

FETCO® USER'S GUIDE & OPERATOR INSTRUCTIONS

FETCO COFFEE BREWER: CBS-1130 EXTRACTOR® V+™



CBS-1131-XV+



CBS-1132-XV+

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Specifications and Requirements

Water Requirements:

CBS-1130 XV+: 20-75 psig, (138-517kPa) 2 gpm (7.60 lpm)
 Water supplied to hot beverage equipment should be filtered
Water inlet fitting is a 3/8 inch male flare.

Brew Volume: Full Batch Up to 1 gallon/3.8 liters per brew

Total Brew Cycle—Factory setting: 5.5 minutes=[4 minute brew time + 1.5 minute drip delay]

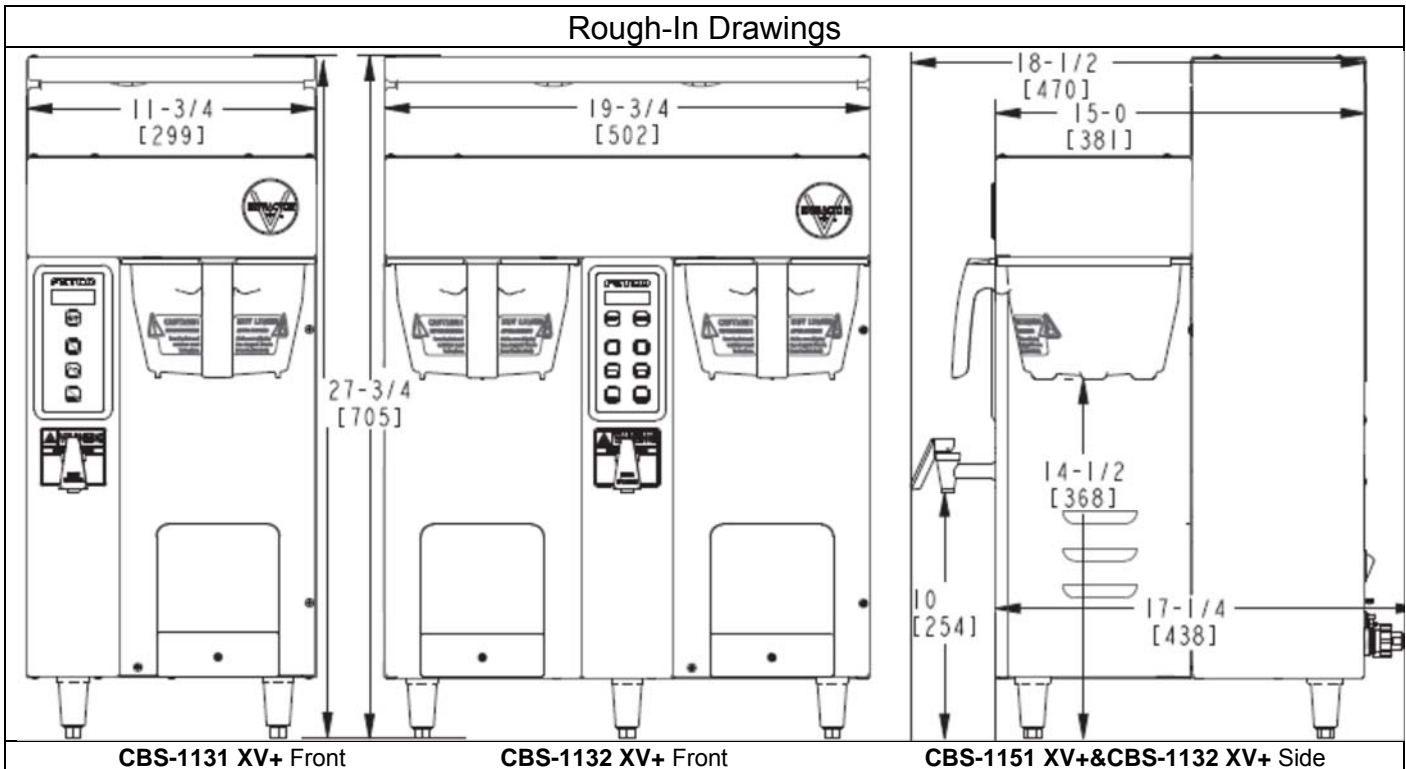
Coffee Filter Size:

13" X 5" – standard FETCO # F002

Electrical: See electrical configuration chart.

Temperature, as set by factory:

200°F (93°C) inside water tank (at sea level)



WIRING METHODS: Also: See the wiring diagrams at back of this guide

NEMA PLUG CONFIGURATION

NEMA 5-15P NEMA 5-20P NEMA 6-15P

<p>All CBS 1131 XV+ From Factory CBS-1131 XV+ 120 volt models</p>	<p>All CBS 1132XV+ 200-240 volt L1, L2,G models (one) model CBS-1131XV+</p>
<p>Electrical installation, service and field conversion is to be made only by licensed electrician. Disconnect equipment from power supply before service</p>	

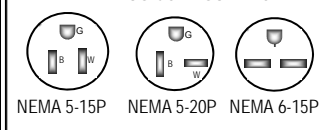
Electrical and Output Specifications for CBS-1131 XV+ Single 3 Liter 1 Gallon-Coffee Brewers

USA and Canada CBS-1131 XV+ Standard-Voltage With cUL/UL and NSF-4 certification								
Configuration Codes	Heater Configuration	Voltage	Phase	Wires	Electrical Connection	KW	Amp Draw	Brew-Volume/Hour
E113153	1 X 1.5 kW	100-120	1	2+G	NEMA 5-15P	1.6	13.0	3.9 gal/14.8 liters
E113151	1 X 2.3 kW	100-120	1	2+G	NEMA 5-20P	2.4	19.7	5.8 gal/22 liters
E113157	1 X 3.0 kW	200-240	1	2+G	NEMA 6-15P	3.1	13.0	7.7 gal/29.1 liters
North America & International Versions CBS-1131 XV+ With cUL/UL and NSF-4 Certification								
E113155	1 X 2.3 kW	200-240	1	2+G	Terminal Block	2.4	10.0	5.8 gal/22 liters
E113191	1 X 3.0 kW	200-240	1	2+G	Terminal Block	3.1	13.0	7.7 gal/29.1 liters
Export/Japan XV+ CBS-1131 With cUL/UL and NSF-4 Certification								
E113180	1 X 2.3 kW	100	1	2+G	Terminal Block	1.7	16.7	3.1 gal/14.0 liters
E113181	1 X 2.3 kW	200	1	2+G	Terminal Block	1.7	8.3	5.0 gal/21 liters
E113182	1 X 3.0 kW	200	1	2+G	Terminal Block	2.2	10.8	7.7 gal/29.1 liters
CE EXPORT/Japan CBS-1151 XV+ With CE and NSF-4 certification. Internal EMI filter. Not cUL and UL listed								
(CE) E113169	1 X 2.3 kW	230	2	L,N,PE	Terminal Block	2.2	9.6	5.8 gal/22 liters
(CE) E113167	1 X 3.0 kW	230	2	L,N,PE	Terminal Block	2.8	12.4	7.7 gal/29.1 liters

Specifications:-Electrical and Output for CBS-1132 XV+ Twin 3 Liter 1 Gallon-Coffee Brewers

USA and Canada CBS-1132 XV+ Field Select Electrical With cUL/UL and NSF-4 certification								
Configuration Code	Heater Configuration	Voltage	Phase	Wires	Electrical Connection	KW	Amp Draw	Brew-Volume/Hour
E113251	2 X 2.3 kW	200-240	1	2+G	Terminal Block	4.7	19.7	11.0 gal/42.0 liters
E113252	2 X 3.0 kW	200-240	1	2+G	Terminal Block	6.1	25.5	14.3 gal/54 liters
Export/Japan CBS-1132 XV+ With cUL/UL and NSF-4 certification								
E113292	2 X 2.3 kW	200-240	1	2+G	Terminal Block	4.7	19.7	11.0 gal/42.0 liters
E113291	2 X 3.0 kW	200-240	1	2+G	Terminal Block	6.1	25.5	14.3 gal/54 liters
CE EXPORT/Japan CBS-1152 XV+ With CE and NSF-4 certification. Internal EMI filter. Not cUL and UL listed								
(CE) E113262	2 X 3.0 kW	230/400	2	2L,N,P	Terminal Block	5.6	12.4	14.9 gal/56 liters
(CE) E113264	2 X 2.3 kW	230/400	2	2L,N,P	Terminal Block	4.3	9.6	11.0 gal/42.0 liters
(CE) E113266	2 X 3.0 kW	230	1	L,N,PE	Terminal Block	5.6	24.4	14.3 gal/54 liters
(CE) E113268	2 X 2.3 kW	230	1	L,N,PE	Terminal Block	4.3	18.8	5.8 gal/22 liters

NEMA PLUG CONFIGURATION

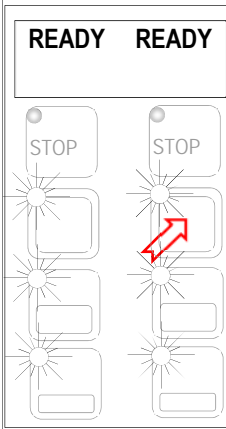


ELECTICAL CONNECTION NOTE

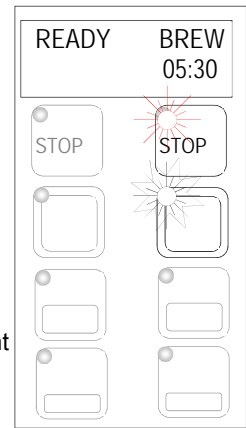
The CBS-1130V+ 3 liter/1gallon brewers are shipped with either a factory installed cord & plug or a terminal block configuration. The terminal block installation to the electrical mains must be made by a licensed electrician to the local electrical codes. The connection to the terminal block may be with a user supplied cord and plug, or directly connected according to local electrical codes and power requirements of the equipment.

In all cases, any power cord installation is to be connected to a single branch circuit only

Starting The Brew



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. -STOP button will illuminate,
-Countdown time will display,
-Selected BREW button will flash to indicate brew is in progress.
-All other BREW buttons for that brew head will extinguish.



7. When the brew cycle is finished,
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
For safety- do not remove brew basket until drip-out is complete.

Twin Brewer ready to brew. Pressing top right brew position

Brewing-see #6 above

Enter Programming

Screens shown are for twin brewer. Single brewer will not have menu A4-A6.

There are five menu groups-A-E . See the following pages for the batch parameter definitions and all settings for the brewer

TO ENTER PROGRAMMING

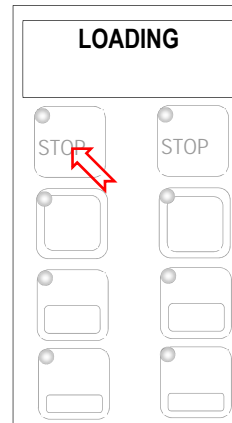
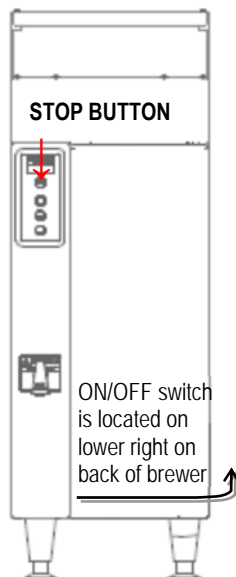
- 1-Turn brewer "OFF" from power switch
 - 2-Turn power switch to "ON"
- ...Screen will initialize and then display digital process notifications
- 3-After Initialization-Red "STOP" Lamp turns on
 - 4-Quickly hold down "STOP" button for 5 seconds

When brewer is In PROGRAMMING MODE
-the screen will display:

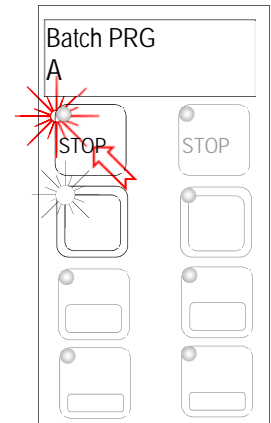
IBATCH PRG
A (or B-E)

-Illuminated LED indicates active keypad positions

See the following pages for batch parameter definitions and all settings for the brewer

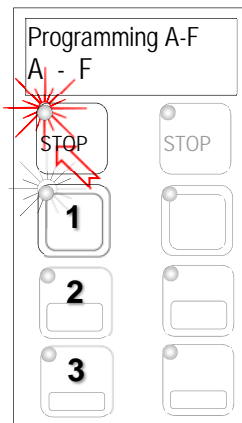


Turn power OFF
Turn power ON
Wait for red LED
And quickly hold down
STOP button on front
touch panel for 5 sec.

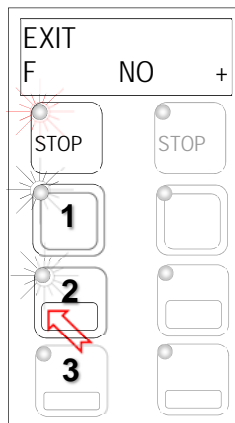


First screen will display
for PROGRAMMING-A
Scroll through main menu
topics by pressing
"STOP" button.

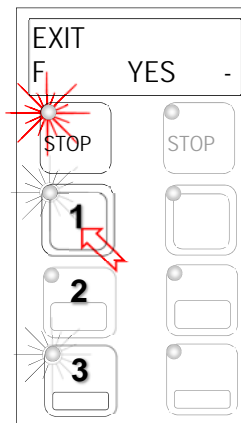
Exit Programming & Save Control Setting Changes



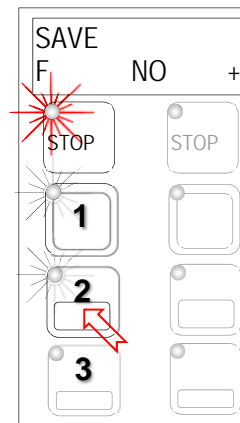
From any screen-
Press STOP button
until the EXIT ("F")
screen appears



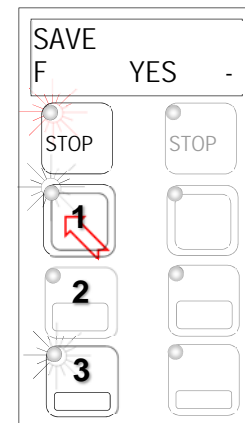
From the "F" screen
Press button **2** to
toggle to the EXIT-
YES screen



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

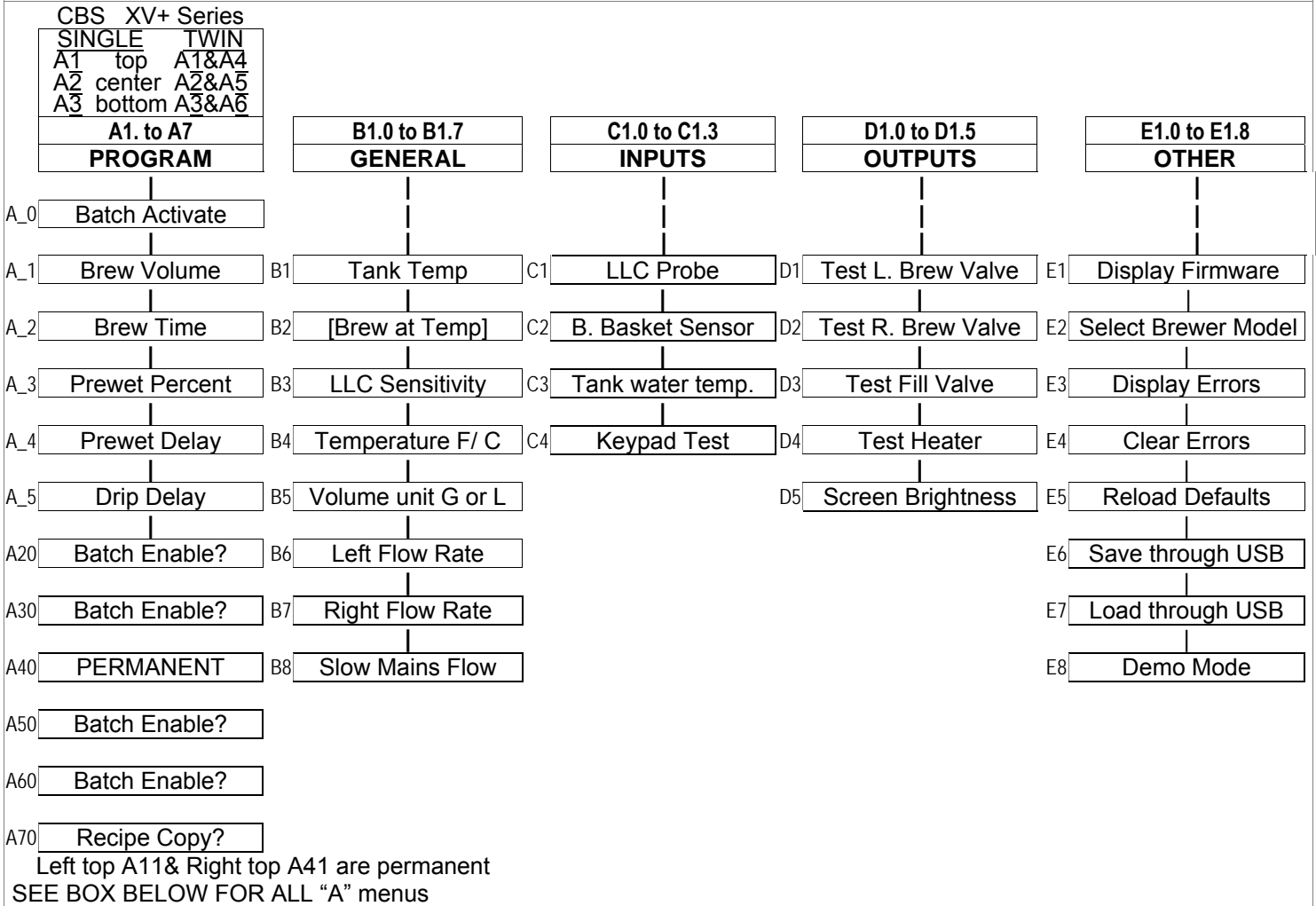


From SAVE screen
Press button **2** to
toggle to the SAVE-
YES screen



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

PROGRAMMING MENU LAYOUT



The A [1-3 or 1-6] menus correspond to the [3 or 6] batch buttons on the touch panel

Access the A menus to PROGRAM & make changes to individual menu recipes. Menu settings can be copied
 Menu positions A1 and A4 [top position] are permanent. Menus A2, A3, A5, A6 can be removed by operator if desired

<p>From A PRG screen Press button 1 to go to the A menu access screen</p>	<p>From A11 screen Press STOP to scroll to A20. (A1&A4 are permanent)</p>	<p>From A20 screen Press STOP to scroll through the remaining (3 or 6) "A" menus. Make any changes as required</p>	<p>From A60 screen Scroll out to remaining A10-to A70 programming keys. See SAVE & EXIT in previous table</p>	<p>For single and twin Position of batch buttons</p>

A PROGRAM

Menu Features: Batch Parameters

The settings below are shown for the top batch on a single brewer top left button on a twin brewer. See how to access all A menus on the previous page. Below are the brew settings for default A1 & A2 batches

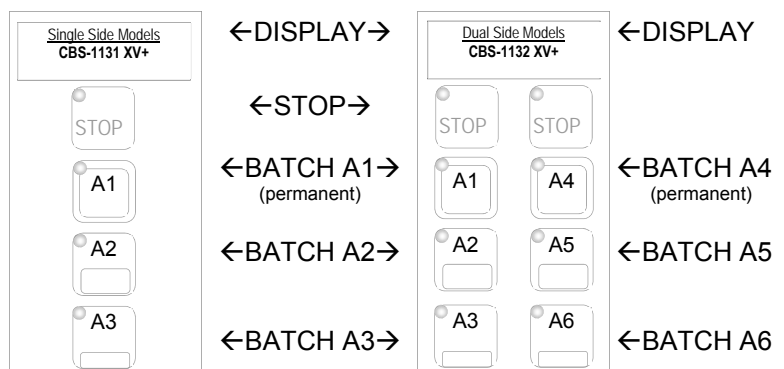
POSITION	Program Items	Factory set Default	Programming Range	Increments	Notes
A11	Batch Volume	0.80gal 3.00liters	0.25 to 1.25 gal 0.95 to 4.70L	0.01G 0.05L	Unit software is in liters; converts to gallon
A12	Brew Time	4:00 minutes	2:00 – 12:00	0.30	Default total brew time is 5:30 minutes
A13	Prewet Perc.	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)		

CBS-1131V+Topmost Batch cannot be disabled. CBS-1132V+Topmost Batch LEFT & RIGHT cannot be disabled. Middle and bottom batches may be disabled for single and twin brewer (CBS-1131 XV+ and CBS-1132 XV+) † DRIP DELAY will not activate when STOP is pressed within 5 seconds of starting a brew time

RECIPE Location map

Viewing and changing settings for the brew recipes is from the “A” screens with the controls in PROGRAMMING.

The uppermost button positions are permanent and will not display programming step A_0. The table above shows in position A20 that a button position can be made active or inactive. Position A1 does not display this step



B GENERAL		Brewer Operation Control Settings, Adjust Brew Flow Rate			
POSITION	Program Items	Factory set Default	Programming Range	Increments	Notes
B1	Tank Temp.	93° C -or- 200°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	Temperature Scale	°C Degrees Celsius	Equipment is metric by default	C/F	NOTE: Overwrites user settings (see page 9)
B5	Volume Scale	Liters [Gallons]	Equipment is metric by default	L/Gal	NOTE: Overwrites user settings (see page 9)
B6	LEFT brew valve Flow Rate:	CBS-1131&1132 1.55L/0.40G	1.30-1.80Liter 0.34-0.48G	0.50L 0.01G	Adjusts flow rate
B7	RIGHT brew valve Flow Rate:	CBS-1131&1132 1.55L/0.40G	1.30-1.80Liter 0.34-0.48G	0.50L 0.01G	Adjusts flow rate
B8	Low flow rate from mains	NO	OFF/ON	Toggle +/- YES or NO	Trims fill system for low supply

BREW AT TEMPERATURE DEFINITONS

DEFAULT: BREW AT TEMP: "ON"

(FACTORY DEFAULT FOR BREWER)

"BREW at TEMP:

-Batch will not start if tank temperature is below set point.

-Display will show "HEATING" and hot water tank temperature

The "BREW START" entry buttons will not illuminate until the hot water tank reaches the selected temperature.

Control will allow both sides of dual brewer to operate if one side has an ongoing brew started and the second side brew is selected.

Notifications shown on screen:

TEXT: **HEATING**→Tank above 87°C/189°F-will allow brew at low temperature. Coffee flavor may be affected

TEXT: **L. HEAT**→Tank above 76°C/169°F-will allow brew at low temperature. Coffee flavor will be noticeably affected

USER SELECTABLE OPTION: BREW AT TEMP: OFF

(Not recommended)

Allows brewing at any temperature above 77°C/170°F

Below 70°C/170°F The red colored ready lights switch turn off-unit will operate at cold

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

Use this formula to compensate for minor discrepancies in actual volume versus programmed volume.

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

Default Brew Valve Flow Rate—All CBS-1130 V+ Brewers

CBS-1131 & CBS-1132

ml/min

Range

Left and Right Brew Valve FR


1550 ml

+1300 to 1800ml

Use the formula above to determine the correct setting Set lower to increase volume, higher to decrease volume. See "PROGRAM" B5 and B6 For valve settings and calibration. Factory set brew valve flow rates are in liter/min

C INPUTS					
Brewer Sensors and Keypad					
POSITION	Program Items	Factory set Default	Programming Range	Increments	Notes
C1	LLC Probe continuity	Direct read	Reading of tank water resistivity in TDS	≈850- LOW ≈1600-HIGH	Nominal values
C2	Brew Basket Sensor	Direct read	YES or NO		
C3	Tank Temp.	Direct read	Hot water tank temperature		Actual values
C4	Keyboard Test	Calibrate	Checks buttons under membrane cover	YES/NO	Follow directions on the touch screen

D OUTPUTS					
Test Valves and Heaters; Set screen brightness					
POSITION	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-1132 XV+ twin 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

E OTHER					
Software & Code View and Settings					
POSITION	Program Items	Factory set Default	Programming Range	Increments	Notes
E1	Display Firmware	0.1a	NOTE: Overwrites user settings (see page 9)		Displays current version
E2	Select Model	CBS-1132 XV+ Will need reboot	Scroll to brewer model Save&Exit	CBS_1131 CBS_1132 CBS_1151; CBS_1152	NOTE: Overwrites user settings (see page 9)
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
Resetting error codes should be after completing the service and factory diagnostics and correcting any brewer faults NOTE ☞ Clear error codes by cycling the brewer "OFF" then "ON". See Page 9.					
E5	(Reload) DEFAULTS	Reset to default of base model	Will need reboot	Toggle =/ YES or NO	COMPLETELY OVERWRITES ALL USER SETTINGS
E6	USB Data Save	Save data to USB			
E7	Load From USB	Plug in USB flash-drive device.	Will need reboot		Demonstrates the controls for training. Disables all components in demo mode
E18	DEMO Mode	DEMO ON/OFF	Will need reboot		

F SAVE & EXIT

Saving changes and exiting PROGRAMMING

The brewer will save changes only from the "F" menu. **DO NOT** reboot brewer or toggle ON/OFF-exit as below.

TO EXIT PROGRAMMING & HOW TO SAVE CONTROL SETTING CHANGES

HOW TO SAVE CHANGES AND EXIT-*The brewer is in PROGRAMMING mode.*

<p><u>From any screen-</u> Press STOP button until the EXIT ("F") screen appears</p>	<p><u>From the "F" screen</u> Press button 2 to toggle to the EXIT-YES screen</p>	<p><u>From EXIT screen</u> Press button 1 to toggle to the SAVE screen</p>	<p><u>From SAVE screen</u> Press button 2, to toggle to the SAVE-YES screen</p>	<p><u>To SAVE and EXIT</u> Press button 1 to SAVE your changes and EXIT</p>

NOTE: User Settings will be erased and overwritten to factory default settings by the following five programming changes

- When setting or changing units of display for the tank temperature (F Fahrenheit or C Celsius). **(SETTING B4)**
- When setting or changing units of display for the volume (G gallons, L liters). **(SETTING B5)**
- When setting brewer model →The software sets equipment to brewer defaults **(SETTING E2)**
- When resetting (Reloading) DEFAULTS **(SETTING E5)**
- When loading from USB (Reloads to defaults) **(SETTING E7)**

Error Codes			
DO NOT CLEAR ERROR CODES UNTIL ERROR IS IDENTIFIED AND CORRECTED			
→Contact specialized personnel for error codes			
Code	Description	Possible Cause	Corrective Action
001	Software error-error on start up or corrupted software	Improper start-up or shutdown	Restart , if still fault: reload software
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.
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...)
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.
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
NO BSKT Insert Brew Basket		Brew basket must be in place This is a SAFETY FEATURE	Insert brew basket into brewer rails to enable brewer

Operator Training

Review the operating procedures with whoever will be using the brewer.

Pay particular attention to the following areas:

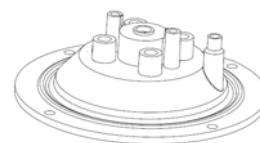
1. Always pre-heat the dispensers before the first use of each day by filling them half way with hot water, and letting them stand for at least 5 minutes.
2. Do not remove the brew basket from a coffee brewer until it has stopped dripping.
3. Make sure the dispenser is empty before brewing into it.
4. Show how to attach covers, close, and or secure the dispensers for transporting.
5. Show the location and operation of the water shut off valve as well as the circuit breaker for the brewer.
6. Steam from the tank will form condensation in the vent tubes. This condensation will drip into and then out of the brew baskets. Up to 1/4 cup/118cc discharging overnight is possible. Place an appropriate container under each brew basket when not in use.
7. We recommend leaving the power to the brewer on overnight. The water tank is well insulated and very little electricity is used to keep the tank hot. Leaving the brewer in the "ON" position will also avoid delays at the beginning of shifts for the brewer to reach operating temperature.

Cleaning & Maintenance

Small

After Each Brew:

1. Dispose of grounds and rinse brew basket.
2. Never strike a brew basket or hit it against a hard surface.
This will damage the brew cone, and may damage the brew basket support rails
3. Rinse dispensers before reuse.



Every Day:

1. Wash brew basket with hot sudsy water.
2. Pull CSD from the spray head, it is magnetically attached. Use gloves or a heavy towel. → Wash off any film and reattach. Use vinegar if limescale filming is present.
3. Clean dispensers with hot suds water and a brush, rinse and air dry.
4. Use only a soft cloth and hot suds on the outside to avoid scratches. Never use abrasives that will scratch surface.



Weekly

1. Use a commercial coffee dispenser cleaner such as URNEX™, TABZ™, DIP-IT™ or Squeak 'n Clean™.
2. Carefully Follow the instructions supplied with the cleaning product
3. Never use spray cleaners, solvent, solvent based cleaner or petroleum based polish anywhere on dispensers

Warning

1. Turn off power before any cleaning procedure, including wiping the exterior for appearance reasons.
2. Dry the exterior, especially the face panel, before turning on power.
3. Do not apply any type of spray cleaner on the face panel of this equipment.
4. Never use solvent or solvent-based cleaner or petroleum based polish anywhere on this equipment.
5. Dry the face of the touch pad before turning on power
6. Do not electrically energize this equipment or attempt operation without all covers in place and all screws fastened.
7. Unplug machine before disassembly or servicing.

Safety Notes

1. Professional installation is required. This appliance is manufactured only for commercial use
2. Operational requirements and maintenance for commercial cooking appliances differ from household appliances.
3. Operators must be trained for this equipment and must understand the use, maintenance and hazards.
4. Access to the service area is restricted to persons having safety/hygiene knowledge and practical experience of the coffee brewer. This appliance must be installed in locations where it can be overseen by adult trained personnel.
5. Do not attempt to move hot beverage equipment once it is filled. Drain equipment before moving.
6. FETCO commercial coffee brewers prepare large amounts of coffee or tea in a single batch using very hot water
7. Commercial coffee brewers provides very hot water from the spray head, brew basket and faucet when it is pulled.
8. Coffee brewers may continue to dispense very hot water from the mechanically operated faucet after the electronic touchpad is completely disabled by turning off the power switch on the lower back of the unit, or unplugging the unit.
9. For safety, the brewer control locks the brew basket for 5.5 minutes after starting the brew.
10. Never attempt to defeat the factory set (default) time that the brew basket is locked for safety from start of brew.

Keep these instructions for training and future reference.

Installation Guide

(For Qualified Service Technicians Only)

General:

1. If not installed correctly by qualified personnel, the brewer will not operate properly and damage may result
2. Select and install appropriate legs for 3-liter or 1-gallon setup. Leg sets are shipped inside the brew basket
3. Some FETCO CBS-1100 XV+ series equipment have user configurable dispenser locator-see instructions.
4. Utilize only qualified beverage equipment service technicians for service and installation.
5. Always have an empty dispenser under spray head of all coffee brewing equipment-including when at idle
6. Damages resulting from improper installation are not covered by the warranty, and will void the warranty.
Below are the key points to consider before installation:

Electrical:

1. All CBS_Series brewers require **an electrical ground wire**. Installation without grounding is dangerous.
2. Note Equipotentiality Terminal, if present, (To identify the terminals which, when connected together, bring the various parts of equipment or of a system to the same potential, not necessarily being the earth (ground) potential, e.g. for local bonding.)
3. Verify voltages, polarity, circuits, and circuit breaker access before attaching equipment.
4. Brewers in this series wire differently in regard to a neutral wire. Review the wire diagrams.
5. The electrical diagram is located in the User's Guide and online at www.fetco.com.
6. Make sure of the tight grounding of the equipment and use the external ground bolt.
7. The installation must comply with applicable federal, state, and local codes having jurisdiction at your location.
Check with your local inspectors to determine what codes will apply.

→See wiring diagrams for connections



Plumbing:

1. North America: All installations must comply with applicable federal, state, or local plumbing codes.
2. All Others: The water and waste piping and connections shall comply with the International Plumbing Code 2003, International Code Council (ICC), or to the Uniform Plumbing Code 2003 (IAPMO).
3. Use an inline water filter for all beverage equipment.
4. Install the filter unit after a water shutoff valve and in a position to facilitate filter replacement.
5. The water line and newly installed filter cartage must be flushed thoroughly prior to connecting it to the brewer to prevent debris from contaminating the machine.
6. Verify that the water line will provide a flow rate of at least 1½gpm/(5.7lpm) per minute and the water pressure is between 20-75 psig (138-517kPa) before making any connections.
7. Use a wrench on the factory fitting when connecting the incoming water line. This will reduce stress on the internal connections and reduce the possibility of leaks developing after the install has been completed
8. Install a backflow prevention device. Most municipalities require a recognized backflow preventer.
9. Usable on all hot beverage and cold beverage equipment is a WATTS® SD-2 or SD-3.
10. WATTS spring loaded double check valve models are accepted by most zoning authorities.
→The check valve should be as close to the water supply inlet of the beverage equipment as possible.

Tank Drain

The water tank must be drained before maintenance procedures, and when the unit is to be relocated or shipped

1. Disconnect power and water to unit. DANGER: Insure that all utility connections to the brewer are broken.
2. Move the unit near a sink or obtain a container large enough to hold four gallons of water.
→Note: the hot water tank may hold more than four gallons.
3. Remove the front panel and tank cover and allow the tank to cool to a safe temperature
4. The tank drain line and clamp are located inside-under the hot water tank. Pinch the drain line clamp to close
5. Locate the fill valve against the back wall, using pliers, loosen the hose clamp and move it back over the tube.
→Note Do not loosen the hose clamp to the bottom of the hot water tank
6. Crimp the tube an inch or two away from the drain plug to prevent water from flowing and pull it off the valve.
7. Pull the tube end out of the brewer and position over sink or bucket.
8. Release the crimped tube and hose clamp and allow the water to flow into the sink or container.
9. Multiple buckets may be needed during the draining, see tank volumes below.

Brewer	Hot Water Tank Capacity	OPEN Leave open for use	
CBS-1131XV+Single	3.5 gal 13.2 liter	PINCH SHUT To drain tank & service brewer	
CBS-1132XV+Twin	6.4 gal 24 liter		

Brewer setup before installing

1) attach legs for 1 Gallon / 3 Liter dispensing



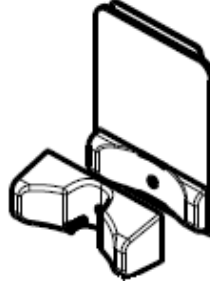
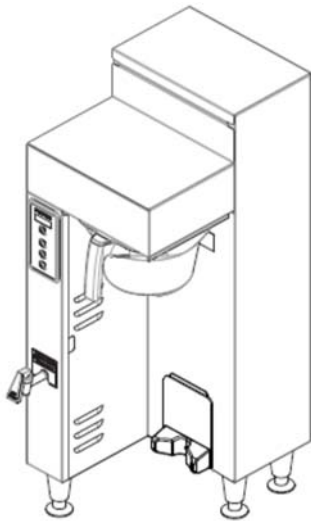
2-1/2" legs -
Attach this length for
1 Gallon dispenser use.



1" legs -
Attach this length for 3 Liter air pot configuration
(Purchase separately as optional kit).

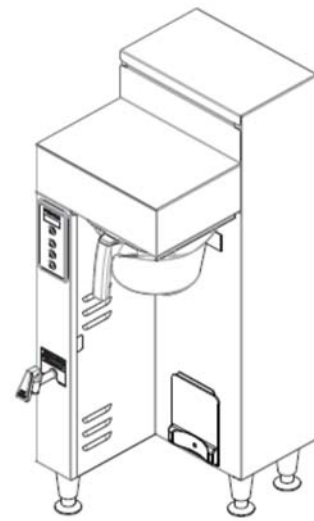
Legs are sent from factory inside brew basket. Attach legs before installing

2) Adjust dispenser locator for either 3 Liter / 1 Gallon dispensing



Set Dispenser Locator
← Shown with **1 gallon**
dispenser locator
-(Factory installed

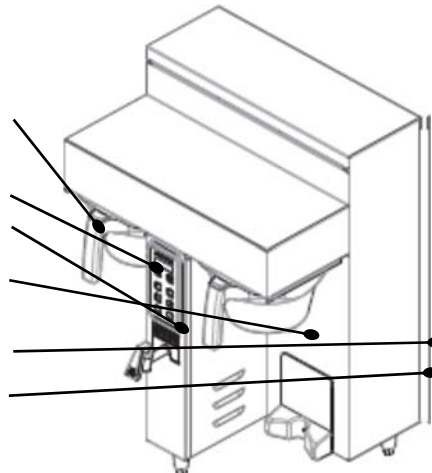
Shown with 3 liter air pot Locator
→
-(User option)



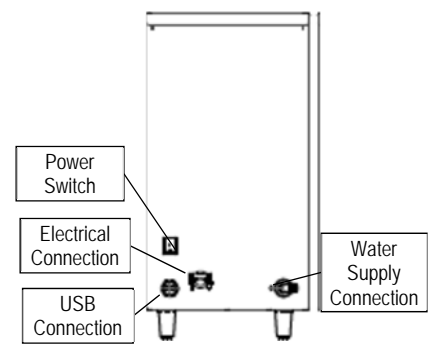
LAYOUT OF THE BREWER

Operation and service

Brew basket
Touch-screen for brewer operation
Hot Water Faucet
Air pot or Dispenser Locator
(Two for twin side)
Layout of the brewer
Operation and service



For installing brewer



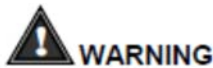
SELECT brewer model
From PROGRAMMING (Page 4) go to position E2
Select model and SAVE (Page9)
Be certain to SAVE new settings

Installation safety and hygiene directions-For International and CE equipment

1. Access to the service area is restricted to persons having safety/hygiene knowledge and practical experience of the coffee brewer. This appliance must be installed in locations where it can be overseen by trained personnel.
2. For proper operation, this appliance must be installed indoors where the temperature is between 10°C/50°F to 35°C/95°F. Drain and remove all liquid from equipment and lines if exposed to freezing temperatures.
3. All commercial cooking equipment, including this unit, is not intended for use by children or persons with reduced physical, sensory, or mental capabilities. Ensure proper supervision of children and keep them away from the unit.
4. Children should be supervised to ensure that they do not play hot beverage equipment.
5. This unit must be installed and serviced by qualified personnel only.
6. Installation must conform to all local electrical and plumbing codes. Installation by unqualified personnel will void the unit warranty and may lead to electric shock or burn, as well as damage to unit and/or its surroundings.
7. If the power cord requires repair or replacement-it must be performed by the manufacturer or authorized service personnel with the specified cord only from the manufacturer in order to avoid a hazard.
8. Review the dimensions for the unit and verify that it will fit properly in the space intended for it. Verify that the counter or table will support the total weight of the brewer and dispensers when filled (See: Technical Data).
9. Place the brewer on the counter or stand. When the brewer is in position, level it front to back as well as side-to-side by adjusting the legs.
10. Brewers will need a sturdy supported surface for operation. Do not move brewers when filled.
11. Do not tilt appliance more than 10° to insure safe operation.
12. Unit is for protected indoor use only. Do not steam clean or use excessive water on unit.
13. This unit is not "jet-proof" construction. Do not pressure wash or use jet spray to clean this unit.
14. The unit is not waterproof-do not submerge or saturate with water.

Equipment exposed to flood and contaminated must not be used due to electrical and food safety.

Do not operate if unit has been submerged or saturated with water.



All electrical connections must be in accordance with local electrical codes and any other applicable codes. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.

To prevent an electric shock hazard this device must be bonded to equipment in close proximity with an equipotential bonding conductor. This device is equipped with a bonding lug for this purpose and is marked with the following symbol

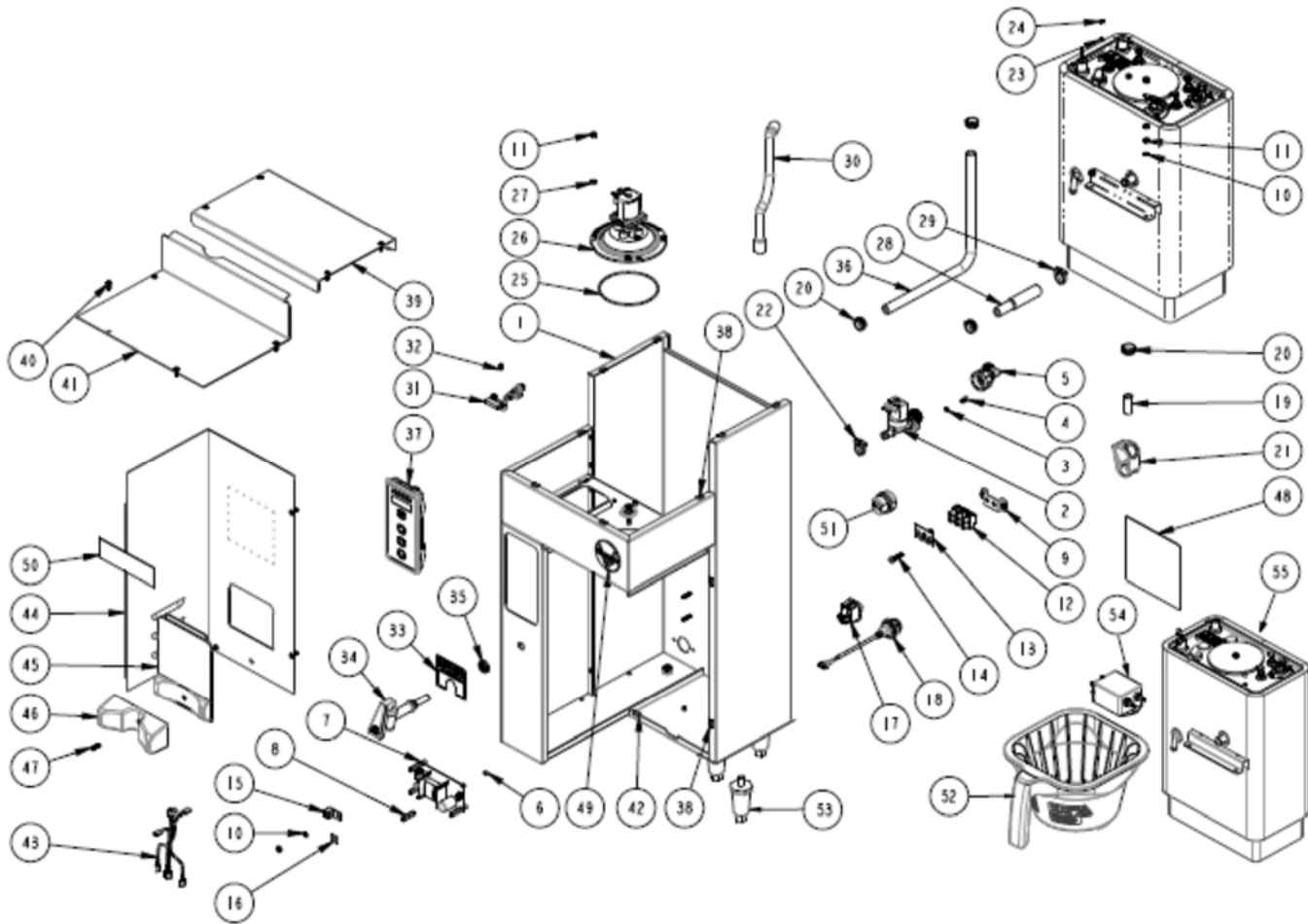


	WARNING	To reduce risk of electric shock or fire.
		FETCO® Hot Beverage Equipment is for commercial use only.
		Do not remove or open cover. No user serviceable parts inside. Refer installation and service to qualified personnel.
		Caution, disconnect from power supply before servicing.
		GROUND: National Electrical Code requires separate grounding wire.
		Use dedicated circuit with capacity rated by local code or National Electrical Code for the current draw of this equipment. Check serial number plate on right side for power requirements.
		Locate unit away from source of heat. Do not install or use near combustibles.
		THIS APPLIANCE IS ENERGIZED WHENEVER IT IS CONNECTED TO A POWER SOURCE
		FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, PROPERTY DAMAGE, FIRE, OR SHOCK HAZARD
Notice		This equipment must be installed with a backflow protection device to comply with federal, state or local municipality codes.
Notice		Read the user guide before installing and operating this unit.

Labels and warnings for hot beverage equipment

For BACK PANEL of equipment (1046.00035.00)

Parts Diagrams CBS-1131V+

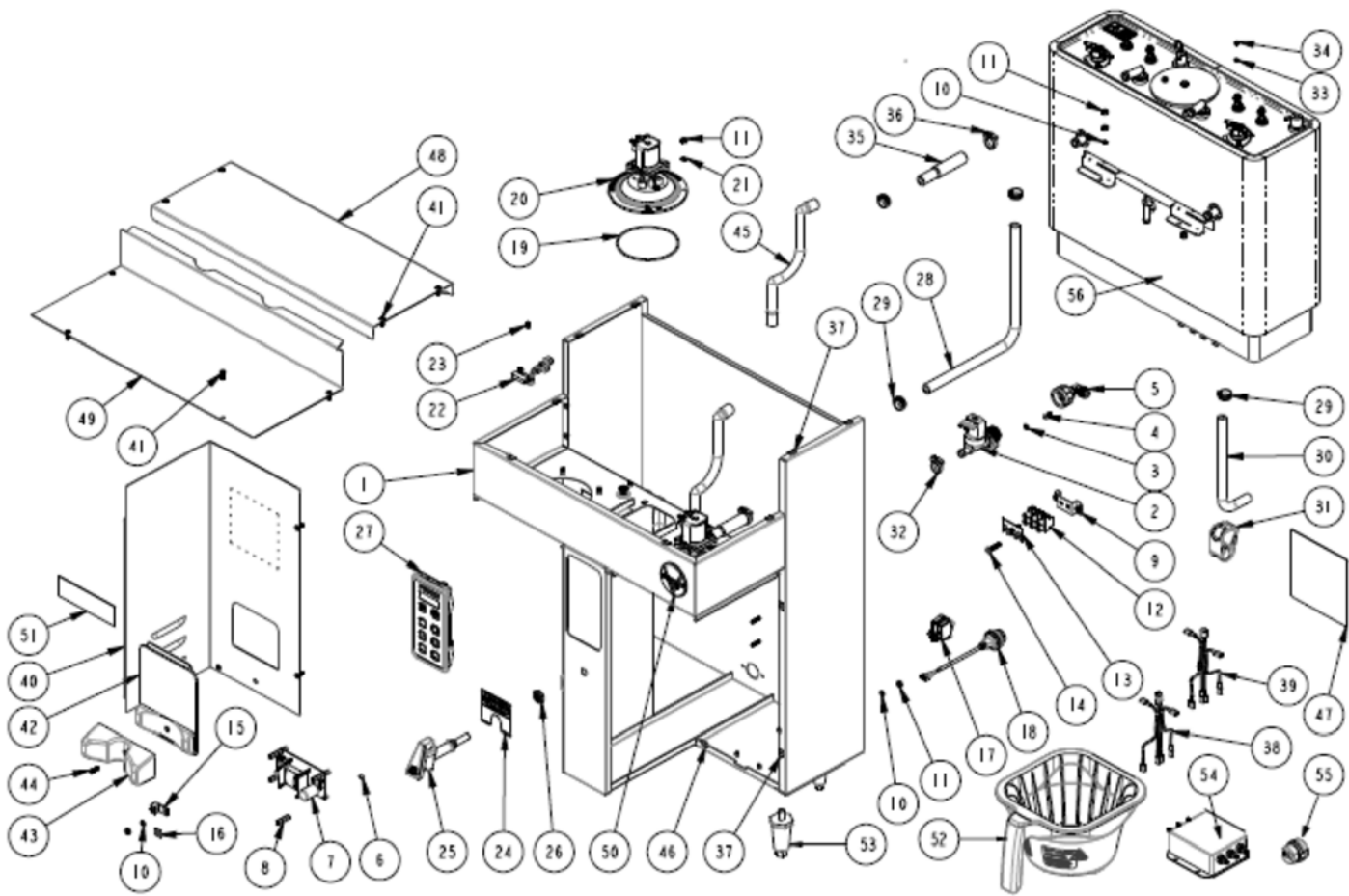


Parts Drawing CBS-1131 XV+ Drawing number 1101.00341.00

Table of authorities for CBS-1131XV+ models			
SKU No.	TANK ASSY	WIRING DIAG.	CONN. CLAMP
E113151	1104.00082.01	1401.00144.00	1086.00008.00
E113153	1104.00083.01	1401.00144.00	1086.00008.00
E113155	1104.00085.01	1401.00151.00	1086.00008.00
E113157	1104.00086.01	1401.00145.00	1086.00008.00
E113167	1104.00086.01	1401.00157.00	1086.00029.00
E113169	1104.00085.01	1401.00157.00	1086.00029.00
E113180	1104.00082.01	1401.00150.00	1086.00008.00
E113181	1104.00085.01	1401.00150.00	1086.00008.00
E113182	1104.00086.01	1401.00150.00	1086.00008.00
E113191	1104.00086.01	1401.00151.00	1086.00008.00
E113192	1104.00085.01	1401.00151.00	1086.00008.00

Ref	Qty	Part Number	Part Name and Description
1	1	1111.00087.00	WELDMENT BODY, CBS-1131 XV+
2	1	1057.00043.00	SOLENOID VALVE, 5.5L/min, 180 DEG, 24VDC
3	2	1083.00005.00	WASHER, M4 18-8 INTERNAL TOOTH LOCKWASHER
4	2	1082.00010.00	SCREW, M4x10 ZINC-PLATED PAN HD. PHILLIPS MACHINE.
5	1	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
6	8	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG
7	1	1052.00001.00	POWER SUPPLY, 90-264VAC/24VDC, 1.8A
8	4	1029.00012.00	SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD
9	1	1112.00246.00	WELDMENT BRACKET TERMINAL BLOCK, 3 POLE
10	6	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
11	12	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
12	1	1052.00022.00	EUROSTRIP HE10 TERMINAL BLOCK., 3 POLE, 50AMP, 18-8
13	1	1052.00025.00	PLATE, MARKING #BS1016E
14	1	1082.00082.00	SCREW, PHILLIP HD., 8-32 THREAD
15	1	1065.00009.00	GROUND LUG CONNECTOR, 14-2 AWG, ALUMINUM
16	1	1044.00012.00	LABEL GROUND, CE
17	1	1058.00024.00	SWITCH, POWER, DOUBLE POLE, 16A, 125/250 VAC
18	1	1058.00055.00	USB CONNECTOR
19	1	1025.00058.00	TUBE, 9/16"OD X 5/16"ID X 25.00"LG
20	4	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
21	1	1086.00009.00	CLAMP, 3/4" MAX TUBE OD FLOW CONTROL
22	1	1086.00001.00	CLAMP, HOSE, 15.0-17.2 DIA RANGE
23	1	1083.00009.00	WASHER, #6 SCREW, INTERNAL TOOTH LOCKWASHER
24	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
25	1	1024.00063.00	O-RING, 3 15/16" x 3/32" CS, DASH # 154, BUNA-N, DURO-A50
26	1	1102.00203.01	SPRAY HEAD, SMALL, NO VENT, ASSEMBLY
27	4	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
28	1	1024.00065.00	CONNECTOR, SILICONE, TANK TO BREW VALVE
29	1	1086.00002.00	CLAMP, HOSE, SIZE "G" NYLON
30	1	1024.00098.00	VENT TUBE, CBS-XTS/XV+ EXTRACTOR SERIES
31	1	1102.00113.00	SWITCH, REED, ASSEMBLY
32	2	1029.00006.00	NUT, FINGER, #4-40 NYLON
33	1	1046.00051.00	LABEL, "WARNING, EXTREMELY HOT WATER"
34	1	1071.00055.00	FAUCET, HOT WATER, PSC-BR-8, WITH FLAT AND STEM
35	1	1084.00048.00	JAM NUT, 1/2-20 UNF, NICKEL PLATED BRASS
36	1	1025.00028.00	TUBE, 5/8"OD X 3/8"ID X 13.25"LG, HOT WATER VALVE, IN
37	1	1102.00375.00	ASSEMBLY, FRONT PANEL, CBS-1100 SINGLE
38	10	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLACK FINISH
39	1	1001.00360.00	COVER, TOP, CBS-1131 EXTRACTOR V+
40	11	1082.00017.00	SCREW, TRUSS HD. PHIL. MACHINE, # 6-32 X 1/2 LG
41	1	1001.00361.00	COVER, UPPER BASE, CBS-1131 EXTRACTOR V+
42	1	1084.00024.00	NUT, CLIP ON (J-NUT), #6-32, 1050 SPR. STL.
43	1	1402.00098.01	HARNESS, LOW AMP, CBS-1131 XV+, UL
44	1	1112.00461.00	WELDMENT, RIGHT COVER, CBS-1130 XV+
45	1	1102.00259.00	LOCATOR ASSEMBLY,L3S-10, GRAY, CBS-2130
46	1	1023.00221.00	ADAPTER FOR AIRPOT, GRAY, CBS-2130
47	1	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
48	1	1046.00035.00	LABEL, WARNING "TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE"
49	1	1041.00031.00	LABEL, EXTRACTOR V+ LOGO
50	1	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
51	1	SEE PARTS	CORD STRAIN RELIEF
52	1	B014218BN2	PLASTIC BREW BASKET: STANDARD-INCLUDED WITH ALL EQUIPMENT
52†	1	B003218B1	OPTIONAL STAINLESS STEEL BREW BASKET
53	3	1073.00019.00	ONE INCH LEGS [FOR 3 LITER BREWER CONFIGURATION]
53†	3	1073.00016.00	2-1/2 INCH LEGS [FOR 1 GALLON BREWER CONFIGURATION]
54		1052.00029.00	EMI FILTER, TWO LINE 20A
55	1	1104.00082.01	TANK ASSY,1 X 2.3KW/120VAC,
55	1	1104.00083.01	TANK ASSY,1 X 1.5KW/120VAC,
55	1	1104.00086.01	TANK ASSY,1 X 3.0KW/240VAC

Parts Diagrams CBS-1132V+



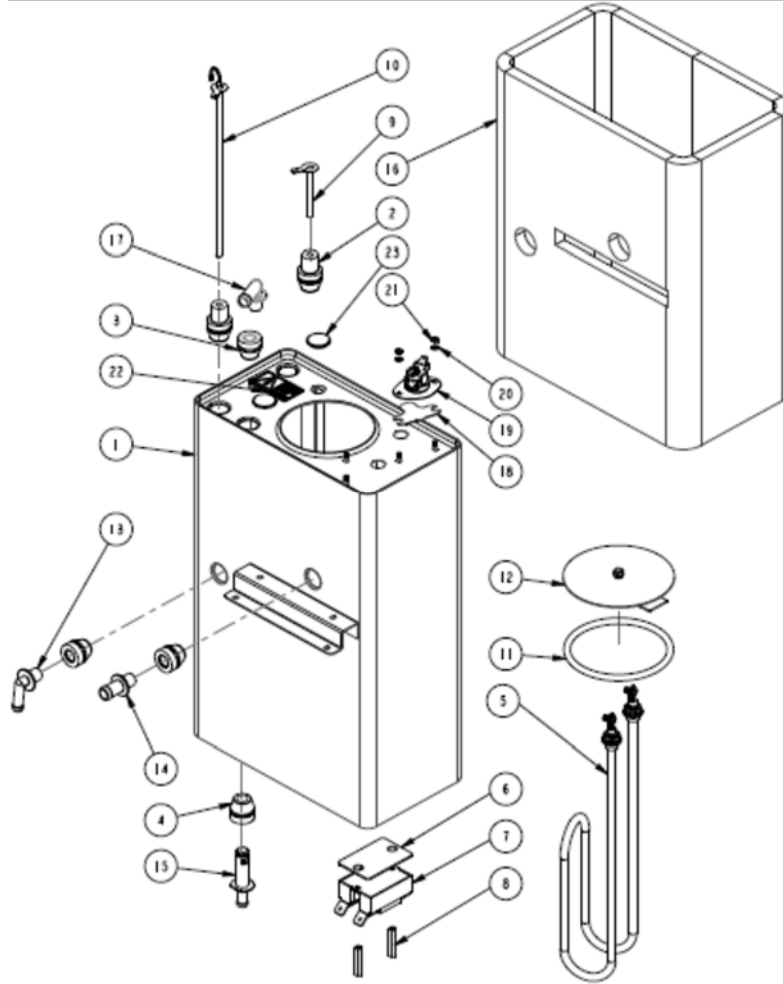
CBS-1132 XV+

Drawing number 1101.00340.00

Table of authorities for CBS-1132XV+ models			
SKU No.	TANK ASSY	WIRING DIAG.	CONN. CLAMP
E113251	1104.00057.01	1401.00139.00	1086.00008.00
E113252	1104.00052.01	1401.00139.00	1086.00008.00
E113262	1104.00052.01	1401.00158.00	1086.00029.00
E113264	1104.00057.01	1401.00158.00	1086.00029.00
E113266	1104.00052.01	1401.00158.00	1086.00029.00
E113268	1104.00057.01	1401.00158.00	1086.00029.00
E113291	1104.00052.01	1401.00149.00	1086.00029.00
E113292	1104.00057.01	1401.00149.00	1086.00008.00

Ref#	Qty	Part number	Description
1	1	1111.00085.00	WELDMENT BODY, CBS-1132 XV+
2	1	1057.00043.00	SOLENOID VALVE, 5.5L/min, 180 DEG, 24VDC
3	2	1083.00005.00	WASHER, M4 18-8 INTERNAL TOOTH LOCKWASHER
4	2	1082.00010.00	SCREW, M4x10 ZINC-PLATED PAN HD. PHILLIPS MACHINE.
5	1	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
6	8	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG
7	1	1052.00001.00	POWER SUPPLY, 90-264VAC/24VDC, 1.8A
8	4	1029.00012.00	SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD
9	1	1112.00246.00	WELDMENT BRACKET TERMINAL BLOCK, 3 POLE
10	5	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
11	15	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
12	1	1052.00022.00	EUROSTRIP HE10 TERMINAL BLOCK., 3 POLE, 50AMP, 18-8
13	1	1052.00025.00	PLATE, MARKING #BS1016E
14	2	1082.00082.00	SCREW, PHILLIP HD., 8-32 THREAD
15	1	1065.00009.00	GROUND LUG CONNECTOR, 14-2 AWG, ALUMINUM
16	1	1044.00012.00	LABEL GROUND, CE
17	1	1058.00024.00	SWITCH, POWER, DOUBLE POLE, 16A, 125/250 VAC
18	1	1058.00055.00	USB CONNECTOR
19	2	1024.00063.00	O-RING, 3 15/16" x 3/32" CS, DASH # 154, BUNA-N, DURO-A50
20	2	1102.00203.01	SPRAY HEAD, SMALL, NO VENT, ASSEMBLY
21	8	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
22	2	1102.00113.00	SWITCH, REED, ASSEMBLY
23	4	1029.00006.00	NUT, FINGER, #4-40 NYLON
24	1	1046.00051.00	LABEL, "WARNING, EXTREMELY HOT WATER"
25	1	1071.00055.00	FAUCET, HOT WATER, PSC-BR-8, WITH FLAT AND STEM
26	1	1084.00048.00	JAM NUT, 1/2-20 UNF, NICKEL PLATED BRASS
27	1	1102.00372.00	ASSEMBLY, FRONT PANEL, CBS-1100 TWIN
28	1	1025.00028.00	TUBE, 5/8"OD X 3/8"ID X 13.25"LG, HOT WATER VALVE, IN
29	5	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
30	1	1025.00071.00	TUBE, 9/16"OD x 5/16"ID x 16.75"LG.
31	1	1086.00009.00	CLAMP, 3/4" MAX TUBE OD FLOW CONTROL
32	1	1086.00001.00	CLAMP, HOSE, 15.0-17.2 DIA RANGE
33	1	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
34	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
35	2	1024.00065.00	CONNECTOR, SILICONE, TANK TO BREW VALVE
36	2	1086.00002.00	CLAMP, HOSE, SIZE "G" NYLON
37	10	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLACK FINISH
38	1	1402.00098.01	HARNESS, LOW AMP, CBS-1131 XV+, UL
39	1	1402.00098.02	HARNESS ADDITION, LOW AMP, CBS-1132-XV+, UL
40	1	1112.00461.00	WELDMENT, RIGHT COVER, CBS-1130 XV+
41	11	1082.00017.00	SCREW, TRUSS HD. PHIL. MACHINE, # 6-32 X 1/2 LG.
42	2	1102.00259.00	LOCATOR ASSEMBLY,L3S-10, GRAY, CBS-2130
43	2	1023.00221.00	ADAPTER FOR AIRPOT, GRAY, CBS-2130
44	2	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
45	2	1024.00098.00	VENT TUBE, XTS AND 1100 SERIES
46	1	1084.00024.00	NUT, CLIP ON (J-NUT), #6-32
47	1	1046.00035.00	LABEL, WARNING "TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE"
48	1	1001.00346.00	COVER TOP, CBS-1132 EXTRACTOR V+
49	1	1001.00347.00	COVER, UPPER BASE, CBS-1132 EXTRACTOR V+
50	1	1041.00031.00	LABEL, EXTRACTOR V+ LOGO
51	1	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
52	2	B014218BN2	PLASTIC BREW BASKET: STANDARD-INCLUDED WITH ALL EQUIPMENT
52†	2	B003218B1	OPTIONAL STAINLESS STEEL BREW BASKET
53†	3	1073.00019.00	ONE INCH LEGS [FOR 3 LITER BREWER CONFIGURATION]
53*	3	1073.00016.00	2-1/2 INCH LEGS [FOR 1 GALLON BREWER CONFIGURATION]
54	1	1052.00027.00	EMI FILTER
55	1	SEE TABLE	CORD STRAIN RELIEF
56	1	1104.00052.01	TANK ASSEMBLY, CBS-1132 XV+ 2 X 3KW/240VAC
56	1	1104.00057.01	TANK ASSEMBLY, CBS-1132 XV+ 2 X 2.3KW/240VAC
*STANDARD-INCLUDED WITH ALL EQUIPMENT †-OPTION ACCESSORY FOR PURCHASE			

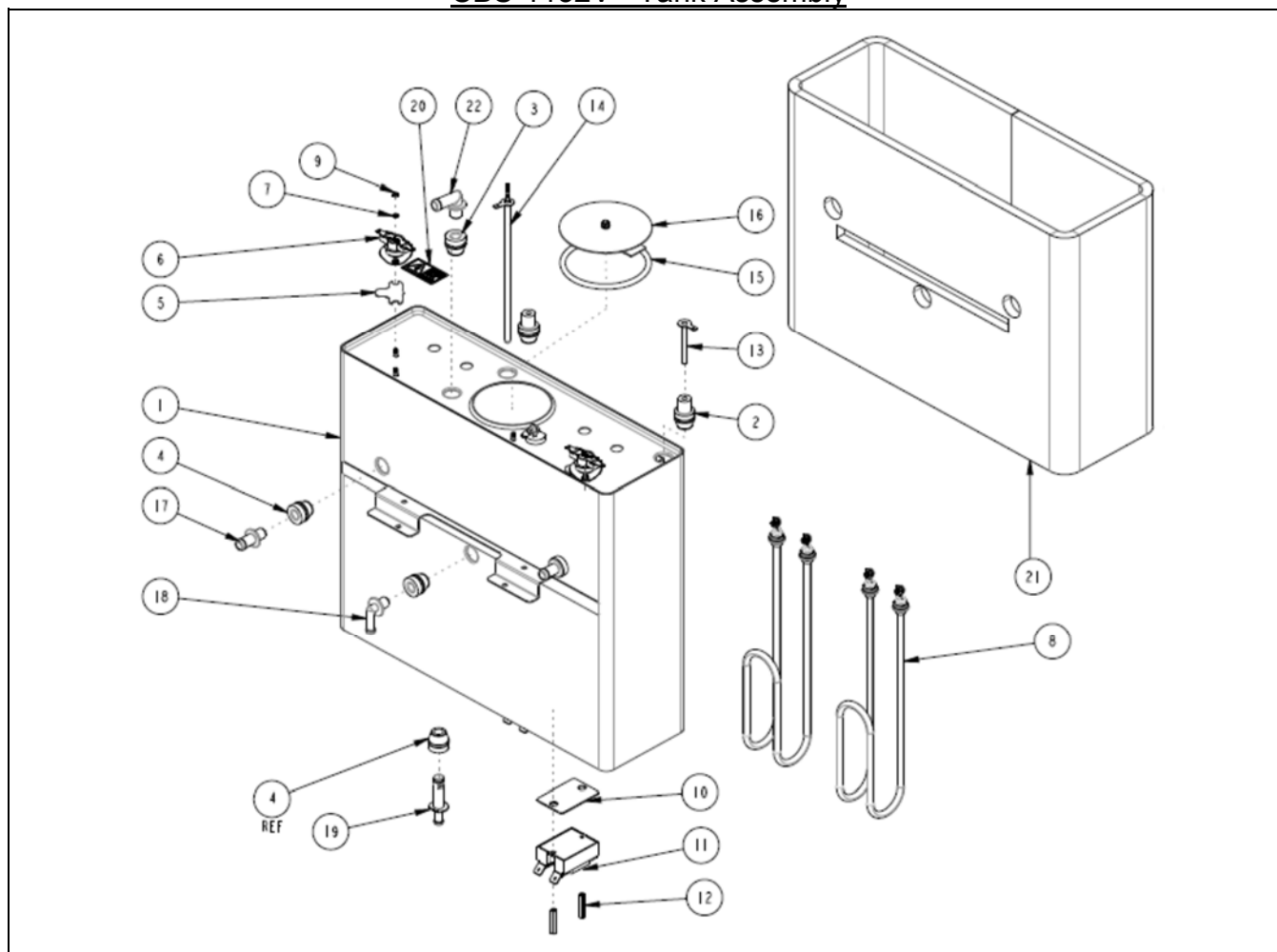
CBS-1131V+ Tank Assembly



TANK ASSY, CBS-1131 XV+ Drawing number 1104.00082.01

REF	QTY	Part number	Description
1	1	1114.00102.00	WELDMENT TANK, CBS-2131, TWO HEATERS, GROMMET
2	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
3	1	1024.00050.00	GROMMET
4	1	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
5	1	1107.00018.00	HEATER ASSEMBLY, IMMERSION 3.0kW/240VAC
5	1	1107.00019.00	HEATER ASSEMBLY, IMMERSION 2.3kW/120VAC
5	1	1107.00021.00	HEATER ASSEMBLY, IMMERSION 1.5kW/120VAC
6	1	1003.00140.00	ALUMINUM BRACKET FOR SSR
7	1	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
8	2	1081.00042.00	STANDOFF, 1/4" HEX
9	1	1112.00002.00	PROBE WELDMENT, WATER LEVEL 2.25" LG
10	1	1102.00161.00	PROBE ASSEMBLY, TEMP. AND LLC, 8" LONG
11	1	1024.00007.00	O-RING, DASH #344, TANK COVER
12	1	1102.00007.00	TANK COVER ASSEMBLY
13	1	1023.00183.00	FITTING, DILUTION, TBS-2121
14	1	1023.00167.00	FITTING, BREW, GROMMET DESIGN
15	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
16	1	1022.00063.00	TANK INSULATION, CBS-2131e, GROMMET DESIGN
17	1	1023.00171.00	FITTING, SINGLE BARBED ELBOW
18	1	11003.00005.00	BRACKET, ONE SHOT THERMOSTAT
19	1	1053.00003.00	THERMOSTAT, SINGLE SHOT, 240V/40A
20	2	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
21	2	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
22	1	1044.00004.00	LABEL, DANGER, HIGH VOLTAGE
23	2	1024.00054.00	GROMMET, SILICONE PLUG

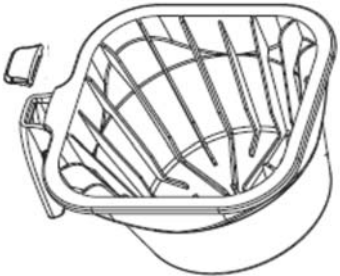
CBS-1132V+ Tank Assembly



CBS-1132 XV+ Hot Water Tank Drawing 1104.00052.01

Ref#	Qty	Part number	Description
1	1	1114.00081.00	WELDMENT TANK CBS-1132, GROMMET DESIGN
2	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
3	2	1024.00050.00	GROMMET
4	4	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
5	2	1003.00005.00	BRACKET, ONE SHOT THERMOSTAT
6	2	1053.00003.00	THERMOSTAT, SINGLE SHOT, 240V/40A
7	4	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
8	2	1107.00020.00	HEATER ASSEMBLY, IMMERSION 2300W /240VAC
8	2	1107.00018.00	HEATER ASSEMBLY, IMMERSION 3000W /240VAC
9	4	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
10	2	1003.00140.00	ALUMINUM BRACKET FOR SSR
11	2	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
12	4	1081.00042.00	STANDOFF, 1/4" HEX
13	1	1112.00002.00	PROBE WELDMENT, WATER LEVEL 2.25" LG
14	1	1102.00161.00	PROBE ASSEMBLY, TEMP. AND LLC, HWD-2100
15	1	1024.00007.00	O-RING, DASH #344, TANK COVER
16	1	1102.00007.00	TANK COVER ASSEMBLY
17	2	1023.00167.00	FITTING, BREW, GROMMET DESIGN
18	1	1023.00183.00	FITTING, DILUTION, TBS-2121
19	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
20	1	1044.00004.00	LABEL, WARNING-HIGH VOLTAGE
21	1	1022.00064.00	INSULATION TANK, ONE PIECE, CBS-1132
22	2	1023.0171.00	FITTING, SINGLE BARBED ELBOW

1102.00203.00 Spray Housing Assembly Parts CBS-1130 XV+			
REF	QTY	PART NUMBER	DESCRIPTION
1	1	1102.00020.01	SPRAY ASSEMBLY
2	1	1102.00019.00	CASCADE SPRAY DOME
3	1	1023.00295.00	SPRAY HEAD ADAPTER
4	1	1023.00252.00	COIL ADAPTER
5	1	1024.00002.00	O-RING
6	1	1057.00072.00	DISPENSE COIL, 24V
7	2	1082.00068.00	SCREW M3.9X13 CHEESE PH. T/FORM
8	4	1082.00069.00	SCREW PAN HD #*X9/16 LG SHEET METAL
9	1	1057.00038.00	DIAPHRAGM
10	1	1057.00040.00	PLUNGER
11	1	1057.00051.00	CONICAL SPRING
12	1	1024.00063.00	O-RING,LOWER 3 15/16" X 3/32"

Brew Basket Parts		
Complete Plastic Brew Basket (STANDARD)		
Part Number B014218BN2	CBS-1130 XV+	
<p>Brown colored insert is standard</p>  <p>Brew basket handle plug for polymeric brew baskets is available in optional colors.</p>	Part Number	Plug Insert color
	1023.00195.00	BROWN PLUG, BB HANDLE
	1023.00194.00	BLACK PLUG, BB HANDLE
	1023.00190.00	RED PLUG, BB HANDLE
	1023.00191.00	GREEN PLUG, BB HANDLE
	1023.00192.00	ORANGE PLUG, BB HANDLE
	1023.00180.00	BLUE PLUG, BB HANDLE

OPTIONAL Stainless Steel Brew basket			
B003218B1 Complete Stainless Steel Brew basket for CBS-1130 XV+			
Ref#	Qty	Part Number	Description
1	1	1112.00128.00	BB WLDMNT 13" X 5", .218 DIA HOLE
2	1	1046.00025.00	BREW BASKET WARNING LABEL
3	1	1082.00040.00	SCREW, 1/4-20 X .5, FL HD, PH., W/NYLN
4	1	1009.00006.00	WIRE BASKET
5	1	1102.00064.00	HANDLE W/MAGNET ASY, BLACK
Optional colored handle		1102.00065.00	HANDLE W/MAGNET ASY, RED
Optional colored handle		1102.00066.00	HANDLE W/MAGNET ASY, GREEN
Optional colored handle		1102.00067.00	HANDLE W/MAGNET ASY, ORANGE

Wiring Diagrams

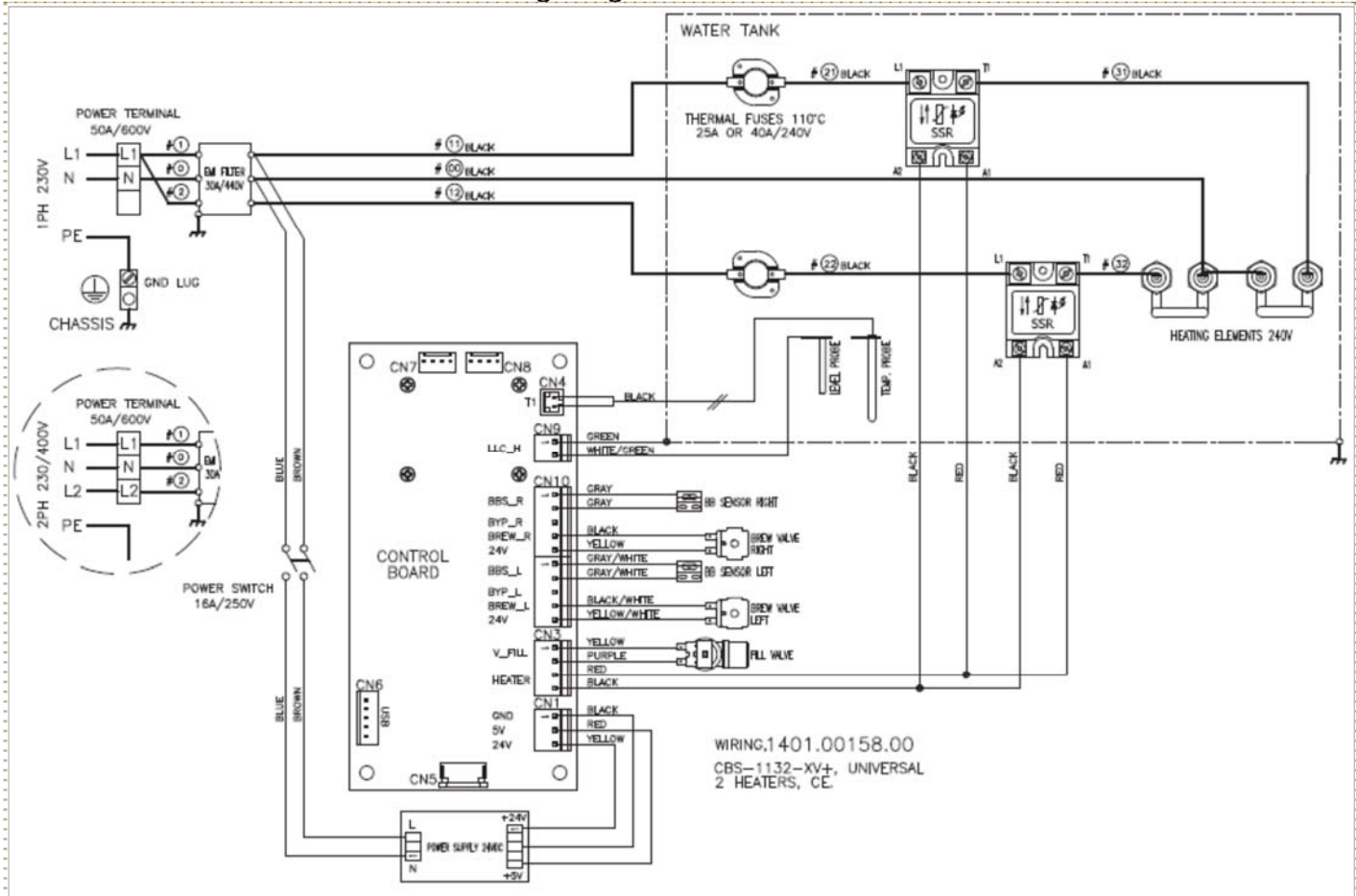
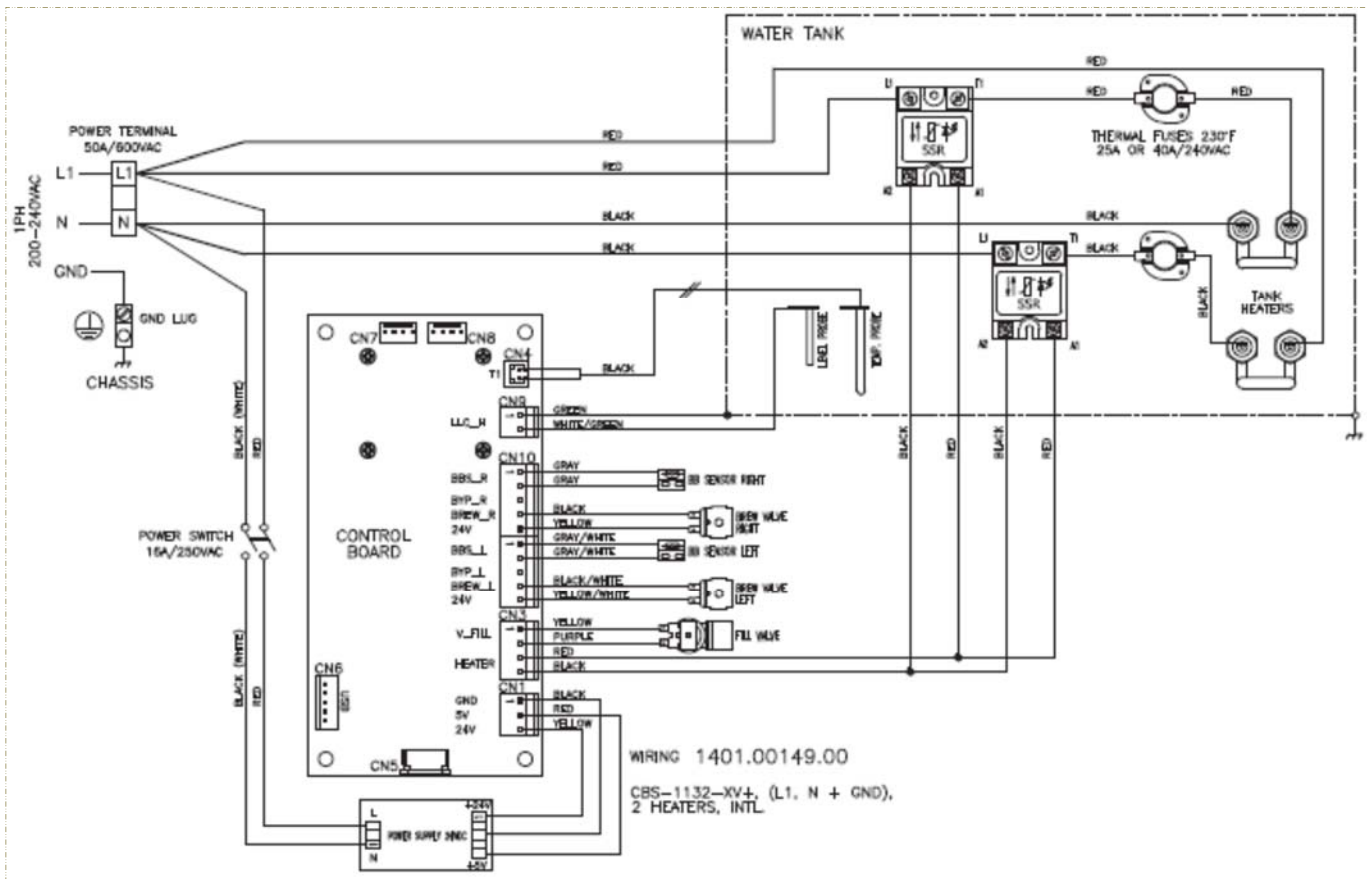
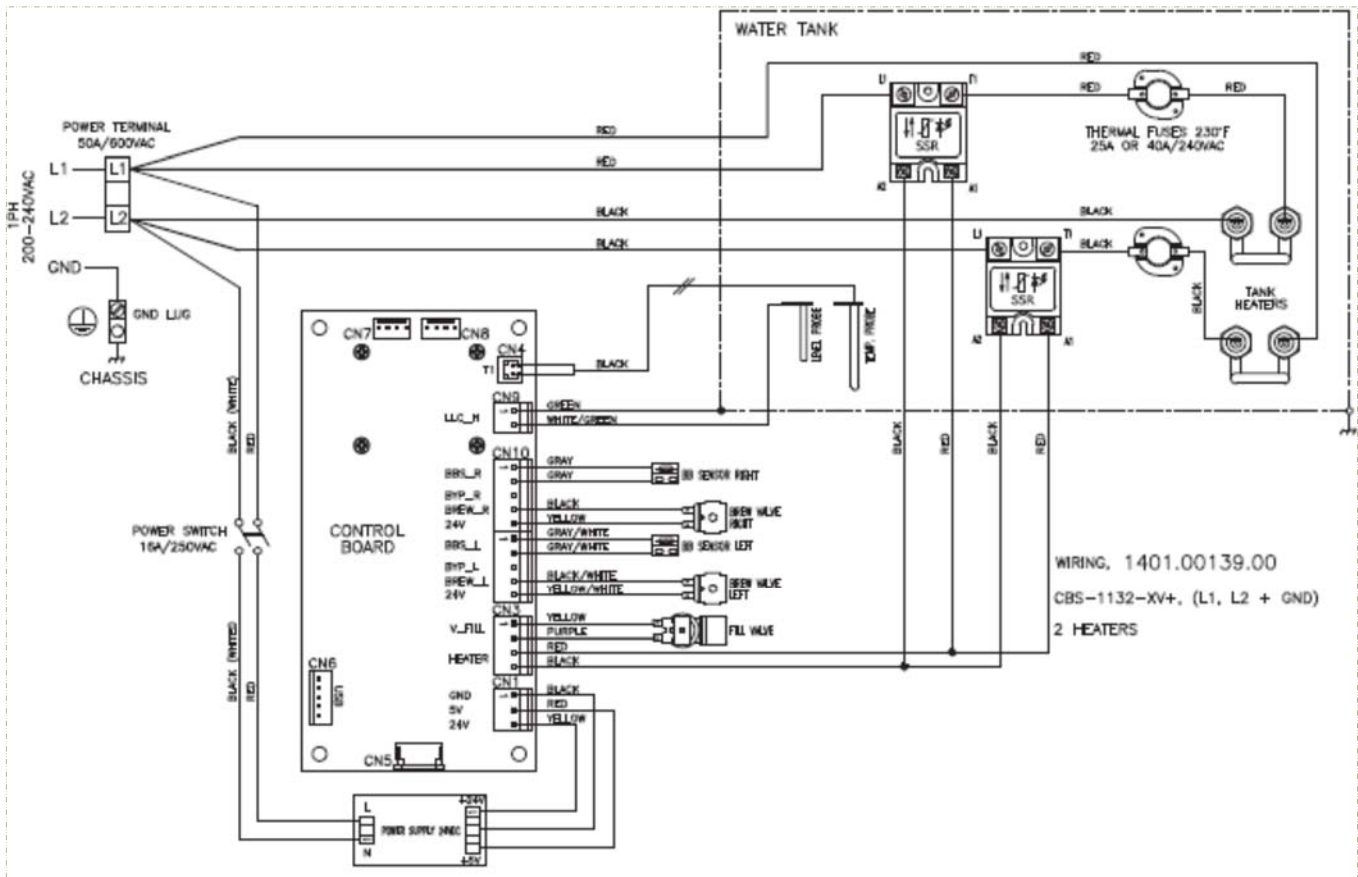
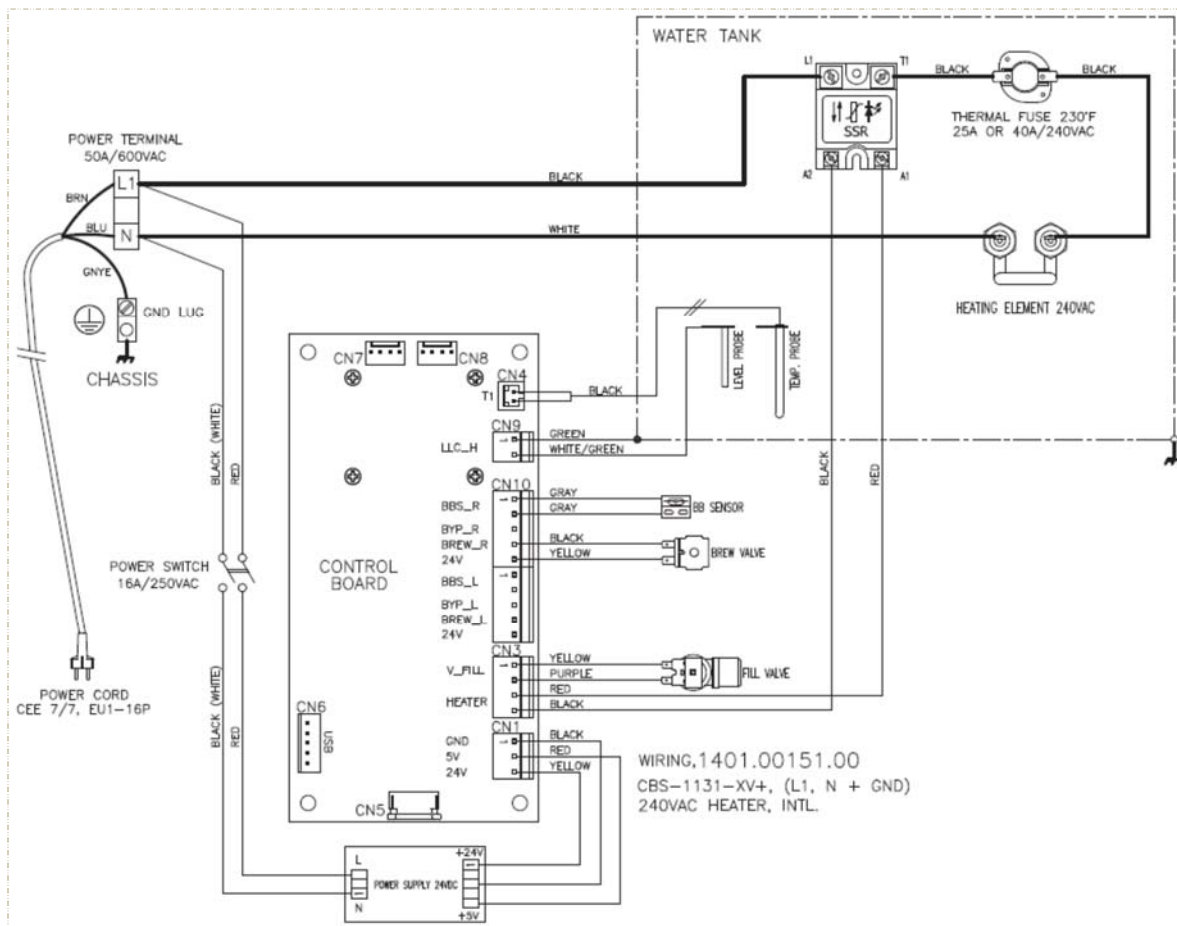
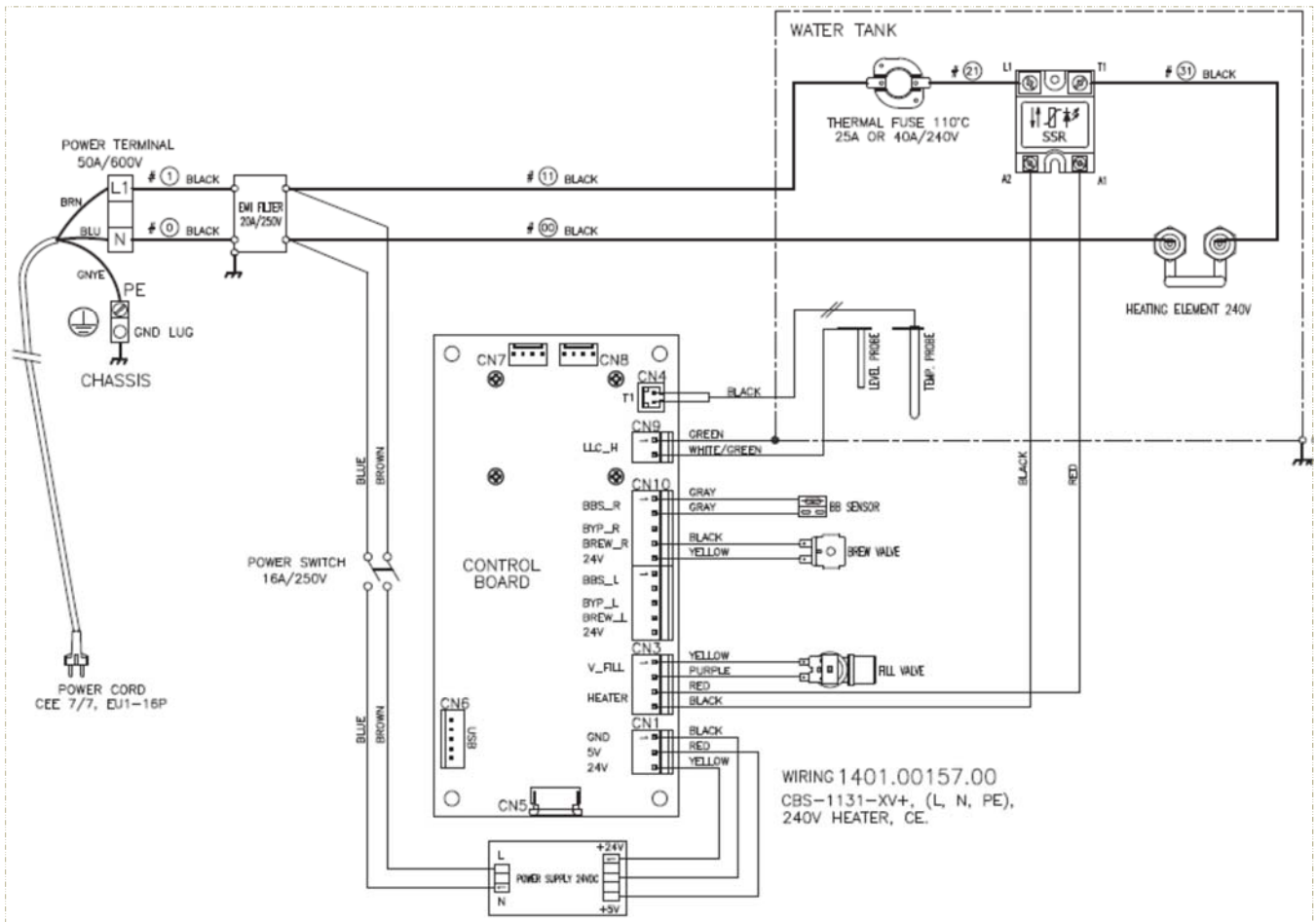
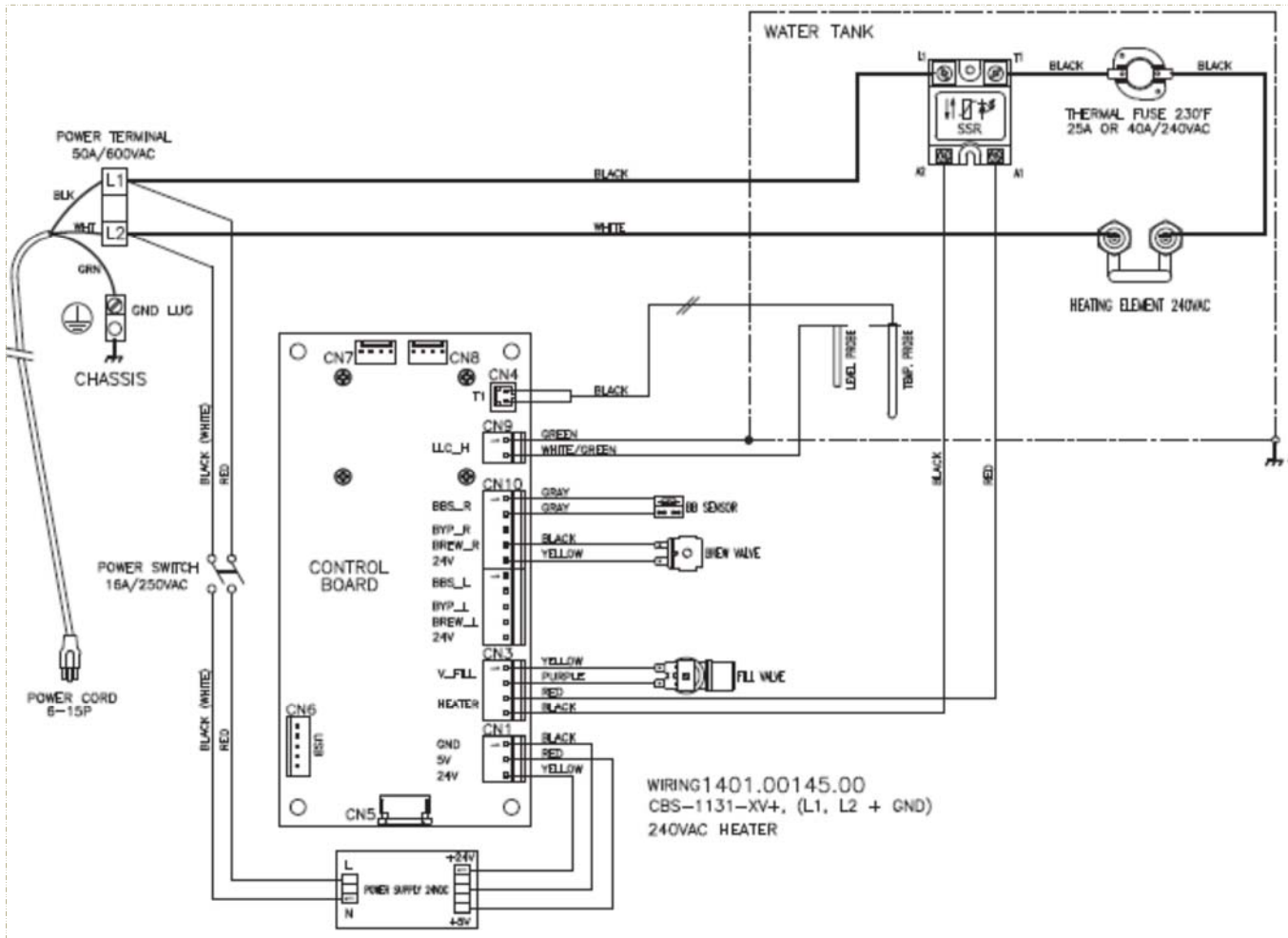
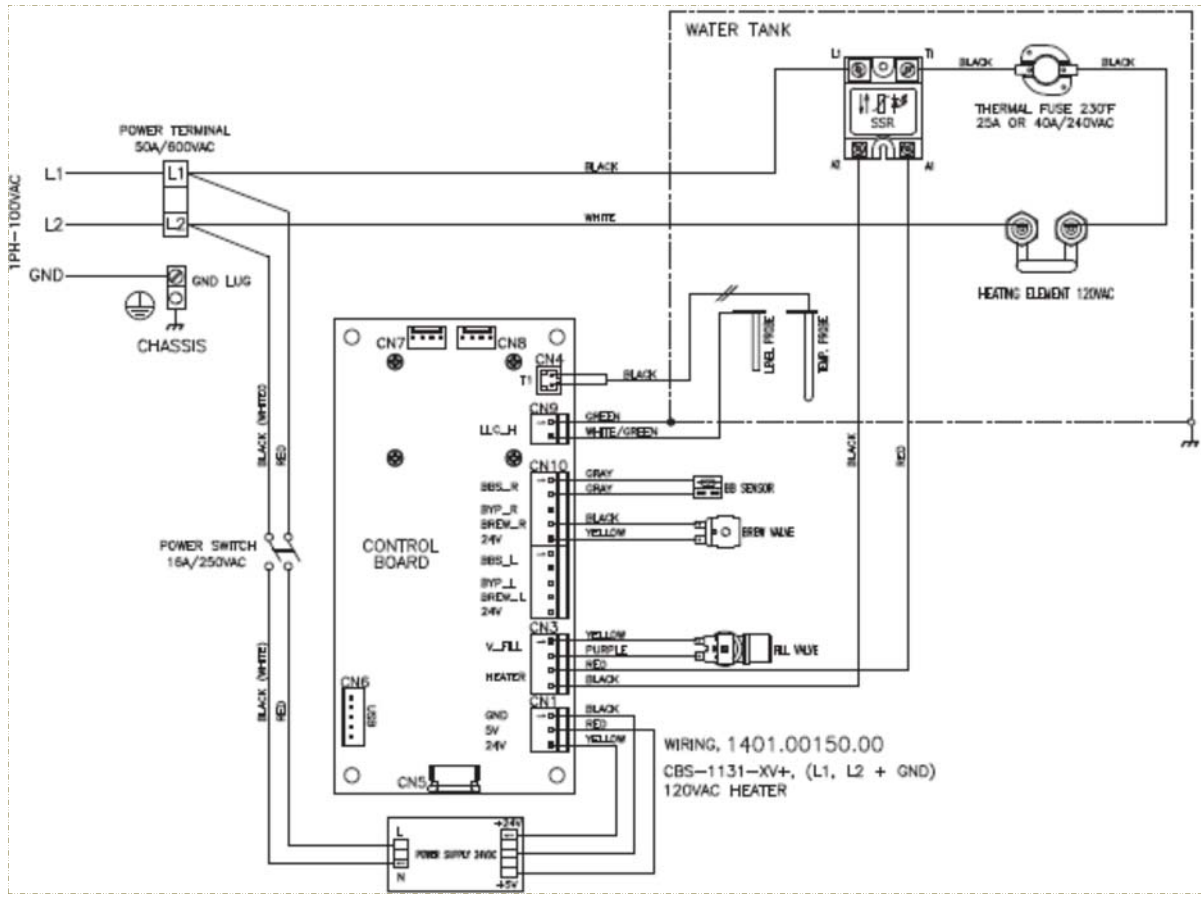


TABLE OF VARIABLES		
SKU	SKU DESCRIPTION:	Wiring Schematic
E113151	CBS-1131-XV+, 1Ph, 2+G, 2.3kW/120VAC, 100-120VAC	1401.00051.00
E113153	CBS-1131-XV+, 1Ph, 2+G, 1.5kW/120VAC, 100-120VAC	1401.00051.00
E113155	CBS-1131-XV+, 1Ph, 2+G, 2.3kW/240VAC, 200-240VAC, EXPORT	1401.00095.00
E113157	CBS-1131-XV+, 1Ph, 2+G, 3.0kW/240VAC, 200-240VAC	1401.00053.00
E113167	CBS-1131-XV+, 1Ph, L,N,PE, 3kW/240VAC, 230VAC, CE	1401.00079.00
E113169	CBS-1131-XV+, 1Ph, L,N,PE, 2.3kW/240VAC, 230VAC, CE	1401.00079.00
E113172	CBS-1131-XV+, 1Ph, 3+G, 2 X 1.7kW/120VAC, 120/208-240VAC	1401.00091.00
E113173	CBS-1131-XV+, 1Ph, 3+G, 2 X 2.3kW/120VAC, 120/208-240VAC	1401.00091.00
E113180	CBS-1131-XV+, 1Ph, 2+G, 2.3kW/120VAC, 100VAC, J Int	1401.00094.00
E113181	CBS-1131-XV+, 1Ph, 2+G, 2.3kW/240VAC, 200VAC, J Int	1401.00094.00
E113182	CBS-1131-XV+, 1Ph, 2+G, 3.0kW/240VAC, 200VAC, J Int	1401.00094.00
E113191	CBS-1131-XV+, 1Ph, 2+G, 3.0kW/240VAC, 200-240VAC, EXPORT	1401.00095.00
E113251	CBS-1132-XV+, 1Ph, 2+G, 2 X 2.3kW/240VAC, 200-240VAC,	1401.00050.00
E113252	CBS-1132-XV+, 1Ph, 2+G, 2 X 3kW/240VAC, 200-240VAC	1401.00050.00
E113254	CBS-1132-XV+, 1Ph, 2+G, 2 X 2.3kW/240VAC, 220-240VAC, EXPORT	1401.00085.00
E113262	CBS-1132-XV+, 2Ph, 2L,N,PE, 2 X 3kW/240VAC, 230/400VAC, CE	1401.00078.00
E113264	CBS-1132-XV+, 2Ph, 2L,N,PE, 2 X 2.3kW/240VAC, 230/400VAC, CE	1401.00078.00
E113266	CBS-1132-XV+, 1Ph, L,N,PE, 2 X 3kW/240VAC, 230VAC, CE	1401.00078.00
E113268	CBS-1132-XV+, 1Ph, L,N,PE, 2 X 2.3kW/240VAC, 230VAC, CE	1401.00078.00
E113291	CBS-1132-XV+, 1Ph, 2+G, 2 X 3.0kW/240VAC, 200-240VAC, INTL	1401.00085.00







End of Section Notes:

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End of Section Notes:

A large grid of graph paper for taking notes. The grid consists of 20 columns and 30 rows of small squares, providing a structured space for writing or drawing.