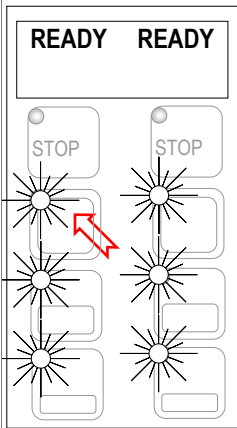
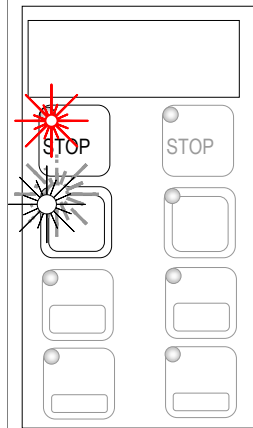


TO START BREW



Brewing

1. Turn the power switch on.
2. Prepare a brew basket with the correct size filter and appropriate amount of coffee.
3. Slide the brew basket completely into the rails.
4. Place a clean, empty, preheated dispenser under the brew basket.
5. Select a batch & hold the corresponding BREW button in for 1 second to start
6. The STOP button will illuminate, countdown time will display, and the selected BREW button will flash, indicating that brewing is in progress. All other BREW buttons will extinguish.
7. When the brew cycle is finished, the STOP button will extinguish and the BREW button will continue to flash for the amount of time programmed into the drip delay setting. This indicates that coffee may still be dripping from the brew basket.



TO ENTER PROGRAMMING

TO ENTER PROGRAMMING

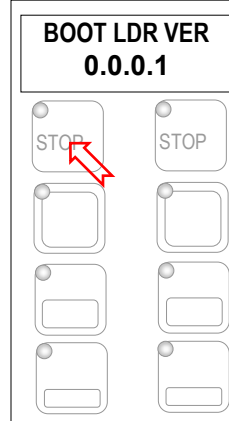
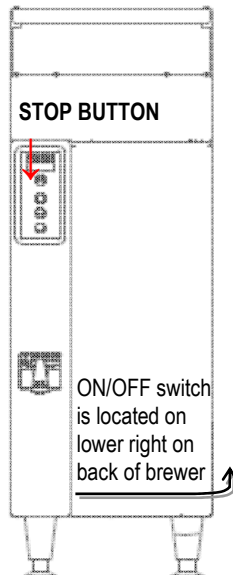
- 1-Turn brewer "OFF" from power switch
- 2-Turn power switch to "ON"
- 3-Quickly hold down "STOP" button for 5 seconds

...Screen will initialize and then display digital process notifications

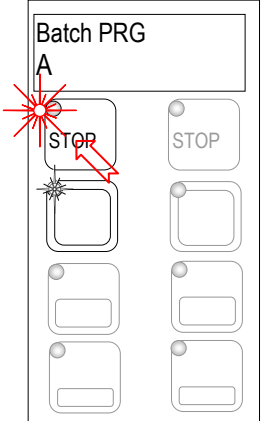
In PROGRAMMING MODE
-the screen will display:



-Illuminated LED indicates active keypad positions



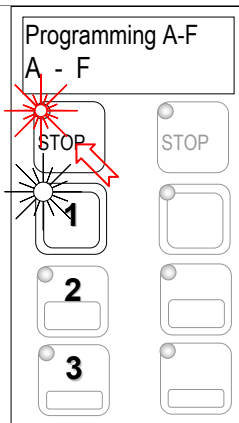
Turn power OFF
Turn power ON
And quickly hold STOP
button down for 5 sec.



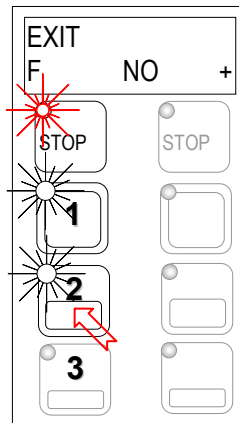
First screen will display
Scroll through main
menu topics by
pressing "STOP"

SAVING CONTROL SETTING CHANGES AND EXITING-PROGRAMMING

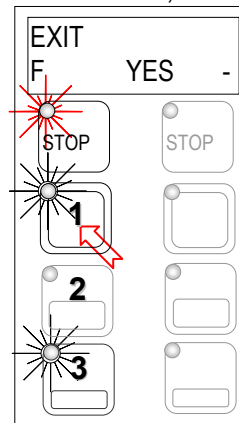
The brewer is in PROGRAMMING mode, how to save changes and EXIT.



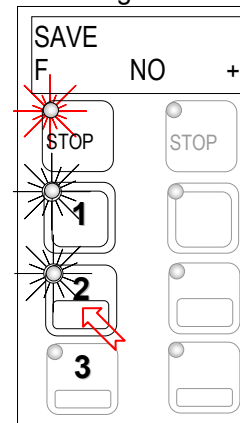
From any screen-
Press STOP button
until the EXIT ("F")
screen appears



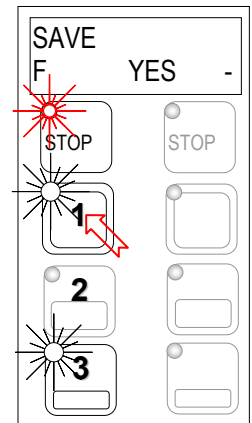
From the "F" screen
Press button **2** to
toggle to the EXIT-
YES screen



From EXIT screen
Press button **1** to
toggle to the SAVE
screen



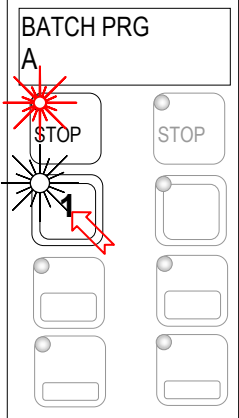
From SAVE screen
Press button **2**, to
toggle to the SAVE-
YES screen



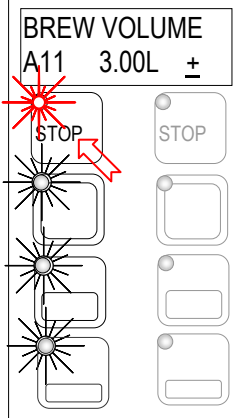
To SAVE and EXIT
Press button **1** to
SAVE your changes
and EXIT

Instructions for accessing all batch menus for -PROGRAMMING

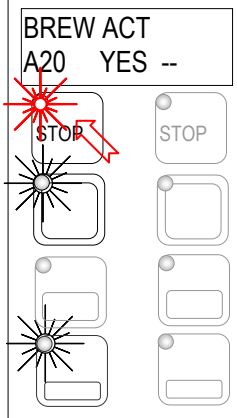
Dual brewer shown, single will not have menu A4-A6.
 Menus A1 and A4 are permanent. Menus A2, A3, A5, A6 can be removed by operator if desired



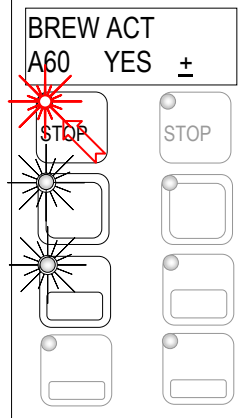
From A PRG screen
 Press button 1 to go to the A menu access screen



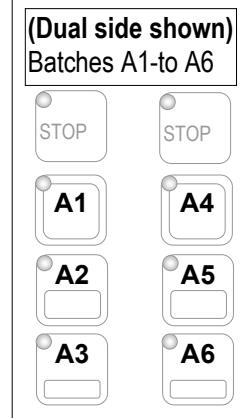
From A11 screen
 Press **STOP** to scroll to A20.
 (A1&A4 are permanent)



From A20 screen
 Press STOP to scroll through the next (3 or 6) menus.
 Make changes as required

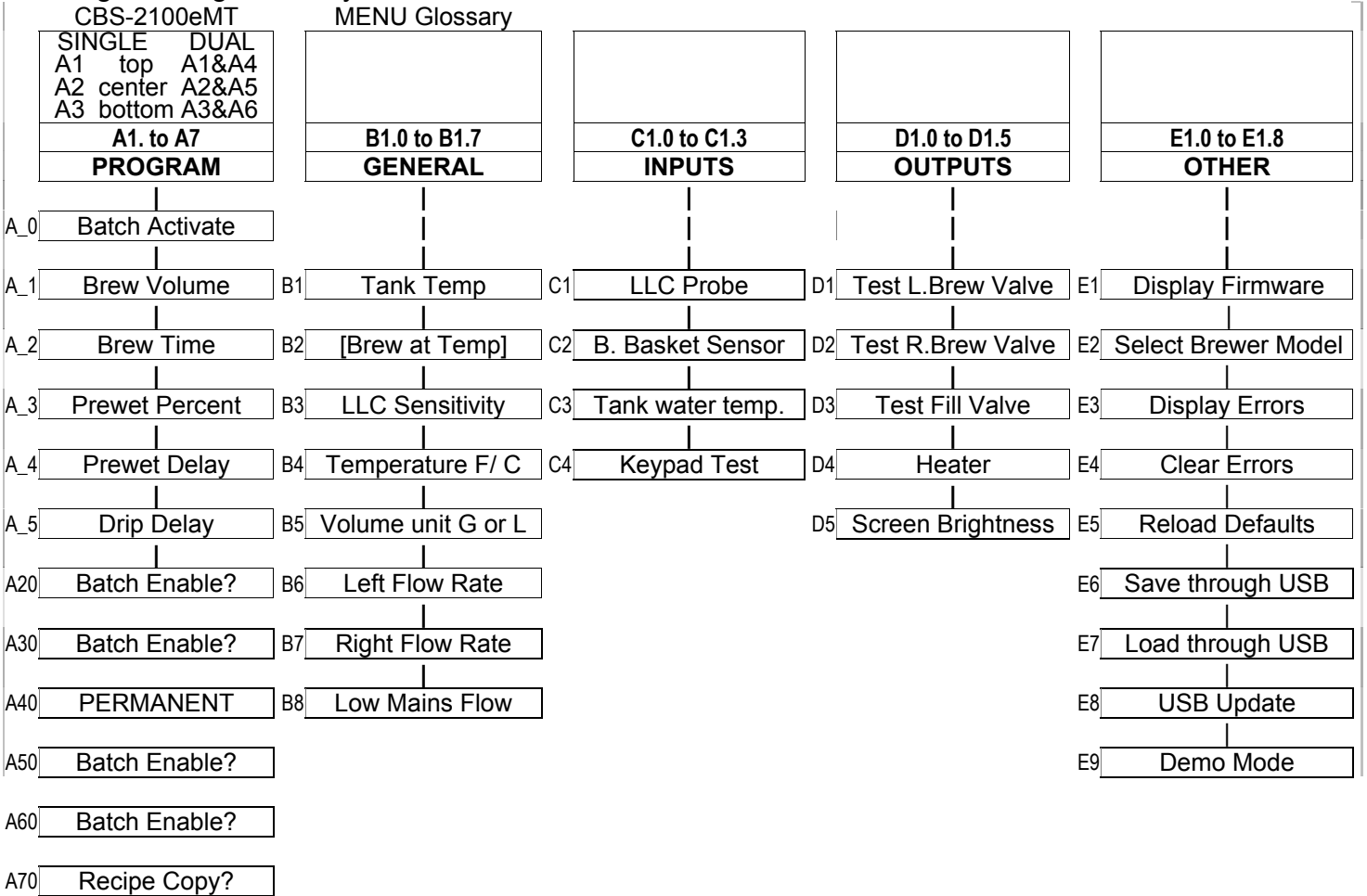


From A60 screen
 Scroll out to remaining A10-to A70 programming keys



For single and dual
 Position of batch buttons

Programming menu layout



*Left top A11& Right top A41 are permanent

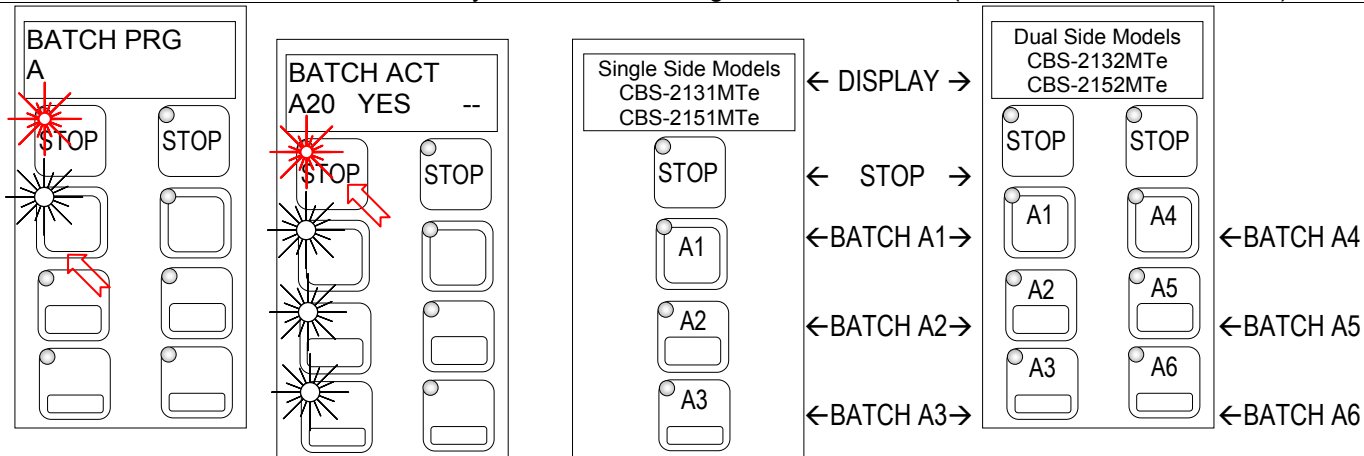
Menu Features: Batch Parameters

PROGRAM	Program Items	Factory set Default	Programming Range	Increments	Notes
A11	Batch Volume	0.80gal 3.00liters	0.25 to 1.25 gal 0.95 to 4.70L	0.01G 0.05L	Unit software is in liters; converts to gallon
A12	Brew Time	4:00 minutes	2:00 – 12:00	0.30	Default total brew time is 5:30 minutes
A13	Prewet Perc.	0%	0.00 – 15.0%	1%	Percentage of total brew volume
A14	Prewet Delay (Pause after prewet completes)	0% [1:00 Min]	[0:10 – 5:00]	1:00 min	The time between prewetting and start of brew cycle. This feature appears ONLY if Prewet >0:00
A15 This is a Safety Feature	Drip Delay	1:30 mm:ss	0:30 – 6:00 Min.		Time that brew basket remains locked during final drip-out →Drip delay remains “ON” for 1:30 minutes if STOP is pressed during brew
A20	BATCH ACT A20 YES - NO +	YES (Active)	Middle and Bottom batches A2,3,5,6	Batch on or off	Batches may be individually enabled, rewritten or deactivated
A21	Batch Volume	0.80gal 3.00liters	0.25 to 1.25 gal 0.95 to 4.70L	0.01G 0.05L	Unit software is in liters; converts to gallon
A22	Brew Time	4:00 minutes	2:00 – 12:00	0.30	Default total brew time is 5:30 minutes
A23	Prewet Perc.	0%	0.00 – 15.0%	1%	Percentage of total brew volume
A24	Prewet Delay (Pause after prewet completes)	0% [1:00 Min]	[0:10 – 5:00]	1:00 min	The time between prewetting and start of brew cycle. This feature appears ONLY if Prewet >0:00
A25 This is a Safety Feature	Drip Delay	1:30 mm:ss	0:30 – 6:00 Min.		Time that brew basket remains locked during final drip-out →Drip delay remains “ON” for 1:30 minutes if STOP is pressed during brew
Batch Copy	Copy From Batch	A71	A71 1 (1-6)		
	Copy To Batch?	A72	A72.1 (1-6)		

*Topmost Batch cannot be disabled. (SINGLE Brewer CBS-2131Ee)

*Topmost Batch LEFT & RIGHT Side cannot be disabled. (TWIN Brewer CBS-2132Ee)

**Middle and bottom batches may be disabled for single and dual brewer (CBS-2131Ee CBS-2132Ee)



PROGRAM	Program Items	Factory set Default	Programming Range	Increments	Notes
B1	Tank Temp.	92° -or- 197°F NOTE: Equipment is metric by default	70° to 96°C 157°F to 205°F	0.5°C 1.0°F	Chart to correct for high altitude below
B2	Brew at Temp.	"YES"	ON/OFF	YES/NO	SEE NOTE BELOW!
B3	LLC Sensitivity	LOW	LOW is "normal" for most water "HIGH" for R.O.	LOW HIGH	Liquid level control sensitivity. High is for reverse osmosis water or very pure water.
B4	Units of Meas. Temperature	°C Degrees Celsius	Equipment is metric by default	C/F	[Switchable Units]
B14	Volume Units	Liters [Gallons]	Equipment is metric by default	L/Gal	[Switchable Units]
B15	Flow Rate: LEFT brew valve	CBS-2131&2132 1.54L/0.40G	1.4-1.95Liter 0.36-0.52G	0.50L	Adjusts flow rate
		CBS-2151&2152 3.20L/0.84G	2.8-3.8Liter 0.73-1.01Gallon	0.01G	
B16	Flow Rate: RIGHT brew valve	CBS-2131&2132 1.54L/0.40G	1.4-1.95Liter 0.36-0.52G	0.50L	Adjusts flow rate
		CBS-2151&2152 3.20L/0.84G	2.8-3.8Liter 0.73-1.01Gallon	0.01G	
B17	Low flow rate from mains	NO	OFF/ON	Toggle +/- YES or NO	Trims fill system for low supply

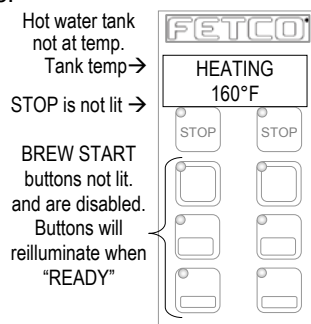
BREW AT TEMPERATURE DEFINITIONS

BREW AT TEMP: "ON"

(DEFAULT: FACTORY PROGRAMMED INTO BREWER)

"BREW at TEMP: Batch will not start if tank temperature is below set point. The "BREW START" entry buttons will not illuminate and (low) hot water tank temperature will display. Entry buttons will illuminate and "READY" will display when hot water tank is at the selected temperature.

When "BREW AT TEMP" is selected and tank water temperature is below selected set point the screen at right will display . →



BREW AT TEMP: OFF USER SELECTABLE (Not recommended)

Allows brewing at any temperature above 157°F/70°C.

Chart to correct for altitude for boiling point in tank water temperature.

[ft]	[m]	Suggested Setting[°F]	Boiling point[°F]	Suggested Setting[°C]	Boiling point [°C]
0	0	205	212.0	96	100.0
500	152	205	211.0	96	99.5
1000	305	200	210.1	93	98.9
2000	610	200	208.1	93	97.8
2500	762	200	207.2	93	97.3
3000	914	200	206.2	93	96.8
3500	1067	197	205.3	92	96.3
4000	1219	195	204.3	91	95.7
4500	1372	194	203.4	90	95.2
5000	1524	194	202.4	90	94.7
5500	1676	193	201.5	89	94.2
6000	1829	192	200.6	89	93.6
6500	1981	191	199.6	88	93.1
7000	2134	190	198.7	87	92.6
7500	2286	188	197.8	86	92.1
8000	2438	187	196.9	86	91.6
8500	2591	185	196.0	85	91.1

Default-factory set brew valve flow rates. Is in liter/min-will convert to Gal /min

See "PROGRAM" B5 Left brew and B6 Right valve settings and calibration

Dual brewer			Single Brewer		
CBS-2152	Liter/min	Range	CBS-2151	Liter/min	Range
Left Brew FR	3.20 L	2.8 to 3.8	Left Brew FR	3.2	2.8 to 3.8
Right Brew FR	3.20 L	2.8 to 3.8			
CBS-2132	Liter/min	Range	CBS-2131	Liter/min	Range
Left Brew FR	1.50 L	1.40 to 1.95	Left Brew FR	1.50 L	1.40 to 1.95
Right Brew FR	1.50L	1.40 to 1.95			

PROGRAM	Program Items	Factory set Default	Programming Range	Increments	Notes
C10	LLC Probe continuity	Direct read	Reading of tank water resistivity in TDS	≈850- LOW ≈1600-HIGH	Nominal values
C11	Brew Basket Sensor	Direct read	YES or NO		
C12	Tank Temp.	Direct read	Hot water tank teperature		Actual values
C13	Keyboard Test	Calibrate	Checks buttons under membrane cover	YES/NO	If Yes: Follow directions on the touch screen


II

PROGRAM	Program Items	Factory set Default	Programming Range	Increments	Notes
D1	Left Valve Test	(Press to test)	TEST	Toggle +/- OFF or ON	Runs valve to verify flow. NOTE!-Have container under brew-basket!
RIGHT Valve display is only for CBS-2132Ee dual side brewer. Single series displays LEFT side only					
D2	Right Valve Test	(Press to test)	TEST	Toggle +/- OFF or ON	Press To Test
D3	Fill Valve Test	(Press to test)	TEST	Toggle +/- OFF or ON	Press To Test
D4	Heater Test	(Press to test)	Activates heaters 3 seconds	Toggle +/- OFF or ON	Energizes Heater(s) WARNING! Service use only.
D5	LCD Brightness	Brightness=8	0-15	1	Very dim to bright illumination

Calibrating flow rate (CBS-2131Ee has 3 batch settings CBS-2132Ee has 6 batch settings)

$$\frac{\text{ACTUAL VOLUME}}{\text{PROGRAMMED VOLUME}} \times \text{CURRENT SETTING} = \text{CORRECTED SETTING}$$

TERM	DEFINED AS	NOTES
Programmed Volume	Factory default	in liters or 0.0001
Current Setting	Amount displayed on A11-Batch Volume	
Actual Volume	Amount actually brewed in one full batch	
Corrected Setting	Setting to enter to obtain desired batch	Location B01=Left flow rate, B7=Right flow rate

OTHER	Programming Items	Factory set Default	Programming Range	Inc	Notes
E1	Display firmware	00570			Displays current version
E2	Select Model	CBS-2132Ee	Scroll to brewer model Save & Exit	CBS_2131 CBS_2132 CBS_2151; CBS_2152	Will need reboot
E3	Display Errors	Lists up to six codes, in order	1: ; 2: ;3:;4: ;5: ;6:	Newest=last	See Error Code Chart for references
E4	Reset Errors	NO +		Toggle =/- YES or NO	Factory and Service use only. Do Not Reset
NOTE ☞ Clear error codes by cycling the brewer “OFF” then “ON”. Do not reset the error codes. Resetting error codes should be after completing the service and factory diagnostics and correcting any brewer faults					
E14	(Reload) DEFAULTS	Reset to default of base model	Will need reboot	Toggle =/- YES or NO	Completely overwrites all user setup.
E15	USB Data Save	Save data to USB			
E16	USB Data Load	Load Data from USB	Will need reboot		
E17	Software update	Plug in USB flash-drive device.	Will need reboot		
E18	DEMO Mode	DEMO ON/OFF	Will need reboot		Demonstrates the controls for training. Disables all components in demo mode

II

F: saving your settings and logging out

Error Codes

THIS MAY BE INCOMPLETE OR INCORRECT

→Contact specialized personnel for error codes

Code	Description	Possible Cause	Corrective Action	How to Clear Error Codes
001	Software error-error on start up or corrupted software	Improper start-up or shutdown	Restart , if still fault: reload software	<p>TO CLEAR FAULT, Make repairs as required</p> <p>Below is the only way to clear error codes:</p> <p>1) Enter "PROGRAMMING"</p> <p>2) Scroll left to "OTHER"</p> <p>3) Scroll down to E12 "Display Errors"</p> <p>4) Correct fault condition</p> <p>5) Scroll to E13 "Clear Error Codes"</p> <p>6) Follow directions shown on screen.</p> <p>Merely toggling ON/OFF switch will not clear error codes.</p> <p>Error codes must be cleared by correcting the fault and entering PROGRAMMING and using the menus!</p>
050	Short-circuit in temperature probe	Probe failure.	Replace probe.	
051	Open temperature probe.	Bad probe connection, or probe failure.	Check all connections. Replace probe if necessary.	
075	Brew basket failure	Bad sensor	Check connections/wires	
100	Initial Fill Error. Initial fill time was more than 11 minutes after power up.	Water supply flow rate is too low.	Watch for short potting during brew cycle. Investigate cause of low flow rate. (Clogged water filter...)	
101	Error on refill Tank did not refill within 3 minutes.	Water supply flow rate is too low.	Watch for short potting during brew cycle. Investigate cause of low flow rate. (Clogged water filter...)	
102	Unwanted fill;	Possible leak in tank, fitting, or valve.	Occurs during pre-fill, low probe is uncovered	
107	Fault Lower liquid level probe	Tank not filling	Occurs during pre-fill, low probe is uncovered , or wires are reversed low / high probe	
200	Flat line temperature (water is boiling)	SSR failure	Check SSR, check control board output, or adjust temperature for altitude	
201	Heater open, high limit thermostat, or Solid State Relay (SSR) fault	Failure of: heating element, SSR, high Limit or low voltage	Check and replace heating elements if necessary.	
202	Heater Short	Heating element fail	Check Heater & SSR	
255	Touch pad error	Usually from longer than 2 min contact. Or faulty reassembly after service	Restart , if still fault: reload software. If mechanical: reassemble correctly	
<p>INSERT BREW BASKET</p> 		<p>Brew basket must be in place</p> <p>This is a SAFETY FEATURE</p>	<p>Insert brew basket into brewer rails to enable brewer</p>	