

Instruction Manual: 1900006
Machine P/N: 1000915, 1000910
Rev 1

SYPP

Contents

1. Information.....	5
1 Introduction	5
2 Rating Plate.....	5
3 Installation Requirements.....	5
4 Safety	6
5 Electrical Installation Procedure	6
6 Plumbing Installation Procedure	7
7 Cleaning	7
8 Backflow Prevention	7
2. Font Placement.....	9
1 Counter Cut Out.....	9
3. Box Contents.....	10
1 Font and Flow Meter Box.....	10
2 Pump Box.....	12
4. Connections.....	14
1 Pump Box.....	14
2 Flow Meter Box.....	14
5. Installation.....	15
1 Possible Configurations.....	15
2 For use with 1 pump box	16
3 For use with 2 pump boxes.....	17
4 For use with chiller & 1 pump box.....	18
5 For use with chiller & 2 pump boxes.....	20
6 For use with chiller, boiler & 1 pump box	22
7 For use with chiller, boiler & 2 pump boxes	24
6. Mix Boiler Set Up.....	26
7. Operating the Machine For The First Time	27
8. Accessing Main Menu & Advanced Settings.....	29
9. User Interface Map.....	30

10. Main Menu.....31

11. Advanced Settings.....32

12. Priming.....33

13. Calibration.....34

14. USB Connection.....35

15. Operating Machine.....36

 1 Crew Serve.....36

 2 Self Serve - Push & Hold.....37

 3 Self Serve - Volumetric.....38

16. Troubleshooting.....39

Information

Introduction

The information provided in this manual is intended to assist in the installation and maintenance of the SYPP machine. Please read the instructions carefully to prevent accidents and ensure an efficient installation. This manual is not a substitute for any safety instructions or technical data affixed to the machine or its packaging. All information in this manual is current at the time of publication and is subject to change without notice. The company accepts no responsibility for any damage or injury caused by incorrect or unreasonable installation and operation.

Rating Plate



- A. Model Number and name.
- B. Product serial code (mmyyxxxxxx)
- C. Rated Voltage.
- D. Rated Power.
- E. Contact details.
- F. WEEE Logo
This logo indicates that the product must not be disposed of as household waste. To help prevent possible harm to human health and/or the environment, the product must be disposed of in an approved and environmentally safe recycling process. For further information on how to dispose of this product correctly, contact product supplier, or the local authority responsible for waste disposal in your area.
- G. Regulatory standard logo
This equipment has been designed and tested to comply with all applicable regulatory standards set by international, independent and government authorities.

Installation Requirements

Mains water pressure required downstream of any filter systems:	22 - 140psi (150 - 1000kPa) (1.5 - 10 bar)
If mains pressure is below 1 bar or the flow rate is less than 2L/min:	Fit a device capable of increasing the mains pressure (autoclave or similar), ensure your water net is able to supply at least 2L/min water flowrate.
Water connection:	3/8" Quick connection fitting.
Electrical requirements 230V:	Two 13 amp sockets operating on 230V single phase.
Electrical requirements 120V:	Two 15 amp sockets operating at 120V
Machine location:	The machine must be located in a well ventilated space, at least 10cm (3.9inch) around back and top for ventilation.

Information

Safety

When using electrical appliances, basic safety precautions should always be followed to prevent the risk of fire, electric shock, burns, or other injuries or damages.

- Read all operating and safety instructions carefully.
- This appliance is suitable for indoor use only.
- This appliance must be placed/installed on a horizontal flat stable surface.
- The ambient temperatures this appliance should operate within are 5 °C - 35 °C.
- Do not store the appliance in ambient temperature lower than 5 °C.
- This appliance is designed for use in commercial or self serve areas in which it can be attended to by trained personnel.
- The hose supplied with the machine is non-toxic food quality tested to 130kPa (190psi). However, a hose is not a permanent connection. It is, therefore, advisable to switch off machine and close the stopcock valve when machine is not in use, e.g. overnight etc.
- If a non-fixed water connection is implemented, use only the water hose provided with the appliance, alternatively, if a fixed water connection is used it must be implemented using a non-detachable water hose.
- If the water hose is disconnected the seals should be replaced before re-connection.
- The utmost care has been taken in the manufacture and testing of this machine. Failure to install, maintain and / or operate this machine according to the manufacturer's instructions may result in conditions that can cause injury or damage to property. If in any doubt about the serviceability of the machine always contact the manufacturer or your own supplier for advice.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- In the event where any wires are damaged, such wires can only be replaced by qualified service technicians.
- CAUTION - Risk of fire and electric shock. Only to be used with manufacturer's specified power cord set.
- This appliance should not be installed in an area where a water jet could be used to clean it.
- Access to the service area of the appliance is restricted to persons having knowledge and practical experience of the appliance and the relevant safety and hygiene requirements.

Electrical Installation Procedure

When installing the machine, always observe the local regulations and standards. The appliance is supplied with a moulded power cord. A suitable mains power supply socket should be available within easy access of the appliance so that it can be disconnected easily after install.

Information

Plumbing Installation Procedure

- Ensure that the equipment is installed according to local plumbing & water regulations.
- Mains water pressure required (limits): See Rating Plate
- Fit a stop valve on a cold water line.
- Turn on the water to flush any impurities, dust etc from the inlet hose and water pipe. Allow several litres through. Especially for new installations.
- Connect the hose to the inlet.
- Turn on water and check for leaks.
- NOTE: Using a non-food grade hose will usually result in off tastes & smells in the water and can possibly be toxic.
- Do not connect the machine to pure reverse osmosis water or other aggressive types of water.

Cleaning

The exterior of these machines may be cleaned with a damp cloth and a light detergent. Do not use abrasive cloths or creams, as this will spoil the finish of the machine. Do not use a water jet or spray.

Backflow Prevention

This equipment must be installed with adequate backflow protection to comply with all applicable federal, state and local codes.



DANGER ELECTRICAL MAINS

Always disconnect the equipment from the electricity supply before doing any work on it, to prevent damage and health hazards.



CAUTION ELECTRICAL REQUIREMENTS

The electrical circuit must be correctly earthed and connected by means of a suitable differential safety breaker.



CAUTION ELECTRIC POWER SUPPLY

Do not connect or disconnect the machine from the socket with wet hands. Insert the plug into the wall socket firmly. Do not pull on the supply cable in order to remove the plug from the socket.



CAUTION SANITISATION

Before sanitising the equipment, carefully read the instructions given by the sanitisation product manufacturer and put on all the necessary personal protective equipment (gloves, masks, etc.).

Ensure that the premises are well ventilated.

The sanitisation operations should only be carried out by specialised technical assistance personnel.



CAUTION
REPLACEMENT OF THE POWER CABLE

If the power cable is damaged, it must be replaced by the manufacturer or their assistance service or a similarly qualified person in order to prevent any possible risk.



WARNING
MALFUNCTION

If smoke, unusual smells or strange noises are emitted from the machine, disconnect it immediately from the socket and contact the local retailer or technical service assistance. Use of the machine in these conditions could cause fires or electric shocks.



ATTENTION

If the equipment is installed in a kitchen, European Standard EN 60335-2/75 specifies that it must be connected to an equipotential circuit via a wire with section between 2,5 and 10 mm². This connection must be carried-out by a skilled technician, in compliance with the regulation in force in the country of use.



WARNING
WATER SUPPLY

Connect the water dispenser exclusively to a line of drinkable water supply.



WARNING
WATER SUPPLY

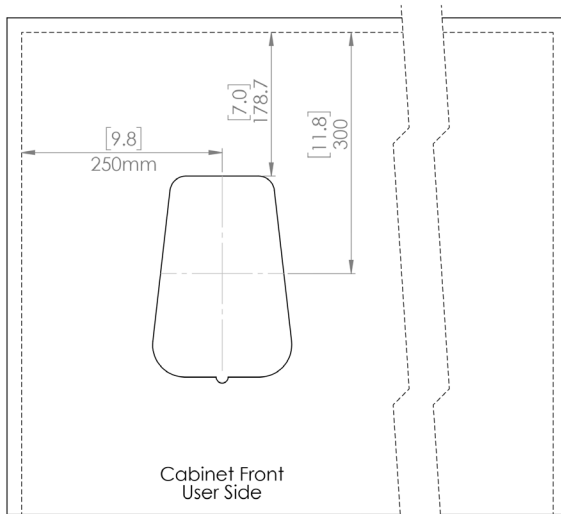
In order to avoid accidental flooding due to losses that may occur on the water supply line, external or internal device it is necessary to install the appropriate anti-flooding valve "WATER BLOCK" (not included in the unit) .



WARNING
RISK OF SCALDING

If using a boiler, turn off before cleaning to prevent accidental triggering of a dispense. Beware of accidentally operating the control box especially when cleaning around the push buttons.

Font Placement



- Dimensions are shown in both mm and inch
- The same minimum dimensions apply when install on left and right side
- Dimensions are from the inside surface of the cabinet and do not include doors or counter top overhang

Counter Cut Out

Template for counter cut out included in the carton.

Box Contents

Font and Flow Meter Box (1000915)

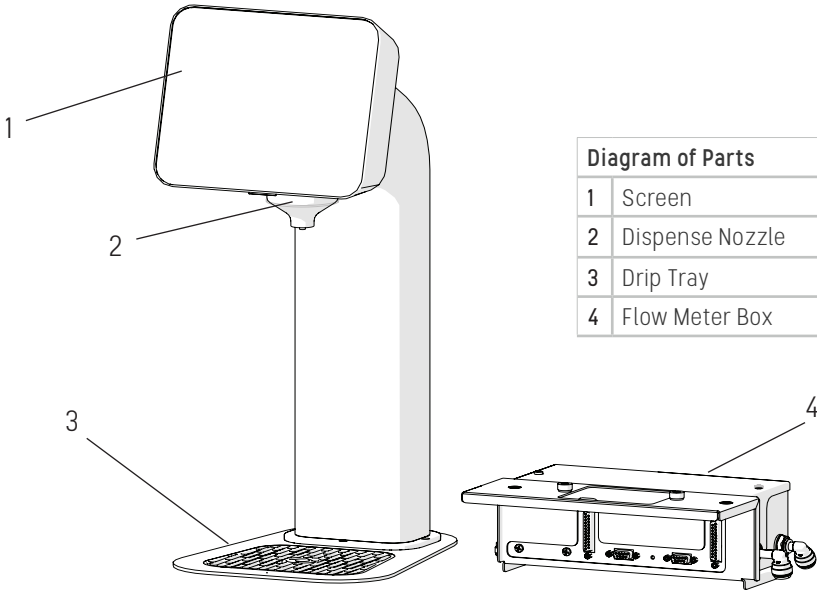


Diagram of Parts	
1	Screen
2	Dispense Nozzle
3	Drip Tray
4	Flow Meter Box

1800630	1800620	2301250	1800637	1800550
1400852	1801280	1800281	2200017	1400410
1501180				

Box Contents

Item	Part Number	Quantity
Hose Silicone 8mm I.D. X 12mm O.D	1800630	800 mm (max length)
Hose Silicone 12mm I.D. X 17mm O.D	1800620	800 mm (max length)
Tube FEP 6mm ID x 8mm OD x 500mm	2301250	2
Hose LLDPE 1/4"	1800637	50 mm (max length)
Clip Hose Plastic 20.2mm Type g	1800550	1
Y - Union 5/16 (8mm)" Push Fit	1400852	1
Tie Wraps Small	1801280	5
Tie wraps Nylon Large	1800281	10
SYPP Diffuser Cover	2200017	1
Bolt M8 X 16 S/S Hex	1400410	2
FR1IA Chiller to Boiler Harness	1501180	1
Instruction Booklet SYPP Pump Box & Font	1900006	1

Box Contents

Pump box (1000910)

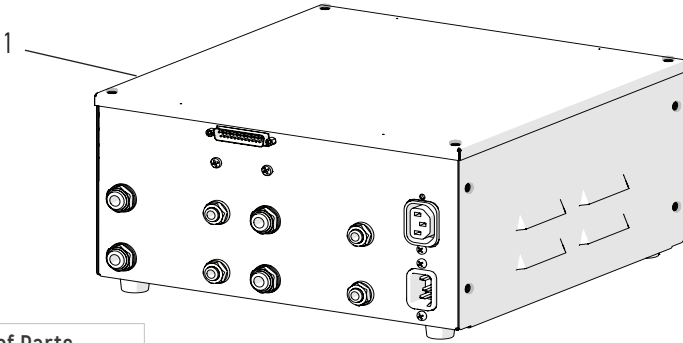


Diagram of Parts

1 Pump Box

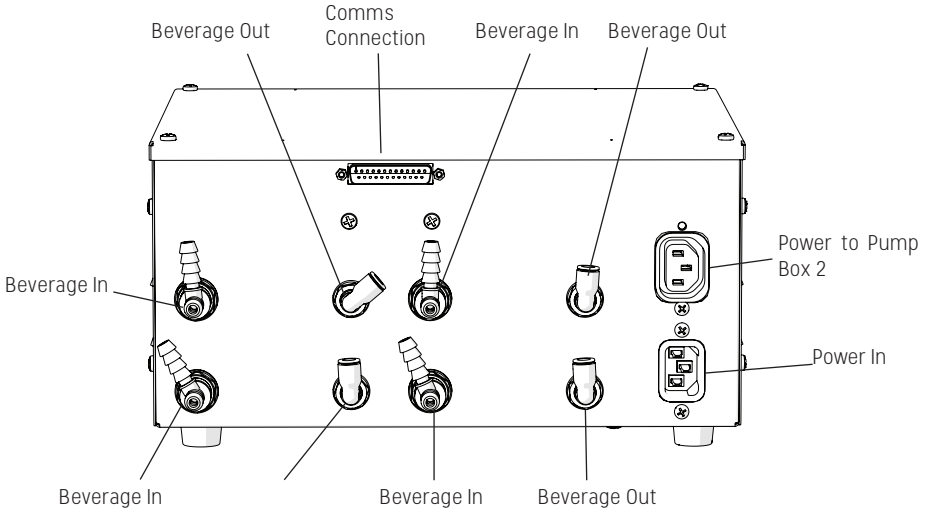
1800511	1800637	1800628	1800676	1800678
1800617	2100047	2100046	1400769	1503036

Box Contents

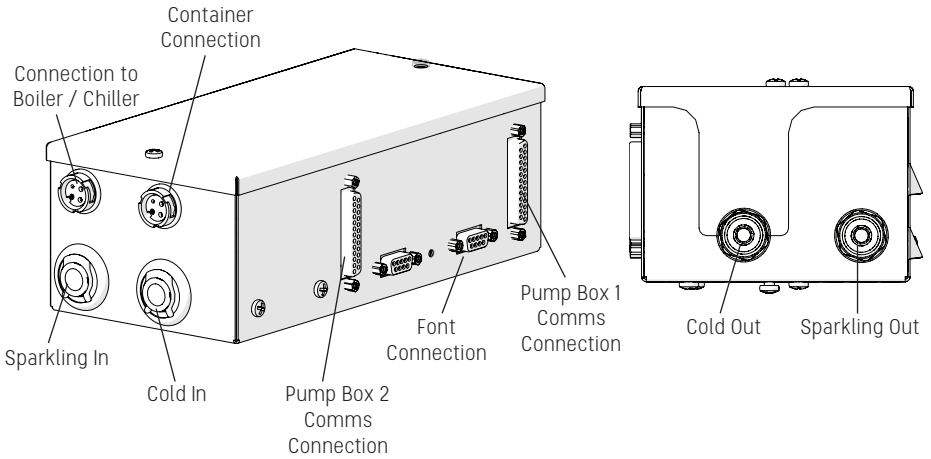
Item	Part Number	Quantity
Hose 1/4" ID x 1/2" OD PVC X4	1800511	1500 mm (max length)
Hose LLDPE 1/4" X4	1800637	800 mm (max length)
8mm OD LLDPE Tube – Blue	1800628	800 mm (max length)
Tube LLDPE FEP 5/16" (8mm) 100m – Green	1800676	800 mm (max length)
Tube LLDPE FEP 5/16" (8mm) 100m – Black	1800678	2000 mm (max length)
Foam Tube Insulation 40mm OD 22mm ID Split Self Seal	1800617	2000 mm (max length)
Scholle BIB Connector 1/4" Bar	2100047	4
Scholle BIB Sanitizer Flush Adapter	2100046	4
Connector 5/16" Stem to 1/4" Barb	1400769	1
Cable Harness DB 25 – DB25 M-F 1M	1503036	1
Cable Power – H05VV-F 1.5mm 3C w/ C13 to NEMA 5-15 (US)	1501514	1
Cable Power C13 to CEE7 (EU)	1501512	1
Cable Power – H05VV-F 1.5mm 3C w/ IEC C13 to BS1363 (IRL/UK)	1501511	1
Plug Molded Straight IEC C13 Socket to Straight IEC C14 1m	1501472	1
Instruction Booklet SYPP Pump Box & Font	1900006	1

Connections

Pump box

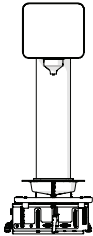

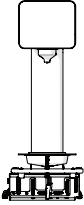

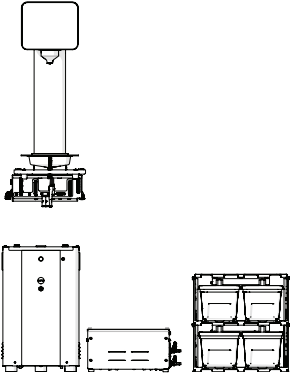
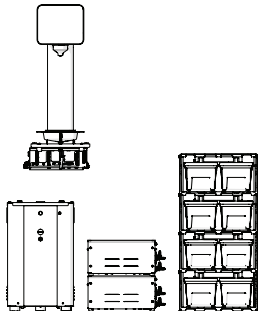
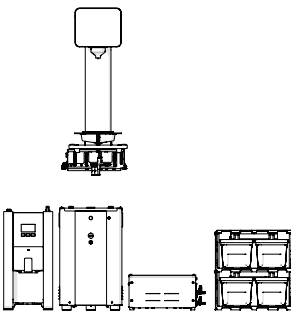
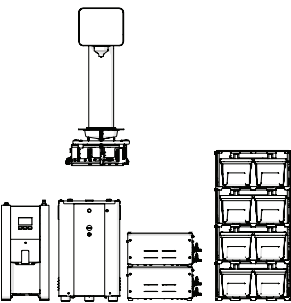


Flow Meter Box



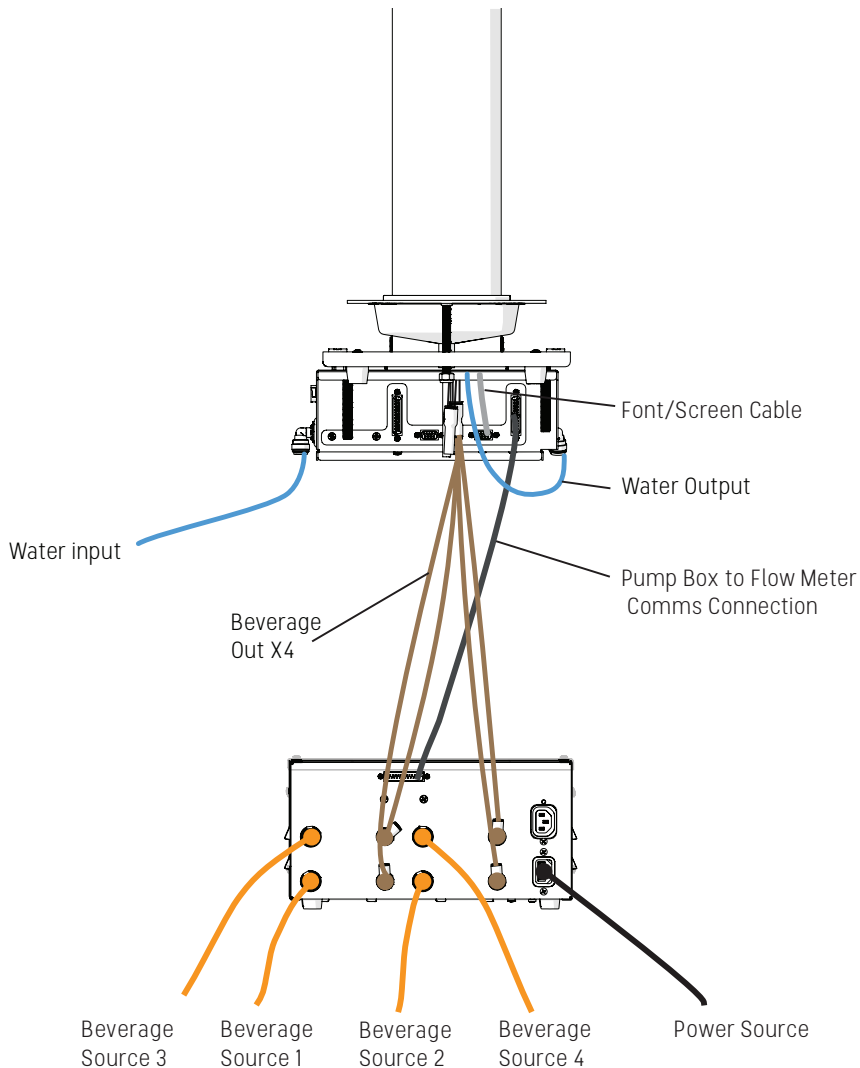
Installation

Possible Configurations

1. 1 PUMP BOX	2. 2 PUMP BOXES	3. CHILLED/SPARKLING 1 PUMP BOX
 	 	
4. CHILLED/SPARKLING 2 PUMP BOXES	5. HOT/CHILLED/SPARKLING 1 PUMP BOX	6. HOT/CHILLED/SPARKLING 2 PUMP BOXES
		

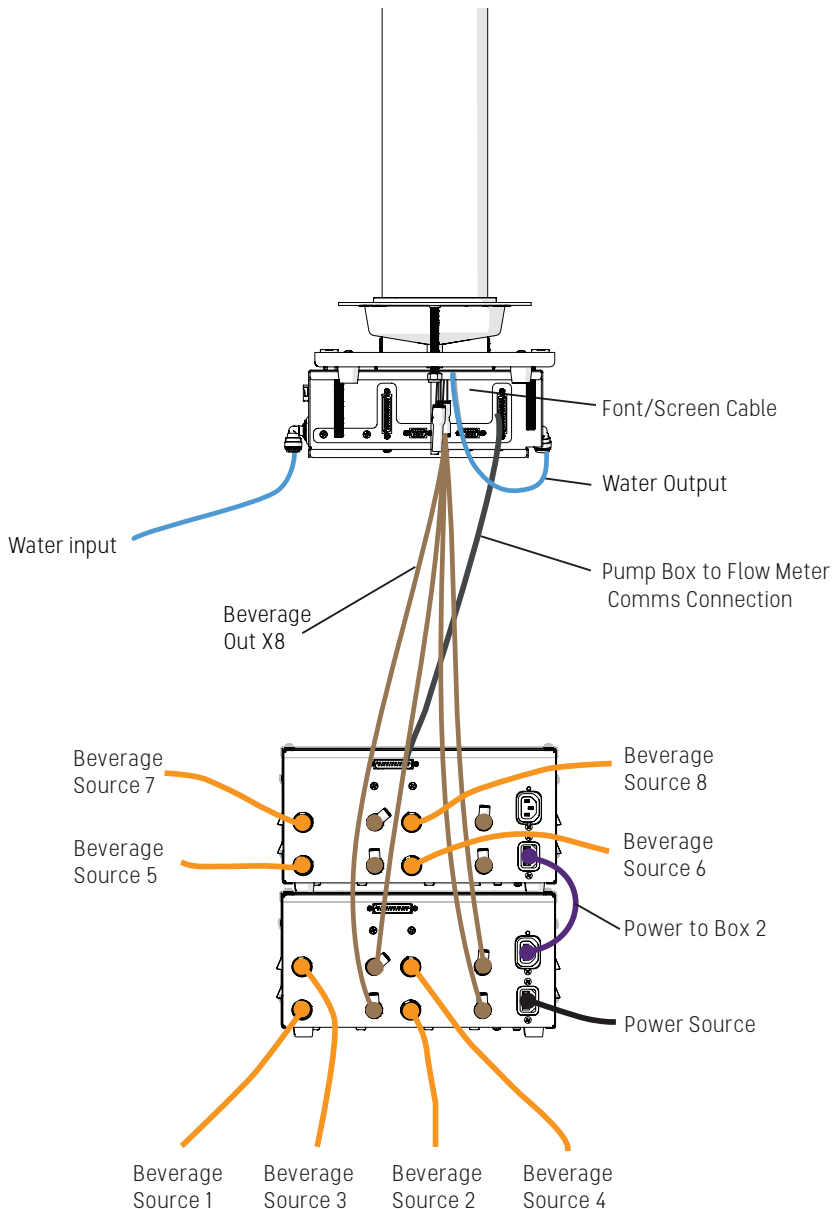
Installation

1. For use with 1 pump box



Installation

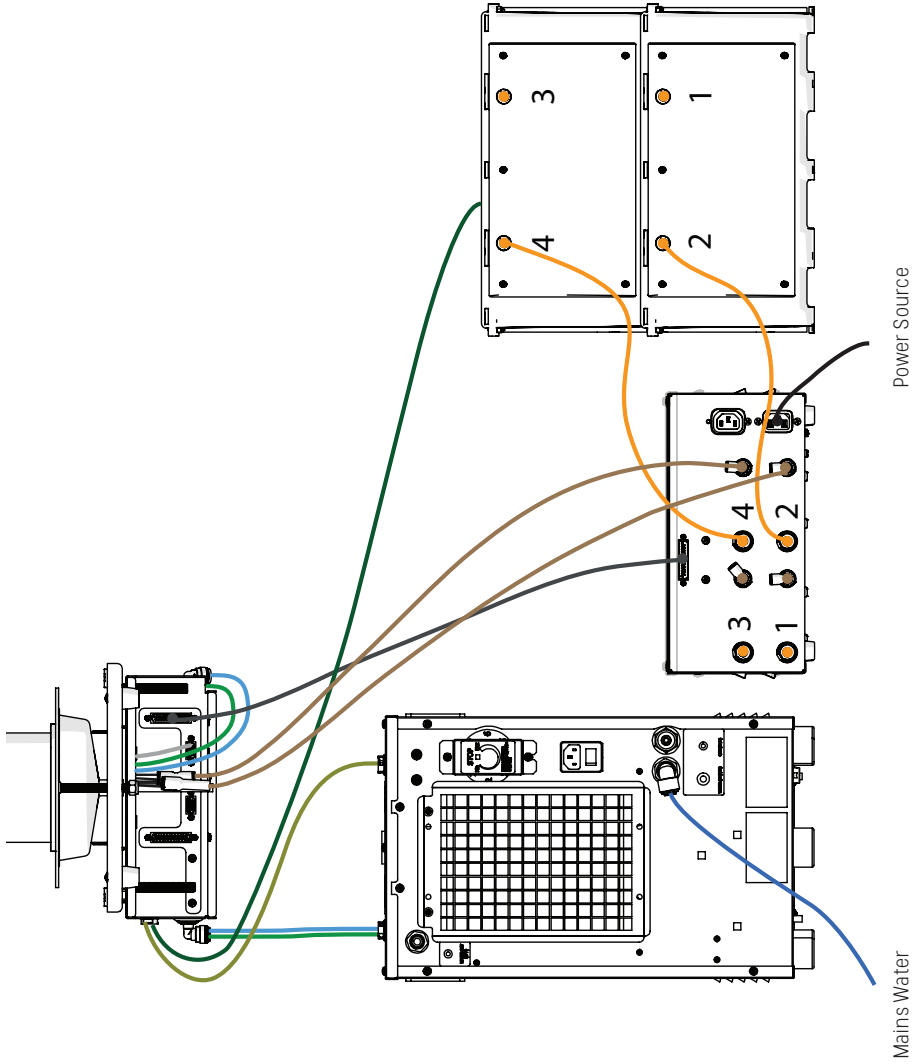
2. For use with 2 pump boxes



Installation

3. For use with chiller & 1 pump box

If using, please follow chiller instructions for installation.

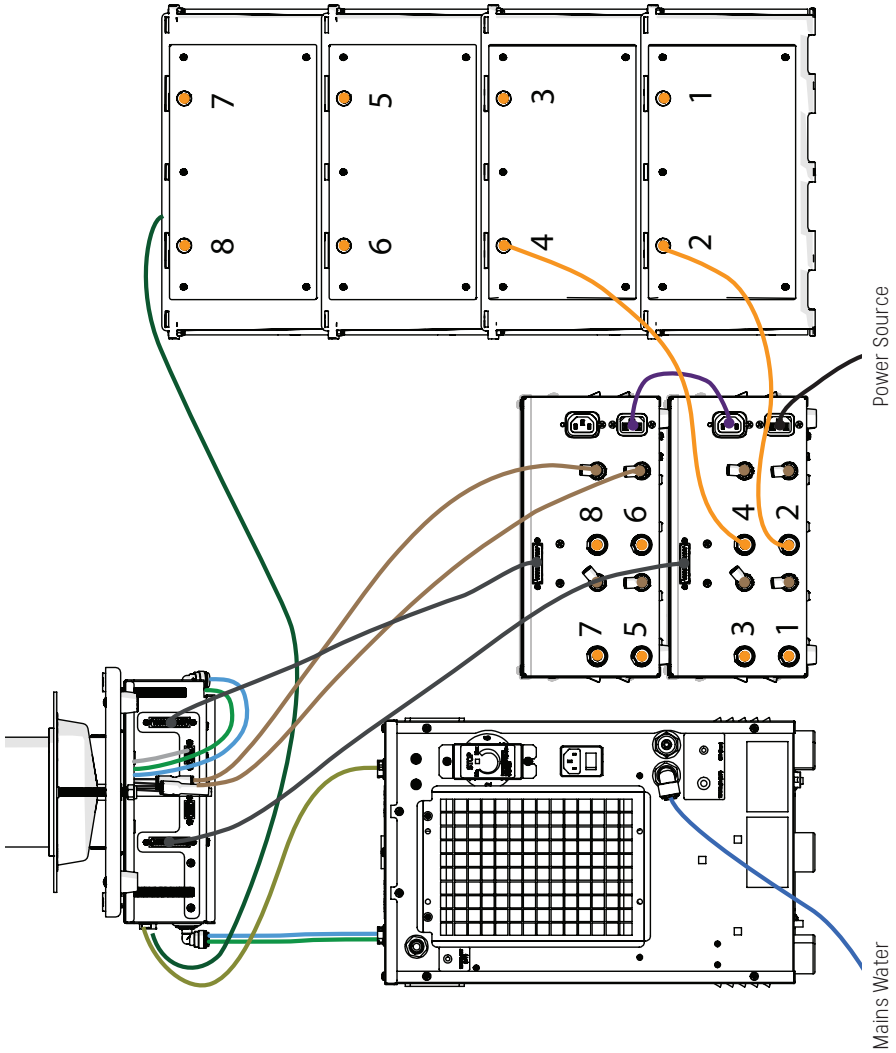


Colour	Connection Type	Colour	Connection Type
Blue	Mains Water to Boiler/Chiller	Grey	Pump Box to Flow Meter Comms Connection
Green	Sparkling Water	Brown	Beverage Out X4
Light Blue	Cold Water	Orange	Beverage In X4
Olive Green	Chiller to Font Connector	Grey	Font/Screen Cable
Dark Green	Container to Flow Box Connection	Black	Power In

Installation

4. For use with chiller & 2 pump boxes

If using, please follow chiller instructions for installation.

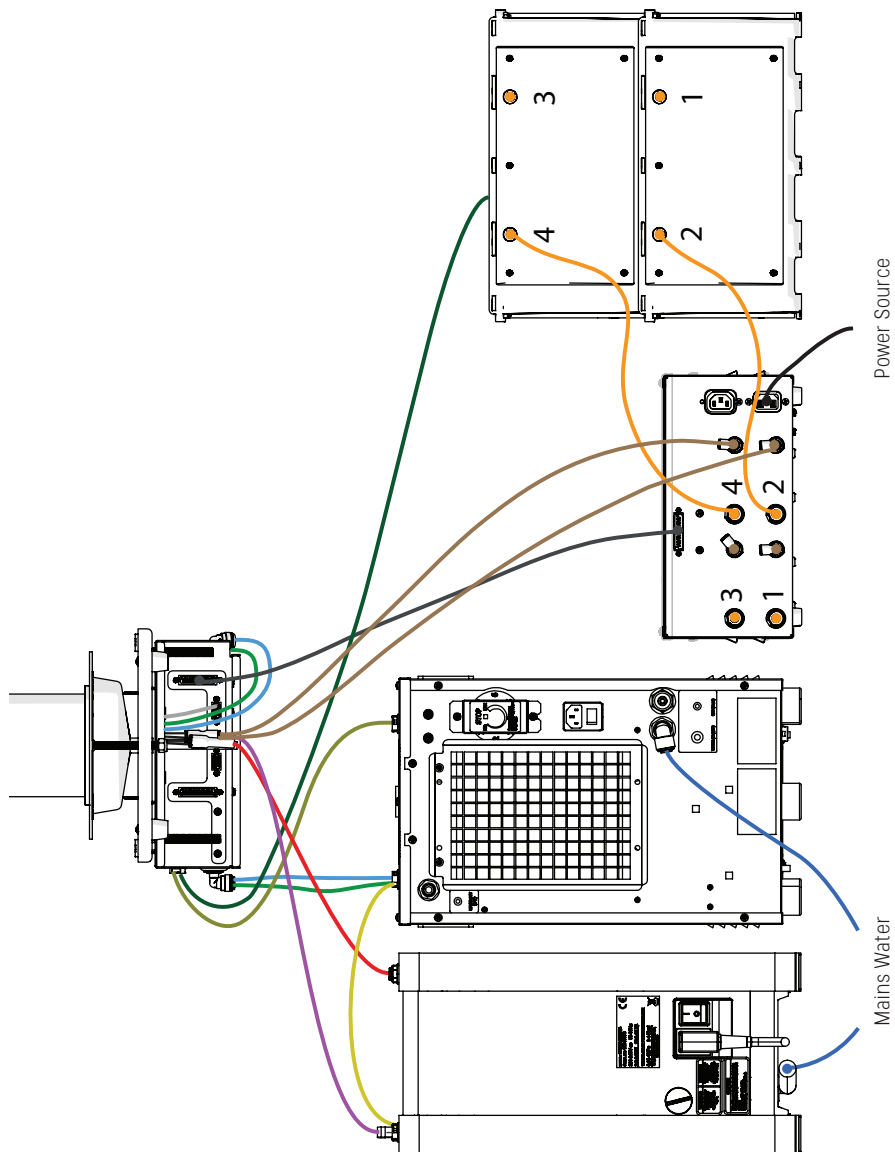


Colour	Connection Type	Colour	Connection Type
Blue	Mains Water to Boiler/Chiller	Brown	Beverage Out X8
Green	Sparkling Water	Orange	Beverage In X8
Light Blue	Cold Water	Grey	Font/Screen Cable
Olive Green	Chiller to Font Connector	Purple	Power to Box 2
Dark Green	Container to Flow Box Connection	Black	Power In
Dark Grey	Pump Box to Flow Meter Comms Connection		

Installation

5. For use with chiller, boiler & 1 pump box

If using, please follow chiller/boiler instructions for installation.

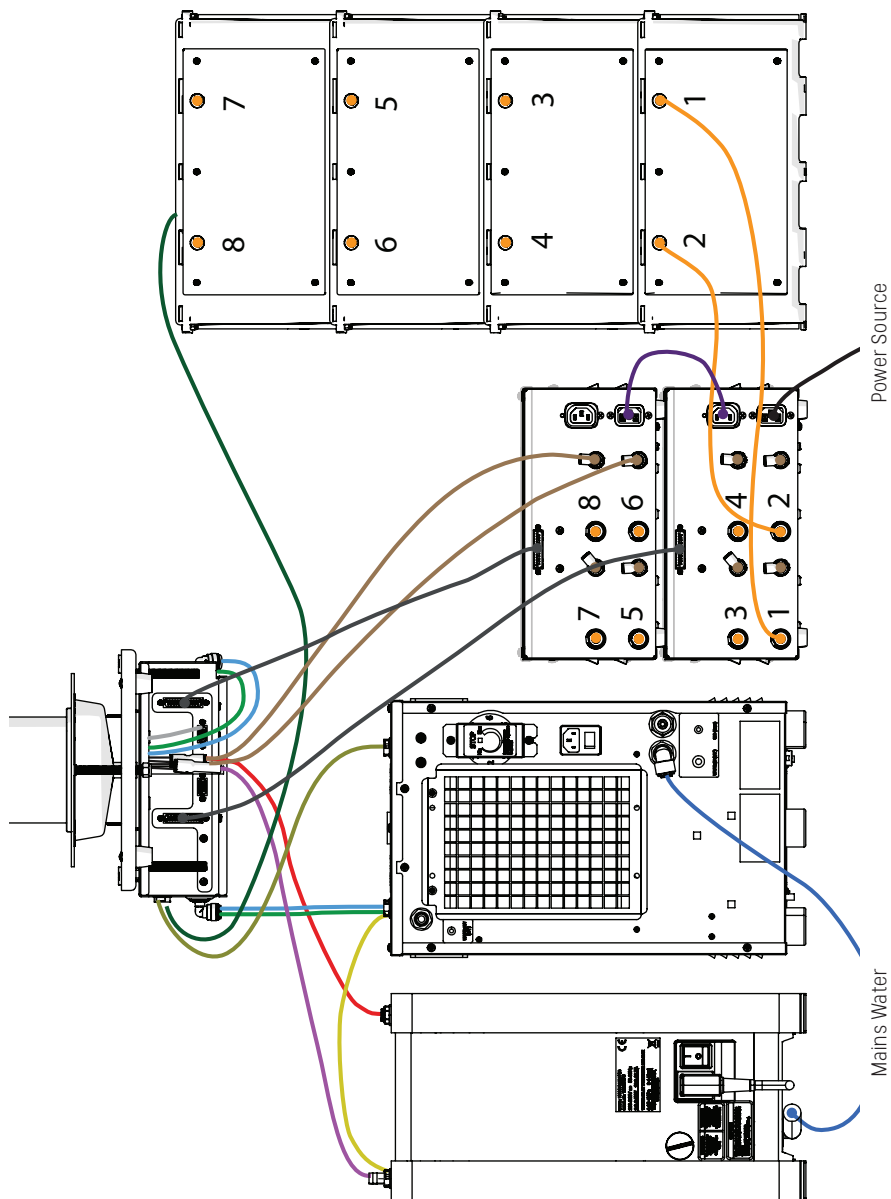


Colour	Connection Type	Colour	Connection Type
Blue	Mains Water to Boiler/Chiller	Green	Container to Flow Box Connection
Yellow	Boiler/Chiller Connection	Grey	Pump Box to Flow Meter Comms Connection
Purple	Vent to Boiler	Brown	Beverage Out X4
Red	Hot Water From Boiler	Orange	Beverage In X4
Green	Sparkling Water	Light Grey	Font/Screen Cable
Light Blue	Cold Water	Black	Power In
Olive	Chiller to Font Connector		

Installation

6. For use with chiller, boiler & 2 pump boxes

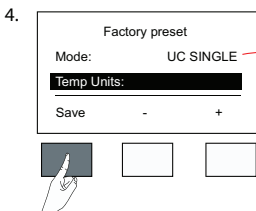
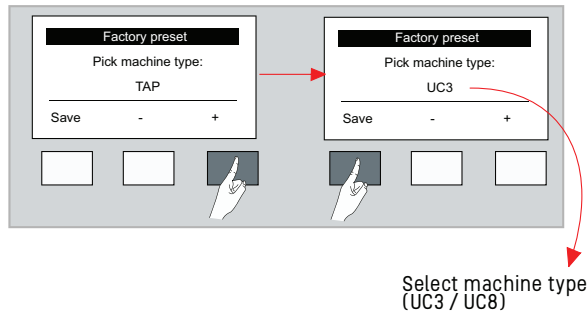
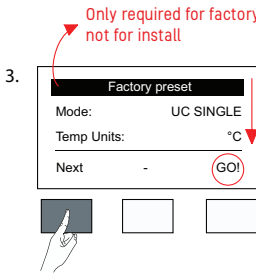
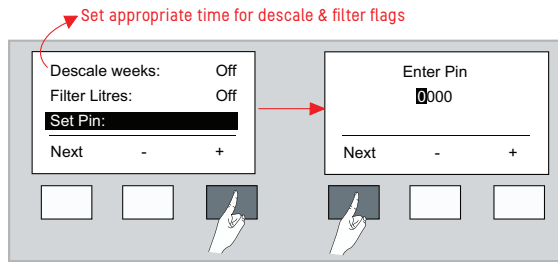
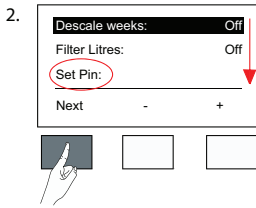
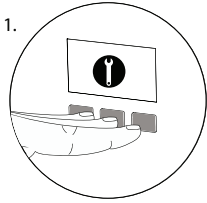
If using, please follow chiller/boiler instructions for installation.



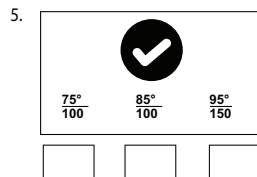
Colour	Connection Type	Colour	Connection Type
Blue	Mains Water to Boiler/Chiller	Green	Container to Flow Box Connection
Yellow	Boiler/Chiller Connection	Grey	Pump Box to Flow Meter Comms Connection
Purple	Vent to Boiler	Brown	Beverage Out X8
Red	Hot Water From Boiler	Orange	Beverage In X8
Green	Sparkling Water	Grey	Font/Screen Cable
Light Blue	Cold Water	Purple	Power to Box 2
Olive	Chiller to Font Connector	Black	Power In

Mix Boiler Set Up

When connecting the machine to a boiler you must configure the boiler to the correct settings as per instructions below.



Set boiler mode to UC SINGLE



Operating the Machine For The First Time

1. Ensure physical installation is completed as per previous steps.
2. Plug in the power.
3. Navigate to Main Menu → Language, choose the operating language.
4. Navigate to Main Menu → Advanced → System Settings → Date & Time, set the date and time.
5. Navigate to Main Menu → Advanced → System Configuration → Configure Unit, set the outputs present.
6. Navigate to Main Menu → Advanced → System Configuration → Configure Pumps, Enable/disable the pump, input the container size, and input the cleaning frequency of the pump.
7. Fill all the containers (or BIBs etc) with at least 1L of product for the next steps.

NOTES:

- a. To ensure best results and accurate dispense volume, gravity flow and positioning of BIB is important and the BIB must be angled ensuring the output is at the lowest point.
- b. Ensure the BIB is positioned in such a way that it will not collapse and cover the output of the BIB before the BIB is empty

8. Navigate to Main Menu → Advanced → System Configuration → Priming Configuration, follow instructions on the screen.

9. Navigate to Main Menu → Advanced → System Configuration → Flush Configuration, enable this option if using the nozzle. The flush quantity should be chosen to prevent cross-contamination, thicker syrups and coffee will require more water than lighter syrups.

10. Navigate to Main Menu → Advanced → Calibration and follow the instructions on the screen to calibrate all water outputs used.

11. Navigate to Main Menu → Advanced → Calibration → Pumps, and follow the instructions to calibrate all syrups used.

NOTE: Only calibrate with full unused BIBs. Calibrated Syrup waste – 400–480g.

Pump speeds:

- a. High Viscosity Syrups (Caramel, Honey, Passion Fruit syrup, etc): (60–75 °Brix) = 60–70%
- b. Medium Viscosity Syrups: (40–60 °Brix) = 50 – 60%
- c. Low Viscosity Syrups: (20–40 °Brix) = 40 – 50%
- d. If the syrup is used on very high concentrations, the pump speed will heavily impact the delivery time of the beverage. The greater the speed, the faster the beverage will be delivered, but it will splash more. Pump speed can be tested on the first calibration step.

NOTE: Adjusting pump speed post calibration requires recalibration of syrup pump.

Operating the Machine For The First Time

12. Navigate to Main Menu -> Advanced -> UI Settings and set recipe blocking for when cleaning is due, ingredient is empty or when line is not primed. Set machine to self service or crew serve mode.

13. Navigate to Main Menu -> Advanced -> Graphics and upload your desired screensaver and icons, instructions provided on the UI.

14. Navigate to Main Menu -> Advanced -> Change Pin and set your desired pins for advanced settings and main menu.

15. Navigate to Main Menu -> Advanced -> Beverages -> Recipes and set your recipes.

NOTE: The minimum syrup dispense volume = 5g

Syrup accuracy: Above 20g +/-5%, below 20g +/-1g

16. Navigate to Main Menu -> Advanced -> Beverages -> Flavours and set your flavours if you're on crew serve mode (not available on self-service).

17. Navigate to Main Menu -> Advanced -> Beverages -> Sizes and set the drink sizes and units,

18. Navigate to Main Menu -> Refill, refill all the lines used both physically and on the software.

19. Navigate to Main Menu -> Notifications, check for any remaining notifications.

20. Navigate to Main Screen and test the recipes.

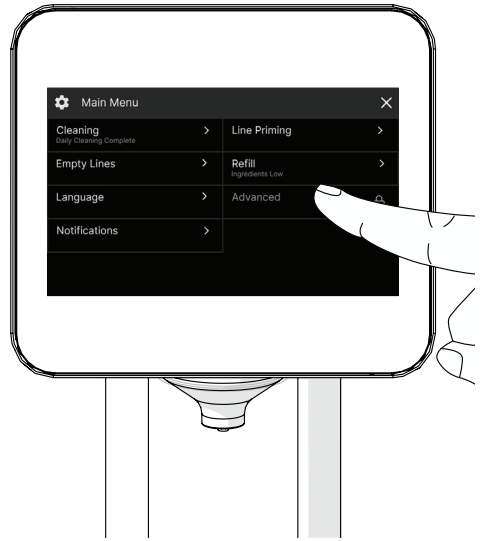
21. Troubleshooting if required (Navigate to Main Menu -> Advanced -> Service -> Troubleshooting).

Accessing Main Menu & Advanced Settings

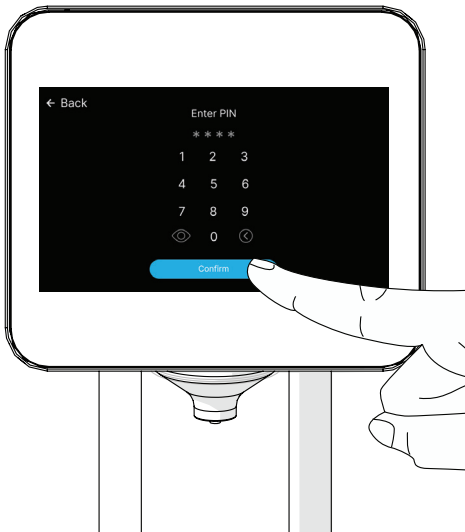
1. Click the settings icon in the top left corner of the homescreen



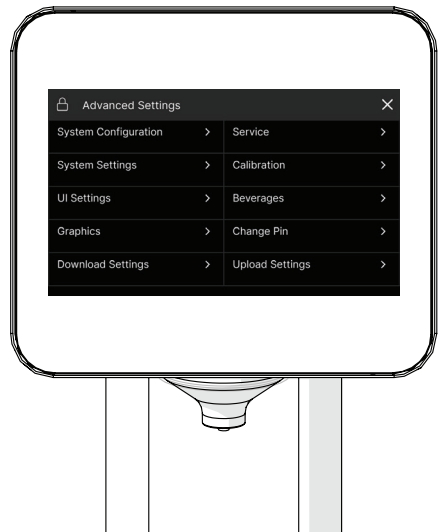
2. You will enter the general setting menu. Click 'Advanced'



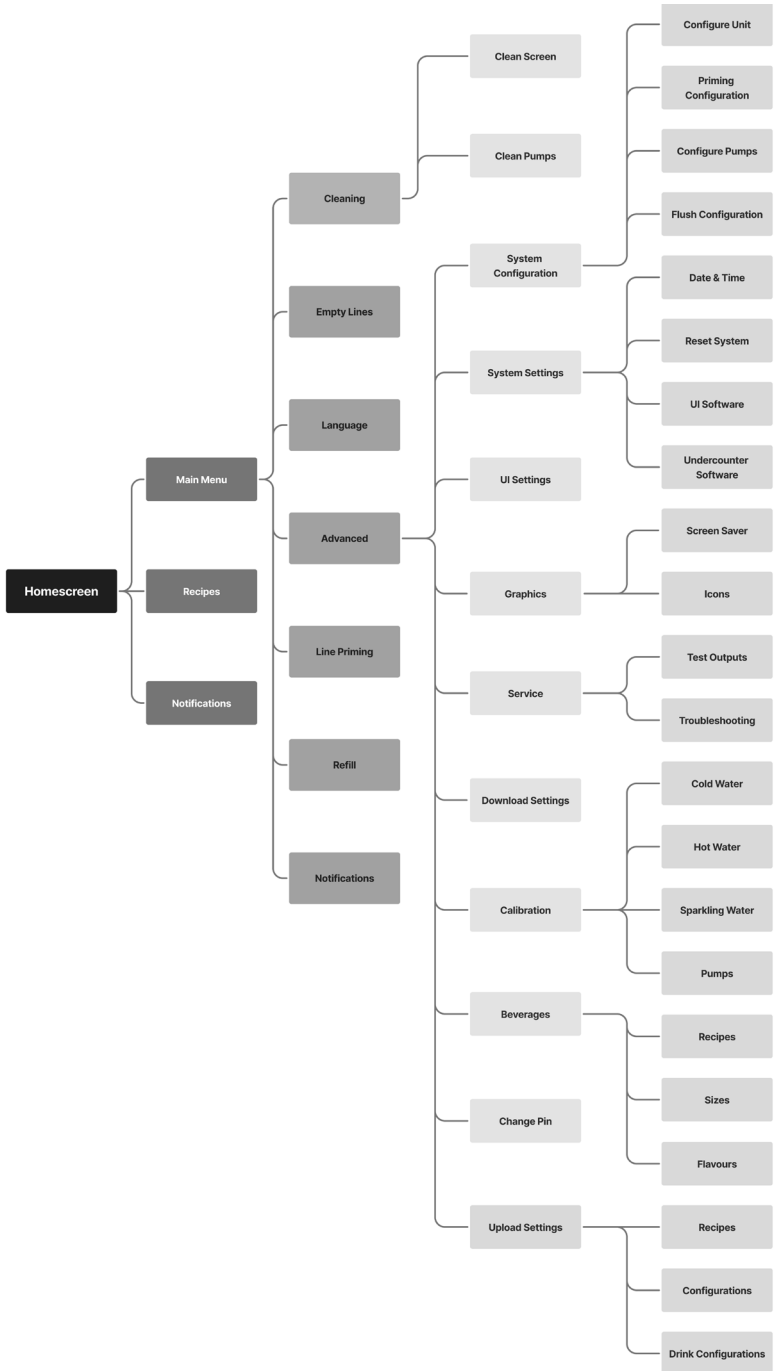
3. Default Pin = 0000



4. Once PIN is entered, you will access the advanced settings menu



User Interface Map

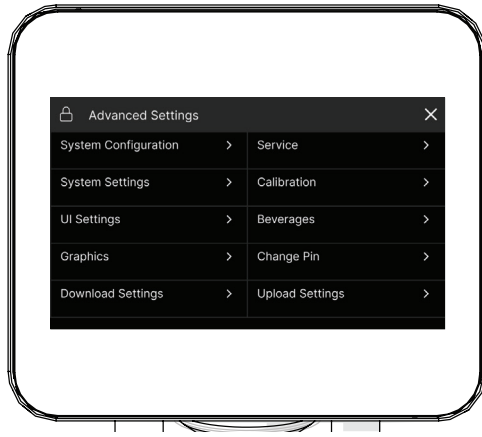


Main Menu



Main Menu Item	Function
Cleaning	Clean Pumps Select pumps you wish to clean and follow on screen instructions.
	Clean Screen Follow on screen instructions to lock screen for cleaning.
Empty Lines	
Refill	Notify the machine when a product line has been refilled. Follow on screen instructions.
Notifications	View machine notifications.
Line Priming	The beverage lines need to be primed before using the machine for the first time, every time a product line has been refilled, and after every clean cycle. Before priming, place a vessel under the dispense nozzle. Follow on screen instructions.
Language	There are 4 languages programmed on the machine, English, Spanish, French and Dutch. Select desired language and save.
Advanced	Enter Pin to access advanced settings (Default Pin = 0000).

Advanced Settings



Main Menu Item	Part Number
System Configuration	Configure Unit Select outputs present in your system.
	Priming Configuration Configure automatic priming time for each beverage line.
	Configure Pumps Name pump, enable/disable pumps, enable container detection, add container size, and set cleaning frequency.
	Flush Configuration Enable/disable flush & set flush water quantity.
System Settings	Set date & time, upload UI software, upload undercounter softer, reset system.
UI Settings	Enable/disable self serve UI. Enable/disable recipe blocking when cleaning is due or ingredient is empty.
Graphics	Upload/edit icons and screensavers.
Download Settings	Select settings to be downloaded (General settings, pump settings, drink configurations, screen saver settings, water settings, passwords, recipes).
Service	Test outputs, troubleshooting and service manual.
Calibration	Calibration is required before using the machine for the first time and when changing syrup type. Ensure all lines are primed before starting the calibration process. Follow on screen instructions.
Beverages	Configure recipes, add flavours and set drink sizes.
Change Pin	Add/change PIN for main menu and advanced settings.
Upload Settings	Upload recipes, drink configurations and configurations. Follow on screen instructions.

Priming

The beverage lines need to be primed before using the machine for the first time, every time a product line has been refilled and after every clean cycle. Before priming, place a vessel under the dispense nozzle.

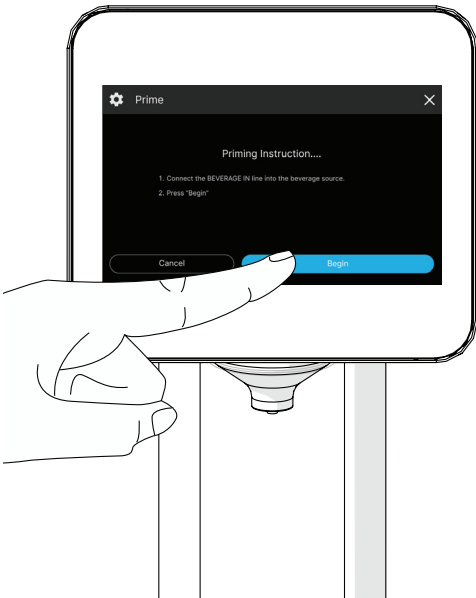
1. Navigate to main menu and select 'Line Priming'.



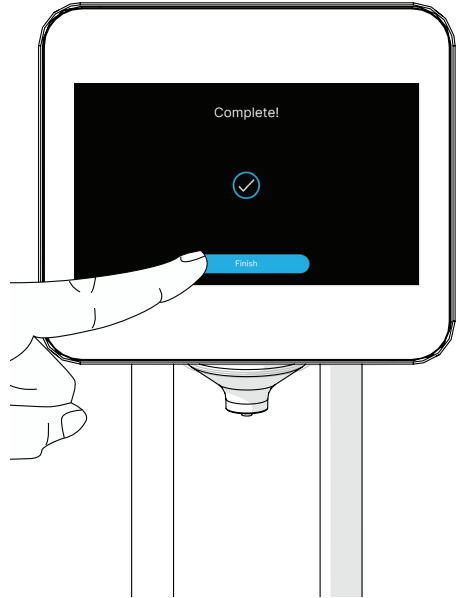
2. Select pumps you wish to prime.



3. Follow the on screen instructions



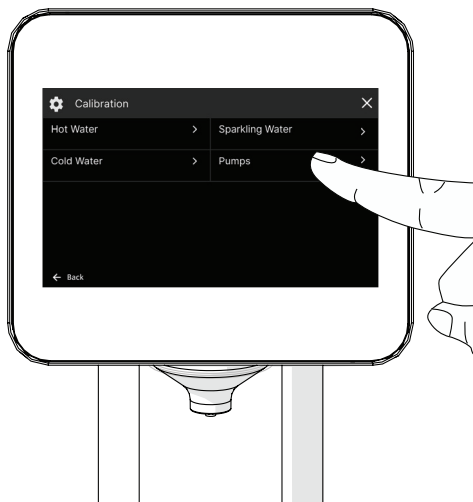
4. Press finish once complete.



Calibration

Calibration is required before using the machine for the first time. Ensure all lines are primed before starting the calibration process. Before calibration, place a vessel under the dispense nozzle.

1. Navigate to advanced settings and select 'Calibration'.
2. Select 'Pumps'.



3. Select pumps you wish to calibrate. Follow the on screen instructions.



1. Perform a full calibration for all pumps, cold, sparkling, and hot lines (if applicable).

2. Equipment needed: scales and vessel.

3. Follow the on-screen instructions for each step.

NOTE:

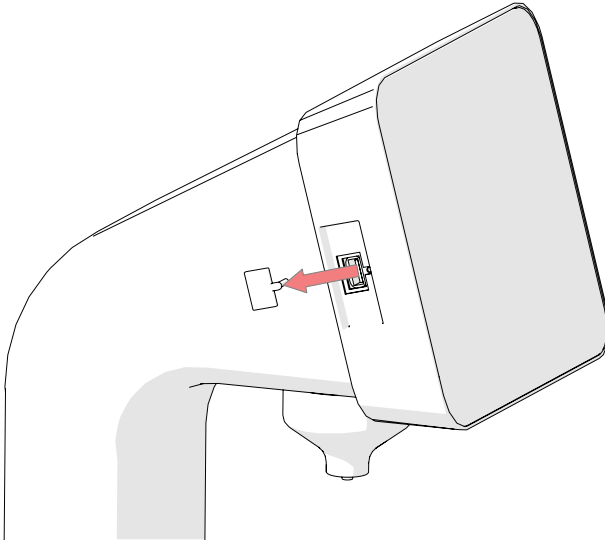
a. 'Dispensed weight' refers to the weight of the liquid dispensed; therefore, the weight of the container used must be deducted.

b. Calibrated Syrup waste – 400–480g. In open air containers this calibration procedure syrup can be put back into the dispense container. Please ensure calibration container is clean for each syrup type to avoid any cross contamination (this is not possible for BIBs).

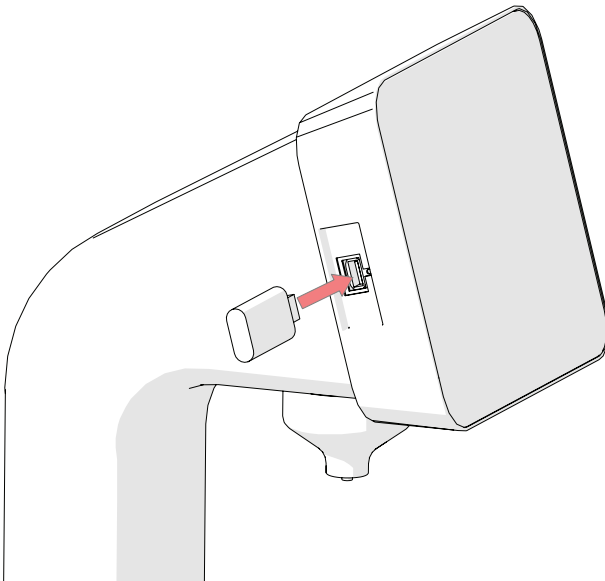
USB Connection

USB connection is required for uploading graphics, settings, and updating the software.

1.



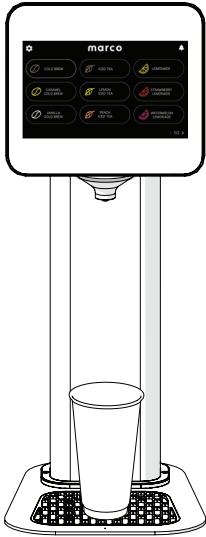
2.



Operating Machine

Crew Serve

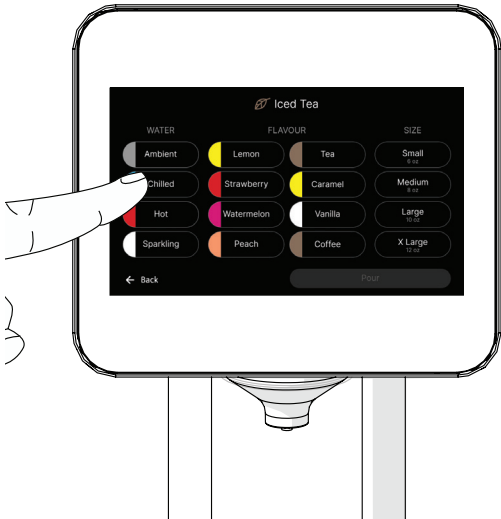
1. Place cup on drip tray



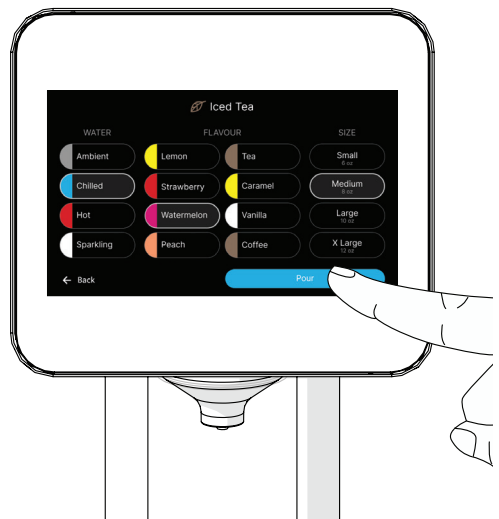
2. Select desired beverage from homescreen



3. Select desired water type, additional flavour (optional) and beverage size. Select 'Pour' to dispense.



4. Select 'Pour' to dispense.
NOTE: When a drink is not selected, the 'Pour' button functions as press & hold to pour.



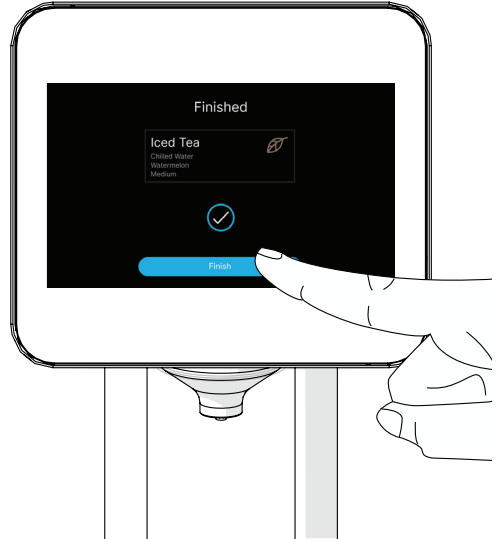
Operating Machine

Crew Serve

5. Beverage will start pouring.



6. Once beverage is dispensed, press 'Finish'.

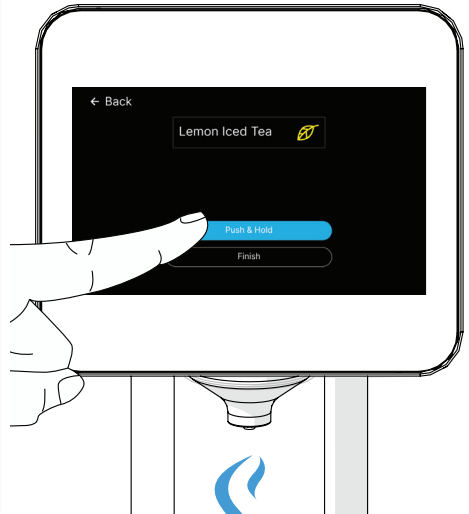


Self Serve – Push & Hold

1. Select desired beverage from homescreen



2. Push & hold button to dispense. Press 'Finish' to complete.



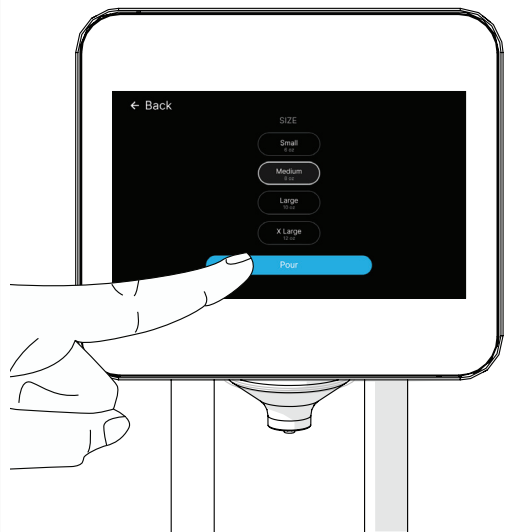
Operating Machine

Self Serve – Volumetric

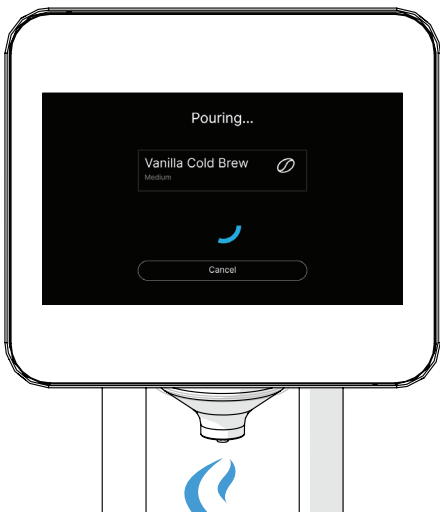
1. Place cup on drip tray
Select desired beverage from homescreen



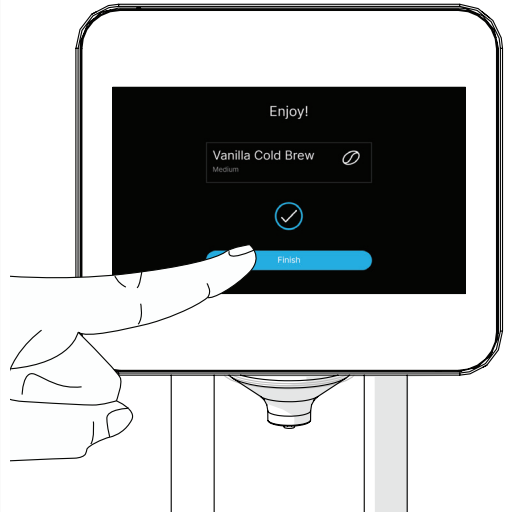
2. Select desired size and press 'Pour' to dispense.



3. Beverage will start pouring.



4. Once beverage is dispensed, press 'Finish'.



Troubleshooting

ERROR	ACTION
<p>Not dispensing water</p>	<p>Use “Test Outputs” to test the affected accept solenoid. NOTE: a buzzing sound is made when the solenoid turns ON, even if there is no water.</p> <p>If not responding and 24vdc is measured at the solenoid, replace the part.</p> <p>If responding but no water is dispensed, check mains water pressure, if ok, replace the part.</p>
<p>Inaccurate water/syrup volumes</p>	<p>Re-calibrate the affected syrup/water line.</p>
<p>Not dispensing concentrate</p>	<p>Use “Test Outputs” to test the affected pump. NOTE: a buzzing sound is made when the pump turns ON, even if there is no syrup.</p> <p>If not responding and 24vdc is measured at the leads, replace the part.</p> <p>If responding but no syrup is dispensed, run a cleaning cycle and if the issue persists, replace the part</p>

Marco Beverage Systems Limited.
63d Heather Road,
Sandyford Industrial Estate,
Dublin 18
t: +353 (0)1 295 2674
f: +353 (0)1 295 3715
e: sales@marco.ie
www.marco beveragesystems.com

