



**Operation and Administration  
Manual**

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Vers	Date	Details
1		First Release
1.1	30 Sep 2014	Added version 1.07.xx features
1.2	10th October	Added 1.007.01X changes
1.3	Mar 2015	Added latest menu changes
1.4	Oct 2015	Full review & website update
1.5	Aug 2016	Updated for software version 1.07.089

# 1 Introduction.

This manual is designed to step through the operation and administration setup of a SmartFill GEN2 unit system. Please contact the manufacturer should you have any suggestions, or error corrections.

There are Icons used in this manual, which are designed to draw your attention to a particular area of importance. There are only 2 used, and their meanings are as follows...

WARNING



**WARNING.** This icon indicates that the relevant information is warning you of a potential hazard, or mishap event that may occur if you do not read and follow the advice. It is extremely important that you read and fully understand any information following a Warning Icon.



**TIP.** This icon indicates that the information is a Tip to assist you, a suggestion or a shortcut to a better method.

## 2 Overview

SmartFill GEN2 unit is a state of the art fuel management system specifically designed to work in the most demanding of environments. It is housed in a rugged metal enclosure that is IP66 rated and its modular design ensures ease of installation, upgrade and repair.

Users access fuel by using either keys or entering identification information via the keypad. Transactions always include the vehicle identification, the time and date, the amount of fuel dispensed, the pump from which the fuel was taken and if enabled, the driver, the odometer/ hours of the vehicle or plant and any other information that has been set up.

All data is stored in the unit and, if connected to the Internet, automatically sent to a secure website: [www.fmtdata.com](http://www.fmtdata.com).

The unit can be connected to the website using a direct network connection that has a connection to the Internet, a WiFi connection or a 3G connection.

The unit can be configured locally using the keypad and onscreen menus or via the website

## 3 Terminology

Term	Meaning
Key	ibutton or NFC card/Fob used to identify a driver or vehicle
Module	A plug in module that is used in the unit e.g pump module
AC	Alternating Current - normally 240VAC/Mains power
DC	Direct Current - either 12V or 24V DC

## 4 Warranty Information.

### 4.1 WARRANTY

- (a) FMT shall provide to the Customer a warranty for all Goods against defects in materials and workmanship for a one year period (the Warranty Period) commencing on the sale date to the Customer (the Warranty Commencement Date) of the relevant Goods.
- (b) The Product Warranty only applies to the Customer who originally purchased the Goods. It is personal and may not be assigned or transferred without the prior written consent of FMT.
- (c) Subject to Clause 4.2, FMT (at its option) will replace or repair for the Customer, free of charge, any part or parts, found upon examination by FMT, to be eligible for this Product Warranty. If any Goods or part is replaced or repaired under this Product Warranty, that Goods or part will carry the remainder of the Product Warranty from the Warranty Commencement Date.
- (d) The Product Warranty is in addition to any consumer guarantees existing available to the Customer at law and the Product Warranty does not exclude such consumer guarantees.
- (e) All enquiries regarding the Product Warranty may be directed to FMT on +61 8 8240 5585.

### 4.2 WARRANTY CLAIM PROCEDURE

- (a) In order to make a claim under the Product Warranty, the Customer must notify FMT in writing of any defect in the Goods discovered during the Warranty Period as soon as the Customer becomes aware of the alleged defect specifying in reasonable detail the nature of the defect. Such notice may be made by any one or more of the following methods:
  - (i) By Post addressed to:
    - Fluid Management Technology Pty Ltd PO Box 3197 Port Adelaide, South Australia 5015 Australia
  - (ii) By Email to: sales@fluidmt.com.
- (b) Upon FMT verifying the validity and currency of the Product Warranty in respect of the Customer's claim, the Customer must upon request by FMT send the Goods to FMT.
- (c) The Customer must ensure that the Goods are properly packaged so as to ensure that no damage occurs to the Goods during transit. The Customer is responsible for all posting, shipping, freight and insurance charges in respect of the Goods returned to FMT. Whilst in transit, the Goods remains at the Customer's risk.
- (d) FMT may, in its absolute discretion reimburse the Customer for the Customer's cost to undertake such repairs to the Goods, provided that the Customer has first provided to FMT a written quote as to the estimated costs of the Customer undertaking such repair, and FMT has approved (in writing) the Customer to proceed with such repairs up to that agreed estimated cost.
- (e) Upon receiving the Customer's written quote, the Customer acknowledges that FMT shall have sole discretion as to whether FMT engages its own contractors to undertake the required repairs, or if the Customer may undertake such repairs.
- (f) The Customer agrees that FMT shall have no obligation or liability to reimburse the Customer for the costs of any repairs undertaken by the Customer that have not been agreed in writing with FMT beforehand.
- (g) FMT reserves the right at its sole discretion to determine whether to replace or repair, free of charge, any part or parts, or the entire Goods.
- (h) The Customer is responsible for all packaging, posting, shipping, freight and insurance charges in respect of any Goods returned by FMT to the Customer. The Customer agrees to pay such charges upon the same payment terms as apply to FMT's sales of Goods current at the time of the Product Warranty claim. Whilst in transit, the Goods remains at the Customer's risk.

### 4.3 GENERAL EXCLUSIONS AND LIMITATIONS OF THE WARRANTY

- (a) The Product Warranty is limited to replacement or repair of defective parts or defects in workmanship and does not include any labour costs (whether such labour costs are supplied by FMT or the Customer).
- (b) In the event that no identical parts are available to repair the defective Goods, FMT has the right to replace the Goods with similar Goods of equal age and condition as the defective Goods, or offer the Customer the choice to upgrade the defective Goods. These may incur additional costs to the Customer and the Customer in those circumstances agrees to pay those additional costs upon the same payment terms as apply to FMT's sales of Goods current at the time of the Product Warranty claim.

- (c) Replacement Goods or parts may include remanufactured or refurbished parts or components. Repaired or replaced Goods will continue be warranted for the remainder of the Product Warranty from the Warranty Commencement Date.
- (d) The Product Warranty does not cover consumables, including but not limited to batteries and surge protectors.
- (e) The Warranty will not apply, and FMT will be under no obligation or liability whatsoever if, in the opinion of FMT, the Goods have been:
- (i) installed and maintained other than in compliance with FMT's product specifications, instructions and directions;
  - (ii) installed or used other than in a manner approved by FMT as suitable for the Goods;
  - (iii) handled in a manner which contravenes any direction, instruction or warning issued by FMT from time to time;
  - (iv) misused, abused, altered or damaged in any way;
  - (v) tampered with, including if any factory applied serial number has been altered or removed from the Goods;
  - (vi) damaged through normal wear and tear including exposure to the elements (on both exposed and unexposed surfaces), exposure to abnormally corrosive conditions, rust, or entry by any insect, vermin or foreign object in the Goods; or
  - (vii) damaged as a result of connection to irregular voltage sources, voltage supply problems, power surges and dips, thunderstorm activity, result of a natural disaster, or acts of God (including fire, flood, lightning).

## Part I

# SmartFill Operation and Administration

## 5 Accessing the Admin or Installer menu

At the SmartFill unit hold down the <CLR> & <ENT> keys at the same time until the display shows "Enter admin or onstaller PIN"

If it shows anything else then press <CLR> to return to the default display and try again.

The admin menu is 1, 2, 3, 4, <ENT>.

The installer menu is 6, 7, 8, 9, <ENT>

Normally using the admin menu is enough for adding keys/drivers and downloading transactions.

The installer menu is used for setup of the unit. The operations manual is only concerned with the admin menu. For information on unit set up, please refer to the separate installation manual.



We strongly suggest changing the admin and installer PIN after successful installation of the SmartFill Gen2. See section 11.7

## 6 Communications Setup

The SmartFill GEN2 unit is designed to automatically send data to a central website using either a direct Ethernet connection, 3G or WiFi. An Ethernet port is standard with all units and 3G or WiFi are optional modules that can be ordered with the unit or fitted later.

### 6.1 3G

The 3G module is located in the upper left hand corner of the unit and to operate it needs to be fitted with a 3G data SIM. The picture below shows how the SIM is fitted into the module:



#### 6.1.1 Details for the 3G SIM

The SmartFill GEN2 unit module uses a 3G SIM enabled for data to send data to your website account. Below are the details of what is required for the card:

- **Application Description:** A machine to machine application where data is automatically sent to a website
- **Data Capacity:** Minimum of 500MB per month (.5GB)
- **Passcode Settings:** Passcode should be disabled. This should be done when the card is supplied, but can also be done by fitting the card into a phone and using the phone settings menu to turn off this functionality
- **Physical Size:** To fit into the module the SIM must be a Standard SIM, as shown below NOT a micro or nano SIM.



Standard SIM

- **Service Provider/ Plan:** All service providers can provide a data SIM and plans vary between suppliers. The default configuration for the access point in the SmartFill unit is Telstra, but this can be changed if needed in the SmartFill set up menu.

Once the SIM is installed, you can view the status of the connection by holding down the "4" key.

#### 6.1.2 Access Point

To update the access point for the SmartFill unit you need to go to the network settings on the installer menu. See 5 for how to access the installer menu.

Then press <9> for More

Then <2> for Network  
And <1> for Access Point  
Use the <4> & <6> keys to move the cursor left and right  
Use the <2> & <8> keys to select different rows of letters, numbers and symbols  
Use the <5> to select the object at the cursor  
Use the <CLR> key to delete from the end one object at a time  
And use the <ENT> key when you have completed your selection.

## 6.2 Wifi

To get the SmartFill Gen2 onto your wifi network, go to the installer menu and enter the Wifi SSID and password. See 5 for how to access the installer menu.

Then press <9> for More

Then <2> for Network

And <3> for SSID

Use the <4> & <6> keys to move the cursor left and right

Use the <2> & <8> keys to select different rows of letters, numbers and symbols

Use the <5> to select the object at the cursor

Use the <CLR> key to delete from the end one object at a time

And use the <ENT> key when you have completed your selection

After entering the SSID press <2> to enter the wifi password. Remember to use the correct case when entering the password.

## 7 Using the System to Get Fuel

1. The following methods will start the transaction process:
  - (a) Hold the NFC fob to the bottom left of the display screen. This is the area where the NFC receiver is strongest and is shown by a  symbol.
  - (b) Hold a NFC card to the NFC reader position on the bottom left of the display.
  - (c) Hold an i-Button to the i-Button reader. Ensure connection is made.
  - (d) Enter a valid code into the keypad.
2. The SmartFill GEN2 unit checks if the key/code is authorized. If the key/code is not authorized, the pump won't start, and the display will show "Invalid Key/Code".
3. This system identifies whether a driver or vehicle key has been used. If a vehicle key has been used it, it may request the driver to enter a PIN, and/or an odometer reading depending on how the system has been configured.
4. The following configuration options are available and are entered using the keypad:
  - (a) Speedometer / hour meter reading.
  - (b) Driver PIN number.
  - (c) Odometer reading.
  - (d) Job number.
  - (e) Additional entry codes.
5. The SmartFill GEN2 unit can also be configured with specified time access for each vehicle or fill limits per vehicle.
6. Once all the pre-transaction information has been entered, the driver fuels the vehicle. Once the fuel delivery is complete, the SmartFill GEN2 unit stores the details. If the system is online, the transaction information is automatically sent to your secure account on the SmartFill website([www.fmtdata.com](http://www.fmtdata.com)).

## 8 Short Cut keys

The SmartFill GEN2 unit has a series of short cut keys that allows easy access to commonly requested information. These are accessed by holding down the relevant key:

1. **CLR** - Displays the current tank levels if a SmartDip module is fitted and configured.
2. **0** - Enables the entry of details regarding a fuel delivery.
3. **4** - Displays the status of the network connection.
4. **5** - Displays the details of the most recent transactions.
5. **6** - Displays the unit's model, serial number and software version.

## 9 Adding Vehicle Keys/VINs and/or Driver Keys and PINs

Keys/codes for drivers, vehicles and plant can either be added directly at the unit using the Admin menu options or through the website. If the SmartFill GEN2 unit is online then all information will be synchronised every 1-2 minutes.



If the SmartFill GEN2 unit is online then it is recommended that all administration of the SmartFill GEN2 unit be completed using the website.

**WARNING**



Keys or PINs/VINs deleted at the website must be added back at the website if they are to be reinstated. Adding them at the unit will result in them being removed when the unit synchronises with the website.

## 10 Unit is offline and data transfer is done via a USB stick

The SmartFill unit must have 1.07.xxx software of later to use this procedure  
It is recommended that a single USB drive be used for all SmartFill units and files.

**WARNING**



The files exported from the website and the SmartFill Gen2 can only be read by the website and the SmartFill Gen2. They should not be opened in any other program.

At the Website:

1. Insert the USB drive into the computer.
2. Log in to your account and select the 'SmartFill Units' menu.
3. Select 'Export' from the left submenu.
4. Select the SmartFill GEN2 unit to export data from the drop-down menu presented.
5. When prompted to download the file, press the 'Download File' button.
6. The downloaded file will be called xxxxunit.dat, where xxxx is the SmartFill GEN2 unit's serial number. See section 10.1 for browser notes on downloading unit files from the website. Find the file and copy it to your USB drive.
7. Repeat steps (1) - (6) for any remaining SmartFill GEN2 units allocated to the website that require USB download.
8. Eject and remove the USB drive.

At the SmartFill Unit:

1. Insert the USB drive.
2. Enter the administration menu (hold CLR and ENT keys together for a few seconds, enter 1234 at the prompt, then press ENT).
3. Select (8) for Import/Export.
4. Select (1) for Import. (If you get an error, remove and re-insert the USB drive and try again)
5. When import data operation is complete select (2) for Export.
6. When the export has completed successfully ("Press any key to continue" is displayed), remove the USB drive.
7. Repeat steps (1) - (6) for the other SmartFill units.

At the Website:

1. Insert the USB drive into the computer.
2. Log in to your account and select the 'SmartFill Units' menu.
3. Select 'Import' from the left submenu.
4. Select the file from the first unit to import. e.g. '2183web.dat' and press the Import button.
5. Eject and remove the USB drive.

You can now select the 'Transactions' menu to view the transactions.

### 10.1 Browser Notes

Depending on the browser used, saving the file will be different. It is important to do this correctly to prevent any problems. Here are some notes for the latest versions of the most common browsers.

1. **Internet Explorer (IE)** You will be prompted at the bottom of the screen to open or save the file. Press the small triangle to the right of the Save button and select 'Save as'. Select the top level directory of the USB drive and press Save. If prompted to replace it, press 'Yes'. You can then cancel any remaining message at the bottom of the browser screen.

2. **Firefox** When prompted where to save the file, select the top level directly of the USB drive and press Save. If prompted to replace it, press 'Yes'. If you are not prompted where to save the file, this must be changed in the Firefox settings, as follows. Press the Firefox settings icon (three stacked horizontal lines to the far right of the address bar). Make sure the General tab is selected (first on the left). Under 'Downloads', select 'Always ask me where to save files'.
3. **Chrome** When prompted where to save the file, select the top level directly of the USB drive and press Save. If prompted to replace it, press 'Yes'. If you are not prompted where to save the file, this must be changed in the Chrome settings, as follows. Press the Chrome settings icon (three stacked horizontal lines to the far right of the address bar) and select 'Settings'. If you see at the bottom of the page a blue link saying 'Show advanced settings...', press it. Scroll down to the 'Downloads' heading and select 'Ask where to save each file before downloading'.

# 11 The SmartFill GEN2 unit Admin Menu

To access the Admin Setup Menu you need to have a valid admin PIN. The default PIN is: **1234**. To access the PIN entry screen hold down the **CLR** and keys **ENT** for a couple of seconds until you receive the message **“Enter Admin or Installer PIN”**. If anything else is displayed press the <CLR> key to go back to the default display and try again. Enter the admin PIN and press <ENT>. Once your PIN has been accepted you will be presented with the following menu:

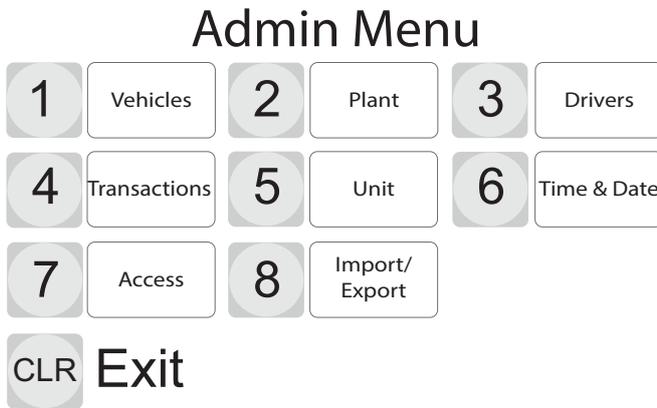


Figure 1: Admin Menu

To select a menu item push the corresponding key on the keypad. You will then be presented with the choices available for that menu selection. The menu below appears if you push key number '1' - Vehicles.

## 11.1 Vehicles

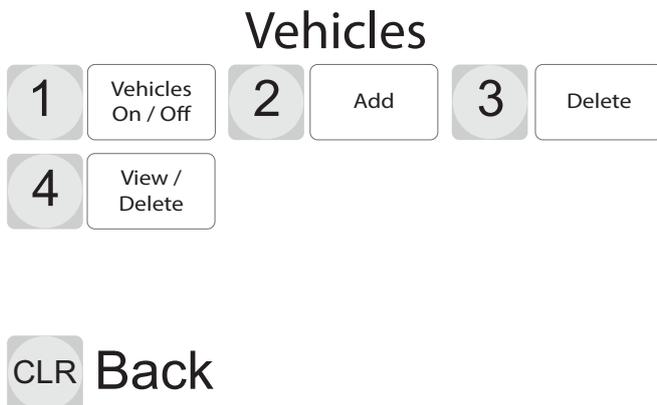


Figure 2: Vehicles Menu

This menu is used to set what the inputs the user will be asked to enter to identify a vehicle and allows codes or keys to be added, deleted etc. There are four items in this menu :

### 1. Vehicle On/Off

In this menu you set whether a vehicle ID is required and if it is, how it will be entered: either using a key (NFC fob, NFC card or ibutton) or a vehicle identification number (VIN)

(a) Key(Default) or

(b) VIN

(c) None

WARNING



Currently if there is at least one vehicle in the list then you cannot turn off vehicles. The only way to turn vehicle input off is to have no vehicles in the list.

WARNING



If there are vehicles in the list with a mixture of keys and codes then keys will take priority and all vehicles must use keys to access the system.

2. **Add** - allows the addition of vehicle Keys or VINs to the system. If Key has been selected the actual key must be presented to the system to enter it. The key number cannot be directly entered. VINs are added by using the keypad to enter the value.

WARNING



If a key has been deleted from the website then it is not possible to add the key again directly at the unit.

3. **Delete** - allows Keys or VINs to be deleted from the system. Keys can be deleted by presenting the key to be deleted. VINs can be deleted by entering the VIN from the keypad
4. **View/Delete** - Keys or VINS in the system can be viewed. Any key or VIN can be deleted from this screen by first selecting it and then selecting delete. Deleting a key removes it from the unit and on the website removes it from being associated with this unit, but not other units that are connected to the website.

## 11.2 Plant

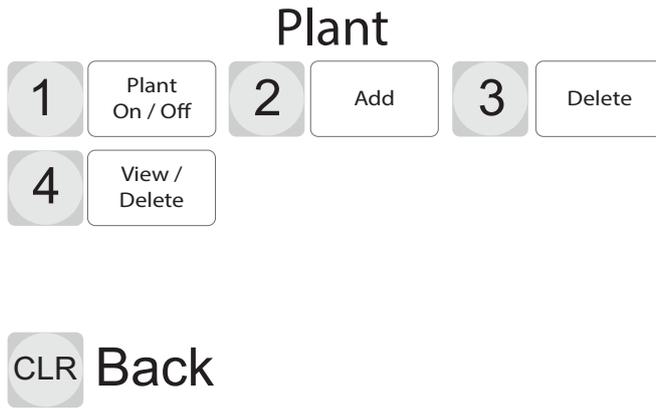


Figure 3: Plant Menu

This menu is used to set what the inputs the user will be asked to enter to identify a piece of plant e.g Gen Set or tank and allows codes or keys to be added, deleted etc. There are four items in this menu :

### 1. Plant

**On/Off**

In this menu you set whether a plant ID is required and if it is, how it will be entered: either using a key (NFC fob, NFC card or ibutton) or a plant identification number (PIN)

- (a) **Key** or
- (b) **PIN**
- (c) **None (Default)**

**WARNING**



Currently if there is at least one plant item in the list then you cannot turn off plant. The only way to turn plant input off is to have no plant items in the list.

**WARNING**



If there are plant items in the list with a mixture of keys and codes then keys will take priority and all plant must use keys to access the system.

- ### 2. Add
- allows the addition of plant Keys or PINs to the system. If Key has been selected the actual key must be presented to the system to enter it. The key number cannot be directly entered. VINs are added by using the keypad to enter the value.

**WARNING**



If a key has been deleted from the website then it is not possible to add the key again directly at the unit.

- ### 3. Delete
- allows Keys or PINs to be deleted from the system. Keys can be deleted by presenting the key to be deleted. VINs can be deleted by entering the PIN from the keypad

- ### 4. View/Delete
- Keys or VINS in the system can be viewed. Any key or VIN can be deleted on this screen by first selecting it and then selecting delete. Deleting a key removes it from the unit and on the website removes it from being associated with this unit, but not other units that are connected to the website.

## 11.3 Drivers

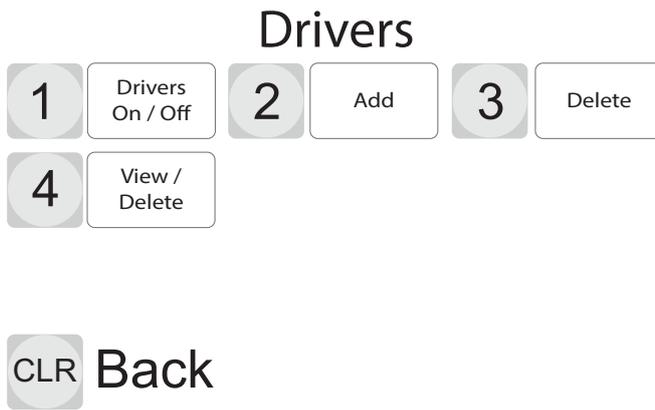


Figure 4: Drivers Menu

This menu is used to set whether the driver should be identified and how and allows codes or keys to be added, deleted etc. There are four items in this menu :

### 1. Drivers On/Off

- (a) Key - the driver will need to use a NFC fob, NFC card or iButton for identification.
- (b) PIN - The driver will need to enter a PIN for identification.
- (c) None - No driver identification is required to operate the system. (**Default**)

#### WARNING



Currently if there is at least one driver in the list then you cannot turn off drivers. The only way to turn driver input off is to have no drivers in the list.

#### WARNING



If there are drivers in the list with a mixture of keys and codes then codes will take priority and all drivers must use codes to access the system.

- ### 2. Add
- allows the addition of Driver Keys or PINs to the system. If Key has been selected the actual key must be presented to the system to enter it. The key number cannot be directly entered. PINs are added by using the keypad to enter the value.

#### WARNING



If a key has been deleted from the website then it is not possible to add the key again directly at the unit.

- ### 3. Delete
- allows Keys or PINs to be deleted from the system. Keys can be deleted by presenting the key to be deleted. PINs can be deleted by entering the PIN from the keypad.
- ### 4. View/Delete-
- Keys or PINs in the system can be viewed. Any key or PIN can be deleted on this screen by first selecting it and then selecting delete. Deleting a key removes it from the unit and on the website removes it from being associated with this unit, but not other units that are connected to the website.

## 11.4 Transactions

### Transactions



Figure 5: View Transactions Menu

This menu is used to view transactions that are stored in the unit, and delete any of them if you wish. It also has some other transaction menu items. There are three options:

1. **View Transactions** - shows all the transactions stored in the unit.
2. **Preset Limit** - allows the driver to preset the volume to be dispensed for every transaction.
3. **Reset Receipt Number** - if a receipt printer is being used with the SmartFill Gen2 then this will reset the receipt number to zero.

## 11.5 Unit

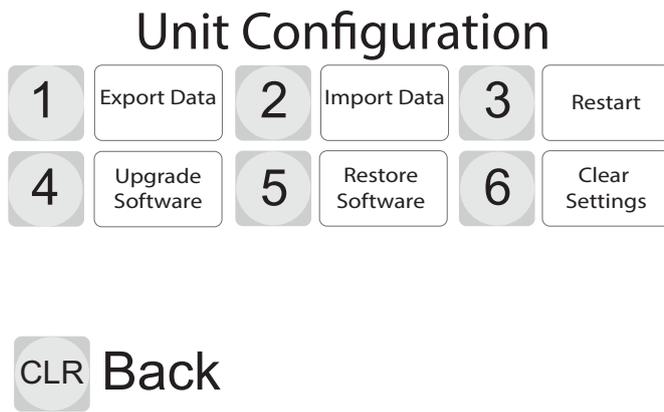


Figure 6: Unit Menu

This menu is used to configure the SmartFill GEN2.

1. **Export Data** - exports a file with all the keys, codes and transactions from the unit. This can then be imported into the website.
2. **Import Data** - imports a the file that is created from the website export function. This imports all keys, codes and configuration that exist on the website.
3. **Restart** - Reboots the unit, which produces the same result as power cycling it.
4. **Upgrade Software** - is used to upgrade the unit's software via an upgrade file on a USB memory stick.
5. **Restore Software** - is used to restore the previous version of the software that was installed prior to the last upgrade.
6. **Clear Settings** - Has two options:
  - (a) Clear Data - clears all keys, codes and transactions.
  - (b) Factory Default - clears all keys, codes, transactions and returns the configuration to the original factory settings.

## 11.6 Time and Date

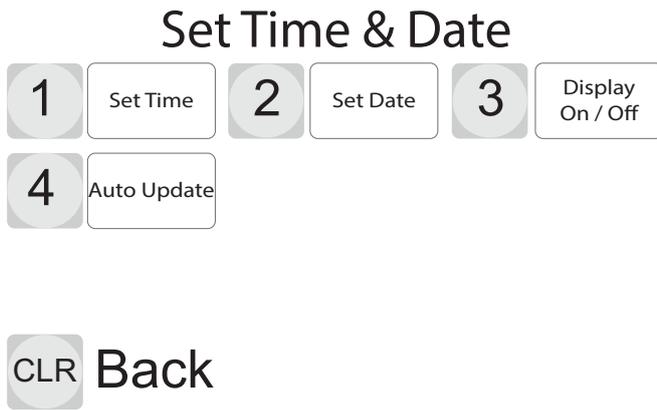


Figure 7: Time and Date Menu

This menu is used to set the system time and date and set whether the time and date will appear on the display. There are three menu options:

1. **Time** - allows you to set the system time
2. **Date** - allows you to set the system date
3. **Display On/Off** - has two options
  - (a) No - do not display the time and date
  - (b) Yes - display the time and date
4. **Auto Update** - setting to yes will let the SmartFill Geb2 update it's date and time from the connected network date and time.

## 11.7 Access

This menu is used to change the Admin password, change the Installer password and enable and disable installer access.

**WARNING**



We strongly suggest that the admin and installer passwords are changed after successful installation to prevent unauthorised access to the SmartFill Gen2.

### Unit Access Settings



Figure 8: Unit Access Menu

#### 1. Admin

Used to change the admin password from the default of 1234 to some other code.

2. **Installer** The installer menu has two options:

### Installer Access Settings



Figure 9: Installer Access Settings

1. **Enable/Disable** - enables or disable installer access. If disabled, no one is able to access the unit's set up configuration.

2. **Password** - allows the default password to be changed from 6789 to some other password.

**WARNING**



If you have the same Admin and Installer password, only the Admin menu will be available.

## 11.8 Import/Export to Website

### Import/Export to Website



Figure 10: Import/Export Menu

This menu is used to import and export all data (transactions, vehicle/plant and driver details) to and from a USB drive for use with the website. There are two options:

1. **Import** - imports a file exported from the website into the unit. This includes all vehicle, plant, driver details, job numbers and user defined field data. The export file is created using the export link on the SmartFill Units page on the website.
2. **Export** - Creates an export file that can be imported into the website. The resultant file is imported using the import link on the SmartFill Units page of the website.

#### WARNING



The files exported from the website and the SmartFill Gen2 can only be read by the website and the SmartFill Gen2. They should not be opened in any other program.

## 12 SmartFill GEN2 unit Website Operation and Configuration

The SmartFill GEN2 secure website is used to store all transactional data from the units, configuration information for the unit and data that is associated with transactions, such as a drivers name or the department to which the vehicle belongs: The website is located at [www.fmtdata.com](http://www.fmtdata.com)

### 12.1 Creating Your Website and Adding Your First Unit

To set up your website and add an unit for the very first time use your web browser to navigate to [www.fmtdata.com/new](http://www.fmtdata.com/new) Once you arrive at this page enter the serial number and code provided with the unit. A copy if this information is contained on the USB drive supplied with the unit and a hardcopy is supplied with the unit.



### SmartFill New Account Creation

---

Welcome to the SmartFill account creation page.

In order to create a new account for your SmartFill unit, you must enter the serial number and security code for your new unit below. This information will have been provided with the unit.

Serial Number:

Security Code:

 -  -   

Figure 11: Initial Account Activation Page

Once you do this you will be asked to fill in some company details and create an Admin user name and password. Unless you change them, these are credentials you will use from now on to log on to the your website. Once you have completed this step you will be taken to the first page of your website.

## 12.2 Logging In Once the Website is Created

Once you have created your website you can log in using the credentials you created in 12.1 at [www.fmtdata.com](http://www.fmtdata.com)



### SmartFill Data Login

---

Username:

Password:

## 12.3 Transactions Page

The transactions page is the first one that appears when you log on. It displays transactions in the selected date range that have been transferred to the website from all associated units. You can select the required date range from the drop menu at the top of the screen.



It is recommended to keep the date range short to enable the website to load in the quickest time.



If you need to find a particular transaction then start typing in the filter section and this will continually update and display only those transactions that match the filter.



Set the rows per page to 50 to allow the website to load very quickly. The more rows it has to display the longer it takes to load. When you do an export of the transactions it will still export all those transactions in the date range.



Clicking on the column heading will sort the transactions by the details in that field.

Row Id	Date	Litres	From	Driver Key / Code	Registration	Description	Driver	Key	Odometer	Deleted	Asset Id	Driver Id
2339	3 Sep 13	211.00	Fuel Truck	8	TPU143	Loader 2	John Skillet	A34E01	0	<input type="checkbox"/>	29	1
2377	3 Sep 13	186.00	Fuel Truck	7	TCA856	Excavator 1	Bill Danks	A12345	0	<input type="checkbox"/>	27	2
2303	1 Sep 13	62.00	Fuel Truck	6	WXP427	Utility Vehicle	Phil Mezner	348F23	0	<input type="checkbox"/>	30	10

Figure 12: Website Transaction Page

### 12.3.1 View

Displays the main transaction screen. From here you have the following options:

1. **Date Range** - From the drop down menu you select what date range you want to display and export. Whatever range is selected here is what is exported to the CSV file. If you select custom, then you must also select specific to and from dates from their respective box displays.
2. **Export to CSV** - Exports all transactions to a .csv file that can be viewed in Microsoft Excel and any other spreadsheet program that can load csv files.
3. **Rows per Page** - sets the number of rows to display. Having this number over 50 may significantly increase the amount of time it takes to load the transactions page.

### 12.3.2 Columns -

If you select Columns on the transactions page you will be presented with the transaction page configuration setup. This page enables you to change the order of the columns by dragging them up or down the table. The item at the top of the table is shown first. You can change the column headings by selecting the heading name and then over typing it with the new name. Headings that are grayed out are set in one of the other configuration screens. You can choose which columns are displayed by dragging and dropping those required into the left hand side table or remove them by dragging them into the right hand side table.

**Transaction Column Configuration**

Columns in the 'Displayed Columns' table below are shown on the report, whereas fields in the 'Unused Columns' table are not shown.

Change the column order, or which columns are displayed, by dragging the columns up and down within the table or between tables.

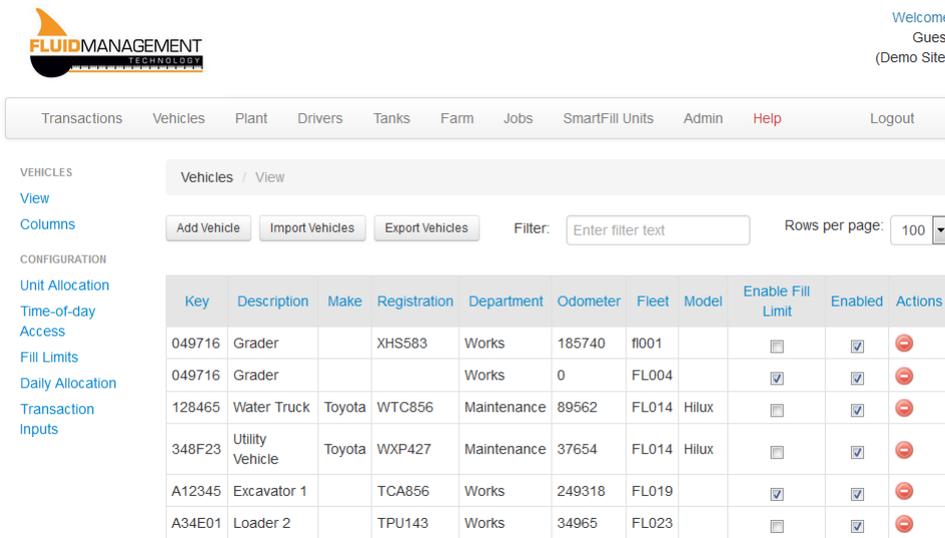
Column names are written in blue text, but display names used in the report are shown in the adjacent box and may be edited. If the display name is greyed out, the column may be customised on another page such as 'Vehicles' or 'Drivers'.

Displayed Columns		Unused Columns	
Column Name	Display Name	Column Name	Display Name
Time	Time	Reference	Reference
Date	Date	Hours	Hours
Volume	Litres	Department	Department
Odometer	Speedo	User Data	User Data
Pump	Pump	Type	Type
Unit	From	Volumetric Unit	Units

Figure 13: Configuring the Transactions Page

## 12.4 Setting up Vehicle and Plant Details

Details for vehicles and plant, such as which key or code (PIN or VIN) is used to identify the equipment and description are set up on the vehicles and plant page respectively.



The screenshot shows the Fluid Management software interface. At the top left is the logo for Fluid Management Technology. At the top right, it says "Welcome Guest (Demo Site)". Below the logo is a navigation menu with items: Transactions, Vehicles, Plant, Drivers, Tanks, Farm, Jobs, SmartFill Units, Admin, Help, and Logout. On the left side, there is a sidebar with "VEHICLES" and "CONFIGURATION" sections. The "VEHICLES" section has links for "View", "Columns", "Add Vehicle", "Import Vehicles", and "Export Vehicles". The "CONFIGURATION" section has links for "Unit Allocation", "Time-of-day Access", "Fill Limits", "Daily Allocation", "Transaction Inputs", and "Inputs". The main content area shows "Vehicles / View" with a filter input and "Rows per page: 100". Below this is a table with the following data:

Key	Description	Make	Registration	Department	Odometer	Fleet	Model	Enable Fill Limit	Enabled	Actions
049716	Grader		XHS583	Works	185740	fl001		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
049716	Grader			Works	0	FL004		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
128465	Water Truck	Toyota	WTC856	Maintenance	89562	FL014	Hilux	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
348F23	Utility Vehicle	Toyota	WXP427	Maintenance	37654	FL014	Hilux	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
A12345	Excavator 1		TCA856	Works	249318	FL019		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
A34E01	Loader 2		TPU143	Works	34965	FL023		<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Figure 14: Vehicles Page

### 12.4.1 Add Vehicle/Plant

The add vehicle button allows you to add a new vehicle. Refer to the the figure below. You will be prompted to enter data for each of the columns that are displayed on the vehicles page. On the input type you must select whether the entry is a key or a code (PIN/VIN). Once a vehicle is added you can edit it from the vehicles page by selecting and over typing the entry.

**WARNING**



You may only have one type of input type for each category. Therefore, all vehicles must either use keys or codes.

Transactions
Vehicles
Plant
Drivers
Tanks
Location
Jobs
SmartFill Units
Admin
Logout

VEHICLES

[View](#)

REPORTS

[Columns](#)

CONFIGURATION

[Unit Allocation](#)

[Time-of-day](#)

[Access](#)

[Fill Limits](#)

[Daily Allocation](#)

[Transaction](#)

[Inputs](#)

Vehicles / View

Input Type	<input type="text" value="Key"/>
Key/Code	<input type="text"/>
Description	<input type="text"/>
Department	<input type="text"/>
Fleet No	<input type="text"/>
Model	<input type="text"/>
Registration	<input type="text"/>
Enabled	<input checked="" type="checkbox"/>

Cancel
Add

Figure 15: Add Vehicle Page

#### 12.4.2 View

The main page provides a overview of existing vehicles and the details that are associated with them. Details of the key or code are automatically transferred to all selected SmartFill Gen2 units. In addition for vehicles the description and registration details are automatically transferred to all selected and connected SmartFill Gen2 units.

Details for existing vehicles can be changed by selecting a cell, such as description and over-typing the existing text. Vehicles can be disabled by unchecking the enabled checkbox and deleted by selecting the action button at the end of the row.

**Note:** If a vehicle is deleted from the website then it will not be able to be re-added directly at the unit.

#### 12.4.3 Columns

If you select Columns on the vehicles or plant pages you will be presented with the columns configuration page. This page enables you to change the order of the columns by dragging them up or down the table. The item at the top of the table is shown as the first left-hand column on the vehicles view page. You can change the column headings by selecting the heading name and then over-typing it with the new name. Headings that are greyed out are set in one of the other configuration screens. You can choose which columns are displayed by dragging and dropping those required into the left hand side table or remove them by dragging them into the right hand side table.

#### 12.4.4 Add Vehicle/Plant

Use this to add a new key or code. You will be prompted to enter data for all the columns you currently have selected for display e.g make, model, registration number.

#### 12.4.5 Unit Allocation

Allows vehicles to be allocated to specific SmartFill units that report to this website. The default setting is all vehicles are allocated to all units

#### 12.4.6 Transaction Input

Use this to select what inputs are request on a per vehicle basis. The options are:

1. Speedo - drivers must enter odometer when refuelling the vehicle or piece of plant associated with the key or code. The odometer reading must be greater than the previous odometer reading entered for the vehicle. A greater than range may also be set up for this input so that the odometer reading must be greater than the previous reading and within the assigned range. From version 1.07.064 onwards if the current odometer value is zero OR the range value is zero, then no checking will be done on the value entered. If the current odometer value is not zero and the range value is not zero then standard checking will apply to see if the value entered is greater than the previous value and less than the previous value plus the range limit.
2. Hourmeter - drivers must enter hourmeter when refuelling the vehicle or piece of plant associated with the key or code. Hourmeter checking is the same as odometer checking above.
3. Job No. - drivers must enter a job number when refuelling the vehicle or piece of plant associated with the key or code.
4. User Data - drivers must enter User Data when refuelling the vehicle or piece of plant associated with the key or code.

#### 12.4.7 Time of Day Access

Used to set during what periods of time a specific key/code associated with a vehicle or piece of plant will be able to access fuel. Use Edit Time of Day List button to edit existing time of day configurations or add new ones. You must select the time of day to associate with the vehicle/plant from the drop-down list in the time of day column.

Vehicles / Time-of-day Access

Edit Time-of-Day List Filter: Enter filter text Rows per page

Key / Code	Registration	Description	Time-of-day Access	Enable Time-of-day Access
222222		Test Truck 3	Weekends Only	<input checked="" type="checkbox"/>
666FFF		Test Truck 2	<input type="text" value="Weekends Only"/>	<input checked="" type="checkbox"/>
1049384			Weekends Only	<input type="checkbox"/>
1AB82CD			weekday	<input type="checkbox"/>

Figure 16: Time of Day Setup

#### 12.4.8 Fill Limits

Sets a fill fuel limit for a specific key/code associated with a vehicle or piece of plant. This prohibits more than the specified amount of fuel being dispensed into a given vehicle or piece of plant on a given transaction. . To change the limit click in the "Allocation per Fill" field and either enter the value or over-type an existing value.

#### 12.4.9 Daily Allocation

Sets a total daily allocation of fuel for a specific key/code associated with a vehicle or piece of plant. If this feature is used the daily limit must be more than the fill limit or the vehicle will be unable to be filled to specified limit.

## 12.5 Setting up Drivers

Driver details are set up on the Drivers page. The name of the driver can be associated with a key or code and when this is used the driver name will be shown in the transaction.

### 12.5.1 View

The main page provides a overview of existing codes or keys and the names that have been associated with them. Details of the key or code are automatically transferred to all selected SmartFill units associated with the website. In addition the driver names are automatically transferred to all selected, connected units.

Details for existing drivers can be changed by selecting a cell, such as description and over-typing the existing text. Drivers can be disabled by selecting the action button next to key or code.

FLUIDMANAGEMENT TECHNOLOGY

Welcome  
Demo Unit  
(Demo Unit)

Transactions Vehicles Plant Drivers Tanks Location Jobs SmartFill Units Admin Help Logout

DRIVERS  
View

REPORTS  
Add Driver

Columns Filter: Enter filter text

CONFIGURATION  
Unit Allocation  
Time-of-day Access  
Fill Limits  
Daily Allocation  
Transaction Inputs  
Supervisor Inputs

Key/Code	Driver	Input Type	Enabled	Actions
DDB2FA67	Tony Hart	Key	<input checked="" type="checkbox"/>	
45240DCC	George	Key	<input checked="" type="checkbox"/>	
777456	Bill Danks	Code	<input type="checkbox"/>	
87645	John Skillet	Code	<input type="checkbox"/>	
01346C	Bill Smith	Key	<input checked="" type="checkbox"/>	

Figure 17: Drivers Page

### 12.5.2 Add Driver

The add driver button allows you to add a new driver. Refer to the figure below. You will be prompted to enter data for each of the columns that are displayed on the drivers page. On the input type you must select whether the entry is a key or a code (PIN/VIN). Once a driver is added you can edit it from the drivers page by selecting and over-typing the entry.

WARNING



You may only have one type of input type. That is, all the drivers must use codes or keys.

Transactions Vehicles Plant Drivers Tanks Location Jobs SmartFill Units Admin **Help** Logout

DRIVERS Drivers / View

View

REPORTS

Columns

CONFIGURATION

Unit Allocation

Time-of-day

Access

Fill Limits

Daily Allocation

Transaction Inputs

Supervisor Inputs

Input Type

Key/Code

Driver

Enabled

Figure 18: Add Driver Page

### 12.5.3 Columns

If you select Columns on the drivers page you will be presented with the columns configuration page. This page enables you to change the order of the columns by dragging them up or down the table. The item at the top of the table is shown as the first left-hand column on the drivers view page. You can change the column headings by selecting the heading name and then over-typing it with the new name. Headings that are greyed out are set in one of the other configuration screens. You can choose which columns are displayed by dragging and dropping those required into the left hand side table or remove them by dragging them into the right hand side table.

### 12.5.4 Unit Allocation

Allows drivers to be allocated to specific units that report to this website. The default setting is drivers are allocated to all units.

### 12.5.5 Time of Day Access

Used to set during what periods of time a specific key/code associated with a driver will be able to take fuel. Use Edit Time of Day List button to edit existing time of day configurations or add new ones. You must select the time of day to associate with the vehicle/plant from the drop-down list in the time of day column. See 16

### 12.5.6 Fill Limits

Sets a fill fuel limit for a specific key/code associated with a driver. This prohibits more than the specified amount of fuel being dispensed into a given vehicle or piece of plant on a given transaction. To change the limit click in the "Allocation per Fill" field and either enter the value or over-type an existing value.

### 12.5.7 Daily Allocation

Sets a total daily allocation of fuel for a specific key/code associated with a driver. If this feature is used the daily limit must be more than the fill limit or the vehicle will be unable to filled to specified limit.

### 12.5.8 Transaction Input

Use this to select what inputs are requested on a per driver basis. The options are:

1. Second ID - Can be a key or code that the driver must use in addition to his primary key or code to get fuel.
2. Enable Job Input - driver must enter a job number when refuelling the vehicle or piece of plant associated with the key or code.
3. Enable User Data Input - driver must enter User Data when refuelling the vehicle or piece of plant associated with the key or code.

4. Supervisor - when a driver is designated a supervisor, it means that he can issue fuel to a vehicle or piece of plant without needing to enter a vehicle/plant key or code. A user can be both a driver and a supervisor. If a vehicle key or code is entered before the driver ID, the user is treated as a driver. If no vehicle identification (key or code) is used to start a transaction and only a driver ID is entered/presented, the user is treated as a supervisor, if the supervisor check box has been selected.

### **12.5.9 Supervisor Inputs**

Use this page to select what inputs a driver who is designated to be a supervisor must enter when they are operating as a supervisor. The options are:

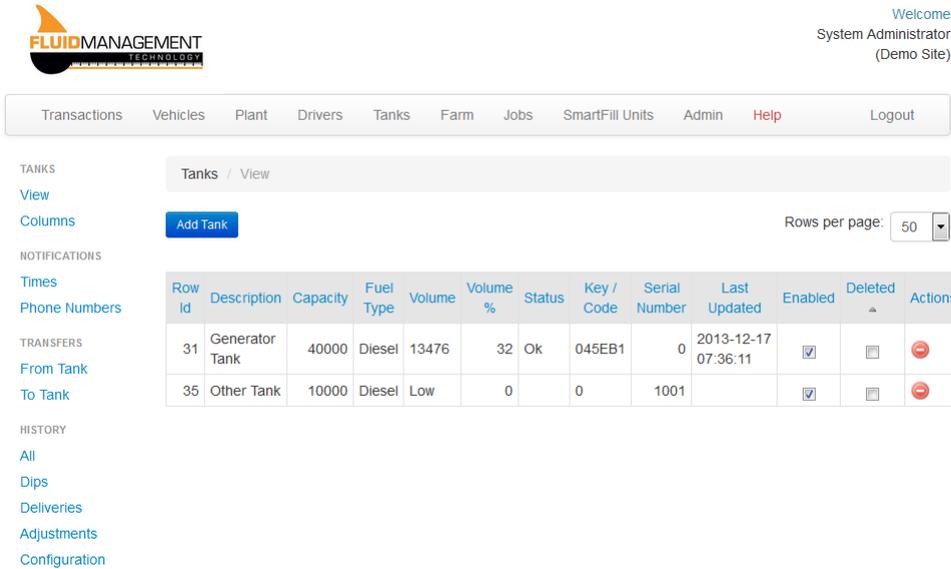
1. Enable Job Entry - requires the supervisors to enter a valid job number.
2. Enable User Defined Entry - requires the supervisors to enter a valid user defined value, such as location.

## 12.6 Tanks

Use this page to add tanks, if your system has a SmartDip or Automatic Tank Gauging(ATG) interface module fitted.

### 12.6.1 View

This is the default page and allows you to view in almost real time the levels in your tanks, as long as the SmartFill Gen2 is connected to a network.



The screenshot shows the Fluid Management System Administrator interface. At the top left is the logo for Fluid Management Technology. At the top right, it says "Welcome System Administrator (Demo Site)". Below the logo is a navigation menu with items: Transactions, Vehicles, Plant, Drivers, Tanks, Farm, Jobs, SmartFill Units, Admin, Help, and Logout. On the left side, there are several sections: TANKS (with sub-links View and Columns), NOTIFICATIONS (with sub-links Times and Phone Numbers), TRANSFERS (with sub-links From Tank and To Tank), and HISTORY (with sub-links All, Dips, Deliveries, Adjustments, and Configuration). The main content area shows "Tanks / View" with an "Add Tank" button and a "Rows per page: 50" dropdown. Below this is a table with the following data:

Row Id	Description	Capacity	Fuel Type	Volume	Volume %	Status	Key / Code	Serial Number	Last Updated	Enabled	Deleted	Actions
31	Generator Tank	40000	Diesel	13476	32	Ok	045EB1	0	2013-12-17 07:36:11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="edit"/>
35	Other Tank	10000	Diesel	Low	0		0	1001		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="edit"/>

Figure 19: Tanks Page

### 12.6.2 Columns

If you select Columns you will be presented with the tanks configuration page. This page enables you to change the order of the columns by dragging them up or down the table. The item at the top of the table is shown as the first column on the left on the view page. You can change the column headings by selecting the heading name and then over-typing it with the new name. Headings that are greyed out are set in one of the other configuration screens. You can choose which columns are displayed by dragging and dropping those required into the left hand side table or remove them by dragging them into the right hand side table.

### 12.6.3 Add Tanks

The add tank button allows you to add a new tank. Refer to the the figure below. You will be prompted to enter data for each of the columns that are displayed on the tanks page. Once a tank is added you can edit it from the tank page by selecting and over-typing the entry. The tank number refers to the input that is used on the SmartDip module. Each SmartDip module has 4 tank inputs numbered 1-4 from top to bottom of the module. So, on the same site where more than one SmartDip is installed you could have more than one tank number one.

Transactions Vehicles Plant Drivers Tanks Farm Jobs SmartFill Units Admin Help Logout

TANKS  
View  
Columns  
NOTIFICATIONS  
Times  
SMS Numbers  
Emails  
TRANSFERS  
From Tank  
To Tank  
HISTORY  
All  
Dips  
Deliveries  
Adjustments  
Configuration

Tanks / View

Tank Number

Capacity

Fuel Type

Serial Number

Enabled

Cancel Add

Figure 20: Tank Add Page

#### 12.6.4 Notifications - Times

If you have a 3G communications system and your SIM card is setup for SMS use then the SmartFill GEN2 unit is able to send tank level SMS updates to mobile phones. Up to six times may be inputted using the 24 hour clock format.

TANKS

[View](#)

[Columns](#)

NOTIFICATIONS

[Times](#)

[Phone Numbers](#)

TRANSFERS

[From Tank](#)

[To Tank](#)

HISTORY

[All](#)

[Dips](#)

[Deliveries](#)

[Adjustments](#)

[Configuration](#)

Tanks / Times

Time 1		<input type="text" value="00:01"/>
Time 2		<input type="text" value="09:00"/>
Time 3		<input type="text" value="16:00"/>
Time 4		<input type="text"/>
Time 5		<input type="text"/>
Time 6		<input type="text"/>

Figure 21: Notification Times

### 12.6.5 Notifications - Phone Numbers

Just enter the phone numbers of those wishing to receive tank gauging updates via SMS here.

### 12.6.6 Transfers - To/From

Transfers To and Transfers From show all transfers pertaining to all listed tanks and as all transactions, may be exported for recording elsewhere.

### 12.6.7 History - All

Selecting All shows a record of all the transactions for all the tanks. An automatic dip is done for each tank at one minute after midnight or a close as practical to this time, effectively when the unit is next turned on. It also shows all deliveries that have been made, both automatic and manual.

### 12.6.8 History - Dips

Selecting Dips shows a record of all the dip transactions for the all the tanks connected to the SmartFill unit. An automatic dip is done for each tank at one minute after midnight or a close as practical to this time, effectively when the unit is next turned on.

### 12.6.9 History - Deliveries

When a large change in volume in a short period of time is detected in the tank, a delivery is taken to have occurred and recorded as a tank transaction. This is an automatic delivery. Delivery drivers can also enter a delivery at the unit by

holding down the '0' key. This is recorded as a manual delivery. You can also select add manual delivery to add a manual delivery at the website.

#### **12.6.10 History - Adjustments**

Here is shown all adjustments made for each tank. To make an adjustment just click the "Add adjustment" button and fill out the form.

#### **12.6.11 History - Configuration**

If you select Configuration you will be presented with the tank history configuration page. This page enables you to change the order of the columns by dragging them up or down the table. The item at the top of the table is shown as the first column on the left on the view page. You can change the column headings by selecting the heading name and then over-typing it with the new name. Headings that are greyed out are set in one of the other configuration screens. You can choose which columns are displayed by dragging and dropping those required into the left hand side table or remove them by dragging them into the right hand side table.

## 12.7 User Defined Data

On the user data page you can define your own data that you want a driver to enter while refuelling e.g. a department or a location. The driver enters a numeric code that is mapped to a value on the website. Below is a page set up for the entry of location data. To use this function, vehicle and/or drivers must have their transaction input set for a user defined field input.



If the transaction input is set to have User Data and there is no data defined in the User Data list then the driver may input any series of numbers.

The screenshot shows the Fluid Management Technology website interface. At the top right, it says 'Welcome Demo Unit (Demo Unit)'. The navigation menu includes 'Transactions', 'Vehicles', 'Plant', 'Drivers', 'Tanks', 'Location', 'Jobs', 'SmartFill Units', 'Admin', 'Help', and 'Logout'. The sidebar on the left is under 'CONFIGURATION' and includes 'Definitions', 'Unit Allocation', and 'User Data Name'. The main content area is titled 'UserData / Definitions' and features an 'Add' button and a 'Rows per page: All' dropdown. Below this is a table with three columns: 'Location', 'Description', and 'Actions'.

Location	Description	Actions
2	production	
1	admin	
0	Office	

Figure 22: User Defined Data Page

### 12.7.1 Definitions

This is the default view when the page is selected and allows to edit existing definitions, such as in this case entering 2 corresponds to production. You can also add new definitions by selecting the add button.

### 12.7.2 Unit Allocation

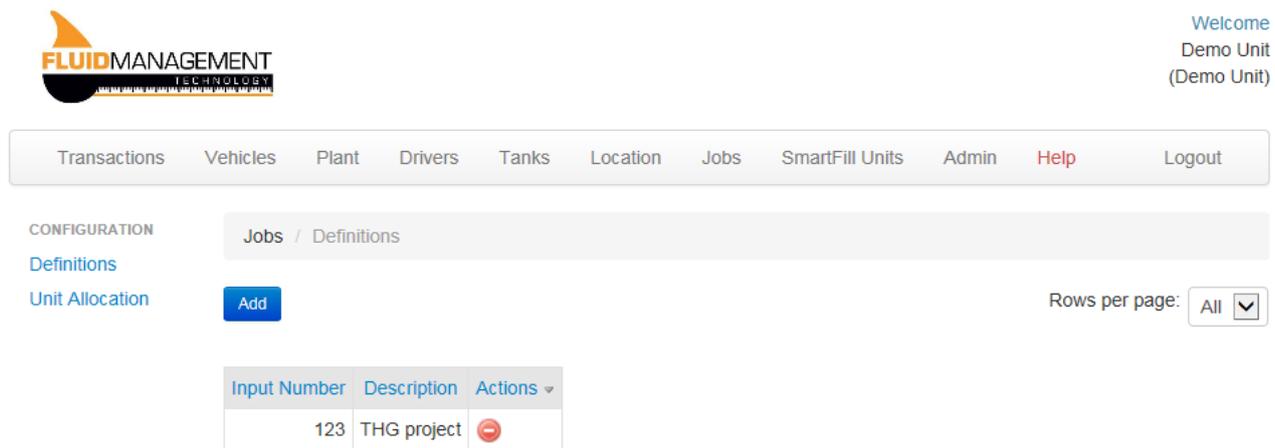
Allows user defined entries to be allocated to specific SmartFill units that report to this website. The default setting is they are allocated to all units.

### 12.7.3 User Data Name

This is just the name for the user data field. This name will be used by the transactions page as the column heading. The user data name may be modified at any time.

## 12.8 Jobs

The details for job numbers are set up on the jobs page. On this page you can add new job numbers and map a numeric entry made at the unit to an internal job number that can be used on transaction reports.



The screenshot shows the Fluid Management interface. At the top left is the Fluid Management Technology logo. At the top right, it says "Welcome Demo Unit (Demo Unit)". Below this is a navigation menu with items: Transactions, Vehicles, Plant, Drivers, Tanks, Location, Jobs, SmartFill Units, Admin, Help, and Logout. The "Jobs" menu item is highlighted. On the left side, under "CONFIGURATION", there are links for "Definitions" and "Unit Allocation". The "Jobs / Definitions" breadcrumb is visible. An "Add" button is present. To the right, there is a "Rows per page:" dropdown menu set to "All". Below this is a table with the following data:

Input Number	Description	Actions
123	THG project	

Figure 23: Jobs Page

### 12.8.1 Add Job

Selecting the Add button on the jobs page allows you to enter a new job number and map a description to it.

### 12.8.2 Definitions

Selecting definitions displays the list of input numbers (what the user will need to enter at the unit) and what information is mapped to the input number e.g an internal job number that may have characters as well as letters in it. These entries can be edited by selecting the field and over typing the entry with the new entry.

### 12.8.3 Unit Allocation

Allows job numbers to be allocated to specific units that report to this website. The default setting is all job numbers are allocated to all units.

## 12.9 SmartFill Units

This page enables you to see the status and the configuration of units allocated to this website and add new units.

FLUID MANAGEMENT TECHNOLOGY

Welcome  
Demo Unit  
(Demo Unit)

Transactions Vehicles Plant Drivers Tanks Location Jobs SmartFill Units Admin Help Logout

UNITS  
Status  
Unit Information  
DATA TRANSFER  
Import  
Export  
PROVISIONING  
Add New Unit

SmartFills / Status

Rows per page: 10

Unit Name	Serial Number	Last Updated	Status	Signal	Actions
FMT Demo	2005	2015-01-28 10:55:32	Offline	N/A	Configure

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Figure 24: SmartFill Units Page

### 12.9.1 Status

Is the main screen and shows the status of all the SmartFill units allocated to this website. The last updated time represents the last time the unit reported its status.

### 12.9.2 Unit Information

Provides information on the units. This includes the model number and the version of software that is installed.

### 12.9.3 Import

If your unit is not connected to the website via a network connection and you are downloading and uploading data via a USB drive, the import function allows you to import your vehicle, plant, driver details and transactions into the website.

### 12.9.4 Export

If your unit is not connected to the website via a network connection and you are downloading and uploading data via a USB drive, the export function allows you to export your vehicle, plant and driver details from the website. Just select which unit to export the data to if you have more than one. This will create a file called XXXXunit.dat, where XXXX is the serial number of the unit selected for export. This can then be imported into the SmartFill Gen2 using the Import/Export function in the Admin menu. See 11.8

### 12.9.5 Add New Unit

Is used to add a new unit to this website. You will require the serial number and the security code that is shipped with the unit.

### 12.9.6 Configure - General

This option, shown next to each unit assigned to the website, is used to remotely configure options in the unit. There are three tabs if tank gauging is installed and two if there is no tank gauging.

Transactions Vehicles Plant Drivers Tanks Location Jobs SmartFill Units Admin **Help** Logout

UNITS  
Status  
Unit Information  
DATA TRANSFER  
Import  
Export  
PROVISIONING  
Add New Unit

SmartFills / FMT Demo

General  
Pumps  
Tank Gauges

**Time**

Display

Auto Update

**Measurements**

Volumetric Units

**Security**

Hide PIN Numbers

Update

Figure 25: Configuration - General

### 1. Time

- (a) **Display** sets whether the time is shown on the display on the unit (default is on).
- (b) **Auto Update** - sets whether the time is automatically updated from the cellular network (This option is only available if the 3G module is fitted).

- 2. **Measurements** - Sets what units are used for measurement in the unit. The options are litres, US gallons and imperial gallons.
- 3. **Security** - If the hide PIN numbers is selected, PIN entries are shown only as a \* on the display when the driver enters their PIN.

### 12.9.7 Configure - Pumps

This page is used to remotely configure the pumps (hoses) in the unit.

Transactions Vehicles Plant Drivers Tanks crop Jobs SmartFill Units Admin **Help**

UNITS  
Status  
Unit Information  
DATA TRANSFER  
Import  
Export  
PROVISIONING  
Add New Unit

SmartFills / Demo

General  
Pumps  
Tank Gauges

**Pump 1**

Name

Tank

Fuel Type

Fuel Price \$

Show Price

Enabled

Update

Figure 26: Configuration - Pumps

- 1. **Name** - used to name the pump. This name is shown on the display when the pump is in use and when the pump selection screen is shown (when there is more than one hose being controlled).

2. **Tank** - Assigns the pump/hose to an available tank, if one or more are set up for this unit.
3. **Fuel Type** - Selects the fuel type being dispensed by this pump/hose. This should be set **ONLY** if you are going to use fuel type checking on the vehicles or plant page.
4. **Fuel Price** - Sets the price that is displayed when the transaction is in progress. **Note:** this is a display only function and it DOES NOT enable the system to calculate the total price of delivery.
5. **Show Price** - if selected, the total price is shown during the transaction.
6. **Enabled** - the pump/hose is enabled for selection.

### 12.9.8 Configure - Tank Gauges

The screenshot shows the Fluid Management Technology web application. At the top left is the logo. At the top right, it says 'Welcome Demo Unit (Demo Unit)'. Below the logo is a navigation bar with links: Transactions, Vehicles, Plant, Drivers, Tanks, Location, Jobs, SmartFill Units, Admin, Help, and Logout. On the left side, there is a sidebar menu with categories: UNITS (Status, Unit Information), DATA TRANSFER (Import, Export), and PROVISIONING (Add New Unit). The main content area is titled 'SmartFills / FMT Demo' and has three sub-tabs: General, Pumps, and Tank Gauges. The 'Tank Gauges' tab is active, showing configuration for 'Tank 1'. It includes:
 

- Alarm Enabled:
- Low Alarm Volume:
- High Alarm Volume:

 An 'Update' button is located at the bottom of the configuration area.

Figure 27: Configuration - Tanks

1. **Alarm Enabled** - sets whether the tank level alarms are active. If enabled and notifications are set on the tanks page, a SMS will be sent to the numbers on the notification list when either a low or high alarm condition occurs.
2. **Low Alarm Volume** - sets the level at which the system will send a low level alert via SMS, if configured.
3. **High Alarm Volume** - sets the level at which the system will send a high level alert via SMS, if configured.

## 13 Troubleshooting at the SmartFill GEN2 unit.

### 13.1 Key Problems?

#### 13.1.1 Require more vehicle keys?

- Contact us at sales.us@fluidmt.com if you are in the USA or sales@fluidmt.com for the rest of the world.

#### 13.1.2 SmartFill GEN2 unit does nothing when a key is presented.

1. Ensure the SmartFill GEN2 unit is powered on.
2. Check the area around the sensors for dirt or moisture, and clean with a soft cloth if necessary.
3. Perform a power reset by turning the power OFF to the SmartFill GEN2 unit for 30 seconds, then on again.
4. Check you are presenting the key in the correct area.

(a) For iButton(Dallas keys) the iButton reader is to the right of the display.

(b) For NFC fobs & cards the reader is strongest at the bottom left of the display where the wifi symbol is.



5. Try another key, if it works, then the key may be faulty.
6. If another key also does not work, have an electrician check the SmartFill GEN2 unit is properly powered.
7. If the key has not been supplied by the SmartFill GEN2 unit manufacturers, it may not be compatible.
8. If all above are OK, arrange a SmartFill GEN2 unit supplier to inspect/service your SmartFill GEN2 unit.

#### 13.1.3 Keys shows as 'INVALID'.

- The key may not have been loaded into the SmartFill GEN2 unit, or may be an incompatible type key (not a genuine manufacturer supplied SmartFill GEN2 unit key). You can add via the admin menu at the unit or by adding them at the website.
- If the front of the SmartFill GEN2 unit is wet, you may need to dry the area around the key sensors with a tissue or clean rag. Moisture around the sensors will cause the keys to misread.

#### 13.1.4 Lost vehicle keys.

If you lose a vehicle key. . .

1. Delete the key at the website.

If you find old keys, you can use them again. Test them on the SmartFill GEN2 unit when finding them to ensure they work then add them to the website in the usual manner.

#### 13.1.5 Lost door lock key.

If you lose your SmartFill GEN2 unit door lock key, you should replace the lock immediately. Some SmartFill GEN2 unit systems have a bypass switch fitted internally, and having the door key may give the person the opportunity to bypass the SmartFill GEN2 unit, and take fuel unauthorized, and unrecorded.

### 13.2 PIN Number Problems?

#### 13.2.1 Not asking for PIN number.

- Check your driver and vehicle configuration. A driver who has a key and is marked as a supervisor will not be asked for a PIN.

#### 13.2.2 Invalid PIN.

- Check your SmartFill configuration on the website for that PIN.

### **13.3 Pump / dispenser problems.**

#### **13.3.1 Pump stops after a short period.**

The cause of this problem is easier to identify, if you check that the Litres taken were recorded or not.

1. If Litres are NOT recorded by the SmartFill GEN2 unit...
  - (a) The SmartFill GEN2 unit is most likely not receiving pulses from the flow meter.
2. If Litres ARE recorded by the SmartFill GEN2 unit.
  - (a) The SmartFill GEN2 unit thinks that the nozzle has been hung up. Check wiring / micros switches etc.
  - (b) The wiring to the pump / valve may be faulty / poor connections. Check all wiring.

#### **13.3.2 SmartFill GEN2 unit is not recording Litres accurately.**

1. Systems with relay pump modules (pulse input and relay / valve control).
  - (a) SmartFill GEN2 unit is not calibrated correctly to flow meter / dispenser. The SmartFill GEN2 unit should be calibrated with a proving measure or master flow meter.
2. Systems with a protocol(Gilbarco or NZ) comms module
  - (a) Protocol communications systems. . .
    - i. The SmartFill GEN2 unit and the dispenser MUST both be in the same 5 or 6 digit mode. If they are set differently, the decimal point in the Litres reading may be in the wrong place. See the relevant installers documentation for 5/6 digit setup procedures.
    - ii. The Dispenser may be set in 5 digit mode, but still allowing a fuel delivery over 999.99 Litres. This has occurred previously on PEC dispensers, and it causes the dispenser to lose the 1000's in the Litres, i.e. a delivery of 1354.77 Litres is recorded as 354.77. This is a dispenser issue, not a SmartFill GEN2 unit issue. Ensure that both the SmartFill GEN2 unit and the dispenser are both set in 6 digit mode wherever possible.

## Part II

# SmartDip Operation

## 14 Overview

The SmartDip is a tank gauging product that is either fitted as an option to the SmartFill unit or supplied as a stand alone unit. One SmartDip module can monitor up to four tanks. The levels from tanks can be displayed locally by holding down the <CLR> key if incorporated with a SmartFill GEN2 unit, sent via an SMS message if a 3G module is fitted and viewed on the website.

The SmartDip has the ability to generate high and low levels alarms. On activation of the alarm a SMS will be sent to all numbers recorded in the unit.

## 15 Viewing Tank Levels

- If installed and configured, the tank levels can be viewed by holding down the <CLR> key at the SmartFill Gen2 .
- If your SmartFill Gen2 is connected to a network then the tank levels can also be viewed on the Tanks page of the website.
- If you have the phone number of the SIM card in the 3G module, then you can send it a SMS and the SmartFill Gen2 will send back a SMS with the current tank levels. This option needs to be configured before it is accessible. Contact Fluid Management Technology support to do this for you.

## 16 Troubleshooting SmartDip

### 16.1 Tank level not changing on the website

This means an interruption in the communications. Check that the SmartFill Gen2 unit itself is connected to the website by pressing the <4> key to show the network status or by checking the SmartFill Units page of the website.

Also, check the wiring from the sensor to the SmartDip module. If this has been disconnected then the website will show the last value received.

### 16.2 Tank level incorrect

Check the configuration settings for the tank at the SmartFill Gen2 unit. See the installation manual for how to do this. If the problem persists contact your SmartDip installer for them to check the sensor installation. The sensor must be fully sealed as any fluid in contact with the sensor will degrade the reading.

### 16.3 No tank level showing

Ensure the configuration settings for the tank at the SmartFill Gen2 unit have it set to "Enable" for that tank.

If this is correct then check the wiring from the sensor to the SmartDip module as 0% means that the SmartDip module is not receiving a signal from the sensor.

### 16.4 Tank level at 100%

There is either water/fluid in the pipe that houses the sensor or there is a short in the wiring from the sensor to the SmartDip module. If the pipe has been flooded then a new sensor will be required.

### 16.5 The SmartDip module

For each tank connected to the SmartDip module there should be a LED on next to that tank designation on the module. If it is not on or flashing then that would indicate an issue with the gauging. Please call Fluid Management technology support to identify the issue.