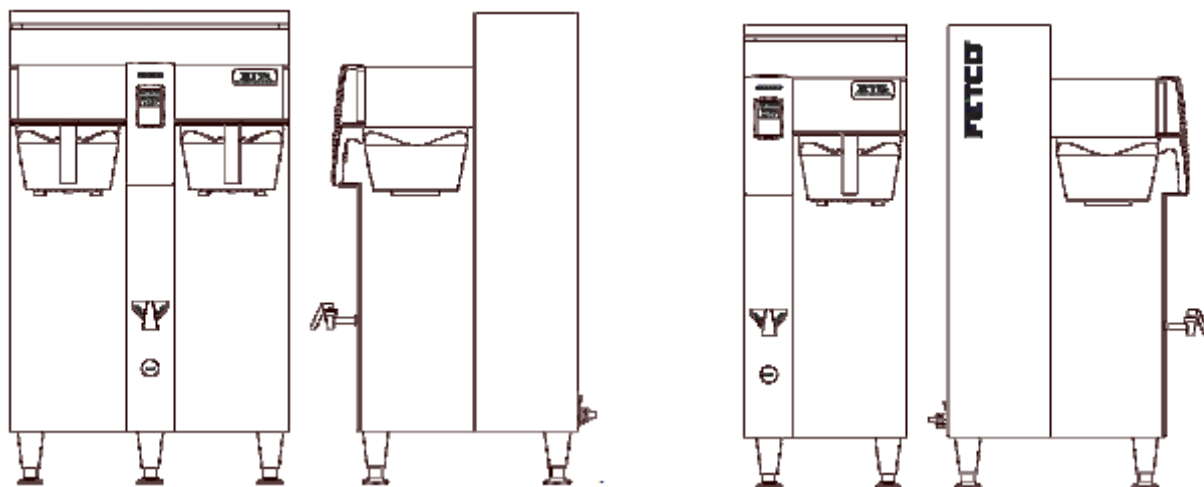


# FETCO® User's Guide and Operator Instructions

www.fetco.com

## FETCO Extractor Touch Screen Models: CBS-2100XTS



Two Part User Guide FETCO Extractor Touch Screen Models: CBS-2100XTS

### Extractor Touch Screen Commercial Hot Beverage Equipment



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#### Part B: Installation and Service Guide for FETCO CBS-2141 & CBS-2142XTS Brewers

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## Instructions for brew operation-fast brew

### Setup is simple

**1-Connect unit to water and electrical utilities**

See instructions

**2-Turn unit "ON" to fill and heat**

The "READY" icon will display "Ready To Brew" with factory set defaults

**3-Add paper and ground coffee to brew basket**

The Specialty Coffee Association of America® (SCAA) guidelines are 55grams per liter

**4-Place appropriately sized, clean, empty and preheated dispenser under brewbasket.**

**5-Touch and briefly hold finger on screen as shown below to start brew**

-Note: "READY" icon is satisfied

Factory setting total brew time is five minutes-thirty seconds. Brew time is four minutes with one and a half minute drip delay. Drip delay allows the brew basket to completely empty the brewed coffee

### Brew operation is simple. The intuitive touch screen-STARTS THE BREW

CBS-2141XTS single side brewer is displayed. Screen shown approximately the same size as on equipment

<p>1) With <b>ready</b> icon displayed</p>	<p>2) Hold finger on screen to activate <b>brew menu</b></p>	<p>3) Touch and hold pennant to <b>start brew</b></p>	<p>4) Brew Started</p>

<p>5) Brew has completed, Drip delay sequence will start. Brew is still active</p>	<p>Drip delay icon (brew basket locked)</p>	<p>Return to home screen</p>

<p><b>Regular 1</b>  <input type="checkbox"/> 0.80  ⌚ 5:30  °F 200</p> <p><b>INFO</b></p> <p>05:30</p> <p>MENU Status Window  -Name of batch  -Brew size (1 gallon)  -Toatal Brew time  -Brew temperature</p> <p>Brew process phase icon and time-out</p> <p>INFO icon is present but inactive. INFO is always displayed in box to left.</p> <p><b>STOP</b></p>	<p><b>Regular 1</b>  <input type="checkbox"/> 0.80  ⌚ 5:30  °F 200</p> <p><b>INFO</b></p> <p>01:59</p>	<p><b>Regular 1</b>  <input type="checkbox"/> 0.80  ⌚ 5:30  °F 200</p> <p><b>INFO</b></p> <p>(&lt;)199°F</p> <p>Unit is heating and will start when above 200° F</p> <p><b>START</b></p>	<p><b>Regular 1</b>  <input type="checkbox"/> 0.80  ⌚ 5:30</p> <p><b>INFO</b></p> <p><b>Regular 2</b>  <input type="checkbox"/> 0.80  ⌚ 5:30</p> <p><b>Decaf 1</b>  <input type="checkbox"/> 0.80  ⌚ 5:30</p> <p><b>Heat</b></p> <p><b>Decaf 2</b>  <input type="checkbox"/> 0.80  ⌚ 5:30</p> <p><b>STOP</b></p>
<p>Activated brew screen menu status in box and displays time</p>	<p>Drip delay icon (brew basket locked)</p>	<p>Unit below set temperature (single side brewer)</p>	<p>Unit below set temperature (dual side brewer)</p>

**Brew operation-intuitive touch screen-** When brew is started-the equipment displays the brew process graphically as shown Screens for dual brewer. CBS-2132XTS shown

<p><b>FETCO</b>  <b>XTS™</b>  EXTRACTOR TOUCHSCREEN</p> <p>CBS_2132</p> <p><input checked="" type="checkbox"/> Ready  <input type="checkbox"/> Heating  <input type="checkbox"/> Filling</p> <p>Touch screen to unlock</p>	<p><b>Regular 1</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p> <p><b>Regular 2</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p> <p><b>Decaf 1</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p> <p><b>Decaf 2</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p>	<p><b>Regular 1</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p> <p><b>Regular 2</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p> <p><b>Decaf 1</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p> <p><b>Decaf 2</b>  <input type="checkbox"/> 3:00  ⌚ 6:00</p> <p>05:30</p> <p><b>STOP</b></p>	<p><b>INFO</b></p> <p>05:30</p> <p><b>STOP</b></p> <p><b>INFO</b></p> <p>04:44</p> <p><b>STOP</b></p>
<p>1) Home screen activated, twin brewer</p>	<p>2) Recipe 1-Right side selected</p>	<p>3) Recipe 1 brew started Starting-left→recipe 1</p>	<p>4) Left brew started, both sides brewing</p>

Waiting Screens

<p><b>FETCO</b>  <b>XTS™</b>  EXTRACTOR TOUCHSCREEN</p> <p>CBS_2132</p> <p><input type="checkbox"/> Ready  <input checked="" type="checkbox"/> Heating  <input type="checkbox"/> Filling</p> <p>Tank T °F ≤197°F</p>	<p><b>Regular 1</b>  <input type="checkbox"/> 3:00  ⌚ 6:00  °C 93</p> <p><b>INFO</b></p> <p>HEAT</p> <p><b>STOP</b></p>	<p><b>Regular 1</b>  <input type="checkbox"/> 3:00  ⌚ 6:00  °F 200</p> <p><b>INFO</b></p> <p>(&lt;)92°C</p> <p><b>START</b></p>	<p>&lt; GENERAL &gt;  &lt; Brew at Temperature &gt;</p> <p>ON</p> <p>OFF ON AUTO</p> <p>&lt;&lt; ▲ &gt;&gt;</p>
<p>1) Hot water tank temp too low. Brew cannot start. Note the :READY” icon is off &amp; the “HEATING” icon is on. Brewer in “Automatic” temperature</p>	<p>2) Brew at Temperature feature is set to “AUTO” and hot water tank temperature is too low. Brew will start when tank is at set-point.</p>	<p>3) Brew at Temperature feature is “OFF” and hot water tank temperature is below set point. Pressing “START” will begin brew at <b>low water temperature!</b></p>	<p>4) Programming screen for “Brew at Temperature” Unit is set by FETCO for “ON.” “OFF and “AUTO” settings are not recommended</p>

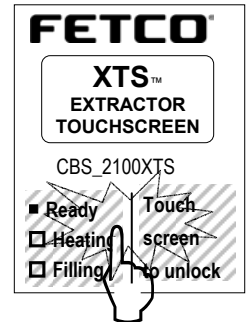
## Service & Programming

Menu adjustments, name selection, programming, error codes, counters are accessed by activating touch screens.

### To access the General Service Menu

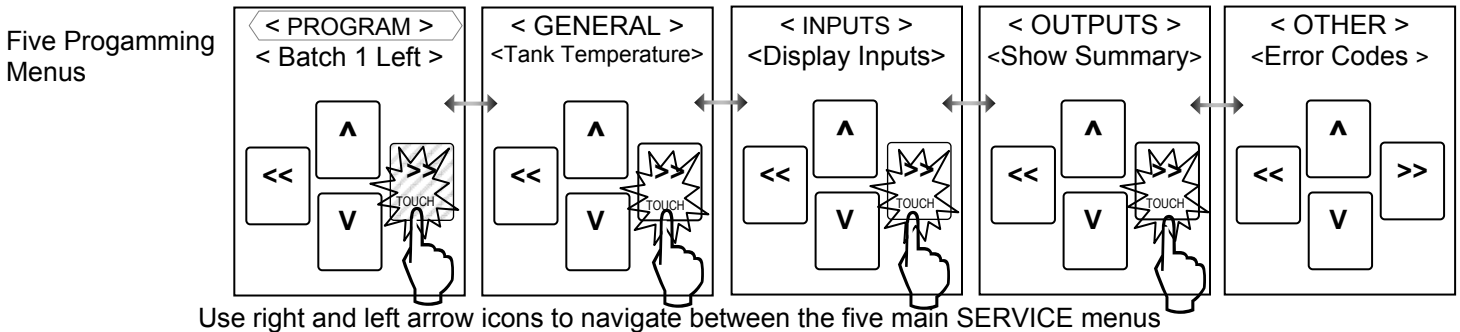
PROGRAM, GENERAL, INPUTS, OUTPUTS, and OTHER (Service Menu).

- Enter Service Menu by accessing the power switch on back of the panel
- 1)-Switch power “OFF” with power switch located on rear of brewer
- 2)-After at least ten seconds: Turn power switch “ON”
- 3)-Quickly touch and hold the XTS screen to enter the programming screens as shown below
- 4)-When entering The SERVICE MENU: the first screen in the group is “PROGRAM”
- 5)-Use right and left arrow icons to navigate through the five main SERVICE menu groups.
- 6)-The DOWN arrow navigation icon will open the FEATURE icon below.
- 6a)-Navigate through the Menu Item with the arrows, edit any if needed
- 6b)-When finished editing—press the UP arrow to go back through the menu items to save changes and exit
- 7)-The chart on the next page give the general service menu topics, the pages following list the details of the topics
- When navigating up to “EXIT” leaves the Service Menu Screens and SAVES your settings on exiting.



*The Menu Chart on the next page shows the main categories of the five SERVICE menus*

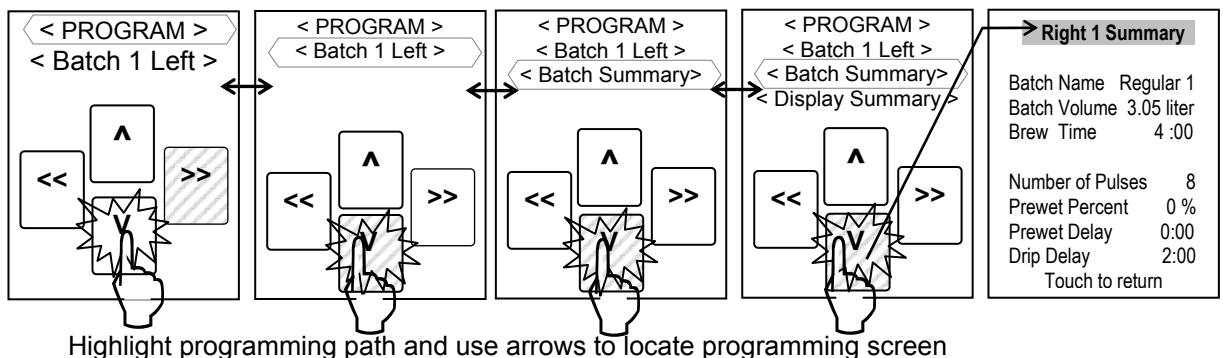
When SERVICE MENU is entered—the first selection is “PROGAMMING Mode ”  
Scroll through the five programming categories using the right and left arrow icons.



### Navigating PROGRAMMING MENUES

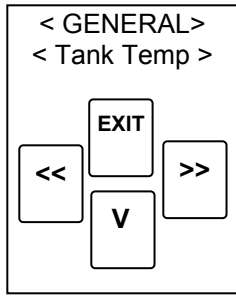
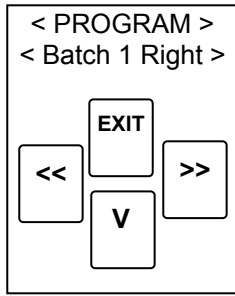
Highlight desired menu path and location and use arrow icons to navigate service menu screens. HIGHLIGHT

First menu screen is “PROGRAM”→  
Note highlighted Path and Topic

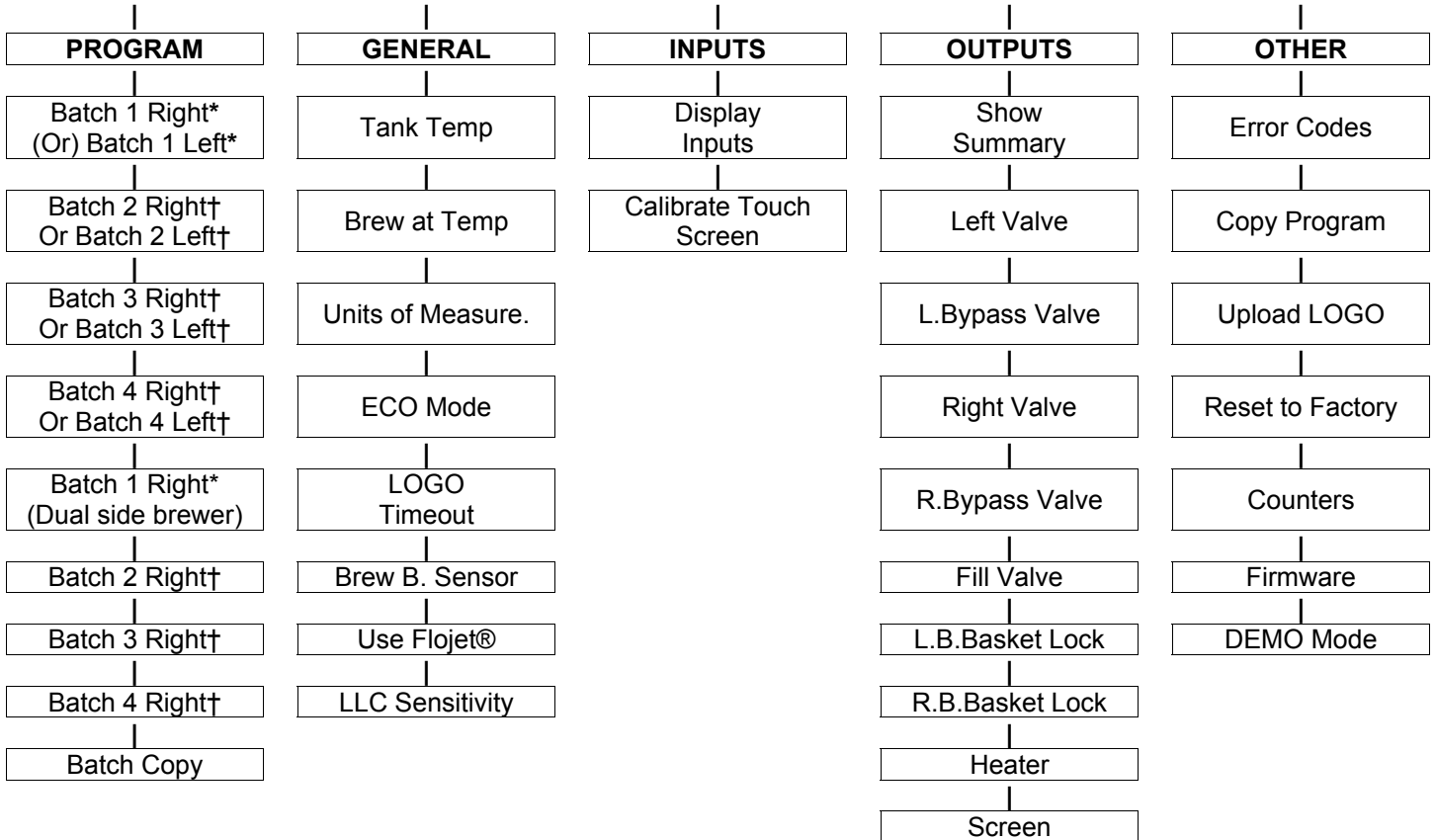
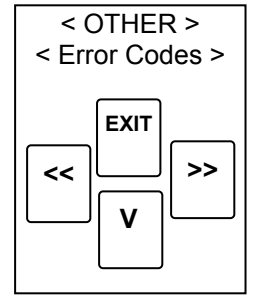
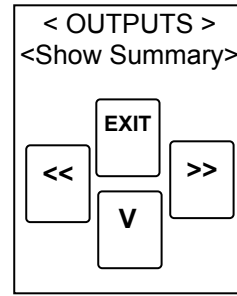
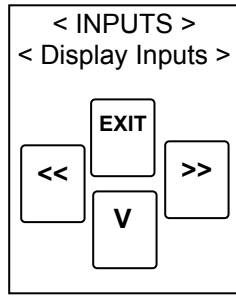


# Programming menu layout

## XTS Main Menu



## Menu Chart-XTS



## Menu Features: Batch Parameters

PROGRAM	Programming Items	Factory set Default	Programming Range	Notes
<b>Batch 1 LEFT*</b>	• Batch Summary	Display Summary	Entire recipe display	<i>Example at bottom of column</i>
	• Batch Name	Regular 1(-16)	Choose from list: Regular1	(Regular 1-16) -OR- Write: any name
Models CBS-2130, CBS-2140, CBS-2150 & CBS-2160XTS-	• Batch Volume	0.80 to 3:00 gal	3L/1gal -3.00 gal 	Screen will display in range and units selected CBS-2160XTS is 3:00 gal
	• Brew Time	4:00mm:ss [ 2:00-10.00]	4:00 mm:ss 	CBS-2160XTS 4:30 min
	• Nr Of Pulses	8	8 	CBS-2160 has minimum of 2 pulses
	• Prewet Perc.	0%	0 % 	
Pause after prewet completes	• Prewet Delay	0%	0:00 mm:ss 	This feature appears ONLY if Prewet >0:00
	• Bypass Perc.	0%	0 % 	
This is a <b>Safety Feature</b>	• Drip Delay	1:30 mm:ss 2:00 mm:ss for CBS-2160	1:30 mm:ss 	Time that brew basket remains locked during final drip-out
<b>Batch 2 Left**</b>	**[Batch 2-4-Right and Batch2-4-Left] may be individually selected-or-entirely deleted			
	• <b>Batch ON/OFF</b>	<b>ON</b>	<b>ON</b> 	This feature is only on 2-4 Batch 1 cannot be turned off
	• Batch Name	Regular 1(-16)	Choose from list: Regular1	(Regular 1-16) -OR- Write: any name
Models CBS-2130, CBS-2140, CBS-2150 & CBS-2160XTS-	• Batch Volume	0.80 to 3:00 gal	3L/1gal -3.00 gal 	Screen will display in range and units selected CBS-2160XTS is 3:00 gal
	• Brew Time	4:00mm:ss [ 2:00-10.00]	4:00 mm:ss 	CBS-2160XTS 4:30 min
	• Nr Of Pulses	8	8 	CBS-2160 has minimum of 2 pulses
	• Prewet Perc.	0%	0 % 	
Pause after prewet completes	• Prewet Delay	0%	0:00 mm:ss 	This feature appears ONLY if Prewet >0:00
	• Bypass Perc.	0%	0 % 	
This is a <b>Safety Feature</b>	• Drip Delay	1:30 mm:ss 2:00 mm:ss for CBS-2160	1:30 mm:ss 	Time brew basket remains locked during drip-out
<b>Batch 3 Left **</b>	<i>(See Batch 2-Left)</i>			
<b>Batch 4 Left **</b>	<i>(See Batch 2-Left)</i>			
<b>Batch 1 Right *</b>	<i>(See Batch 1-Left)</i>			
<b>Batch 2 Right **</b>	<i>(See Batch 2-Left)</i>			
<b>Batch 3 Right **</b>	<i>(See Batch 2-Left)</i>			
<b>Batch 4 Right **</b>	<i>(See Batch 2-Left)</i>			
<b>Batch Copy</b>	Copy From Batch	L1	L1-L4;R1-R4	Number of Pulses 8
	Copy To Batch	L1	L1-L4;R1-R4	Prewet Percent 0 %
	Copy?	L1→L2? (example)	NO 	Prewet Delay 0:00
				Drip Delay 1:30
*Batch 1 RIGHT Side & Batch 1 LEFT Side cannot be disabled. (TWIN Brewer CBS-2102XTS)				Touch to return
*Batch 1 cannot be disabled. (SINGLE Brewer) **Batch 2-4 can be disabled, and removed from display				<i>(Example screen for Batch Summary display)</i>

Batch 1 Right	
Batch Name	Regular 1
Batch Volume	3.00 gal
Brew Time	4 :00
Number of Pulses	8
Prewet Percent	0 %
Prewet Delay	0:00
Drip Delay	1:30

Touch to return  
*(Example screen for Batch Summary display)*

GENERAL	Programming Items	Factory set Default	Programming Range	Notes
	• Tank Temp.	<b>200°F</b>	[200 °F] 77C/170F 97C/207F	<b>Chart to correct for high altitude below</b>
"OFF" allows brewing at any temperature.	• Brew at Temp.	<b>"ON"</b>	ON OFF ON AUTO	<b>SEE NOTE BELOW!</b>
	• Units of Meas. • Temperature	°C or °F	°F °F °C	[Switchable Units]
	• Volume	Gallons [Liters]	Gallons Gallons Liters	[Switchable Units]
Energy Saving Mode	• ECO Mode	OFF	ECO Mode ON OFF	If Selected: After 1 hour of inactivity → Lowers hot water tank temperature to 170°F
	• Logo Timeout	<b>0:15 mm:ss</b>	0:15 mm:ss 0:15 5:00	
This is a <b>Safety Feature</b>	• Brew B. Sensor	<b>NORMAL</b> (SEE WARNINGS)	NORMAL NORMAL OVERRIDE	Factory or service use for servicing. "NORMAL" is recommended for safety.
	• Use Flowjet	NO	NO NO YES	Trims water handling system for Flowjet
"NORMAL" for most water "HIGH" for R.O.	• LLC Sensitivity	NORMAL	NORMAL NORMAL HIGH	Liquid level control sensitivity. High is for reverse osmosis water or very pure water.

### BREW AT TEMPERATURE DEFINITIONS

#### **BREW AT TEMP: "ON"**

##### **(DEFAULT: FACTORY PROGRAMMED INTO BREWER)**

"BREW START" Batch Section Pennants will not be accessible until tank temperature is at set point.

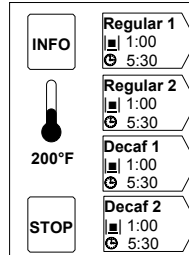
The "BREW START" screens with the Batch Section Pennants become accessible when hot water tank is at the selected temperature. A screen (example to the right) will display and show "BREW AT TEMP" is selected. →



#### **BREW AT TEMP: AUTO USER SELECTABLE**

"BREW START" will pause if the hot water tank is not at the selected temperature—and automatically start when it is at the set temperature.

If the temperature is too low, the brewer will wait until the proper temperature is reached. A screen (example to the right) will display showing a thermometer icon and the tank temperature →. **IMPORTANT: ALWAYS** have dispenser(s) under the brewer when in the BREW AT TEMP mode



#### **BREW AT TEMP: OFF USER SELECTABLE (Not recommended)**

Allows brewing at any temperature above 170°F/82°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

### ECO MODE-Energy saving mode DEFINITIONS

**If Selected:** Turns heaters off after 1 hour of inactivity.

The hot water tank temperature will slowly decline to no lower than 60°C/170°F

A screen (example to the right) will display showing "ECO Mode" is activated. →

#### **To return from ECO-Mode**

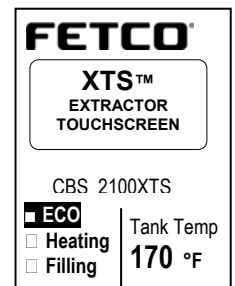
Tap the screen, ECO Mode turns off, and the brewer will heat to set temperature.

It takes approximately 7-15 minutes to return from 60°C/170°F to factory default 93°C/200°F

**All FETCO commercial hot beverage equipment have well insulated hot water tanks and have engineered mechanical features to limit energy consumption.**

**Effective construction and insulation increases equipment life and lowers building HVAC costs.**


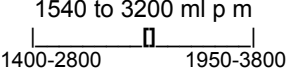

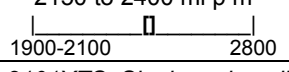

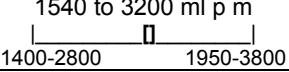

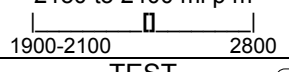




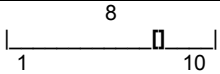
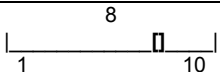
**FETCO hot beverage equipment have the best energy savings of all major suppliers.**



INPUTS	Programming Items	Factory set Default	Programming Range (display)	Notes
Display Inputs	• Input Summery		R. Brew Basket Sens. <input type="checkbox"/> L. Brew Basket Sens. <input checked="" type="checkbox"/> H. Liquid Level probe <input type="checkbox"/> L. Liquid Level probe <input checked="" type="checkbox"/> Tank Temperature Probe <input checked="" type="checkbox"/> SD Card Recognized <input checked="" type="checkbox"/> Tank Temp. 93°C <input type="checkbox"/>	
Cal. Touch Scr		Calibrate	Calibrate _____ <input type="checkbox"/> YES NO	If <u>Yes</u> : Follow directions on the touch screen

INPUT SUMMARY SCREEN	
Display Inputs (See "INPUTS" Service Screen)	Brew Basket Sensor <input checked="" type="checkbox"/> High Liquid Level Probe <input type="checkbox"/> Low Liquid Level Probe <input checked="" type="checkbox"/> Tank Temp. Probe <input checked="" type="checkbox"/> SD Card present <input type="checkbox"/> Tank Temperature 93C
Use DISPLY INPUTS screen to assist in error code fault correction. There are two liquid level probes shown as High and Low High is the fill volume of the hot water tank Low probe is the level when the heaters are sufficiently covered by water to start.	



OUTPUTS	Programming Items	Factory set Default	Programming Range (display)	Notes
<b>Show Summary</b>	• Output Summary		Left Brew FR 3200 Left Bypass FR 2400 Right Brew FR 3200 Right Bypass FR 2400 Screen Contrast 8 Screen Brightness 8 Touch To Return	FR=Flow Rate ml/min
<b>Left Valve</b> Test OR Calibrate	• Left Valve Test	(Press to test)	TEST Press To Test 	Runs valve to verify flow. Have container under brew-basket!
” ” ” ”	• L. Valve Calib	Calibrate *Flow Rate	1540 to 3200 ml p m 	Factory or service use for flow rate adjustment
<b>L. Bypass Valve</b> Test OR Calibrate If bypass option available	• Left Bypass Valve Test	(Press to test)	TEST Press To Test 	Runs valve to verify flow. Have container under brew-basket!
” ” ” ”	• L. Bypass Valve Calib	Calibrate *Flow Rate	2150 to 2400 ml p m 	Factory or service use for flow rate adjustment
<i>Left Valve display is only for CBS-2102XTS dual side brewer. CBS-2101XTS Single series displays RIGHT SIDE only</i>				
<b>Right Valve</b> Test OR Calibrate	• Right Valve Test	(Press to test)	TEST Press To Test 	Runs Valve to verify flow. Have container under brew-basket!
” ” ” ”	• R. Valve Calib	Calibrate *Flow Rate	1540 to 3200 ml p m 	Factory or service use for flow rate
<b>R. Bypass Valve</b> Test OR Calibrate If bypass option available	• Right Bypass Valve Test	(Press to test)	TEST Press To Test 	Runs valve to verify flow. Have container under brew-basket!
” ” ” ”	• R. Bypass Valve Calib	Calibrate *Flow Rate	2150 to 2400 ml p m 	Factory or service use for flow rate adjustment
<b>Fill Valve</b>	• Fill Valve Test	(Press to test)	TEST Press To Test 	Operates fill valve. Have container under both brew-baskets!
<b>Left Basket Lk.</b> Not on CBS 2130XTS	• Left brew basket lock test	(Press to test)	TEST Press To Test 	Energizes brew basket lock. For factory or service use
<b>Right Basket Lk.</b> Not on CBS 2130XTS	• Right brew basket lock test	(Press to test)	TEST Press To Test 	Energizes brew basket lock. For factory or service use
<b>Heater</b>	• Heater Test	(Press to test)	TEST Press To Test 	Energizes Heater(s) Service use only.
<b>Screen</b> Brightness OR Contrast	• Screen Contrast	Contrast	8 	
	• S. Brightness	Brightness	8 	

<b>Default-factory set Flow Rates; Brew Valve and Bypass</b>			
See "OUTPUTS" right and left brew valve and bypass valve settings and calibration			
<b>CBS-2152 &amp; CBS-2162 ml/min</b>		<b>CBS-2151 &amp; CBS-2161 ml/min</b>	
Left Brew FR	3200	Right Brew FR	3200
Left Bypass FR	2400	Right Bypass FR	2400
Right Brew FR	3200		
Right Bypass FR	2400		
<b>CBS-2132 &amp; CBS-2142 ml/min</b>		<b>CBS-2131 &amp; CBS-2141 ml/min</b>	
Left Brew FR	1540	Right Brew FR*	1540
Left Bypass FR*	2150	Right Bypass FR*	
	2150		
Right Brew FR*	1540		
Right Bypass FR	2150		

### How to calibrate the flow rate

Set the flow rates of components to adjust for taste profile and for over or under potting.

Built-in algorithms in Brewer controller software corrects brew parameter to customer preferences or to trim variations in flow control components

**NOTICE: This operation requires operator hold finger on keypad position for one minute—without lifting it.**

#### 1) MEASURE THE FLOW RATE:

**It is very important to calibrate a heated brewer, preferably a brewer that has been used for brewing.**

- Enter programming mode, scroll left to “OUTPUTS”
- Scroll down to “Left(or)Right Valve Test”
- Place 5 liter/2gal measuring container under empty brew-basket.
- One good way to measure is to weigh the test water. Use a scale for at least 5 kg/12lb
- Press To Test the Brew Valve. **→! Keep finger on touchpad for one minute! !!DO NOT STOP!!**
- It is very important for this test to keep finger in place for the entire minute.**
- After one minute [1 min.]—calibration dispense will stop automatically.**

Measure the results of the flow in the 5-liter measuring container and hold the number.

#### 2) AUTOMATIC Built-in CALIBRATE THE FLOW RATE

- Enter this number, in milliliters, into the calibration slider for the Valve tested in the OUTPUT MENU.
- Use milliliters.** If measured in fluid ounces (fl.oz) multiply by 29.57 to convert to milliliters
- After entering the measured volume, exit PROGRAMMING and return to the normal screens

#### 3) MANUAL METHOD Operator input: CALIBRATE THE FLOW RATE

Use the amount measured, in milliliters, divided by programmed value and multiply by the current setting

**3200 ml p m\***

← Example of CBS-2160 brew valve slider

Actual Volume	X	CURRENT SETTING	=	NEW SETTING
Programmed Volume				

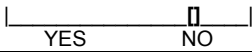
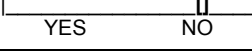
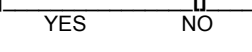
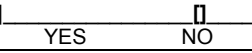
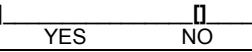


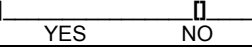
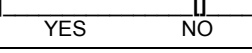
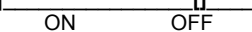
Enter new setting on the slider shown and EXIT to save

\*Current valve flow setting in milliliters per minute [mlpm] as shown in the value above slider in OUTPUT Flow Rate box- Obtain programmed volume from “PROGRAM” Menu under “Batch Summary”.

Note—match correct batch number to correct side, if two sided.

**By entering the new flow rate number into the brewer, the software automatically corrects the valve flow discrepancy**


<b>Default-factory set Flow Rates; Brew Valve and Bypass</b>			
See “OUTPUTS” right and left brew valve and bypass valve settings and calibration			
<b>CBS-2162</b>	<b>ml/min</b>	<b>CBS-2161</b>	<b>ml/min</b>
Left Brew FR	3200	Right Brew FR	3200
Left Bypass FR	2400	Right Bypass FR	2400
Right Brew FR	3200		
Right Bypass FR	2400		
<b>CBS-2152</b>	<b>ml/min</b>	<b>CBS-2151</b>	<b>ml/min</b>
Left Brew FR	3200	Right Brew FR	3200
Left Bypass FR	2400	Right Bypass FR	2400
Right Brew FR	3200		
Right Bypass FR	2400		
<b>CBS-2142</b>	<b>ml/min</b>	<b>CBS-2141</b>	<b>ml/min</b>
Left Brew FR	1540	Right Brew FR	1540
Left Bypass FR	2150	Right Bypass FR	2150
Right Brew FR	1540		
Right Bypass FR	2150		
-----			
<b>CBS-2130XTS equipment do not have the BYPASS feature</b>			
<b>CBS-2132</b>	<b>ml/min</b>	<b>CBS-2131</b>	<b>ml/min</b>
Left Brew FR	1540	Right Brew FR	1540
Right Brew FR	1540		

OTHER	Programming Items	Factory set Default	Programming Range (display)	Notes
<b>Error Codes</b>	• Display Errors	(Codes)	1: 2: 3:	See Error Code Chart for references
	• Reset Errors	(Reset)	Reset 	Factory and Service use only. Do Not Reset
<b>NOTE</b> ☞ 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				
<b>Copy Program</b>	• From SD to B.	SD→ Brewer	SD→ Brewer 	Setup upload Please insert SD card with the setup data!
	• From B to SD	Brewer→ SD	Brewer→ SD 	Setup download Please insert an empty SD card with sufficient space (≤2GB). <b>SD card must be clear of files</b>
<b>Upload Logo</b>		Upload Logo	UPLOAD LOGO Are you sure 	Please insert SD card with logo file!
<b>Res to Factory &amp; Select Brewer Type</b>	<b>See next line:</b> “Select Brewer Configuration”	Reset to default	Reset to Default Are you sure 	Completely overwrites all user setup, incl. user logo.
Select Brewer Configuration	CBS_2131 3L; CBS_2131 1G CBS_2132 3L; CBS_2132 1G CBS_2141; CBS_2142 CBS_2151; CBS_2152 & 2152-2G CBS_2161; CBS_2162	Screen appears after pressing “Res to Factory” [Above]	Select Model CBS [2131-2152]Series 	Scroll to your brewer and tap ENTER tab 
<b>Counters</b>	• Display Counters -OR- • Display Resettable Counters	Counters Display Total Counters	<b>Total Counters</b> Left Brews 0 Left Brew activated 0 Left Brew [litr] 0 Left Bypass activated 0 Left Bypass [litr] 0 Right Brews 0 Right Brew activated 0 Right Brew [litr] 0 Right Bypass activated 0 Right Bypass [litr] 0 Fill valve Activated 0 Fill Valve [litr] 0 Heater Activated 0 Heater “ON” time 0:00 <b>Touch To Return</b>	Identical screen for <b>Resettable Counters</b> Will display when selected. See next line to reset to zero  <b>NOTE:</b> <b>“Total Counters” is not user resettable</b>  See table, next page, for counter screen, definitions
<b>Reset Counters</b>	• Resets Counters	Reset All Counters	Reset All Counters Are you sure 	Resetting will restart counter from zero
<b>Firmware</b>	• Firmware Version -Software type	Display Firmware Version	CBS_2132 [or model type] SW ver 3.0.12 BL ver 1.1.3 QP ver. 4.5.01 Flash=512kb	Displays firmware version
	• Update Firmware	UPDATE	UPDATE 	Firmware upload Please insert SD card with the firmware file!
<b>DEMO Mode</b>	DEMO ON/OFF		OFF 	Demonstrates the controls for training. Disables all components in demo mode.

COUNTER Screen, Definition		
Total brews on left side	Left Brews	13
Actual brews on left side	Left Brew activated	13
Total volume produced by left side brewer	Left Brew [litr]	39
Actual Bypass used on left side	Left Bypass activated	0
Total volume of left bypass	Left Bypass [litr]	0
Total brews on right side	Right Brews	41
Actual brews on right side	Right Brew activated	41
Total volume produced by right side brewer	Right Brew [litr]	0
Actual Bypass used on right side	Right Bypass activated	0
Total volume of right bypass	Right Bypass [litr]	0
Total cycles activated by fill valve	Fill valve Activated	0
Total cycles activated by fill valve	Fill Valve [litr]	0
Total heater cycles activated	Heater Activated	0
Total time heater has been energized	Heater "ON" time	0:00
<b>Touch To Return</b>		

### Error Codes

→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><b>Below is the only way to clear error codes:</b></p> <p>1) Enter "PROGRAMMING"</p> <p>2) Scroll left to "OTHER"</p> <p>3) Scroll down to "ERROR CODES"</p> <p>4) Scroll down to "Display Errors"</p> <p>5) Scroll left to "Reset Errors"</p> <p>6) Scroll down to "Reset"</p> <p>7) Follow directions shown on screen.</p> <p>Merely toggling ON/OFF switch <u>will not</u> 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.	
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	
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	
INSERT BREW BASKET 		Brew basket must be in place  <b>This is a SAFETY FEATURE</b>	Insert brew basket into brewer rails to enable brewer	

**! → Never attempt to defeat or override a brew basket-locking feature-this is a safety feature**

## Operator Training

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

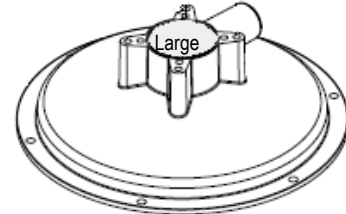
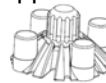
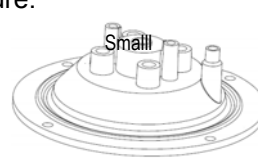
### Pay particular attention to the following areas:

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

### After Each Brew:

1. Dispose of grounds and rinse brew basket.
2. Never strike a brewbasket or hit it against a hard surface.  
This will damage the brew cone, and may damage the brewbasket 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 sprayhead, brewbasket 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.**

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.

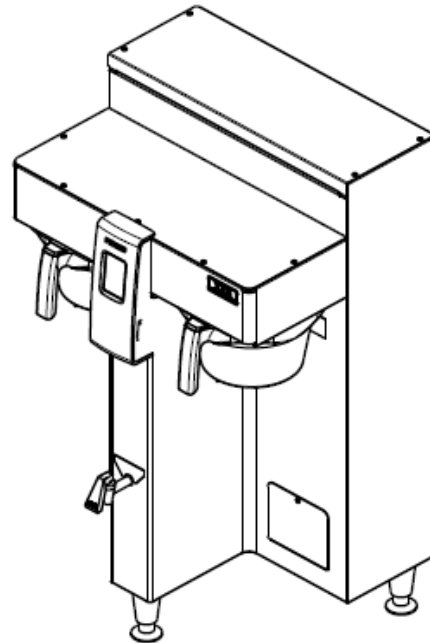
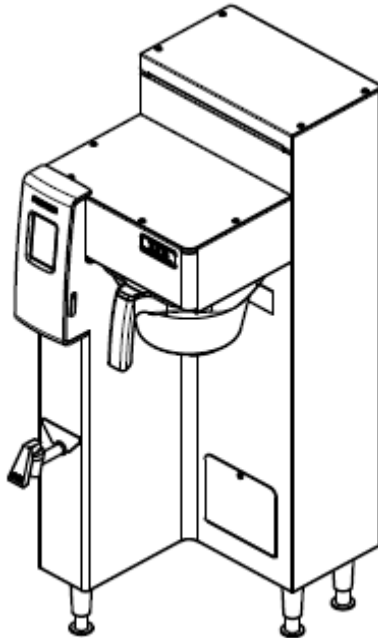
**Models: CBS-2140XTS**

**Extractor Touch Screen Commercial Hot Beverage Equipment**

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**FETCO Touch Screen Models: CBS-2140XTS**

One gallon dispenser series:  
*CBS-2141XTS CBS-2142XTS*



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Contact Information

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**P130** part B REV002

March 2016

## Specifications and Requirements

### Water Requirements:

CBS-2140XTS: 20-75 psig, (138-517kPa) 1½gpm/(5.7lpm)  
 Water supplied to hot beverage equipment should be filtered  
 Water supplied Hardness >100 TDS (5.5 grain)

**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)

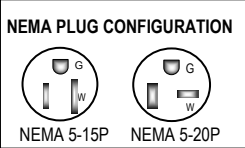
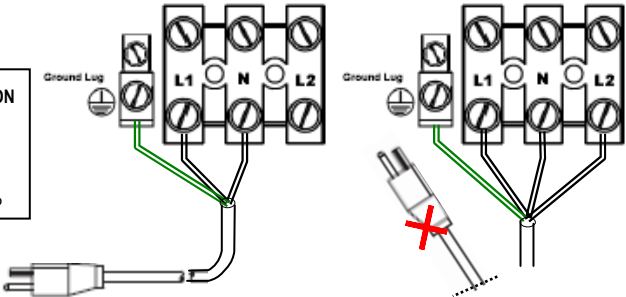
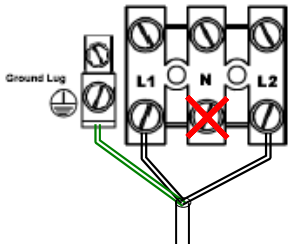
## Specifications-Electrical and Output Configurations

For qualified service technicians

These specifications apply to FETCO CBS-2141XTS & CBS-2142XTS manufactured as of January 2016								
<b>CBS-2140XTS USA and Canada</b>								
<b>CBS_2142XTS—Twin</b>			Single-Voltage					
Configuration Code	Heater Configuration	Voltage	Phase	Wires	Electrical Connection	KW	Amp Draw	Brew-Volume/Hour (3 liters per batch)
E214251	2 X 3.0 kW	200-240	1	2+G	Terminal Block	6.1	25.5	14.0 gal/53 liters
Please see wiring diagrams located in back pages for installation notes.								

<b>CBS_2141XTS—Single</b>			Field configurable, Dual-Voltage Three wire plus ground electrical					
Configuration Codes	Heater Configuration	Voltage	Phase	Wires	Electrical Connection	KW	Amp Draw	Brew-Volume/Hour (3 liters per batch)
E214171	1 X 1.5 kW	120	1	2+G	<b>NEMA 5-15P</b>	1.6	13.0	3.9 gal/14.8liter
(*Optional)	2 X 1.5 kW	(120/208-240)	1	(3+G)	<b>Hardwire L1,L2,N+G</b>	3.1	13.0	7.7 gal/29.5 liter
E214172	1 X 1.7 kW	120	1	2+G	<b>NEMA 5-15P</b>	1.8	14.7	4.4 gal/16.7 liter
(*Optional)	2 X 1.7 kW	(120/208-240)	1	(3+G)	<b>Hardwire L1,L2,N+G</b>	3.5	14.7	8.7 gal/33 liter
E214173	1 X 2.3 kW	120	1	2+G	<b>NEMA 5-20P</b>	2.4	19.7	5.8 gal/22 liter
(*Optional)	2X 2.3 kW	(120/208-240)	1	(3+G)	<b>Hardwire L1,L2,N+G</b>	4.7	19.7	11.0gal/41.6 liter
*Sold with factory cord & plug for 120 Volt configuration. Optional user connection to a terminal block requiring L1, L2, N and ground to120/208-240 VAC User selectable for optional, dual in-series heater configuration: DO NOT WIRE L2 to neutral. The optional configuration requires three wire plus ground.								

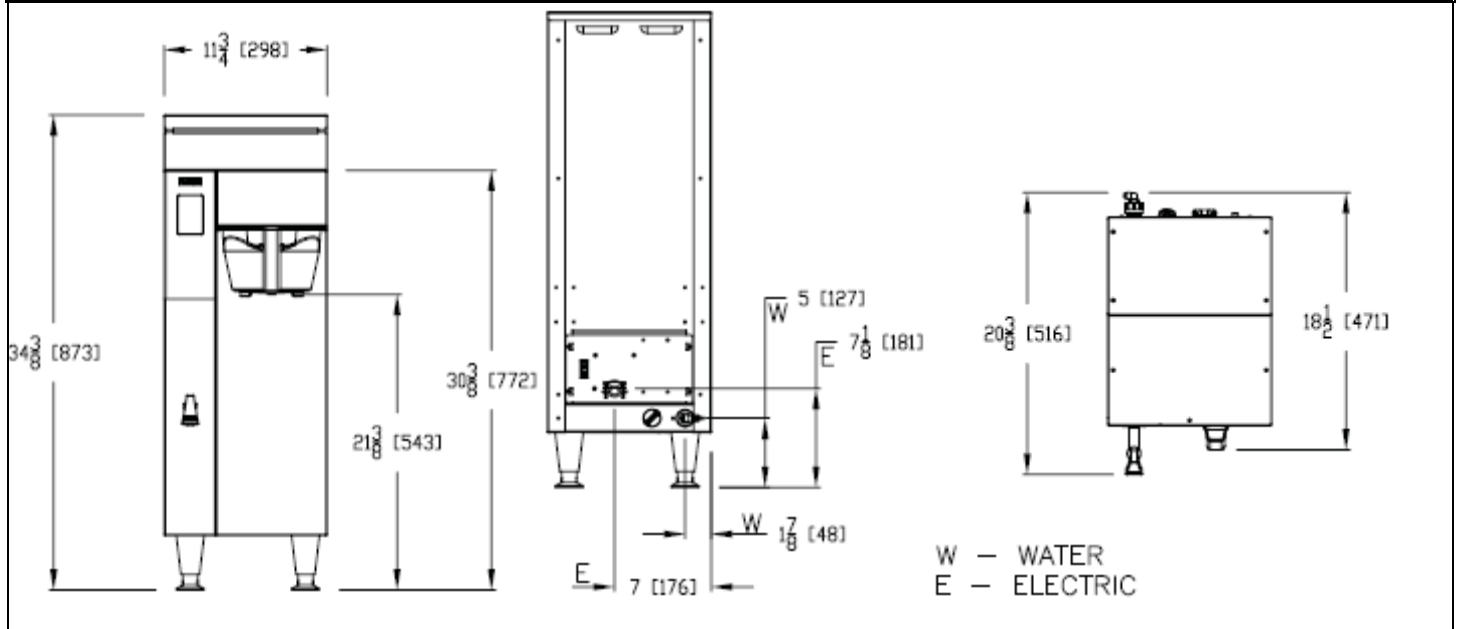
### .SEE WIRING DIAGRAMS AT BACK OF THIS GUIDE

CBS-2141XTS From Factory 120 volt models	CBS-2141XTS *Field installed option 120/208-240 volt models	CBS-2142XTS 208-240 volt
 NEMA 5-15P    NEMA 5-20P		
<b>All CBS 2141XTS</b>	<b>OPTIONAL 2 HEATER ONLY</b>	
<b>SKU E214171, E214172; E214173</b> As supplied from factory	<b>SKU E214171, E214172; E214173</b> As optional user configuration	<b>SKU E214251</b>

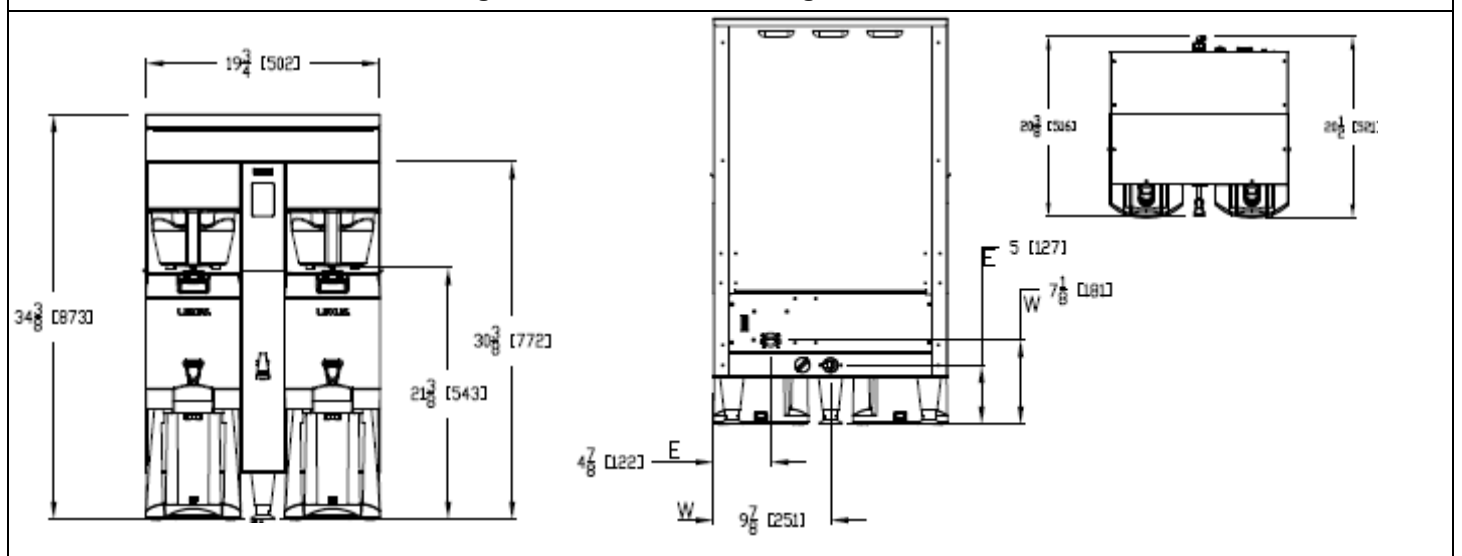


Technical Data—CBS-2140XTS 1½ gallon single and dual brewers  
 Capacities & Measurements for single and dual brewers  
 CBS-2140XTS Dimensions & Utility Connections  
 CBS-2140XTS Rough-in Drawings

Brewer	Height	Width	Depth	Empty Weight	Filled Weight	Total Weight- Brewer & Full Dispenser	Hot Water Tank Capacity	Shipping Weight	Shipping Dimensions
<b>CBS-2141XTS</b> Single-1 gallon	34 ⅜" [873mm]	11 ¾" [298mm]	20 ⅝" [518mm]	29lb [13.2kg]	55 lb [25 kg]	66.2lb [34.6 kg]	3.3 gal [12.4 l]	41 lb [18.6 kg]	16" x 23" x 29" [406 x584x737mm]
<b>CBS-2142XTS</b> Dual-1 gallon	34 ⅜" [873mm]	19 ¾" [502mm]	20 ⅝" [518mm]	47lb [21.3kg]	92lb [41.7kg]	114.4lb [51.9 kg]	5.8 gal [22.1 l]	58lb [26.3kg]	23" x 25" x 29" [584x635x737mm]



**Rough-in CBS-2141XTS —Single station version**



**Rough-in CBS-2142XTS —Dual station version**

**CBS-2140XTS Utility Requirements**

- ❖ **Water Requirements:**  
20-75 psig (138-517kPa) 1½gpm/(5.7lpm)
- ❖ **Water inlet fitting** is a 3/8 inch male flare.
- ❖ **Brew Volume:**  
CBS-2140XTS —Full Batch=4liter/1 gal
- ❖ **Inlet Water Temperature:** Cold supply
- ❖ **Coffee Filter Size:** →CBS-2140XTS 13"X5"
- ❖ **Electrical:** See electrical configuration chart.
- ❖ **Temperature:**  
200°F (93°C) inside water tank (at sea level)  
195°F (91°C) ± 5° at sprayhead

# Service Guide to a Successful Installation

(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 legs. Leg sets are shipped inside the brew basket
3. Some FETCO CBS-2100XTS 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 sprayhead 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 regards to a neutral wire. Review the wire diagrams.
5. The electrical diagram is located in the Users Guide and online at [www.fetco.com](http://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:

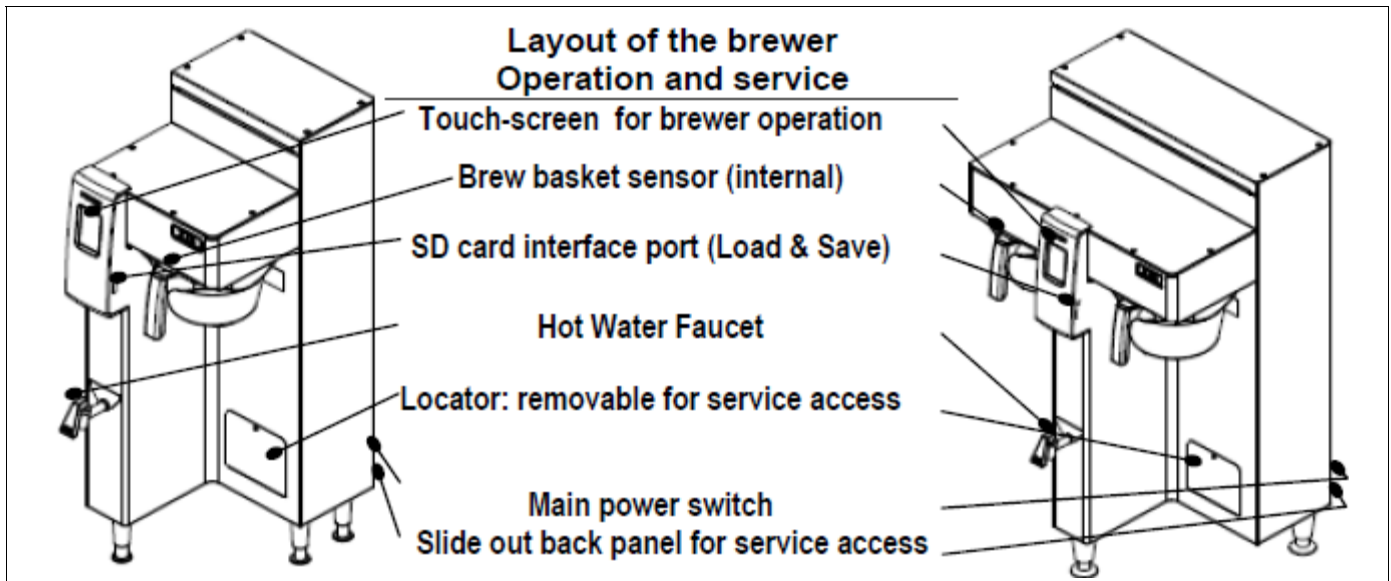
1. North America: All installations must comply with applicable federal, state, or local plumbing codes.
2. All Others: The water and waste piping and connections shall comply with the International Plumbing Code 2003, International Code Council (ICC), or to the Uniform Plumbing Code 2003 (IAPMO).
3. 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 to unit.
2. Move the unit near a sink or obtain a container large enough to hold four gallons of water and a hose clamp.  
Note that the tank may hold more than four gallons and that the drain line will be clamped to empty the container.
3. Remove the tank cover and allow the tank to cool to a safe temperature
4. The tank drain is located on the back of the unit. Turn the drain plug one-quarter turn in either direction
5. Pull the plug out far enough to expose the silicone tube
6. Using pliers loosen the hose clamp and move it back over the tube.
7. Crimp the tube an inch or two away from the drain plug to prevent water from flowing.
8. Use the other hand to pull the drain plug out of the tube.
9. Release the crimped tube and allow the water to flow into the sink or container.
10. Multiple buckets may be needed during the draining, see tank volumes below.

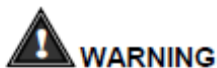
Brewer	Hot Water Tank Capacity
CBS-2141 Single	4.6 gal 17.4 liter
CBS-2142Twin	8.4 gal 31.7 liter



**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



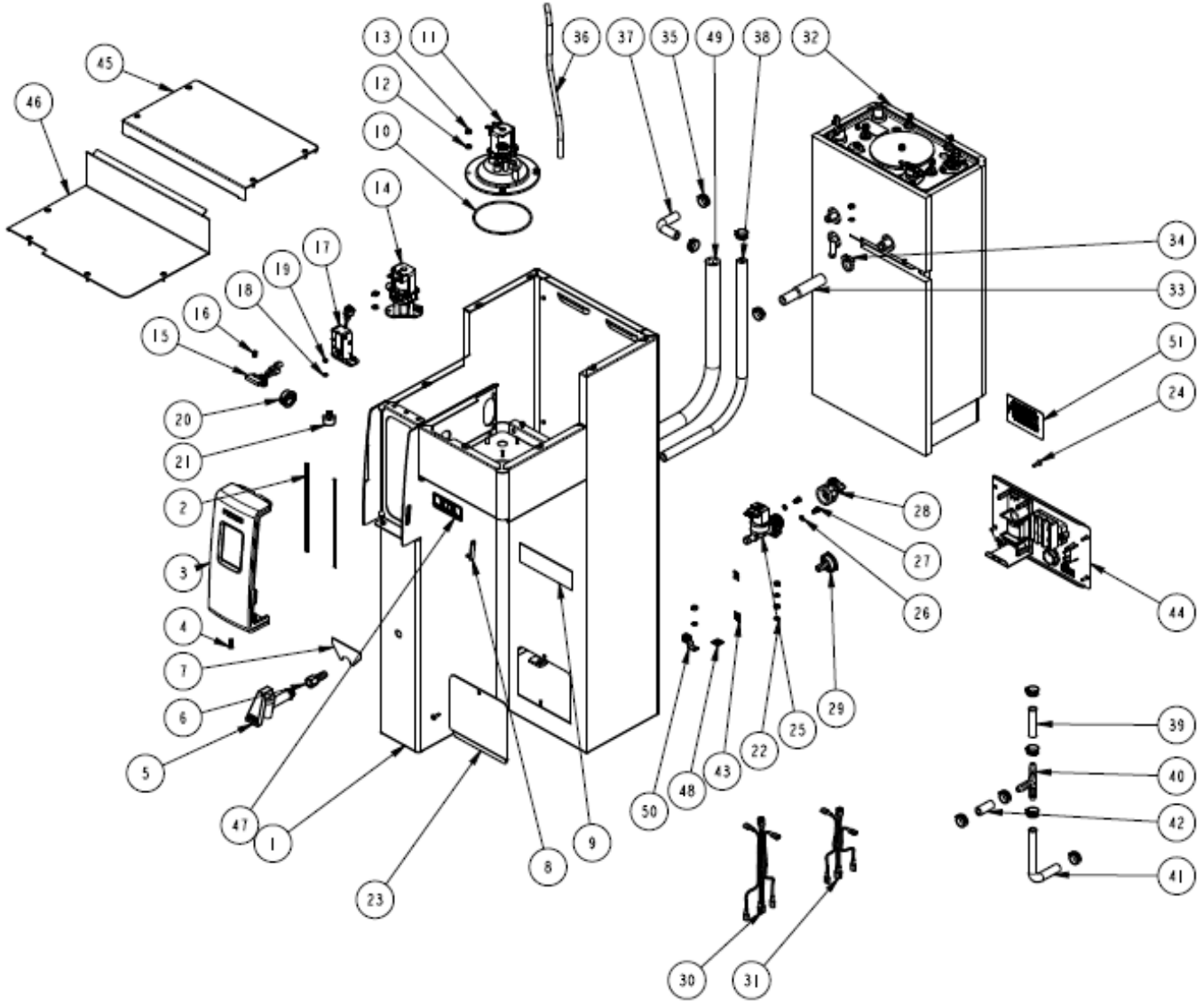
	<b>WARNING</b> To reduce risk of electric shock or fire.
	FETCO® Hot Beverage Equipment is for commercial use only.
	Do not remove or open cover. No user serviceable parts inside. Refer installation and service to qualified personnel.
	Caution, disconnect from power supply before servicing.
	GROUND: 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.
	<b>THIS APPLIANCE IS ENERGIZED WHENEVER IT IS CONNECTED TO A POWER SOURCE</b>
	<b>FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, PROPERTY DAMAGE, FIRE, OR SHOCK HAZARD</b>
<b>Notice</b>	This equipment must be installed with a backflow protection device to comply with federal, state or local municipality codes.
<b>Notice</b>	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)

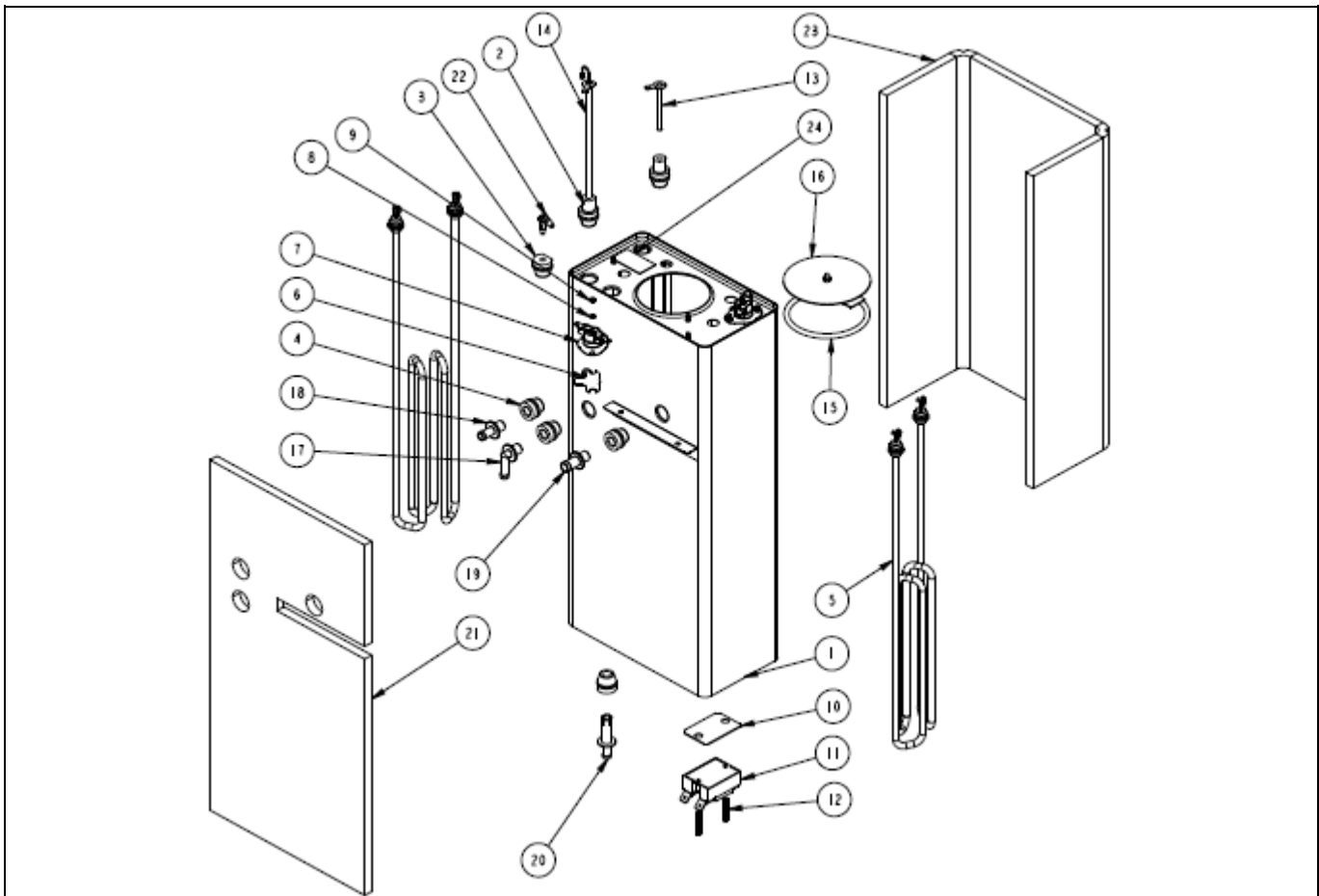
**Parts diagrams**

**CBS-2141XTS**



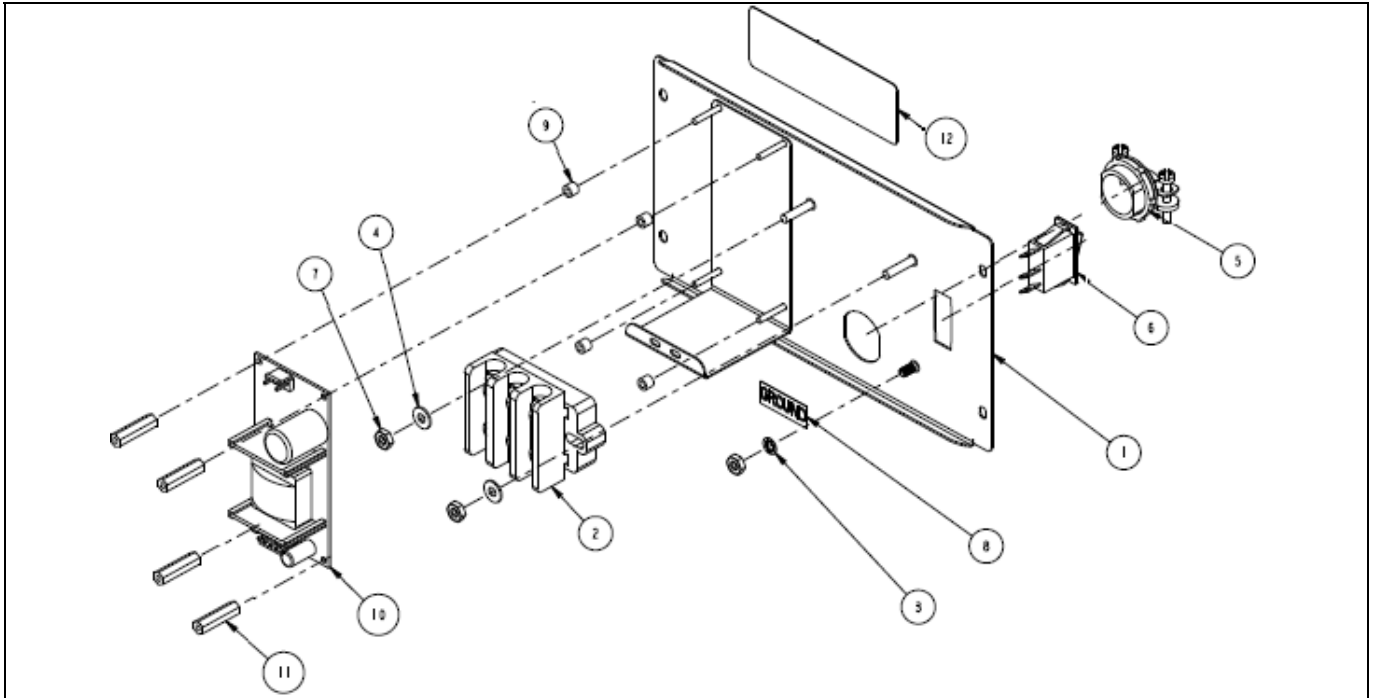
**Parts Drawing CBS-2141 XTS Drawing number 1101.00198.00**

<b>Parts Drawing CBS-2141 XTS Drawing number 1101.00198.00</b>			
Ref	Qty	Part Number	Part Name and Description
1	1	1111.00049.00	WELDMENT BODY COMPLETE, CBS-2141 XTS
2	2	1024.00049.00	EDGE PROTECTOR, 7.00"LG, CBS-2130
3	1	1102.00210.00	ASSEMBLY, FRONT PANEL, CBS-2100 XTS
4	4	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
5	1	1071.00010.00	FAUCET HPSC-BR-8 REGULAR HANDLE
6	1	1031.00003.00	FITTING, BARB 3/8"ID x 1/4" FPT
7	1	1046.00006.00	LABEL, WARNING, "HOT WATER FAUCET"
8	1	1024.00040.00	CARD PLUG, HWD-2100
9	1	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
10	1	1024.00063.00	O-RING, 3 15/16" x 3/32" CS, DASH # 154, BUNA-N, DURO-A50
11	1	1102.00203.00	ASSEMBLY, SPRAY HOUSING, DSVF11 DESIGN
12	6	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
13	11	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
14	1	1102.00220.00	ASSEMBLY, BYPASS VALVE, RIGHT
15	1	1102.00113.00	SWITCH, REED, ASSEMBLY
16	2	1029.00006.00	#4-40 NYLON FINGER NUT
17	1	1102.00219.00	ASSEMBLY, BB LOCKER, 24VDC
18	2	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
19	2	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
20	1	1086.00004.00	BUSHING, SNAP, 1" MOUNTING HOLE
21	1	1023.00159.00	CORNER INSERT
22	5	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
23	1	1001.00181.00	COVER FRONT, CBS-2100 XTS
24	13	1082.00017.00	SCREW, # 6-32 X 1/2" TRUSS HD PHIL., MACHINE
25	1	1057.00043.00	SOLENOID VALVE, SINGLE, 180 DEG, 240VDC
26	2	1083.00005.00	WASHER, M4 18-8 INTERNAL TOOTH LOCKWASHER
27	2	1082.00010.00	SCREW, M4x10 ZINC PLATED PAN PHILLIPS MACHINE
28	1	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
29	1	1023.00147.00	PLUG, TANK SERVICE DRAIN FOR 18GA AND UP BODY
30	1	1402.00045.00	HARNESS LOW AMP, CBS-2141/51 XTS, CE/UL
31	1	1402.00063.00	HARNESS HIGH AMP, CBS-2131/41 XTS (L1,N,L2), UL
<b>32</b>	<b>1</b>	<b>1104.00069.00</b>	<b>TANK ASSY, 2 X 1.5kW/120V, CBS-2141 XTS</b>
<b>32</b>	<b>1</b>	<b>1104.00071.00</b>	<b>TANK ASSY, 2 X 1.7kW/120V, CBS-2141 XTS</b>
<b>32</b>	<b>1</b>	<b>1104.00067.00</b>	<b>TANK ASSY, 2 X 2.3kW/120V, CBS-2141 XTS</b>
33	1	1024.00065.00	CONNECTOR, SILICONE, TANK TO BREW VALVE
34	1	1086.00002.00	CLAMP, HOSE, SIZE "G" NYLON
35	10	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
36	1	1025.00078.00	TUBE, 5/16 OD x 3/16 ID x 14.00 LG.
37	1	1025.00061.00	TUBE, 9/16"OD X 5/16"ID X 2.75"LG
38	1	1025.00083.00	TUBE, 5/8 OD x 3/8 ID x 18.0" LG.
39	1	1025.00060.00	TUBE, 9/16"OD X 5/16"ID X 3.25"LG
40	1	1029.00002.00	FITTING, HOSE BARB TEE, SIZE 3/8" , NYLON
41	1	1025.00077.00	TUBE, 9/16 OD x 5/16 ID x 6.50 LG.
42	1	1025.00058.00	TUBE, 9/16"OD X 5/16"ID X 25.00"LG
43	11	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLK-PH FINISH
44	1	1102.00209.00	ASSEMBLY BACK PANEL, CBS-2131 AND 2141
45	1	1001.00125.00	COVER, TOP CBS-2131 AND 2141
46	1	1001.00126.00	COVER, UPPER BASE, CBS-2131 AND 2141
47	1	1041.00013.00	LABEL, XTS, 2130,2140 AND 2150 SERIES
48	1	1044.00012.00	LABEL GROUND CE
49	1	1022.00073.00	INSULATION, 5/8 ID x 3/8 THK. x 17.5" LG.
50	1	1065.00002.00	CONNECTOR, COPPER LUG
51	1	1044.00014.00	NOTICE TO LICENSED ELECTRICIAN
*	4	1073.00002.00	<b>LEG, FLANGE FOOT, 4.0" HIGH</b>
*	1	B014218BN2	<b>Plastic Brew Basket: Standard-included with all equipment</b>
†	1	B003218B1	<b>OPTIONAL Stainless Steel Brew Basket</b>
<b>*Not Shown Standard-included with all equipment</b>			<b>†-Option accessory for purchase</b>



**Parts Drawing Tank Assembly CBS-2141 XTS Drawing number 1104.00069.00**

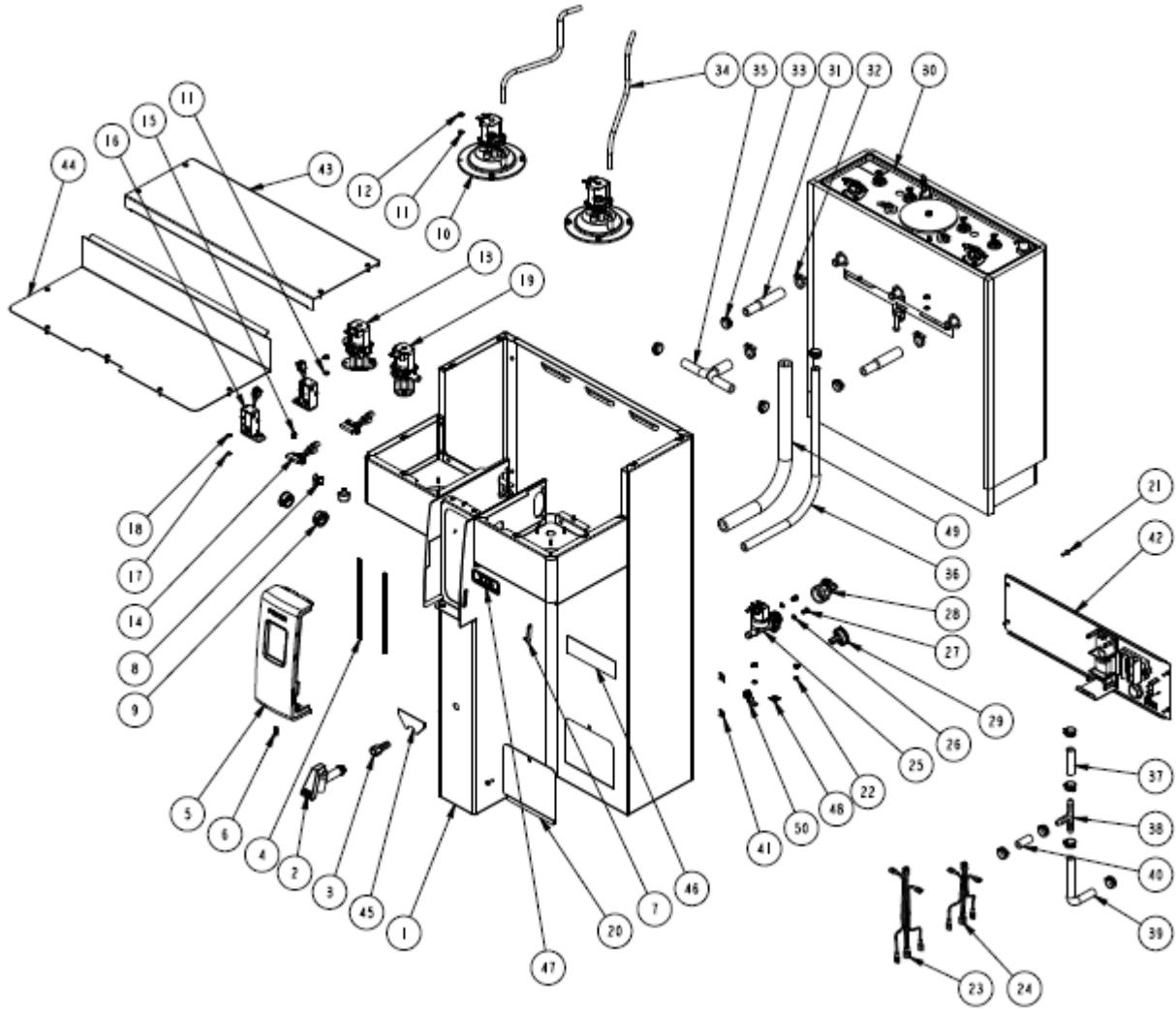
Ref	Qty	Part Number	Part Name and Description
1	1	1114.00103.00	WELDMENT TANK, CBS-2141, GROMMET DESIGN, 2 HEATERS
2	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
3	1	1024.00062.00	GROMMET, SHORT, SILICONE, LEVEL AND TEMP PROBE
4	4	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
5	2	<b>1107.00030.00</b>	<b>HEATER ASSEMBLY, IMMERSION 1500W/120VAC</b>
5	2	<b>1107.00031.00</b>	<b>HEATER ASSEMBLY, IMMERSION 1700W/120VAC</b>
5	2	<b>1107.00029.00</b>	<b>HEATER ASSEMBLY, IMMERSION 2300W/120VAC</b>
6	2	1003.00005.00	BRACKET, ONE SHOT THERMOSTAT
7	2	1053.00003.00	THERMOSTAT, SINGLE SHOT, 240V/40A
8	4	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
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	1112.00019.00	PROBE WELDMENT, WATER LEVEL 2.600" 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	1	1023.00183.00	FITTING, DILUTION, TBS-2121
18	1	1023.00168.00	FITTING, HOT WATER, GROMMET DESIGN
19	1	1023.00167.00	FITTING, BREW, GROMMET DESIGN
20	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
21	1	1022.00065.00	TANK INSULATION, FRONT, CBS-2141e, GROMMET DESIGN
22	1	1029.00023.00	FITTING, SINGLE BARBED ELBOW, 1/4", KYNAR
23	1	1022.00074.00	TANK INSULATION, BACK, CBS-2141e, GROMMET DESIGN
24	1	1044.00004.00	LABEL, WARNING-HIGH VOLTAGE



**BACK PANEL ASSEMBLY, CBS-2141 1102.00209.00**

Ref#	Qty	Part number	Description
1	1	1112.00226.00	WELDMENT BACK COVER 2131 AND 2141
2	1	1052.00002.00	TERMINAL BLOCK, 3 POLE, W/ MARKING STRIP
3	1	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
4	2	1083.00016.00	WASHER, #8 SCREW SIZE, FLAT
5	1	1086.00008.00	CONNECTOR, CABLE CLAMP, 3/4"
6	1	1058.00020.00	SWITCH, PWR ROCKER RED, ILLUM. 250VAC
7	3	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
8	1	1044.00003.00	LABEL GROUND
9	4	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG, Z/P
10	1	1052.00001.00	POWER SUPPLY, 90-264VAC/24VDC, 1.8A
11	4	1029.00012.00	SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD
12	1	1046.00030.00	LABEL WARNING, DISCONNECT FROM POWER SOURCE
	1	1102.00241.00	POWER CORD ASSEMBLY, 15A/120VAC, 5-15P NEMA PLUG
	1	1102.00242.00	POWER CORD ASSEMBLY, 20A/120VAC, 5-20P NEMA PLUG

CBS-2142XTS

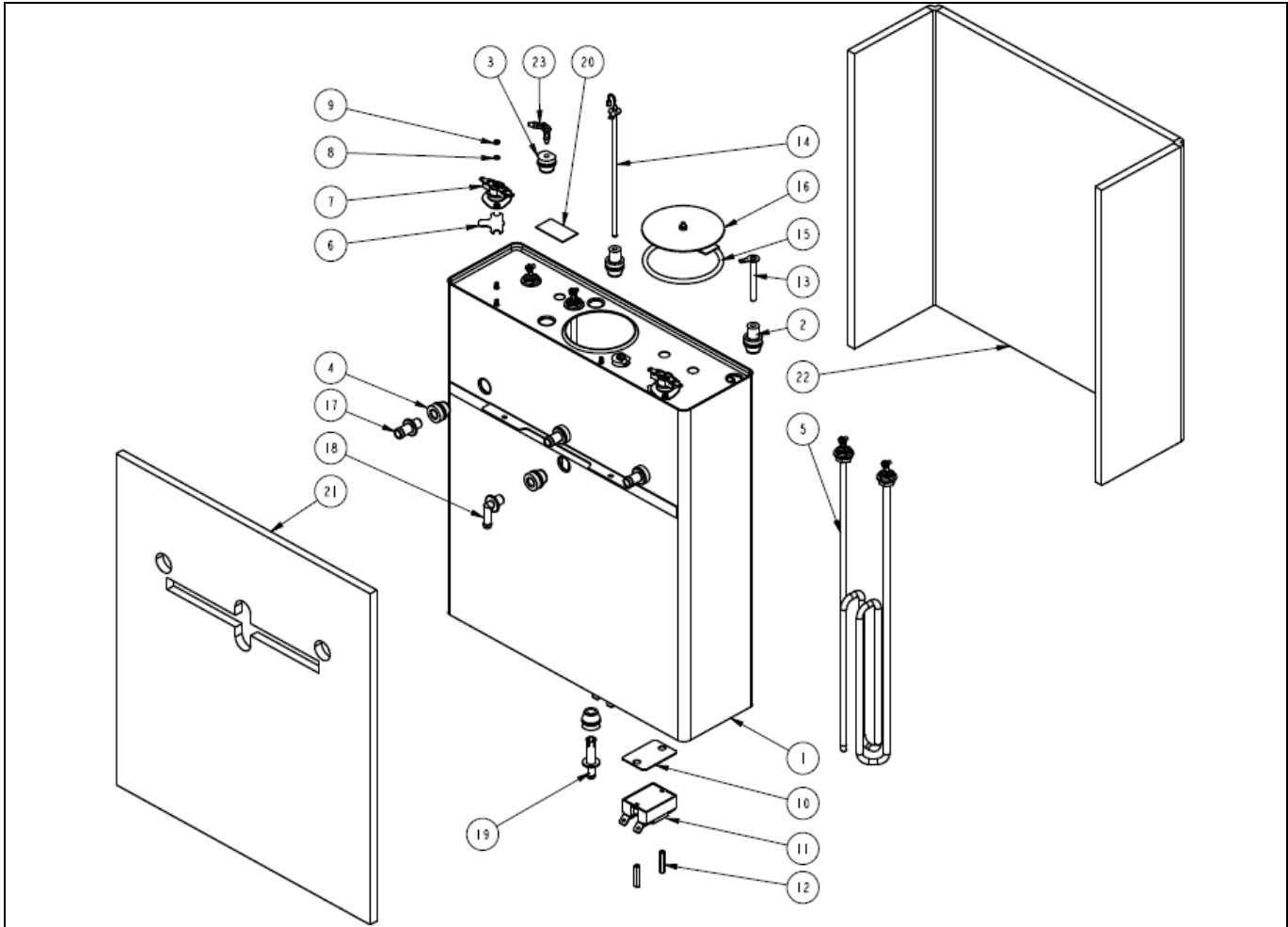


CBS-2142 XTS

Drawing number 1101.00193.00

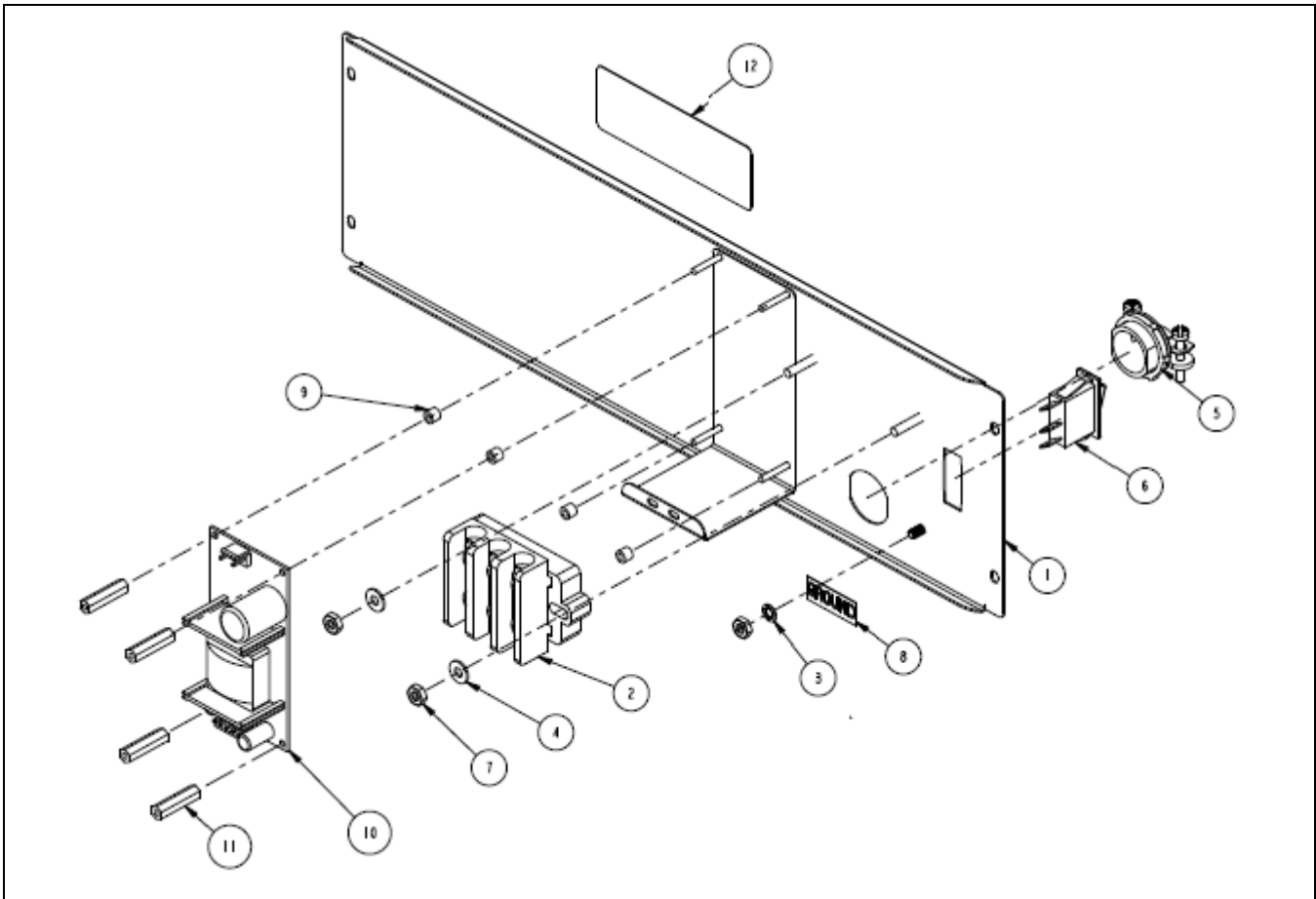


<b>Parts Drawing CBS-2142 XTS Drawing number 1101.00193.00</b>			
Ref	Qty	Part Number	Part Name and Description
1	1	1111.00048.00	WELDMENT BODY COMPLETE, CBS-2142 XTS
2	1	1071.00010.00	FAUCET HPSC-BR-8 REGULAR HANDLE
3	1	1031.00003.00	FITTING, BARB 3/8"ID x 1/4" FPT
4	2	1024.00049.00	EDGE PROTECTOR, 7.00"LG, CBS-2130
5	1	1102.00210.00	ASSEMBLY, FRONT PANEL, CBS-2100 XTS
6	4	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
7	1	1024.00040.00	CARD PLUG, HWD-2100
8	2	1023.00159.00	CORNER INSERT
9	2	1086.00004.00	BUSHING, SNAP, 1" MOUNTING HOLE
10	2	1102.00203.00	ASSEMBLY, SPRAY HOUSING, DSVP11 DESIGN
11	12	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
12	16	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
13	1	1102.00220.00	ASSEMBLY, BYPASS VALVE, RIGHT
14	2	1102.00113.00	SWITCH, REED, ASSEMBLY
15	4	1029.00006.00	#4-40 NYLON FINGER NUT
16	2	1102.00219.00	ASSEMBLY, BB LOCKER, 24VDC
17	4	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
18	4	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
19	1	1102.00221.00	ASSEMBLY, BYPASS VALVE, LEFT
20	2	1001.00181.00	COVER FRONT, CBS-2100 XTS
21	15	1082.00017.00	SCREW, # 6-32 X 1/2" TRUSS HD PHIL., MACHINE
22	4	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
23	1	1402.00051.00	HARNESS LOW AMP, CBS-2142/52 XTS, CE/UL
24	1	1402.00060.00	HARNESS, HIGH AMP, CBS-2142 XTS, UL
25	1	1057.00043.00	SOLENOID VALVE, SINGLE, 180 DEG, 240VDC
26	2	1083.00005.00	WASHER, M4 18-8 INTERNAL TOOTH LOCKWASHER
27	2	1082.00010.00	SCREW, M4x10 ZINC PLATED PAN PHILLIPS MACHINE
28	1	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
29	1	1023.00147.00	PLUG, TANK SERVICE DRAIN FOR 18GA AND UP BODY
30	1	1104.00060.00	TANK ASSY, 2 X 3.0KW/240V, CBS-2142 XTS
31	2	1024.00065.00	CONNECTOR, SILICONE, TANK TO BREW VALVE
32	3	1086.00002.00	CLAMP, HOSE, SIZE "G" NYLON
33	11	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
34	2	1025.00078.00	TUBE, 5/16 OD x 3/16 ID x 14.00 LG.
35	1	1024.00064.00	BY-PASS MANIFOLD, SILICONE, CBS-2142/52
36	1	1025.00083.00	TUBE, 5/8 OD x 3/8 ID x 18.0" LG.
37	1	1025.00060.00	TUBE, 9/16'OD X 5/16"ID X 3.25"LG
38	1	1029.00002.00	FITTING, HOSE BARB TEE, SIZE 3/8" , NYLON
39	1	1025.00077.00	TUBE, 9/16 OD x 5/16 ID x 6.50 LG.
40	1	1025.00058.00	TUBE, 9/16'OD X 5/16"ID X 25.00"LG
41	12	1084.00024.00	NUT, CLIP ON (J-NUT), #6-32, 18 -16 GA., BLACK-PHOSPHATE FINISH
42	1	1102.00208.00	ASSEMBLY BACK PANEL, CBS-2132 AND 2142
43	1	1001.00127.00	COVER, TOP CBS-2132 AND 2142
44	1	1001.00128.00	COVER, UPPER BASE, CBS-2132 AND 2142
45	1	1046.00006.00	LABEL, WARNING, "HOT WATER FAUCET"
46	2	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
47	1	1041.00013.00	LABEL, XTS, 2130,2140 AND 2150 SERIES
48	1	1044.00012.00	LABEL GROUND CE
49	1	1022.00073.00	INSULATION, 5/8 ID x 3/8 THK. x 17.5" LG.
50	1	1065.00002.00	CONNECTOR, COPPER LUG
*	3	1073.00002.00	LEG, FLANGE FOOT, 4.0" HIGH
*	1	B014218BN2	Plastic Brew Basket: Standard-included with all equipment
†	1	B003218B1	OPTIONAL Stainless Steel Brew Basket
<b>*Not Shown Standard-included with all equipment †-Option accessory for purchase</b>			



**Parts Drawing 1104.00060.00 CBS-2142 XTS TANK ASSY**

Ref	Qty	Part Number	Part Name and Description
1	1	1114.00083.00	WELDMENT TANK CBS-2142, GROMMET DESIGN
2	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
3	2	1024.00062.00	GROMMET, SHORT, SILICONE, LEVEL AND TEMP PROBE
4	5	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
5	2	1107.00005.00	ASSEMBLY,IMMERSION HEATER, 3000W, 240VAC
6	2	1003.00005.00	BRACKET, ONE SHOT THERMOSTAT
7	2	1053.00003.00	THERMOSTAT, SINGLE SHOT, 240V/40A
8	4	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
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	1112.00019.00	PROBE WELDMENT, WATER LEVEL 2.600" 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	3	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	1022.00066.00	TANK INSULATION FRONT, CBS-2142
22	1	1022.00067.00	TANK INSULATION BACK, CBS-2142
23	2	1029.00023.00	FITTING, SINGLE BARBED ELBOW, 1/4", KYNAR



**BACK PANEL ASSEMBLY, CBS-2142 1102.00208.00**

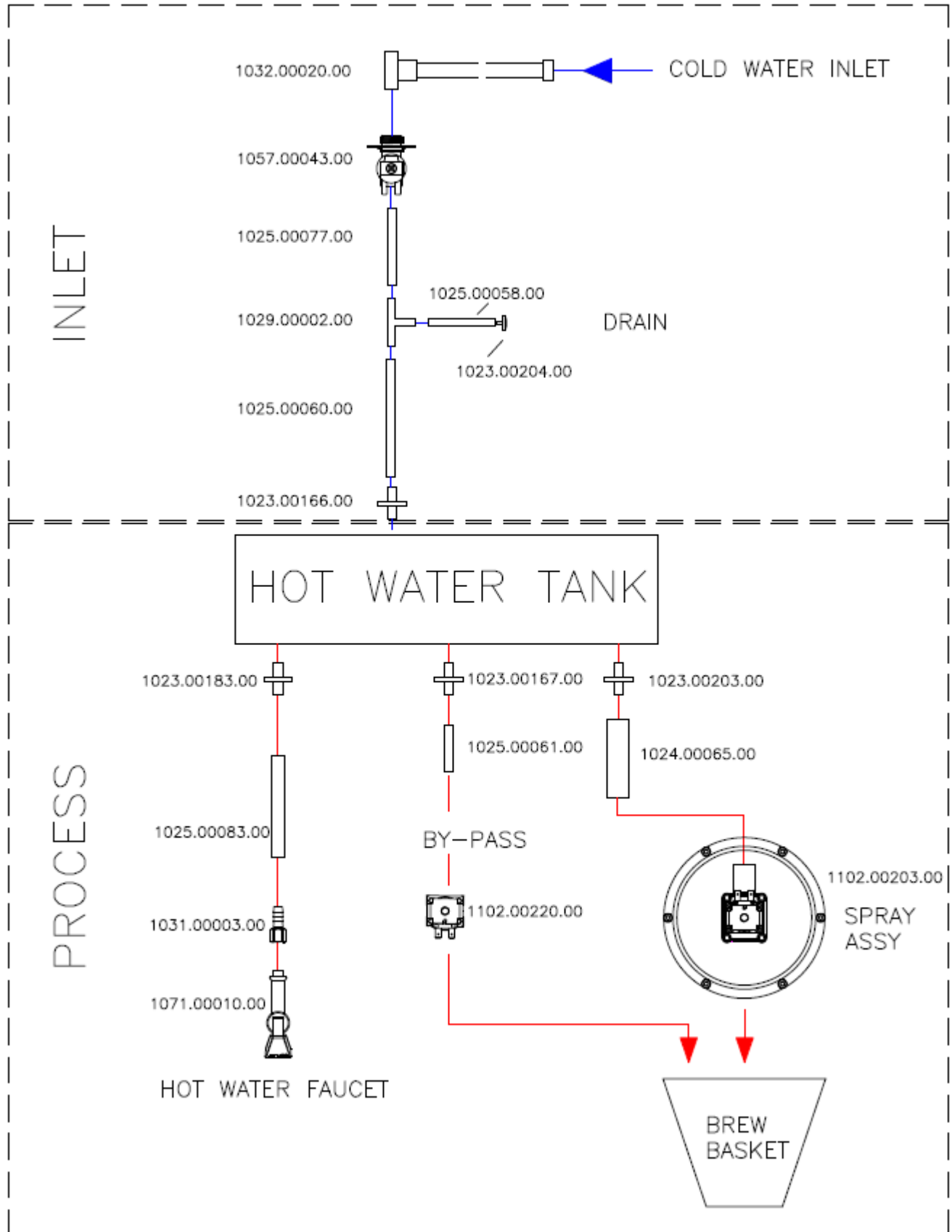
Ref#	Qty	Part number	Description
1	1	1112.00227.00	WELDMENT, BACK COVER CBS-2142 AND 2142
2	1	1052.00002.00	TERMINAL BLOCK, 3 POLE, W/ MARKING STRIP
3	1	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
4	2	1083.00016.00	WASHER, #8 SCREW SIZE, FLAT
5	1	1086.00008.00	CONNECTOR, CABLE CLAMP, 3/4"
6	1	1058.00020.00	SWITCH, PWR ROCKER RED, ILLUM. 250VAC
7	3	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
8	1	1044.00003.00	LABEL GROUND
9	4	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG, Z/P
10	1	1052.00001.00	POWER SUPPLY, 90-264VAC/24VDC, 1.8A
11	4	1029.00012.00	SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD
12	1	1046.00030.00	LABEL WARNING, DISCONNECT FROM POWER SOURCE

1102.00203.00		Spray Housing Assembly Parts		CBS-2140XTS	
Re f.	QTY	PART NO	DESCRIPTION		
1	1		Complete Spray Housing		
2	1	1102.00019.00	Replacement, Cascade Spray Dome		
3	1	#3 Contained in KIT 1000.00097.00	VALVE DIAPHRAGM		
3	1		ADAPTER PLATE, SPACER		
3	1		PLUNGER, DISPENSE VALVE 24VDC		
3	1		SPRING, DISPENSE VALVE 24VDC		
3	1		COIL AND FRAME ASSEMBLY DSV11 24VDC		
3	4		SCREW, #6-20 X 1/2", PHIL		
4	1	#4 Contained in KIT 1000.00096.00	SPRAY HOUSING ASSY CSD DESIGN		
4	1		O-RING, AS568A-019, BUNA-N		
4	1		1102.00019.00	ASSEMBLY, CASCADE SPRAY DOME	
4	1		ADAPTER, SPRAY HSG, DSV11 VALVE		
4	2		SCREW, M3.9x13, CHEESE PH		
4	1		1024.00063.00	O-RING, Lower 3 15/16" x 3/32"	
5		Valve rebuild kit 1000.00098.00	Kit contains: SPRING DIAPHRAGM PLUNGER		

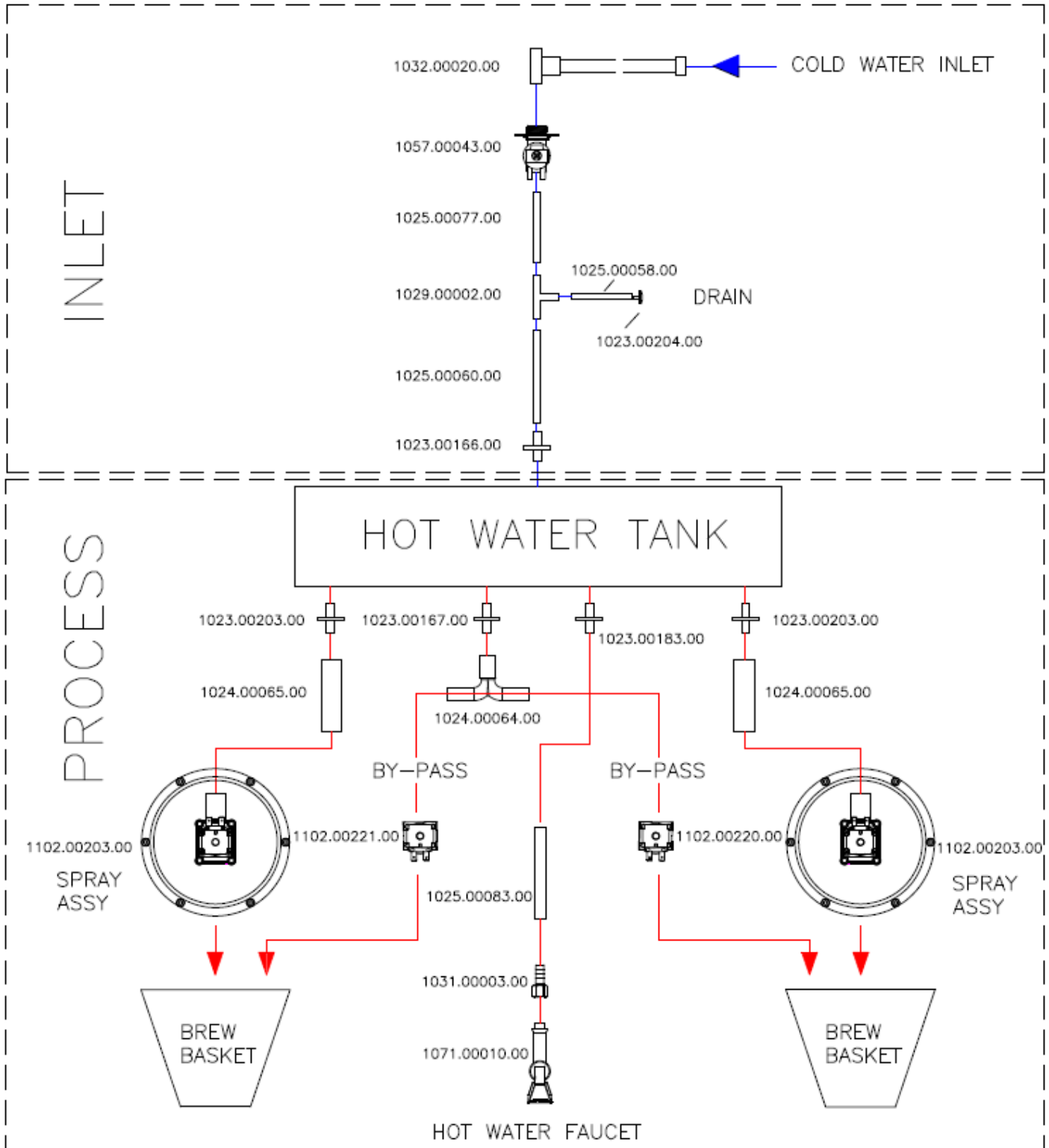
Brew Basket Parts															
Complete Plastic Brew Basket (STANDARD)															
Part Number B014218BN2	CBS-2140XTS														
<p><b>Brown colored insert is standard</b></p> <p>→</p> <p>Brew basket handle plug for polymeric brew baskets is available in optional colors.</p>	<table border="1"> <thead> <tr> <th>Part Number</th> <th>Plug Insert color</th> </tr> </thead> <tbody> <tr> <td>1023.00195.00</td> <td>BROWN PLUG, BB HANDLE</td> </tr> <tr> <td>1023.00194.00</td> <td>BLACK PLUG, BB HANDLE</td> </tr> <tr> <td>1023.00190.00</td> <td>RED PLUG, BB HANDLE</td> </tr> <tr> <td>1023.00191.00</td> <td>GREEN PLUG, BB HANDLE</td> </tr> <tr> <td>1023.00192.00</td> <td>ORANGE PLUG, BB HANDLE</td> </tr> <tr> <td>1023.00180.00</td> <td>BLUE PLUG, BB HANDLE</td> </tr> </tbody> </table>	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
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OPTIONAL Stainless Steel Brew basket			
B003218B1		Complete Stainless Steel Brew basket for CBS-2140XTS	
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

# CBS 2141XTS WATER HANDLING LAYOUT

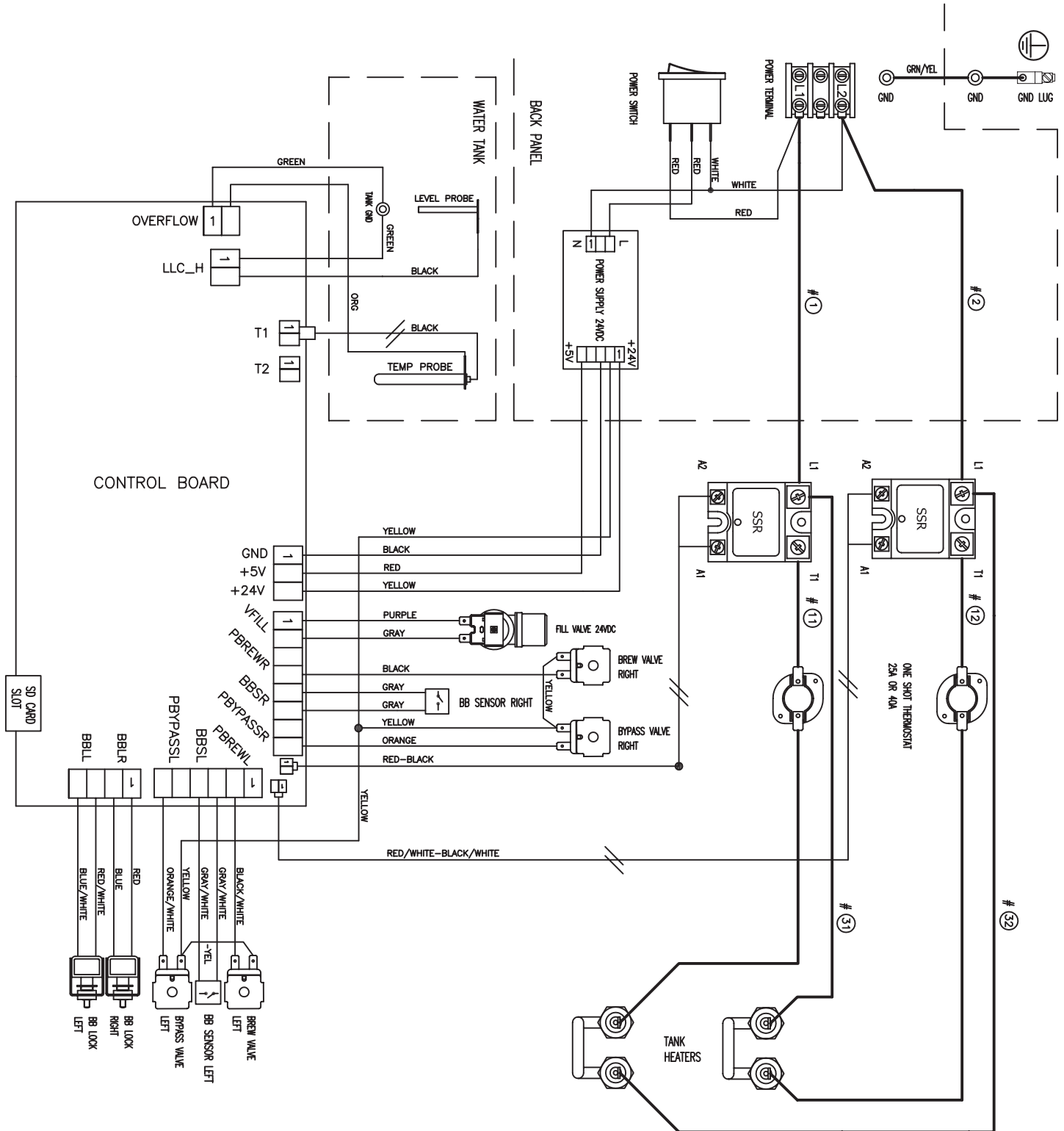


# CBS 2142XTS WATER HANDLING LAYOUT



SKU NUMBER  
E214251

Heater Configuration  
2 X 3.0 kW / 240 Vac



Go to [fetco.com](http://fetco.com) for the latest version of all information Part B page 17

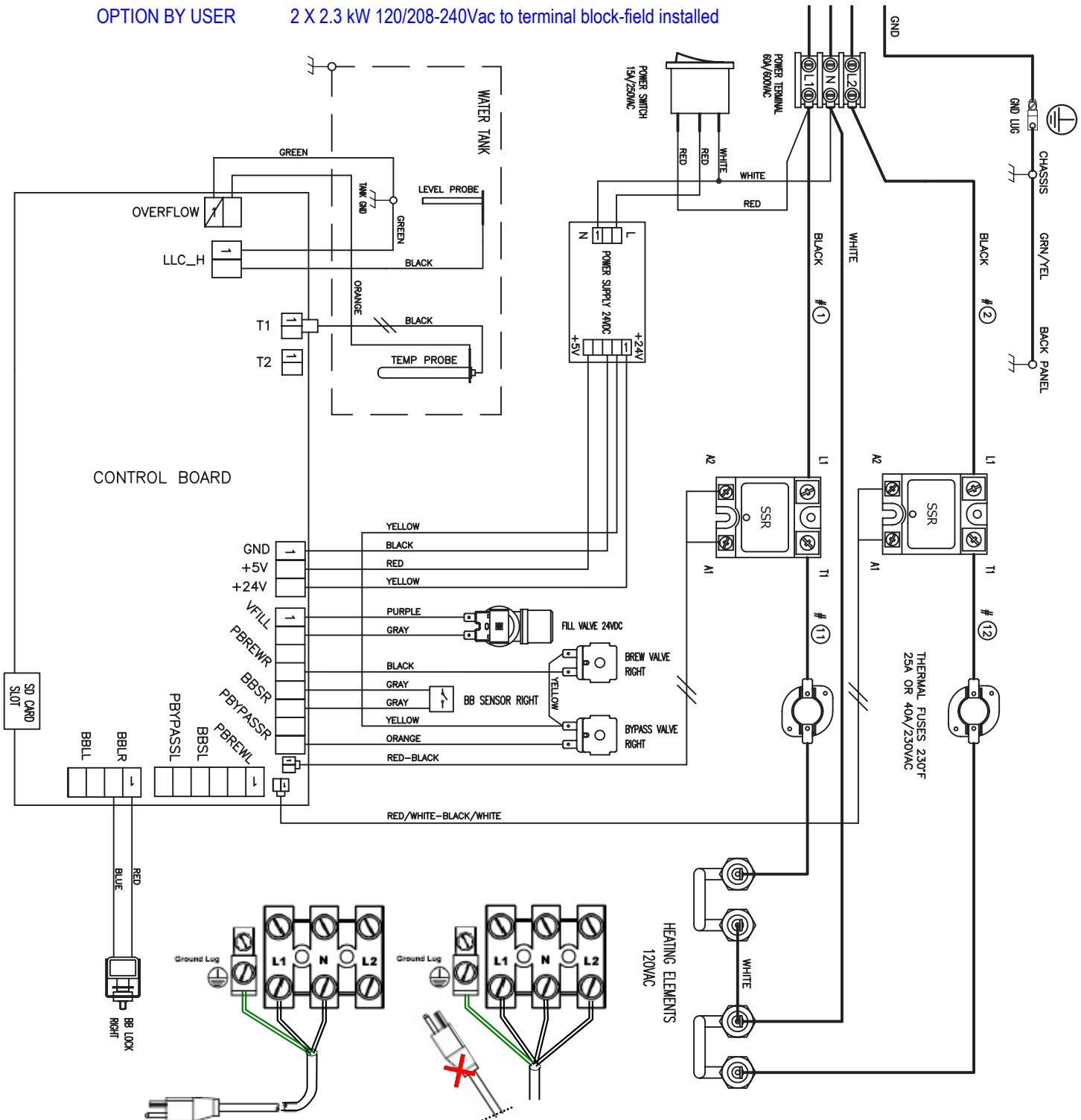
•P130 partB REV 002 Technical Supplement March, 2016

**FETCO**<sup>®</sup> FOOD EQUIPMENT TECHNOLOGY COMPANY  
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WWW.FETCO.COM

WIRING, CBS-2142-XTS, L1, L2, GND,  
2 HEATERS

1401.00055.00

- |                |   |
|----------------|---|
| SKU NUMBER     | Heater Configuration  |
| E214171        | 1 X 1.5 kW 120 Vac Cord and Plug from Factory               |
| OPTION BY USER | 2 X 1.5 kW 120/208-240Vac to terminal block-field installed |
|                |   |
| E214172        | 1 X 1.7 kW 120 Vac Cord and Plug from Factory               |
| OPTION BY USER | 2 X 1.7 kW 120/208-240Vac to terminal block-field installed |
|                |   |
| E214173        | 1 X 2.3 kW 120 Vac Cord and Plug from Factory               |
| OPTION BY USER | 2 X 2.3 kW 120/208-240Vac to terminal block-field installed |



From Factory:  
 120 Vac  
 One heater  
 Cord and Plug

OPTIONAL: Field Installed  
 120/208-240 Vac  
 Two heaters  
 Terminal Block

FETCO Wiring Diagram

1401.00090.00

CBS-2141XTS all



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.

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. The top row is partially obscured by the header text.