

# FETCO® User's Guide, Operator Instructions and Access

## FETCO Models:



**CBS-2151XTS**



**CBS-2152XTS**



**CBS-2152-2XTS**

6-liter/1 ½ -gallon

7.3-liter-2gallon

hot beverage brewers

## Commercial Hot Beverage Equipment

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**NOTICE TO INSTALLER: Please leave this book with the machine.**

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## Description & Features

CBS-2150XTS Series coffee brewers feature universal spray over technology from the Cascading Spray Dome™.

The following variables are programmed for each batch size:

- ❖ Brew volume
- ❖ Brew time
- ❖ Adjustable number of pulses
- ❖ Drip delay (The time between the end of the brew cycle and end of the brewing cycle...to empty the brewbasket)
- ❖ Prewet percent (Percentage of the brew volume)
- ❖ Prewet delay (The time between prewetting and the brew cycle)
- ❖ Bypass-infinitely variable for strength adjustment

## Operating Principles

Using these variables, the software calculates how much water to use for prewetting and brewing. The total brew time digitally divides into several cycles. Within these cycles, the software calculates how long to spray water over the coffee grounds, and how long to pause before the next cycle begins. If desired, pulse count and length, brew-volume may be adjusted without changing brew time and brew-time may be adjusted without changing volume brewed.

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## Factory settings

The following are the factory set defaults—all variables in the brew menu are adjustable:

**Brew Volume and coffee filter size:**

**CBS-2150 single and Twin: 1.5 gallon/6 liters per brew Coffee Filters: 15" X 5 ½"**

**CBS-2152-2 Gallon Twin EXPORT ONLY: 2 gallon/7.6 liters per brew Coffee Filters: 15" X 5 ½"**

**Brew Time, all models: Factory set at 5.5 minutes=[4 minute brew time + 1.5 minute drip delay]**

**Temperature Control: Water temperature is factory set at —93°C/200°F**

## Features

- ❖ Touchscreen Operation [XTS: EXtractor Touch Screen]
- ❖ Cascading Spray Dome-No clog sprayhead
- ❖ Brew mechanism is digitally adjustable
- ❖ Intuitive Control Settings for Batch sizing
- ❖ Infinitely variable bypass for strength adjustment
- ❖ Four fully programmable batch sizes per side
- ❖ User programs save-to and load-from SD cards
- ❖ Recipe copy to SD card
- ❖ Customizable batch name
- ❖ Screen logo customizable by user from SD card
- ❖ SD card firmware program and upgrade installation
- ❖ Universal wiring – single or 3 phase
- ❖ Brew water low temperature lockout
- ❖ ECO mode for tank heater energy savings
- ❖ Dispenser locator under brew basket
- ❖ Magnetic flux brew basket sensor
- ❖ Brewbasket locks (configurable)
- ❖ Totalizing counters for brewer functions
- ❖ Optional gourmet stainless steel brewbasket
- ❖ Demonstration Mode for review & training
- ❖ Heavier gauge stainless steel cabinet
- ❖ Configurable for FLOWJET® pump module
- ❖ SD card Backup for menu items

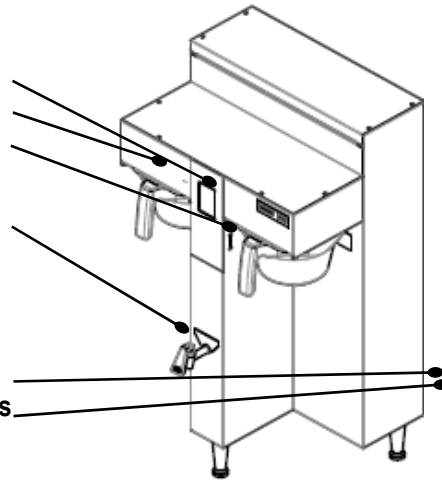
## Accessing equipment and control screens

### Layout of the brewer

Touch-screen for brewer operation  
Brew basket sensor (internal)  
SD card interface port (Load & Save)

Hot Water Faucet  
Airpot or Dispenser Locator  
(Two for dual side)

Main power switch  
Slide out back panel for service access



## Accessing batch and programming menu screens

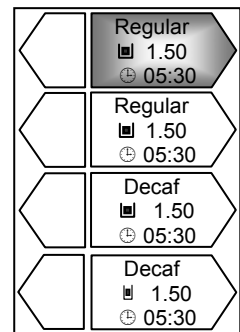


CBS-2100 home screen shown

← CBS\_2100XTS brewer HOME SCREEN:  
Tap to enter batch selection screen.

←Tap left or right side batches→  
...AND...

Select and hold down a batch selector pennant to begin brew.

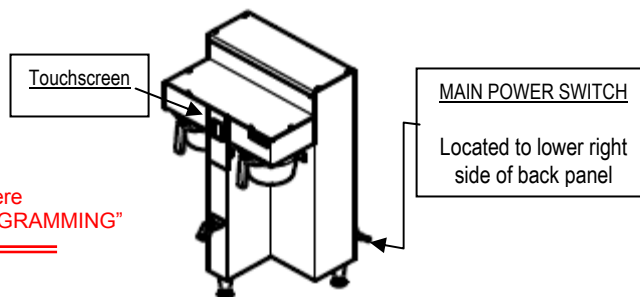


Batch selection screen

## Accessing the menu screens for programming



CBS-2100 home screen shown



Touch/Hold here  
to enter "PROGRAMMING"

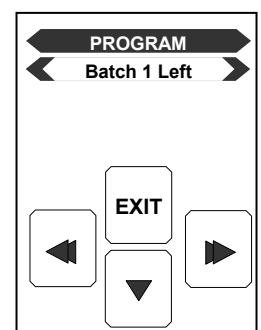


CBS-2100 home screen shown  
Shown in optional "ECO" Mode



CBS-2100 home screen shown

→From power "OFF"  
→Touch screen will briefly illuminate  
→Turn main power switch to "ON"  
(Switch located lower right side of back panel)  
-When Complete: the HOME SCREEN will display  
-Immediately touch and hold finger to enter programming  
-Lower portion of the screen will highlight as shown  
-In 5-8 seconds "PROGRAMMING" screen will appear→



## →Quick brewer setup

## NOTES

|   |   |
|---|---|
| Install plumbing and electrical utilities                             | -See Installation Section in this guide                                     |
| Turn rear power switch "ON"   | -Located on back, lower right side  |
| <i>Brewer hot water tank will fill in 4-8 minutes</i>                 | -Ready screen will display "■FILLING"                                       |
| Heater(s) activate when tank is full                                  | -Ready screen will display "■HEATING"                                       |
| <i>Initial heating will be 15-30 minutes</i>                          | -Place dispenser under brewbasket(s) to collect any overflow and condensate |
| <i>Tank displays "■READY" when filled &amp; 200°F/93°C is reached</i> |   |
| Brewer is ready to brew when "■READY" is displayed                    | -Best results if brewer remains "ON"  |

## Operating Instructions

### →To brew a single coffee batch, using default recipe

### NOTES

All CBS-2150xts series brewers are factory calibrated and preloaded with recipes and are ready to brew.

Place paper filter in brew basket

Add ground coffee

Insert loaded brewbasket into brewer rails

Have empty dispenser under brewbasket

Tap "■ READY" screen to enter the batch selection menu

Touch a top batch key for "REGULAR 1"

Brewer will brew and display the icon for the function step it is in

For dual side brewer, touch other side to access and activate the second side batches for brewing

Batch will complete brewing in 5 ½ minutes

-Use any quality pleated filter paper  
CBS-2150XTS Coffee Filters: 15" X 5 ½ "

-Brewbasket(s) must be in place

-Use the convenient locator guide

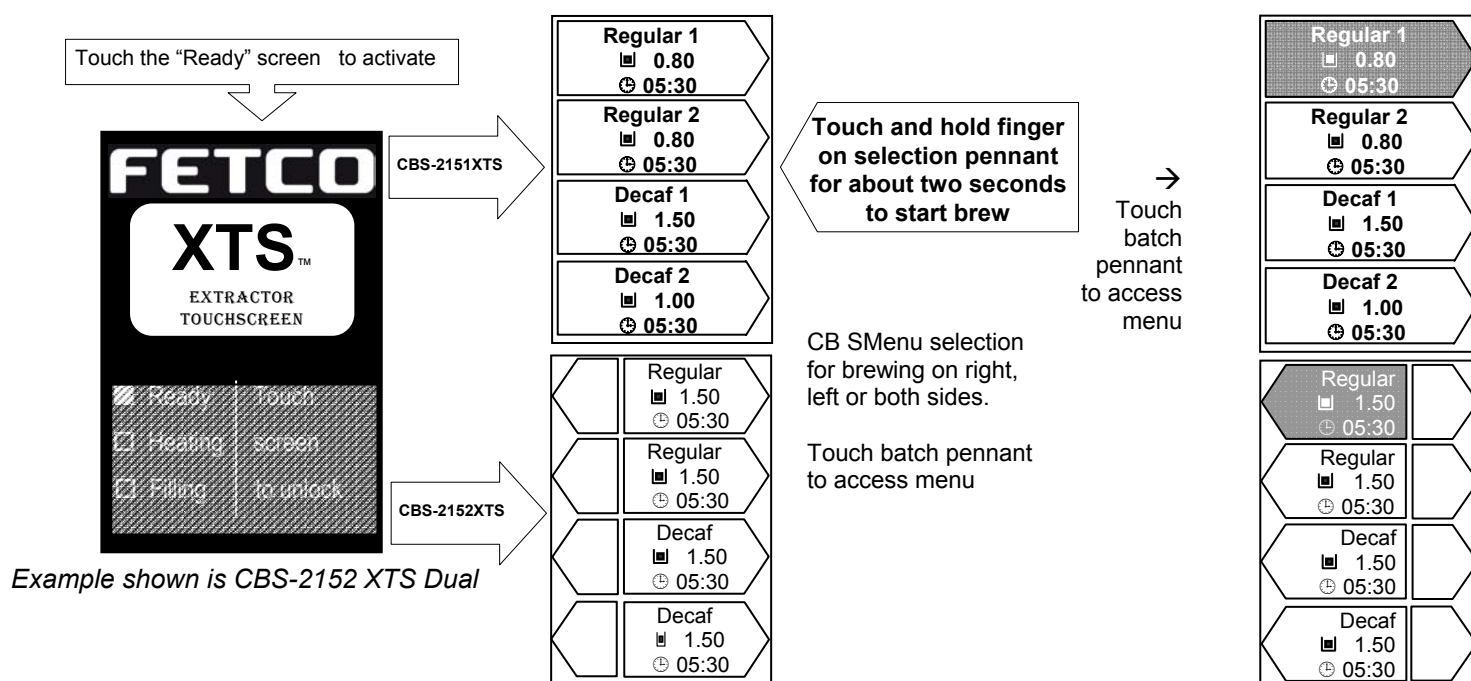
-A long duration "TAP" with fingertip

-Touch batch pennant with fingertip



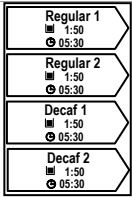
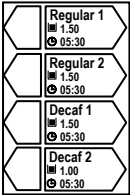

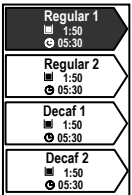
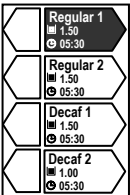

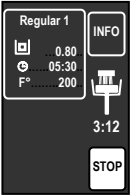
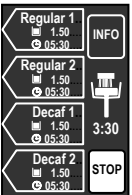
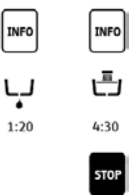
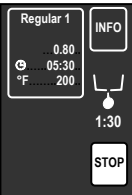



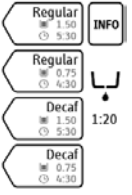
-Icon may be toggled for information

-Right to left side switching by touch

-Brew time: 4 minutes+1½ min. drip out



# Brewing-shown by touchscreen

| Brewer screens displayed for brewing   |   | NOTES  |   |
|--|---|--|---|
|   |    | <p>Note: There are three “BREW AT TEMPERATURE DEFINITONS”. The “<i>Brew At Temperature</i>”—“<b>ON</b>” default routine is used for the illustration below..</p> |   |
|   | <p>Unit displays four preprogrammed batch buttons per side.</p> <p>CBS-2152XTS has right and left ←CBS-2151XTS single side CBS-2152XTS dual side→</p>  | <p><b>Brew at tempertaure “ON” enabled:</b> if this feature is enabled:brew start will be enabled when tank temperature reaches the temperature set point</p>    |    |
|   | <p>Select and hold one button for 2 seconds</p>   |   | <p>If pressed in <b>ON:</b> Brew activation screen “locks out” until tank is at set temp.</p>                                  |
|   | <p>Brewing</p> <p>←CBS-2151XTS single side CBS-2152XTS dual side→</p>   |   | <p>Both sides of a dual side CBS-2152XTS brewing simultanously, brewer sides will also operate indepentently or alone</p>  |
|   | <p>Brew completed (in drip delay)</p> <p>←CBS-2151XTS single side CBS-2152XTS dual side→</p>  |   | <p>Both sides of a dual side CBS-2152XTS brewing simultanously. Left side completing drip delay</p>                        |
| <p><b>Brew basket sensor enabled.</b></p> <p>Unit is brewable only when brebasket is in place.</p> <p>(option may be disabled by user)</p> |    | <p>CBS-2152XTS dual side right side completing drip delay, left side ready for next brew</p>   |    |

## Programming- operator access programming

-The FETCO CBS-2150XTS brewers have four brew batch menus per side.


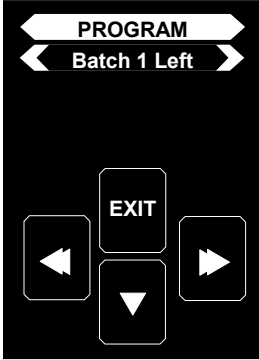
Menus are preprogrammed by the factory with basic settings that will operate the equipment as purchased.

There are two batches each marked "Regular" and two marked "Decaf"

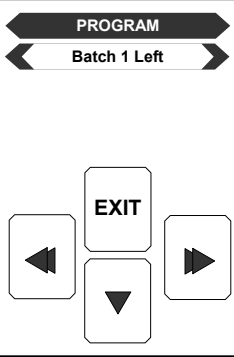
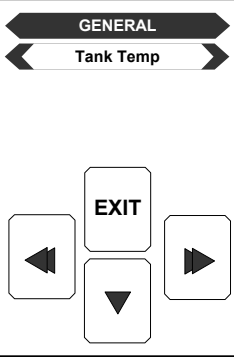
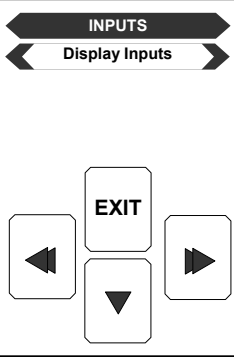
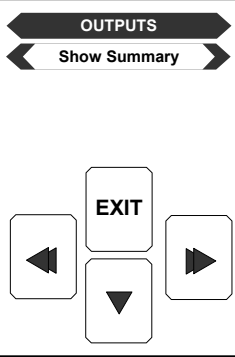
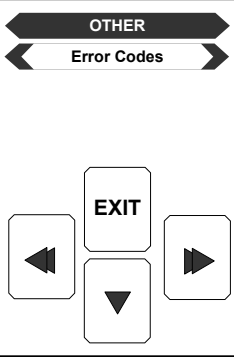
-Most operators prefer a full batch and half batch setting for regular and decaf or specialty coffees.

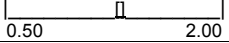
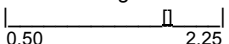
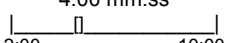
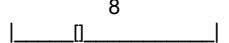
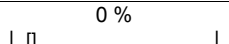
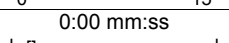
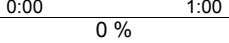
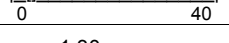
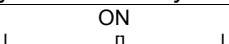
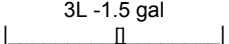
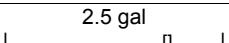
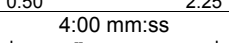
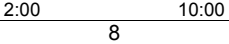
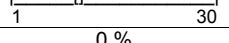
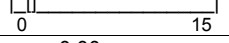
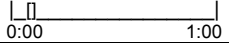
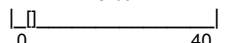
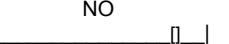
The half batch setting will need to be programmed by the operator to match the dispenser.

-Settings are adjustable and the name of the menu can be changed. -Batch 1 & 4 cannot be disabled.

| Menu screen displayed   | Accessing Programming  | Menu screen displayed   | Accessing Programming menu screens   |
|---|--|---|--|
|  <p>(Brewer "HOME" screen)</p> | <p>Turn unit "OFF"</p> <p>After 10 second delay:</p> <p>Turn unit "ON"</p> <p>← "HOME" Screen on left will appear<br/>Immediately place finger on screen and "HOLD"</p> <p>Screen on right will appear →</p> |  <p>(Programming menu screen)</p> | <p>← Top line is programming category<br/>← Second line displays items for programming</p> <p>Right and left hand arrows will scroll to the screens that display<br/>"Program, General, Inputs, Outputs and Other"</p> <p>The down arrow enters the individual programming items shown below</p> |

## Programming-category screens: Menu Tree

| Programming category screens  |   |   |  |   |
|---|---|---|--|---|
| <b>To enter:</b> Turn unit "OFF", After 10 second delay, turn unit "ON", (Home Screen will appear), Immediately place finger on screen and "HOLD"—"PROGRAM" Screen (first below) will appear. Use right/left and down arrows to travel through programming. "EXIT" saves settings |   |   |  |   |
|    |  |  |  |  |
| Programming Category  | Programming Category  | Programming Category  | Programming Category   | Programming Category  |
| <b>PROGRAM</b>  | <b>GENERAL</b>  | <b>INPUTS</b>   | <b>OUTPUTS</b>   | <b>OTHER</b>  |
| Items for Programming   | Items for Programming   | Items for Programming   | Items for Programming  | Items for Programming   |
| Batch 1 Left*   | Tank Temp   | Display Inputs  | Show Summary   | Error Codes   |
| Batch 2 Left**  | Brew At Temp  | Calib Touch Scr   | Left Valve   | Copy Program  |
| Batch 3 Left **   | Units of Meas.  |   | L. Bypass Valve  | Upload Logo   |
| Batch 4 Left **   | ECO Mode  |   | Right Valve  | Res to Factory  |
| Batch 1 RIGHT*  | Logo Timeout  |   | R. Bypass Valve  | Counters  |
| Batch 2 Right **  | Brew B.Sensor   |   | Fill Valve   | Firmware  |
| Batch 3 Right **  | Use Flojet  |   | Left Basket Lk   | DEMO Mode   |
| Batch 4 Right **  | LLC Sensitivity   |   | Right Basket Lk  |   |
| Batch Copy  |   |   | Heater   |   |
|   |   |   | Screen   |   |

| 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:<br>Regular1  | (Regular 1-16)<br>-OR- Write: any name                                  |
| Models CBS-2130,<br>CBS-2140, CBS-2150-   | • Batch Volume  | 3liters to 2:00 gal<br>[ 0.50-2.00] | 3L -1.5 gal<br>  | Screen will display in<br>range and units selected                      |
| <b>CBS-2152XTS<br/>2 Gallon →</b>   | • Batch Volume  | 2.00 gal<br>[ 0.50-2.25]            | 2.5 gal<br>      | For CBS-2152-2 Gallon<br>equipment                                      |
|   | • Brew Time   | 4:00 mm:ss<br>[ 2:00-10.00]         | 4:00 mm:ss<br>   |   |
|   | • Nr Of Pulses  | 8                                   | 8<br>            |   |
|   | • Prewet Perc.  | 0%                                  | 0 %<br>          |   |
| <b>Pause after prewet<br/>completes</b>   | • Prewet Delay.   | 0%                                  | 0:00 mm:ss<br>   | This feture appears<br>ONLY if Prewet >0:00                             |
|   | • Bypass Perc.  | 0%                                  | 0 %<br>          |   |
|   | • Drip Delay  | <b>1:30 mm:ss</b>                   | 1:30 mm:ss<br>   | Default is 1 ½ minute.<br>Brew basket remains<br>locked during drip-out |
| <b>Batch 2 Left**</b>   | <b>**Batch 2-4—Right and Batch2-4—Left may be individually selected-or-entirely deleted</b> |                                     |  |   |
|   | • Batch ON/OFF  | ON                                  | ON<br>           |   |
|   | • Batch Summary   | Display Summary                     |  |   |
|   | • Batch Name  | Regular 1                           | Regular 1-16;Write own name  |   |
| Models CBS-2130,<br>CBS-2140, CBS-2150-   | • Batch Volume  | 3liters to 2:00 gal<br>[ 0.50-2.00] | 3L -1.5 gal<br> | Screen will display in<br>range and units selected                      |
| <b>CBS-2152XTS<br/>2 Gallon →</b>   | • Batch Volume  | 2.00 gal<br>[ 0.50-2.25]            | 2.5 gal<br>    | For CBS-2152-2 Gallon<br>equipment                                      |
|   | • Brew Time   | 4:00 mm:ss<br>[ 2:00-10.00]         | 4:00 mm:ss<br> | Brew time is adutable   |
|   | • Nr Of Pulses  | 8                                   | 8<br>          |   |
|   | • Prewet Perc.  | 0%                                  | 0 %<br>        |   |
| <b>Pause after prewet<br/>completes</b>   | • Prewet Delay.   | 0%                                  | 0:00 mm:ss<br> | This feture appears<br>ONLY if Prewet >0:00                             |
|   | • Bypass Perc.  | 0%                                  | 0 %<br>        |   |
|   | • Drip Delay  | <b>1:30 mm:ss</b>                   | 1:30 mm:ss<br> | Default is 1 ½ minute.<br>Brew basket remains<br>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  |   |
|   | Copy To Batch   | L1                                  | L1-L4;R1-R4  |   |
|   | Copy?   | L1→L2?<br>(example)                 | NO<br>         |   |
| *Batch 1 cannot be disabled. (CBS-2101XTS)  |   |                                     |  |   |
| *Batch 1&4 cannot be disabled. (CBS-2102XTS); **Batch can be disabled, and removed from display |   |                                     |  |   |

#### Batch 1 Right

|                  |            |
|------------------|------------|
| Batch Name       | Regular 1  |
| Batch Volume     | 3.00 Liter |
| 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)



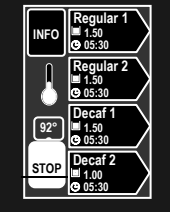
| GENERAL         | Programming Items                        | Factory set Default | Programming Range (display) | Notes   |
|-----------------|--|---------------------|-----------------------------|---|
| Tank Temp.      |  | 200°F               |                             | Correction for high altitude below  |
| Brew at Temp.   | “OFF” allows brewing at any temperature. | “ON”                |                             | SEE NOTE BELOW!   |
| Units of Meas.  | • Temperature                            | °C or °F            |                             | [Switchable Units]  |
|                 | • Volume                                 | Gallons [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    |  | 0:30 mm:ss          |                             |   |
| Brew B. Sensor  |  | NORMAL              |                             | 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              |                             | Sets sensitivity for liquid level control.<br>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 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. The screen at right displays when the “BREW AT TEMP” is selected.



**BREW AT TEMP: AUTO**      **USER SELECTABLE**  
 This allows the “BREW START” to activate if the hot water tank is at the selected temperature—then brew will start.  
 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 brew baskets when in the BREW AT TEMP mode.


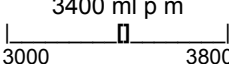

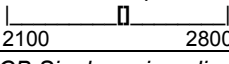

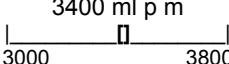

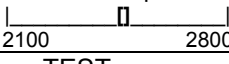




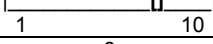
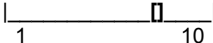


**BREW AT TEMP: OFF**      **USER SELECTABLE (Not recommended)**  
 Allows brewing at any temperature above 179°F/82°C.  
 May NOT apply for two sided brewer if one side is in brew cycle

| 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    | 200                   | 212.0             | 93                    | 100.0              |
| 500  | 152  | 200                   | 211.0             | 93                    | 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               |

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



| OUTPUTS   | Programming Items             | Factory set Default     | Programming Range (display)   | Notes   |
|---|-------------------------------|-------------------------|---|---|
| <b>Show Summary</b>   | • Output Summary              |                         | Left Brew FR 3400<br>Left Bypass FR 2400<br>Right Brew FR 3400<br>Right Bypass FR 2400<br>Screen Contrast 8<br>Screen Brightness 8<br>Touch To Return | FR=Flow Rate ml/min   |
| <b>Left Valve</b><br>Test OR Calibrate  | • Left Valve Test             | (Press to test)         | TEST<br>Press To Test    | Runs valve to verify flow. Have container under brewbasket! |
| ” ” ” ”   | • L. Valve Calib              | Calibrate<br>*Flow Rate | 3400 ml p m<br>   | Factory or service use for flow rate                        |
| <b>L. Bypass Valve</b><br>Test OR Calibrate<br>Not on CBS 2130XTS   | • Left Bypass Valve Test      | (Press to test)         | TEST<br>Press To Test    | Runs valve to verify flow. Have container under brewbasket! |
| ” ” ” ”   | • L. Bypass Valve Calib       | Calibrate<br>*Flow Rate | 2400 ml p m<br>   | Factory or service use for flow rate                        |
| <i>Left Valve display is only for BCB Series- dual station brewer. BCB Single series displays RIGHT SIDE only</i> |                               |                         |   |   |
| <b>Right Valve</b><br>Test OR Calibrate   | • Right Valve Test            | (Press to test)         | TEST<br>Press To Test    | Runs Valve to verify flow. Have container under brewbasket! |
| ” ” ” ”   | • R. Valve Calib              | Calibrate<br>*Flow Rate | 3400 ml p m<br>   | Factory or service use for flow rate                        |
| <b>R. Bypass Valve</b><br>Test OR Calibrate<br>Not on CBS 2130XTS   | • Right Bypass Valve Test     | (Press to test)         | TEST<br>Press To Test    | Runs valve to verify flow. Have container under brewbasket! |
| ” ” ” ”   | • R. Bypass Valve Calib       | Calibrate<br>*Flow Rate | 2400 ml p m<br>   | Factory or service use for flow rate                        |
| <b>Fill Valve</b>   | • Fill Valve Test             | (Press to test)         | TEST<br>Press To Test    | Operates fill valve. Have container under both brewbaskets! |
| <b>Left Basket Lk.</b><br>Not on CBS 2130XTS  | • Left brew basket lock test  | (Press to test)         | TEST<br>Press To Test    | Energizes brew basket lock. For factory or service use      |
| <b>Right Basket Lk.</b><br>Not on CBS 2130XTS   | • Right brew basket lock test | (Press to test)         | TEST<br>Press To Test    | Energizes brew basket lock. For factory or service use      |
| <b>Heater</b>   | • Heater Test                 | (Press to test)         | TEST<br>Press To Test    | Energizes Heater(s)<br>Use for servicing.                   |
| <b>Screen</b><br>Brightness OR Contrast   | • Screen Contrast             | Contrast                | 8<br>   |   |
|   | • S. Brightness               | Brightness              | 8<br>   |   |

For factory or qualified service professional use only

## 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.**

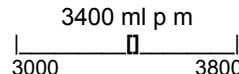
Measure the results of the flow in the 5-liter measuring container and hold the number.

### 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

|  |   |  |  |
|--|---|--|--|
|  | ← Example of<br>CBS-2150 brew<br>valve slider | $\frac{\text{Actual Volume}}{\text{Programmed Volume}} \times \text{CURRENT SETTING} = \text{NEW SETTING}$ | Enter new setting on<br>the slider shown and<br>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**

## Hot water convenience tap

1. The XTS\_Series coffee brewers include a hot water convenience tap for single cup beverage purposes.
2. Single use delivery volume should not exceed maximum 16fl.oz/473cc.
3. Water dispensed from this faucet is very hot, up to 205°F/96°C

| OTHER  | Programming Items  | Factory set Default                                    | Programming Range (display)  | Notes   |
|--|--|--|--|---|
| <b>Error Codes</b>                             | • Display Errors   | (Codes)  | 1:<br>2:<br>3:   | See Error Code Chart for references   |
|  | • Reset Errors   | (Reset)  | Reset<br>YES NO  | !!Errors must be corrected and cleared!!  |
| <b>Copy Program</b>                            | • From SD to B.  | SD → Brewer  | SD → Brewer<br>YES NO  | Setup upload<br>Please insert SD card with the setup data!  |
|  | • From B to SD   | Brewer → SD  | Brewer → SD<br>YES NO  | Setup download<br>Please insert SD card with sufficient space (≥2GB)  |
| <b>Upload Logo</b>                             |  | Upload Logo  | UPLOAD LOGO<br>Are you sure<br>YES NO  | Please insert SD card with logo file!   |
| <b>Res to Factory &amp; Select Brewer Type</b> | <b>See next line:</b><br>“Select Brewer Configuration”   | Reset to default                                       | Reset to Default<br>Are you sure<br>YES NO   | Completely overwrites all user setup, incl. user logo.  |
| Select Brewer Configuration                    | CBS_2131 3L; CBS_2131 1G<br>CBS_2132 3L; CBS_2132 1G<br>CBS_2141; CBS_2142<br>CBS_2151; CBS_2152 | Screen appears after pressing “Res to Factory” [Above] | Select Model<br>CBS [2131-2152]Series<br>YES NO  | Scroll to your brewer and tap ENTER tab   |
| <b>Counters</b>                                | • Display Counters<br>-OR-<br>• Display Resettable Counters                                      | Counters<br>Display Total Counters                     | <b>Total Counters</b><br>Left Brews 0<br>Left Brew activated 0<br>Left Brew [gal] 0<br>Left Bypass activated 0<br>Left Bypass [gal] 0<br>Right Brews 0<br>Right Brew activated 0<br>Right Brew [gal] 0<br>Right Bypass activated 0<br>Right Bypass [gal] 0<br>Fill valve Activated 0<br>Fill Valve [gal] 0<br>Heater Activated 0<br>Heater “ON” time 0:00<br>Touch To Return | Identical screen for <b>Resettable Counters</b><br>Will display when selected. See next line to reset to zero<br><br><b>NOTE:</b><br><u>“Total Counters” is not user resettable</u> |
| <b>Reset Counters</b>                          | • Resets Counters  | Reset All Counters                                     | Reset All Counters<br>Are you sure<br>YES NO   | Resetting will restart counter from zero  |
| <b>Firmware</b>                                | • Firmware Version<br>-Software type   | Display Firmware Version                               | CBS_2152 [or model type]<br>SW ver 2.1.0Z<br>HW ver 1.1.3<br>QP ver. 4.5.01  | Displays firmware version   |
|  | • Update Firmware  | UPDATE   | UPDATE<br>YES NO   | Firmware upload<br>Please insert SD card with the firmware file!  |
| <b>DEMO Mode</b>                               | DEMO ON/OFF  |  | OFF<br>ON OFF  | Demonstrates the controls for training. Disables all components in demo mode.   |

**Insert Brewbasket!**

| ERROR CODES | Error code 001: Software error-error on start up or corrupted software<br>Error code 50: Shorted temperature probe<br>Error code 51: Open temperature probe<br>Error code 100: Initial Fill Error. Initial fill time was more than 4 minutes after power up.<br>Error code 101: Error on refill<br>Error code 102: Unwanted fill; possible leak<br>Error code 103: Liquid level probe fault<br>Error code 201: Heater open, high limit thermostat, or Solid State Relay (SSR) fault<br>Error code 255: Touch pad error, usually from longer than 2 min touch contact |
|-------------|--|
|-------------|--|



## 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:

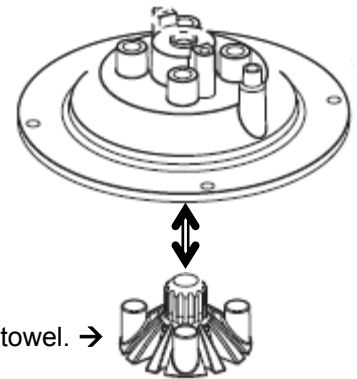
1. Dispose of grounds and rinse brew basket.
2. Never strike a brewbasket or hit it against a hard surface.  
This will damage the brew cone, and may damage the brewbasket support rails
3. Rinse dispensers before reuse.

### 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. Operation 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

## 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   | TO CLEAR FAULT, Make repairs as required<br><br>Below is the only way to clear error codes<br>1) Enter "PROGRAMMING"<br>2)Scroll left to "OTHER"<br>3)Scroll down to "ERROR CODES"<br>4)Scroll down to "Display Errors"<br>5)Scroll left to "Reset Errors"<br>6)Scroll down to "Reset"<br>7)Follow directions shown on screen.<br><br>Merely toggling ON/OFF switch <u>will not</u> clear error codes.<br><br>Error codes must be cleared by entering PROGRAMMING and using the menus! |
| 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; Occurs between brews when the fill valve operates.              | Possible leak in tank, fitting, or valve  | Check for internal leaks  |  |
| 107   | Lower liquid level probe Fault   | -Tank not filling<br>-Orange wire to temperature probe disconnected<br>-Very pure water   | Occurs after prefill<br>-Low probe is uncovered<br>-Wires are reversed<br>-Set LLC sensitivity to HIGH see MENU—GENERAL-LLC |  |
| 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   |  |
| <br>INSERT BREW BASKET |  |  <div><div>Regular 1<br/>■ 3.00<br/>⌚ 06:00</div><div>Regular 2<br/>■ 3.00<br/>⌚ 06:00</div><div>Decaf 1<br/>■ 3.00<br/>⌚ 06:00</div><div>Decaf 2<br/>■ 3.00<br/>⌚ 06:00</div></div> | Brewbasket must be in place   | Insert brewbasket  |

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

## Service Guide to a Successful Installation

(For Qualified Service Technicians Only)

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:

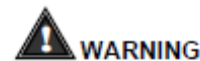
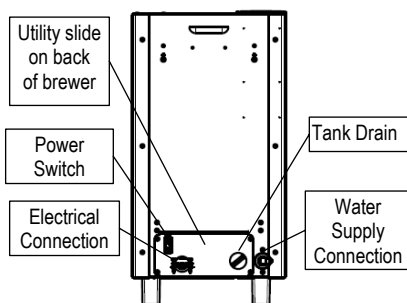
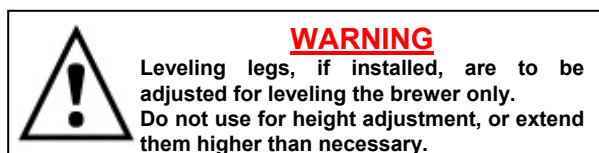
1. All CBS\_Series brewers require **an electrical ground wire**. Installation without grounding is dangerous.
2. Note Equipotentiality Terminal, if present, (To identify the terminals which, when connected together, bring the various parts of an equipment or of a system to the same potential, not necessarily 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 1½gpm/ (5.7lpm) 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:

- ❖ Utilize only qualified beverage equipment service technicians for service and installation.
- ❖ Always have an empty dispenser under sprayhead of all coffee brewing equipment-including when at idle



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 Directions

### For professional installation only

#### Brewer Setup

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
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. This appliance must be installed in locations where it can be overseen by trained personnel
5. 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
6. 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.
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. This unit must be installed and serviced by qualified personnel only.
9. 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.
10. 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).
11. 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.
12. Do not tilt appliance more than 10° to insure safe operation.
13. Unit is for protected indoor use only. Do not steam clean or use excessive water on unit.
14. This unit is not "jet-proof" construction. Do not pressure wash or use jet spray to clean this unit.
15. 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.**

#### General:

Utilize only qualified beverage equipment service technicians for installation.

A Service Company Directory may be found on our web site, <http://www.fetco.com>.

#### 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 can be connected to a cold or hot water line.  
(Cold water is preferred for best beverage flavor, but hot water will allow for greater output.)
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. Verify that the water line will deliver at least 1½gpm/(5.7lpm) per minute and a flow rate of at least 1½gpm/(5.7lpm) per minute and water pressure is between 20-75 psig (138-517kPa) before making any connections.
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










## Electrical-General

1. All FETCO brewers require Ground. Installation without ground may cause a hazard.
2. The electrical diagram with universal wiring instructions is located on the inside of the lower cover.
3. 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

## Electrical Connection

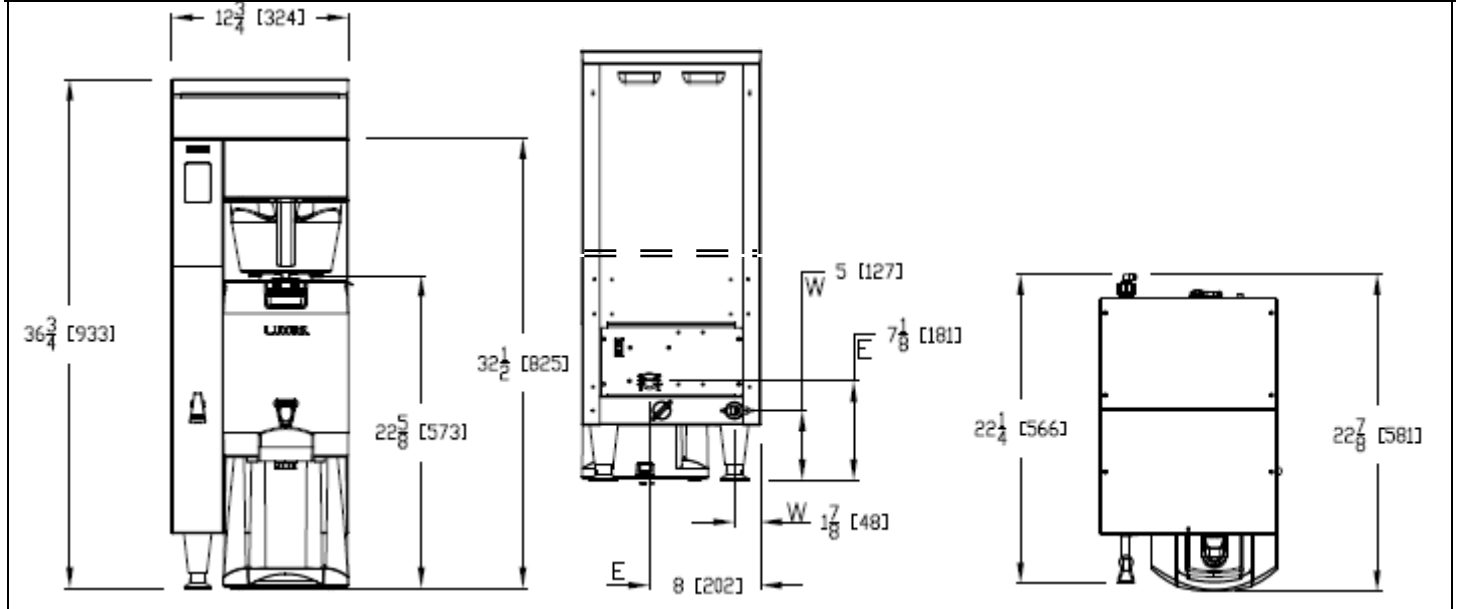
1. The CBS-2100XTS series models requires hardwire to the terminal block to a, grounded service
2. Verify that the actual voltage at the electrical service connection is compatible with the specifications on the brewer's serial number label. Make sure the electrical service match the current draw of the equipment.
3. All CBS-2150XTS have a terminal block for connecting the incoming power wires. 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.
4. Access the terminal block for electrical connection by removing the pullout service module on the lower back.
5. 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.
6. 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.
7. The body of the brewer must be grounded to a suitable building ground.
8. If Cord Connected: Do not use multiple taps for the plug. Consult local codes to determine if a single circuit is required for the cord and plug installed. Do not use extension cords for commercial food equipment.
9. All covers, removable panels and electrical connections must be secured in-place within the unit to meet national and local standards.

## See wiring diagrams in back of user guide for connections

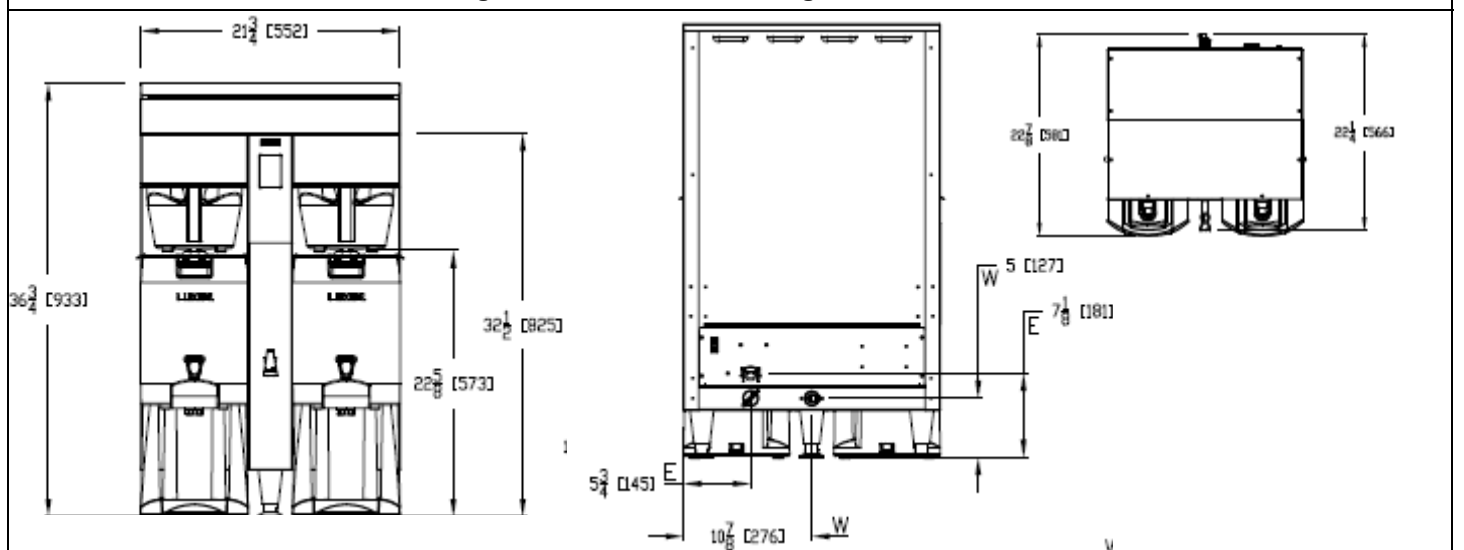
|   |   |   |
|---|---|---|
|   | <b>WARNING</b>  | To reduce risk of electric shock or fire. |
|  | <b>FETCO® Hot Beverage Equipment is for commercial use only.</b>  |   |
|  | Do not remove or open cover. No user serviceable parts inside. Refer installation and service to qualified personnel.   |   |
|  | 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.  |   |

**Technical Data—CBS-2150XTS 1½ gallon single and dual brewers**  
**Capacities & Measurements for single and dual brewers**  
**CBS-2150XTS Dimensions & Utility Connections**  
**CBS-2150XTS Rough-in Drawings**

| Brewer                          | Height               | Width                | Depth                | Empty Weight | Filled Weight     | Total Weight- Brewer & Full Dispenser | Hot Water Tank Capacity | Shipping Weight | Shipping Dimensions             |
|---------------------------------|----------------------|----------------------|----------------------|--------------|-------------------|---------------------------------------|-------------------------|-----------------|---------------------------------|
| CBS-2151XTS<br>Single-1½ gallon | 36 ¾" [933]<br>933mm | 12 ¾" [324]<br>324mm | 20 ¾" [518]<br>518mm | 53lb<br>24kg | 106.5lb<br>48.3kg | 129.5lb<br>58.7kg                     | 6.4 gal<br>24.3 l       | 57lb<br>26kg    | 17"x 20" x 35"<br>431x508x889mm |
| CBS-2152XTS<br>Dual-1½ gallon   | 36 ¾" [933]<br>933mm | 21 ¾" [552]<br>552mm | 20 ¾" [518]<br>518mm | 77lb<br>35kg | 174lb<br>78.7kg   | 220lb<br>99.8kg                       | 11.5 gal<br>43.7 l      | 90lb<br>41kg    | 22"x 27" x 35"<br>559x686x889mm |
| CBS-2152XTS<br>Dual-2 gallon    | 38 ⅞" [986]<br>986mm | 21 ¾" [552]<br>552mm | 20 ¾" [518]<br>518mm | 82lb<br>37kg | 180lb<br>81.6kg   | 234lb<br>106.3kg                      | 11.5 gal<br>43.7 l      | 96lb<br>43.5kg  | 22"x 27" x 37"<br>559x686x940mm |



**Rough-in CBS-2151XTS —Single station version**



**Rough-in CBS-2152XTS —Dual station version**

**CBS-2150XTS Utility Requirements**

- ❖ **Water Requirements:**  
20-75 psig (138-517kPa) 1½gpm/(5.7lpm)
- ❖ **Inlet Water Temperature:** Cold supply
- ❖ **Water inlet fitting** is a 3/8 inch male flare.
- ❖ **Coffee Filter Size:**→CBS-2150XTS: 15" X 5 ½ "
- ❖ **Electrical:** See electrical configuration chart.

**CBS\_2151XTS—Single 1½ gallon version Electrical Configurations**

| USA and Canada     |                            | CBS_2151XTS—Single 1½ gallon version Electrical Configurations |         |       |       |                       |         |           |                                      |
|--------------------|----------------------------|--|---------|-------|-------|-----------------------|---------|-----------|--------------------------------------|
| Configuration Code |                            | Heater Configuration   | Voltage | Phase | Wires | Electrical Connection | KW      | Amp Draw  | Gallon/Hour<br>(1½ gallon per batch) |
| Plastic Brewbasket | Stainless Steel Brewbasket |  |         |       |       |                       |         |           |                                      |
| E215151            | E215151M                   | 2 X 3.0 kW   | 208-240 | 1     | 2+G   | Hardwired             | 4.6-6.1 | 22.4-25.8 | 15.3 gal/58 liters                   |

| North America & International Versions |                            | CBS_2151XTS—Single 1½ gallon version Electrical Configurations |         |       |       |                       |         |           |                                      |
|--|----------------------------|--|---------|-------|-------|-----------------------|---------|-----------|--------------------------------------|
| Configuration Code                     |                            | Heater Configuration   | Voltage | Phase | Wires | Electrical Connection | KW      | Amp Draw  | Gallon/Hour<br>(1½ gallon per batch) |
| Plastic Brewbasket                     | Stainless Steel Brewbasket |  |         |       |       |                       |         |           |                                      |
| E215190                                | E215190M                   | 1 X 4.0 kW   | 200-240 | 1     | 2+G   | Hardwired             | 4.1     | 14.2-17.1 | 9.3 gal/35 liters                    |
| E215191                                | E215191M                   | 1 X 5.0 kW   | 200-240 | 1     | 2+G   | Hardwired             | 5.1     | 17.7-21.3 | 12.7 gal/48 liters                   |
| E215192                                | E215192M                   | 2 X 3.0 kW   | 200-240 | 1     | 2+G   | Hardwired             | 6.1     | 21.3-25.5 | 15.3 gal/58 liters                   |
| E215193                                | E215193M                   | 2 X 2.3 kW   | 200-240 | 1     | 2+G   | Hardwired             | 4.7-6.1 | 22.1-25.5 | 14.0 gal/53 liters                   |

| EXPORT/Japan        |                            | CBS_2151XTS—Single 1½ gallon version Electrical Configurations |         |       |       |                       |     |                  |   |
|---------------------|----------------------------|--|---------|-------|-------|-----------------------|-----|------------------|---|
| Configuration Codes |                            | Heater Configuration   | Voltage | Phase | Wires | Electrical Connection | KW  | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
| Plastic Brewbasket  | Stainless Steel Brewbasket |  |         |       |       |                       |     |                  |   |
| E215180             | E215180M                   | 1 X 5.0 kW   | 200-240 | 1     | 2+G   | Hardwired             | 3.6 | 17.7             | 11.6 gal/44liters                         |
| E215181             | E215181M                   | 2 X 3.0 kW   | 200-240 | 1     | 2+G   | Hardwired             | 4.3 | 21.3             | 14.3 gal/54 liters                        |

| CE EXPORT           |                            | CBS_2151XTS—Single 1½ gallon version Electrical Configurations |         |       |         |                       |     |                  |   |
|---------------------|----------------------------|--|---------|-------|---------|-----------------------|-----|------------------|---|
| Configuration Codes |                            | Heater Configuration   | Voltage | Phase | Wires   | Electrical Connection | KW  | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
| Plastic Brewbasket  | Stainless Steel Brewbasket |  |         |       |         |                       |     |                  |   |
| (CE) E215161        | (CE) E215161M              | 2 X 2.3 kW   | 230/400 | 2     | 2L,N,PE | Hardwired             | 5.6 | 12.4             | 14.0 gal/53 liters                        |

Has CE and NSF-4 certification. Internal EMI filter. Not cUL and UL listed

**CBS\_2152XTS—Twin 1½ gallon version Electrical Configurations**

| Configuration Codes        |                            | Heater Configuration | Voltage | Phase | Wires | Electrical Connection | KW        | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
|----------------------------|----------------------------|----------------------|---------|-------|-------|-----------------------|-----------|------------------|---|
| Plastic Brewbasket         | Stainless Steel Brewbasket |                      |         |       |       |                       |           |                  |   |
| E215251                    | E215251M                   | 2 X 3.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 4.6-6.1   | 22.4-25.8        | 15.3 gal/58 liters                        |
| Selectable—sold as 1 phase |                            | 3 X 3.0 kW           | 208-240 | 3     | 3+G   | Hardwired             | 6.9-9.1   | 19.5-22.5        | 22.5 gal/85 liters                        |
| E215252                    | E215252M                   | 2 X 5.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 7.6-10.1  | 36.9-42.5        | 25.3 gal/97 liters                        |
| Selectable—sold as 1 phase |                            | 3 X 5.0 kW           | 208-240 | 3     | 3+G   | Hardwired             | 11.4-15.1 | 32.0-36.9        | 38.3 gal/145 liters                       |
| E215253                    | E215253M                   | 2 X 4.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 6.1 - 8.1 | 29.3 - 33.8      | 19.8 gal/75 liters                        |
| Selectable—sold as 1 phase |                            | 3 X 4.0 kW           | 208-240 | 3     | 3+G   | Hardwired             | 9.1-12.1  | 25.8 - 28.9      | 29.5 gal/112 liters                       |

| Configuration Codes |                            | Heater Configuration | Voltage | Phase | Wires | Electrical Connection | KW        | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
|---------------------|----------------------------|----------------------|---------|-------|-------|-----------------------|-----------|------------------|---|
| Plastic Brewbasket  | Stainless Steel Brewbasket |                      |         |       |       |                       |           |                  |   |
| E215292             | E215292M                   | 2 X 3.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 4.6-6.1   | 22.4-25.8        | 15.3 gal/58 liters                        |
| E215293             | E215293M                   | 3 X 3.0 kW           | 208-240 | 3     | 4+G   | Hardwired             | 6.9-9.1   | 19.5-22.5        | 22.5 gal/85 liters                        |
| E215294             | E215294M                   | 2 X 5.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 7.6-10.1  | 36.9-42.5        | 25.3 gal/97 liters                        |
| E215295             | E215295M                   | 3 X 5.0 kW           | 208-240 | 3     | 4+G   | Hardwired             | 11.4-15.1 | 32.0-36.9        | 38.3 gal/145 liters                       |

Has UL & cUL and NSF-4 certification. Not certified CE

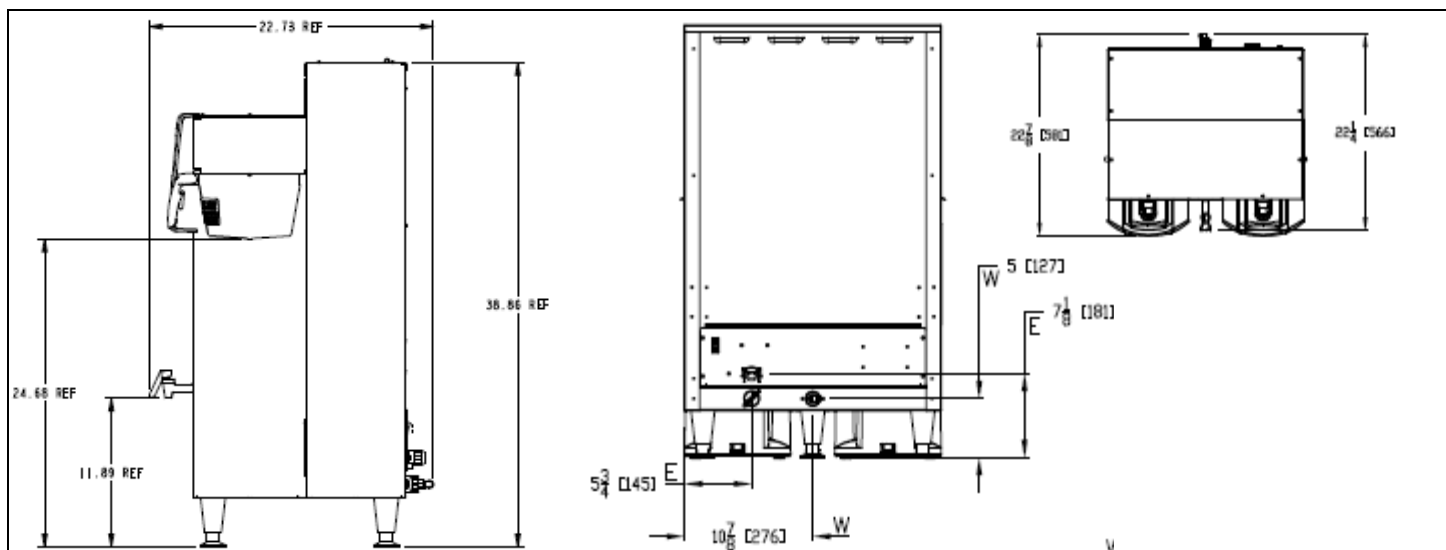
| Configuration Codes |                            | Heater Configuration | Voltage            | Phase | Wires | Electrical Connection | KW   | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
|---------------------|----------------------------|----------------------|--------------------|-------|-------|-----------------------|------|------------------|---|
| Plastic Brewbasket  | Stainless Steel Brewbasket |                      |                    |       |       |                       |      |                  |   |
| E215290             | E215290M                   | 3 X 3.0 kW           | 220/380 or 240/415 | 3     | 4+G   | Hardwired             | 9.1  | 11.8-12.9        | 22.5 gal/85 liters                        |
| E215291             | E215291M                   | 3 X 5.0 kW           | 220/380 or 240/415 | 3     | 4+G   | Hardwired             | 15.1 | 19.5-21.4        | 38.3 gal/145 liters                       |

Has UL & cUL and NSF-4 certification. Not certified CE

| Configuration Codes |                            | Heater Configuration | Voltage | Phase | Wires | Electrical Connection | KW  | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
|---------------------|----------------------------|----------------------|---------|-------|-------|-----------------------|-----|------------------|---|
| Plastic Brewbasket  | Stainless Steel Brewbasket |                      |         |       |       |                       |     |                  |   |
| E215280             | E215280M                   | 3 X 3.0 kW           | 200     | 3     | 3+G   | Hardwired             | 6.5 | 18.6             | 17 gal/64 liters                          |

| Configuration Codes |                            | Heater Configuration | Voltage | Phase | Wires   | Electrical Connection | KW   | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
|---------------------|----------------------------|----------------------|---------|-------|---------|-----------------------|------|------------------|---|
| Plastic Brewbasket  | Stainless Steel Brewbasket |                      |         |       |         |                       |      |                  |   |
| (CE) E215261        | (CE) E215261M              | 3 X 3.0 kW           | 230/400 | 3     | 3L,N,PE | Hardwired             | 8.6  | 12.4             | 22.5 gal/85 liters                        |
| (CE) E215262        | (CE) E215262               | 3 X 5.0 kW           | 230/400 | 3     | 3L,N,PE | Hardwired             | 14.1 | 20.4             | 38.3 gal/145 liters                       |

Has CE and NSF-4 certification. Internal EMI filter. Not cUL and UL listed



### Rough-in CBS-2152-2 gallon XTS —Dual station version

**NOTICE: This model uses 2 gallon dispensers**

### CBS-2150XTS Utility Requirements

- ❖ **Water Requirements:**  
20-75 psig (138-517kPa) 1½gpm/(5.7lpm)
- ❖ **Water inlet fitting** is a 3/8 inch male flare.
- ❖ **Inlet Water Temperature:** Cold supply
- ❖ **Coffee Filter Size:**→CBS-2150XTS: 15" X 5 ½ "
- ❖ **Electrical:** See electrical configuration chart.

### CBS\_2152-2 XTS—Twin 2 gallon version Electrical Configurations

| Configuration Codes        |                            | Heater Configuration | Voltage | Phase | Wires | Electrical Connection | KW        | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
|----------------------------|----------------------------|----------------------|---------|-------|-------|-----------------------|-----------|------------------|---|
| Plastic Brewbasket         | Stainless Steel Brewbasket |                      |         |       |       |                       |           |                  |   |
| E215351                    | E215351M                   | 2 X 3.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 4.6-6.1   | 22.4-25.8        | 15.3 gal/58 liters                        |
| Selectable—sold as 1 phase |                            | 3 X 3.0 kW           | 208-240 | 3     | 3+G   | Hardwired             | 6.9-9.1   | 19.5-22.5        | 22.5 gal/85 liters                        |
| E215352                    | E215352M                   | 2 X 5.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 7.6-10.1  | 36.9-42.5        | 25.3 gal/97 liters                        |
| Selectable—sold as 1 phase |                            | 3 X 5.0 kW           | 208-240 | 3     | 3+G   | Hardwired             | 11.4-15.1 | 32.0-36.9        | 38.3 gal/145 liters                       |
| E215353                    | E215233M                   | 2 X 4.0 kW           | 208-240 | 1     | 2+G   | Hardwired             | 6.1 - 8.1 | 29.3 - 33.8      | 19.8 gal/75 liters                        |
| Selectable—sold as 1 phase |                            | 3 X 4.0 kW           | 208-240 | 3     | 3+G   | Hardwired             | 9.1-12.1  | 25.8 - 28.9      | 29.5 gal/112liters                        |

Has UL & cUL and NSF-4 certification. Not certified CE

| Configuration Codes |                            | Heater Configuration | Voltage | Phase | Wires   | Electrical Connection | KW   | Maximum Amp Draw | Brew-Volume/Hour<br>(1½ gallon per batch) |
|---------------------|----------------------------|----------------------|---------|-------|---------|-----------------------|------|------------------|---|
| Plastic Brewbasket  | Stainless Steel Brewbasket |                      |         |       |         |                       |      |                  |   |
| (CE) E215361        | (CE) E215361M              | 3 X 3.0 kW           | 230/400 | 3     | 3L,N,PE | Hardwired             | 8.6  | 12.4             | 22.5 gal/85 liters                        |
| (CE) E215362        | (CE) E215362M              | 3 X 5.0 kW           | 230/400 | 3     | 3L,N,PE | Hardwired             | 14.1 | 20.4             | 38.3 gal/145 liters                       |

Has CE and NSF-4 certification. Internal EMI filter. Not cUL and UL listed



## Final Setup for Startup

### Final Setup

1. Turn on incoming water supply line and carefully inspect both inside and outside of the brewer for leaks in all fittings and tubes
2. Turn on power.
3. Press the brewer's main power switch (located on the lower right of the back of the equipment)

### SCREENS SHOWN TO THE RIGHT WILL APPEAR

4. The water tank will begin filling. FETCO Home Screen #1 will read "FILLING".
5. When the water level rises and is sensed by the probe at the top of the tank the heaters will activate
6. Heaters are automatically disabled until the tank is full.

7. While the water is heating Screen #2 "HEATING" will display and the actual water temperature will be displayed.

8. After the water has reached the set temperature Screen #3 will display "READY"
9. Review the Operating Instructions. Brew one full batch (water only) on each side to confirm proper fill levels. The brewer is factory set with water only (no coffee) to dispense the correct amount of water. If the actual volume is slightly different from the programmed volume, fine tuning the brewer may be necessary. See Calibrate Valves in the OUTPUT section in the PROGRAMMING section.
10. Re-attach the covers after one final inspection for leaks. Look closely in the top of the brewer section at the dispense fittings during this inspection.

### FETCO Home Screen #1



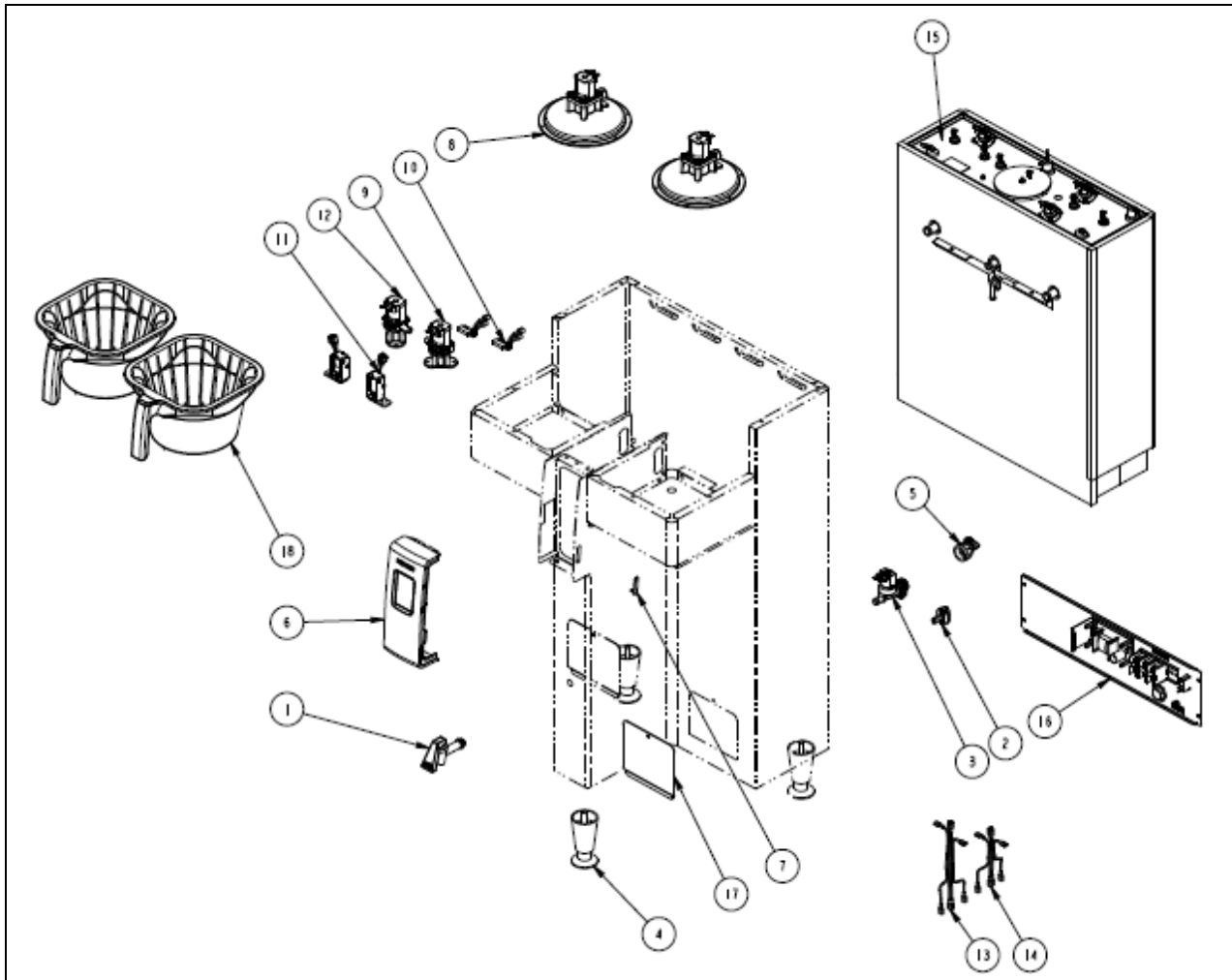
### Home Screen #2 "HEATING"



### FETCO Home Screen #3 "READY"

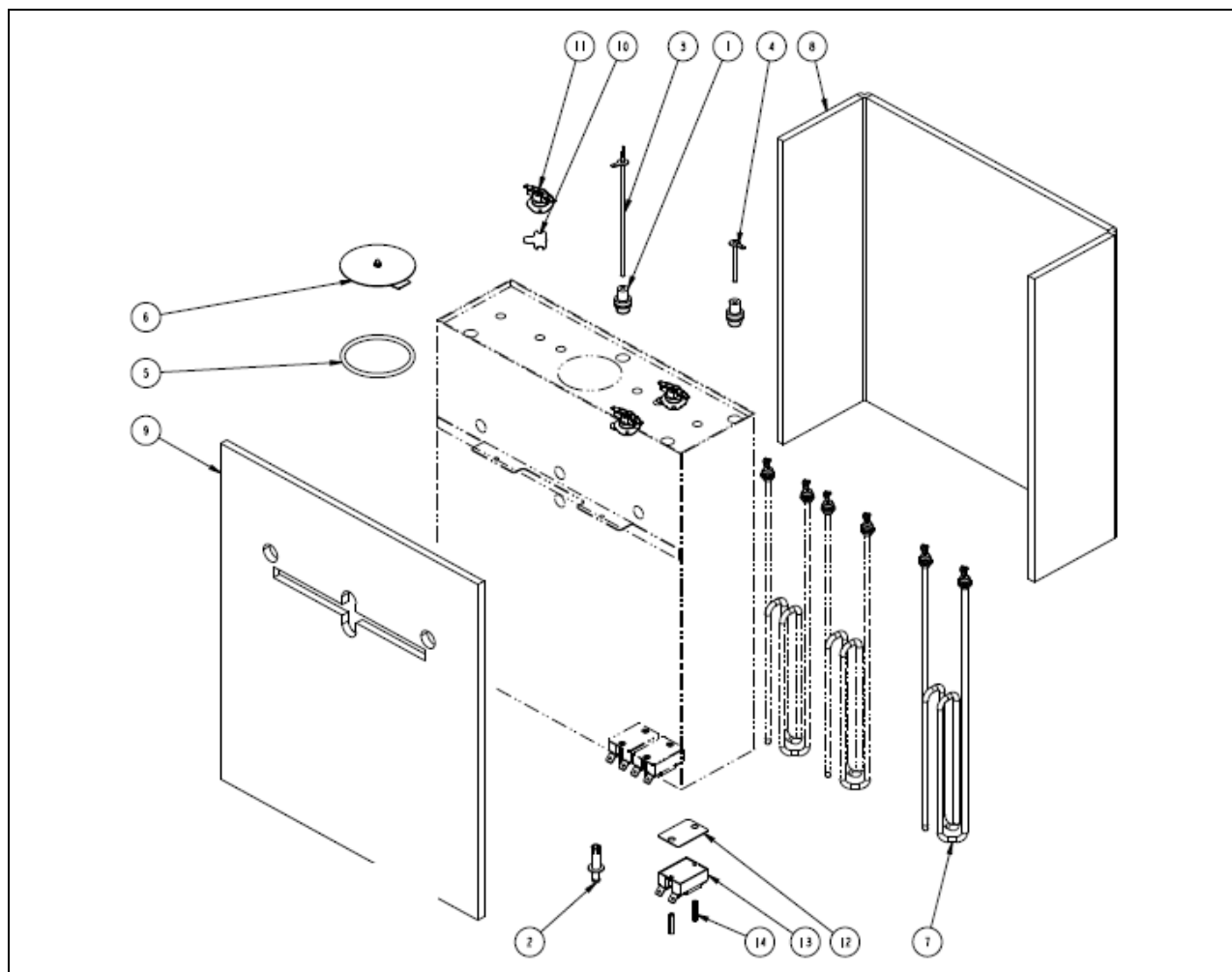


## Parts and Wiring Diagrams



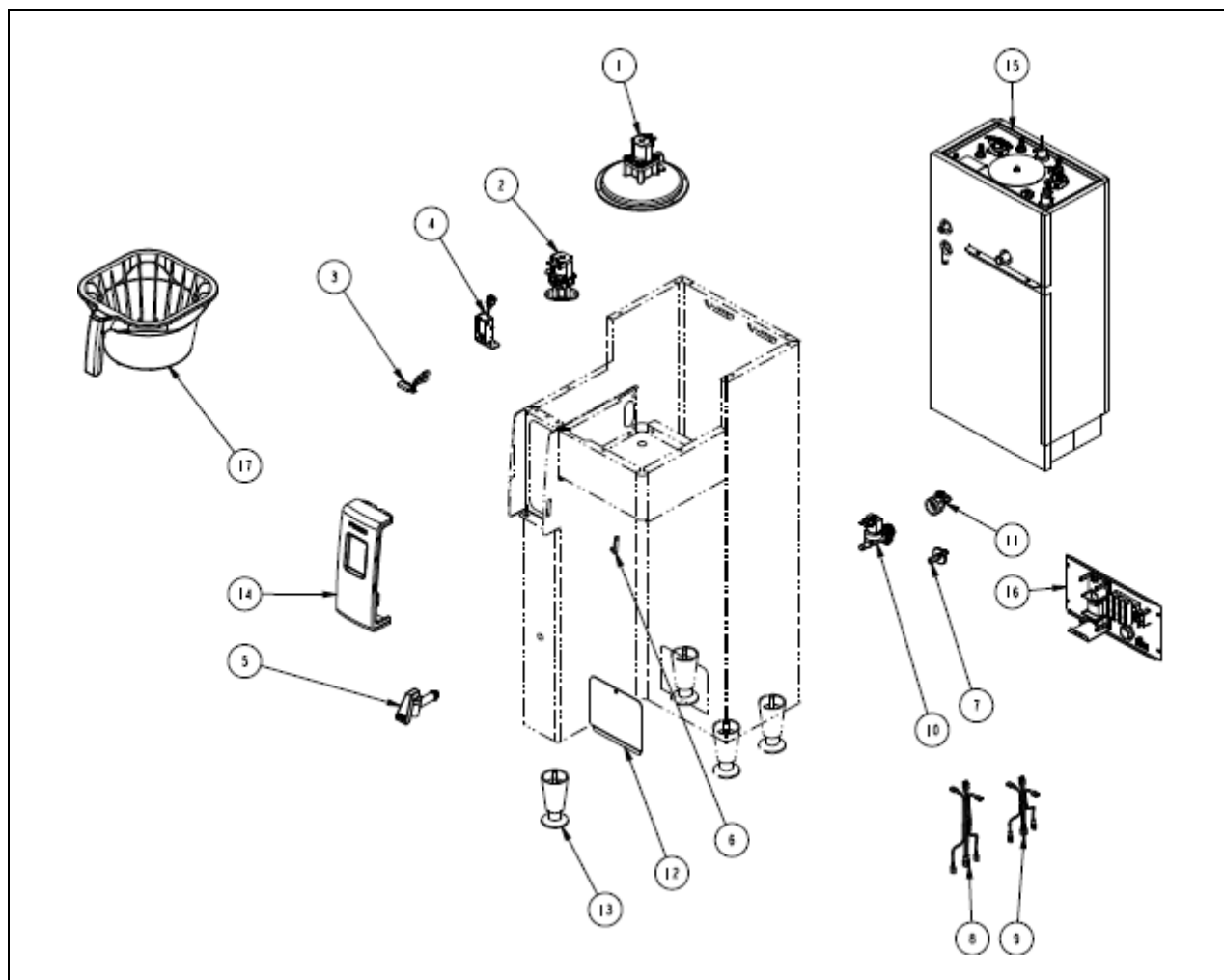
**CBS-2152,XTS Drawings 1109.00065, 64, 63, 62.00 SERVICE PARTS**

| ITEM NO | PART NO        | DESCRIPTION                                     | QTY |
|---------|----------------|---|-----|
| 1       | 1071.00010.00  | FAUCET HPSC-BR-8 REGULAR HANDLE                 | 1   |
| 2       | 1023.00147.00  | PLUG, TANK SERVICE DRAIN FOR 18GA AND UP BODY   | 1   |
| 3       | 1057.00043.00  | SOLENOID VALVE, SINGLE, 180 DEG, 24VDC          | 1   |
| 4       | 1073.00007.00  | LEG, FLANGE FOOT, 4" HIGH                       | 3   |
| 5       | 1102.00243.00  | ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE   | 1   |
| 6       | 1102.00210.00  | ASSEMBLY FRONT PANEL, CBS-2130, GRAVITY VERSION | 1   |
| 7       | 1024.00040.00  | CARD PLUG, HWD-2100                             | 1   |
| 8       | 1102.00223.00  | SPRAY HOUSING, LARGE, COMPLETE ASSEMBLY, 24 VDC | 2   |
| 9       | 1102.00220.00  | ASSEMBLY, BYPASS VALVE, RIGHT                   | 1   |
| 10      | 1102.00113.00  | SWITCH, REED, ASSEMBLY                          | 2   |
| 11      | 1102.00219.00  | ASSEMBLY, BB LOCKER, 24VDC                      | 2   |
| 12      | 1102.00221.00  | ASSEMBLY, BYPASS VALVE, LEFT                    | 1   |
| 13      | 1402.00051.00  | HARNESS LOW AMP, CBS-2142/52 XTS, CE/UL         | 1   |
| 14      | 1402.00053.00  | HARNESS HIGH AMP, CBS-2152 XTS, UL              | 1   |
| 15      | 1104.00075.00  | TANK ASSY, 3 X 4.0kW/240VAC, CBS-2152 XTS       | 1   |
| 15      | 1104.00074.000 | TANK ASSY, 3 X 5.0kW/240VAC, CBS-2152 XTS       | 1   |
| 15      | 1104.00062.000 | TANK ASSY, 3 X 3.0kW/240VAC, CBS-2152 XTS       | 1   |
| 16      | 1102.00229.00  | ASSEMBLY BACK PANEL, CBS-2152                   | 1   |
| 17      | 1001.00181.00  | COVER FRONT, CBS-2100 XTS                       | 2   |
| 18      | B001280B1      | Stainless Steel Brewbasket                      | 2   |
| 18      | B015280BN2     | BB ASSEMBLY, 16" x 6", Ø.280" HOLE              | 2   |



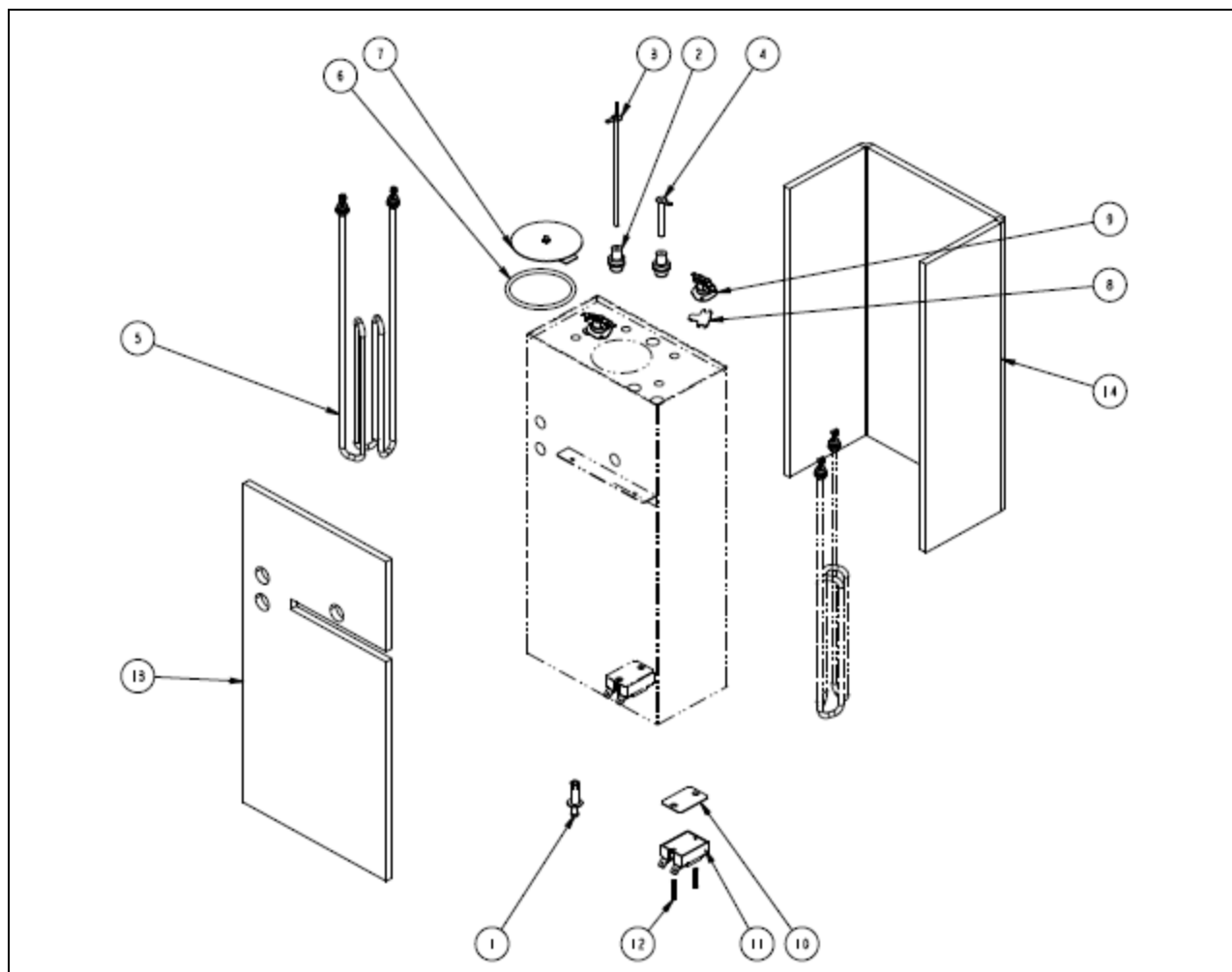
**CBS-2152,XTS Drawings 1109.000[75-67-66].00 SERVICE PARTS, CBS-2152 XTS TANK**

| ITEM NO | PART NO              | DESCRIPTION   | QTY      |
|---------|----------------------|---|----------|
| 1       | 1024.00053.000       | LEVEL AND TEMP PROBE GROMMET                        | 2        |
| 2       | 1023.00166.00        | FITTING, COLD WATER INLET, GROMMET DESIGN           | 1        |
| 3       | 1102.00161.00        | PROBE ASSEMBLY, TEMP. AND LLC, HWD-2100             | 1        |
| 4       | 1112.00019.00        | PROBE WELDMENT, WATER LEVEL 2.600" LG               | 1        |
| 5       | 1024.00007.00        | O-RING, DASH #344, TANK COVER                       | 1        |
| 6       | 1102.00007.00        | TANK COVER ASSEMBLY                                 | 1        |
| 7       | <b>1107.00005.00</b> | <b>HEATER ASSEMBLY, IMMERSION 3000W/240VAC</b>      | <b>3</b> |
| 7       | <b>1107.00032.00</b> | <b>HEATER ASSEMBLY, IMMERSION 5000W/240VAC</b>      | <b>3</b> |
| 7       | <b>1107.00010.00</b> | <b>HEATER ASSEMBLY, IMMERSION 4000W/240VAC</b>      | <b>3</b> |
| 8       | 1022.00071.00        | INSULATION, TANK BACK, CBS-2152                     | 1        |
| 9       | 1022.00070.00        | INSULATION, TANK FRONT, CBS-2152                    | 1        |
| 10      | 1003.00005.00        | BRACKET, ONE SHOT THERMOSTAT                        | 3        |
| 11      | 1053.00003.00        | THERMOSTAT, SINGLE SHOT, 240V/40A                   | 3        |
| 12      | 1003.00140.00        | ALUMINUM BRACKET FOR SSR                            | 3        |
| 13      | 1052.00033.00        | RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR | 3        |
| 14      | 1081.00042.00        | STANDOFF, 1/4" HEX                                  | 6        |



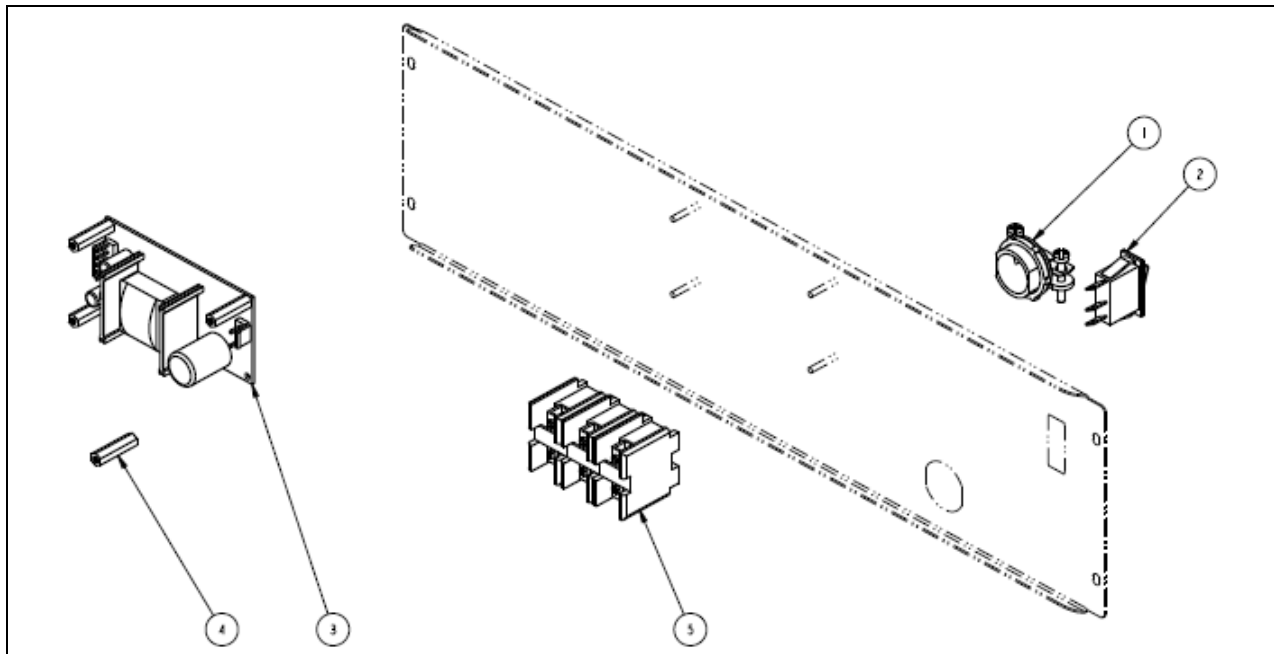
**CBS-2151,XTS Drawings 1109.00061.00 SERVICE PARTS**

| ITEM NO | PART NO           | DESCRIPTION                                     | QTY      |
|---------|-------------------|---|----------|
| 1       | 1102.00223.00     | SPRAY HOUSING, LARGE, COMPLETE ASSEMBLY, 24 VDC | 1        |
| 2       | 1102.00220.00     | ASSEMBLY, BYPASS VALVE, RIGHT                   | 1        |
| 3       | 1102.00113.00     | SWITCH, REED, ASSEMBLY                          | 1        |
| 4       | 1102.00219.00     | ASSEMBLY, BB LOCKER, 24VDC                      | 1        |
| 5       | 1071.00010.00     | FAUCET HPSC-BR-8 REGULAR HANDLE                 | 1        |
| 6       | 1024.00040.00     | CARD PLUG, HWD-2100                             | 1        |
| 7       | 1023.00147.00     | PLUG, TANK SERVICE DRAIN FOR 18GA AND UP BODY   | 1        |
| 8       | 1402.00045.00     | HARNESS LOW AMP, CBS-2141/51 XTS, CE/UL         | 1        |
| 9       | 1402.00061.00     | HARNESS HIGH AMP, CBS-2151 XTS, UL              | 1        |
| 10      | 1057.00043.00     | SOLENOID VALVE, SINGLE, 180 DEG, 24VDC          | 1        |
| 11      | 1102.00243.00     | ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE   | 1        |
| 12      | 1001.00181.00     | COVER FRONT, CBS-2100 XTS                       | 1        |
| 13      | 1073.00007.00     | LEG, FLANGE FOOT, 4" HIGH                       | 4        |
| 14      | 1102.00210.00     | ASSEMBLY FRONT PANEL, CBS-2130, GRAVITY VERSION | 1        |
| 15      | 1104.00061.00     | TANK ASSY, 2 X 3.0kW/240V, CBS-2151 XTS         | 1        |
| 16      | 1102.00231.00     | ASSEMBLY, BACK PANEL, CBS-2151                  | 1        |
| 17      | <b>B001280B1</b>  | <b>Stainless Steel Brewbasket</b>               | <b>1</b> |
| 17      | <b>B015280BN2</b> | <b>BB ASSEMBLY, 16" x 6", Ø.280" HOLE</b>       | <b>1</b> |



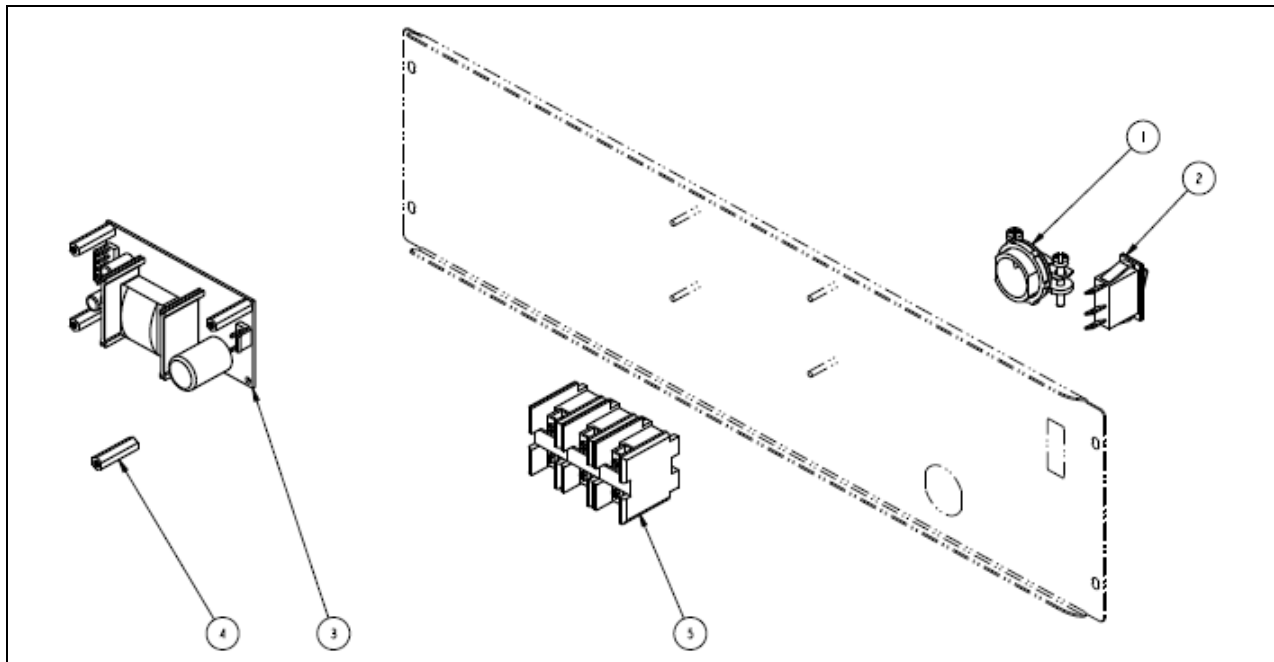
**CBS-2151,XTS Drawing 1109.00076.00 SERVICE PARTS, TANK**

| ITEM NO | PART NO       | DESCRIPTION   | QTY |
|---------|---------------|---|-----|
| 1       | 1023.00166.00 | FITTING, COLD WATER INLET, GROMMET DESIGN           | 1   |
| 2       | 1024.00053.00 | LEVEL AND TEMP PROBE GROMMET                        | 2   |
| 3       | 1102.00161.00 | PROBE ASSEMBLY, TEMP. AND LLC, HWD-2100             | 1   |
| 4       | 1112.00019.00 | PROBE WELDMENT, WATER LEVEL 2.600" LG               | 1   |
| 5       | 1107.00005.00 | HEATER ASSEMBLY, IMMERSION 3000W/240VAC             | 2   |
| 6       | 1024.00007.00 | O-RING, DASH #344, TANK COVER                       | 1   |
| 7       | 1102.00007.00 | TANK COVER ASSEMBLY                                 | 1   |
| 8       | 1003.00005.00 | BRACKET, ONE SHOT THERMOSTAT                        | 2   |
| 9       | 1053.00003.00 | THERMOSTAT, SINGLE SHOT, 240V/40A                   | 2   |
| 10      | 1003.00140.00 | ALUMINUM BRACKET FOR SSR                            | 2   |
| 11      | 1052.00033.00 | RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR | 2   |
| 12      | 1081.00042.00 | STANDOFF, 1/4" HEX                                  | 4   |
| 13      | 1022.00068.00 | INSULATION, TANK FRONT, CBS-2151                    | 1   |
| 14      | 1022.00069.00 | INSULATION, TANK BACK, CBS-2151                     | 1   |



**CBS-2152,XTS Drawing 1109.00091.00 SERVICE PARTS, BACK PANEL-UL**

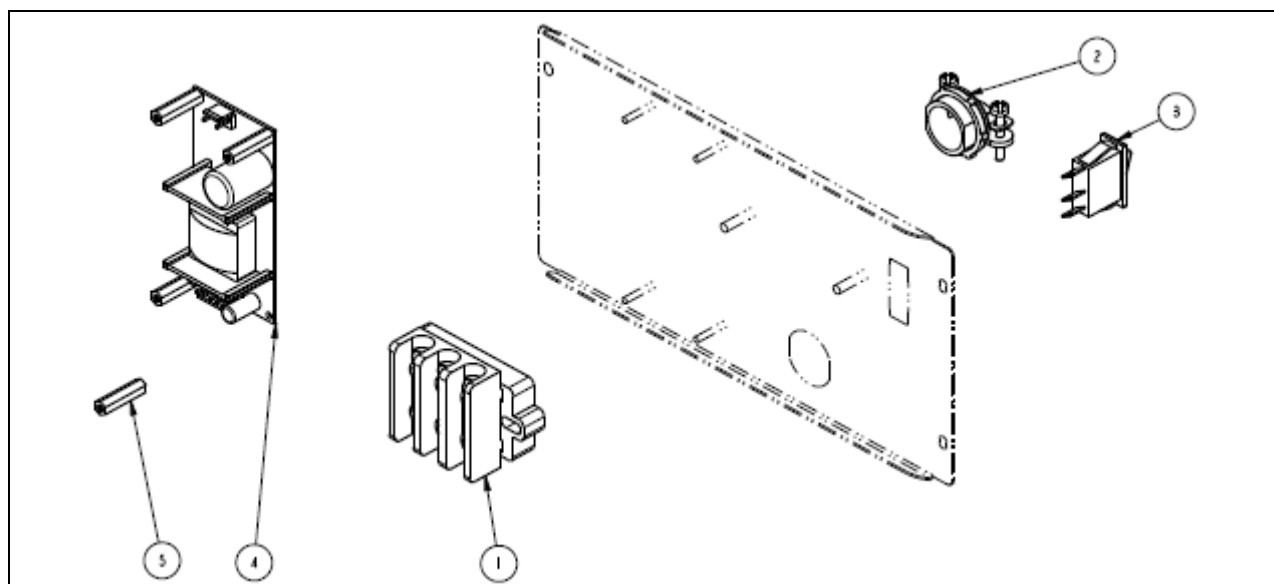
| ITEM NO | PART NO       | DESCRIPTION                                | QTY |
|---------|---------------|--|-----|
| 1       | 1086.00008.00 | CONNECTOR, CABLE CLAMP, 3/4"               | 1   |
| 2       | 1058.00020.00 | SWITCH, PWR ROCKER RED, ILLUM. 250VAC      | 1   |
| 3       | 1052.00001.00 | POWER SUPPLY, 90-264VAC/24VDC, 1.8A        | 1   |
| 4       | 1029.00012.00 | SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD | 4   |
| 5       | 1052.00004.00 | TERMINAL BLOCK                             | 3   |



**CBS-2152,XTS Drawing 1109.00046.00 SERVICE PARTS, BACK PANEL-CE**

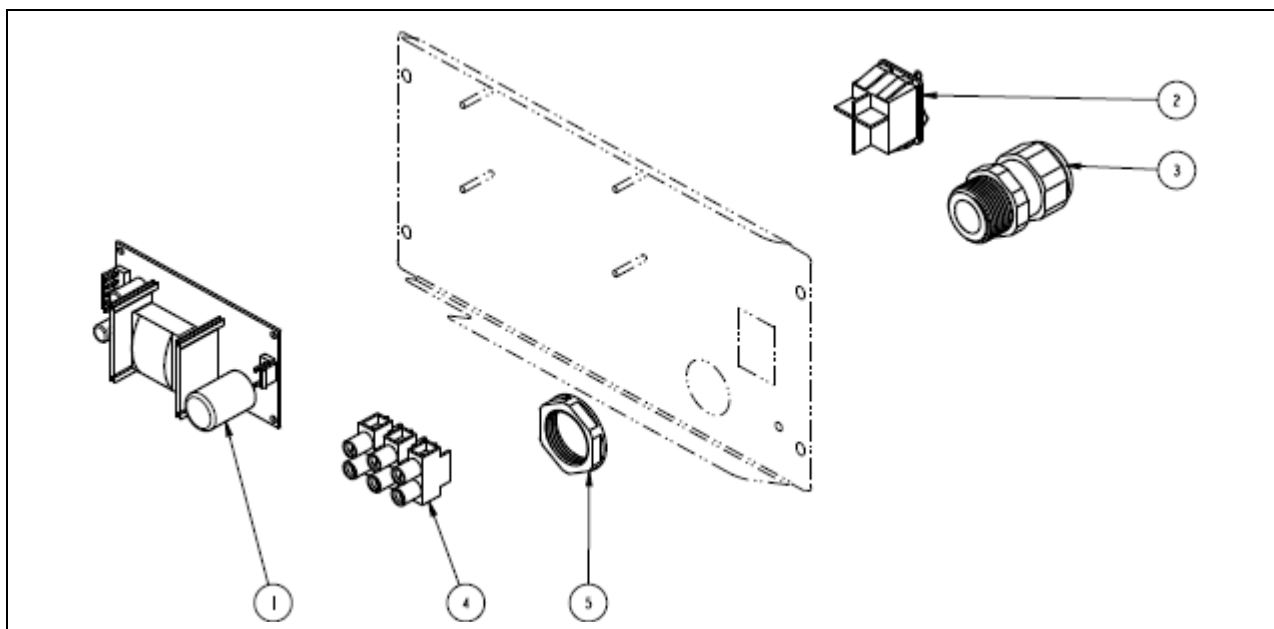
| ITEM NO | PART NO        | DESCRIPTION  | QTY |
|---------|----------------|--|-----|
| 1       | 1052.00001.000 | POWER SUPPLY, 90-264VAC/24VDC, 1.8A                | 1   |
| 2       | 1058.00024.00  | SWITCH, POWER, DOUBLE POLE, 16A, 125/250 VAC       | 1   |
| 3       | 1052.00023.00  | EUROSTRIP HE10 TERMINAL BLOCK, 4 POLE, 50AMP, 18-8 | 1   |
| 4       | 1086.00031.00  | BUSHING, STRAIN RELIEF, BLACK, .354"-.630"         | 1   |
| 5       | 1086.00032.00  | LOCKNUT, HEX BLACK, FOR SKINTOP RELIEF             | 1   |





**CBS-2151, XTS Drawing 1109.00092.00 SERVICE PARTS, BACK PANEL-UL**

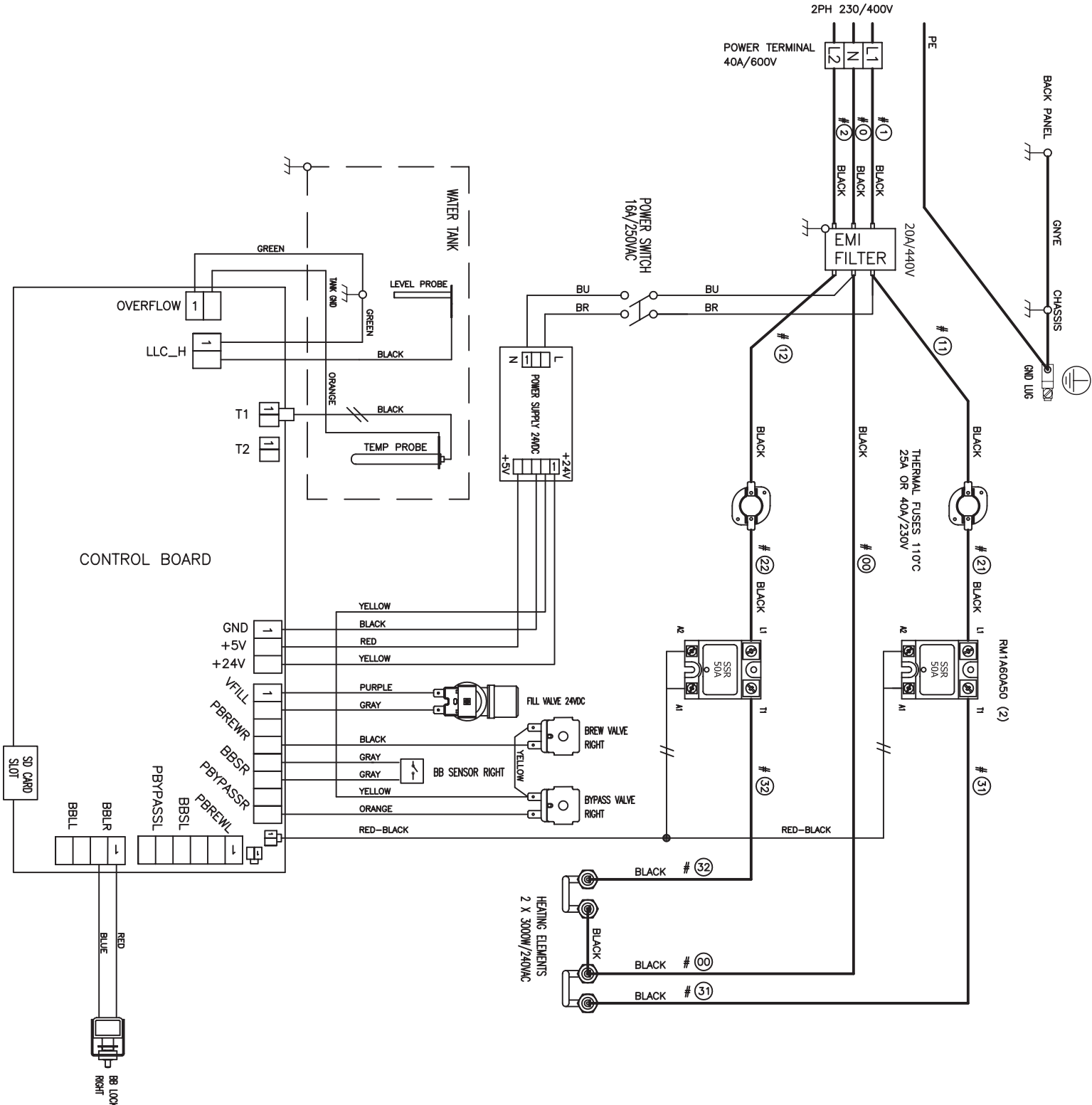
| ITEM NO | PART NO       | DESCRIPTION                                | QTY |
|---------|---------------|--|-----|
| 1       | 1052.00002.00 | TERMINAL BLOCK, 3 POLE, W/ MARKING STRIP   | 1   |
| 2       | 1086.00008.00 | CONNECTOR, CABLE CLAMP, 3/4"               | 1   |
| 3       | 1058.00020.00 | SWITCH, PWR ROCKER RED, ILLUM. 250VAC      | 1   |
| 4       | 1052.00001.00 | POWER SUPPLY, 90-264VAC/24VDC, 1.8A        | 1   |
| 5       | 1029.00012.00 | SPACER, .25" HEX X 1" LG, FEM #4-40 THREAD | 4   |



**CBS-2151, XTS Drawing 1109.00048.00 SERVICE PARTS, BACK PANEL-CE**


| ITEM NO | PART NO      | DESCRIPTION  | QTY |
|---------|--------------|--|-----|
| 1       | 1052.00001.0 | POWER SUPPLY, 90-264VAC/24VDC, 1.8A                  | 1   |
| 2       | 1058.00024.0 | SWITCH, POWER, DOUBLE POLE, 16A, 125/250 VAC         | 1   |
| 3       | 1086.00031.0 | BUSHING, STRAIN RELIEF, BLACK, .354"-.630"           | 1   |
| 4       | 1052.00022.0 | EUROSTRIP HE6 TERM. BLK., 3 POLE, 40AMP, 10-20 TERM. | 1   |
| 5       | 1029.00012.0 | LOCKNUT, HEX BLACK, FOR SKINTOP RELIEF               | 1   |

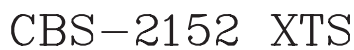
| REVISIONS |            |        |             |     |
|-----------|------------|--------|-------------|-----|
| REV       | DATE       | ECO NO | DESCRIPTION | BY: |
| A         | 12/10/2013 | N/A    | ORIGINAL    |     |
|           |            |        |             |     |



CBS-2151 XTS

| HEATER CONFIGURATION | VOLTAGE | PH | WIRES     | KW  | MAX AMP DRAW |
|----------------------|---------|----|-----------|-----|--------------|
| 2x3.0kW/240V         | 230/400 | 2  | 2L, N, PE | 5.6 | 12.4         |

|                 |     |           |    |   |    |   |            |             |               |
|-----------------|-----|-----------|----|---|----|---|------------|-------------|---------------|
| TOLERANCES      |     | REVISIONS |    |  |    | FOOD EQUIPMENT TECHNOLOGY COMPANY<br>600 ROSE RD.<br>LAKE ZURICH, IL 60047<br>PHONE: 847-719-3000, FAX: 847-719-3001<br>WWW.FETCO.COM |            |             |               |
| EXCEPT AS NOTED | NO. | DATE      | BY |   |    |   |            |             |               |
| DECIMAL         | A   | 12-10-13  | AG | DWG. NAME:<br><br>WIRING, CBS-2151 XTS, 2PH, CE                                       |    |   |            |             |               |
| +/- .005        | B   |           |    |   |    |   |            |             |               |
| FRACTIONAL      | C   |           |    | DRAWN BY  | AG | SCALE   | N/A        | MATERIAL    | N/A           |
| +/- 1/64"       | D   |           |    | CHK'D   | LW | SIZE  | A          | DRAWING NO. | 1401.00076.00 |
| ANGULAR         | E   |           |    | APP'D   | LW | DATE  | 12-10-2013 |             |               |
| +/- 1/2 DEG     |     |           |    |   |    |   |            |             |               |



|                 |
|-----------------|
| TOLERANCES      |
| EXCEPT AS NOTED |
| DECIMAL         |
| +/- .005        |
| FRACTIONAL      |
| +/- 1/64"       |
| ANGULAR         |
| +/- 1/2 DE      |

|                               |  |    |                    |
|-------------------------------|--|----|--------------------|
| <b>FETCO®</b>                 |  |    |                    |
| DWG. NAME:<br>WIRING, CBS-215 |  |    |                    |
| DRAWN BY                      |  | AG | SCALE<br>N/A       |
| CHK'D                         |  | LW | SIZE<br>A          |
| APP'D                         |  | LW | DATE<br>12-11-2013 |

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LAKE ZURICH, IL 60047  
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DWG. NAME:

WIRING, CBS-2152 XTS, 3PH, CE

DRAWN BY

|  |     |
|--|-----|
|  | SCA |
|--|-----|

E. ...

## MATERIAL

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|        |
|--------|
| AG     |
| CLIK'D |

[illegible]

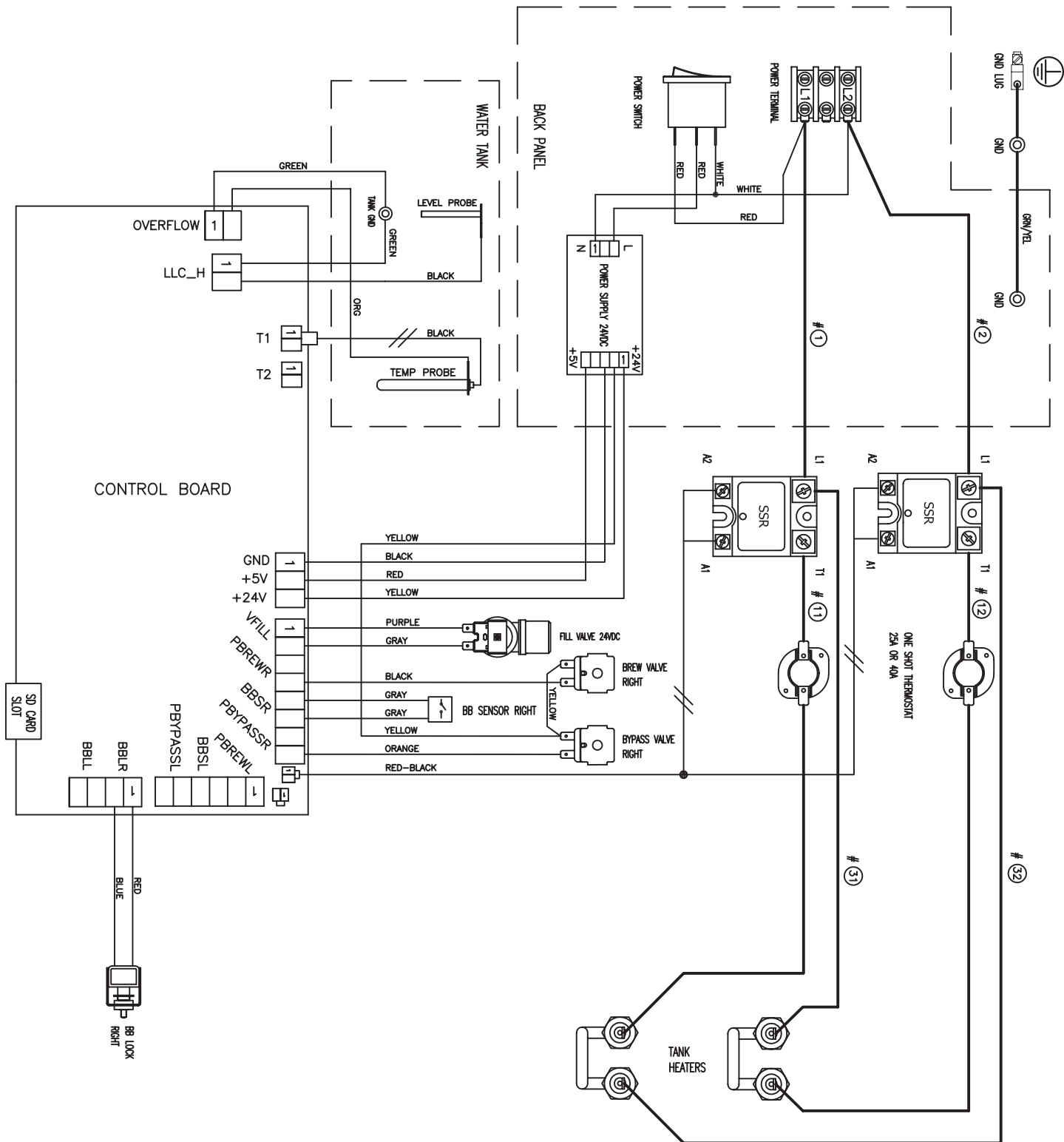
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DRAWING NO.

1401.00080.00

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|-----------|------------|--------|-------------------|--|-----|---|
| REV       | DATE       | ECO NO | DESCRIPTION       |  |     |   |
| A         | 02/13/2014 | N/A    | ORIGINAL          |  | AG  |   |
| B         | 03/21/2014 | N/A    | REVISED SCHEMATIC |  | AG  |   |

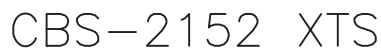


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|-----------------|--|-----------|------------|----|--|----|------------------------------|
| EXCEPT AS NOTED |  | NO.       | DATE       | BY |  |    |                              |
| DECIMAL         |  | A         | 02/13/2014 | AG | DWG. NAME:<br>WIRING, CBS-2151 XTS, L1, L2, GND, UL,<br>2 HEATERS  |    |                              |
| +/- .005        |  | B         | 03/21/2014 | AG |  |    |                              |
| FRACTIONAL      |  | C         |            |    | DRAWN BY   | AG | SCALE N/A                    |
| +/- 1/64"       |  | D         |            |    | CHK'D  | LW | SIZE A                       |
| ANGULAR         |  | E         |            |    | APP'D  | LW | DATE 02-13-2014              |
| +/- 1/2 DEG     |  |           |            |    |  |    | DRAWING NO.<br>1401.00084.00 |


## REVISIONS

B

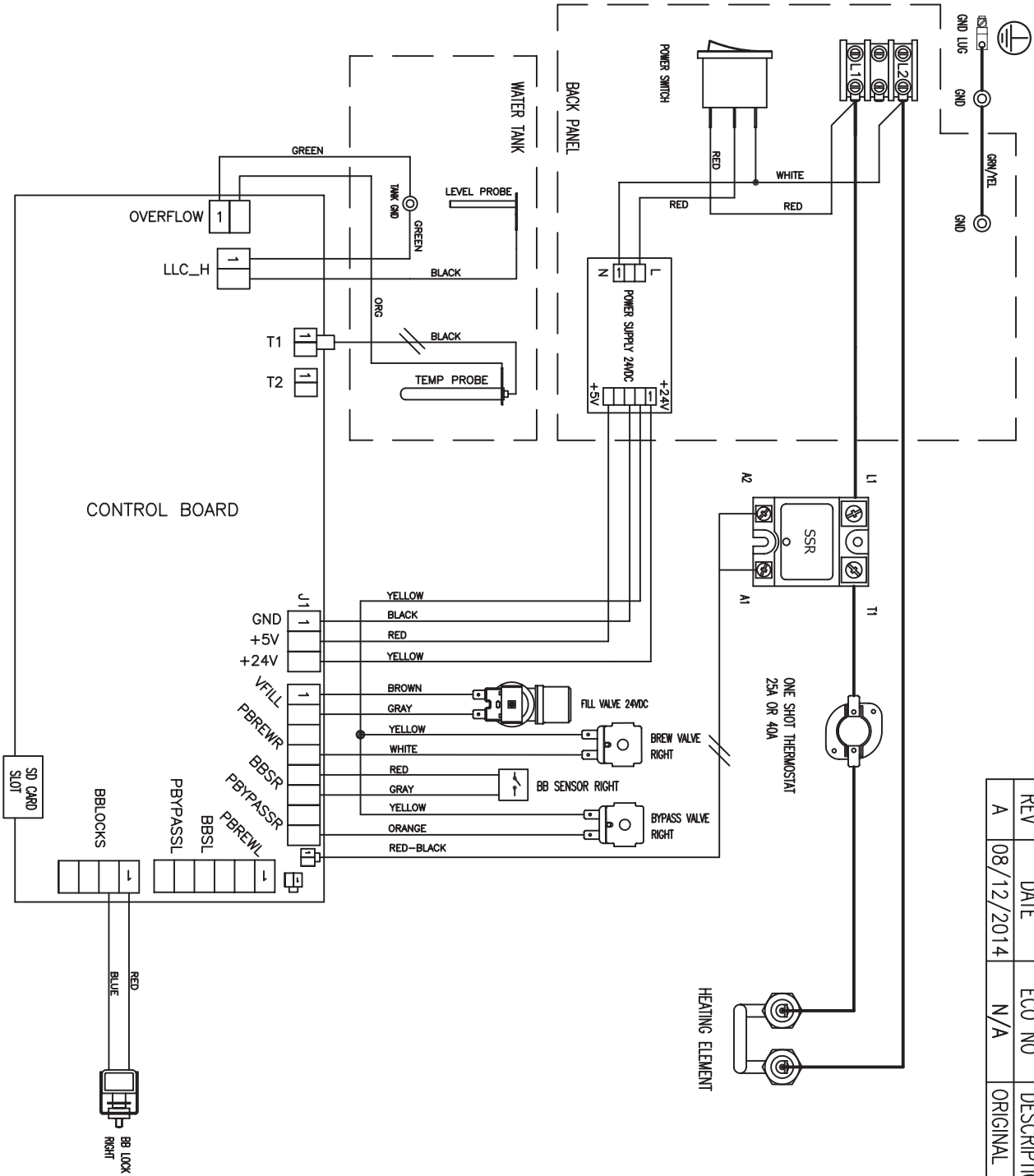
| REV | DATE       | ECO NO | DESCRIPTION               | BY: |
|-----|------------|--------|---------------------------|-----|
| A   | 02/14/2014 | N/A    | ORIGINAL                  | AG  |
| B   | 05/22/2014 | N/A    | 4000W/240VAC HEATER ADDED | AG  |



| HEATER CONFIG. | VOLTAGE | PH | WIRES | KW        | MAX AMP DRAW |
|----------------|---------|----|-------|-----------|--------------|
| 2x3000W        | 208-240 | 1  | 2+G   | 4.6-6.1   | 22.4-25.8    |
| 3x3000W        | 208-240 | 3  | 3+G   | 7.0-9.1   | 19.4-22.4    |
| 2x4000W        | 208-240 | 1  | 2+G   | 6.1-8.1   | 29.3-33.8    |
| 3x4000W        | 208-240 | 3  | 3+G   | 9.2-12.1  | 25.6-29.6    |
| 2x5000W        | 208-240 | 1  | 2+G   | 7.6-10.1  | 36.5-42.1    |
| 3x5000W        | 208-240 | 3  | 3+G   | 11.5-15.1 | 32.0-36.9    |

|                 |     |          |    |   |  |  |
|-----------------|-----|----------|----|---|--|--|
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| EXCEPT AS NOTED | NO. | DATE     | BY | DWG. NAME:<br>WIRING UL, CBS-2152 XTS, L1, L2, L3+GND,<br>3 HEATERS<br><br>DRAWN BY AG SCALE N/A MATERIAL N/A<br>CHK'D LW SIZE A DRAWING NO.<br>APP'D LW DATE 02-14-2014  |  |  |
| DECIMAL         | A   | 02-14-14 | AG |   |  |  |
| +/- .005        | B   | 05-22-14 | AG |   |  |  |
| FRACTIONAL      | C   |          |    |   |  |  |
| +/- 1/64"       | D   |          |    |   |  |  |
| ANGULAR         | E   |          |    | 1401.00086.00   |  |  |
| +/- 1/2 DEG     |     |          |    |   |  |  |

| REVISIONS |            |        |             |  | BY: | A |
|-----------|------------|--------|-------------|--|-----|---|
| REV       | DATE       | ECO NO | DESCRIPTION |  |     |   |
| A         | 08/12/2014 | N/A    | ORIGINAL    |  | AG  |   |



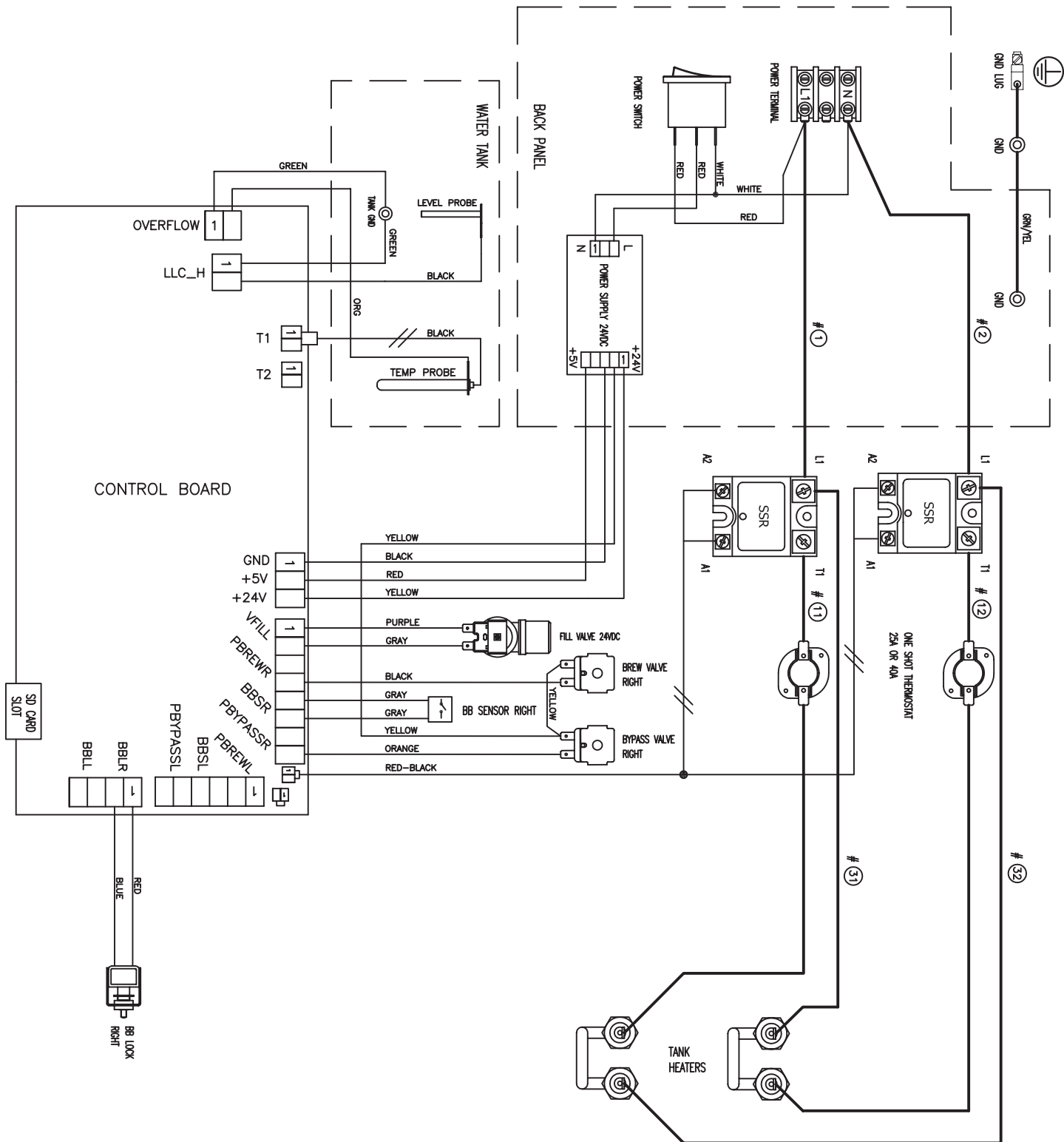
**PETCO®** FOOD EQUIPMENT TECHNOLOGY COMPANY  
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 LAKE ZURICH, IL 60047  
 PHONE: 847-719-3000 FAX: 847-719-3001  
 WWW.PETCO.COM

| TOLERANCES      |     | REVISIONS  |    | DWG. NAME:                           |  | DRAWING NO.     |  |
|-----------------|-----|------------|----|--------------------------------------|--|-----------------|--|
| EXCEPT AS NOTED | NO. | DATE       | BY | WIRING, CBS-2141/51-XTS, L1, L2+GND, |  | 1401.00096.00   |  |
| DECIMAL         | A   | 08/12/2014 | AG | 1 HEATER, JAPAN                      |  |                 |  |
| FRACTIONAL      | B   |            |    | DRAWN BY AG                          |  | N/A             |  |
| ANGULAR         | C   |            |    | CHK'D                                |  | SIZE A          |  |
|                 | D   |            |    | APP'D                                |  | DATE 08-12-2014 |  |
|                 | E   |            |    | LW                                   |  |                 |  |



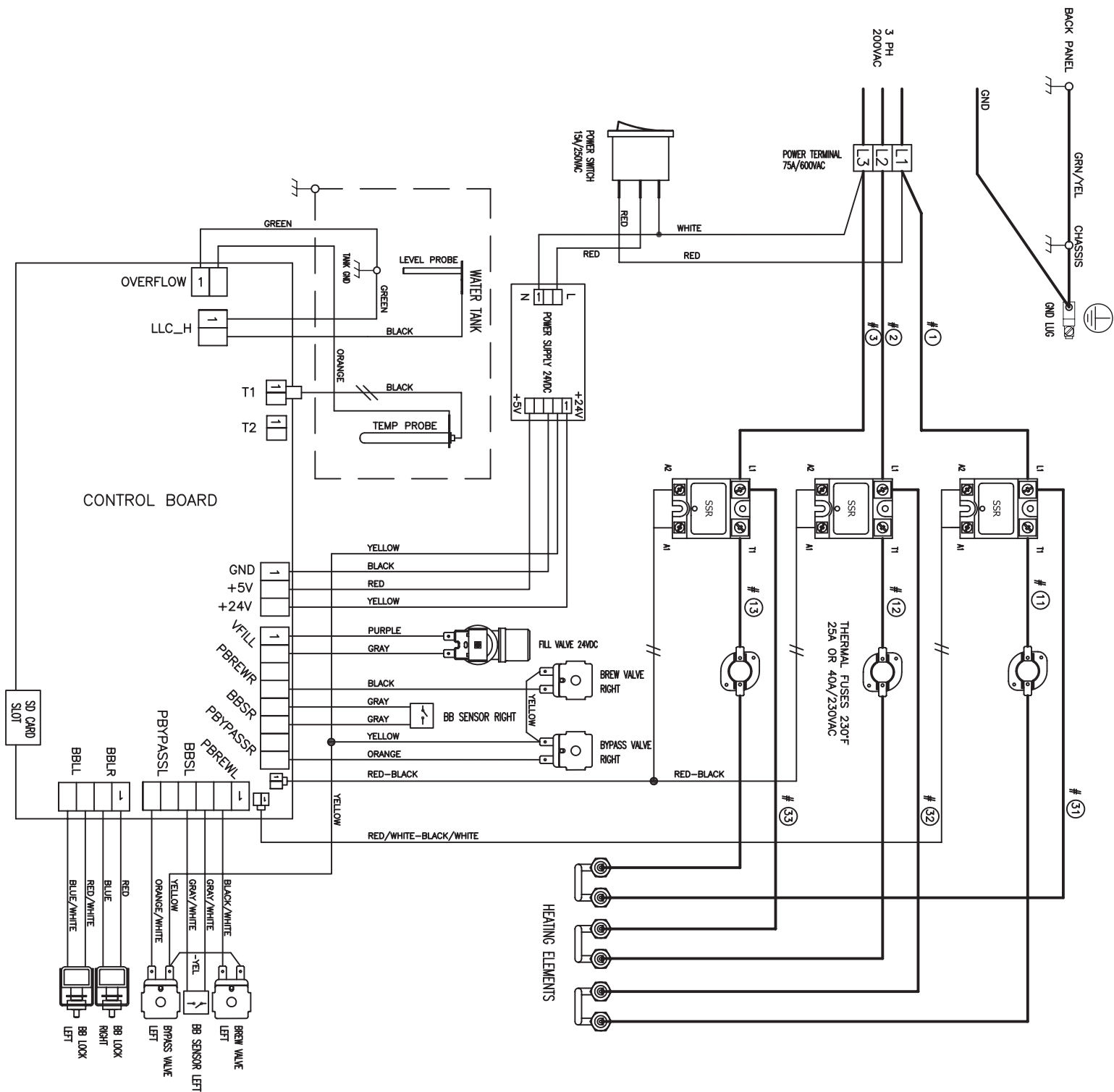
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|-----------|------------|--------|-------------|--|-----|---|
| REV       | DATE       | ECO NO | DESCRIPTION |  |     |   |
| A         | 08/15/2014 | N/A    | ORIGINAL    |  | AG  |   |



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|-----------------|--|-----------|------------|----|--|----|------------|
| EXCEPT AS NOTED |  | NO.       | DATE       | BY |  |    |            |
| DECIMAL         |  | A         | 08/15/2014 | AG | DWG. NAME:<br>WIRING, CBS-2151-XTS, L1, N+GND,<br>2 HEATERS, EXPORT  |    |            |
| +/- .005        |  | B         |            |    |  |    |            |
| FRACTIONAL      |  | C         |            |    | DRAWN BY   | AG | SCALE      |
| +/- 1/64"       |  | D         |            |    | CHK'D  | SZ | SIZE       |
| ANGULAR         |  | E         |            |    | APP'D  | LW | DATE       |
| +/- 1/2 DEG     |  |           |            |    |  |    | 08-15-2014 |
|                 |  |           |            |    | MATERIAL   |    |            |
|                 |  |           |            |    | N/A  |    |            |
|                 |  |           |            |    | DRAWING NO.  |    |            |
|                 |  |           |            |    | 1401.00100.00  |    |            |

| REVISIONS |            |        |             |     | A |
|-----------|------------|--------|-------------|-----|---|
| REV       | DATE       | ECO NO | DESCRIPTION | BY: |   |
| A         | 08/19/2014 | N/A    | ORIGINAL    | AG  |   |
|           |            |        |             |     |   |



|                 |           |          |    |   |      |   |          |
|-----------------|-----------|----------|----|---|------|---|----------|
| TOLERANCES      | REVISIONS |          |    | <b>FETCO®</b>   |      | FOOD EQUIPMENT TECHNOLOGY COMPANY<br>600 ROSE RD.<br>LAKE ZURICH, IL 60047<br>PHONE: 847-719-3000, FAX: 847-719-3001<br>WWW.FETCO.COM |          |
| EXCEPT AS NOTED | NO.       | DATE     | BY |   |      |   |          |
| DECIMAL         | A         | 08-19-14 | AG | DWG. NAME:  |      |   |          |
| +/- .005        | B         |          |    | WIRING, CBS-2152-XTS, L1, L2, L3+GND,<br>3 HEATERS, JAPAN |      |   |          |
| FRACTIONAL      | C         |          |    | DRAWN BY  | AG   | SCALE   | MATERIAL |
| +/- 1/64"       | D         |          |    | CHK'D   | SZ   | N/A   | N/A      |
| ANGULAR         | E         |          |    | DATE  | SIZE | DRAWING NO.   |          |
| +/- 1/2 DEG     |           |          |    | APP'D   | LW   | 1401.00101.00   |          |

## REVISIONS

POWER TERMINAL  
40A/600V

**FETCO®**

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600 ROSE RD.  
LAKE ZURICH, IL 60047  
PHONE: 847-719-3000, FAX: 847-719-3001  
WWW.FETCO.COM

DWG. NAME:  
WIRING, CBS-2152-XTS, L1, L2, L3, N+GND,  
3 HEATERS. EXPORT

|          |       |          |
|----------|-------|----------|
| DRAWN BY | SCALE | MATERIAL |
|----------|-------|----------|

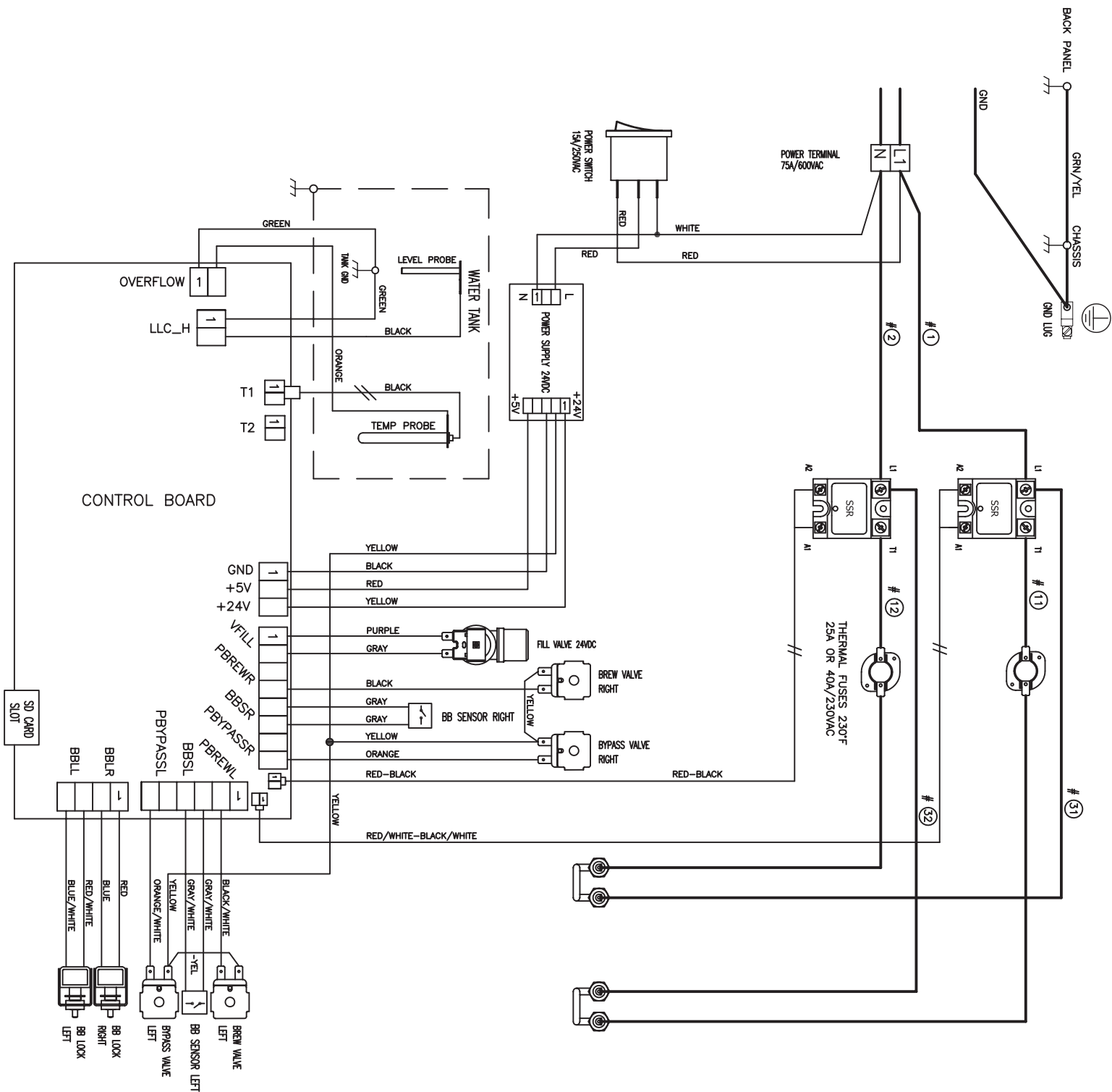
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|----|-----|-----|
| AG | N/A | N/A |
|----|-----|-----|

|       |    |      |   |             |
|-------|----|------|---|-------------|
| CHK'D | SZ | SIZE | A | DRAWING NO. |
|-------|----|------|---|-------------|

|       |      |         |
|-------|------|---------|
| APP'D | DATE | 1401.00 |
|-------|------|---------|

1401.00102.00

| REVISIONS |            |        |             |     | A |
|-----------|------------|--------|-------------|-----|---|
| REV       | DATE       | ECO NO | DESCRIPTION | BY: |   |
| A         | 02/14/2014 | N/A    | ORIGINAL    | AS  |   |
|           |            |        |             |     |   |



|                 |  |           |            |    |  |    |       |            |               |     |
|-----------------|--|-----------|------------|----|--|----|-------|------------|---------------|-----|
| TOLERANCES      |  | REVISIONS |            |    | <div><div>FETCO®</div><div>FOOD EQUIPMENT TECHNOLOGY COMPANY<br/>600 ROSE RD.<br/>LAKE ZURICH, IL 60047<br/>PHONE: 847-719-3000, FAX: 847-719-3001<br/>WWW.FETCO.COM</div></div> |    |       |            |               |     |
| EXCEPT AS NOTED |  | NO.       | DATE       | BY |  |    |       |            |               |     |
| DECIMAL         |  | A         | 09-30-2014 | AS | DWG. NAME:<br>WIRING INTL, CBS-2152 XTS, L1, N+GND,<br>2 HEATERS   |    |       |            |               |     |
| +/- .005        |  | B         |            |    |  |    |       |            |               |     |
| FRACTIONAL      |  | C         |            |    | DRAWN BY   | AS | SCALE | N/A        | MATERIAL      | N/A |
| +/- 1/64"       |  | D         |            |    | CHK'D  | AG | SIZE  | A          | DRAWING NO.   |     |
| ANGULAR         |  | E         |            |    | APP'D  | SZ | DATE  | 09-30-2014 | 1401.00110.00 |     |
| +/- 1/2 DEG     |  |           |            |    |  |    |       |            |               |     |