

Grind'n Brew Coffee Systems®

Operation and Instruction Manual

for

Models: -10H, -11H, -20H, -21H versions

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Model Grind'n Brew-10H



Model Grind'n Brew-11H



Model Grind'n Brew-20H



Model Grind'n Brew-21H



GMCW

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Warning Labels

The following warning labels were on your grinderbrewer when it shipped from the factory. They should remain on your grinderbrewer in good, readable condition at all times. If one of your labels is missing or damaged, order a replacement label immediately.

Part # 71104

Located on outside back, grinderbrewer casing

WARNING
<ul style="list-style-type: none"> • USE ONLY ON A CIRCUIT THAT IS PROPERLY PROTECTED AND CAPABLE OF THE RATED LOAD • ELECTRONICALLY GROUND THE CHASSIS • DO NOT DEFORM PLUG OR CORD • FOLLOW NATIONAL AND LOCAL ELECTRICAL CODES • WATER CONNECTIONS SHALL COMPLY WITH THE PLUMBING CODE OF BOCA & THE FOOD SERVICE SANITATION MANUAL OF THE FDA • DO NOT USE NEAR COMBUSTIBLES • FAILURE TO COMPLY RISKS PERSONAL INJURY, DAMAGE TO EQUIPMENT, FIRE OR SHOCK HAZARD • READ THE ENTIRE OPERATING MANUAL INCLUDING THE LIMIT OF WARRANTY AND LIABILITY BEFORE BUYING OR USING THIS PRODUCT • ALWAYS UNPLUG UNIT FROM POWER SUPPLY BEFORE SERVICING

Part #71949

Located on the brew basket

CAUTION	
	<p>Hot liquid in brew basket could cause burns.</p> <p>Remove with care.</p>

Part # 70248

Located on Splash Panel

		
CAUTION ATTENTION AVISO DE PRECAUCION		
BASKET CONTENTS ARE HOT REMOVE WITH CARE	LE CONTENU DU PORTE-FILTRE EST CHAUD LE RETIRER AVEC SOIN	EL CONTENIDO DE LA VASJA CALIENTE ESTA REMUEVA CON CUIDADO
FAILURE TO COMPLY RISKS INJURY	LE NON RESPECT DE CES CONSIGNES RISQUE D'ENTRAÎNER DES BLESSURES	EL NO SEGUIR ESTAS INSTRUCCIONES PUEDE CAUSAR SERIOS ACCIDENTES
CAUTION: WARMERS AND SURFACES ARE HOT		
ATTENTION: LES SURFACES EXTÉRIEURES ET LES ÉLÉMENTS CHAUFFANTS SONT CHAUDS		
ADVERTENCIA: PARRILLAS Y OTRAS SUPERFICIES ESTAN CALIENTES		
70248		GRINDMASTER CORP.

Technical Data - Single Bean Models

	10H (72078)	11H (72079)
Voltage	120	120
Frequency	60Hz	60Hz
Watts	1710	1810
Circuit Breaker	15	15
No. of Hoppers	1	1
Hopper Capacity/Hopper	5.5 lbs	5.5 lbs
Brew Capacity	.5 gal.	.5 gal.
No. of Warmers	0	1

Features

Grind n Brew	X	X
Grind Only	X	X
Brew Only	X	X
Half Brew	X	X
Printed Casing		
Stainless Casing	X	X

Agency Approvals

U.L. Electrical	X	X
CUL Electrical	X	X
U.L. Sanitation	X	X

Dimensions (H x W x D)	31" x 9.25" x 24.25" (79 cm x 23 cm x 62 cm)	26.25" x 9.25" x 24.25" (67 cm x 23 cm x 62 cm)
Weight	65 lbs.	65 lbs.
Shipping Weight	80 lbs.	80 lbs.

Technical Data - Dual Bean Models

	20H (72050/72076)	21H (72077)
Voltage	120	120
Frequency	60Hz	60Hz
Watts	1710	1810
Circuit Breaker	15	15
No. of Hoppers	2	2
Hopper Capacity/Hopper	6.5 lbs	6.5 lbs
Brew Capacity	.5 gal.	.5 gal.
No. of Warmers	0	1

Features

Grind n Brew	X	X
Grind Only	X	X
Brew Only	X	X
Half Brew	X	X
Printed Casing		
Stainless Casing	X	X

Agency Approvals

U.L. Electrical	X	X
CUL Electrical	X	X
U.L. Sanitation	X	X

Dimensions (H x W x D)	37.5" x 9.5" x 24.25" (95 cm x 23 cm x 62 cm)	32.75" x 9.5" x 24.25" (83 cm x 23 cm x 62 cm)
Weight	80 lbs.	80 lbs.
Shipping Weight	95 lbs.	95 lbs.

Unit Installation

IMPORTANT: This brewer should be installed by a knowledgeable and experienced commercial equipment installer.

Brewer Contents

Your brewer package should include the following:

- 1 Grinderbrewer (either single or dual bean)
- 1 Operation and Instruction Manual (this manual)
- 1 Hose to 1/4" flare fitting (part # 61237)

Tools Required for Installation

- #2 Phillips screwdriver
- 9/16" wrench
- 5/8" wrench
(or crescent wrench)
- 6" level

NOTE: Other tools may be needed depending on the type of water supply tubing and location.

1. Inspect unit to see if any damage occurred in shipment.
2. Position brewer on counter. Place on sturdy permanent counter top. If you have an airpot brewer, install the 4" plastic legs (included) at the bottom of the brewer. Lean the brewer towards its side to expose screwholes underneath for legs. Adjust the leg height to suit the size of airpots you will use. **IMPORTANT: Adjust the feet to level the brewer.** With bubble level, check to see that the brewer is level on countertop.

Water Hook-up (All Models) (Refer to Figure A)

IMPORTANT: This equipment must be installed in compliance with applicable Federal, State and/or Local plumbing codes having jurisdiction. Incoming water pressure should be greater than 20 psi and not more than 100 psi.

1. The incoming water supply should have a shut-off valve connected in-line. The end should have a female 1/4" flare fitting. Water supply should be a 1/4" I.D. dedicated line branched off a 1" or larger supply line.
2. Prior to installing the brewer, flush out the water line by running approximately 1 gal. of water into a pail. This will insure no sediment from a new installation can get in the brewer.
3. Make sure your source water is turned off. Connect the water line's 1/4" female flare fitting (1) to the 1/4" male fitting on the hose connector (2).
4. Make sure Grind'n Brew is unplugged. Connect the water line to the brewer with the hose connector (2).
5. Turn the water valve on, sending water to the brewer. If there are any leaks, tighten connections to stop leakage.

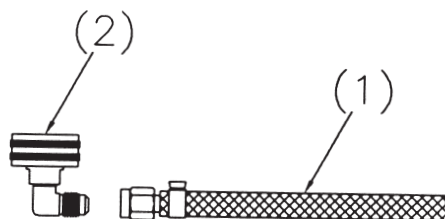


Figure A

Electrical Hook-up and Start-up Procedure (All Models)

IMPORTANT: Do not plug the unit in yet.

IMPORTANT: This equipment must be installed in compliance with applicable Federal, State and/or Local electrical codes having jurisdiction. Do not use extension cords. Make sure that the outlet the brewer plugs into is grounded.

IMPORTANT: Make sure that the Main Power Switch in the back of the unit is in the Off position before plugging in the brewer.

1. Plug the brewer into an electrical outlet.
2. Make sure the brew basket is inserted in the brew rails.
3. Reach to the back of the brewer and press the white Main Power Switch to the On position. The front control lights will go on, and water will enter the brewer. The tank will fill in 2-3 minutes from the moment the Main Power Switch is turned on.
4. Once the tank is full, it will take 10-15 minutes to heat the water to the brewing temperature. Once the Ready light is lit, you are ready to brew.

Operating the Touchpad (Refer to Figure B)

1. To select the appropriate bean hopper, press the hopper (left) button until the desired indicator arrow is illuminated.

NOTE: This step only applies to dual bean hoppers. Does not apply to RFID grind select option dual bean hoppers.

2. To select a portion size, press the center of the Portion Size (middle) button until the half pot or full pot symbol is illuminated.
3. The Mode (right) button allows you to select either the “Brew Only”, “Grind Only” or “Grind and Brew” feature.
 - a) To grind only, press the center of the Mode (right) button until the grinder symbol is illuminated.
 - b) To brew only, press the center of the Mode (right) button until the coffee cup symbol is illuminated.
 - c) To grind and brew, press the Mode (right) button until both symbols are illuminated together.



IMPORTANT: Brewers are factory set for throw weight and water portion. Please check that installation is correct before making adjustment. No adjustments should be necessary for normal installation.

Brewing

IMPORTANT: Brewers are factory set for the correct grind and brew times for average situations. You should not need to make adjustments in the field.

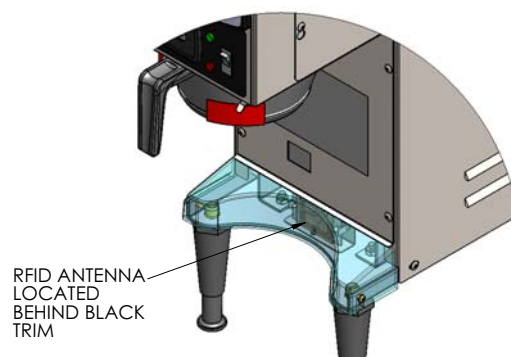
1. Make sure that a new paper filter is in the brew basket and the brew basket is in place in the brewer.
2. Place beans in the hopper.
3. Choose to “Grind and Brew”. Press the far right touchpad so “Grind and Brew” lights are lit.
4. Choose the Portion Size. Press the middle touchpad until desired volume is lit.
5. Choose Decaf or Regular coffee (only applicable to dual bean Grind’n Brews without RFID Sensor). Press left touchpad.
Arrow will either point left or right for Decaf or Regular.
6. Place a decanter or airpot under the brew basket, depending on the model.
7. Press Start. You will see the coffee bean level go down slightly. You will hear the coffee grind. Coffee is automatically ground, portioned and placed in brew basket. Then ground coffee is automatically brewed. The Ready light will now blink, indicating that grinding and brewing are in progress. This will take 3-4 minutes for a 1/2 gal. pot. Portions are factory set. A stop function is added to the start switch. When this switch is depressed, it allows the unit to stop during the selected grind, brew or grind and brew functions.

After brewing a pot, the tank must reheat. Reheat time is 5 1/2 - 8 minutes for 120V brewers. Remember that the brewer will not function (although the grinder will) until the Ready light is on, indicating that the water is hot enough to brew. A flashing green light indicates that the brewer is reheating or that there is a cycle in progress. Do not remove the brew basket while the light is flashing. **The brew basket must be removed before a new brew can be initiated.** This feature ensures that the operator discards the old coffee grounds and installs a new coffee filter.

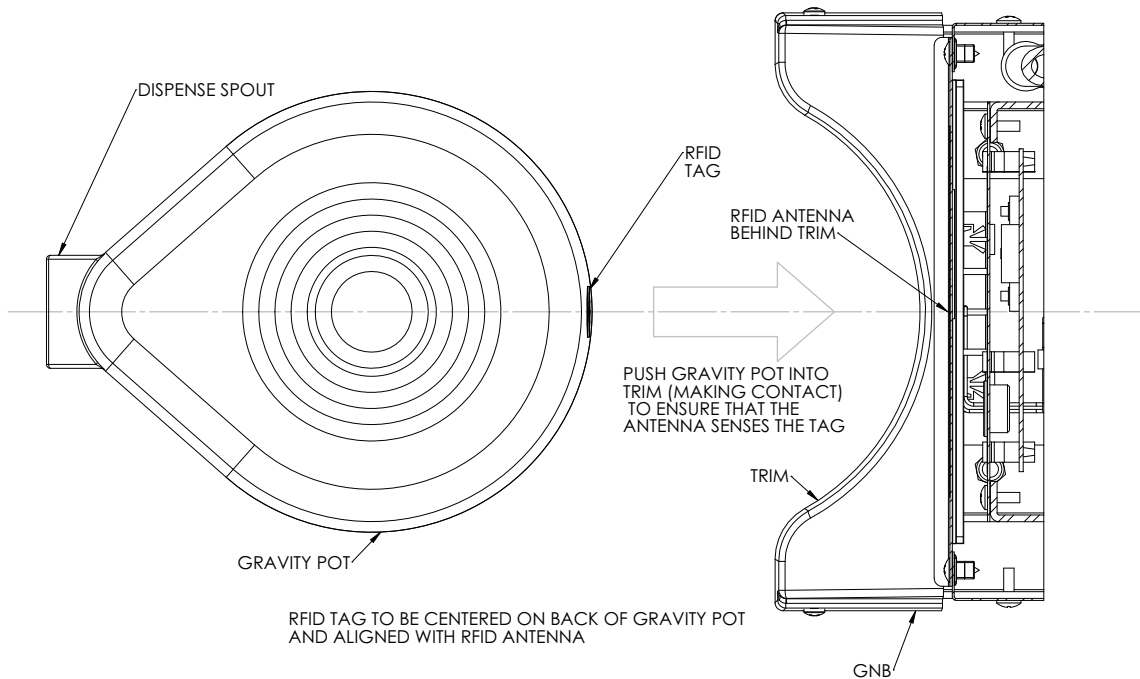
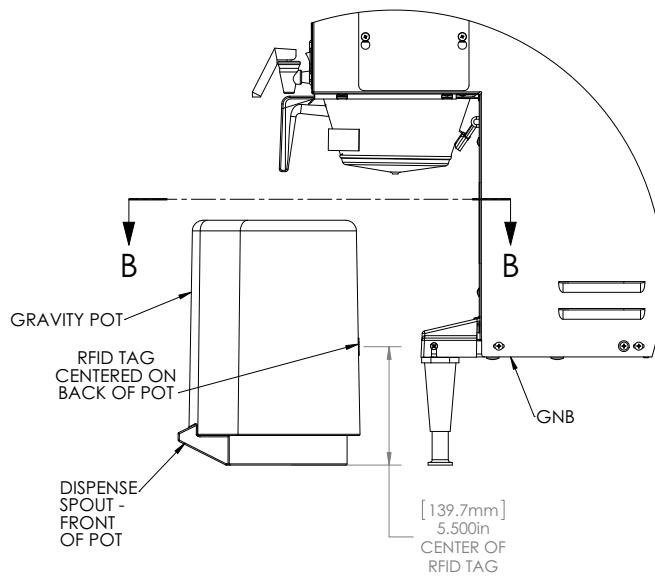
RFID Grind Select Brewing Option

1. Make sure that a new paper filter is in the brew basket and the brew basket is in place in the brewer.
2. Place beans in the hopper.
3. Choose to “Grind and Brew”. Press the far right touchpad so “Grind and Brew” lights are lit.
4. Choose the Portion Size. Press the middle touchpad until desired volume is lit.
5. Place an airpot with the RFID tag under the brew basket aligning the tag with the sensor.
6. If a valid tag is read, a light under one of the hoppers will flash indicating which hopper will be used for grinding and brewing. If satisfied with the choice press Start and the brewing cycle will begin. You will see the coffee bean level go down slightly. You will hear the coffee grind. Coffee is automatically ground, portioned and placed in brew basket. Then ground coffee is automatically brewed. The Ready light will now blink, indicating that grinding and brewing are in progress. This will take 3-4 minutes for a 1/2 gal. pot. Portions are factory set. A stop function is added to the start switch. When this switch is depressed, it allows the unit to stop during the selected grind, brew or grind and brew functions.

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RFID TAG LOCATION



SECTION "B-B"

Bean Counter

The built-in bean counter measures relative usage of its Grind'n Brew® machine by totaling the amount of seconds the augers have fed beans into the grinder. This number directly correlates to the amount of beans used by the machine.

Depending on model, the bean counter is either always shown or hidden to the user.

The **Bean Counter Menu** is accessed by holding the *UP* and *DOWN* keys for 5 seconds. If the counter is normally hidden, it will be shown here. The user can reset the counter through this menu. Pressing the *SET* button will display "REs" and the user can select "YEs" or "no" with the *UP* and *DOWN* keys. Pressing the *SET* key finalizes the selection. This menu times out after 10 seconds and is disabled by the **User Lockout Jumper**.

User Settings

The Grind'n Brew® has several factory-set options that can be modified by the user. These are divided into two categories: Universal Settings or Brew Settings. Universal Settings pertain to the whole unit, and Brew Settings pertain to one of the four available brew cycles – (Regular Full, Regular Half, Decaf Full and Decaf Half). All settings are retained during a power loss. The original factory settings can be restored by using the **System Restore Function**.

User Settings

Universal Settings	Brew Settings x 4
Temperature Scale	Auger Time
Water Temperature	Pulse Brew Pulses
Low Temp No Brew Enable	Pulse Brew Pour Time
	Pulse Brew Delay Time
	Brew Time

Pre-Infusion and Pulse Brew Cycle

Pulse Brewing is a feature that increases the control and performance of the Grind'n Brew® machine. By pulsing water during the brew cycle, you allow greater contact time and better extraction of the coffee. Ultimately you will achieve a bolder and more consistent cup of coffee by using this feature.

If pulse brewing is selected, the unit will brew the number of pulses identified by the **Pulse Brew Pulses** setting. Each pulse is identical. It will begin by dumping water for the **Pulse Brew Pour Time** and then wait for the **Pulse Brew Delay Time**. This will repeat until all pulses are finished.

Once the pulses are complete, the unit will pour water for the remaining **Brew Time**. **Brew Time** is the total amount of time water is poured over the coffee grinds. **Pulse Brew Pour Times** are included in this total. **Pulse Brew Delay Times** are not included. The cycle will always stop pouring once the **Brew Time** is met, regardless of whether this happens in the middle of pulse brewing.

Drip Time is half of the **Brew Time**. However, the **Drip Time** will never be greater than 1:30.

Pre-Infusion Controls - The first on cycle and the first off cycle. Independent of pulses.

User Menu

The **User Menu** is accessed by pressing the *SET* key on the display board. Navigation is accomplished by pressing the *UP*, *DOWN* and *SET* keys. Feedback to the user is shown by the 3-digit numerical display.

The **User Menu** exits after a 1 minute timeout or all modes are stepped through. This menu is disabled by the **User Lockout Jumper**.

Brew Settings - Brew Cycle Selection

There are four independent settings for brew cycles: Regular Full Brew, Regular Half Brew, Decaf Full Brew and Decaf Half Brew. The **User Menu** adjusts settings for the brew cycle selected by the keypad. For instance, if you want to change settings for Decaf Half brew then set the keypad to the Decaf Hopper and Half Brew Size before entering the **User Menu**. The keypad settings cannot be changed while the **User Menu** is displayed.

User Menu Navigation

Advancing through the menu is done by pressing the *SET* Key. Each parameter is adjusted by pressing the *UP* and *DOWN* keys. Pressing and holding the *UP* and *DOWN* keys will quickly scroll through settings. The table on the next page shows how to step through this menu.

User Menu Chart

Step	Setting	Display	Adjustments
1	Temperature Scale between °F or °C	Displays the current selection. Factory default is “°F”	“°F” or “°C”
2	Water Temperature setpoint in °F or °C	Displays the current selection. Factory default is “195” in °F or “91” in °C.	“170” to “205” °F “77” to “96” °C
3	Show Auger Time the amount of coffee beans fed into the grinder	“At”	None
4	Set Auger Time the amount of coffee beans fed into the grinder	Displays the current selection depending on Brew Cycle	“0.1” to “45.0” seconds
5	Show Brew Time Total amount of pour time for the brew cycle	“br”	None
6	Set Brew Time Total amount of pour time for the brew cycle	Displays the current selection depending on Brew Cycle	“0.01” to “6.00” in minutes.seconds
7	Show Pre-Infusion on	“Pre-Infusion on”	None
8	Set Pre-Infusion on time	Displays the current selection of on time	“Off” to “2.00” minutes
9	Show Pre-Infusion off	“Pre-Infusion off”	
10	Set Pre-Infusion off time	Displays the current selection of off time	“5 seconds” to “1 minute”
11	Show Pulse Brew	“P-b”	None
12	Pulse Brew Pulse Number sets the number of pulses in the brew cycle	Displays the current selection depending on Brew Cycle	“OFF” to “10”
13	Pulse Brew Pour Time sets the amount of pour time in each pulse	Displays the current selection depending on Brew Cycle	“0.05” to “1.00” in minutes.seconds
14	Pulse Brew Delay Time sets the amount of delay time between each pulse	Displays the current selection depending on Brew Cycle	“0.05” to “1.00” in minutes.seconds
15	Show Low Temp No Brew	“Ltn”	None
16	Set Low Temp No Brew enable or disable	Displays the current selection. Factory default is “YES”	“OFF” or “ON”

Bean Selector
(Dual Bean Models Only)

Half or Full Pot

Grind only
Brew only
Grind and Brew Option



(Dual Bean Model)

The three settings selected on the touchpad directly corresponds to what is being adjusted on the display.

Brew Volume Setting Menu

This feature sets the brew time based on water volume of a desired container. Before using this feature, remove the brew basket, remove the spray head and place the desired container in place underneath the brewer.

The **Brew Volume Setting Menu** is started by selecting a brew cycle and holding in the *START* switch for 5 seconds. The display will show “*Pro*” at this time. Again press the *START* switch, and water will begin dispensing into the container. The display shows a **Brew Time** count at this time. When satisfied with the water level, again press the *START* switch. At this point the **Brew Time** flashes on the display for 20 seconds. Press the *START* switch again within the 20 seconds to accept the new **Brew Time**. No changes will be made if the Brew Time is not confirmed in this last step.

There are four independent brew times in the unit. The set **Brew Time** is the cycle shown on the keypad. The keypad cannot be modified while setting the brew volume. This feature is disabled by the **User Lockout Jumper**.

System Restore Feature

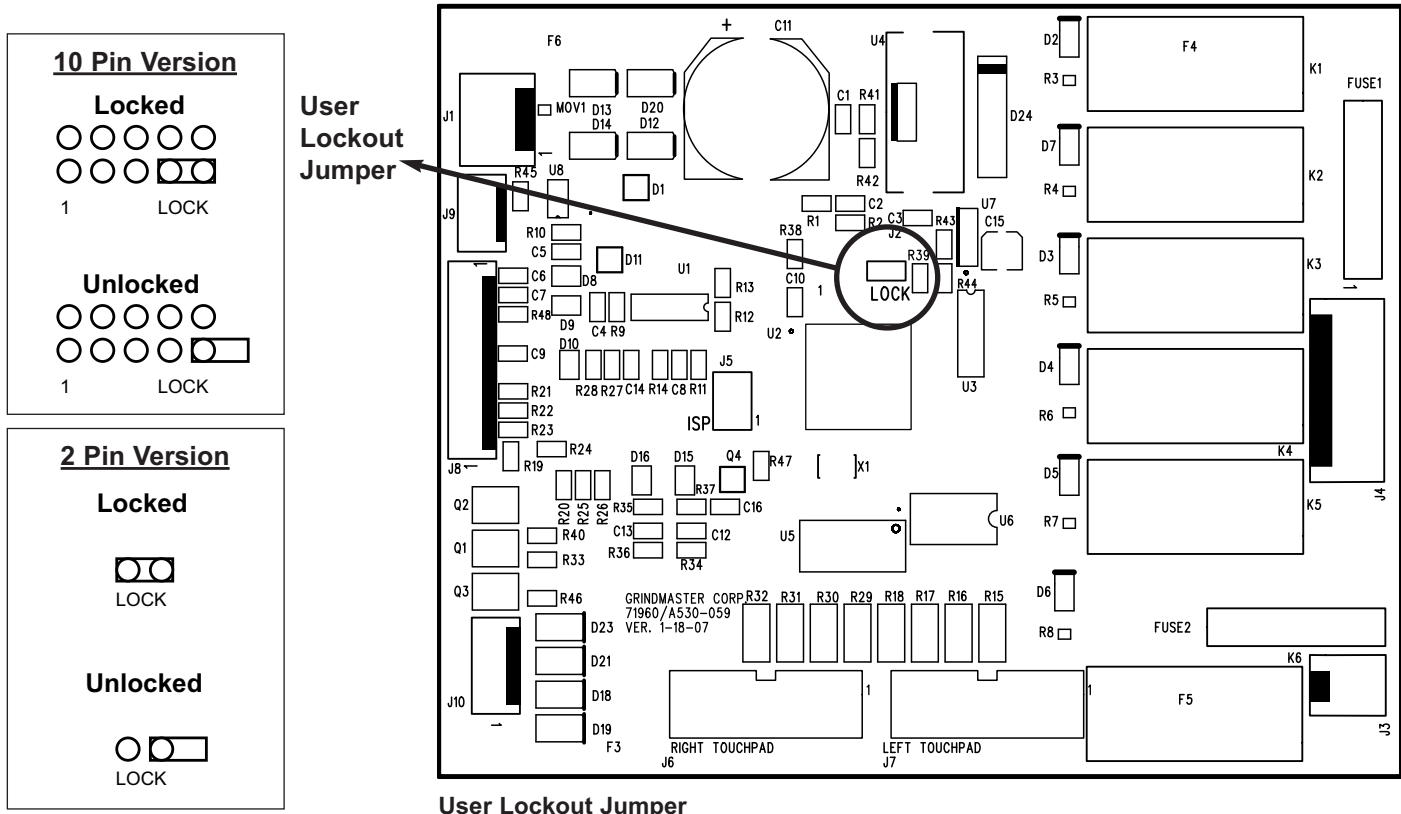
This function will restore a Grind’n Brew® unit to its original factory settings. To activate system restore, power on the unit while holding in the *DOWN* button.

Continue holding the *DOWN* button and the display will scroll “*rEStorE*” to indicate that a system restore is about to happen. If the *DOWN* button is released at this point, the restore is cancelled. If the button hold is continued, the display will scroll “*donE*” to show completion of a system restore.

Upon a successful restore, the original factory settings will override all changes. The bean counter is not affected.

User Lockout

User Lockout is achieved via the position of the LOCK jumper on the board header. Locate the header on the board (shown below) and place the jumper in the desired position. In the *Locked* position all menus in this document are locked out, and the unit will only allow brewing or grinding functions. There are two versions of the header, 10 pin and 2 pin. Both configurations are shown below.



Factory/Field Test Menu

This menu is intended to check product functionality both at the end of the factory line and in the field. This mode is entered by pressing and holding the DOWN key on the display board and Full/Half key on the keypad for 10 seconds. Once the menu is entered, the unit will start with an LED test that lights all LEDs and segments on the display. Navigation is done just like the User Menu. Refer to the table below for operation. Field Test Mode exits after stepping through all modes only – there is not a timeout.

Step	Function	Operation	Description
1	LED Test	All LEDs ON	Verify that all LEDs turn on.
2	Firmware Version	Display firmware version	Shows the software version of the control.
3	Date Code	Display date code/serial ID	Not used with Grind'n Brew®
4	Non Resetable Bean Counter	Scroll non-resetable bean counter	Shows the total number of seconds the grinder has been grinding (non-resetable)
5	Configuration Inputs	Each digit of the display corresponds to a configuration input. The input is either "0" - disabled or "1" - enabled.	Highest Digit (left most): "1" - Double Hopper; "0" - Single Hopper Middle Digit (center): "1" - Always show bean count; "0" - Don't show bean count Lowest Digit (right most): "1" - Grind'n Brew® Model; "0" - Grind Only Model
6	Display Water Temperature	Show averaged A/D reading of temperature	Show the current temperature in °F of the thermistor
7	Display Water Level 1	Show averaged A/D reading of water level 1	If > 500 water level full, If < 500 water level not full
8	Display Water Level 2	Show averaged A/D reading of water level 2	Not used with Grind'n Brew®
9	Show Input	Display scrolls "InPut"	Input Test Mode
10	Input Test	Press each key and the display will show a number related to that key	Hopper Button: 12 Size Button: 10 Grind/Brew Button: 8 Down Button: 0 Up Button: 2 Start Switch: 16 Basket Out Switch: 17 Select Button: advances Factory Test to Step 11
11	Show Output	Display scrolls "outPut"	Output Test Mode
12	Output Test	Turns on each relay separately. Displays "O###" where: ### = 2 digit output number IMPORTANT: Each output will be turned ON when its number is on the display REGARDLESS of temperature or fill level. Be CAREFUL not to overfill the tank and keep electric items out of the way of the brew channel.	Scroll through relay outputs with the UP and DOWN keys. Outputs are as follows: O01: Fill Valve O02: Brew Valve O03: N/A O04: Left Auger Motor O05: Right Auger Motor O06: <i>not used</i> O07: Heater O08: Grinder Motor O09: Basket Out Light O10: Ready Light

Water System Errors

There are four system errors that can be detected by the microprocessor. These errors are:

1. Water Fill Error (Er1) – the water full detection has failed, and the fill valve has been on for at least 5 minutes.
2. Thermistor Error (Er2 or Er3) – the Thermistor is detected either open, shorted OR the water is boiling.
3. Heater Error (Er4) – the heater has been on for 3 minutes, but no rise in water temperature was detected.

If any of these errors are detected, the unit will shut off all water fill and heat related functions. Brewing is disabled, but grinding is still allowed. The display will show the error when the unit is idle. To clear any error, the user can hold in the *UP* key for 5 seconds, reset power to the unit or enter field test mode.

Timer Settings

A standard 64 oz. bottle Grind'n Brew

	Setting Single Bean	Approx. yield	Setting Dual Bean	Approx. yield
Single/Left Full Pot	4.2 sec.	2 oz.	5.7 sec.	2 oz.
Right Full Pot	-	-	5.7 sec.	2 oz.
Single/Left Half Pot	2.4 sec.	1.25 oz.	3.0 sec.	1.25 oz.
Right Full Pot	-	-	3.0 sec.	1.25 oz.
Full Pot	112-125 sec.	62 fl oz.	112-125 sec.	62 fl oz.
Half Pot	56-63 sec.	31 fl oz.	56-63 sec.	31 fl oz.

All Airpot Grind'n Brews

	Setting Single Bean	Approx. yield	Setting Dual Bean	Approx. yield
Single/Left Full Pot	4.5 sec.	2.3 oz.	6.2 sec.	2.3 oz.
Right Full Pot	-	-	6.2 sec.	2.3 oz.
Single/Left Half Pot	2.7 sec.	1.4 oz.	3.7 sec.	1.4 oz.
Right Full Pot	-	-	3.7 sec.	1.4 oz.
Full Pot	140-153 sec.	72 fl oz.	140-153 sec.	72 fl oz.
Half Pot	70-77 sec.	36 fl oz.	70-77 sec.	36 fl oz.

- Increase of 1 sec. to timer setting equates to an increase in fluid volume by 1/2 oz.
- Decrease of 1 sec. to timer setting equates to a decrease in fluid volume by 1/2 oz.

Setting the Grind (Refer to Figure C)

Tools Required: #2 Phillips screwdriver, 7/8" box wrench, large flat blade screwdriver

1. Remove front decal panel by removing screw on underside of panel and 2 screws on both sides of panel.
2. Loosen adjusting screw lock nut by turning counter clockwise.
3. Turn slotted adjusting screw clockwise to make the grind coarser or counter clockwise to make the grind finer. Generally, a 1/8 to 1/4 turn will provide the desired adjustment.
4. After adjustment has been made, re-tighten the adjusting screw lock nut.
5. Visually inspect the grind adjustment with a small portion of coffee and readjust if necessary.
6. Reinstall the front decal panel.

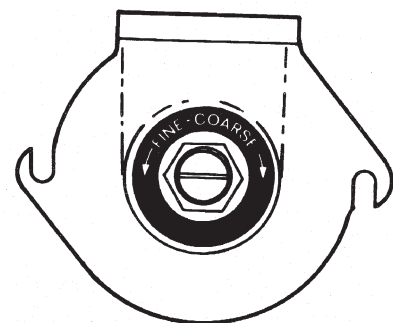


Figure C

Component Counter Display

To enter counter displays press and hold the middle and right buttons of the user interface [71958](#).

To move to next setting press and release left button on user interface [71958](#).

To reset the coun, press and release the down button on the programming interface [71957](#).

Step	Setting	Display
1	Fill Valve Time	"FIL"
2	Display Time	Time displayed in minutes
3	Brew Valve Time	"Br"
4	Display Time	Time displayed in minutes
5	Shutter Solenoid Time	"SHT"
6	Display Time	Time displayed in minutes
7	Shutter Solenoid Cycles	"SHC"
8	Display Time	Time displayed in minutes
9	Left Auger Time	"A-L"
10	Display Time	Time displayed in minutes
11	Right Auger Time	"A-R"
12	Display Time	Time displayed in minutes
13	Heater Time	"Htr"
14	Display Time	Time displayed in minutes
15	Grinder Time	"Grn"
16	Display Time	Time displayed in minutes

Maintenance

Daily Cleaning

Cabinet: The outside of the machine can be cleaned with a damp cloth, a household dusting spray or a stainless steel cleaner. Do not use any abrasive such as Scotchbrite or Brillo pads. These may mar the finish.

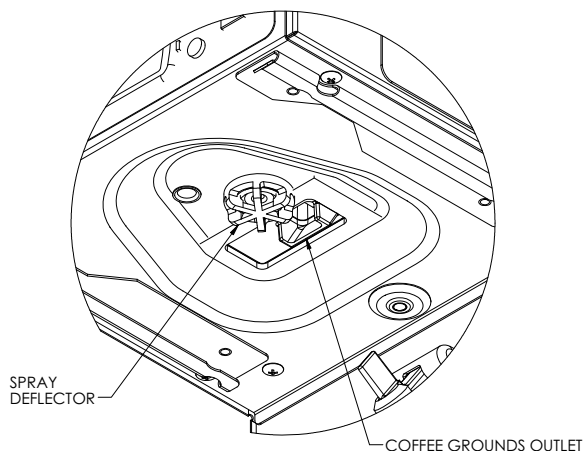
Wipe the underside of the cabinet hood with a clean cloth. Be especially careful when using soap or detergent around the sprayhead. Any soap left on the deflector may give an unpleasant taste to the first brews.

Warmers: The warmer plate is easy to clean and will maintain its appearance longer if cleaned regularly. Coffee stains can be wiped off with a damp cloth. Use detergent or sanitizer for heavy deposits, but refrain from using abrasives.

Weekly Cleaning

Coffee Grounds Outlet: Using a clean, dry cloth, wipe area around spray deflector and coffee grounds outlet. Using a clean, dry stubby brush, clean up inside of the coffee grounds outlet.

Brew Basket, Airpots and Decanters: Use commercial grade urn cleaner (as directed by manufacturer) and rinse thoroughly.



Shear Plate Replacement (Refer to Figure E)

Tools Required: #2 Phillips screwdriver, large flat blade screwdriver

1. Unplug the machine.
2. Remove the front panel. Shut off the bean flow to the grinder. Single bean units require you to pull the bean shut-off valve forward. Dual bean units require you to push the bean shut-off valve back into the slots in the hopper.
3. Remove the hopper cradle. Remove the two screws in the front, lift the front of the cradle and slide cradle back about an inch to disengage the hopper clips. Then lift the hopper cradle assembly off of the machine.
4. Remove the spray head. First remove the spray deflector by spinning it clockwise. Second, pull the spray nozzle away from the mounting sheet.
5. Remove the grind cap by loosening the 2 screws and rotating the grind cap away from the screws.
6. Pull out the revolving burr and feedworm assembly. The sweeps on the revolving burr and feedworm assembly. The sweeps on the revolving burr must line up with the cut outs on the grind head.
7. Remove the shear cap and broken shear plate.
8. Slide the rotating burr onto the motor shaft, aligning up the sweeps with the cutouts on the grind head. Rotate the burr so that the burr is held back into the burr pocket by the sweeps on the grind head lip. Slide the drive coupler into place. Rotate the slot on the drive coupler with the feedworm. Insert a new shear plate.
9. Reassemble the remaining components in reverse order of disassembly.

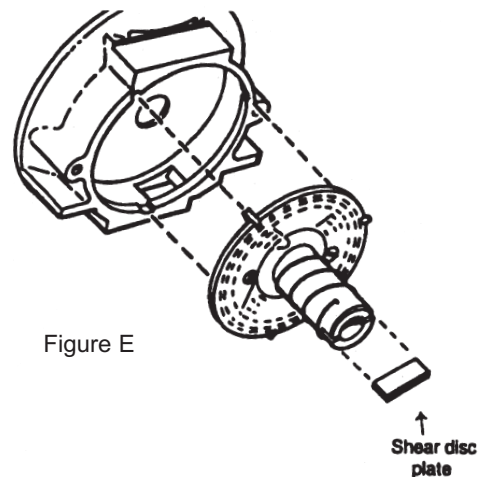
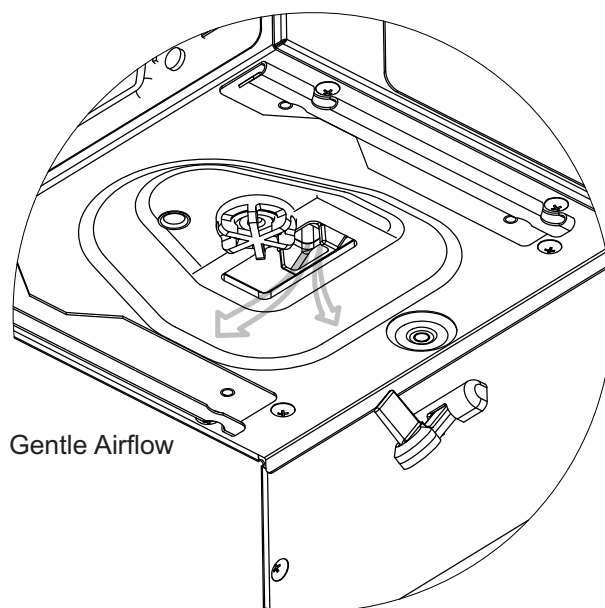


Figure E

Air Shutter Operation



The air shutter feature on the Grind'n Brew® prevents moisture from entering the grinding chamber and delivery chute. A gentle airflow exiting the grinding port as shown indicates proper function of the air shutter. Lightly moistening your hand before checking the airflow will help in the detection of the gentle airflow.

Troubleshooting Guide

The following procedures must be performed by a qualified service technician.



CAUTION: Unplug power cord from outlet before cleaning or servicing the unit.

Problem	Possible Cause	Remedy
Weak coffee	<ul style="list-style-type: none"> • Not enough coffee used. • Grind is too coarse. • Water not hot enough. • Too much water used (half brews). • Coffee bed has dry areas. 	<ul style="list-style-type: none"> • Set to portion more coffee. • Readjust grind to a finer grind. • Check spray temp, should be greater than 185°F. • Adjust brew time at the controller. • Spray deflector broken or missing. Replace.
Strong coffee	<ul style="list-style-type: none"> • Too much coffee used. 	<ul style="list-style-type: none"> • Readjust coffee portion.
Bitter coffee	<ul style="list-style-type: none"> • Grind is too fine. 	<ul style="list-style-type: none"> • Coarsen grind setting.
Grounds in coffee	<ul style="list-style-type: none"> • Paper filter collapsed during brewing. 	<ul style="list-style-type: none"> • Use proper filter.
Brew basket overflowed	<ul style="list-style-type: none"> • Too much coffee. • Coffee ground too finely. • Double batching. 	<ul style="list-style-type: none"> • Use no more than 3 1/2 oz. of coffee. • Coarsen grind. • You must dump old coffee and use fresh new filter for each brew.
Unpleasant taste	<ul style="list-style-type: none"> • Water tank or brew basket needs cleaning. 	<ul style="list-style-type: none"> • Clean, sanitize (de-lime). • Refer to Regular Maintenance section.
Brewer will not brew	<ul style="list-style-type: none"> • Basket has not been changed. 	<ul style="list-style-type: none"> • Remove basket, replace filter, reinstall.
Grinder will not start when start button is pushed	<ul style="list-style-type: none"> • Main power switch turned off. • No power to outlet. • Basket out. • Circuit breaker has tripped. • Basket has not been changed. • RFID antenna not sensing RFID tag on Airpot (RFID grind select only). 	<ul style="list-style-type: none"> • Turn main power switch, on located on back of unit (left side from front) on. • Check outlet with lamp or radio to verify outlet has power. • Ensure basket is in position. • Reset circuit breaker (located on back of unit) by pushing the reset button in until you hear a click. • Remove basket, replace filter, reinstall. • Rotate Airpot to align RFID tag to RFID antenna.
Grinder runs or hums but no coffee is dispensed	<ul style="list-style-type: none"> • Shear disc is broken. • Obstruction in opening of auger assembly (on dual bean units). • Obstruction in opening to grinding chamber. • Blown fuse on controller board (Dual bean only). 	<ul style="list-style-type: none"> • Replace shear disc. See Shear Disc Replacement section. • Remove hopper and clear obstruction. • Remove hopper and clean obstruction. • Check for blown fuse and replace with 5 Amp fuse.
Grinder chute clogs	<ul style="list-style-type: none"> • Air shutter fan is not operational. • Air shutter fan is installed backwards; Air flow must be directed out of the grinder chute to prevent moisture from entering grinder chute. 	<ul style="list-style-type: none"> • Confirm that fan is operational by observation after removal of the right side panel access plate. • Ensure fan is installed with arrow pointing toward the grind head to allow air to be directed into the brew funnel.
Quantity of coffee dispensed each throw is not the same	<ul style="list-style-type: none"> • Defective timer in controller. 	<ul style="list-style-type: none"> • Check the length of time grinder runs with watch. • Remove upper assembly and clean obstruction.

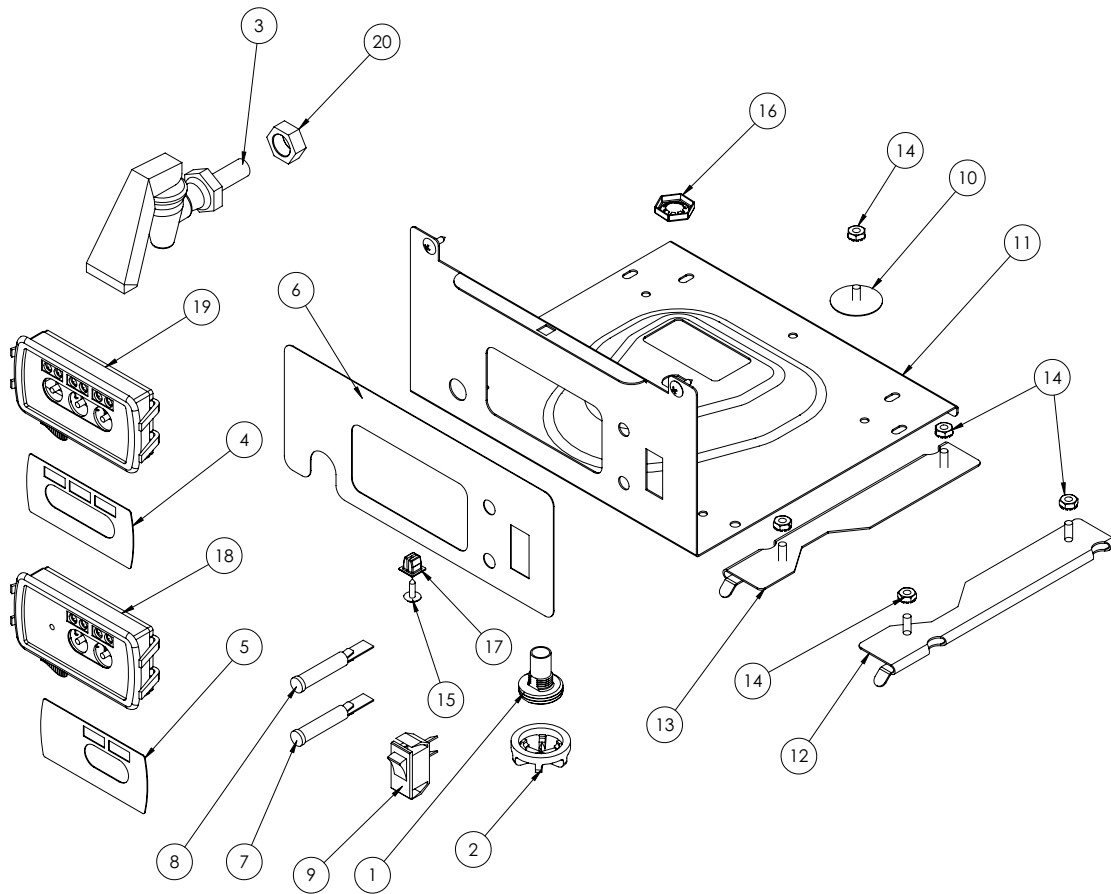
Troubleshooting Guide (cont.)

Problem	Possible Cause	Remedy
Circuit breaker continuously trips	<ul style="list-style-type: none"> • Insufficient current due to use of extension cord. • Insufficient current due to overloaded line. 	<ul style="list-style-type: none"> • Plug unit directly into outlet. Do not use extension cord. • Designate single line for unit. Do not use multi outlet box.
Basket Out light flashing (Display board displays “ER1”)	<ul style="list-style-type: none"> • Water fill valve on too long. • Water supply turned off. 	<ul style="list-style-type: none"> • Clean or replace water fill valve. • Turn water supply on.
Basket Out light flashing (Display board displays “ER2 or ER 3”)	<ul style="list-style-type: none"> • Problem with Thermistor. 	<ul style="list-style-type: none"> • Replace if defective.
Basket Out light flashing (Display board displays “ER4”)	<ul style="list-style-type: none"> • Heater Relay failed. • Contactor Failed. • Heater Failed open. • Hi Temp failed. • Control Board output failed. 	<ul style="list-style-type: none"> • Replace defective component.
Water not hot enough	<ul style="list-style-type: none"> • Thermistor not set high enough. • Defective thermistor. 	<ul style="list-style-type: none"> • Reprogram thermistor / temp settings. • Replace Thermistor.
Water boiling (or steaming)	<ul style="list-style-type: none"> • Thermistor set too high. • Defective Thermistor. 	<ul style="list-style-type: none"> • Reprogram thermistor / temp settings. • Replace Thermistor.
Start switch not working (Basket Out light illuminated)	<ul style="list-style-type: none"> • Brew basket out of place. 	<ul style="list-style-type: none"> • Replace basket.
No lights are on (Including Warmer light)	<ul style="list-style-type: none"> • No power to brewer. • Power switch turned Off. 	<ul style="list-style-type: none"> • Turn power on. • Turn switch on.
No touch pad lights (other lights o.k.)	<ul style="list-style-type: none"> • Touch pad disconnected. 	<ul style="list-style-type: none"> • Reconnect touch pad.
Too much or not enough water in decanter	<ul style="list-style-type: none"> • Water time adjustment. 	<ul style="list-style-type: none"> • Readjust.
Spray head dripping	<ul style="list-style-type: none"> • Lime build up in dump valve. 	<ul style="list-style-type: none"> • Delime unit.
Hot water spigot dripping	<ul style="list-style-type: none"> • Faulty seal. 	<ul style="list-style-type: none"> • Replace seal.
Hot water spigot not dispensing	<ul style="list-style-type: none"> • Drain tube limed-up. • Defective valve seat. 	<ul style="list-style-type: none"> • Delime tank and drain tube. • Replace seat.
Warmer Failure	<ul style="list-style-type: none"> • Loss of power. • Defective warmer switch or warmer heater. 	<ul style="list-style-type: none"> • Check power source. • Perform continuity test. Replace defective component.
Auger motor, water solenoid not working	<ul style="list-style-type: none"> • Bus fuse on controller board is blown. 	<ul style="list-style-type: none"> • Replace 5 Amp bus fuse.
Basket Out or Brew Cycle indicators will not light up	<ul style="list-style-type: none"> • Polarity reversed. • LED burned out. 	<ul style="list-style-type: none"> • Connect red wire to red terminal of LED. • Replace LED.

If you still need help, call our Technical Service Department at 800-695-4500 (USA & Canada only) or 502-425-4776, Monday through Friday, 8:00 AM - 8:00 PM Eastern Standard Time or an authorized service center in your area. Please have the model and serial number ready so that accurate information can be given.

Prior authorization must be obtained from Grindmaster Corporation’s Technical Services Department for all warranty claims.

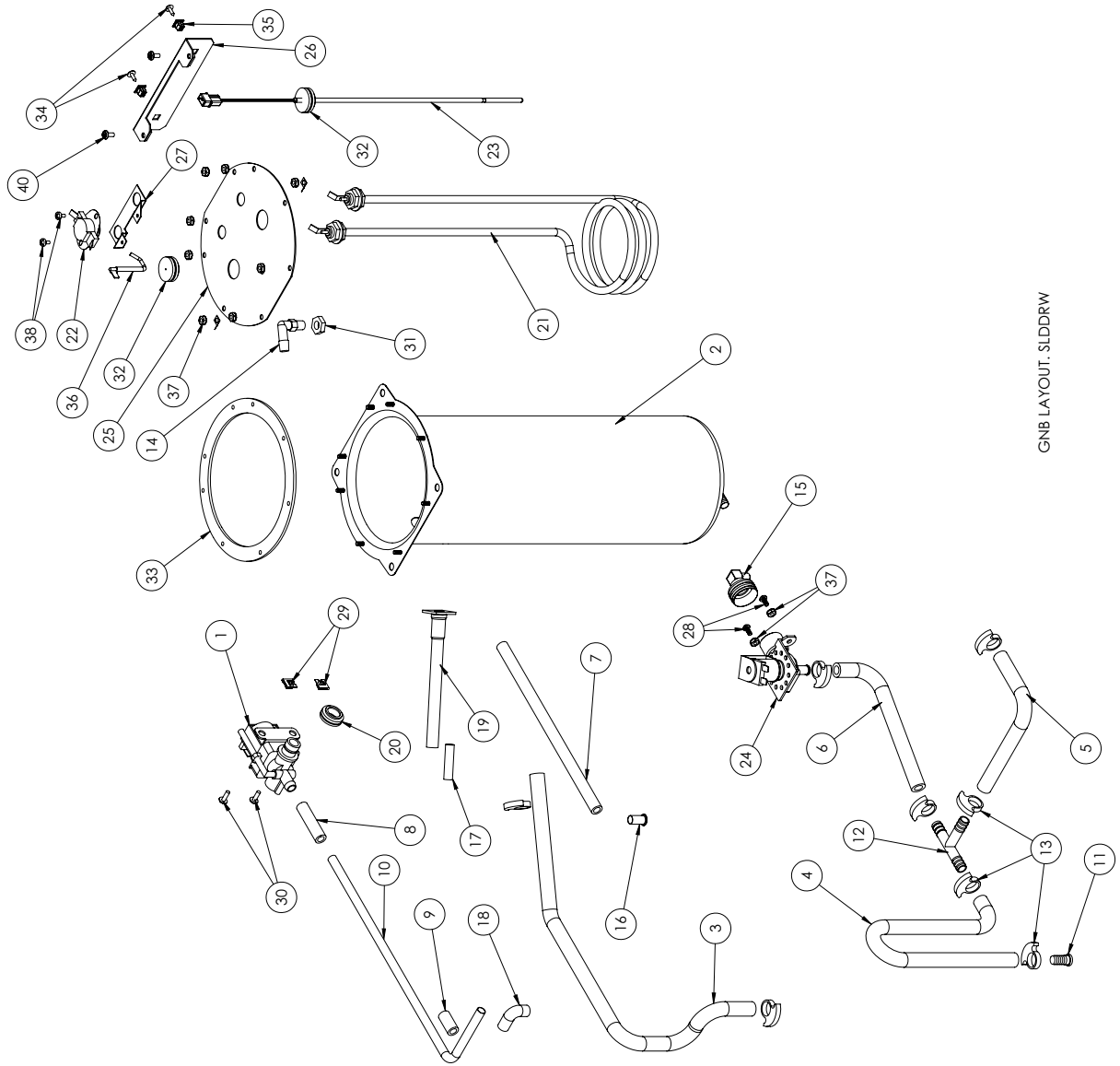
Exploded View Top Panel Assembly



GNB LAYOUT.SLDDRW

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71977	NOZZLE, 0.177	1
2	06491	DEFLECTOR, SPRAY	1
3	71546	FAUCET, HOT WATER SPOUT	1
4	71454	DECAL, TPAD DUAL BEAN UNIV	1
5	71455	DECAL, TPAD SNGL BEAN UNIV	1
6	71367	DECAL, CONTROL PANEL, TOUCHPAD	1
7	71449	INDICATOR LIGHT, RED	1
8	71448	INDICATOR LIGHT, GREEN	1
9	70445	SWITCH, ROCKER, N/O, WHITE	1
10	72036	DETENT ASSEMBLY	1
11	71490	TRAY, GNB TOP	1
12	71485	Rail, Brew RH Assy	1
13	71486	RAIL, BREW LH ASSY	1
14	71129	NUT, 8-32 FEPS SS	5
15	70523	SCRW, #8x1/2 PN TR AB 410SS	3
16	07220	NUT, 1/2-20 HX PL	1
17	71373	ANCHOR, SCRW #8 NYLON	1
18	71451	TOUCHPAD ASSY, GNB SGL SPARE PARTS	1
19	71452	TOUCHPAD ASSY, GNB DUAL SPARE PARTS	1
20	07206-05	NUT 1/2"-20 HX JAM	1

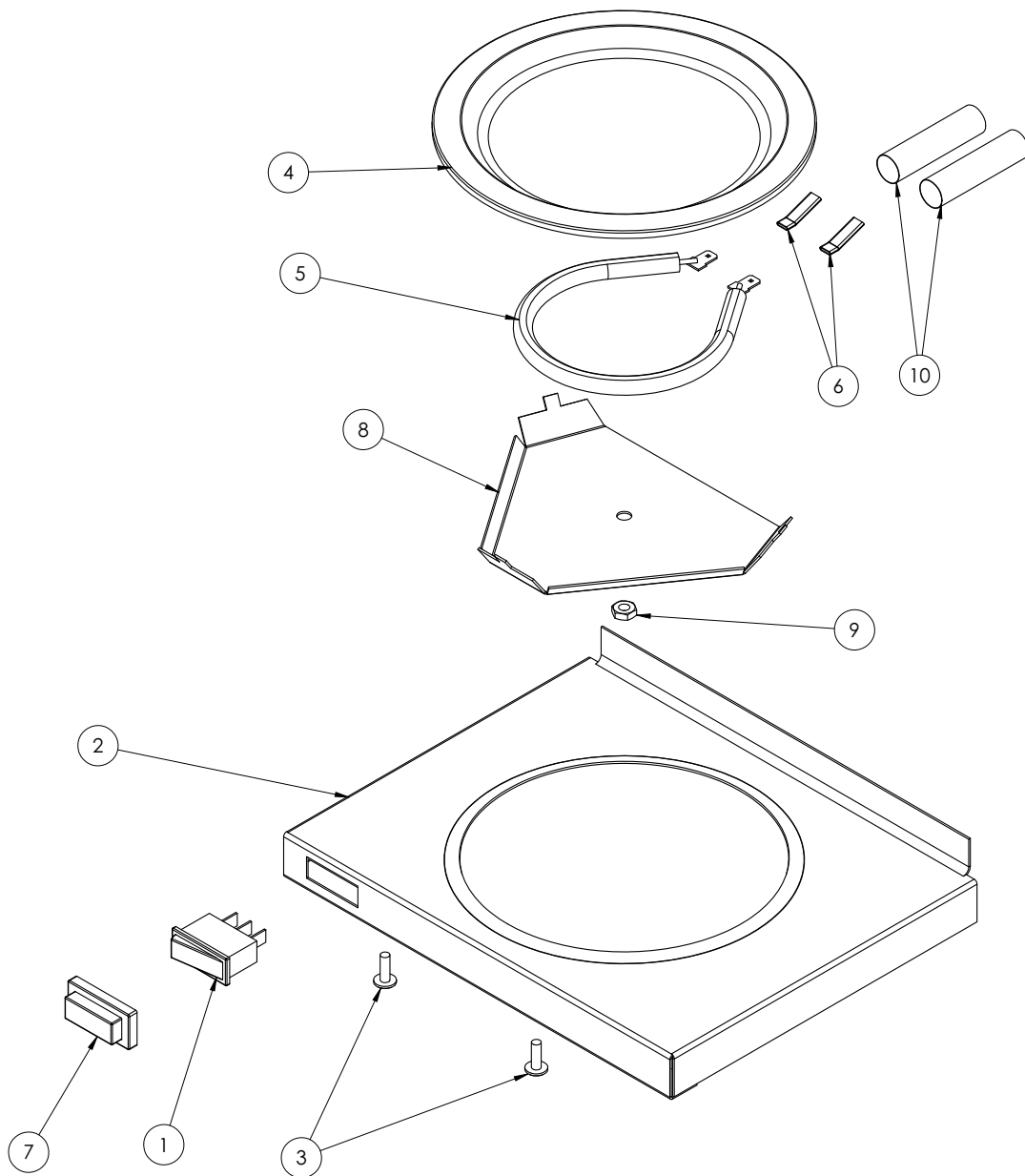
Exploded View Hot Water Tank Assembly



GNB LAYOUT .SLDDRW

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	61102	VALVE, DUMP 120V	1
2	83461-01	TANK, WATER 16" FABRICATED GNB	1
3	05826.19	TUBING, 3/8ID X 1/8WL SILICONE	1
4	05826.16	TUBING, 3/8ID X 1/8WL SILICONE	1
5	05826.9.0	TUBING, 3/8ID X 1/8WL SILICONE	1
6	05826.8.0	TUBING, 3/8ID X 1/8WL SILICONE	1
7	71155.10.0	TUBING, 5/16ID X 3/32WL SILICONE	1
8	71155.9.0	TUBING, 5/16ID X 3/32WL SILICONE	1
9	71155.1.0	TUBING, 5/16ID X 3/32WL SILICONE	1
10	71258	TUBE, SPRAY	1
11	61232	PLUG, 3/8 BARBED SS	1
12	61152	TEE, 7/16 X 7/16 X 7/16 BARBED	1
13	07327	CLAMP, HOSE 21/32 ID	8
14	61317	ELBOW, 1/8 NPT X 3/8 BARB	1
15	61237	FITTING, ASSY, 1/4 FL X 3/4 HS. BRS	1
16	71148	SUPPORT, VENT TUBE	1
17	71093	TUBE, SPLICE	1
18	70341	FIG, 90 DEG ELBOW SILICONE	1
19	12152	TUBE, OUTLET	1
20	61243	GROMMET, DUMP VALVE	1
21	61624	ELEMENT, HEATING 1650W, 120V	1
22	62806	T-STAT, HI TEMP LIMIT	1
23	61128	PROBE, THERMISTOR 12"	1
24	61104	VALVE, 120V INLET 1.2 GPM	1
25	61773	COVER, WATER TANK	1
26	71480	TANK BRACKET ASSY	1
27	62238	BRACKET, T-STAT	1
28	07026-07	SCR, #8-32 X 3/8 PH PN SS	2
29	71166	NUT, TINNRMN C0803 SS-832-27	2
30	71084	SCR, #8-32 X 1/2 PH TH T/F	2
31	61143	NUT, 1/8 JAM N-T BR	1
32	71147	GROMMET, SILICONE WHT	2
33	70821	GASKET, WATER TANK	1
34	70523	SCRW, #8x1/2 PN TR AB 410SS	2
35	71373	ANCHOR, SCRW #8 NYLON	2
36	61108	ASSEMBLY, PROBE	1
37	71129	NUT, 8-32 FEPS SS	10
38	61353	SCRW, 8-32 X 1/4" PH PN 18-8 SS	2
39	70635	TERMINAL, 1/4-032 X 45DEG TAB	2
40	82097	SCR #8-32X3/8" PH TH 18-8 SS	2

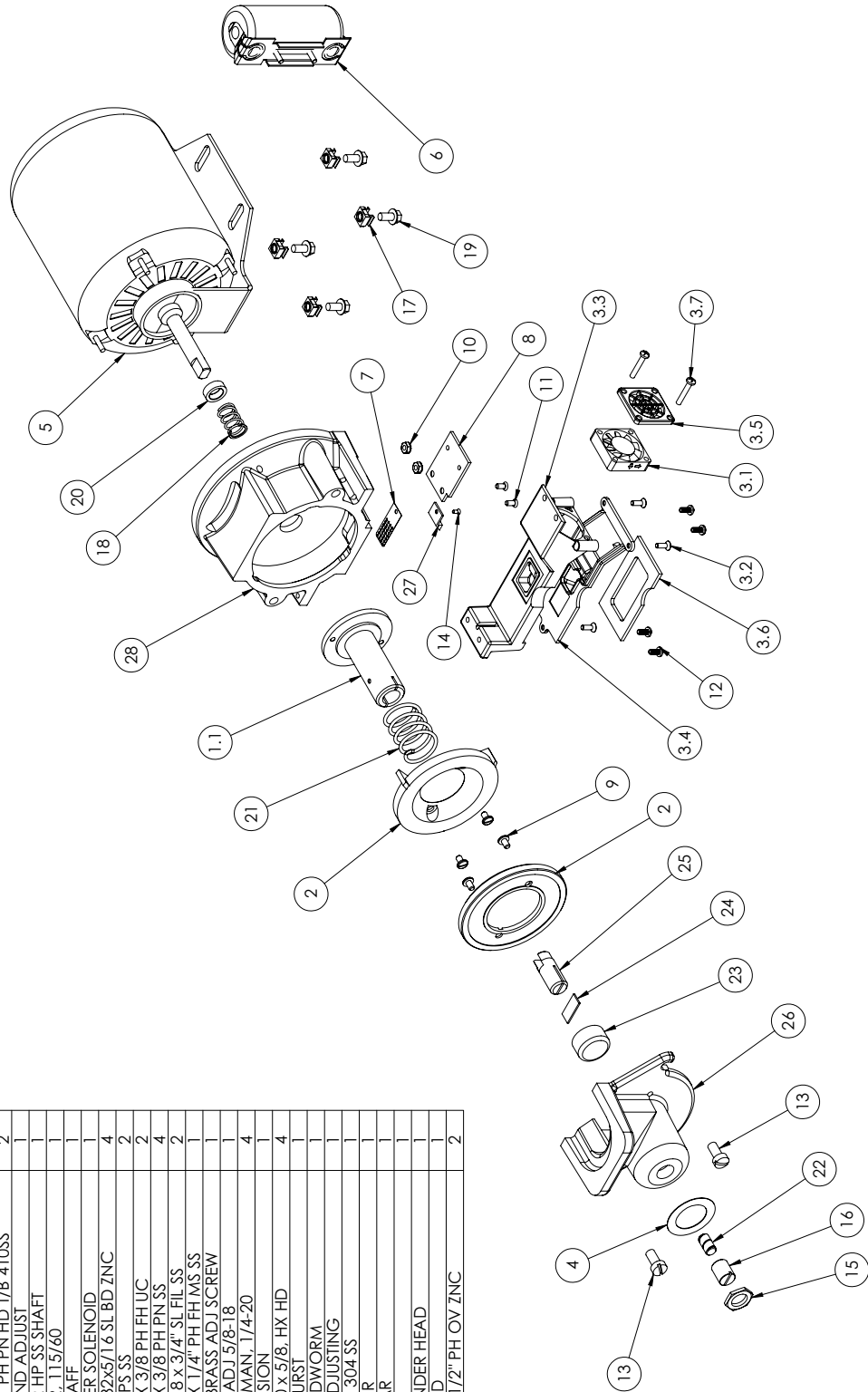
Exploded View Warmer Assembly



GNB LAYOUT.SLDDRW

ITEM NO.	PART NUMBER	Description	QTY.
1	06957	SWITCH, ROCKER	1
2	200-00067	MOUNT, WARMER PLATE	1
3	71084	SCR, #8-32 X 1/2 PH TH T/F	2
4	71577	PLATE, WARMER, 1-STUD	1
5	13029	HEATER, WARMER 120V	1
6	70631	TUBING, HEAT SHRINK	2
7	71315	CVR, SWITCH	1
8	71592	BRACKET, WARMER B-3	1
9	70322	NUT, 10-32 KEPS SS	1
10	362-00027	TUBING, 1/2" ID HEAT SHRINK	2

Exploded View Grinder Assembly (Non Shutter)

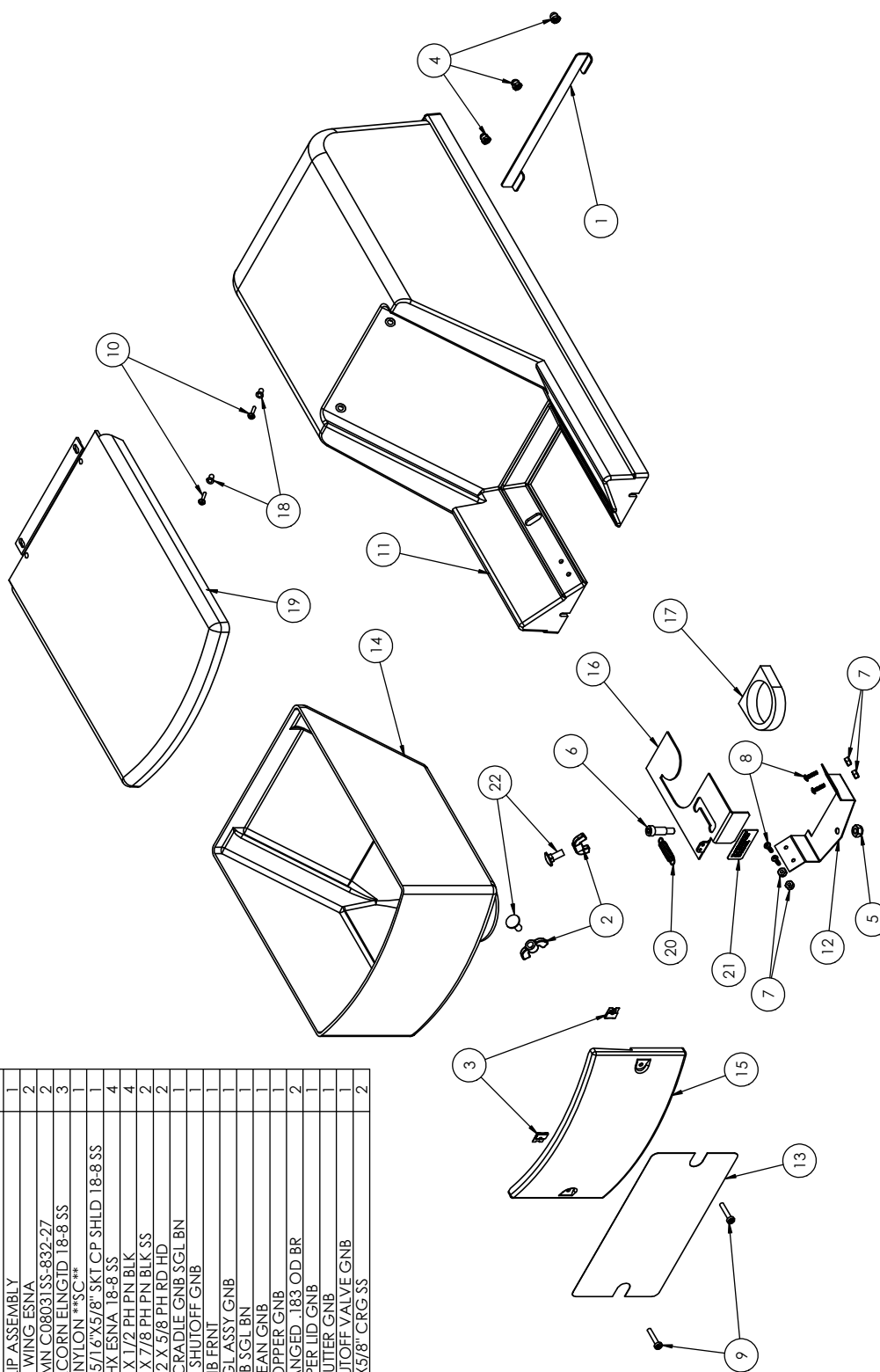


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71002K	KIT, FEEDWORM	1
1.1	71002	FEEDWORM	1
1.2	84319	BUSHING, FEEDWORM	2
2	85281W	BURRS, 410/411, MCHD	1
3	72048	BLOWER HOUSING ASSEMBLY	1
3.1	71482	Fan, 40mm X 10mm 4.2CFM 4200RPM	1
3.2	72045	Scr., #8 x 1/2" Type B SS FHP	3
3.3	63870	Housing, upper blower housing	1
3.4	63871	Cover, GNB blower housing	1
3.5	71483	GUARD, 40mm FAN FINGER	1
3.6	71484	Gasket, GNB blower housing	1
3.7	89115	SCRW. #8X1, PH PN HD T/B 410SS	2
4	71169	DECAL, GRIND ADJUST	1
5	71079	MOTOR, 1/2 HP SS SHAFT	1
6	86144	CAPACITOR, 115/60	1
7	71295	SPRING, CHAFF	1
8	71052	BRKT, SHUTTER SOLENOID	1
9	86812	SCREW, 10-32x5/16 SL BD ZNC	4
10	71129	NUT, 8-32 PEPS SS	2
11	71177	SCR, #8-32 X 3/8 PH FH UC	2
12	07026-07	SCR, #8-32 X 3/8 PH PN SS	4
13	71100	SCrw. 5/16-18 x 3/4" SL FIL SS	2
14	71179	SCR, #4-40 X 1/4" PH FH MS SS	1
15	86340	NUT, 5/8-18 BRASS ADJ SCREW	1
16	86341	SCR, GRND ADJ 5/8-18	1
17	86864	NUT, TINNEMAN, 1/4-20	4
18	80025	SPRING, TENSION	1
19	86872	BOLT, 1/4-20 x 5/8, HX HD	4
20	86304	COLLAR, THURST	1
21	71003	SPRING, FEEDWORM	1
22	71298	BEARING, ADJUSTING	1
23	70483	CVR, SHEAR 304 SS	1
24	71081	PLATE, SHEAR	1
25	71288	DRIVE, SHEAR	1
26	71001	CAP, GRND	1
27	71123	INSERT, GRINDER HEAD	1
28	71000	HEAD, GRIND	1
29	86808	SCR #8-32X1/2" PH OV ZNC	2

GNB LAYOUT.SLIDRW

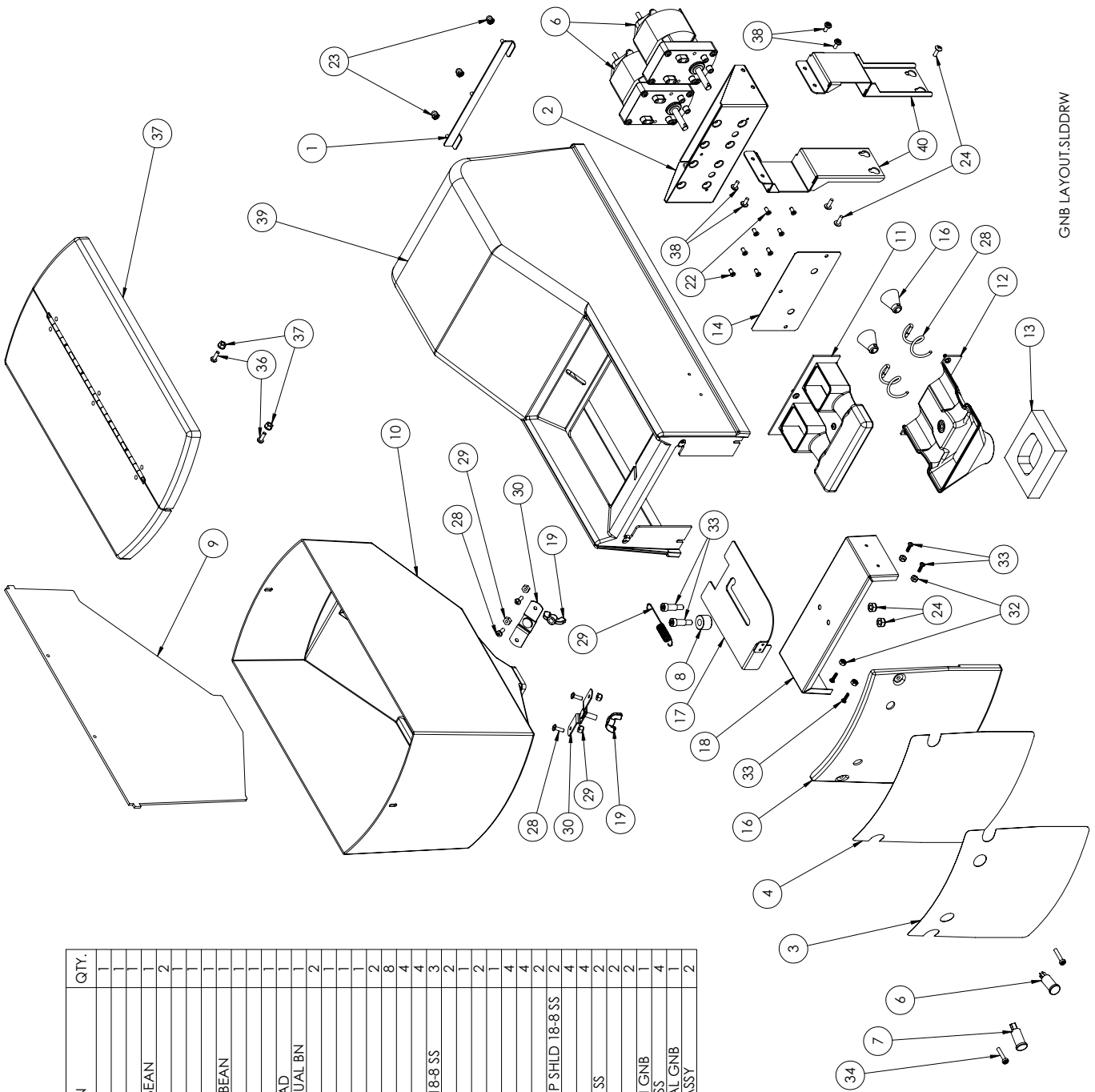
Exploded View Single Bean Upper Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71469	HOPPER CLIP ASSEMBLY	1
2	71199	NUT, 1/4"-20 WING ESNA	2
3	71166	NUT, TINNRMN C08031SS-832-27	2
4	61339	NUT, 8-32 ACORN ELNGID 18-8 SS	3
5	60007	NUT, 1/4"-20 NYLON **SC**	1
6	71122	BLT, 1/4"-20, 5/16"X5/8", SKT, CP SHLD 18-8 SS	1
7	86913	NUT, #6-32 HX ESNA, 18-8 SS	4
8	61304	SCR, #6-32 X 1/2 PH PN BLK	4
9	61288	SCR, #8-32 X 7/8 PH PN BLK SS	2
10	60288	SCREW, 6-32 X 5/8 PH RD HD	2
11	71090	ASSY, HPR CRADLE, GNB, SGL BN	1
12	71193	BRKT, BEAN SHUTOFF, GNB	1
13	71103	DECAL, GNB FRNT	1
14	71277	HOPPER, SGL ASSY, GNB	1
15	71029	FRONT, GNB, SGL BN	1
16	71279	SHUTOFF, BEAN, GNB	1
17	71117	GASKET, HOPPER, GNB	1
18	71174	SLEEVE, FLANGED, .183 OD, BR	2
19	71175	ASSY, HOPPER LID, GNB	1
20	71171	SPRING, SHUTTER, GNB	1
21	71197	DECAL, SHUTOFF VALVE, GNB	1
22	71082	BLT, 1/4"-20X5/8", CRG, SS	2



GNB LAYOUT.SLDDRW

Exploded View Dual Bean Upper Assembly

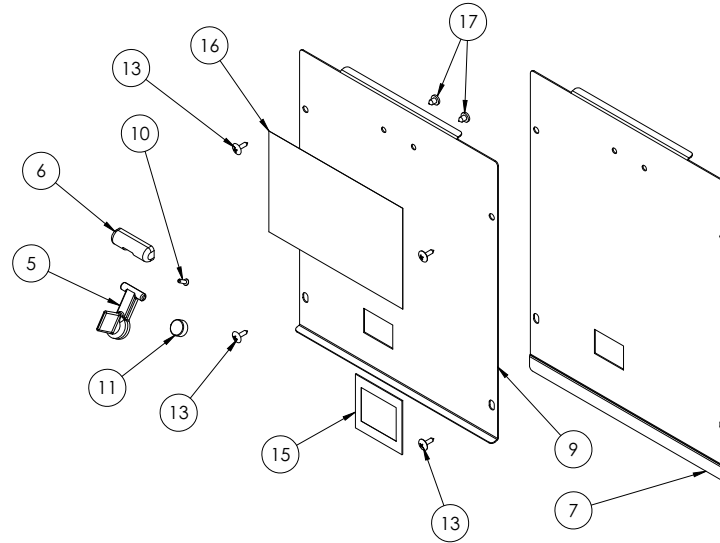


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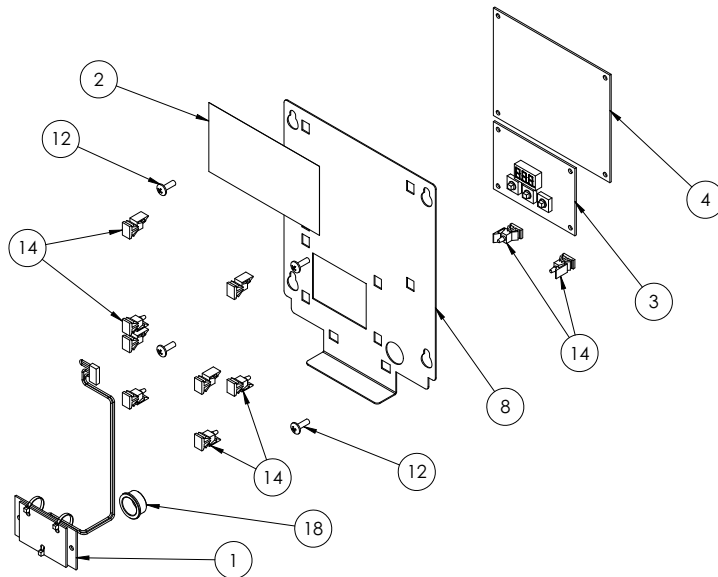
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71469	HOPPER CLIP ASSEMBLY	1
2	72055	AUGER MOTOR BRKT. ASSY.	1
3	72049	Decal, GNB front panel	1
4	71249	DECAL, GNB FRONT DUAL BEAN	1
6	86482	MOTOR, AUGER 120V	2
7	71489	Lamp, Green, 28vdc	1
7	71488	Lamp, RED, 28vdc	1
8	72051	SPACER, NYLON SHUTOFF	1
9	71206	PARTITION, HPR GNB DUAL BEAN	1
10	71210	HOPPER, GNB DUAL BEAN	1
11	71220	PORTRONER, UPPER HALF	1
12	71219	PORTRONER, LOWER HALF	1
13	71419	GASKET, PORTINR TO HEAD	1
14	71248	PLATE, PORTINR CVR GNB DUAL BN	1
16	86480	FEEDER, AUGER SHAFT	2
16	71211	FRONT, GNB DUAL BN	1
17	71204	VALVE, BEAN SHUTOFF	1
18	72018	BRACKET, BEAN SHUTOFF	2
19	71199	NUT, 1/4-20 WING ESNA	2
22	71177	SCR, #8-32 X 3/8 PH FH UC	8
21	07026-07	SCR, #8-32 X 3/8 PH PN SS	4
24	71084	SCR, #8-32 X 1/2 PH TH T/F	4
23	61339	NUT, 8-32 ACORN ELNGID 18-8 SS	3
24	60007	NUT, 1/4-20 NYLON **SC**	2
25	71253	RNT, #8-32 GRP, 130	1
28	86481	SPRING, AUGER DRIVE	2
29	86508	SPRING, BASKET ARM EXT	1
28	07044-02	SCR, #8-32X1/2" PH FIL ZNC	4
29	71261	NUT, 8-32 ESNA, 18-8 SS	4
30	12074	BRKT, HOPPER GNB	2
33	71122	BLT 1/4" 20 5/16 X 5/8" SKT CP SHLD 18-8 SS	2
32	86913	NUT #6-32 HX ESNA 18-8 SS	4
33	61304	SCR, #6-32 X 1/2 PH PN BLK	4
34	61288	SCR, #8-32 X 7/8 PH PN BLK SS	2
37	86086	NUT #8-32 FLNG NYL	2
36	86087	SCR #8-32X1/2" SL BH NYL	2
37	71229	KIT, HOPPER LID DUAL BEAN GNB	1
38	82097	SCR #8-32X3/8" PH TH 18-8 SS	4
39	71222	HOPPER CRADLE ASSY, DUAL GNB	1
40	72087	BRACKET, AUGER MOTOR ASSY	2

Splash Panel & Control Panel Assembly

Splash Panel Assembly (Basket Out Switch)



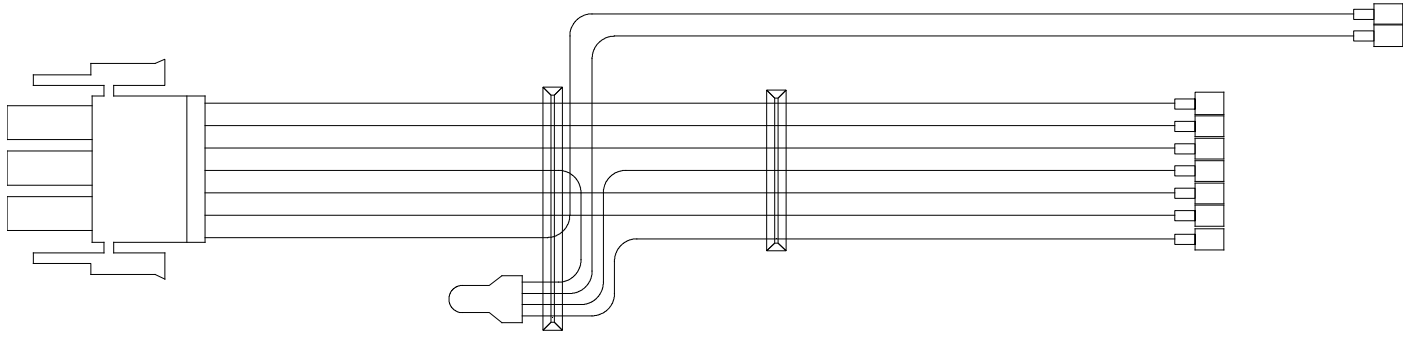
Control Panel Assembly



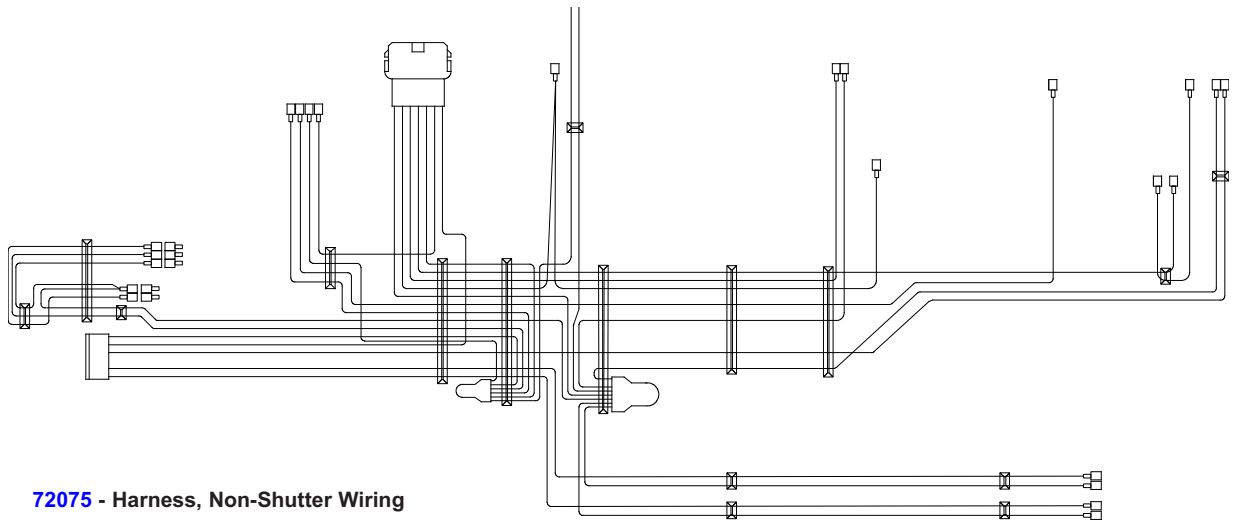
GNB LAYOUT.SLDDRW

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	72065	RFID ANTENNA ASSEMBLY	1
2	71106	DECAL, CONTROLLER OVERLAY	1
3	71957	INTERFACE, GNB PROGRAM	1
4	72046	Control, GNB RFID CAPABLE	1
5	72039	Fulcrum, Basket out switch	1
6	72040	PIVOT, FULCRUM	1
7	72073	PANEL, GNB WARMER SPLASH	1
8	71497	Bracket, GNB controller	1
9	71494	Panel, GNB Airpot Splash	1
10	72042	Screw, Type A #4x3/8" FH PH SS	1
11	71499	Magnet, 1/2OD x 1/4W	1
12	71084	SCR, #8-32 X 1/2 PH TH T/F	4
13	70523	SCRW,#8x1/2 PN TR AB 410SS	4
14	61266	STANDOFF, RVRS EDGEMOUNT	10
15	71965	DISPLAY FILTER	1
16	70248	LABEL, WARNING	1
17	P940A	Screw, #8 x 1/4" SS	2
18	88031	SNAP BUSHING, HEYCO #2096	1

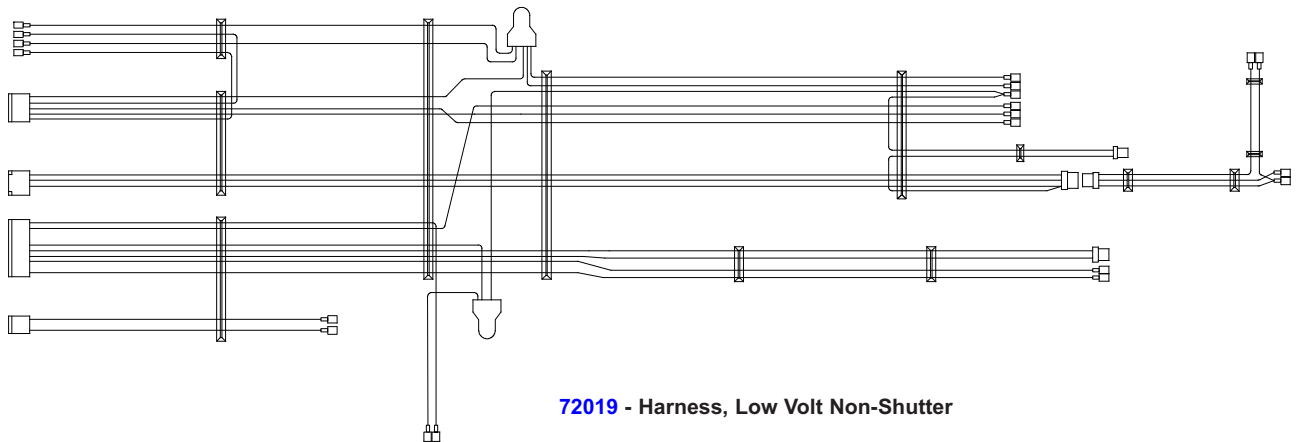
Wiring Harnesses



71310 - Harness, Wiring Power Supply

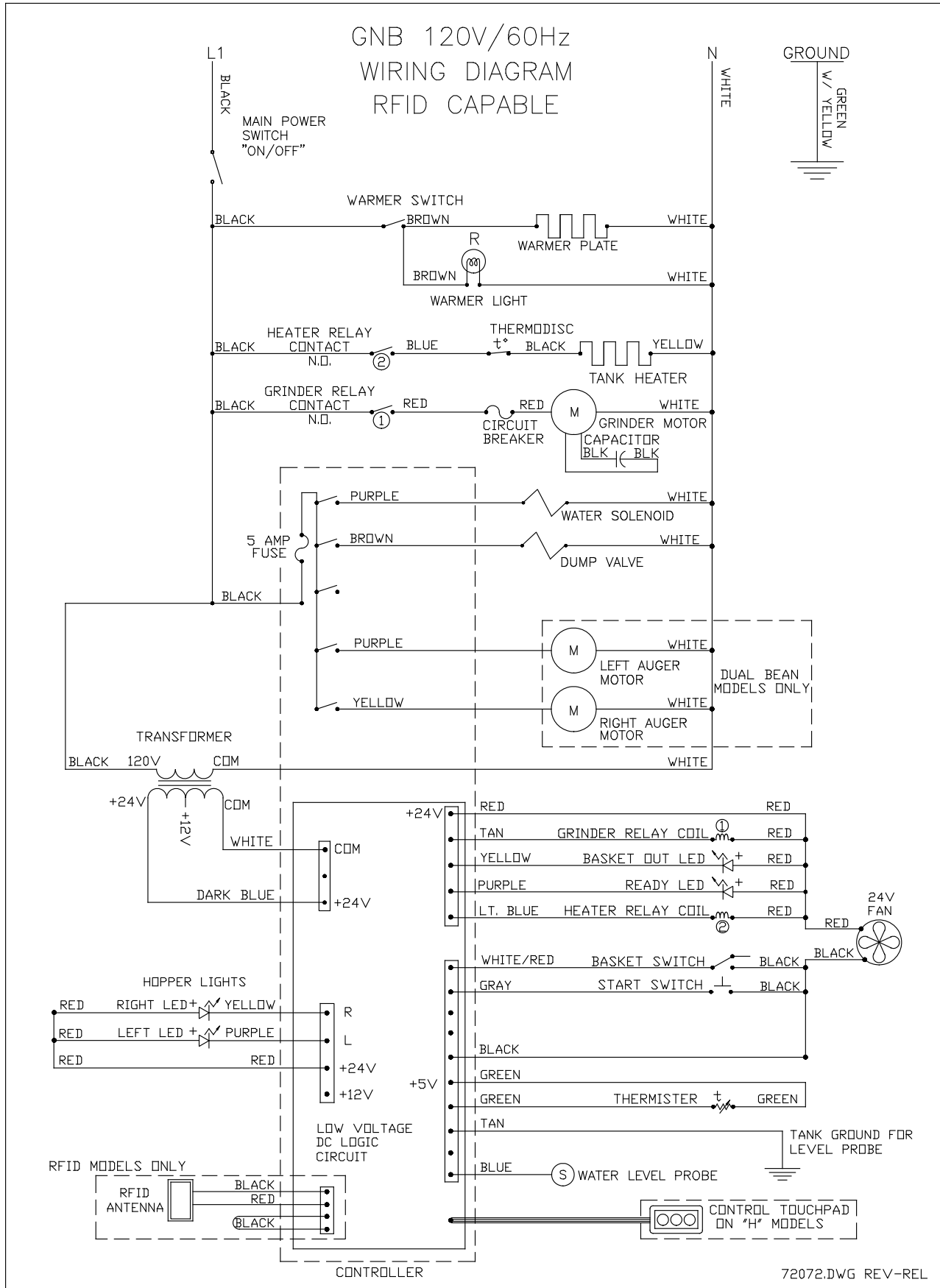


72075 - Harness, Non-Shutter Wiring



72019 - Harness, Low Volt Non-Shutter

72072 - Wiring Diagram





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