

# FETCO® User's Guide and Operator Instructions

www.fetco.com



**Models: CBS-2161XTS**

**CBS-2162XTS**

Three gallon single and twin brewers.



Shown with D012: 3.0 Gallon LUXUS® Thermal Dispenser (TPD-30), not included

## Extractor Touch Screen Commercial Hot Beverage Equipment

### Table of Contents

Specifications and Requirements .....	2	Operator Training .....	14
Instructions for brew operation-fast brew .....	4	Service Guide to a Successful Installation .....	15
Service Menu: Access and XTS menu tree .....	6	Installation Directions .....	16
Menu Features: Batch Parameters .....	7	Cleaning & Maintenance .....	20
How to calibrate the flow rate .....	11		
Error Codes .....	13		

### Contact Information

#### FETCO®

Food Equipment Technologies Company  
600 Rose Road  
Lake Zurich • IL • 60047-0429 • USA

**Internet:** www.fetco.com

©2013-2015 Food Equipment Technologies Company

PATENTS: WWW.fetco.com/patents

**Phone:** (800) 338-2699 (US & Canada)  
(847) 719-3000

**Fax:** (847) 719-3001

**Email:** sales@fetco.com

techsupport@fetco.com

**P141** REV:001 December 2015

## Specifications and Requirements

### Water Requirements:

CBS-2160XTS: 20-75 psig, (138-517kPa) 2 gpm (7.60 lpm)

### Cold Water Supply Only

Water inlet fitting is a 3/8 inch male flare.

### Brew Volume:

Full Batch 3 gal. (11.4 lit.) All batches are user configurable

Total Brew Cycle—Factory setting: CBS-2162XTS: 6 1/2 Minutes

### Coffee Filter Size:

20" X 8" – standard FETCO # F004

18" X 7½" - optional half batch FETCO # F005

Electrical: See electrical configuration chart.

### Temperature, as set by factory:

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

CBS-2161XTS 6 Minutes

### Weights and Capacities

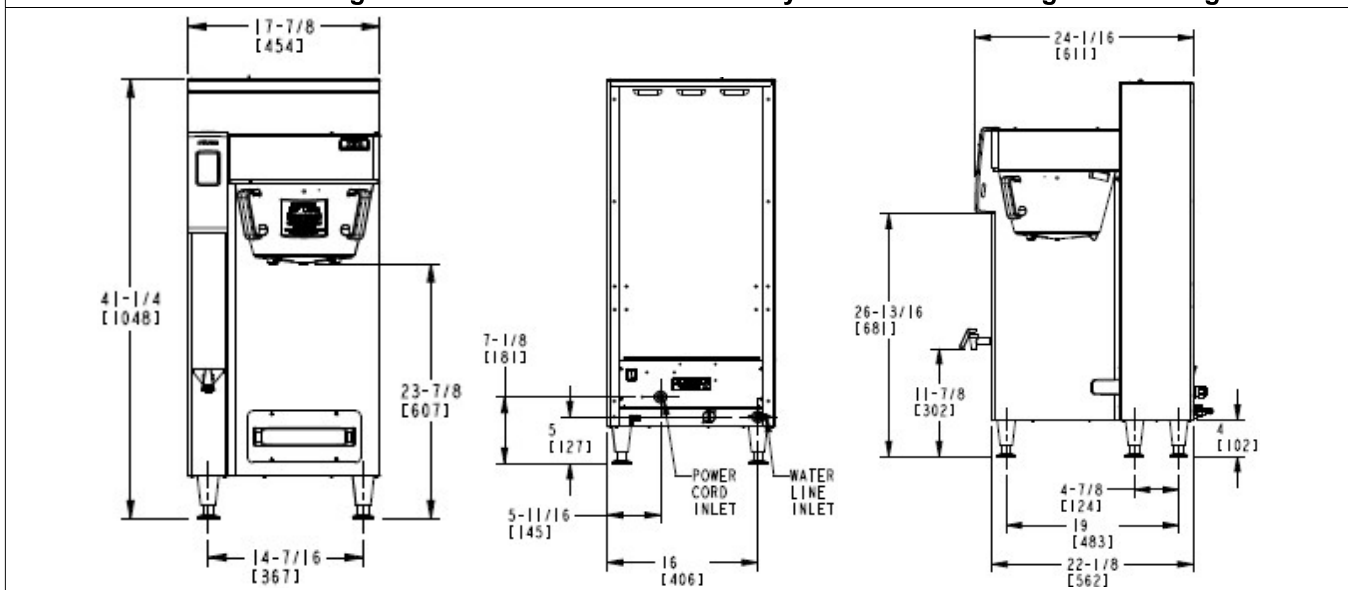
Brewer Model	Weight (empty)	Water tank Capacity & Weight.		Weight (filled)	*Dispenser Weight, ea.	*Dispenser Filled, ea.	*Total Weight Brewer & Dispensers, Filled
CBS-2161XTS	88 lbs. (40kg)	8.7 gal. (33 l)	72 lbs. (32.7kg)	160 lbs. (72.5kg)	18 lbs (8.2kg)	42.5 lbs (19.3kg)	202.5 lbs. (92kg)
CBS-2162XTS	130 lbs. (59kg)	16.3 gal. (62 l)	136 lbs. (62.1kg)	266 lbs. (120.7kg)	18 lbs. (8.2kg)	42.5 lbs (19.3kg)	349 lbs. (158.3kg) (2 dispensers)

\* Based on TPD-30 Series Dispensers

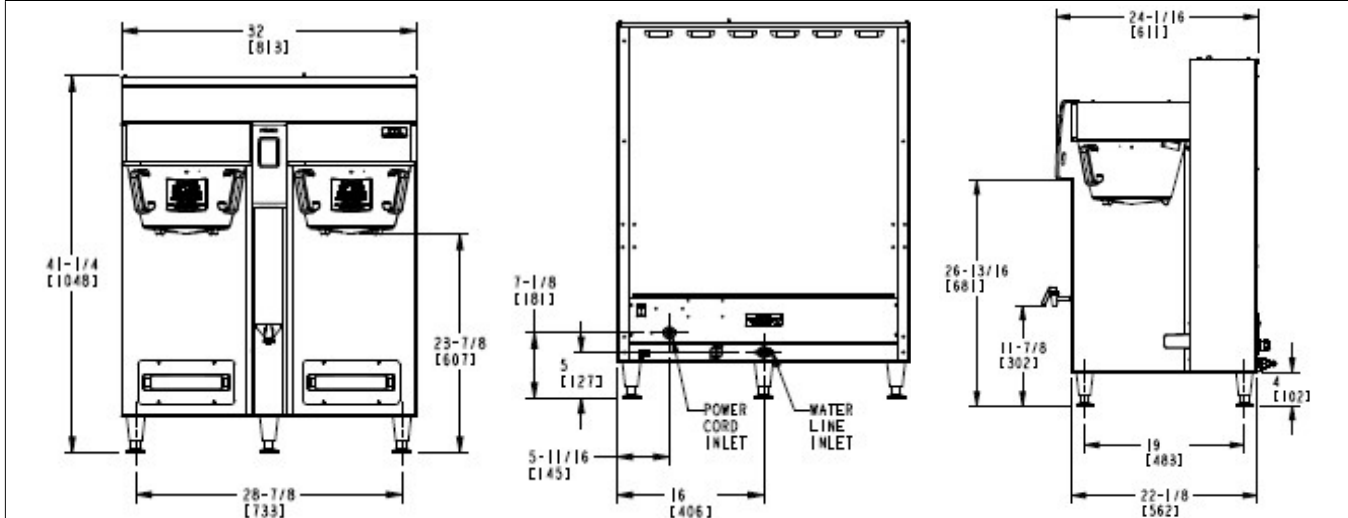
### Measurements

Brewer Model	Height	Width	Depth	Empty weight	Shipping weight
CBS-2161XTS	41 ¼ in. (1048mm)	17 7/8 in. (454mm)	22½ in. (57cm)	88 lbs. (40kg)	96 lbs. (44kg)
CBS-2162XTS	41 ¼ in. (1048mm)	32 in. (813mm)	22½ in. (57cm)	130 lbs. (59kg)	140 lbs. (63.6kg)

### CBS-2160XTS—3-gallon version Dimensions & Utility Connections Rough-in Drawings



### Rough-in CBS-2161XTS —Single station version 3-gallon version Drawing#1201.00025.00



### Rough-in CBS-2162XTS—Dual station 3-gallon version Drawing#1201.00024.00

All brewers HARDWIRE to an internal TERMINAL BLOCK See wiring diagrams for connections

<b>North America CBS-2161XTS—Single 3 gallon version Electrical Configurations</b>							
Configuration Code	Heater Configuration	Voltage	Phase	Wires	KW	Amp Draw	Gallon/[liter]Hour (3 gallon per batch)
E216151	3 X 3.0 kW	200-240	3	3L+G	6.4-9.1	18.6-22.5	16.4-23.4 [62-88]
(*Optional)	2 X 3.0 kW	200-240	1	2L+G	4.6-6.1	21.2-25.8	11.8-15.7 [44-59]
E216152	3 X 4.0 kW	200-240	3	3L+G	8.4-12.1	24.7-28.9	21.6-30 [82-113]
(*Optional)	2 X 4.0 kW	200-240	1	2L+G	6.1-8.1	28.1-33.8	15.6-20.8 [59-79]
E216153	3 X 5.0 kW	200-240	3	3L+G	10.5-15.1	30.7-36.1	27-30 [102-113]
(*Optional)	2 X 5.0 kW	200-240	1	2L+G	7.6-10.1	35.1-42.2	19.6-26 [74-98]

\*Sold as three phase, highest power version  
Equipment may be field configurable to single phase, lower-power, single-phase configuration using two heaters.

<b>North America CBS-2162XTS—Twin 3 gallon version Electrical Configurations</b>							
Configuration Code	Heater Configuration	Voltage	Phase	Wires	KW	Amp Draw	Gallon/[liter]Hour (3 gallon per batch)
E216251	3 X 3.0 kW	200-240	3	3L+G	6.4-9.1	18.6-22.5	16.4-23.4 [62-88]
E216252	6 X 3.0 kW	200-240	3	3L+G	12.6-18.1	36.4-43.7	32.4-46.5 [123-176]
E216253	3 X 4.0 kW	200-240	3	3L+G	8.4-12.1	24.7-28.9	21.6-28.9 [82-113]
E216254	6 X 4.0 kW	200-240	3	3L+G	16.8-24.1	48.4-58.1	43.1-60 [163- 227]
E216272	6 X 3.0 kW	440-480	3	3L+G	13.6-18.1	19.4-22.2	33.2-44 [126-167]
E216271	6 X 4.0 kW	440-480	3	3L+G	20.3-24.1	26.6-29.4	52.2- 60 [197- 227]

<b>International, North America and Japan CBS-2161XTS—Single 3 gallon version Electrical Configurations</b>							
Configuration Code	Heater Configuration	Voltage	Phase	Wires	KW	Amp Draw	Gallon/[liter]Hour (3 gallon per batch)
E216151*	3 X 3.0 kW	200-240	3	3L+G	6.4-9.1	18.6-22.5	16.4-23.4 [62-88]
E216152*	3 X 4.0 kW	200-240	3	3L+G	8.4-12.1	24.7-28.9	21.6-28.9 [82-113]
E216153*	3 X 5.0 kW	200-240	3	3L+G	10.5-15.1	30.7-36.1	27-30 [102-113]

\*Sold as three phase, highest power version  
Equipment may be field configurable to single phase, lower-power, single-phase configuration using two heaters as in domestic version

<b>International CBS-2161XTS—Single 3 gallon version Electrical Configurations</b>							
Configuration Code	Heater Configuration	Voltage	Phase	Wires	KW	Amp Draw	Gallon/[liter]Hour (3 gallon per batch)
E216191	3 X 3.0 kW	220-240/380-415	3	3L,N+G	7.6-9.1	11.7-12.7	19.6-23.4 [74-88]
E216192	3 X 4.0 kW	220-240/380-415	3	3L,N+G	10.2-12.1	15.5-16.9	26.2-28.9 [99-113]
E216193	3 X 5.0 kW	220-240/380-415	3	3L,N+G	12.7-15.1	19.3-21.0	32.6-37.8 [116-125]

<b>International, North America and Japan CBS-2162XTS—Twin 3 gallon version Electrical Configurations</b>							
Configuration Code	Heater Configuration	Voltage	Phase	Wires	KW	Amp Draw	Gallon/[liter]Hour (3 gallon per batch)
E216252	6 X 3.0 kW	200-240	3	3L+G	12.6-18.1	36.4-43.7	32.4-46.5 [123-176]
E216254	6 X 4.0 kW	200-240	3	3L+G	16.8-24.1	48.4-58.1	43.1-60 [163- 227]
E216291	3 X 5.0 kW	220-240/380-415	3	3L,N+G	12.7-15.1	19.3-21.0	32.6-37.8 [116-125]
E216292	6 X 3.0 kW	220-240/380-415	3	3L,N+G	15.1-18.1	22.9-25.0	38-44 [144-167]

## 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 brewbasket**

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

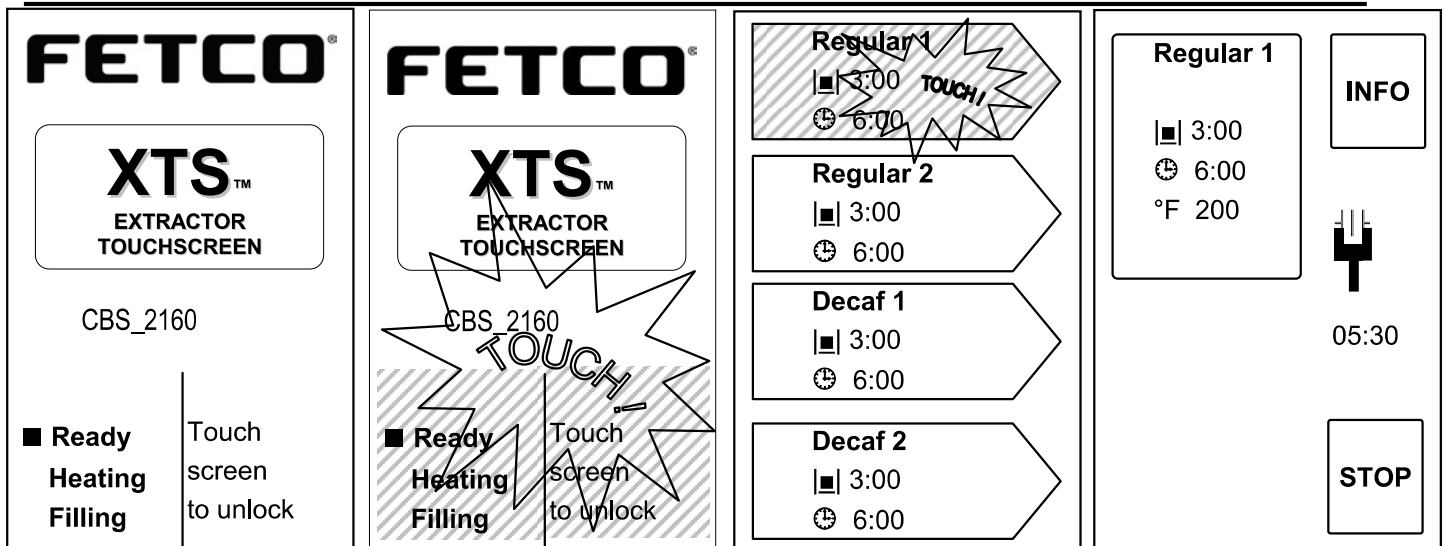
**4-Place appropriately sized, clean, empty and preheated dispenser under brewbasket.**

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

-Note: "READY" icon is satisfied

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

**CBS-2161XTS** single side brewer is displayed. Screen shown approximately the same size as on equipment



1)With ready icon displayed

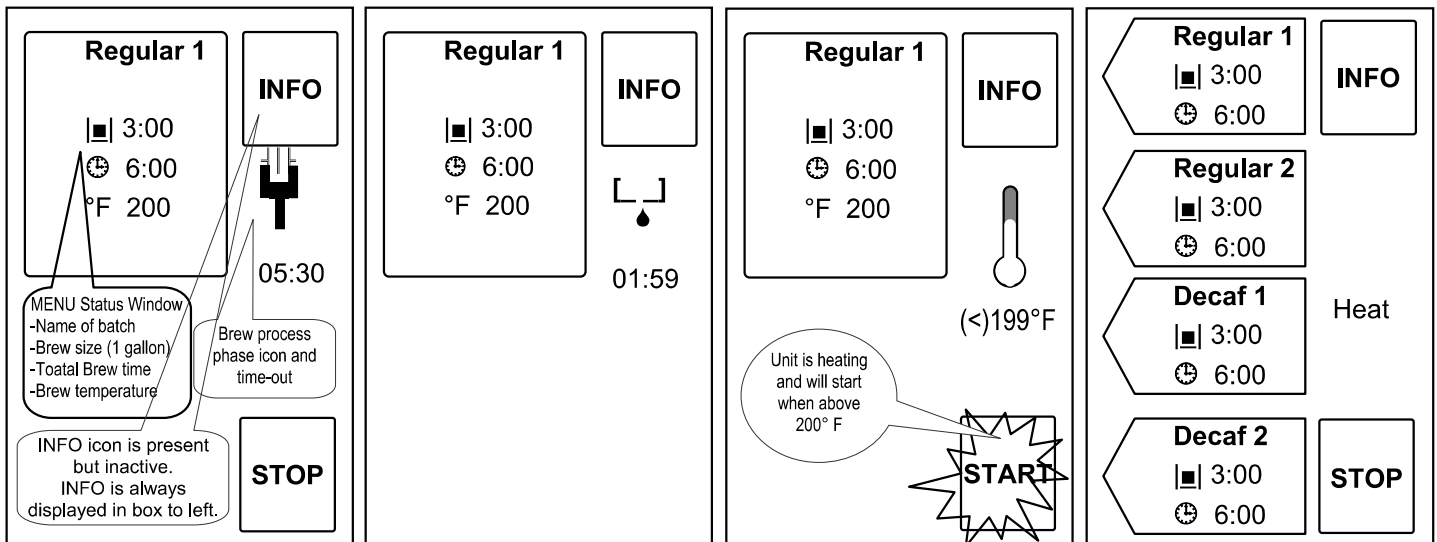
2)Touch and hold to activate brew menu

3)Touch and hold pennent to start brew

4) Brew Started

### Brew operation-intuitive touch screen-continued BREW IN PROCESS

When the brew is started the equipment will display the brew process graphically as shown



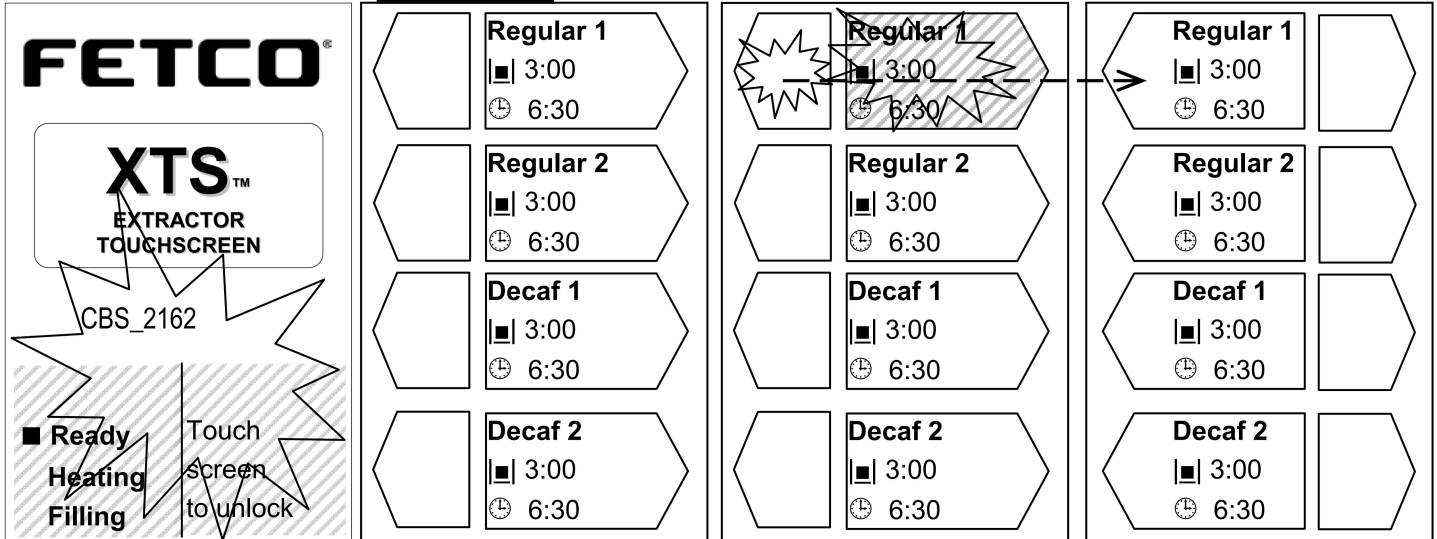
Activated brew screen menu status in box and displays time.

Drip delay icon (brew basket locked)

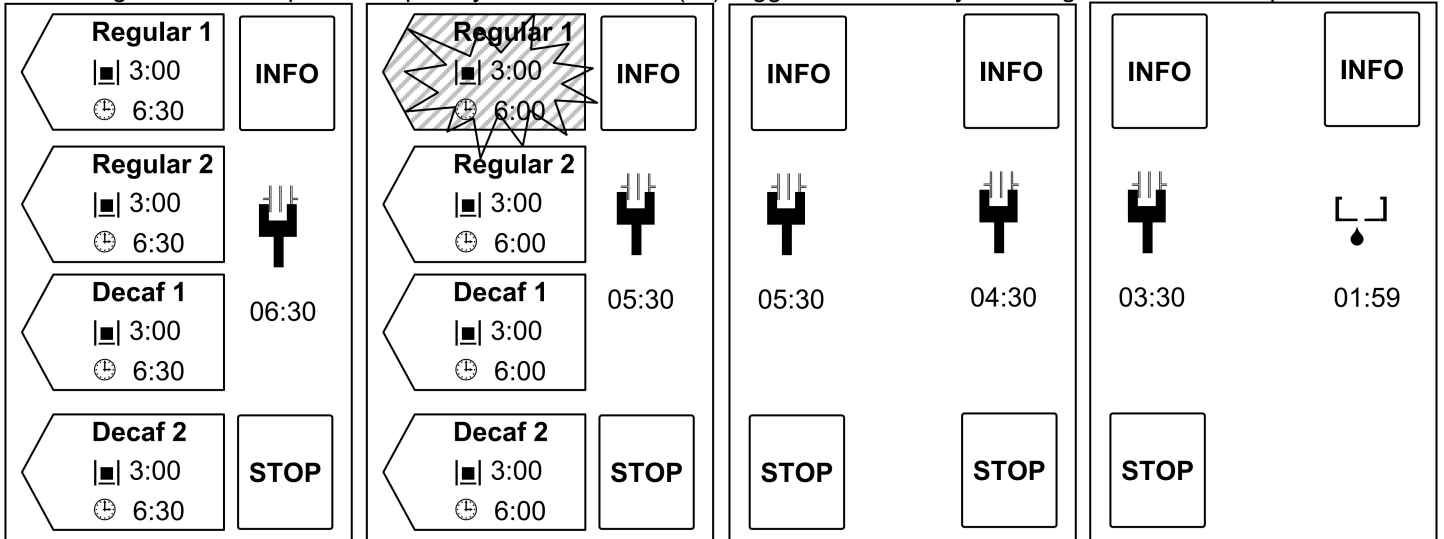
Unit below set temperature (single side brewer)

Unit below set temperature (dual side brewer)

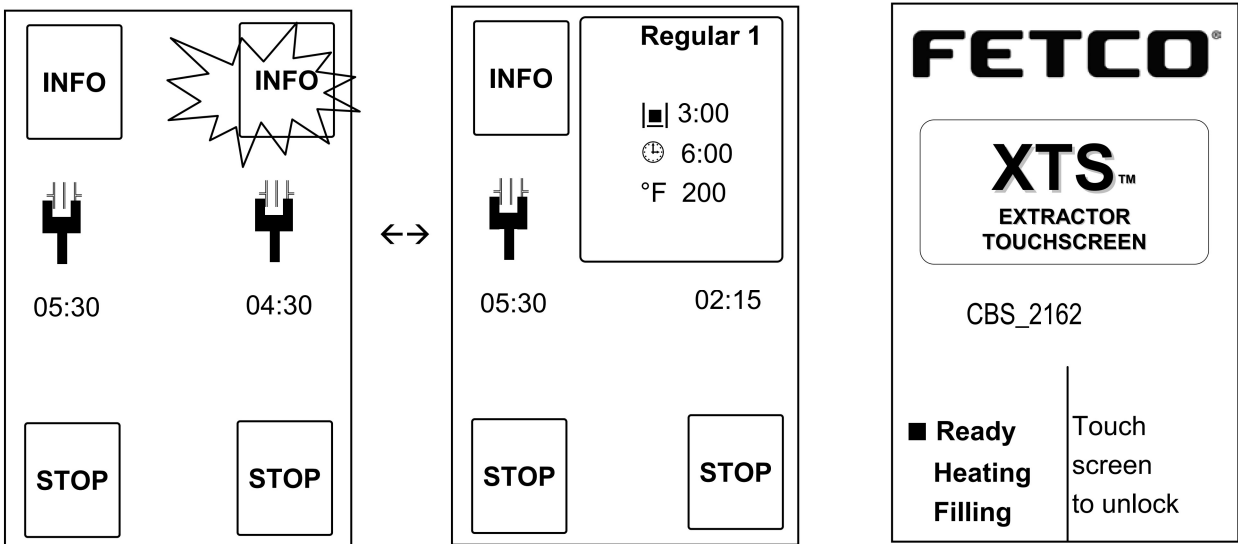
Screens for dual brewer. **CBS-2162XTS**



1) With ready icon displayed → 2) Touch and hold to activate brew menu → Touch and hold "pennant" to begin brew  
 NOTE: Right side menu pennets open by default. (→) Toggle to left side by touching the inactive left pennent



1) Right side brewing      2) Touch left pennent to brew      3) Right & Left side brewing      4) Right side in drip out  
 Below are common dual side brewer informational icons



INFO icon activated shows brew status (will toggle for other side)  
 NOTE: INFO icon is present but inactive for single brewer.

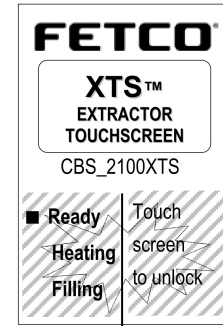
Brew completed & ready for next brew

## Service Menu: Access and XTS menu tree

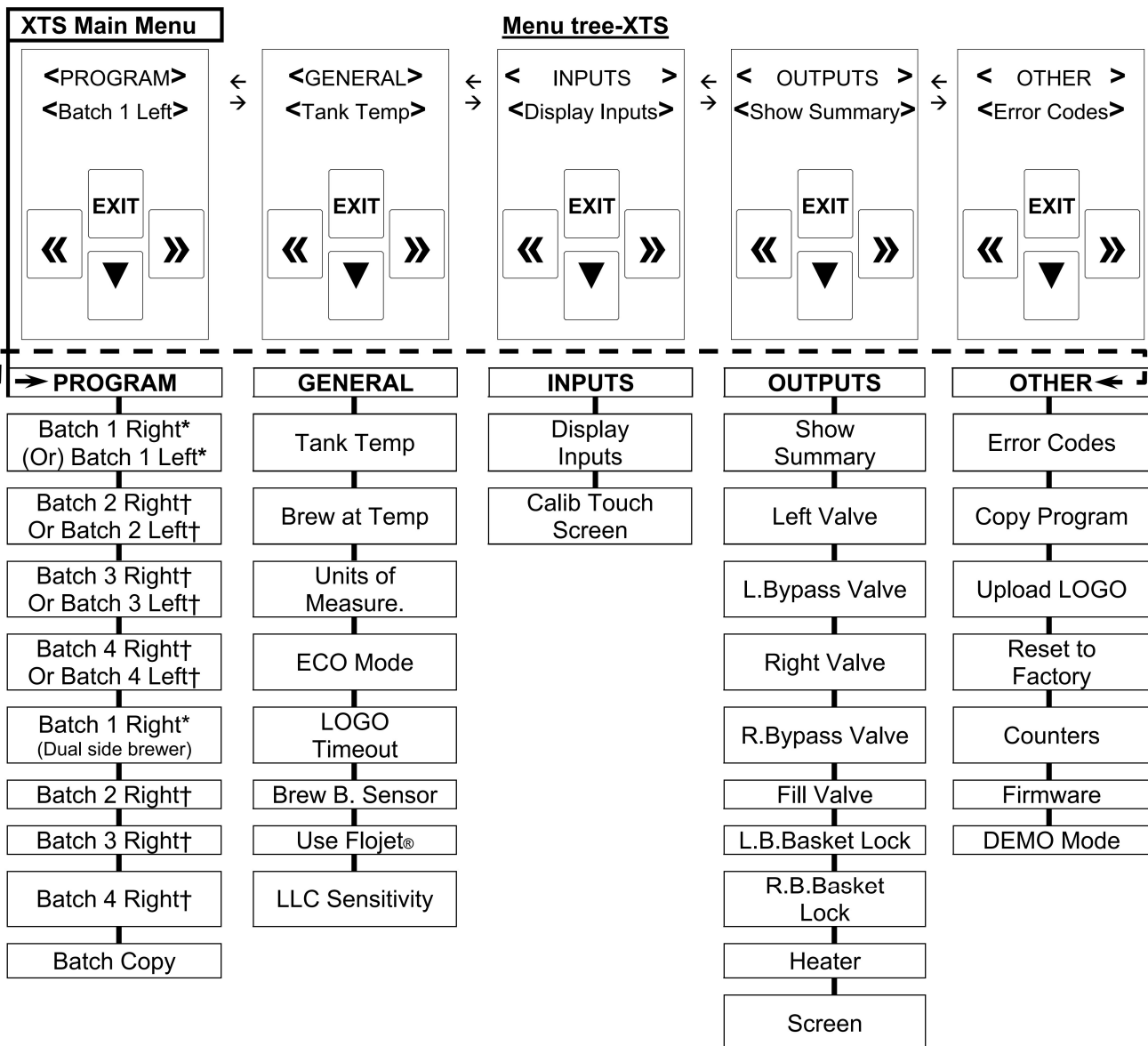
Menu adjustment and name selection, control parameter settings, programming, error codes, counters and reset features are accessed by activating touch screens.

### General Service Menu

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

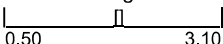
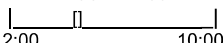
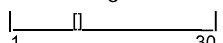
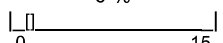
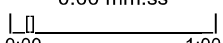
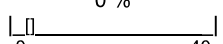
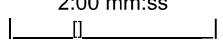
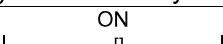
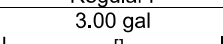
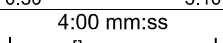
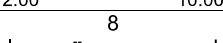
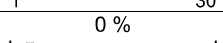
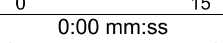
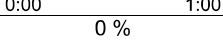
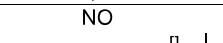


- Enter Service Menu by accessing the power switch on back of the panel
- Switch power “OFF”with power switch located on rear of brewer
- After at least ten seconds: Turn power switch “ON”
- Quickly touch and hold the XTS screen to enter the programming screens as shown→.
- When entering The SERVICE MENU: the first screen is “PROGRAM”
- Use right and left arrow icons to scroll through the five main SERVICE menus.
- The DOWN icon will open the FEATURE icon below.
- Scroll through the Menu Item with the arrows, edit any if needed
- When finished editing press the up arrow to go back through the menu items to save changes and exit
- A Menu Tree is below to show the main categories of the five SERVICE menus



\*Single side brewer only shows the four RIGHT menus—dual brewers show LEFT and then RIGHT  
 Batch 1—Right and Left are permanent—may not be deleted and are completely programmable  
 †Batch 2-4—Right and Batch2-4—Left may be individually selected-or-entirely deleted

### Menu Features: Batch Parameters

PROGRAM	Programming Items	Factory set Default	Programming Range	Notes
<b>Batch 1 LEFT*</b>	• Batch Summary	Display Summary		
	• Batch Name	Regular 1(-16)	Choose from list: Regular1	(Regular 1-16) -OR- Write: any name
	• Batch Volume	2liters to 3:10 gal [ 0.50-3.10]	3.00 gal 	Screen will display in range and units selected
	• Brew Time	4:00 or 4:30 mm:ss [ 2:00-10:00]	4:00 mm:ss 	<b>CBS-2161XTS 4:00 min</b> <b>CBS-2162XTS 4:30 min</b>
	• Nr Of Pulses	8	8 	CBS-2160 has default minimum 2 pulses
	• Prewet Perc.	0%	0 % 	
	<b>Pause after prewet completes</b>	• Prewet Delay.	0%	0:00 mm:ss 
	• Bypass Perc.	0%	0 % 	
	• Drip Delay	<b>2:00 mm:ss</b>	2:00 mm:ss 	Default is 2 minutes. Brew basket remains locked during drip-out
<b>Batch 2 Left**</b>	**Batch 2-4—Right and Batch2-4—Left may be individually selected-or-entirely deleted			
	• Batch ON/OFF	ON	ON 	
	• Batch Summary	Display Summary		
	• Batch Name	Regular 1(-16)	Choose from list: Regular1	(Regular 1-16) -OR- Write: any name
<b>Model CBS-2160</b>	• Batch Volume	2liters to 3:10 gal [ 0.50-3.10]	3.00 gal 	Screen will display in range and units selected
	• Brew Time	4:00 or 4:30 mm:ss [ 2:00-10:00]	4:00 mm:ss 	<b>CBS-2161XTS 4:00 min</b> <b>CBS-2162XTS 4:30 min</b>
	• Nr Of Pulses	8	8 	CBS-2160 has default minimum 2 pulses
<b>Pause after prewet completes</b>	• Prewet Perc.	0%	0 % 	
	• Prewet Delay.	0%	0:00 mm:ss 	This fature appears ONLY if Prewet >0:00
	• Bypass Perc.	0%	0 % 	
<b>Batch 3 Left **</b>	(See Batch 2-Left)			
<b>Batch 4 Left **</b>	(See Batch 2-Left)			
<b>Batch 1 Right *</b>	(See Batch 1-Left)			
<b>Batch 2 Right **</b>	(See Batch 2-Left)			
<b>Batch 3 Right **</b>	(See Batch 2-Left)			
<b>Batch 4 Right **</b>	(See Batch 2-Left)			
<b>Batch Copy</b>	Copy From Batch	L1	L1-L4;R1-R4	
	Copy To Batch	L1	L1-L4;R1-R4	
	Copy?	L1→L2? (example)	NO 	
*Batch 1 cannot be disabled. (CBS-2101XTS)				
*Batch 1&4 cannot be disabled. (CBS-2102XTS); **Batch can be disabled, and removed from display				

<b>Batch 1 Right</b>	
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	2:00
Touch to return (Example screen for <b>Batch Summary</b> display)	

GENERAL	Programming Items	Factory set Default	Programming Range (display)	Notes
Tank Temp.		<b>200°F</b>		Chart to correct for high altitude below
Brew at Temp.	“OFF” allows brewing at any temperature.	“ON”		SEE NOTE BELOW!
Units of Meas.	• Temperature	°C or <b>°F</b>		[Switchable Units]
	• Volume	<b>Gallons</b> [Liters]		[Switchable Units]
ECO Mode	Energy Saving Mode	OFF		If Selected: Lowers hot water tank temperature to 170°F after 1 hour of inactivity
Logo Timeout		<b>0:30 mm:ss</b>		
Brew B. Sensor		<b>NORMAL</b> (SEE WARNINGS)		Factory or service use for servicing. “NORMAL” is recommended for safety.
Use Flowjet		NO		Trims water handling system for Flowjet
LLC Sensitivity	Normal for most water “HIGH” for R.O.	NORMAL		Liquid level control sensitivity. High is for reverse osmosis water or very pure water.

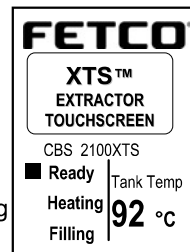
### BREW AT TEMPERATURE DEFINITONS

#### BREW AT TEMP: “ON”

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

“BREW START” Batch Section Buttons will not be accessible until tank temperature is at set point.

The “BREW START” screens with the Batch Section Buttons become accessible when hot water tank is at the selected temperature. A screen (example to the right) will display showing “BREW AT TEMP” is selected. →

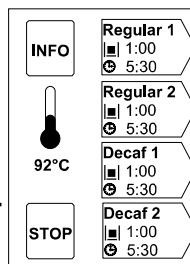


#### BREW AT TEMP: AUTO USER SELECTABLE

“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 179°F/82°C.

May NOT apply for two sided brewer if one side is in brew cycle

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 DEFINITONS

**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.**

**FETCO™**

**XTS™**  
EXTRACTOR  
TOUCHSCREEN

CBS\_2100XTS

**ECO**


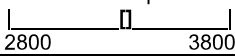

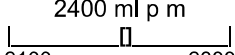

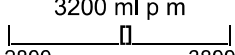

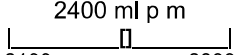




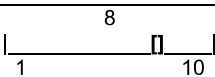
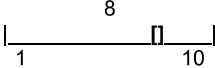
Heating  
Filling

**89°C**



INPUTS	Programming Items	Factory set Default	Programming Range (display)	Notes
Display Inputs	• Input Summery		R. Brew Basket Sens. [ single/dual] <input type="checkbox"/> L. Brew Basket Sens. <input checked="" type="checkbox"/> H. Liquid Level probe <input checked="" type="checkbox"/> H. Tank Temperature Probe <input checked="" type="checkbox"/> L. Tank Temperature Probe <input checked="" type="checkbox"/> SD Card Recognized <input type="checkbox"/> Tank Temp. 200	
Cal. Touch Scr		Calibrate	Calibrate _____ <input type="checkbox"/> _____ YES NO	If Yes: Follow directions on the touch screen

INPUT SUMMARY SCREEN	
Display Inputs (See "INPUTS" Service Screen)	<b>Brew Basket Sensor</b> <input checked="" type="checkbox"/> <b>High Liquid Level Probe</b> <input checked="" type="checkbox"/> <b>Low Liquid Level Probe</b> <input checked="" type="checkbox"/> <b>Tank Temp. Probe</b> <input checked="" type="checkbox"/> <b>SD Card present</b> <input type="checkbox"/> <b>Tank Temperature 205F</b>
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 brewbasket!
” ” ” ”	• L. Valve Calib	Calibrate *Flow Rate	3200 ml p m 	Factory or service use for flow rate
<b>L. Bypass Valve</b> Test OR Calibrate Not on CBS 2130XTS	• Left Bypass Valve Test	(Press to test)	TEST Press To Test 	Runs valve to verify flow. Have container under brewbasket!
” ” ” ”	• L. Bypass Valve Calib	Calibrate *Flow Rate	2400 ml p m 	Factory or service use for flow rate
Left Valve display is only for CBS-2102XTS dual side brewer. CBS-2101XTS Single series displays RIGHT SIDE only				
<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 brewbasket!
” ” ” ”	• R. Valve Calib	Calibrate *Flow Rate	3200 ml p m 	Factory or service use for flow rate
<b>R. Bypass Valve</b> Test OR Calibrate Not on CBS 2130XTS	• Right Bypass Valve Test	(Press to test)	TEST Press To Test 	Runs valve to verify flow. Have container under brewbasket!
” ” ” ”	• R. Bypass Valve Calib	Calibrate *Flow Rate	2400 ml p m 	Factory or service use for flow rate
<b>Fill Valve</b>	• Fill Valve Test	(Press to test)	TEST Press To Test 	Operates fill valve. Have container under both brewbaskets!
<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) Use for servicing.
<b>Screen</b> Brightness OR Contrast	• Screen Contrast	Contrast	8 	
	• S. Brightness	Brightness	8 	

## 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:

- Enter programming mode, scroll left to “OUTPUTS”
- Scroll down to “Left(or)Right Valve Test”
- Place 5 liter/2gal measuring container under empty brewbasket.  
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.**

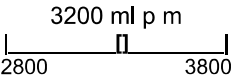
Measure the results of the flow in the 5-liter measuring container and hold the number.

### 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  
2800 3800

← Example of  
CBS-2160 brew  
valve slider

$$\frac{\text{Actual Volume}}{\text{Programmed Volume}} \times \text{CURRENT SETTING} = \text{NEW SETTING}$$


Enter new setting on  
the slider shown and  
EXIT to save

**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-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		
CBS-2130XTS equipment do not have BYPASS feature			

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  -----  YES NO	!!Errors must be corrected and cleared!!
<b>Copy Program</b>	• From SD to B.	SD→ Brewer	SD→ Brewer  -----  YES NO	Setup upload Please insert SD card with the setup data!
	• From B to SD	Brewer→ SD	Brewer→ SD  -----  YES NO	Setup download Please insert SD card with sufficient space (≥2GB)
<b>Upload Logo</b>		Upload Logo	UPLOAD LOGO Are you sure  -----  YES NO	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  -----  YES NO	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 [gal] 0 Left Bypass activated 0 Left Bypass [gal] 0 Right Brews 0 Right Brew activated 0 Right Brew [gal] 0 Right Bypass activated 0 Right Bypass [gal] 0 Fill valve Activated 0 Fill Valve [gal] 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>
<b>Reset Counters</b>	• Resets Counters	Reset All Counters	Reset All Counters Are you sure  -----  YES NO	Resetting will restart counter from zero
<b>Firmware</b>	• Firmware Version -Software type	Display Firmware Version	CBS_2162 [or model type] SW ver 3.0.12 HW ver 1.1.3 QP ver. 4.5.01 Flash=1024kb	Displays firmware version
	• Update Firmware	UPDATE	UPDATE  -----  YES NO	Firmware upload Please insert SD card with the firmware file!
<b>DEMO Mode</b>	DEMO ON/OFF		OFF  -----  ON OFF	Demonstrates the controls for training. Disables all components in demo mode.

## 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>Below is the only way to clear error codes</p> <p>1) Enter "PROGRAMMING"</p> <p>2) Scroll left to "OTHER"</p> <p>3) Scroll down to "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 entering PROGRAMMING and using the menus!</p>
050	Shorted 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 prefill, low probe is uncovered	
107	Fault Lower liquid level probe	Tank not filling	Occurs during prefill, 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	 <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Regular 1   3:00   06:30</p> <p>Regular 2   3:00   06:30</p> <p>Decaf 1   3:00   06:30</p> <p>Decaf 2   3:00   06:30</p> </div>	<p>Brewbasket must be in place</p>	<p>Insert brewbasket</p>	

**! → Never attempt to defeat or override a brew basket-locking 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.

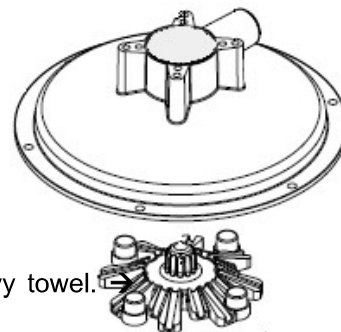
## Cleaning & Maintenance

### 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

4. Turn off power before any cleaning procedure, including wiping the exterior for appearance reasons.
5. Dry the exterior, especially the face panel, before turning on power.
6. Do not apply any type of spray cleaner on the face panel of this equipment.
7. Never use solvent or solvent-based cleaner or petroleum based polish anywhere on this equipment.
8. Dry the face of the touch pad before turning on power
9. Do not electrically energize this equipment or attempt operation without all covers in place and all screws fastened.
10. 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.

# Service Guide to a Successful Installation

(For Qualified Service Technicians Only)

## General

If not installed correctly by qualified personnel, the brewer will not operate properly and damage may result. Damages resulting from improper installation are not covered by the warranty, and will void the warranty. Here are the key points to consider before installation:

### Electrical:

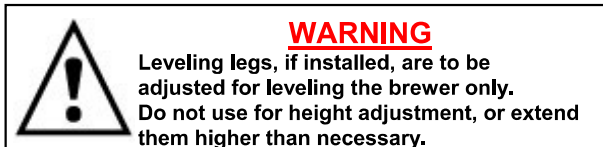
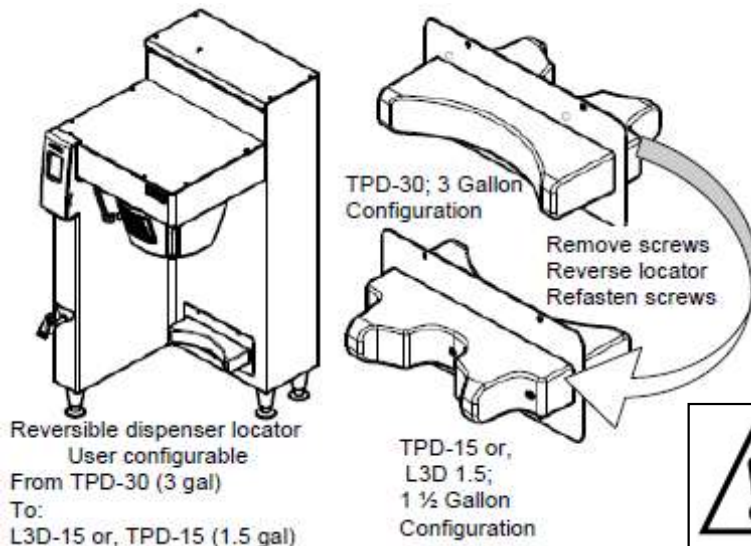
1. All CBS\_Series brewers require **an electrical ground wire**. Installation without grounding is dangerous.
2. Note Equipotentiality Terminal, if present, (To identify the terminals which, when connected together, bring the various parts of equipment or of a system to the same potential, not necessarily being the earth (ground) potential, e.g. for local bonding.)
3. Verify voltages, polarity, circuits, and circuit breaker access before attaching equipment.
4. The electrical diagram is located in the Users Guide and online at [www.fetco.com](http://www.fetco.com).
5. Make sure of the tight grounding of the equipment and use the external ground bolt.
6. 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.

### 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.  
Install the filter unit after a water shutoff valve and in a position to facilitate filter replacement.
4. 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.
5. Verify that the water line will provide a flow rate of at least 2 gpm (7.60 lpm) per minute and the water pressure is between 20-75 psig (138-517kPa) before making any connections.
6. Install a backflow prevention device. Most municipalities require a recognized backflow preventer.
7. Usable on all hot beverage and cold beverage equipment is a WATTS® SD-2 or SD-3.
8. WATTS spring loaded double check valve models are accepted by most zoning authorities.
9. →The check valve should be as close to the water supply inlet of the beverage equipment as possible.

### General:

1. Install legs, they are shipped inside the brewbasket
2. FETCO CBS-2160XTS series equipment have user configurable dispenser locator—see diagram below.
3. Utilize only qualified beverage equipment service technicians for service and installation.
4. Always have an empty dispenser under sprayhead of all coffee brewing equipment—including when at idle
5. For CBS-2160 series brewers: adjust the dispenser User Configurable Locator Assembly—see below



## Installation Directions

## For Qualified Service Technicians Only

### Brewer Setup

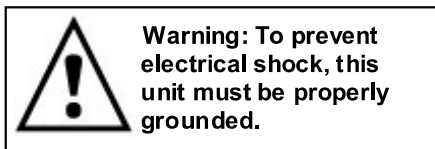
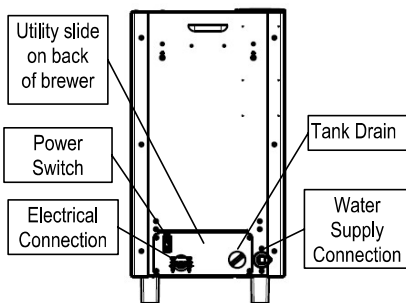
Includes installation safety and hygiene directions-For International and CE equipment

1. 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 (specifics-page 23).
2. Place the brewer on the counter or stand, install legs, set dispenser locator for airpot or gravity dispenser.
3. For terminal block electrical connected units: remove the lower utility slide out at the back of the equipment to access the electrical connections. The utility slide must remain close to the unit.  
Note: Utility slide out panel cannot be completely detached from the brewer.
4. Access to the service area is restricted to persons having safety/hygiene knowledge and practical experience of the coffee brewer.
5. This appliance must be installed in locations where it can be overseen by trained personnel
6. 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
7. 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.
8. 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
9. This unit must be installed and serviced by qualified personnel only.
10. 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.
11. 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).
12. 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.
13. Do not tilt appliance more than 10° to insure safe operation.
14. Unit is for protected indoor use only. Do not steam clean or use excessive water on unit.
15. This unit is not "jet-proof" construction. Do not pressure wash or use jet spray to clean this unit.
16. The unit is not waterproof-do not submerge or saturate with water.  
Do not operate if unit has been submerged or saturated with water.

**Equipment exposed to flood and contaminated must never be used due to electrical and food safety.**

### Water Connection

1. This equipment is to be installed to comply with the applicable federal, state, or local plumbing codes.
2. Water supply inlet is a 3/8 inch male flare fitting
3. The brewer is to be connected to a cold water line.
4. Install a shut off water valve near the brewer to facilitate service.
5. An in-line water filter should be used. Install filter unit after the water shut off valve and in a position to facilitate filter replacement.
6. Flush the water supply line and filter **before** connecting it to the brewer.
7. Before making any connections: Verify that the water line will deliver at least 1½gpm/(5.7lpm) per minute and water pressure is between 20-75 psig (138-517kPa).
8. 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



	<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.



## Electrical Connection

### →Always refer to the wiring diagrams when connecting equipment electrical utilities

- 1.The CBS-2100XTS series models requires hardwire to the terminal block to a, grounded service
- 2.Verify that the actual voltage at the electrical service connection is compatible with the specifications on the brewer's serial number label. Make sure the electrical service match the current draw of the equipment.
3. All CBS-2100XTS equipment have a terminal block for connecting the incoming power wires.
- 4.Consult local codes to determine if a cord and plug can be installed on factory supplied terminal block equipment, or if the unit must be hard wired.
- 5.Access the terminal block for electrical connection by removing the pullout service module on the lower back.
- 6.A fused disconnect switch or circuit breaker on the incoming power line must be conveniently located near the brewer, and its location and markings known to the operators.
- 7.The temperature and water tank fill level are pre-set at the factory. There is no need to turn off the heaters during the installation process. The heaters are disabled by the control board until the tank is full of water. The heating process will start automatically when the tank has filled.
- 8.The body of the brewer must be grounded to a suitable building ground.
- 9.An equipotential bonding point is provided for thisd connection where it is required.

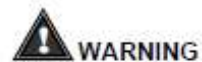
→See wiring diagrams for connections

## 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 & Brew Volume	Hot Water Tank Capacity
CBS-2161 Single-12 liter	9.9 gal 37.3 liter
CBS-2162 Dual-12 liter[x2]	17.9 gal 67.8 liter



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 grounding lug for this purpose and is marked with the following symbol



## 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. Note that the CBS-2161XTS and CBS-2162XTS are heavy two persons should place the brewer during installation. The 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.

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

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

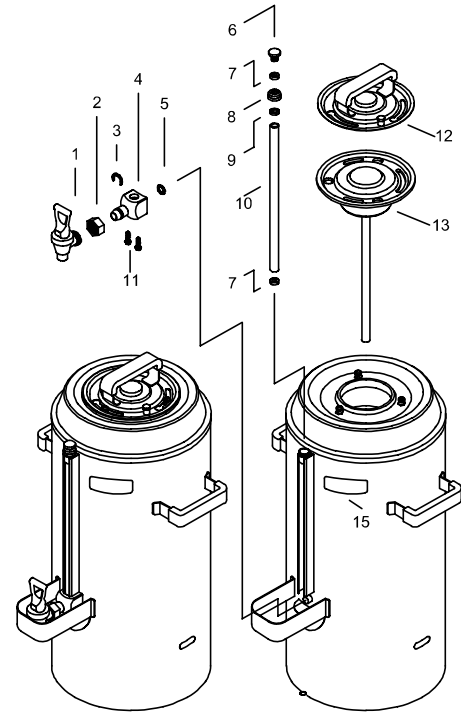
1102.00223.00 [Large] Spray Assembly Parts		CBS-2160XTS		
	Ref	QTY	PART NO	DESCRIPTION
	1	1	1102.00116.00	LARGESPRAY HOUSING ASSEMBLY
	2	1	1102.00222.00	VALVE, BREW, ASSEMBLY, 24 VDC
	3	4	1082.00056.00	SCREW, #8-11 X 1" THRD FORM, P/H PHIL
4	1	1102.00043.00	CASCADE SPRAY DOME ASSY, CBS-2050'S	

Brewbaskets			
Complete Brewbasket	Part Number B00828004	CBS-2160XTS [ONLY]	
	<b>Complete Brewbasket Part Number B00828004</b>		
	REF	Part Number	Description
	1	1112.00116.00	BB WLDMNT
	2	1046.00015.00	BREW BASKET WARNING LABEL
	3	1009.00005.00	WIRE BASKET
	4	1102.00154.00	MAGNET HOUSING CBS-2060'S
5	1082.00072.00	SCREW, 10-16 x 1/2", PAN HD PH.	
<b>Items listed below not shown</b>			
B00828002		Complete Brewbasket With filter paper clips	
Order 2	1102.00104.00	CLIP ASSEMBLY, CBS-60'S	

## Dispenser Parts

### LUXUS® TPD- 3.0

Reference Number	Part Number	Description
1	1071.00018.00	faucet, complete, black handle (ES)
1	1071.00020.00	faucet upper assy. w/black handle (handle, spring, seat cup and nut)
1	1071.00013.00	faucet seat cup
1	1071.00022.00	faucet handle- black
1	71027	faucet handle, decaf faucet (orange)
2	1012.00002.00	faucet union nut
3	1071.00012.00	faucet "c" ring
4	1102.00073.00	faucet shank assembly
5	1024.00027.00	faucet shank "o" ring 1/2" x 3/4"
6	1013.00035.00	vent top plug
7	1071.00014.00	sight gauge washer lower
8	1071.00023.00	sight gauge cap
9	1071.00016.00	sight gauge washer upper
6-9	102020	sight gauge cap and vent assy.
10	1021.00007.00	sight gauge tube 12-1/2" (plastic)
10	71033	sight gauge tube 12-1/2" (glass)
11	82045	faucet shank screw-2 required
12	1112.00052.00	twist lock cover assembly
13	1102.00052.00	brew funnel assembly
15	1041.00005.00	LUXUS label



## Cleaning & Maintenance

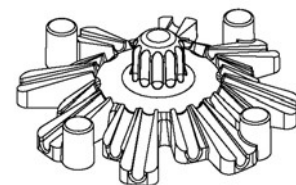
Daily: Wipe the area above the brew basket to remove coffee residue.

Daily or Weekly:

CSD Versions:

Clean the Cascading Spray Dome (CSD) with a soft brush and detergent. It may also be cleaned in a dishwasher – top rack only.

The CSD is held in place by four magnets. To remove it, grasp the bottom and pull down.



**CSD**

Quarterly:

- Check water temperature, adjust if necessary.
- Check brew levels, adjust if necessary.
- Inspect all fittings and hoses for leaks.
- Inspect inside of tank for lime deposits. De-lime tank and probes if necessary. This procedure should be done by a qualified service technician

Before cleaning, be sure that all residual coffee in the dispenser has been emptied out. Next, fill the dispenser 1/4 to 1/2 full with hot water. If desired, an appropriate cleaning solution may also be used. Follow manufacturers recommendations for cleaning.

### Daily Cleaning:



First, remove the black funnel assembly. Then, using a cleaning brush, scrub out the liner thoroughly, loosening coffee oils into the water.



Empty out the dirty water, either through the faucet or simply by tipping the dispenser over and dumping out through the top opening.

**CAUTION: Never immerse the dispenser completely in water or run through any dishwasher.**

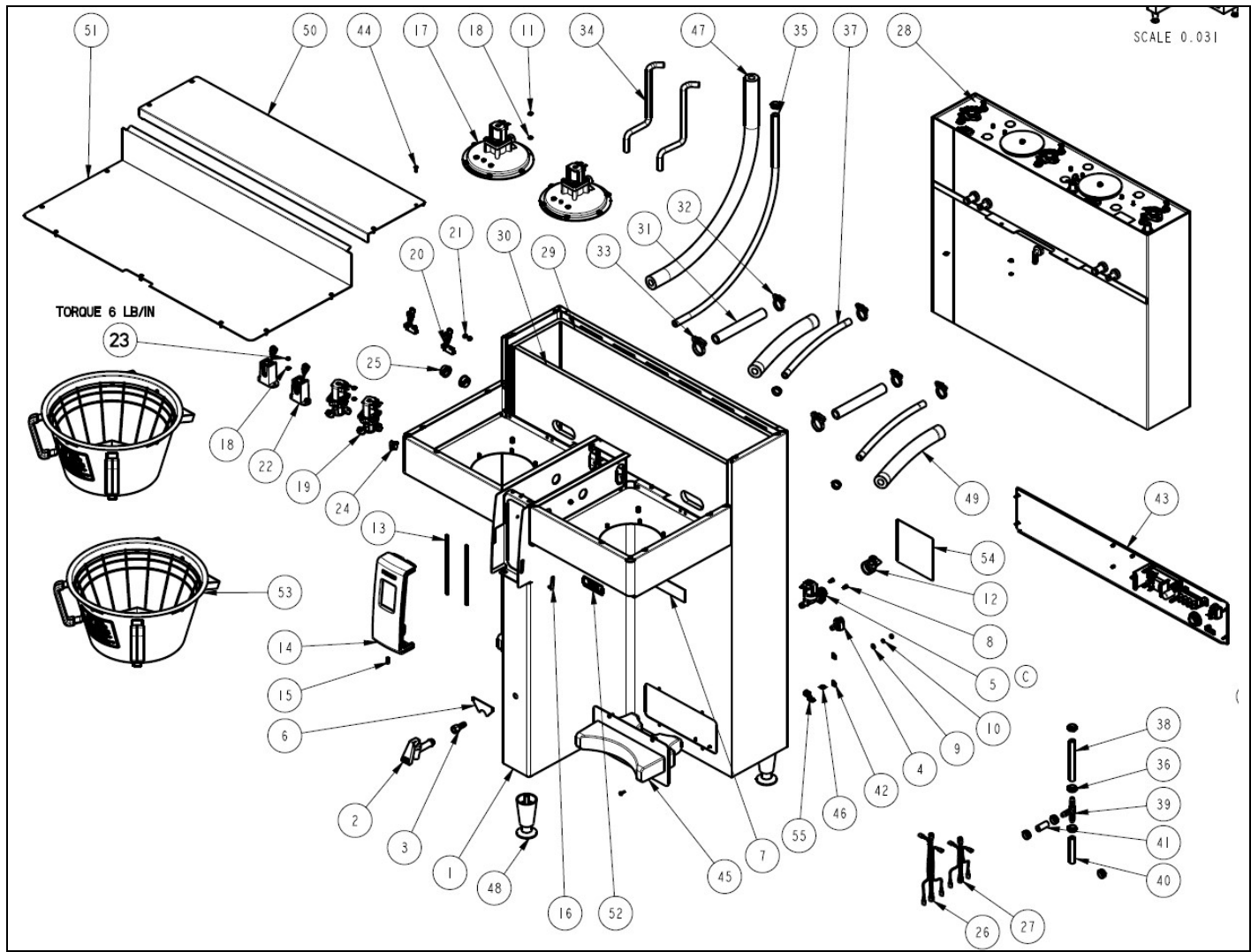
### Weekly Cleaning:



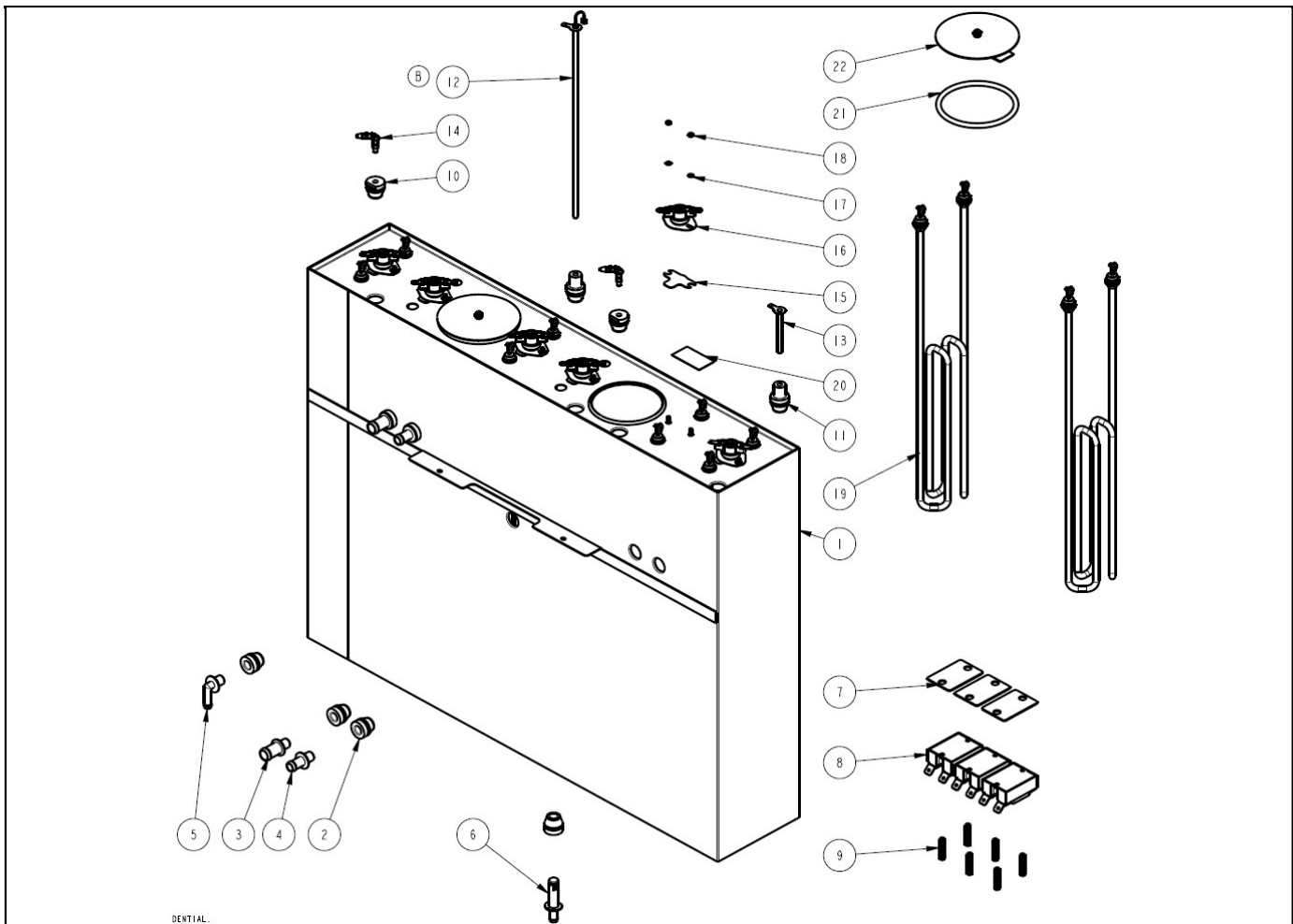
Remove sight gauge tube and clean with water and/or cleaning solution, using a small sight tube brush.



Unscrew the faucet and remove the rubber seat cup. Clean using the sight tube brush.



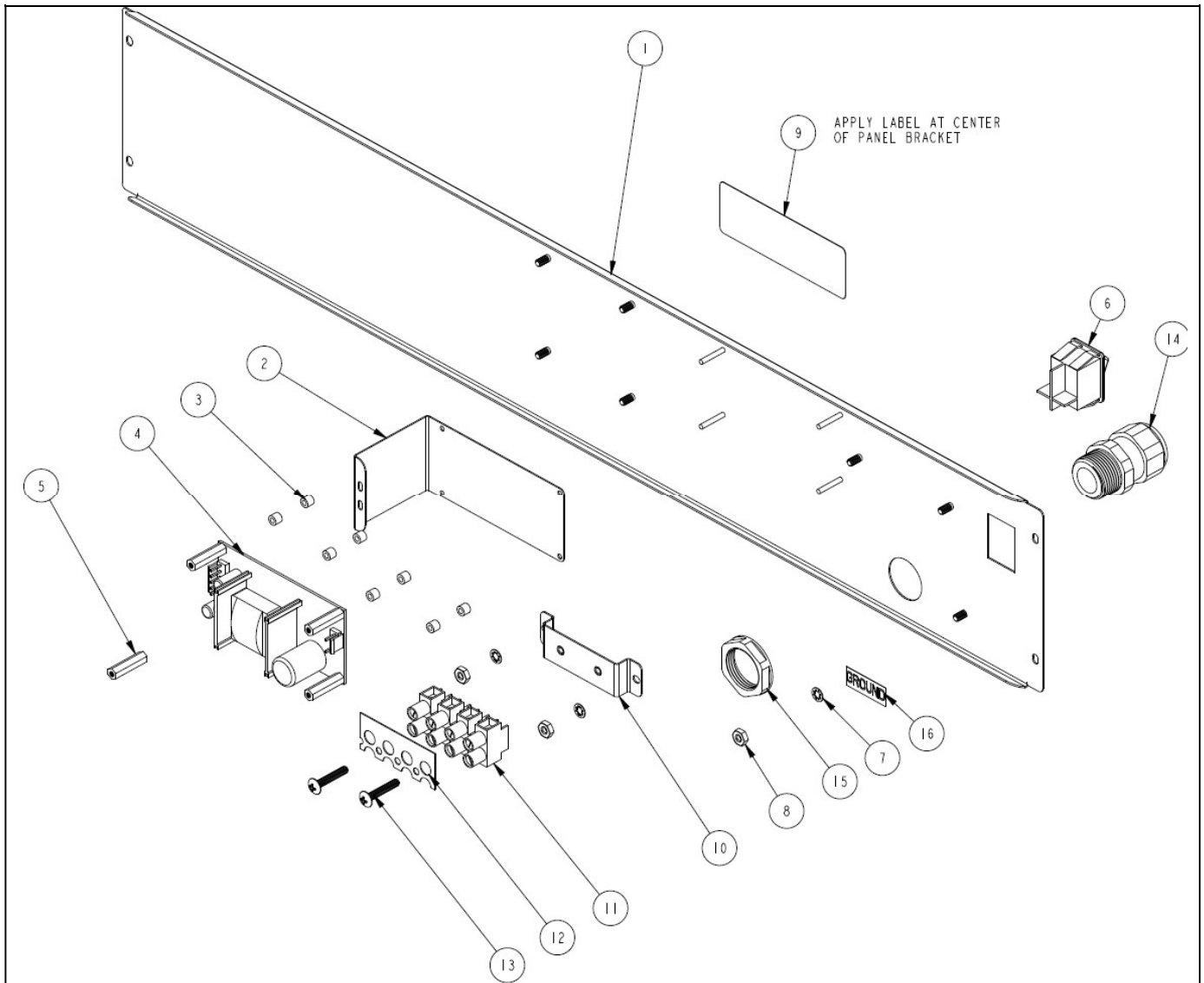
ITEM	QTY	Part Number	Brewer parts list CBS-2162 XTS,Bill of materials parts list
1	1	1111.00060.00	WELDMENT BODY COMPLETE, CBS-2162 XTS
2	1	1071.00010.00	FAUCET HPSC-BR-8 REGULAR HANDLE
3	1	1031.00003.00	FITTING, BARB 3/8"ID x 1/4" FPT
4	1	1023.00147.00	PLUG, TANK SERVICE DRAIN FOR 18 GA AND UP BODY
5	1	1057.00064.00	SOLENOID VALVE, 10L/min FLOW, 180 DEG, 24VDC
6	1	1046.00006.00	LABEL, WARNING, "HOT WATER FAUCET"
7	2	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
8	2	1082.00010.00	SCREW, M4x10 ZINC PLATED PAN PHILLIPS MACHINE
9	1	1083.00016.00	WASHER, #8 SCREW SIZE, FLAT
10	7	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
11	23	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
12	1	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
13	2	1024.00049.00	EDGE PROTECTOR, 7.00"LG, CBS-2130
14	1	1102.00210.00	ASSEMBLY FRONT PANEL, CBS-2130, GRAVITY VERSION
15	4	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
16	1	1024.00040.00	CARD PLUG, HWD-2100
17	2	1102.00223.00	SPRAY HOUSING, LARGE, COMPLETE ASSEMBLY, 24 VDC
18	20	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
19	2	1102.00221.00	ASSEMBLY, BYPASS VALVE, LEFT
20	2	1102.00113.00	SWITCH, REED, ASSEMBLY
21	4	1029.00006.00	NUT, FINGER, #4-40 NYLON
22	2	1102.00287.00	ASSEMBLY, BB LOCKER, CBS-2160 XTS SERIES
23	4	1084.00015.00	LOCKNUT, #8-32 SCREW SIZE, HEX THIN NYLON INSERT
24	2	1023.00159.00	CORNER INSERT
25	2	1086.00004.00	BUSHING, SNAP, 1" MOUNTING HOLE
26	1	1402.00076.00	HARNESS LOW AMP, CBS-2162 XTS
27	1	1402.00075.00	HARNESS HIGH AMP, CBS-2162 XTS, 6 HEATERS
28	1	1104.00098.00	TANK ASSEMBLY, CBS-2162 XTS, 6 x 4kW/240VAC ref:1101.00247.00
28	1	1104.00109.00	TANK ASSEMBLY, CBS-2162 XTS, 3 x 4kW/240VAC ref:1101.00257.00
28	1	1104.00108.00	TANK ASSEMBLY, CBS-2162 XTS, 6 x 3kW/240VAC ref:1101.00258.00
28	1	1104.00110.00	TANK ASSEMBLY, CBS-2162 XTS, 3 x 3kW/240VAC ref:1101.00259.00
28	1	1104.00112.00	TANK ASSEMBLY, CBS-2162 XTS, 3 x 5kW/240VAC ref:1101.00261.00
29	1	1022.00033.00	INSULATION, TANK, BACK, CBS-2062e
30	1	1022.00086.00	INSULATION TANK FRONT, CBS-2162 XTS
31	2	1025.00096.00	TUBE, 31/32"OD X 5/8"ID X 6 5/8"LG, BREW
32	4	1086.00018.00	HEYCO HOSE CLAMP DIA. .875-1.00
33	2	1086.00017.00	HEYCO HOSE CLAMP DIA .1.031-1.187
34	2	1025.00037.00	TUBE, 1/2"OD X 1/4"ID X 14" LG, VENT
35	1	1025.00097.00	TUBE, 5/8"OD X 3/8"ID X 27"LG
36	9	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
37	2	1025.00098.00	TUBE, 5/8"OD X 3/8"ID X 11.25"LG
38	1	1025.00100.00	TUBE, 9/16"OD X 5/16"ID X 9"LG
39	1	1029.00002.00	FITTING, HOSE BARB TEE, SIZE 3/8" , NYLON
40	1	1025.00077.00.	TUBE, 9/16 OD x 5/16 ID x 6.50 LG
41	1	1025.00058.00	TUBE, 9/16"OD X 5/16"ID X 25.00"LG
42	14	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLK-PH FINISH
43	1	1102.00285.00	ASSEMBLY, BACK PANEL, CBS-2162 XTS
44	23	1082.00017.00	SCREW, # 6-32 X 1/2" TRUSS HD PHIL., MACHINE
45	2	1102.00288.00	ASSEMBLY LOCATOR L3D-15, TPD-30, CBS-2160 XTS
46	1	1044.00012.00	LABEL GROUND, CE
47	1	1022.00088.00	INSULATION, 5/8" ID X 3/8" TH, 25"LG
48	3	1073.00007.00	LEG, FLANGE FOOT, 4" HIGH
49	2	1022.00087.00	INSULATION, 5/8" ID X 3/8" TH, 11"LG
50	1	1001.00236.00	COVER, TOP CBS-2162 XTS
51	1	1001.00237.00	COVER, UPPER BASE, CBS-2162 XTS
52	1	1041.00013.00	LABEL, XTS, 2130,2140 AND 2150 SERIES
53	2	B00828004	BREW BASKET ASSY, CBS-2060/2160'S
54	1	1046.00035.00	LABEL, WARNING "TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE"
55	1	1065.00002.00	CONNECTOR, COPPER LUG



DENTAL

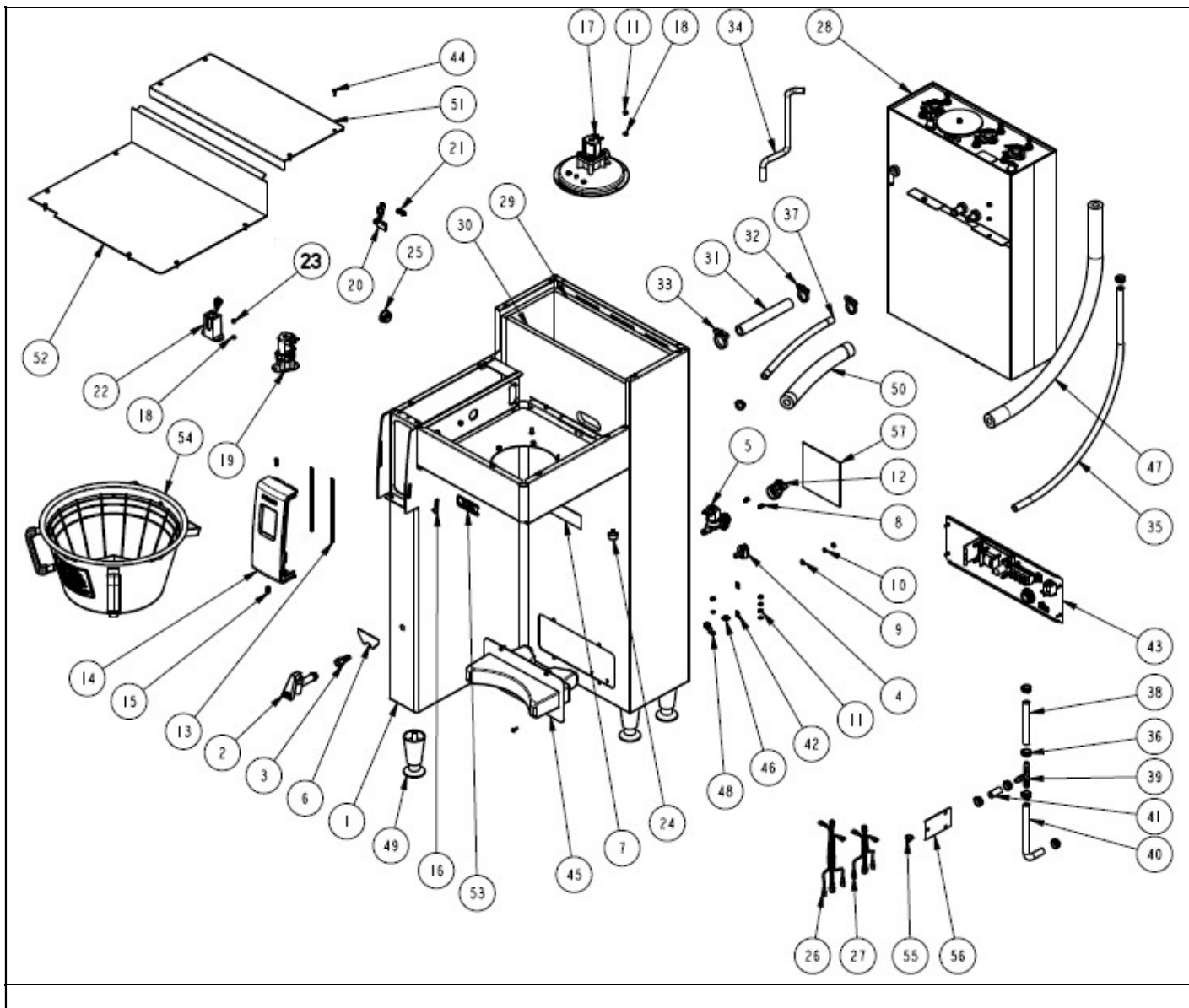
ITEM	QTY	Part Number	Hot Water Tank parts list CBS-2162 XTS,Bill of materials parts list
1	1	1114.00127.00	WELDMENT, TANK, CBS-2162 XTS
2	6	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
3	2	1023.00203.00	FITTING, BREW, GROMMET DESIGN
4	2	1023.00167.00	FITTING, BREW, GROMMET DESIGN
5	1	1023.00183.00	FITTING, DILUTION, TBS-2121
6	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
7	3	1003.00140.00	ALUMINUM BRACKET FOR SSR
8	3	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
9	6	1081.00042.00	STANDOFF, 1/4" HEX
10	2	1024.00062.00	GROMMET, SHORT, SILICONE, LEVEL AND TEMP PROBE
11	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
12	1	1102.00234.00	PROBE ASSEMBLY, TEMP. AND LLC 12" LONG
13	1	1112.00019.00	PROBE WELDMENT, WATER LEVEL 2.600" LG
14	2	1029.00023.00	FITTING, SINGLE BARBED ELBOW, 1/4", KYNAR
15	6	1003.00005.00	BRACKET, ONE SHOT THERMOSTAT
16	6	1053.00004.00	THERMOSTAT, SINGLE SHOT, 25A
17	12	1083.00009.00	WASHER, #6 SCREW, INTL TOOTH LOCKWASHER
18	12	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
19	6	1107.00010.00	HEATER ASSEMBLY, IMMERSION 4000W/240VAC H.W. Tank Ref:1104.00098.00
19	6	1107.00005.00	HEATER ASSEMBLY, IMMERSION 3000W/240VAC H.W. Tank Ref:1104.00108.00
19	6	1107.00011.00	HEATER ASSEMBLY, IMMERSION 4000W/480VAC H.W. Tank Ref:1104.00113.00
19	3	1107.00010.00	HEATER ASSEMBLY, IMMERSION 4000W/240VAC H.W. Tank Ref:1104.00109.00
19	3	1107.00005.00	HEATER ASSEMBLY, IMMERSION 4000W/240VAC H.W. Tank Ref:1104.00110.00
19	3	1107.00032.00	HEATER ASSEMBLY, IMMERSION 5000W/240VAC H.W. Tank Ref:1104.00112.00
20	1	1044.00004.00	LABEL, DANGER-HIGH VOLTAGE
21	2	1024.00007.00	O-RING, DASH #344, TANK COVER
22	2	1102.00007.00	TANK COVER ASSEMBLY



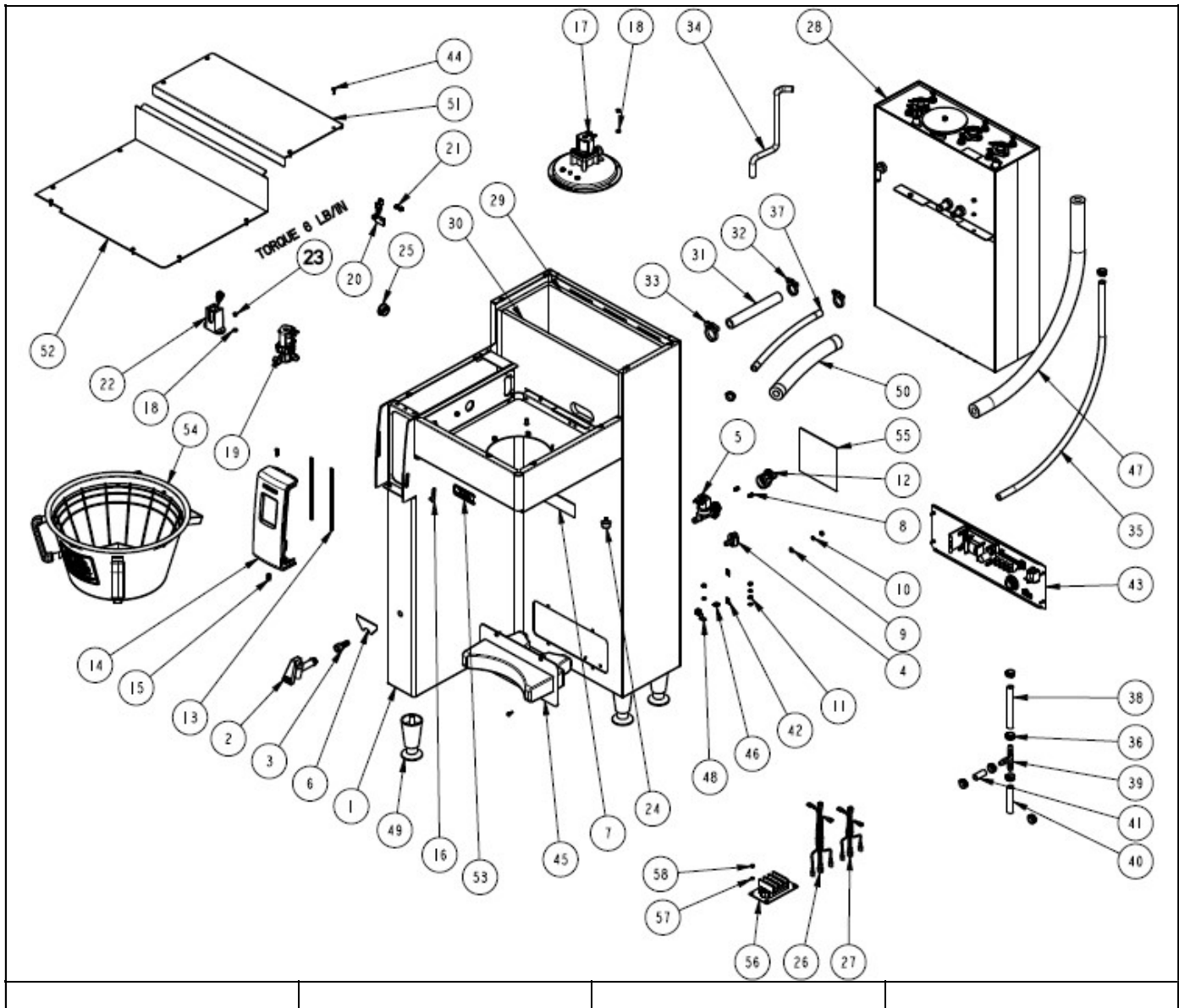


**1102.00285.00 ASSEMBLY, BACK PANEL, CBS-2162 XTS**

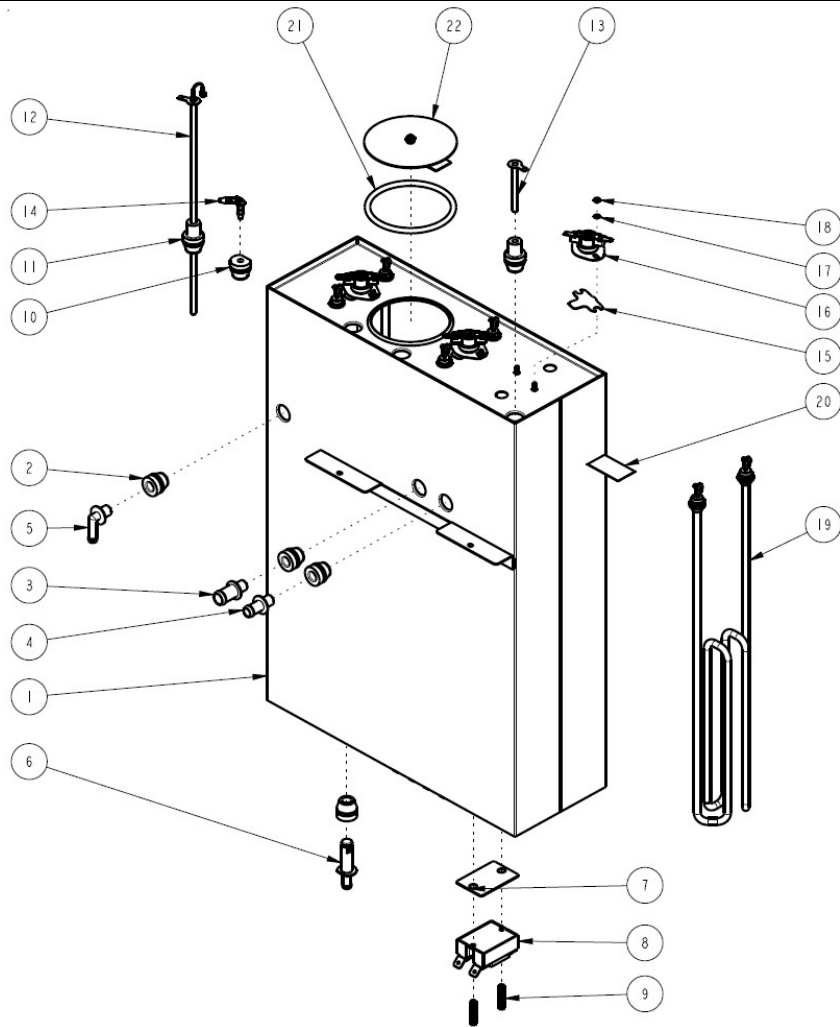
ITEM	QTY	Part Number	Part Name
1	1	1112.00359.00	WELDMENT, BACK COVER, CBS-2162 XTS
2	1	1003.00170.00	BRACKET, GUARD
3	8	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG, Z/P
4	1	1052.00001.00	POWER SUPPLY, 90-264VAC/24VDC, 1.8A
5	4	1029.00012.00	SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD
6	1	1058.00024.00	SWITCH, POWER, DOUBLE POLE, 16A, 125/250 VAC
7	3	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
8	3	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
9	1	1046.00030.00	LABEL WARNING, DISCONNECT FROM POWER SOURCE
10	2	1112.00268.00	WELDMENT, BRACKET TERMINAL BLOCK, 4 POLE
11	1	1052.00023.00	EUROSTRIP HE16 TERMINAL BLOCK, 4 POLE, 63 AMP, 18-8 AWG
12	1	1052.00025.00	PLATE, MARKING #BS1016E
13	2	1082.00082.00	SCREW, PHILLIP HD., 8-32 THREAD
14	1	1086.00031.00	BUSHING, STRAIN RELIEF, BLACK, .354"-.630"
15	1	1086.00032.00	LOCKNUT, HEX BLACK, FOR SKINTOP RELIEF
16	1	1044.00003.00	LABEL GROUND



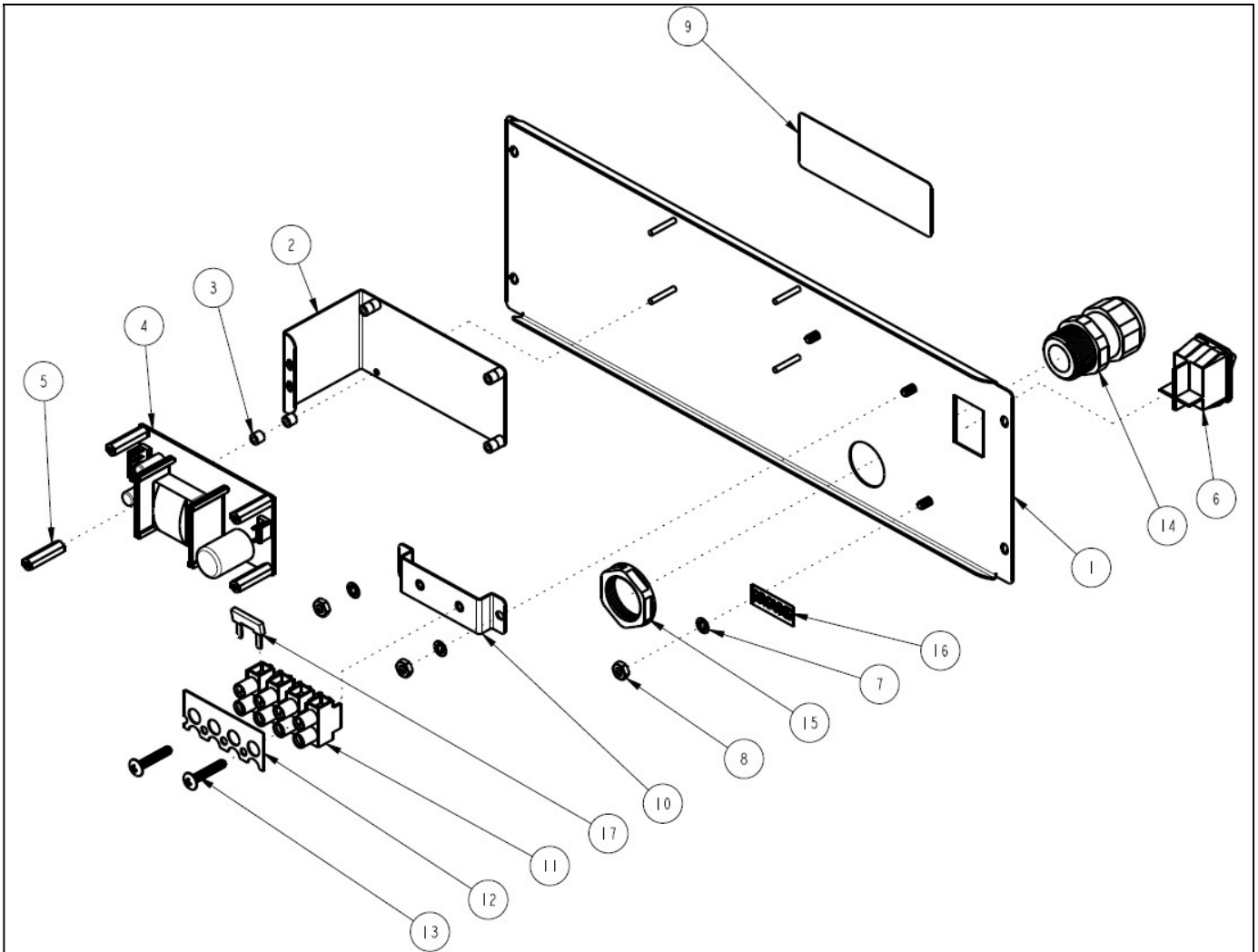
ITEM	QTY	Part Number	Brewer parts list CBS-2161 XTS,Bill of materials parts list
1	1	1111.00061.00	WELDMENT BODY COMPLETE, CBS-2161 XTS
2	1	1071.00010.00	FAUCET HPSC-BR-8 REGULAR HANDLE
3	1	1031.00003.00	FITTING, BARB 3/8"ID x 1/4" FPT
4	1	1023.00147.00	PLUG, TANK SERVICE DRAIN FOR 18GA AND UP BODY
5	1	1057.00043.00	SOLENOID VALVE, SINGLE, 180 DEG, 24VDC
6	1	1046.00006.00	LABEL, WARNING, "HOT WATER FAUCET"
7	1	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
8	2	1082.00010.00	SCREW, M4x10 ZINC PLATED PAN PHILLIPS MACHINE
9	1	1083.00016.00	WASHER, #8 SCREW SIZE, FLAT
10	7	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	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
13	2	1024.00049.00	EDGE PROTECTOR, 7.00"LG, CBS-2130
14	1	1102.00210.00	ASSEMBLY FRONT PANEL, CBS-2130, GRAVITY VERSION
15	4	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
16	1	1024.00040.00	CARD PLUG, HWD-2100
17	1	1102.00223.00	SPRAY HOUSING, LARGE, COMPLETE ASSEMBLY, 24 VDC
18	10	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
19	1	1102.00221.00	ASSEMBLY, BYPASS VALVE, LEFT
20	1	1102.00113.00	SWITCH, REED, ASSEMBLY
21	2	1029.00006.00	#4-40 NYLON FINGER NUT
22	1	1102.00287.00	ASSEMBLY, BB LOCKER, CBS-2160 XTS SERIES
23	2	1084.00015.00	LOCKNUT, #8-32 SCREW SIZE, HEX THIN NYLON INSERT
24	1	1023.00159.00	CORNER INSERT
25	1	1086.00004.00	BUSHING, SNAP, 1" MOUNTING HOLE
26	1	1402.00077.00	HARNESS LOW AMP, CBS-2161 XTS
27	1	1402.00053.00	HARNESS HIGH AMP, CBS-2152 XTS, UL
28	1	1104.00100.00	TANK ASSEMBLY, CBS-2161 XTS, 3 x 4kW/240VAC ref:1101.00248.00
28	1	1104.00106.00	TANK ASSEMBLY, CBS-2161 XTS, 3 x 3kW/240VAC ref:1101.00255.00
28	1	1104.00107.00	TANK ASSEMBLY, CBS-2161 XTS, 3 x 5kW/240VAC ref:1101.00256.00
29	1	1022.00040.00	INSULATION, TANK, BACK, CBS-2061E
30	1	1022.00090.00	INSULATION TANK FRONT, CBS-2161 XTS
31	1	1025.00096.00	TUBE, 31/32"OD X 5/8"ID X 6 5/8"LG, BREW
32	2	1086.00018.00	HEYCO HOSE CLAMP DIA. .875-1.00
33	1	1086.00017.00	HEYCO HOSE CLAMP DIA .1.031-1.187
34	1	1025.00037.00	TUBE, 1/2"OD X 1/4"ID X 14" LG, VENT
35	1	1025.00097.00	TUBE, 5/8"OD X 3/8"ID X 27"LG
36	8	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
37	1	1025.00098.00	TUBE, 5/8"OD X 3/8"ID X 11.25"LG
38	1	1025.00100.00	TUBE, 9/16"OD X 5/16"ID X 9"LG
39	1	1029.00002.00	FITTING, HOSE BARB TEE, SIZE 3/8" , NYLON
40	1	1025.00077.00	TUBE, 9/16 OD x 5/16 ID x 6.50 LG.
41	1	1025.00058.00	TUBE, 9/16"OD X 5/16"ID X 25.00"LG
42	13	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLK-PH FINISH
43	1	1102.00286.00	ASSEMBLY, BACK PANEL, CBS-2161 XTS
44	18	1082.00017.00	SCREW, # 6-32 X 1/2" TRUSS HD PHIL., MACHINE
45	1	1102.00288.00	ASSEMBLY LOCATOR L3D-15, TPD-30, CBS-2160 XTS
46	1	1044.00012.00	LABEL GROUND CE
47	1	1022.00088.00	INSULATION, 5/8" ID X 3/8" TH, 25"LG
48	1	1065.00002.00	CONNECTOR, COPPER LUG
49	1	1073.00007.00	LEG, FLANGE FOOT, 4" HIGH
50	1	1022.00087.00	INSULATION, 5/8" ID X 3/8" TH, 11"LG
51	1	1001.00233.00	COVER, TOP CBS-2161 XTS
52	1	1001.00234.00	COVER, UPPER BASE, CBS-2161 XTS
53	1	1041.00013.00	LABEL, XTS, 2130,2140 AND 2150 SERIES
54	1	B00828004	BREW BASKET ASSY, CBS-2060'S
55	1	1066.00002.00	TIE, 6" LONG, CABLE, NATURAL
56	1	1044.00006.00	CARD, SINGLE OR THREE PHASE JUMPER INSTRUCTION
57	1	1046.00035.00	LABEL, WARNING, HWB-2100



ITEM	QTY	Part Number	CBS-2161 XTS,CE VERSION Bill of materials parts list
1	1	1111.00061.00	WELDMENT BODY COMPLETE, CBS-2161 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	1	1023.00147.00	PLUG, TANK SERVICE DRAIN FOR 18 GA AND UP BODY
5	1	1057.00043.00	SOLENOID VALVE, 6L/min, 180 DEG, 24VDC
6	1	1046.00006.00	LABEL, WARNING, "HOT WATER FAUCET"
7	1	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
8	2	1082.00010.00	SCREW, M4x10 ZINC PLATED PAN PHILLIPS MACHINE
9	1	1083.00016.00	WASHER, #8 SCREW SIZE, FLAT
10	7	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	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
13	2	1024.00049.00	EDGE PROTECTOR, 7.00"LG, CBS-2130
14	1	1102.00210.00	ASSEMBLY FRONT PANEL, CBS-2130, GRAVITY VERSION
15	4	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
16	1	1024.00040.00	CARD PLUG, HWD-2100
17	1	1102.00223.00	SPRAY HOUSING, LARGE, COMPLETE ASSEMBLY, 24 VDC
18	10	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
19	1	1102.00221.00	ASSEMBLY, BYPASS VALVE, LEFT
20	1	1102.00113.00	SWITCH, REED, ASSEMBLY
21	2	1029.00006.00	NUT, FINGER, #4-40 NYLON
22	1	1102.00287.00	ASSEMBLY, BB LOCKER, CBS-2160 XTS SERIES
23	2	1084.00015.00	LOCKNUT, #8-32 SCREW SIZE, HEX THIN NYLON INSERT
24	1	1023.00159.00	CORNER INSERT
25	1	1086.00004.00	BUSHING, SNAP, 1" MOUNTING HOLE
26	1	1402.00077.00	HARNESS LOW AMP, CBS-2161 XTS
27	1	1402.00091.00	HARNESS HIGH AMP, CBS-2161 XTS, CE
28	1	1104.00100.00	TANK ASSEMBLY, CBS-2161 XTS, 3 x 4kW/240VAC
29	1	1022.00040.00	INSULATION, TANK, BACK, CBS-2061E
30	1	1022.00090.00	INSULATION TANK FRONT, CBS-2161 XTS
31	1	1025.00096.00	TUBE, 31/32"OD X 5/8"ID X 6 5/8"LG, BREW
32	2	1086.00018.00	HEYCO HOSE CLAMP DIA. .875-1.00
33	1	1086.00017.00	HEYCO HOSE CLAMP DIA .1.031-1.187
34	1	1025.00037.00	TUBE, 1/2"OD X 1/4"ID X 14" LG, VENT
35	1	1025.00097.00	TUBE, 5/8"OD X 3/8"ID X 27"LG
36	8	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
37	1	1025.00098.00	TUBE, 5/8"OD X 3/8"ID X 11.25"LG
38	1	1025.00100.00	TUBE, 9/16"OD X 5/16"ID X 9"LG
39	1	1029.00002.00	FITTING, HOSE BARB TEE, SIZE 3/8"
40	1	1025.00077.00	TUBE, 9/16 OD x 5/16 ID x 6.50 LG.
41	1	1025.00058.00	TUBE, 9/16"OD X 5/16"ID X 25.00"LG
42	13	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLK-PH FINISH
43	1	1102.00333.00	ASSEMBLY, BACK PANEL, CBS-2161 XTS
44	18	1082.00017.00	SCREW, # 6-32 X 1/2" TRUSS HD PHIL., MACHINE
45	1	1102.00288.00	ASSEMBLY LOCATOR L3D-15, TPD-30, CBS-2160 XTS
46	1	1044.00012.00	LABEL GROUND, CE
47	1	1022.00088.00	INSULATION, 5/8" ID X 3/8" TH, 25"LG
48	1	1065.00002.00	CONNECTOR, COPPER LUG
49	4	1073.00007.00	LEG, FLANGE FOOT, 4" HIGH
50	1	1022.00087.00	INSULATION, 5/8" ID X 3/8" TH, 11"LG
51	1	1001.00233.00	COVER, TOP CBS-2161 XTS
52	1	1001.00234.00	COVER, UPPER BASE, CBS-2161 XTS
53	1	1041.00013.00	LABEL, XTS, 2130,2140 AND 2150 SERIES
54	1	B00828004	BREW BASKET ASSY, CBS-2060/2160'S
55	1	1046.00035.00	LABEL, WARNING
56	1	1102.00284.00	ASSEMBLY TERMINAL, BRACKET
57	4	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
58	4	1084.00012.00	NUT, HEX, #6-32 MACHINE SCREW



ITEM	QTY	Part Number	Hot Water Tank parts list CBS-2161 XTS,Bill of materials parts list
1	1	1114.00128.00	WELDMNT, TANK, CBS-2161 XTS
2	4	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
3	1	1023.00203.00	FITTING, BREW, GROMMET DESIGN
4	1	1023.00167.00	FITTING, BREW, GROMMET DESIGN
5	1	1023.00183.00	FITTING, DILUTION, TBS-2121
6	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
7	3	1003.00140.00	ALUMINUM BRACKET FOR SSR
8	3	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
9	6	1081.00042.00	STANDOFF, 1/4" HEX
10	1	1024.00062.00	GROMMET, SHORT, SILICONE, LEVEL AND TEMP PROBE
11	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
12	1	1102.00234.00	PROBE ASSEMBLY, TEMP. AND LLC 12" LONG
13	1	1112.00019.00	PROBE WELDMNT, WATER LEVEL 2.600" LG
14	1	1029.00023.00	FITTING, SINGLE BARBED ELBOW, 1/4", KYNAR
15	3	1003.00005.00	BRACKET, ONE SHOT THERMOSTAT
16	3	1053.00004.00	THERMOSTAT, SINGLE SHOT, 25A
17	6	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
18	6	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
19	3	1107.00010.00	HEATER ASSEMBLY, IMMERSION 4000W/240VAC ref:1104.00100.00
19	3	1107.00005.00	HEATER ASSEMBLY, IMMERSION 3000W/240VAC ref:1104.00106.00
19	3	1107.00032.00	HEATER ASSEMBLY, IMMERSION 5000W/240VAC ref:1104.00107.00
20	1	1044.00004.00	LABEL, DANGER-HIGH VOLTAGE
21	1	1024.00007.00	O-RING, DASH #344, TANK COVER
22	1	1102.00007.00	TANK COVER ASSEMBLY

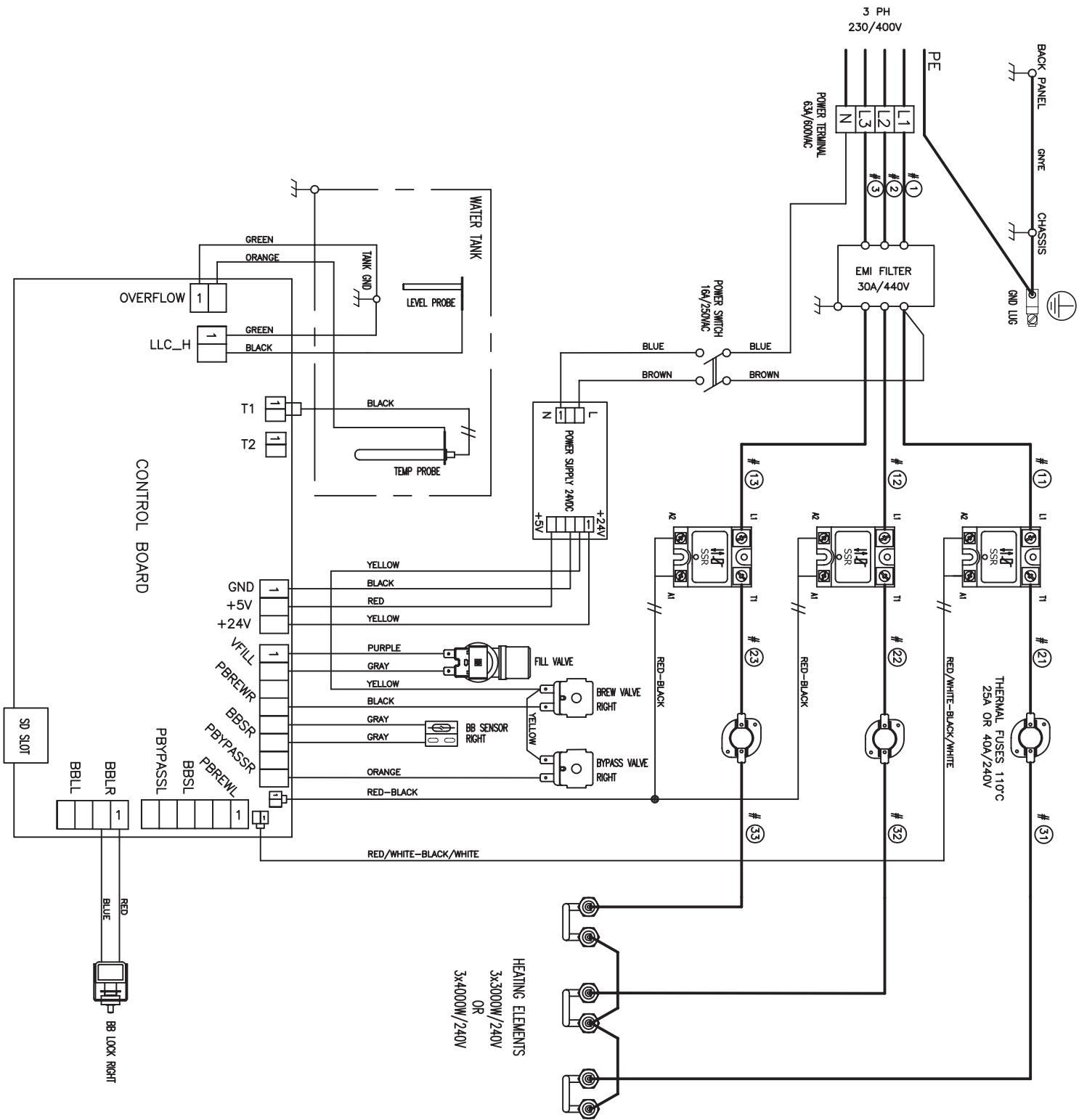


**ASSEMBLY, BACK PANEL, CBS-2161 XTS**

ITEM	QTY	Part Number	Part Name
1	1	1112.00360.00	WELDMENT, BACK COVER, CBS-2161 XTS
2	1	1003.00170.00	BRACKET, GUARD
3	8	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG, Z/P
4	1	1052.00001.00	POWER SUPPLY, 90-264VAC/24VDC, 1.8A
5	4	1029.00012.00	SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD
6	1	1058.00024.00	SWITCH, POWER, DOUBLE POLE, 16A, 125/250 VAC
7	3	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
8	3	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
9	1	1046.00030.00	LABEL WARNING, DISCONNECT FROM POWER SOURCE
10	2	1112.00268.00	WELDMENT, BRACKET TERMINAL BLOCK, 4 POLE
11	1	1052.00023.00	EUROSTRIP HE16 TERMINAL BLOCK, 4 POLE, 63 AMP, 18-8 AWG
12	1	1052.00025.00	PLATE, MARKING #BS1016E
13	2	1082.00082.00	SCREW, PHILLIP HD., 8-32 THREAD
14	1	1086.00031.00	BUSHING, STRAIN RELIEF, BLACK, .354"-.630"
15	1	1086.00032.00	LOCKNUT, HEX BLACK, FOR SKINTOP RELIEF
16	1	1044.00003.00	LABEL GROUND
17	1	1052.00041.00	EXTERNAL 2 POLE JUMPER HCL15-2 Domestic Version Only

REVISIONS				
REV	DATE	ECO NO	DESCRIPTION	BY:
A	03/10/15	N/A	ORIGINAL	SZ
B	06/25/15	N/A	REVISED, THER. FUSES RELOCATION	SZ

B



CBS\_2161XTS

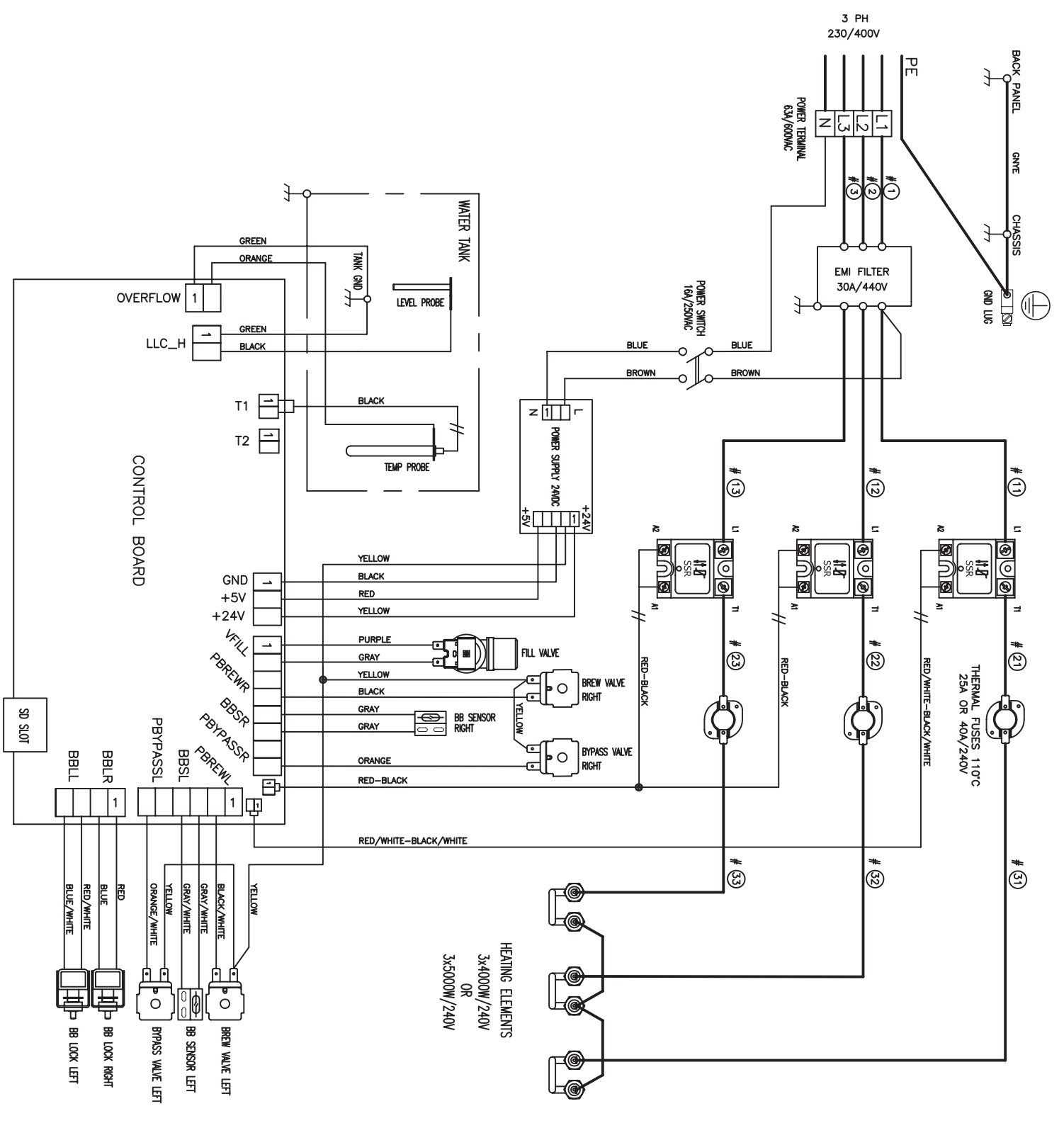
HEATER CONFIG.	VOLTAGE	PH	WIRES	KW	MAX AMP DRAW
3x3000W	230/400	3	3L,N,PE	8.6	12.4
3x4000W	230/400	3	3L,N,PE	11.2	16.3

TOLERANCES	REVISIONS			FETCO®	FOOD EQUIPMENT TECHNOLOGY COMPANY 600 ROSE RD. LAKE ZURICH, IL 60047 PHONE: 847-719-3000, FAX: 847-719-3001 WWW.FETCO.COM
	EXCEPT AS NOTED	NO.	DATE		
DECIMAL	A	03-10-15	SZ	DWG. NAME:	
N/A	B	06-25-15	SZ	WIRING, CBS_2161XTS, (3L, N, PE), 3 HEATERS, CE	
FRACTIONAL	C			DRAWN BY	SCALE N/A
N/A	D			CHK'D	SIZE A
ANGULAR	E			APP'D	DATE 03-10-2015
N/A					MATERIAL N/A
					DRAWING NO. 1401.00118.00



REVISIONS				
REV	DATE	ECO NO	DESCRIPTION	BY:
A	03/10/15	N/A	ORIGINAL	SZ
B	06/25/15	N/A	REVISED, THER. FUSES RELOCATION	SZ

B



CBS\_2162XTS

HEATER CONFIG.	VOLTAGE	PH	WIRES	KW	MAX AMP DRAW
3x4000W	230/400	3	3L,N,PE	11.2	16.3
3x5000W	230/400	3	3L,N,PE	14.1	20.4

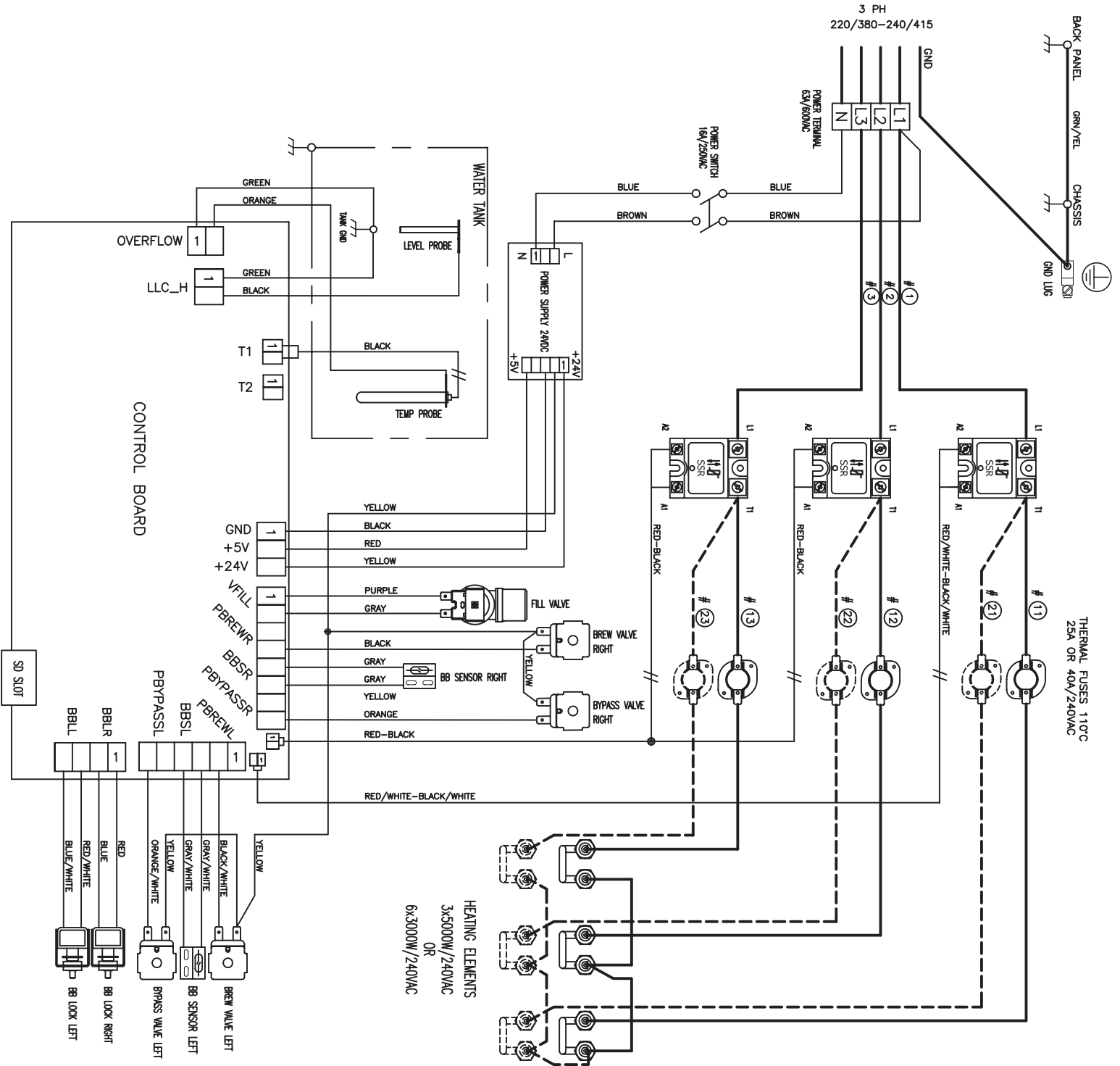
TOLERANCES	REVISIONS			FETCO®	FOOD EQUIPMENT TECHNOLOGY COMPANY 600 ROSE RD. LAKE ZURICH, IL 60047 PHONE: 847-719-3000, FAX: 847-719-3001 WWW.FETCO.COM
	EXCEPT AS NOTED	NO.	DATE		
DECIMAL	A	03-10-15	SZ	DWG. NAME:	
N/A	B	06-25-15	SZ	WIRING, CBS_2162XTS, (3L, N, PE), 3 HEATERS, CE	
FRACTIONAL	C			DRAWN BY	SZ
N/A	D			CHK'D	LW
ANGULAR	E			APP'D	LW
N/A				SCALE	N/A
				SIZE	A
				DATE	03-10-2015
				MATERIAL	N/A
				DRAWING NO.	1401.00119.00

**NOTE:**

3 HEATERS CONFIGURATION CONTAINS NO CIRCUIT ELEMENTS SHOWN AS A DASHED LINES.

REVISIONS

REV	DATE	ECO NO	DESCRIPTION	BY:	A
A	04/21/15	N/A	ORIGINAL	SZ	

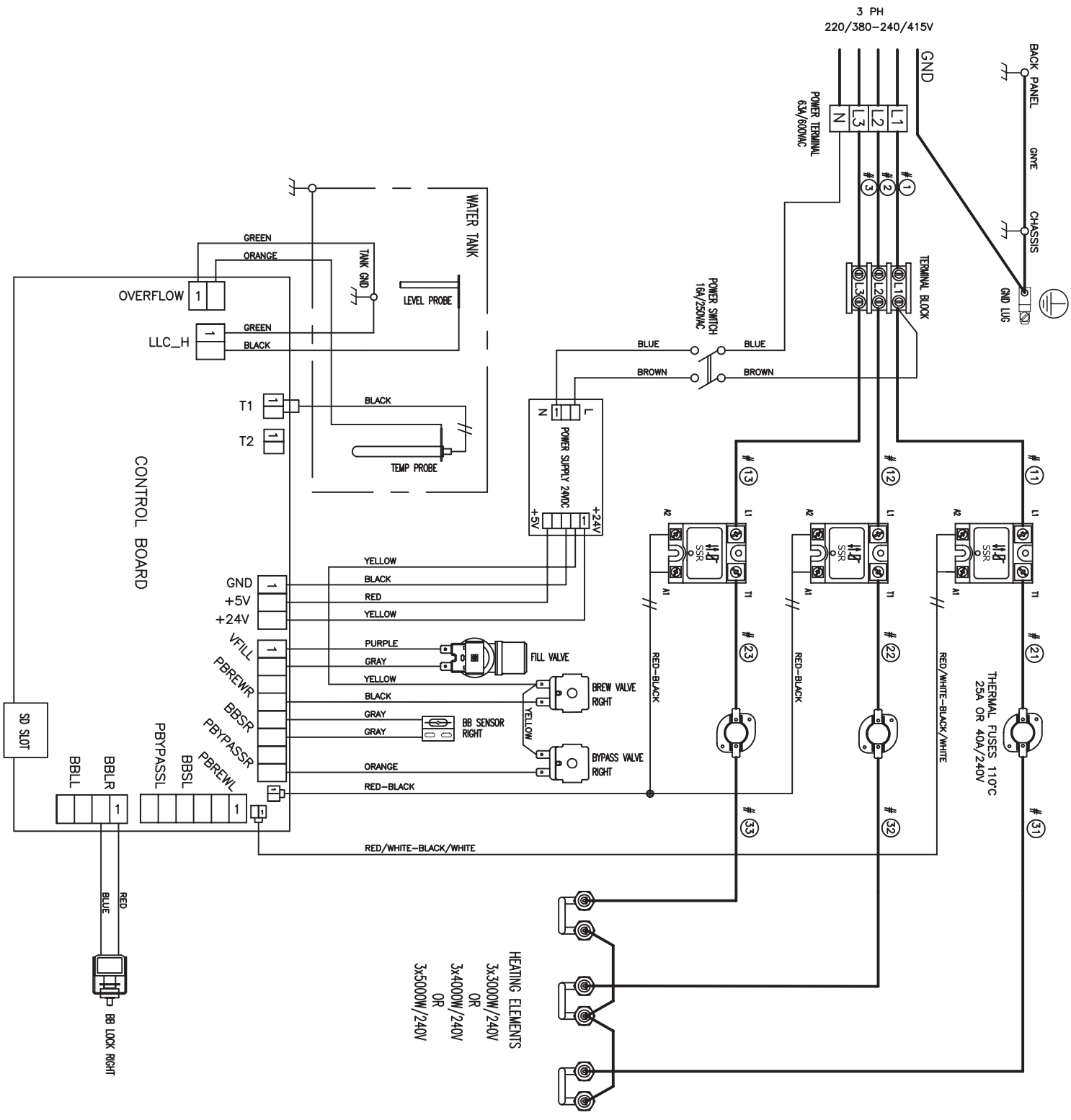


CBS\_2162XTS

HEATER CONFIG.	VOLTAGE	PH	WIRES	KW	MAX AMP DRAW
3x5000W	240/415	3	4+G	15.1	21.3
6x3000W	240/415	3	4+G	18.1	25.5

TOLERANCES	REVISIONS			FETCO®	FOOD EQUIPMENT TECHNOLOGY COMPANY 600 ROSE RD. LAKE ZURICH, IL 60047 PHONE: 847-719-3000, FAX: 847-719-3001 WWW.FETCO.COM
	EXCEPT AS NOTED	NO.	DATE		
DECIMAL	A	04-21-15	SZ		DWG. NAME: WIRING, CBS_2162XTS, (L1, L2, L3, N + GND), 3 or 6 HEATERS, INTERNATIONAL.
N/A	B				DRAWN BY SZ SCALE N/A MATERIAL N/A
FRACTIONAL	C				CHK'D LW SIZE A DRAWING NO.
N/A	D				APP'D LW DATE 04-21-2015
ANGULAR	E				1401.00120.00
N/A					

REVISIONS					A
REV	DATE	ECO NO	DESCRIPTION	BY:	
A	12/04/15	N/A	ORIGINAL	SZ	



TOLERANCES	REVISIONS			FETCO®	FOOD EQUIPMENT TECHNOLOGY COMPANY		
	NO.	DATE	BY		600 ROSE RD. LAKE ZURICH, IL 60047 PHONE: 847-719-3000, FAX: 847-719-3001 WWW.FETCO.COM		
EXCEPT AS NOTED	A	12-04-15	SZ	<b>DWG. NAME:</b> WIRING, CBS_2161XTS, 3PH (3L, N, GND), 3 HEATERS, EXPORT.	<b>DRAWN BY</b> SZ <b>SCALE</b> N/A <b>MATERIAL</b> N/A	<b>DRAWING NO.</b> 1401.00133.00	
DECIMAL	B						
N/A	C						
FRACTIONAL	D						
N/A	E						
ANGULAR				<b>CHK'D</b> SZ <b>DATE</b> 12-04-2015			
N/A				<b>APP'D</b> SP			

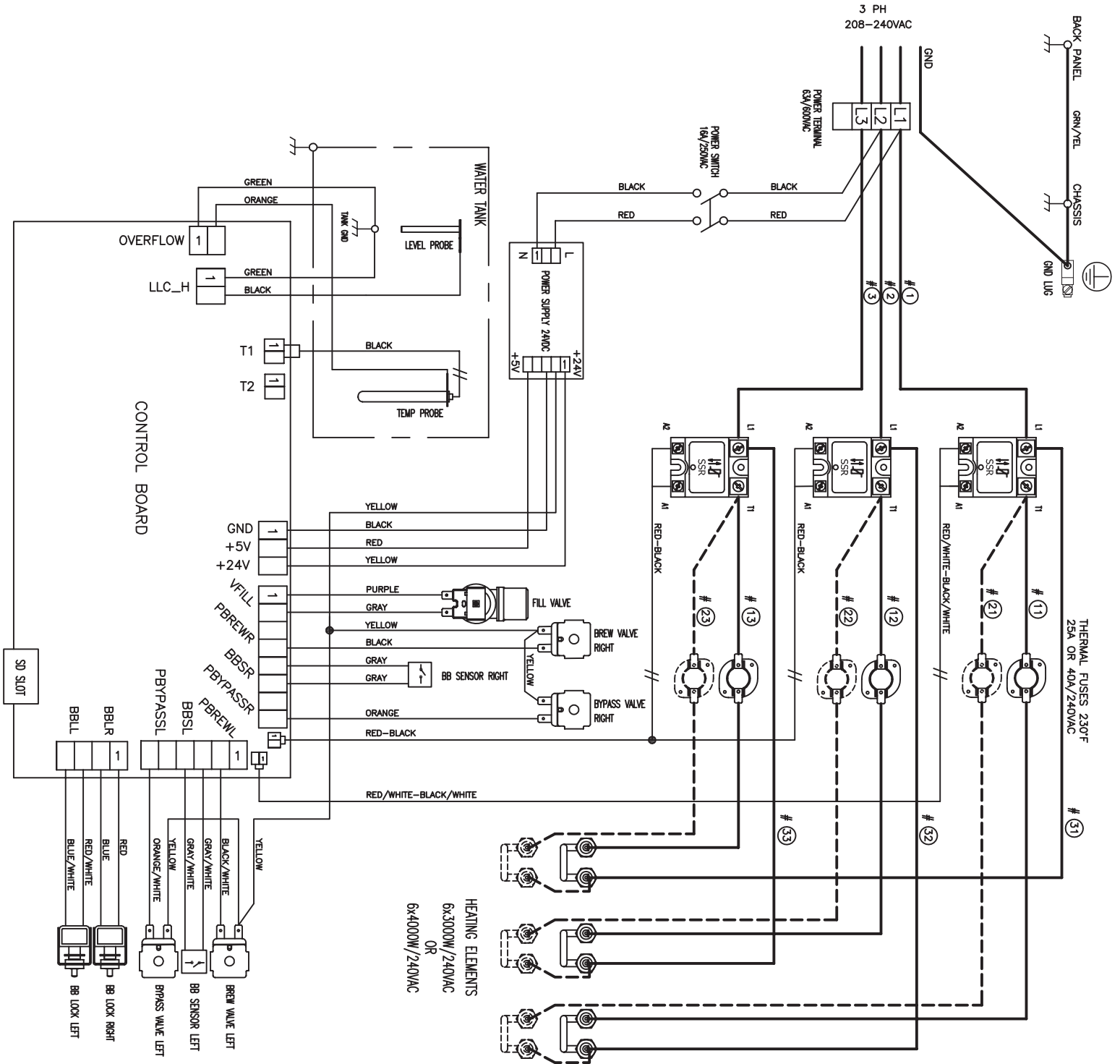
HEATER CONFIG.	VOLTAGE	PH	WIRES	NOMINAL KW	MAX AMP DRAW
3x3000W	220/380-240/415	3	3L,N,GND	9.1	11.7-12.7
3x4000W	220/380-240/415	3	3L,N,GND	12.1	15.5-16.9
3x5000W	220/380-240/415	3	3L,N,GND	15.1	19.3-21.1

**NOTE:**

3 HEATERS CONFIGURATION CONTAINS NO CIRCUIT ELEMENTS SHOWN AS A DASHED LINES.

REVISIONS

REV	DATE	ECO NO	DESCRIPTION	BY:	A
A	01/22/15	N/A	ORIGINAL	SZ	



CBS\_2162XTS

HEATER CONFIG.	VOLTAGE	PH	WIRES	KW	MAX AMP DRAW
3x3000W	208-240	3	3+G	7.0- 9.1	19.4-22.4
6x3000W	208-240	3	3+G	13.7-18.1	37.8-43.7
3x4000W	208-240	3	3+G	9.2-12.1	25.6-29.6
6x4000W	208-240	3	3+G	18.2-24.1	50.4-58.1

TOLERANCES	REVISIONS			FETCO®	FOOD EQUIPMENT TECHNOLOGY COMPANY 600 ROCK RD. LAKE ZURICH, IL 60047 PHONE: 847-719-3000, FAX: 847-719-3001 WWW.FETCO.COM
	EXCEPT AS NOTED	NO.	DATE		
DECIMAL	A	01-22-15	SZ		DWG. NAME: WIRING, CBS_2162XTS, (L1, L2, L3 + GND), 3 or 6 HEATERS, UL.
FRACTIONAL	B				
N/A	C				DRAWN BY SZ SCALE N/A MATERIAL N/A
ANGULAR	D				CHK'D LW SIZE A DRAWING NO.
N/A	E				APP'D LW DATE 01-22-2015 1401.00114.00