REVOLUTION
LAVERIE AUTOMATIQUE

Laundry Kiosk COMPACT V3

Installation and instructions manual

KIS · Photo-Me · Photomaton · Prontophot · FOTOFIX · PRONTOPHOT · KIS SPAIN Photo-Me Group

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1 Legal information

1.1 Generalities

Power supply

The machine is designed to run by default on 400 V AC, 50 Hz / 60 Hz, 25 A.

Tree-phase + Neutral + earth: 5 x 6 mm² for mini 16 kW.

Electrical hazard

Never open the machine when it is powered on. Disconnect the power supply beforehand.

This pictogram is displayed on the machine at points where there is an electrocution risk.

Only technicians from the maintenance company are authorised to service these parts of the machine.

Use

The machine is designed for use outside of buildings.

Operating temperature -5°C to 40°C

The machine must be installed on flat and stable ground.

The water & electricity feeds, as well as the wastewater discharge, must be pre-installed and emerge via a manhole.

Use only a power supply cable compliant with your country's regulations.

Spare parts

It is recommended to use only spare parts and consumable kits supplied by the manufacturer (filters, etc.).

These parts are compliant with stringent standards and have undergone highly rigorous testing to ensure optimum quality.

Wearing gloves

For any technical operation inside the machine, it is advisable to wear gloves.

CE compliance

This product meets the requirements of European Directive 2006/95/EC relating to electrical equipment, and the Electromagnetic Compatibility Directive 2004/108/EC.

EN 55022 warning

This device is a class A device.

In a residential environment, this device may cause radio-electric interference. In this case, the user may be requested to take appropriate measures.

WEEE warning

The presence of this symbol on the machine, or on its packaging, means that its disposal must be handled in accordance with the stipulations of the European Waste Electrical and Electronic Equipment Directive, in order to safeguard the environment and human health.

Please contact the competent local authorities, which will inform you of the procedures to follow.

1.2 Legislation

For the safety rules of washing machines and spinners made available to the public, refer to the laws in force in the country of installation.

1.2.1 Decree (France)

Decree no. 2012-412 of 23 March 2012 on safety of washing machines and spin dryers provided for public use (extracts):

Article 1

Any operator providing washing machines, spin dryers or combined washing machine-spin dryers for public use, whether they are horizontal or vertical axis, must comply with the following obligations:

1° At least once a week, check the operation of the safety devices that each machine must have, in accordance with the applicable technical regulations, the function of which is to prevent activation of the machine unless its lid or door is closed and locked, as well as to prevent the user from opening the lid or door when the machine's moving parts are still in rapid rotation;

2° Record their observations from this in a special log, in which each machine provided for use is listed.

Article 2

Subject to the provisions of article 5, any operator must hold one of the following documents for each of the machines provided for public use:

1° The declaration of compliance stated in article 6 of the above-mentioned Decree of 3 October 1995;

2° The CE declaration of conformity stated in article R. 4313-1 of the French Labour Code;

3° A declaration drawn up by the manufacturer or its authorised agent, certifying that the machine, in case of failure or malfunction resulting from a power outage, is designed with the safety devices as defined in 1° of article 1.

Article 3

Any operator must set up near the machine:

1° An unmodifiable visible sign, bearing in legible indelible characters the wording figuring in Appendix 1.

This sign must also indicate a telephone number to contact a designated individual during the laundry's opening hours, to report operating anomalies, especially regarding the machines' safety devices, and also indicate any means of reporting that can be used outside of these opening hours;

2° The parental supervision pictogram figuring in Appendix 2.

Article 4

The log stated in 2° of article 1, and the documents stated in article 2, must be kept available for the inspectors.

Article 6

Any operator in breach of the provisions of the present decree shall be punished by the fine stipulated for class five offences.

Any repeat of the offences stipulated in the present article shall be punished in accordance with articles 132-11 and 132-15 of the French Penal Code.

Appendix 1

Wording that must figure on the sign mentioned in 1° of article 3:

Warning: this equipment rotates at high speed, and the wash water can reach 90 °C.

Children must be kept under supervision when they are in the vicinity of the machines.

Do not let children operate the machines.

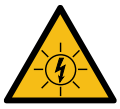
Do not force the machine doors or lids.

Wait for the machine to shut down completely, before opening the door or lid.

Appendix 2

Pictogram minimum size: 100 mm x 100 mm.

1.3 Pictograms on the machine

Pictogram	*Description*
Electrical	
	*Protection earth terminal (IEC 60417-1 5019)*
	*Electrical hazard (ISO 7010 W012)*
	*Danger presence of 2 voltage sources*
Hazard	
	*General hazard (ISO 7010 W001)*
	*Hot surfaces (ISO 7010 W017)*
Mandatory	
	*General mandatory (ISO 7010 M001)*

2 Description

2.1 Front face

1 Left access door to rear compartment

2 Screen printed window (x 2)

3 Access door to 20 kg dryer

4 20 kg dryer

5 20 kg dryer time cycle display

6 Access door to 20 kg washing machine

7 20 kg washing machine

8 20 kg washing machine program display

9 Access door to 9 kg washing machine

10 9 kg washing machine

11 9 kg washing machine program display

12 Access door to electrical, payment terminal and monetics compartment

13 10.4" touchscreen

14 Electronic payment terminal (option)

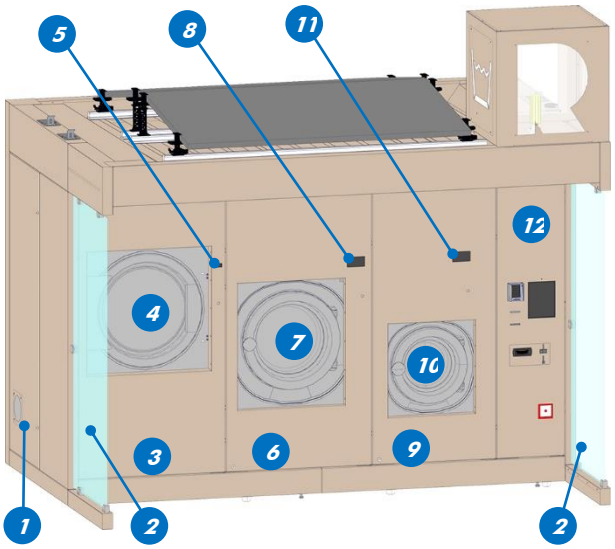
15 Prepaid card reader (option)

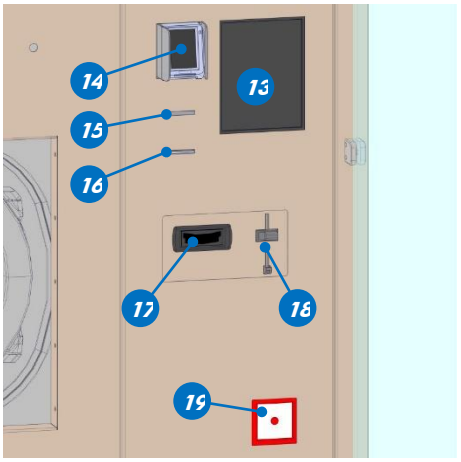
16 Billing ticket output (option)

17 Bill acceptor (option)

18 Coin acceptor (option)

19 Emergency stop





Front face

2.1.1 Electrical, payment terminal and monetics compartment

1 Electrical box

2 Payment terminal box

3 Reinforced cash box

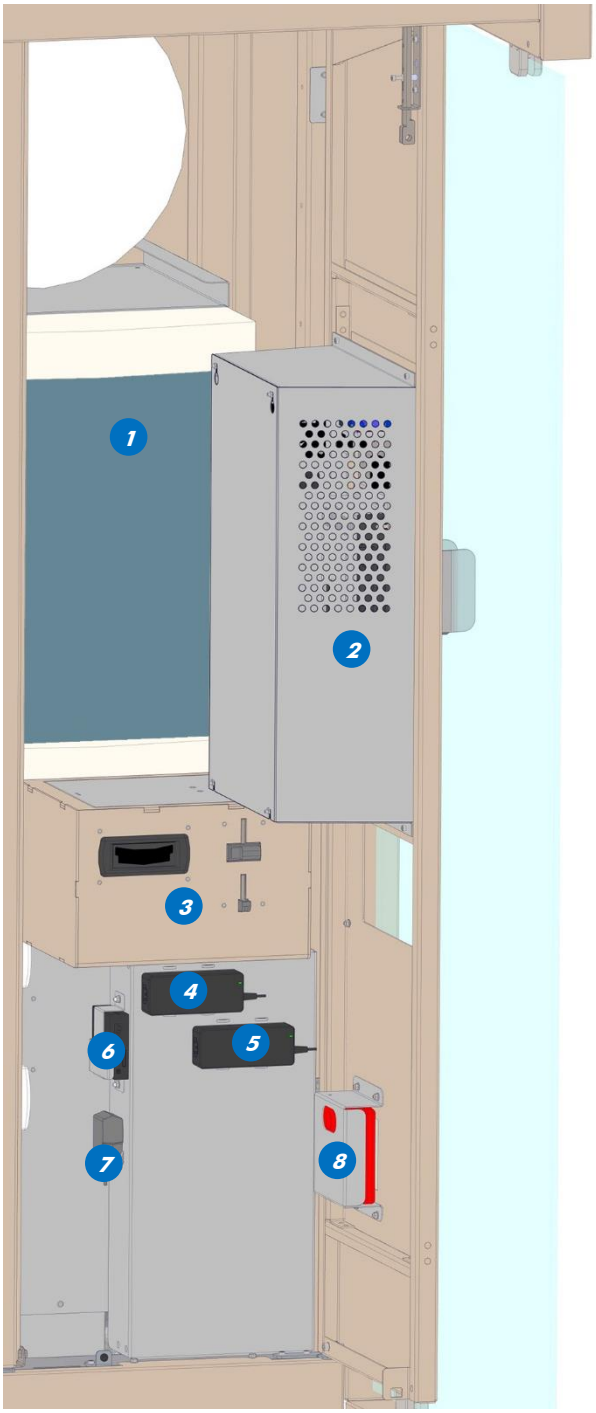
4 12V power supply for 10.4" touchscreen

5 12V power supply for printer

6 Router

7 12V power supply for router

8 Emergency stop (rear face)



Front face

Electrical box

1 32A circuit breaker - general (Q1)

2 6A differential circuit breaker - emergency stop (Q2)

3 5A static relay (K1)

4 Twilight switch (IC)

5 40A contactor (KM1)

6 25A differential switch - 20 kg dryer (Q3)

7 20A circuit breaker - 20 kg dryer (Q4)

8 25A differential switch - water heater 1 (Q5)

9 10A circuit breaker - water heater 1 (Q6)

10 25A differential switch - 20 kg washing machine, sockets and cubic brand sign (Q7)

11 10A circuit breaker - 20 kg washing machine (Q8)

12 16A circuit breaker - sockets and cubic brand sign (Q9)

13 25A differential switch - 9 kg washing machine and water heater 2 (Q10)

14 10A circuit breaker - 9 kg washing machine(Q11)

15 10A circuit breaker - water heater 2 (Q12)

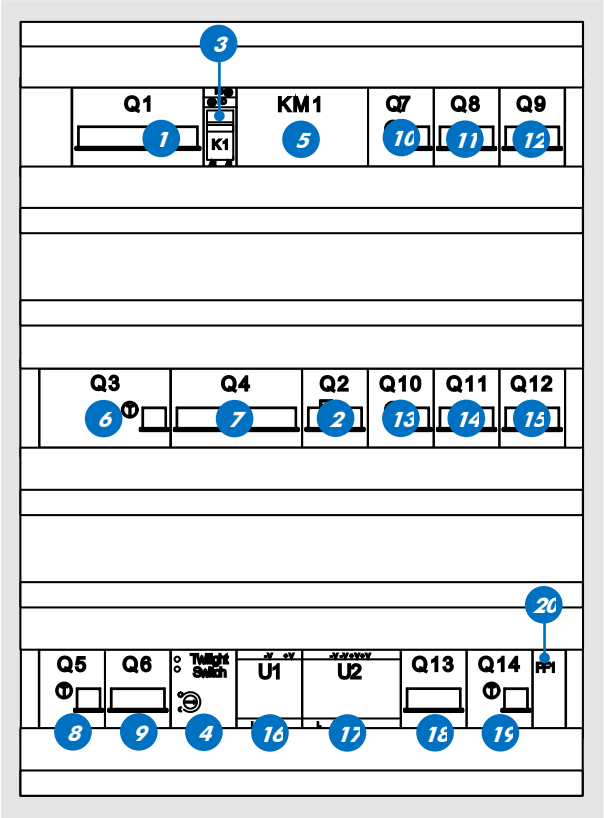
16 5V power supply (U1)

17 12V power supply (U2)

18 16A differential switch - photovoltaic (Q14)

19 10A circuit breaker - photovoltaic (Q13)

20 1 phase surge protector - photovoltaic (PF1)



Front face

Payment terminal box

1 Raspberry Pi 4 nano-computer

2 Relay card (x 2)

3 6 digits monetics counter

4 Hub 4 ports USB

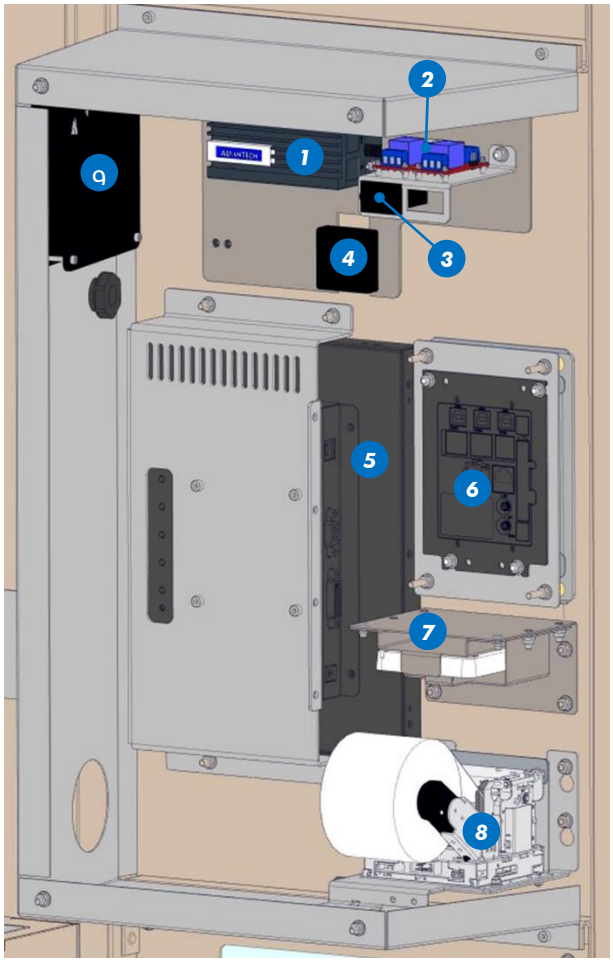
5 10.4" touchscreen (rear)

6 Electronic payment terminal (rear face)

7 Prepaid card reader (rear face)

8 Printer

9 Fan



2.2 Rear face

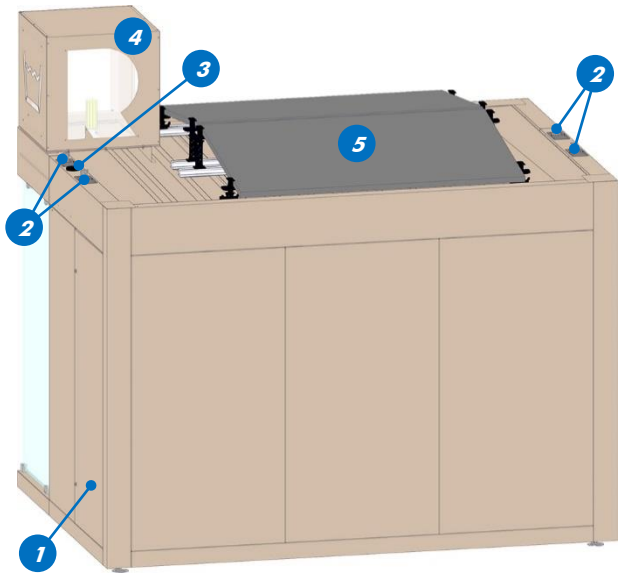
1 Right access door to rear compartment

2 Lifting ring (x 4)

3 Cellular antenna

4 REVOLUTION cubic brand sign (option)

5 Photovoltaic assembly (option) with:
- 2 photovoltaic panels
- 4 rails
- 8 fixation feet
- 1 converter
- 2 extension cable
- 1 earth cable



2.2.1 Rear compartment

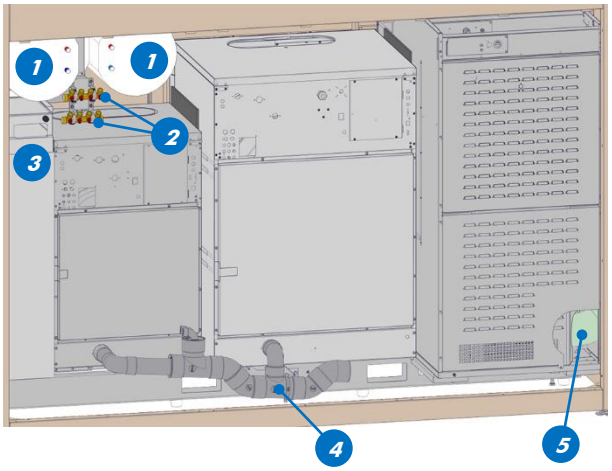
1 Water heater (x 2)

2 4-way manifold (x 2)

3 Cabinet with:
- 3 start buttons
- 3 peristaltic pumps
- 1 thermostat
- 1 finned heating resistor
- 2 detergent canisters (2 x 10 L)
- 1 softener canister (10 L)
- 1 sanitizer canister (10 L)

4 Wastewater outlet from 9 kg and 20 kg washing machines

5 20 kg dryer ventilation extraction



2.3 Technical characteristics

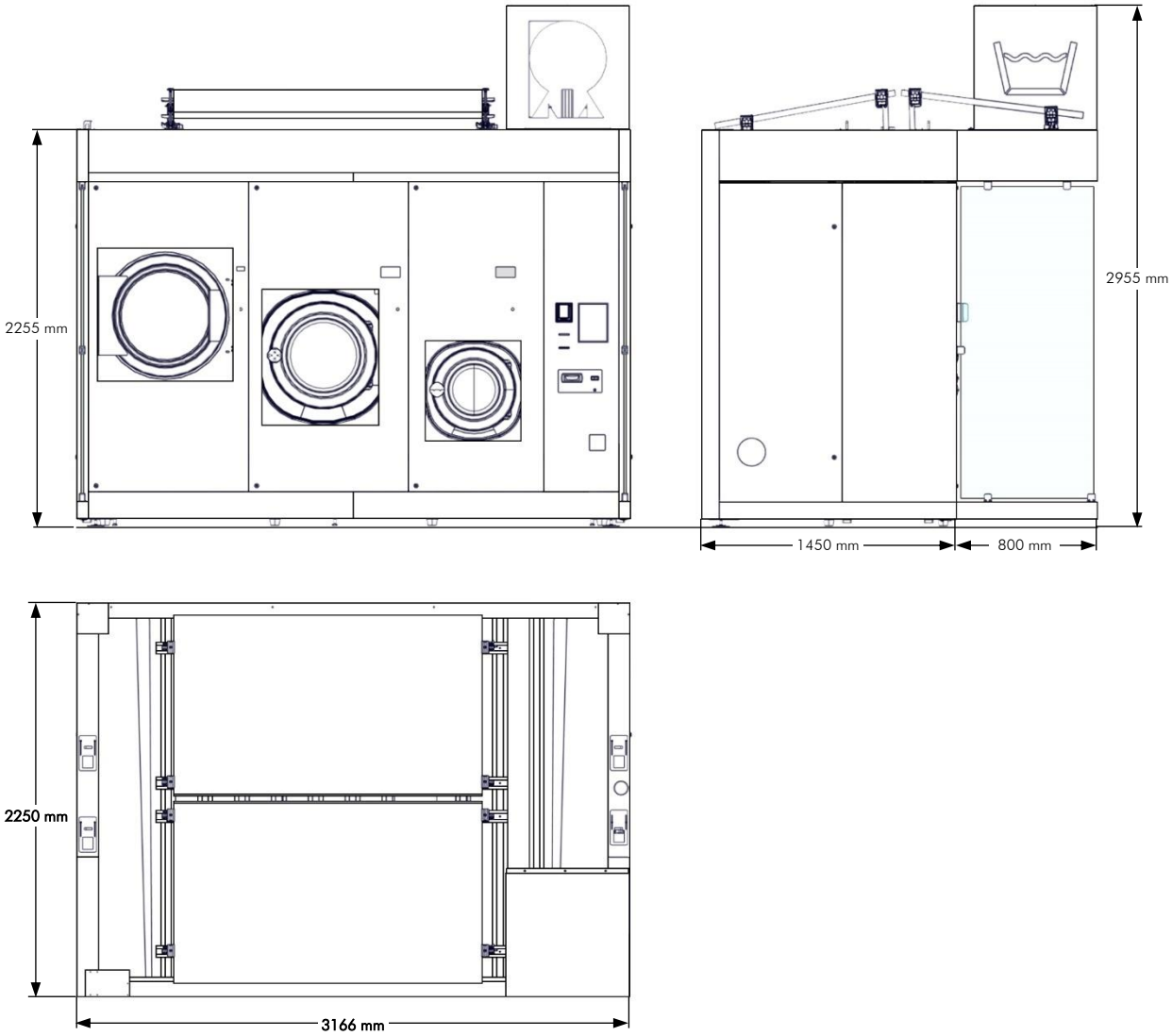
	9 kg washing machine	20 kg washing machine	20 kg dryer
Programs	15	15	3
Drum capacity	80 L	180 L	345 L
Noise level*	53/63 dBA**	50/68 dBA**	53 dBA
Electrical supply	Mono 230V (phase + neutral + earth)		Tri 400V (3 phases + 1 earth)
Maximum power	0.9 kW	2.3 kW	12 kW
Protection	10A	10A	25A
Dimensions - W x H x D (mm)	710 x 1110 x 790	970 x 1410 x 970	795 x 1680 x 1280
Weight	185 kg	380 kg	240 kg
Informatique			
Nano-computer	Raspberry Pi 4, Linux system		
KIS software	Language, slide show, HMI configuration		
Touchscreen	10.4"		
Exploitation	Internet connection by modem router with 3G or 4G key for sending SMS alerts, remote maintenance and bank payment.		
Equipments			
Water heater - Electrical supply - Power supply	2 x 50 L at 70°C 1 phase 2 x 2000 W		
Kiosk dimensions			
Dimensions - W x H x D (mm)	3166 x 2955 x 2248		
Surface	4.6 m^2 floor space (7 m^2 with shelter)		
Weight	1700 kg		
Photovoltaic panels (option)			
Number of panels	2		
Maximum power per panel	370 W		
Protection	20A		
Rake	10°		
Energy production	No integrated batteries, the surplus is returned directly to the seller's structure.		
Others			
Rated insulation voltage - Ui	500V		
Rated impulse withstand voltage - Uimp	2.5 kV		
Interrupting capacity - Icc	10kA		
Rated conditional short-circuit current - Icc	< 6kA		
Maximum short-circuit current on three-phase infeed - Icc	< 6kA		
Types of network earthing	TT system		
Pollution degree	Degree 3		
Enclosure degree of protection	IP23		
Protection against mechanical impacts	IK07***		
Operating temperatures range	De -5°C à 40°C		
EMC classification	Type A environment (industrial)		
This laundry has been designed for a type A environment. The use of this equipment in a type B (residential) environment may cause unwanted electro-magnetic disturbances that may require appropriate mitigation measures on the part of the user.			

* Measured during the operation of the device when the user is 1 meter from the front of the machine and 1.6 meters from the ground.

** Washing/spinning.

*** Protection against an impact energy of 2 joules.

2.4 Dimensions



3 Installation

Safety instructions:

Read this manual fully before installing the laundry kiosk.

The accessories ID refer to the different lists of accessories located in Chapter 7 Appendices.

The laundry kiosk is designed for washing and drying laundry, to the exclusion of any other application.

Any repair operation on the electrical circuit or on a machine must be carried out by a qualified technician.

3.1 Installation pre-requisites

For the installation boundary conditions, refer to the laws in force in the country of installation.

3.1.1 Installation boundary conditions for France

As per regulation NV65, amended 2009.

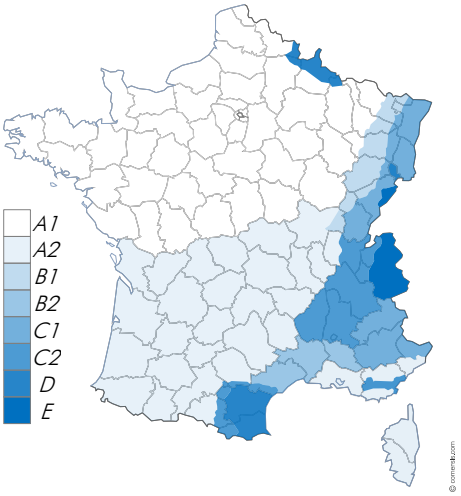
Snow resistance

The maximum permissible roof load due to snow is 250 daN/m².

The region where the laundry kiosk is installed must be free from any risk of exceeding this maximum load.

Adhere to the maximum installation altitude for the region:

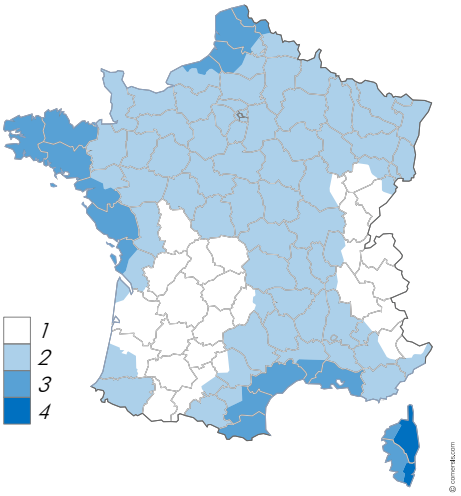
Région	*A1*	*A2*	*B1*	*B2*	*C1*	*C2*	*D*	*E*
Maximum altitude (m)	*800*	*800*	*800*	*800*	*750*	*750*	*650*	*500*



Winds resistance

The ground anchors must be installed according to the extreme wind for the installation zone:

Installation zone	*Extreme wind*	*Installation recommendations*
1 and 2	*149 km/h*	*Regardless of ground type, M12 threaded rods sealed at 2 rear corners of the kiosk.*
3 and 4 (coasts, east Corsica)	*182 km/h*	*Concrete slab required, or concrete blocks, at the 4 corners of the kiosk, before sealing the M12 threaded rods.*
	>182 km/h	*Installation not authorised.*



Installation pre-requisites

3.1.2 Utilities

The water and electricity feeds, as well as the wastewater discharge, must be pre-installed and emerge via a manhole.

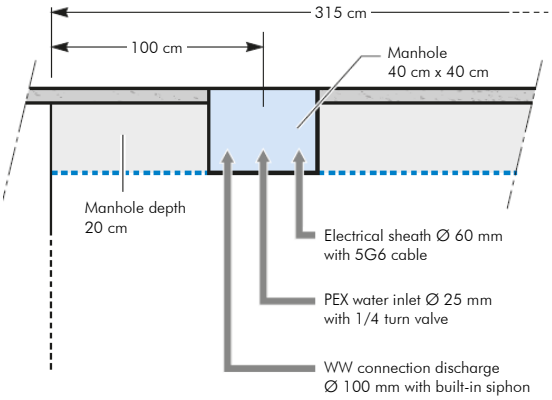
Water feed connection

3/4" male with one 1/4-turn valve.

Pipe type: 20/22 or diameter 25 mm.

Maximum pressure: 5 bar.

Flowrate: 1.2 m^3/h (for a standard 3-component kiosk installation).



A softener must be systematically installed, for water TH* over 14.

**** TH = total hardness: mineral salt concentration (limescale).***

Electrical infeed

Three-phase + Neutral + earth: 5x6 mm^2 in copper f or min. 16 kW.

Differential protection: 4 pole 25A 300mA - 16 kW.

Length: 7 m available at manhole outlet.

Wastewater discharge

Minimum diameter: 100 mm.

The washing machines are not equipped with pumps. Wastewater drains out by gravity, so the height of the discharges must not exceed 0 (ground level), and be sloped.

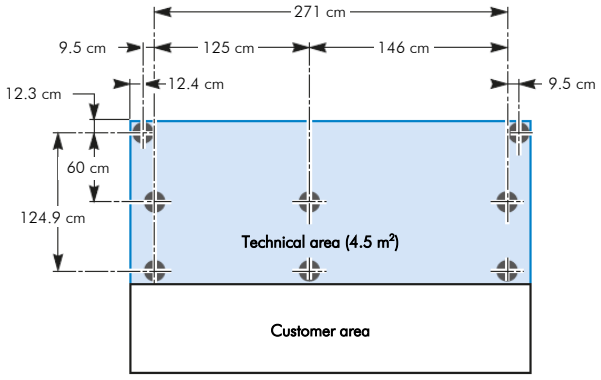
3.1.3 Ground evenness

The unevenness of the kiosk surface must be less than: 8 cm.

Otherwise, a concrete slab with a 2 % slope must be laid, with the slope running from the equipment part toward the customer part.

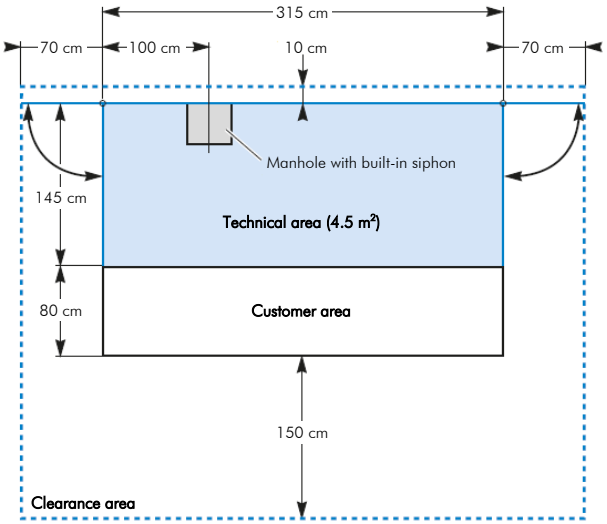
Positioning of cement blocks

Cement blocks are required in case of installation on loose ground. They are not required on tarmac which is sufficiently thick (>4 cm).



3.1.4 Clearances

Right or left-hand sides	*70 cm (at least one side accessible, preferably the right-hand side)*
Front side	*150 cm (minimum for handicapped access)*
Rear side	*10 cm*



Unloading the lorry

3.2 Unloading the lorry

The handling equipment employed must be compatible with the kiosk weight, 1.7 tonne.

Do not use the tie-downs to lift the kiosk.

Unload the lorry:

1 The kiosk,

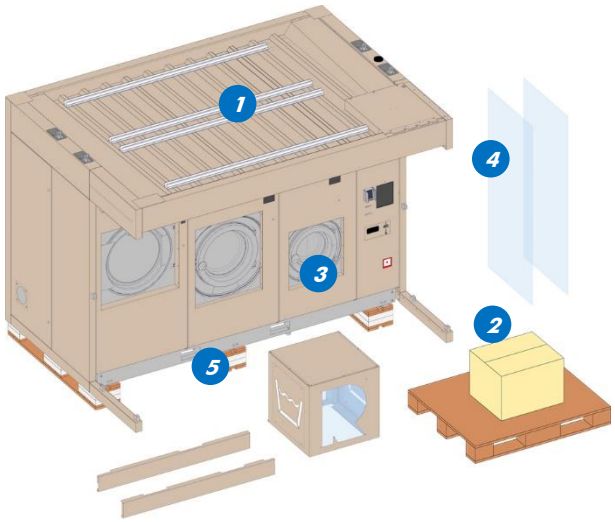
2 The accessories pallet (see chapter ***7 Appendices***),

3 The REVOLUTION cubic brand sign (option),

4 The 2 screen printed windows,

5 The 2 chassis strips,

and the 2 photovoltaic panels (option), not visible on the illustration.

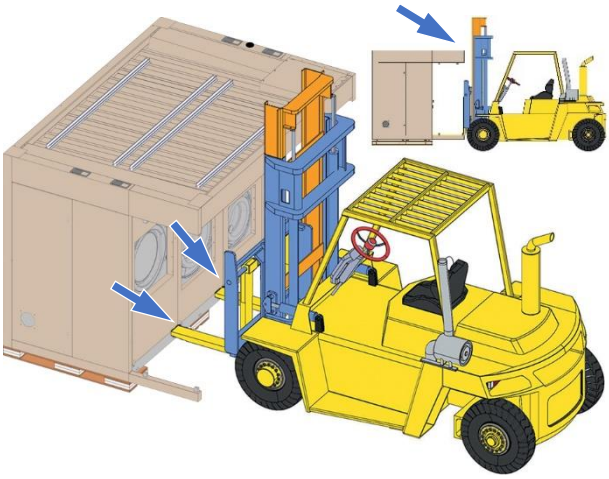


The kiosk can be lifted using a crane, via the 4 lifting rings accessible on the roof, after driving the tie-downs up to remove them.

Unloading the lorry

The kiosk can also be lifted and transported using a forklift, inserting the forks via the holes situated on the bottom front beam.

The forks must be long enough to bear both beams of the chassis without the forklift truck touching the top front strip.



Caution:

Do not damage the roof overhang with the upper part of the forklift truck.

Do not to insert the forks too deep, so as not to damage the rear panels.

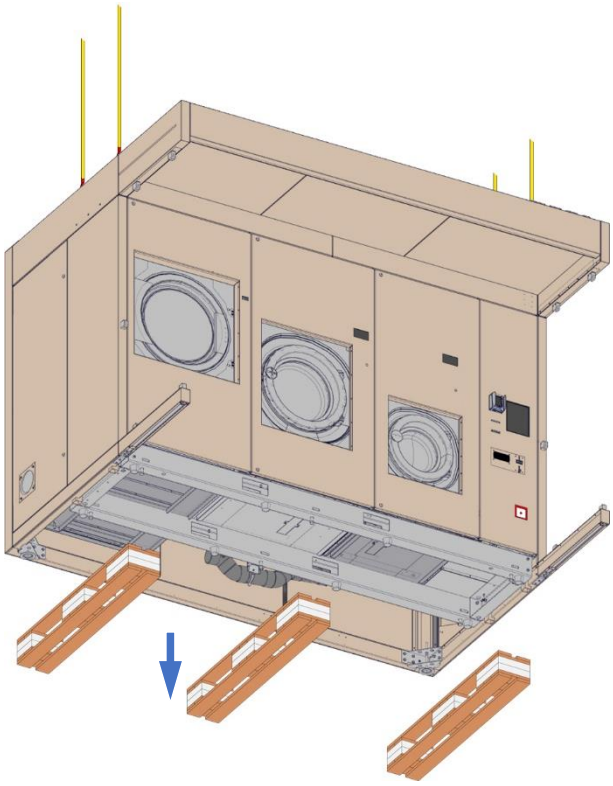
3.3 Unpacking

When the kiosk is in its final position, but not yet placed on the ground, at a height of approximately 1 m:

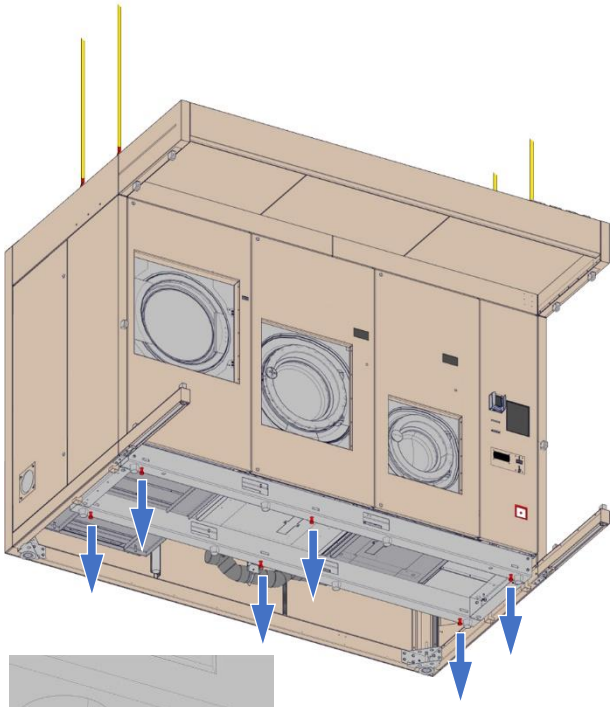
Remove the 3 pallets fastened under the chassis before placing the kiosk on the ground.

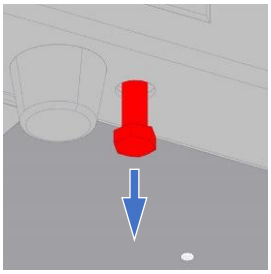
Cut the strap attaching each pallet to the kiosk chassis.

Beware of falling pallets.



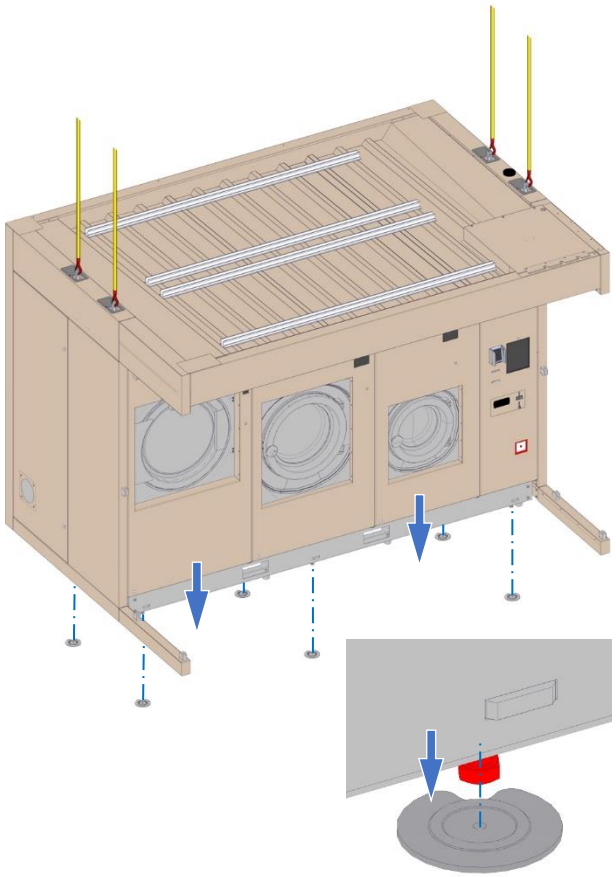
Adjust the 6 screws approximately, undoing them by 20 mm.
You can anticipate the slope by undoing the front screws further.





Unpacking

Lower the kiosk to the ground with care, inserting 6 thrust washers (accessories ID 6) under the 6 screws for the central chassis.



Remove the protective adhesive film, taking care not to detach the stickers.

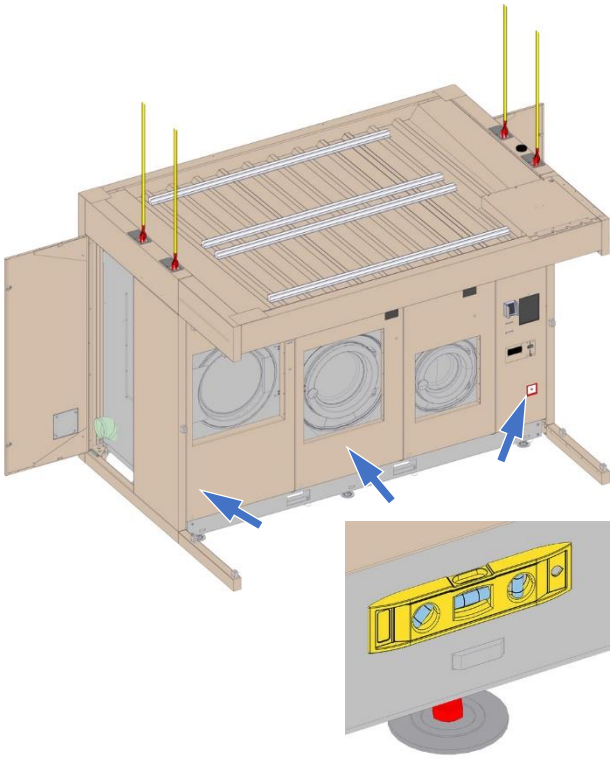
To do so, pull off the film delicately, parallel to the lining plates.

3.4 Levelling

To enable these adjustments, open the 2 side doors with the R02 spanner (accessories ID 1).

Set the heights of the 6 screws (24 open-ended spanner), so that the kiosk is as low as possible while still horizontal. Horizontality is assessed using a spirit level placed on the bottom beams of the chassis.

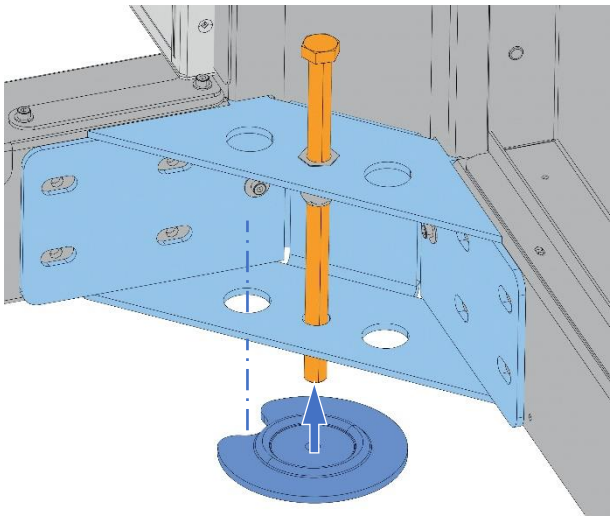
If the lifting equipment (crane or forklift truck) is still present when setting the level, you can relieve the weight of the kiosk by lifting it up by a few cm between each screw adjustment, to facilitate this setting.



Place the 2 thrust washers (accessories ID 6), under the 2 M12 x 200 mm screws (accessories ID 3) for the 2 brackets on the rear of the chassis.

Position the washer notch in the axis of the bracket hole.

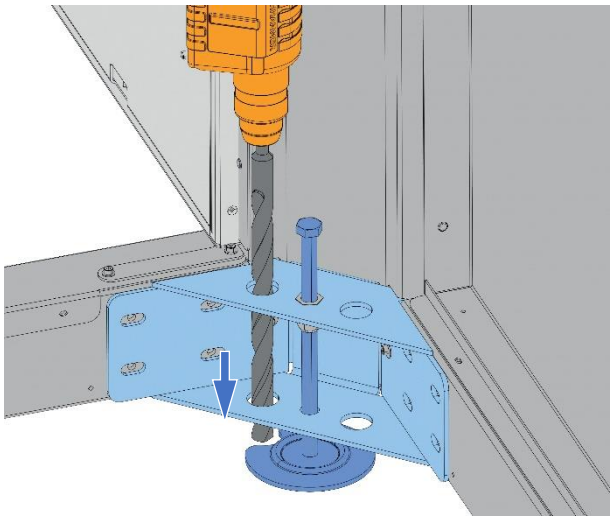
Screw in the 2 screws until they are resting on the washers, applying a slight stress.



3.5 Sealing the kiosk

Seal the 2 brackets situated on the rear of the chassis:

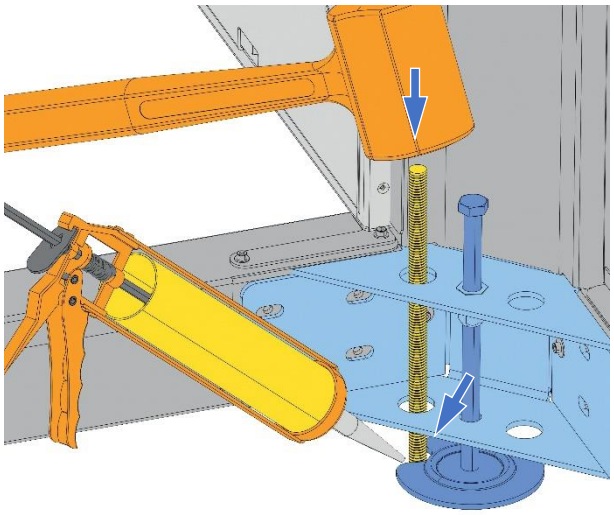
Drill a 14 mm diameter hole to a depth of at least 100 mm into the ground, passing through the hole in the bracket as opposite.



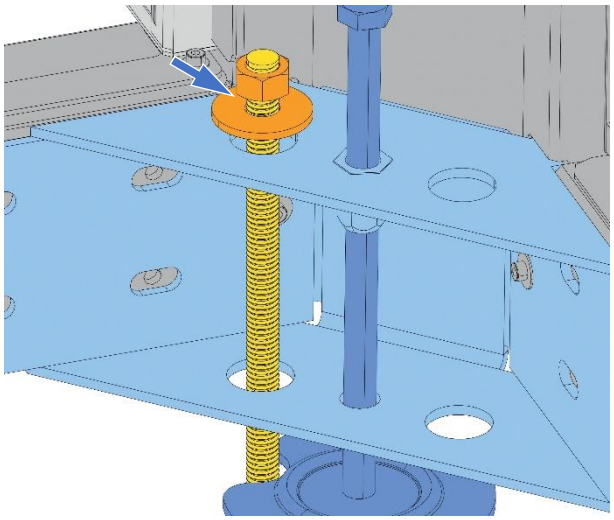
Fill each hole with sealant compound (accessories ID 4).

Position in each of the holes an M12 x 250 mm threaded rod (accessories ID 2), using a hammer.

Quickly position the threaded rod just after inserting the sealing compound, since it can harden quickly.



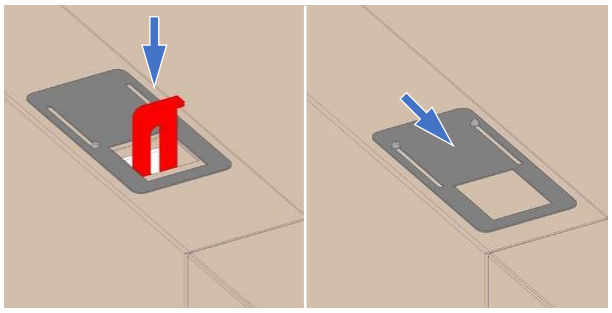
Position 2 washers and 2 M12 nuts (accessories ID 8 and 9) on the threaded rods until they come into contact with the beams and brackets, without forcing.

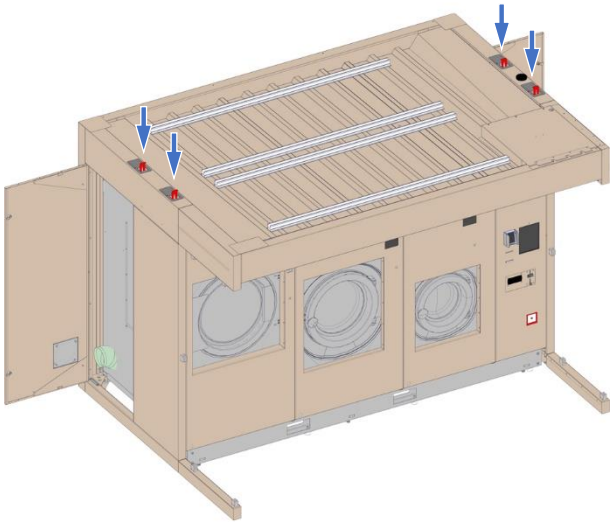


Sealing the kiosk

If the kiosk has been lifted using a crane, re-insert the 4 lifting rings into the structure.

Imperatively, reclose the 4 hatches, and tighten the nuts with a 5.5 mm socket spanner, in order to avoid any water infiltration in the kiosk structure.





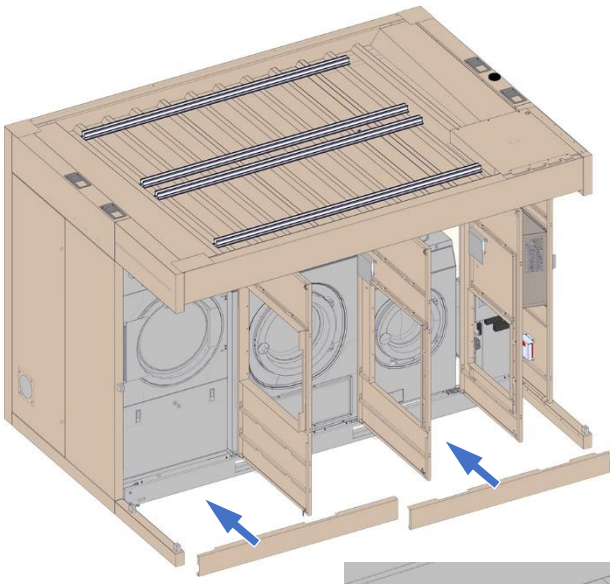
3.6 Fitting the lower strips

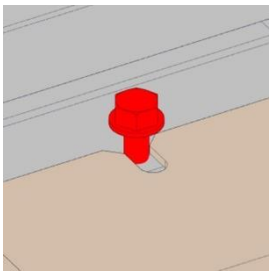
To be able to fit the lower strips, open the front doors using the R02 spanner (accessories ID 1).

Unpack the 2 strips for the lower beam.

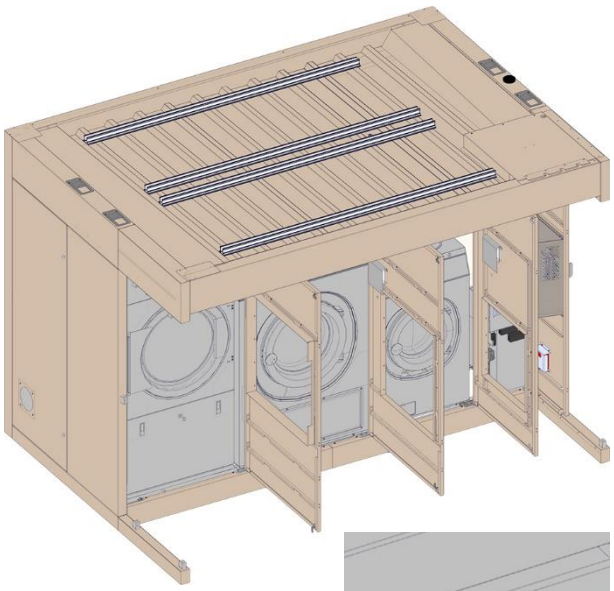
The 10 fastening screws are already pre-screwed onto the beam.

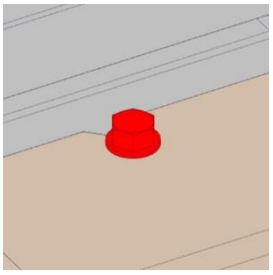
Position the 2 strips onto the beam, engaging the apertures under the screw heads.





Tighten the 10 fastening screws for the 2 strips with an 8 mm socket spanner.





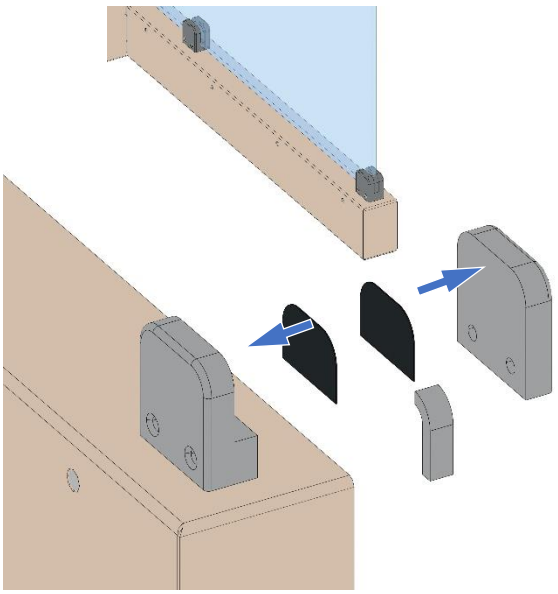
3.7 Fitting the windows

- 8 window length fastening clamp kits (accessories ID 16).
- 2 window bottom corner fastening clamp kits (accessories ID 15).

Position the rubber support pads supplied with the window clamps.

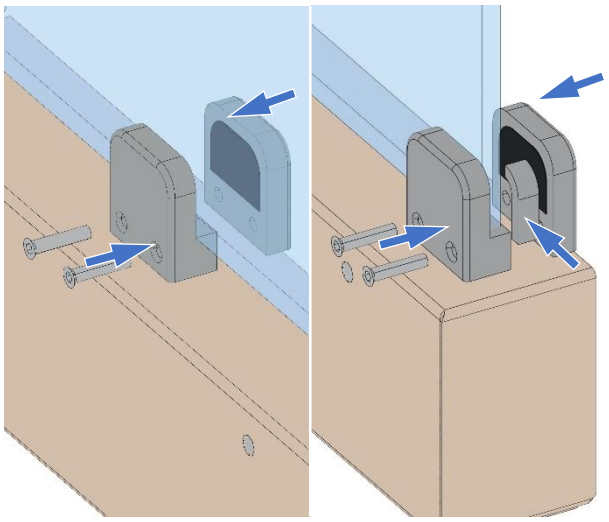
For each side:

- 5 pads on the fixed half-clamps.
- 5 pads on the removable half-clamps.



Offer up each window and fasten it using 5 half-clamps and 10 M6 screws supplied with the clamps.

Position the windows so that the screen prints are inside the kiosk.



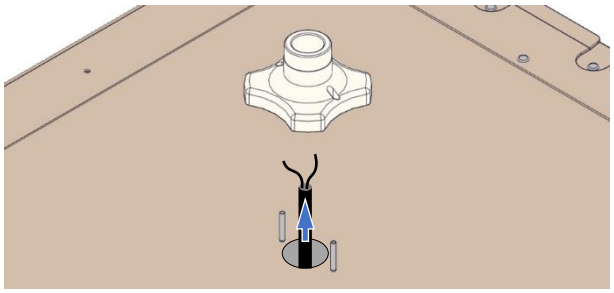
3.8 Setting up the REVOLUTION cubic brand sign (option)

Install a ladder against the kiosk to mount the cube on its support on the roof.

Check that the ladder is stable.

Bring this cable out onto the roof, and feed it through the hole made for this purpose in the cube support.

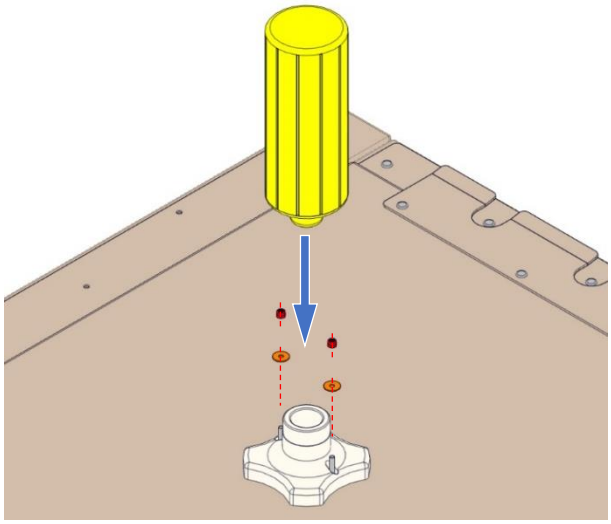
Connect the cable to the bulb socket (accessories ID 2).



Position the socket on the 2 threaded rods of the cube support.

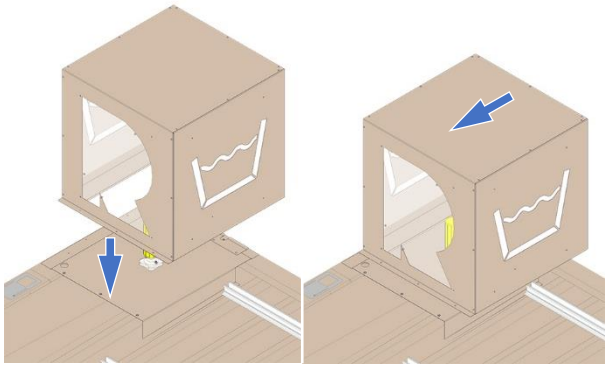
Fasten the socket with 2 M4 nuts and 2 washers provided with the cube.

Fasten the bulb (accessories ID 1) on its socket.

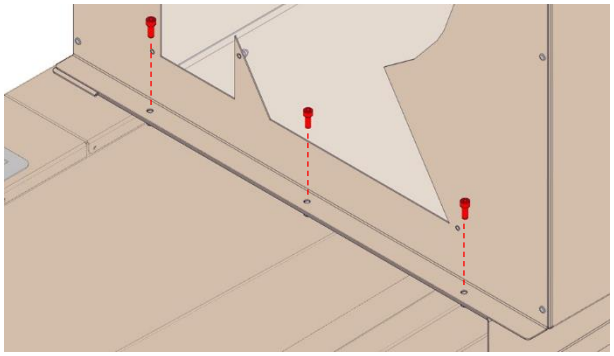


Position the cube on its support.

The inside return of the front panel must pass between the sheets of the support.



Fasten the cube on its support with 3 M6 x 20 screws.



3.9 Setting up the photovoltaic panels (option)

Prerequisite:

An electrical authorization or at least an adequate insurance specific to photovoltaics is necessary to proceed with the installation.

The operation requires unplugging the power cable from the kiosk.

So make sure to work safely by cutting upstream (+ VAD).

3.9.1 Assembly steps

Fasten the 8 feet

Fasten the inverter

Assembly the 2 photovoltaic modules

Assembly the modules to the inverter

Connecting the power cable to the inverter

3.9.2 Assembly

Fasten the 8 feet

2 types of foot:

- 4 short: 125 mm (rep. 1),
- 4 long: 250 mm (rep. 2).

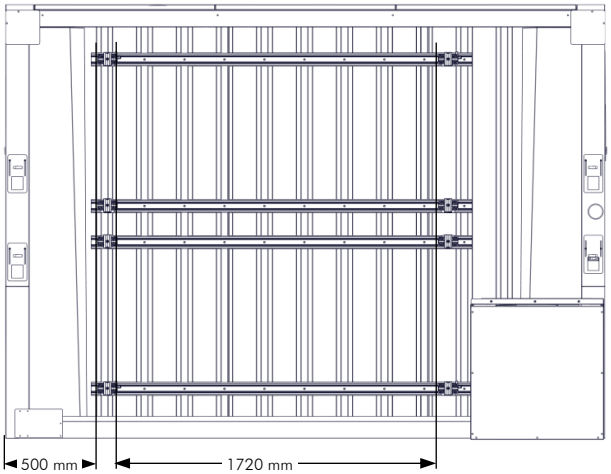
Positioning the feet on the rails

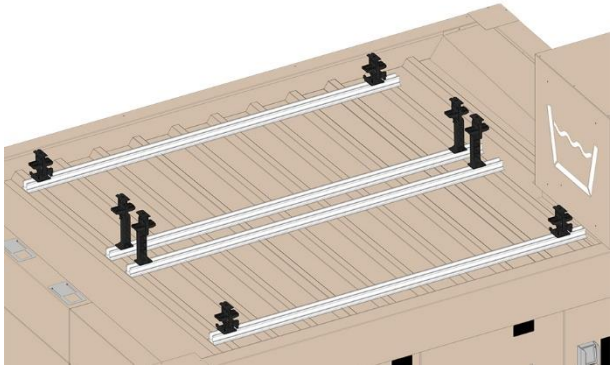
Insert the base of the leg into the rail.

Turn it a quarter of a turn so that it clips into place.

Then tighten the screw (tightening torque ***3 Nm***) to clamp the foot plate in the rail.

Repeat the operation for each of the 8 legs.





Setting up the photovoltaic panels (option)

Fasten the inverter

The inverter (accessories ID 3) is fixed to the rail with 2 self-drilling screws (accessories ID 8) + 2 wide washers.

Fasten one of the earth wire lugs (accessories ID 5) to the inverter.

Assembly the 2 photovoltaic modules

Insert the first photovoltaic module.

Tighten the jaws of the 8 feet to ensure that they are securely in place.

Clamp the panel with the screws (torque 6 Nm) on each foot.

Repeat the steps for the second photovoltaic module.

Connecting the modules to the inverter

Each module is equipped with 2 moulded cables to be connected to the inverter.

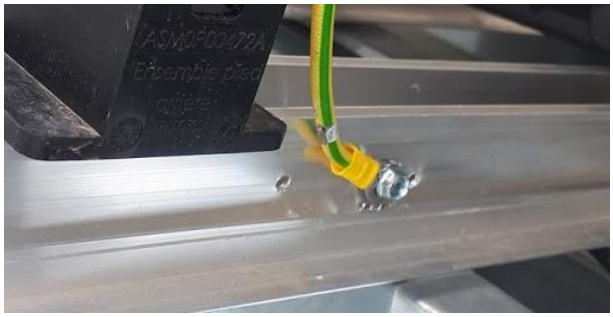
2 one-metre extensions are supplied as accessories (1 extension per module) to connect the moulded cable of the module, the furthest from the inverter.

Rear module on 2 *Front module on 1*

Connect the earth wire (accessories ID 5) with the clips supplied (accessories ID 6) as accessories.

Setting up the photovoltaic panels (option)

Fasten the other end of the earth wire to the rail (1 self-drilling screw (accessories ID 8) + 2 washers).



Connecting the power cable to the inverter

Plug the connector of the Y3 Bus cable, coming from the electrical box and passing under the cube, on the inverter.

Main electrical box label

A normative label must be affixed to the main electrical box of the installation site.

The label is provided with the electrical box.

3.10 Machine preparation

Open the front doors using the R02 spanner (accessories ID 1).

Empty the tumble dryer drum.

With a 30 Torx spanner, remove:

- The 9 kg washing machine front panel,
- The 20 kg washing machine inspection hatche.

Remove the 2 transport clamps on the front of the washing machines with a 10 mm socket spanner (8 kg) and a 13 mm socket spanner (20 kg).

Then remove the 2 clamps at the rear of the washing machines by removing the protective panel of each washing machine, using a 30 mm Torx key.

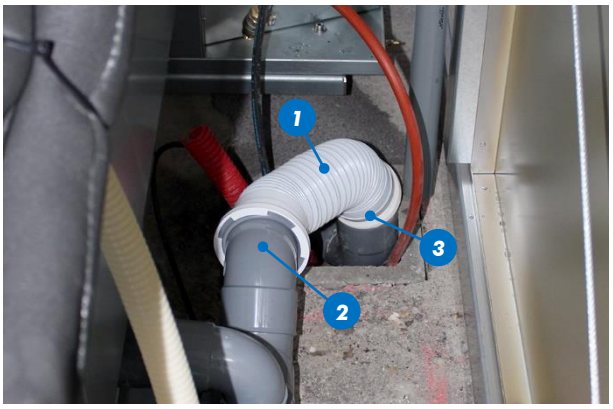
Put back the protective panel of each washing machine.

4 Connections

4.1 Discharge

The parts required for connecting the wastewater manifold may depend on the utilities installed on-site.

Connect the extending orientable straight WC pipe ∅100 (***1***) between the end of the wastewater outlet (***2***) of 9 et 20 kg and the siphon (***3***) located in the utilities.



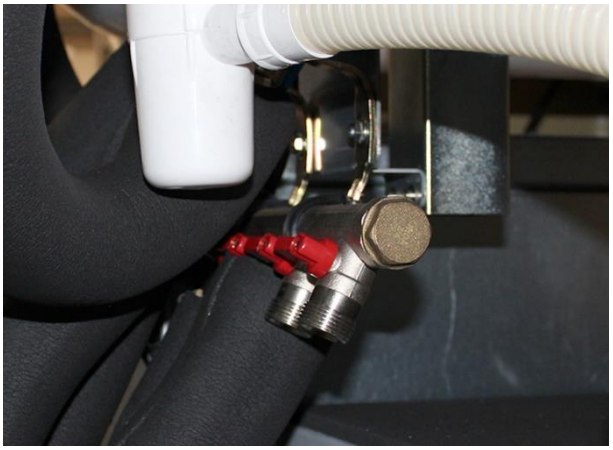
4.2 Filling the water heaters

On the lower 4-way manifold, open one of the 2 valves to perform an air bleed.

Open the water infeed valve, and leave it open until the water heater fills up, i.e. until the water starts running from the hot water outlet.

Cut the water infeed valve.

Make sure that there are no leaks.



Completely fill the water heaters (before switching on the electricity supply).

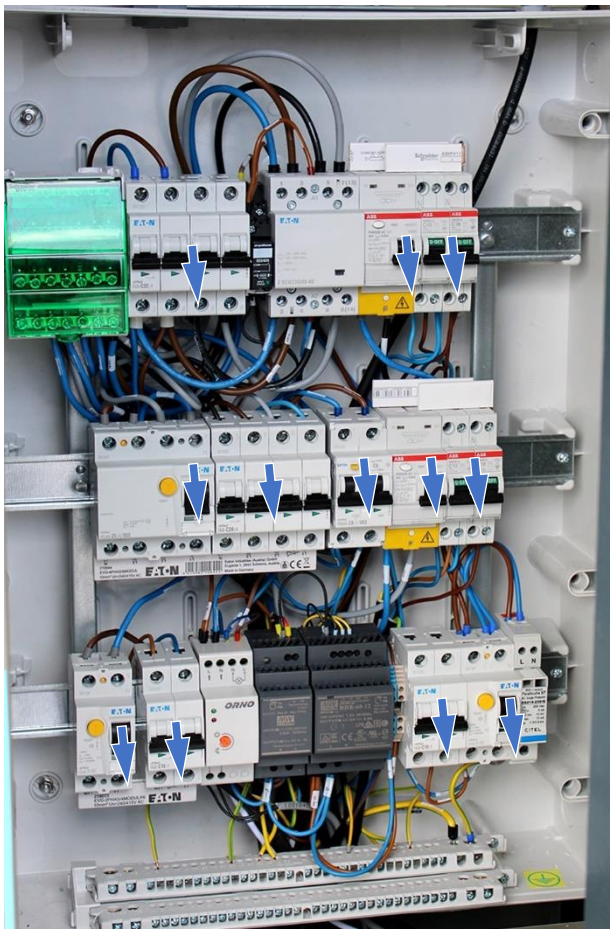
4.3 Electrics

Check that the power supply cable provided is POWERED OFF.

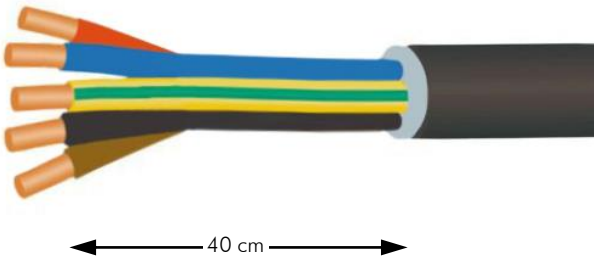
Use a Voltage Absence Detector (VAD).

Remove the plastron from the switchbox.

Check that all the circuit breakers in the switchbox are open, ***OFF*** position.

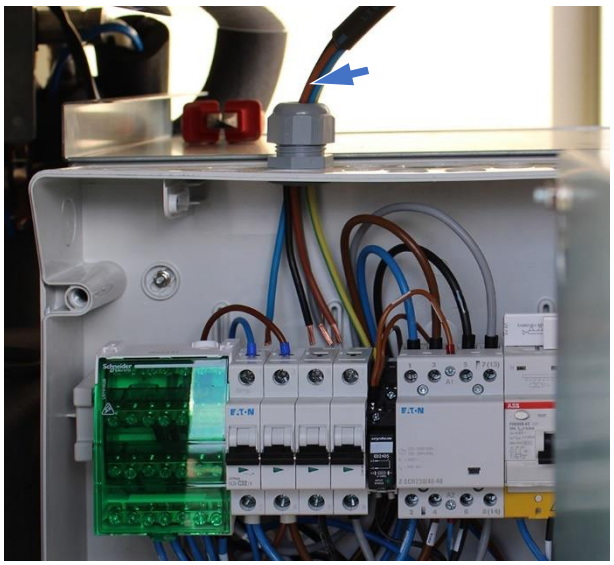


Remove the outer insulation from the cable over a length of 40 cm, without damaging the insulation of the internal wires.



Electrics

Route the cable to the upper input of the switchbox, attaching it on the cable run above the machines.



Connect the blue wire (neutral) and the 3 other wires (phase) to the input of the main circuit breaker Q1 (ID in table).

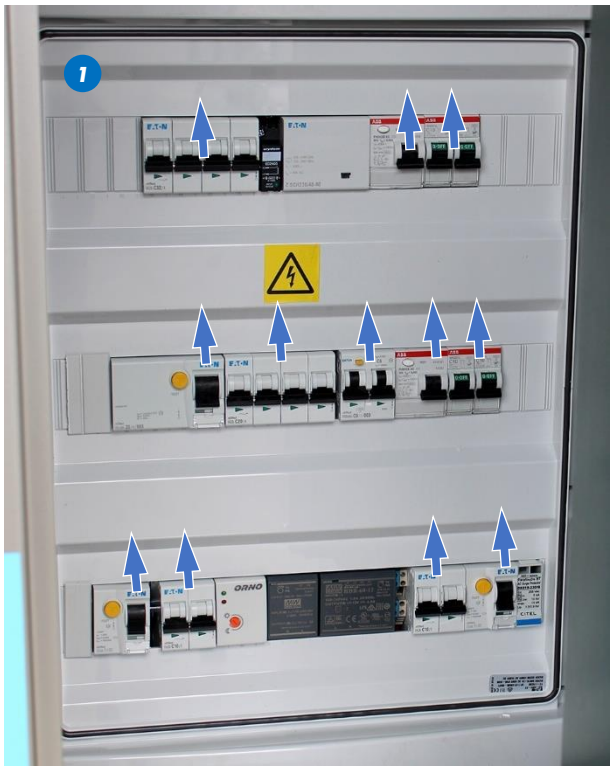
Neutral (blue) must be connected to the left terminal of the circuit breaker.

Connect the earth wire (green/yellow) to the earth wire connection strip at the bottom of the box.

Check the tightness of all the circuit breaker terminals (bottom and top) in the switchbox, as well as the tightness of the top and bottom connection strip screws.

4.4 Powering on

Refit the plastron on the switchbox (***1***).



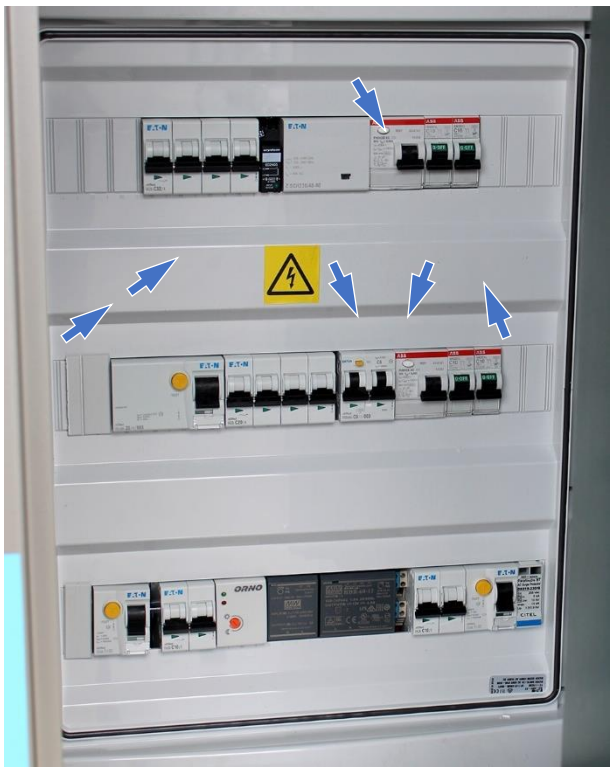
Power on the infeed cable. Close the circuit breaker, ***ON*** position, upstream of the installation.

Power on the kiosk. Close the circuit breakers on the switchbox, ***ON*** position, in the following order:

- Q2 (emergency stop and payment terminal). The terminal display lights up.
- Q1 (general).
- Q6 and Q12 (water heater 1 and 2).
- Q9 (lighting).
- Q10 differential circuit breaker of the 9 kg washing machine.
- Q7 differential circuit breaker of the 20 kg washing machine.
- Q11 (9 kg washing machine). The washing machine display lights up.
- Q8 (20 kg washing machine). The washing machine display lights up.
- Q3 (dryer). The dryer display lights up.

4.4.1 Checking the differential circuit breakers

Check the proper functioning of the different differential circuit breakers by pressing their test button: the circuit breakers must open.



Switch the kiosk back on.

Close the circuit breakers, on the ***ON*** position, on the distribution box, in the following order:

- Q2 (emergency stop and payment terminal). The terminal display lights up.
- Q6 and Q12 (water heater 1 and 2).
- Q9 (lighting).
- Q10 (9 kg washing machine). The washing machine display lights up.
- Q7 (20 kg washing machine). The washing machine display lights up.
- Q3 (20 kg dryer). The dryer display lights up.

4.5 Detergent circuit

In the pumps and canisters cabinet:

Set up and connect the 2 x 10 litre detergent canisters (***1***).

Fill the softener canister (***2***) with 2 x 5 litre canisters.

Fill the sanitizer canister (***3***) with 2 x 5 litre canisters.

Dip a suction hose in the softener and sanitizer canisters to the bottom.

Prime the detergent, softener and sanitizer circuit, pressing and holding each priming button on the rear strip of the pumps and canisters cabinet.

Water is normally injected simultaneously into the machine.

Release the button when the detergent and softener have completely filled the pipe.

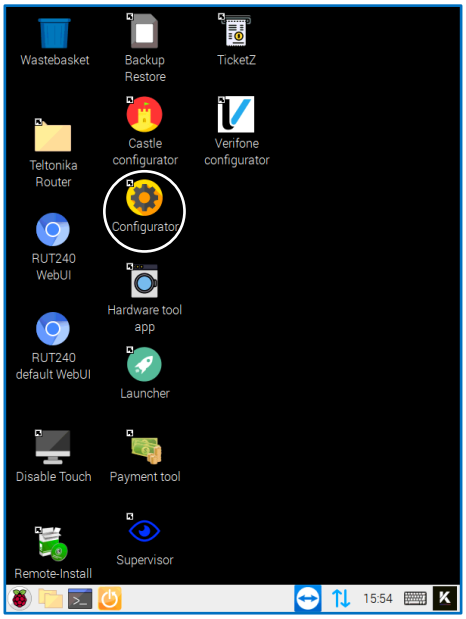
If priming fails, check the sealing of the pump's suction connector.

5 Commissioning

5.1 Commissioning procedure

5.1.1 Configuration

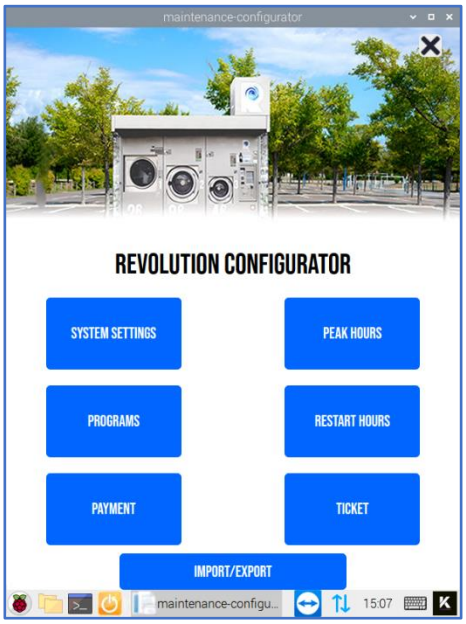
On the Raspberry Pi desktop, double-click on the ***Configurator*** icon to switch to configuration mode.



The opposite screen appears.

Different screens are accessible from it:

- ***SYSTEM SETTINGS***
- ***PEAK HOURS***
- ***PROGRAMS***
- ***RESTART HOURS***
- ***PAYMENT***
- ***TICKET***
- ***IMPORT/EXPORT***



To exit Configurator, click the cross ☒, this will allow the user interface to automatically restart 20 s later.

If Configurator is exited by clicking the cross on the top banner, Launcher must be restarted from the desktop.

Commissioning procedure

SYSTEM SETTINGS screen:

MACHINE NAME: allows to change the machine name.

CURRENCY SYMBOL: displays the currency symbol used (not modifiable information).

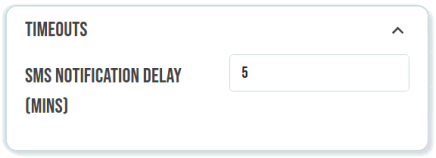
CURRENCY SYMBOL ALT.: displays the abbreviation of the currency symbol used (not modifiable information).

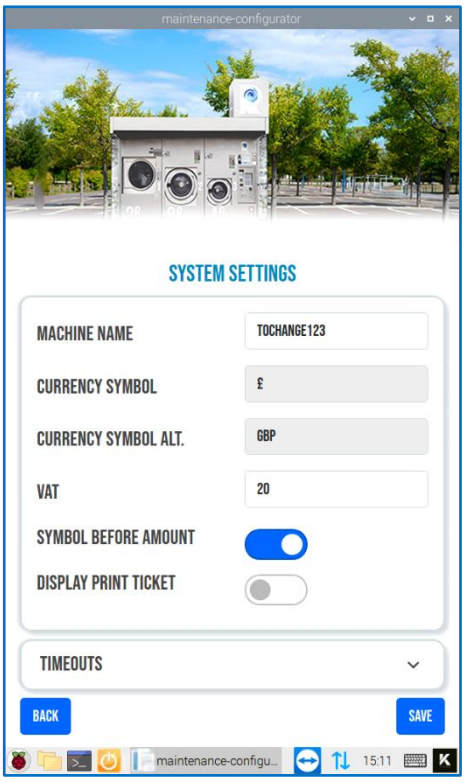
VAT: allows to change the percentage of VAT applied.

SYMBOL BEFORE AMOUNT: to place the currency symbol before the amount (e.g. pound sterling £).

DISPLAY PRINT TICKET: to display or not the ***PRINT YOUR TICKET*** feature on the user interface.

TIMEOUTS: allows to set the time to send an SMS to the client when the program is finished.





Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.

Click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.

PEAK HOURS screen:

This screen allows to set the time slots for peak hours for each day of the week:

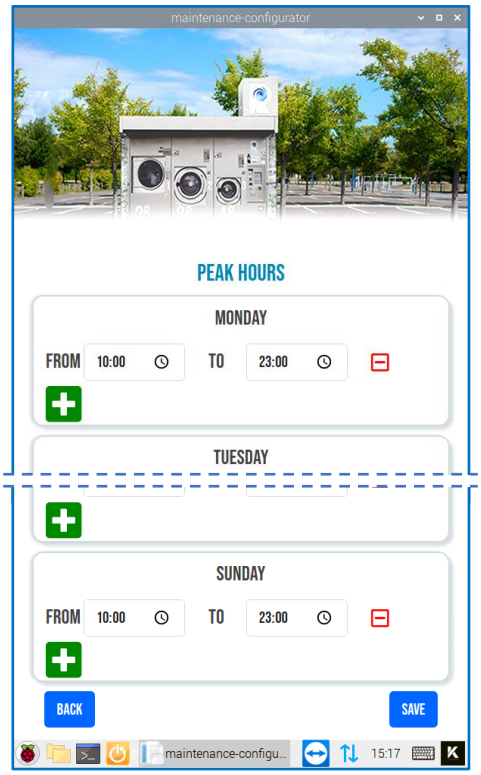
- either by clicking on the hour and minutes display,
- or by clicking on the clock.

It also allows to add or remove time slots.

Prices will be automatically changed if they are not the same for peak and off-peak hours.

Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.

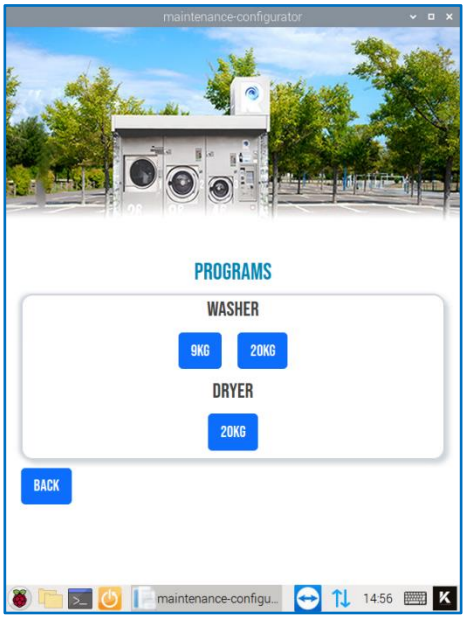
Click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.



PROGRAMS screen:

This screen allows to access to the edit screens for the kiosk wash and dry programmes.

Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.



Commissioning procedure

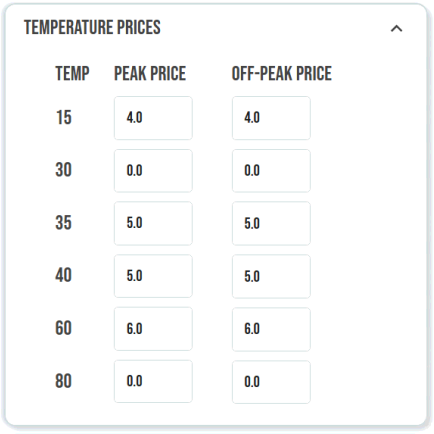
PROGRAMS / PROGRAMS WASHER - 9KG screen:

On ***PROGRAMS*** screen, click on ***9KG*** button to access to the opposite screen.

Click on the ***DISABLED MACHINE*** switch to deactivate the washing machine.

TEMPERATURE PRICES: displays the base price of washing programs, depending on the temperature, in peak or off-peak hour.

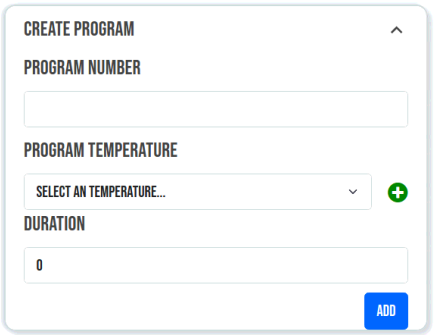
The price of washing programs can be changed.

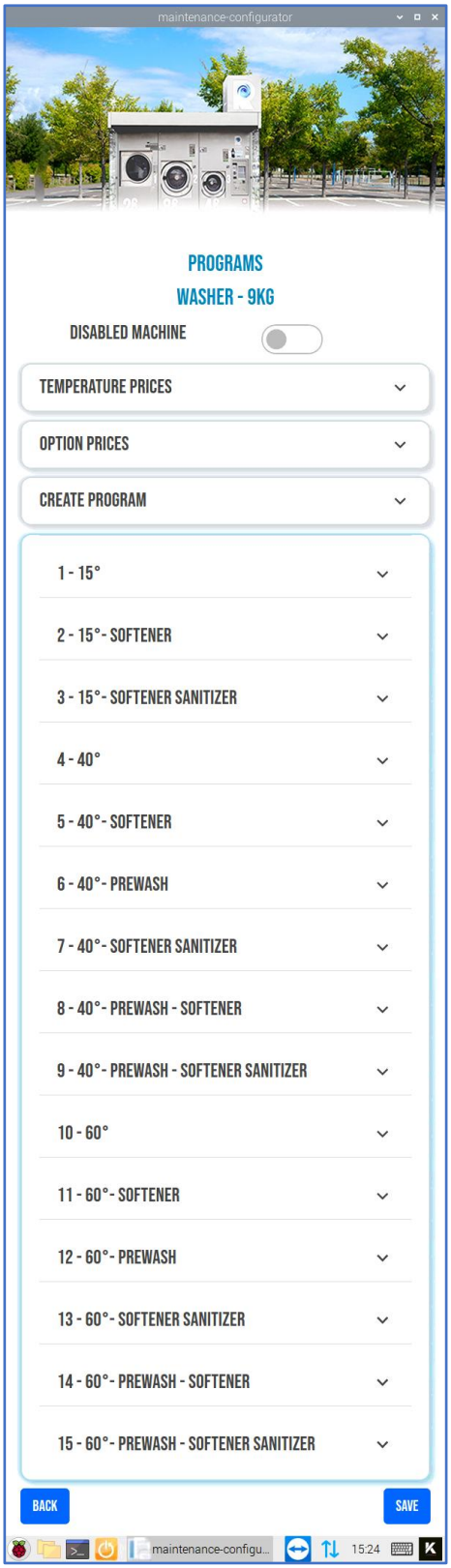


OPTION PRICES: displays the price of washing program options, in peak or off-peak hour.

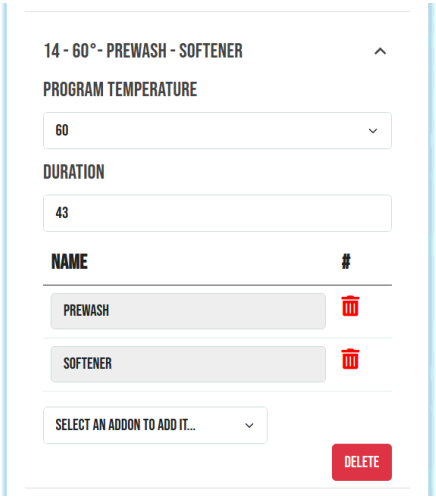
The price of washing program options can be changed.

CREATE PROGRAM: allows the creation of new washing programs that will be added to the list present by default in the machine.





The washing programs in the list can be changed.



Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.

Click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.

PROGRAMS / PROGRAMS WASHER - 20KG screen:

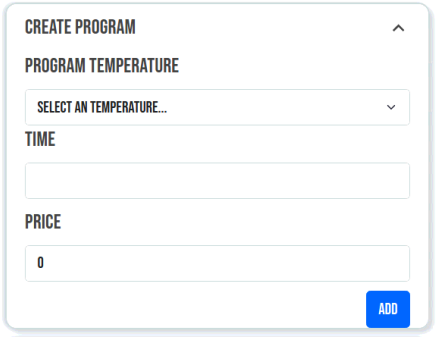
The use of the ***PROGRAMS WASHER - 20KG*** interface is strictly identical to that of ***PROGRAMS WASHER - 9KG***.

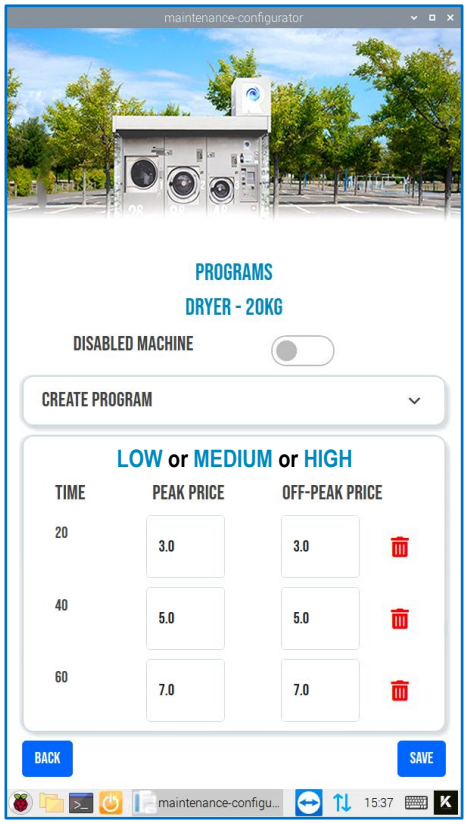
PROGRAMS / PROGRAMS DRYER - 20KG screen:

On ***PROGRAMS*** screen, click on ***20KG*** button to access to the opposite screen.

Click on the ***DISABLED MACHINE*** switch to deactivate the dryer.

CREATE PROGRAM: allows the creation of new drying programs that will be added to the ***LOW***, ***MEDIUM*** or ***HIGH*** lists.





In ***LOW***, ***MEDIUM*** or ***HIGH*** lists, the price of the drying programs in peak or off-peak hour can be changed.

Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.

Click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.

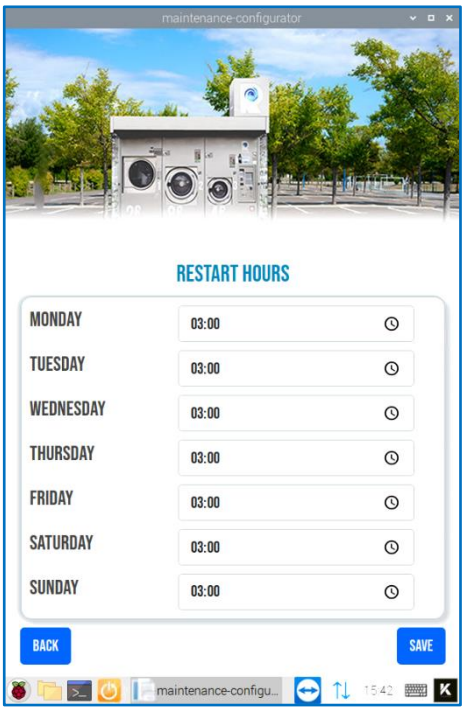
Commissioning procedure

RESTART HOURS screen:

This screen allows to set the restart hour of the kiosk for each day of the week:

- either by clicking on the hour and minutes display,
- or by clicking on the clock.

> ***At the specified restart hour, all devices will be shut down for about 5 minutes.***



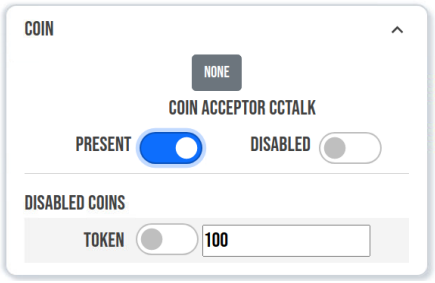
Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.

Click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.

PAYMENT screen:

COIN:

Click on the ***PRESENT*** switch to activate coin acceptance.

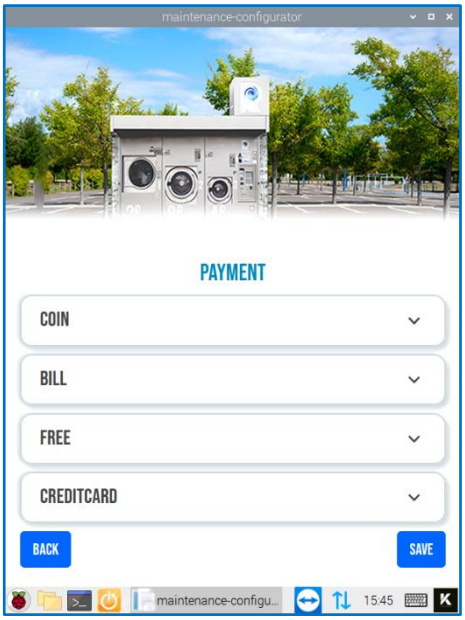


The ***DISABLED COINS*** part appears.

Click on the ***TOKEN*** switch to deactivate the tokens.

The value of the token can be modified in the editable field.

Press ***NONE*** to reset the settings.



BILL:

Click on the ***PRESENT*** switch to activate bill acceptance.

Press ***NONE*** to reset the settings.

FREE:

Click on the ***PRESENT*** switch to activate free mode.

Press ***NONE*** to reset the settings.

CREDITCARD:

Click on the ***PRESENT*** switch to activate the payment terminal on the machine:

- ***VERIFONE***,
- ***CASTE VIBBEK***,
- ***VALINA***,
- ***VALINABE***,
- ***NAYAXMARSHALL***,
- ***PAYTERPVP***.

Press ***NONE*** to reset the settings.

Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.

Click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.

TICKET screen:

This screen allows to set the information visible on the ticket:

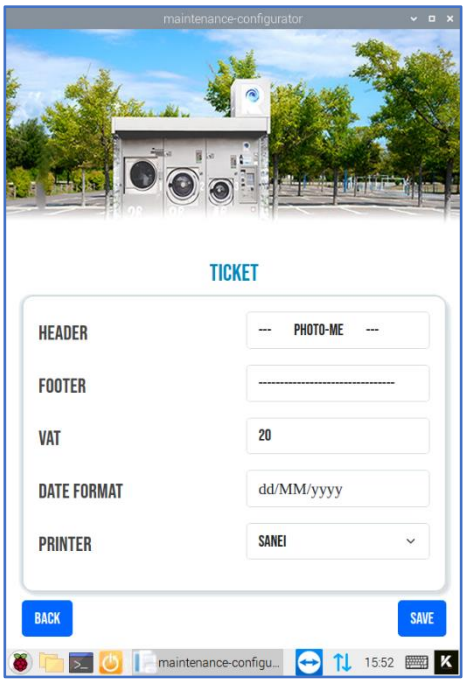
HEADER: to fill in the name of the kiosk manager.

FOOTER: to personalise the bottom of the ticket.

VAT: to change the percentage of VAT applied.

DATE FORMAT: to change the date display.

PRINTER: to select the printer model installed on the kiosk.



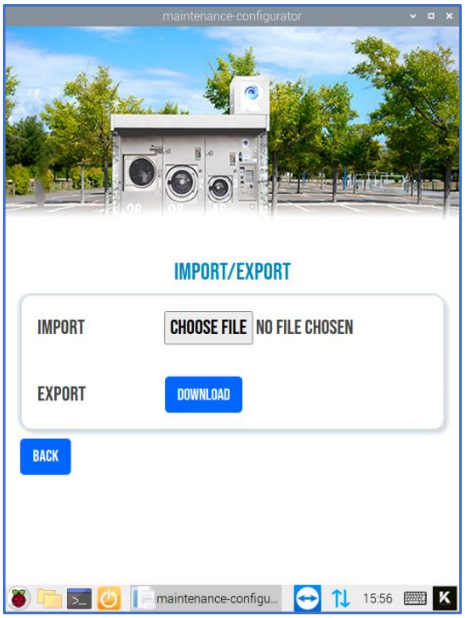
Click on ***BACK*** to return on the ***REVOLUTION CONFIGURATOR*** screen.

Click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.

Commissioning procedure

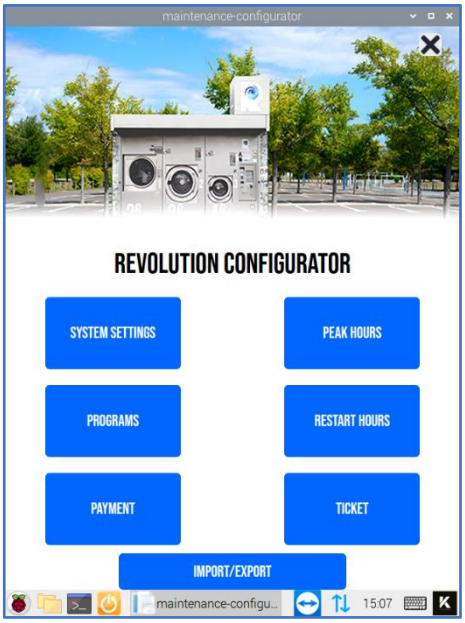
IMPORT/EXPORT screen:

Features not currently activated.



When the kiosk configuration is complete, click on ***SAVE*** to save the changes made. The message ***SUCCES ! GO BACK TO INDEX*** appears, before returning to the ***REVOLUTION CONFIGURATOR*** screen.

On ***REVOLUTION CONFIGURATOR*** screen, click on the cross ☒ at the top right to exit ***Configurator*** and automatically launch the user interface.



5.1.2 Back-up

Description

The BACK-UP operation consists of duplicating the micro SD card present in the Raspberry Pi to the one present in the USB key in order to save the contents.

Prerequisites

To save an image of the OS or OS + software:

- 1 micro SD card reader,
- 1 dedicated micro SD card,
- 1 SD micro card present in the UNO220 referenced as ***/dev/mmcblk0***,
- 1 SD micro card in the USB reader referenced as ***/dev/sda***,
- 1 machine equipped with keyboard/mouse,
- 1 USB 2.0 cable for mini USB device.

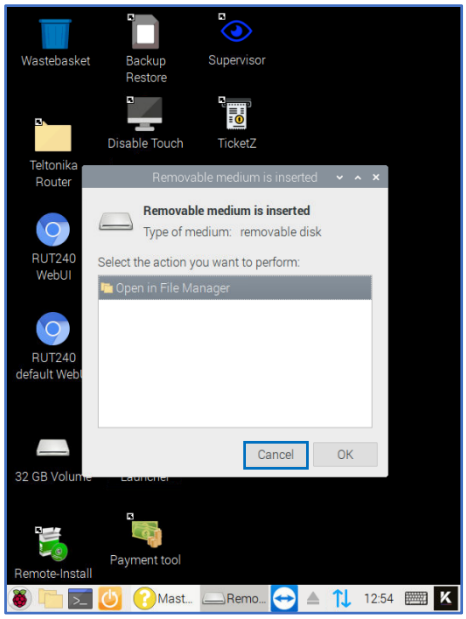
Procedure

1 Insert the SD card in the SD card reader.

2 Connect the reader on the free port of the Raspberry Pi.

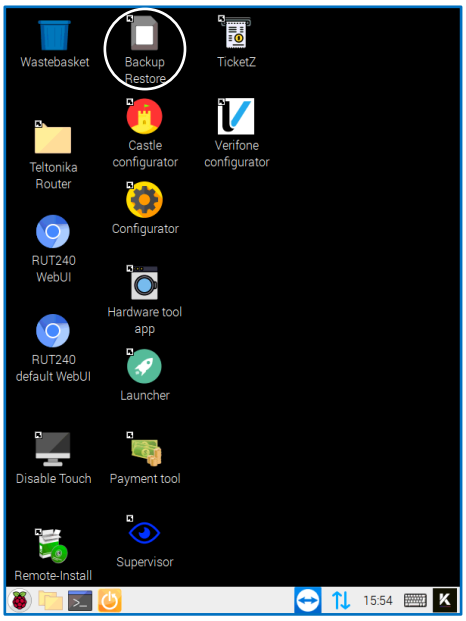
The ***Removable medium is inserted*** window appears:

Click on ***Cancel*** to remove it.



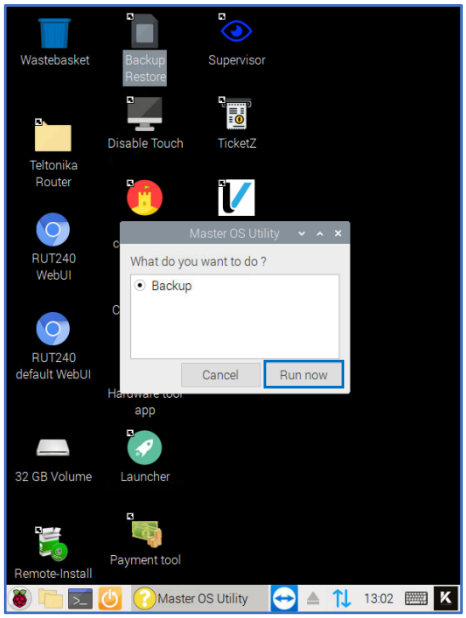
Commissioning procedure

3 On the desktop, double-click on ***Backup Restore*** icon.



4 The ***Master OS Utility*** window is displayed with ***Backup*** checked.

Click on ***Run now***.



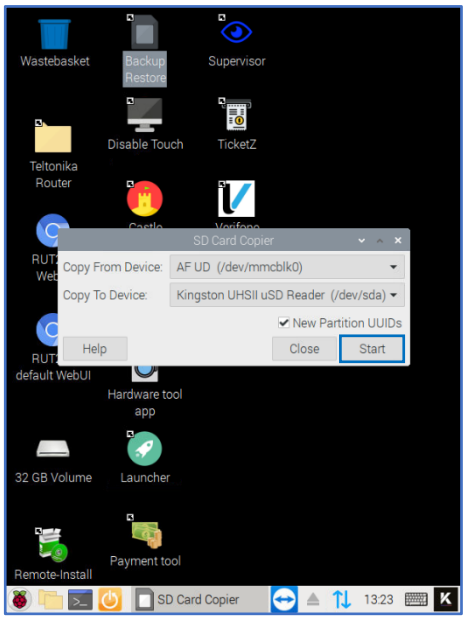
5 The ***SD Card Copier*** window appears:

For ***Copy From Device***, choose ***AF UD (dev/mmcblk0)***.

For ***Copy To Device***, choose ***Kingston UHSII uSD Reader (/dev/sda)***.

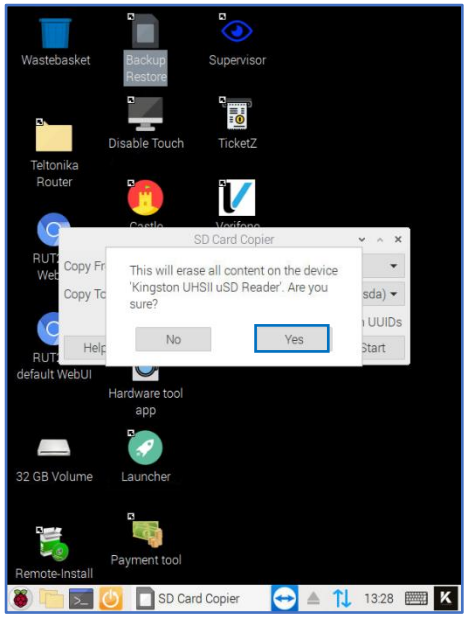
Check the box ***New Partition UUIDs***.

And click on ***Start***.



6 The following message appears: ***This will erase all content on the device 'Kingston UHSII uSD Reader'. Are you sure?***

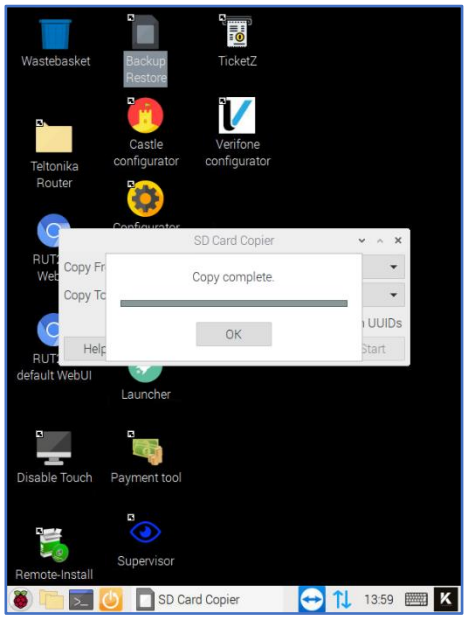
Click on ***YES*** and wait 10 minutes.



7 When the copy is complete, click on ***OK***.

Then eject the micro SD card and unplug the micro SD reader from the Raspberry Pi.

If the micro SD card is not ejected from the desktop, when the Raspberry Pi is rebooted, it will reboot on the micro SD card.



No other manipulations should be performed during the BACK-UP operation.

No error messages should be displayed during all steps of the BACK-UP.

Commissioning procedure

5.1.3 Restore

Description

In case of file corruption or data loss, it is possible to restore the system from previously backed up data.

The ***RESTORE*** operation consists of booting with the USB drive previously created by the ***BACK-UP*** and then duplicating this SD micro card to the one present in the Raspberry Pi.

Prerequisites

To restore a version of the OS + software:

- 1 Raspberry Pi with a micro SD card inside,
- 1 machine equipped with keyboard/mouse,
- 1 SD micro card containing the OS and the software to be restored,
- 1 SD micro card reader,
- 1 USB 2.0 cable for mini USB device.

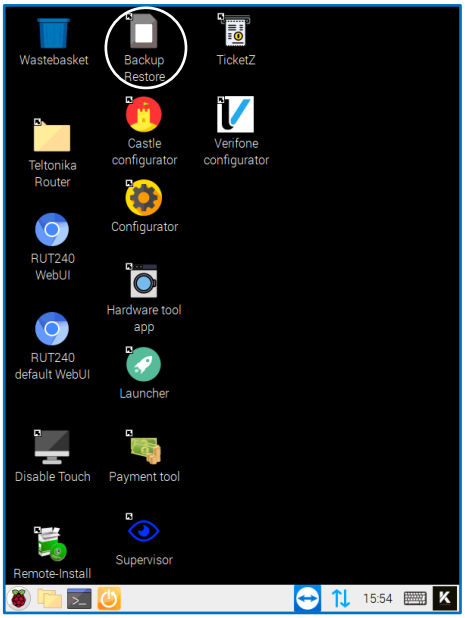
Procedure

1 Connect the SD card reader with the micro SD card inside on the free port of the Raspberry Pi.

The power supply of the Raspberry Pi must be disconnected during this operation.

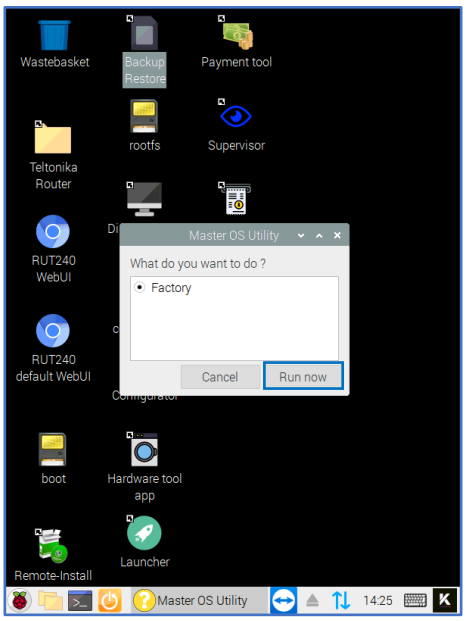
2 Restart the Raspberry Pi.

3 On the desktop, double-click on ***Backup Restore*** icon.



3 The ***Master OS Utility*** window is displayed with ***Factory*** checked.

Click on ***Run now***.



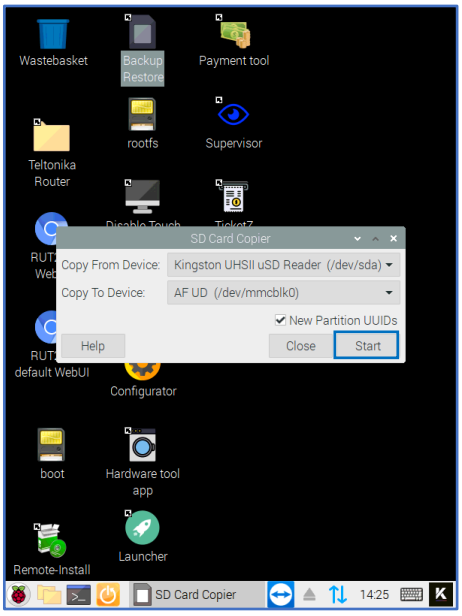
4 The opposite ***SD Card Copier*** window appears:

For ***Copy From Device***, choose ***Kingston UHSII uSD Reader (/dev/sda)***.

For ***Copy To Device***, choose ***AF UD (/dev/mmcblk0)***.

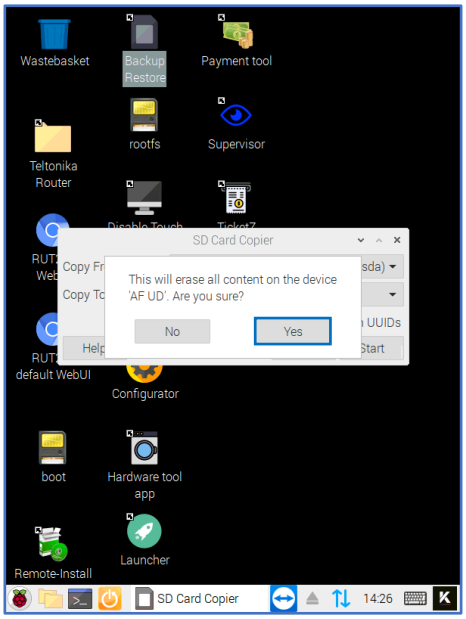
Check the box ***New Partition UUIDs***.

And click on ***START***.



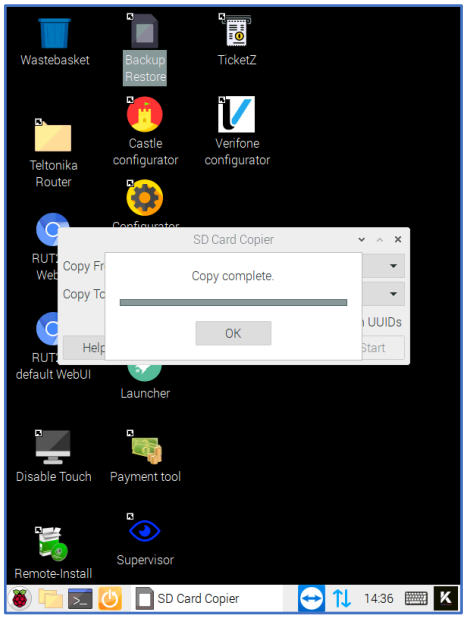
5 The following message appears: ***This will erase all content on the device 'AF UD'. Are you sure?***

Click on ***YES*** and wait 10 minutes.



Commissioning procedure

6 When the copy is complete, click on ***OK***, then eject the micro SD reader from the desktop.



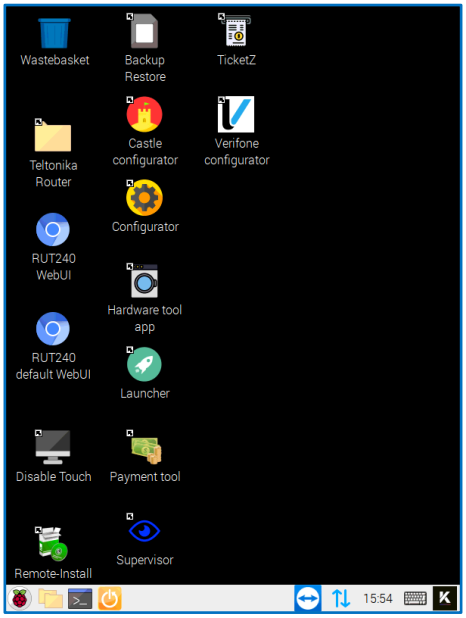
No other manipulations should be performed during the RESTORE operation.

No error messages should be displayed during all steps of the RESTORE.

5.1.4 Payments counter display

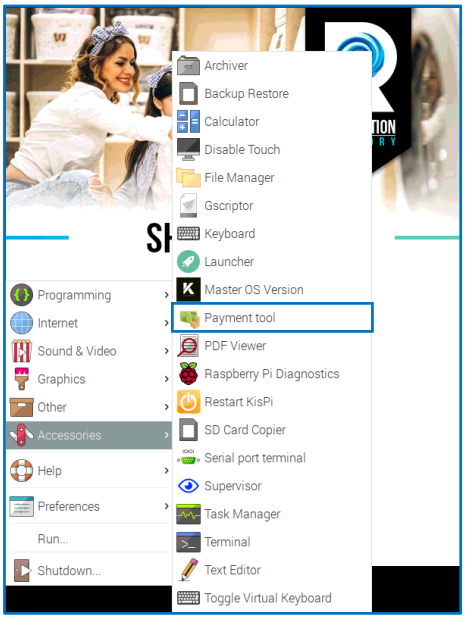
If the user interface is already running, go directly to step 2.

1 On the Raspberry Pi desktop, double-click on Launcher icon to run the user interface.

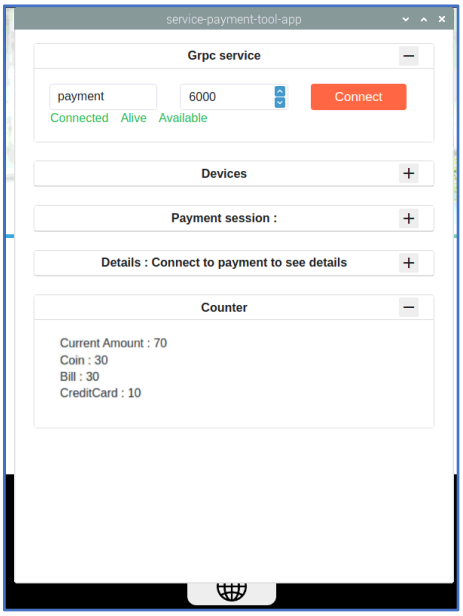


2 On the keyboard, click on the key to display the applications menu.

In ***Accessories***, click on ***Payment tool***.



3 The opposite screen appears.



In ***Counter*** part, different information, according to the payment terminal configuration, are displayed:

Current Amount: current total amount of payments.

Coin: amount of coin payments.

Bill: amount of bill payments.

CreditCard: amount of credit card payments.

5.2 Tests

Carry out a complete cycle for each machine:

- Payment,
- Washing,
- Drying.

6 Maintenance

6.1 Scheduled inspection

According to Decree no. 2012-412 of 23 March 2012 on the safety of washing machines and spin dryers provided for public use (see chapter ***1 Legal information***), a weekly inspection (at least) of the laundry's installations must be made.

During this inspection, the technician must check the operating condition of the washing machines' fastening device and complete the service book which is kept available inside the laundry.

6.2 Scheduled maintenance

Maintenance operation	Week	Month	Year
Cleaning the dryer main filter	*X*		
Filling the detergent, softener and sanitizer canisters	*X*		
Checking the safety of the machines' door locking	*X*		
Cleaning the customer area (floor, flaps, doors, windows)	*X*		
Cleaning the drain pumps of the washing machines		*1/2*	
Checking the differential circuit breakers			*X*
Cleaning the gutter and the outer parts			*X*

6.2.1 Cleaning the dryer main filter

Open the front door of the dryer with the R02 spanner (accessories ID 1).

Open the dryer lower panel.

Remove the layer of lint from the filter surface.

Scheduled maintenance

Remove et clean the filter (***1***).

Clean the housing (***2***).

Replace the filter.

Reclose the lower panel.

Reclose the front door of the dryer with the R02 spanner (accessories ID 1).

6.2.2 Filling the detergent, softener and sanitizer canisters

See the procedure ***4.5 Detergent circuit***.

6.2.3 Checking the safety of the machines' door locking

On each of the washing machines:

- Make sure that the doors close correctly.
- Check that a cycle cannot start if the door is not closed.
- Check that the doors:
  - are locked at the start of a wash cycle
  - remain in the closed position during the wash cycle.
- Note these checks in the service book every week.

6.2.4 Cleaning the customer area (doors, portholes, windows)

Clean the front of the kiosk (doors, portholes) and the side windows with a soft rag or wet wipe and wipe with a dry rag.

6.2.5 Cleaning the drain pumps of the washing machines

See the supplier documentation.

6.2.6 Checking the differential circuit breaker

On each differential circuit breaker of the distribution box, press the test button: the circuit breaker should open.

Switch the kiosk back on.

Close the circuit breakers, on the ***ON*** position, on the distribution box, in the following order:

- Q2 (emergency stop and payment terminal). The terminal display lights up.
- Q6 and Q12 (water heater 1 and 2).
- Q9 (lighting).
- Q10 (9 kg washing machine). The washing machine display lights up.
- Q7 (20 kg washing machine). The washing machine display lights up.
- Q3 (20 kg dryer). The dryer display lights up.

6.2.7 Cleaning the gutter and the outer parts

Depending on the region of implantation and the environment of the machine, clean the gutter at least 1 time a year and check its flow.

Regularly ensure the cleanliness of solar panels.

7 Appendices

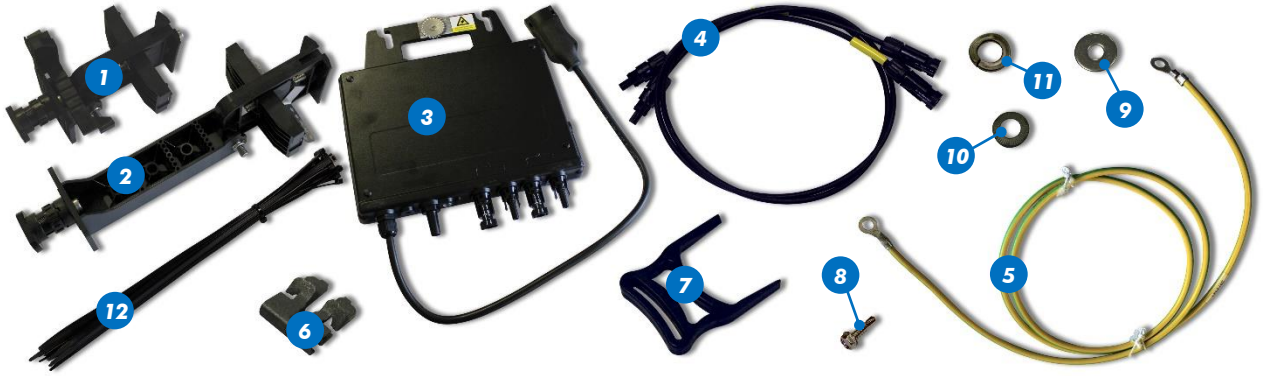
7.1 Accessories lists

7.1.1 Standard accessories

ID	Reference	Description	Qty
1	982930108A	R02 spanner	1
2	050810052A	M12 threaded rod - length 250 mm	2
3	050810164A	Hex head metric screw 12 x 200 mm zinc plated fully threaded	2
4	050800047C	Sealing compound	1
5	050810106A	Extending orientable straight WC pipe Ø 100 mm	1
6	050810367B	Thrust washer	8
7	187100012	Laundry kiosk service book	1
8	982140412	L12 N - A2 washer	2
9	982040012	H M12 - A2 nut	2
10	050800017B	Water seal 180 CSC 20 x 27 mm	2
11	991620014A	Mini keyboard QWERTY with integrated touchpad	1
12	050809158A	Membrane keyboard for washing machine	1
13	050800046A	MALV flex pipe DN13 D+Straight - length 2 m	1
14	050813132A	Adhesive insulating sheath 22 x 9 mm - length 2 m	1
15	985620024A	Window bottom corner clamping kit	2
16	050800002A	Window length clamping kit	8
NA	050817071B	COMPACT window	2
NA	050817190A	Left lower front strip	1
NA	050817191A	Right lower front strip	1
NA		Reader with USB port for SD micro memory card	1
NA		SD 8 Go micro memory card	1
NA	050811428A	M/M 3/4 brass coupling	1

Accessories lists

7.1.2 Photovoltaic panels (option)



ID	Reference	Description	Qty
1	050830000A	FLA foot assembly 125 mm	4
2	050830011A	FLA foot assembly 250 mm	4
3	050830028A	DS3-L APSYSTEMS micro inverter	1
4	050830020A	DC cable extension - length 1 m	2
5	050830813A1	Earth wire for photovoltaic panels/inverter/frame - length 1,25 m	1
6	050830018A	RAYVOLT grounding clip	2
7	050830014A	Y unlock took	1
8	981834819	TH 4,8 x 19 mm self-drilling screw	4
9	982140606	LL 6 N A2 washer	2
10	982126906	6 pins contact washer	1
11	982140806	D6 spring washer	1
12	991602427A	368 x 4.8 mm black nylon collar	20
NA	050830024A	Photovoltaic module	2

7.1.3 REVOLUTION cubic brand sign (option)

ID	Reference	Description	Qty
1	991840054A1	LED E27 45W bulb	1
2	991846008A	Led bulb socket	1
NA	050817172A	Cube	1
NA	981000416	CFC M6 x 16 screw	3
NA	050817173B	Diffusing glass	2
NA	050817081C	Tourbillon cube plexi	2
NA	982012004	M4 flanged nut	20
NA	050829828A	Power cable - length 2,2 m	1
NA	982140004	M4 washer	2
NA	982040504	M4 nylstop nut	2

KIS SAS
7 rue Jean-Pierre Timbaud, 38130 Echirolles

050829960A/En - 02/22