



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
1.6	March 2017	Added swipe card information
1.7	June 2018	Corrections as required
1.8	Aug 2018	updated for Telematics and new software
1.9	Sept 2020	Corrections, added contacts for US Warranty Returns
1.10	Sept 2021	Updates to warranty information

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 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 equipment.

All data is stored in the unit and, if connected to the Internet, automatically sent to a secure website: 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/4G connection.

The unit can be configured locally using the keypad and on-screen menus or via the website

3 Terminology

Term	Meaning
Key	ibutton, Swipe card 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

1. FMT shall provide to the Customer a warranty for all Goods against defects in materials and workmanship for a two year period (the Warranty Period) commencing on the sale date to the Customer (the Warranty Commencement Date) of the relevant Goods.
2. 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.
3. 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.
4. 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.
5. All enquiries regarding the Product Warranty may be directed to FMT on 1 800 569 8704 for United States, or +61 8 8240 5585 for rest of world.
6. All warranty requests will need to be submitted via email to support@fluidmt.com which will generate a unique RMA number, an RMA form will need to be completed with the details of the request.

4.2 WARRANTY CLAIM PROCEDURE

1. 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:
 - (a) For United States
 - i. By Post addressed to: Fluid Management Technology LLC, 2609 Crooks Road #214, Troy, MI, 48084
 - ii. By email to: support@fluidmt.com
 - (b) For rest of world
 - By Post addressed to: Fluid Management Technology Pty Ltd, P.O. Box 1224, Flinders Park, SA 5025, Australia
 - By email to: support@fluidmt.com
2. A RMA number will need to be generated and an RMA form needs to be completed with the details of the request, contacting us by email at support@fluidmt.com automates this process.
3. 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 or FMT's authorised representative.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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

1. 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).
2. 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.
3. Replacement Goods or parts may include re-manufactured 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.
4. The Product Warranty does not cover consumables, including but not limited to batteries and surge protectors.
5. 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 GEN 2 is designed to automatically send data to a central website using either a direct Ethernet connection, 3G/4G or WiFi. Ethernet is standard with all units and 3G/4G or WiFi are optional modules that can be ordered with the unit or fitted later.

NOTE: For US customers, please follow instructions on separate setup sheet for Verizon Module.

6.1 3G/4G Setup

The 3G/4G module is located in the upper left hand corner of the unit. To operate it needs to be fitted with a 3G/4G data SIM. The picture below shows how the SIM is fitted into the module:

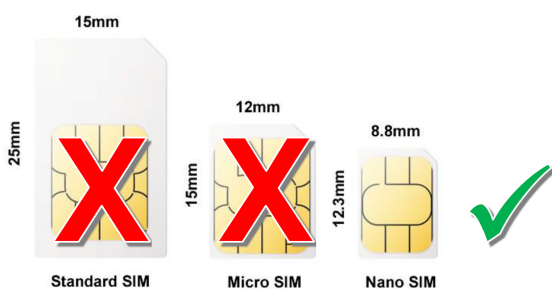


Figure 1: Installing SIM

6.1.1 Details for the 3G/4G SIM

The SmartFill GEN2 module uses a 3G/4G SIM enabled for data to allow data to be sent to your account. Below are the details of what is required for the SIM card:

- **Application Description:** A machine to machine application where data is automatically sent to a website
- Telstra have **IoT** (Internet of Things) the current evolution of **M2M** (machine to machine) data plans, which are specifically designed for this type of application. Details can be found on Telstra's Website.
- **Data Capacity:** Minimum of 500MB per month (0.5GB)
- **SIM PIN:** The SIM card should be unlocked. The SIM PIN / PIN Code / SIM card security, should be disabled. This may be done when the card is supplied, but can also be set 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 Nano SIM.



SIM=Nano SIM

- **Service Provider/ Plan:** All service providers can provide a data SIM and plans vary between suppliers.
- **APN Configuration:** The unit is set to auto by default. If your cell provider requires a specific APN, you can set this in the SmartFill menu as follows:
 - Hold <CLR> and <ENT> until you see "Enter Installer or admin PIN"
 - Type in your admin or installer PIN (Usually 6789)
 - Press <9> for More
 - Press <2> for Network

- Press <1> for Access Point



Use the help option to understand how to use the text entry screen

Once the SIM is installed, you can view the status of the connection by holding down the "4" key, you can also press <ENT> from this screen to see additional connection details. You can exit this screen by pressing the CLR key.

6.2 Wifi Setup

To connect the SmartFill GEN2 to your wifi network, the following guidelines must be adhered to:

- Your wifi router operates on the 2.4 GHz band and uses WPA security
- The SmartFill GEN2 is no further than 40 metres from the wifi router
- There are no obstacles between the SmartFill GEN2 and the wifi router
- The SmartFill GEN2 wifi antenna is in the open in direct line of site to the wifi router

You will also need to input the SSID and password of the wifi network into the SmartFill GEN2. To do this, do the following:

- Access the installation as per normal
 - Press and hold the <CLR> and <ENT> keys down together for a couple of seconds until the display reads "Enter admin or installer PIN"
 - Enter 6,7,8,9,ENT to open the installation menu
- Press <9> for More
- Then <2> for Network
- Press <3> for SSID. There are two ways to configure the SSID
 - Option <1> Select SSID.
The Select SSID screen allows you to choose which nearby WiFi access point you would like to connect to instead of typing in the SSID manually. From this screen press <4> and <6> to scroll between the detected access points and press <ENT> to save the selected Access Point.



Figure 2: Select SSID Screen

- Option <2> Enter SSID.
If you have a hidden network or otherwise need to enter the SSID manually, this option allows you to enter the SSID. There are four rows of alpha-numeric characters that can be accessed by the 2 and 8 keys. To move left or right in a row, press 4 or 6. Pressing 5 adds the character that the selector is on.

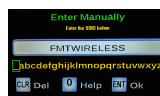


Figure 3: Enter SSID Screen

- When complete press <ENT> to confirm.
- Press <4> to enter the wifi network password. (security for WiFi is WPA)
- When complete press <ENT> to confirm.
- Then press <CLR> as many times as it takes to return to the default display.

The network status screen is accessed by pressing and holding the <4> key.

6.3 Ethernet

By default this is set to use DHCP and as long as your system is set for DHCP and has internet access the settings do not need to be changed.

If you require a static IP address you can set this in the network menu.

6.3.1 Enable Static IP Addressing:

To enable static IP addressing:

- Hold <CLR> and <ENT> until you see "Enter Installer or admin PIN"
- Type in your admin or installer PIN (Usually 6789) and press <ENT>
- Press <9> for More
- Press <2> for Network
- Press <5> for Dynamic Addressing, then press <5> to select "No"
- Press <ENT> to exit, you will then have option <6> Static Address

Static IP Configuration

1	IP Addr	2	Mask	3	Gateway
---	---------	---	------	---	---------

CLR Back

Figure 4: Static Address Menu

Option 6 will give 3 options:


1. **IP Addr**– enter the IP Address needed to connect to your network, ENT moves between fields
2. **Mask**– enter the Subnet Mask used by your network, ENT moves between fields
3. **Gateway**– enter the gateway IP Address of your network usually the router, ENT moves between fields

Once these have been set and you go back to the previous menu Option 7 will allow DNS to be set

1. **Primary DNS**– enter the IP Address of your or your ISPs DNS server to gain access to internet, ENT moves between fields
2. **Secondary DNS**– enter the IP Address of your or your ISPs secondary DNS server to gain access to internet, ENT moves between fields

Once all details have been entered press CLR as many times as needed to return to start screen and save settings.

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) Odometer / hour meter reading.
 - (b) Driver PIN number.
 - (c) Job number.
 - (d) Userdata
 - (e) Preset Amount
5. The SmartFill GEN2 unit can also be configured with specified time access for each vehicle or fill limits per vehicle via the fmtdata.com website .
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).

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, which can be either 3G/4G, WiFi or Ethernet
4. **5** - Displays the details of the most recent transactions
5. **6** - Displays the unit's model, serial number and current software version
6. **7** - Displays the last time the unit synchronised with the website
7. **9** - Displays the connection status if using AVID SmartTag readers

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 or 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 (5) for Unit.
4. Select (2) 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 (1) 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:

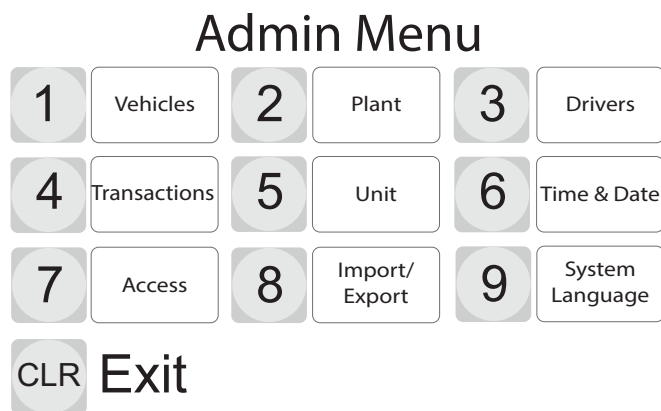


Figure 5: Admin Menu

To select a menu item push the corresponding key on the keypad. On the bottom of the screen you will see a guide to which keys to use to navigate around the menu.

Upon selection one of the menu options, you will then be presented with the choices available for that menu selection. The menu on the next page appears if you push key number '1' - Vehicles.

11.1 Vehicles

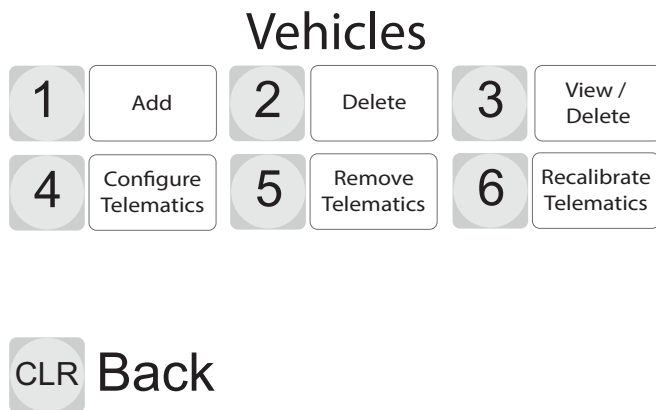


Figure 6: Vehicles Menu

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 six items in this menu :

1. **Add** - allows the addition of vehicle Keys or Codes to the system. To Add a Key the key must be presented to the system to enter it. Codes are added by using the keypad to enter the value.

WARNING



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

2. **Delete** - allows Keys or Codes to be deleted from the system. Keys can be deleted by presenting the key to be deleted. Codes can be deleted by entering the Code via the keypad.
3. **View/Delete** - Keys or Codes in the system can be viewed. Any key or Code can be deleted by this screen by first selecting it and then selecting delete(Key <5>). 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.
4. **Configure Telematics** - This item is for configuring Telematics, refer to the SmartFill GEN2 Installation manual for steps to set configure this.
5. **Remove Telematics** - This item is for disassociating a telematics module from the unit.
6. **Recalibrate Telematics** - Recalibrate Analog Vehicles fitted with Telematics.

11.2 Plant

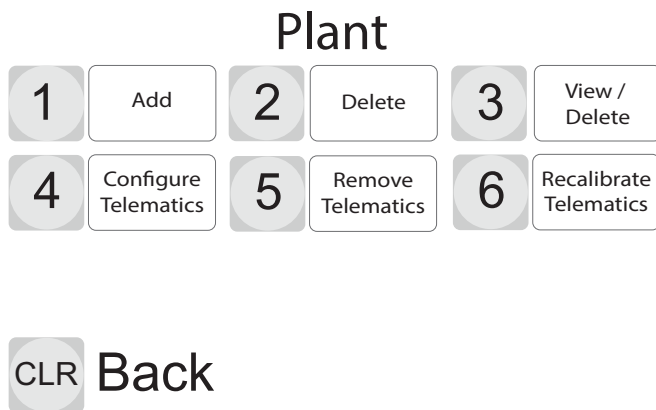


Figure 7: Plant Menu

This menu is used to set what 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 five items in this menu :

1. **Add** - allows the addition of plant Keys or Codes 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. Codes 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.
2. **Delete** - allows Keys or Codes to be deleted from the system. Keys can be deleted by presenting the key to be deleted. Codes can be deleted by entering the code from the keypad.
 3. **View/Delete** - Keys or Codes in the system can be viewed. Any key or code can be deleted by 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.
 4. **Configure Telematics** - This item is for configuring Telematics, refer to the SmartFill GEN2 Installation manual for steps to set configure this.
 5. **Remove Telematics** - This item is for disassociating a telematics module from the unit.
 6. **Recalibrate Telematics** - Recalibrate Analog Vehicles fitted with Telematics.

11.3 Drivers

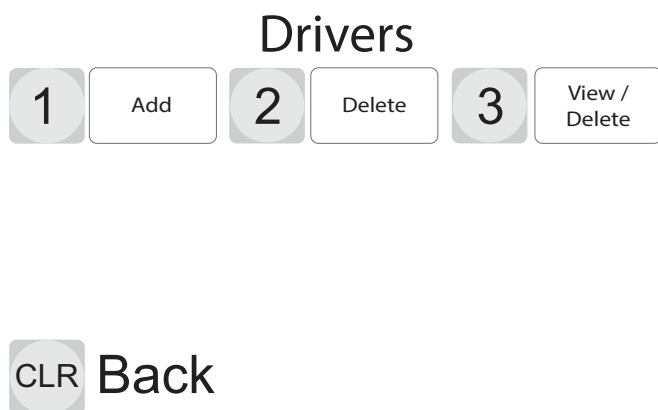


Figure 8: Drivers Menu

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

1. **Add** - allows the addition of Driver Keys or Codes to the system. If Key has been selected in the Transaction Inputs Menu, the actual key must be presented to the system to enter it. The key number cannot be directly entered. Codes 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.

2. **Delete** - allows Keys or Codes to be deleted from the system. Keys can be deleted by presenting the key to be deleted. Codes can be deleted by entering the Code from the keypad.
3. **View/Delete**- Keys or Codes in the system can be viewed. Any key or Code can be deleted by 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

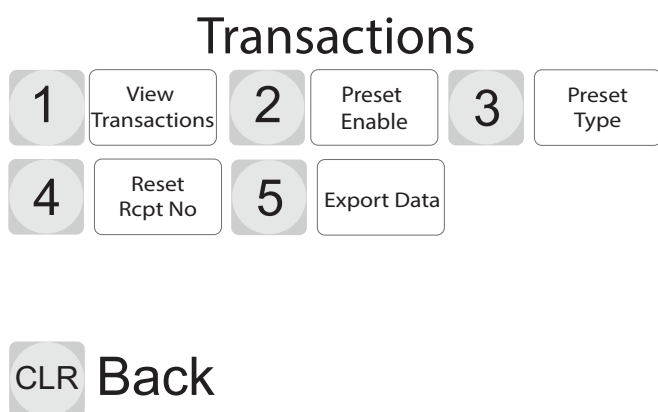


Figure 9: View Transactions Menu

This menu is used to view transactions that are stored in the unit or to set transaction options. There are four options:

1. **View Transactions** - shows all the transactions stored in the unit.
2. **Preset Enable** - setting to yes will require each transaction to input the required amount for that transaction.
3. **Preset Type** - there are 3 options Volume, Money and Manual, Volume is for the amount of Fuel to be dispensed, Money is for the financial amount of the Fuel to be dispensed and Manual allows either option to be selected at the time of filling.
4. **Reset Receipt Number** - if a receipt printer is being used with the SmartFill Gen2 then this will reset the receipt number to zero.
5. **Export Data** - allows exporting of transactions to USB

11.5 Unit

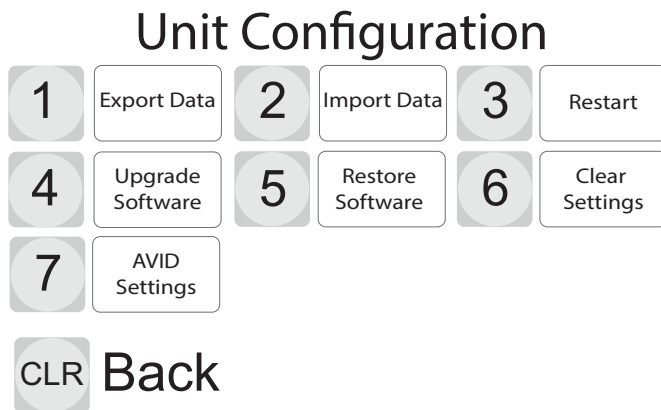


Figure 10: Unit Menu

This menu is used to configure the SmartFill GEN2.

1. **Export Data** - exports a file to USB with all the vehicle keys, driver codes and any un-exported transactions. 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, but are not in the unit.
3. **Restart** - reboots the unit.
4. **Upgrade Software** - is used to upgrade the unit's software via the USB port.
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.
7. **AVID Settings** - Enables you to switch the operation mode of SmartTag / AVID between Automation Mode and Theft Detection
 - (a) Automation - Automatically records fuel against seperate transactions if fuelling multiple vehicles.
 - (b) Theft Detection - Automatically stops dispensing fuel if the AVID reader does not detect the same vehicle tag that started the transaction.

11.6 Time and Date



Figure 11: 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 four 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 this to 'Yes' will let the SmartFill Gen2 update it's date and time from the connected network date and time. This setting only applies to 3G/4G connections.

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 12: 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 13: 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 14: 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.

11.9 System Language

Currently English and Spanish

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

12.1 Creating Your Website and Adding Your First Unit

To set up your website and add a unit for the very first time use your web browser to navigate to www.fmtdata.com/new Once you arrive at this page, select whether you have an existing account on the fmtdata website, if you don't have an existing account, click on "**New customer**" and then enter the serial number and code provided with the unit. A copy of this information is contained on the USB drive supplied with the unit and a hard copy 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.

Important Notice:

If you want to add a new SmartFill Unit to your existing account, then please **Login** to your account and visit "SmartFill Units" >> "Add New Unit". If this is a new account, then please select **New Customer**.

Existing customer

New customer

Serial Number:

Security Code:

 - -

Submit

Figure 15: 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



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.

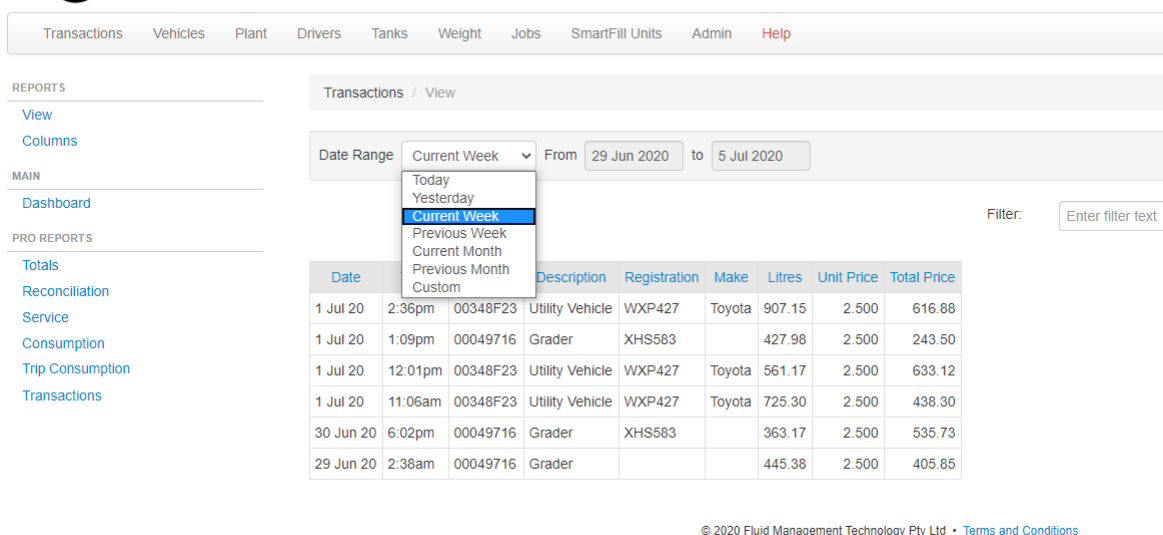


Figure 16: Website Transaction Page

12.3.1 Transactions - View

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

1. **Date Range** - From drop down menu you select what date range you want to display and export. If you want a custom date range then select custom and click on the "From" and "To" dates to set them to the dates required.
2. **Export to CSV** - Exports all transactions in the date range to a .csv file that can be viewed in any spreadsheet program(e.g. Microsoft Excel)



3. **Rows per Page** - defines how many rows will be shown at a time. Select to show 50 rows per page to enable the webpage to open quicker. The more rows it has to show the longer it will take to load. When you export the transactions it will still export all the transactions in the date range.

12.3.2 Transactions - 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.

SmartFill

Welcome Guest Admin (Demo Site) Logout

Transactions Vehicles Plant Drivers Tanks Weight Jobs SmartFill Units Admin Help

REPORTS View Columns MAIN Dashboard PRO REPORTS Totals Reconciliation Service Consumption Trip Consumption Transactions

Transactions / Columns

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	
Column Name	Display Name
Date	Date
Time	Time
Authorisation Value	Key
Description	Description
Registration	Registration
Make	Make
Volume	Litres
Unit Price	Unit Price
Total Price	Total Price

Unused Columns	
Column Name	Display Name
Unit	Site
Transaction Id	Transaction Id
Pump Name	Pump Name
Raw Timestamp	Raw Timestamp
Timestamp	Timestamp
Fuel Type	Fuel Type
Last Service Odometer	Last Service Odom
Driver Key / Code	Key/Code
Fleet	Fleet
Time Compensated	Time Compensated

Figure 17: 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.

SmartFill

Transactions Vehicles Plant Drivers Tanks Weight Jobs SmartFill Units Admin Help

VEHICLES View Columns CONFIGURATION Unit Allocation Time-of-day Access Fill Limits Fuel Allocation Transaction Inputs

Vehicles / View

Add Vehicle Import Vehicles Export Vehicles Filter: Enter filter text

Key	Description	Make	Registration	Department	Fuel Type	Odometer	Enabled	Delete
00000137	HID Card	IZUZU	775F4	Admin	Diesel	104238	<input checked="" type="checkbox"/>	<input type="button" value="X"/>
00ABC123	Tank FOB	dr	AWD	Fuel	Unleaded	25402	<input checked="" type="checkbox"/>	<input type="button" value="X"/>
0168CA2C	iButton Vehicle	Ford	7789	Admin	Unleaded	14874	<input checked="" type="checkbox"/>	<input type="button" value="X"/>
114F63B3				Site Works	AdBlue	0	<input checked="" type="checkbox"/>	<input type="button" value="X"/>
1914004E	Nozzle ID	Mercedes-Benz	MB591A	Sales	Unleaded	105238	<input checked="" type="checkbox"/>	<input type="button" value="X"/>
19250483				Site Works	Water	0	<input checked="" type="checkbox"/>	<input type="button" value="X"/>
1E190B16	Weekends Only	Toyota	AAB354			0	<input checked="" type="checkbox"/>	<input type="button" value="X"/>

Figure 18: 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.

If you are using swipe cards then you will need to add the ISO/Access pair name as well as the card number. The ISO/Access pair should be added first. See 12.10.1

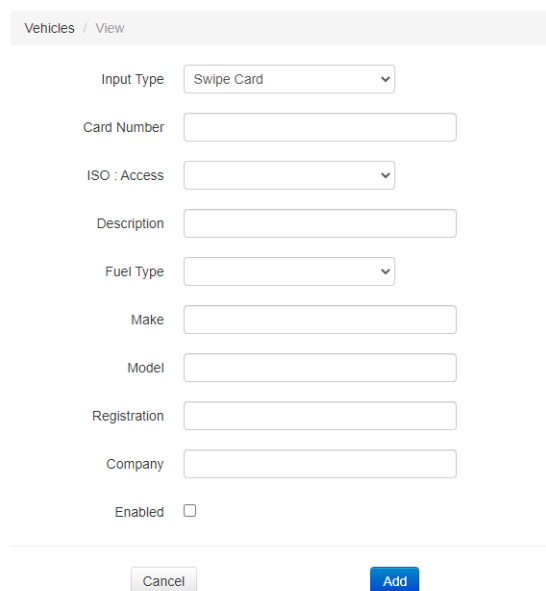


Figure 19: Add Vehicle Page

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.

If you are using swipe cards then you will need to add the ISO/Access pair name as well as the card number. The ISO/Access pair should be added first. See 12.10.1

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 requested on a per vehicle basis. The options are:

1. Enable Odometer - driver must enter odometer when refuelling the vehicle or piece of plant associated with the key or code
2. Enable Hourmeter - driver must enter hourmeter when refuelling the vehicle or piece of plant associated with the key or code
3. Enable Job Input - driver must enter a job number when refuelling the vehicle or piece of plant associated with the key or code
4. Enable User Data Input - driver 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.

Vehicles / Time-of-day Access

Edit Time-of-Day List

Filter:

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	<div><div></div><div>Weekends Only weekday</div></div>	<input checked="" type="checkbox"/>
1049384				<input type="checkbox"/>
1AB82CD				<input type="checkbox"/>

Figure 20: 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. The two settings interact and the lower of the two will determine how much fuel can be taken.


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 as long as name has been chosen as one of the displayed fields in the transactions columns page.

12.5.1 Drivers - 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.



Transactions	Vehicles	Plant	Drivers	Tanks	Weight	Jobs	SmartFill Units	Admin
--------------	----------	-------	---------	-------	--------	------	-----------------	-------

DRIVERS

[View](#)
[Columns](#)

CONFIGURATION

[Unit Allocation](#)
[Time-of-day Access](#)
[Fill Limits](#)
[Fuel Allocation](#)
[Transaction Inputs](#)
[Supervisor Inputs](#)

Drivers / View

Add Driver

Import Drivers


Export Drivers

Key / Code	Driver Name	Licence Class	Enabled	Delete
1111	Eddie Betts	MC	<input checked="" type="checkbox"/>	
1234	Taylor Walker	HR	<input checked="" type="checkbox"/>	
1382	Tony Hart	C	<input checked="" type="checkbox"/>	
4321	Rory Sloane	HC	<input checked="" type="checkbox"/>	
1001100	Luke Gackle	C	<input checked="" type="checkbox"/>	

Figure 21: 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. If you are using swipe cards then you will need to add the ISO/Access pair name as well as the card number. The ISO/Access pair should be added first. See 12.10.1



Transactions	Vehicles	Plant	Drivers	Tanks	Weight	Jobs	SmartFill Units	Admin	Help
--------------	----------	-------	---------	-------	--------	------	-----------------	-------	------

DRIVERS

[View](#)
[Columns](#)

CONFIGURATION

[Unit Allocation](#)
[Time-of-day Access](#)
[Fill Limits](#)
[Fuel Allocation](#)
[Transaction Inputs](#)
[Supervisor Inputs](#)

Drivers / View

Key / Code

Code

Key / Code

1001100

Driver Name

Luke Gackle

Licence Class

C

Enabled

☒

Cancel

Add

Figure 22: Add Driver Page

12.5.3 Drivers - 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. Drivers can be unallocated or allocated to specific units that report to this website.

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 the Edit Time of Day List button to edit existing time of day configurations or add new ones.

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 be filled to the specified limit. The two settings interact and the lower of the two will determine how much fuel can be taken.

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 SmartFill GEN2 system has a SmartDip or Automatic Tank Gauging(ATG) interface fitted. If your SmartFill GEN2 does not have a SmartDip or ATG interface, you can create virtual tanks called Smart Tanks, these allow you to track your tanks with manual dips, any transactions that occur will automatically be subtracted from the tank volume so you can monitor your tanks in realtime. The SmartTanks feature requires a subscription to our PRO Reports website add-on.

12.6.1 Tanks - View

This is the default page and allows you to view in almost real time the levels in your tanks. This screen shows a combination of tanks with Automatic Tank Gauging, and tanks that are Smart Tanks.

The graphics displayed at the top of the page give you a visual indication of the status of your tanks, these graphics are available with PRO reports.

The table at the bottom of the tanks page lists all your tanks and the current status including the capacity of the tank, safe fill limit, current volume, last dip, and the tank name.

The colours indicate the type of tank and status of the tank. A tank with a SmartDip or ATG will be listed in the table as a white row. A Smart Tank will be listed as a green row if it has had a recent DIP, or as orange if a DIP is required.

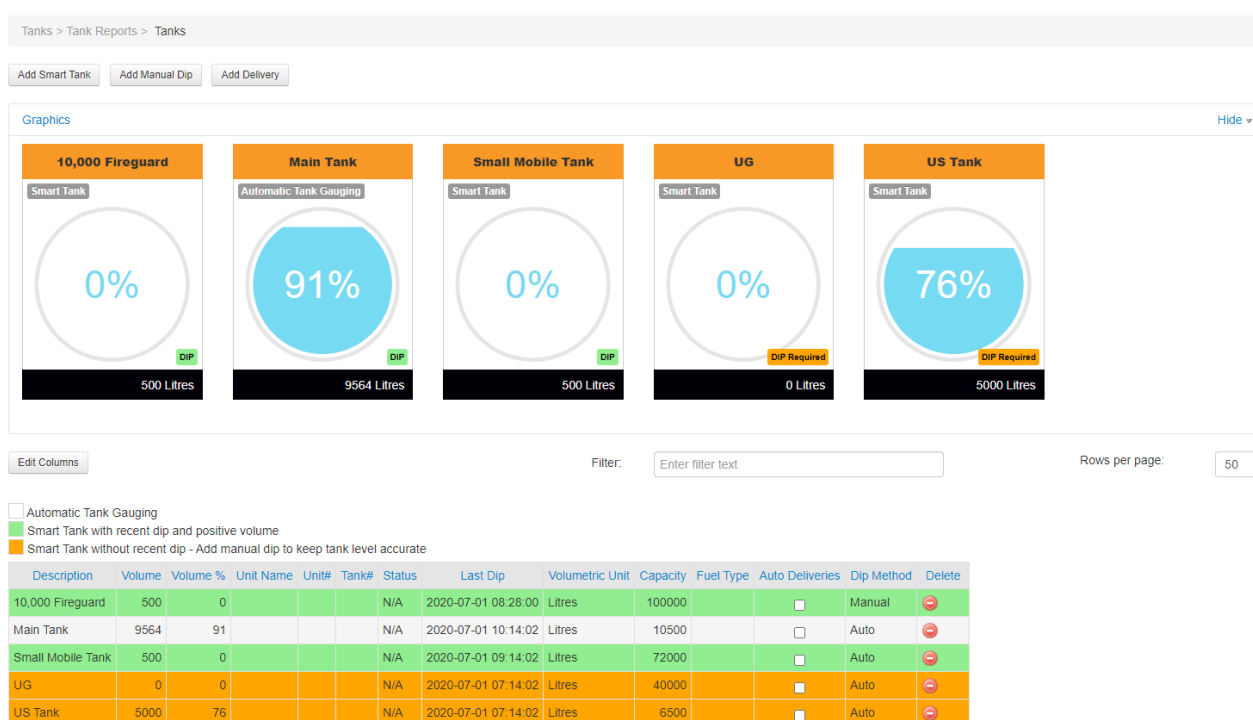


Figure 23: Tanks Page with Pro Reports

From the tanks page you may edit the description of the tank by clicking into the description cell and editing the value. If you are using PRO Reports, the tank description will appear as the tank name on all charts and graphs. You can see this in figure 23, the name of the tanks in the graphics is the tank description.

12.6.2 Tanks - 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 Smart Tank

The add Smart Tank button allows you to add a new tank if you have PRO Reports enabled on your account. 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 a field and over-typing the entry.

The screenshot shows the Fluid Management Technology website interface. The top navigation bar includes links for Transactions, Vehicles, Plant, Drivers, Tanks, User Data, Jobs, SmartFill Units, Admin, and Help. A user greeting 'Welcome Guest (Demo Site)' and a Logout button are in the top right. The left sidebar lists various sections: TANK REPORTS (Tanks, Dips, Deliveries), TRANSFERS (Transfers), and CONFIGURATION (Pumps, Transfer Meters, Mobile Tanks, Email Schedule, Email Alerts, SMS Phone Numbers, SMS Schedule). The main content area is titled 'Tanks > Tank Reports > Tanks'. It contains a form with the following fields: Description (text input), Tank SFL (text input), Volumetric Unit (dropdown menu set to 'Litres'), Capacity (text input), and Fuel Type (dropdown menu). At the bottom of the form are 'Cancel' and 'Add' buttons. A copyright notice '© 2019 Fluid Management Technology • Terms and Conditions' is at the very bottom.

Figure 24: Add SmartTank

12.6.4 Configuration - SMS Schedule

If you have a 3G/4G 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.

NOTE: SMS Notifications cannot be used with Smart Tanks, only ATG or SmartDip tanks, as Smart Tanks are setup as virtual tanks on the website and not the unit. You can however use email notifications with Smart Tanks.

The screenshot shows the SmartFill website interface. The top navigation bar includes links for OPT, Transactions, Vehicles, Plant, Drivers, Tanks, User Data, Jobs, SmartFill Units, Admin, and Help. The left sidebar lists various sections: TANK REPORTS (Tanks, Dips, Deliveries), TRANSFERS (Transfers), and CONFIGURATION (Pumps, Transfer Meters, Mobile Tanks, Email Schedule, Email Alerts, SMS Phone Numbers, SMS Schedule, SMS Alerts). The main content area is titled 'Tanks > Configuration > SMS Schedule'. It includes a note: 'Times must be given in 4-digit 24 hour format (e.g. 11:30PM is 23:30, 1:00AM is 01:00), with 00:00 / blank disabled.' Below this, there are two tabs: 'Site A' and 'Site B'. The 'Site A' tab is active, showing a table with 6 rows labeled 'Time 1' through 'Time 6' and corresponding time input fields. The times entered are: Time 1: 10:00, Time 2: 17:00, Time 3: 0:00, Time 4: 0:00, Time 5: 0:00, and Time 6: 0:00. An 'Update' button is at the bottom of the form.

Figure 25: Notification Times

12.6.5 Configuration - SMS Phone Numbers

You may enter up to 6 phone numbers to receive the SMS tank Alerts, these will be sent at the times you specify in SMS Schedule 12.6.4.

NOTE: SMS Notifications cannot be used with Smart Tanks, only ATG or SmartDip tanks, as Smart Tanks are setup as virtual tanks on the website and not the unit. You can however use email notifications with Smart Tanks.

12.6.6 Configuration - Email Schedule

You may setup email tank level updates to go out at a specified time each day to update you on your tank levels, you can configure multiple email addresses by separating addresses with either a comma (,) or a semicolon (;).

Tanks > Configuration > Email Schedule

Configure status notifications to be sent at specific times to keep you updated on your tank levels.

Add Item

Filter:


Tank	Scheduled Time	Enabled	Last Sent	Email Addresses	Delete
unleaded	14:00	<input checked="" type="checkbox"/>	2020-09-14 14:03:01	example@fluidmt.com,example@microsoft.com	

Figure 26: Email Schedule

12.6.7 Configuration - Email Alerts

Configure alert notifications to be sent to selected email addresses based on tank levels or when offline, and an optional follow up interval (specified in minutes).

Tanks > Configuration > Email Alerts

Configure alert notifications to be sent to selected email addresses based on tank levels or when offline, and an optional follow up interval (specified in minutes).

Add Item

Filter:


Tank	Low Alarm (%)	High Alarm (%)	Offline Alarm	Alert Interval	Enabled	Last Alert	Email Addresses	Delete
diesel	5	95	240	30	<input checked="" type="checkbox"/>	2020-09-15 01:57:01	example@fluidmt.com,example@microsoft.com	

Figure 27: Email Schedule

12.6.8 Transfers - Transfers

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

12.6.9 Tank reports - All Dips

Selecting All Dips below the Tank Reports heading shows a record of all the Dips for the all the tanks. An automatic dip is done for each tank at one minute after midnight or as close as practical to this time, effectively when the unit is next turned on. It also shows all extra dips generated every 2 hours or by fluctuations outside the P-Factor setting

12.6.10 Tank reports - Daily Dips

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

12.6.11 Tank reports - 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 if the auto deliveries feature is enabled for the tank. 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.

12.7 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.

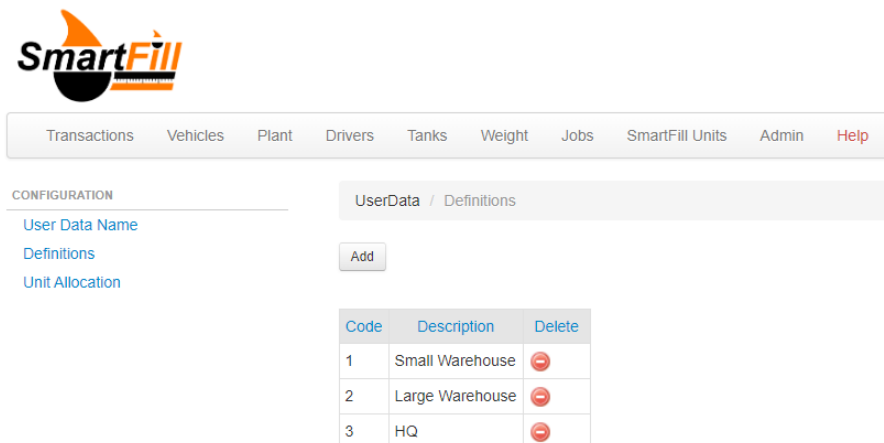


Figure 28: User Defined Data Page

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.

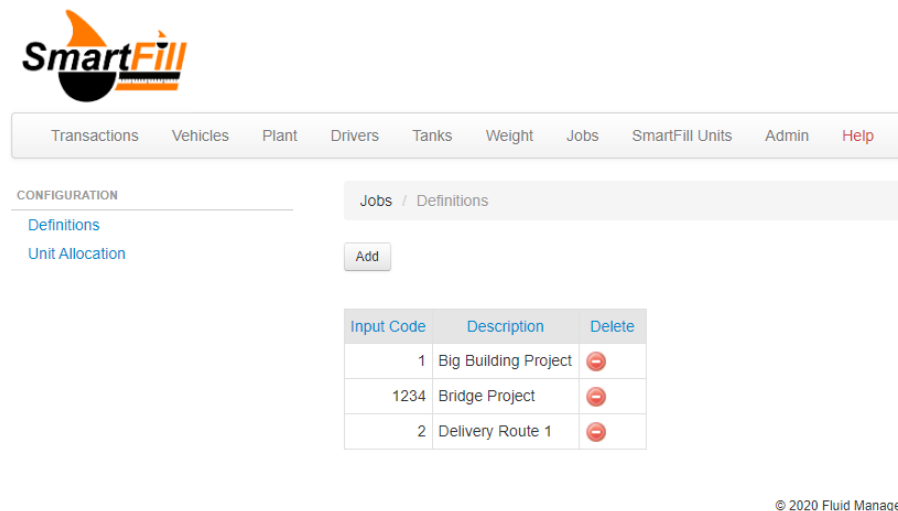


Figure 29: Jobs Page

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

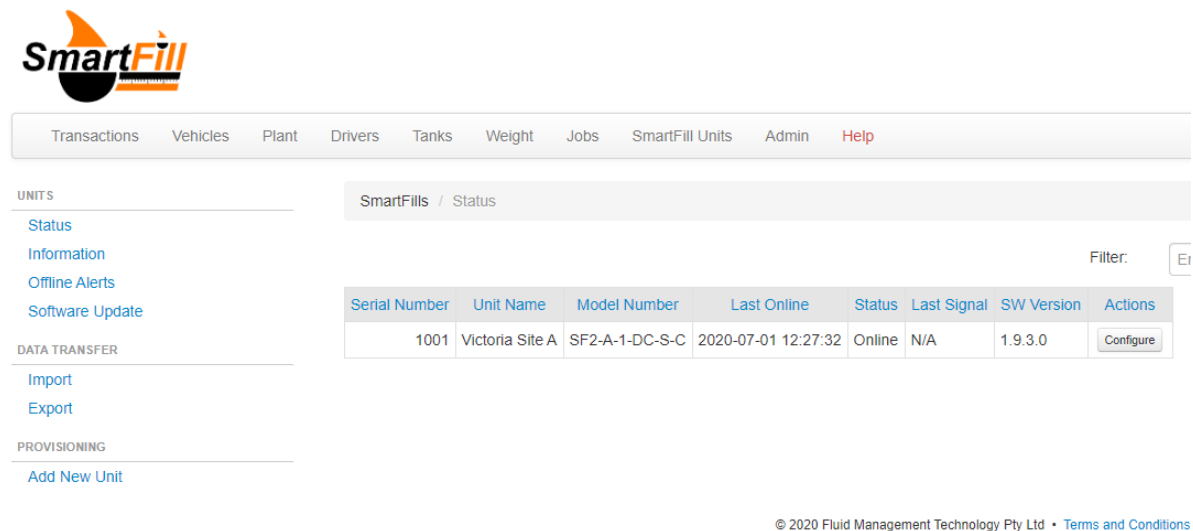
Selecting definitions displays the list of input numbers (what the user will need to enter at the unit) and what information is mapped to the input number e.g an internal job number that may have characters as well as letters in it. These entries can be edited by selecting the field and over typing the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



The screenshot shows the SmartFill web interface. At the top is the SmartFill logo. Below it is a navigation bar with links: Transactions, Vehicles, Plant, Drivers, Tanks, Weight, Jobs, SmartFill Units, Admin, and Help. The main content area is titled 'SmartFills / Status'. On the left, there are several sections: 'UNITS' with links for Status, Information, Offline Alerts, and Software Update; 'DATA TRANSFER' with links for Import and Export; and 'PROVISIONING' with a link for Add New Unit. The main area displays a table of unit status. The table has columns: Serial Number, Unit Name, Model Number, Last Online, Status, Last Signal, SW Version, and Actions. A single row is visible for unit 1001, Victoria Site A, SF2-A-1-DC-S-C, last online 2020-07-01 12:27:32, status Online, last signal N/A, and SW version 1.9.3.0. There is a 'Configure' button in the Actions column. A 'Filter:' input field is located to the right of the table header. At the bottom right, there is a copyright notice: © 2020 Fluid Management Technology Pty Ltd • Terms and Conditions.

Serial Number	Unit Name	Model Number	Last Online	Status	Last Signal	SW Version	Actions
1001	Victoria Site A	SF2-A-1-DC-S-C	2020-07-01 12:27:32	Online	N/A	1.9.3.0	Configure

Figure 30: 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 Information

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

12.9.3 Offline Alerts

Provides for alerts when the SmartFill unit goes offline.

12.9.4 Software Update

This is where you can check and download software updates if required.

12.9.5 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.

12.9.6 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

12.9.7 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.

12.9.8 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 Weight Jobs SmartFill Units Admin Help

SmartFills / Victoria Site A

General Time Pumps

Display ☒

Time zone Australia/Adelaide

Measurements

Volumetric Units Litres

Currency \$

Enter 1 to 3 characters to represent your currency (\$, AUD, USD, etc.).

Security

Hide PIN Numbers ☒

Other

Transaction Hold Time 5

Input Screen Timeout 30

Update

Figure 31: Configuration - General

1. Time

- (a) **Display** sets whether the time is shown on the display (default is on)
- (b) **Time Zone** - Select which timezone you are in

2. Measurements

Sets what units are used for measurement in the unit. The options are litres and US or imperial gallons

3. Security

If the hide PIN numbers is selected, PIN entries are shown as an asterisk ' * ' on the display when the driver enters his PIN.

12.9.9 Configure - Pumps

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

SmartFills / Fred

General

Pumps

Tank Gauges

Admin

Pump 1

Name

Unleaded

Enabled

☒

Show Price

☒

Fuel Type

Unleaded

Fuel Price

\$ 0.890

Cutoff Freq

1

Pulser Source

1

Activation

Nozzle

K-Factor

2.000

Volume Multiplier

1.000

Gilbarco Digits

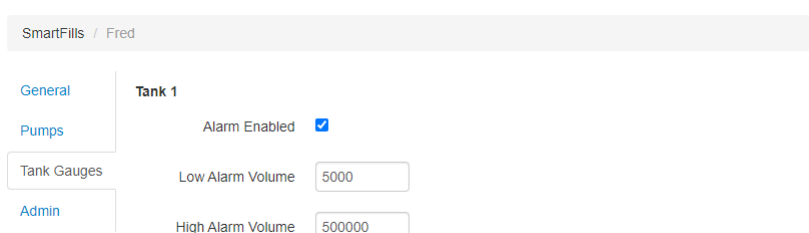
5

Figure 32: 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. **Enabled** - Sets whether this pump/hose is enabled on the unit. If it is not selected, the driver will not be given the option to select this pump.
3. **Show Price** - When set, will make the total price of the transaction visible on the SmartFill display.
4. **Pre-Walk Time** - sets how long in seconds after the transaction has been authorised, before the system terminates the transaction because it has not detected any flow. **Note:** This setting only has an effect if walktime has been selected in the Transaction Termination menu.
5. **Post-Walk Time** - sets the time in seconds before the system terminates the transaction after having detected no further flow through the pump e.g how long after the nozzle is hung up before the transaction is terminated **Note:** This setting only has an effect if walktime has been selected in the Transaction Termination menu.
6. **Tank** - Assigns the pump/hose to an available tank, if one or more are set up for this unit.
7. **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.

8. **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.
9. **Cutoff frequency** - The cut-off frequency may be increased to compensate for excessive noise on the pulser output.
10. **Pulser Source** - When the unit controls more solenoids than there are flowmeters, this menu allows you to select from which pump module this pump will obtain the pulser input. E.g. if this is pump module two and the pulser output is connected to pump 1, you would select pump 1
11. **Activation** - Allows selection of Walktime or Nozzle switch
12. **K-Factor** - allows the setting of the K factor (pulses per litre) if known. Some meters provide this value as part of the calibration report.
13. **Volume Multiplier** - Used to fine tune the Gibarco Protocol units when the fuel delivered is not correct.
14. **Gilbarco Digits** - Used to select whether the bowser is using 5 or 6 digit operation. Default is 5 digit operation.

12.9.10 Configure - Tank Gauges



SmartFills / Fred

General

Pumps

Tank Gauges

Admin

Tank 1

Alarm Enabled ☒

Low Alarm Volume 5000

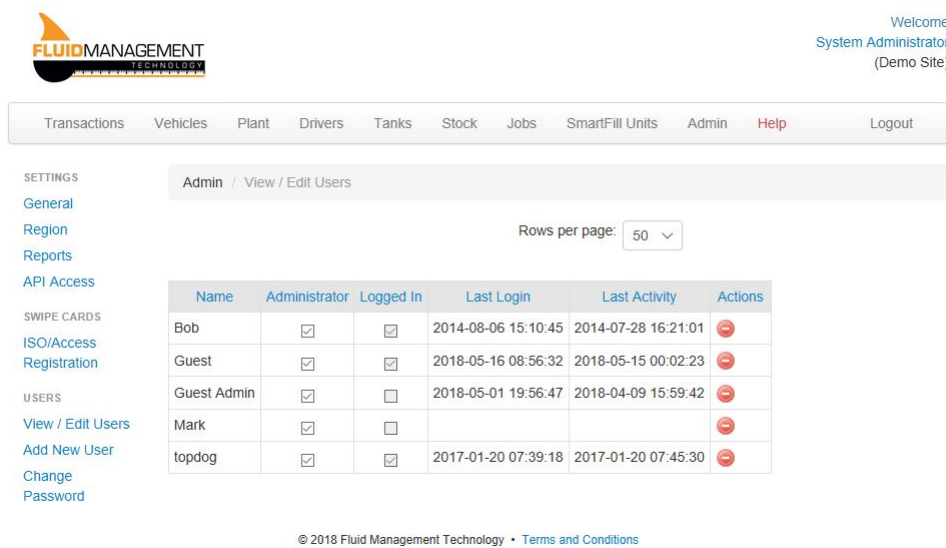
High Alarm Volume 500000

Figure 33: Configuration - Tanks

1. **Alarm Enabled** - sets whether the tank level alarms are active. If enabled and notifications are set on the tanks page, an 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.

12.10 Admin

The Admin page lists out all the users who have access to your website, from here you can manage accounts and permissions, create new accounts for your website, and change your password.



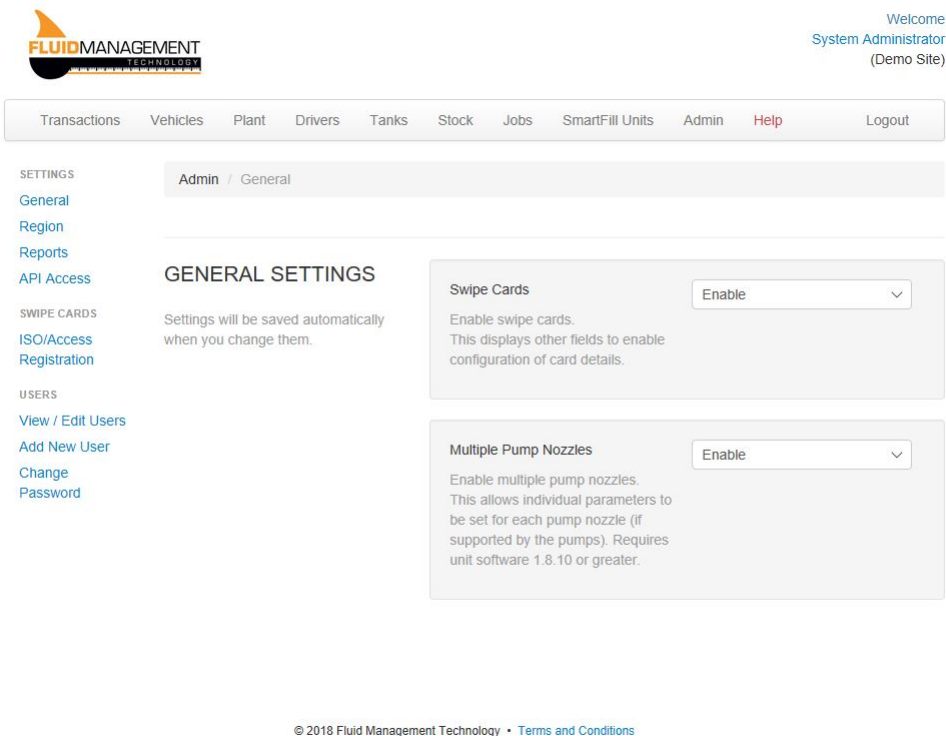
The screenshot shows the Fluid Management Technology Admin interface. The top navigation bar includes links for Transactions, Vehicles, Plant, Drivers, Tanks, Stock, Jobs, SmartFill Units, Admin, Help, and Logout. The user is logged in as System Administrator (Demo Site). The left sidebar lists settings categories: General, Region, Reports, API Access, SWIPE CARDS, ISO/Access, Registration, and USERS. The main content area shows the 'Admin / View / Edit Users' page. A table lists users with columns: Name, Administrator, Logged In, Last Login, Last Activity, and Actions. The table contains five rows: Bob, Guest, Guest Admin, Mark, and topdog. Each row has checkboxes for Administrator and Logged In, and a red minus icon in the Actions column. A 'Rows per page' dropdown is set to 50.

Name	Administrator	Logged In	Last Login	Last Activity	Actions
Bob	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2014-08-06 15:10:45	2014-07-28 16:21:01	-
Guest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2018-05-16 08:56:32	2018-05-15 00:02:23	-
Guest Admin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2018-05-01 19:56:47	2018-04-09 15:59:42	-
Mark	<input checked="" type="checkbox"/>	<input type="checkbox"/>			-
topdog	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2017-01-20 07:39:18	2017-01-20 07:45:30	-

Figure 34: Admin

12.10.1 General

To utilise swipe cards within the SmartFill system, you must first enable it on this page. Use the drop-down list to enable. Once swipe cards are enabled, the ISO and Access number pairs will need to be added. See 12.10.4



The screenshot shows the Fluid Management Technology Admin General Settings page. The top navigation bar and user information are the same as in Figure 34. The left sidebar shows the 'General' setting selected. The main content area is titled 'GENERAL SETTINGS' and includes a note: 'Settings will be saved automatically when you change them.' There are two settings sections: 'Swipe Cards' and 'Multiple Pump Nozzles'. Each section has an 'Enable' dropdown menu set to 'Enable'. The 'Swipe Cards' section also includes a description: 'Enable swipe cards. This displays other fields to enable configuration of card details.' The 'Multiple Pump Nozzles' section includes a description: 'Enable multiple pump nozzles. This allows individual parameters to be set for each pump nozzle (if supported by the pumps). Requires unit software 1.8.10 or greater.'

Figure 35: Admin General Settings

12.10.2 Region Settings

Use the regional settings to set your timezone and start of the week.

Admin / Region

REGION SETTINGS

Settings will be saved automatically when you change them.

Timezone

Set your local timezone. This is used for daily reporting and fuel allocation resetting.

Australia/Adelaide

Start of Week

Set the day you would like weekly reports to begin.

Monday

Figure 36: Admin Regional Settings

12.10.3 Report Settings

These settings relate to the pro version of the website.
Use these to define desired report settings.

Admin / Reports

REPORTS SETTINGS

Settings will be saved automatically when you change them.

Page Size

Set the output page size for the PDF reports (e.g. A4, US Letter).

A4

Page Orientation

Set the PDF report orientation to either portrait or landscape.

Portrait

End Page

Set if an "end of document" page should be added to the end of each report.

Yes

Figure 37: Admin Report Settings

12.10.4 ISO/Access Registration

This page lists the ISO/Access pairs that are authorised for use with SmartFill units registered to this website. When adding a swipe card as a vehicle/plant/driver the ISO/Access pair name must be referenced for each card so the SmartFill unit can grant authorisation.

Admin / ISO/Access Registration


Add

Rows per page: 50


Name	ISO Number	Access Number	Ignore Access Number	Actions
Fuel Company	123456	12345	<input type="checkbox"/>	
Star Fuel Company	705001	74011	<input type="checkbox"/>	

Figure 38: Admin ISO/Access Registration

To add an ISO/Access pair, click the **Add** button and fill out the form with the ISO and Access number and give the pair a reference name.



TIP
Caltex swipe cards do not require an access number. Just use the ISO number and put zero for the access number.



Welcome
System Administrator
(Demo Site)

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

SETTINGS

General
Region
Reports
API Access

SWIPE CARDS

ISO/Access
Registration

USERS

View / Edit Users
Add New User
Change
Password

Admin / ISO/Access Registration

Name

ISO Number

Access Number

Ignore Access Number

Id

Cancel

Add

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Figure 39: Add ISO/Access Pair

12.10.5 View/Edit Users

The currently logged in user is displayed in the top-right of the screen above the company name. It is possible on this screen to view all users, define them as administrators or not and to delete users from the system.

FLUIDMANAGEMENT TECHNOLOGY

Welcome
Fluid Support
(Fluid Management Technology 002)

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

SETTINGS
General
Region
Reports

SWIPE CARDS
ISO/Access
Registration

USERS
View / Edit Users
Add New User
Change
Password

Admin / View / Edit Users

Rows per page: 10

Name	Administrator	Logged In	Last Login	Last Activity	Actions
Fluid Support	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2017-03-09 13:53:40	2017-03-09 13:55:39	
FluidMT Admin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2016-09-26 10:06:55	2016-09-26 10:07:11	

Figure 40: Admin View/Edit Users

12.10.6 Add New User

Use this page to add new users to the system. Fill in the details and click "Add".

Admin / Add New User

Name

Username

Password

Administrator ☐

Cancel Add

Figure 41: Admin Add User

12.10.7 Change Password

Use this page to change the password of the currently logged in user.

Admin / Change Password

Please enter your current password and new password below.

Current Password

New Password

Retype New Password

Cancel

Change

Figure 42: Admin Change Password


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.

WARNING

-  Always use genuine SmartFill GEN 2 keys, as there are several types of button, and some types do not operate correctly with SmartFill GEN 2 system due to differences inside the button.

WARNING

-  Check that your supplier can guarantee that the keys will be SmartFill GEN 2 compatible before purchasing.

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 GEN 2, or may be an incompatible type key (not a genuine manufacturer supplied SmartFill GEN 2 key). You can add via the installation menu at the unit or by adding them at the website.
- If the front of the SmartFill GEN 2 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.
- If the key has been loaded onto the website, the unit may not have synced with the website or you have not entered the key number correctly on the website.
- If the key was added at the website, ensure the Input Type is set to 'Key'

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. If they do operate, delete that number in the system.

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.

The following fault conditions can occur on the Module:

16.5.1 Open Circuit

The level bar goes red and the below it the word "offline" appears. The corresponding tank led on the module will also not be lit

16.5.2 Short Circuit (current > 27.6mA)

The bar remains white with no level showing. All the tank leds on the module flash on and off at a 1Hz rate. Once the short is removed, the unit must be rebooted to clear the fault condition.