

VITRO RANGE

BEVERAGE MACHINES



OPERATORS MANUAL

81064630
Revision 4





VITRO S2 / S3 / S4 / X3 & X4 MACHINES

OPERATORS MANUAL

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FOREWORD

1. The information contained in this technical manual is applicable to the Vitro Beverage Machines. Due to customer requirements some units may vary from the one described in the manual.
2. Personnel who have undergone relevant equipment training must only undertake setup and maintenance.
3. The manufacturer reserves the right to make changes, without notice, to the design of the beverage machine, which may affect the information in this manual.
4. The Vitro Beverage Machines are designed for indoor use, in an environment with an ambient temperature range of between 1°C and 40°C.
5. 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.
6. The beverage machine is a heavy item, care must be taken when lifting it.
7. The unit must be mounted within 10° of the vertical for safe operation. Ensure that the mount is secure and that it can support the weight of the machine

8. Ensure that the mains electrical supply is isolated before connecting the supply cable to the machine
9. This appliance must be earthed
10. The machine mains cable must be connected to the supply via a safety isolator switch which provides a contact separation of at least 3mm
11. The A-weighted sound pressure level is below 70dB
12. UK ONLY: Refer to current requirements of The Model Water Bylaws 1986 - Statutory Instrument (SI) No.1147
13. A Water Blocker to be fitted to the Main water supply
14. 15mm dia. water mains supply, terminating at a convenient stop tap located within 1m of the beverage machine is required
15. Water Pressure: Min: 100 KPa
Max: 800 KPa
16. Use the mains water hose supplied with the equipment. Do not recycle a hose from a previously installed product, this could lead to a health hazard
17. Replacement of the Type Y mains cable requires special tools. Should the cable become damaged, a trained person from an approved service agent must only carry out replacement.
18. The unit should not be situated in an area where a water jet could be used
19. Water should be connected before turning machine on. Do not power up before connecting water

Services Required

Electrical Supply

VITRO – S4

Three Heater Operation

- 1) Supply voltage : 380V/415V, 50Hz, 3-phase, fused supply
- 2) Current rating : 15A each phase

Two Heater Operation

- 1) Supply voltage : 230V~, 50Hz, single phase, fused supply
- 2) Current rating : 30A

Single Heater Operation

- 1) Supply voltage : 230V~, 50Hz, single phase, fused supply
- 2) Current rating : 10A/16A (13A UK)

The fused electrical supply should terminate at an appropriate isolator located within 1m of the beverage machine.

VITRO – S2 Instant

Single Heater Operation

- 1) Supply voltage : 230V~, 50-60Hz, single phase fused supply
- 2) Current rating : 16A (13A UK)
- 3) Connection to the domestic mains supply is via a factory fitted mains lead incorporating a moulded domestic plug suitable for connection to a switched socket. The socket should be located within 1m of the beverage machine.

6kW Model for fused 30 Amp supply.

- 1) as above
- 2) Current Rating 23A
- 3) The fused electrical supply must be terminated at a safety isolator switch, which provides a contact separation of at least 3mm. The isolator should be located within 1m of the beverage machine. Note the mains lead appropriate to the 6kW heater load is not suitable for use with a rewirable domestic plug and no attempt should be made to fit one.

Vitro S3/X3 DUO / BEAN TO CUP / ESPRESSO

- 1) Supply voltage: 230V~, 50Hz, single phase fused supply
- 2) Current rating: 16A (13A UK)

The fused electrical supply must be terminated at a safety isolator switch, which provides a contact separation of at least 3mm. The isolator should be located within 1m of the beverage machine.

Water Supply

15mm dia. water mains supply, terminating at a convenient stop tap located within 1m of the beverage machine.

Water Pressure

Minimum:	100 KPa
Maximum:	800 KPa

A 15mm double back check valve, with inspection port, should be fitted prior to the flexible hose.

A Water Blocker must be fitted to the Main water supply

Do not power up before connecting water

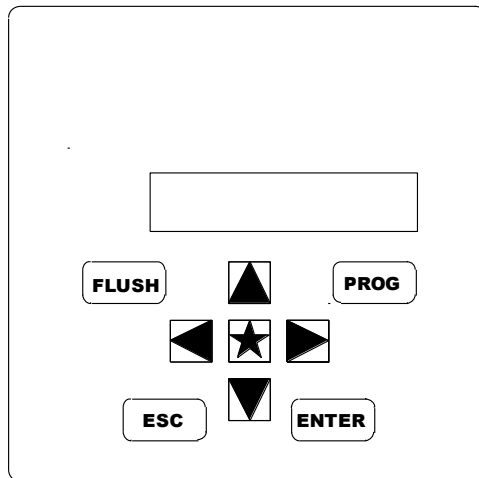
Operating



The dispense area on the right marked with the water droplet symbol is used for Hot Water vends. All other drinks use the central dispense area marked with a cup symbol.

PROGRAMMING

Internal Keypad Layout



Keypad Functions

The Operator's Program is available to the operator and Service Engineer. The Program provides options for counting the number of drinks dispensed for each beverage, monitoring the weight of ingredients used, showing the total vends dispensed and resetting the drink dispensed counters if applicable. Additionally, the operator can set the machine to Out of Service if required.

Initiating A Flush Cycle (Bean To Cup & Duo Machines)

A self-clean cycle is initiated by pressing the FLUSH key. Note: A suitable receptacle should be placed under the dispense nozzles to avoid filling the drip tray, before initiating the flush cycle. The precise amount of liquid will vary according to machine configuration however a 0.5 litre container is usually sufficient. A flush cycle will only start if the tank is correctly up to temperature.

Clearing The Grout Bucket Full Counter (Bean To Cup & Duo Machines)

The grout bucket full condition can be cleared by pressing and holding the ENTER key pressed for 3 seconds. To use this method the machine must be in its normal operating mode. I.e. not in the Operator's Program, see below. Alternatively the grout bucket full condition may be cleared via a menu within the Operator's program. The machine will beep twice and briefly display the message **COUNTER RESET** to confirm the action has occurred.

Note: The grout bucket full condition occurs when a predefined number of brewer dispense cycles have taken place since the condition was last cleared. The state of the bucket is not sensed directly. If the bucket full condition is cleared without emptying the bucket it may subsequently overflow necessitating a complete strip and clean of the carriage assembly. It is strongly recommended that the practice of emptying the bucket before clearing the condition be adopted as standard operating procedure.

Operators Program

The Operator's Program provides access to the machines audit facilities, allows the operator to set the machine in or out of service and access an alternative method of clearing the grout bucket full condition.

Keypad functions when used in the Operator's programming mode, are as follows:-

- 1) Key (ENTER) used to access a function.
- 2) Key (ESC) used to escape from the operators mode.
- 3) Key (PROG) used to access the operators program, then used to change menu functions.
- 4) ARROWS UP (▲), DOWN (▼), LEFT (◀), RIGHT (▶) are used for adjustments when in program mode.
- 5) STAR (*) key is used for selecting option when in output test mode.

Accessing the Operators Mode

Accessing the Operator's Program is by pressing the PROG key on the internal keyboard. The display will show:

PRESS DRINK TO DISPLAY COUNTER

Display Counter

The DISPLAY COUNTER option is accessed on entering the Operator's Program. The resettable vend counts may be viewed by pressing each drink key (as shown on the capacitive touch screen) in turn.

To access other options, press PROG on the internal keypad. The other options are as follows:

- **TOTAL VENDS**
- **RESET COUNTERS**
- **DISABLE VENDS**
- **VIEW INGREDIENT COUNTERS**
- **MACHINE SERIAL NUMBER**
- **OUTPUT AUDIT DATA**
- **Fill MDB TUBES**

Total Vends

Access the TOTAL VENDS COUNT option using PROG key, the display will show total vend count.

Reset Counters

Access RESET COUNTERS by using PROG key, to clear drink counters press ENTER. The display will show:

**ARE YOU SURE
ENTER (Y) ESC (N)**



Disable Vends

Access the DISABLE VENDS option by pressing the PROG key and then press ENTER when DISABLE VENDS is displayed. This will then disable all of the vends selections until they are re enabled.

View Ingredient Counters

Access the VIEW INGREDIENT COUNTERS option by using PROG key. Press ENTER to display the first counter, and then press the ▲ UP arrow to scroll through the others.

Machine Serial Number

Access the MACHINE SERIAL NUMBER by pressing the PROG key until the machines serial number is displayed on the LCD display.

Output Audit data

It allows communication with a USB key. Insert the key and select this function.

SAFETY WARNINGS

1. Maintenance of the beverage machine is only to be undertaken by trained personnel who are fully aware of the dangers involved and who have taken adequate precautions.
2. Lethal voltages are exposed when the mains electrical supply to the beverage machine is available and any of the following items are removed:
 - Lid and cover assembly
 - Motor shelf
 - Side panels

Maintenance personnel must ensure that the machine is isolated from the mains electrical supply before removing any of these items.

3. Replacement of the Type Y mains cable requires special tools. Should the cable become damaged, a trained person from an approved service agent must only carry out replacement.
4. THIS APPLIANCE MUST BE EARTHED.
5. Ensure that the connection to the water system is compliant with the pertinent national and local legislation. In the UK the Model Water Bylaws 1986 Statutory Instrument (SI) No.1147 are applicable.
6. Ensure that the unit is positioned such that the plug connecting the unit to the mains supply is accessible.
7. The beverage machine is designed for indoor use, in an environment with an ambient temperature range of between 1°C and 40°C. The machine should be located close to the appropriate electrical and water services with a minimum of 100mm (4in) clearance between the rear of the cabinet and the wall to allow adequate ventilation, and, if in a corner location, not closer to the right hand wall than 400mm (16in) to accommodate opening of the door.

The unit should not be situated in an area where a water jet could be used.

8. The beverage machine is a heavy item. Care must be taken when lifting it.
9. The water in the boiler, and the boiler itself, are hot enough to scald or burn, even some time after the machine has been switched off. The boiler must be drained, filled with cold water and drained again before any attempt is made to handle it or any of its associated parts.
10. Young children, the aged and the infirm should not be allowed to operate the beverage machine unsupervised, in order to protect them from the risk of being scalded by hot beverages.

FROST WARNING

1. Care must be taken to protect the beverage machine from frost. Do not attempt to operate the machine if it becomes frozen. Contact the nearest service agent immediately. Do not restore the machine to operational use until it has been checked and approved for use by the service agent.



COFFETEK
INSTALLATION

- WARNINGS**
- (1) THE BEVERAGE MACHINE IS A HEAVY ITEM. CARE MUST BE TAKEN WHEN LIFTING IT.
 - (2) THE BEVERAGE MACHINE MAY TOPPLE IF THE MOUNT IS WEAK OR INSECURE. ENSURE THAT THE MOUNT IS SECURE AND THAT IT CAN SUPPORT THE WEIGHT OF THE MACHINE.
 - (3) ENSURE THAT THE MAINS ELECTRICAL SUPPLY IS ISOLATED BEFORE CONNECTING THE SUPPLY CABLE TO THE MACHINE.

Location

The beverage machine is designed for indoor use, in an environment with an ambient temperature range of between 1°C and 40°C. The machine should be located close to the appropriate electrical and water services with a minimum of 100mm (4in) clearance between the rear of the cabinet and the wall to allow adequate ventilation, and, if in a corner location, not closer to the right hand wall than 400mm (16in) to accommodate opening of the door.

The unit should not be situated in an area where a water jet could be used.

Leveling

The machine should be levelled both fore and aft and side-to-side by adjustment of the four leveling feet, using a spirit level on the cabinet floor to check for level.

The unit must be mounted within 10° of the vertical for safe operation.

Securing

The Vitro Beverage Machines is a free-standing unit which can be mounted on a secure table, bench, cabinet or food and drink counter.

Connecting The Water Services

**Only to the UK: Refer to the current requirements of The Model Water Bylaws
1986**

Statutory Instrument (SI) No.1147.

**IF THE EQUIPMENT WAS SUPPLIED WITH A MAINS WATER HOSE, THIS
HOSE SHOULD BE USED. DO NOT USE A HOSE FROM A PREVIOUSLY
INSTALLED PRODUCT EVEN IF IT WOULD FIT. TO DO SO COULD LEAD
TO A HEALTH HAZZARD.**

The water supply should be taken from a 15mm rising main at a pressure of between 100 kPa to 800 kPa and should be fitted with a stopcock to isolate the supply during servicing. A 15mm double back check valve, with inspection port, should be fitted to the flexible hose.

A Water Blocker must be fitted to the main water supply

The outlet should be fitted with appropriate connections, standard in every country, and must be positioned within 1.5m of the machine to ensure correct fitting of the hose. If possible, the outlet should be located behind the machine to prevent misuse.

Before connecting the machine hose to the mains outlet, flush the system, via the stopcock, to remove any impurities that may have accumulated in the mains supply pipe.

Connect the machine hose to the mains outlet using the seals supplied and ensure that all fittings are tight. Turn on the water supply at the stopcock and check for leaks, both behind and inside the machine.

Connecting the Electrical Services

WARNINGS THE MACHINE MAINS CABLE MUST BE CONNECTED TO THE SUPPLY VIA A SAFETY ISOLATOR SWITCH WHICH PROVIDES A CONTACT SEPARATION OF AT LEAST 3mm.

REPLACEMENT OF THE Y TYPE MAINS CABLE REQUIRES SPECIAL TOOLS. SHOULD THE CABLE BECOME DAMAGED, REPLACEMENT MUST ONLY BE CARRIED OUT BY A TRAINED PERSON FROM AN APPROVED SERVICE AGENT.

ENSURE THAT THE SUPPLY TO THE ISOLATOR SWITCH IS ISOLATED BEFORE MAKING ANY CONNECTIONS TO IT.

ENSURE THAT THE SUPPLY TO THE BEVERAGE MACHINE IS ISOLATED BEFORE MAKING ANY CONNECTIONS TO THE TERMINAL BLOCK AT THE REAR OF THE MACHINE.

THE BEVERAGE MACHINE MUST BE EARTHED.

VITRO – S2/S3/X3/X4 / Bean to Cup / DUO / Espresso

The beverage machine is fitted with a domestic 3 pin plug for connection to a standard 13A supply, alternatively, the beverage machine may be connected via a safety isolator switch with a contact separation of at least 3mm, to a 230V~, 50Hz, 13A supply. Note that replacement of the Y Type mains cable requires special tools. Should the cable become damaged, replacement must only be carried out by a trained person from an approved service agent.

To reconfigure the machine to operate from a 110V supply, move the voltage selector link on the PSU to the 110V position and replace the 240V 3kW element (part no. 12345) with a 110V 1.6kW element (part no. 56223).

VITRO – S4 Instant

The mains cable fitted to the machine should be 3-core, 4-core or 5-core, depending on the electrical supply available and the number of heaters to be connected in circuit. The cable is terminated at a terminal block at the base of the machine. Connection to the electrical supply must not be carried out using a cable with more cores than required, e.g. do not use a 5-core cable in place of a 4-core cable, etc.

Do not attempt to connect all three heaters to a 230V~ single phase supply. Similarly, do not attempt to connect more than one heater to a 230V~, 10A or 16A single phase supply. The mains cable must be connected to the supply via a safety isolator switch, preferably located behind the machine. Ensure that the supply to the isolator switch is isolated before making the connections. Ensure that the supply to the beverage machine is isolated before making any connections to the terminal block. The machine must be earthed.

Connect the beverage machine, via a safety isolator switch with a contact separation of at least 3mm, to a 230V~, 50Hz, 13A supply. Note that replacement of the Y Type mains cable requires special tools. Should the cable become damaged, replacement must only be carried out by a trained person from an approved service agent.

Changing the electrical configuration of a Vitro S4 Instant including its mains supply chord requires special tools and training. It should only be undertaken by suitably qualified persons.

Preferably, the isolator switch should be located behind the machine to prevent accidental damage or misuse

Descaling The atmospheric boiler

WARNING

ENSURE THAT THE TANK IS FLUSHED WITH COLD WATER
BEFORE ATTEMPTING TO HANDLE IT.

If the tank requires descaling, proceed as follows:

- 1) Isolate the machine from the electrical supply.
- 2) Flush the tank with cold water.
- 3) Remove the tank, taking note of the connections, which have been removed.
- 4) Remove the solenoid operated valves and the thermostat probe from the tank.
- 5) Check the heater element for signs of deterioration. Replace if necessary.
- 6) Descale the tank in the approved manner.
- 7) After descaling, flush the tank thoroughly with cold water, refit the solenoid operated valves and thermostat probe, and install and reconnect the tank to the machine.
- 8) Restore the electrical supply to the machine and carry out a test of the quality of each beverage before returning the machine to operational use.

Commissioning

- WARNINGS
- (1) TO AVOID EXPOSURE TO HAZARDOUS VOLTAGES, DO NOT LEAN INTO THE MACHINE OR TOUCH ANY EXPOSED LIVE POINTS WHEN THE MAINS SUPPLY IS AVAILABLE TO THE MACHINE AND ANY OF THE FOLLOWING ITEMS ARE REMOVED: INGREDIENT CANISTER ENCLOSURE, LID AND COVER ASSEMBLY, MOTOR SHELF, SIDE PANELS.
 - (2) THE WATER IN THE BOILER IS HOT. AVOID CONTACT WITH WATER LEAKING FROM THE BOILER OR FROM ANY OF ITS ASSOCIATED VALVES, TUBES AND PIPES.



It is essential that the Service Engineer responsible for installing and commissioning the machine ensures that:

- (1) all electrical and water supplies are correctly and safely connected;
- (2) all covers, panels or access doors are in place and secured, and the machine is left in a SAFE condition;
- (3) the Operator is familiar with the SAFETY PRECAUTIONS for the machine;
- (4) the importance of hygiene and regular cleaning is fully appreciated by the Operator.

With the water and electrical supplies connected to the machine, proceed as follows:

- (1) Set the On/Off switch on the machine to OFF.
- (2) Isolate the electrical supply from the machine.
- (3) Open the cabinet door and locate the waste tray.
- (4) Ensure that the overflow pipes are not trapped.
- (5) Restore the electrical supply to the machine.
- (6) Set the On/Off switch on the machine to ON.
- (7) Check that the boiler fills with water and that the water supply cuts off when the correct level is reached, i.e. no water overflows into the waste tray. (The machine may have to be switched OFF and ON several times in order to fill the tank).
- (8) Check that the heater heats the water to the correct temperature.
- (9) Select the Engineer's Program and run through the Output Test to check that all components are functioning correctly.
- (10) Fill the ingredient canisters.
- (11) Check the complete range of machine operations.
- (12) If required, select the Engineer's Program and change the pre-set values to suit customer requirements.
- (13) Set the On/Off switch on the machine to OFF.
- (14) Isolate the electrical supply from the machine.
- (15) Check all hose connections for leaks.
- (16) Clean the interior and exterior of the cabinet.
- (17) Restore the electrical supply to the machine.
- (18) Set the On/Off switch on the machine to ON.
- (19) Operate the machine through the complete range of dispense operations and check that each one is correct.

DAILY HYGIENE

Cleaning Instant Units

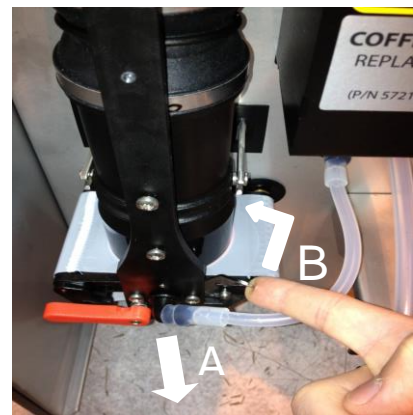
- Set the On/Off switch on the machine to ON.
- Remove the instant ingredient canisters. Wipe clean the exterior surfaces of the canister assembly. Wipe dry.
- Remove the coffee grouts bucket. Empty the contents of the bucket and wash and dry it.
- Remove the waste tray and grille. Empty the contents of the tray and wash and dry the tray and grille.
- Put a container of at least 300ml capacity under the dispensing nozzles.
- Press the FLUSH button once on the internal keypad. The screen will ask if you wish to flush the espresso system. Press UP several times until it shows FLUSH INSTANT. Press ENTER
- The machine will run warm clean water through the instant bowl whilst running the whipper motor. This process will clean any residual product that has been left in any of the systems.

Once again remove the coffee grouts bucket. Empty the contents of the bucket and wash and dry it then refit into the machine.

Note: Some of these operations should only be performed in machines that incorporate tea or coffee brewers or espresso group brewers. If your machine doesn't incorporate this elements, perform the next step.

Cleaning The Coffee Brewer

- Set the On/Off switch on the machine to OFF and isolate the mains electrical supply from the machine. Unlock and open the cabinet door.
- Remove the ingredient canisters. Wipe clean the exterior surfaces of the canister assembly. Wipe dry.
- Remove the waste tray and grille. Empty the contents of the tray and wash and dry the tray and grille.
- Remove the coffee grouts bucket. Empty the contents of the bucket and wash and dry it.
- Disconnect the tube connecting the coffee brewer to the mixing bowl by pulling the black right-angled fitting (A) away from the brewer itself. Remove the coffee brewer safety cover and lift the lower carriage locking lever (B) to the vertical, (unlocked position). Remove the carriage assembly by pulling it gently towards the front of the machine.



- Disconnect the ball and socket coupling visible inside the coffee brewer extract chamber. This is accomplished by pulling the lower vertical rod towards the front of the machine.

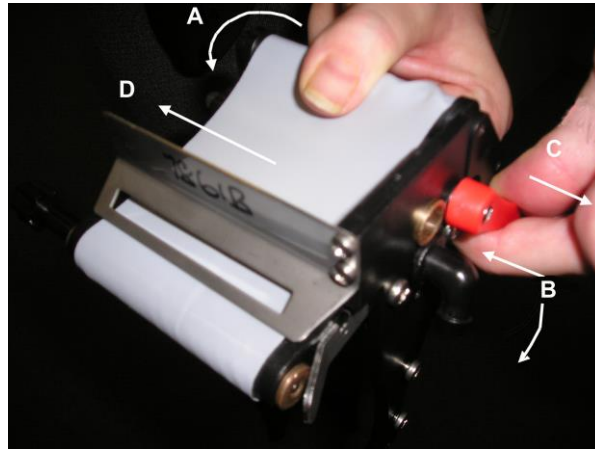


- Move the upper locking lever (C) to the vertical, (unlocked position) and remove the brew chamber assembly (D) by pulling it gently towards the front of the machine.



- Wash and dry the carriage and brew chamber assembly.
- Inspect the filter belt and if necessary remove and clean or replace it. Anticipated belt life is between 1000 and 3000 operations depending on the coffee grind, water hardness and frequency of washing. Belts may be washed in clean warm water or a de tanning agent to prolong their life. However replacement will become necessary to avoid the brewer becoming blocked. Belt removal can only be done with the carriage removed. The procedure is to compress the tension roller between left hand forefingers and thumb (A). Then push in and rotate the red lever approximately an 1/8th turn clockwise (B). Having rotated the lever allow it to return in direction (C) to lock the tension rollers in the compressed position. The belt should be free to rotate and can be removed by sliding it back and forth whilst pulling it in direction (D).
- To replace the belt follow the first part of the above procedure to compress the tension roller. Then refit the new / cleaned belt. Release the tension roller by pressing the red lever in (B). It is not necessary to rotate the lever. It is spring tensioned.

- Disconnect the pipes from the mixing bowls and dispense head. Remove the mixing bowls, tubes and dispense nozzles, and also the whipper paddle and whipper base. Wash and dry these items.



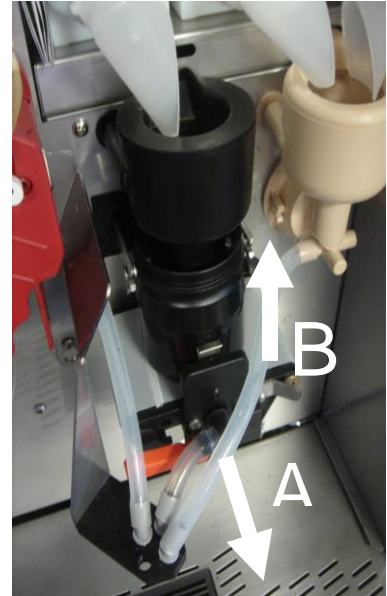
- Wash and dry the dispense area
- Wipe clean all accessible inner and outer surfaces of the machine. Wipe dry.
- Refit the whipper bases, paddles, mixing bowls, tubes and dispense nozzles and brewer parts. The assembly procedure for the brewer is the reverse of the disassembly procedure. Ensure that both brewer-locking levers are in the locked, (horizontal position) before proceeding to the next section.
- Replace the grouts collection bucket and refit the front cover, ingredient canister
- Turn on the power. Note the brewer will cycle to reach its home position.
- Carry Out a FLUSH operation, see below. Check that there are no leaks and that the brewer indexes properly. A container with a capacity of at least ½ liter should be placed beneath the dispense point to catch the liquid dispensed during the flush operation.

Reset Counters

- Press star key (centre of internal keypad) to bring up menu. Screen will change to "GROUP TRANSIENTS"
- Use up or down arrow to scroll between "GROUP TRANSIENTS", "GROUT BIN", and "ESPRESSO CLEAN"
- Press enter to reset
- Reset both "GROUT BIN" and "ESPRESSO CLEAN" (Applies only to Espresso machines)

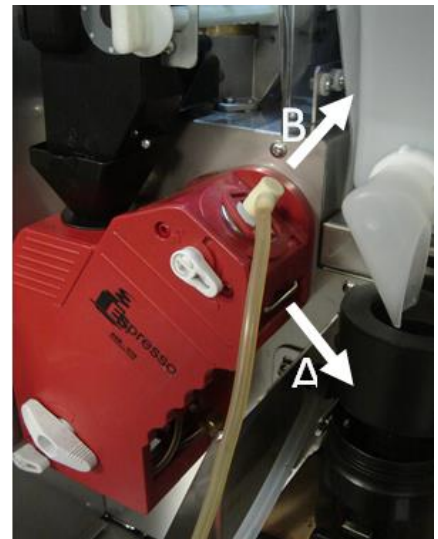
CLEANING TEA BREWER – TO BE DONE WEEKLY

- Remove the coffee grout bucket.
- Disconnect the tube connecting the tea brewer to the dispensing nozzle by pulling the black right-angled fitting (A) away from the brewer itself. Lift the lower carriage locking lever (B) to the vertical, (unlocked position). Remove the whole carriage assembly by pulling it gently towards the front of the machine.
- Once the carriage is removed slide the tea chamber towards the front of the machine to remove.
- Wash and dry the carriage and tea chamber. Check the filter belt for signs of wear or damage and if necessary replace.



FLUSHING THE “ESPRESSO” BREWER – TO BE DONE EVERY 3 MONTHS

- Ensure both the water waste and grout buckets are in place as they are both used during this process. The total process will take approximately 5 minutes to complete.
- Press the “FLUSH” key on the internal keypad.
- The machine’s internal display will show: “Flush Sys Esp, Enter Yes, Esc No”
- The brewer will move to various positions and will dispense water in to the grout bucket.
- Once this initial flush has completed the machines beep will change and the internal display will show: “Insert Tablet, Press Enter”
- Insert the tablet into the brewer and press Enter
- The cleaning of the “Espresso” brewer will now continue, at the end of the cycle the machine will do three espresso drinks to ensure all of the residue from the tablet has be purged from the system.
- For best results remove the brewing piston and clean the upper filter with a soft brush to eliminate any particles which remain



Cleaning Instant Units

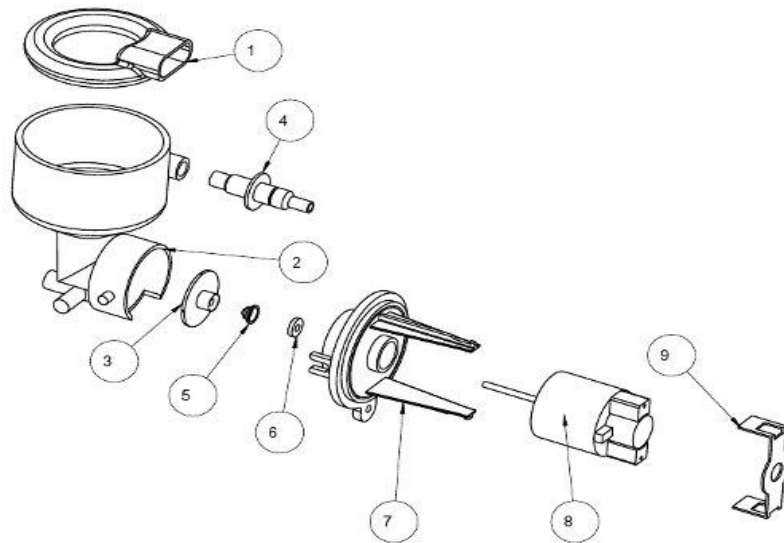
WARNING

**The unit must not be cleaned using a water jet or spray.
The enclosure is not waterproof and damage may occur if
excessive volumes of water are used in the cleaning process.**

On a weekly basis an identical procedure to that described under DAILY HYGIENE should be carried out with the following additional activities.

- The ingredients should be removed from the canisters and the canisters washed and allowed to thoroughly dry, before being refilled with ingredients and restored to the machine. It is recommended that the canisters be left to dry overnight.
- The brewer filter belt should be removed and cleaned by soaking it in a suitable de-staining solution.

A full disassembly and cleaning of the instant mixing systems should be carried out as follows:



WHIPPER AND MIXING BOWL ASSEMBLY

- 1) Set the on/off switch on the machine to off and isolate the mains electrical supply from the machine. Unlock and open the cabinet door.
- 2) Rotate the canister nozzles then remove the ingredient canisters. Wipe clean the exterior surfaces of the canister assembly and dry thoroughly.
- 3) Disconnect the pipes from the mixing bowls and remove the dispense nozzles from the dispense head. Wash and dry these items.

Milk / Chocolate mixing system removal

- Rotate and lift off the steam trap ①.
- Remove the mixing bowl and whipper housing ② by pulling towards you.
- Remove the whipper impellor ③, red seal ⑤ and PTFE washer ⑥ by pulling toward you.

Coffee mixing system removal

- Rotate and lift off the steam trap ①.
- Remove the mixing bowl and whipper housing ② by pulling towards you.
- Remove the whipper impellor ③, red seal ⑤ and PTFE washer ⑥ by pulling toward you.
- Clean all the whipper parts in hot water using the recommended sterilising agent and dry them thoroughly.
 - 1) Remove the extract chamber from the canister shelf. Wash and dry the cover.
 - 2) Clean all accessible inner and outer surfaces of the machine using a damp cloth and wipe dry.
 - 3) Replace the cleaned parts.
 - 4) Replace the ingredient canister after filling with product and rotate the canister nozzle downwards.
 - 5) Switch on the machine and set on/off switch to on.
 - 6) Flush the machine by pressing FLUSH button on internal keypad ensure there are no leaks and everything is working correctly.
 - 7) Remove the grouts bucket empty and wash it out.
 - 8) Remove waste tray and grille and empty contents.
 - 9) Clean waste tray and grille and replace.

FILLING PRODUCTS

Filling Bean Hopper

- Unlock the bean hopper lid and remove it.
- Fill the hopper with sufficient beans for the days anticipated use.
- Refit and lock the hopper lid.
- Note: any foreign objects that fall into the hopper should be retrieved before the machine is used further or damage to the grinder may result.

Filling Procedure (Espresso)

- Open door of machine with key provided.
- Pull the bean hopper lid lock forward towards the front of the machine.
- Lift the lid of canister and fill with correct ingredients to within 3cm of top of canister. Do not overfill canister or compress the product in canister.
- Wipe the exterior of the canister with a clean damp cloth using the recommended cleaning agent. Dry the canister with a clean dry cloth or paper towel.
- Return the canister lid to the closed position and push the canister lock back into position.
- Close the door of machine and lock with key provided.

Filling Procedure (Instant & Tea)

- Open door of machine with key provided.
- Turn ingredient chutes to ensure that product is not trailed over the counter.
- Lift out the product canister. Remove lid of canister and fill with correct ingredients to within 3cm of top of canister. Do not overfill canister or compress the product in canister.
- Wipe the exterior of the canister with a clean damp cloth using the recommended cleaning agent. Dry the canister with a clean dry cloth or paper towel.
- Return the canister to the machine. Remember to turn the ingredient chutes back to a downward facing position.
- Always ensure that the canisters are located in the correct position. The ingredient name is written on the rear of the machine to assist you.
- Check that the auger at the rear of the canister is correctly aligned with the cogs at the back of the machine.

FAULT FINDING GUIDE

FAULT	POSSIBLE CAUSE	ACTION
FATAL I ² C ERROR Displayed	(a) Electrical noise (b) MPU Board fault (c) Software error	(a) Check motors (b) Replace MPU Board (c) Reset power
Keypad does not bleep	(a) Keypad damaged (b) Keypad disconnected (c) MPU Board fault	(a) Replace keypad (b) Reconnect (c) Replace MPU Board
Drinks cold	(a) Heater fuse blown (b) Thermal cut-out tripped (c) Desired temperature incorrectly set (d) Excessive scaling in heater tank (e) Solid state relay fault (f) Low cut-out in program incorrectly set (g) Temperature probe wet	(a) Check and replace (b) Reset trip (c) Check desired temperature setting (d) Check tank and descale if necessary (e) Check relay (f) Reset low cut-out setting (g) Dry probe and check for leaks.
No motor operation/machine resetting on drinks	(a) Jammed motor (b) Power Supply failure safety trip	(a) Check motor operation (b) Reset power
Machine inoperable; no display	(a) Power Supply failure	(a) Replace Power Supply Board
Heater tank not filling	(a) Low water pressure (b) Inlet valve fault (c) MPU Board fault	(a) Check water pressure (b) Check inlet valve (c) Replace MPU Board
Heater tank boiling over	(a) Incorrect desired temperature setting	(a) Reset desired temperature setting

FAULT	POSSIBLE CAUSE	ACTION
	(b) Temperature probe fault (c) MPU Board fault (d) Short on solid state relay	(b) Replace probe (c) Replace MPU board (d) Replace relay
Heater tank Overfilling	(a) Probe open circuit (b) Inlet valve fault (c) Level probe incorrectly positioned	(a) Check probe circuit (b) Check inlet valve and replace if necessary (c) Reposition probe
Bearding of Ingredient	(a) Extractor fan fault (b) Steam hoods missing from mixing bowls or incorrectly positioned (d) Overflow pipe incorrectly fitted	(a) Check fan (b) Fit steam hoods to mixing bowls and position correctly.
Machine floods	(a) Dispense pipes incorrectly fitted to dispense head (b) Mixing bowls incorrectly fitted (c) Whipper seals missing	(a) Reposition pipes (b) Reposition mixing bowls (c) Check seals (d) Refit overflow pipe
No display	(a) Display connector loose	(a) Refit connector
TEMP LOW displayed	(a) Thermal cut-out tripped (b) Heater fuse blown (c) Incorrect temperature setting	(a) Reset cut-out (b) Check fuse (c) Check program setting
Grout Bin Full	(a) Vend count has reached number of vends needed to trigger error	(a) Press STAR key, then up to GROUT BIN, then ENTER to reset
Espresso clean required	(a) Vend count has reached number of vends needed to trigger error	(a) Press STAR key, then up to ESPRESSO CLEAN, then ENTER to reset

