APP

USER MANUAL

v. 2.0.0

TABLE OF CONTENTS

1. REQUIREMENTS

To use the app, you must have a compatible mobile device, such as one of the following:

- Android smartphone or tablet
- apple iPhone or iPad

The device must be equipped with:

- Internet connection (via data network or Wi-Fi)
- Bluetooth connectivity

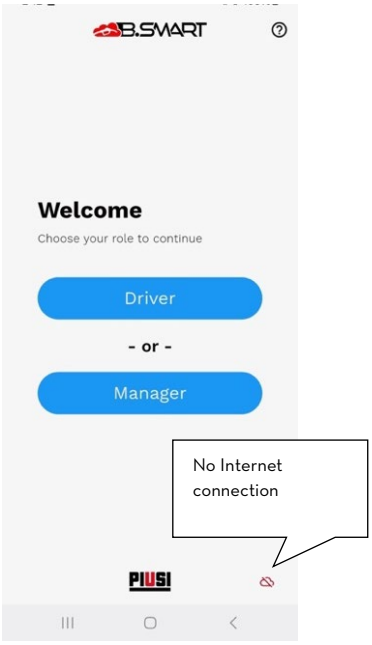
Compatibility

Check the compatibility of your device by consulting the app's information page on the App Store (iOS) or Google Play Store (Android).

Internet connection

Your mobile device (phone or tablet) must have an internet connection to perform the following operations:

- Registering a new **B.Smart** device on a system;
- Adjusting the level of a virtual tank;
- Restoring or resetting a **B.Smart** device;
- Creation of a new **external refuelling**;
- Downloading the latest firmware update available;
- First time authentication of a driver;
- Start of the first dispensing from a new dispenser;
- Downloading updated configurations from the cloud to the **B.Smart** devices;
- Upload of dispensing data to the cloud;
- Upload of receipts (associated with dispenses) to the cloud;
- Upload of the photo associated with the odometer to the cloud;
- Upload tank monitoring data to the cloud.



Attention

- To avoid data loss, make sure the app is regularly connected to the Internet: data saved locally and not synchronised with the cloud will be lost if the app is uninstalled
- Fuel transactions from an **offline** device are still possible, provided that the device has connected to the dispenser at least once previously whilst online

---

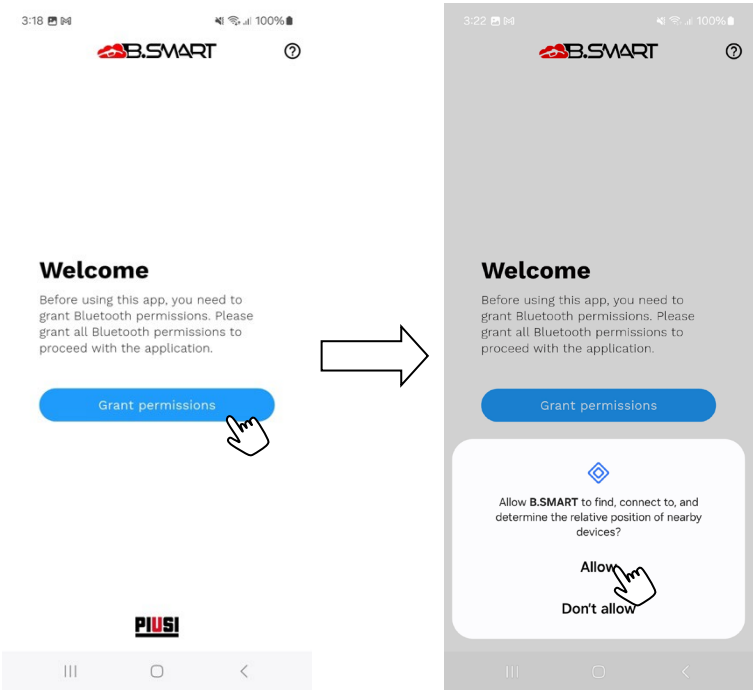
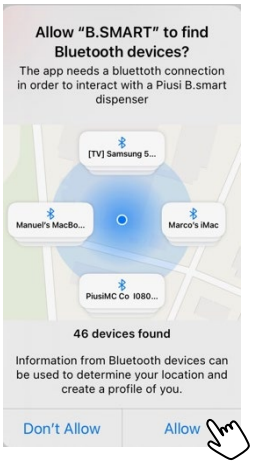
Bluetooth connectivity

For the app to work properly, Bluetooth permissions must be enabled on your mobile device.

The app uses Bluetooth connectivity to communicate with B.Smart devices. When starting or using the app, make sure that:

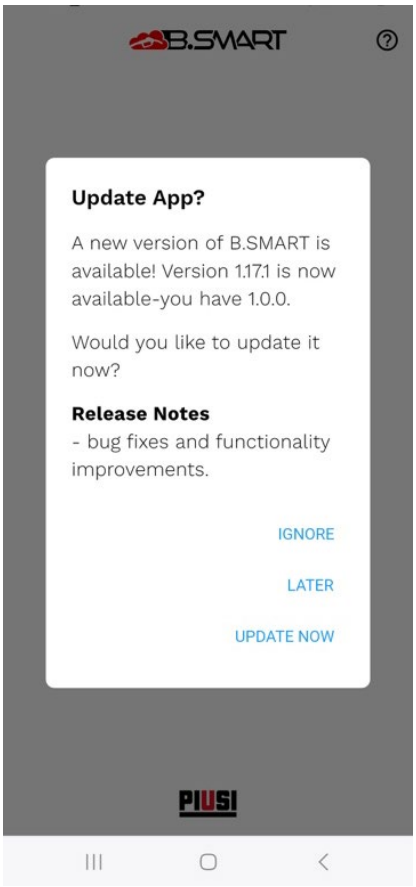
- Bluetooth is enabled
- Grant the app permission to access Bluetooth

If these requirements are not met, some app features may not be available or may not work properly.

ANDROID	IOS
	

2. APP UPDATE

To ensure optimal performance and introduce new features, the app is updated periodically. We recommend that you regularly check for new versions via the official stores.

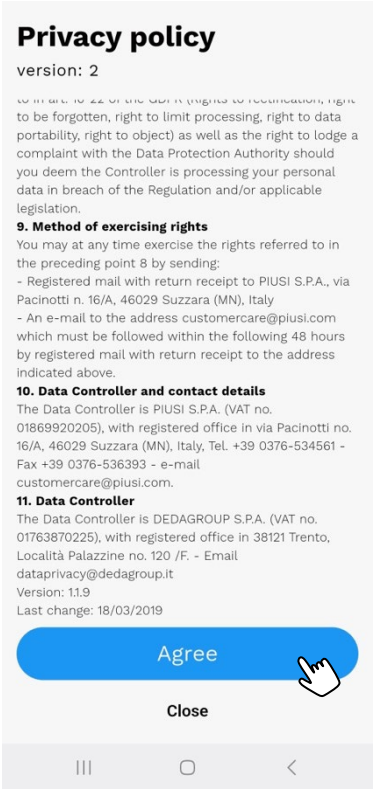


Attention

Mandatory Updates may be released to ensure the system works properly. In such circumstances, the application will disable dispensing from the pump until the latest version is installed on the mobile device.

3. FIRST START

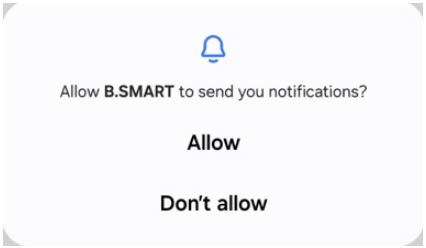
When starting the application for the first time, the user must read and accept the software license terms in order to continue using it.



Attention

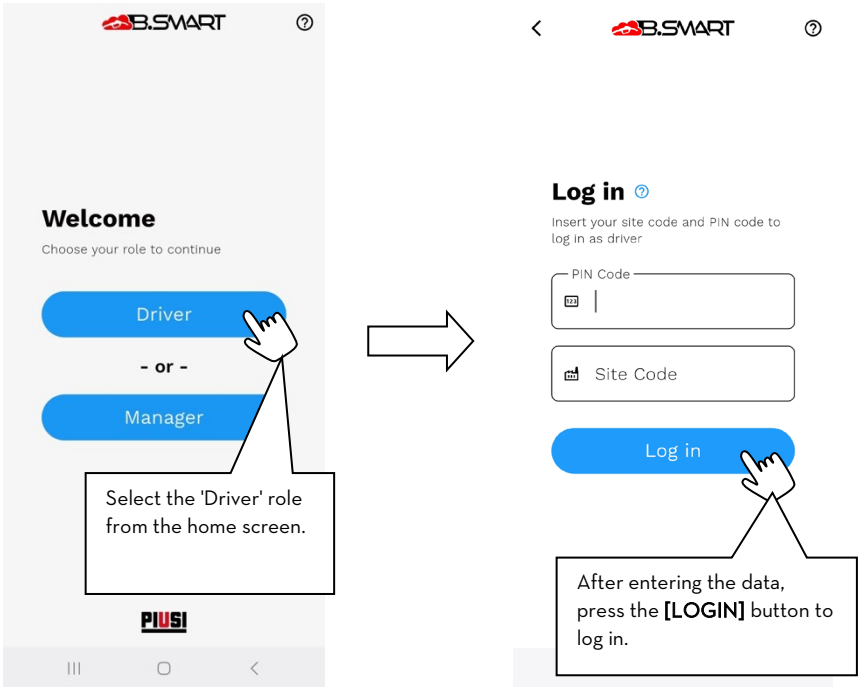
The license terms may be subject to change over time. In this case, you will be asked to accept the updated terms again the next time you access the app.

During this initial phase, you will also be asked if you wish to enable push notifications from Piusi. To receive them, you must give your consent on the dedicated screen that appears. We suggest to <u>Allow</u> notifications



4. DRIVER

4.1. AUTHENTICATION



To allow the driver to access the system via the mobile app, you must complete the authentication form by entering the following information:

- **PIN** - Unique numeric code that identifies the driver.
  Assigned by the system administrator when creating the driver's profile (for more details, refer to the web app manual *B.Smart* web app manual.
- **SITE Code** - An 8-character alphanumeric code that uniquely identifies the facility.
  It is sent by email to the operator after the B.Smart system via the PIUSI portal.

Attention

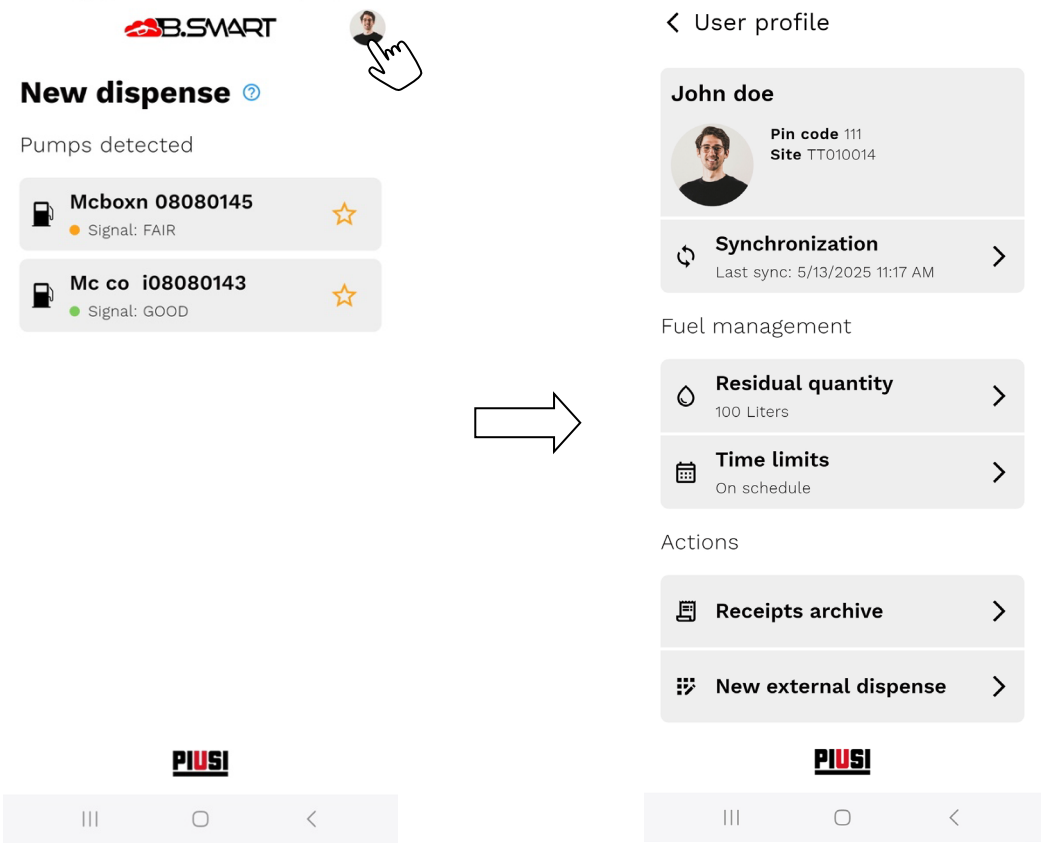
- **An** active Internet connection is required to complete authentication.
- **Only one driver** can be authenticated at a time on a single B.Smart device.
- The **same driver can authenticate on multiple** different B.Smart devices.

Authentication errors

During the login phase, some errors may occur. The main messages and their meanings are listed below:

- **Invalid credentials** - The information entered (PIN or system code) does not match a registered driver. Check that the data is correct.
- **Driver disabled** - The driver has been disabled by the facility manager and is not authorised to access the facility. Contact the operator for more information.
- **Network error** - The device is not connected to the Internet. Check your connection and try again.
- **App version not compatible** - The installed app is not compatible with the system. Make sure you have the latest version of the mobile app available in the store.

4.2. PROFILE MANAGEMENT



To access the driver profile management screen, tap on their photo.

A summary page will be displayed containing:

- Driver's main data
- Available actions
- Modifiable preferences

Forced synchronization of data with the cloud

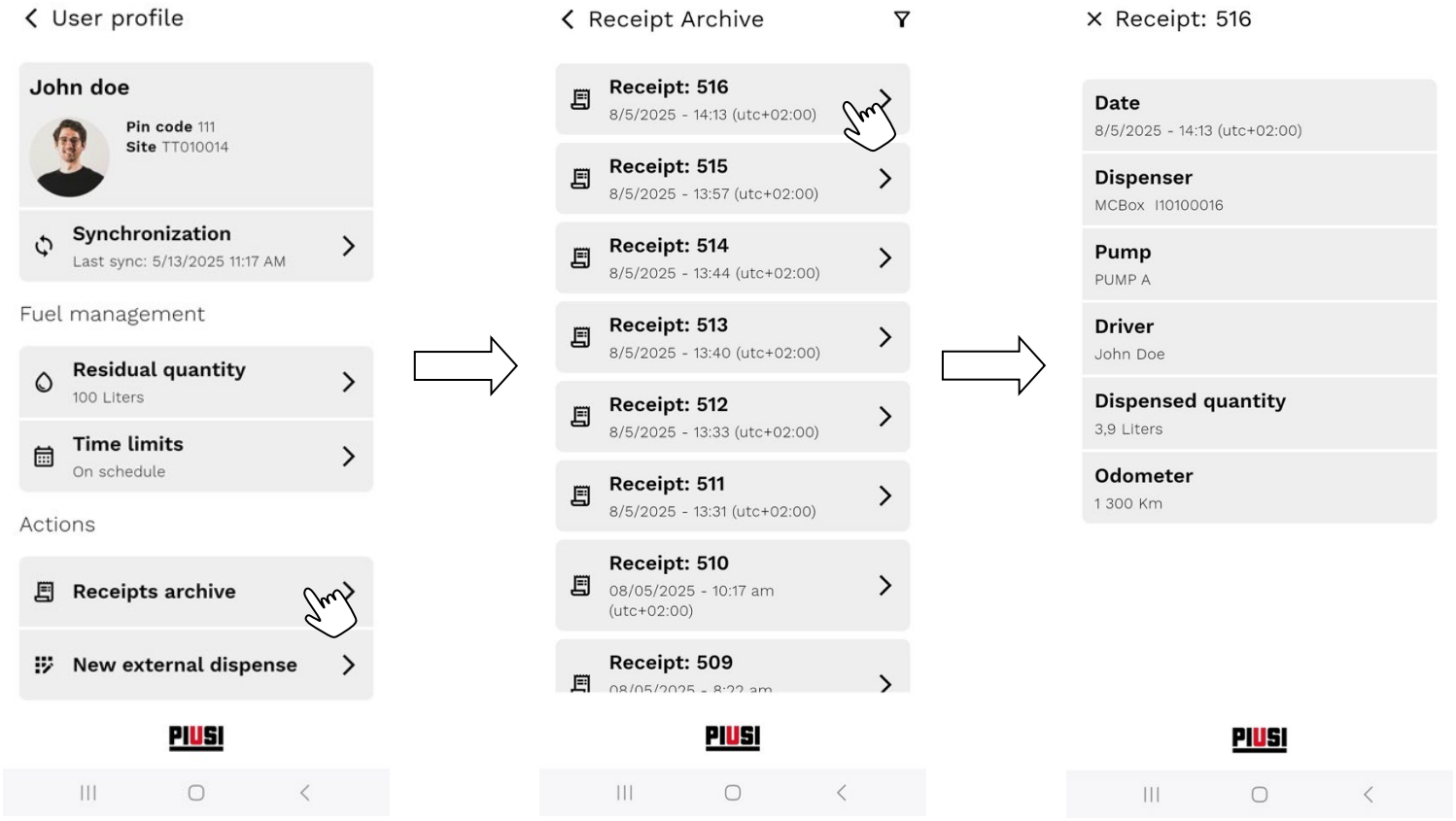
You can request immediate synchronisation of data between the app and the cloud by pressing the [**Synchronisation**] button. Although data is regularly synchronised in the background, this feature allows you to force an update if necessary.

Log out

To use the app with another driver profile, you can log out of your current profile. Scroll to the bottom of the list and press the [**Logout**] button.

4.2.1. RECEIPT ARCHIVE

View the list of all receipts issued at the end of each delivery made by the app. You can filter receipts by date; tapping an item in the list will take you to the details of the selected receipt.



Attention

If the app is offline, only receipts that have not yet been synchronised with the cloud will be displayed. To view the latest receipts saved and filter them, the app must be connected to the internet.

4.2.2. DISPENSING LIMITS

The facility manager, through the B.SMART web application, can configure two types of operating restrictions for each driver to ensure controlled use in accordance with company policy.

Prerequisite

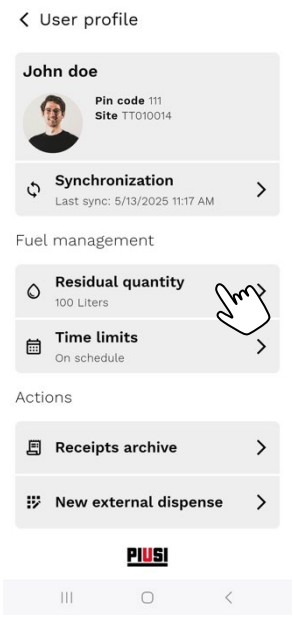
- The 'Fuel Economy' add-on must be active.

Maximum dispensing limit

It is possible to define a maximum quantity of product that can be dispensed for each driver, valid on all fuel dispensers at the facility, within a predefined period of time (daily, weekly, monthly, etc.).

- At the end of the period, the quantity is:
  - Automatically reassigned by the system, or
  - Reassigned manually by the manager via the web app.
- Once the available quantity has been used up, the driver will no longer be able to dispense fuel until a new allocation is made.

While using the app, the driver can view the remaining quantity in real time, which is automatically updated at the end of each dispensing operation.

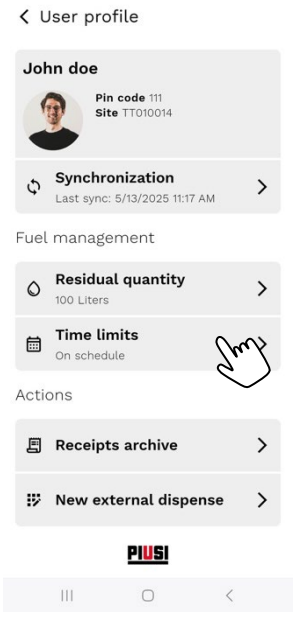


Time slots and periods authorised for dispensing

It is also possible to configure time slots and periods of the year during which each driver is authorized to dispense fuel.
This feature allows you, for example, to:

- Prevent dispensing outside working hours (e.g., at night or on weekends);
- Block dispensing during company holidays, maintenance, or unauthorized periods.

If a driver attempts to dispense outside the permitted time slots, the dispensing will be automatically denied by the system.



Attention

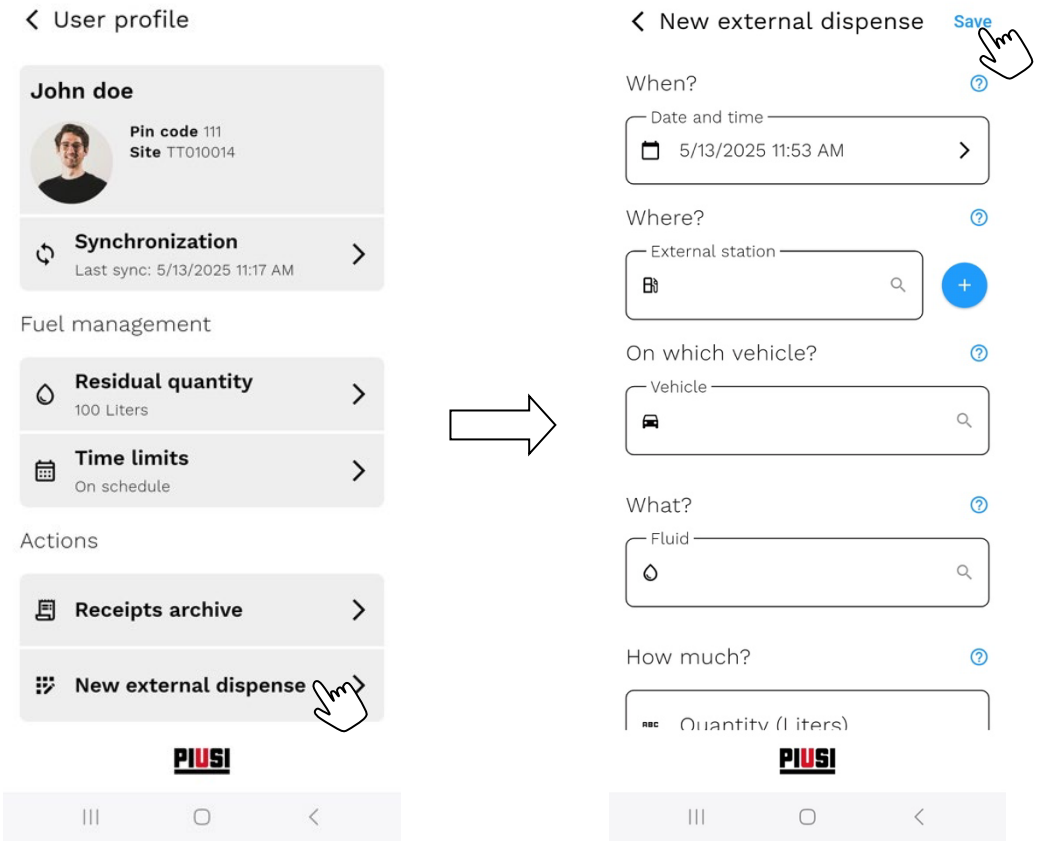
- All configured restrictions are based on data synchronisation between the cloud and the mobile device. It is therefore essential to ensure a stable Internet connection so that restrictions are correctly applied and updated.
- Restrictions are centralised and cannot be changed from the app, but only from the B.SMART web app.

4.2.3. ENTERING A NEW EXTERNAL REFUELLING

Each driver can manually record fuel dispenses made at service stations outside the **B.SMART**system. To do this, simply fill in the form provided in the app following the instructions given.

Prerequisite

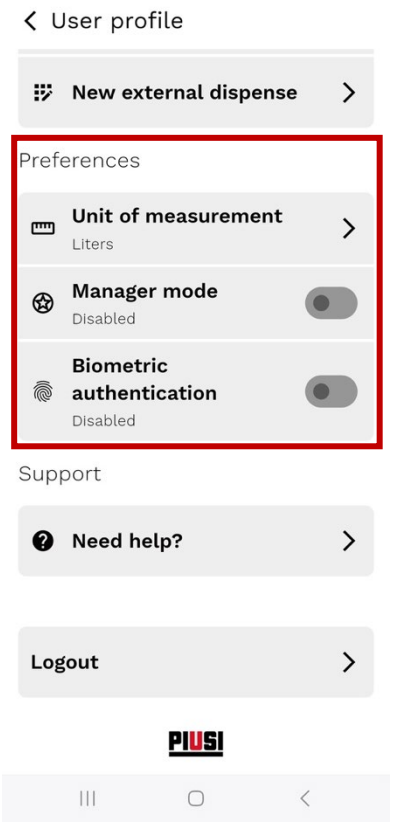
- The Fuel Economy (FE) add-on must be active.



Attention

An active internet connection is required to enter an external refuelling transaction. If there is no network connection, the operation cannot be completed.

4.2.4. PREFERENCES

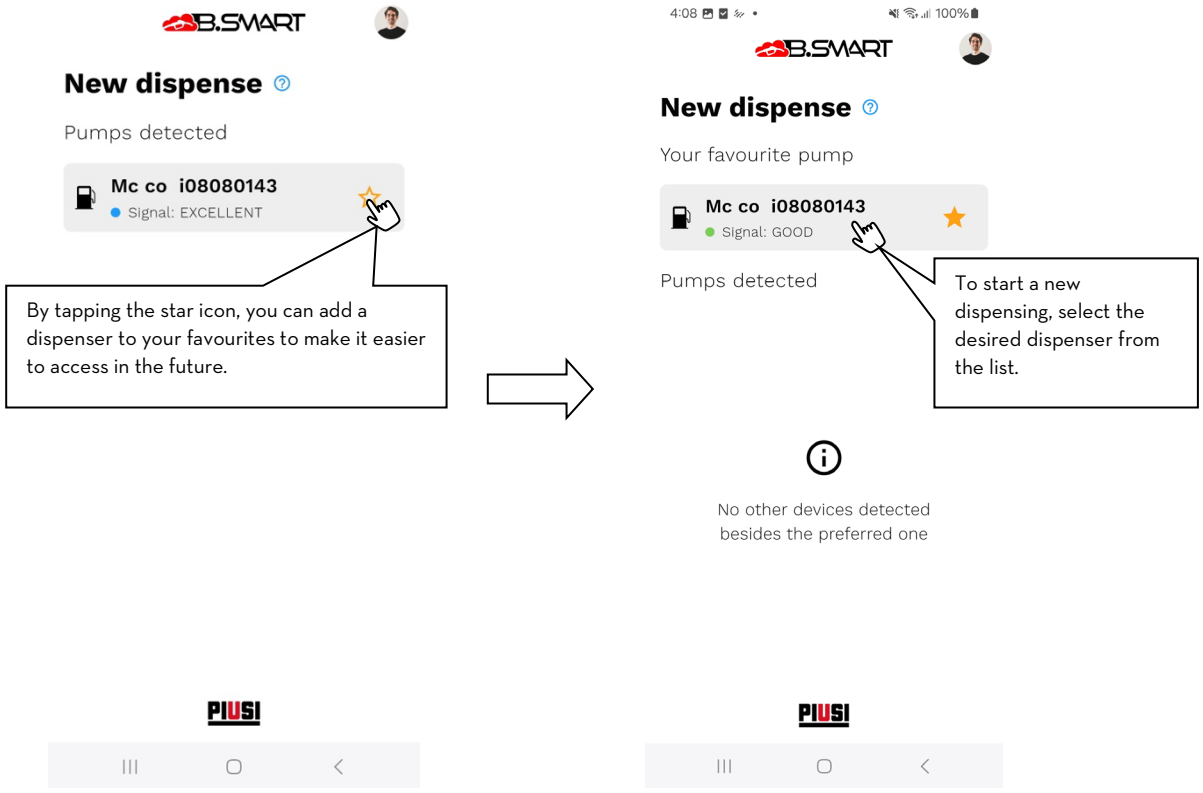


- **Change unit of measurement**
  If the Fuel Economy add-on is enabled, you can change the unit of measurement for fuel consumption if **Fuel Economy** is enabled, you can select your preferred unit of measurement (litres or gallons) to display:
    - the **remaining quantity available** to the driver;
    - the **maximum quantity that can be dispensed during** the dispensing flow.
- **Enabling manager mode (temporary)**
  Allows the driver to connect to the dispenser as a manager for a limited time (see chapter 5.1).
  The option is automatically deactivated when the app is restarted.
- **Biometric authentication**
  If enabled, each time the app is opened or access is attempted, the driver will be asked to authenticate themselves using biometric technology (e.g., fingerprint, facial recognition, etc.).

4.3. SCANNING and CONNECTION

Scan

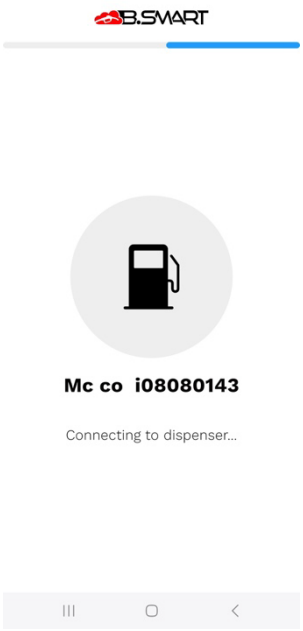
The dashboard displays a list of B.Smart dispensers detected nearby. The device automatically performs a continuous scan to locate available dispensers and updates the reception status in real time.



Attention

- Make sure that **Bluetooth** is enabled on your mobile device to allow scanning for B.Smart dispensers.
- *(Android devices only)*: you must **enable location access** to allow scanning via Bluetooth.
- A distributor **will not be visible** if it is **already connected to another mobile device** at that time.

Connection



Once a dispenser has been selected from the list, the app automatically starts the **connection** phase, during which Bluetooth communication is established and any data synchronisation takes place.

The duration of this phase may vary:

- The **first connection** to a B.Smart dispenser may take longer than normal;
- If there is **data to be synchronised** between the mobile app and the cloud (e.g., dispensing history, configuration updates), the connection may take a few seconds longer.

During this phase, it is advisable **NOT** to move away from the dispenser and **NOT** to close the app.

If the connection fails, the app will display an error code. Check the code displayed to determine the cause of the problem:

Driver-related errors

Code	Error	Description
0xC1, 0xC4	Driver disabled	The driver has been disabled in the B.Smart system and they are no longer allowed to take fuel.
0xC0	Unregistered driver	The driver is not authorised to dispense from the selected dispenser. The system manager must associate the driver with the dispenser via web app B.Smart.
0xC5	Driver authentication failed	The driver cannot be authenticated. Check the driver's status and try again. If the problem persists, contact support.
0xC6	Insufficient remaining quantity	The driver has used up their remaining quantity and can no longer make deliveries.

Errors related to the dispenser

Code	Error	Description
0x90	unregistered dispenser	The dispenser has not been registered in a facility. Perform the registration procedure by logging in as a manager.
0x92	unknown dispenser	The dispenser is registered in a facility other than that of the current driver.

Code	Error	Description
0x70	damaged dispenser	The dispenser is no longer functioning properly and cannot be reset. Contact technical support.

Compatibility errors

Code	Error	Description
0x81	Incompatible firmware	The dispenser has an outdated firmware version that is no longer compatible with the current app. Connect to the dispenser as a manager to update the firmware.
0x80	App not compatible	You must update the app to the latest version to continue dispensing.
0x82	Compatibility check failed	The compatibility between the app and the dispenser cannot be determined. Connect the device to the Internet and try again. If the problem persists, contact support.

Connection errors

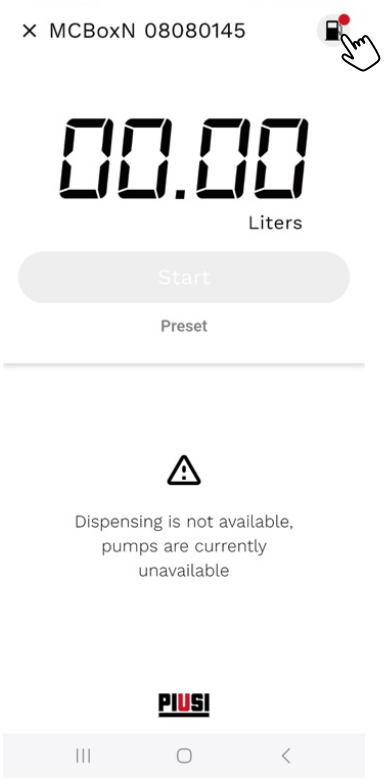
Code	Error	Description
0x21	Bluetooth connection failed	The app was unable to establish a Bluetooth connection with the distributor. Please try again. If the problem persists, contact support.
0x20, 0x50, 0xD0	Data synchronisation failed	There was a communication problem between your mobile device and the dispenser. Restart the app and the dispenser, then try again. If the problem persists, contact support.
0x52	Level synchronisation failed	Critical error during synchronization of tank level data. If the problem persists, contact support.
0xF1	Bootloader mode error	The device connected to a dispenser in bootloader mode but failed to reboot it. Please try again. If the problem persists, manually restart the dispenser.

Other Errors

Code	Error	Description
0xFF	Generic error	Due to an app malfunction, the connection process could not be completed. Contact support.

4.4. NEW REFILL

When the connection to the dispenser is successful, the **"New Refill"** section is displayed, where you can configure all the necessary parameters before starting dispensing.



Conditions that prevent dispensing

Dispensing **is not permitted** in the following cases:

- **Presence of blocking alarms on the dispenser;**
- **Pump disabled** by the system operator;
- **The dispenser is enabled to manage registration numbers or vehicles**, but this data is not present in the system.

For further details, tap the icon in the top right corner to access the dispenser's health status and consult the list of active alarms.

Attention

- Do not leave the dispenser during the new refuelling creation process to avoid interrupting the Bluetooth connection.
- If your phone loses its Bluetooth connection with the dispenser before the refuelling is complete, **no receipt will be generated**.

4.4.1. BASIC REFILL

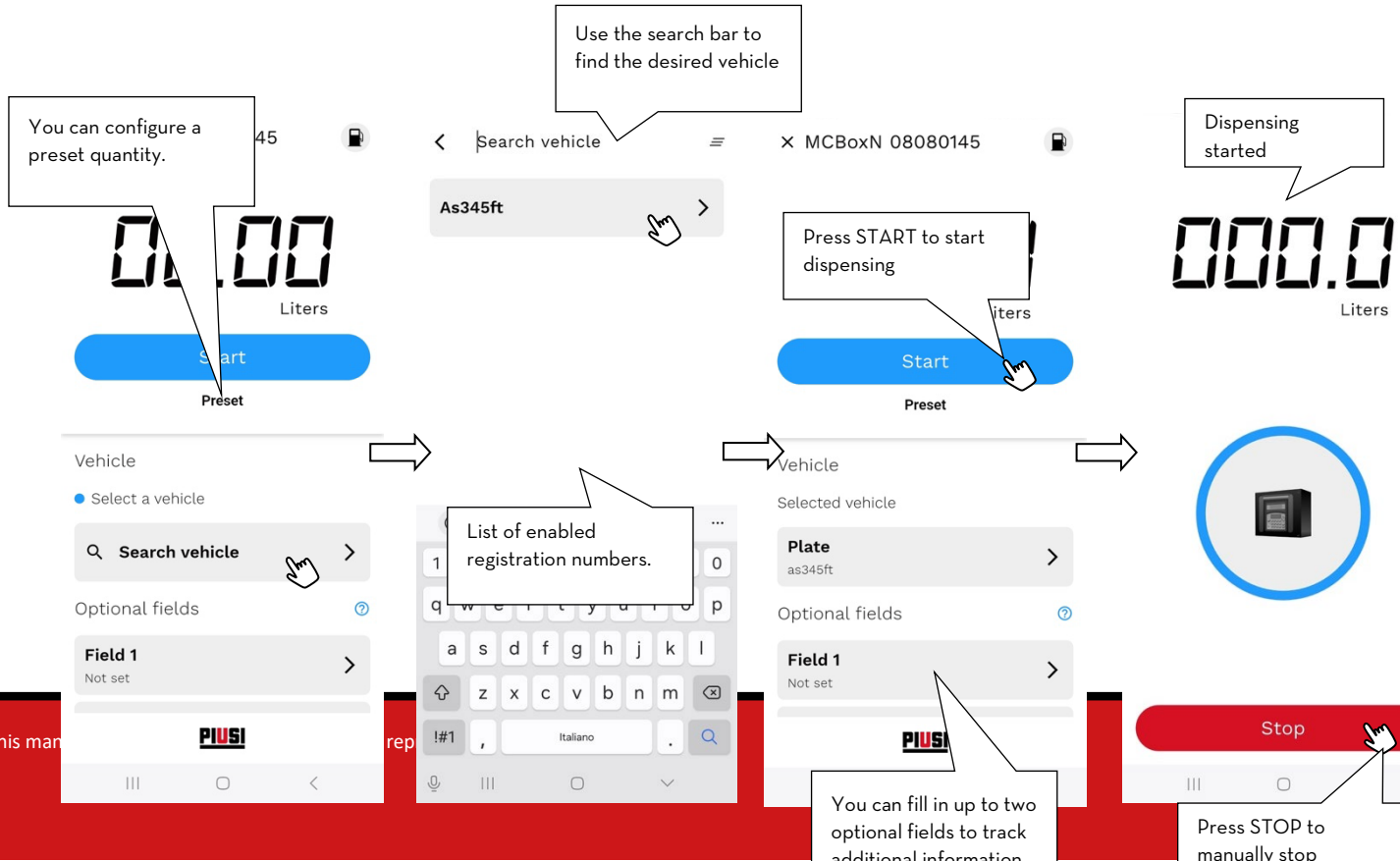
Basic refill is the standard dispensing mode for a B.Smart dispensers.

> **Please note**
>
> We recommend **calibrating the pumps and any level sensors** connected to the dispenser before starting dispensing (see chapter 5.3.1).

Operating procedure

The steps for dispensing in this mode are shown below:

- **Select the pump** from which you want to draw fuel (only necessary for models with multiple pumps).
- **Set the flow rate** (flow rate) if using a Supreme type pump, which allows the dispensing speed to be adjusted.
- **Set the desired amount of fuel (preset), if necessary (optional)**. In this case, dispensing will stop automatically when the entered quantity is reached. If no value is set, dispensing will continue until the driver decides to stop it manually.
- **Specify the registration number** of the vehicle by selecting from a list (you can search for the vehicle by license plate, model, and brand); this option must have been enabled by the system administrator via the web app.
- **Add a new registration number** if not present in the list, this option must have been activated by the system administrator via the web app.
- **Enter the new odometer value**, if required by the system and the option is enabled.
- **Fill in the two optional fields** available: these are not mandatory, but are used to improve the traceability of the operation.



4.4.2. REFUELLING WITH FUEL ECONOMY

Fuel Economy is a **separately purchasable add-on** that enables advanced features for **fleet management** and **fuel consumption control**. Once activated from the B.Smart web application, it modifies the behaviour of the mobile app by introducing constraints and new features, with the aim of optimising refuelling and reducing waste or misuse.

Key features

- **Centralised fleet management**:
  Adding new vehicles (registration numbers) is no longer allowed via the mobile app. The entire fleet is managed – including the creation, modification, or deletion of vehicles – exclusively through the B.Smart web interface.
- **Mandatory vehicle selection**:
  Before each refuelling, it is **mandatory to identify the vehicle** to which you wish to dispense fuel. This can be done:
  - By scanning the **QR code** associated with the vehicle.
  - By manually selecting the vehicle from a **list**.
- **Advanced refuelling control**:
  The system allows you to configure **custom limits for each driver**, for example:
  - Maximum quantity that can be dispensed in a given period.
  - Time slots when refuelling is allowed.
  - Vehicles authorised for each driver.

Conditions that prevent dispensing

When the *Fuel Economy* add-on is active, refuelling is not permitted in the following cases:

- The driver is not authorised to dispense fuel to any vehicle at the facility.
- The driver has used up the remaining fuel allowed by the configured limits (e.g., monthly or weekly limit).
- The driver is attempting to dispense during an unauthorised time slot (e.g., outside of assigned working hours).

Attention

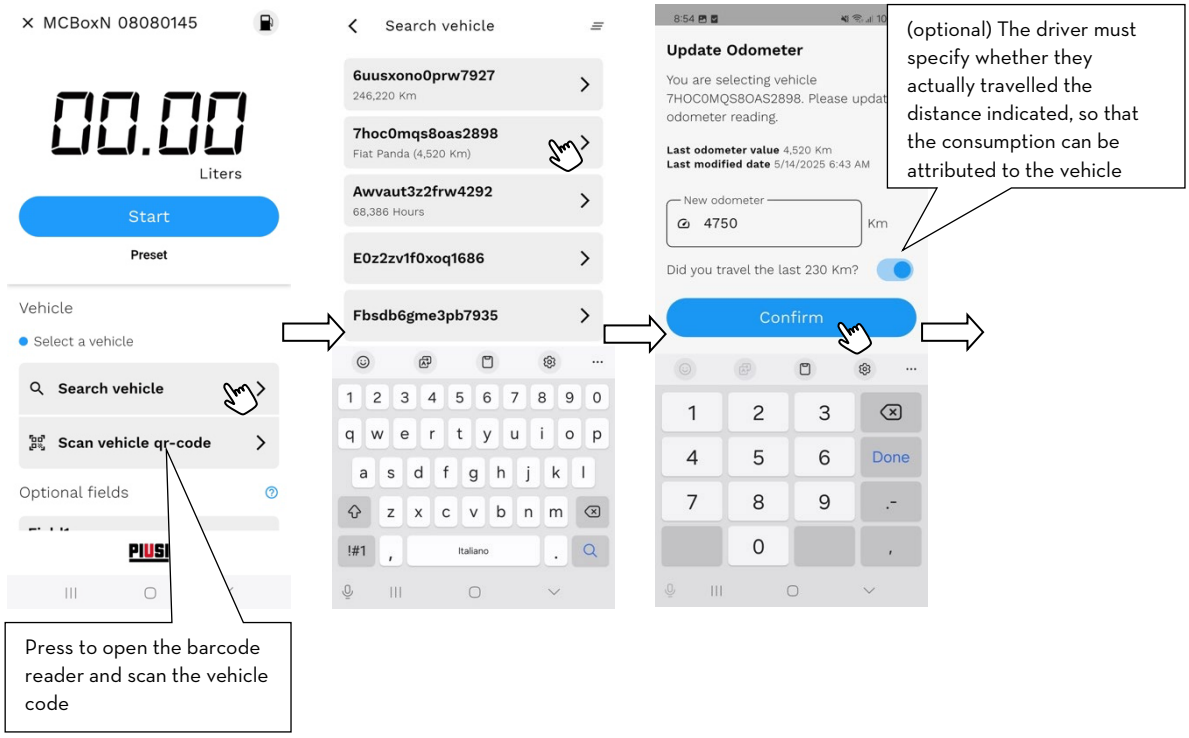
- The **system manager can restrict the driver** to dispensing fuel to a limited number of selected vehicles (see the B.Smart web application manual). By default, each driver is authorised to refuel all vehicles at the facility.
- To **scan the QR code**, the application must have **permission to access the** phone's camera. Otherwise, scanning will not be possible.
- **Pumps enabled to dispense ADBLUE will not allow refuelling** if the selected vehicle has the *Fuel Economy* option enabled **but does not have an AdBlue tank configured** in the system.
- The maximum quantity that can be dispensed is determined by the most restrictive of the following two factors (if configured):
    - Remaining quantity available to the driver – If the manager has set a maximum fuel limit for the driver (e.g., daily, weekly, or monthly), the app will calculate the remaining quantity available at the time of dispensing.
    - Maximum capacity of the vehicle's tank – If the vehicle has been configured with a specific tank capacity in Fuel Economy, this value cannot be exceeded.

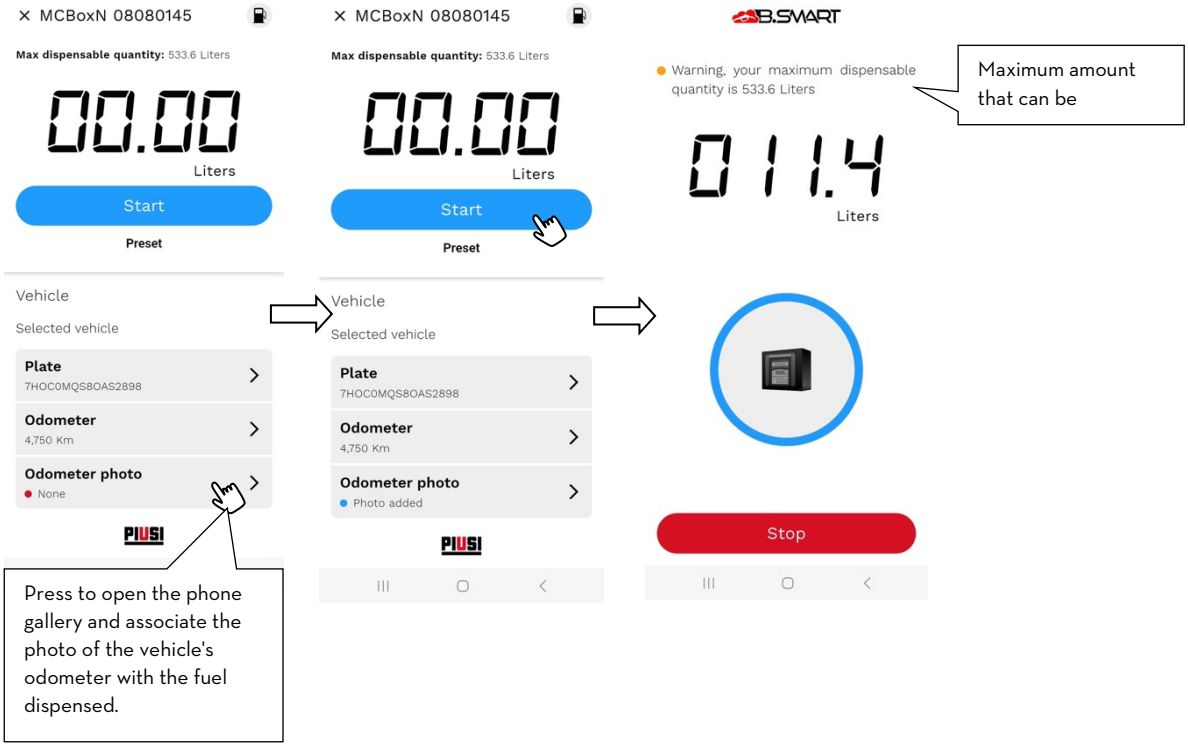
  The system automatically calculates the dispensing limit as the minimum value between the driver's remaining amount and the vehicle's tank capacity.

Operating procedure

The following steps are additional to the standard flow:

- **Vehicle selection via barcode/QR code** (this may be an optional or mandatory step depending on the system settings)
- **Uploading odometer photo**- if the system manager has enabled the 'Enable odometer photo upload' option in the web app, the driver is required to attach a photo of the odometer of the vehicle they are about to refuel.
- **Calculating fuel consumption per driver** - If the facility manager has enabled the 'Enable fuel consumption calculation for individual drivers' option, then each time the driver refuels a vehicle at the facility, they must also indicate whether the distance shown was travelled entirely by them.





4.4.3. REFUELLING WITH MAPLY

Maply is an optional add-on that can be purchased separately and enables geolocation of refuelling and offers new operating modes for advanced management of field activities. Once activated and configured, it allows the operator to track the location of the refuelling and select the type of operation to be performed.

Operating modes available with Maply active

When the app is connected to the dispenser and the Maply add-on is active, you can choose between the following types of dispensing:

- **Refuelling of vehicles at the facility**

  Standard refuelling of a vehicle with a registration number belonging to the company fleet.

- **Transfer between tanks**

  Transfer of fuel or fluid from one tank to another, useful for managing mobile tanks or support tanks.

- **Refuelling third-party vehicles**

  Supply to vehicles not registered within your fleet but identifiable by a registration number associated with an external customer.

All the operating modes listed above automatically include geolocation of the position where the dispensing takes place.

Geolocation of dispensing

Once the **Maply** add-on is activated, the application records the **geographical position** (via GPS) of each refuelling carried out by each driver connected to the facility. This information is saved and made available for analysis and complete traceability via the B.Smart web app.

If the GPS position cannot be detected, make sure the following conditions are met for geolocation to work properly:

- **Check that the app has permission to access the device's location:**

- **On iOS:** the first time the app connects to a charging station, iOS will ask the user to authorize access to the location. You must select "Allow while using the app.".
- **On Android:** when you first launch the app, you will be asked for permission to access your location. It is important to accept by selecting the option "Allow only while using the app.".

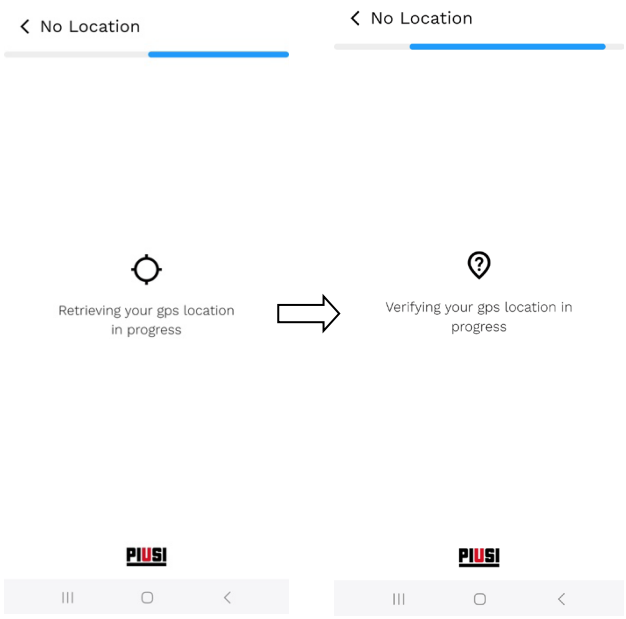
- **Make sure that geolocation is enabled on your device:**
  Check that the operating system's location services are enabled and that a GPS signal is available.

If your location is not detected correctly, the service can still be provided, but it will not be associated with geographical coordinates in the tracking system.

Location verification: Areas of operation

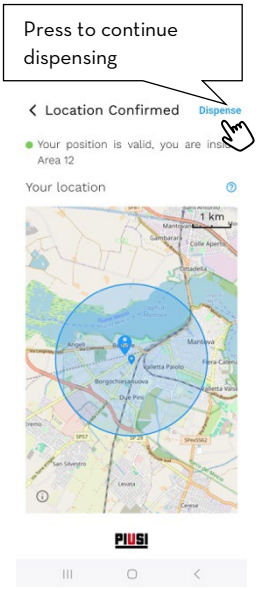
The Maply system allows the facility manager to define, via the B.Smart, the **areas of operation**, i.e., authorised geographical areas where dispensing is permitted. These areas are used to ensure that refuelling operations only take place in predefined and controlled locations.

When the app is connected to the fuel dispenser, the system automatically checks the GPS location of the mobile device to determine whether the driver is **inside** or **outside** one of the configured operating areas.



Case 1 – The device is within an operability area

If the detected location is within the limits of an authorized area, dispensing can start normally, according to the selected procedure.

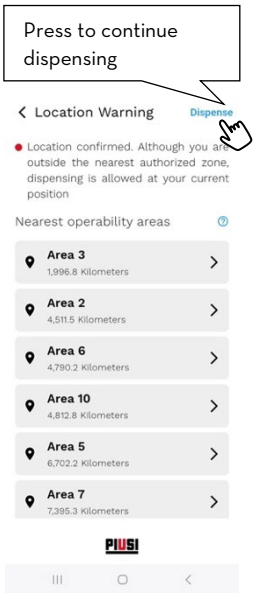


Case 2 – The device is outside the authorized areas (option "Report dispenses outside areas" enabled)

If the driver attempts to start a dispensing operation outside the operating areas:

- The user receives a notification message and a list of the nearest operating areas is displayed;
- The driver can decide whether to:
  - **Interrupt the procedure** and move to an authorized area;
  - **Continue with the dispensing**.

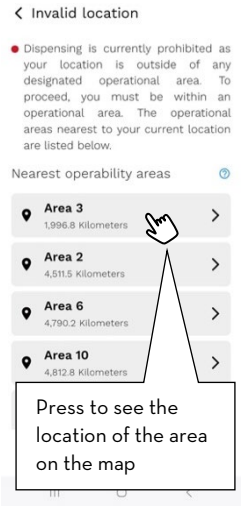
If they decide to continue, the B.Smart web app **will record the dispensing as having taken place outside the permitted areas**, making it visible to the manager via reports.



Case 3 – The device is outside the authorized areas (option "Block dispensing outside areas" enabled)

If the **"Block dispensing outside operating areas"** option is enabled, the behaviour is more restrictive:

- The user receives a block message and is shown a list of the nearest valid operating areas.
- Dispensing **cannot be started** until the device is physically back in one of the valid areas and an updated GPS position is detected.



Attention

For the operability area check to work correctly, the following must be true:

- The **geolocation of the mobile device** is active;
- The app has the correct **location access permissions** ;
- The device is able to **obtain a valid GPS signal**.

*If operability area management is enabled and the app cannot determine the GPS location of the device, **dispensing cannot proceed**.*

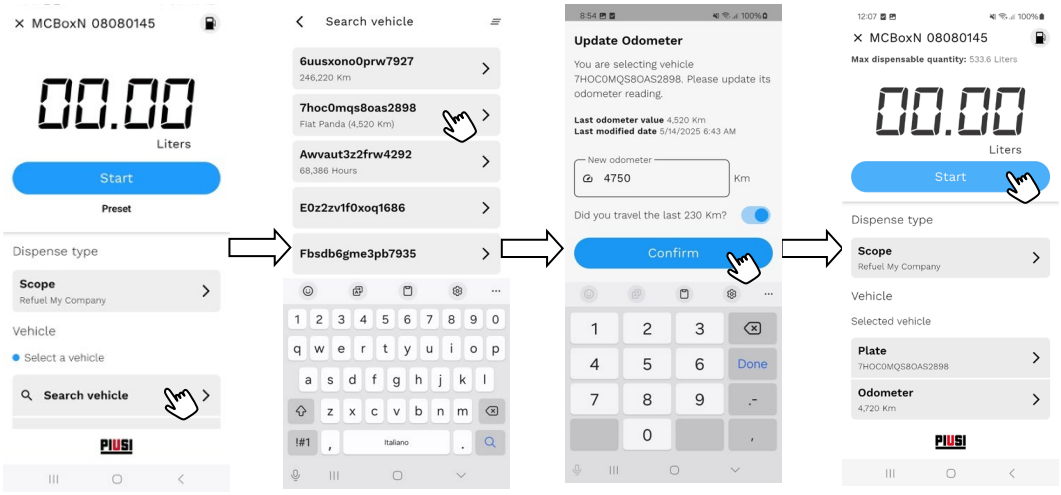
Operating procedure

The following steps are additional to the standard flow:

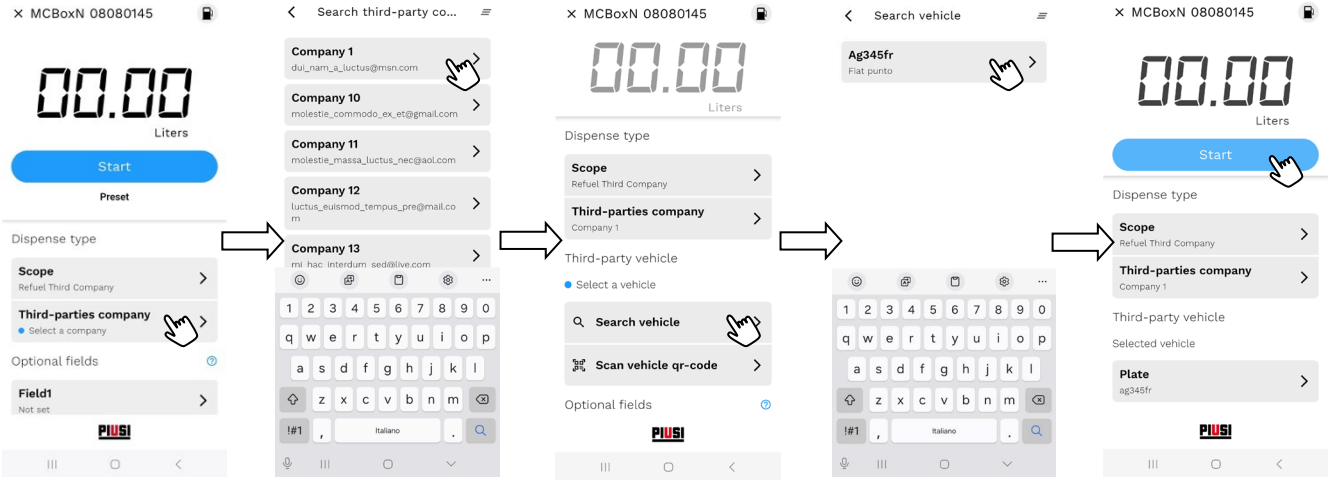
- Select the type of delivery
    - Standard dispensing
    - Dispensing to third-party vehicles - To enable dispensing to a third-party vehicle, the facility manager must have made the following configurations:
        - Third-party company registration number management must be enabled (configurable in the Maply add-on preferences)
        - The 'Enable transfers and dispensing to companies' function must be enabled on the device (configurable from the web app in the device configuration)
        - the driver connecting to the device has permission to dispense to third-party companies (configurable from the web app in the driver's profile)

    - Transfer - This function is available on driver profiles enabled for transfer activities and the Tank Watchdog add-on is active in the system.
      Transferring is only possible between tanks containing the same fluid.
      Transfer is only available from devices with an associated tank.

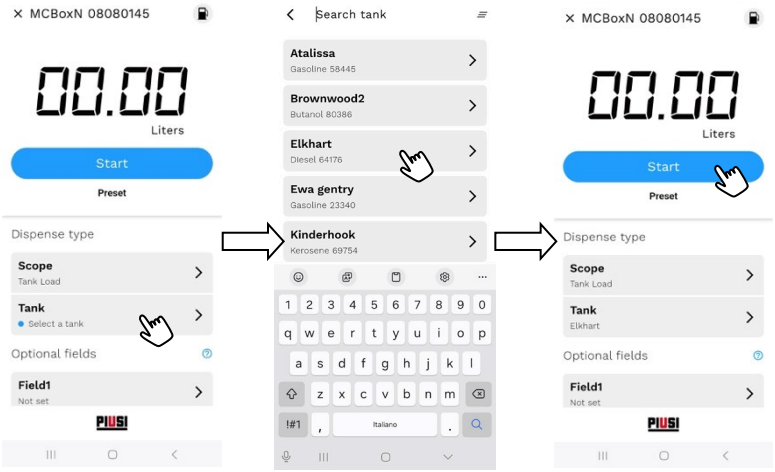
Standard dispensing



Dispensing to third-party vehicles



Transfer



4.4.4. REFUELLING WITH IDENTITANK

Identitank is an RFID reader integrated directly into the dispensing nozzle, designed to ensure maximum safety and traceability during refuelling. The use of this technology allows **refuelling** to be uniquely associated with the correct vehicle, preventing unauthorized dispensing or tampering.

This mode can be used for:

- **Refuelling vehicles at the facility**
- **Refuelling third-party vehicles**
- **Fuel transfer between tanks**

*the "protected dispensing" mode with Identitank can be **activated or deactivated by the manager** via the B.Smart web app.*

How protected dispensing works

When the protection option is enabled for one of the above operations, the system applies the following behaviour:

1. **Automatic vehicle selection**

   the app automatically selects the vehicle if the nozzle monitors the presence of a RFID TAG. This eliminates the need to manually select the vehicle, reducing errors and speeding up the procedure.

2. **Start of protected refuelling**
   The app displays a message clearly indicating that a **protected refuelling with Identitank**.
   In this mode, the pump **does not start immediately**: dispensing will **only** start when the nozzle is brought close to a valid and correctly positioned RFID TAG.

3. **Continuous reading of the RFID TAG**
   During the entire dispensing process, the nozzle monitors the presence of the RFID TAG. The tag must correspond to the registration number of the selected vehicle (or intended for dispensing to third parties or transfer).

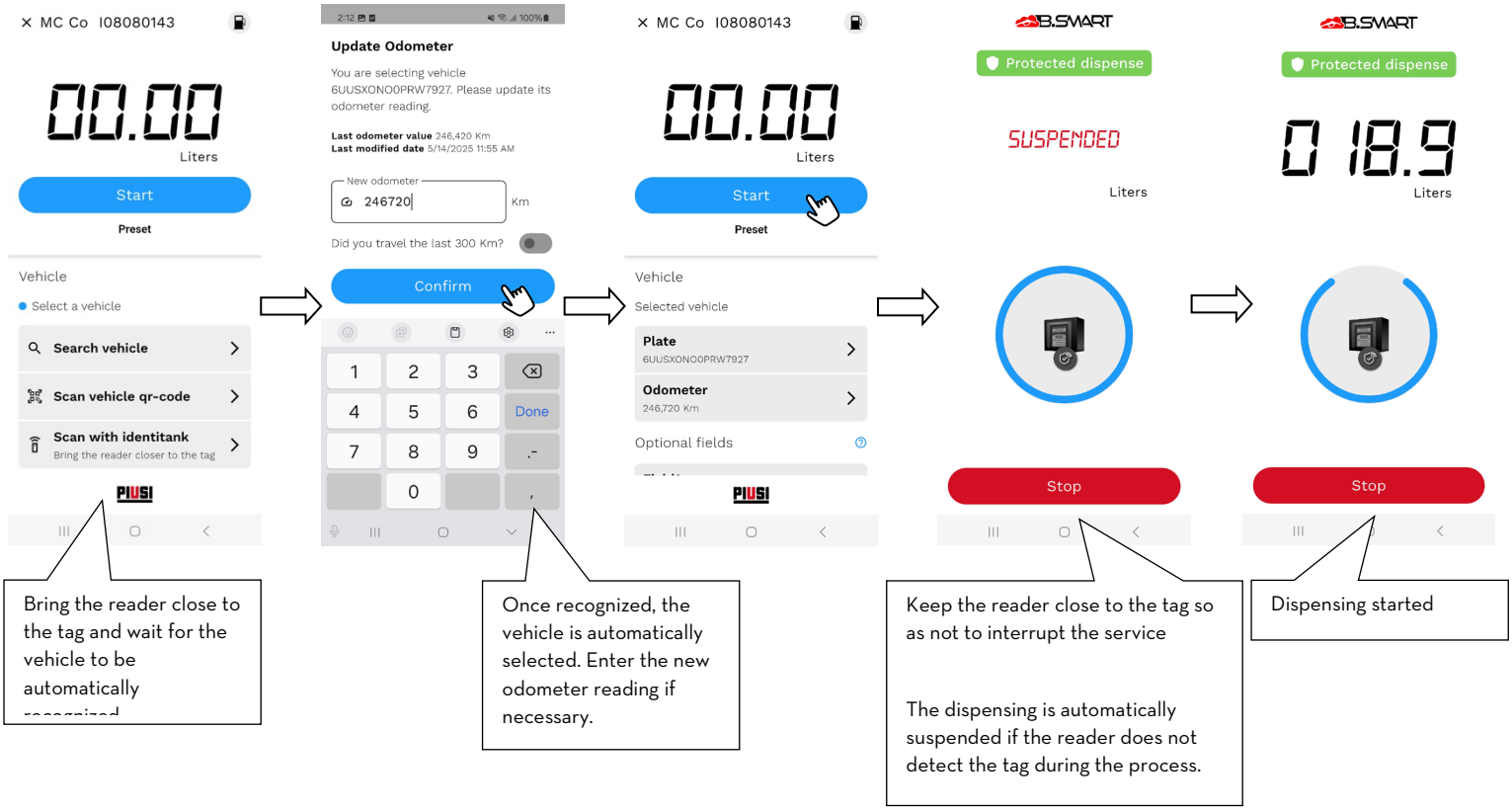
4. **Automatic suspension in case of anomaly**
   If, during dispensing:

   - the RFID TAG is not detected,
   - or communication between the Nozzle Reader and the RFID TAG is interrupted,

the pump switches off automatically and dispensing is **temporarily suspended**. The app displays a warning message informing the driver of the interruption and requesting that **the nozzle be repositioned correctly**.

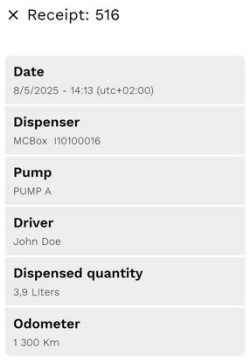
5. Resumption or permanent interruption

- If communication with the RFID TAG is reestablished within a few seconds, dispensing resumes automatically.
- If the problem persists for a prolonged period, dispensing is **permanently interrupted** and the procedure must be restarted.



4.4.5. END OF DISPENSING RECEIPT

At the end of each dispensing, the application automatically displays a **summary receipt** containing the details of the operation just performed (e.g., quantity dispensed, date, time, user, etc.).
This feature can be **disabled by the manager** via the web app if it is not necessary for daily operations.

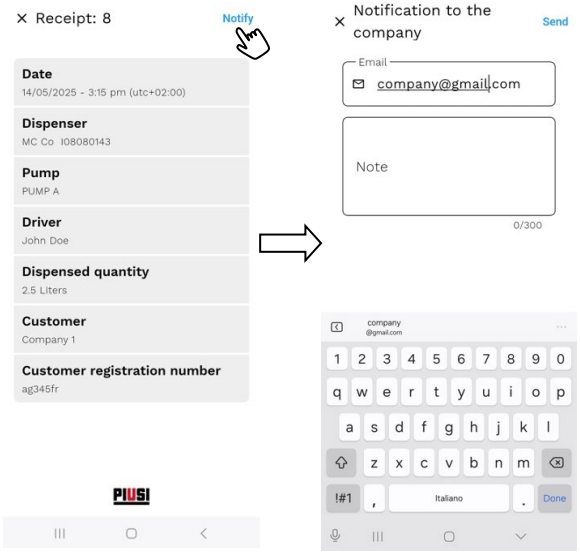


Sending notification emails (only with Maply add-on)

If the **Maply** add-on is active and the **"notify companies of dispensing"** option has been enabled in the preferences, for each dispensing made to**a third-party company**, a dedicated button will appear on the receipt to send an **email notification** to the recipient company.

The content of the email is automatically generated according to the **default template** configured by the manager in the "Preferences" section of the **Maply** add-on in the web app.

The same feature is also available from the receipt archive (see chapter 4.2.2)



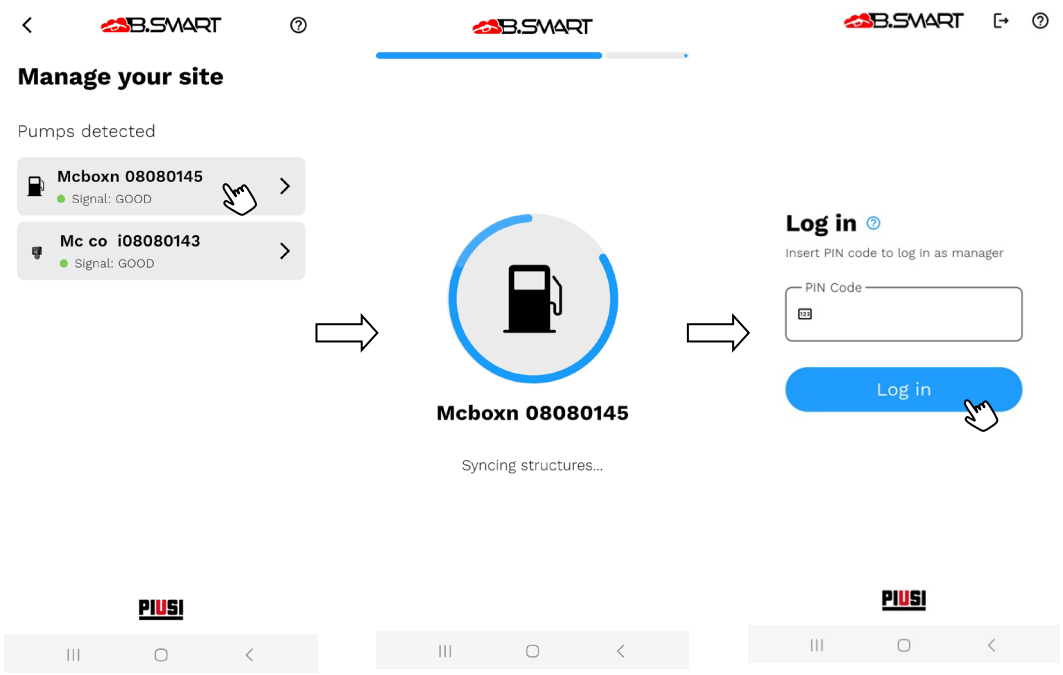
5. MANAGER

5.1. AUTHENTICATION

To log in as a Manager, select the **"Manager"** role from the application's home screen.

The list of distributors will be displayed **B.Smart** detected nearby. For more information on the scanning and connection process, see chapter 4.3.

Select the desired **distributor** from the list to start the connection. At the end of the connection, the manager will be asked to authenticate by entering a **special PIN code**, which may be different for each **distributor** and is configured via the web app (factory default: **123456**). Once authenticated, the Manager has access to advanced system management functions (see the chapter dedicated to management, to be completed with reference).



Depending on the status of the selected dispenser, the relevant procedure is performed:

- Dispenser **not yet registered in a system**
  → the **registration procedure** is started (see chapter 5.2).
- Dispenser **with incompatible firmware**
  → a **forced firmware update procedure** is started (see chapter 5.3.4).
- Dispenser **with corrupted memory** (error code between **A32** and **A33** displayed)
  → the **reset procedure** is started automatically (see chapter 7).
- Dispenser **to be reset to factory settings**
  → the **reset procedure** is performed.
- Dispenser **already registered on the website and re-registered after a reset**
  → the **reset procedure** is activated to realign the data (see chapter 7).

5.2. REGISTRATION OF A NEW B.SMART DISPENSER

This procedure allows you to register a newly purchased dispenser within your B.SMART cloud system.

Prerequisites

Before you begin, make sure you:

- You have a **user account registered** on the PIUSI portal.
- You have activated the **product code** provided in the dispenser packaging **only if you are creating a new system**.

Attention

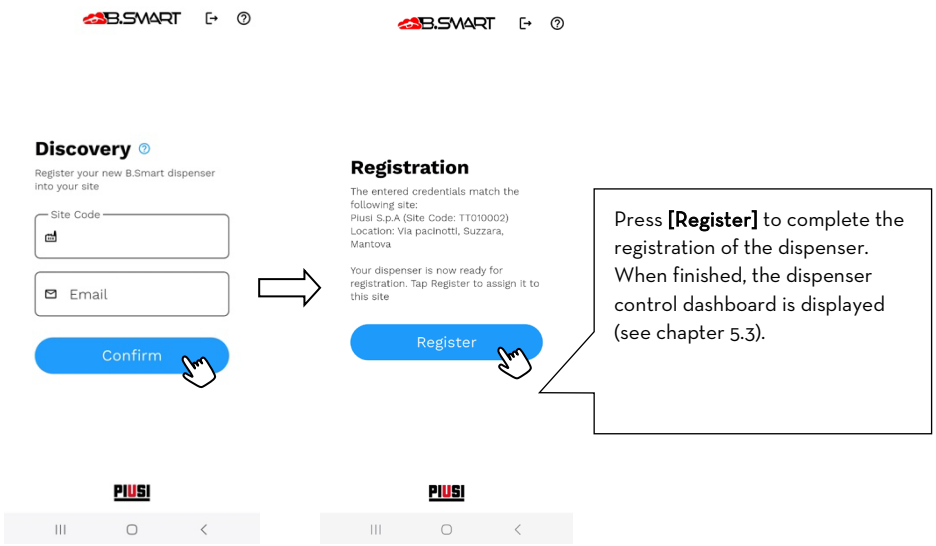
- If you are registering **the first dispenser** of a system, you must activate the **product code** by registering on the Piusi portal (*https://www.piusi.com/portal*). After activation, the **system code** will be sent to the portal user's email address.
- If you are registering a **second or additional dispenser** in the same system, **you do not need to activate the product code** included in the package, as the system has already been activated previously and you have a System Code already !

Procedure

When the Manager connects to a dispenser that has not yet been registered, the system requests:

a) The **destination system code**, received by email after activating the first product code.
b) The email address **of the PIUSI portal user** who registered the dispenser product code.

If the data entered is correctly, the system will automatically recognise the facility.



Adding a "Piusi 3000 Supreme" pump

To register a *Piusi 3000 Supreme* pump in the system, you must:

- Purchase and activate **the SUPREME discovery add-on** in B.SMART.
- Activate **an add-on for each** "Piusi 3000 Supreme" pump you wish to register.

If you try to register a *Piusi 3000 Supreme* pump without the add-on activated, the operation will be blocked and an error message will be displayed.

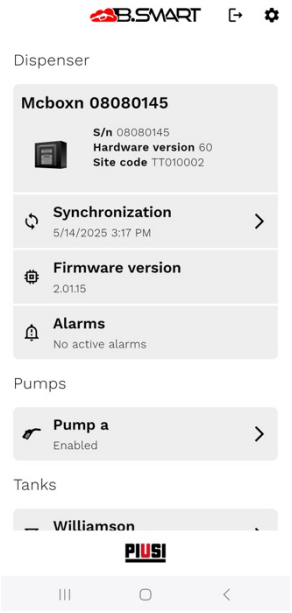
Attention

- A stable Internet connection is **required** throughout the dispenser registration process.
- A dispenser **cannot be registered on multiple different systems**.

5.3. DISPENSER MANAGEMENT

The dispenser management section allows the manager to monitor and configure the operation of the dispenser in a comprehensive manner. From the control dashboard, you can:

- **Check the operating status** and any active alarms;
- **Force data synchronisation** between the mobile device and the PIUSI cloud - Data synchronisation between the PIUSI cloud and the phone is always active in the background. During normal use, if the internet connection is always guaranteed, it is not necessary to force data uploading. The following procedure forces a normal data synchronisation and should be used to test the correct communication between the mobile device and the dispenser and between the mobile device and the PIUSI cloud services.
- **Perform pump calibration** to ensure dispensing accuracy;
- **Manage the tanks** and associate the OCIO level sensors;
- **Configure IDENTITANK**;
- **Update the dispenser firmware**.
- **Manage** general system preferences.



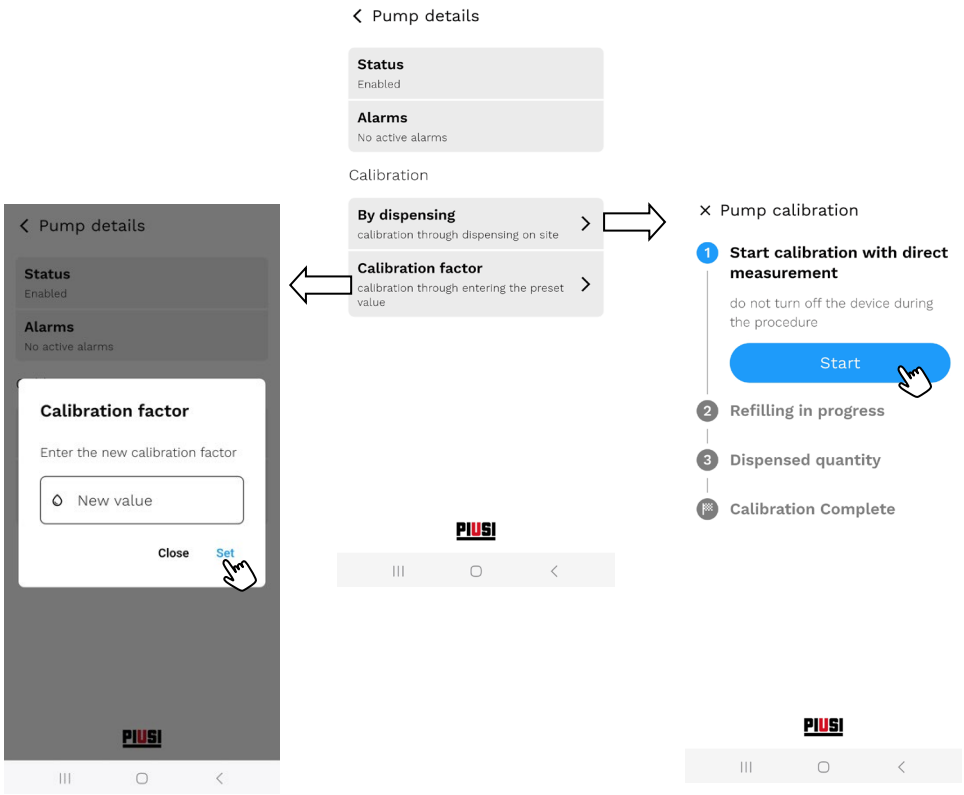
5.3.1. PUMP CALIBRATION

This function allows the manager to calibrate the pumps in the dispenser in order to correct any deviations in the count during product dispensing. Calibration is essential to ensure measurement accuracy and system reliability.

Two calibration modes are available:

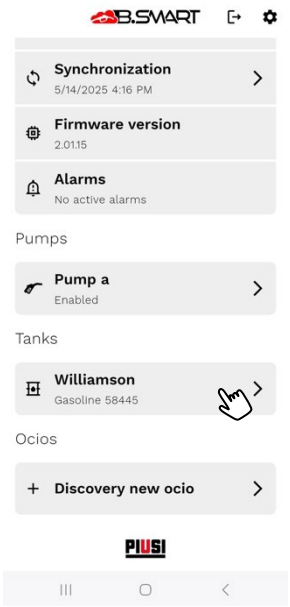
- **Calibration via direct measurement**
  This allows a test dispensing to be carried out, during which the system automatically calculates the new calibration factor based on the quantity actually dispensed.
- **Manual calibration**
  Allows you to enter a calibration value directly, if this is already known or provided by external reference equipment.

> **Attention**
>
> It is advisable to perform calibration under stable and repeatable conditions to obtain accurate results. Minimum 20l vessel and nozzle at full flow only.



5.3.2. TANK MANAGEMENT

This section allows the manager to monitor the product levels in the tanks associated with the pumps, calibrate the level sensors (if present) or manually adjust the levels in the virtual tanks (not equipped directly with sensors).



Prerequisites

To use the tank management functions correctly, you must:

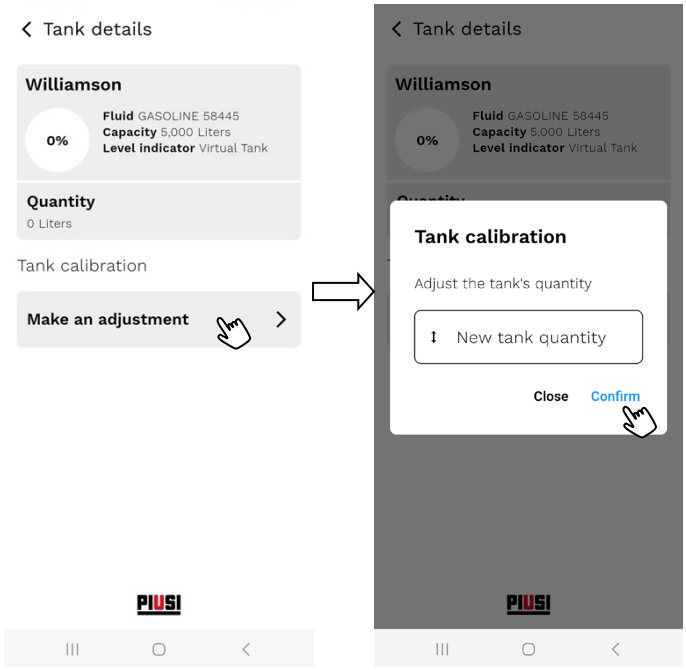
- Have purchased and activated the **Tank Watchdog** add-on;
- Have configured and assigned the tanks to their respective pumps via the B.Smart web app;
- Be connected to the internet and to the dispenser to apply the configurations made via the web.

Attention

- When the **Tank Watchdog** add-on expires, all tank management features will be disabled: you will not be able to view product levels or perform calibrations or adjustments.
- Tank configuration can only be carried out via the web app; parameters cannot be changed from the app.
- Loading/unloading movements must also be managed from the web app; no operations can be performed from the app.
- Level data and alarms are synchronised to the cloud **only** when a manager or driver phone connects to the dispenser or a forced synchronization is performed. As a result, the display on the web app may not reflect the current situation in real time.

5.3.2.1. LEVEL ADJUSTMENTS

For tanks **not** monitored by physical sensors (defined as "virtual" tanks), it is possible to manually adjust the current product level.



Attention

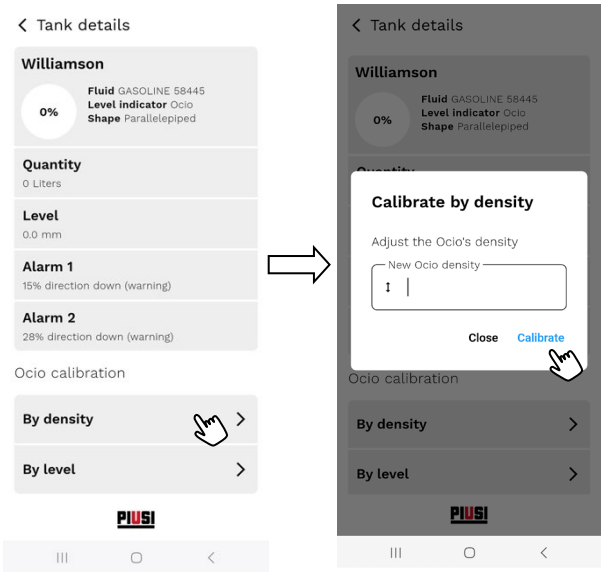
- In virtual tanks, which do not have level sensors, the system manages the quantity of product based on recorded movements.
  In particular, **discharge movements related to dispensing are detected and applied automatically by the system**, while any changes that are not automatically tracked (such as **leaks or recording errors**) **must be compensated manually by entering adjustment movements**.
  To ensure data reliability, **it is strongly recommended to periodically check the actual tank level using measuring instruments** (e.g., a dipstick). Based on the measurement taken, the virtual level must be updated manually in the system.
  Failure to perform these checks can lead to significant discrepancies between the actual level and the level displayed, compromising proper operational management.
- The app must be connected to the internet to perform a level adjustment.

5.3.2.2. OCIO 2.0 CALIBRATION

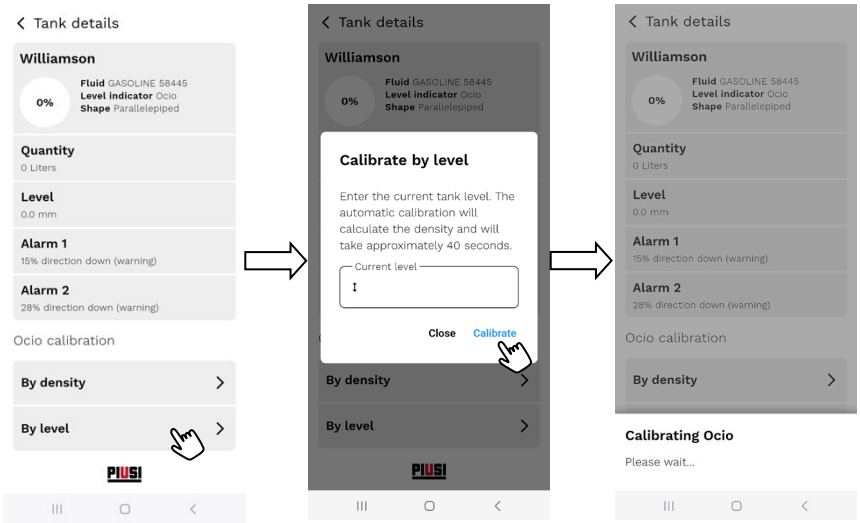
For tanks monitored by an OCIO 2.0 sensor, a calibration procedure can be performed to optimize the accuracy of product level detection.

Two calibration modes are available:

- **Calibration by density**
  Allows you to manually enter the density of the fluid in the tank. This mode is recommended when the density value is known and constant over time.



- **Automatic calibration based on current level**
  Starts an automated procedure in which the system calculates the corresponding density based on the current product level in the tank. It is essential that the current level has been measured and verified accurately (e.g., using a graduated rod) before starting the procedure. This procedure is not instantaneous; it takes at least one minute to recalculate the new density.



Attention

- To ensure accuracy and reliability over time, **it is strongly recommended that** the level sensors be calibrated periodically. Environmental variations, changes in fluids, or component wear can affect the quality of the measurements.

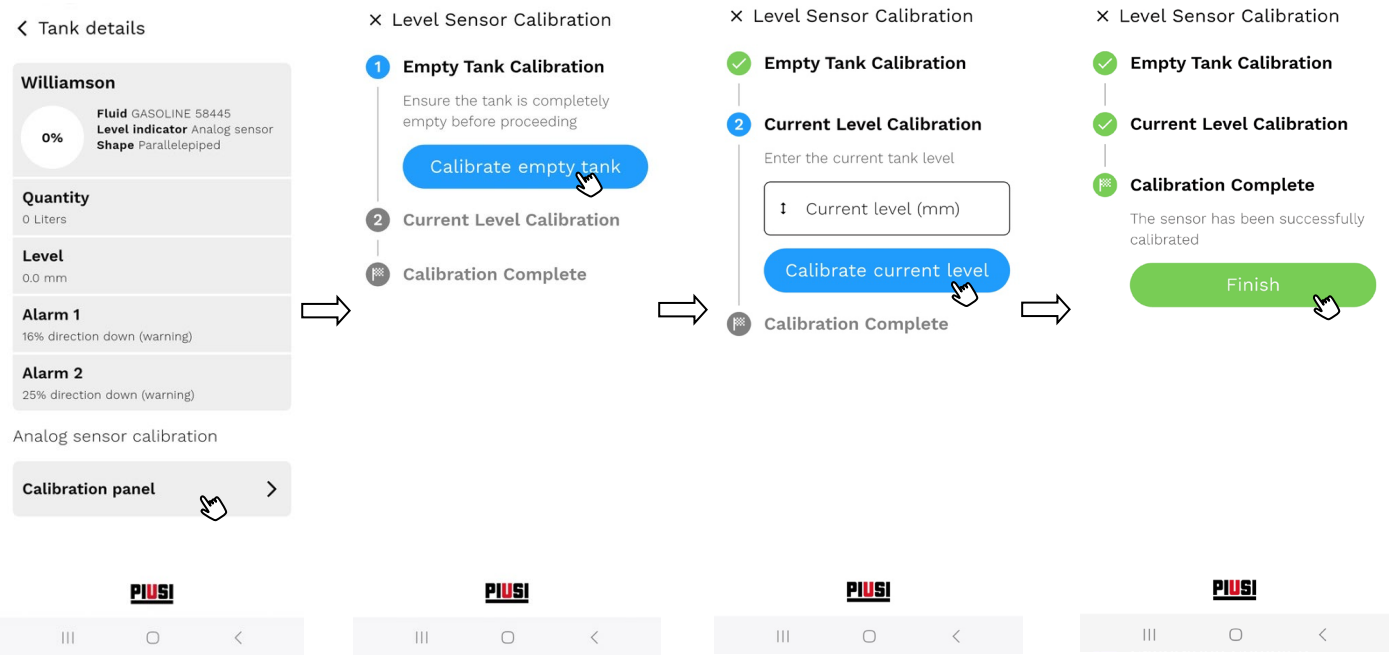
5.3.2.3. ANALOG SENSOR CALIBRATION

If analogue sensors (4-20 mA or 0-10 V) are used, a guided calibration procedure is available to correlate the electrical signal to the actual volume values in the tank.

Calibration consists of two main steps:

1. **Empty tank calibration**
   Temporarily remove the probe from the tank and start calibration to detect the electrical signal corresponding to the "zero" level (no product). This operation is essential for setting the lower reference point.

2. **Calibration at current level**
   Reinsert the probe into the tank and measure the current product level using a graduated rod or other reliable instrument. Enter the measured value into the calibration interface to correctly associate the electrical signal with the detected volume.



Attention

- The accuracy of the calibration depends on the quality of the current level measurement and the stability of the electrical signal. Make sure that the sensor is correctly powered and connected before starting the procedure.
- To ensure accuracy and reliability over time, **it is strongly recommended that** the level sensors be calibrated periodically. Environmental variations, changes in fluids, or component wear may affect the quality of the measurements.

5.3.3. OCIO 2.0

The OCIO level detector allows you to monitor the liquid level inside tanks connected to dispenser B.Smart in real time whilst refuelling. After configuring the tank via the PIUSI web app, you can associate the OCIO sensor with the relevant pump to obtain accurate and up-to-date data.

Prerequisites

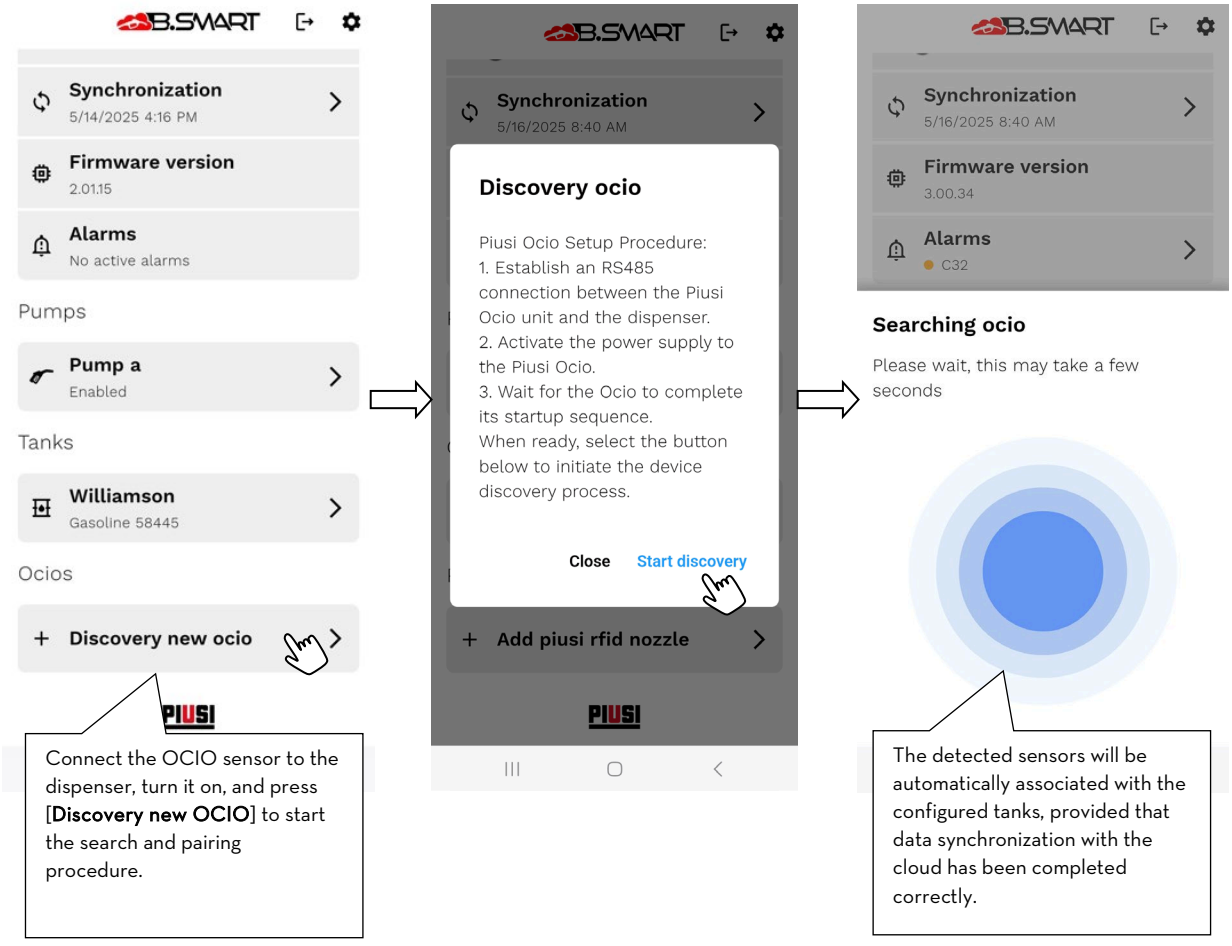
- You have activated the 'Tank watchdog' add-on in the relevant B.smart system.

When to use this procedure:

- To connect a new OCIO sensor to the system.
- To replace a damaged OCIO with a new one.
- To permanently remove an OCIO that has been disconnected from the pump.

Association procedure:

Log in to the dispenser as a manager and follow the steps below:



Attention

- If no OCIO sensors are detected at the end of the detection procedure, check that the device is properly powered and connected to the pump. If in doubt, consult the technical manual for distributor B.Smart.
- Check the +/- terminals are correctly assigned and not touching each other.
- Do not overtighten and support the RS485 interface on the OCIO 2.0 board when connecting any wires.
- If an OCIO sensor is disconnected, turned off, or connected incorrectly, the system will report a fault by displaying a specific error code: 'C17' or 'C18' (the code will be displayed on the user interface and on the dispenser display).

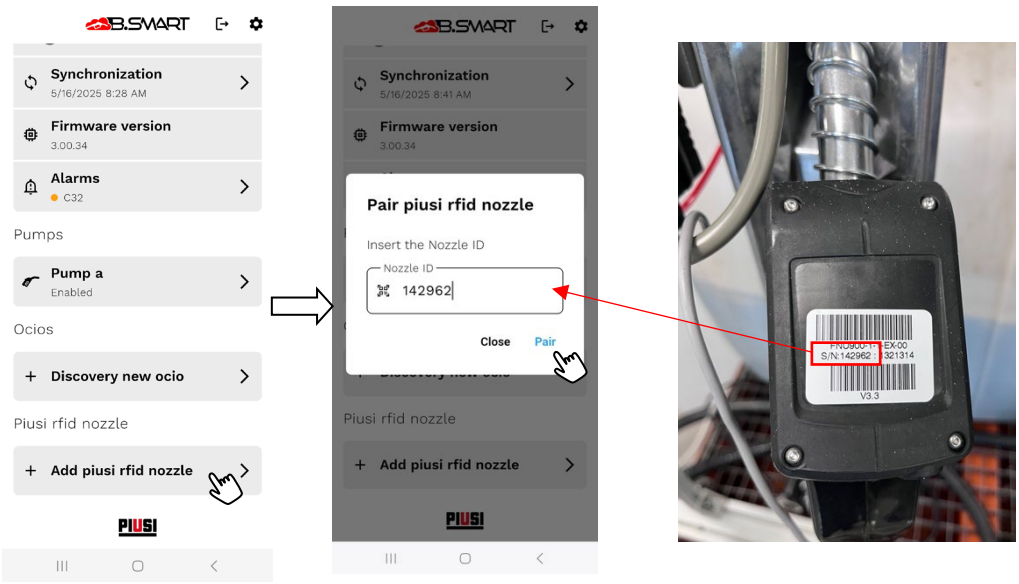
5.3.4. IDENTITANK

Identitank is an RFID-based identification and dispensing control system. It consists of a **nozzle with an RFID TAG reader**, which allows automatic recognition of the vehicle or tank to be refuelled by identifying the relevant RFID TAG installed.

This system allows dispensing **only to authorised vehicles and tanks** , ensuring traceability, security, and prevention of unauthorised dispensing.

5.3.4.1. REGISTRATION OF THE RFID NOZZLE

To associate a new RFID nozzle with a dispenser, its **serial code** must be registered. The code can be found on the label on the nozzle cover, next to the **S/N** marking.

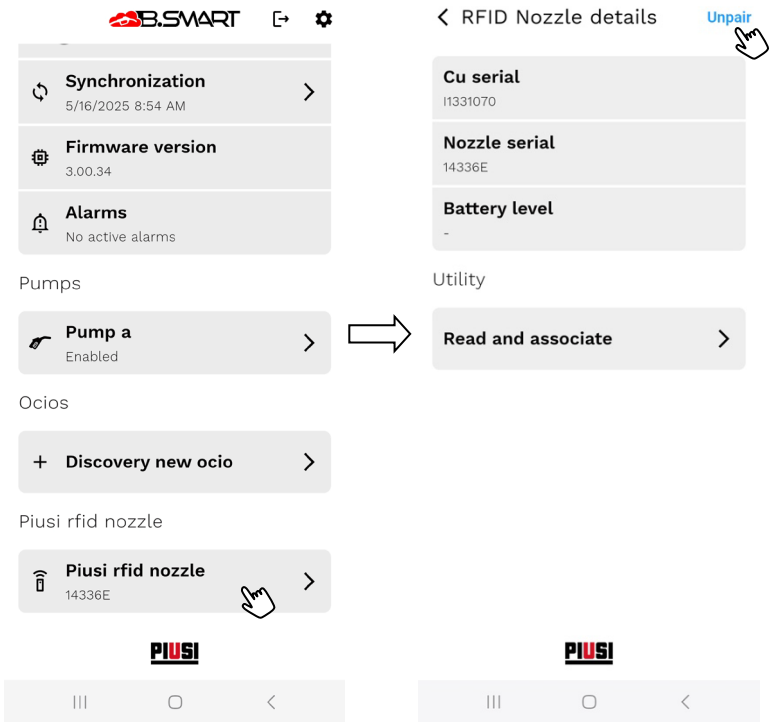


Attention

- The serial code is *case-sensitive*: it must be entered exactly as shown on the label.
- **Only one nozzle** can be associated with the dispenser at a time.

Replacing the nozzle

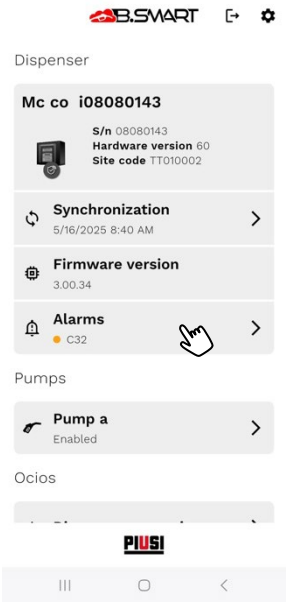
To replace the nozzle, disconnect the one currently in use and register a new one.



Troubleshooting

If error message C32 appears, the possible causes are:

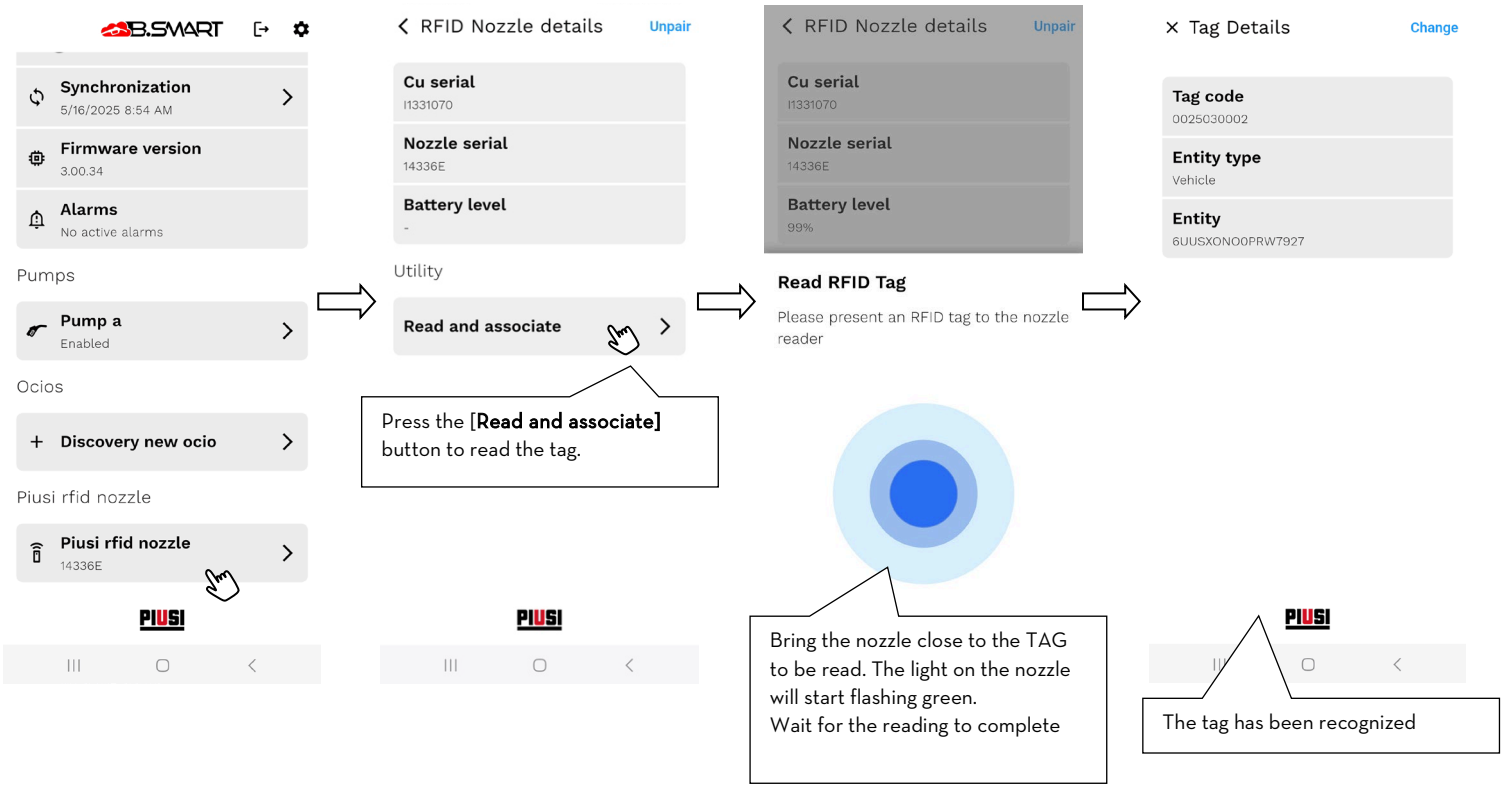
- The serial code of the nozzle has not been entered correctly.
- The dispenser does not detect the nozzle:
    - The nozzle may be switched off: close the cover and shake it slightly.
    - The nozzle may be too far from the dispenser or in an area with insufficient signal.



5.3.4.2. RFID TAG READING AND ASSOCIATION

This function allows you to **read** and **check** RFID TAG's directly through the app, using the RFID nozzle (previously registered).

Reading procedure:



If the RFID TAG is recognized, the following data will be displayed:

- **TAG code**: unique identifier of the RFID TAG.
- **Status**: indicates whether the RFID TAG is already associated or not.
- **Type of associated entity**: for example, vehicle, tank, or third-party vehicle.
- **Associated entity**: specific value such as the vehicle license plate or tank name.

Procedure for associating a RFID TAG with a system entity

You can associate a RFID TAG with a system entity directly from the app.

Requirements

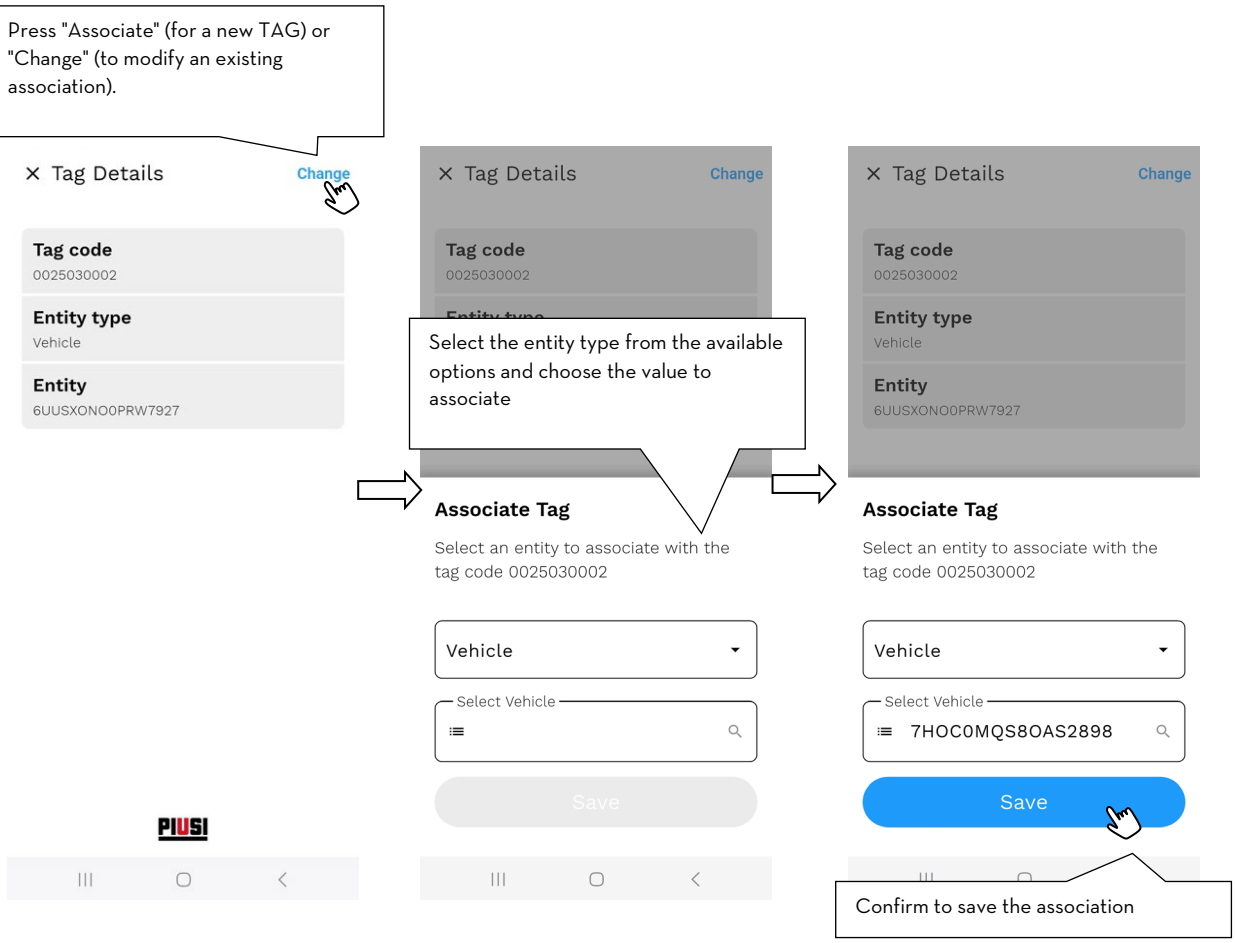
To associate a RFID TAG with a specific entity, the following add-ons must be active:

- **Vehicle** - Requires activation of the add-on **Fuel Economy**.
- **Tank -** Requires activation of the add-on **Tank Watchdog**.
- **Third-party vehicle -** Requires activation of the add-on **Maply**.

Please note

without at least one of the above add-ons, it will not be possible to complete the association of the RFID TAG with the respective entity.

You can associate a RFID TAG with a system entity by following these steps:



Attention

TAGs can **only** be read and associated when you have an active internet connection, thus mobile phone signal at the dispenser.

5.3.5. FIRMWARE UPDATE

The dispenser firmware must be updated directly from the app.

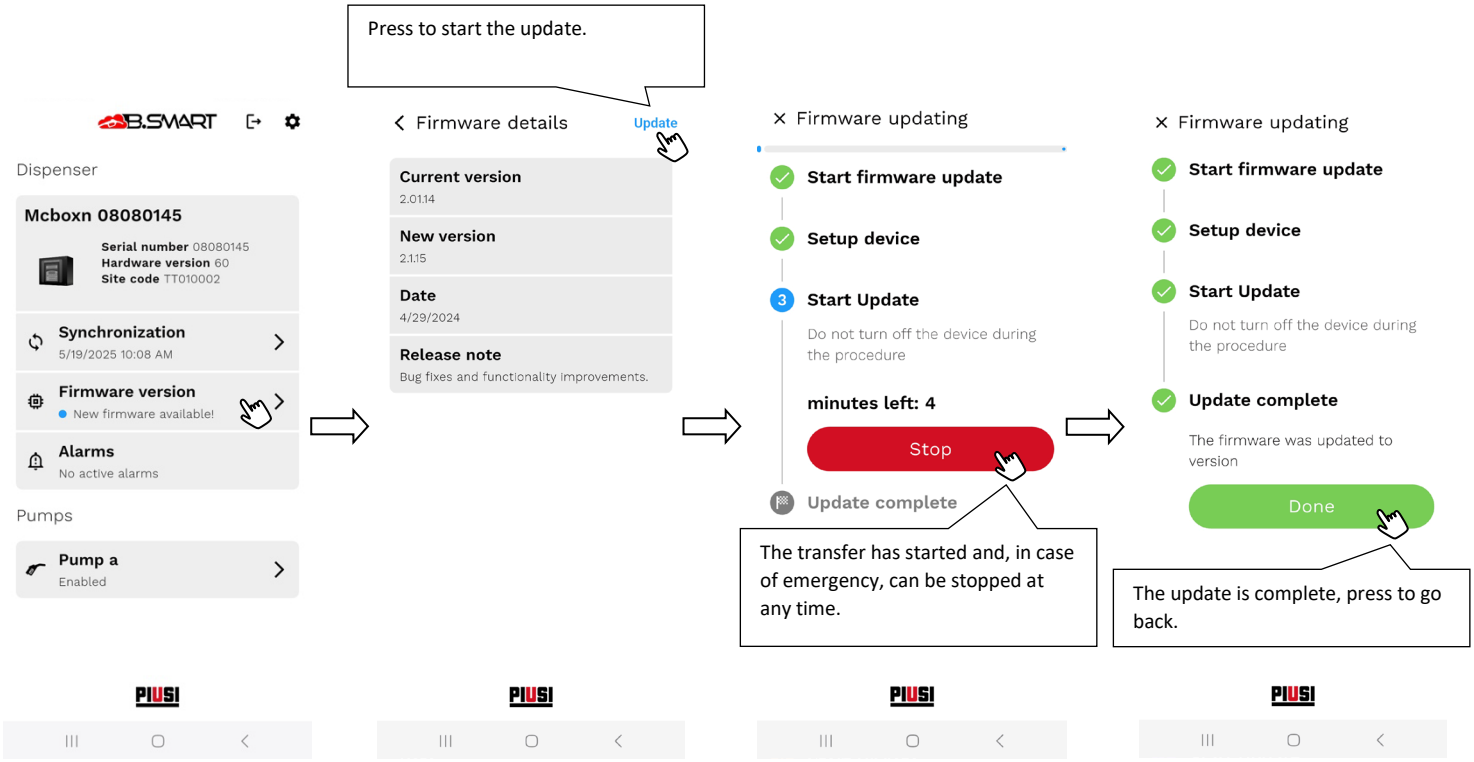
The update can be:

- **Optional**, recommended for improvements and new features;
- **Mandatory**, required to ensure compatibility with the latest versions of the system or to correct critical malfunctions.

The update procedure is always the same and consists of three main phases:

Update steps

1. **Restart in bootloader mode**
   The application forces the dispenser to restart in "bootloader" mode, which is necessary to prepare the hardware for the update. During this phase, the system temporarily disconnects.
2. **Reconnection and firmware transfer**
   Once the dispenser is in bootloader mode, the app automatically reconnects and starts transferring the new firmware. Progress is visible on the app interface.
3. **Restart and completion**
   Once the transfer is complete, the dispenser is restarted with the new firmware installed. To verify that the update has been successful, simply reconnect to the dispenser as **manager** (see chapter 5.3) and check that no new updates are being offered.



Attention

- **Do not turn off the dispenser** during the entire process.
- **Do not turn off your phone** or close the application.
- **Do not disable Bluetooth** on your mobile device.
- **Keep your phone close to the dispenser** for the duration of the update.
- This **may take several minutes**: wait for it to complete without interruption.
- **An active Internet connection is required** to download the latest version of the firmware.
- **During the update, it is not possible to use the dispenser.**
- **Mandatory updates** must be completed before you can use the system again.

5.4. ADVANCED CONFIGURATIONS

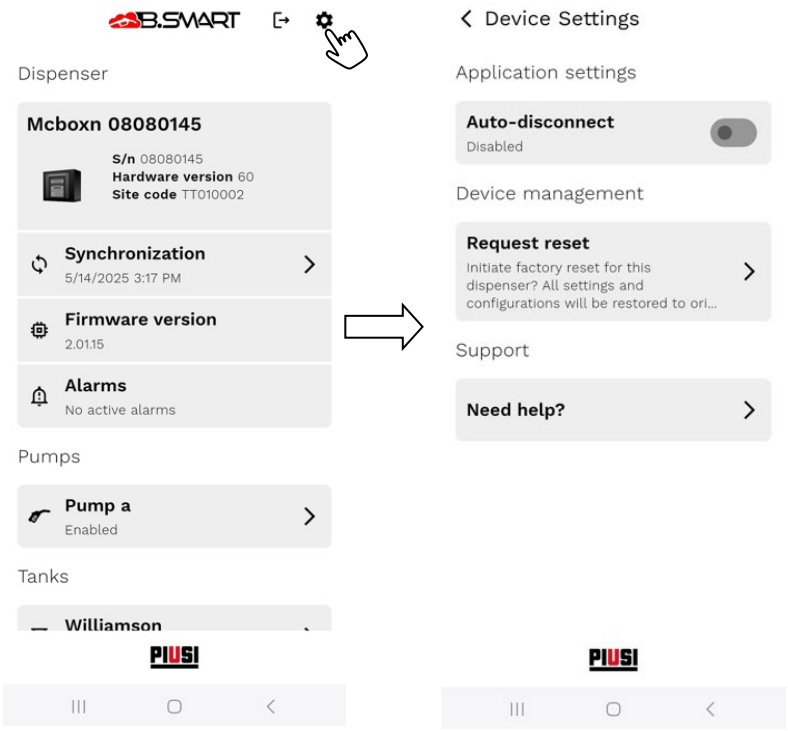
This section allows you to manage advanced system settings for specific usage scenarios or administrative operations. The available features include:

- **Automatic driver disconnection**
  By enabling this option, the driver will be automatically disconnected from the app at the end of each delivery. This mode is particularly useful in contexts where a single mobile device is shared between multiple operators.
  You can also set a **custom inactivity time** (in seconds) after which the driver will be automatically disconnected if the app is not used.

Please note

this setting only applies to the mobile app and **is not saved on the dispenser**.

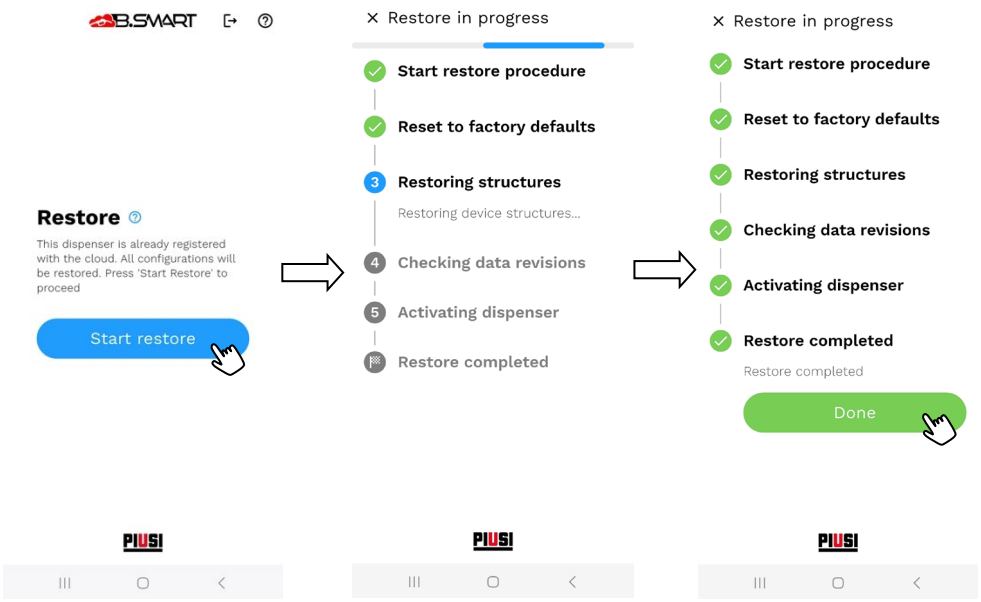
- **Request to restore factory settings**
  From here, you can send a request to reset the dispenser to factory settings. Once sent, the system manager will need to **confirm the operation from the web app**.
  After approval, you will need to reconnect to the dispenser via the app and follow the guided procedure to complete the reset.
- **Request technical assistance**
  Access the section dedicated to **technical support request**.



6. RESET PROCEDURE

The **data restoration procedure** allows you to restore a distributor to its **operational status**, i.e., to **the most recent configuration saved in the cloud**. It is necessary in the event of:

- **Damaged dispenser memory**, with error codes displayed **A32** or **A33**;
- **Reset to factory settings**, followed by a registration attempt that detects the dispenser as **already assigned to an existing site**.



Attention

- It is essential to have a **stable internet connection** throughout the entire process;
- You must **remain near the dispenser** to maintain a stable Bluetooth connection;
- If you experience persistent problems, **contact technical support**;
- Only the **facility manager** can perform the reset;
- **Do not close the app** or **turn off your phone** until the procedure is complete.

Steps to take after the reset

To ensure the system works properly, you must complete the following tasks:

- Calibrate the pumps (see chapter 5.3.1)
- Repeat the **OCIO detection**, if present and correctly installed (see chapter 5.3.3);
- **Reconnect the IDENTITANK nozzle** r (see chapter 5.3.4.1);
- **Adjust the quantities** on **the virtual tanks**, if used in the system (see chapter 5.3.2.1);
- Calibrate the level sensors, if used in the system (see chapter 5.3.2.3).

7. FAQ

Where can I download the B.SMART app?

You can download the B.SMART app directly from your device's app store:

- If you are using an Android phone, go to the **Google Play Store**
- If you are using an iPhone, go to the **Apple App Store**

How can I access the B.Smart app?

You must be registered as *a Driver* at the facility by your operator, who will provide you with the necessary login credentials: the PIN code and the site code (see chapter 4.1).

How can I make a fuel dispensing?

To make a dispensing, you must be authorised as *a Driver* by the facility manager. After logging into the app (see chapter 4.1), select the desired dispenser (see chapter 4.3). You can only connect to dispensers registered in the facility to which you belong.

The app does not detect B.SMART dispensers, what can I do?

If your device does not detect B.SMART dispensers, check the following:

- No other phone is already connected to the dispenser;
- The dispenser is located near the phone;
- The phone's Bluetooth is enabled and the app has the necessary permissions to access Bluetooth devices.

How can I reset a dispenser to factory settings?

Log in to the app as *a Manager*, go to the **Advanced Settings** section, and request a reset from the facility manager (see chapter 5.4). Once the request has been approved, reconnect to the dispenser as *Manager* : the app will automatically guide you through the reset procedure.

How can I request technical assistance?

You can access **the Help Centre** from any section of the app by clicking on the **[?]** icon in the top right corner.
From the Help Centre, you can:

- Consult the manual
- Contact your system manager
- Request advanced technical support by filling out the online form https://www.piusi.com/support/customer-service

---

Is it possible to migrate a dispenser from one customer B.SMART system to another?

Yes, it is possible. However, you must first reset the factory settings by requesting authorisation via the **Advanced Settings** section (see chapter 5.4). After the reset, register the dispenser in the new facility by following the procedure described in chapter 5.2.

How do I enable automatic disconnection (auto logoff) for drivers to use a B.Smart dispenser with a single mobile device?

Log in as *Manager* to the dispenser concerned using the phone app, access the **Advanced Settings** section (see chapter 5.4) and enable the *Auto-Disconnect* function, setting the desired time for automatic disconnection.

What happens if the device's GPS is not working during dispensing?

Dispensing can still be completed normally, even without a GPS signal. However, in this case, the geographical coordinates will not be recorded automatically. The system administrator can manually enter the position later via the web app.