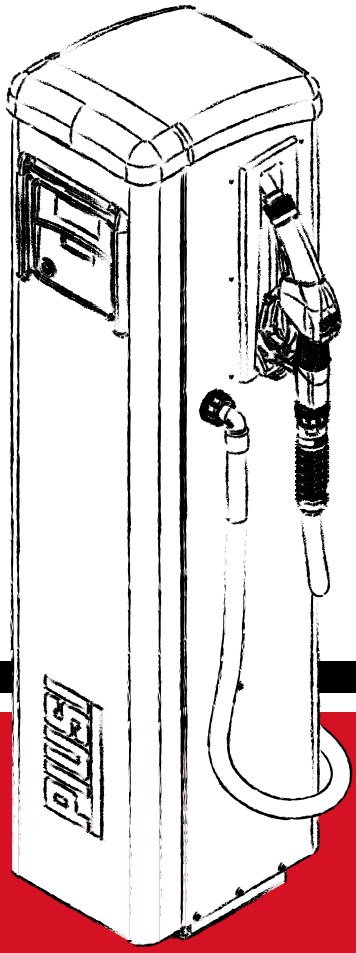
PIUSI

B.SMART

SELF SERVICE

ADBLUE



MADE IN ITALY

Installation, use and maintenance manual EN

BULLETIN M0563 EN_04

ENGLISH

BULLETIN MO563EN_04

EN

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1 FACSIMILE OF THE EU DECLARATION OF CONFORMITY

The undersigned: PIUSI S.p.A
Via Pacinotti 16/A z.i. Rangavino - 46029 Suzzara - Mantua - Italy

DECLARES on its own responsibility, that the equipment described below:

Description:	Transfer pump for Ad-Blue
Model:	SELF SERVICE B.SMART 230/50 Ad-Blue
Serial number:	see the Lot Number on the plate affixed to the product
Year of construction:	See the production year on the plate stamped on the product.

Complies with the following legislation:
- **Machine Regulations**
- **Electromagnetic compatibility**
- **Electrical and electronic equipment**
- **Radio equipment**

The technical file is at the disposal of the competent authorities in response to a motivated request made to
PIUSI S.p.A. or upon receipt of a request sent to the following email address: doc_tec@piusi.com.

THE ORIGINAL DECLARATION OF CONFORMITY IS SUPPLIED SEPARATELY IN CONJUNCTION WITH THE PRODUCT

2 GENERAL PRECAUTIONS

Important warnings

In order to protect workers' safety and to avoid the risk of any damage, before performing any operation, please read and become familiar with the contents of the instruction manual.

Symbols used in the manual

In order to signal particularly important instructions or warnings, the following symbols are used:



ATTENTION
This symbol indicates accident prevention regulations addressed to operators and/or other people concerned.



WARNING
This symbol indicates that there is a possibility of damaging the machineries and/or their components.



NOTE
This symbol indicates useful information.

Manual storage

This manual must be intact and completely readable. The final users, as well as the qualified technicians authorised to installation and maintenance must be able to view it at any time.

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3 SAFETY INSTRUCTIONS

CAUTION Mains - preliminary checks before installation		You must avoid any contact between the electrical power supply and the fluid that needs to be pumped.
Control and maintenance operations		Before any checks or maintenance work are carried out, disconnect the power source.
FIRE AND EXPLOSION If there are flammable liquids in the working area, flammable vapours may be present and may cause fire or explosion during station use.		To help prevent fire and explosion: Use equipment only in will ventilated area. Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline.
		Do not plug or unplug power cords or turn lights on or off when flammable fumes are present. Ground all equipment in the work area. Stop operation immediately if static sparking occurs or if you feel a shock. Do not use the station until you have identified and resolved the problem. Keep a working fire extinguisher in the work area.
ELECTRIC SHOCK **Electrocution or death**		This station must be grounded. Improper installation or use of the station may result in danger of electric shock. Switch off and unplug the power cord after use.
		Connect only to grounded sockets. Use only grounded cables in accordance with the applicable regulations. Unsuitable extension leads can be dangerous. Make sure that the plug and socket of the extension cords are intact. Unsuitable extension leads may be dangerous. In outdoor use, use only extensions suitable for the specific use, according to the regulations in force. The electrical connection between the plug and socket must be kept well away from water. Do not expose to rain. Install in a sheltered location Never touch the plug or the socket with wet hands Do not turn the distribution system on if the supply connection cable, important parts of the equipment – the suction/delivery tube for example – the nozzle or the safety devices are damaged. Replace the damaged pipe immediately before use. Before each use, check that the mains connection cable and the plug are not damaged. If damaged, have the cable and plug replaced by qualified personnel. The electrical connection between the plug and socket must be kept well away from water. Outdoors, use only authorised extension leads for which this use is envisaged with an adequate wire diameter in accordance with the regulations in force. As a general rule of electrical safety it is always recommended to power the device by protecting the line with: - circuit breaker/disconnector with a current rating suitable for the power line - 30 mA residual current device The electrical connection must have a ground fault current interrupter (GFCI). Installation operations are carried out with the box open and the electrical contacts accessible. All these operations must be carried out with the unit isolated from the mains in order to avoid hazards of electrocution!

EQUIPMENT MISUSE Misuse can cause death or serious injury		Do not operate the unit when fatigued or under the influence of drugs or alcohol.
		Do not leave the work area while equipment is energized or in operation.
		Turn off the equipment when not in use.
		Do not alter or modify the equipment. Alterations or modifications may void agency approvals and create safety hazards.
		Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
		Do not twist the hose or use a stronger hose.
		Keep children and animals away from the working area.
		Respect all safety norms in force.
		Do not exceed the maximum working pressure or temperature of the component with the lowest system rating. See the technical specifications in all machine manuals.
		Use liquids and solvents that are compatible with the wet parts of the unit. See the technical specifications in all machine manuals. Read the manufacturer's warnings for liquids and solvents. To obtain more information about the material, request the Safety Data Sheet (MSDS) from your distributor or dealer.
		Check the unit every day. Repair or replace worn or damaged parts immediately with original manufacturer's spare parts only.
		Make sure that the unit is classified and approved in accordance with the regulations for the environment in which it is used.
		Use only the unit for its intended purpose. Contact your distributor for more information.
		Keep hoses and cables away from transit areas, edges, moving parts and hot surfaces.
		Do not bend or bend the hoses too much or use the hoses to pull the unit.
DANGER OF BURNS		To avoid severe burns, do not touch liquids or equipment
Danger of smoke and toxic fluids.		For issues arising from the treated product with eyes, skin, inhalation and ingestion refer to the safety data sheet of the fluid used.
		Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
		Prolonged contact with the product may cause skin irritation; during delivery phases, always wear protective gloves.

4 FIRST AID MEASURES

Persons who have suffered electric shock

Disconnect the power source, or use a dry insulator to protect yourself while you move the injured person away from any electrical conductor. Avoid touching the injured person with your bare hands until he is far away from any conductor. Immediately call for help from qualified and trained personnel. Do not operate switches with wet hands.

NOTE



Always seek immediate medical attention!

5 SAFETY NORMS

Personal protection equipment features

Wear personal protection equipment that is:
- suitable to the operations to be performed;
- resistant to the products used for cleaning procedures.

Personal protection equipment to be worn



Safety shoes;



Close-fitting clothes;



Protective gloves;



Safety glasses;

Other equipment



Instructional manual.

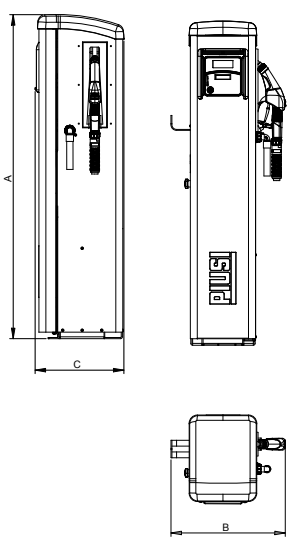
6 TRANSPORT, HANDLING AND UNPACKING

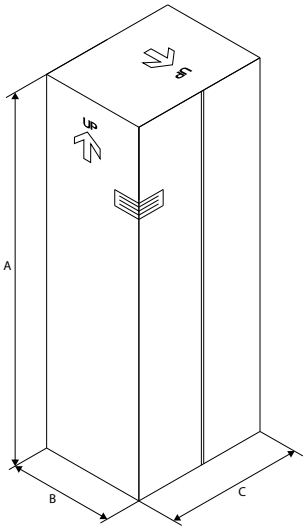
The SELF SERVICE B.SMART is shipped packaged in a non-stackable cardboard box. During storage the machine must be kept in an upright position as indicated by the graphic symbols printed on the box showing the direction of handling. Whenever the machine needs lifting, make sure all the hoisting gear and accessories (such as the rigging belts) have an adequate load bearing capacity. Mechanical handling and lifting gear must only be used by authorised and suitably trained staff. During periods of non-use, the machine, be it packed or unpacked, must be stored in an area protected against the elements (e.g. rain, humidity, direct sunlight, etc.) and dust.

The packaging carries the following indications:
- a 'THIS WAY UP' arrow;
- a label with all the information relating to the equipment (model, weight, etc..).

6.1 DIMENSIONS AND WEIGHTS

	STATION DIMENSIONS (mm)			PACKAGING DIMENSIONS (mm)			STATION WEIGHT (Kg)	PACKED STATION WEIGHT (Kg)
	A	B	C	A	B	C		
SELF SERVICE B.SMART 230/50 Ad-Blue	1391	491	382	1478	400	480	59.1	63.7





6.2 PACKAGING CONTENT/PRELIMINARY INSPECTION

Foreword

Use scissors or a cutter to open the cardboard box, , taking care not to damage the contents.

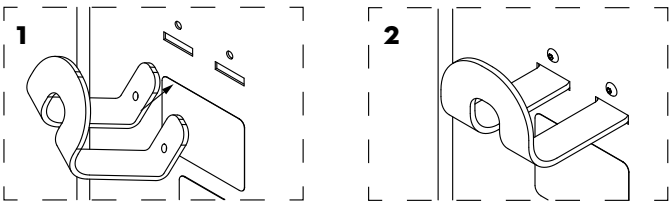
NOTE

Two people must open the box completely and move the SELFSERVICE unit into a vertical position to facilitate subsequent definitive positioning. Once unpacked, the unit should always be kept in a vertical position. Put all packing elements (cardboard, wood, cellophane,polystyrene etc.) into the corresponding containers. Do not leave them in the environment or within children's reach as they are potentially dangerous. They should be disposed of according to the regulations in force in the country where the unit will be used. Check the conditions of the unit making sure that no part shows such damages as compromise safety and functionality. In case of doubt, do not start up and contact the manufacturer's technical service. Check if the accessory set is complete. At the end of the inspection, assemble the Self Service:

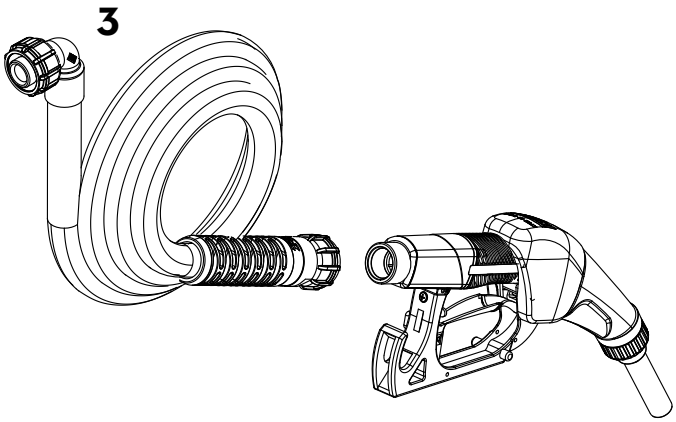
CAUTION

1 - Fit the hose support hook into the relative slots (1)

2 - Tighten the screws and fix the hook in the desired position. (2).



3- Mount the nozzle and hose as indicated in the heading "plumbing connections".



NOTE

Use the roll of Teflon provided.

7 MACHINE AND MANUFACTURER IDENTIFICATION

SELF SERVICE B.SMART stations are equipped with an identification plate attached to the frame:
- Model
- Serial number / year of manufacture
- Technical data
- CE marking
- Manual code

CAUTION **Before installing, always make sure the type of dispensing system is correct and suitable for the available power supply (Voltage/Frequency).**

7.1 POSITION OF THE PLATES

On the distribution system there is an adhesive label that shows the operator the most important information. Make sure it stays on and that it does not deteriorate over time.

NOTE **Should this situation arise, please contact our support department and arrange to have a copy of the damaged or missing plates sent back and replaced where necessary.**

Decals are the following ones:



1 - CE plate with technical data:



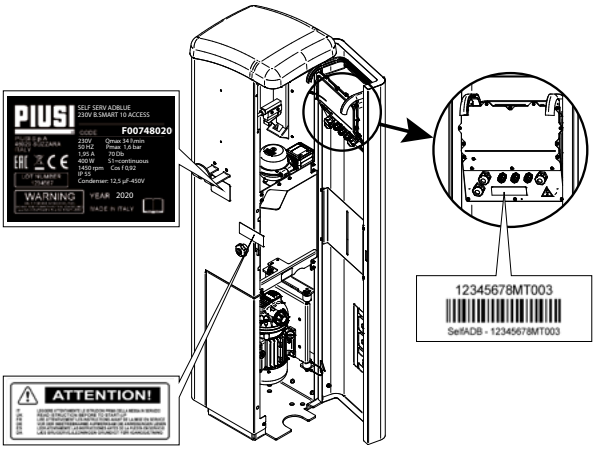
2 Attention plate applied to the Self Service display



3 Corner label plate applied on the box



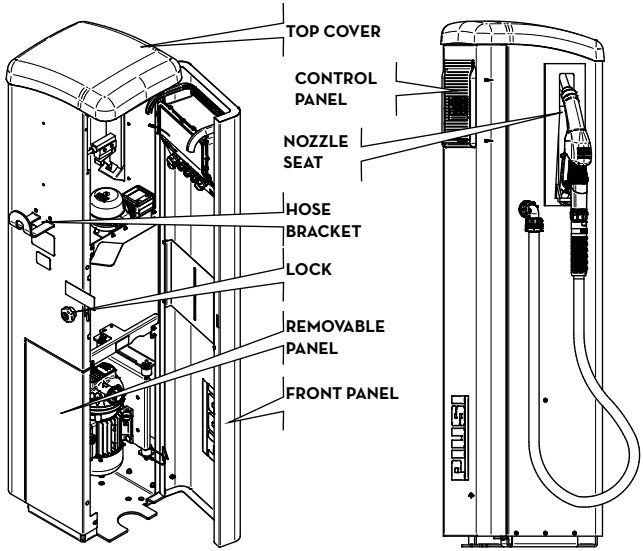
4 - Product warranty label



8 DESCRIPTION OF MAIN PARTS

8.1 BODY

The SELF SERVICE body - all versions - consists of a strong treated-steel shell, closed on top by a plastic cover and a sturdy base for attaching it to the ground. The front panel is entirely hinged to provide easy access to the internal components of the station (pump, filter, meter) and closed by a lock . The right side panel can be easily detached to allow installation and/or maintenance operations.



8.2 PUMPING UNIT

Unit with self-priming vane electric pump, equipped with by-pass valve. This valve allows operation for short periods even with the dispensing nozzle closed.
The motor, directly coupled to the pump body, is asynchronous, closed type (IP55 protection class according to the EN 60034-5-86 norm), self-ventilated, single-phase. An ANGULAR MESH FILTER is connected to the pump intake for easy cleaning.
See Specific manual

8.3 PULSER FLOW METER

The Pulser flow meter has a high-precision oval gear measuring system designed to allow accurate fuel measurement. They consist of a sturdy die-cast aluminium structure, complete with inlet filter and are easy to maintain and reliable. For further information, please refer to the dedicated manual

8.4 DISPENSING NOZZLE

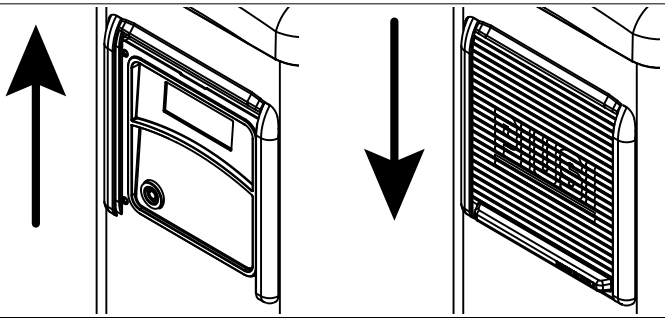
The dispensing nozzle supplied with SELF SERVICE B.SMART is an automatic type, with a stop device when the tank is full.

8.5 LEVEL INDICATOR

The level indicators to which the fuel transfer pump can be connected are only clean contacts, which are configured by WebApp

8.6 DISPLAY COVER

To ensure adequate protection to the panel, a damper display cover has been designed which can be lowered if necessary.
It is advisable, in very strong sunlight conditions, to keep the display cover always lowered.



8.7 DISPENSING MANAGEMENT SYSTEM

FOREWORD

B.SMART is an electronic system for controlling the dispensing of fluids via smartphone.
The control system consists of:

An electronic controller
equipped with a BlueTooth interface (BLE 4.0 and later), a display and an interface LED that controls a dispensing pump

An APP
installed on a smartphone equipped with an Android operating system or Apple IoS

A WebAPP
namely an internet portal accessible from any PC or Tablet connected to the internet from which the entire site can be monitored

SYSTEM FUNCTIONS

- site configuration, acquisition and management of refillings, management of refilling fuel dispensers, management of drivers, vehicles and detailed reporting of the dispensings via WebAPP accessible from any PC/Tablet, using your credentials
- Fluid dispensing using the dedicated APP: PIUSI APP, downloadable only for smartphones from Play Store and App Store, which connects to the fuel transfer pump / controller via BLE connection
- Fluid dispensing using the dedicated APP also in areas without 3/4G coverage and Wi-Fi
- Dispensing via iButton associated with the individual driver
- Possibility to remotely manage sites far from the company headquarters

As can be seen from the descriptive diagram on page 14, an example of a basic system structure is given showing the possibility of managing multiple controllers simultaneously, within the same plant

For more specific details on modes of connection and communication between controllers, please refer to the manual found in the system management WebApp.

COMPATIBILITY WITH OPERATING SYSTEMS

The system is compatible with the following iOS versions:

- iOS10
- iOS11
- iOS12

The system is compatible with the following Android versions:

- 4.4
- 5.0 - 5.1
- 6.0
- 7.0 - 7.1
- 8.0
- 9.0

DISPENSER

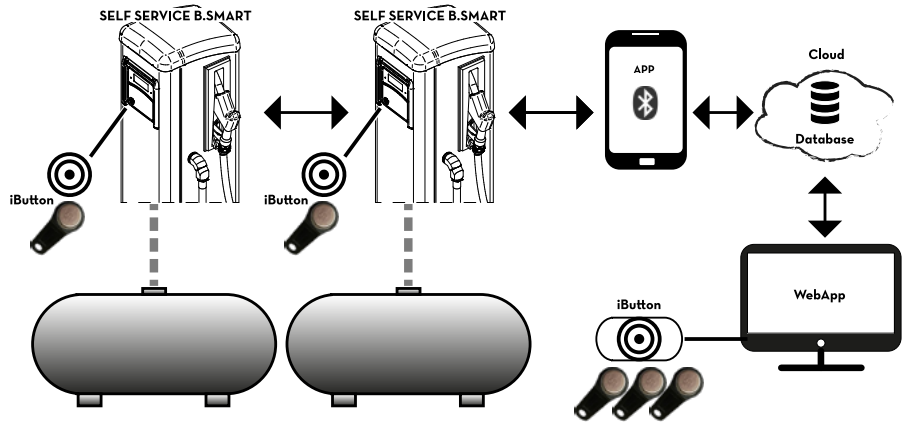
Composed of an electronic controller to manage fuel dispensing, equipped with:

- Numeric display
- Reader for iButton
- BLE 4.0 connection (or following)
- Status sensors for: level alarms, flow meters, positioning of the dispensing nozzle
- Pump on/off control

CLOUD

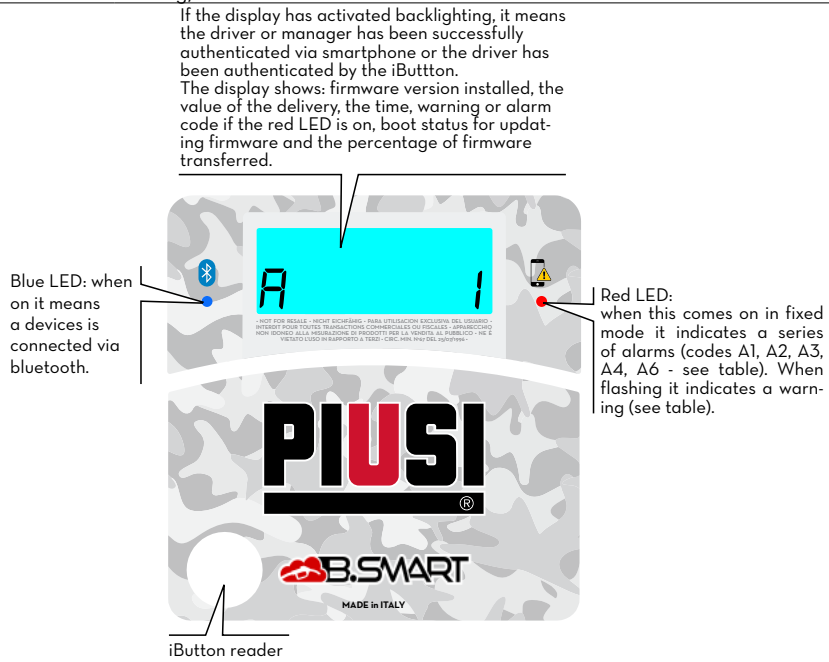
The cloud holds the database for storing the configurations of the site and the fuel transfer pump, the drivers, the vehicle license plates and all dispensed fuel data.

WebApp	Web interface used by the site manager. It has various functions: it monitors the dispensing cycles (who carried them out, when, from which transfer pump), creates/deletes users from the site, adds/removes pumps from the site. The only external device the WebApp connects to is a USB reader for iButton
APP	It makes several operations: • It manages two types of users: driver and manager • It sends commands to the transfer pump and receives responses. The commands are used to perform: dispensing, calibration, updating of the transfer pump firmware, downloading of updates to transfer pump configuration, management of drivers or uploading to the cloud of the dispensing cycles performed by the transfer pump.



9 OPERATION

The fuel dispenser is powered by a voltage ranging from 220V to 240V for models 230V 50Hz. It is equipped with a motor, 4-character backlit display, iButton reader, blue LED for Bluetooth connection and red LED for warning/alarm:



NOTE Red LED on - It switches on due to several factors, each time the LED lights up the display shows a code indicated by a letter A and by an incremental number. Whenever the led is on, it is not possible to dispense.

Below are the possible coded errors, with their respective resolution methods:

Coding	Description	Explanation/Solution
A 1	WARNING_MASTER_PUMP_GROUPA_LEVEL1_CONTACT	Contact 1 associated with pump A of the main controller is active: red LED flashing.
A 2	WARNING_MASTER_PUMP_GROUPA_LEVEL2_CONTACT	Contact 2 associated with pump A of the main controller is active: red LED flashing.
A 3	WARNING_MASTER_PUMP_GROUPA_THR1	The tank associated with pump A of the main controller has reached the level 1 threshold: red LED flashing.
A 4	WARNING_MASTER_PUMP_GROUPA_THR2	The tank associated with pump A of the main controller has reached the level 2 threshold: red LED flashing.
A 9	WARNING_SLAVE_PUMP_GROUPA_LEVEL1_CONTACT	Contact 1 associated with pump A of the secondary controller is active: red LED flashing.
A 10	WARNING_SLAVE_PUMP_GROUPA_LEVEL2_CONTACT	Contact 2 associated with pump A of the secondary controller is active: red LED flashing.
A 11	WARNING_SLAVE_PUMP_GROUPA_THR1	The tank associated with pump A of the main controller has reached the level 1 threshold: red LED flashing.
A 12	WARNING_SLAVE_PUMP_GROUPA_THR2	The tank associated with pump A of the secondary controller has reached the level 2 threshold: red LED flashing.

C 17	**WARNING_MASTER_PUMP_ GROUPA_PROBE_OCIO**	Fault detected on the level sensors connection line. (The system allows manual dispensing)
C 19	**WARNING_MASTER_SLAVE_ GROUPA_PROBE_OCIO**	Fault detected on the level sensors connection line. (The system allows manual dispensing)
C25	**WARNING_CANBUS_COM**	Fault detected on the connection line between controllers. The system behaves as for probe alarms, allowing manual dispensing
A 1	**ALARM_MASTER_PUMP_ GROUPA_LEVEL1_CONTACT**	Contact 1 associated with pump A of the main controller is active: red LED on (not flashing). Delivery not possible
A2	**ALARM_MASTER_PUMP_ GROUPA_LEVEL2_CONTACT**	Contact 2 associated with pump A of the main controller is active: red LED on (not flashing). Delivery not possible
A3	**ALARM_MASTER_PUMP_ GROUPA_THR1**	The tank associated with pump A of the main controller has reached the level 1 threshold: red LED on (not flashing). Delivery not possible
A4	**ALARM_MASTER_PUMP_ GROUPA_THR2**	The tank associated with pump A of the main controller has reached the level 2 threshold: red LED on (not flashing). Delivery not possible
A9	**ALARM_SLAVE_PUMP_ GROUPA_LEVEL1_CONTACT**	Contact 1 associated with pump A of the secondary controller is active: red LED on (not flashing). Delivery not possible
A 10	**ALARM_SLAVE_PUMP_ GROUPA_LEVEL2_CONTACT**	Contact 2 associated with pump A of the secondary controller is active: red LED on (not flashing). Delivery not possible
A 11	**ALARM_SLAVE_PUMP_ GROUPA_LEVEL1_THR1**	The tank associated with pump A of the main controller has reached the level 1 threshold: red LED on (not flashing). Delivery not possible
A 12	**ALARM_SLAVE_PUMP_ GROUPA_LEVEL1_THR2**	The tank associated with pump A of the secondary controller has reached the level 2 threshold: red LED on (not flashing). Delivery not possible
A28	**ALARM_BUFFER_FULL**	The dispensing buffer is full. All the dispensing operations stored in the controller must be uploaded to the cloud
A29	**ALARM_INACTIVE_PUMP**	No pumps are active (Check system configuration on WebApp)
A30	**ALARM_RTC_RESET**	The time has been lost. The current time must be uploaded to the controller via a smartphone
A31	**ALARM_RTC_FAULT**	Time synchronization not possible (Contact the Service Department).
A32	**ALARM_SOFT_MEMORY_ DATA_FAULT(Cumulative)**	Corrupted memory (data can be reset from WebApp backup)
A33	**ALARM_HARD_MEMORY_ DATA_FAULT(Cumulative)**	Corrupted memory (data can be reset from WebApp backup)
A34	**ALARM_VERY_HARD_ MEMORY_DATA_FAULT (Cumulative)**	Damaged memory (contact the Service Department)

With regard to the warning/alarm logics, it should be noted that one or more controllers can be connected to the same tank, or share common level contacts as outlined in the paragraph describing the system.
In these situations, warnings and alarms from one controller will be propagated to the other controllers sharing the same resource.
For more specific details on modes of connection and communication between controllers, please refer to the manual found in the system management WebApp.

10 TECHNICAL CHARACTERISTICS

INTENDED USE

Implementation of a fluid delivery and control system for private use and not subject to special regulations such as ATEX standards for potentially explosive atmospheres.

CAUTION

DO NOT INSTALL SELF SERVICE B.SMART IN POTENTIALLY EXPLOSIVE LOCATIONS ACCORDING TO ATEX DIRECTIVE.

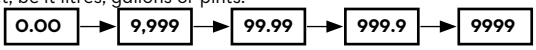
MAXIMUM ELECTRICAL PARAMETER VARIATIONS

The electrical motors installed in the dispensers can handle the following maximum variations:
power supply voltage +/- 5%
frequency +/- 2%
SEE THE TECHNICAL DATA TABLE BELOW

CAUTION

BEFORE INSTALLING, ALWAYS MAKE SURE THE TYPE OF DISPENSING SYSTEM IS CORRECT AND SUITABLE FOR THE AVAILABLE POWER SUPPLY (VOLTAGE/FREQUENCY).

Signal	Conditions standard	Limits	Note
Power supply input	220Vac – 240Vac for models 230Vac and 50 Hz	400 W - 1,95 A	The electronic board holds a PSU with switching technology which allows for a wide range of power supply voltages and frequencies. This makes the equipment very robust in the face of high voltage and tension fluctuations present in electricity distribution grids in many parts of the world.
Electronic Key Interface	YELLOW key (iButton): Enabling input from PIUSI electronic key	The yellow drivers' keys are registered on the PC via a software procedure so that the drivers are enabled to use one or more refuelling stations.	It is possible to configure the presence or not of said key.
Level 1 contact input (only for versions where available)	Clean contact or Open Collector electronic signal (NPN). Should it be necessary to power a level sensor, 24Vdc are also available on the terminal. The maximum current available to power the sensor is 25 mA.	Approximately 1 mA to 5 Vdc will be supplied to the clean contact (or open collector).	It is possible to configure the presence or not of this signal, furthermore it is possible to configure the type of signal (normally open or normally closed for those versions where envisaged). Finally, it is possible to select the action which the main controller must perform when it receives this signal: it may simply generate an alarm on the display or completely inhibit further dispensing if Block Pump is set.
Level 2 contact input (only for versions where available)	Clean contact or Open Collector electronic signal (NPN). Should it be necessary to power a level sensor, 24Vdc are also available on the terminal. The maximum current available to power the sensor is 25 mA.	Approximately 1 mA to 5 Vdc will be supplied to the clean contact (or open collector).	It is possible to configure the presence or not of this signal, furthermore it is possible to configure the type of signal (normally open or normally closed for those versions where envisaged). Finally, it is possible to select the action which the main controller must perform when it receives this signal: it may simply generate an alarm on the display or completely inhibit further dispensing if Block Pump is set.

Auxiliary power supply output 24 Vdc	Auxiliary 24 Vdc power supply output to power external electronic devices.	Imax = 25 mA	The device being powered must not absorb more then 25 mA with a 24 Vdc power supply. Typically it could be a level sensor
Fuses	F1 (Vac power supply input) 800 mA T (delayed) F2 (motor output) 20 A T (delayed) F3 (AC/DC output) 800 mA T (delayed)		
IP Protection Rating	IP 55		
Working temperature	From -10° C to +40°C		
Storage temperature	From -20° C to +60°C		
Humidity	< 90%		
Wiring distances	Max pulser distance	15 mt	
	Max level sensors distance	100 m	
Display limits and Counter	The mobile decimal point: 0.00 -> 99.99 -> 999.9 -> 9999 The maximum quantity which can be dispensed is 9999 units, regardless of the unit of measure set, be it litres, gallons or pints. 		
	PRESET: Maximum settable quantity	9999 litres/gallons/ pints	
Memory storage	The Electronic Controller can store: - Up to 500 drivers - Up to 500 dispensing cycles		

11 USE

11.1 INTENDED USE

The dispensing system was designed and built for the distribution of the product called AdBlue®, D.E.F (Diesel Exaust Fluid) or water.

The following conditions of use must be observed:
Max. temperature of dispensed product: +35 °C.
Min temperature of dispensed product: -11 °C.
Max. temperature of dispensed product permitted by materials: +40°C.
Voltage variation permitted: +/- 5%
Equivalent continuous sound pressure level at the workstation: <75 dB (A)
Make sure the pump is working in its nominal operating range.

CAUTION
Ambient conditions for use

11.2 UNINTENDED USE

CAUTION
Inflammable liquids and explosive atmosphere

THE SELF SERVICE B.SMART **HAS NOT BEEN DESIGNED TO COMPLY WITH THE ATEX DIRECTIVE OR TO OPERATE IN POTENTIALLY EXPLOSIVE ATMOSPHERES.**
DO NOT INSTALL THE SELF SERVICE B.SMART **IN A POTENTIALLY EXPLOSIVE LOCATION.**

The system was not designed for dispensing of diesel, petrol, flammable liquids with flash point <55°C/131°F, or for operation in environments with potentially explosive atmosphere.
The use in the above mentioned conditions is forbidden.

CAUTION
Unenvisaged use

It is strictly forbidden to use the system for purposes other than the ones indicated. Any other use different from the one for which the system has been conceived and described in this manual is considered "MISUSE". Therefore, Piusi S.p.A. shall not be held responsible for any damage caused to people, animals or to the system itself.

11.3 REASONABLY FORESEEABLE MISUSE

The smartphone is an indispensable tool for SELF SERVICE B.SMART to set up and record the dispensings managed by the system, but it is forbidden to use it when dispensing near the dispenser.

CAUTION

Use your smartphone only and exclusively to connect, authenticate and link your device to the transfer pump. When refilling the vehicle, even with non-flammable liquids, the use of the telephone is in any case strongly discouraged as it can cause distractions that can be dangerous.

12 INSTALLATION

FOREWORD

SELF SERVICE B.SMART can be installed outdoors. However, it is advisable to shelter it under a canopy to ensure a longer life and provide more comfort when refilling in bad weather. Installation of the transfer pump must be carried out by specialised personnel and carried out according to the instructions provided in this chapter. If SELF SERVICE B.SMART is not sheltered under a canopy, a "display cover" is provided as protection for the display and keypad.

WARNING Personnel authorised to install the device



All installation procedures must be performed exclusively by qualified and authorised staff. They must:
Install the system in a dry and well ventilated place;
Properly install all the components necessary for the equipment to function properly;
Only use accessories that have been supplied with the system.

CAUTION



The use of accessories that are unsuitable and were not provided with the system is strictly prohibited. Piusi S.p.A. shall not be held responsible for damages caused to people, things or to the environment deriving from failure to meet such instructions.

THE UNIT IS FOR PROFESSIONAL USE ONLY.

The equipment must be installed in a well lit place, in compliance with the norms in force.

The equipment has been designed to be used in a dry environment. If it is installed outdoors, provide adequate protective covering.

The motors are not explosion-proof. Do NOT install in places with explosion hazard.

12.1 STATION POSITIONING

SELF SERVICE should be so positioned as to ensure:
- an easy removal of detachable panels when access to internal components is required.
- compliance with max. distances and difference in height between station and tank
- correct and safe fixing of the body to the ground on a horizontal plane.

Unit position results in the following parameters, characterizing each installation:

Hp: priming height

Ls: total length of suction piping – from foot valve to station (in meters).

Correct operation of the units requires full respect of the following limits:

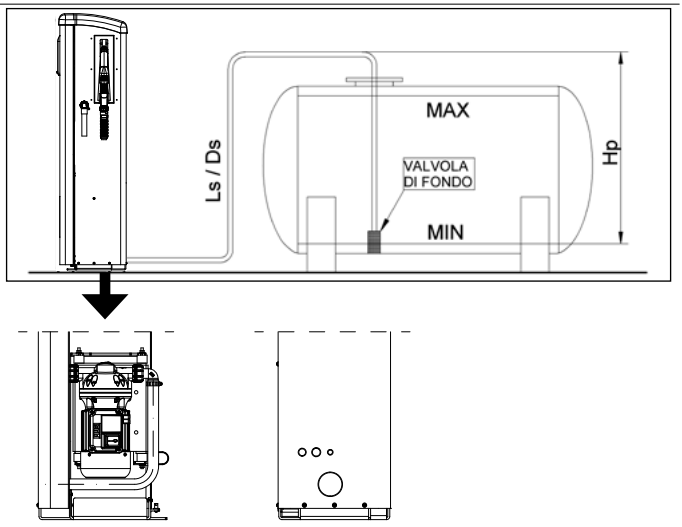
Hp max: not exceeding 3 meters

Ls max: not exceeding 6 meters

12.2 STATION FIXING

The station should be attached to the ground with screw anchors suitable for M12 screws. They must be placed as indicated in the following pictures. The same figure also shows the two possible input positions (hose axis) of the suction hose, for the two types of connection to UNDERGROUND tank or ABOVE GROUND tank.
Before fixing the unit, make sure that the bearing area for station frame is flat and strong.
To facilitate SUCTION line connection, SELF SERVICE B.SMART units are equipped both with rear and BOTTOM inlets.

UNDERGROUND TANK



ABOVE GROUND TANK

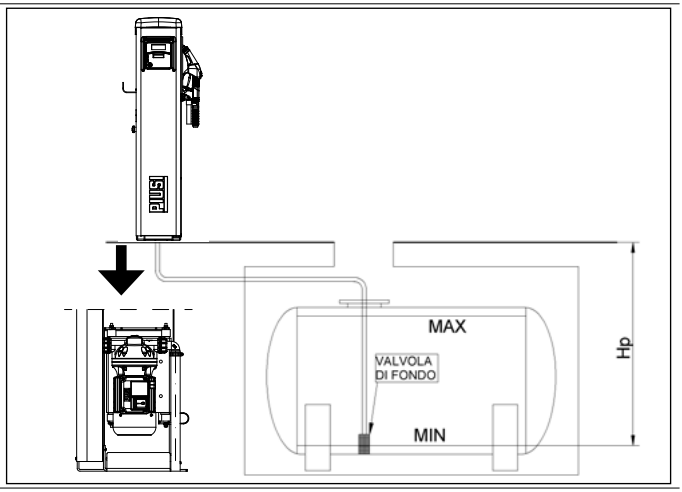
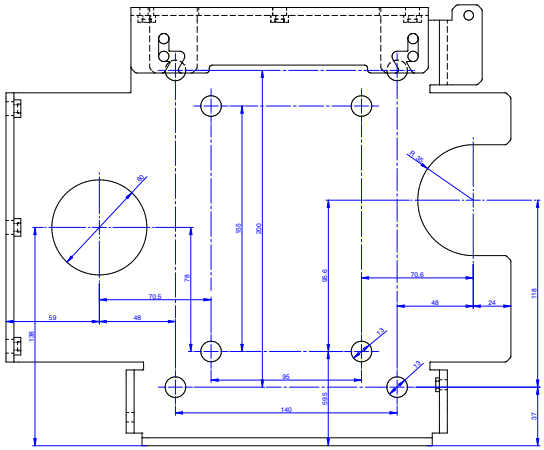


DIAGRAM: FIXING THE UNIT TO THE GROUND



12.3 HYDRAULIC CONNECTIONS

CAUTION

The use of accessories that are unsuitable and were not provided with the system is strictly prohibited. Piusi S.p.A. shall not be held responsible for damages caused to people, things or to the environment deriving from failure to meet such instructions.

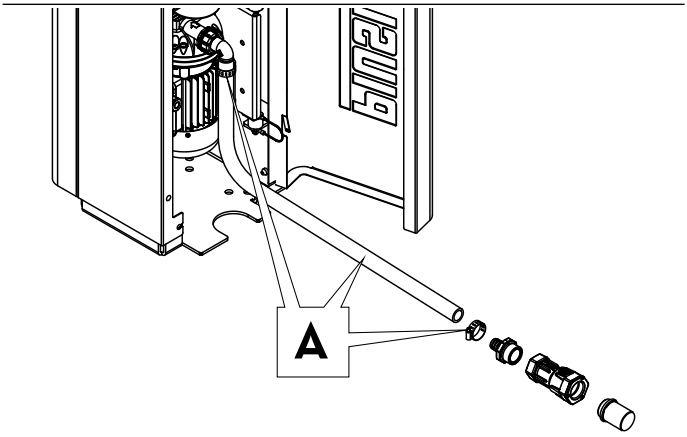
In any case, ALWAYS observe the following WARNINGS!
- Use pipes and joints suitable for operation in vacuum conditions
- Use pipes and accessories suitable for treated fluid. Unsuitable materials can result in serious damage to the pump; they can also cause pollution.
- Do not use conical threaded connectors that could cause damage to the threaded connector on the pump filter if tightened excessively.
- Use wide-radius bends so that pressure losses are reduced to minimum levels.
- Check that suction pipe is perfectly clean and free from scales.
- Install a foot valve equipped with filter at suction pipe end. Place the foot valve on tank bottom. Foot valve and pipe must have the same diameter.
- Before starting installation, make sure that no packing material has been left in the pipes.

SUCTION LINE

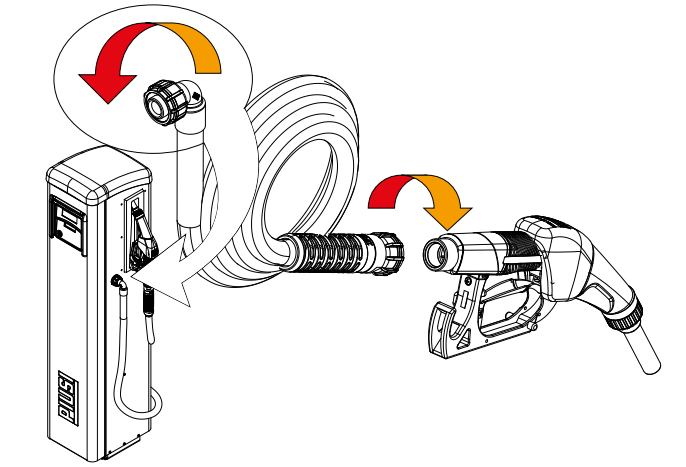
The diameter of the suction line in the Self Service stations should not be lower than 3/4" Gas.
The connector is ø 20 mm (internal pipe diameter)

SUCTION HOOK-UP DIAGRAM

THE HOSE CLAMPS (A) AND SUCTION PIPE ARE NOT INCLUDED



DELIVERY HOOK-UP DIAGRAM



12.4 ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS

The electrical connections must be carried out in a workmanlike manner by specialised personnel, in full compliance with the regulations in force in the country of installation and with the instructions in the electrical diagrams in this manual.

CAUTION

The SELF SERVICE B.SMART Electronic Panel is NOT equipped with circuit breakers; it is therefore essential to install upstream SELF SERVICE B.SMART an electrical power supply panel equipped with a circuit breaker / disconnector with a current rating suitable for the electrical line and a differential switch suitable for the type of electrical load.
Otherwise, provide for a quick disconnection system such as a socket/plug connection to be used in the event of faults.

CAUTION

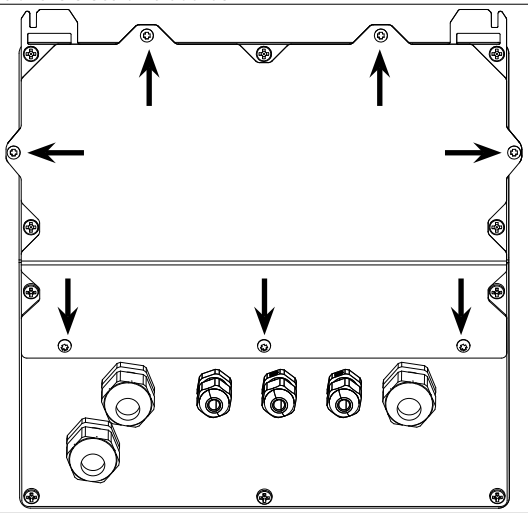
Before accessing the electrical parts, make sure that you have disconnected all the main switches that energize the unit.

The operations required for a correct wiring are described below:

- Opening SELF SERVICE
- Opening the rear cover of the controller
- Closing the rear cover of the controller
- Closing SELF SERVICE

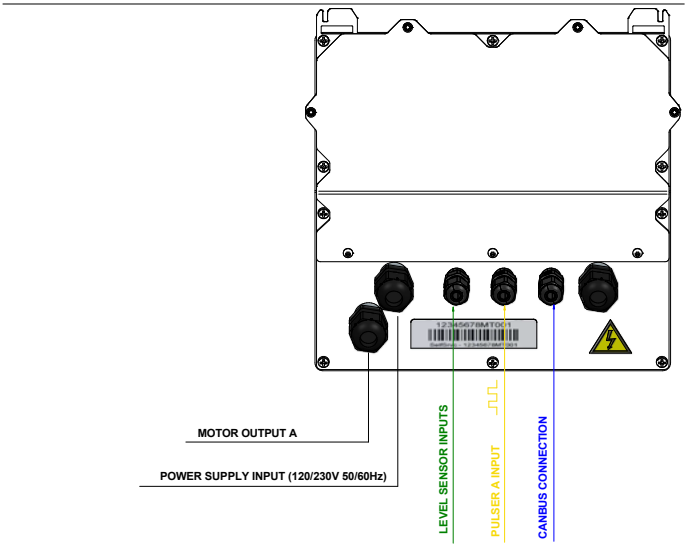
OPENING SELF SERVICE OPENING THE REAR COVER OF THE CONTROLLER

Loosen all 7 screws of the rear cover of the controller to access the compartment of the electronic boards

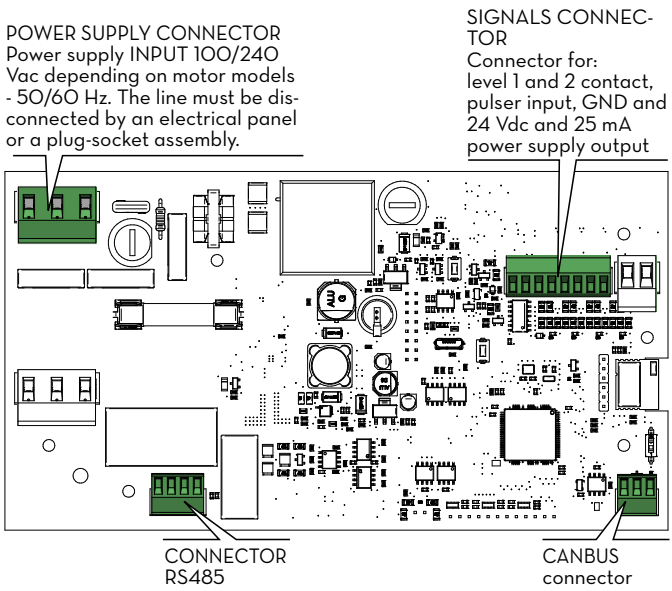


CABLE GLAND CONNECTION

Cable gland connection: the cable glands to be used for the various signals are indicated in order to obtain an optimised cable route inside the controller. Pulser input and motor output are already wired.



Once the cover has been opened, the electronic board and its connectors are accessed:



IN DETAIL:

1
Power supply cable:
Voltage values:

Insert the grounding wire (yellow/green sheath) into the central hole of the terminal, then phase and neutral respectively on the right and left and tighten the wire fixing screws

The electronic controller must be supplied with voltages and frequencies compatible with the motor to be driven:
If the motor is 230 V ac at 50 Hz, the controller must be supplied at the same voltage and frequency (220 V ac – 240 V ac at 50 Hz)

CAUTION

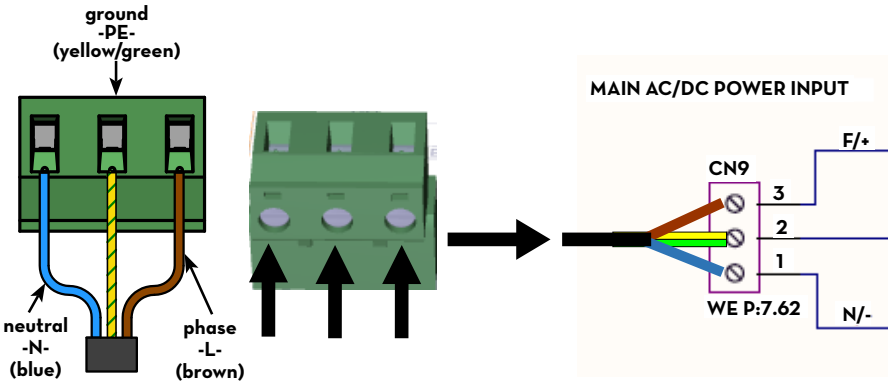
the CABLE CROSS-SECTION must be chosen according to the electrical current absorbed by the motor, which is the device in which almost all the current flows.

Pay attention to the cable specifications:

- **The signal cables and power cables used in this product must have an insulation rating of 300V or more.**
- **The power cable must have a section of AWG 16 or more**

NOTE

The maximum current absorbed by the 230 V motor is 4.2 A



2
SIGNALS connector:

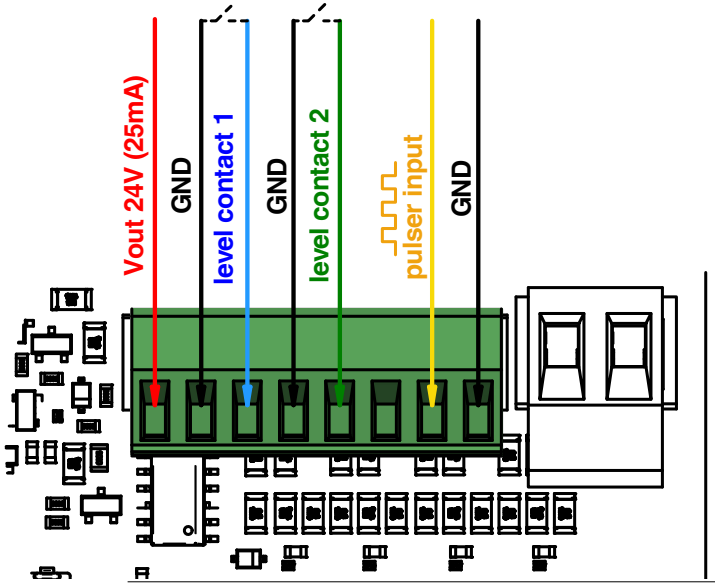
Output 24 V dc and 25 mA, pulser, level 1 and 2 contact.
Tighten the screws on the top of the 8-hole terminal for: level 1 contact, level 2 contact

3
LEVEL CONTACTS ELECTRICAL CONNECTION

With reference to the level 1 contact and level 2 contact, it is necessary to underline that these are configurable contacts which can be used to connect:

- level sensor 4-20mA
- level sensor 0-10V
- Clean contact (switch not necessarily connected to the level sensors inside the tank)

EN

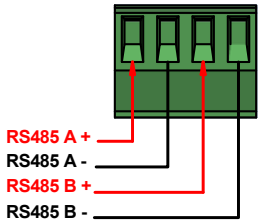


4
Serial connection:

The B.Smart board has two RS485 serial communication channels.
As well as the level contacts on the signals terminal board, it is possible to connect the OCIO detection system to the B.Smart board.

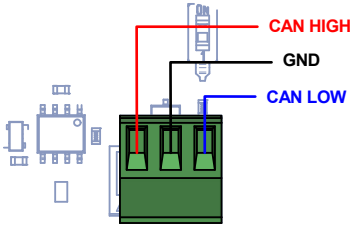
NOTE

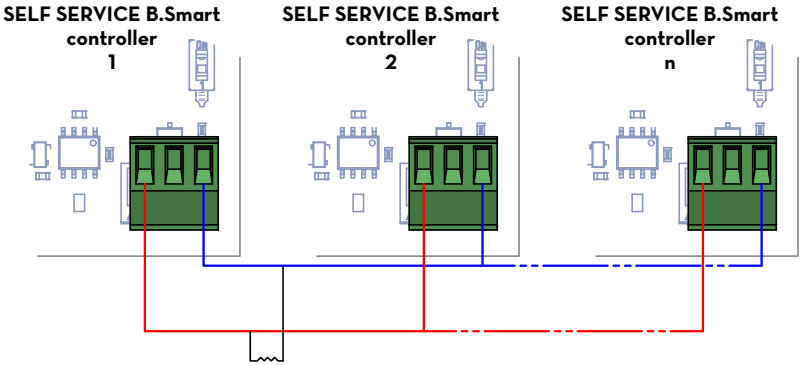
When using OCIO 2.0 on the RS485 connector , DO NOT connect the level contacts 1 and 2 on the signals connector.



5
CANBUS connection:

The controllers can be connected to each other, via CANBUS connection. The figure shows the connector on each individual board and a small diagram showing the connection between x number of controllers.





Insert the 120 ohm resistor provided between CAN HIGH - CAN LOW and connect the resistor output wires to the terminal boards, as shown in the figure.

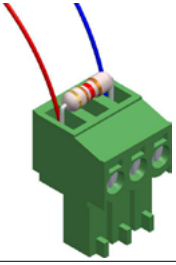
CAUTION

The 120 ohm resistor must be inserted in the CANBUS line ONCE ONLY, as shown in the connection diagram.

NOTE

For the CANBUS connection, it is recommended to:

- **Use a cable with a characteristic impedance of 120 ohms**
- **The length of the connection between the various SELF SERVICE B.SMARTs must not exceed 100 m.**



6
Closing the rear cover of the controller

Replace the cover and tighten the 7 screws

7
Closing SELF SERVICE

Tighten the 2 side screws

EN

13 INITIAL CONFIGURATION

Before use, you must set up your system by connecting your SELF SERVICE B-SMART to the Smartphone App and the dedicated WebApp. This section explains all the steps required for a correct configuration.

To configure the system you need to:
- Turn the controller on.
- Configure the controller via APP;
- Configure the controller via WebApp

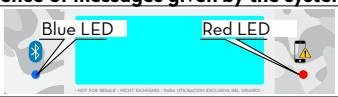
APP Download the PIUSI B:SMART app from your preferred app store

WEBAPP Use the PIUSI WEBAPP available at the following link: https://bsmart.piusi.com/
To log in, enter the username, password and security code you set during registration via the portal.

NOTA All information and instructions regarding the use of the PIUSI APP and the PIUSI WebAPP are available in the respective manuals M0617* and M0618*, which are available in several languages on the website https://www.piusi.com/support/search-manuals

13.1 SWITCHING-ON THE CONTROL PANEL

The following is the sequence of messages given by the system during the switching-on phase

1		**Display, BLUE and RED LEDs light up**
2		**All segments ON**
		**All segments OFF**
3		**The first part of the firmware revision index is shown (in this example r.1.00)**
4		**The last part of the firmware revision index (i = internal) is shown: i.00**
5		**The backlighting of the display and the LEDs turn off and 0.00 appears on the display**

14 START-UP

FOREWORD

To have SELF SERVICE correctly started, carry out the following operations in the indicated order.

ELECTRIC CONNECTIONS

After connecting the unit as described in paragraph H5, SELF SERVICE can be energized by means of the general switch placed by the installer on the line, before the unit.

INITIAL STARTING CONDITIONS

SELF SERVICE is equipped with self-priming pump, which makes initial starting easier. In fact the suction pipe does not need to be filled completely with fluid. However quick priming can only be achieved if the pump is wet, that is if a minimum quantity of fluid is available inside the rotor chamber (this is particularly true when the difference in height between station and tank is remarkable). The pump is supplied with this minimum quantity, ready for use. If the installer believes the pump to be completely dry for any reason (long storage, for example), he shall wet the pump following a procedure at his choice.

14.1 FIRST PRIMING

To prime the pump:

To prime the pump:
- Extract the nozzle from its seat
- ACTIVATE THE DELIVERY (VIA APP, WEBAPP OR I-BUTTON KEY)
- Raise the control lever
- The pump will start immediately and continue running indefinitely until the control lever is turned to the OFF position

CAUTION

Initial priming shall be carried out by qualified personnel, who will be present at all operations involved. If air comes out for over 2 minutes, STOP THE PUMP and make sure that:
• pump is not operating in dry conditions, but that a minimum quantity of fluid is available ("wet conditions")
• suction pipe does not let any air in and that it is completely submersed.
• filters are unclogged
• suction and/or delivery lines are unclogged.
• installation has been carried out respecting the set limits (difference in height, pipe diameter and length).
• The release valve is closed.

Continue dispensing fuel until a steady air-free flow is obtained.
- Release the nozzle lever.
- Put the nozzle back in its seat; the pump stops.

NOTE

Never start or stop the pump by turning on or off the power supply.
- Prolonged contact with some liquids can cause damage. The use of goggles and gloves is recommended.

CAUTION

Fluid leaks can damage objects and injure persons and cause pollution.

CAUTION

During operation the motor may be hot: be careful.

WARNING

For the proper functioning of the system, allow a 20-minute stop for every 20 minutes of dispensing.

CAUTION

Operation of the pump without dispensing is only admitted for periods of no longer than 3 minutes.

WARNING

We recommend that the pump remains switched off whenever the system is not in use.

CAUTION

If ever the voltage is lagging, push the switch to the OFF position and return the nozzle to its rest position with the control lever not activated.

Should any sealants be used on the suction and delivery circuit of the pump, make sure that these products are not released inside the pump

Foreign bodies in the suction and delivery circuit of the pump could cause malfunctioning and breakage of the pump components.

In case of prolonged dry-running of the pump, the suction circuit may be empty and suction may become difficult. If so, fill the suction circuit.

15 FUEL METER CALIBRATION

Before using **SELF SERVICE B.SMART** station, METERING ACCURACY should be checked.

Act as follows:
- Activate delivery using the B.Smart system
- Dispense in a calibrated container
- Compare the quantity of fluid delivered with a calibrated container.

CAUTION

For a correct on accuracy it is essential to observe the following indications:
- **Use a precision sample vessel with a graduated scale with capacity indication of not less than 20 litres.**
- **Before checking, be sure to remove all air from the system, dispensing until a full and regular flow is obtained.**
- **Continuously dispense at the maximum flow rate of SELF SERVICE B.SMART**
- **Stop the flow by quickly closing the dispensing nozzle.**
- **Reach the graduated area of the sample vessel avoiding prolonged low flow rate deliveries, rather making short dispensings at maximum flow rate.**
- **Compare the indication provided by the container with the indication provided by self service B.SMART, after waiting for any foam to disappear.**

If the accuracy is NOT satisfactory, proceed with a CALIBRATION OF THE FUEL METER as indicated in the specific manual.

CAUTION

Differences of up to 1/10 litre on 20-litre dispensings are within the guaranteed accuracy of +/- 0.5%

CAUTION

For dispensings of 2 litres or less, the manufacturer does not guarantee the same metering accuracy.

16 DAILY USE

All SELF SERVICE B.SMART, models guarantee restricted access only to authorized users. The SYSTEM recognizes the User's authorization through two alternative systems:
- REGISTRATION OF THE USER IN THE B.SMART APP
- Insertion of an electronic key

CAUTION



All AUTHORIZED USERS must be properly trained and be aware of at least what is described in this chapter.

The configurability of the B.SMART system allows the User to ENTER additional optional data (vehicle number plate, mileage, quantity to be dispensed). See DIGITAL APP manual FOR ALL DETAILS. If these options are not set, B.SMART recognizes the authorized USER and immediately enables the pump, allowing the dispensing.

CAUTION

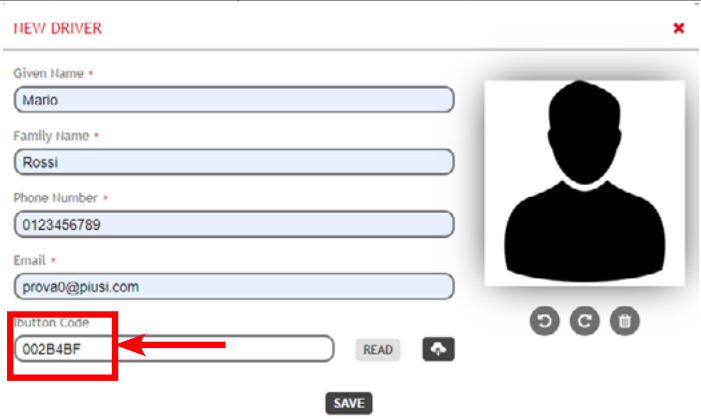


Enabling does not result in the immediate start of the pump; the pump is controlled by a switch (located in the nozzle housing) operated by the user.

The pump starts (if previously enabled) as soon as the control lever is in the ON position, while it switches off as soon as the control lever is in the OFF position. No further manual action is necessary to start or stop the pump.

17 DISPENSING VIA USER KEY (I-BUTTON)

When the manager creates the driver he can add an electronic key (iButton) which is used to perform the access.
To do this, just add the last 7 digits of the hexadecimal code associated with the key to the input of the driver's card in WebAPP (see WebApp manual, chapter "ADD NEW DRIVER").



The i-Button serves as a means of authentication to replace the smartphone. For the dispensing, simply place the iButton on the reader in the controller: authentication takes place, then you can start dispensing.
Dispensings are uploaded to the cloud as soon as a smartphone with an active data connection connects to the controller.

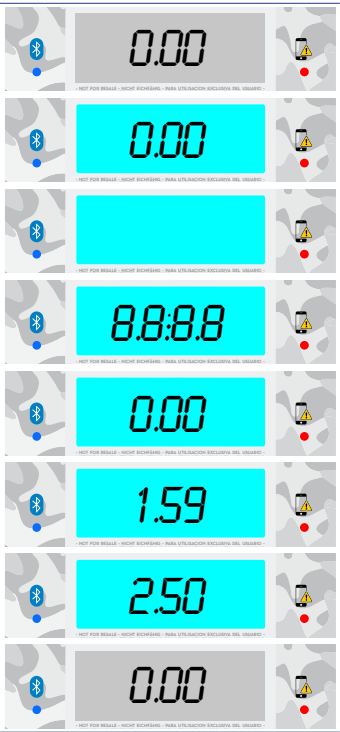
CAUTION

Dispensing via the iButton key is allowed only when the procedures indicated in paragraphs 14.1, 14.2 and 18.1 have been successfully completed using a smartphone and the WebApp.
These procedures are fundamental, as they allow the Manager to configure the system and manage its controllers while at the same time ENABLING THE DRIVER TO DISPENSE VIA A SPECIFIC CONTROLLER.

NOTE

Dispensing via iButton is recommended only when strictly necessary in those case where it is impossible to dispense via a smartphone.
This is because dispensing with iButton does not allow for direct cloud updating, thus compromising the real potential of the system.





Driver authentication via i-Button

Dispensing start

Dispensing end

18 MAINTENANCE

18.1 ROUTINE MAINTENANCE

SELF SERVICE has been designed so as to require minimum maintenance.
However the following ORDINARY inspections and maintenance operations shall be carried out regularly to ensure safety and efficiency of the station,

18.2 STATION MAINTENANCE

Safety warnings

The distribution system has been designed and built to require minimum maintenance.
Before carrying out any maintenance work, disconnect the dispensing system from any electrical power source.
During maintenance procedures, using personal protection equipment (PPE) is mandatory.
Always consider the following recommendations to use the system correctly.

Personnel authorised to perform maintenance procedures

Maintenance procedures must be performed exclusively by qualified personnel. Any misuse may lead to a decline in performance, danger for people and/or things, besides voiding the warranty.

ONCE A WEEK

- Check that the pipe connections are not loose to prevent any leaks

ONCE A MONTH

- Check the pump body and keep it clean and free of any impurities
- Check that the electrical supply cables are in good condition

CAUTION



The maintenance of the electrical parts can 'be done only by qualified installer electrical or electronic.

Before performing any maintenance make sure to unplug the device from the power supply to turn it off and isolate it from the mains.

If the device is sold without cable to provide periodic verification of the circuit grounding in accordance with current regulations

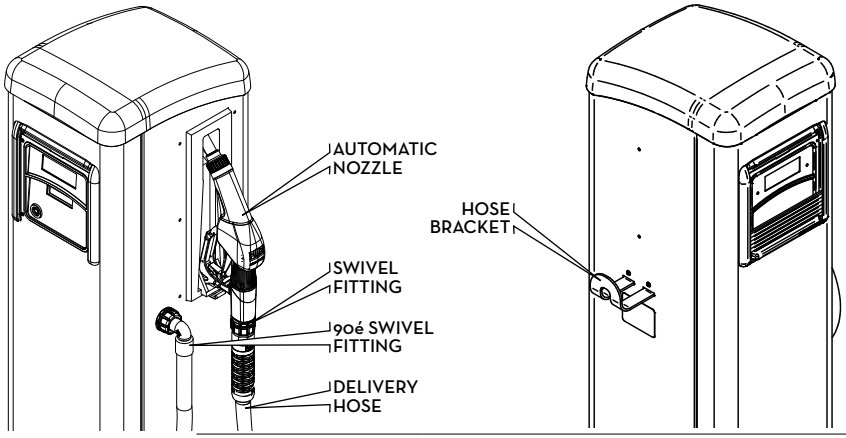
18.3 PUMP AND PIPES MAINTENANCE

Inspect pump, pipes and the other internal components (filter and pulser).
Keep them clean.
Check that no leakage is available on flanged or threaded connections and that flexible hoses do not show any damage.

18.4 DELIVERY AND NOZZLE MAINTENANCE

Keep delivery hose and nozzle clean. Make sure that:

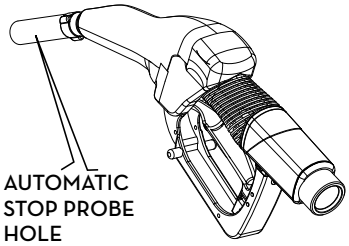
1	Hose does not show any damage caused by vehicle transit
2	Threaded connections are tightened and without any leakage
3	Banjo unions (at station outlet and on nozzle) turn smoothly and show no leakage



4	The hole in the automatic stop probe at the end of the nozzle hose (spout) is always clean.

WARNING

For precise instructions on nozzle SB325_X use and maintenance, see the relative User Manual.



18.5 FILTER REPLACEMENT

WARNING

It is advisable to change the filter once a year. For instructions on how to change the filter, see the relative manual.

18.6 WASHING

Foreword	Washing is useful for removing crystallized product residues from those parts which can come into contact with the air: - Nozzle spout - Bottom valve filter
CAUTION 	**Wear personal protective equipment (PPE) when performing the wash cycle.**
CAUTION 	**When washing the nozzle and suction valve filter, use demineralized water only.**
Disposal	Liquids resulting from washing must be disposed of in accordance with the laws prevailing in the country of use.

18.7 LEAVING THE SYSTEM UNUSED FOR LONG PERIODS OF TIME

Operations to be carried out	Whenever it is thought that the system will remain unused for at least 15 days, it must be emptied in order to prevent the product from crystallising inside. This shall be followed by a washing cycle.

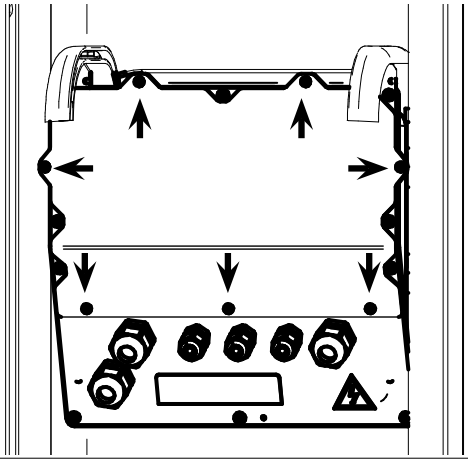
18.8 EXTRAORDINARY MAINTENANCE

CAUTION 	**The maintenance of the electrical parts can 'be done only by qualified installer electrical or electronic.**
	Before performing any maintenance make sure to unplug the device from the power supply to turn it off and isolate it from the mains.
	If the device is sold without cable to provide periodic verification of the circuit grounding in accordance with current regulations
	1 - Firmware update via smartphone, see dedicated section in the APP manual
	2 - Fuse control: to access the fuses it is necessary to open the unit and access the parts that are live during normal use, to operate safely disconnect the general power supply from the unit

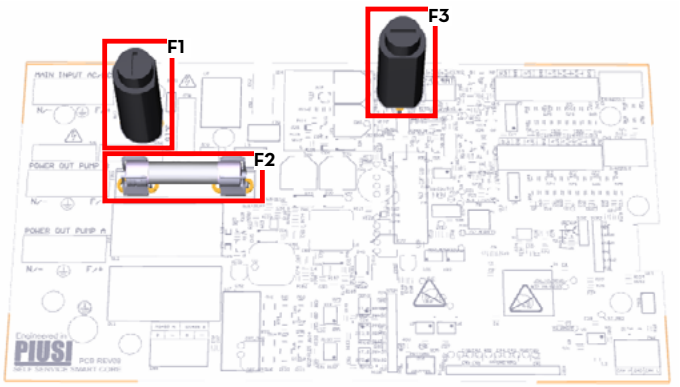
18.9 CHECK AND REPLACEMENT OF FUSES

For checking and replacing fuses on electronic boards:

1	Cut the unit off the power supply;
2	Open the SELF SERVICE B.SMART door to access the controller
3	Loosen the screws of the metal rear cover to access the compartment of the electronic boards



4 Check the condition of the 3 fuses and replace them if necessary



- F1 • Power supply fuse at AC power supply input 800 mA T (delayed)
- F2 • Motor fuse 20 A T (delayed)
- F3 • Power supply fuse at AC/DC converter output 800 mA T (delayed)

5 Tighten the screws of the metal rear cover to close the compartment of the electronic boards and power

19 TROUBLESHOOTING

19.1 MECHANICAL AND HYDRAULIC PROBLEMS

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTIONS
THE MOTOR IS NOT TURNING	Lack of electric power	Reset the external differential switch. Check electrical connections Set the ON/OFF switch on the pump to the ON position.
	Nozzle control level micro-switch broken.	Replace the micro-switch
	Motor problems	If the rotor is blocked, disassemble and check for damage or obstruction and reassemble. Contact the customer service.
THE MOTOR DOES NOT START AGAIN WITH THE NOZZLE CLOSED	Supply voltage too low	Check that the supply voltage is not 5% lower than the normal V.
LOW OR NO FLOW RATE	Excessive suction vacuum	Lower the Self Service in relation to the level of the tank or increase the section of the pipes.
	High pressure drops in the circuit	Use shorter or larger diameter pipes
	Suction pipe resting on the bottom of the tank	Raise the suction pipe
	Low suction tank level	Refill the tank
	Air entering the suction pipe or the pump	Check the tightness of the connections and the level of the fluid in the tank
	Low motor rotation speed	Check the voltage to the motor: adjust the voltage or/and use cables with a greater section
	Check valve blocked	CONTACT THE SERVICE DEPARTMENT
	Tank filter clogged	Clean the filter
	Pump filter clogged	Clean the filter
	AD-BLUE filter clogged	Replace the filter
	Fluid loss	Check the tightness of the connections and the condition of the rubber hoses
	A narrowing in the suction tubing	Use tubing suitable for working under suction pressure
	Freezing of the pump or motor	DO NOT start a frozen pump, it can cause damage to the motor and to the pump itself. Thaw the pump and check for damage
	Leaks in the pump outlet pipe	Check the seal at the pipe's connections and inspect the pipe for possible damage
	Failure to prime	Fill the suction hose with demineralised water
INSUFFICIENT FLOW METER ACCURACY	Presence of air in suction	Check the seals of the connections
	Calibration insufficient	Calibrate the flow meter
THE NOZZLE TRIPS TOO OFTEN	Automatic stop probe hole blocked	Clean the automatic stop probe hole from dirt and/or obstructions
INCREASED PUMP NOISE	Cavitation occurring	Reduce suction pressure
	Irregular functioning of the by-pass	Dispense until the air is purged from the by-pass system
	Presence of air in the liquid to be pumped	Verify the suction connections
LEAKAGE FROM THE PUMP BODY	Pump damage	Contact the Service Department

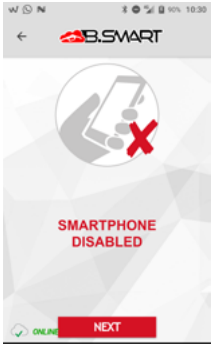
19.2 ELECTRICAL/ELECTRONIC CONNECTIONS

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTIONS
SELF SERVICE B.SMART does not start up	Lack of power due to: • Incorrect connections • Upstream circuit breaker in OFF position • Fuse on power supply interrupted	 Check connections Set circuit breaker to ON position Check fuse
A driver with an electronic key is not recognized	The electronic key has not been associated by the MANAGER	The system MANAGER associates the key to the driver
	The electronic key has been damaged and is no longer recognized by the system	Change the electronic key, the system MANAGER will also have to delete the code of the old key and associate the new key to the driver via WebAPP
The motor does not start	It has not been connected correctly to the terminals provided	Check connections, or (if present) check that the position of the motor switch is in the ON position
Does not count during dispensing	The Pulser that emits the counting signals is not correctly connected	Check connections
	The Pulser that emits the counting signals is NOT compatible with the electronics	The electronics are designed to receive a "clean contact" or "Open Collector" signal as input. If the input signal is an incompatible voltage signal, in addition to the malfunction the electronic board is likely to be damaged
	Pulser board damaged	Replace Pulser board
The counting is not accurate	The system is NOT calibrated	Calibrate the system according to the procedure
The counting is not accurate even after calibration or is only accurate at low flow rates	The signal coming from the Pulser is out of the ranges acceptable by the electronics	The signal received by the pulser must be with max. frequency 300 Hz and Duty Cycle between 10% and 90%. Beyond these ranges, the system does not process the received data correctly. The system must be set within the correct ranges, inserting appropriate electronic interfacing equipment if needed (contact the Technical Assistance service for help with these options).

19.3 PROBLEMS WITH THE SMARTPHONE APP

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTIONS
APP says the driver is not enabled	The manager has not enabled the driver for transfer pump use.	The MANAGER must enable the driver to use the transfer pump via the WebAPP in the section dedicated to drivers
Dispensing from smartphone is not present in the cloud	Dispensing was made with the smartphone with data connection disabled or in an area with poor 2G/3G/4G coverage	Dispensing will be uploaded to the cloud as soon as the APP is opened in an area with 2G/3G/4G coverage. In the meantime it will be stored in the memory of the smartphone and also in the memory of the transfer pump
APP does not see the controller even though Bluetooth is active	Bluetooth module on the smartphone is not compatible with the Bluetooth module in the transfer pump	The Bluetooth module of the transfer pump is compatible with all smartphones that feature the Bluetooth version 4.0 or later (smartphones from 2011 onwards)
	Transfer pump being used by another driver	The transfer pump will become visible on the smartphone only when the driver who is using it has finished operations

20 FAQ

1	**If a driver changes smartphone, is it necessary to create a new account for that driver or can he continue to use what he already had?**	If the driver changes smartphone, he must notify the site manager, who will delete / reset the smartphone - driver association in the WebApp (procedure described in the manual of the WebApp, chapter "DRIVER DETAIL"). The driver can then log in from the APP installed on the new smartphone.
	CAUTION 	**After the manager has deleted the smartphone - driver association, the driver is obliged to access with a smartphone other than the previous one, because access with his credentials is prevented on the old device. To be able to access with the old smartphone, you must first access with a new smartphone, then be reset as user and finally enter with the initial smartphone**
2	**What if a driver loses his smartphone?**	If the driver loses his smartphone, it is necessary to notify the site manager, who will immediately remove the smartphone - driver association. The procedure to be followed is the same as that indicated in question 1.
3	**What if the APP reports that the smartphone is not recognized?**	 Generally it is an error shown when the driver has changed smartphone but has kept the same phone number and the site manager has not reset the user. In this case the driver must contact the manager and inform him of the error shown by the APP. The manager will remove the smartphone - driver association to allow the driver to login from the new smartphone. The procedure to be followed by the manager is the same as that indicated in question 1 (see also the WebApp manual, chapter "DRIVER DETAIL")

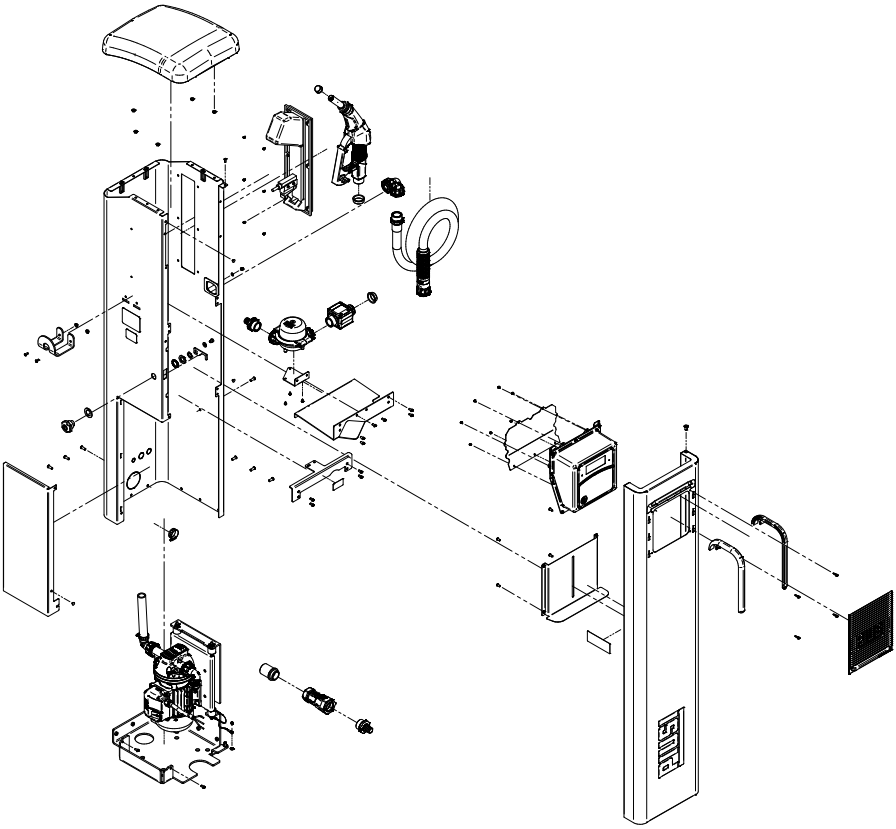
4	**When are dispensings made via iButton or smartphones without an internet connection uploaded to the cloud?**	There are 4 cases in which the dispensings are uploaded to the cloud: • Each time the APP is opened, if the data connection is active • APP open in the background and data connection active • Data synchronization by the manager by pressing the SYNCHRONIZATION key • Every time a driver connects to the controller and the internet connection of the smartphone is active As you can see from the list, the dispensings can be uploaded to the cloud even if your smartphone is not connected to the controller.
5	**What if I can't dispense via authentication with iButton?**	There are a few possible cases: • Dispensing memory full • Tank empty • iButton not associated with any driver In detail: ***Dispensing memory full and tank empty***  *The red LED to the right of the controller display is on. This may indicate problems in the memory (dispensing memory full) or tank empty.* *To empty the dispensing memory, synchronize with the cloud. If the problem is not solved, reset the controller* ***iButton not associated with any driver***  *When the iButton is placed on the reader the display does not light up*

6	**What if a driver changes his phone number and keeps the same smartphone?**	If a driver changes number it is necessary to inform the manager, who will change it from the driver's card in the WebApp (see also the manual of the WebApp, chapter "DRIVER DETAIL").  In the APP, the number is automatically updated the first time you connect to the cloud. From now on the mobile phone number will be the one to be used to access the APP. In addition, in the case of mobile number portability between different mobile operators, it is likely that for a few days the mobile number will be the temporary one, and then the mobile number will be the same again as soon as portability is complete. In this case, during the transition period, there is no need to notify the site manager of the temporary number, you can continue to use your original telephone number.

21 SCRAPPING AND DISPOSAL

Foreword	In case the system should be demolished, its parts must be given to companies specialised in industrial waste disposal and recycling; in particular:
Disposal of Packaging	Packaging consists of biodegradable cardboard that can be given to firms charged with cellulose recovery.
Disposal of Metal parts	The metal components, both painted and in stainless steel, are usually recycled by companies that are specialised in the metal-scrapping industry.
Disposal of electrical and electronic components	These have to be disposed by companies that are specialised in the disposal of electronic components, in accordance with the instructions of 2012/19/UE (see text of Directive below).
Environmental information for customers in the European Comunity 	European Directive 2012/19/UE requires that theequipement bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities.
	Disposing of RAEE equipment as household wastes is strictly forbidden. Such wastes must be disposed of separately.
	Any hazardous substances in the electrical and electronic appliances and/or the misuse of such appliances can have potentially serious consequences for the environment and human health.
	In case of the unlawful disposal of said wastes, fines will be applicable as defined by the laws in force.
Disposal of Other parts	The disposal of other parts such as pipes, rubber seals, plastic components and cables should be entrusted to companies specialized in the disposal of industrial wastes.

22 EXPLODED VIEWS



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