User's Guide and Operator Instructions

CBS-2241 & CBS-2242 Next Generation Brewing System

FETCO Next Generation-*NG*® Commercial Beverage Equipment

CBS-2241
(*Dispensers not included*)

CBS-2242
(*Plastic brew baskets are standard, brewers avalible with optional stainless steel brew baskets*)

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COFFEE BREWER CBS-2240*NG* Series

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Specifications and Requirements

FETCO CBS-2240 Brewers have unique construction only available for these models.

Water Requirements:	**Coffee Filter Size:**
CBS-2240 20-75 psig, (138-517kPa) 1½ gpm/(5.7 lpm)	13” X 5 or FETCO# F002”
Optimal water hardness between 125-250 TDS (6-13 grain) Important! Please use a water filter for all beverage equipment	**Temperature, as set by factory:** 200°F (93°C) inside water tank (at sea level)
Water inlet fitting: 3/8 inch male flare. **Brewer supplied with inlet valve adaptor for BSP to SAE**	**Electrical:** See electrical configuration chart Pg 3.

Brew Volume: Full Batch 3.8 L/1.0 gal brew

Brew Capacity (approximate)	CBS-2241 4-10 brews per hour CBS-2242 11-16 brews per hour	Output is controlled by heater power and water temperature

Total Brew Cycle: Factory setting: 6 minutes consisting of 4 min. brew time and 2.0 min. drip delay
Individual menu brew-process parameters are user controllable for:
Basic user controls for brew volume, brew time, units of measure, recipe name
Advanced user controls for pulse count, prewet percent and prewet delay, drip delay, programmable energy saving

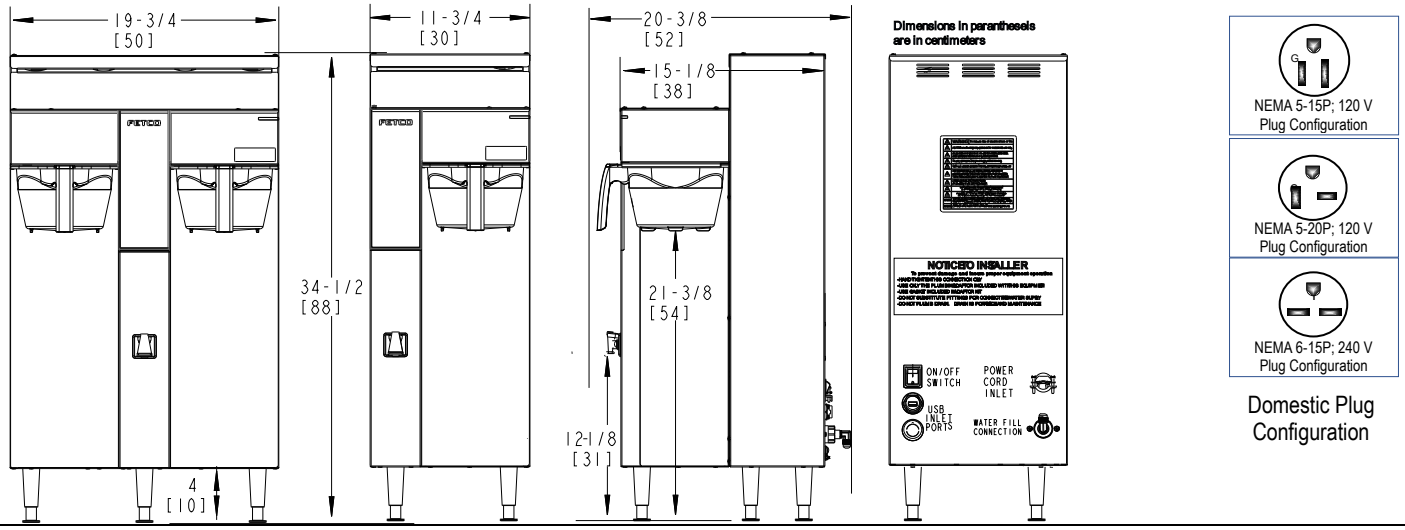
See pages 4-5 for how to adjust controls for temperature, brew volume, units - and all other settings

Weights and Capacities

Model	Height	Width	Depth	Water tank capacity	Empty Weight	Filled Weight	Shipping Weight	Shipping Dimensions
CBS-2241 Brewer	34 1/2 in 880 mm	11 3/4 in 300 mm	20 3/8 in 520 mm	4.5 gallon 17 L	29 lbs 13.2 kg	55 lbs 25.0 kg	41 lbs 18.6 kg	35” x 17” x 22” 88.9 x 43.2 x 55.9 cm
CBS-2242 Brewer	34 1/2 in 880 mm	19 ¾ in 500 mm	20 3/8 in 520 mm	8.5 gallon 32 L	47 lbs 21.3 kg	92 lbs 41.7 kg	58 lbs 26.. kg	35” x 23” x 25” 88.9 x 58.4 x 63.5 cm

Calibrated for 1.0 gal brew/3.75 L	Brew Basket 13” X 5”	Coffee Filter 13” X 5 or FETCO# F002

Rough-In Drawings



CBS-2231 Front **CBS-2232 Front** **CBS-2231 1 & CBS-2232 Side** Power cord plug

SKU NUMBER IDENTIFICATION KEY EXAMPLE: SKU E2241US-1X117-PM001

Product Line	Level	Family	Region ID	Phase	Voltage Range	# Heaters	Individual Heater Wattage	Brew Basket	Hot Water Faucet	Bypass	Brew Basket Locks	Power Cord
E	**2 2**	**4 1**	**U S**	**1**	**A**	**1**	**1 5**	**P**	**M**	**0**	**0**	**1**
E=extractor			US =United States	1	A = 100-120	1	1.5	P=plastic	M=manual	1=Yes	1=Yes	0=Terminal Block
	12=PLUS Series	41= single side	IN = International	2	B = 200-240	2	1.7	M=metal	A=automatic	0=No	0=No	1= NEMA 5-15P
	22=Next Generation	42= dual side	CE = IEC	3	C = 380-415	3	2.3	C=metal with clips	N=None			2=NEMA 5-20P
			NM = NOM	U = 1 or 3	D = 440-480	6	3.0					3=NEMA 6-15P
							4.0					4=NEMA 6-30P
					X=120 or 240 Dual Voltage		5.0					5=CEE 7/7 Schuko
												6=UK1-13P
												7= AUSTRALIAN AS3112 (YP-35)

Electrical and Output Specifications

CBS-2241*Next Gen* **Single 3.0-4.0 Liter Coffee Brewers** Field configurable Domestic
Electrical and Output Specifications Brewer has factory installed cord and plug & terminal block 50Hz or 60Hz

SKU	Voltage	Heater Configuration	Wires	KW	Electrical Connection	Phase	Amp Draw	Brew-Volume per hour
E2241US-1X117-PA011	120	1 X 1.7 kW	2+G	1.7	NEMA 15-5P	1	14.7	3.9 gal/14.8 L
Domestic-Dual Voltage	208-240	2 X 1.7 kW	3+G	2.6-3.4	Terminal Block	1	12.8-14.7	5.8 gal/22 L
Electrical Specifications, Domestic Single brewer-single voltage 120 volt cord and plug single phase 50Hz or 60Hz								

CBS-2241*Next Gen* **Single 3.0-4.0 Liter Coffee Brewers** Domestic models
Electrical and Output Specifications All brewers have factory installed cord and plug 50Hz or 60Hz

SKU	Voltage	Heater Configuration	Wires	KW	Electrical Connection	Phase	Amp Draw	Brew-Volume per hour
E2241US-1A115-PA011	120	1 X 1.5 kW	2+G	1.5	NEMA 15-5P	1	13.0	4.0 gal/15.1 L
E2241US-1A115-PA011	120	1 X 2.3 kW	2+G	2.3	NEMA 5-20P	1	19.7	5.8 gal/22 L
E2241US-1A123-PM112	120	1 X 2.3 kW	2+G	2.3	NEMA 5-20P	1	19.7	5.8 gal/22 L

CBS-2241*Next Gen* **Single 3.0-4.0 Liter Coffee Brewers** Field configurable NOM (Mexico) In Spanish
Electrical and Output Specifications Brewer has factory installed cord and plug & terminal block 50Hz or 60Hz

SKU	Voltage	Heater Configuration	Wires	KW	Electrical Connection	Phase	Amp Draw	Brew-Volume per hour
E2241NM-1X123-PA012	120	1 X 2.3 kW	2+G	2.3	NEMA 5-20P	1	19.7	6.1 gal/23.2 L
Dual Voltage	208-240	2 X 2.3 kW	3+G	4.6	Terminal Block	1	17.1-19.7	7.6 gal/30 L
NM in SKU suffix (above) denotes equipment with NOM certification, Spanish labeling for Mexico and Spanish language user guide								

CBS-2241*Next Gen* **Single 3.0-4.0 Liter Coffee Brewers** International models
Electrical and Output Specifications All brewers have terminal block electrical utility connection 50Hz or 60Hz

SKU	Voltage	Heater Configuration	Wires	KW	Electrical Connection	Phase	Amp Draw	Brew-Volume per hour
E2241NM-1B140-PA010	208-240	1 X 4.0 kW	2+G	2.8-4.0	Terminal Block	1	14.9-17.2	10.0 gal/37.9 L
NM in SKU suffix (above) denotes equipment with NOM certification, Spanish labeling for Mexico and Spanish language user guide								
E2241IN-1B140-PA010	208-240	1 X 4.0 kW	2+G	2.8-4.0	Terminal Block	1	14.9-17.2	10.0 gal/37.9 L
E2241IN-1B123-PA010	200-240	1 X 2.3 kW	2+G	1.6-2.3	Terminal Block	1	8.5-10.1	5.8 gal/22 L
E2241IN-1B130-PA010	200-240	1 X 3.0 kW	2+G	2.1-3.0	Terminal Block	1	10.9-13.0	7.7 gal/29.1 L

CBS-2242*Next Gen* **Dual 3.0-4.0 Liter Coffee Brewers** Domestic models
Electrical and Output Specifications All brewers have terminal block electrical utility connection 50Hz or 60Hz

SKU	Voltage	Heater Configuration	Wires	KW	Electrical Connection	Phase	Amp Draw	Brew-Volume per hour
E2242US-1B223-PA010	208-240	2 X 2.3 kW	2+G	3.5-4.6	Terminal Block	1	17.1-19.7	11.0 gal/42.0 L
E2242US-1B230-PA010	208-240	2 X 3.0 kW	2+G	4.5-6.0	Terminal Block	1	22.2-25.5	14.3 gal/54 L
E2242US-1B230-MA110	208-240	2 X 3.0 kW	2+G	4.5-6.0	Terminal Block	1	22.2-25.5	14.3 gal/54 L

CBS-2242*Next Gen* **Dual 3.0-4.0 Liter Coffee Brewers** International models
Electrical and Output Specifications All brewers have terminal block electrical utility connection 50Hz or 60Hz

SKU	Voltage	Heater Configuration	Wires	KW	Electrical Connection	Phase	Amp Draw	Brew-Volume per hour
E2242IN-1B223-PA010	200-240	2 X 2.3 kW	2+G	3.2-4.6	Terminal Block	1	16.5-19.7	12.2 gal/46.3L
E2242IN-1B230-PA010	200-240	2 X 3.0 kW	2+G	4.2-6.0	Terminal Block	1	21.3-25.5	15.8 gal/60 L
E2242NM-1B230-PA010	208-240	2 X 3.0 kW	2+G	4.5-6.0	Terminal Block	1	22.2-25.5	15.8 gal/60 L
NM in SKU suffix (above) denotes equipment with NOM certification, Spanish labeling for Mexico and Spanish language user guide								

Customer options e.g. **E2241US-1X117-P[1]A[2]0[3]1[4]1**	BREW BASKET TYPE (P, M)	HOT WATER FAUCET (M, A OR N)	BYPASS (1 OR 0)	Brew Basket Lock (1 OR 0)
Factory standard features Add all the following numbers after all SKU numbers	**[1]P=Plastic** (most versions) M=Gourmet Metal	**[2] A=Automatic electronic** M=Standard manual N=No hot water faucet	**[3]0=None** 1=With	**[4]1=With** 0=None

Layout of the brewer
Operation and service

Brew basket sensor (internal)

LED Status indicator bar

Touch-screen
(for brewer operation)

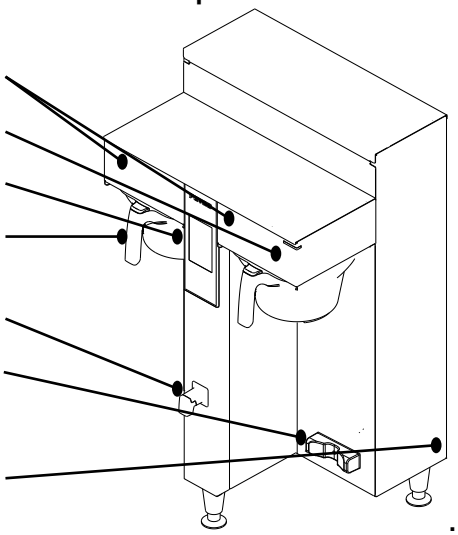
Brew basket

Hot Water Service Faucet
(not on all models)

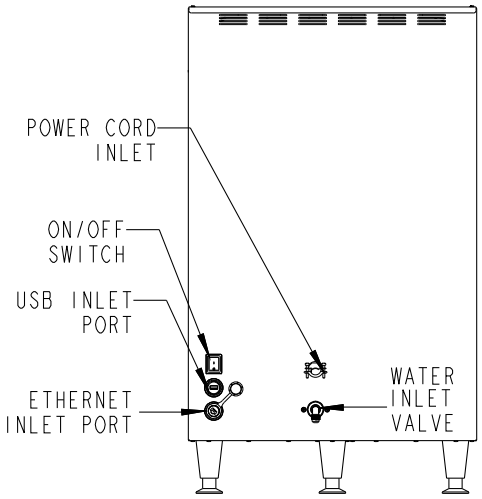
Air pot or Dispenser Locator
(not on all models)

Main power switch

Operation



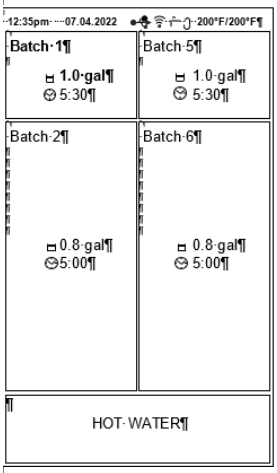
Service



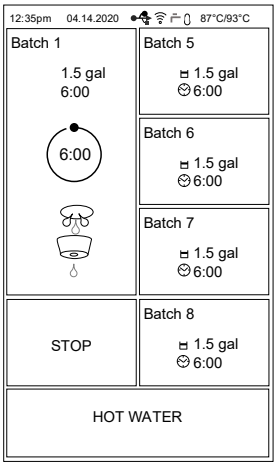
Layout for installing brewer (back side)

Fast Start Brewing

Starting The Brew



1. Turn the power switch “ON”. (Twin Shown)
2. Prepare a brew basket with the correct size filter and appropriate amount of coffee. (4-8 ounces or 113-227 grams for 1 gal/3.8 liters)
3. Slide the brew basket completely into the rails.
4. Place a clean, empty, preheated dispenser under the brew basket.
5. Select a batch & touch the corresponding BREW icon
   (Batch #1 selected in illustration), then press “START”
6. -STOP icon will illuminate,
   -Countdown time will display, with proportional graphic circle icon
   -LED indicator will pulse.
   -All other BREW icons for that brew head will be hidden.
   ….-Opposite side BREW icons on dual brewer remain active
7. When the brew cycle is finished,
   -Spray icon will extinguish and the BREW circular icon will remain.
   This indicates that coffee may still be dripping from the brew basket
   For safety- do not remove brew basket until drip-out is complete.



Twin Brewer ready to brew.
Batch one-top left brew position selected

Brewing in process
Batch one selected

Programming

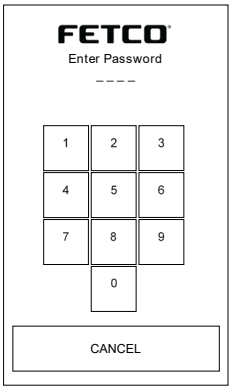
To enter programming

1.
Turn the power switch “OFF”, then “ON”:
Bootup will begin
.
Touch the cen of the screen (shown on right→)

Bootup screen

2.
(shown right→)
Operator password is 1,2,3,4: Note: For general use

Service password is 9,8,7,6 Note: Do not distribute this number

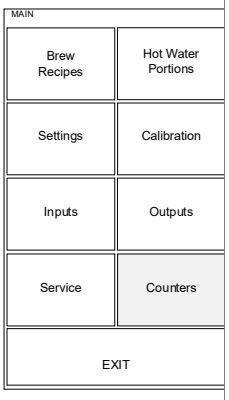


Password Screen

3.
Make changes and adjustments from the Programming Menu screen

(Shown right→)

See progamming menu layout next page



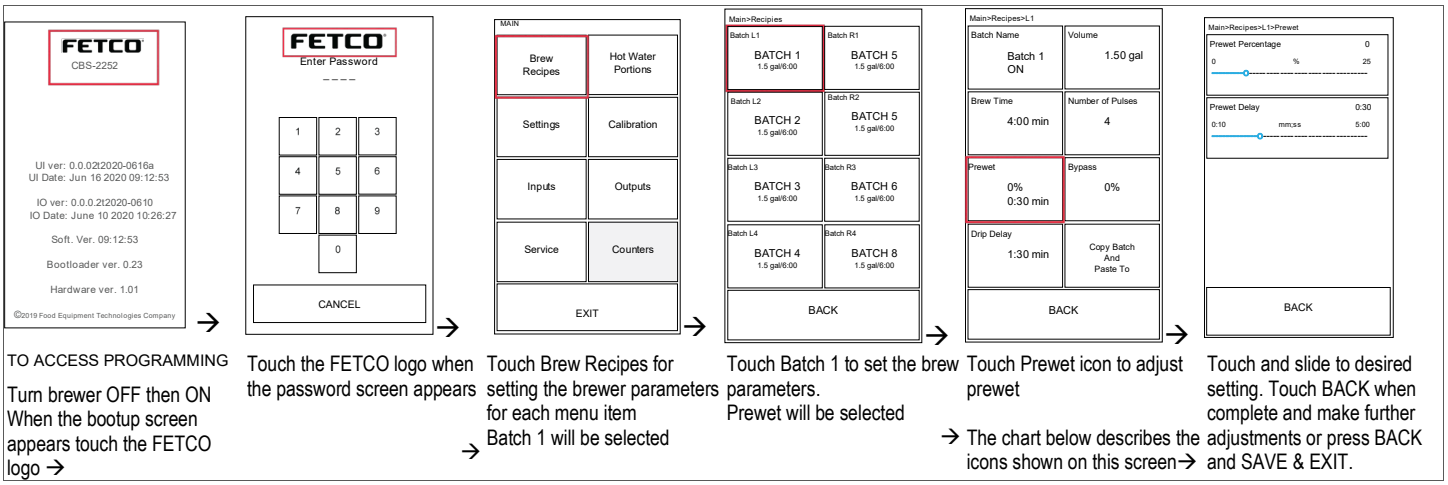
Programming access

Programming Menu Layout

- **Brew Recipes**
  - Batch On/Off & Name
  - BREW TIME
  - **Prewet**
    - (Prewet Percent)
    - (Prewet Delay)
  - Bypass Percent
  - Drip Delay
  - Volume
  - Number of Pulses
  - Bypass
  - Copy Batch
    - Copy Batch: From
    - Copy Batch: To
- **Settings**
  - Temperature
    - (Tank Temperature)
    - (Brew at Temp.)
    - (Show tank temp?)
    - (Show setpoint temp?)
  - **Units Of Measure**
    - (Temperature)
    - (Volume)
    - (Faucet)
  - ECO Mode
  - Water Filter (life)
  - Demo Mode
  - Hot Water (faucet)
  - Status Light
  - Screen Saver
  - Date and Time
- **Inputs**
  - Brew Basket
    - (Sensor)
    - (Lock Sensor)
  - Liquid Level
  - Temp Sensor
  - Peripherals
- **Service**
  - Select Model
  - Enable Options
  - Overrides
  - Backup or Restore
  - HW/SW/BL Version
  - Restore Defaults
  - Error Codes
  - Reset Passcodes
  - Languages
- **Hot Water Portions**
  - Continuous
  - Volume 1.
  - Volume 2
  - Volume 3

  For electronic faucet
- **Calibrations**
  - Flow Rates
    - (Water Valves)
    - ((Brew left))
    - ((Brew right))
    - ((Bypass left))
    - ((Bypass right))
    - (Faucet Valve)
    - (Fill Compensation)
    - ((Off))
    - ((1.5x))
    - ((2.0x))
  - LLC Sensitivity
    - ((Normal))
    - ((High))
- **Outputs**
  - Brew Valve(s)
  - Fill Valve
  - Heater SSR
  - Light Bar
  - Bypass Valve(s)
  - Faucet Valve
  - Brew Basket Lock
  - Extra Outputs

  Activates for service
- **Counters**
  - Counters (permanent)
    - Lifetime Counters
    - Service Counters
    - Hot Water Counters
    - Brew Counters
    - Data Counters
  - Water Filter
  - Statistics
    - Brew Statistics
    - Energy Statistics
    - Hot Water Statistics
  - Counters (resettable)
    - Lifetime Counters
    - Service Counters
    - Hot Water Counters
    - Brew Counters
    - Data Counters



TO ACCESS PROGRAMMING
Turn brewer OFF then ON
When the bootup screen appears touch the FETCO logo →

Touch the FETCO logo when the password screen appears

Touch Brew Recipes for setting the brewer parameters for each menu item
Batch 1 will be selected

Touch Batch 1 to set the brew parameters.
Prewet will be selected

Touch Prewet icon to adjust prewet
→ The chart below describes the icons shown on this screen→

Touch and slide to desired setting. Touch BACK when complete and make further adjustments or press BACK and SAVE & EXIT.

Brew Recipes	Program Items	Factory set Default	Programming Range	Notes
Batch Name	Batch On/Off	All "ON"	On/Off	Only top batch(s) are always enabled
Batch Name	Customize Name	Batch (1-4 L) (5-8 R)	Complete keypad	Scroll and tap three virtual keypads
Brew Time	Time of brew	4:00 minutes	2:00-12:00 mins/secs	Add to prewetting and drip delay times
Prewet	Prewet percentage	0	0-25% brew volume	Initial wetting to stabilize very fresh coffee
Prewet	Prewet delay time	1:00 sec.	0:10 sec to 5:00 min	Pause after coffee bed is prewetted
Drip Delay	Pause after brew	2:00 min:sec.	00.30 to 6:00	Time that brew basket remains locked during drip-out. This is a safety feature.
Brew Volume	Total volume	1 gallon/3.8 liters	0.5-1.25 gal./0.95-4.75 liters	Factory set for 1 gallon dispenser
Number of Pulses	Start/stop in brew	8	4-20	Algorithm evenly divides brew time cycle
Bypass Percentage	Diverts brew water	0	0-40% of brew volume	Affects flavor, strength and mouth-feel
Copy & Paste Menu	Current recipe		Paste into all other recipes	Will paste selected into the other

Settings	Program Items	Factory set Default	Programming Range	Notes
Temperature	Tank Temperature	200°F/92°C	170-208°F/77-98°C	Hot water tank, brewing water temp.
Temperature	Brew at Temperature*	ON	OFF/ON	See note below
Temperature	Show Tank Temp.	ON	OFF/ON	Shows 1st at top right screen
Temperature	Show Setpoint Temp.	ON	OFF/ON	Shows 2nd at top right screen
Units of Measure	Temperature Volume Hot water Faucet	F° - Fahrenheit Gal-Gallons ml - Milliliters	NO or YES	Main>Settings>UNITS Temperature °F °C Volume gal L Faucet oz ml
ECO Mode	ON/OFF Eco idle time (to start) Eco Tank temperature	OFF (default) (if activated) 1 hour 169°F	Turn on or off 1-6 hours 158°F to 176°F	Screen will display Eco Mode when activated-will take time to reheat to set brew water temperature
Water Filter	Water filer installed Rated filtering volume	NO 2625 gallons	NO or YES 250 gallons to 3950 gallons	
Demo Mode	Brewer ON Disables valves & heaters	OFF	OFF/ON	For training and user familiarization
Hot Water	Digital H. Wtr Faucet	Auto	ON/OFF/Automatic	Automatic activates portion control
Status Light	READY LED color	White	White/Blue/Green	Color when brewer is ready to brew
Screen Saver	Covers recipe screen	OFF	ON/OFF & Timeout setting	"OFF" leaves recipe screen
Date and Time	Set unit date and time	12 hour format	12/24 hour format & date	Store in real time clock

NOTES: Brew at Temperature*

Brew At Temp: "ON"
(Default: factory programmed into brewer)
"BREW START" will not be accessible until tank temperature is at set point.
"BREW START" becomes accessible when hot water tank is at the selected temperature.
Menu screen will be dimmed if tank temperature is low

Brew At Temp: "OFF" USER SELECTABLE (Not recommended)
Allows brewing at any temperature above 170°F/77°C.
May not apply for two sided brewer if one side is in brew cycle

Altitude Correction Chart

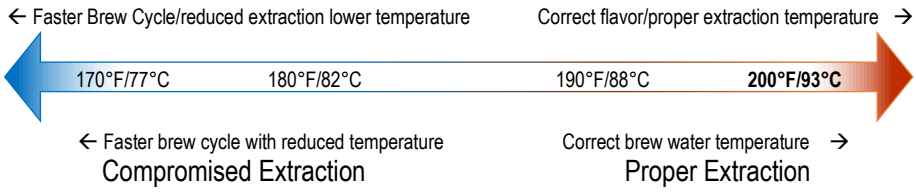
Chart to correct for altitude for boiling point in tank water temperature.					
[ft]	[m]	Suggested Setting[°F]	Boiling point[°F]	Suggested Setting[°C]	Boiling point [°C]
0	0	205	212.0	96	100.0
500	152	205	211.0	96	99.5
1000	305	200	210.1	93	98.9
2000	610	200	208.1	93	97.8
2500	762	200	207.2	93	97.3
3000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

Brew at Temperature

Ideal brew water temperature is 200°F/93°C. After brewing, brewers can take time to recover the hot water tank temperature and signal READY to brew. This is called "recovery time". The lag in recovery time is caused by rapid brewing cycles in a rush, low power heating elements, low incoming electrical voltage, water supply temperature, even the barometric pressure.

Operators will adjust the "Brew At" temperature to allow the brewing at lower temperatures. This will allow a *slightly* faster recovery time and give a small increase in brew cycles per hour.

Reduced brew temperature will always compromise the quality of the finished brew and lower the temperature of the customers coffee.



Inputs	Program Items	Factory set Default	Programming Range	Notes
Brew Basket	Sensor	Displays activity	Brew basket in place?	LEFT o RIGHT o (green=on;red=off)
Brew Basket	Lock Sensor	Displays activity	Brew basket locked?	LEFT o RIGHT o (green=on;red=off)
Liquid Level	LOW	Not used	Not used	Not used
Liquid Level	HIGH	Hot water tank fill	Filled/Not Filled & signal	Green=Filled/Red=Not Filled
Temp. Sensors	Sensor 1	Hot water tank temp.	Actual temperature & signal	
Temp. Sensors	Sensor 2	Not used	Not used	Not used
Peripherals	USB1	Digital input/output	Displays activity	(green=active;red=off)
Peripherals	USB2	Not used	Not used	Not used
Peripherals	RS-232	Digital input/output	Displays activity	(green=active;red=off)

Service	Program Items	Factory set Default	Programming Range	Notes
Select Model	Set brewer model	CBS-2242	MODEL (single side) 1 (dual side) 2 223x ◎ ◎ 224x ◎ ● 225x ◎ ◎ 226x ◎ ◎	To select: touch icon for brewer, touch “BACK” and got to EXIT & SAVE
Enable Options			Options Electric HW faucet OFF ON Bypass Valve(s) OFF ON Brew Basket Lock(s) OFF ON Expansion Board OFF ON	
Overrides	Brew Basket Sensor Brew Basket Lock Brew Basket Lock Sensor HW Press and hold		Override Safety Features Left Right Brew Basket Sensor OFF ON OFF ON Brew Basket Lock OFF ON OFF ON Br. Basket Lock Sensor OFF ON OFF ON HW Press and hold OFF ON OFF ON	Overriding deactivates onboard safety systems. This is not recommended for normal operation. A warning/reminder will display in the start scren
Backup or Restore	Backup current configuration	Will save all programmed settings	Requires USB thumb drive	Insert USB thumb drive and touch “BACKUP” & follow instructions
Backup or Restore	Installs saved settings	USB thumb drive with one file-	One file, must be titled: backup.txt	Insert USB thumb drive and touch “RESTORE” & follow instructions
HW/SW/BL Version			Software UI 0.2.221011a IO 0.3.20221119a Bootloader UI Bootloader IO Compilation Time UI Oct 11 2022 13:28:09 IO Nov 29 2022 15:12: 20 Hardware Main Board rev IO Board rev	
Restore Defaults	Return factory sets		Will overwrite all settings	Touch and hold icon 5 seconds
Error Codes			Error Log Error Code→ Code & definition Date/time stamp Export Log To USB Follow prompts to export Error Statistics Error code frequency Error Statistics Follow prompts to delete	
Reset Passcodes	Overrides default		Operator Code Follow prompts to change Service Code Follow prompts to change	
Languages	Reserved for future use			

Error Codes (From SERVICE – Page7)

DO NOT CLEAR ERROR CODES UNTIL ERROR IS IDENTIFIED AND CORRECTED
→Contact factory or specialized personnel for error codes

Code	Description	Possible Cause	Corrective Action
001	Software error-error on start up or corrupted software	Improper start-up or shutdown	Restart, if still fault: reload software
002	Internal flash corrupted internal data memory malfunction	Error found in cyclic redundancy check **CRC**	Restart, if still fault: reload software If not corrected: replace board
010	Front U/I board loses communication with the interior O/I board	No communication between front panel	Cycle brewer Off then On. Check cable connections
011	Front U/I board bad communication with the interior O/I board	Disrupted communication Cable connections loose	Cycle brewer Off then On. Check cable connections
Error codes 10 and 11 may be generated by loose connections, electronic interference, or a software/bootloader issue. For assistance by email: open the SERVICE menu and go to the HW/SW/BL Version. Send a cellphone picture of this screen to techsupport@fetco.com with the serial number of the equipment and your return phone number. For live service, write down the screen information or have the HW/SW/BL Version available and contact FETCO by phone at (800) 338-2699 option 2) to discuss with Technical Service. (Email support is usually faster) The correction for ERROR 10 or 11 may require a simple Off/On power cycle or a bootloader/firmware update that can be sent by email. Contact FETCO as above if cycling power or connections do not correct the fault.			
050	Short-circuit in temperature probe	Probe failure.	Replace probe.
051	Open temperature probe.	Bad probe connection, or probe failure.	Check all connections. Replace probe if necessary.
100	Initial Fill Error. Initial fill time took longer than expected after powering up.	Water supply flow rate is too low, fill valve is stuck, water line kinked or closed.	Reboot machine. If persists-investigate cause of low flow rate. (Clogged water filter, kinked line, stuck fill valve)
101	Error on refill-. Tank did not refill within expected time.	Water supply flow rate to hot water tank is too low, or fill valve stuck or damaged **(SEE PAGE 13)**	Check water supply line. Flow should be 20-75 psig, (138-517kPa) >1gal/3.8L/min Investigate cause of low flow rate. If the flow rate is in range-replace fill valve
200	Heating flatline-Tank is boiling	Heater is on, temperature is not rising/dropping	High elevation correction. Bad heaters or temperature probe or position
201	If the hot water tank heaters are turned on during a heating cycle and tank temperature is not increasing according to software logic and the tank temperature is below setpoint	1) Failure of SSR, high limit, temperature probe, or heating element. 2) Water being removed by hot water faucet during heating (control displays "heating")	1)Test and check SSRs, high limit devices temperature probe. Check heating elements with current clamp, replace if necessary. 2)Advise staff to refrain from taking large amounts of water from hot water tank, especially during "heating".
202	Heater Shorted or Stuck SSR	Heater is off and heating SSR is stuck "ON"	Check ohms on heater (15-60Ω). SSR may be stuck in ON mode-replace SSR.
255	Keyboard [HID] error (Human Interface Device)	Usually from longer than 10 seconds' contact. Or faulty reassembly after service	Restart, if still fault: reload software. If mechanical: replace module
NO BSKT **Insert Brew Basket**		Brew basket must be in place **This is a SAFETY FEATURE**	Insert brew basket into brewer rails to enable brewer

Hot Water Portions	Program Items	Factory set Default	Programming Range	Notes
This setting is only for brewers with an electronic hot water faucet. In the SETTINGS menu, the “Automatic” feature must be enabled				
Hot Water Portions	Enabled	“ON”		OFF/ON
Hot Water Portions	Name	Continuous	Rename on keypad	Scroll and tap three virtual keypads
	Safety Timeout	0:25	0:10 min 0:60 -------o---------- Scroll and go to EXIT&SAVE	Sets limit for touch and dispense
Hot Water Portions	**Volume 1**	6 oz.		
	Enabled	ON	Turns “ON” or “OFF”	OFF/ON
	Name	Volume 1	Rename on keypad	Scroll and tap three virtual keypads
	Volume dispensed	6 oz	Volume 6 2 oz 30 -------o---------- Scroll and go to EXIT&SAVE	Sets limit for #1 touch and dispense
Hot Water Portions	**Volume 2**	8 oz		
	Enabled	ON	Turns “ON” or “OFF”	OFF/ON
	Name	Volume 2	Rename on keypad	Scroll and tap three virtual keypads
	Volume dispensed	8 oz	Volume 8 2 oz 30 ---------o---------- Scroll and go to EXIT&SAVE	Sets limit for #2 touch and dispense
Hot Water Portions	**Volume 3**	8 oz		
	Enabled	ON	Turns “ON” or “OFF”	OFF/ON
	Name	Volume 3	Rename on keypad	Scroll and tap three virtual keypads
	Volume dispensed	12 oz	Volume 12 2 oz 30 ----------o---------- Scroll and go to EXIT&SAVE	Sets limit for #3 touch and dispense

Calibration	Program Items	Factory set Default	Programming Range	Notes
Flow Rates Water Valves	Brew left	0.50gal/min	Brew Left 0.50 (gal) 0.40 gal/min 0.58 ----------o----------	Use to attenuate and compensate for variations in brew valve output
Flow Rates Water Valves	Brew right	0.50gal/min	Brew Right 0.50 (gal) 0.40 gal/min 0.58 ----------o----------	Use to attenuate and compensate for variations in brew valve output
Flow Rates Water Valves	Bypass left	0.36gal/min	Bypass left 0.36 (gal) 0.29 gal/min 0.43 ----------o----------	Use to attenuate and compensate for variations in bypass valve output
Flow Rates Water Valves	Bypass right	0.36gal/min	Bypass right 0.36 (gal) 0.29 gal/min 0.43 ----------o----------	Use to attenuate and compensate for variations in bypass valve output
Flow Rates Faucet Valve	For automatic hot water faucet	1500 ml/min	Faucet 1500 500 ml/min 5000 ----------o----------	To compensate variations in timed dispense from automatic hot water faucet
Fill Compensation	Slow Flow Compensation	OFF	o Off o .. 1.5x o 2.5x	Use for FloJet bottled water supply or for reduced water supply from mains.
Display			Display % Contrast 70 10 ----------o---------- 100 Brightness % 70 20 ----------o---------- 100	
LLC		NORMAL	o Normal o .. High	Liquid level control sensitivity. Normal for most water. High is for reverse osmosis water or very pure water.

How to calibrate the flow rate

Set the flow rates of the brewer valves to adjust 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
The control software uses the new flow rate entered in the CALIBRATION screen to adjust and correct the amount of water delivered by the valve

Increasing the flow rate value DECREASES the volume of brew water dispensed
Decreasing the flow rate value INCREASES the volume of brew water dispensed

Flow rate adjustment will control all batches made by the valve. All batches on the side of the valve will be adjusted, (left or right)

-Obtain the VOLUME DISPENSED of water only, by brewing a batch without coffee or filter paper.
-Obtain the PROGAMMED VALUE of the same brew. This is displayed on the home screen in the batch box
-Obtain the CURRENT SETTING for the flow rate from the brewer. Do this by entering PROGRAMMING and Tap to "CALIBRATION" then, tap "Flow Rates" and then "Water Valves". The valves flow rate is in the top right corner.

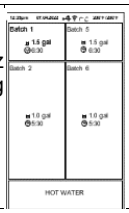
Using the values obtained above to obtain the new flow rate setting to correct the volume dispensed:
Divide the volume dispensed by the programmed volume and then multiply by the current setting

$$\frac{\text{VOLUME DISPENSED}}{\text{PROGRAMMED VALUE}} \times \text{CURRENT SETTING} = \text{NEW FLOW RATE SETTING}$$

-Enter programming mode, tap to "CALIBRATION"
-Tap back to "Flow Rates" and then to "Water Valves"
-Enter the new flow rate into the calibration slider for the valve tested

Note: values for brewers set in gallons are in decimal format. Place all quantities in ounces and divide by 128 (*One gallon =128 ounces*) to obtain decimal format → 3 quarts delivered=96oz, 96oz÷128=**0.75 gal**.

Example below shows shortpotting of 16oz over 0.08 gal. batch corrected by recalibration using the formula above

Obtain Volume Dispensed		Obtain Programmed Value	Obtain Current Setting	Use the formula above	Enter the New Flow Rate
Example: A CBS-2242 delivered 3qts or 6oz over the 0.8 gallon (102oz) setting for Batch 2-Left Side (96oz÷128=0.75) The value is 0.75		The Programmed value for batch 2 -left side of the CBS-2242 is on the home screen in the batch box. The value is **0.8 gallon**	The valves flow rate is in the top right corner Brew Left 0.50 (gal) 0.40 gal/min 0.58 ----------o---------- The value is **0.50**	$\frac{0.75}{0.8} \times 0.50 = \mathbf{0.47}$ The new flow rate is **0.47**	Brew Left 0.47 (gal) 0.40 gal/min 0.58 ----------o---------- Enter new setting on the slider as shown and EXIT to save. Retesting recommended

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

Outputs	Program Items	Factory set Default	Programming Range	Notes
These settings are used to activate individual controls for testing verifications and servicing operations				
Brew Valve(s)	Momentarily operate Left or Right Brew valves		Brew Left Right	Have dispenser under spray head! Touch to activate flow
Fill Valve	Momentarily operate fill valve		Fill	Have dispenser under spray heads! Touch to activate flow
Heater SSR	Turns on all heaters		Heater 3 sec max	Activates SSRs to turn on heaters
Light Bar	Momentarily operate light bar(s)		Status Light	
Bypass Valve(s)	Momentarily operates Left or Right Bypass valves		Bypass Left Right	Have dispenser under bypass port! Touch to activate flow
Faucet Valve	Momentarily operate faucet valve	For brewers with automatic hot water faucet	Faucet	Have dispenser under faucet! Touch to activate flow
Brew Basket Lock	Operates brew basket locks, toggling them on and off		**BBL lock** Left Right **BBL Unlock** Left Right **BBL Sensor** Left Right	Will toggle brew basket locks to be engaged then OFF.
Extra Outputs	For future use	Not used	Not used	Not used

Counters	Program Items	Factory set Default	Programming Range	Notes
This setting shows usage of the brewers functions				
Lifetime Counters These counters are permanent and cannot be deleted. The quantities shown are a permanent record for the machine,				
	Service Counters		Main>Counters>Lifetime>Service Lifetime Counters (units in hours and liters) Unit Uptime 0 Fill Valve Volume 0 Activation 0 Heater Time On 0 Activation 0 Hot Water Dispense Count 0 Hot Water Valve Volume 0 Activation 0 Brewer Volume 0 **Left** **Right** Brew Count 0 0 Brew Valve Volume 0 0 Activation 0 0 Bypass Valve Volume 0 0 Activation 0 0 Locks Activation 0 0	
	Hot Water Counters		Main>Counters>Lifetime>Faucet Lifetime Counters (units in liters) **Volume** **Activation** Continues 0 0 1 0 0 2 0 0 3 0 0	
	Brew Counters		Main>Counters>Lifetime>Brew Lifetime Counters (units in liters) **Recipe Number** **Volume** **Activation** 1 0 0 2 0 0 3 0 0 4 0 0 5 0 0 6 0 0 7 0 0 8 0 0	
	Data Counters	Reserved for future		
Water Filter	Water Filer Life Time		Main>Counters>Reset Filter Water Filter Life Time Filter Life Time 0% of 10,000 Press and hold button for 5 seconds To Reset Filter	
Statistics	Brew Statistics	Reserved for future		
	Energy Statistics	Reserved for future		
	Hot Water Statistics	Reserved for future		
Resettable Counters These are the same screens as above in “lifetime counters”. These can be reset	Service Counters	See screen above	Main>Counters>Reset>Clear Clear Resettable Counters Press and hold button for 5 seconds To Clear Error Log	
	Hot Water Counters	See screen above		
	Brew Counters	See screen above		
	Service Counters	See screen above		

Brewer Setup

NOTE-Assemble legs immediately after unpacking the brewer and before connection to utilities

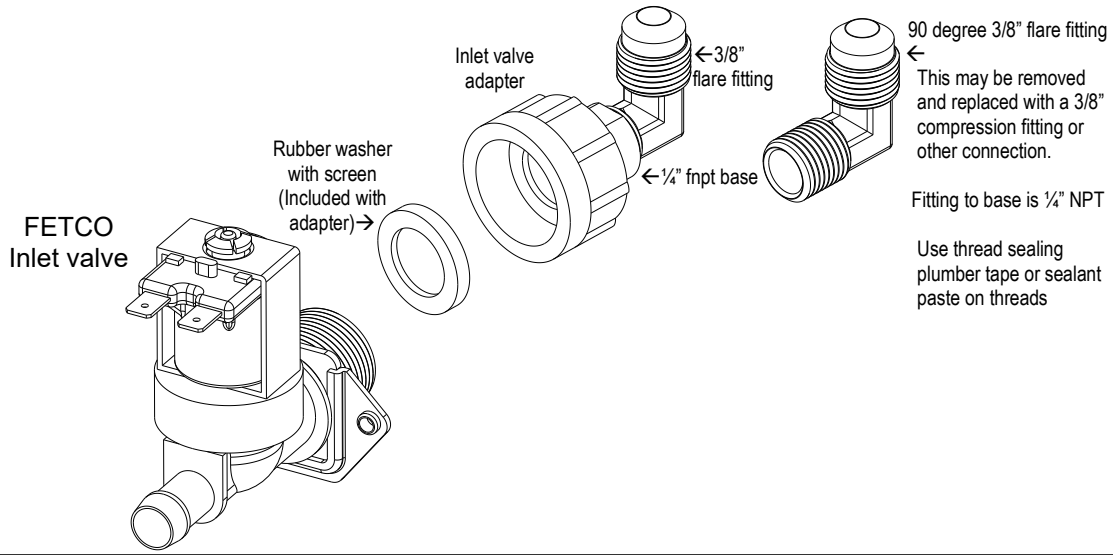
1) Attach legs

4" flange foot legs -
Part number 1073.00007.00
3 required for CBS-2242
4 required for CBS-2241

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

Brewer Setup

2) Attach water inlet adapter
Place rubber washer with screen in adapter. Hand tighten only-and 1/4 turn with wrench



Install the adapter on inlet valve first before attaching water line. Adapter is shipped in the brew basket
The valve threads are 3/4" BSP MALE THREAD and are not 3/4 garden hose fittings.
Use of any other connector to valve will damage the valve
DO NOT use US dishwasher water adapter or US washing machine adapter for this connection.
The threads on the USA adapters are unusable for the valve

TO PREVENT DAMAGE AND INSURE PROPER EQUIPMENT OPERATION
The inlet valve thread is 3/4 INCH BSP (British Standard Pipe).
This valve is not a standard USA washing machine or dishwasher thread (¾" GHT)

-Use only the plumbing adaptor kit included with this equipment. Use the gasket included in adaptor kit
-Plumber's tape is not recommended for the adapter to valve connection
-Hand tighten adapter on valve with gasket, then very lightly wrench 1/4 turn to set

-DO NOT SUBSTITUTE FITTINGS FOR CONNECTING TO WATER SUPPLY
Damage to inlet valve from improper installation will void the warranty

NOTE: DO NOT TANK PLUMB DRAIN. DRAIN IS FOR SERVICE AND MAINTENANCE.

(For Qualified Service Technicians Only)

General:

1. If not installed correctly by qualified personnel, the brewer will not operate properly, and damage may result.
2. Utilize only qualified beverage equipment service technicians for service and installation.
3. Always have an empty dispenser under spray head of all coffee brewing equipment-including when at idle
4. Damages resulting from improper installation are not covered by the warranty and will void the warranty. Below are the key points to consider before installation:

Electrical:

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

→See wiring diagrams on pages 29-31 for connections

Plumbing:

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

Tank Drain

The water tank must be drained before maintenance procedures, and when the unit is to be relocated or shipped. Drain is for service use only and must not be permanently connected. NOTE: Never plumb a water line to the drain.

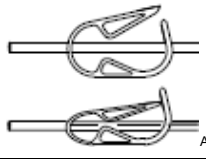
1. Disconnect power and water to unit. DANGER: Ensure that all utility connections to the brewer are broken.
2. Move the unit near a sink or obtain a container large enough to hold four gallons of water.

→Note: The CBS-2241 hot water tank when full holds 3.3 gallons; the CBS-2242 6 gallons.

3. Remove the front panel and tank cover and allow the tank to cool to a safe temperature
4. The tank drain line and clamp are located inside-under the hot water tank. Pinch the drain line clamp to close
5. Locate the fill valve against the back wall, using pliers, loosen the hose clamp and move it back over the tube.

→Note Do not loosen the hose clamp to the bottom of the hot water tank

6. Crimp the tube an inch or two away from the drain plug to prevent water from flowing and pull it off the valve.
7. Pull the tube end out of the brewer and position over sink or bucket.
8. Release the crimped tube and hose clamp and allow the water to flow into the sink or container.
9. Reverse steps 4-8 when service is complete. Ensure pinch clamp is open and hose clamps are in place.

Brewer	Hot Water Tank Capacity	OPEN Leave open for use PINCH SHUT To drain tank & service brewer	
CBS-2241 Single	4.5 gallon 17 L		
CBS-2242 Twin	8.5 gallon 32 L		

Operator Training

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

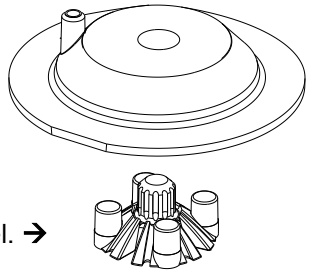
Pay particular attention to the following areas:

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/60 cc 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 brew basket or hit it against a hard surface.
   This will damage the brew cone, and may damage the brew basket support rails
3. Rinse dispensers before reuse.



Every Day:

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

Weekly

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

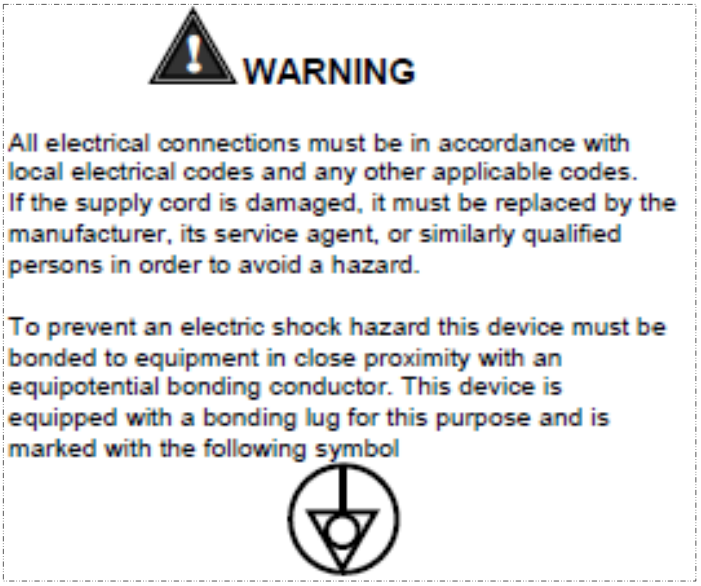
Warning

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

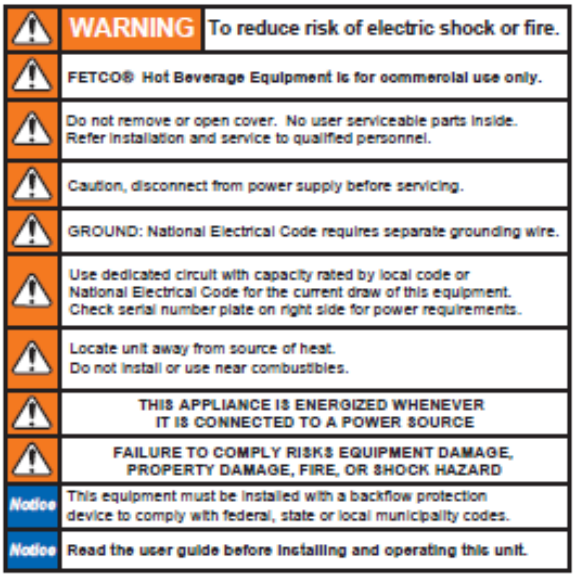
Installation safety and hygiene directions-For International and CE equipment

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

Equipment exposed to flood and contaminated must not be used due to electrical and food safety.
Do not operate if unit has been submerged or saturated with water.

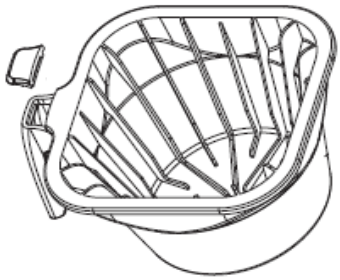


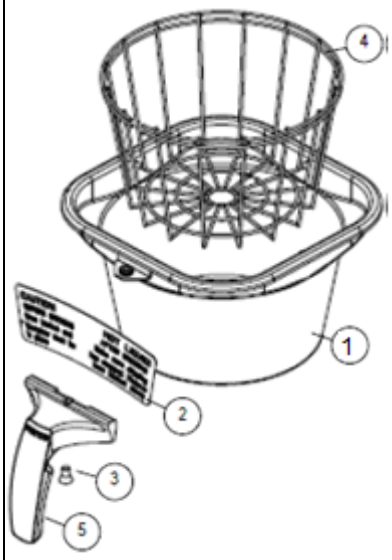
Labels and warnings for hot beverage equipment



Label for BACK PANEL of equipment (1046.00035.00)

Brew Baskets

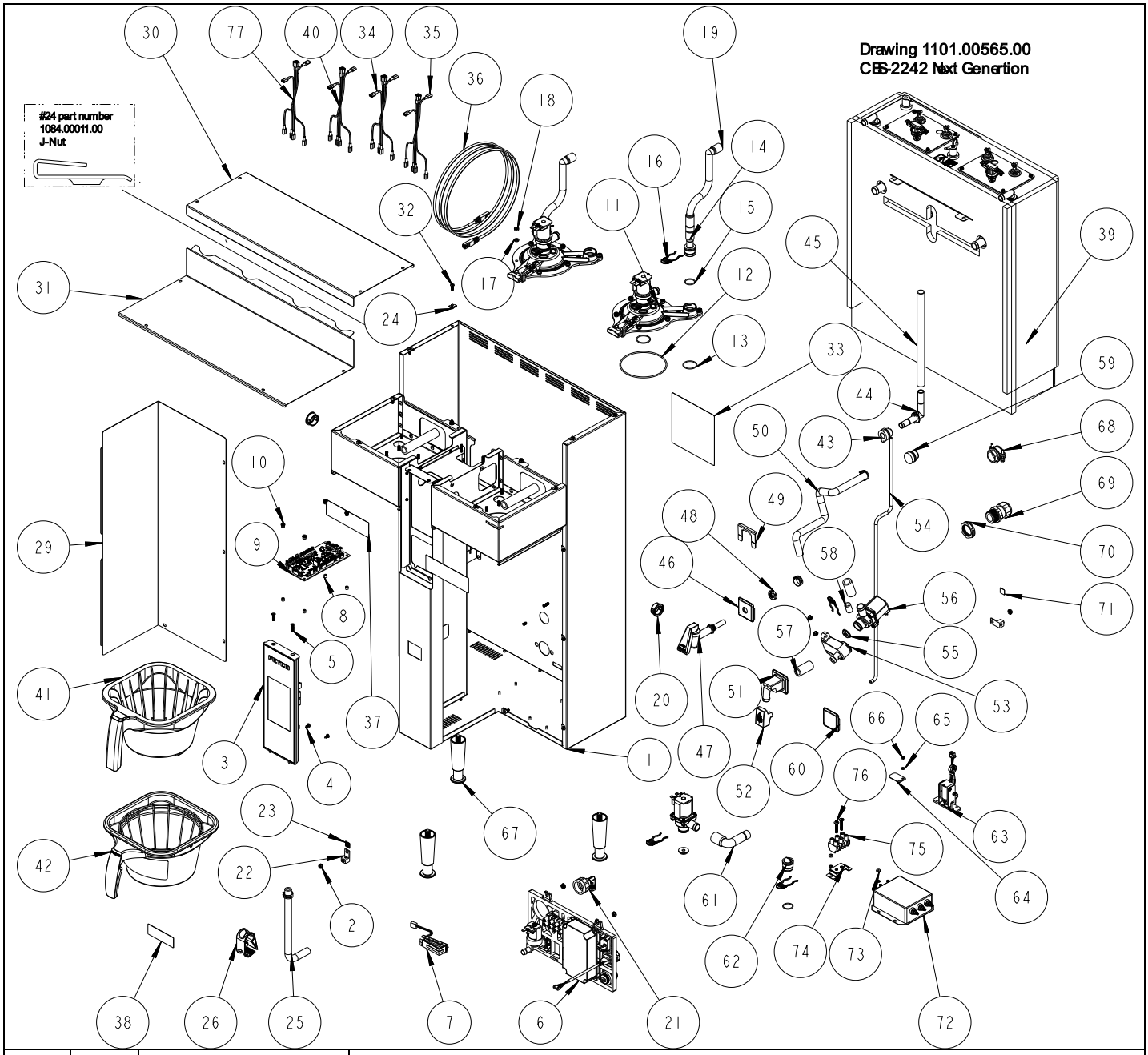
Plastic Brew Basket For CBS-2241 & CBS-2242		
Part Number B014218BN2BK – Complete Plastic Brew Basket 13" X 5", .218 DIA HOLE		
Brew basket handle plug for polymeric brew baskets is available in optional colors. 	Part Number	PLUG INSERT COLOR
	1023.00195.00	BROWN PLUG, BB HANDLE
	1023.00194.00	BLACK PLUG, BB HANDLE
	1023.00190.00	RED PLUG, BB HANDLE
	1023.00191.00	GREEN PLUG, BB HANDLE
	1023.00192.00	ORANGE PLUG, BB HANDLE
	1023.00180.00	BLUE PLUG, BB HANDLE

Stainless Steel Brew Basket For CBS-2241 & CBS-2242			
Part Number B003218B1 – Complete Stainless Steel Brew Basket 13" X 5", .218 DIA HOLE			
	Ref# / Qty	Part Number	Description
	1 / 1	1112.00128.00	BB WLDMNT 13" X 5", .218 DIA HOLE
	2 / 1	1046.00025.00	BREW BASKET WARNING LABEL
	3 / 1	1082.00040.00	SCREW, 1/4-20 X .5, FL HD, PH., W/NYLN
	4 / 1	1009.00006.00	WIRE BASKET
	5 / 1	1102.00064.00	HANDLE W/MAGNET ASY, BLACK
	Optional colored handle	1102.00065.00	HANDLE W/MAGNET ASY, RED
	Optional colored handle	1102.00066.00	HANDLE W/MAGNET ASY, GREEN
	Optional colored handle	1102.00067.00	HANDLE W/MAGNET ASY, ORANGE

Specialty Brew Baskets for Iced Tea/Tea and Specialty Coffee Brewing.
These brew baskets have reduced orifice sizes and may require PROGRAMMING changes to increase brewing time and pulses to enhance extraction and prevent basket overflow during steeping. SEE Page 5- Brew Recipes

Stainless Steel			
Part Number	Orifice Size	Handle Color	Filter Paper Size
B003218B1 (from above)	0.218-Sandard	Black	13” X 5” or FETCO# F002
B003158B1	0.158	Black	13” X 5” or FETCO# F002
B003110G1	0.110	Green	13” X 5” or FETCO# F002
B003110B1	0.110	Black	13” X 5” or FETCO# F002
B003079B1	0.079	Black	13” X 5” or FETCO# F002
Plastic			
Part Number	Orifice Size	Plug Color	Filter Paper Size
B014218BN2BK (from above)	0.218-Sandard	Black	13” X 5” or FETCO# F002
B014140G2BK	0.140	Green	13” X 5” or FETCO# F002

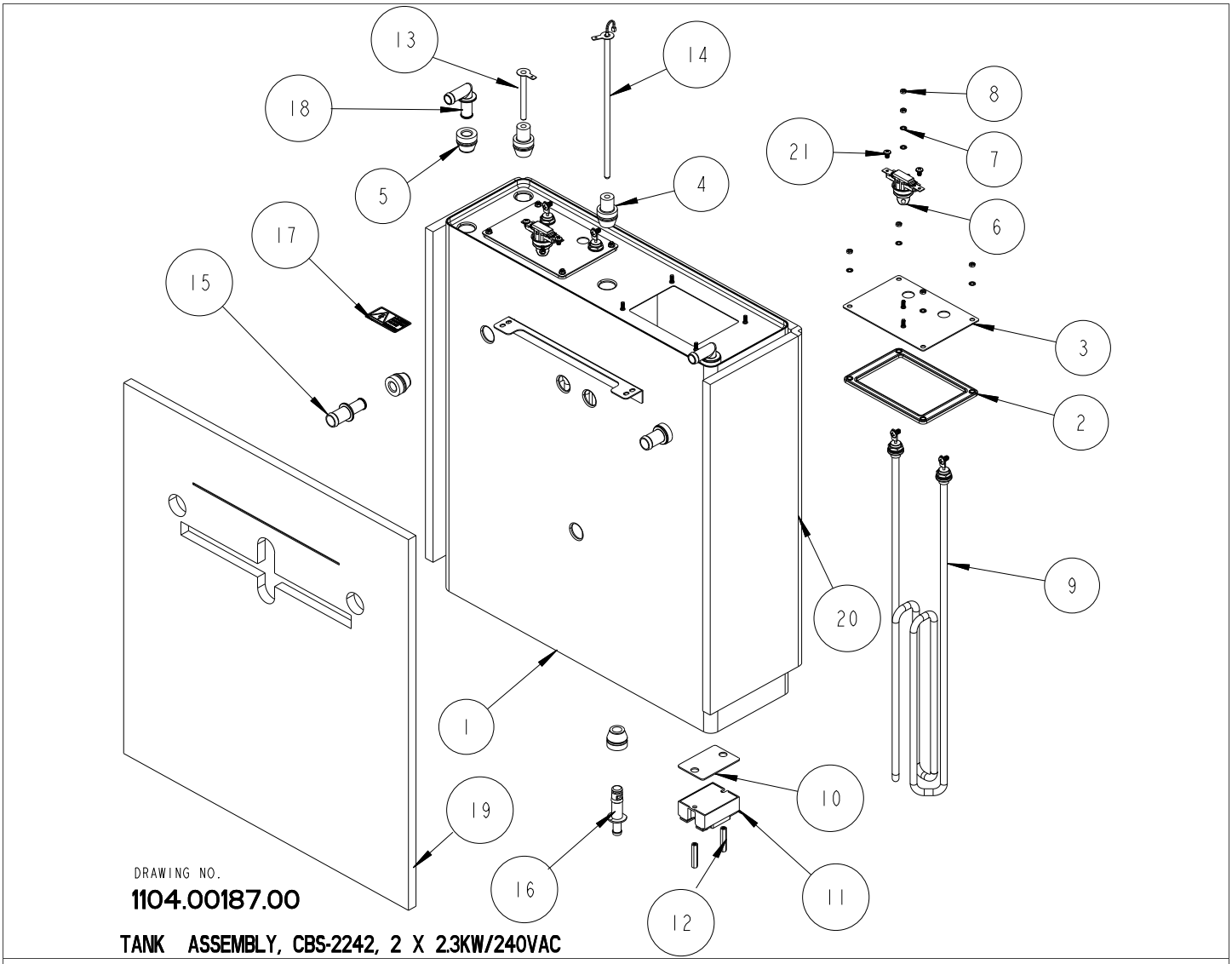
Parts diagrams



Ref	Qty	Part Number	Description Drawing 1101.00565.00 CBS-2242
1	1	1111.00101.00	WELDMENT BODY, CBS-2242
2	8	1084.00051.00.	NUT, HEX LOCKWASHER, #8-32, 18-8 ST. STL
3	1	1102.00448.00	FRONT PANEL ASSEMBLY, CBS-2200 SERIES
4	2	1082.00029.00	SCREW, #6 X 3/8 LG, TRUSS HD PHIL, SHEET MTL
5	4	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
6	**1**	**See Drawing Pg 27**	**ELECTRICAL COMPONENT LATTICE, CBS-2200**
7	1	1102.00444.00	VISUAL COMMUNICATION RGB LED BAR, ASSY
8	4	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG, Z/P
9	1	1051.00046.00	CBS-2200 SERIES, I/O BOARD, 24V
10	4	1029.00006.00	NUT, FINGER KNURLED, #4-40
11	**2**	**See Drawing Pg 26**	**SPRAYHEAD ASSY,CBS-30/40'S, QUICK CONNECT**
12	2	1024.00063.00	O-RING, 3 15/16" x 3/32" CS, DASH # 154, BUNA-N, DURO-A50
13	4	1024.00107.00	O-RING, 1 3/16" OD X 1 1/16" ID X 1/16" TH, BYPASS SEAL
14	2	1023.00343.00	VENT INSERT, QUICK CONNECT
15	3	1024.00106.00	O-RING, 13/16"OD X 11/16"ID X 1/16" TH, FOR QUICK CONNECT
16	5	1023.00342.00	QUICK CONNECT CLIP
17	18	1083.00010.00	WASHER, #12 SCREW W/NEOPRENE-BONDED SEAL

Parts list continues next page

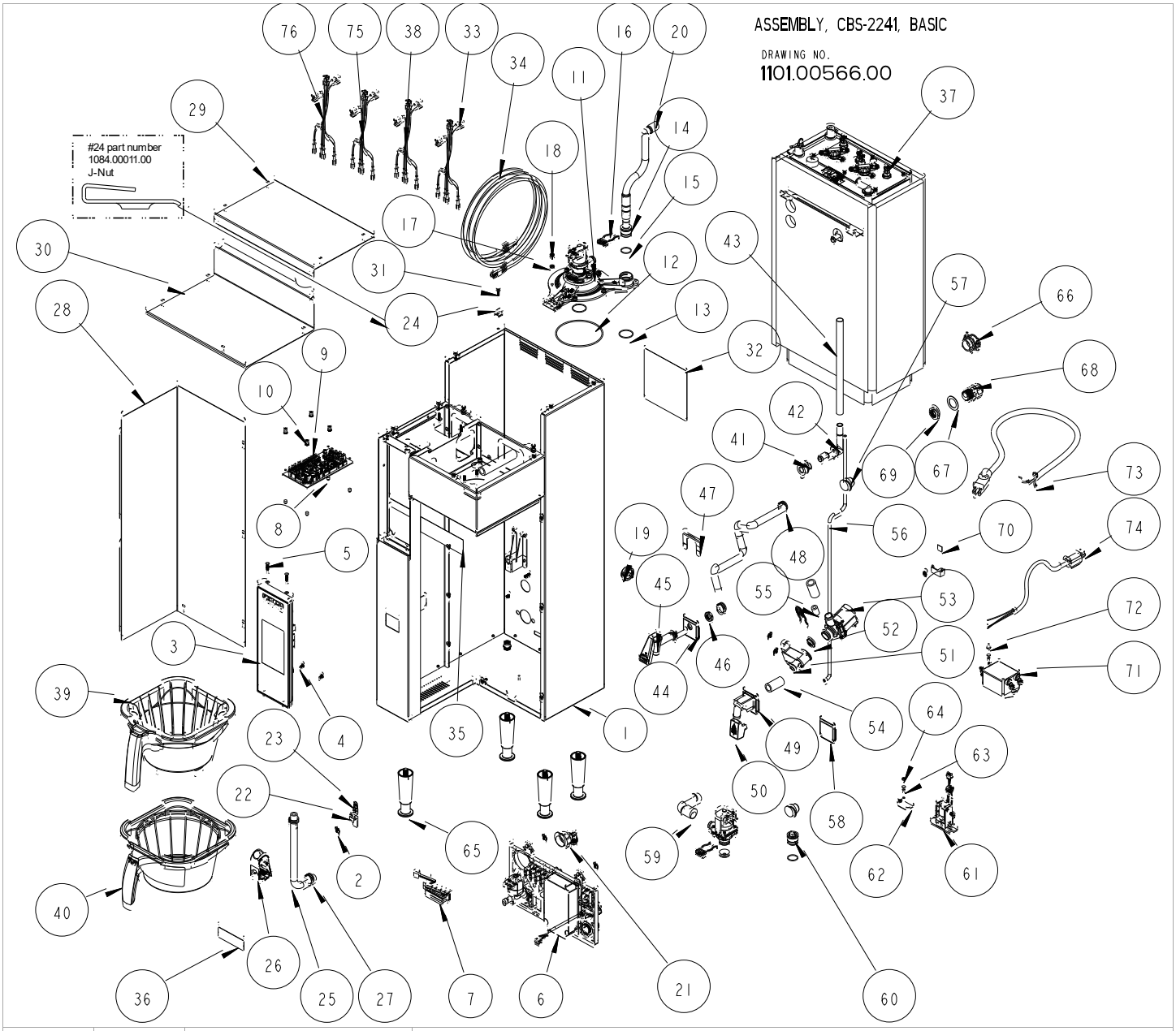
Ref	Qty	Part Number	Description Drawing 1101.00565.00 CBS-2242NGContinued from page 16
18	18	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
19	2	1024.00098.00	VENT TUBE, CBS- EXTRACTOR SERIES
20	2	1086.00004.00	BUSHING, SNAP, 1" MOUNTING HOLE
21	1	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
22	2	1065.00009.00	GROUND LUG CONNECTOR, 14-2 AWG, ALUMINUM
23	1	1044.00012.00	LABEL GROUND, CE
24	11	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLK-PH FINISH
25	1	1025.00058.00	TUBE, 9/16"OD X 5/16"ID X 25.00"LG
26	1	1086.00009.00	CLAMP, 3/4" MAX TUBE OD FLOW CONTROL
27	5	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
28	1	1112.00530.00	WELDMENT, RIGHT COVER, CBS-2240
29	2	1023.00354.00	LOCATOR, DISPENSER, CBS-2240
30	2	1023.00355.00	LOCATOR, AIRPOT ADAPTER, CBS-2240
31	1	1001.00408.00	COVER TOP, CBS-2242/42
32	1	1001.00409.00	COVER, UPPER BASE, CBS-2242/42
33	11	1082.00017.00	SCREW, TRUSS HD. PHIL. MACHINE, # 6-32 X 1/2 LG.
34	1	1046.00035.00	LABEL, WARNING "TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE"
35	1	1402.00106.00	HARNESS, CBS-2240/50-NG, LOW AMP, UNIVERSAL
36	1	1402.00107.00	HARNESS ADDITION, CBS-2242/52-NG, LOW AMP, UNIVERSAL
37	1	1063.00042.00	ETHERNET CABLE, CAT-7, 5FT LENGTH
38	2	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
39	1	1041.00032.00	BLACK EXTRACTOR NG LABEL, LASER ENGRAVED
40	2	1025.00142.00	TUBE, SILICONE, 3/4" OD X 1/2" ID X 3.75" LG, BREW
41	**1**	**See Drawing Pg. 18**	**TANK ASSEMBLY, CBS-2242**
42	1	1402.00037.10	HARNESS HIGH AMP, CBS-2242/42/51, UL
43	1	B014218BN2BK	BREW BASKET ASSY, BLACK, 13" X 5", 0.218" DIA HOLE, BROWN PLUG (Page 28)
44	1	B003218B1	BREW BASKET ASSY, 13" X 5", .218 DIA HOLE, BLACK (Page 28)
45	1	1024.00111.00	GROMMET, SILICONE, W/ POSITION TABS
46	1	1023.00362.00	FITTING VENT, ELBOW, .375" X .375", SELF POSITIONING
47	1	1023.00348.00	HOT WATER INSERT, MANUAL FAUCET
48	1	1071.00055.00	FAUCET, HOT WATER, PSC-BR-8, WITH FLAT AND STEM
49	1	1084.00048.00	JAM NUT, 1/2-20 UNF, NICKEL PLATED BRASS
50	1	1003.00370.00	HOT WATER INSERT LOCK
51	1	1025.00120.00	TUBE, 9/16"OD X 5/16"ID X 13.00"LG
52	1	1023.00346.00	HOT WATER INSERT, AUTO FAUCET
53	1	1029.00041.00	COVER, AUTO HOT WATER FAUCET, SILICONE
54	1	1023.00347.00	VALVE MOUNT, HOT WATER DISPENSER
55	1	1025.00026.00	TUBE, 1/4"OD X 1/8"ID X 30"LG, VENT, HOT WATER VAPOR
56	2	1023.00369.00	ORIFICE INSERT, QUICK CONNECT, 3/16" HOLE
57	2	1057.00076.00	VALVE ASSEMBLY, COMPLETE, NG, DELTROL
58	2	1025.00138.00	TUBE, SILICONE, 3/4" OD X 1/2" ID X 1-1/2" LG, HOT WATER
59	1	1025.00135.00	TUBE, 1/2"OD X 1/4"ID X .75" LG, RESTRICTOR
60	1	1024.00051.00	GROMMET, SILICONE, BLANK
61	1	1023.00349.00	HOT WATER INSERT, NO FAUCET
62	1	1029.00042.00	BYPASS L-TUBE, SILICONE, 2200 SINGLE SERIES
63	1	1023.00344.00	PLUG INSERT, QUICK CONNECT
64	1	1102.00445.00	ASSY, BREW BASKET LOCKER W/FEEDBACK
65	1	1003.00259.00	BRACKET, BREW BASKET LOCK COVER
66	3	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
67	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
68	3	1073.00016.00	LEG, THERMOPLASTIC, 2.50"(63mm)
69	3	1073.00019.00	LEG, 3/8-16 THREAD x 1" LG., GRAY
70	1	1086.00008.00	CONNECTOR, CLAMP, NON-METALLIC CABLE, 3/4"
71	1	1003.00348.00	ADAPTER PLATE, CBS-1130-XV+, STRAIN RELIEF, CE
72	1	1086.00029.00	BUSHING, STRAIN RELIEF, .360"-.430" DIA CABLE
73	1	1044.00013.00	LABEL EQUIPOTENTIALITY, CE
74	1	1052.00027.00	EMI FILTER, THREE LINE 30A, 250/440VAC
75	2	1084.00012.00	NUT, HEX, #6-32 MACHINE SCREW
76	1	1112.00246.00	WELDMENT BRACKET TERMINAL BLOCK, 3 POLE
77	1	1052.00022.00	EUROSTRIP HE10 TERM. BLOCK, 3 POLE, 50AMP, 18-8 AWG
78	2	1082.00082.00	SCREW, PHILLIP HD., 8-32 THREAD
79	1	1402.00121.10	WIRE HARNESS ADDITION, HIGH AMP, EMI FILTER, 2-POLE, CE



CBS-2242 Hot Water Tank Drawing 1104.00187.00

CBS-2242 Hot Water Tank Parts List Drawing 1104.00187.00			
Ref#	Qty	Part number	Description
1	1	1114.00171.00	WELDMENT TANK NG-2242, GROMMET DESIGN
2	2	1024.00115.00	TANK GASKET - NG HEATER PLATE, ONE ELEMENT
3	2	1114.00181.00	WELDMENT TANK HEATER BRACKET, NG-SMALL, ONE HEATER
4	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
5	5	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
6	2	1053.00052.00	THERMOSTAT, SINGLE SHOT, SCREW CONNECTIONS, 240V/25A
7	12	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
8	12	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
9	**2**	**1107.00037.00**	**HEATER ASSEMBLY, IMMERSION 2300W/240VAC**
9	**2**	**1107.00005.00**	**HEATER ASSEMBLY, IMMERSION 3000W/240VAC**
9	**2**	**1107.00010.00**	**HEATER ASSEMBLY, IMMERSION 4000W/240VAC**
10	1	1003.00140.00	ALUMINUM BRACKET FOR SSR
11	1	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
12	2	1081.00042.00	STANDOFF, 1/4" HEX
13	1	1112.00019.00	PROBE WELDMENT, WATER LEVEL 2.600" LG
14	1	1102.00161.00	PROBE ASSEMBLY, TEMP. AND LLC, 8" LONG
15	2	1023.00203.00	FITTING, STRAIGHT, GROMMET, .625"
16	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
17	1	1044.00004.00	LABEL, DANGER, HIGH VOLTAGE
18	2	1023.00212.00	FITTING, ELBOW, GROMMET, .500"
19	1	1022.00066.00	TANK INSULATION FRONT, CBS-2142
20	1	1022.00067.00	TANK INSULATION BACK, CBS-2142
21	4	1082.00136.00	BRASS SCREW, #8-32 X 1/4", PHILLIPS PAN HEAD

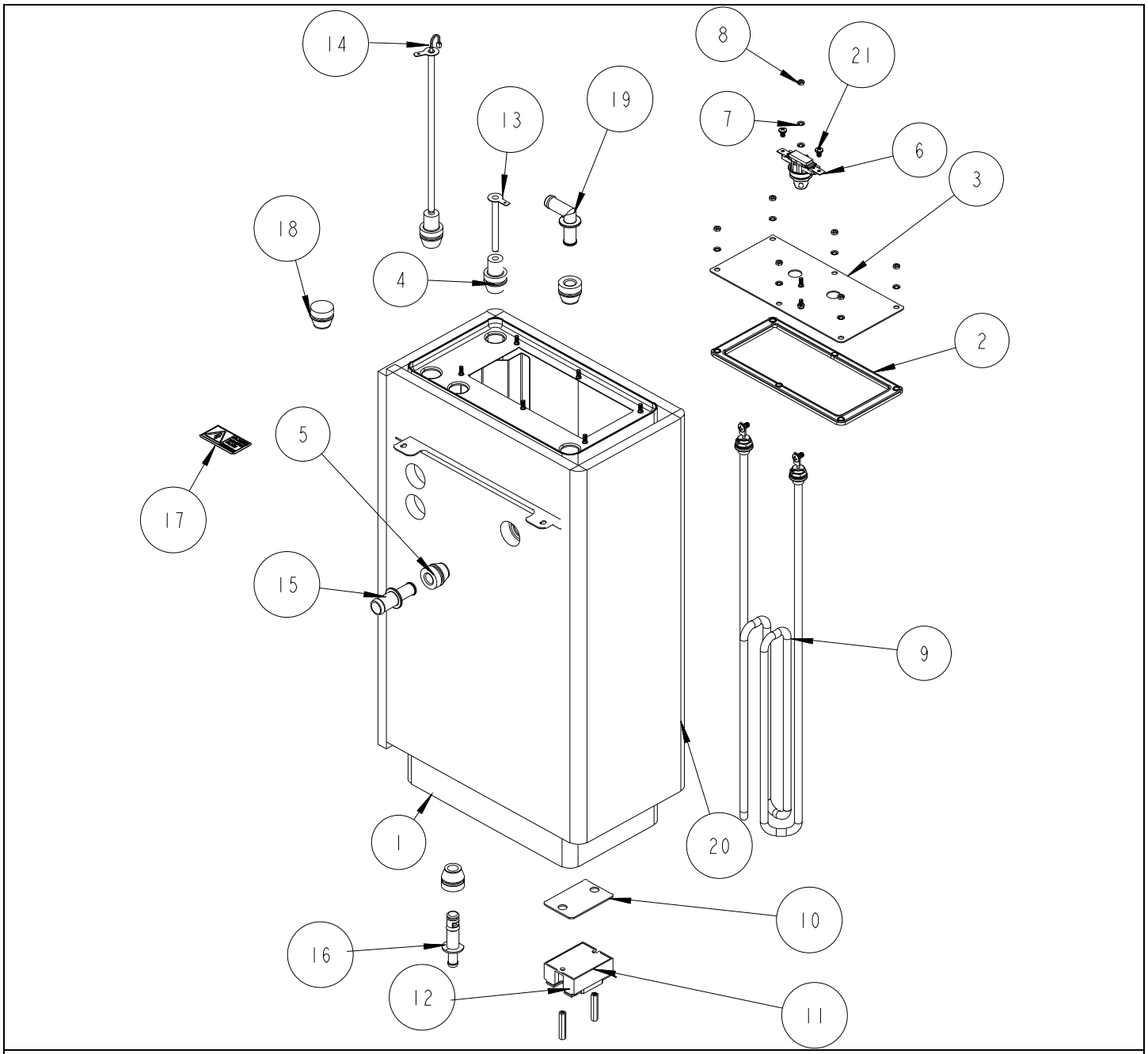
Table of authorities for CBS-2242NG replacement hot water tank module-tank is sold complete with insulation		
SKU Number. See page 3 for list	Description	Tank Part Number
E2242US-1B223-PA010; E2242IN-1B223-PA010	TANK CBS-2242, 2 X 2.3KW/240VAC	1104.00187.00
E2242US-1B230-MA110, E2242US-1B230-PA010, E2242IN-1B230-PA010 E2242NM-1B230-PA010	TANK CBS-2242, 2 X 3.0KW/240VAC	1104.00188.00
	TANK CBS-2242, 2 X 4.0KW/240VAC	1104.00189.00



Ref	Qty	Part Number	Description Drawing 1101.00566.00 CBS-2241NG
1	1	1111.00104.00	WELDMENT BODY, CBS-2241
2	8	1084.00051.00	NUT, HEX LOCKWASHER, #8-32, 18-8 ST. STL.
3	1	1102.00448.00	FRONT PANEL ASSEMBLY, CBS-2200 SERIES
4	2	1082.00029.00	SCREW, #6 X 3/8 LG, TRUSS HD PHIL, SHEET MTL
5	2	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT HD, PH, 18-8 SS
6	**1**	**See Drawing Pg 27**	**ELECTRICAL COMPONENT LATTICE, CBS-2200**
7	1	1102.00444.00	VISUAL COMMUNICATION RGB LED BAR, ASSY
8	4	1081.00006.00	SPACER, 6MM OD x 3.2MM ID x 5MM LG, Z/P
9	1	1051.00046.00	CBS-2200 SERIES, I/O BOARD, 24V
10	4	1029.00006.00	NUT, FINGER KNURLED, #4-40
11	**1**	**See Drawing Pg 26**	**SPRAYHEAD ASSY,CBS-30/40'S, QUICK CONNECT**
12	1	1024.00063.00	O-RING, 3 15/16" x 3/32" CS, DASH # 154, BUNA-N, DURO-A50
13	2	1024.00107.00	O-RING, 1 3/16" OD X 1 1/16" ID X 1/16" TH, BYPASS SEAL
14	1	1023.00343.00	VENT INSERT, QUICK CONNECT
15	2	1024.00106.00	O-RING, 13/16"OD X 11/16"ID X 1/16" TH, FOR QUICK CONNECT
16	3	1023.00342.00	QUICK CONNECT CLIP
17	9	1083.00010.00	WASHER, #12 SCREW W/NEOPRENE-BONDED SEAL
18	9	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
19	1	1086.00004.00	BUSHING, SNAP, 1" MOUNTING HOLE
			Parts list continues next page

Ref	Qty	PartNumber	Description Drawing 1101.00566.00 CBS-2241NG …Continued from page 20
20	1	1024.00098.00	VENT TUBE, CBS- EXTRACTOR SERIES
21	1	1102.00243.00	ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
22	2	1065.00009.00	GROUND LUG CONNECTOR, 14-2 AWG, ALUMINUM
23	1	1044.00012.00	LABEL GROUND, CE
24	12	1084.00011.00	NUT, CLIP ON (J-NUT), #6-32, 22-20 GA., BLK-PH FINISH
25	1	1025.00058.00	TUBE, 9/16"OD X 5/16"ID X 25.00"LG
26	1	1086.00009.00	CLAMP, 3/4" MAX TUBE OD FLOW CONTROL
27	4	1086.00003.00	UNICLAMP, 15.9 HOSE OD CLAMP
28	1	1112.00531.00	WELDMENT FRONT COVER, CBS-2240
29	1	1001.00413.00	COVER TOP, CBS-2231/41
30	1	1001.00414.00	COVER, UPPER BASE, CBS-2231/41
31	12	1082.00017.00	SCREW, TRUSS HD. PHIL. MACHINE, # 6-32 X 1/2 LG.
32	1	1046.00035.00	LABEL, WARNING "TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE"
33	1	1402.00106.00	HARNESS, CBS-2240/50-NG, LOW AMP, UNIVERSAL
34	1	1063.00042.00	ETHERNET CABLE, CAT-7, 5FT LENGTH
35	1	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
36	1	1041.00032.00	BLACK EXTRACTOR NG LABEL, LASER ENGRAVED
37	**1**	**See Drawing Pages 22 & 23**	**TANK ASSEMBLY, CBS-2241, 2 X 1.5KW/120VAC**
38	1	1402.00039.10	HARNESS HIGH AMP, CBS-2231/41/51, UL
39	1	B014218BN2BK	BREW BASKET ASSY, BLK, 13" X 5", 0.218" DIA HOLE, BWN PLUG (Page 28)
40	1	B003218B1	BREW BASKET ASSY, 13" X 5", .218 DIA HOLE, BLK (Page 28)
41	1	1024.00111.00	GROMMET, SILICONE, W/ POSITION TABS
42	1	1023.00362.00	FITTING VENT, ELBOW, .375" X .375", SELF POSITIONING
43	1	1013.00130.00	TUBE, 304SS, .562OD X .028 WALL X 9-1/4" LG.
44	1	1023.00348.00	HOT WATER INSERT, MANUAL FAUCET
45	1	1071.00055.00	FAUCET, HOT WATER, PSC-BR-8, WITH FLAT AND STEM
46	1	1084.00048.00	JAM NUT, 1/2-20 UNF, NICKEL PLATED BRASS
47	1	1003.00370.00	HOT WATER INSERT LOCK
48	1	1025.00120.00	TUBE, 9/16"OD X 5/16"ID X 13.00"LG
49	1	1023.00346.00	HOT WATER INSERT, AUTO FAUCET
50	1	1029.00041.00	COVER, AUTO HOT WATER FAUCET, SILICONE
51	1	1023.00347.00	VALVE MOUNT, HOT WATER DISPENSER
52	2	1023.00369.00	ORIFICE INSERT, QUICK CONNECT, 3/16" HOLE
53	2	1057.00076.00	VALVE ASSEMBLY, COMPLETE, NG, DELTROL
54	2	1025.00138.00	TUBE, SILICONE, 3/4" OD X 1/2" ID X 1-1/2" LG, HOT WATER
55	1	1025.00135.00	TUBE, 1/2"OD X 1/4"ID X .75" LG, RESTRICTOR
56	1	1025.00026.00	TUBE, 1/4"OD X 1/8"ID X 30"LG, VENT, HOT WATER VAPOR
57	2	1024.00051.00	GROMMET, SILICONE, BLANK
58	1	1023.00349.00	HOT WATER INSERT, NO FAUCET
59	1	1029.00042.00	BYPASS L-TUBE, SILICONE, 2200 SINGLE SERIES
60	1	1023.00344.00	PLUG INSERT, QUICK CONNECT
61	1	1102.00445.00	ASSY, BREW BASKET LOCKER W/FEEDBACK
62	1	1003.00259.00	BRACKET, BREW BASKET LOCK COVER
63	4	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
64	2	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
65	4	1073.00002.00	LEG, FLANGE FOOT, 4.0" HIGH
66	1	1086.00008.00	CONNECTOR, CLAMP, NON-METALLIC CABLE, 3/4"
67	1	1083.00032.00	WASHER, FLAT, 1.250"OD X 0.835"ID, SS
68	1	1086.00048.00	SKINTOP, 1/2" NPT, Ø.157"-.354" CABLE, BLK
69	1	1086.00049.00	LOCKNUT, SKINTOP, 1/2" NPT, BLACK HEX
70	1	1044.00013.00	LABEL EQUIPOTENTIALITY, CE
71	1	1052.00029.00	EMI FILTER, TWO LINE 20A, 120/250VAC
72	2	1084.00012.00	NUT, HEX, #6-32 MACHINE SCREW
73	1	1063.00016.00	POWER CORD, 120VAC W/NEMA 5-15P PLUG
74	1	1063.00015.00	CORD, 120 VAC, 12/3 AWG ,20 AMP , W/5-20P NEMA PLUG
75	1	1402.00039.11	HARNESS ADDITION, HIGH AMP, CBS-2231/41/51, UL
76	1	1402.00121.10	WIRE HARNESS ADDITION, HIGH AMP, EMI FILTER, 2-POLE, CE
77	1	1025.00142.00	TUBE, SILICONE, 3/4" OD X 1/2" ID X 3.75" LG, BREW

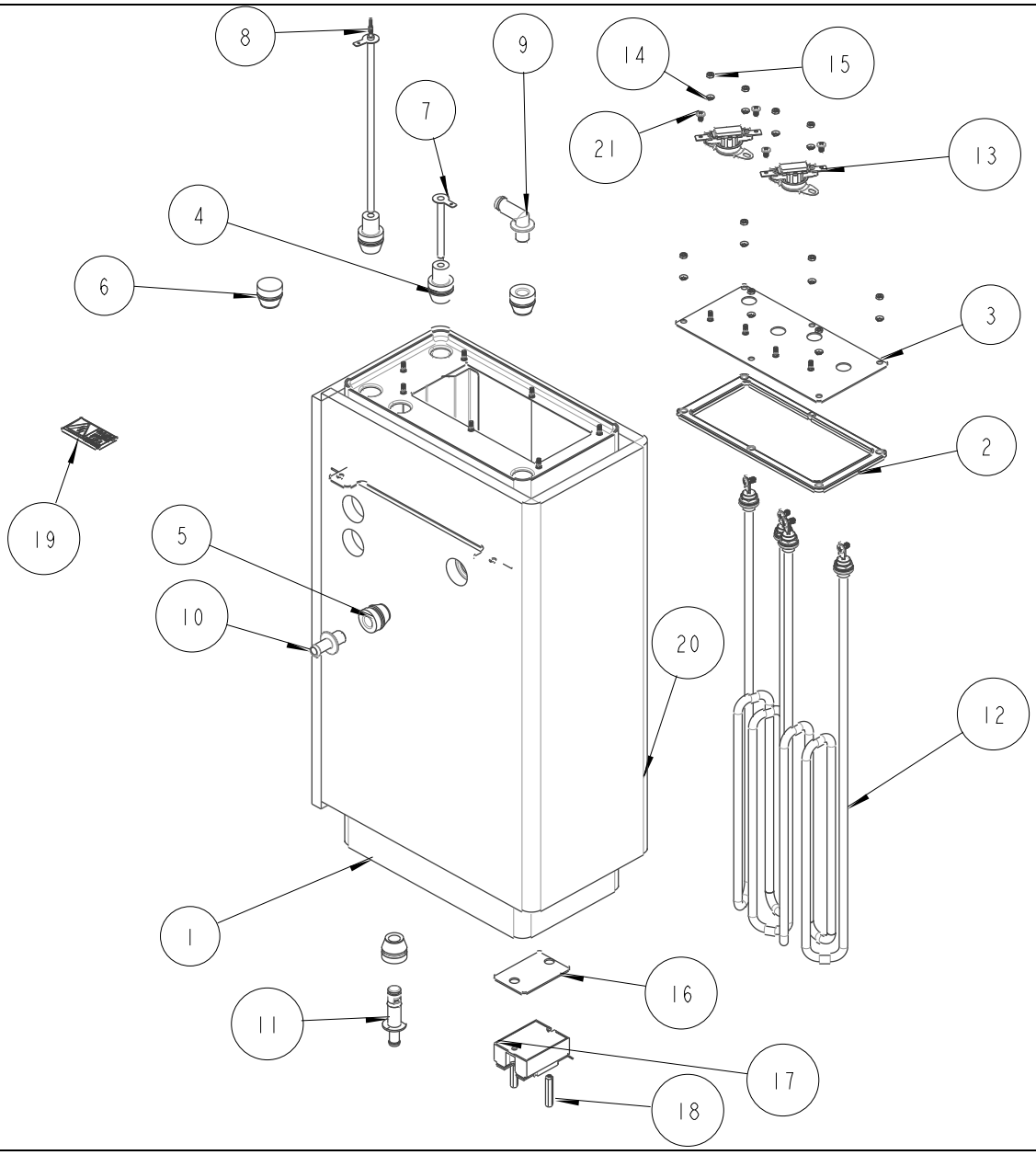
CBS-2241Next Generation Hot Water Tank Assembly, Single Heater



TANK ASSY, CBS-2241 Single Heater
For drawing numbers: 1104.00178.00; 1104.00180.00; 1104.00182.00; 1104.00184.00; 1104.00185.00; 1104.00186.00

TANK ASSY, CBS-2241 Single Heater Parts List			
Ref	Qty	PART NO	DESCRIPTION
1	1	1114.00170.00	WELDMENT, TANK, CBS-2241
2	1	1024.00114.00	TANK GASKET - NG HEATER PLATE, TWO ELEMENT
3	1	1114.00184.00	WELDMENT TANK HEATER BRACKET, NG-LARGE, TWO HEATER
4	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
5	3	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
6	1	1053.00052.00	THERMOSTAT, SINGLE SHOT, SCREW CONNECTIONS, 240V/25A
7	8	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
8	8	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
9	**1**	1107.00030.00	HEATER ASSEMBLY, IMMERSION 1500W/120VAC (Tank 1104.00178.00)
9	**1**	1107.00031.00	HEATER ASSEMBLY, IMMERSION 1700W/120VAC (Tank 1104.00180.00)
9	**1**	1107.00029.00	HEATER ASSEMBLY, IMMERSION 2300W/120VAC (Tank 1104.00182.00)
9	**1**	1107.00037.00	HEATER ASSEMBLY, IMMERSION 2300W/240VAC (Tank 1104.00184.00)
9	**1**	1107.00005.00	HEATER ASSEMBLY, IMMERSION 3000W/240VAC (Tank 1104.00185.00)
9	**1**	1107.00010.00	HEATER ASSEMBLY, IMMERSION 4000W/240VAC (Tank 1104.00186.00)
10	1	1003.00140.00	ALUMINUM BRACKET FOR SSR
11	1	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
12	2	1081.00042.00	STANDOFF, 1/4" HEX
13	1	1112.00019.00	PROBE WELDMENT, WATER LEVEL 2.600" LG
14	1	1102.00161.00	PROBE ASSEMBLY, TEMP. AND LLC, 8" LONG
15	1	1023.00203.00	FITTING, STRAIGHT, GROMMET, .625"
16	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
17	1	1044.00004.00	LABEL, DANGER, HIGH VOLTAGE
18	1	1024.00051.00	GROMMET, SILICONE, BLANK
19	1	1023.00212.00	FITTING, ELBOW, GROMMET, .500"
20	1	1022.00115.00	TANK INSULATION, CBS-2241
21	2	1082.00136.00	BRASS SCREW, #8-32 X 1/4", PHILLIPS PAN HEAD

Table of authorities for CBS-2241NG replacement hot water tank module-tank is sold complete with insulation		
SKU Number. See page 3 for list	Description	Tank Part Number
E2241US-1A115-PA011	TANK , CBS-2241, 1 X 1.5KW/120VAC	1104.00178.00
E2241US-1A115-PA011; E2241US-1A123-PM112	TANK , CBS-2241, 1 X 2.3KW/120VAC	1104.00182.00
E2241IN-1B123-PA010	TANK , CBS-2241, 1 X 2.3KW/240VAC	1104.00184.00
E2241IN-1B130-MM010; E2241IN-1B130-MM010 E2241KS-1B130-PM010; E2241CE-1B130-PA0005	TANK , CBS-2241, 1 X 3.0KW/240VAC	1104.00185.00
E2241NM-1B140-PA010	TANK , CBS-2241, 1 X 4.0KW/240VAC	1104.00186.00



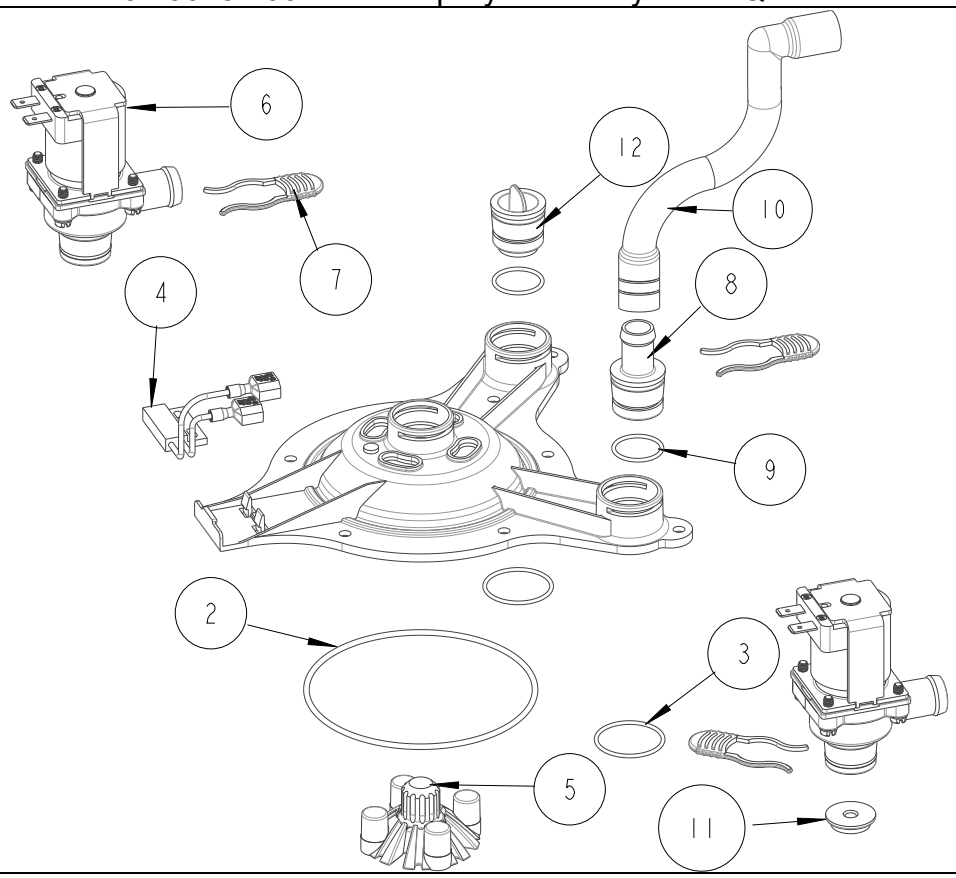
TANK ASSY, CBS-2241 Two Heater Drawing number 1104.000171.00, 1104.000173.00

TANK ASSY, CBS-2241 Dual Heater Parts List			
REF	QTY	Part number	Description
1	1	1114.00168.00	WELDMENT, TANK, CBS-2241
2	1	1024.00114.00	TANK GASKET - NG HEATER PLATE, TWO ELEMENT
3	1	1114.00176.00	WELDMENT TANK HEATER BRACKET, NG-2231
4	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
5	3	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
6	2	1053.00052.00	THERMOSTAT, SINGLE SHOT, SCREW CONNECTIONS, 240V/25A
7	10	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
8	10	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
9	**2**	1107.00022.00	HEATER ASSEMBLY, IMMERSION 1700W/120VAC
9	**2**	1107.00019.00	HEATER ASSEMBLY, IMMERSION 2300W/120VAC
10	2	1003.00140.00	ALUMINUM BRACKET FOR SSR
11	2	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
12	4	1081.00042.00	STANDOFF, 1/4" HEX
13	1	1112.00002.00	PROBE WELDMENT, WATER LEVEL 2.25" LG
14	1	1102.00161.00	PROBE ASSEMBLY, TEMP. AND LLC, 8" LONG
15	1	1023.00168.00	FITTING, STRAIGHT, GROMMET, .400"
16	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
17	1	1044.00004.00	LABEL, DANGER, HIGH VOLTAGE
18	1	1023.00212.00	FITTING, ELBOW, GROMMET, .500"
19	1	1024.00051.00	GROMMET, SILICONE, BLANK
20	1	1022.00114.00	TANK INSULATION, CBS-2241
21	4	1082.00136.00	BRASS SCREW, #8-32 X 1/4", PHILLIPS PAN HEAD

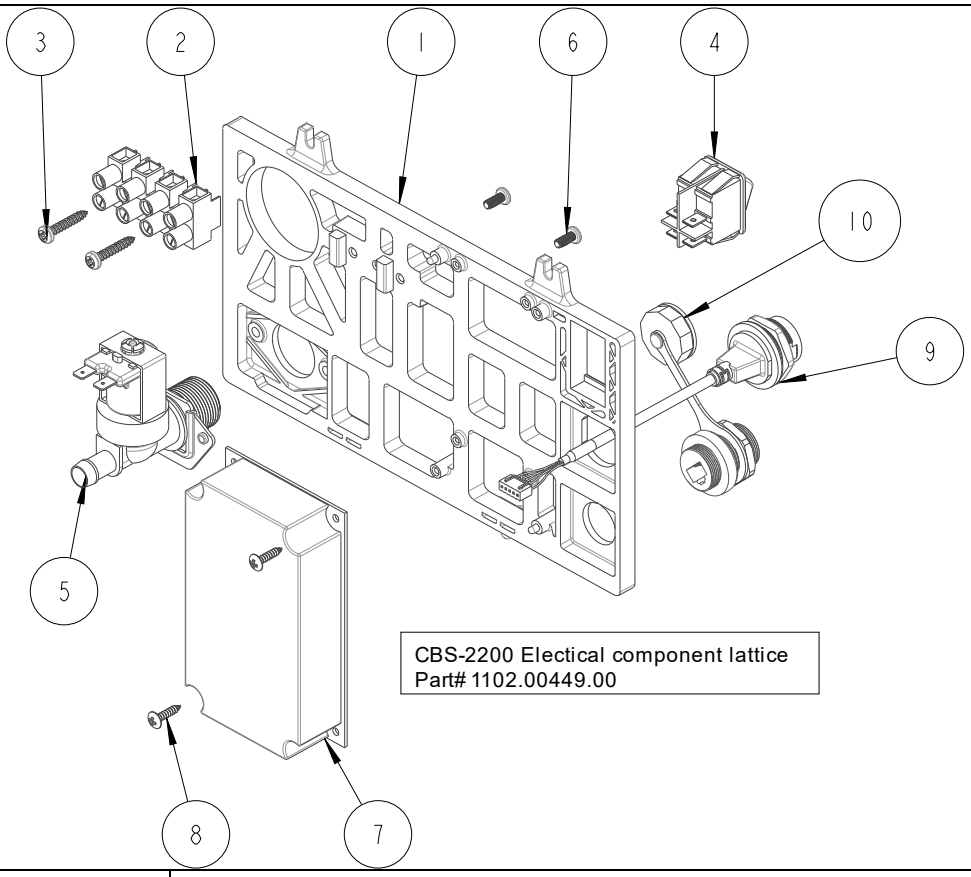
Table of authorities for CBS-2241NG replacement hot water tank module-tank is sold complete with insulation

SKU Number. See page 3 for list	Description	Part Number
E2231NM-1X123-PA012, E2231NM-1A123-PA012	TANK CBS-2241, 2 X 2.3KW/120VAC	1104.00173.00
E2231US-1X117-PA011	TANK CBS-2241, 2 X 1.7KW/120VAC	1104.00171.00

Part number 1102.00451.00 Small Spray Assembly Parts-Quick connect version

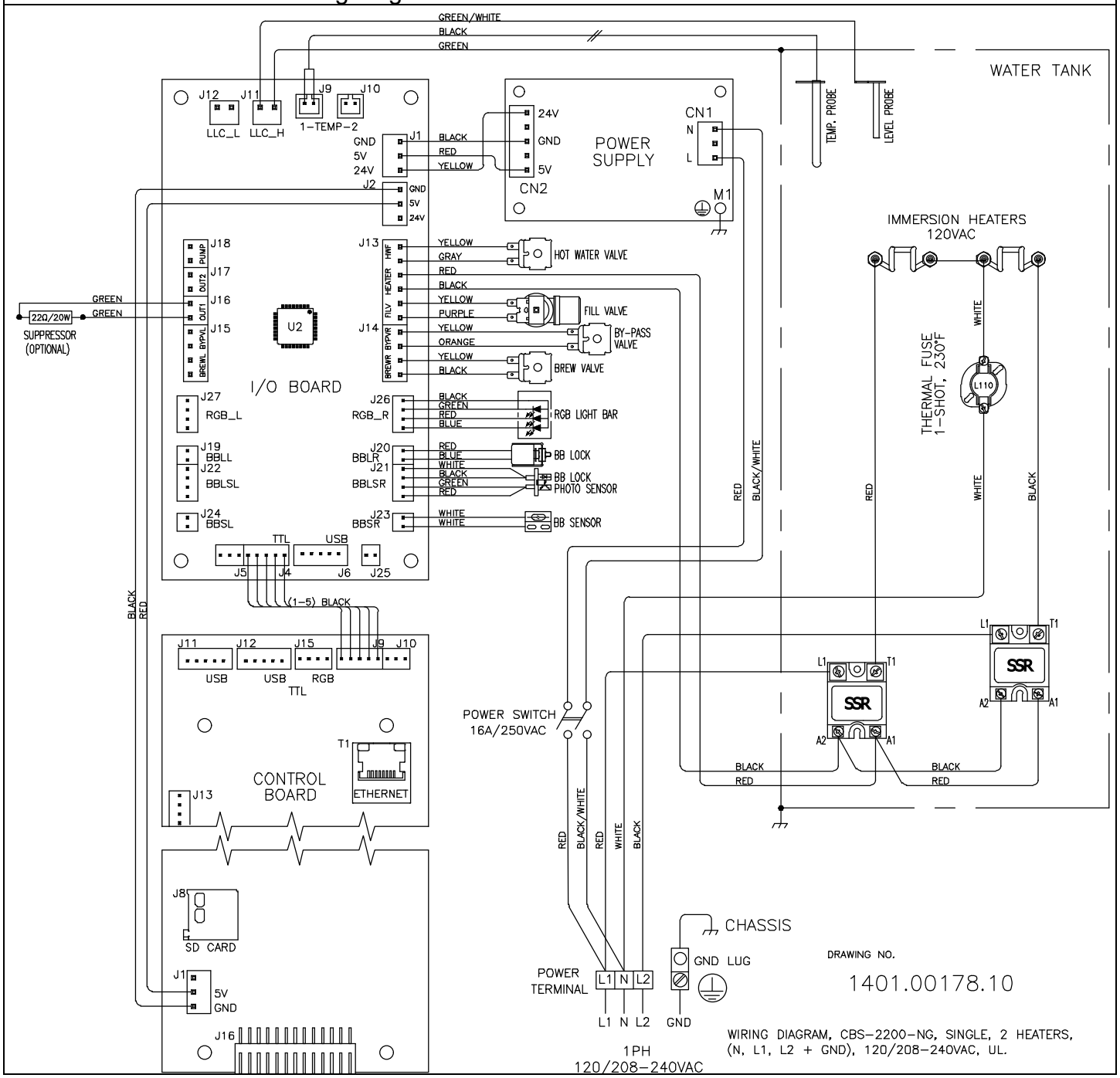


Ref#	Qty	Part number	Description
1	1	1000.00143.00	SPRAY HEAD BASE (KIT), QUICK CONNECT, 30/40'S
2	1	1024.00063.00	O-RING, 3 15/16" x 3/32" CS, DASH # 154, BUNA-N, DURO-A50
3	2	1024.00107.00	O-RING, 1 3/16" OD X 1 1/16" ID X 1/16" TH, BYPASS SEAL
4	1	1102.00113.00	SWITCH, REED, ASSEMBLY
5	1	1102.00479.00	ASSEMBLY, CASCADE SPRAY DOME, NEXT GEN, ORANGE
6	2	1057.00076.00	VALVE ASSEMBLY, COMPLETE, NG, DELTROL (interchangeable with 1057.00078.00)
6	2	1057.00078.00	VALVE ASSEMBLY, COMPLETE, NG, RPE (interchangeable with 1057.00076.00)
7	3	1023.00342.00	QUICK CONNECT CLIP
8	1	1023.00343.00	VENT INSERT, QUICK CONNECT
9	2	1024.00106.00	O-RING, 13/16"OD X 11/16"ID X 1/16" TH, FOR QUICK CONNECT
10	1	1024.00098.00	VENT TUBE, CBS- EXTRACTOR SERIES
11	1	1023.00369.00	ORIFICE INSERT, QUICK CONNECT, 3/16" HOLE
12	1	1023.00344.00	PLUG INSERT, QUICK CONNECT



Ref	Qty	Part Number	Description Electrical component lattice, CBS-2200 Part#1102.00449.00
		1102.00449.00	COMPLETE ELECTRICAL COMPONENT LATTICE, CBS-2200
1	1	1023.00350.00	ELECTRICAL MOUNTING LATTICE, COMMON
2	1	1052.00023.00	EUROSTRIP HE16 TERM. BLOCK, 4 POLE, 63 AMP, 18-8 AWG
3	2	1082.00056.00	SCREW, #8-11 X 1" PAN HD PHIL, THREAD FORMING
4	1	1058.00024.00	SWITCH, POWER, DOUBLE POLE, 16A, 125/250 VAC
5	1	1057.00043.00	SOLENOID VALVE, 5.5L/min, 180 DEG, 24VDC
6	2	1082.00010.00	SCREW, PAN HD. PHIL. MACH., M4x10 ZINC-PLATED
7	1	1052.00059.00	POWER SUPPLY, 90-264VAC/24VDC, 2.25A
8	2	1082.00020.00	SCREW, #6 X 5/8, TRUSS HD PHIL, SHEET MTL
9	1	1058.00055.00	USB CONNECTOR
10	1	1058.00162.00	ETHERNET PLUG IN CONNECTOR, W/COVER

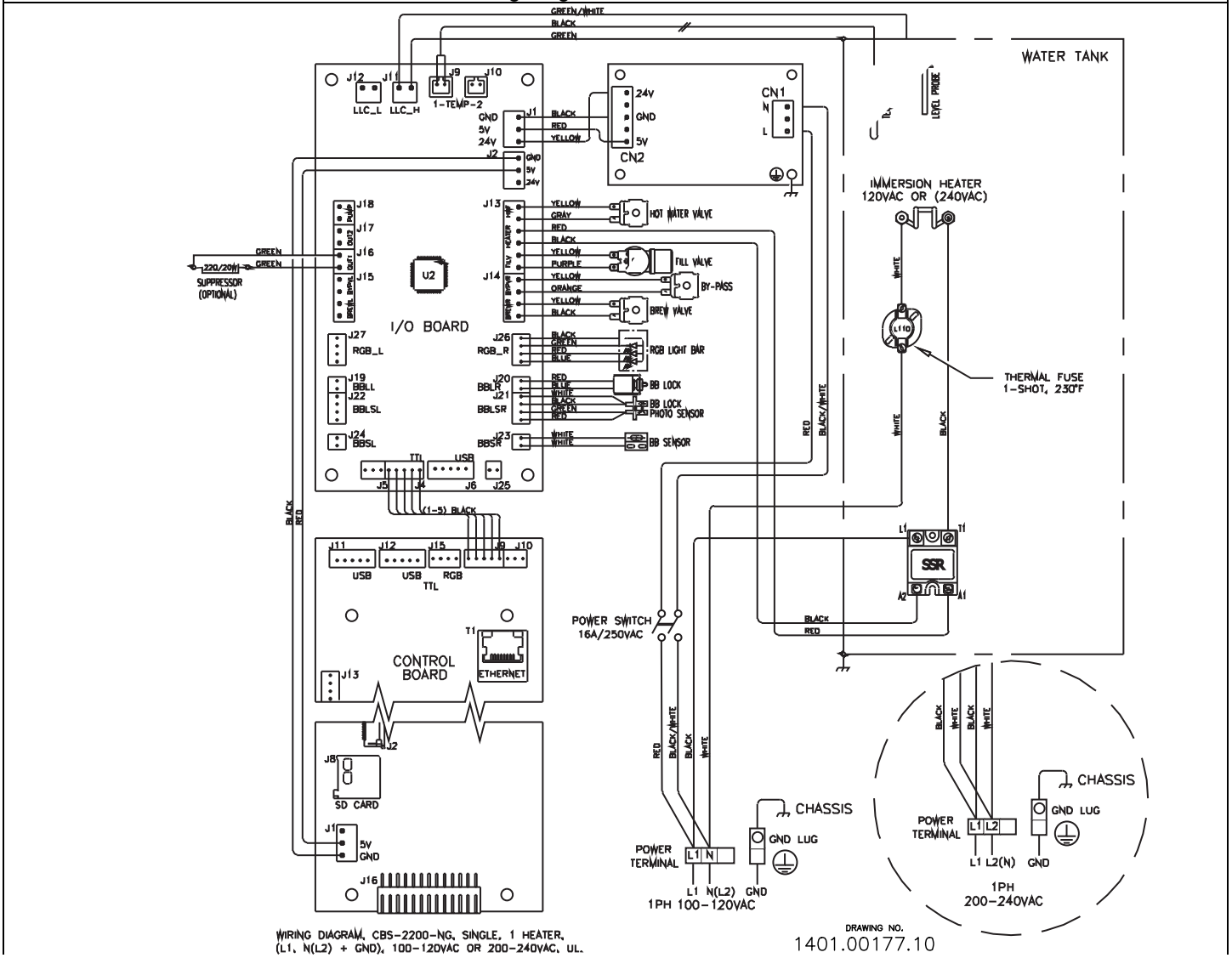
Wiring diagram 1401.00178.10 CBS-2241-two heater model



Wiring diagram for the following SKU numbers-see page 3

E2241US-1X117-PA011	CBS-2241,DUAL VOLT, 1Ph, 2+G/3+G, 2x1.7xW/120VAC, 120/208-240VAC
E2241NM-1X123-PA012	CBS-2241,NOM,DUAL VOLT,1Ph, 2+G/3+G, 2x2.3xW/120VAC, 120/208-240VAC
E2241US-1A123-PM112	CBS-2241, 1Ph, 2+G, 2.3xW/120VAC
E2241US-1A123-PA012	CBS-2241, 1Ph, 2+G, 2.3xW/120VAC
E2241US-1A115-PA011	CBS-2241, 1Ph, 2+G, 1.5xW/120VAC
E2241NM-1B140-PA010	CBS-2241, NOM, 1Ph, 2+G, 4.0xW/240VAC
E2241IN-1B140-PA010	CBS-2241, INTL, 1Ph, 2+G, 4.0xW/240VAC
E2241IN-1B130-PA010	CBS-2241, INTL, 1Ph, 2+G, 3.0xW/240VAC
E2241IN-1B123-PA010	CBS-2241, INTL, 1Ph, 2+G, 2.3xW/240VACC

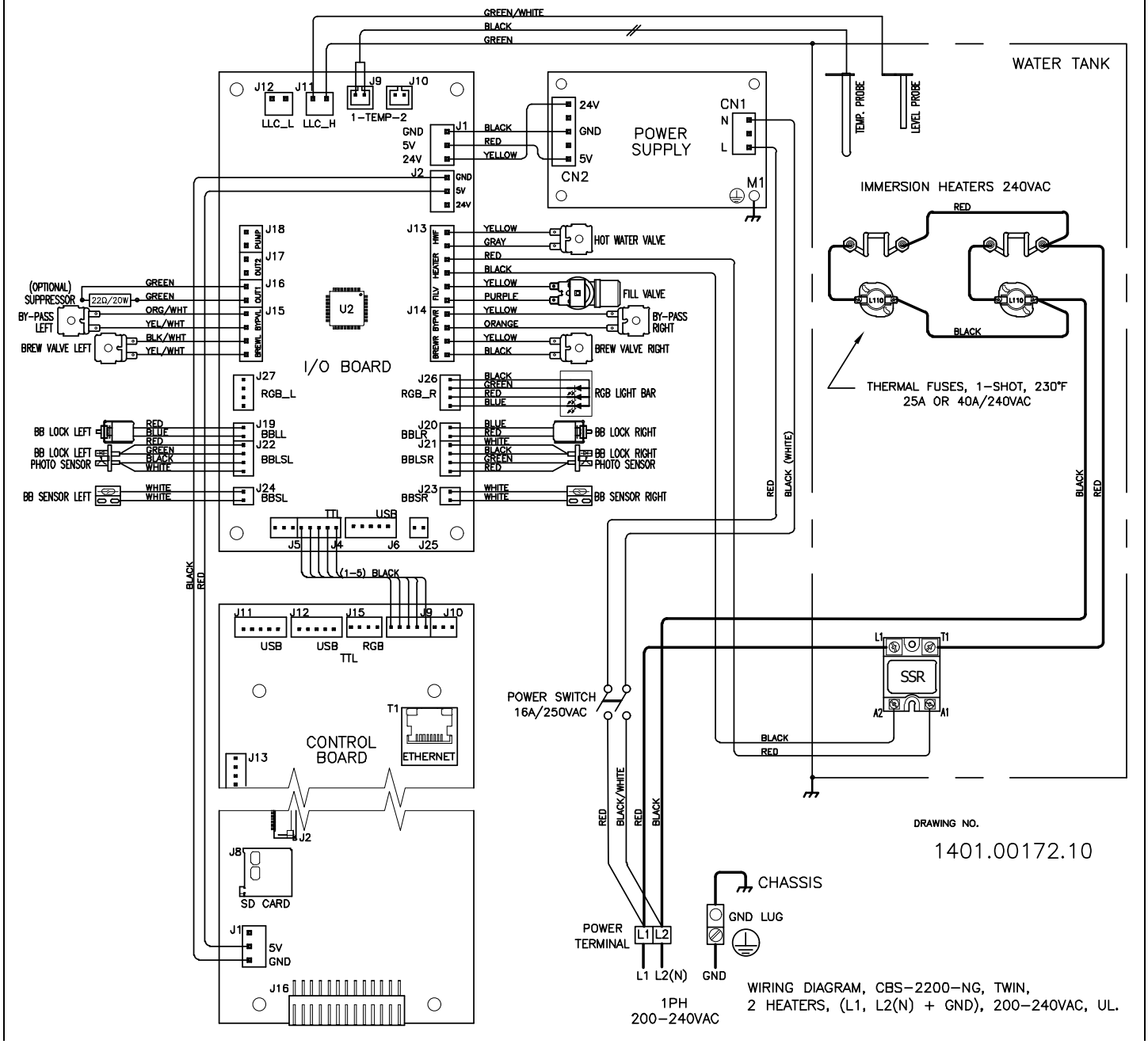
Wiring diagram 1401.00177.10 CBS-2241



Wiring diagram for the following SKU numbers-see page 3

E2241US-1A123-PM112 CBS-2241, 1Ph, 2+G, 2.3xW/120VAC

Wiring diagram 1401.00172.10 CBS-2242



Wiring diagram for the following SKU numbers-see page 3

E2242US-1B230-PA010	1Ph, 2+G, 2x3kW/240VAC Terminal Block
E2242US-1B230-MA110	1Ph, 2+G, 2x3kW/240VAC Terminal Block
E2242US-1B223-PA010	1Ph, 2+G, 2x2.3kW/240VAC Terminal Block
E2242NM-1B230-PA010	NOM, 1Ph, 2+G, 2x3kW/240VAC Terminal Block
E2242IN-1B230-PA010 ,	INTL, 1Ph, 2+G, 2x3kW/240VAC Terminal Block
E2242IN-1B223-PA010 ,	INTL, 1Ph, 2+G, 2x2.3kW/240VAC Terminal Block