

FETCO User's Guide and Operator Instructions

CBS-2251, CBS-2252 & CBS-2253 Next Generation Brewing System

FETCO Next Generation-NG® Commercial Beverage Equipment







CBS-2252

(Plastic brew baskets are standard, brewers availble with optional stainless steel brew baskets)



CONTACT INFORMATION

FETCO® FOOD EQUIPMENT TECHNOLOGIES COMPANY

600 ROSE ROAD

LAKE ZURICH • IL • 60047-0429 • USA

Product made in USA

INTERNET: www.fetco.com

PATENTS:https://www.fetco.com/pl,pages,patents,74.html

©2020-2023 FOOD EQUIPMENT TECHNOLOGIES COMPANY

PHONE: (800) 338-2699 (US & CANADA) (847) 719-3000 (All Countries and International) FAX:(847) 719-3001

EMAIL:sales@fetco.com

orders@fetco.com (to order parts and equipment) techsupport@fetco.com (all service queries)

> P195 February 2023

COFFEE BREWER CBS-2250NG Series

TABLE OF CONTENTS

Weights and Capacities	2	Calibration	11
Rough-In Drawings			
Fast Start Brewing		Outputs	12
Brew Recipes		Counters	13
Settings	7	Brewer Setup	14
Inputs	8	Installation Guide	15
Service	8	Operator Training	16
Error Codes	9	Parts diagrams	18
Hot Water Portions	10	Wiring Diagrams	25

Specifications and Requirements								
FETCO CBS-2250 Brewers have unique construction only available for these models.								
Water Requirements: Coffee Filter Size:								
CBS-2250 20-75 psig, (138-517kPa) 1½ gpm/(5.7 lpm)	15" X 5 ½ "- standard FETCO # F001							
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. Electrical: See electrical configuration chart Pg 3.								
Brown Valure of Full Batala ODC 0050: 4.1/ mallars / 5.0 litera ODC	0050 0 0 0 11 0 7 5 12 0 0							

Brew Volume: Full Batch CBS-2250: 1 1/2 gallon/ 5.6 liters CBS-2252-2: 2 gallons 7.5 liters

Brew Capacity (approximate) CBS-2251 7-10 brews per hour (CBS-2252 7-22 brews per hour CBS-2252 7-22 br

Total Brew Cycle: Factory setting: 6 minutes consisting of 4 min. brew time and 2.0 min. drip delay

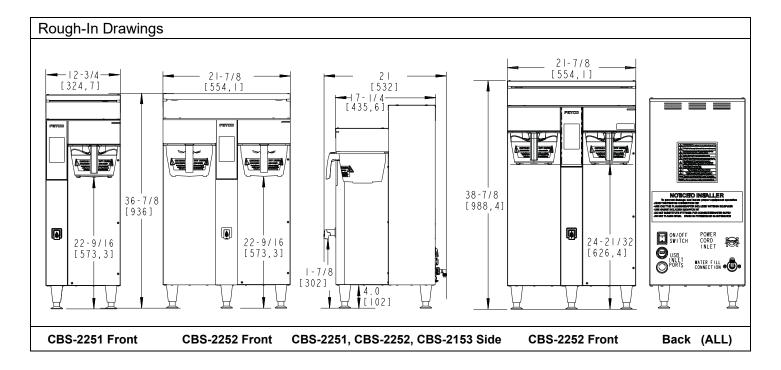
Individual menu brew-process parameters are user controllable for:

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 a	nd Capacities	S							
Model	Height	Width	Depth	Water tank capacity	Empty Weight	Filled Weight	Shipping Weight	Shipping Dimensions	
CBS-2251	36 7/8 in	12 3/4 in	22 1/2 in	6.5 gallon	53 lbs	107 lbs	63 lbs	38" x 18" x 24"	
1½ gal	940 mm	320 mm	570 mm	24.4 L	24 kg	48.3kg	28.6 kg	96.5 x 45.7 x 61 cm	
CBS-2252	36 7/8 in	21 7/8 in	22 1/2 in	11.1 gallon	77 lbs	174 lbs	97 lbs	38" x 24" x 27"	
1½ gal	940 mm	550 mm	570 mm	42.1 L	35.0 kg	78.9 kg	44 kg	96.5 x 61 x 68.6 cm	
CBS-2253	39 in	21 7/8 in	22 1/2 in	11.1 gallon	82 lbs	180 lbs	97 lbs	40" x 24" x 27"	
2 gal	99.1 mm	550 mm	570 mm	42.1 L	37.2 kg	81.6 kg	44 kg	102 x 61 x 68.6 cm	
CBS-2251 8 Calibrated for 1½ gallons/	or	CBS-2253 Calibrated 2 gallons/	d for	Filter Paper 15" X 5 ½ "- Or use FET	- standard		Brewers ship with plastic brew baskets. See page 25 for optional brew baskets		



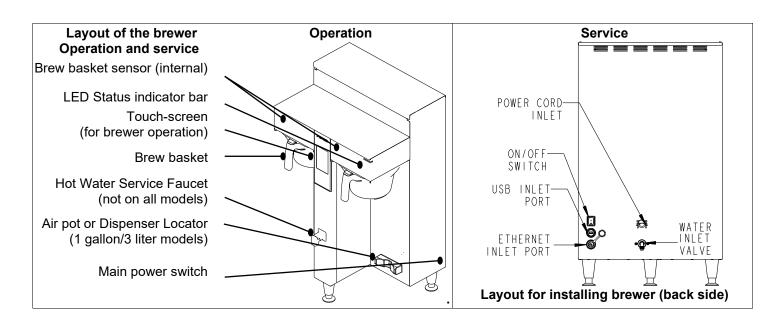
Electrical and Output Spe	cification	one for CBS	2251 Novt C	onoration	Single 11/	Gallon 6 Litor	Coffoo Browers		
,									
CBS-2251 Domestic USA a						& NSF-4 Certific			
Electrical and Output Specification	ons All	prewers use te		cai connectio	on for 50Hz or				
SKU Number	Phase	Voltage	Heater Configuration	Wires	KW	Maximum Amp Draw	Per Hour		
E2251US-1B230-PA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters		
E2251US-1B230-MA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters		
CBS-2251 Domestic and International models Single-Voltage. With cUL/UL & NSF-4 Certification									
Electrical and Output Specificatior	ns All br	ewers use tern							
E2251IN-1B140-PA110	1	200-240	1 X 4.0 kW	2+G	4.1	14.2-17.1	9.3 gal/35 liters		
E2251IN-1B150-PA110	1	200-240	1 X 5.0 kW	2+G	5.1	17.7-21.3	12.7 gal/48 liters		
E2251IN-1B230-PA110	1	200-240	2 X 3.0 kW	2+G	6.1	21.3-25.5	15.3 gal/58 liters		
CBS-2251 NOM (Mexico In	Spanis	sh) Single-V	oltage. With cl	JL/UL & N	SF-4 Certifi	cation	-		
Electrical and Output Specification							stallation is required		
E2251NM-1B230-PA110	1	200	2 X 3.0 kW	2+G	4.2	21.2	14.5 gal/54 liters		
NM in SKU suffix (above) denotes eq	uipment	with NOM certif	ication, Spanish lab	beling for Mex	xico and Span	ish language user gu	iide		
CBS-2251 Export CE	CE li	sted models	with NSF-4 Cert	ification. I	nternal EMI	Filter Not cUL	or UL Listed		
Electrical and Output Specification	ons All	brewers use te	rminal block electri	cal connection	on for 50Hz or	60Hz Professional	installation is required		
E2251CE-2B230- PA110	2	2 X 2.3 kW		2L,N,PE	4.9	11.8	14.0 gal/53 liters		
E2251CE-1B230-PA110	2	2 X 3.0 kW	230/400	2L,N,PE	5.6	12.4	15.3 gal/58 liters		
Electrical and Output Spe CBS-2252 Domestic USA a Electrical and Output Specification	nd Can	ada f	Field Selectable	-Voltage.	With cUL/U	JL & NSF-4 Certi	fication		
SKU Number	Phase	Voltage	Heater Configuration	Wires	KW	Maximum Amp Draw	Brew-Volume Per Hour		
E2252US-UB230-MA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters		
Field Selectable 1 or 3 phase Sold as 3 phase	3	200-240	3 X 3.0 kW	3+G	6.9-9.1	19.5-22.5	22.5 gal/85 liters		
E2252US-UB230-PA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters		
Field Selectable 1 or 3 phase Sold as 3 phase	3	200-240	3 X 3.0 kW	3+G	6.9-9.1	19.5-22.5	22.5 gal/85 liters		
E2252US-UB250-PA110	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters		
Field Selectable 1 or 3 phase Sold as 3 phase	3	200-240	3 X 5.0 kW	3+G	11.4-15.1		38.3 gal/145 liters		
CBS-2252 Domestic and International models Single-Voltage. With cUL/UL & NSF-4 Certification Electrical and Output Specifications All brewers use terminal block electrical connection for 50Hz or 60Hz Professional installation is required.									
E2252IN-1B230-PA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters		

• •										
SKU Number	Phase	Voltage	Heater Configuration	Wires	KW	Maximum Amp Draw	Brew-Volume Per Hour			
E2252US-UB230-MA110 Field Selectable 1 or 3 phase	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters			
Sold as 3 phase	3	200-240	3 X 3.0 kW	3+G	6.9-9.1	19.5-22.5	22.5 gal/85 liters			
E2252US-UB230-PA110 Field Selectable 1 or 3 phase	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters			
Sold as 3 phase	3	200-240	3 X 3.0 kW	3+G	6.9-9.1	19.5-22.5	22.5 gal/85 liters			
E2252US-UB250-PA110	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters			
Field Selectable 1 or 3 phase Sold as 3 phase	3	200-240	3 X 5.0 kW	3+G	11.4-15.1	32.0-36.9	38.3 gal/145 liters			
	CBS-2252 Domestic and International models Single-Voltage. With cUL/UL & NSF-4 Certification									
Electrical and Output Specification	ons All	brewers use te	rminal block electri	cal connection	on for 50Hz or	60Hz Professional	installation is required.			
E2252IN-1B230-PA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters			
E2252IN-1B250-PA110	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters			
E2252IN-3B340-PA110	3	220/380 or 240/415	3 X 4.0 kW	4+G	12.2	15.7-17.1	29.5 gal/112 liters			
E2252IN-3B330-PA110	3	220/380 or 240/415	3 X 3.0 kW	4+G	9.1	11.8-12.9	22.5 gal/85 liters			
E2252IN-3B350-PA110	3	220/380 or 240/415	3 X 5.0 kW	4+G	15.1	19.5-21.4	38.3 gal/145 liters			
CBS-2252 NOM (Mexico In	Spanis	sh) Field Se	lectable-Voltag	e. With cl	JL/UL & NS	F-4 Certification				
Electrical and Output Specificatio	ns All b	rewers use terr	minal block electric	al connection	n for 50Hz or	60Hz Professional ir	nstallation is required			
E2252NM-UB250-PA110 Field Selectable 1 or 3 phase	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters			
Sold as 3 phase	3	200-240	3 X 5.0 kW	3+G	11.4-15.1	32.0-36.9	38.3 gal/145 liters			
E2252NM-1B250-PA110	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters			
NM in SKU suffix (above) denotes eq	uipment	with NOM certif	ication, Spanish lat	beling for Me	xico and Span	ish language user gu				
CBS-2252 Export CE										
		CBS-2252 Export CE CE listed models with NSF-4 Certification. Internal EMI Filter Not cUL or UL Listed								

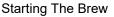
Electrical and Output Sp	ecifica	ations for Cl	BS-2253Next	Generatio	on Dual 2 (Gallon-8 Liter	Coffee Brewers	
CBS-2253 Domestic USA a Electrical and Output Specification	nd Can	ada l	Field Selectable	e-Voltage.	With cUL/U	JL & NSF-4 Cer	tification	
SKU Number	Phase	Voltage	Heater Configuration	Wires	KW	Maximum Amp Draw	Brew-Volume Per Hour	
E2253US-UB230-PA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters	
Field Selectable 1 or 3 phase Sold as 3 phase	3	200-240	3 X 3.0 kW	3+G	6.9-9.1	19.5-22.5	22.5 gal/85 liters	
E2253US-UB250-PA110 Field Selectable 1 or 3 phase	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters	
Sold as 3 phase	3	200-240	3 X 5.0 kW	3+G	11.4-15.1	32.0-36.9	38.3 gal/145 liters	
CBS-2252 Domestic and International models Single-Voltage. With cUL/UL & NSF-4 Certification Electrical and Output Specifications All brewers use terminal block electrical connection for 50Hz or 60Hz Professional installation is required.								
E2253IN-1B230-PA110	1	200-240	2 X 3.0 kW	2+G	4.6-6.1	22.4-25.8	15.3 gal/58 liters	
E2253IN-1B250-PA110	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters	
E2253IN-3B340-PA110	3	220/380 or 240/415	3 X 4.0 kW	4+G	12.2	15.7-17.1	29.5 gal/112 liters	
E2253IN-3B330-PA110	3	220/380 or 240/415	3 X 3.0 kW	4+G	9.1	11.8-12.9	22.5 gal/85 liters	
E2253IN-3B350-PA110	3	220/380 or 240/415	3 X 5.0 kW	4+G	15.1	19.5-21.4	38.3 gal/145 liters	
CBS-2253 NOM (Mexico In	Spanis		lectable-Voltage	e. With cl	JL/UL & NS	F-4 Certification	1	
Electrical and Output Specification								
E2253NM-UB250-PA110	1	200-240	2 X 5.0 kW	2+G	7.6-10.1	36.9-42.5	25.3 gal/97 liters	
Field Selectable 1 or 3 phase Sold as 3 phase	3	200-240	3 X 5.0 kW	3+G	11.4-15.1	32.0-36.9	38.3 gal/145 liters	
E2253NM-1B250-PA110	1	200-240	2 X 5.0 kW	2+G	7.0-10.0	35.2-42.2	26.6gal/100.7liters	
NM in SKU suffix (above) denotes eq								
CBS-2253 Export CE						Filter Not cUL o		
Electrical and Output Specification					1			
E2253CE-3B350-PM110	3	230/400	3 X 5.0 kW	3L,N,PE	14.1	20.4	38.3 gal/145 liters	
E2253CE-3B350-PA110	3	230/400		3L,N,PE	14.1	20.4	38.3 gal/145 liters	
E2253CE-3B330-PA110	3	230/400	3 X 3.0 kW	3L,N,PE	8.6	12.4	22.5 gal/85 liters	

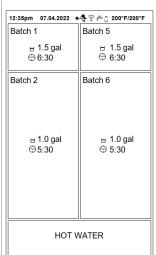
EXAMPLE: SKU E2253US-UB230-PM110 SKU NUMBER IDENTIFIC									CATION	KEY						
Product Line	<u>Le</u>	<u>vel</u>	<u>Far</u>	<u>nily</u>	Regio	on ID	<u>Phase</u>	Voltage Range	# Heaters	<u>Indi</u> Heater	<u>vidual</u> Wattag	Brew Basket	Hot Water Faucet	Bypass	Brew Basket Locks	Power Cord
E	2	2	5	3	U	S	U	В	2	5	0	Р	М	01	1	0
E=extractor					US =l Sta	Jnited tes	1	A = 100-120	1		1.5	P=plastic	M=manual	1=Yes	1=Yes	0=Terminal Block
			5′ single	l= e side	IN Interna		2	B = 200-240	2		1.7	M=metal	A=automatic	0=no	0=no	1= NEMA 5-15P
		Next Series	_	2= side	CE =	= CE	3	C = 380-415	3	:	2.3		N=None			2=NEMA 5-20P
					NM =	NOM	U = 1 or 3	D = 440-480		;	3.0					3=NEMA 6-15P
											4.0					4=NEMA 6-30P
			dual	3= side allon				X=120 or 240 Dual Voltage			5.0					5= CEE 7/7 Schuko
																6=UK1-13P 7= AUSTRALIAN

Customer options	BREW BASKET TYPE (P, M OR C)	HOT WATER FAUCET (M, A OR N)	BYPASS (1 OR 0)	Brew Basket Lock (1 OR 0)
* is factory standard feature	*P=Plastic	*M=Standard manual	*1=With	*1=With
Add all the following numbers	M=Gourmet Metal	A=Automatic electronic	0=None	0=None
after all SKU numbers	C= Gourmet Metal + clips	N=No hot water faucet		

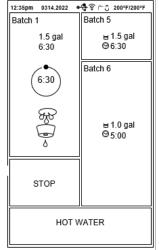


Fast Start Brewing





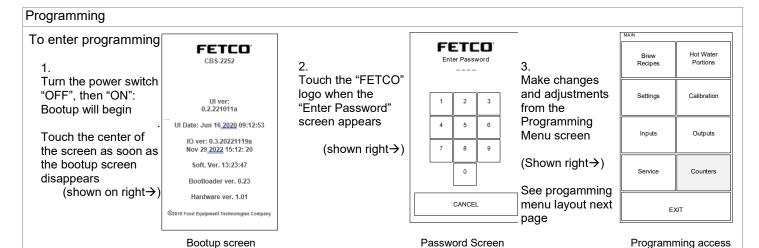
- 1. Turn the power switch "ON". (Twin Shown)
- 2. Prepare a brew basket with the correct size filter and appropriate amount of coffee. (6-12 ounces or 170-340 grams for 1½ gal/6 liters)
- 3. Slide the brew basket completely into the rails.
- 4. Place a clean, empty, preheated dispenser under the brew 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.

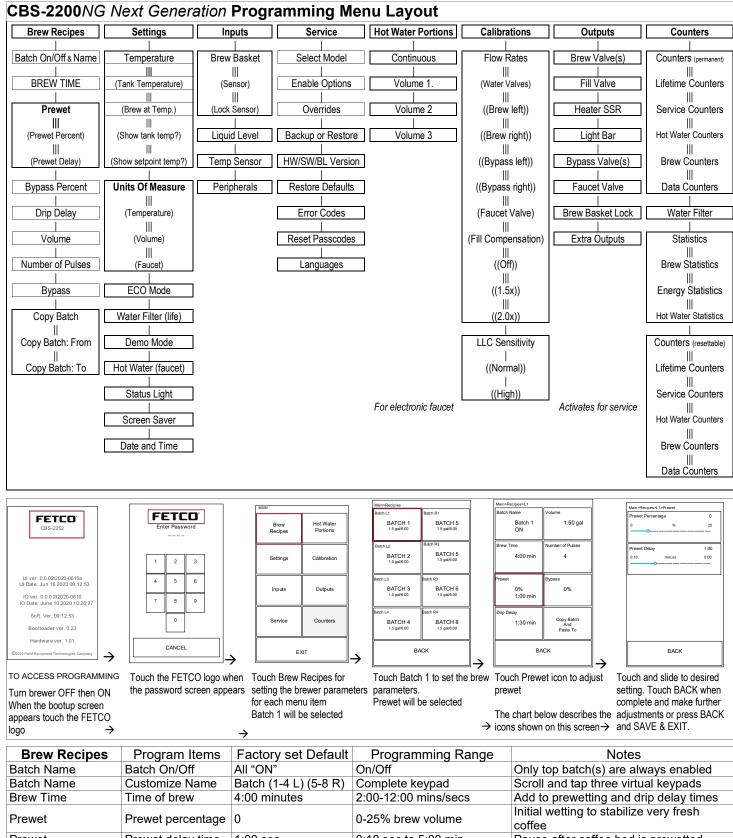


Twin Brewer ready to brew.

Batch one-top left brew position selected

Brewing in process Batch one selected







Settings	rings Program Items		Programming Range	Notes	
Temperature	Tank Temperature	200°F/92°C	170-208°F/70-96°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 2 nd at top right screen	
Units of Measure	Temperature Volume Hot water Faucet	F° or C° degree units Gallon or Liters units Ounce or Milliliters	NO or YES	Main>Settings>UNITS Temperature Volume Faucet Main>Settings>UNITS C C C M C M C M C M M C M M	
ECO Mode	ON/OFF Eco idle time (to start) Eco Tank temperature	OFF 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	Disables controls	OFF	OFF/ON	For training and user familiarization	
Hot Water	Digital H. Wtr Faucet	ON	ON/OFF/Automatic	Automatic activates portion control	
Status Light	READY LED color	Green	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 Allows brewing at any temperature above 170°F/77°C. (Not recommended)

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

Altitude Correction Chart

Cl	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.

← Faster Brew Cycle/reduced extraction lower temperature Correct flavor/proper extraction temperature →

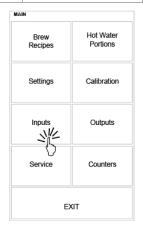
170°F/77°C 180°F/82°C 190°F/88°C 200°F/93°C

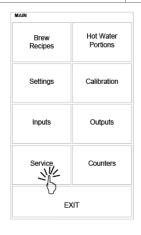
← Faster brew cycle with reduced temperature Compromised Extraction

Correct brew water temperature → **Proper Extraction**

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	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	
Overrides	Brew Basket Sensor Brew Basket Lock Brew Basket Lock Sensor HW Press and hold		Override Safety Features Left Right Brew Basket Sensor OFFON OFFON Brew Basket Lock OFFON OFFON Br. Basket Lock Sensor OFFON OFFON HW Press and hold OFFON OFFON	Overriding deactivates onboard safety systems. This is not recommended for normal operation. A warning/reminder will display in the start screen
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 Code Code & definition Code & definition 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	Error Codes (From SERVICE – Page7)						
			OR IS IDENTIFIED AND COR	RECTED			
		ecialized personnel for e					
Code	•		Possible Cause	Corrective Action			
001	corrupted softw		Improper start-up or shutdown	Restart, if still fault: reload software			
002	Internal flash co	orrupted emory malfunction	Error found in cyclic redundancy check CRC	Restart, if still fault: reload software If not corrected: replace board			
050		temperature probe	Probe failure.	Replace probe.			
051	Open temperate	•	Bad probe connection, or probe failure.	Check all connections. Replace probe if necessary.			
100	Initial Fill Error. Initial fill time to expected after p		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 ref	fill 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 (<u>H</u> uman <u>I</u> nterface <u>D</u> evice)		Usually from longer than 10 seconds' contact. Or faulty reassembly after service	Restart, if still fault: reload software. If mechanical: replace module			
Inser	NO BSKT t 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	Default	Programming Range	Notes
This setting is only for bro	ewers with an el	ectronic hot water fau	cet. In the SETTINGS menu, th	ne "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	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	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	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	Sets limit for #3 touch and dispense



Calibration	Program Items	Factory set Default	Programming Range	Notes
Flow Rates Water Valves	Brew left	3000 ml/min	Brew Left 0.93(Gal.)/3550 (ml) 3000 ml/min 4150 0.79 gal/min 1.09	Use to attenuate and compensate for variations in brew valve output
Flow Rates Water Valves	Brew right	3000 ml/min	Brew Right 0.93(Gal.)/3550 (ml) 3000 ml/min 4150 0.79 gal/min 1.09	Use to attenuate and compensate for variations in brew valve output
Flow Rates Water Valves	Bypass left	1900 ml/min	Bypass Left 0.36(Gal.)/1350 (ml) 1150 ml/min 1700 0.30 gal/min 0.44	Use to attenuate and compensate for variations in bypass valve output
Flow Rates Water Valves	Bypass right	1900 ml/min	Bypass Right 0.36(Gal.)/1350 (ml) 1150 ml/min 1700 0.30 gal/min 0.44	Use to attenuate and compensate for variations in bypass valve output
Flow Rates Faucet Valve	For automatic hot water faucet	4 ml/min	Faucet 4 1 ml/min 10 Scroll and go to EXIT&SAVE	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 Scroll and go to EXIT&SAVE	Use for FloJet bottled water supply or for reduced water supply from mains.
LLC		NORMAL	o Normal o High Scroll and go to EXIT&SAVE	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 water dispensed Decreasing the flow rate value INCREASES the volume of 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 <u>VOLUME DISPENSED</u> 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

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

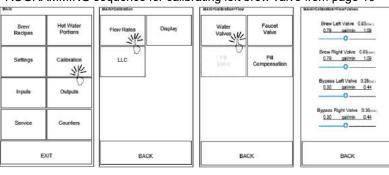
- -Enter programming mode, tap to "CALIBRATION"
- -Tap back to "Flow Rates" and then to "Water Valves"
- -Enter the new flow rate into the calibration slider for the valve tested

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 \rightarrow 1 ½ gallon=128oz+64oz=192 oz (in 1 ½ gal.) 192÷128=**1.5 gal**.

Example below shows overpotting of 16oz over 11/2 gal. batch corrected by recalibration using the formula above

Obtain Volume Dispensed	tamps trouble ,	APC WHEN	Obtain Programmed Value		rrent Setting		Use the formula above	Enter the	e New Flow F	Rate
Example:	Batch 1 ± 1.5 gal Gloco	Batch 5 to 15 gal 19 eac	The Programmed value	The valves flo	w rate is iı	n the		Brew Left	1.0)2(Gal.)
A CBS-2252 delivered 16 ounces	Gatch 2	Gatch 6	for batch 1 -left side of	top right corne	er					/ E (Gai.)
over the 1½ gallon (192oz) setting			the CBS-2252 is on the	Brew Left	0.93	(Gal.)	$\frac{1.65}{1.5} \times 0.93 = 1.02$	0.79	gal/min	1.09
for Batch 1-Left Side	ы 1.0 gal Фезо		home screen in the				1.5			0 -
192oz+16oz=208oz	@ 5:30	9 530	batch box.	<u>0.79</u> ga	al/min	1.09		Enter new s	etting on t	he slider
				C)		The new flow rate is			
000120			The value is 1.5 gallon	The valu	ue is 0.93		1.02	as shown a		
208oz÷128oz/gallon= 1.63gallon	HOTW	ATER	The value is 1.5 gallon				1.02	Retesting	g recomme	ended
By entering the new flow rate number into the brewer, the software automatically corrects the volume discrepancy										

PROGRAMMING sequence for calibrating left brew valve from page 10



Enter into OUTPUTS-below

MAIN	
Brew Recipes	Hot Water Portions
Settings	Calibration
Inputs	Outputs
Service	Counters
E	XIT

Outputs	Program Items	Factory set Default	Progi	ammi	ng Range	Notes
These settings are ι	used to activate indivi	dual controls for testin	g verificat	ions an	d servicing op	perations
Brew Valve(s)	Momentarily operate Left or Right Brew valves		Brew	Left {}	Right \{\bar{\bar{\bar{\bar{\bar{\bar{\ba	Have dispenser under spray head! Touch to activate flow
Fill Valve	Momentarily operate fill valve		Fill		6	Have dispenser under spray heads! Touch to activate flow
Heater SSR	Turns on all heaters		Heate 3 sec ma		6	Activates SSRs to turn on heaters
Light Bar	Momentarily operate light bar(s)		Status Li	ght	6	
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		6	Have dispenser under faucet! Touch to activate flow
Brew Basket Lock	Operates brew basket locks, toggling them on and off		BBL Unlock	Left	Right Right Right Right	Will toggle brew basket locks to be engaged then OFF.
Extra Outputs	For future use	Not used	Not used	t		Not used

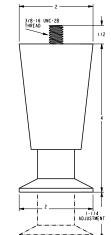
N	27	MAIS-Counters	
Brew Recipes	Hot Water Portions	Lifetime Counters	Resettable Counters
Settings	Calibration	Water Filter	Filmed Countries
inputs	Outputs	Statistics	
Service	Counters	10	
E	хит	BA	ACK

Counters	Program Items	Factory set Default	Programming Range	Notes
This setting shows us				
These counters are permanent and cannot be deleted. The quantities shown are a permanent record for the machine,	Service Counters	tunctions	Main>Counters>Lifetime>Service Lifetime Counters (units in hours and liters) Unit Uptime	
	Data Counters	Reserved for future	8 0 0	
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		
Decetteble Courte	Service Counters	See screen above	Main>Counters>Reset>Clear	
Resettable Counters	Hot Water Counters	See screen above	Clear Resettable Counters	
These are the same screens as above in "lifetime counters".	Brew Counters	See screen above	Press and hold button for 5 seconds To Clear Error Log	
These can be reset	Service Counters		C	

Brewer Setup

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

1) Attach legs



NOTE-Legs are located in brew basket

4" legs -

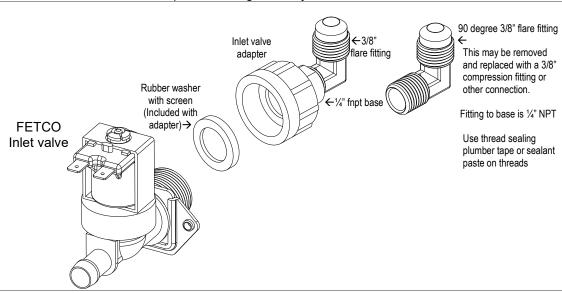
Part number 1073.00007.00 3 required for CBS-2252

4 required for CBS-2251

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

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 (3/4" 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.

Installation Guide

(For Qualified Service Technicians Only)

General:

- 1. If not installed correctly by qualified personnel, the brewer will not operate properly and damage may result.
- 2. 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.

Electrical:

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

→See wiring diagrams for connections

Plumbing:

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

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.

Tank Drain

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

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

Brewer	Hot Water Tank Capacity	OPEN Leave open for use	
CBS-2251 Single	6.3 gal 24 liter	,	
CBS-2252 Twin	11.5 gal 44 liter	PINCH SHUT To drain tank & service brewer	AI!

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.
- 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.



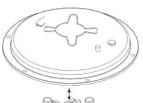
- 1. Wash brew basket with hot sudsy water.
- 2. Pull CSD from the spray head, it is magnetically attached. Use gloves or a heavy towel. > Wash off any film and reattach. Use vinegar if limescale filming is present.
- 3. Clean dispensers with hot suds water and a brush, rinse and air dry.
- 4. Use only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

Weekly

- 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.
- 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.

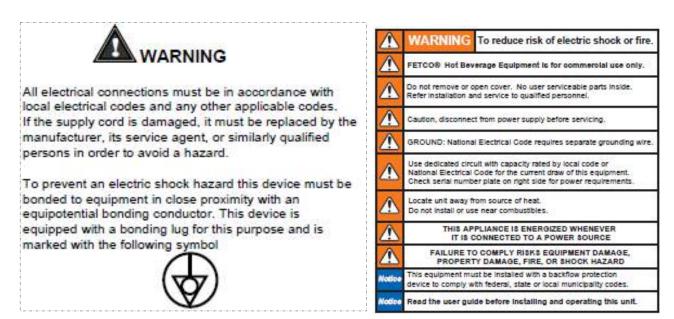




Installation safety and hygiene directions-For International and CE equipment

- 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.

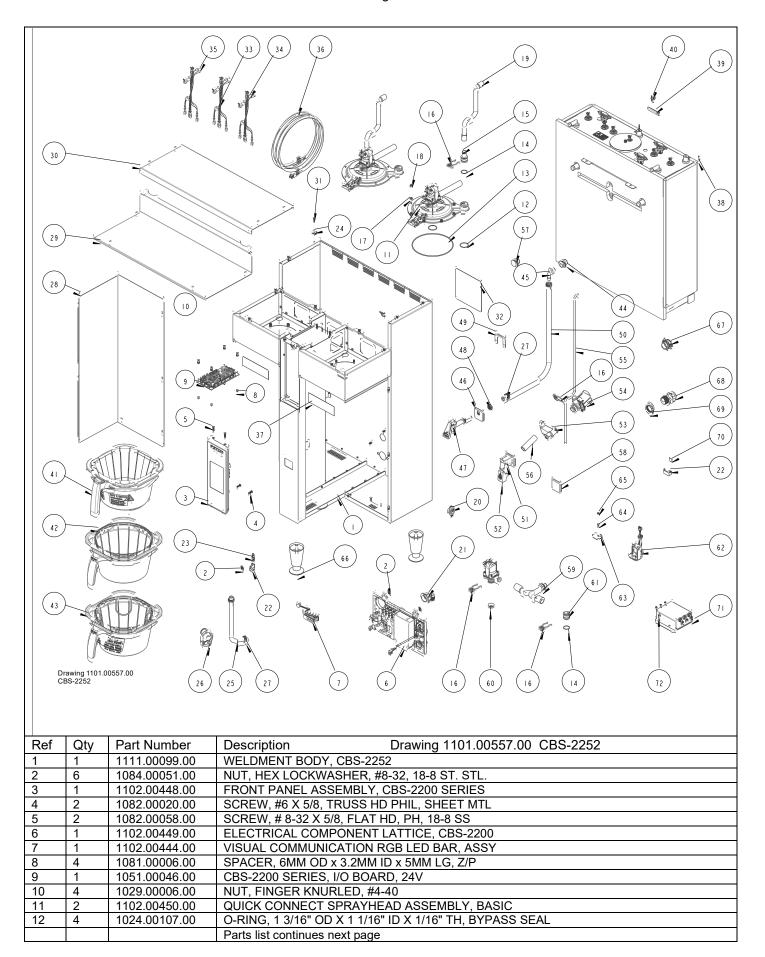
Equipment exposed to flood and contaminated must not be used due to electrical and food safety. Do not operate if unit has been submerged or saturated with water.



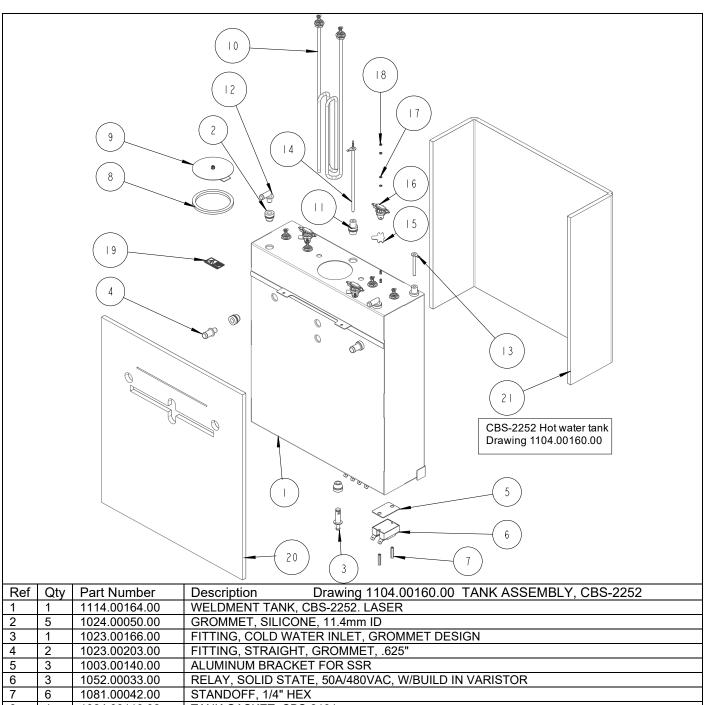
Labels and warnings for hot beverage equipment

Label for BACK PANEL of equipment (1046.00035.00)

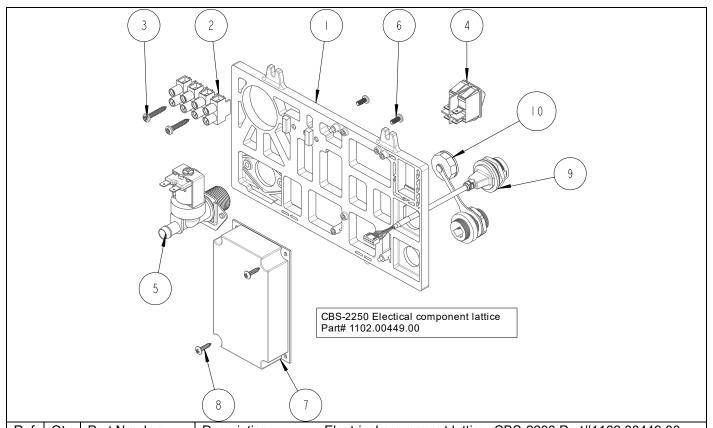
Parts diagrams



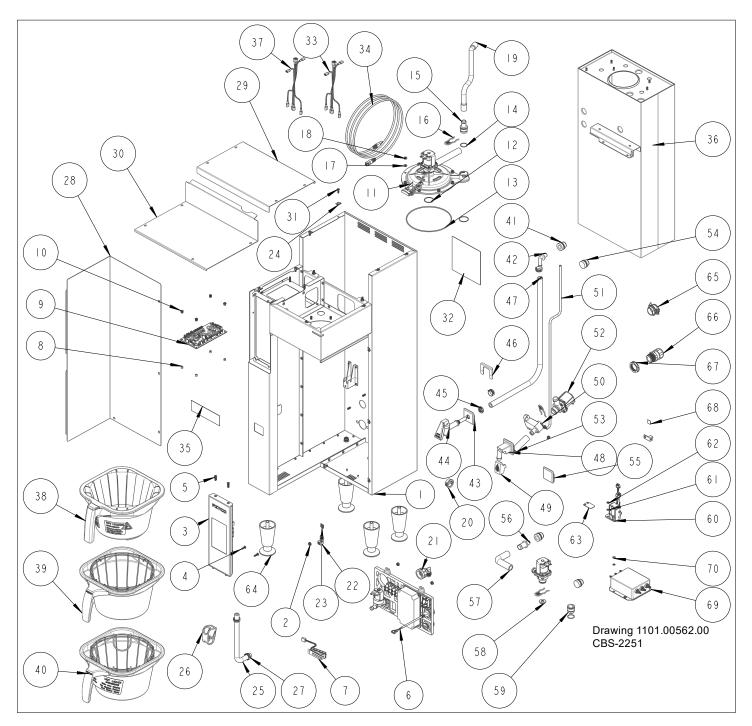
Ref	Qty	Part Number	Description Drawing 1101.00557.00 CBS-2252Continued from page 13
13	2	1024.00108.00	O-RING, 5 11/16"OD X 5 1/2" ID X 3/32" TH, BREW SEAL
14	3	1024.00106.00	O-RING, 3 11/16 OD X 3 1/2 ID X 3/32 TH, BREW SEAL O-RING, 13/16"OD X 11/16"ID X 1/16" TH, FOR QUICK CONNECT
15	2	1023.00343.00	VENT INSERT, QUICK CONNECT
16	5	1023.00343.00	QUICK CONNECT CLIP
17	16	1083.00010.00	
18	1		WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
	16	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
19	2	1024.00098.00	VENT TUBE, CBS-XTS/XV+ 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	12	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	1112.00529.00	WELDMENT FRONT COVER, CBS-2250
29	1	1001.00352.00	COVER, UPPER BASE, CBS-1152 EXTRACTOR V+
30	1	1001.00399.00	COVER TOP, CBS-2252
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	1402.00107.00	HARNESS ADDITION, CBS-2242/52-NG, LOW AMP, UNIVERSAL
35	1	1402.00053.01	HARNESS HIGH AMP, CBS-1152-XV+
36	1	1063.00042.00	ETHERNET CABLE, CAT-7, 5FT LENGTH
37	2	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
38	1	1104.00160.00	COMPLETE TANK ASSEMBLY, CBS-2252, 3 X 3KW/240VAC
38	1	1104.00161.00	COMPLETE TANK ASSEMBLY, CBS-2252, 2 X 3KW/240VAC
38	1	1104.00162.00	COMPLETE TANK ASSEMBLY, CBS-2252, 3 X 4KW/240VAC
38	1	1104.00163.00	COMPLETE TANK ASSEMBLY, CBS-2252, 3 X 5KW/240VAC
38	1	1104.00164.00	COMPLETE TANK ASSEMBLY, CBS-2252, 2 X 5KW/240VAC
39	1	1022.00032.00	SLEEVE, Ø.50 x 2.0" LG. x 1.50" SLOT
40	2	1066.00003.00	CABLE TIE, 3-7/8" LG., BLACK
41	1	B015280BN2	BB ASSEMBLY, 16" x 6", Ø.280" HOLE
42	1	B001280B1BB	ASSY, 16" X 6", 0.280 DIA HOLE, BLACK
43	1	B002280B1BB	ASSY, 16" X 6", 0.280" DIA HOLE, BLACK
44	1	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
45	1	1023.00183.00	FITTING, ELBOW, GROMMET, .375"
46	1	1023.00348.00	HOT WATER INSERT, MANUAL FAUCET
47	1	1071.00055.00	FAUCET, HOT WATER, PSC-BR-8, WITH FLAT AND STEM
48	1	1084.00048.00	JAM NUT, 1/2-20 UNF, NICKEL PLATED BRASS
49	1	1003.00370.00	HOT WATER INSERT LOCK
50	1	1025.00082.00	TUBE, 5/8"OD X 3/8"ID X 19.00"LG.
51	1	1023.00346.00	HOT WATER INSERT, AUTO FAUCET
52	1	1029.00041.00	COVER, AUTO HOT WATER FAUCET, SILICONE
53	1	1023.00347.00	VALVE MOUNT, HOT WATER DISPENSER
54	2	1057.00076.00	VALVE ASSEMBLY, COMPLETE, NG, DELTROL
55	1	1025.00026.00	TUBE, 1/4"OD X 1/8"ID X 25"LG, VENT, HOT WATER VAPOR
56	1	1025.00138.00	TUBE, SILICONE, 3/4" OD X 1/2" ID X 2.5" LG, HOT WATER
57	1	1024.00051.00	GROMMET, SILICONE, BLANK
58	1	1023.00349.00	HOT WATER INSERT, NO FAUCET
59	1	1029.00040.00	BYPASS T-TUBE, SILICONE, 2200 DUAL SERIES
60	1	1023.00345.00	ORIFICE INSERT, QUICK CONNECT
61	1	1023.00344.00	PLUG INSERT, QUICK CONNECT
62	1	1102.00445.00	ASSY, BREW BASKET LOCKER W/FEEDBACK
63	1	1003.00259.00	BRACKET, BREW BASKET LOCK COVER
64	2	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
65	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
66	3	1073.00007.00	LEG, FLANGE FOOT, 4" HIGH
67	1	1086.00008.00	CONNECTOR, CLAMP, NON-METALLIC CABLE, 3/4"
68	1	1086.00031.00	SKINTOP, 3/4" NPT, 0.354" - 0.630" DIA CABLE, BLK
69	1	1086.00032.00	LOCKNUT, SKINTOP, 3/4" NPT, BLACK HEX
70	1	1044.00013.00	LABEL EQUIPOTENTIALITY, CE
71	1	1052.00027.00	EMI FILTER, THREE LINE 30A, 250/440VAC
72	1	1084.00012.00	NUT, HEX, #6-32 MACHINE SCREW



Ref	Qty	Part Number	Description Drawing 1104.00160.00 TANK ASSEMBLY, CBS-2252
1	1	1114.00164.00	WELDMENT TANK, CBS-2252. LASER
2	5	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
3	1	1023.00166.00	FITTING, COLD WATER INLET, GROMMET DESIGN
4	2	1023.00203.00	FITTING, STRAIGHT, GROMMET, .625"
5	3	1003.00140.00	ALUMINUM BRACKET FOR SSR
6	3	1052.00033.00	RELAY, SOLID STATE, 50A/480VAC, W/BUILD IN VARISTOR
7	6	1081.00042.00	STANDOFF, 1/4" HEX
8	1	1024.00110.02	TANK GASKET, CBS-2131
9	1	1102.00007.00	TANK COVER ASSEMBLY
10	3	1107.00005.00	ASSEMBLY,IMMERSION HEATER, 3000W, 240VAC
10	3	1107.00010.00	ASSEMBLY,IMMERSION HEATER, 4000W, 240VAC
10	3	1107.00032.00	ASSEMBLY,IMMERSION HEATER, 5000W, 240VAC
11	2	1024.00053.00	LEVEL AND TEMP PROBE GROMMET
12	2	1023.00212.00	FITTING, ELBOW, GROMMET, .500"
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	3	1003.00005.00	BRACKET, ONE SHOT THERMOSTAT
16	3	1053.00051.00	THERMOSTAT, SINGLE SHOT, 240V/45A
17	6	1083.00009.00	WASHER, #6 SCREW, INTL TOOTH LOCKWASHER
18	6	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
18 19	6	1084.00010.00 1044.00004.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED LABEL, DANGER, HIGH VOLTAGE
	6 1 1		NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED

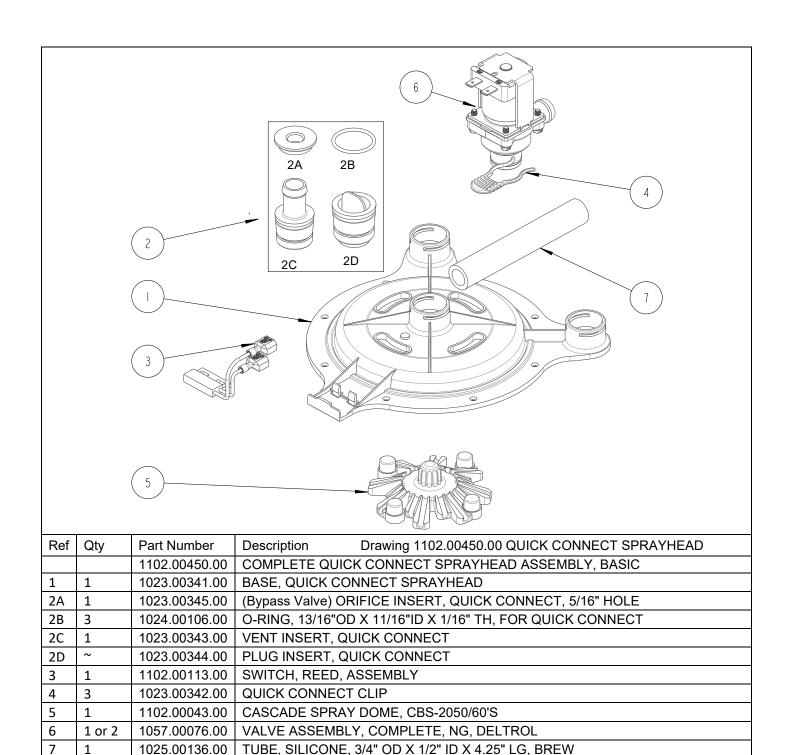


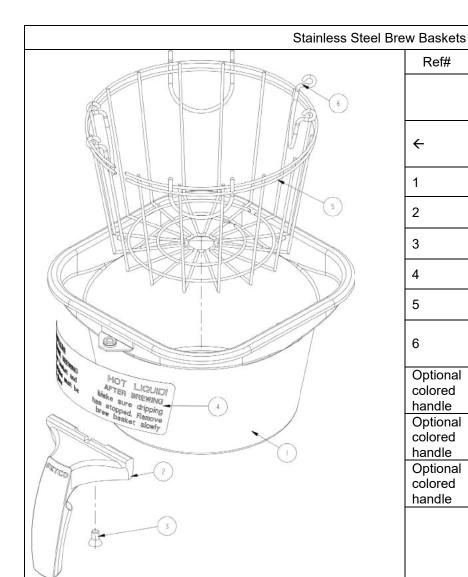
Ref	Qty	Part Number	Description Electrical component lattice, CBS-2200 Part#1102.00449.00
		1102.00449.00	COMPLETE ELECTRICAL COMPONENT LATTICE, CBS-2200
1	1	1023.00350.00	ELECTRICAL MOUNTING LATTICE, COMMON
2	1	1052.00023.00	EUROSTRIP HE16 TERM. BLOCK, 4 POLE, 63 AMP, 18-8 AWG
3	2	1082.00056.00	SCREW, #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



Ref	Qty	Part Number	Description	Drawing 1101.00562.00 CBS-2251
1	1	1111.00100.00	WELDMENT BODY, CBS-225	1
2	8	1084.00051.00	NUT, HEX LOCKWASHER, #8	-32, 18-8 ST. STL.
3	1	1102.00448.00	FRONT PANEL ASSEMBLY, C	CBS-2200 SERIES
4	2	1082.00020.00	SCREW, #6 X 5/8, TRUSS HD	PHIL, SHEET MTL
5	2	1082.00058.00	SCREW, # 8-32 X 5/8, FLAT H	D, PH, 18-8 SS
6	1	1102.00449.00	ELECTRICAL COMPONENT L	ATTICE, CBS-2200
7	1	1102.00444.00	VISUAL COMMUNICATION R	GB LED BAR, ASSY
8	4	1081.00006.00	SPACER, 6MM OD x 3.2MM II	D x 5MM LG, Z/P
9	1	1051.00046.00	CBS-2200 SERIES, I/O BOAR	D, 24V
10	4	1029.00006.00	NUT, FINGER KNURLED, #4-4	40
			Parts list continues next page	

- ·	٠		D : 1101 00500 00 0051 00 15 14
Ref	Qty	Part Number	Description Drawing 1101.00562.00 CBS-2251Continued from page 21
11	1	1102.00450.00	QUICK CONNECT SPRAYHEAD ASSEMBLY, BASIC
12	2	1024.00107.00	O-RING, 1 3/16" OD X 1 1/16" ID X 1/16" TH, BYPASS SEAL
13	1	1024.00108.00	O-RING, 5 11/16"OD X 5 1/2" ID X 3/32" TH, BREW SEAL
14	2	1024.00106.00	O-RING, 13/16"OD X 11/16"ID X 1/16" TH, FOR QUICK CONNECT
15	1	1023.00343.00	VENT INSERT, QUICK CONNECT
16	3	1023.00342.00	QUICK CONNECT CLIP
17	8	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
18	8	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
19	1	1024.00098.00	VENT TUBE, CBS-XTS/XV+ EXTRACTOR SERIES
20	1	1086.00094.00	BUSHING, SNAP, 1" MOUNTING HOLE
			ADAPTER ASSY, 3/4" BSP x 1/4" NPT x 3/8" TUBE
21	1	1102.00243.00	,
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	1112.00529.00	WELDMENT FRONT COVER, CBS-2250
29	1	1001.00402.00	COVER TOP, CBS-2251
30	1	1001.00403.00	COVER, UPPER BASE, CBS-2251
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		ETHERNET CABLE, CAT-7, 5FT LENGTH
		1063.00042.00	
35	1	1046.00003.00	LABEL, CSD WARNING, 1.5" X 5.0"
36	1	1104.00167.00	COMPLETE TANK ASSEMBLY, CBS-2251, 2 X 2.3KW/240VAC
36	1	1104.00168.00	COMPLETE TANK ASSEMBLY, CBS-2251, 2 X 3KW/240VAC
36	1	1104.00165.00	COMPLETE TANK ASSEMBLY, CBS-2251, 2 X 4KW/240VAC
36	1	1104.00166.00	COMPLETE TANK ASSEMBLY, CBS-2251, 2 X 5KW/240VAC
37	1	1402.00061.01	HARNESS HIGH AMP, CBS-1151-XV+
38	1	B015280BN2	BB ASSEMBLY, 16" x 6", Ø.280" HOLE
39	1	B001280B1	BB ASSY, 16" X 6", 0.280 DIA HOLE, BLACK
40	1	B002280B1	BB ASSY, 16" X 6", 0.280" DIA HOLE, BLACK
41	2	1024.00050.00	GROMMET, SILICONE, 11.4mm ID
42	1	1023.00183.00	FITTING, ELBOW, GROMMET, .375"
43	1	1023.00348.00	HOT WATER INSERT, MANUAL FAUCET
44	1	1071.00055.00	FAUCET, HOT WATER, PSC-BR-8, WITH FLAT AND STEM
45	1	1084.00048.00	JAM NUT, 1/2-20 UNF, NICKEL PLATED BRASS
46	1	1003.00370.00	HOT WATER INSERT LOCK
47			
	1	1025.00082.00	TUBE, 5/8"OD X 3/8"ID X 19.00"LG.
48	1	1023.00346.00	HOT WATER INSERT, AUTO FAUCET
49	1	1029.00041.00	COVER, AUTO HOT WATER FAUCET, SILICONE
50	1	1023.00347.00	VALVE MOUNT, HOT WATER DISPENSER
51	1	1025.00026.00	TUBE, 1/4"OD X 1/8"ID X 25"LG, VENT, HOT WATER VAPOR
52	2	1057.00076.00	VALVE ASSEMBLY, COMPLETE, NG, DELTROL
53	1	1025.00138.00	TUBE, SILICONE, 3/4" OD X 1/2" ID X 2.5" LG, HOT WATER
54	2	1024.00051.00	GROMMET, SILICONE, BLANK
55	1	1023.00349.00	HOT WATER INSERT, NO FAUCET
56	1	1023.00203.00	FITTING, STRAIGHT, GROMMET, .625"
57	1	1025.00136.00	TUBE, SILICONE, 3/4" OD X 1/2" ID X 4.25" LG, BREW
58	1	1023.00345.00	ORIFICE INSERT, QUICK CONNECT, 5/16" HOLE
59	1	1023.00344.00	PLUG INSERT, QUICK CONNECT
60	1	1102.00344.00	ASSY, BREW BASKET LOCKER W/FEEDBACK
61	6	1083.00009.00	WASHER, #6 SCREW, INTL TOOTH LOCKWASHER
62			
	2	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
63	1	1003.00259.00	BRACKET, BREW BASKET LOCK COVER
64	4	1073.00007.00	LEG, FLANGE FOOT, 4" HIGH
65	1	1086.00008.00	CONNECTOR, CLAMP, NON-METALLIC CABLE, 3/4"
66	1	1086.00031.00	SKINTOP, 3/4" NPT, 0.354" - 0.630" DIA CABLE, BLK
67	1	1086.00032.00	LOCKNUT, SKINTOP, 3/4" NPT, BLACK HEX
68	1	1044.00013.00	LABEL EQUIPOTENTIALITY, CE
69	1	1052.00027.00	EMI FILTER, THREE LINE 30A, 250/440VAC
70	4	1084.00012.00	NUT, HEX, #6-32 MACHINE SCREW
	•		1 , ,





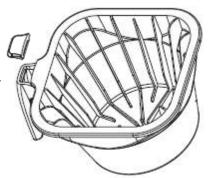
	Ref#	Part Number	Description							
		B001280B1	Complete Stainless Steel Brew basket no clips							
←	-	B002280B1	Complete Stainless Steel Brew basket with clips							
1		1112.00058.00	BB brew cone WLDMNT							
2		1046.00025.00	BREW BASKET WARNING LABEL							
3		1082.00040.00	SCREW, 1/4-20 X .5, FL HD, PH., W/NYLN							
4		1009.00005.00	WIRE BASKET							
5		1102.00064.00	HANDLE W/MAGNET ASY, BLACK							
6		1009.00003.00	CLIP, WIRE BASKET, NOTE!: Requires <u>4 clips</u>							
CC	ptional olored andle	1102.00065.00	HANDLE W/MAGNET RED							
CC	ptional olored andle	1102.00066.00	HANDLE W/MAGNET GREEN							
cc	ptional olored andle	1102.00067.00	HANDLE W/MAGNET ORANGE							

Plastic Brew Basket Parts

Part Number B015280BN2 - Complete Plastic Brew Basket

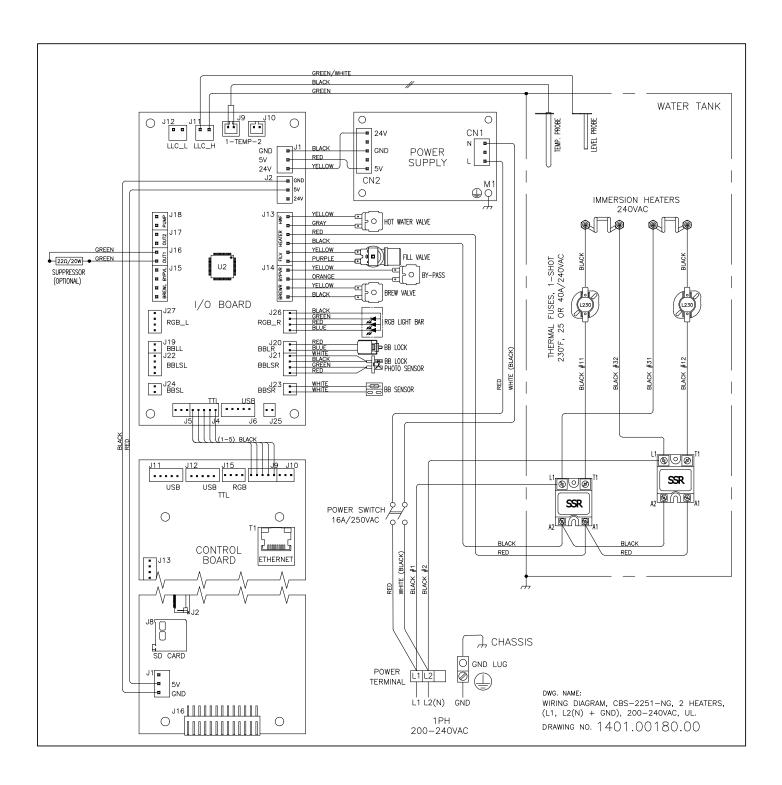
Brown colored insert is standard

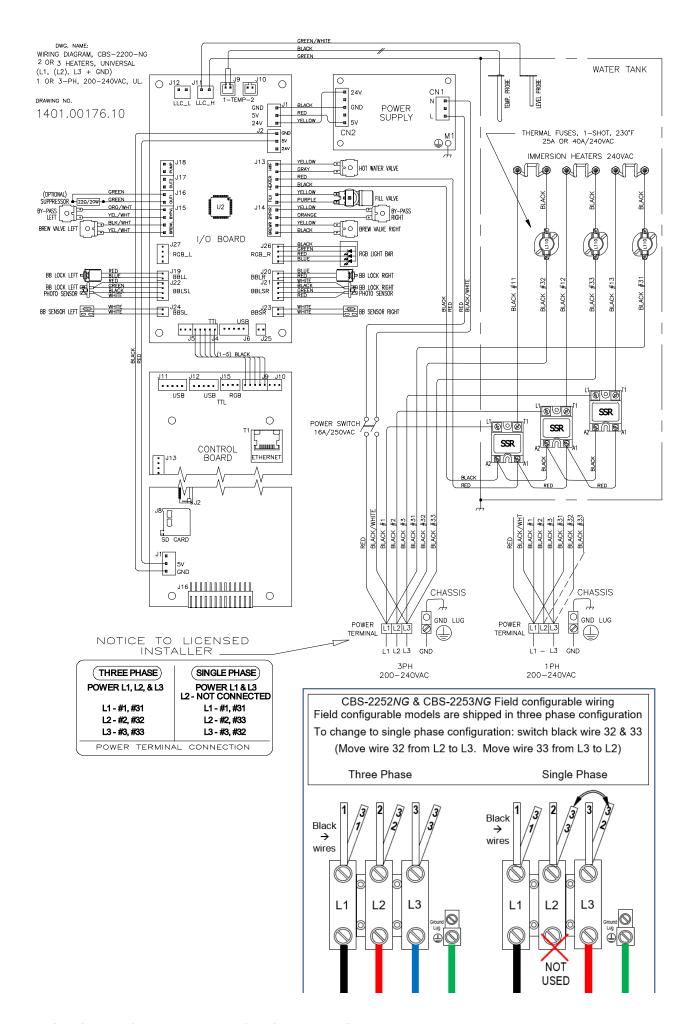
Brew basket handle plug for polymeric brew baskets is available in optional colors.

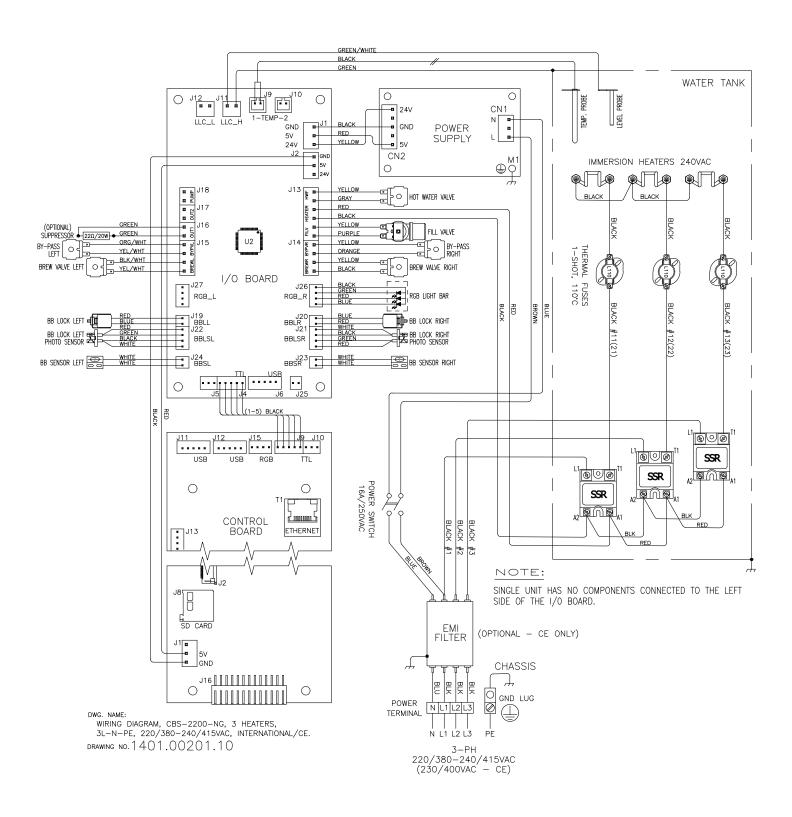


Part Number	Plug Insert color
1023.00195.00 B	ROWN PLUG, BB HANDLE
1023.00194.00 B	LACK PLUG, BB HANDLE
1023.00190.00 R	ED PLUG, BB HANDLE
1023.00191.00 G	REEN PLUG, BB HANDLE
1023.00192.00 C	DRANGE PLUG, BB HANDLE
1023.00180.00 E	BLUE PLUG, BB HANDLE

Wiring Diagrams







End of section notes																						
N																						