



Payment Solutions OrPAY1000 Installation and Setup Manual

P/N: 817400083

Revision A5

TERMS AND CONDITIONS

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SAFETY CONSIDERATIONS

Carefully read all warnings and instructions, provided to help you install and maintain the equipment safely in the highly flammable environment of a gas station.
Disregarding these warnings and instructions could result in serious injury and property loss or damage. It is your responsibility to install, operate and maintain the equipment according to the instructions in this manual, and to conform to all applicable codes, regulations and safety measures. Failure to do so could void all warranties associated with this equipment.
Ensure that the installation is performed by experienced personnel, licensed to perform work in gas stations and in flammable environments, according to the local regulations and all relevant standards. Do not touch the OrPAY1000 for more than 10 seconds when the ambient temperature is more than 70°C.

WARNING - EXPLOSION HAZARD

Use a separate conduit for intrinsically safe wiring. Do not run any other wires or cables through this conduit, since it may lead to an explosion hazard.
Use standard test equipment only in the non- hazardous area of the fuel station, and approved test equipment for the hazardous areas.
Installation and service must comply with all applicable requirements of the National Fire Protection Association NFPA-30 "Flammable and Combustible Liquids Code", NFPA-30A "Automotive and Marine Service Station Code", NFPA-70 "National Electric Code", federal, state and local codes and any other applicable safety codes and regulations.
Do not perform metal work in a hazardous area. Sparks generated by drilling, tapping and other metal work operations could ignite fuel vapors and flammable liquids, resulting in death, serious personal injury, property loss and damage to you and other persons.

CAUTION - SHOCK HAZARD

Dangerous AC voltages that could cause death or serious personal injury are used to power the equipment. Always disconnect power before working on the equipment. The equipment may have more than one power supply connection point. Disconnect all power before servicing.

WARNING - PASSING VEHICLES

When working in an open area, block off the work area to protect yourself and other persons. Use safety cones or other signaling devices.

WARNING

Substitutions of components could impair intrinsic safety. Use of unauthorized components or equipment will void all warranties associated with this equipment.

CAUTION

Do not attempt to make any repair on the printed circuit boards that reside in the equipment, as this will void all warranties associated with this equipment.

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FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- » Reorient or relocate the receiving antenna
- » Increase the separation between the equipment and receiver
- » Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
- » Consult an authorized dealer or service representative for help

FCC WARNING

Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC Rules.

INTERFERENCE COMPLIANCE

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to two conditions:

- » (1) This device may not cause harmful interference
- » (2) This device must accept any interference that may be received or that may cause undesired operation

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- » (1) l'appareil ne doit pas produire de brouillage, et
- » (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING

EXPLOSION HAZARD — DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE.

AVERTISSEMENT

RISQUE D'EXPLOSION — NE DÉBRANCHEZ PAS L'ÉQUIPEMENT PENDANT QUE LE CIRCUIT EST SOUS TENSION SAUF SI LA ZONE EST RECONNUE COMME EXEMPTÉ D'INFLAMMABLES.

CAUTION

Batteries are not replaceable. Replaceable batteries — Risk of Explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

ATTENTION

Les batteries ne sont pas remplaçables. Batteries remplaçables — Risque d'explosion si la batterie est remplacée par un type incorrect. Mettre au rebut les batteries usagées selon les instructions.

Document Control

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Section 1 Introduction

1.1. General

This manual provides instructions on how to install OrPAY1000, Orpak's flexible and cost-effective outdoor payment and authorization terminal.

1.2. Solution Description

OrPAY1000 is Orpak's next generation of flexible and cost-effective outdoor payment terminals, installed directly onto the dispenser or wall mounted next to it for both attended and unattended activities. The terminal boasts advanced user interface and supports a wide range of payment options, including:

- » Contactless MiFare cards & tags
- » 125KHz tags
- » Magnetic stripe cards
- » 2D barcode scanner for vouchers and coupons



Figure 1-1 - OrPAY1000 - General View

1.3. Manual Structure

Section 1: Introduction

This section provides a general description of the OrPAY1000 outdoor payment terminal.

Section 2: System Overview

This section provides a general description of the OrPAY1000 system.

Section 3: Preliminary Guidelines

This section provides the preliminary installation requirements and procedures to be performed before installing the OrPAY1000 system.

Section 4: Installation

This section provides instructions for installing the OrPAY1000.

Section 5: Device Setup

This section provides instructions for setting up the OrPAY1000.

Section 6: Maintenance

This section provides maintenance instructions for the OrPAY1000.

Section 7: Troubleshooting

This section provides a comprehensive troubleshooting guide for OrPAY1000.

1.4. Documentation Conventions

This manual uses the following conventions:



Warning notes contain information that, unless strictly observed, could result in injury or loss of life.



Caution notes contain information that, unless strictly observed, could result in damage or destruction of the equipment or long-term health hazards to personnel.



Notes contain helpful comments or references to material not covered in the manual.



Best practice notes contain helpful suggestions.



Example notes contain additional information to illustrate a concept/procedure.

Section 2 System Overview

2.1. General

This section provides a detailed description of the OrPAY1000 system, as well as the available configurations, system specifications, and communication standards.

2.2. Main Features

The OrPAY1000 payment terminal is small enough to fit in any standard pump head or pedestal, yet provides an amazingly efficient advanced user interface with its 4.3" multimedia color display, 4 screen addressable keys, and full alphanumeric vandal proof 40-key keyboard. Additionally, the device enables various communication interfaces such as LAN, RS-485 to the station controller (FCC), or POS.

OrPAY1000 is designed specifically as a pay at the pump solution at retail sites for cash or fleet card fuel purchases, forecourt promotions, local accounts, loyalty schemes, and attendant management. In addition, OrPAY1000 features simplicity, while enabling all common authorization methods as well as simple data entry by drivers utilizing the terminal's keyboard (see [Figure 2-1](#)).



Figure 2-1 - OrPAY1000 Main Components



Note: OrPAY1000 is supplied **without** a power supply. See [Power Supply Requirements](#) for further details and requirements.

2.3. Available Configurations

OrPAY1000 is available in several configurations, depending on its intended use and which pump card is installed. This section describes each of the configurations available and their intended function.

2.3.1. Current Loop

OrPAY1000 with an embedded Current Loop card is intended for pumps that use current loop communication such as Wayne, Bennett, or Gilbarco.

The following lists the P/Ns for available OrPAY1000 configurations with an embedded Current Loop card:

- » **OrPAY1000 Pump Interface with 4xCL:** 819527850
- » **OrPAY1000 Pump Interface with 2xCL:** 819527852

The following displays and lists the electrical specifications and limitations for the OrPAY1000 with an embedded Current Loop pump card (see [Table 2-1](#), [Figure 2-2](#)):

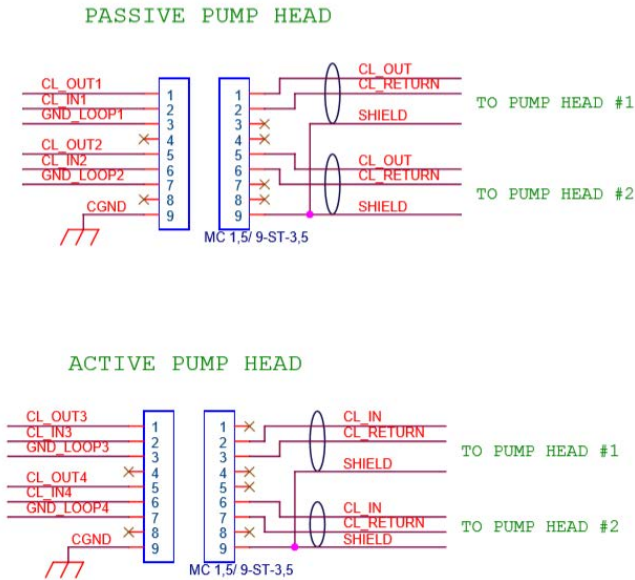


Figure 2-2 - Current Loop Connections Diagram

Table 2-1 - OrPAY1000 with Current Loop Specifications

Parameter	Value
Voltage	12V
Current	20mA or 45mA, SW configurable

The following pinout is required for the LAN to Current Loop configuration (see [Table 2-2](#)):

Table 2-2 - Current Loop Connector Pinout

9	8	7	6	5	4	3	2	1
E		G	-	+		G	-	+
		Channel 2				Channel 1		

2.3.2. MPI-C

OrPAY1000 with an embedded MPIC-MSR card (P/N 819527860) authorizes the dispenser to start a sale transaction. Without this authorization signal, the electric valve (or pump) will not open and the sale transaction will not begin. The MPI-C card switches the AC power signal (in and out signals) to the valve. Each MPI-C card supports 2 mechanical pumps.



Note: MPI-C I/O is low voltage only.

The following displays and lists the electrical specifications and limitations for the OrPAY1000 with an embedded MPIC-MSR pump card (see [Figure 2-3](#), [Table 2-3](#)):

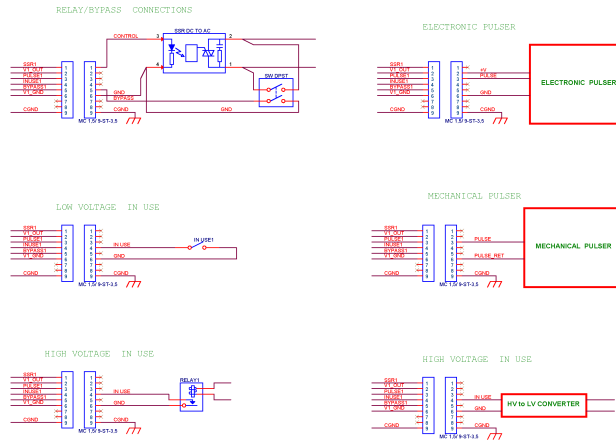


Figure 2-3 - MPI Connections Diagram

Table 2-3 - OrPAY1000 with MPIC-MSR Specifications

Parameter	Value
Pulse Input Voltage	<ul style="list-style-type: none"> >> 3V to 15V for positive pulses >> -3V to -15V for negative pulses
Pulse Rate	5kHz
SSR Output Voltage	12V @ 50mA
IN Use/Bypass Input Voltage High	5V to 15V (can also support dry contact input)
IN Use/Bypass Input Voltage Low	0V to 1V

The following details the MPI-C pinout (see [Table 2-4](#)):

Table 2-4 - MPI-C Pinout

9	8	7	6	5	4	3	2	1
E			GND	BYPASS	INUSE	PULSE	VOUT	SSR
Channel 1/2								

2.3.3. Tokheim

OrPAY1000 with an embedded Tokheim card (P/N 819527875) is intended for Tokheim brand pumps, used to convert the the LAN into Tokheim (and vice versa).

The following lists the electrical specifications and limitations for the OrPAY1000 with an embedded Tokheim pump card (see [Table 2-5](#), [Figure 2-4](#)):

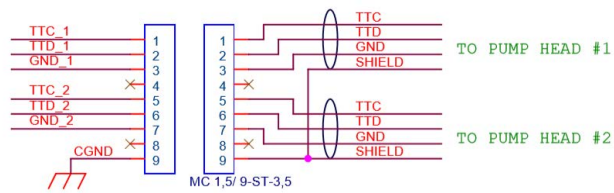


Figure 2-4 - Tokheim Connections Diagram

Table 2-5 - OrPAY1000 with Tokheim Specifications

Parameter	Value
Voltage	5V to 12V

The following pinout is required for the LAN to Tokheim configuration (see [Table 2-6](#)):

Table 2-6 - Tokheim Connector Pinout

9	8	7	6	5	4	3	2	1
E		COM	TTD	TTC		COM	TTD	TTC
		Channel 2/4				Channel 1/3		

2.3.4. RS-485

OrPAY1000 with an embedded RS-485 card (P/N 819527870) is required when connecting fuel pumps and other serial devices to the homebase controller that uses TCP/IP communication.

The following lists the electrical specifications and limitations for the OrPAY1000 with an embedded RS-485 pump card (see [Table 2-7](#), [Figure 2-5](#)):

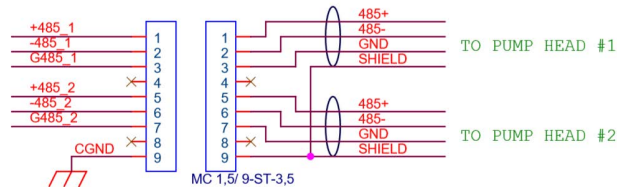


Figure 2-5 - RS-485 Connections Diagram

Table 2-7 - OrPAY1000 with RS-485 Specifications

Parameter	Value
Baud Rate	SW configurable

The following pinout is required for the LAN to RS-485 configuration (see [Table 2-8](#)):

Table 2-8 - RS-485 Connector Pinout

9	8	7	6	5	4	3	2	1
E		G	-	+		G	-	+
		Channel 2/4				Channel 1/3		

2.4. Specifications


The following details OrPAY1000's specifications and external interfaces.

2.4.1. General Specifications

The following table details the general specifications for OrPAY1000 (see [Table 2-9](#)):

Table 2-9 - General Specifications

Parameter	Value
PHYSICAL	
Dimensions (HxWxD)	164 mm x 179 mm x 35.5 mm (6.456" x 7.047" x 1.397")
Weight	600 grams
Rear Panel (HxW)	149 mm x 135 mm (5.866" x 5.314")
Rear Panel - cable door (HxW)	157.2 mm x 43.6 mm (6.188" x 1.716")
ELECTRICAL	
Input Voltage	24VDC \pm 10% (terminal can be operated in the range 12-24VDC depending on local rules)
Power Consumption	4A
ENVIRONMENTAL	
Operational Temperature	-40°C \leq Ta \leq +65°C -30°C \leq Ta \leq +60°C (with barcode reader)
Storage Temperature	-40°C \leq Ta \leq +85°C
Humidity	95% non-condensing
Vibration	IEC 60945 §8.7
Ingress Protection	IP65

Parameter	Value
Certifications	
	<ul style="list-style-type: none"> » CE » FCC ISED Canada » ATEX zone 2 II 3G Ex nA IIB T4 IP65 Gc » cULus Class I Division 2, Groups A, B, C & D Hazardous Locations <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p>UL Notes:</p> <p>T-code T3C:</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>THE UNIT IS TO BE MOUNTED ON A SUITABLE ENCLOSURE SUCH THAT FIELD WIRING REMAINS INTERNAL AND THAT IT BE ACCESSIBLE ONLY WITH THE USE OF A TOOL. SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C, D HAZARDOUS LOCATIONS ONLY</p> </div> </div> </div> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p>Note: This is not an exhaustive list and requirements may differ from country to country.</p> </div>

2.4.2. External Interfaces

The following details the various types of ports supported by OrPAY1000.

2.4.2.1. Serial Port

OrPAY1000 supports the following serial ports:

- » RS232-level, 5-wire (RxD, TxD, RTS, CTS, GND)
- » Unshielded RJ45 female connector
- » Wired as Data Terminal Equipment (see [Table 2-10](#))

Table 2-10 - Serial Port Pinout

Pin	Signal
1	TX1
2	RX1
3	GND
4	485_1-
5	485_1+
6	GPIO
7	TX2
8	RX2
9	GND
10	485_2-
11	485_2+
12	E
13	V-
14	V+

2.4.2.2. USB Port

The USB-A connector with standard pin-out is in the following table (see [Table 2-11](#)):

Table 2-11 - USB Port Pinout

Pin	Signal
1	+5V
2	D-
3	D+
4	GND

2.4.2.3. LAN Port

OrPAY1000 supports the following LAN ports:

- » Ethernet
- » 10/100 baseT
- » Shielded RJ45 female connector (see [Table 2-12](#))

Table 2-12 - LAN Port Pinout

Pin	Signal
1	TX+
2	TX-
3	RX+
4	n.c.
5	n.c.
6	RX-
7	n.c.
8	n.c.

2.4.3. Pump Interface

The following details the various types of pump interfaces supported by OrPAY1000.




ATENÇÃO: 1. NÃO ABRA ENQUANTO UMA ATMOSFERA EXPLOSIVA ESTIVER PRESENTE. 2. LEIA E SIGA AS INSTRUÇÕES DO MANUAL DE INSTALAÇÃO DO FABRICANTE. Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.														Segurança Ex ec IIB T4 Gc																		
Este produto contém o dispositivo OrPAY1000, código de homologação Anatel														TUV 17.2201		INMETRO		QCP 0004		02924-18-11371												
WIRING CONNECTION 14 PIN														9-PIN									9-PIN									
POWER (+)	POWER (-)	GND	RS-485+(sw)	RS-485-(sw)	GND	RS-232 Rx (sw)	RS-232 Tx (sw)	GPI/O	RS-485 (+)	RS-485 (-)	GND	RS-232 Rx	RS-232 Tx	MPL-C B.XX	SSR1	PLS V1	PLS1	IN USE1	BYP S1	GND1	485+	485-	CHASSIS	SSR2	PLS V2	PLS2	IN USE2	BYP S2	GND2	N.C	GND	CHASSIS
14	13	12	11	10	9	8	7	6	5	4	3	2	1	RS-485 T.K C.L	1	2	3	4	5	6	7	8	9	µSD			LAN					

Figure 2-6 - Wiring Connection Label

2.4.3.1. PI 4xCL

Table 2-13 - PI 4xCL-CN1

Pin	Channel	Description	Comm. Interface	Comm. Type
1	CH1	C.L. (+)	EXT1	RS-232
2	CH1	C.L. (-)	EXT1	RS-232
3	CH1	Logic GND	EXT1	RS-232
4	n.c.	n.c.		
5	CH2	C.L. (+)	EXT2	RS-232
6	CH2	C.L. (-)	EXT2	RS-232
7	CH2	Logic GND	EXT2	RS-232
8	n.c.	n.c.		
9		Protection Earth		

Table 2-14 - PI 4xCL-CN3

Pin	Channel	Description	Comm. Interface	Comm. Type
1	CH3	C.L. (+)	EXT3	RS-232
2	CH3	C.L. (-)	EXT3	RS-232
3	CH3	Logic GND	EXT3	RS-232
4	n.c.	n.c.		
5	CH4	C.L. (+)	EXT4	RS-232
6	CH4	C.L. (-)	EXT4	RS-232
7	CH4	Logic GND	EXT4	RS-232
8	n.c.	n.c.		
9		Protection Earth		

2.4.3.2. PI 2xCL

Table 2-15 - PI 2xCL-CN1

Pin	Channel	Description	Comm. Interface	Comm. Type
1	CH1	C.L. (+)		
2	CH1	C.L. (-)		
3	CH1	Logic GND		
4	n.c.	n.c.		
5	CH2	C.L. (+)		
6	CH2	C.L. (-)		
7	CH2	Logic GND		
8	n.c.	n.c.		
9		Protection Earth		



Figure 2-7 - Current Loop Board

2.4.3.3. PI 2xMPIC-MSR

Table 2-16 - PI 2xMPIC-MSR - CN1

Pin	Channel	Function	Description	Comm. Interface	Comm. Type
1	CH1	SSR1	Control: Active high 12V		
2	CH1	PLS1_V	Pulse power: 12V Out		
3	CH1	PLS1_IN	Pulse in: Active Low (5V Internal pull-up)		
4	CH1	USE1_IN	In use: Active Low (5V Internal pull-up)		
5	CH1	BYPS1_IN	Bypass: Active Low (5V Internal pull-up)		
6	CH1	GND1			
7	n.c.	n.c.	n.c.		
8	n.c.	n.c.	n.c.		
9		Earth	Protection Earth		

Table 2-17 - PI 2xMPIC-MSR - CN3

Pin	Channel	Function	Description	Comm. Interface	Comm. Type
1	CH2	SSR2	Control: Active high 12V		
2	CH2	PLS2_V	Pulse power: 12V Out		
3	CH2	PLS2_IN	Pulse in: Active Low (5V Internal pull-up)		
4	CH2	USE2_IN	In use: Active Low (5V Internal pull-up)		
5	CH2	BYPS2_IN	Bypass: Active Low (5V Internal pull-up)		
6	CH2	GND2			
7	n.c.	n.c.	n.c.		
8	n.c.	n.c.	n.c.		
9		Earth	Protection Earth		



Figure 2-8 - MPI-C Board

2.4.3.4. PI 4xTK

Table 2-18 - PI 4xTK - CN1

Pin	Channel	Function	Description	Comm. Interface	Comm. Type
1	CH1	CH1_TTC	Talks to console		
2	CH1	CH1_TTD	Talks to dispenser		
3	CH1	CH1_G	GND		
4	n.c.	n.c.	n.c.		
5	CH2	CH2_TTC	Talks to console		
6	CH2	CH2_TTD	Talks to dispenser		
7	CH2	CH2_G	GND		
8	n.c.	n.c.	n.c.		
9		Earth	Protection Earth		

Table 2-19 - PI 4xTK - CN3

Pin	Channel	Function	Description	Comm. Interface	Comm. Type
1	CH3	CH3_TTC	Talks to console		
2	CH3	CH3_TTD	Talks to dispenser		
3	CH3	CH3_G	GND		
4	n.c.	n.c.	n.c.		
5	CH4	CH4_TTC	Talks to console		
6	CH4	CH4_TTD	Talks to dispenser		
7	CH4	CH4_G	GND		
8	n.c.	n.c.	n.c.		
9		Earth	Protection Earth		

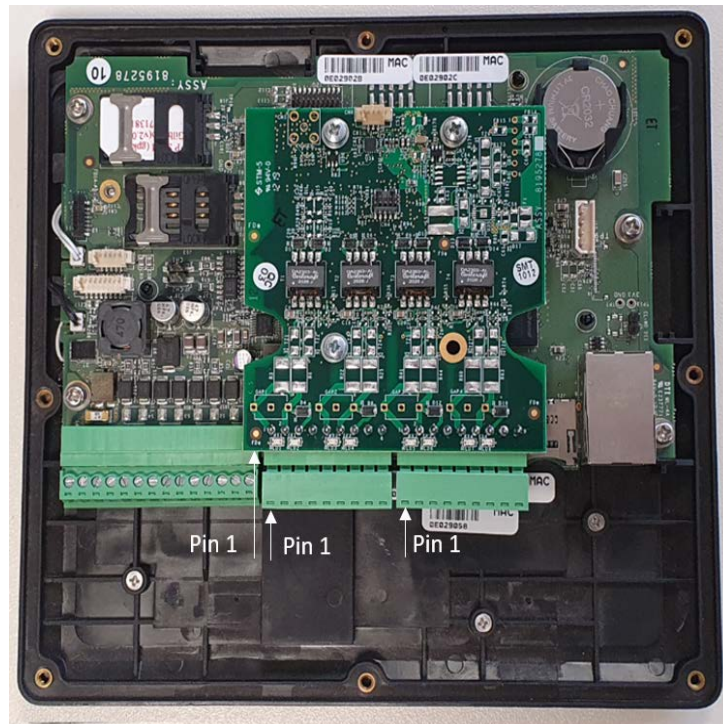


Figure 2-9 - Tokheim Board

2.4.3.5. PI 4x485

Table 2-20 - PI 4x485 - CN1

Pin	Channel	Function	Description	Comm. Interface	Comm. Type
1	CH1	CH1_RS485+	RS485+		
2	CH1	CH1_RS485-	RS485-		
3	CH1	CH1_G	GND		
4	n.c.	n.c.	n.c.		
5	CH2	CH2_RS485+	RS485+		
6	CH2	CH2_RS485-	RS485-		
7	CH2	CH2_G	GND		
8	n.c.	n.c.	n.c.		
9		Earth	Protection Earth		

Table 2-21 - PI 4xTK - CN3

Pin	Channel	Function	Description	Comm. Interface	Comm. Type
1	CH3	CH3_RS485+	RS485+		
2	CH3	CH3_RS485-	RS485-		
3	CH3	CH3_G	GND		
4	n.c.	n.c.	n.c.		
5	CH4	CH4_RS485+	RS485+		
6	CH4	CH4_RS485-	RS485-		
7	CH4	CH4_G	GND		
8	n.c.	n.c.	n.c.		
9		Earth	Protection Earth		

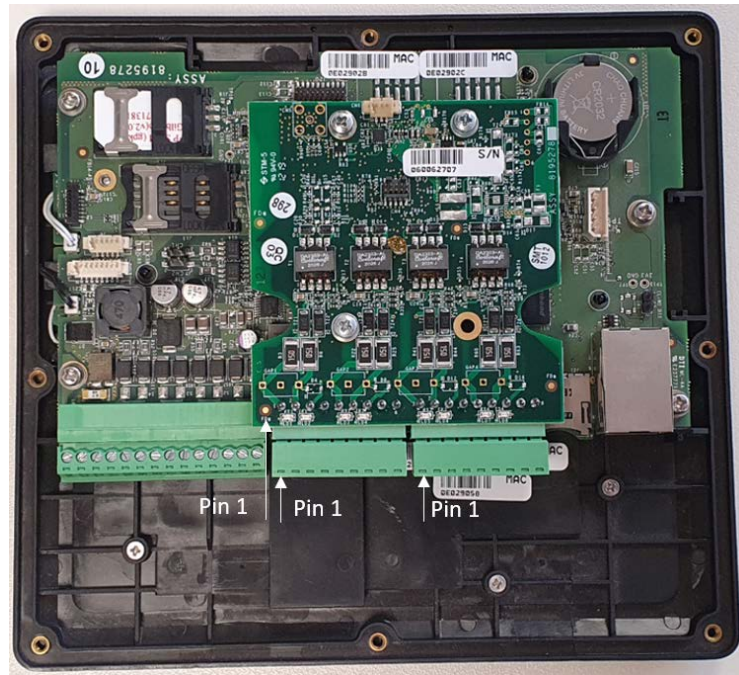


Figure 2-10 - RS-485 Board

Section 3 Preliminary Guidelines

3.1. General

This section provides preliminary guidelines for the OrPAY1000. These include:

- » [Precautions and Safety Information](#)
- » [Preliminary Considerations](#)
- » [Installation Kit](#)
- » [Required Tools](#)

3.2. Precautions and Safety Information

This section details the hazards and safety precautions associated with installing, inspecting, maintaining, or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, or electrical shock could occur and cause death or serious injury if these safe service procedures are not followed.

Preliminary Precautions

You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain, or service this equipment.

Emergency Total Electrical Shut-Off

The first and most important information you must know is how to stop all fuel flow to the pump and island. Locate the switch or circuit breakers that shut-off all power to all fueling equipment and dispensing devices.

Total Electrical Shut-Off Before Access

Any procedure requiring access to electrical components or the electronics of a pump / dispenser requires total electrical shut-off of that unit. Know the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing.

Evacuation, Barricading, and Shut-Off

Any procedures requiring accessing a pump / dispenser head requires the following three actions:

- » An evacuation of all unauthorized persons and vehicles
- » Using safety tape or cones as barricades for the effected units
- » A total electrical shut-off of the unit

Read the Manual

Read, understand, and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, contact Orpak's Customer Service. It is imperative for

your safety, and the safety of others, to understand the procedures before beginning work.

Follow the Regulations

There is applicable information in Occupational Safety and Health regulations, and national, state, and local codes, which must be followed. Failure to install, inspect, maintain, or service this equipment in accordance with these codes, regulations, and standards may lead to legal citations with penalties, or affect the safe use and operation of the equipment.

Replacement Parts

Use only genuine Orpak replacement parts and retrofit kits in your installation. Using parts other than genuine Orpak replacement parts could create a safety hazard and violate local regulations. Repair should only be done by authorized personnel certified by Orpak.

Only Suitably certified and rated SELV and LPS external power supply may be connected to the terminal unit.

Prevent Explosions and Fires

Fuels and their vapors will become explosive if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause explosive vapors in the vicinity of dispenser or island.



Warning: Do not open the unit when an explosive atmosphere is present.



Caution: Batteries are not replaceable. Replaceable batteries — Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.



Attention: Les batteries ne sont pas remplaçables. Batteries remplaçables — Risque d'explosion si la batterie est remplacée par un type incorrect. Mettre au rebut les batteries usagées selon les instructions.

No Open Flames

Open flames from matches, lighters, welding torches, or other sources can ignite fuels and their vapors.

No Sparks - No Smoking

Sparks from starting vehicles, starting or using power tools, burning cigarettes, cigars or pipes can also ignite fuels and their vapors. Static electricity, including an electrostatic charge on your body, can cause a spark sufficient to ignite fuels and their vapors. After getting out of a vehicle, touch the metal of your vehicle to discharge any electrostatic charge before you approach the dispenser island.

Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Be familiar with Cardiopulmonary Resuscitation (CPR) methods if you are working with or around high voltages. This information is available from the Red Cross. Always advise the station personnel about where you will be working, and caution them not to activate power while you are working on the equipment. Use the OSHA Lock-Out and Tag-Out procedures.

Working With Electricity Safely

Be sure to use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion, or electrical shock. Be sure grounding connections are properly made. Make sure that sealing devices and compounds are in place. Be sure not to pinch wires when replacing covers. Follow OSHA Lock-Out and Tag-Out requirements. Station employees and service contractors need to understand

and comply with this program completely to ensure safety while the equipment is down.

Hazardous Materials

Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Be sure to clean hands after handling equipment. Do not place any equipment in mouth.

Informing Emergency Personnel

Compile the following information for emergency personnel:

- » Location of accident (e.g. address, front / back of building, etc.)
- » Nature of accident (e.g. possible heart attack, run over by car, burns, etc.)
- » Age of victim (e.g. baby, teenager, middle-age, elderly, etc.)
- » Whether or not victim has received first aid (e.g. stopped bleeding by pressure, etc.)
- » Whether or not victim has vomited (e.g. if swallowed or inhaled something, etc.)



Warning: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.



Note: The maximum available current from the building installation (AC / DC power supply) shall be less than 85A under any single fault condition.

North American Directives

For UL standard for North America, "TYPE 4 Enclosure" must be stated in the instructions.

European Directives

The OrPAY1000 complies with the necessary European Directives for the CE mark.



3.3. Preliminary Considerations

The following factors need to be considered in designing an installation for the OrPAY1000:

Physical Dimensions

The following displays the physical dimensions of OrPAY1000 (see [Figure 3-1](#)):

ATEX (Explosive Atmospheres): The OrPAY1000 has openings that prevent it being gas-tight, and consequently it must be located away from any hazardous zone. Refer to local laws and regulations for hazardous zones to determine a suitable mounting arrangement for the OrPAY1000. The enclosure in which the OrPAY1000 is mounted should also be designed to prevent a dangerous build-up of explosive gases.

Security

The enclosure must provide sufficient physical security to protect the public from the hazards within, as well as reduce the possibility of tampering with the outdoor payment terminal.

Power & Data

- a. The enclosure must provide mains power with the following requirements:
 - » A permanently-wired connection or a socket
 - » A protective earth connection
- b. The enclosure must provide an Ethernet data connection with the following requirements:
 - » Capable of at least 10Mbps (preferably 100Mbps)
 - » The connection must be either a socket into which a standard Ethernet patch cable can be connected, or a cable that is terminated in a standard RJ45 plug suitable for direct connection into the outdoor payment terminal's LAN socket
 - » Minimum cable standard should be CAT5e STP (Shielded)
- c. The enclosure may provide an alternative data connection for terminals that have optional communications modules installed. Please consult with Orpak for what options are available

Accessibility

The enclosure must be designed and mounted so that disabled persons are able to operate the outdoor payment terminal.

Materials

The enclosure and all its components must be constructed of durable materials suitable for the intended location.

Water Tightness

The OrPAY1000 is rated for IP65 on its display and keyboard. The parts sitting inside the pump / pedestal enclosure are designed to reduce the likelihood of rain drops entering the electronics, but the enclosure must provide good protection from water. The door should have a water seal against the enclosure, and there should also be drainage and / or a system to reduce excessive condensation build-up and dripping.

3.3.1. Power Supply Requirements

The OrPAY1000 kit does not include a power supply, customers must provide their own power supply when designing the installation. The power supply must be compliant with the following protocols:

- » Use an external AC to DC or DC to DC switching power supply transformer, make sure it is an approved model according to local regulations and in compliance with IEC 60950-1 normal location safety standards
- » Maximum low voltage / low current: 200VA, even under fault conditions
- » When using an AC to DC transformer, use ONLY one of the following:
 - » SELV & Limited Power Source (marked **LPS**)
 - » NEC Class III

3.3.1.1. AC to DC Power Supply

- » Output voltage: 12-24VDC (stabilized) 4A Minimum
- » Degree of Protection: IP65 or higher
- » Operating temperature: -40°C to 70°C
- » Storage Temperature: -40°C to +85°C
- » Operating humidity: 95% RH non-condensing

The power supply may be installed in any of the following locations, per customer requirements:

- » Office
- » Pedestal
- » Tanker Truck Cabin (DC to DC power supply only)
- » Stand alone box
- » On the dispenser head in an authorized location, approved by the dispenser manufacturer for the specific region



Note: For installations where more than one OrPAY1000 draws from a single power supply, consult with Orpak Tech Support to recalculate current consumption and power supply requirements.

3.4. Installation Kit

The following table details the available installation kits for the OrPAY1000 (see [Table 3-1](#), [Table 3-2](#), [Table 3-3](#)):

Table 3-1 - L-Bracket Installation Kit

Description	Image (front)	Image (rear)
Mounting screws stainless Steel, M4x12 mm (x4)		
Rubber isolator (one for each wire)		



Description	Image (front)	Image (rear)
L - bracket		

Table 3-2 - Surface Mounting Bracket (with Place Holders) Installation Kit




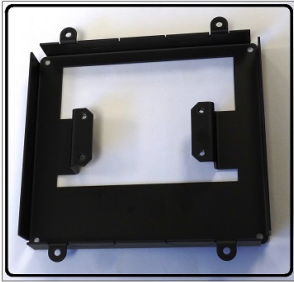

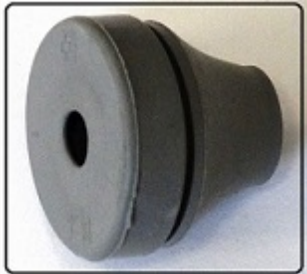

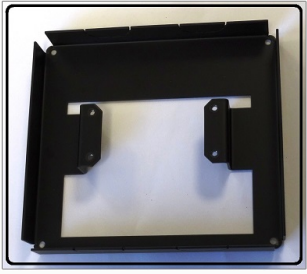
Description	Image (front)	Image (rear)
Mounting screws stainless Steel, M4x12 mm (x4)		
Rubber isolator (one for each wire)		
Surface mounting bracket with place holders		

Table 3-3 - Surface Mounting Bracket (without Place Holders) Installation Kit

Description	Image (front)	Image (rear)
Mounting screws stainless Steel, M4x12 mm (x4)		
Rubber isolator (one for each wire)		
Surface mounting bracket without place holders		

3.5. Required Tools

The following tools are required to mount the OrPAY1000:

- » Torx T20 screw driver
- » Philips #1, or Flat 5 mm screw driver
- » Side cutters (to trim the cable ties)
- » Cable ties



Warning: Do **NOT** use power tools if working on a fuel station forecourt. Any spark could cause an explosion.

Section 4 Installation

4.1. General

This section provides instructions for installing the OrPAY1000. While the guidelines deal primarily with the requirements for mounting onto a fuel pump-head, the steps are applicable to any type of cabinet.

4.2. Installation Procedures

This section provides instructions for installing the OrPAY1000 on a new pump or cabinet in four different ways:

- » On the door / front of the pump
- » On the wall near the pump
- » On top of the pump
- » For pump retrofit

The installation procedure includes the following steps:

1. Installation of the OrPAY1000 in the prescribed location
2. Cable connections
3. Post-installation checks

The following must be taken into consideration when installing more than one OrPAY1000 unit:

- » LF tag reading suffers from interferences when 2 OrPAY1000 units are placed close to each other, depending on the configuration:
 1. Back-to-back:
 - » If the units are installed without the metallic back cover, then the minimum distance required between the units is 50cm
 - » If the units are installed with the metallic back cover, then the minimum distance required between the units is 20cm
 2. Side-by-side: The minimum distance required between the units is 20cm
- » HF tag (MiFare) reading
 - » Version 01.00.57 and up solves the Mifare issue encountered with OrPAY1000

Strictly observe all the safety instructions detailed in [Precautions and Safety Information](#).

4.2.1. Installation Template

The OrPAY1000 is fastened by means of four M4 x 16 screws to the mounting surface. The fastening screws pass through holes in the bottom plate of the OrPAY1000. In addition, a 5 mm hole located at the center of the unit is required to pass the connection cable.

4.2.2. Installation with Bracket on Pump

The following table details the installation kit for installing the OrPAY1000 on the door of the pump (see [Table 4-1](#)):

Table 4-1 - Pump Mounting Kit - P/N 819027892

P/N	Description	Quantity
814127000	SEAL BACK OrPAY1000	1
814329400	PUMP MOUNTING HOLDER-OrPAY1000	1
815228300	SCREW, M4x12 SST+2 WASHERS	4
815804000	CABLE TIE KSS CV-140B 150x4 mm	4

To install the OrPAY1000 at any non-hazardous area of the fuel pump, proceed as follows:

1. Shut down any power source at the installation and working area
2. Open the fuel dispenser door and locate a non-hazardous area
3. Select a non-hazardous area in the pump where you can install the OrPAY1000. The area should be a flat panel with a thin metal panel where you can attach the OrPAY1000
4. Identify the prescribed location of the OrPAY1000 on the fuel pump housing. Draw a horizontal reference line to allow correct alignment of the lower edge of the drilling template
5. Use the drilling template (place the plate with the arrow facing upwards), and mark the five holes on the mounting surface
6. Drill five 4 mm holes in accordance with the template
7. Drill the middle hole to the final diameter desired, based on communication and power cables used
8. Thoroughly clean burrs on the hole edges
9. Drill the four corner holes to the final diameter - 4 mm
10. Inspect the hole and check for correct location according to the template
11. Clean the surface intended for installing the OrPAY1000
12. Insert the OrPAY1000 into the surface mounting bracket without place holders
13. Using four SEMS screws M4 x 12 mm (P/N 815228300), attach and tighten the OrPAY1000 to the bracket



Figure 4-1 - OrPAY1000 Tightened to Bracket

14. Attach the bracket with the OrPAY1000 to the pump



Figure 4-2 - OrPAY1000 on Pump

4.2.3. Installation with Bracket on Wall

The following table details the installation kit for installing the OrPAY1000 on the wall (see [Table 4-2](#)):

Table 4-2 - Wall Mounting Kit - P/N 819027893

P/N	Description	Quantity
814127000	SEAL BACK OrPAY1000	1
814329450	WALL MOUNTING HOLDER-OrPAY1000	1
815228300	SCREW, M4 x 12 SST+2 WASHERS	4
815804000	CABLE TIE KSS CV-140B 150 x 4 mm	4

To install the OrPAY1000 at any non-hazardous area on a wall near the pump, proceed as follows:

1. Shut down any power source at the installation and working area
2. Locate a non-hazardous area to install OrPAY1000
3. Identify the prescribed location of the OrPAY1000 on the fuel pump housing. Draw a horizontal reference line to allow correct alignment of the lower edge of the drilling template
4. Use the drilling template (place the plate with the arrow up) and mark the five holes on the mounting surface
5. Drill five 4 mm holes in accordance with the template
6. Drill the middle hole to the final diameter desired, based on communication and power cables used
7. Thoroughly clean burrs on the hole edges
8. Drill the four corner holes to the final diameter, 4 mm

9. Inspect the hole and check for correct location according to the template
10. Clean the surface intended for installing the OrPAY1000
11. Insert the OrPAY1000 into the surface mounting bracket with placeholders
12. Using four SEMS screws M4 x 12 mm (P/N 815228300), attach and tighten the OrPAY1000 to the bracket



Figure 4-3 - OrPAY1000 Tightened to Bracket

13. Attach the bracket with the OrPAY1000 to the wall, fine-tune the alignment and tighten the screws



Figure 4-4 - OrPAY1000 on the Wall

4.2.4. Installation with L-Bracket on Top of Pump

The following table details the installation kit for installing OrPAY1000 on top of the pump (see [Table 4-3](#)):

Table 4-3 - Top Mounting Kit - P/N 819027894

P/N	Description	Quantity
814329460	TOP MOUNTING HOLDER-OrPAY1000	1
815228300	SCREW, M4x12 SST+2 WASHERS	2
815804000	CABLE TIE KSS CV-140B 150x4 mm	4

To install the OrPAY1000 with the L-bracket on top of the pump, proceed as follows:

1. Unpack the OrPAY1000 from its packing. There will be two M4 x 12 mm screws (2) for mounting the OrPAY1000
2. Unlock and open the pump door
3. Hold the OrPAY1000 outside the pump, and locate at least one of the top mounting screws
4. Place several of the support screws around the OrPAY1000. Verify that the OrPAY1000 is aligned with any features on the pump door, and then tighten the screws
5. Insert and tighten all remaining screws
6. Once the physical mounting is complete, proceed to insert the OrPAY1000 into the bracket
7. Using two SEMS screws M4 x 12 mm (P/N 815228300) attach and tighten the OrPAY1000 to the bracket:
8. Once the screws are tightened, tighten a tie-wrap around the outgoing wire to avoid moisture from getting in (see [Figure 4-5](#)):



Figure 4-5 - Tie-wrap around Wire



Note: When using the optional magnetic card reader, make sure to bring the unit to the front so that your card will not touch the surface when swiping.

4.2.5. Installation for Pump Retrofit

To install the OrPAY1000 at any non-hazardous area of the fuel pump on a pump retrofit, proceed as follows:

1. Shut down any power source at the installation and working area
2. Locate a non-hazardous area to install OrPAY1000

3. Identify the prescribed location of the OrPAY1000 on the fuel pump housing. Draw a horizontal reference line to allow correct alignment of the lower edge of the drilling template
4. Use the drilling template (place the plate with the arrow up) and mark the five holes on the pump retrofit surface
5. Drill five 4 mm holes in accordance with the template
6. Drill the middle hole to the final diameter desired, based on communication and power cables used
7. Thoroughly clean burrs on the hole edges
8. Drill the four corner holes to the final diameter, 4 mm
9. Inspect the hole and check for correct location according to the template
10. Clean the surface intended for installing the OrPAY1000
11. Insert the OrPAY1000 into the pump retrofit surface
12. Using two SEMS screws M4 x 10 mm (P/N 815226200), attach and tighten the OrPAY1000 to the pump retrofit surface



Figure 4-6 - OrPAY1000 on Pump Retrofit

4.3. Wiring

Three connections need to be made to the OrPAY1000:

- » Ground
- » Ethernet LAN
- » DC Power supply -485
- » (Optional) Pump wires

The DC power supply cable also needs to be connected to the power supply.

4.3.1. Protective Earth

OrPAY1000 is provided with a ground tab mounted on the bottom frame (see [Figure 4-7](#)).

The tab must be connected to the pump (or cabinet) frame to provide protection from both power faults and static discharges. The ground wire must be minimum 1.5 mm² and both it and the ground stud must meet local regulations.

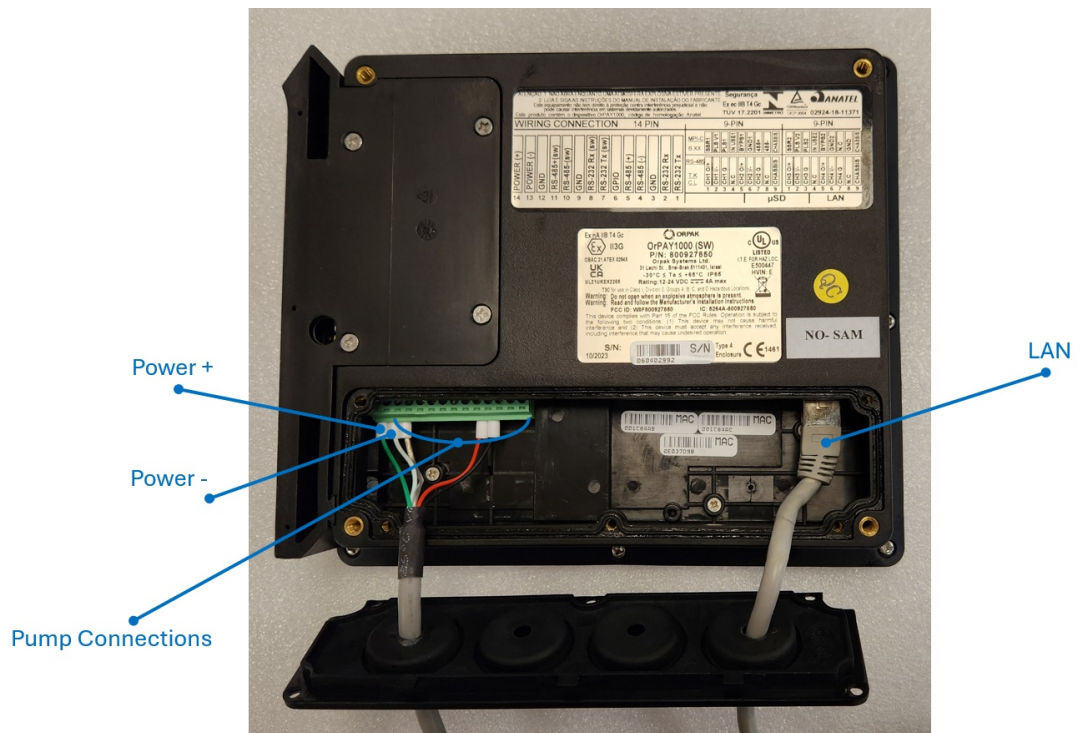


Figure 4-7 - Ground Tab

4.3.2. Ground and Power Cable

OrPAY1000 is provided with a ground tab mounted on the bottom frame (see [figure below](#)).

The tab must be connected to the pump (or cabinet) frame to provide protection from both power faults and static discharges. The cable supplied with the product includes:

- » The ground wire
- » Two DC power wires, (+) and (-)
- » Two RS-485 wires, (+) and (-)

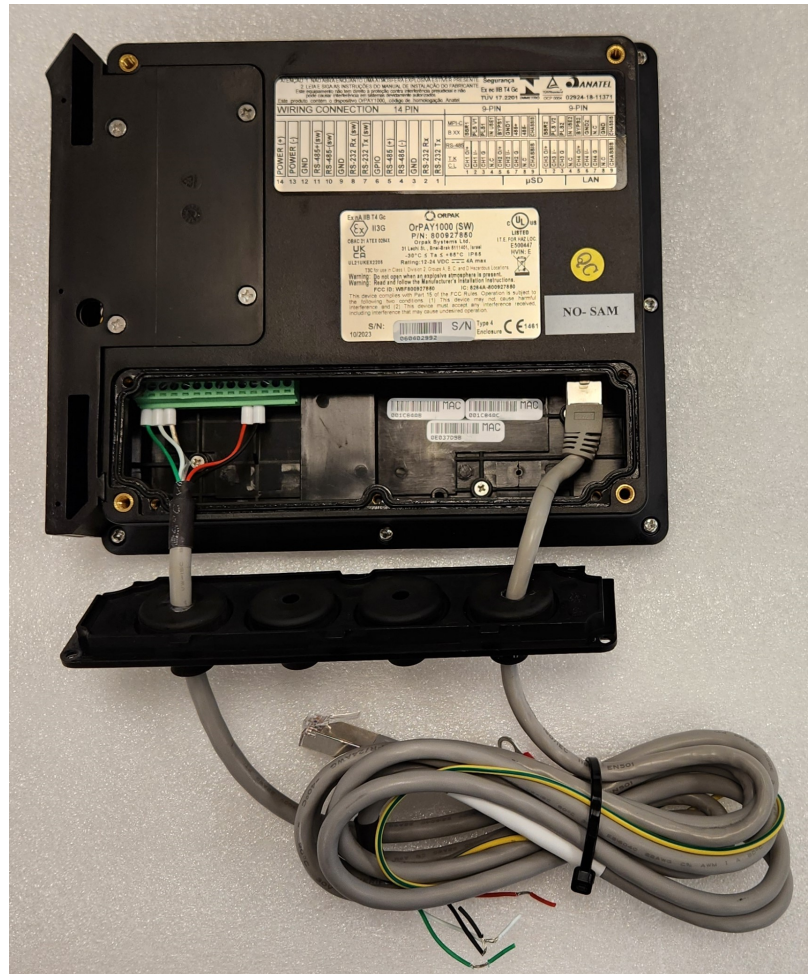


Figure 4-8 - Ground and Power Cable Connected to OrPAY1000

4.3.3. Ethernet LAN

The Ethernet cable is plugged into the correct connector on the rear of the OrPAY1000 (see [Figure 4-9](#)).



Figure 4-9 - LAN Connector

4.3.4. DC Power Supply

The low-voltage DC Cable is plugged into the correct connector on the rear of the OrPAY1000 (see [Figure 4-10](#)).

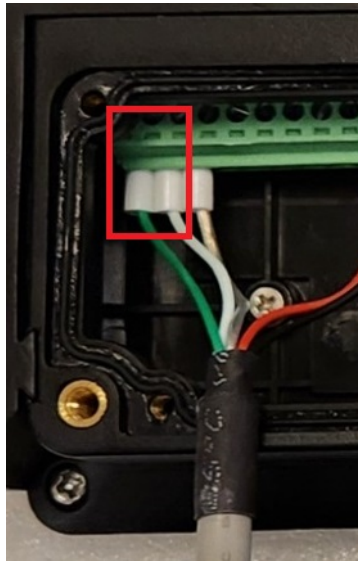


Figure 4-10 - DC P/S Connector

Verify that the polarity is correct before connecting the terminal to the power for the first time.

4.4. First Power-Up

Once the installation is complete and the wiring is certified (if necessary), the main power may be switched on.

OrPAY1000 takes a couple of seconds to complete its start-up phase, during which several information screens will be displayed.

If the terminal is successful in connecting to the Ethernet LAN, it will display the screen below and the rest of the startup sequence will continue (see [Figure 4-11](#)):

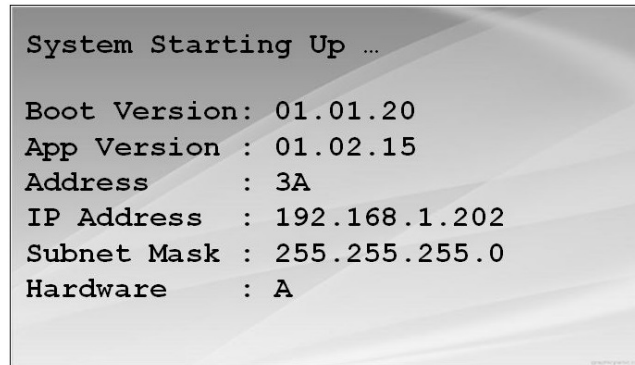


Figure 4-11 - Startup Screen

Section 5 Device Setup

5.1. General

This section provides instructions for setting up the OrPAY1000.

To set up the OrPAY1000, open an internet browser and enter the default IP address provided by Orpak. The Forecourt homepage appears (see [Figure 5-1](#)):

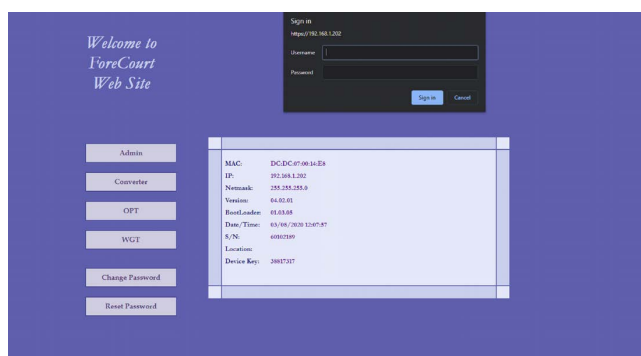


Figure 5-1 - Forecourt Homepage

The Forecourt homepage includes five buttons:

- » **Admin:** General administrative settings that manage all device usage
- » **Converter:** Used when the OrPAY1000 will be used as a converter
- » **OPT:** Used when the OrPAY1000 will be used as a payment terminal
- » **Change Password:** Used to change the password
- » **Reset Password:** Used to reset the password

The device can be configured as a converter, as an OrPAY1000 payment terminal, or both. In all possible configurations, first configure the **Admin** settings, and then return to the homepage and configure the **Converter** and **OrPAY1000** as needed.

5.2. Initial Login

When logging in for the first time your internet browser will display a security message (see [Figure 5-2](#)).

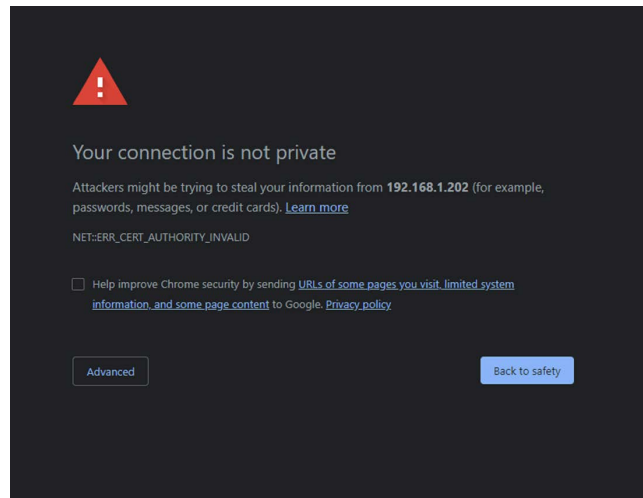


Figure 5-2 - Web Browser Security Message

Click **Advanced** → **Proceed to**. The Forecourt homepage appears and the user is prompted to enter a username and password. The default username and password for initial login are:

- » Username: **admin**
- » Password: **admin**

In order to continue to the system, the user must change the password from the default to their own unique password. The password requirements are:

- » The password must contain between 8 to 20 characters.
- » The password must contain at least one numeric character.
- » The password must contain both lower and upper case characters.

Initial Login Procedure:

1. Enter the default username and password in the login screen. Press **Sign In** to confirm.
2. A **Change Password** page is displayed (see Figure 5-3). Enter the new password into both fields and click **OK**. The user is navigated to the Forecourt homepage.

Figure 5-3 - Initial Change Password Page

5.3. Defining Admin Settings

To define administrator settings for the OrPAY1000, click the **Admin** button on the Forecourt homepage. The following screen appears (see Figure 5-4):



Figure 5-4 - Forecourt Admin Homepage

The Admin settings page has the following navigation buttons on the left side of the screen:

- » **Home:** Basic device information
- » **Setup:** Main device settings
- » **Status:** Displays current hardware status
- » **Software Upload:** Uploads software/firmware updates, assets, fonts, etc.
- » **Back to Main:** Returns to the Forecourt homepage

5.3.1. Home

The Admin **Home** page displays current device information (see [Table 5-1](#)):

Table 5-1 - Device Information

Field	Description
MAC	MAC address
IP	IP address
Netmask	Netmask address
Version	Version number
BootLoader	Boot Loader version
Date/Time	Real Time Clock
S/N	Serial number
Location	Installation location

5.3.2. Setup

The Setup page is comprised of four tabs: Minimal Setup, General Setup, Log Level, and Save. Click on the **Setup** navigation button to view and define the parameters in each tab.

5.3.2.1. Minimal Setup

The Setup page opens with the **Minimal Setup** tab selected (see [Figure 5-5](#)).

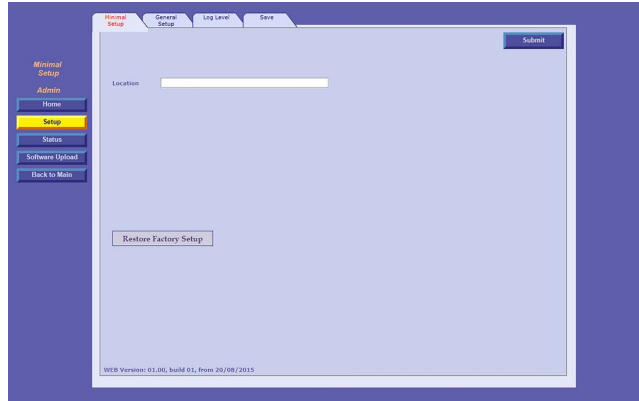


Figure 5-5 - Minimal Setup Tab

The following actions are available:

- » In the **Location** field, enter a description for the location of the device (optional)
- » Click **Restore Factory Setup** to reset the device to the factory defaults (optional)



Caution: All previously defined settings will be overwritten.

- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the [Save](#) tab.

5.3.2.2. General Setup

Click on the **General Setup** tab. The following screen appears (see [Figure 5-6](#)):

The screenshot shows the 'General Setup' tab of the OrPAY1000 configuration interface. The interface has a dark blue sidebar with buttons for 'General Setup', 'Admin', 'Home', 'Setup', 'Status', 'Software Upload', and 'Back to Main'. The main content area has tabs for 'General Setup', 'Log Level', and 'Save'. The 'General Setup' tab is active, showing the following fields:

- LAN:** IP Address (192.168.1.202), Subnet Mask (255.255.255.0), MAC (00:70:18:00:10:00), Gateway (0.0.0.0).
- WD Communication:** Top Receiver (Disable), T-Out (sec) (45).
- RTC:** Date (dd/mm/yyyy) (02/05/2018), Time (hh:mm:ss) (12:48:39).
- General:** SAR Cards (1).

A warning message is displayed in red text: 'Make sure nobody is fueling and all stations activities are stopped before applying clock changes.' A 'Submit' button is located in the top right corner of the configuration area.

Figure 5-6 - General Setup Tab

The following actions are available:

- » Define the **General Setup** fields (see Table 5-2)
- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the Save tab.

Table 5-2 - General Setup Fields

Field	Description
LAN	
IP Address	Device IP Address
Subnet Mask	Subnet Mask address
MAC	MAC address
Gateway	Gateway
RTC	
Date (dd/mm/yyyy)	Date
Time (hh:mm:ss)	Time
General	
SAM Cards	Number of SAM cards installed (If unknown, set to 2) >> Up to 2 SAM cards are currently supported
WD Communication	
TCP Receive	>> Enable: WatchDog checks the TCP/IP at regular intervals, if no communication is detected within the timeout interval, the device will automatically reset >> Disable: Device will not automatically reset
T. Out (sec)	WatchDog timeout interval in seconds



Note: Make sure that no pumps at the station are actively fueling before changing the date or time.

5.3.2.3. Log Level

Click on the **Log Level** tab. The following screen appears (see [Figure 5-7](#)):



Figure 5-7 - Log Level Tab

The **Log Levels** section defines settings for logs that are sent to Orpak



Note: Please consult with Orpak's Customer Services prior to defining the **Log Levels** settings.

The following actions are available:

- » Define the **Log Level** fields (see [Table 5-3](#))
- » In the **Debug Port Interface** drop-down, select the port that the log will be transferred through
 - » **Com:** Transfers the logs via RS-232
 - » **TCP/IP:** Transfers the logs via LAN connection
- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the [Save](#) tab.

Table 5-3 - Admin Log Levels

Field	Description
General	
Save Log to File	Not currently available
Debug Port Interface	Com or TCP IP
Log Levels: Select Debug Information	
Source	Logs: <ul style="list-style-type: none"> » TCP Server » TCP Client » UART » XML » MAIN » DIAG » AUTH » WEB » SHELL » SAM » ADMIN » LCD
Log Levels	<ul style="list-style-type: none"> » Data » Debug » Info » Error

5.3.2.4. Save

Once you have completed and submitted all configuration details, you must save all changes in the **Save** tab in order to write the changes to the flash memory and save the configuration permanently. To save changes, proceed as follows:

1. Click on the **Save** tab. The following screen appears (see [Figure 5-8](#)):

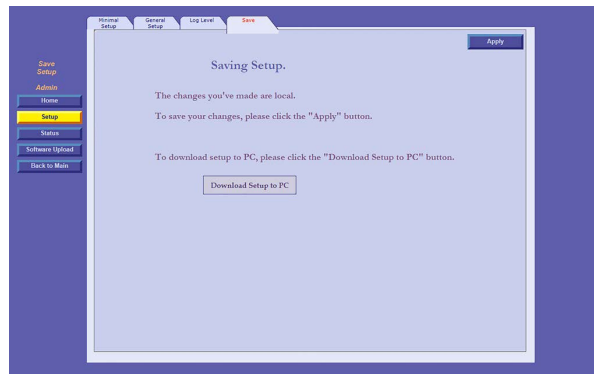


Figure 5-8 - Save Tab

2. Click **Apply**. The following dialog appears (see [Figure 5-9](#)):

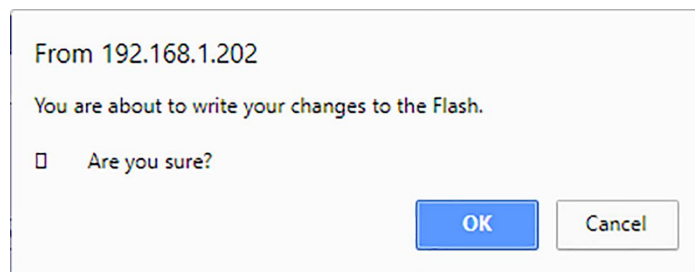


Figure 5-9 - Confirm Save Dialog

3. Click **OK** to continue. The following dialog appears (see [Figure 5-10](#)):

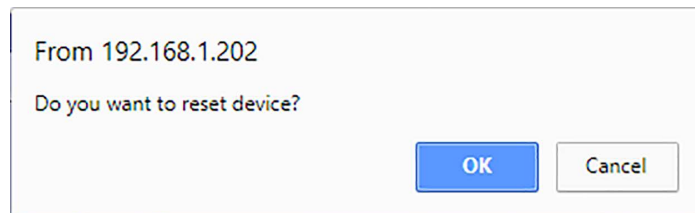


Figure 5-10 - Reset Device Dialog

4. Click **OK** to complete the save process
5. To download an XML file containing all of the settings defined in the Setup tabs to the local machine, click **Download Setup to PC**. The following dialog appears (see [Figure 5-11](#)):

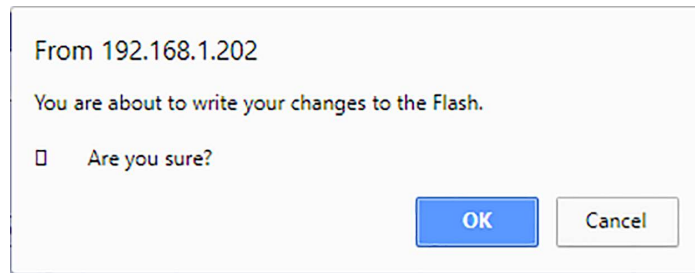


Figure 5-11 - Download Setup File

6. Click **OK** to confirm.

5.3.3. Status

The Status page displays read-only data.

5.3.3.1. HW Info

The HW Info page is a read-only page displaying current hardware status information. To view this page, click on the **HW Info** tab. The following screen appears (see [Figure 5-12](#)):

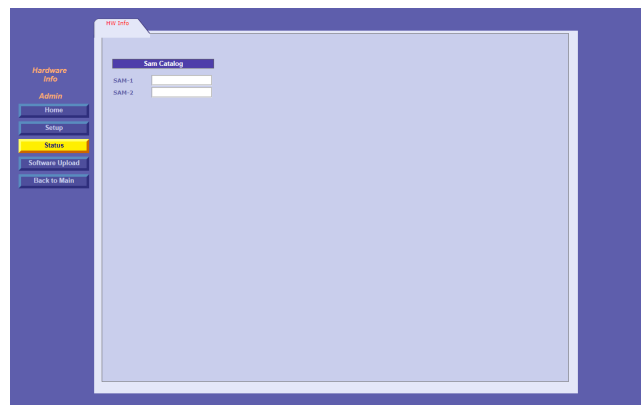


Figure 5-12 - Status Screen

If there are SAM cards embedded in the device, their catalog number will be displayed in the SAM Catalog field.

5.3.4. Software Upload

Click on the **Software Upload** navigation button. The following screen appears (see [Figure 5-13](#)):

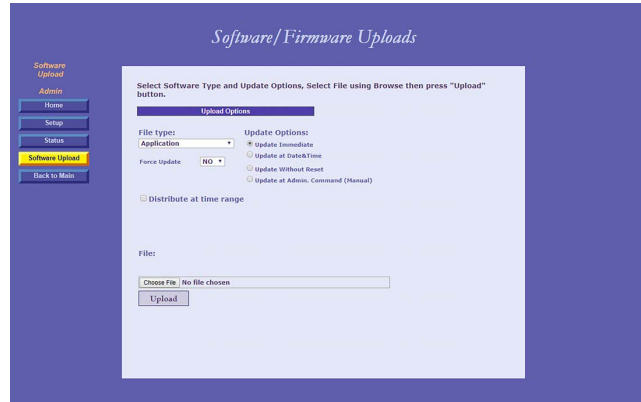


Figure 5-13 - Software Upload Screen

The Software Upload screen enables uploading the newest software and firmware versions provided by Orpak (see [Table 5-4](#)).

Table 5-4 - Software Upload Fields

Field	Description
File Type	<ul style="list-style-type: none"> » Application » Boot Loader » Keyboard » MiFare » Pump » Setup file » Display Assets file
Update Options	<p>Available update options:</p> <ul style="list-style-type: none"> » Update Immediate: Implement the update as soon as the file upload is complete » Update at Date & Time: Enter the date and time (dd/mm/yyyy; hh:mm:ss) to implement the update » Update Without Reset: Implement the update as soon as the file upload is complete without resetting the device » Update at Admin. Command (Manual): <ul style="list-style-type: none"> » Automatic: Implement the update as soon as the file upload is complete » Manual: Implement the update by clicking on the Send button
Choose File	Opens a browser to select a file for upload
Upload	Executes the file upload

To upload a file to the device, proceed as follows:

1. In the **File Type** drop-down, select the file type that you'd like to upload (see [Figure 5-14](#)):

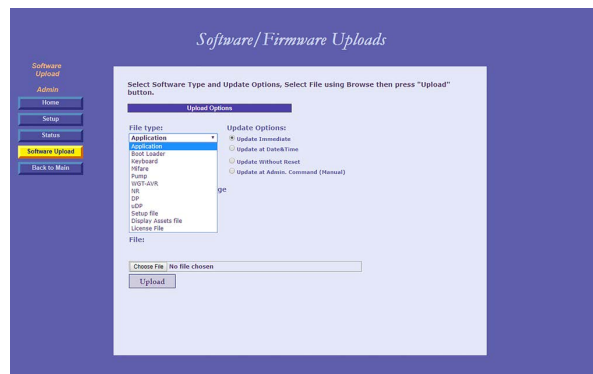


Figure 5-14 - File Type Drop-Down

2. Click on **Choose File** to select the updated software file. The following dialog appears (see [Figure 5-15](#)):

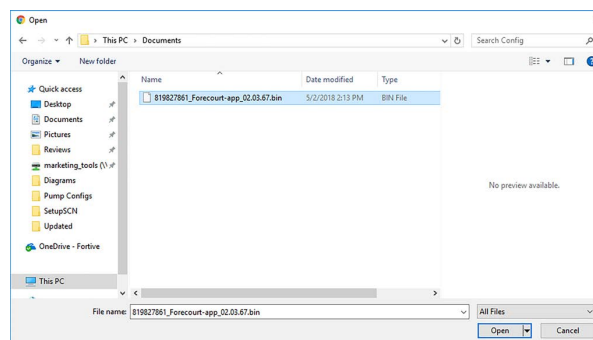


Figure 5-15 - Choose File Dialog

3. Select the file and click **Open** (see [Figure 5-16](#))

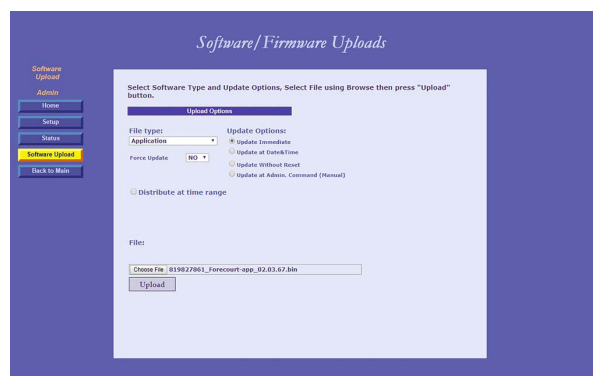


Figure 5-16 - File Chosen

4. Select the **Upload Options** (see [Table 5-4](#))

5. Click **Upload**. The following dialog appears (see [Figure 5-17](#)):

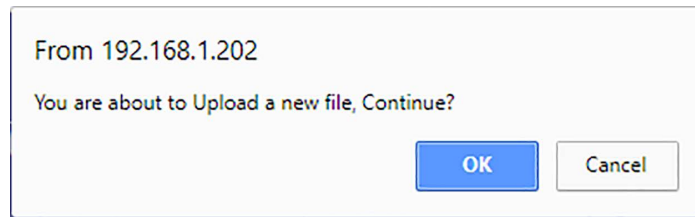


Figure 5-17 - Confirm Upload Dialog



Note: The upgrade process can take a few minutes (4-10 minutes).

6. Click **OK** to confirm and upload the file. The following message appears (see [Figure 5-18](#)):

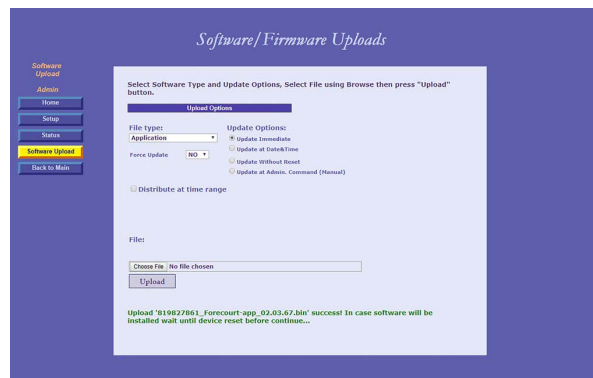


Figure 5-18 - Software Uploaded Successfully Message

5.4. Defining Converter Settings

To define Converter settings for the OrPAY1000, click the **Converter** button on the Forecourt homepage. The following screen appears (see [Figure 5-19](#)):



Figure 5-19 - Converter Homepage

The Converter settings page has the following navigation buttons on the left side of the screen:

- » **Home:** Basic device information
- » **Setup:** Main device settings
- » **Back to Main:** Returns to the Forecourt homepage

5.4.1. Home

The Converter **Home** page displays current device information (see [Table 5-5](#)):

Table 5-5 - Device Information

Field	Description
Pump	Pump firmware version
Pump Boot	Pump boot loader version

5.4.2. Setup

The Setup page is comprised of four tabs: General Setup, Channels Setup, Log Level, and Save. Click on the Setup navigation button to view and define the parameters in each tab.

5.4.2.1. General Setup

The Setup page opens with the **General Setup** tab selected (see [Figure 5-20](#)).

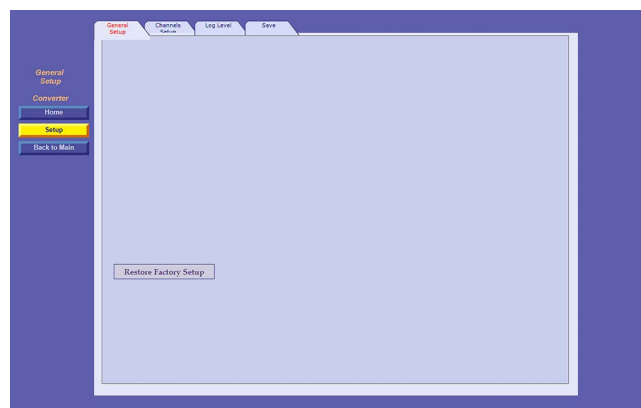


Figure 5-20 - General Setup Tab

The following actions are available:

- » Click **Restore Factory Setup** to reset the device to the factory defaults (optional)



Caution: All previously defined settings will be overwritten.

5.4.2.2. Channels Setup

Click on the **Channels Setup** tab. The following screen appears (see [Figure 5-21](#)):

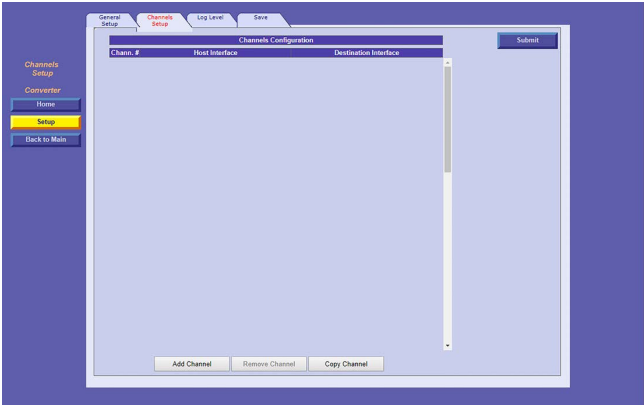


Figure 5-21 - Channels Setup Tab

Click **Add Channel** to add a channel to the converter. The following is added (see Figure 5-22):

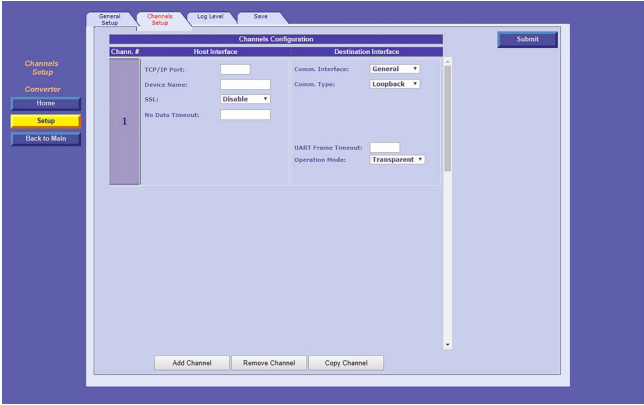



Figure 5-22 - Add Channel

The following additional actions are available:

- » Click **Add Channel** to add another channel
- » Click **Remove Channel** to remove the last channel from the list
- » Click **Copy Channel** to add another channel with the same settings as the last channel on the list
- » Define the channel fields (see Table 5-6):
- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the Save tab.

Table 5-6 - Channels Setup Fields

Field	Description
Host Interface	
TCP/IP Port	Host TCP/IP Port

Field	Description
Device Name	Device Name
SSL	Not currently available
No Data Timeout	Interval in milliseconds after which if no communication is detected, the device will automatically reset. Set to 0 to disable automatic reset
Destination Interface	
Comm. Interface	Serial port to use as the communication interface: <ul style="list-style-type: none"> » General: TCP/IP port » EXT (1-4): Pump interface » AUX (0-2): Serial output from the internal UART
Comm. Type	Communication protocol for the interface <ul style="list-style-type: none"> » General: <ul style="list-style-type: none"> » TCP/IP » Loopback (Only used for testing and diagnostics) » EXT (1-4) / AUX (0-2): <ul style="list-style-type: none"> » RS-232 » RS-485 » Current Loop » Tokheim
TCP/IP Port	General communication interface details
IP Address	
Baud Rate	EXT (1-4) / AUX (1-2) communication interface details
Data Bits	
Parity	
Stop Bits	
UART Frame Timeout	
UART Frame Timeout	Longest pause in milliseconds between received bits before destination interface interprets the pause as the end of one message, and interprets further transmissions as a new message (0 = 4 bytes of silence) <ul style="list-style-type: none"> » Only applicable for EXT UART
Current Select	Only applicable for Current Loop communication type. Select the current.
Operation Mode	Transparent: No change is made to the data  Note: Only Transparent is available in Converter mode



Note: If the channel configuration is not displayed properly after saving all changes and resetting the device, clear your browser cache and reload the page.

5.4.2.2.1. Current Loop Setup Settings

The following details the channel settings required for a Current Loop pump interface.

Channels Configuration		
Chann. #	Host Interface	Destination Interface
1	TCP/IP Port:	4300
	Device Name:	Pump_01
	Transport Security:	Disabled
	No Data Timeout:	10
	Comm. Interface:	AUX-0
	Comm. Type:	Current Loop
	Baud Rate:	9600
	Data Bits:	8
	Parity:	Odd
	Stop Bits:	1
UART Frame Timeout:		
Operation Mode:	Transparent	
Current Select:	40mA	

Figure 5-23 - Current Loop Configuration

Table 5-7 - Current Loop Channel Configuration

Interface Setting	Value
Host (left column)	
TCP/IP Port	Any port between 1023-65000
Device Name	Name to identify the device
Transport Security	Disabled
No Data Timeout	Select timeout
Destination (right column)	
Comm. Interface	Select the communication interface
Comm. Type	Current Loop
Baud Rate	9600
Data Bits	8
Parity	Select the parity: Even/Odd/None
Stop Bits	1
UART Frame Timeout:	Select the frame timeout
Operation Mode	Transparent
Current Select	Select the current: 20mA/40mA



Figure 5-24 - Current Loop Board

Table 5-8 - Current Loop Pinout

9	8	7	6	5	4	3	2	1
E		G	-	+		G	-	+

For more details, see Available Configurations: [Available Configurations](#)

5.4.2.2.2. MPI-C Setup Settings

The following details the channel settings required for an MPI-C pump interface.

Channels Configuration		
Chann. #	Host Interface	Destination Interface
1	TCP/IP Port: <input type="text" value="4005"/> Device Name: <input type="text"/> Transport Security: <input type="text" value="Disabled"/> No Data Timeout: <input type="text" value="0"/>	Comm. Interface: <input type="text" value="EXT-1"/> Comm. Type: <input type="text" value="MPI-C"/>

Figure 5-25 - MPI-C Channel Configuration

Table 5-9 - MPI-C Channel Configuration

Interface Setting	Value
Host (left column)	
TCP/IP Port	Any port between 1023-65000
Device Name	Name to identify the device
Transport Security	Disabled
No Data Timeout	Select timeout
Destination (right column)	
Comm. Interface	Select the communication interface
Comm. Type	MPI-C



Figure 5-26 - MPI-C Board

Table 5-10 - MPI-C Pinout

9	8	7	6	5	4	3	2	1
E			GND	BYPASS	INUSE	PULSE	VOUT	SSR
Channel 1/2								

For more details, see Available Configurations: [MPI-C](#)

5.4.2.2.3. Tokheim Setup Settings

The following details the channel settings required for a Tokheim pump interface.

Channels Configuration		
Chann. #	Host Interface	Destination Interface
1	TCP/IP Port: <input type="text" value="4300"/> Device Name: <input type="text" value="Tokheim_01"/> Transport Security: <input type="text" value="Disabled"/> No Data Timeout: <input type="text" value="10"/>	Comm. Interface: <input type="text" value="AUX-0"/> Comm. Type: <input type="text" value="Tokheim"/> Baud Rate: <input type="text" value="9600"/> Data Bits: <input type="text" value="8"/> Parity: <input type="text" value="None"/> Stop Bits: <input type="text" value="1"/> UART Frame Timeout: <input type="text" value="10"/> Operation Mode: <input type="text" value="Transparent"/>

Figure 5-27 - Tokheim Configuration

Table 5-11 - Tokheim Channel Configuration

Interface Setting	Value
Host (left column)	
TCP/IP Port	Any port between 1023-65000
Device Name	Name to identify the device
Transport Security	Disabled
No Data Timeout	Select timeout
Destination (right column)	
Comm. Interface	Select communication interface
Comm. Type	Tokeheim
Baud Rate	9600
Data Bits	8
Parity	Select the parity: Even/Odd/None
Stop Bits	1
UART Frame Timeout	Select frame timeout
Operation mode	Transparent

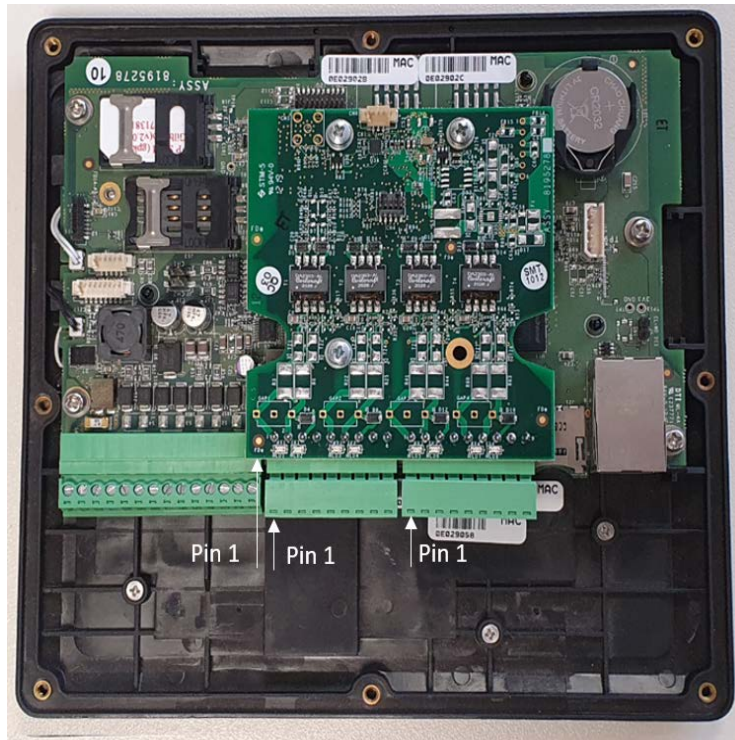


Figure 5-28 - Tokheim Board

Table 5-12 - Tokheim Connector Pinout

9	8	7	6	5	4	3	2	1
E		COM	TTD	TTC		COM	TTD	TTC
Channel 2/4					Channel 1/3			

For more details, see Available Configurations: [Tokheim](#)

5.4.2.2.4. RS-485 Setup Settings

The following details the channel settings required for a RS-485 pump interface.

Channels Configuration		
Chann. #	Host Interface	Destination Interface
1	TCP/IP Port: <input type="text" value="3001"/> Device Name: <input type="text"/> Transport Security: <input type="text" value="Disabled"/> No Data Timeout: <input type="text" value="1000"/>	Comm. Interface: <input type="text" value="EXT-1"/> Comm. Type: <input type="text" value="RS-485"/> Baud Rate: <input type="text" value="4800"/> Data Bits: <input type="text" value="5"/> Parity: <input type="text" value="Even"/> Stop Bits: <input type="text" value="1"/> UART Frame Timeout: <input type="text" value="100"/> Operation Mode: <input type="text" value="Transparent"/>

Figure 5-29 - RS-485 Configuration

Table 5-13 - RS-485 Channel Configuration

Interface Setting	Value
Host (left column)	
TCP/IP Port	Any port between 1023-65000
Device Name	Name to identify the device
Transport Security	Disabled
No Data Timeout	Select timeout
Destination (right column)	
Comm. Interface	Ext-1
Comm. Type	RS-485
Baud Rate	4800
Data Bits	5
Parity	Select the parity: Even/Odd/None
Stop Bits	1
UART Frame Timeout	Select the frame timeout
Operation mode	Transparent

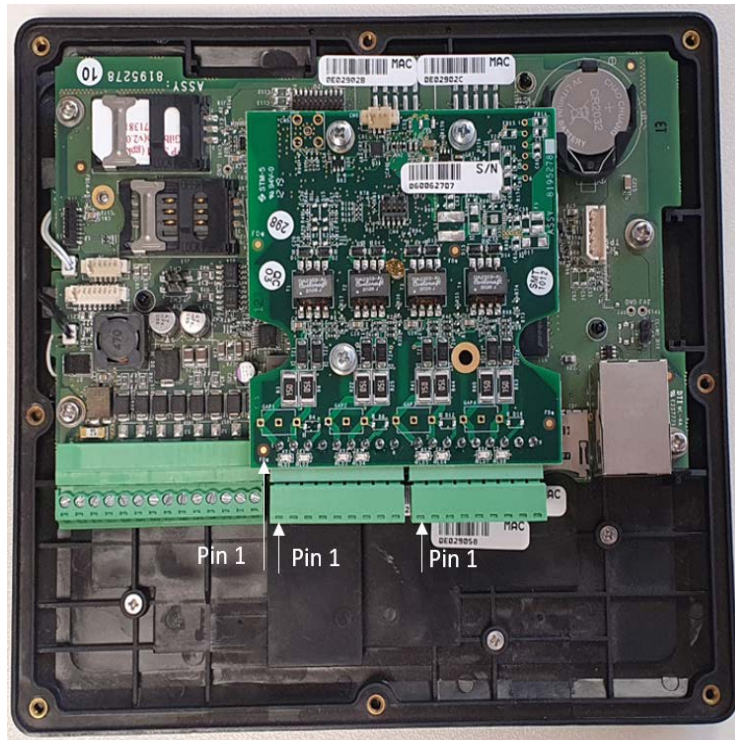


Figure 5-30 - RS-485 Board

Table 5-14 - RS-485 Connector Pinout

9	8	7	6	5	4	3	2	1
E		G	-	+		G	-	+
Channel 2/4					Channel 1/3			

For more details, see Available Configurations: [RS-485](#)

5.4.2.3. Log Level

Click on the **Log Level** tab. The following screen appears (see [Figure 5-31](#)):

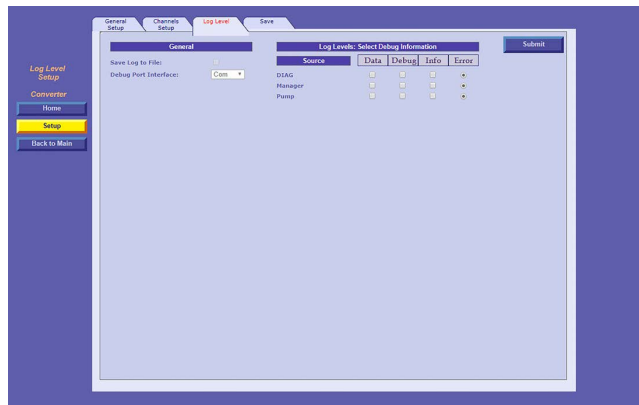


Figure 5-31 - Log Level Tab

The **Log Levels** section defines settings for logs that are sent to Orpak



Note: Please consult with Orpak's Customer Services prior to defining the **Log Levels** settings.

The following actions are available:

- » Define the **Log Level** fields (see [Table 5-15](#))
- » In the **Debug Port Interface** drop-down, select the port that the log will be transferred through
 - » **Com:** Transfers the logs via RS-232
 - » **TCP/IP:** Transfers the logs via LAN connection
- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the [Save](#) tab.

Table 5-15 - Converter Log Levels

Field	Description
General	
Save Log to File	Not currently available
Debug Port Interface	Com: Transfers logs via RS-232 TCP IP: Transfers logs via LAN
Log Levels: Select Debug Information	
Source	Logs: <ul style="list-style-type: none"> » DIAG » Manager » Pump
Log Levels	<ul style="list-style-type: none"> » Data » Debug » Info » Error

5.4.2.4. Save

Once you have completed and submitted all configuration details, you must save all changes in the **Save** tab in order to write the changes to the flash memory and save the configuration permanently. To save changes, proceed as follows:

1. Click on the **Save** tab. The following screen appears (see [Figure 5-32](#)):

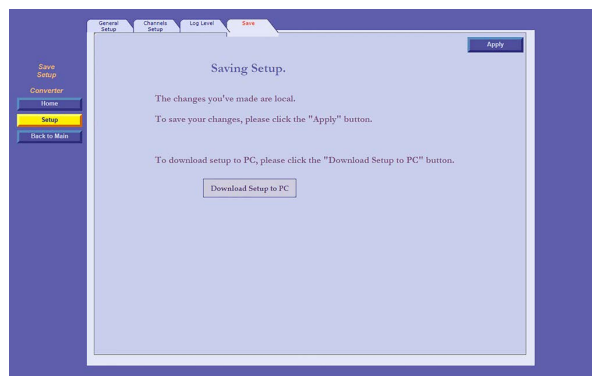


Figure 5-32 - Save Tab

2. Click **Apply**. The following dialog appears (see [Figure 5-33](#)):

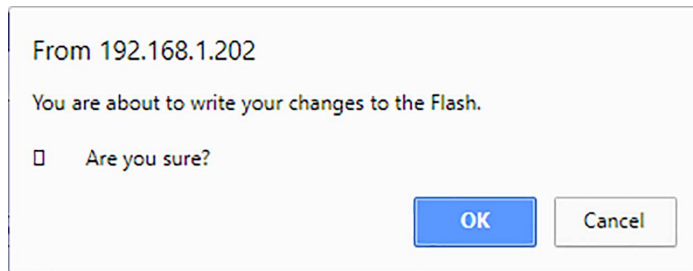


Figure 5-33 - Confirm Save Dialog

3. Click **OK** to continue. The following dialog appears (see [Figure 5-34](#)):

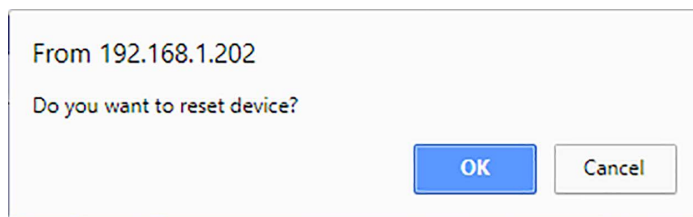


Figure 5-34 - Reset Device Dialog

4. Click **OK** to complete the save process
5. To download an XML file containing all of the settings defined on the Setup page to the local machine, click **Download Setup to PC**. The following dialog appears (see [Figure 5-35](#)):

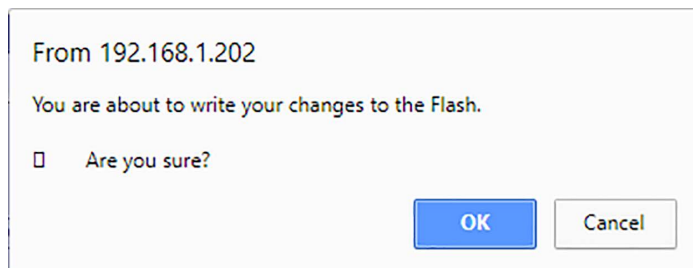


Figure 5-35 - Download Setup File

6. Click **OK** to confirm.

5.5. Defining OPT Settings

To define Payment Terminal settings for the OrPAY1000, click the **OPT** button on the Forecourt homepage. The following screen appears (see [Figure 5-36](#)):



Figure 5-36 - OPT Homepage

The OPT settings page has the following navigation buttons on the left side of the screen:

- » **Home:** Basic device information
- » **Setup:** Main device settings
- » **System:** Defines the services and hardware features of the device
- » **Back to Main:** Returns to the Forecourt homepage

5.5.1. Home

The OPT **Home** page displays current device information (see [Table 5-16](#)):

Table 5-16 - Device Information

Field	Description
Version	Firmware version
Device Address	Device Address
Contactless	Contactless firmware version
Keyboard	Keyboard firmware version
Keyboard Boot	Keyboard boot loader version
Assets	Asset version
Fonts	Font version

5.5.2. Setup

The Setup page is comprised of three tabs: General Setup, Log Level, and Save. Click on the Setup navigation button to view and define the parameters in each tab.

5.5.2.1. General Setup

The Setup page opens with the **General Setup** tab selected (see [Figure 5-37](#)).

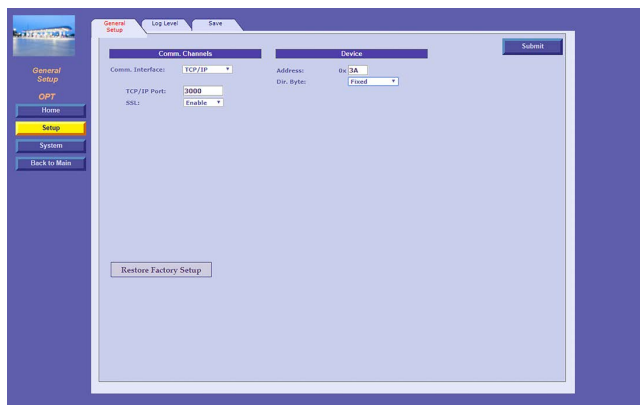


Figure 5-37 - General Setup Tab

The following actions are available:

- » Define the OrPAY1000 fields (see [Table 5-17](#)):
- » Click **Restore Factory Setup** to reset the device to the factory defaults (optional)



Caution: All previously defined settings will be overwritten.

- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the [Save](#) tab.

Table 5-17 - OrPAY1000 General Setup Fields

Field	Description
Comm. Channels	
Comm. Interface	TCP IP: Communicates via TCP/IP channel RS-485: Communicates via RS-485 channel
TCP/IP Port	TCP/IP port
SSL	Not currently available
Device	
Address	Device's HEX address
Dir. Byte	Always define as Sequential unless directed otherwise by Orpak

5.5.2.2. Log Level

Click on the **Log Level** tab. The following screen appears (see [Figure 5-38](#)):



Figure 5-38 - Log Level Tab

The **Log Levels** section defines settings for logs that are sent to Orpak



Note: Please consult with Orpak's Customer Services prior to defining the **Log Levels** settings.

The following actions are available:

- » Define the **Log Level** fields (see [Table 5-18](#))
- » In the **Debug Port Interface** drop-down, select the port that the log will be transferred through
 - » **Com:** Transfers the logs via RS-232
 - » **TCP/IP:** Transfers the logs via LAN connection
- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the Save tab.

Table 5-18 - Converter Log Levels

Field	Description
General	
Debug Port Interface	Com: Transfers logs via RS-232 TCP IP: Transfers logs via LAN
Log Levels: Select Debug Information	
Source	Logs: <ul style="list-style-type: none"> » DIAG » Card » Barcode » Keyboard » Main
Log Levels	<ul style="list-style-type: none"> » Data » Debug » Info » Error

5.5.2.3. Save

Once you have completed and submitted all configuration details, you must save all changes in the **Save** tab in order to write the changes to the flash memory and save the configuration permanently. To save changes, proceed as follows:

1. Click on the **Save** tab. The following screen appears (see [Figure 5-39](#)):

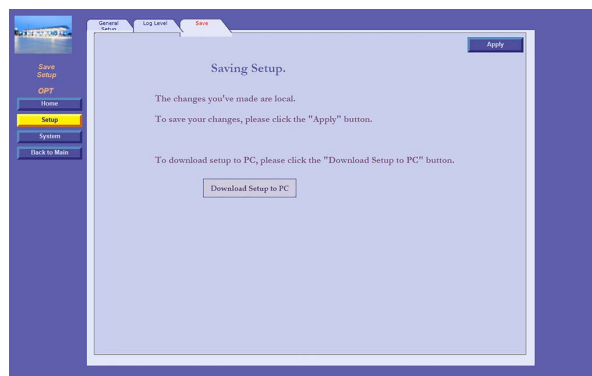


Figure 5-39 - Save Tab

2. Click **Apply**. The following dialog appears (see [Figure 5-40](#)):

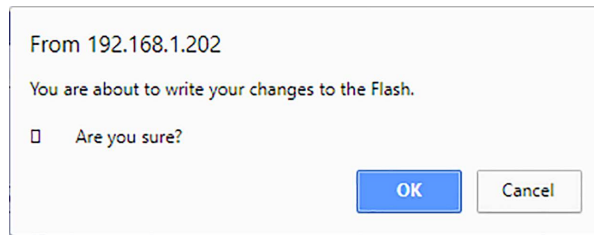


Figure 5-40 - Confirm Save Dialog

3. Click **OK** to continue. The following dialog appears (see [Figure 5-41](#)):

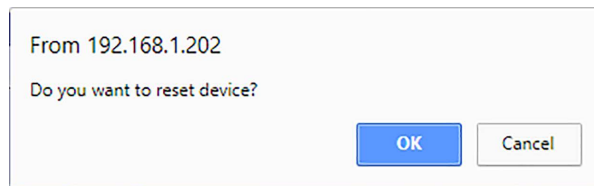


Figure 5-41 - Reset Device Dialog

4. Click **OK** to complete the save process
5. To download an XML file containing all of the settings defined on the Setup page to the local machine, click **Download Setup to PC**. The following dialog appears (see [Figure 5-42](#)):

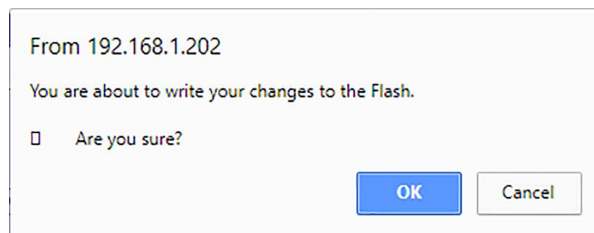


Figure 5-42 - Download Setup File

6. Click **OK** to confirm.

5.5.3. System

The **System** page defines the services and hardware features of the device. To configure the System parameters, click on the System navigation button. The following screen appears (see [Figure 5-43](#)):

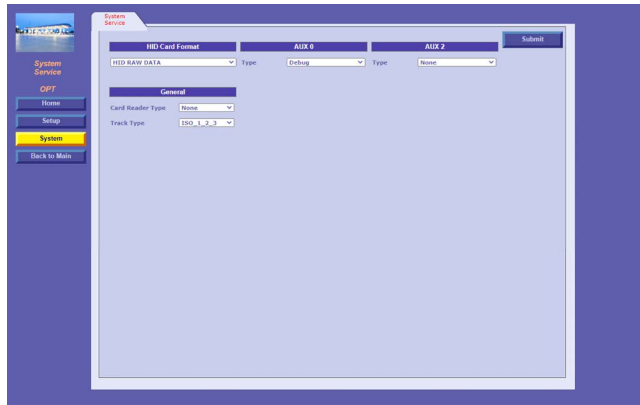


Figure 5-43 - System Service Tab

The following actions are available:

- » Define the **System** fields (see [Table 5-19](#)):
- » Click on the **Submit** button to save the changes locally



Note: Clicking on Submit only saves the configuration temporarily on a local level. To commit the changes permanently, make sure to save everything via the [Save](#) tab on the [Setup](#) page.

Table 5-19 - OrPAY1000 System Fields

Field	Description
HID Card Format	HID Card Format
AUX 0	<ul style="list-style-type: none"> » Debug » External Barcode » Logic Reader » External Card Reader
AUX 2	<ul style="list-style-type: none"> » Debug » External Barcode » Internal Barcode » Logic Reader » External Card Reader
General	
Card Reader Type	TBD
Track Type	Compatible types of tracks

The same device cannot be selected on both Aux interfaces. When attempting to select the same device for both interfaces the following message appears (see [Figure 5-44](#)):

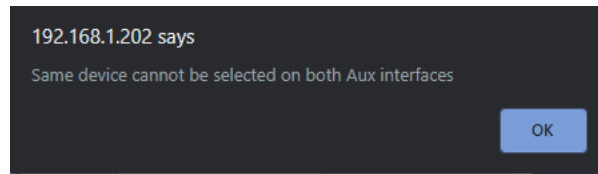


Figure 5-44 - Same Device Selected Message

5.6. Changing Password

The password can be changed at any time from the **Forecourt homepage**.

To change the password:

1. On the **Forecourt homepage**, click **Change Password**. The Change Password page is displayed (see [Figure 5-45](#)).

A purple "Change Password" form. It asks the user to "Please enter new password". The username is pre-filled as "Admin". There are three input fields: "Current Password:", "New Password:", and "Confirm Password:". At the bottom are "OK" and "Cancel" buttons.

Figure 5-45 - Elective Change Password Page

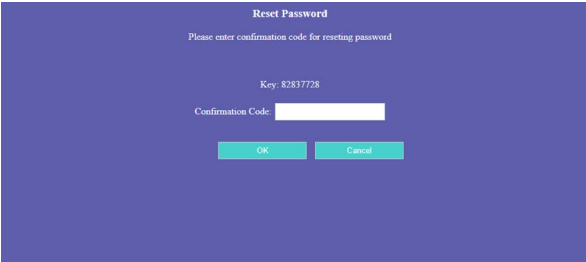
2. In the first field, enter the current password and in the following two fields, enter a password that meets all of the password requirements (see [Initial Login](#)) and click **OK**.

5.7. Resetting Password

If the user has forgotten their password, then they are required to reset it in order to regain access to the system. This action must only be taken as a last resort as it will reset **all** passwords associated with the admin.

To reset the password:

1. On the **Forecourt homepage**, click **Reset Password**. The following **Reset Password** page is displayed (see [Figure 5-46](#)).

A screenshot of a web page titled "Reset Password" with a dark blue background. The text "Please enter confirmation code for resetting password" is centered. Below it, a "Key: 82837728" is displayed. Underneath, the label "Confirmation Code:" is followed by a white rectangular input field. At the bottom, there are two teal buttons: "OK" on the left and "Cancel" on the right.

Reset Password

Please enter confirmation code for resetting password

Key: 82837728

Confirmation Code:

OK Cancel

Figure 5-46 - Reset Password Page

2. Contact Orpak support and ask to reset the password. Give the support agent the **Key** and they will give you a confirmation code. Enter this code into the **Confirmation Code** field and click **OK**.
3. A **Change Password** page is displayed (see Figure 5-3). In both fields, enter a new password that meets all of the password requirements (see [Initial Login](#)) and click **OK**.

Section 6 Maintenance

6.1. General

The following provides basic maintenance instructions for the OrPAY1000.

When properly installed and maintained your terminal will provide many years of service. There are few moving parts and minimal connections, and all parts have been designed to give a good service life.

6.2. Cleaning

Please follow these tips to keep the OrPAY1000 clean:

- » Use a soft cloth dampened with water for daily cleaning
- » If grime builds up, use a diluted mild detergent on a soft cloth
- » Take extra care when cleaning the display window – make sure the cloth is clean and clean the window before using the cloth on other parts of the terminal



Caution: Do **NOT** use petroleum-based solvent cleaners as they may damage surfaces making the terminal much harder to clean and shorten the life of the parts.



Caution: Do **NOT** use a high-pressure hose to clean the terminal.

6.3. Removal and Reinstallation

6.3.1. Removal

To remove the OrPAY1000, proceed as follows:

1. Ensure the terminal is not being used by a customer
2. Open the pump / pedestal door
3. Switch off the mains power to the power supply
4. Unplug the LAN cable and the low-voltage power cable and any other connected cable (e.g. pump connection) from the OrPAY1000. Remove the ground wire
5. Loosen and remove the screws holding the OrPAY1000 to the surface / pedestal door. There will be 4 screws around the outside of the rear plastic
6. Gently hold the OrPAY1000 off the surface / pedestal door, while holding the terminal on the outside to prevent it from falling
7. Place the OrPAY1000 into suitable packaging for transport or perform the necessary maintenance

6.3.2. Reinstallation

To reinstall the OrPAY1000, proceed as follows:

1. Place the OrPAY1000 carefully onto the surface, and align it with the screw-holes
2. Place the screws into the OrPAY1000 but don't tighten them. Verify that the OrPAY1000 is properly aligned, and then tighten the screws
3. Pass the wires through the rubber isolator in the back
4. Plug in the LAN cable / RS-485 and the low-voltage power cable, and reconnect the ground wire
5. Use new cable ties to secure the cables to the OrPAY1000. Verify that the cables are tied so that they will not be snagged or pinched when the door is opened and closed
6. Switch on the mains power supply and check that the OrPAY1000 powers up correctly
7. Check that the OrPAY1000 comes online, and then close the door

Section 7 Troubleshooting

7.1. General

This section provides a list of common system problems which may be encountered when using the OrPAY1000, as well as corrective actions covering problems related to the system and its peripherals.

OrPAY1000

The following describes OrPAY1000 troubleshooting procedures and appropriate corrective actions.

7.2. Network Issues

The following table describes the troubleshooting procedure and appropriate corrective actions for network connectivity issues (see [Table 7-1](#)):

Table 7-1 - Network Issues

Fault	Probable Cause	Checks	Corrective Action
OrPAY1000 Displays "No Communication" Message			
LAN communication is offline	Cabling issue	Inspect the network cable to the LAN port	<ol style="list-style-type: none">1. Verify that the LAN port LED is blinking2. Unplug the cable and plug it back in3. Replace the LAN cable (if necessary)4. If the cable is in a good condition; contact the IT department to confirm that the switch / router connected to the LAN cable is installed properly
	Incorrect network setup	Ping the device from the controller	Verify that the LAN connection has been configured properly

7.3. Display Issues

The following table describes the troubleshooting procedure and appropriate corrective actions when the display does not turn on (see [Table 7-2](#)):

Table 7-2 - Display Issues

Fault	Probable Cause	Checks	Corrective Action
Display is Unresponsive			
Display is blank	Internal fuse blown	Check the mini fuse at the bottom of the power supply using an ohmmeter	Replace the fuse if it is blown
	Power supply failure	Verify that the green LED on the power supply is lit	Replace power supply
	Faulty OrPAY1000	Does the unit shut down immediately after being turned on?	Replace OrPAY1000
Display Assets Missing / Incorrect			
Graphical assets are not displayed or wrong assets are displayed	Device needs to be refreshed		Reset the OrPAY1000 device
	Wrong Display Asset file has been loaded		Reload the Display Asset file in Admin Settings (see Software Upload)

7.4. Payment Terminal Issues

The following table describes the troubleshooting procedure and appropriate corrective actions for issues with the payment terminal (see [Table 7-3](#)):

Table 7-3 - Payment Terminal Issues

Fault	Probable Cause	Checks	Corrective Action
OrPAY1000 Does Not Accept Card			
OrPAY1000 display does not respond correctly to cards	Bad card	Present several cards to see if problem is consistent	Replace card and test again
	Dirty card reader	Verify that the card reader is clean	Clean the card reader using a cleaner card and try again
	OrPAY1000 is busy performing another task	Verify that the display presents the idle message	<ol style="list-style-type: none"> 1. Press Cancel 2. Present the card while the idle message is displayed
	Faulty card reader		Replace OrPAY1000
OrPAY1000 Does Not Accept RFID Tag			
OrPAY1000 display does not respond correctly to tags	Bad tag		Replace tag and test again
	Tag is not close enough to the OrPAY1000 antenna		Bring the key close to the antenna located on the red circle
	OrPAY1000 is busy performing another task		<ol style="list-style-type: none"> 1. Press Cancel 2. Present the tag while the idle message is displayed
	Faulty OrPAY1000		Replace OrPAY1000
OrPAY1000 Does Not Accept Orpak Key			

Fault	Probable Cause	Checks	Corrective Action
OrPAY1000 display does not respond correctly to keys	Bad key		Replace key and test again
	Faulty connection	Open the OrPAY1000 door and check the flat wire which connects key reader to the OrPAY1000 terminal	Make secure electrical connection if a faulty one exists
	OrPAY1000 is busy performing another task		<ol style="list-style-type: none"> 1. Press Cancel 2. Use the key while the idle message is displayed
	Faulty OrPAY1000		Replace OrPAY1000

7.5. Keypad Issues

The following table describes the troubleshooting procedure and appropriate corrective actions for issues with the keypad (see [Keypad Issues](#)):

Table 7-4 - Keypad Issues

Fault	Probable Cause	Checks	Corrective Action
OrPAY1000 Does Not Respond to Keypad Entries			
Pressing the keypad buttons does not generate any sound and does not affect the display	Dirty keypad		Clean the keypad
	Damaged keypad	Check the keypad surface for any damage	Replace keypad if any damage is found
	OrPAY1000 is busy performing another task	Verify that the display presents the idle message	<ol style="list-style-type: none"> 1. Press Cancel 2. Use the keypad while the idle message is displayed
	Faulty OrPAY1000		Replace OrPAY1000
OrPAY1000 Responds Incorrectly to Keypad Entries			
Pressing the keypad does not generate the affected result- wrong character or wrong language is shown	Device needs to be refreshed		Reset the OrPAY1000 device
	Wrong Keyboard file has been loaded		Reload the Keyboard file in Admin Settings (see Software Upload)



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