

GR Series Coffee Grinders Models: GR-1.2; GR-1.3; GR-2.2; GR-2.3
FETCO Commercial Beverage Equipment



Left: GR-1.3 Three recipe -15 pound capacity commercial grinder

Right: GR-2.3 Three recipe-dual 5 pound capacity hopper commercial grinder

SKU

Product Description

Features

- G01012 GR-1.2- One permanent hopper – 2 Portion Sizes
- G01013 GR-1.3- One permanent hopper – 3 Portion Sizes
- G02012 GR-2.2- Dual removable hoppers – 2 Portion Sizes per side
- G02013 GR-2.3- Dual removable hoppers – 3 Portion Sizes per side

- ▶ FETCO slicing type grinding burrs
- ▶ Self-adjusting brew basket holder
- ▶ Fully automatic, with digital timer control
- ▶ Front accessible & Service Friendly
- ▶ Motor overload protection
- ▶ Control board overload protection

Contact Information

FETCO®
Food Equipment Technologies Company
600 Rose Road
Lake Zurich • IL • 60047-1560 • USA
© 2008-2019 Food Equipment Technologies Company



Internet: www.fetco.com

Phone: (800) 338-2699 (US & Canada)

(847) 719-3000

Fax: (847) 719-3001

Email: sales@fetco.com

techsupport@fetco.com



*This user guide describes GR-1 & GR-2 models manufactured after 2010. Please refer to User Guide P010 for models previous to 2010
Please refer to User Guide P160 for FETCO CE International GR-1 and GR-2 models*

Table of Contents

Specifications	2	Principles of Operation.....	4
Dimensions & Utility Connections	2	Grind Adjustment	4
Installation	3	Programming Instructions	5
Operating Instructions	3	Parts	6
Service and Support.....	3	Wiring Diagrams.....	12
Warranty.....	3		

Specifications

Hopper Capacity: GR-1.2 & 1.3: 15 lbs. / 6.8 kg.
 GR-2.2 & 2.3: 5 lbs. / 2.3 kg. each

Timer Range: 00.1 sec. – 999.0 sec.

Grind Rate*: 18 oz. / 510g per minute

Grind Setting Default: Medium

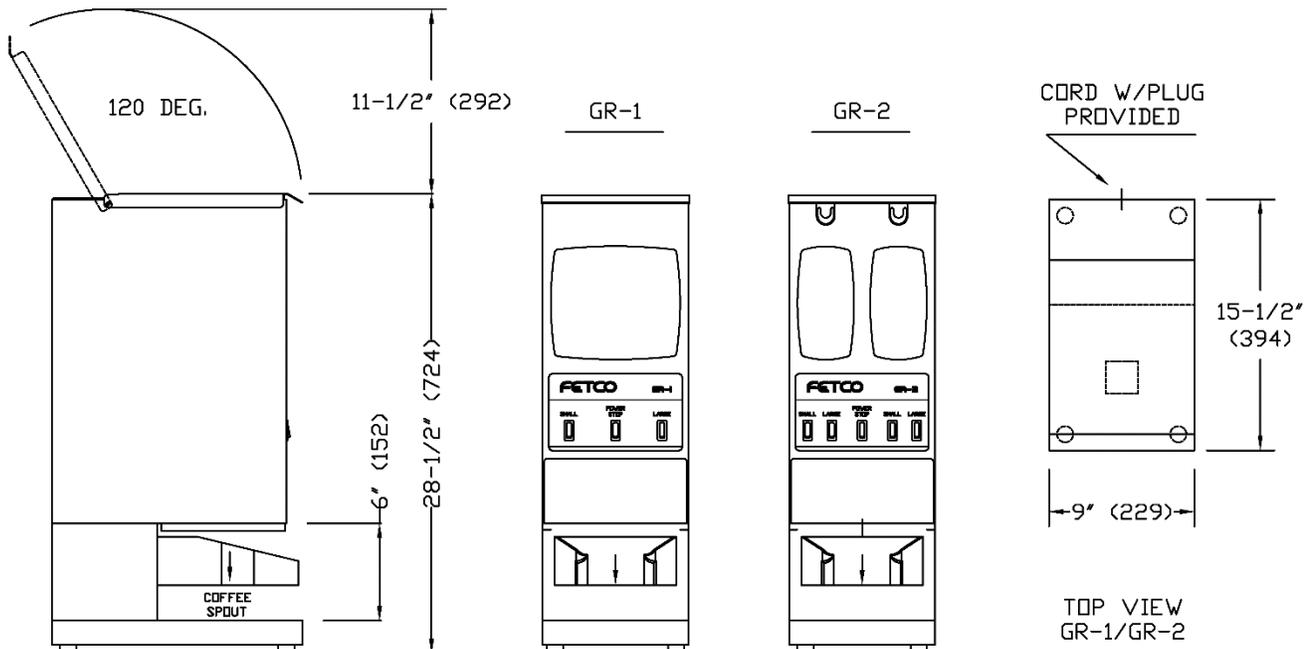
Brew Basket Size: 7" to 9" diameter

* Grind rate is determined at medium grind with medium size, average to dark roast beans

North America: 120 VAC, single phase
 Motor: 5.7 amps, 370 Watts, 0.67 HP IP 44
 NEMA 5-15P plug/cord

Export: 230 VAC, single phase
 Motor: 3.8 amps, 370 Watts, 0.74 HP IP 44
 Plug/cord set per country electrical

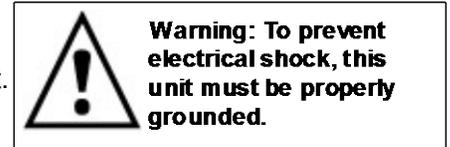
Dimensions & Utility Connections



Installation

Warning: Read this User's Guide before installing. Damage caused by improper installation will not be covered under warranty.

1. Inspect the container for visual or hidden damage. The carrier must be notified of any punctured or damaged cartons immediately.
2. Install the grinder in selected location making sure surface is level, and that grinder will fit. **Caution: Never push equipment against cords or wall outlets.**
3. Remove cord from inside hopper and plug into the back of the grinder.
4. Before plugging grinder into 120 volt, 15 amp. wall outlet make sure outlet is not overloaded, a dedicated circuit is preferred.
5. Following the operating procedures below test grinder for proper operation.
6. If you need further assistance please call our Technical Support Dept. at 800-338-2699 or e-mail techsupport@fetco.com.



Operating Instructions

1. **Turn the on/off switch to the on position.**

The power switch will illuminate to indicate that the grinder has power.

2. **Fill the hopper(s) with whole coffee beans.**

The GR-2 models have two 5lb. removable hoppers. The hoppers must sit squarely on the floor of the hopper chamber. Before placing the hoppers inside the hopper chamber, make sure the chamber is clear of any stray whole beans and debris, or the hoppers will not sit properly.

Both hoppers with their covers must be in place before operating the grinder.

3. **Place the brew basket with paper coffee filter in the plastic holding arms.**

The plastic arms will hold all FETCO brew baskets up to 16" X 6"; and will fit most other manufacturers' brew baskets.

For brew baskets that do not fit into the plastic arms, place the coffee filter on the lower shelf and grind directly into the filter.

4. **Press the desired portion switch.**

See the Programming section for instructions on setting the various batch sizes.

5. **Allow grinder to complete its cycle then remove brew basket from plastic holding arms.**

Cleaning:

1. Use stainless steel cleaner on all stainless steel surfaces. (Never use abrasives on these surfaces.)
2. Use damp cloth on other surfaces. Use mild detergent as needed.
3. Removable hoppers on GR-2 models are dishwasher safe (the covers are not).
4. After washing hoppers FETCO recommends hand drying them.
5. Grinder burrs and casings may be cleaned with proprietary cleaner. We recommend Grindz™ by URNEX

Service and Support

For service and support information, contact the Technical Support department. Our hours are 7:00 AM to 6:00 PM Central Time, Monday through Friday. Phone: (800) 338-2699 or (847) 719-3000. Email: techsupport@fetco.com.

Utilize only qualified beverage equipment service technicians for service. A Service Company Directory may be found on our web site, <http://www.fetco.com>.

Warranty

All FETCO grinders come with a limited warranty. Warranty service must be authorized by the Technical Support Department. A Return Authorization number will be issued for all parts replaced under warranty.

Principles of Operation

GR-1

When one of the start switches is pressed, the timer energizes the grinding motor. The coffee beans are fed into the grinding chamber by a rotating auger spring. When the timed cycle is complete, voltage is removed from grinding motor.

The power/stop switch is used only when it is necessary to interrupt the grind cycle before the cycle is finished.

GR-2

When one of the start switches is pressed, the timer simultaneously energizes the grinding motor and the hopper solenoid. The hopper solenoid opens the guillotine on the bottom of the hopper, which allows the coffee beans to drop into the grinder. The coffee beans are fed into the grinding chamber by a rotating auger spring.

When the timed cycle is complete, voltage is removed from the hopper solenoid and the guillotine closes, stopping the flow of beans out of the hopper. The auger spring continues to feed any remaining beans into the grinding chamber.

Several seconds after the guillotine closes, voltage is removed from the grinding motor. This delay ensures that all beans have passed through the grinding chamber, preventing cross contamination of different coffees.

The motor delay is factory set at 20 seconds, but can be adjusted if necessary. (See Programming section.)

The power/stop switch is used only when it is necessary to interrupt the grind cycle before the cycle is finished.

Grinder Foreign Object Protection

FETCO coffee grinders feature two types of overload protection to prevent damage to the unit if a foreign object enters the grinding chamber and stalls the motor.

- The control board is equipped with a thermal breaker with an audible alarm that will cut power to the motor if the control board overheats.
- The motor is equipped with a thermal breaker (no alarm) that will cut power to the motor if the motor overheats.

Once the foreign object is removed and the unit cools down, the thermal breakers will automatically reset.

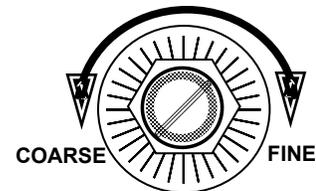
Warning: If this occurs DO NOT TRY TO FIX THIS PROBLEM YOURSELF. Immediately unplug the grinder and call a qualified service technician.

Grind Adjustment

1. Empty the hopper(s).
GR-1: Scoop out as many beans as possible. Lift the window up and sweep out the remaining beans.
GR-2: Remove both hoppers and dump the beans out. Place both hoppers back in grinder.
2. Press one of the large portion switches. This will clear the grinding chamber of any remaining beans.
3. Remove the front cover. There are 2 screws in front and 2 underneath near the coffee outlet.
4. Using a 7/8" or 22 mm wrench turn the retaining nut counter-clockwise at least one turn.
5. Using a 3/8" to 1/2" standard screwdriver turn the adjustment screw clockwise for a finer grind, counter-clockwise for a coarser grind. **Note: Do not exceed more than a 1/4 turn in either direction.**
6. Turn retaining nut clockwise, locking adjustment screw in place.
7. Grind a small amount of coffee beans to test the setting. Repeat the above steps if necessary.

To reset the grind setting to the factory default:

1. Follow steps 1 - 4 of the grind adjustment procedure.
2. Turn the adjustment screw clockwise until the grinding discs touch, then back off slightly.
3. Using a marker, mark the twelve o'clock position of the adjustment screw.
4. Turn the screw counter clockwise to just past the four o'clock position.
5. Turn retaining nut clockwise locking adjustment screw in place.
6. Test by grinding a small batch.



Note: It may be necessary to adjust the grind time to compensate for the new grind setting.
A finer grind will produce less ground coffee per minute and a coarser grind will produce more ground coffee per minute.

Programming Instructions

Software Version 1.2 and Above

(See Appendix A for units manufactured before August 2003)

- ▶ Turn the power switch off.
- ▶ Remove the lower cover.
- ▶ Turn the power switch on.
The currently programmed model number will flash briefly. (example: **12** = GR-1.2, **23** = GR-2.3)
- ▶ Then, if the software default settings are currently programmed, the display will read **DEF**. If not, the display will be blank.
- ▶ Hold **SET** for 5 seconds, until the display reads **SET**.
- ▶ Release **SET**, the software version will be displayed.
(Example: 1.2, 1.3, etc.)
- ▶ Press **SET**. The display will read **TYP** briefly, followed by the currently programmed model number. Press the **UP** and **DOWN** buttons until the correct model number is displayed. (GR-1.2 = **12**, GR-2.3 = **23**, etc.)
- ▶ Press **SET**. The display will read **DEF**. Press **SET** to skip this section.
To reset the unit to factory default settings, hold **SET** for 5 seconds, until **STo** is displayed briefly. This will exit programming mode. To re-enter programming mode, hold **SET** for 5 seconds again.
- ▶ Press **SET**. The display will read **DLY** briefly, followed by the current motor delay setting in seconds. (**GR-2.2 & 2.3 only**)
Press **UP** and **DOWN** to adjust.
- ▶ Press **SET**. The first switch number will be displayed briefly, followed by the current setting in seconds.
Example: LH1 = Left side small batch, 7.0 seconds
- ▶ Press **SET**. The next switch number will be displayed briefly, followed by the current setting.
Example: LH2 = Left side medium batch, 13.5 seconds.
- ▶ Continue this way until all switches are programmed. See the chart for switch designations.
- ▶ Important! To save your changes and return to operating mode, you must hold **SET** for 5 seconds until the display reads **STo**.

23

DEF

SET

X.X

TYP

23

DEF

STo

DLY

20.0

LH1

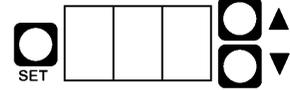
7.0

LH2

13.5

STo

CONTROL BOARD



MOTOR DELAY

This sets the time that the motor continues to run after the hopper guillotine closes on GR-2 series grinders. This delay ensures that all beans have passed through the grinding chamber, preventing cross contamination of different coffees. The motor delay is added to the end of the grind time setting. Default setting: 20 sec.

SWITCH DESIGNATIONS

Model GR-	1.2	1.3	2.2	2.3
Left Small	LH1	LH1	LH1	LH1
Left Med.		LH2		LH2
Left Large	LH3	LH3	LH3	LH3
Right Small			RH1	RH1
Right Med.				RH2
Right Large			RH3	RH3

DEFAULT SETTINGS

Small – LH1/RH1 = 7 sec.
Med. – LH2/RH2 = 13.5 sec.
Large – LH3/RH3 = 20.0 sec.

Approximate grind times for medium size, average to dark roast beans.

Batch Size	Typical Coffee Dosage		Timer setting
	Ounces	Grams	
½ Gallon	2 – 4 oz.	57 – 113 grams	6.7 - 13.3 sec.
2.5 – 3.0 Liters	2 - 4.5 oz.	57 – 128 grams	6.7 - 15 sec.
1 Gallon	4 – 8 oz.	113 – 227 grams	13.3 - 27 sec.
1.5 Gallons	6 – 12 oz.	170 – 340 grams	20 – 40 sec.
2 Gallons	8 – 16 oz.	227 – 454 grams	27 – 53 sec.
3 Gallons	12 – 24 oz.	340 – 680 grams	40 - 80 sec.
6 Gallons	39 – 51 oz.	1.1 – 1.44 kg.	130 -170 sec.

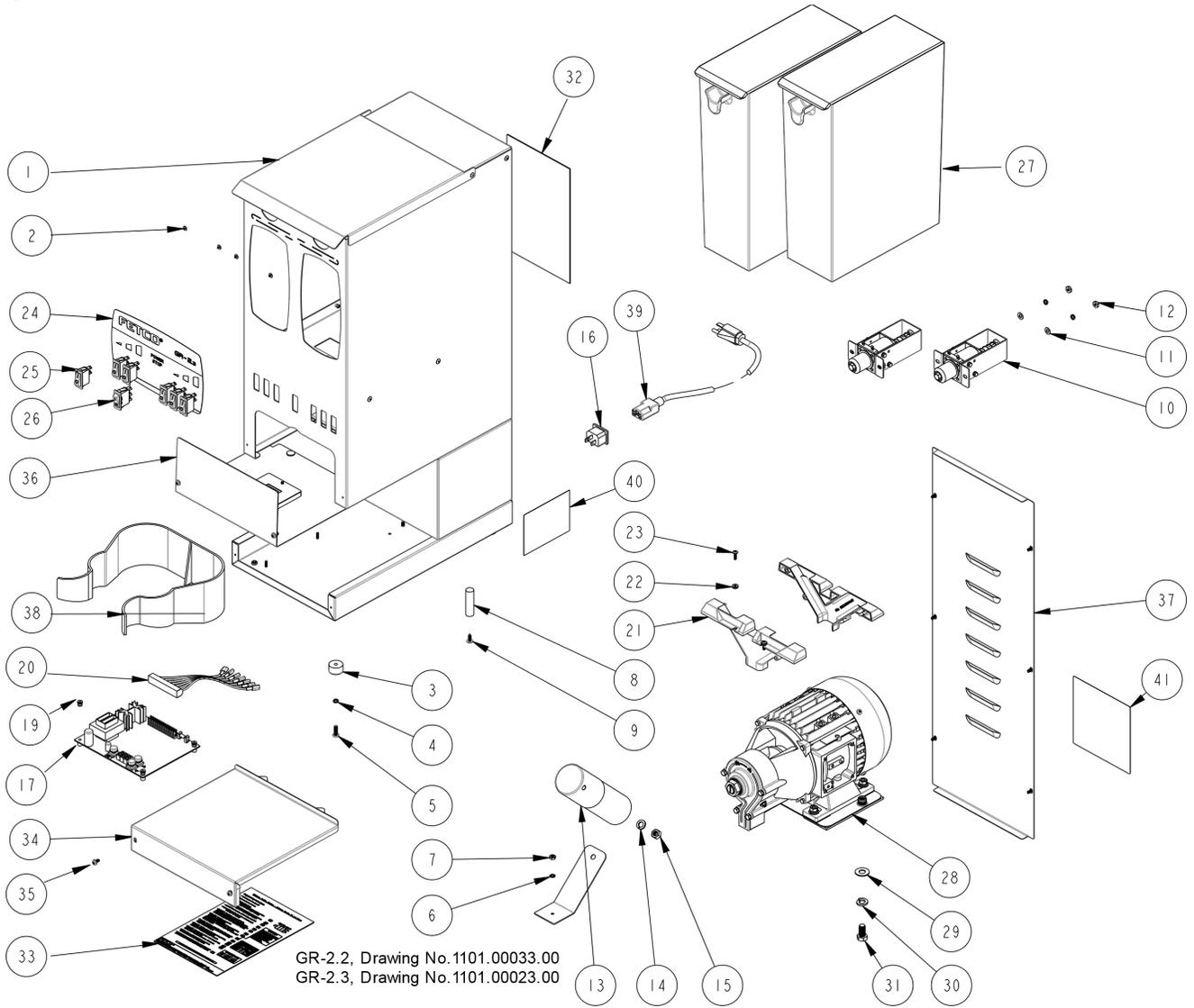
Grind times are affected by conditions of the coffee beans such as: age, size, oily or dry, and degree of roast.

Parts List – Figure 1

PART NO DESCRIPTION

1	1	1111.00025.00	WELDMENT BODY, COMPLETE, GR-1
2	4	1073.00006.00	FOOT, GRINDER
3	1	1102.00023.00	COVER, GRINDER SERVICE ASSEMBLY, W/O RAILS
4	1	1021.00005.00	ROD, VIBRATION DAMPENING, GR-2
5	1	1082.00018.00	SCREW, TRUSS HD. PHIL. SM, #8 X 1/2 LG.
6	4	1083.00019.00	WASHER, #10 SCREW SIZE, SPRING LOCK
7	4	1082.00031.00	SCREW, #10-32 X 5/8", PAN HD PHIL, MACHINE
8	8	1082.00033.00	SCREW, PAN HD PHIL. MACH., W/DUAL ACT WASHER, #6-32x3/8LG.
9	1	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
10	1	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
11	1	1108.00028.00	ASSY, BOARD CONTROL AND SOFTWARE,GR-1/2 100-120VAC
11	1	1108.00028.00	ASSY, BOARD CONTROL AND SOFTWARE,GR-1/2 200-240VAC
12	4	1029.00006.00	NUT, FINGER KNURLED, #4-40
13	1	1112.00023.00	BASE COVER WELDMENT, GR/GRF
14	1	1065.00003.00	CONNECTOR, POWER INLET, 15A, 250VAC
15	2 or 3	11058.00007.00	SWITCH, START ROCKER, MOMENTARY, 250VAC
16	1	11058.00006.00	SWITCH, POWER ROCKER RED, ILLUMINATED 120V
17	1	1102.00038.00	GRINDING MOTOR AND PLATE ASSY, 120V/60Hz
17	1	1102.00185.00	GRINDING MOTOR AND PLATE ASSY, 230V/50Hz
18	1	1045.00016.00	OVERLAY, GR-1.2
18	1	1045.00017.00	OVERLAY, GR-1.3
19	1	1023.00148.00	FUNNEL, HOPPER, GR-1
20	2	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
21	2	1082.00023.00	SCREW, #8-32 X 3/8 TRUSS HD PHIL., MACHINE
22	2	1083.00022.00	WASHER, 3/8" SCREW SIZE, FLAT
23	2	1083.00020.00	WASHER, 3/8 SCREW SIZE, SPRING LOCK
24	2	1082.00032.00	SCREW, 3/8"-16 X 3/4" LG, HEX HEAD CAP
25	1	1001.00020.00	COVER, REAR, GR-1/GRF-2
26	1	1023.00041.00	HOLDER, BREW BASKET, GR-1/2
27	1	1028.00001.00	WINDOW, GR-1
28	1	1063.00003.00	CORD, POWER, AMERICAN, 120VAC, 13A, 6FT LG.
28	1	1063.00027.00	CORD, ENGLAND, 6.5FT
28	1	1063.00026.00	CORD, AUSTRALIAN, 6.5FT
28	1	1063.00025.00	CORD, EUROPEAN, 6.5FT
28	1	1063.00028.00	CORD, SOUTH AFRICA , 6.5FT
29	1	1067.00001.00	CAPACITOR, 120VAC VERSION, 40uF, 450VAC, 50-60Hz
29	1	67005	CAPACITOR, 230VAC VERSION, 18uF, 450VAC, 50Hz (EXPORT VERSION ONLY)
29	1	1067.00005.00	CAPACITOR, 120VAC VERS., 80uF, 450VAC, 50-60Hz (JAPAN VERS.-2 REQD.)
30	1	1083.00025.00	WASHER, M8 SCREW SIZE, SPRING LOCK
31	1	1084.00018.00	NUT, HEX, M8 SCREW SIZE
32	1	1401.00022.00	WIRING DIAGRAM, UNIVERSAL, GR-1
33	1	1043.00036.00	TEMPLATE, SN LABEL, FETCO PRODUCTS
34	1	1046.00009.00	LABEL "GR PROGRAMMING"
35	1	1402.00010.00	ELECTRICAL HARNESS, GR 2
36	1	1046.00035.00	LABEL, WARNING "TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE"

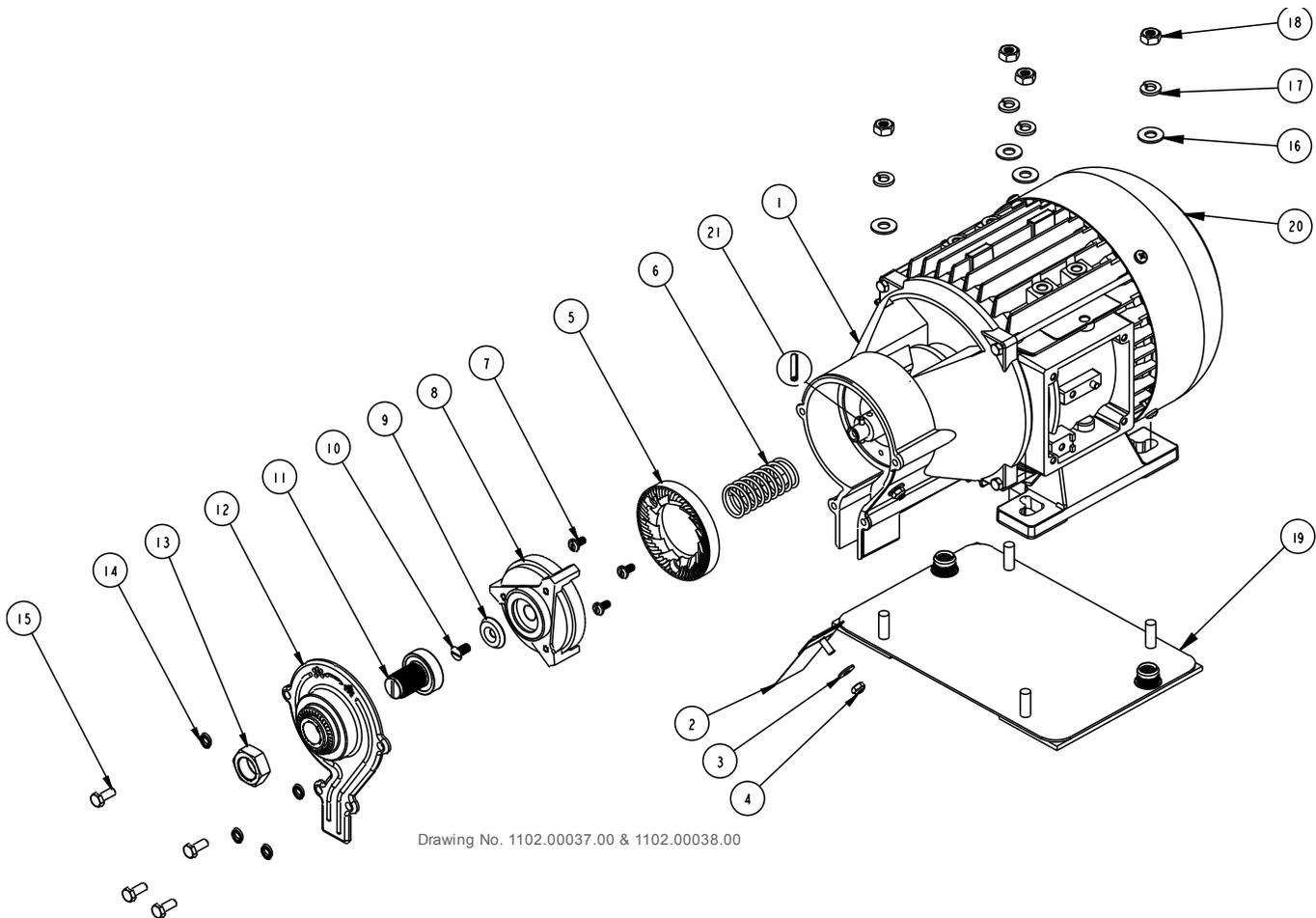
Figure 2 – GR-2.2 & GR-2.3



Parts List – Figure 2

Ref.	#	PART NO	DESCRIPTION
1	1	1111.00011.00	BODY, WELDMENT, GR-2
2	4	1029.00009.00	FASTENER, 9/32" HEAD DIA X .165" LG, PUSH IN
3	4	1073.00006.00	FOOT, GRINDER
4	8	1083.00019.00	WASHER, #10 SCREW SIZE, SPRING LOCK
5	4	1082.00031.00	SCREW, #10-32 X 5/8", PAN HD PHIL, MACHINE
6	1	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
7	1	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
8	1	1021.00005.00	ROD, VIBRATION DAMPENING, GR-2
9	1	1082.00018.00	SCREW, TRUSS HD. PHIL. SM, #8 X 1/2 LG.
10	2	1102.00034.00	SOLENOID ASSEMBLY, 120VAC, GR-2
10	2	1102.00305.00	ASSEMBLY, SOLENOID, 100VAC (JAPAN VERSION ONLY)
11	4	1083.00026.00	WASHER, #10 SCREW SIZE, FLAT
12	4	1084.00014.00	NUT, HEX, #10-32, MACHINE SCREW
13	1	1067.00001.00	CAPACITOR, 120VAC VERSION, 40uF, 450VAC, 50-60Hz
13	1	67005	CAPACITOR, 230VAC VERSION, 18uF, 450VAC, 50Hz (EXPORT VERSION ONLY)
13	1	1067.00005.00	CAPACITOR, 120VAC VERSION, 80uF, 450VAC, 50-60Hz (JAPAN VERS.-2 REQD.)
14	1	1083.00025.00	WASHER, M8 SCREW SIZE, SPRING LOCK
15	1	1084.00018.00	NUT, HEX, M8 SCREW SIZE
16	1	1065.00003.00	CONNECTOR, POWER INLET, 15A, 250VAC
17	1	1108.00028.00	ASSY, BOARD CONTROL AND SOFTWARE, GR-1/2 100-120VAC
17		1108.00029.00	CONTROL BOARD REPLACEMENT KIT, 220VAC (EXPORT ONLY)
18	1	1050.00003.00	SOFTWARE, GRINDERS, V 1.2
19	4	1029.00006.00	NUT, FINGER, #4-40 NYLON
20	1	1402.00010.00	ELECTRICAL HARNESS, GR 2
21	2	1023.00044.00	MANIFOLD, GR-2
22	4	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
23	4	1082.00017.00	SCREW, TRUSS HD. PHIL. MACHINE, # 6-32 X 1/2 LG.
24	1	1045.00009.00	OVERLAY, GR-2.2
24	1	1045.00007.00	OVERLAY, GR-2.3
25	4 or 6	1058.00007.00	SWITCH, START ROCKER, MOMENTARY, 250VAC
26	1	1058.00006.00	SWITCH, POWER ROCKER RED, ILLUMINATED 120V
27	2	1102.00033.00	HOPPER, ASSEMBLY, GRF-2.3
28	1	1102.00038.00	GRINDING MOTOR AND PLATE ASSY, 120V/60Hz
28	1	1102.00185.00	GRINDING MOTOR AND PLATE ASSY, 230V/50Hz
29	2	1083.00022.00	WASHER, 3/8" SCREW SIZE, FLAT
30	2	1083.00020.00	WASHER, 3/8 SCREW SIZE, SPRING LOCK
31	2	1082.00032.00	SCREW, 3/8"-16 X 3/4" LG, HEX HEAD CAP
32	1	1401.00007.00	WIRING DIAGRAM, UNIVERSAL, GR-2
33	1	1046.00009.00	LABEL "GR PROGRAMMING"
34	1	1112.00023.00	BASE COVER WELDMENT, GR/GRF
35	10	1082.00033.00	SCREW, PAN HD PHIL. MACH., W/DUAL ACT WASHER, #6-32x3/8LG.
36	1	1102.00023.00	COVER, GRINDER SERVICE ASSEMBLY, W/O RAILS
37	1	1001.00035.00	COVER, REAR, GR-2
38	1	1023.00041.00	HOLDER, BREW BASKET, GR-1 AND GR-2
39	1	1063.00003.00	CORD, POWER, AMERICAN, 120VAC, 13A, 6FT LG.
39	1	1063.00027.00	CORD, ENGLAND, 6.5FT
39	1	1063.00026.00	CORD, AUSTRALIAN, 6.5FT
39	1	1063.00025.00	CORD, EUROPEAN, 6.5FT
39	1	1063.00028.00	CORD, SOUTH AFRICA , 6.5FT
40	1	1043.00036.00	LABEL, 4" X 3" SERIAL NUMBER, GR-2.3
41	1	1046.00035.00	LABEL, WARNING "TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE"

Figure 3 – GR-1 & GR-2 Motor Assy.

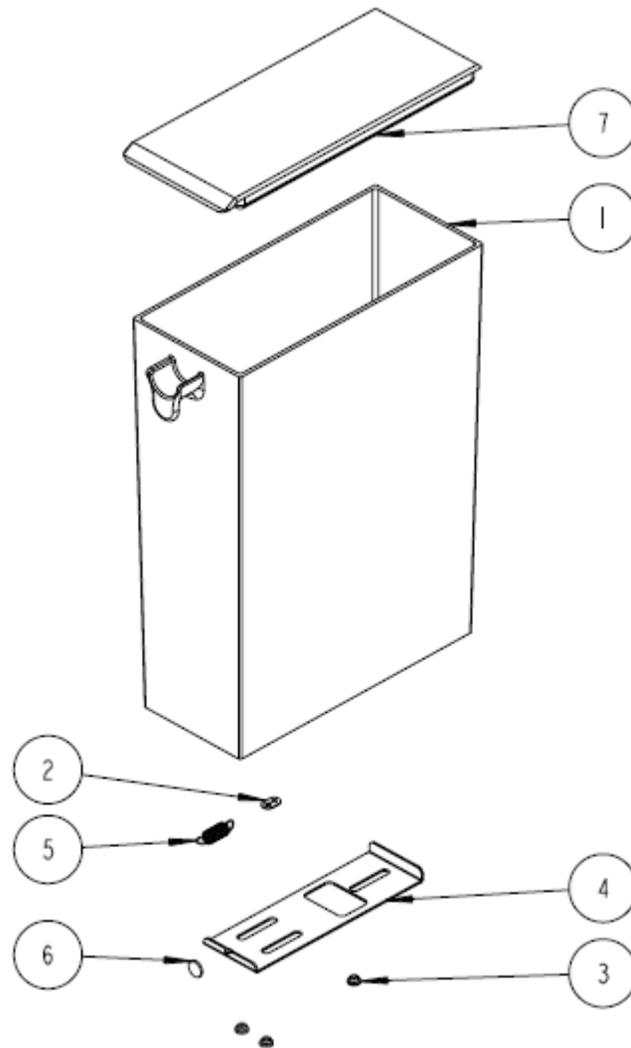


Drawing No. 1102.00037.00 & 1102.00038.00

Parts List – Figure 3

Ref.	#	PART NO	DESCRIPTION
1	1	1102.00029.00	GRINDING CHAMBER ASSEMBLY WITH 120VAC/60Hz MOTOR
2	1	1112.00035.00	GUIDE COFFEE FLOW, WELDMENT, GR
3	1	1083.00016.00	WASHER, #8 SCREW SIZE, FLAT
4	1	1084.00015.00	LOCKNUT, #8-32 SCREW SIZE, HEX THIN NYLON INSERT
5	1	1014.00005.00	DISC, GRINDING, 64 MM DIA
6	1	1085.00002.00	SPRING, GRINDER AUGER, 6 MM PITCH
7	3	1082.00026.00	SCREW, M4 X 10, PAN HEAD, SLOTTED
8	1	1102.00032.00	FRONT GRINDING DISC ASSEMBLY, GR
9	1	1013.00021.00	WASHER, GR1/GR2 COUNTERSUNK
10	1	1082.00027.00	SCREW, M5 X 10, FLAT HEAD, SLOTTED
11	1	1102.00036.00	SHAFT AND BEARING ASSEMBLY
12	1	1015.00005.00	COVER, GRINDING CHAMBER HSG, MACHINED
13	1	1084.00016.00	NUT, M16x1 JAM
14	4	1083.00017.00	WASHER, M5, SERRATED BELLEVILLE
15	4	1082.00028.00	SCREW, M5 X 12, HEX HEAD
16	4	1083.00023.00	WASHER, 1/4" SCREW SIZE, FLAT
17	4	1083.00021.00	WASHER, 1/4" SCREW SIZE, SPRING LOCK
18	4	1084.00017.00	NUT, HEX, 1/4"-20
19	1	1102.00035.00	PLATE ASSEMBLY, GRINDER MOTOR
20	1	1102.00037.00	COMPLETE GRINDING MOTOR ASSEMBLY, 120VAC/60Hz
20	1	1000.00078.00	COMPLETE GRINDING MOTOR ASSEMBLY, 230VAC/50Hz
21	1	1087.00003.00	PIN, SLOTTED SPRING, M3x14mm

Figure 4 – GR-2.2 & GR-2.3 Hopper Assembly, Part # 1109.00019.00



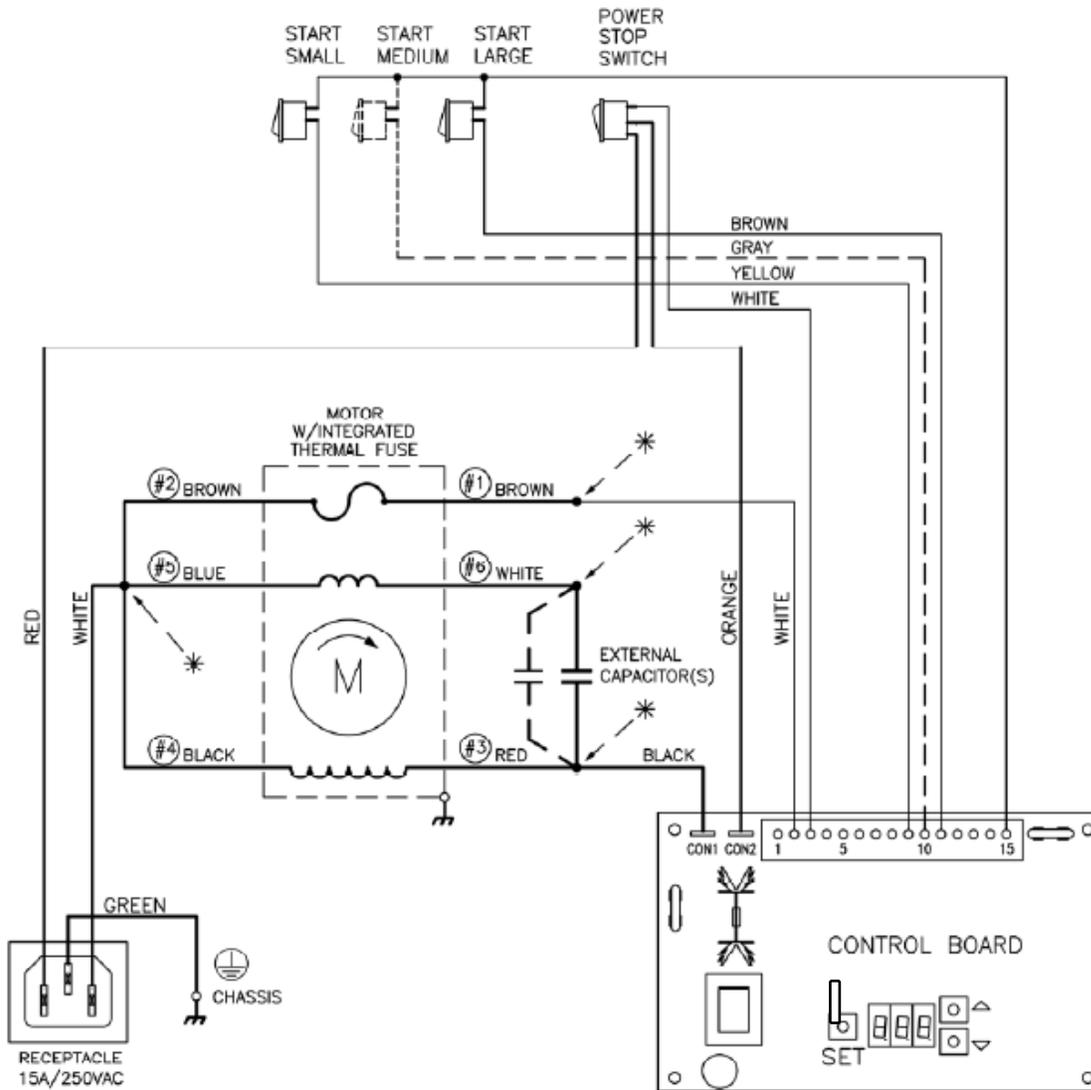
Parts List – Figure 1 – GR-2.2 & GR-2.3

Ref	QTY	PART NO.	DESCRIPTION
1	1	1021.00034.00	BODY, HOPPER, GR-2
2	1	1003.00035.00	BRACKET, GUILLOTINE SPRING, GR-2
3	3	1029.00008.00	WASHER, SHOULDER, NYLON
4	1	1003.00034.00	GUILLOTINE, GR-2
5	1	1085.00003.00	SPRING, EXPANSION, 3/8"OD X .026"W X 1.375"L, 0.60 LB/IN
6	1	1097.00013.00	BUMPER, 1/2" DIA, FLAT TOP, ADHESIVE BACKED, BLK
7	1	1023.00043.00	LID, HOPPER, GR-2

Wiring Diagrams

GR-1

Effective February 2019



LEGEND:

- ← — * WIRE NUT CONNECTION
- OPTIONAL

FETCO[®] FOOD EQUIPMENT TECHNOLOGY COMPANY
 803 ROSE RD.
 LAKE BURCH, IL, 60147
 PHONE: 847-719-3000, FAX: 847-719-3001
 WWW.FETCO.COM

DWG. NAME:
 WIRING, GR-1, (L1, N + GND), UNIVERSAL

