NEVA BEAN TO CUP
BEVERAGE MACHINE

BEAN TO CUP BEVERAGE MACHINE
OPERATOR MANUAL

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FOREWORD

The information contained in this technical manual is applicable to the Bean To Cup Beverage Machine. Due to customer requirements some units may vary from the one described in the manual.

Only personnel who have undergone relevant equipment training must undertake maintenance of the dispensing machine.

The Manufacturer reserves the right to make changes, without notice, to the design of the dispensing machine, which may affect the information, contained in this manual.

The Bean To Cup Beverage Machine is designed for indoor use, in an environment with an ambient temperature range of between 0°C and 40°C.

BEAN TO CUP BEVERAGE MACHINE

SPECIFICATIONS

(a)	Weight:	26kg
(b)	Height:	64cm
(c)	Width:	42cm
(d)	Depth:	51cm
(e)	Temp. Range:	0ºC to 55ºC (ambient)

SERVICES REQUIRED

ELECTRICAL SUPPLY

(f)	Supply voltage:	230V, 50Hz, single phase fused supply
(g)	Current rating:	16A

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.

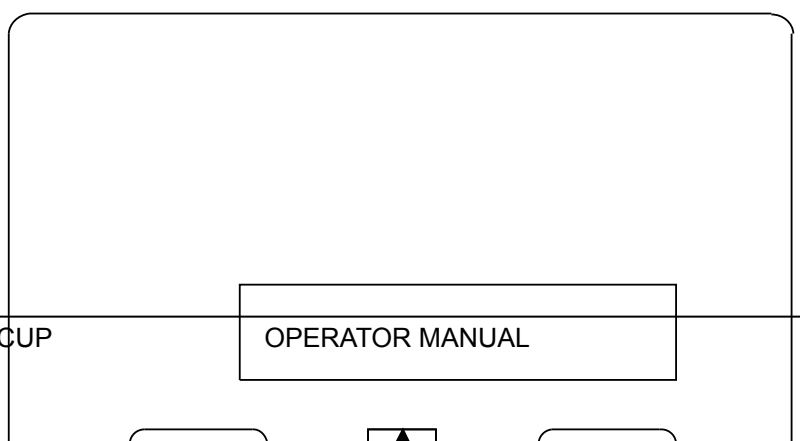
WATER SUPPLY

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

Water Pressure

Minimum:	1 bar
Maximum:	8 bar

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



INTERNAL KEYPAD

KEYPAD FUNCTIONS

The internal keypad provides the means to initiate self clean cycles, clear the grout bucket full condition and access the operator menu.

1. **Initiating a FLUSH cycle**

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 liter container is usually sufficient. A flush cycle will only start if the tank is correctly up to temperature.

2. **Clearing the Grout Bucket Full Counter**

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 program, see below. Alternatively the grout bucket full condition may be cleared via a menu within the operators 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.

OPERATOR 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.

WARNING: Some keys on the internal keypad share functions with the external keys. Pressing the STAR key when the machine is in standby mode will lead to a selection being dispensed.

ACCESSING THE OPERATORS MODE

Access to the Operator program is achieved 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 of the external selection buttons in turn.

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

TOTAL VEND

VIEW INGREDIENT COUNTERS

RESET COUNTERS

RESET GROUT COUNTER
(Clear Grout bin Full condition)

Total Vends

Access the Total Vends Count option using PROG key, the display will show total vend count.

View Ingredient Counters

Access the View Ingredient Counters option by using PROG key. Press ENTER to display the first counter, then press the ⮝ UP arrow to scroll through the others.

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)

Press ENTER to confirm that you wish to clear the counter or ESC to abort the operation.

Reset Grout Counter (Clear Grout Bucket Full Condition)

Pressing ENTER when the Reset Grout Counter is displayed will clear the grout bin full condition and allow dispensing to recommence. The Message COUNTER RESET is displayed briefly to confirm the operation has occurred.

SAFETY WARNINGS

1. Maintenance of the Bean To Cup 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 dispensing 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 Bean To Cup Beverage Machine is designed for indoor use, in an environment with an ambient temperature range of between 0°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 Bean To Cup 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 dispensing machine unsupervised, in order to protect them from the risk of being scalded by hot beverage.

FROST WARNING

Care must be taken to protect the dispensing 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.

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 0°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.

Levelling

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 10º of the vertical for safe operation.

CONNECTING THE WATER SERVICES

Refer to the current requirements of The Model Water Bylaws 1986 Statutory Instrument (SI) No.1147.

The water supply should be taken from a 15mm rising main at a pressure of between 1 to 8 bar and should be fitted with a stopcock to isolate the supply during servicing. A 15mm double backcheck valve, with inspection port, should be fitted to the flexible hose.

The outlet should be fitted with BSP connections 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

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

(2) 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.

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

(4) ENSURE THAT THE SUPPLY TO THE MACHINE IS ISOLATED BEFORE MAKING ANYCONNECTIONS TO THE TERMINAL BLOCK AT THE REAR OF THE MACHINE.

(5) THE DISPENSING 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.

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

HYGIENE

WARNING

(1) THE COFFEE GRINDER HAS SHARP BLADES THAT MAY CAUSE SEVERE INJURY TO ANY BODY PARTS THAT COME INTO CONTACT WITH THEM WHILST THEY ARE ROTATING. A STEEL ISOLOATOR TUBE MAKES THE BLADES IN ACCESSIBLE IN NORMAL OPERATION. THEY ARE PREVENTED FROM OPERATING WHEN THE ISOLATOR TUBE IS REMOVED BY AN ELECTRICAL INTERLOCK. ONLY SUITABLEY TRAINED ENGINEERS SHOULD REMOVE THE ISOLATOR TUBE.

NO ATTEMPT SHOULD BE MADE TO DEFEAT THE INTERLOCK SWITCH.

IN THE EVENT THAT THE GRINDER BECOMES JAMMED IT MAY BE TEMPTING TO TRY TO REMOVE THE ITEM CAUSING THE JAM USING A LONG IMPLIMENT. IF SUCCESSFUL THIS MAY LEAD TO THE FREED BLADES STARTING TO ROTATE UNEXPECTEDLY. DAMAGE TO THE IMPLIMENT AND BLADES MAY RESULT. IN THE EVENT THAT THE GRINDER BECOMES JAMMED CONTACT AN APPROVED SERVICE AGENT.

(2) THE COFFEE BREWER HAS MOVING PARTS THAT MAY TRAP OR PINCH. ENSURE THAT THE INTERNAL SWITCH IS IN THE DISABLED POSITION BEFORE ATTEMPTING ANY ACTIVITY ASSOCIATED WITH THE BREWER UNIT. TO AVOID INJURY DO NOT PLACE FINGERS BETWEEN THE BREWER CHAMBER AND CARRIAGE AT ANY TIME.

(3) AFTER ENABLING THE MACHINE USING THE INTERNAL SWITCH THE BREWER UNIT WILL START WITHOUT WARNING AND WILL ROTATE TO LOCATE ITS HOME POSITION. KEEP HANDS CLEAR OF THE BREWER UNIT UNLESS THE MACHINE IS SWITHCED OFF

(4) 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.

DAILY HYGIENE

CLEANING

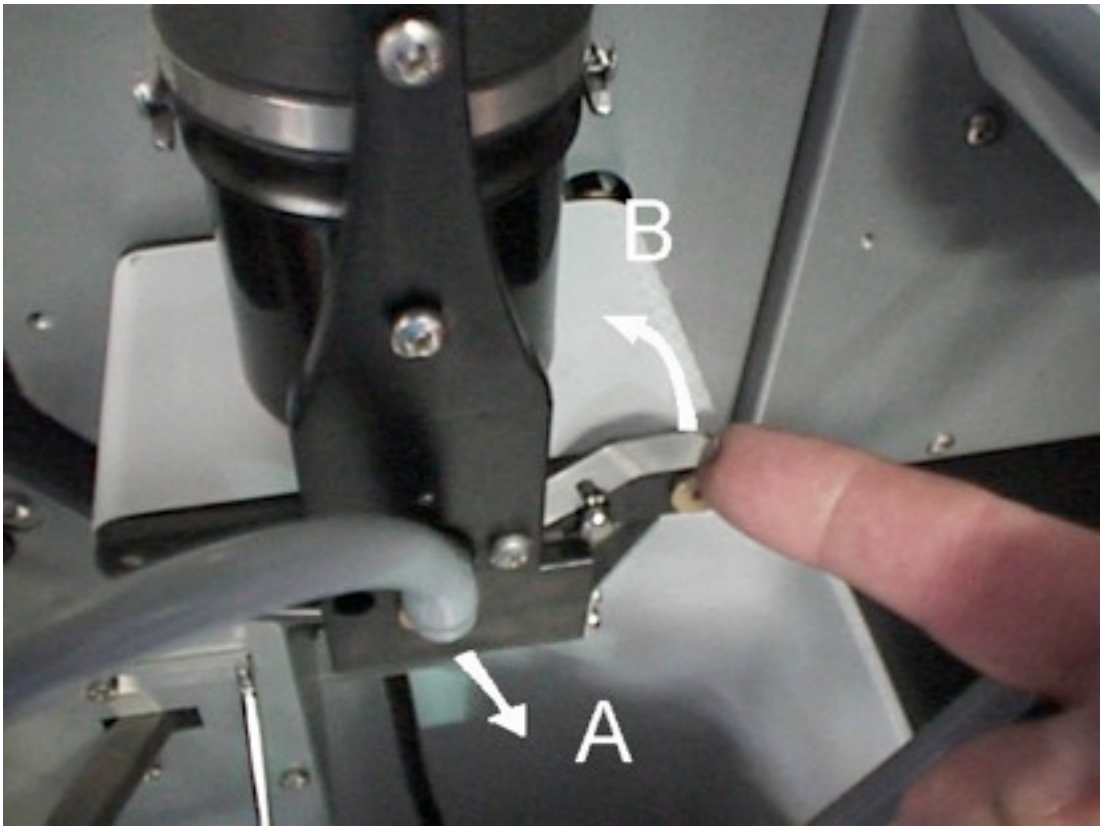
(5) Set the On/Off switch on the machine to OFF and isolate the mains electrical supply from the machine. Unlock and open the cabinet door.

(6) Remove the ingredient canisters. Wipe clean the exterior surfaces of the canister assembly. Wipe dry.

(7) Remove the waste tray and grille. Empty the contents of the tray and wash and dry the tray and grille.

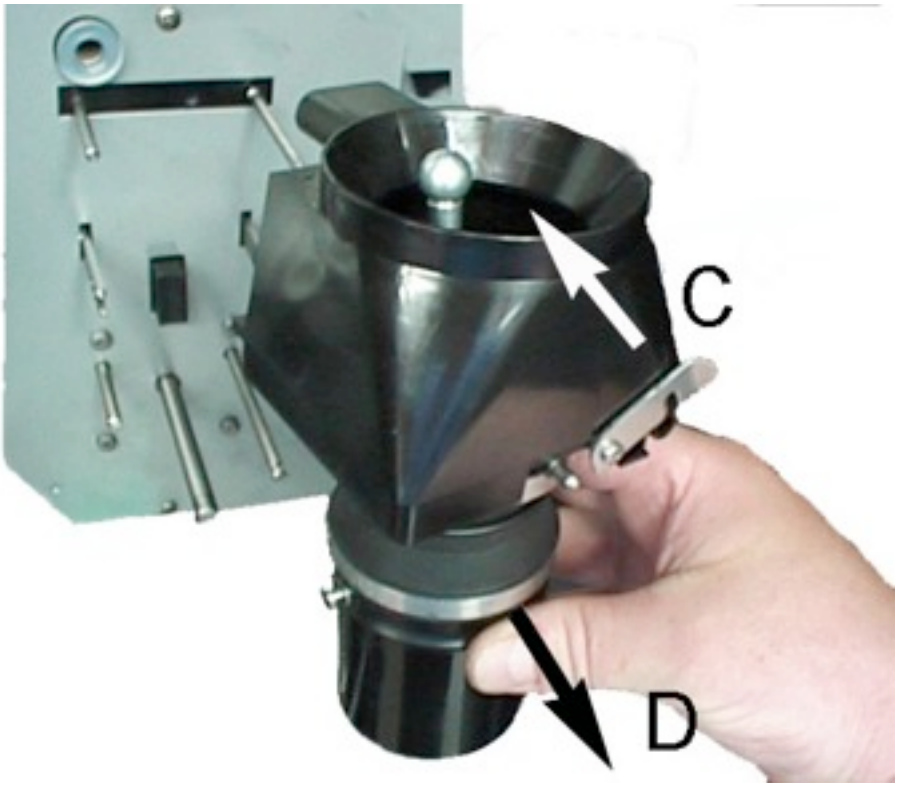
(8) Remove the coffee grouts bucket. Empty the contents of the bucket and wash and dry it.

(9) 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.



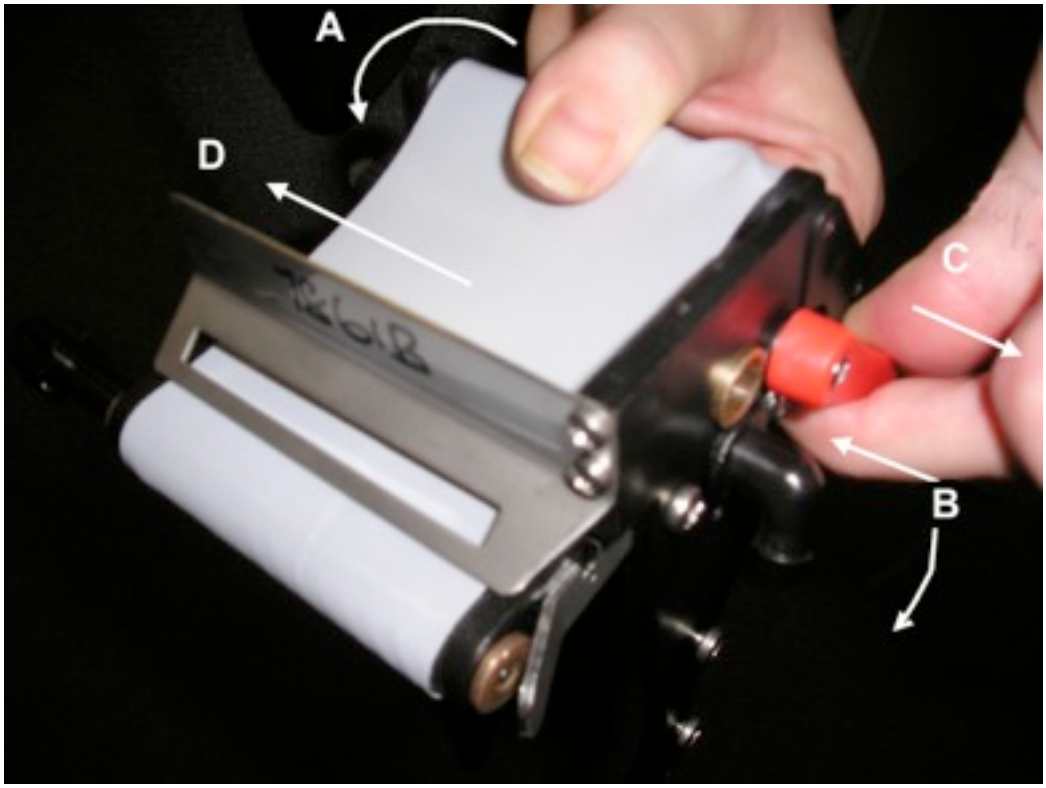
(10) Disconnect the ball and socket coupling visible inside the coffee brewer extract chamber. This is accomplished by pulling the lower vertical rod towards the front of the machine.

(11) 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.



(12) Wash and dry the carriage and brew chamber assembly.

(13) 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.

(14) 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.

(15) Wash and dry the dispense area.

(16) Wipe clean all accessible inner and outer surfaces of the machine. Wipe dry.

(17) 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.

(18) Replace the grouts collection bucket and refit the front cover, ingredient canister

(19) Turn on the power. Note the brewer will cycle to reach its home position.

(20) 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.

FILLING

Instant Products

(21) Turn the ingredient dispense chutes to face upwards to prevent ingredient spillage. Remove the instant product ingredient canisters from the machine. Remove the lid from each one in turn and fill it with the correct ingredient refitting the lid afterwards.

(22) Place the canisters back in the machine ensuring that each one is in the correct position. Return the ingredient chutes to the correct dispense positions.

(23) Restore the mains electrical supply to the machine and set the On/Off switch on the machine to ON.

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.

FLUSHING

A flush operation is initiated by pressing the FLUSH key on the in keypad located on the inside of the machines door. Once started the machine will cycle the brewer putting only hot water through it. It will then rinse each mixing system in turn. Pressing any key will terminate the self-clean cycle however once in progress the brewer flush cycle cannot be halted. A container with a capacity of at least ½ liter is needed to contain the liquid dispensed during a flush cycle. . A flush cycle will only start if the tank is correctly up to temperature.

WEEKLY HYGIENE

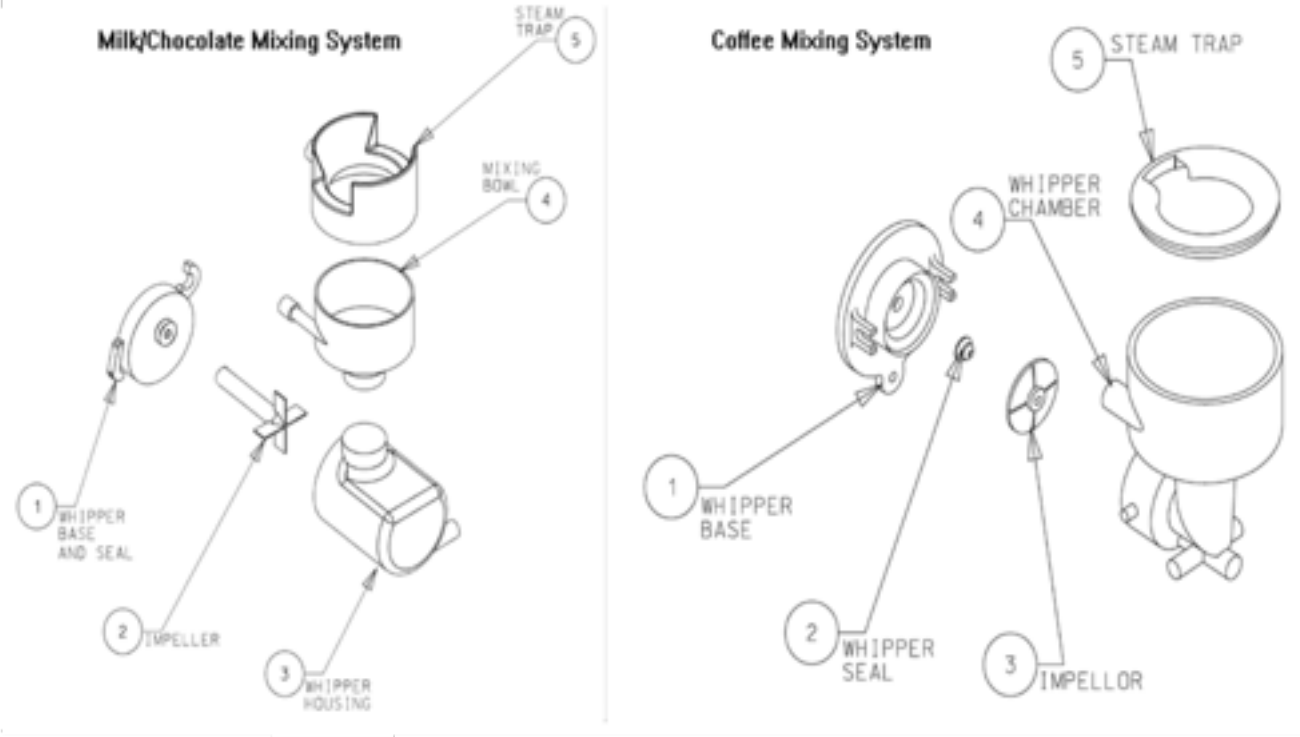
CLEANING

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

(24) 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.

(25) The brewer filter belt should be removed and cleaned by soaking it in a suitable de-staining solution.

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



WHIPPER AND MIXING BOWL ASSEMBLIES

(27) 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.

(28) Rotate the canister nozzles then remove the ingredient canisters. Wipe clean the exterior surfaces of the canister assembly and dry thoroughly.

(29) 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

1. Rotate and remove the steam trap ⑤.
2. Remove the mixing bowl ④.
3. Remove the whipper housing ③ by turning to the right and then pulling towards you.
4. Remove the whipper impellor ② by pulling toward you.
5. Finally turn the whipper base ① to the right and pull off.

Coffee mixing system removal

1. Lift off steam trap ⑤.
2. Remove mixer chamber ④ by pulling the top towards you.
3. Remove the impellor ③ and seal ②.

(30) Clean all the whipper parts in hot water using the recommended sterilising agent and dry them thoroughly.

(31) Remove the extract chamber from the canister shelf. Wash and dry the cover.

(32) Clean all accessible inner and outer surfaces of the machine using a damp cloth and wipe dry.

(33) Replace the cleaned parts.

(34) Replace the ingredient canister after filling with product and rotate the canister nozzle downwards.

(35) Switch on the machine and set on/off switch to on.

(36) Flush the machine by pressing FLUSH button on internal keypad ensure there are no leaks and everything is working correctly.

(37) Remove the grouts bucket empty and wash it out.

(38) Remove waste tray and grille and empty contents.

(39) Clean waste tray and grille and replace.

FAULT FINDING GUIDE

FAULT	POSSIBLE CAUSE	ACTION
Drinks Cold	Thermal cut-out tripped	Reset trip

Machine inoperable; No Display	Power Supply failure	Reset machine by switching off and on
Bearding of ingredient	Steam hoods missing from mixing bowls or incorrectly positioned	Fit steam hoods to mixing bowls and position correctly
Machine Floods	Dispense pipes incorrectly fitted to dispense head Mixing bowls incorrectly fitted Whipper seals missing	Reposition pipes Reposition mixing bowls Check seals
Water system fault	Water turned off	Reset machine by switching off and on
Temperature Low		Reset over temperature trip

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