of applications covering the full range of retail automation requirements.

<u>CrossEGAUGE</u> — Automatic Tank Gauging System. Fuel tank monitoring and management, utilising Cloud or Stand-alone mode.

<u>CrossESEAL</u> — Sealed Parcel Delivery System. Protects and tracks bulk fuel transportation and delivery.

<u>FastFill</u> — Electronic Fuel Delivery and Fleet Usage System. Utilises state of the art RFID technology. Certified Intrinsically Safe.

<u>VeriFill</u> — Stand-alone fuelling authorisation, monitoring and recording system. Fits to any electronic pump.

<u>MobiFill</u> — Mobile Tanker Fuelling Station. Update and monitor fuelling details and locations from anywhere in the world.

<u>RECARD</u> — Fleet Fuel Accounting System. Issues cards, statements and reports. Secure Cloud Server.

<u>Custom Hardware</u> — Design and production of unique and specialised components for the forecourt.



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