B2C™ Vision

TECHNICAL MANUAL

STENTORFIELD

Part No. PR08866000

Rev A 03/02

Contents

Page No.

The following Symbol is used throughout this Technical Manual:

Safety First! Take care, risk of personal injury.

Introduction

This manual is to be used by authorised personnel involved in installing, commissioning and servicing the **Vision B2C** table-top beverage system. The technical information contained within this document is for information only and may be changed without prior notice. Crane Merchandising Systems accepts no responsibility for any damage caused to the machine through misinterpretation or misuse of the information contained in this document.

Upon receipt, carefully examine the machine checking for any damage or missing/incorrect parts. Any discrepancy must be reported to Crane Merchandising Systems in writing within three working days.

In accordance with the food hygiene regulations and in compliance with local Public Health Authorities, it is the responsibility of the operator to keep the machine in a thoroughly clean condition.

Important Safeguards

When installing or servicing the **Vision B2C** machine, always have this manual available for quick and easy reference and always follow these basic safety precautions:

1. Ensure that the machine is situated on a strong horizontal surface, at a convenient height and in a position where it is not likely to be knocked off.

2. The mains lead should never trail from the machine and should always be kept away from hot surfaces and sharp edges.

3. Allow the machine to cool before handling or moving.

4. Ensure that the mains electricity supply is isolated before removing any of the protective panels or undertaking any major servicing. Working on live equipment should only be undertaken when there is no practical alternative.

5. Beware of hand entrapment. Never clean or service the brewer unit whilst it is in motion.

6. Never immerse the machine in water, or any other liquid. This machine must not be installed in an area where a water jet may be used. Never use a water jet to clean this machine.

7. In normal operating conditions the machine should not freeze-up. In the unlikely

event of the machine freezing, turn off the mains water supply, disconnect the machine from the mains electricity supply and contact Crane Merchandising Systems for assistance.

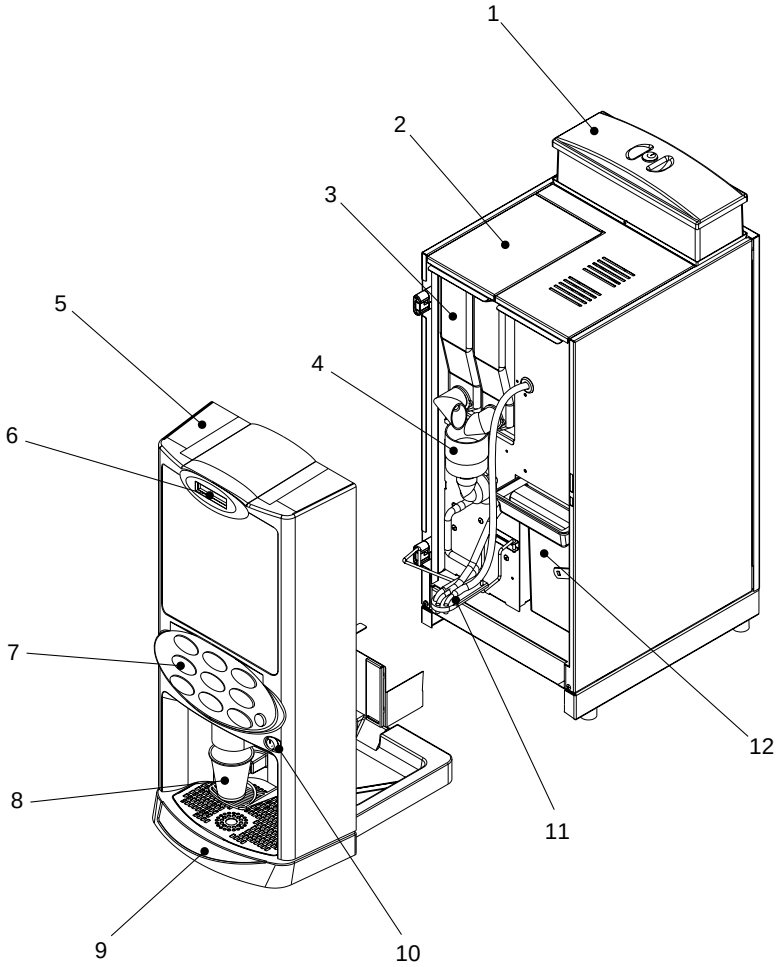
8. Ensure that you are conversant with the 'Health and Safety at Work and Electricity at Work Regulations 1989'.

This machine is for indoor use only and because it is a food machine, should be situated in a clean, hygienic area.

Specifications

Height	*805 mm (with bean container)*
Depth	*580 mm*
Width	*320 mm*
Weight	*40 kg*
Bean Capacity	*1.4 kg*
No. of Canisters	*2*
Electrical Services *(i) Voltage* *(ii) Current* *(iii) Frequency*	 *230V* *13 Amp Fused* *50 Hz*
Water Services *(i) Pressure* *(ii) Supply*	 *100 Kpa (1 Bar) - 800 Kpa (8 Bar)* *15 mm mains supply from rising main terminating in a stop-tap*

Machine Layout



Key:

1. Coffee Bean Container
2. Removable Lid
3. Ingredient Canisters
4. Mixing Station
5. Door
6. LCD Display
7. Drink Selection Buttons
8. Cup Fill Position
9. Waste Tray
10. Door Lock
11. Dispense Head
12. Brewer Waste Bucket

Installation Procedure

Important!

It is essential that personnel responsible for installing, commissioning and servicing the machine understand the following:

1. The installation and commissioning of the machine should only be carried out by trained service engineers authorised to do so by the machine supplier.

2. All water and electrical services must be correctly and safely connected.

3. All covers should be replaced correctly and securely and the machine left in a safe condition.

4. The machine is suitable for indoor use only, situated in an area with a recommended ambient temperature not below 10° C and not exceeding 30° C.

5. Prior to moving the machine to its location, ensure that there is sufficient access space available via passageways, stairs, lifts, etc and that the table/counter where the machine is to be located is strong enough to safely support its weight. (Refer to Specifications Table).

6. The machine should be located near the appropriate water and electrical services as detailed in the specification table.

7. To ensure adequate ventilation, do not cover the ventilation louvres on the top panel of the machine.

8. Open the cabinet door. Remove all transit packing, installation kit and the bean hopper components from the machine. Check for visual signs of damage which may have occurred during transit.

9. If the machine is damaged or any parts are missing, you must contact Crane Merchandising Systems immediately.

10. Ensure that the machine is levelled in both front to back and side to side planes using the adjustable levelling feet.

Connecting the Water Supply

1. The machine ***must*** be connected to the water supply via a water filter. This filter must be of food grade quality and be able to remove temporary hardness (scale), heavy metals (lead, copper, iron, cadmium), chlorine and any organic pollutant's/discolouration. Crane Merchandising Systems recommend and supply the Brita AquaQuell Compact water filter for the **Vision B2C** machine.

   Note! If the machine is not connected to a water filter as specified above, the warranty will be void.

   BRITA®
   it's clear from the taste

2. The machine should be situated within 1 metre of a drinking water supply from a rising main, terminating with a W.R.C. approved 15mm compression stop-tap. The water supply should comply with both the Statutory Instrument No.1147 - "Water, England and Wales" and The Water Supply (Water Quality) Regulations 1989. Water pressure at the stop-tap must be within the limits 1 - 8 Bar (100 Kpa - 800 Kpa). It is recommended that the line be flushed before connecting the machine.

3. Connect the mains water supply to the water filter following the instructions supplied by the filter manufacturer.

4. Connect the output hose from the filter to the machine. The water inlet is located under the machine. Carefully tilt the machine to one side to gain access to the inlet connection.

Safety First! Ensure that machine is safely supported whilst connecting inlet hose.

5. Return machine to upright position. Ensure that all water supply fittings are tight and hoses are not kinked or trapped. Turn on the supply at the stop-tap and check for leaks.

Connecting the Electrical Supply

Safety First! THE MACHINE MUST BE EARTHED. ON NO ACCOUNT SHOULD IT BE EARTHED TO THE WATER SUPPLY PIPE

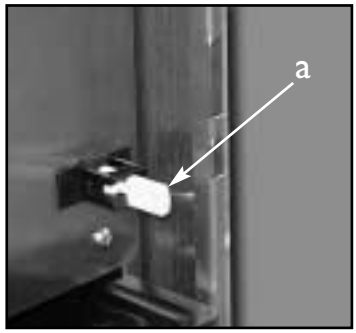
The machine requires a 230V 50Hz, 13 Amp fused switched socket outlet, installed to the latest edition of the IEE regulations, within 1 metre of the machine. If the mains lead becomes damaged in any way it must be replaced by a special lead available from the manufacturer.

Setting Up

The following procedure must be carried out by a trained installation engineer before the machine can be used for the first time.

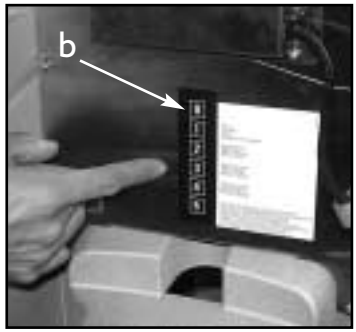
1. Ensure that the electrical and water services to the machine are connected correctly. Turn on the stop-tap and check for water leaks.

2. Ensure that the waste tray is fitted correctly to the machine. Open the front door of the machine.



3. Connect the plug to the socket outlet and switch on the electricity supply to the machine. Insert the safety key (a) to power up the machine. The machine will initialise the brewer.

4. The machine will not be able to vend a drink until the water has been heated to the correct temperature and the system has been flushed.



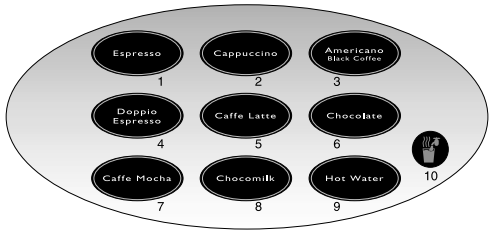
5. Press button '0' on the service panel (b), located inside the door for three (3) seconds. The LCD on the front of the machine will display the message:

P	A	S	S	W	O	R	D	:						

6. Enter the pin code by pressing the sequence "123" using the service panel buttons. The message on the LCD will change to:

				S	E	R	V	I	C	E				
	D	R	I	N	K		S	E	T	T	I	N	G	S

7. Press button '5' on the service panel twice (x2).
   To continue initialising the machine it is necessary to enter code using the drink selection buttons located on the front of the door as shown in the illustration.



8. Press button '1' on the drink selection panel. The message on the LCD will change to:

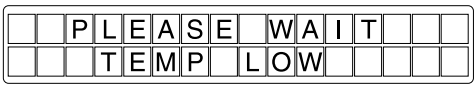
9. Place a container (minimum 200ml. capacity) on the drip tray directly under the dispense head. Press button '2' on the drink selection panel. Water will now flow through the machine. The LCD will display the message:

Note: Water will be pumped through the system and dispensed into the container during this sequence.

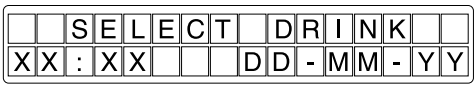
10. On completion the water flow will stop and the LCD will display the message:

At this point the heaters will start to heat the water.

11. Press button '0' on the service panel twice (x2) to return the machine to standby mode. The LCD will display the message:



until the water has heated to the correct temperature and then change to:



This indicates that the machine is in standby mode, waiting to make a vend.

Filling the Ingredient Canisters

The machine contains two soluble ingredient containers, both with a capacity of 2.3 litres. The containers can be filled either in situ or by removing them from the machine.

To fill the canisters in the machine:

1. Open the front door. Remove the top panel as shown in the picture.

2. Remove the lids from the ingredient canisters and fill with the correct ingredients.

3. Refit the lids to the canisters and replace the top panel.

To fill the canisters outside the machine:

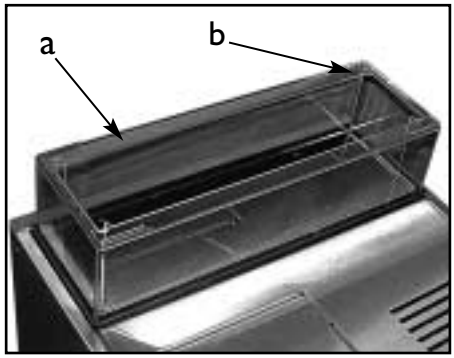
1. Open the front door. Ensure canister outlets are in an upright position. Lift the containers up and out of the machine. DO NOT PLACE THEM ON THE FLOOR.

2. Remove the lids and fill the canisters with the correct ingredients. Refit the canister lids.

3. Refit the canisters into the machine, ensuring that they are refitted into their correct positions and that the canister outlets are turned to their operating positions.

Filling the Coffee Beans Container

To maintain optimum drink quality, Crane Merchandising Systems recommend that the bean container is replenished on a daily basis.

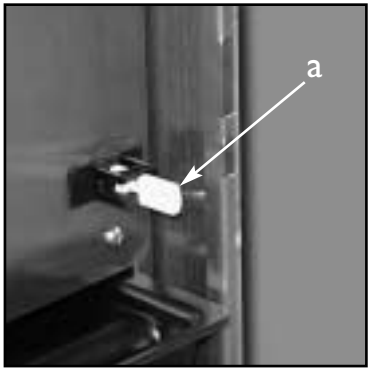


1. Fit the transparent bean container to the hopper, ensuring that the return lip (a) is to the top. Secure the container to the hopper using the two spring clips (b).

2. Fill the container with coffee beans. The container has a capacity of approximately 1.4 kg (3.1 lbs).

3. Fit the container lid and lock securely.

The machine is now ready for first use. Proceed as follows:



1. Insert the safety key (a) to restore the electrical supply.

2. Test vend each drink selection to ensure that each vend is correct. Place an empty cup under the dispense head for each selection.

3. Remove the safety key (a). Close the front door and check for water leaks. Ensure that the machine is left in a clean and safe condition.

How To Vend A Drink

1. Lower the cup stand to horizontal position. Place your cup on the cup stand.

2. Press the selection button for the drink of your choice.

   The drink will now be delivered into the cup.

3. The display will tell you when your drink is ready.

   Remove the cup and add sugar etc as required.

4. For large cups or mugs, lift up the cup stand. Place the cup/mug on the grille.

   Press the selection button for the drink of your choice. The drink will be delivered into the cup/mug.

   Remove cup/mug and lower cup stand to horizontal position.

Cleaning and Maintenance

The quality of drinks produced by the **Vision B2C** machine can only be maintained if the machine is cleaned regularly following the schedule outlined. Before carrying out the daily cleaning procedure described on the following pages, it is recommended that you have the following materials to hand:

- Bactericidal Cleaner
- Firsal Cleaning Agent
- Brewer Cleaning Tablets
- 500ml. Capacity Container
- Cleaning Cloths
- Paper Towels
- Two Large Buckets
- Disposable Gloves

Bactericidal Cleaner

This can either be a liquid or powder agent which should be dissolved in clean water in accordance with the instructions on the product packaging. The solution should be used for cleaning machine components and wiping surfaces during the cleaning operation.

Firsal Cleaning Agent

This is a powder agent which should be dissolved in clean water in accordance with the instructions on the product packaging. The solution can be used on heavily soiled or stained components such as buckets and drip trays. Items or surfaces cleaned with this solution ***must*** be rinsed in clean water to remove traces of the cleaning agent.

Brewer Cleaning Tablets

It is recommended that the brewer cleaning tablets supplied with the machine are used exclusively for cleaning the brewer. These are available from your machine supplier in packs of 100.

It is necessary to carry out the cleaning and maintenance procedure outlined on the following pages on a regular basis, either at the end of the day or at the start of the day before the machine is in constant use.

Daily Cleaning and Re-filling

The following procedures must be carried out every day:

- Checking/re-filling product canisters and bean container
- Dismantling and cleaning the mixing system
- Emptying and cleaning the waste tray
- Emptying the brewer waste container
- Rinse the mixing system and brewer

1. On arrival at the machine, open the door. Fill the cleaning bucket with hot water and put on the disposable gloves.
   Rotate the canister outlets to upright position. Remove the ingredient canisters. DO NOT PLACE THEM ON THE FLOOR.
   With a damp sanitised cloth, remove any ingredient on the exterior of the canisters, including any product build-up around the canister outlets.

2. Remove the 3 dispense pipes from the dispense spouts. Remove the dispense spouts from the plastic dispense head.
   Remove the steam hood/mixing bowl (pictured) and dispense pipe from the whipper base.
   Clean the plastic dispense head thoroughly with a sanitised cloth.

3. Remove the complete whipper unit, including the whipper base as shown.
   Split the whipper unit into separate parts - whipper base, mixing chamber, steam hood and impeller
   Clean all of the mixing system components thoroughly in the sanitizer solution.
   Rinse all components with clean water and dry thoroughly before refitting to machine.

4. With a damp, sanitised cloth wipe clean the interior of the machine.
   Check the ingredient canisters and refill if required. Refit the canisters into the machine, turning the outlets to the correct positions.
   Check the coffee bean container and refill if required.
   WEEKLY: Empty and wash the ingredient canisters. Dry thoroughly, refill with correct ingredient and refit into machine.

5. Refit the whipper base. Rotate the base anti-clockwise to lock it into position as shown.
   Refit the impeller - line up the dot on the impeller shaft with the flat on the motor shaft.
   Refit the mixing chambers, mixing bowls and steam hoods.
   Refit dispense spouts to dispense head. Re-connect the dispense pipes to the dispense spouts.

6. Carefully remove the waste tray from the machine. Remove the waste tray grill and empty the contents of the tray.
   Wash the tray and grill thoroughly and where necessary, sanitise using the sanitizer solution. Dry both components using a clean dry cloth.
   Reassemble the waste tray and refit to machine.

7. Carefully remove the brewer waste bucket from the machine.
   Remove the water waste section and empty the contents. Empty the coffee grounds from the main waste bucket.
   Wash the waste bucket components thoroughly and where necessary, sanitise using the sanitizer solution. Dry using a clean dry cloth and refit into machine.

8. Using the safety key, restore the electrical supply to the machine.
   Disconnect the positioning rod (a) from the vending arm at the dispense head.
   Ensure dispense head is centred above the waste tray as shown.

9. **Rinse the mixing system:** Place the container under the vending nozzle and press button 2 on the service panel located in the rear of the door. The LCD on the front of the machine will display the message:

		P	L	E	A	S	E		W	A	I	T			
R	I	N	S	I	N	G		I	N	S	T	A	N	T	

   Hot water is pumped through the instant mixing system and into the container. Once the machine has completed the rinse cycle, it will return to standby mode. Carefully dispose of the water from the container.

10. **Rinse the brewer:** Place the emptied container under the vending nozzle and press button 3 on the service panel located in the rear of the door. The LCD on the front of the machine will display the message:

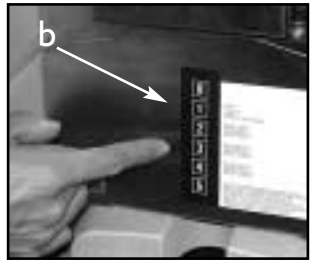
		P	L	E	A	S	E		W	A	I	T			
	R	I	N	S	I	N	G		B	R	E	W	E	R	

Safety First! Do not touch the brewer mechanism whilst it is running.

   Hot water is pumped through the brewer system and into the container. Once the machine has completed the rinse cycle, it will return to standby mode. Carefully dispose of the water from the container.

   Relocate the positioning rod into the vending arm.

11. **Reset the brewer waste counter:** Press button 5 followed within four seconds by button 1 on the service panel (b). The brewer waste counter is now reset to zero.



12. Remove the safety key from the machine.
    Wipe down the interior of the door. Clean the base sides and rear of the machine.
    With a dry cloth buff the exterior of the machine.
    Close the door to restore electrical power to the machine.
    Place an empty cup under the dispense area and test vend each drink selection.

Cleaning the Brewer

The machine is fitted with a counter which "counts" the number of drinks vended through the brewer. After 400 drinks have been vended, the LCD on the front of the machine will flash the message:

				C	L	E	A	N	I	N	G				
		R	E	C	O	M	M	E	N	D	E	D			

The machine will continue to operate as normal, but should the machine reach 500 vends without the brewer being cleaned, the machine will disable the keypad and display the message:

				C	L	E	A	N	I	N	G				
					N	E	E	D	E	D					

Proceed as follows:-

1. Open the front door and insert the safety key to restore power to the machine. Lift and remove the top lid from the machine.

2. Disconnect the positioning rod (a) from the vending arm at the dispense head. Ensure dispense head is centred above the waste tray as shown.

3. Place the container under the dispense head. Press button 4 on the service panel located in the rear of the door.

Safety First! Keep hands clear of the brewer mechanism whilst it is running.

4. The brewer self cleaning sequence will begin. The LCD on the front of the machine will display the message:

		P	L	E	A	S	E		W	A	I	T			
B	R	E	W	E	R		C	L	E	A	N	I	N	G	

Note: The brewer cleaning sequence lasts approximately 10 - 15 minutes.

5. After approximately 4 minutes the display will flash the message:

B	R	E	W	E	R		C	L	E	A	N	I	N	G	
			A	D	D		T	A	B	L	E	T			

6. Push one cleaning tablet out of the blister pack and drop it into the cleaning tube as shown.

Note: Canisters removed for clarity.

Press button 4 on the service panel to restart the cleaning sequence.

7. When the cleaning sequence is complete the brewer counter is reset automatically to zero and the machine reverts to standby mode. The LCD on the front of the machine will display the message:

		S	E	L	E	C	T		D	R	I	N	K		
X	X	:	X	X				D	D	-	M	M	-	Y	Y

8. Remove the safety key and close the front door.

Operator Functions

The **Vision B2C** features the following operator functions which can be accessed via the service panel located inside the front door:

1. View counters
2. Rinsing the mixer
3. Rinsing the brewer
4. Cleaning the brewer
5. Resetting the waste container counter
6. Running the grinder in reverse

Detailed descriptions for rinsing the mixer, rinsing the brewer and cleaning the brewer are included in the section "Daily Cleaning and Re-filling".

Viewing the Counters

1. Open the front door and insert the safety key to restore power to the machine.

2. Press button 1 on the service panel located inside the front door. The machine will exit standby mode and the LCD will display the message:

T	O	T	A	L		C	O	U	N	T				
						X	X	.	X	X	X	.	X	X	X

   where XX.XXX.XXX is the total number of drinks dispensed to date. Pressing button 1 again will display the total number of purchased vends (not applicable), whist pressing button 1 for a third time will display the total number of free vends. To exit from the menu back into standby mode, press button 1 for a fourth time.

3. To view the counters for individual drink selections, press button 1 on the service panel to bring up the "Total Count" message in the LCD, followed by the required drink selection button on the front of the machine. Using selection button 1 (Espresso) as an example the LCD will display the message:

T	O	T	A	L		D	R	I	N	K		1		
						X	X	.	X	X	X	.	X	X	X

   where XX.XXX.XXX is the total number of Espresso drinks dispensed to date. Pressing the Espresso button again will display the total number of purchased vends (not applicable), whist pressing the Espresso button for a third time will display the total number of free vends. Press the selection button for a fourth time to bring up

the "Total Count" message in the LCD.

4. To exit back into standby mode, press button 1 on the service panel 3 times (x3).

Resetting the Brewer Waste Bucket Counter

Crane Merchandising Systems recommends that the brewer waste bucket is removed from the machine and cleaned thoroughly on a daily basis as detailed in the "Daily Cleaning and Maintenance" section of this manual. The waste bucket counter must be reset to zero after the bucket has been emptied.

The machine is fitted with a counter which "counts" the number of drinks vended. After 150 drinks have been dispensed, the LCD on the front of the machine will flash the message:

		S	E	L	E	C	T		D	R	I	N	K		
		E	M	P	T	Y		W	A	S	T	E			

N.B. At this point the machine is still able to dispense a further 10 vends.

To reset the waste bucket counter proceed as follows:

1. Open the front door and insert the safety key to restore power to the machine.

2. Carefully remove the brewer waste bucket from the machine. Remove the water waste section and empty the contents. Empty the coffee grounds from the main waste bucket. Wash the waste bucket components thoroughly and where necessary, sanitise using the sanitizer solution. Dry using a clean dry cloth and refit into machine.

3. Press button 5 followed within four seconds by button 1 on the service panel located inside the front door. The counters are reset to zero.

4. Remove the safety key and close the front door. The machine reverts to standby mode ready to vend a drink.

If the waste bucket counter is not reset before the machine reaches 160 vends, the machine will disable the keypad and display the message:

					E	R	R	O	R					
		E	M	P	T	Y		W	A	S	T	E		

To reset the waste bucket counters, follow the procedure outlined above.

Reversing the Grinders

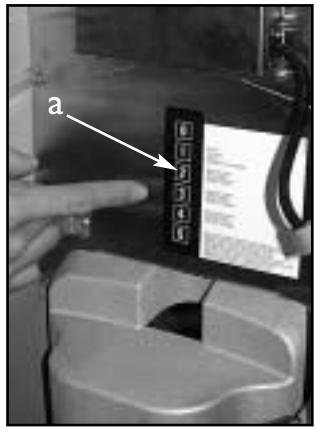
Occasionally it may be necessary to reverse the bean grinding mechanism in order to remove foreign objects etc. Proceed as follows:

Safety First! Danger of hand entrapment. Keep hands clear of the grinder mechanism whilst it is running.

1. Open the front door and insert the safety key to restore power to the machine.

2. Press button 5 and within four seconds press button 2 on the service panel located inside the front door. This activates the grinder reverse function.

Programming



To access the programming mode you need to enter a sequence of key strokes using the service panel (a) located inside the front door. Once in programming mode both the service panel buttons and the drink selection buttons are used in conjunction with each other to affect changes to the machines parameters.

During programming the buttons are used as follows:

1. The **0** button on the service panel opens the menu, closes the menu item and saves the settings. After pressing button 0, the pin code "123" must be entered before continuing.

2. Button **4** on the service panel enables the engineer to scroll up through the menu and increase values of entered data.

3. Button **5** on the service panel enables the engineer to scroll down through the menu and decrease values of entered data.

   N.B. A single press of either button 4 or 5 will increment values one place. Press and hold the button to advance the value quickly.

4. The **drink selection buttons**, mounted on the front of the door, allow the engineer to scroll through the parameters relevant to that drink choice and adjust values where necessary using buttons 4 and 5 on the service panel.

To access Programming mode:

1. Open the front door of the machine and insert the safety key. Press button "0" on the service panel for three seconds. The display on the front of the machine will read:

P	A	S	S	W	O	R	D	:							

2. Enter the access code using the service panel (button 1 followed by 2 and 3). With the correct code entered the display will show the first menu item:

				S	E	R	V	I	C	E					
	D	R	I	N	K		S	E	T	T	I	N	G	S	

3. To navigate up or down through the menu items, press either button 4 or 5 on the service panel.

   The available menu items with a brief description of their functions are:

   a. Service Drink Settings - Allows adjustment of drink settings
   b. Service Error Messages - Displays previous 30 error messages
   c. Service Installation - Used for commissioning and decommissioning the machine
   d. Service Password - Allows the program entry password to be changed
   e. Service Temperature - Allows adjustment of the water temperature
   f. Service Time and Date - Allows time and date to be reset
   g. Service Coin Mechanism - Allows a coin mechanism to be configured
   h. Service Machine Counters - Viewing and resetting of brewer counters
   i. Service Drink Counters - Allows paid and free-vend counters to be reset
   j. Service Drink Assignment - Allows the drink selections to be re-assigned

4. Once the required menu item has been accessed and its name displayed on the LCD, pressing either the relevant selection button on the front of the machine or service panel button will open sub programs allowing operating parameters to be changed.

5. To access further menus, press either button 4 or 5 on the service panel until the required menu is accessed. To save reset parameters and return the machine to standby mode ready to vend a drink, press button 0 on the service panel.

Menu Items

1. Service Drink Settings

The Service Drink Settings menu allows the ingredient values for each drink to be adjusted in order to accommodate different ingredient types and taste requirements.

To access the drink settings, press the key for the required drink type using the selection button on the front of the machine, i.e to affect changes to the "Espresso" drink, press button 1.

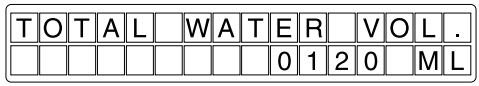
To step through the different menus relating to the selected drink, press the selection button until the required menu is located. To adjust settings within the menu, press either button 4 or 5 on the service panel to increase or decrease values.

To exit back to the main menu, press button 0 on the service panel.

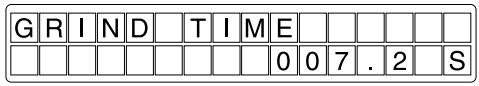
The following section illustrates the sub menus which make up the Service Drinks Settings menu with a brief description of their function. These menus are listed in the order in which they are accessed via each button press (button 5). The display values illustrated use the factory pre-set values for the Cappuccino drink selection as an example.

Factory pre-set values for all drink selections are detailed at the end of this section.

1. This setting indicates the total water volume used by the selected drink. The value represents the volume which passes through the flow sensor, not the amount dispensed into the drink.

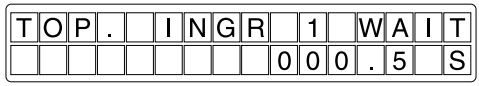


2. This setting indicates the total grind time split between the two grinders.

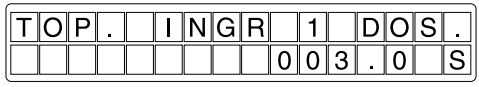


The following sub menu items (3 - 7) describe actions which take place ***prior*** to coffee being dispensed into the cup.

3. This setting indicates the water to ingredient start delay for soluble ingredient 1 (L.H. canister). This ingredient will not be dosed until the delay is complete.

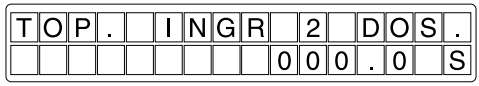


4. This setting indicates the time that ingredient 1 will be dosed during a vend.

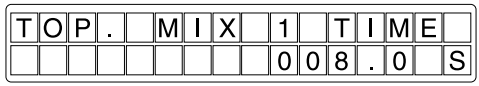


5. This setting indicates the water to ingredient start delay for soluble ingredient 2 (R.H. canister). This ingredient will not be dosed until the delay is complete.

6. This setting indicates the time that ingredient 2 will be dosed during a vend.

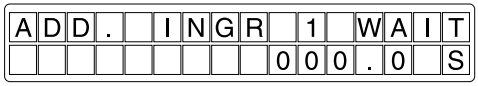


7. This setting indicates the whipper run time for soluble ingredient dispensed prior to coffee being dispensed.

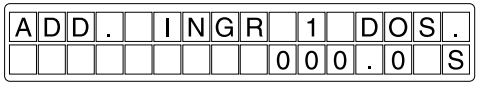


The following sub menu items (8 - 12) describe actions which take place ***after*** coffee has been dispensed into the cup.

8. This setting indicates the water to ingredient start delay for soluble ingredient 1 (L.H. canister). This ingredient will not be dosed until the delay is complete.

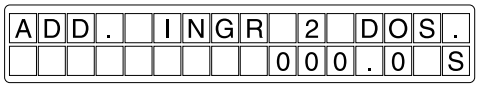


9. This setting indicates the time that ingredient 1 will be dosed during a vend.

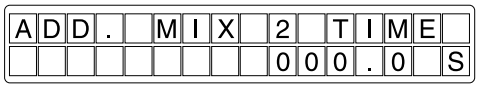


10. This setting indicates the water to ingredient start delay for soluble ingredient 2 (R.H. canister). This ingredient will not be dosed until the delay is complete.

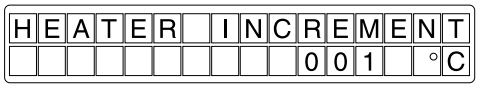
11. This setting indicates the time that ingredient 2 will be dosed during a vend.



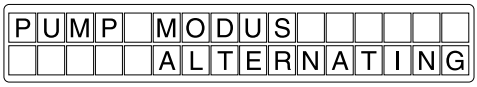
12. This setting indicates the whipper run time for soluble ingredient dispensed after coffee has been dispensed.



13. This setting allows the engineer to adjust the amount by which the heaters increase in temperature during a vend.



14. This menu allows the engineer to program how the pumps are used during a vend. The machine is fitted with four pumps which can operate independently, both together or alternating as illustrated in this example.



15. This setting indicates the motor speed as a percentage when vending ingredient 1.

16. This setting indicates the motor speed as a percentage when vending ingredient 2.

17. This menu allows the price charged for each drink to be altered.

DRINK PRICE														
									0	0	1	.	0	0

The following tables illustrate the current ingredient settings with which the machine leaves the factory.

Espresso	
Sub-Program	**Setting**
Total Water	60
Grind Time	6.8
Coffee Water Vol	0
Top Ing. 1 Wait	0
Top Ing. 1 Dos	0
Top Ing. 2 Wait	0
Top Ing. 2 Dos	0
Top Mix Time	0
Add Ing. 1 Wait	0
Add Ing. 1 Dos	0
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	0
Heater Increment	1
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Cappuccino	
Sub-Program	**Setting**
Total Water	160
Grind Time	7.7
Coffee Water Vol	50
Top Ing. 1 Wait	0.5
Top Ing. 1 Dos	3
Top Ing. 2 Wait	0
Top Ing. 2 Dos	0
Top Mix Time	8
Add Ing. 1 Wait	0
Add Ing. 1 Dos	0
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	0
Heater Increment	1
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Americano	
Sub-Program	**Setting**
Total Water	160
Grind Time	6.8
Coffee Water Vol	0
Top Ing. 1 Wait	0
Top Ing. 1 Dos	0
Top Ing. 2 Wait	0
Top Ing. 2 Dos	0
Top Mix Time	0
Add Ing. 1 Wait	0
Add Ing. 1 Dos	0
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	0
Heater Increment	1
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Espresso Doppio	
Sub-Program	**Setting**
Total Water	135
Grind Time	9.8
Coffee Water Vol	0
Top Ing. 1 Wait	0
Top Ing. 1 Dos	0
Top Ing. 2 Wait	0
Top Ing. 2 Dos	0
Top Mix Time	0
Add Ing. 1 Wait	0
Add Ing. 1 Dos	0
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	0
Heater Increment	1
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Café Latte	
Sub-Program	**Setting**
Total Water	160
Grind Time	6.8
Coffee Water Vol	50
Top Ing. 1 Wait	0
Top Ing. 1 Dos	0
Top Ing. 2 Wait	0
Top Ing. 2 Dos	0
Top Mix Time	0
Add Ing. 1 Wait	0.5
Add Ing. 1 Dos	3
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	8
Heater Increment	1
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Chocolate	
Sub-Program	**Setting**
Total Water	160
Grind Time	0
Coffee Water Vol	0
Top Ing. 1 Wait	0
Top Ing. 1 Dos	0
Top Ing. 2 Wait	0.5
Top Ing. 2 Dos	4
Top Mix Time	8
Add Ing. 1 Wait	0
Add Ing. 1 Dos	0
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	0
Heater Increment	20
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Café Mocha	
Sub-Program	**Setting**
Total Water	160
Grind Time	6.8
Coffee Water Vol	50
Top Ing. 1 Wait	0.5
Top Ing. 1 Dos	2.5
Top Ing. 2 Wait	0.5
Top Ing. 2 Dos	2
Top Mix Time	6
Add Ing. 1 Wait	0
Add Ing. 1 Dos	0
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	0
Heater Increment	1
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Chocomilk	
Sub-Program	**Setting**
Total Water	160
Grind Time	0
Coffee Water Vol	0
Top Ing. 1 Wait	0
Top Ing. 1 Dos	0
Top Ing. 2 Wait	0
Top Ing. 2 Dos	0
Top Mix Time	0
Add Ing. 1 Wait	0.5
Add Ing. 1 Dos	1
Add Ing. 2 Wait	0.5
Add Ing. 2 Dos	3
Add Mix Time	8
Heater Increment	20
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

Hot Water/Free Flow	
Sub-Program	**Setting**
Total Water	120
Grind Time	0
Coffee Water Vol	0
Top Ing. 1 Wait	0
Top Ing. 1 Dos	0
Top Ing. 2 Wait	0
Top Ing. 2 Dos	0
Top Mix Time	0
Add Ing. 1 Wait	0
Add Ing. 1 Dos	0
Add Ing. 2 Wait	0
Add Ing. 2 Dos	0
Add Mix Time	0
Heater Increment	20
Pump Modus	Alt.
Ing. 1 PWM	100
Ing. 2 PWM	100
Drink Price	1

2. Service Error Messages

The Service Error Messages menu allows the engineer to view the number of errors that may have occurred within the brewer system, heating system or water system since the last counter reset. To access the error messages menu proceed as follows:

1. Press button 5 on the service panel to cycle down through the menu. The LCD will display the message:

2. Press button 1 on the drink selection panel. The first sub menu item, showing the time and date that the last logged errors were deleted from the machines memory is displayed.

3. To cycle through the error displays for the brewer system, heating system and water system, press button 1 on the front panel. To view error count for each item, press drink selection button 2.

4. The final sub-menu, "Error Delete", allows the engineer to clear the currently logged error data from the machines memory. To delete the data press drink selection button 2.

The LCD will display the message:

5. To exit back to the main menu, press button 0 on the service panel.

3. Service Installation

The Service Installation menu is initially accessed when the machine is first commissioned. Other sub menus contained within the Service Installation menu include facilities to allow for water to be drained from the machine, machine to be enabled or disabled should the coffee beans container become empty and an output test function. To access the menu from the "service drinks settings" menu, proceed as follows:

1. Press button 5 twice (x2) on the service panel. The LCD will display the message:

2. Press button 1 on the drink selection panel. The first sub menu item, "Installation Fill Machine" is displayed. This menu controls the water fill cycle, required before the machine is used for the first time. The procedure for carrying out this function is described fully in the section "Setting Up".

3. To continue cycling through the sub menus, press button 1 on the drink selection panel. The LCD will display the message:

This sub-menu allows the engineer to drain the water from the machine prior to transporting it to another location.

IMPORTANT: Turn off the water supply at the stop tap, disconnect the inlet hose from the machine and ensure drip tray is empty and correctly located under the machine before proceeding.

4. Press button 2 on the drink selection panel. Any water in the machine is pumped out of the system and into the drip tray. When water stops dispensing, press button 2 on the drink selection panel to stop the pump. Press button 0 on the service panel to return machine to standby mode. Empty the contents of the drip tray.

5. The next menu accessed from the "Service Installation" main menu affects the machine type/drink settings. The machine is factory set to 102 and should not be altered.

6. The next menu accessed from the "Service Installation" main menu allows the language displayed to be altered. This is factory set to "English" and should not require adjustment.

7. Pressing button 1 again accesses the "No Beans" sub menu. The machine is factory set to disable the machine should the bean container become empty. This is to ensure that the brewer is not damaged through lack of product supply. On no account should this setting be altered without first consulting Crane Merchandising Systems for assistance.

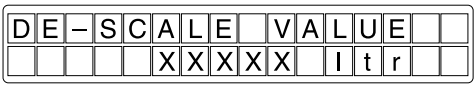
8. Press button 1 on the drink selection panel to continue cycling through the sub menus. The next menu accessed allows the engineer to test all of the machines outputs, e.g. brewer mechanism, whipper motor etc. Pressing drink selection button 2 continually will cycle through all of the available outputs.

9. Press button 1 to gain access to the final sub menu. The LCD will display the message:

   The machine can be programmed to activate an automatic de-scale function after a specified volume of water has passed through the machine. This figure is dependant upon local water hardness levels for the specific installation.

   N.B. Crane Merchandising Systems recommends that the de-scale value is set to match the life span of the water filter as specified by the filter manufacturer.

10. To set the de-scale value, press drink selection button 2. The display will show the message:



    where XXXXX is the current value in litres, stored in machine memory. Press button 4 (increase) or button 5 (decrease) on the service panel to until the desired value is displayed. Press button 2 on the drink selections panel to return to the sub menu.

11. To exit from the Service Installation menu back into machine standby mode, press button 0 on the service panel twice (x2).

4. Service Password

The service password is factory set so that the engineer presses button 1 followed by 2 and 3 on the service panel to access the service menus and affect any relevant changes to the sub programs held within them. On no account should this password be altered without first consulting Crane Merchandising Systems for assistance.

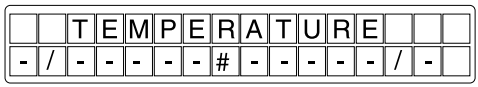
5. Service Temperature

This value provides an indication of the water temperature at the dispense head during a vend. Crane Merchandising Systems recommend that this value should remain at the factory default setting and should not be adjusted.

Should it be necessary to adjust the water temperature value, proceed as follows:

1. After entering the service menu via the password protected entry code, press button 5 on the service panel five times (x5). The LCD on the front of the machine will display the message:

2. Press button 1 on the drink selections panel. The display will show:



   where the # indicates the factory default setting. Press button 4 or 5 on the service panel to increase or decrease the setting.

   N.B. The temperature can only be adjusted a maximum of 5° higher or lower than the factory default setting.

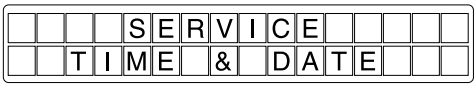
3. When the required temperature value has been entered, press drink selection button 1 to return to the main menu.

6. Service Time and date

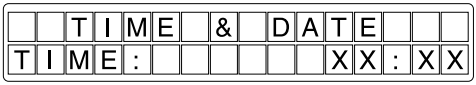
The **Vision B2C** displays the current time and date in 24 hour format. To set the time and date, proceed as follows:

1. After entering the service menu via the password protected entry code, press button 5 on the service panel six times (x6).

The LCD on the front of the machine will display the message:

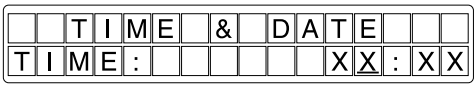


2. Press button 1 on the drink selections panel located on the front of the machine. The LCD will now display the message:



where TIME: XX:XX is the current time held in machine memory. If the time is correct, press button 1 on the drink selections panel to display the current date.

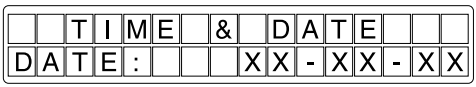
3. When a parameter is displayed which requires adjustment, press button 2 on the drink selections panel. A cursor will appear under the "hours" as shown below.



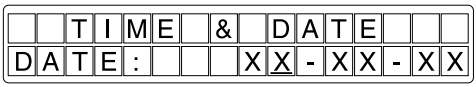
Use button 4 or 5 on the service panel to adjust the time up or down.

4. When the correct hour has been entered, press button 2 on the drink selections panel. The cursor will now appear under the "minutes". Set the correct minutes value using button 4 or 5. When the correct time is displayed, press button 2. The cursor is removed and the time is set in the machines memory.

5. To adjust the date, press button 1 on the drink selections panel. The LCD will display the message:



where DATE: XX:XX:XX is the current date set in the machines memory. Press button 2 on the drink selections panel. A cursor will appear under the "day" as shown in the illustration below.



Use button 4 or 5 on the service panel to set the correct day.

6. When the correct day has been entered, press button 2 on the drink selections

panel. The cursor will now appear under the "month". Set the correct month value using button 4 or 5. Repeat the above action to set the correct "year" value.

7. When the correct date is displayed, press button 2 on the drink selections panel. The cursor is removed and the date is set in the machines memory. To return to the main menu, press button 1 on the drink selections panel.

7. Service Coin Mechanism

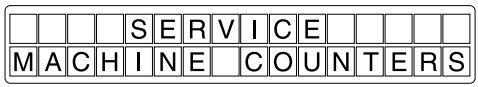
The **Vision B_2C** is factory set to freevend. This setting should not require adjustment.

8. Service Machine Counters

Internal counters monitor the main functions of the machine and allow the engineer to record data relating to the brewer, water volume and number of machine initialisations. The menu contains both counters that are non-resettable and remain intact for the life of the controller board and also counters that can be reset once the total has been recorded.

To view the counters menu, proceed as follows:

1. After entering the service menu via the password protected entry code, press button 4 on the service panel three times (x3). The LCD on the front of the machine will display the message:



2. Press button 1 on the drink selections panel to access the first sub menu - "Initialisations". This counter displays the number of times that the machine has been initialised since the last reset. Once the total has been recorded, the counter can be reset to zero by pressing button 1 on the service panel.

3. Pressing button 1 on the drink selections panel will display the second sub menu - "Initialisations Total". This counter is non-resettable and records the total number of times that the machine is initialised during the life of the controller board.

4. Pressing button 1 on the drink selections panel will allow the engineer to scroll down through the complete counters menu and record data relating to the specific function. Pressing button 1 on the service panel will allow data to be reset when the menu item allows it.

5. To return the machine to standby mode, ready to vend a drink, press button 0 on

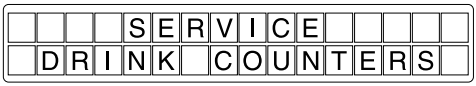
the service panel.

9. Service Drink Counters

The Service Drink Counters menu allows the engineer to reset the counters relating to the number of drinks vended since the last reset.

To reset the counters, proceed as follows:

1. After entering the service menu via the password protected entry code, press button 4 on the service panel twice (x2). The LCD on the front of the machine will display the message:



2. Press button 2 on the drink selections panel to reset the counters for all selections.

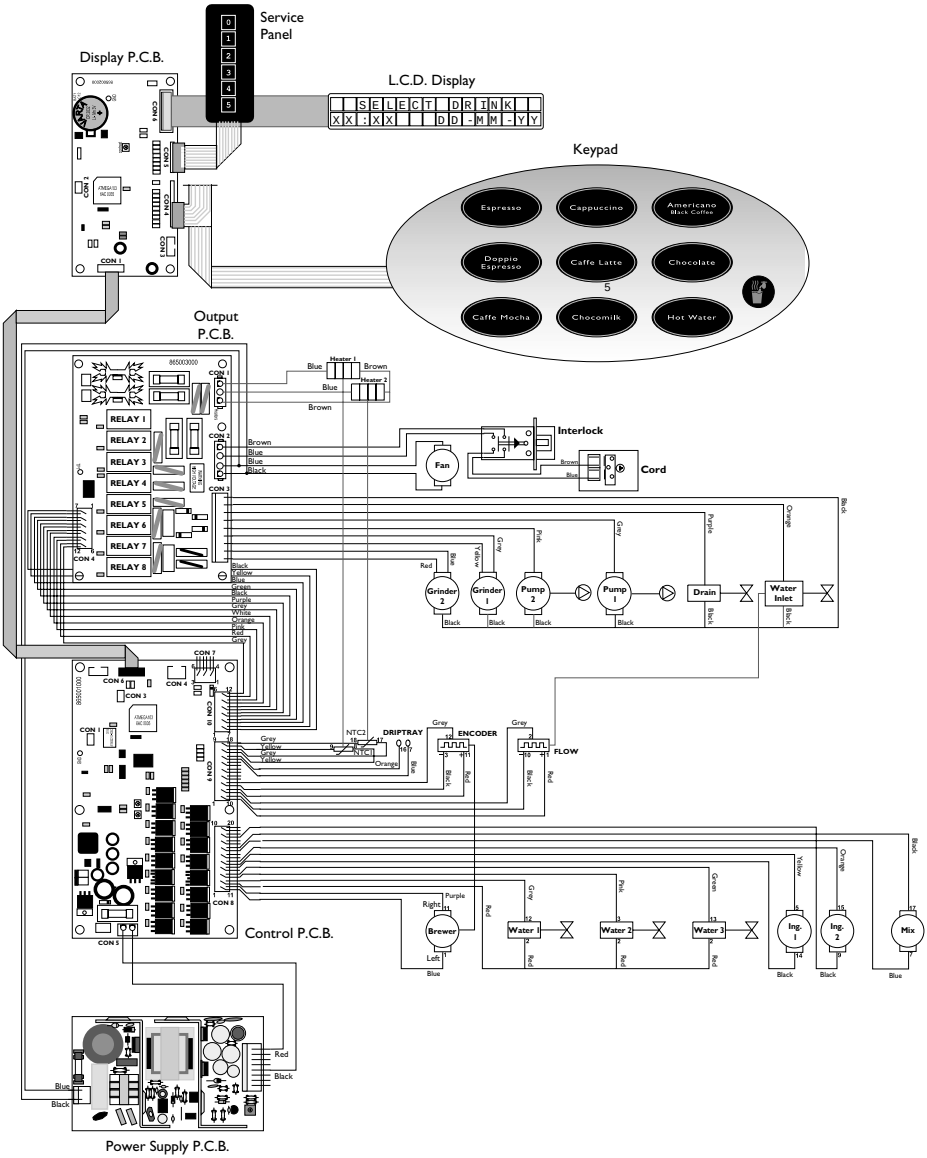
3. To return the machine to standby mode, ready to vend a drink, press button 0 on the service panel.

10. Service Drink Assignment

The drink selections for the **Vision B2C** are configured before the machine leaves the factory. It is not necessary for an engineer to alter these settings.

Electronic Description

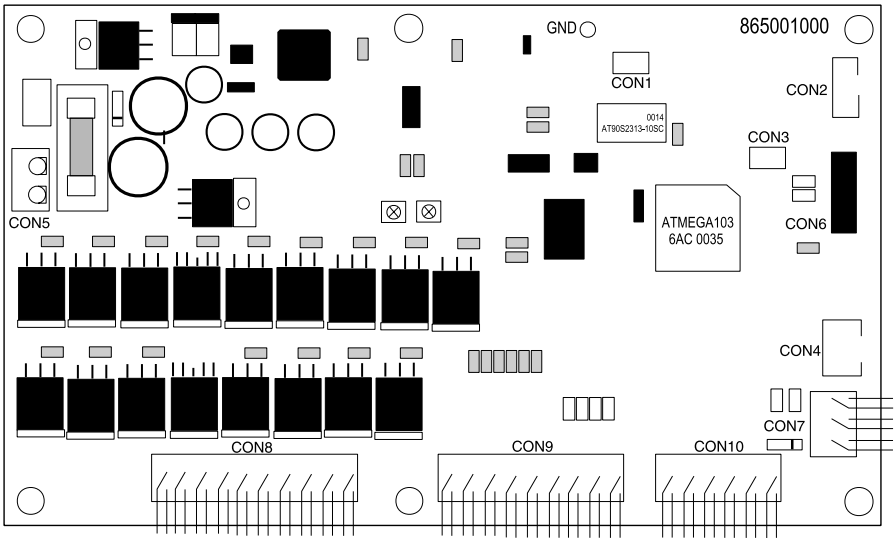
The diagram below illustrates the connections between the four main PCB boards and the keypad, service panel, LCD display and electronic components.



The following section describes the functions of the main electronics boards and the items connected to them.

1. Control Board

The Control Board is the main controller for all of the machines functions. It is situated on the inside of the rear panel of the machine and is accessed by removing the L.H. side panel. The layout of the board is illustrated below.



The connections into the control board are as follows:

CON 3 - Control Board Software: The CON 3 connector allows the engineer to connect a hand held programmer to the board and download updated control software into the boards memory.

CON 5 - 24V Power Supply Board: The loom connected to the CON 5 supplies the controller board with a 24V power supply from the Power Supply Board. The circuit is protected by an 8.0 A T/250 V~slow blow fuse.

CON 6 - Display Board: The control board is connected via CON 6 to the Display Board.

CON 8 - Valves/Motors Outputs: The water outlet valves, mixing system motors, ingredient motors and brewer motor are all connected via a 20 pin plug to CON 8.

The individual components are connected to the plug as follows:

Pin No.	Wire Colour	Component
1	Blue	Brewer Motor
2	Red	Water Outlet Valve (Common)
3	Pink	Water Outlet Valve (2)
4	-	-
5	Yellow	Ingredient Motor (1)
6	-	-
7	Black	Mixing System Motor
8	-	-
9	Black	Ingredient Motor (2)
10	_	-
11	Purple	Brewer Motor
12	Grey	Water Outlet Valve (1)
13	Green	Water Outlet Valve (3)
14	Black	Ingredient Motor (1)
15	Orange	Ingredient Motor (2)
16	-	-
17	Blue	Mixing System Motor
18	-	-
19	-	-
20	-	-

CON 9 - Input Signals: The drip tray sensor, flow meter, encoder and temperature sensors are all connected via an 18 pin plug to CON 9. The individual components are connected to the plug as follows:

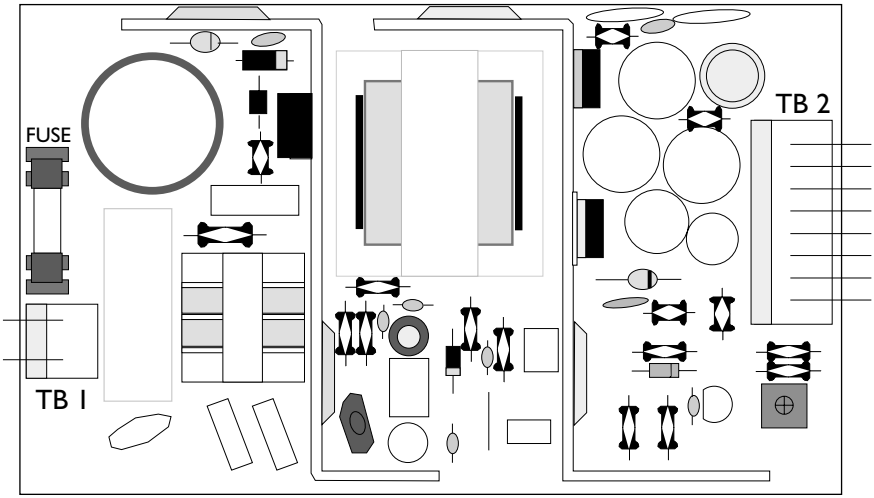
Pin No.	Wire Colour	Component
1	Red	Flow Meter (+)
2	Grey	Flow Meter
3	Black	Encoder (-)
4	-	-
5	-	-
6	-	-
7	Blue	Drip Tray Sensor
8	Yellow	Temperature Sensor (1)
9	Yellow	Temperature Sensor (1)
10	Grey	Flow Meter (-)
11	Red	Encoder (+)
12	Black	Encoder

Pin No.	Wire Colour	Component
13	-	-
14	-	-
15	-	-
16	Orange	Drip Tray Sensor
17	Grey	Temperature Sensor (2)
18	Grey	Temperature Sensor (2)

CON 10 - Connection to Output Board: The control board is connected via CON 10 to the output board.

2. Power Supply Board

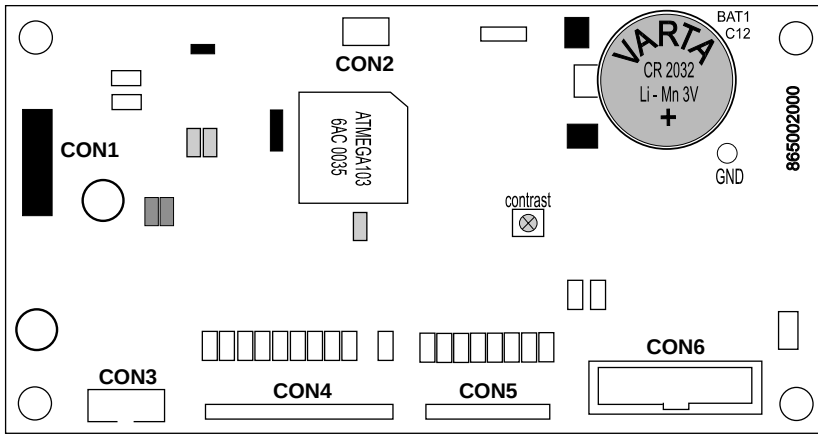
The Power Supply Board converts the input voltage of 240V to 24V for the control board. It is situated above the control board and is accessed by removing the L.H. side panel. The layout of the board is illustrated below.



The power supply board receives a 230V supply from the output board via a cable connected between TB 1 (power supply board) and CON 2 (output board). This 240V supply is converted to 24V and supplied to the control board via a cable connected between TB 2 (power supply board) and CON 5 (control board). Protection for the board is provided by a slow blow fuse rated 3.15 A T/250 V.

3. Display Board

The Display Board is located behind the drink selection panel in the door of the machine and is accessed by removing the lower stainless steel cover plate. The display board is connected between the drink selection panel, service panel, LCD display and control board. The display board together with the selection panel and service panel forms the interface between the user and the control board. The layout of the board is illustrated below.



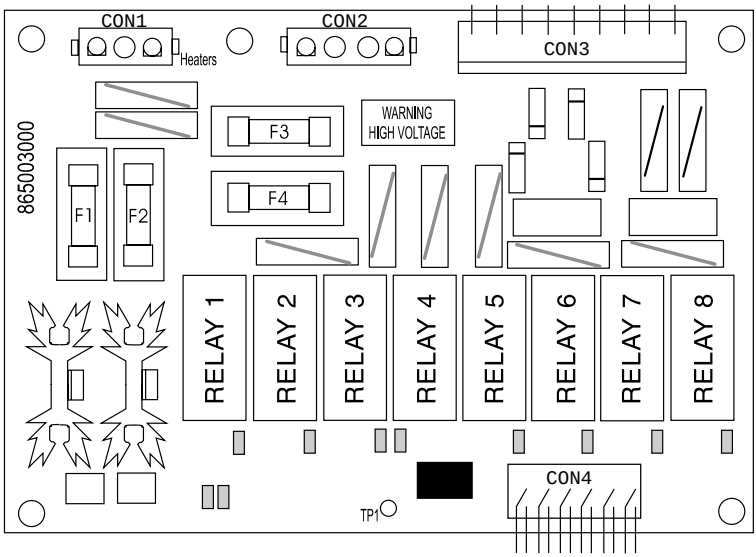
1. The display board is connected to the drink selection panel via CON 4, the service panel via CON 5 and the LCD display via CON 6. All of these connections are ribbon type cables.

2. Connection to the control board is also via a ribbon cable connected to CON 1 on the display P.C.B. and CON 6 on the control board.

3. CON 2 allows an engineer to connect a hand held programmer to the board and download updated control software into the boards memoy, whilst the battery preserves set data when the machine is disconnected from the mains.

4. Output Board

The 230V components are connected to the Output Board. The board is located on a panel directly above the ingredient motors and is accessed by removing the L.H. side panel. The layout of the board is illustrated below.



1. The 230V power supply to the machine is fed via an inter-face connector into the CON2 connector on the board. This is then output via the same connector to a fan, which runs constantly whilst the machine is connected to the mains and switched on, and to the TB 1 connector on the power supply board.

2. Various components, including the grinders and water pumps are connected via a 9 pin plug to CON3. The individual components are connected to the plug as follows:

Pin No.	Wire Colour	Component
1	Black (Common)	-
2	Orange	Water Inlet Valve, 230V
3	Purple	Outflow Valve, 230V
4	Grey	Water Pump 1, 230V
5	Pink	Water Pump 2, 230V
6	Grey	Grinder 1, 230V D.C.
7	Yellow	Grinder 1, 230V D.C.
8	Blue	Grinder 2, 230V D.C.
9	Red	Grinder 2, 230V D.C.

3. The output board and control board are connected via a loom between CON4 (output board) and CON10 (control board).

4. There are four fuses mounted on the output board which serve the following functions:

   F1 - 6.3 A T/250 V slow blow, protecting heater 1

   F2 - 6.3 A T/250 V slow blow, protecting heater 2

   F3 - 4 A T/250 V slow blow, power supply

   F4 - 4 A T/250 V slow blow, protecting the relays

Notes

The information in this Technical Manual was correct at the time of going to print. Crane Merchandising Systems reserves the right to change the machine specification without prior notice.

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