BUNN®

# MHG
## for use with Smart Funnel ®

# INSTALLATION AND OPERATING MANUAL

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**www.bunnomatic.com**

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## INTRODUCTION

This equipment will store up-to five pounds of whole bean coffee in a hopper and grind it to a preset grind and amount into an awaiting funnel and filter from most commercial drip coffee brewers. The equipment is only for indoor use on a sturdy counter or shelf. Adequate space must be available above the grinder to raise the lids when adding beans. Use only with whole bean coffee.

The grind is preset at the factory to **drip** specifications as set forth by the United States Department of Commerce and adopted by the Coffee Brewing Center of the Pan American Coffee Bureau. Adjustments may be made to alter both the amount and grind from the factory setting.

## BUNN-O-MATIC COMMERCIAL PRODUCT WARRANTY

Bunn-O-Matic Corp. ("BUNN") warrants equipment manufactured by it as follows:

1) All equipment other than as specified below: 2 years parts and 1 year labor.
2) Electronic circuit and/or control boards: parts and labor for 3 years.
3) Compressors on refrigeration equipment: 5 years parts and 1 year labor.
4) Grinding burrs on coffee grinding equipment to grind coffee to meet original factory screen sieve analysis: parts and labor for 3 years or 30,000 pounds of coffee, whichever comes first.

These warranty periods run from the date of installation BUNN warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. This warranty does not apply to any equipment, component or part that was not manufactured by BUNN or that, in BUNN's judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, damage or casualty. This warranty is conditioned on the Buyer 1) giving BUNN prompt notice of any claim to be made under this warranty by telephone at (217) 529-6601 or by writing to Post Office Box 3227, Springfield, Illinois 62708-3227; 2) if requested by BUNN, shipping the defective equipment prepaid to an authorized BUNN service location; and 3) receiving prior authorization from BUNN that the defective equipment is under warranty. **THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** The agents, dealers or employees of BUNN are not authorized to make modifications to this warranty or to make additional warranties that are binding on BUNN. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon. If BUNN determines in its sole discretion that the equipment does not conform to the warranty, BUNN, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts and/or labor (during the applicable parts and labor warranty periods specified above) to repair the defective components, provided that this repair is done by a BUNN Authorized Service Representative; or 2) shall replace the equipment or refund the purchase price for the equipment.

**THE BUYER'S REMEDY AGAINST BUNN FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AT BUNN'S SOLE OPTION AS SPECIFIED HEREIN, TO REPAIR, REPLACEMENT OR REFUND.**

In no event shall BUNN be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment facilities or services, or any other special, incidental or consequential damages.

## USER NOTICES

Carefully read and follow all notices on the grinder and in this manual. They were written for your protection. All notices on the grinder are to be kept in good condition. Replace any unreadable or damaged labels.

**⚠WARNING**

- Use only on a properly protected circuit capable of the rated load.
- Electrically ground the chassis.
- Follow national/local electrical codes.
- Do not use near combustibles.

An extension cord, when used, must be shorter than 20 feet if 16-gage 3-conductor wire, or shorter than 10 feet if 18-gage 3-conductor wire.

FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, FIRE, OR SHOCK HAZARD

READ THE ENTIRE OPERATING MANUAL INCLUDING THE LIMIT OF WARRANTY AND LIABILITY BEFORE BUYING OR USING THIS PRODUCT

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**⚠ CAUTION**

PERSONAL INJURY HAZARD.

KEEP FINGERS AND FOREIGN OBJECTS OUT OF HOPPER OR CHUTE OPENING.

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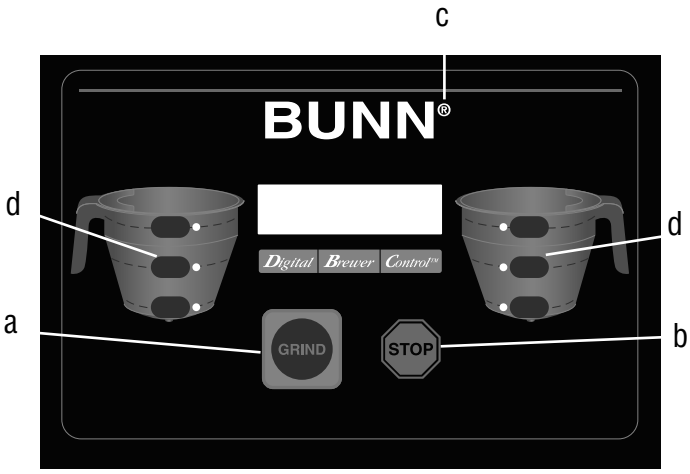
## ELECTRICAL REQUIREMENTS

This grinder has an attached cordset and requires 2-wire, grounded service rated:

120 volts ac, 15 amp, single phase, 60 Hz, for domestic grinders.

230 volts ac, 10 amp, single phase, 50 Hz, for most international grinders.

## OPERATING CONTROLS




**Grind Pad (a)**
Pressing initiates a timed grind cycle.

**Stop Pad (b)**
Pressing ends the operation of the grinder.

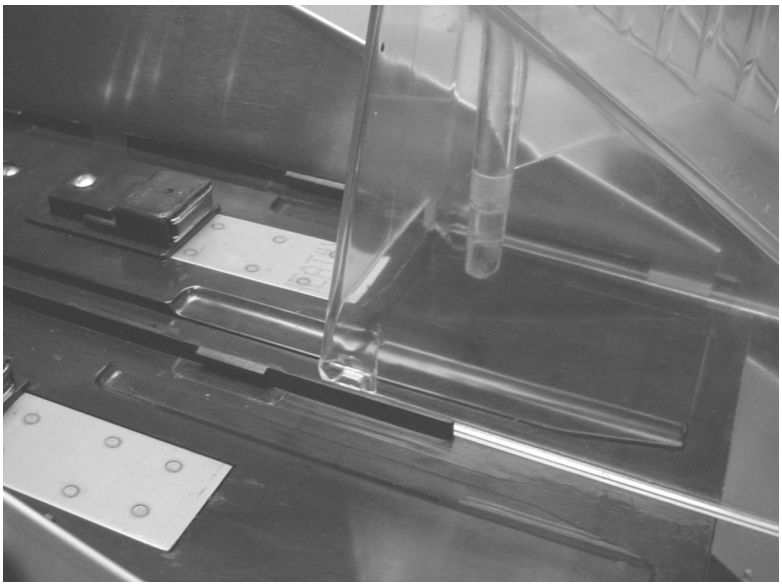
**® PAD (c)**
Pressing the ¨ pad allows programming access (see page 6).

**Hopper/Batch Selector Pads (d)**
These pads are located on the funnel depictions on each side of the grinder with a total of 6 pads. Selecting one of these pads will select the amount of grind and side from which to grind.
Example: Selecting the lower pad on the left side will grind enough beans from the left hopper of the grinder to brew the amount programmed into grinder.

**Control Board**
The control board determines the amount of beans that will leave the hopper in a grind cycle. The timer portion can be adjusted to dispense a different amount from each hopper and each batch size. The scale is from 0.4 to 99.9 seconds. Refer to the Adjustments section for timer setting chart (page 7).

## INITIAL SET-UP & PROGRAMMING

1. Grinder will not operate unless a hopper with a coffee name programmed into the chip is in place on the grinder.
2. Refer to Setup Menu “NAME HOPPER” to program hopper chip.
3. Remove top lid. Clear all foreign objects and shipping material from the hopper compartment.
4. Plug in the grinder. Place a hopper on top of the grinder with rear of hopper in front of metal gate and inside of center divider. Push hopper straight back until fully engaged on top of grinder. When hopper is fully engaged, LCD screen will display coffee name. To remove hopper, grasp handle and pull straight forward until rear of hopper is clear of metal gate, then remove.
5. Fill the hopper compartments with whole bean coffee. (Capacity 5+ pounds each). The grinder is now ready for use.



## CLEANING

The use of a damp cloth rinsed in any mild, non-abrasive, liquid detergent is recommended for cleaning all surfaces on Bunn-O-Matic equipment. Care should be taken not to scratch the hopper with any abrasive material. Regular cleaning will keep your grinder looking new for years.

## COFFEE GRINDING

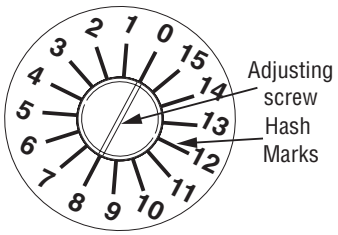
1. Visually inspect the selected hopper for an ample supply of whole bean coffee.
2. Place a paper filter into the brew funnel. The filter must not be folded-over or tilted to one side.
3. Insert the funnel into the funnel rails and push until it stops.
4. Choose the batch size and side of grinder to use.
5. Press GRIND. The grinding action will stop automatically after the preset amount of ground coffee is dispensed into the funnel. Pressing the STOP button will terminate a grind.

# ADJUSTMENTS

The grind can be set from very fine to very coarse. The amount may be adjusted for use in most commercial coffee brewers. The following procedures should be used to make adjustments. A change in the burr adjustment will also change the amount dispensed. Any adjustment of the burrs should be followed by an adjustment of the timer.

**Burr Adjustment**

1. Remove the two screws from front control panel. Hang the panel under metal hooks at bottom of opening.
2. Enter the Setup Menu “TEST OUTPUTS” - “GRIND MOTOR” (See page 9). Turn grinder motor ON.
3. After all of the coffee in the grind chamber is used, slowly turn the adjusting screw in a clockwise direction until a metallic whine is heard due to the rubbing of the grinding burrs. (It may be necessary to start more than one grind cycle to obtain this sound.)
4. Turn plastic grind indicator until screw slot lines up with “O” on the indicator.
5. The following settings approximately correspond to the CBC recognized grinds.



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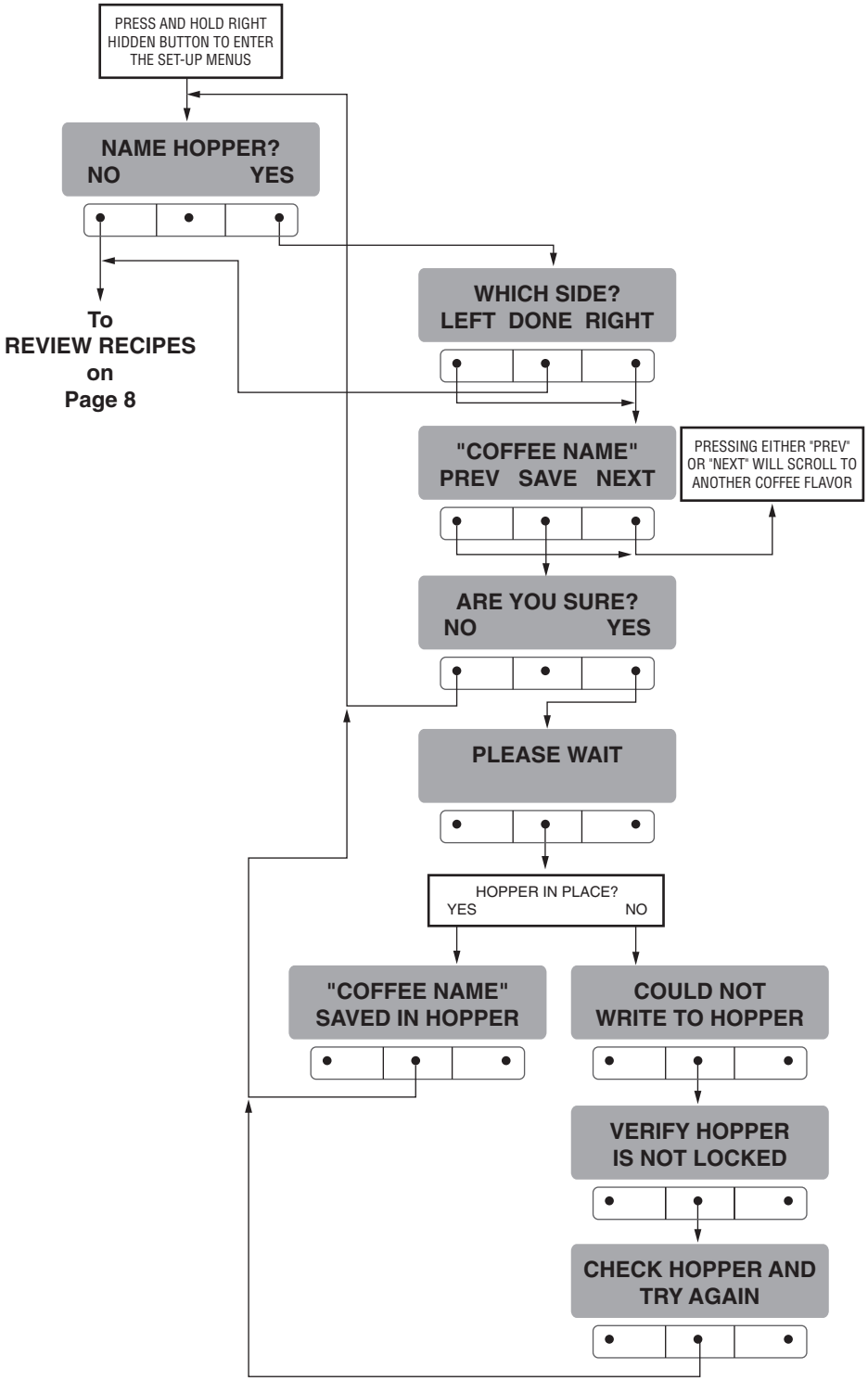
Turn the adjusting screw counterclockwise to the desired setting as noted below.
**FINE GRIND**: Rotate the adjusting screw 7 hash marks in a counterclockwise direction.
**DRIP GRIND**: Rotate the adjusting screw 8 hash marks in a counterclockwise direction.
**REGULAR (COARSE) GRIND**: Rotate the adjusting screw 12 hash marks in a counterclockwise direction.

# COMMUNICATING WITH COFFEE BREWER
## To Write A Name To A Hopper

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## COMMUNICATING WITH COFFEE BREWER (Continued)
## Timer Adjustment (Control Board)

Three different batch settings are selectable for each hopper. Each batch is independently adjustable by setting the length of time a slide gate opens to allow beans to drop into the grinding chamber. A second time setting for each batch determines how long the grind motor continues to run after the slide gate closes. This time is set long enough to insure that all the beans dropped into the grind chamber are ground and dispensed.

1. Determine the grind setting. (The factory setting is **drip**, to determine other settings, refer to the previous section.)
2. Use the table below to find approximate timer setting for the grind and amount of coffee desired.
3. In the Set-up Menu, go to "REVIEW RECIPES" - "MODIFY" (See page 8) to change grind and run times for each hopper.

**NOTE:** While in the setup mode, if no buttons are pushed for 60 seconds, the grinder will return to normal operations, retaining any settings made while in the setup mode.

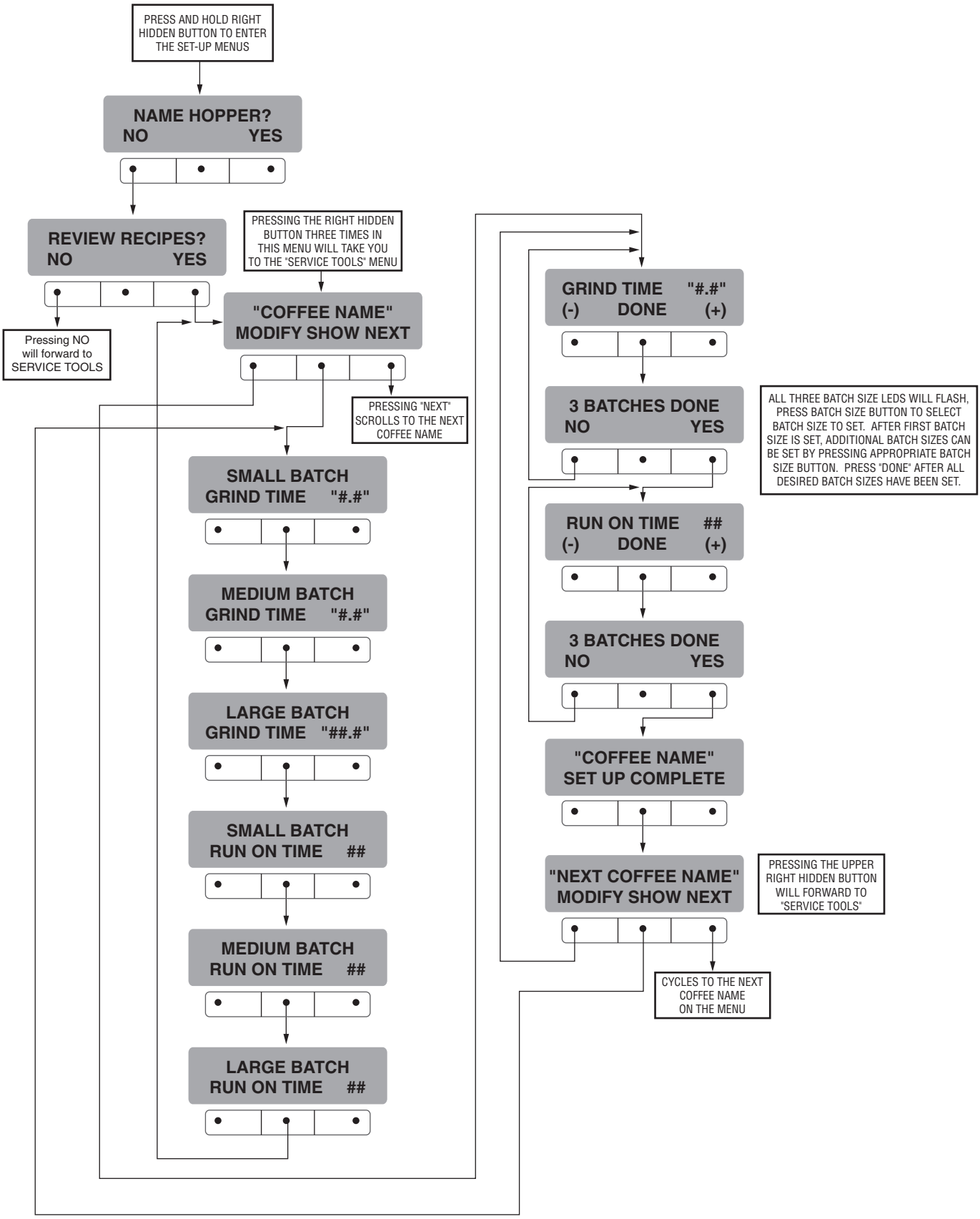
### APPROXIMATE TIMER SETTINGS IN SECONDS+

| Weight (ounces) | Fine (7*) | Drip (8*) | Regular (12*) |
|---|---|---|---|
| 1.5 | 0.5 | 0.5 | 0.5 |
| 1.75 | 0.7 | 0.6 | 0.6 |
| 2.0 | 1.0 | 0.8 | 0.8 |
| 2.25 | 1.4 | 1.4 | 1.2 |
| 2.5 | 1.9 | 1.8 | 1.6 |
| 2.75 | 2.4 | 2.2 | 2.0 |
| 3.0 | 2.9 | 2.7 | 2.5 |
| 3.25 | 3.3 | 3.1 | 2.9 |
| 4.0 | 4.8 | 4.4 | 4.0 |
| 6.0 | 8.6 | 7.9 | 7.5 |
| 8.0 | 12.0 | 11.5 | 10.9 |
| 10.0 | 15.7 | 15.1 | 14.1 |
| 12.0 | 19.6 | 18.5 | 17.5 |
| 14.0 | 23.5 | 22.0 | 20.9 |
| 16.0 | 27.0 | 25.3 | 24.3 |

*** Hash mark settings. Refer to Burr Adjustment section.**

**+ These are approximate timer settings for regular roast coffee. Settings will vary with coffee types and roasts.**

# COMMUNICATING WITH COFFEE BREWER (Continued)
## To Review Or Change Grind Time

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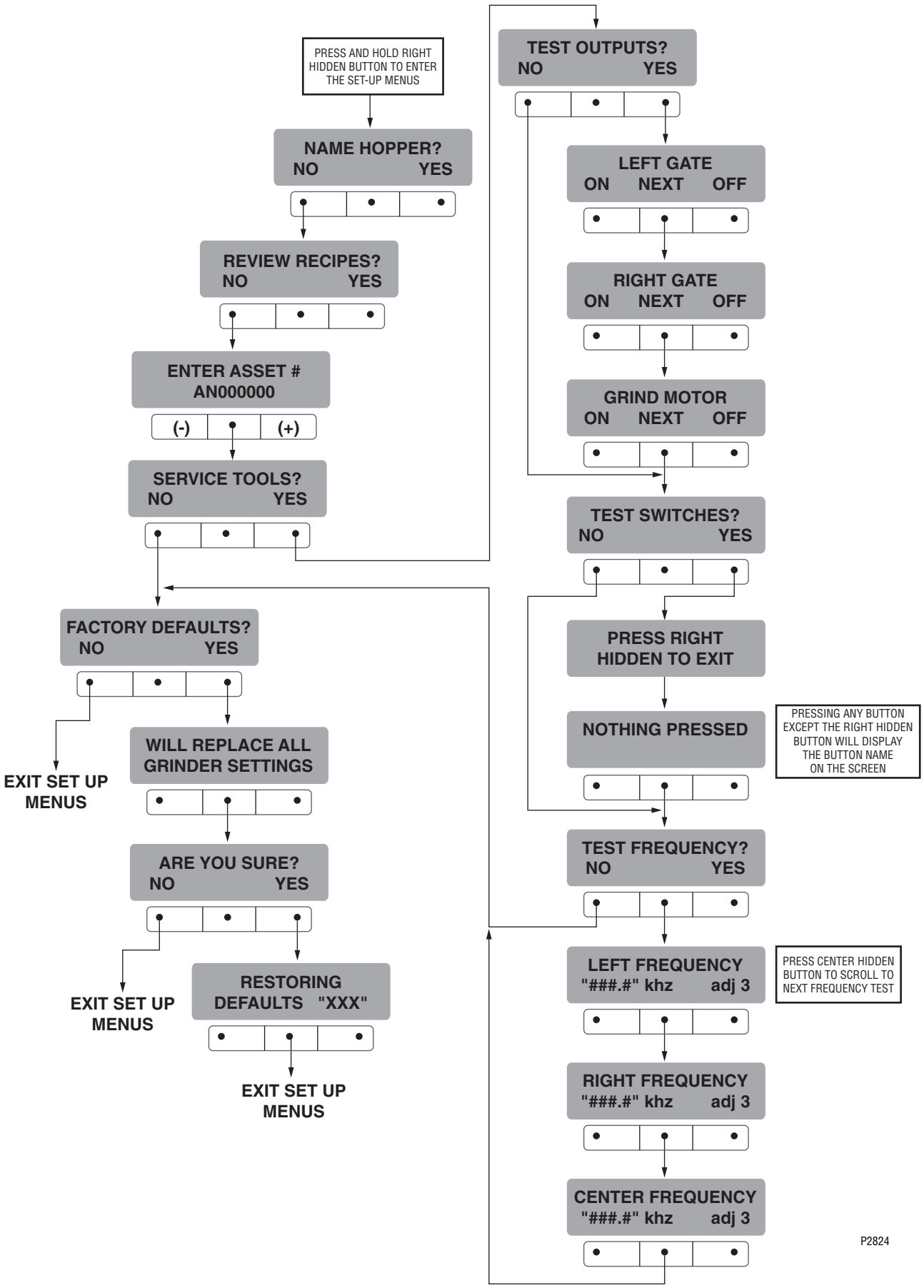
# COMMUNICATING WITH COFFEE BREWER (Continued)
## To Restore Factory Defaults Or Test Outputs and Switches



## COMMUNICATING WITH COFFEE BREWER (Continued)
## Resetting The Grinder Memory (To Match Chart Below)

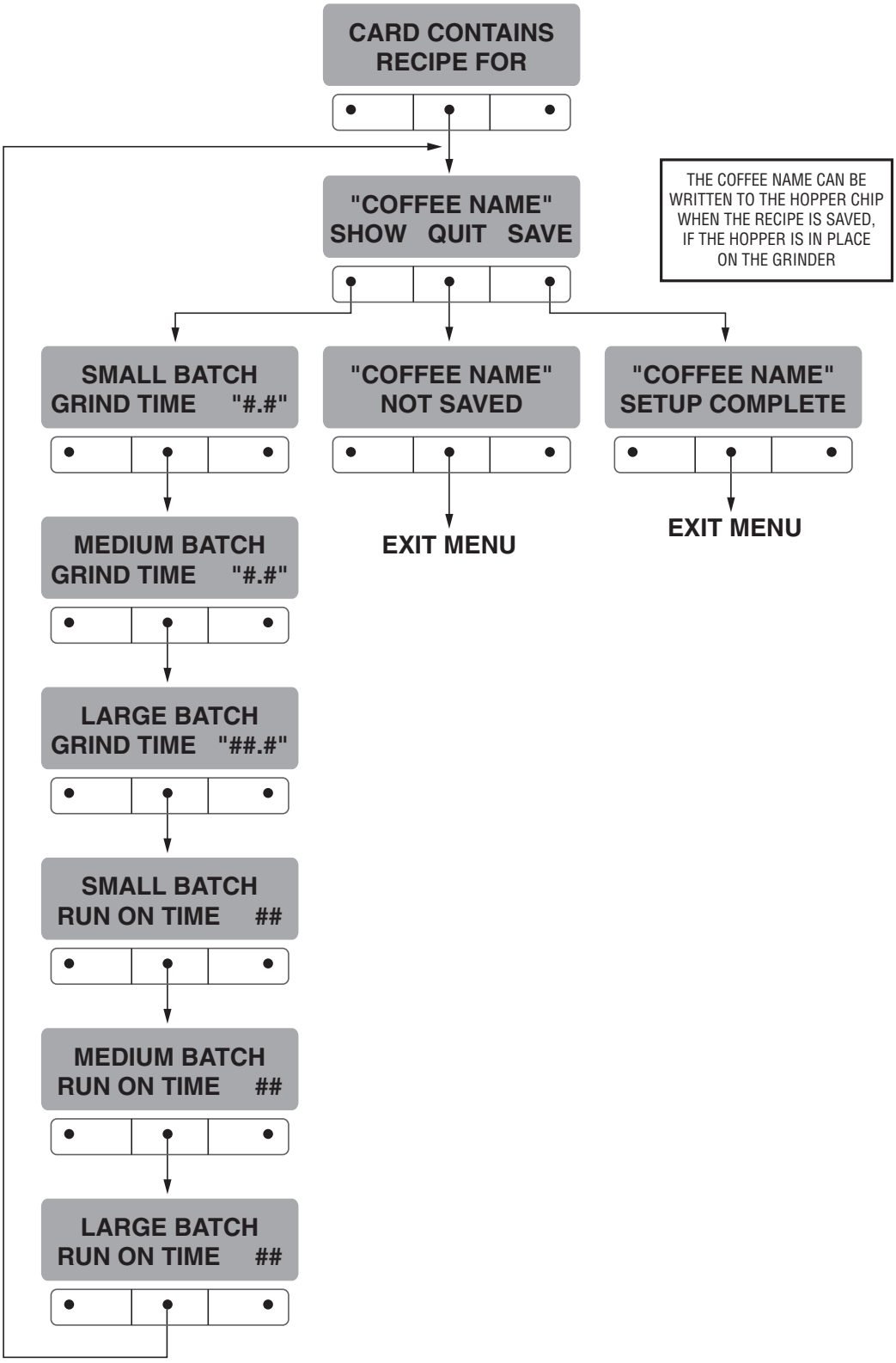
1. Unplug grinder from the outlet.
2. Press in and hold both the STOP and GRIND buttons and plug cordset into the outlet. After a short pause, the display will show four rows of dashes.
3. When the dashes appear, release the STOP and GRIND buttons, then press and release the STOP button.
4. The display will count down then return to the normal operating mode. The grinder should now be set to match the coffee names with the numbers on the chart below.

### COFFEE CHART

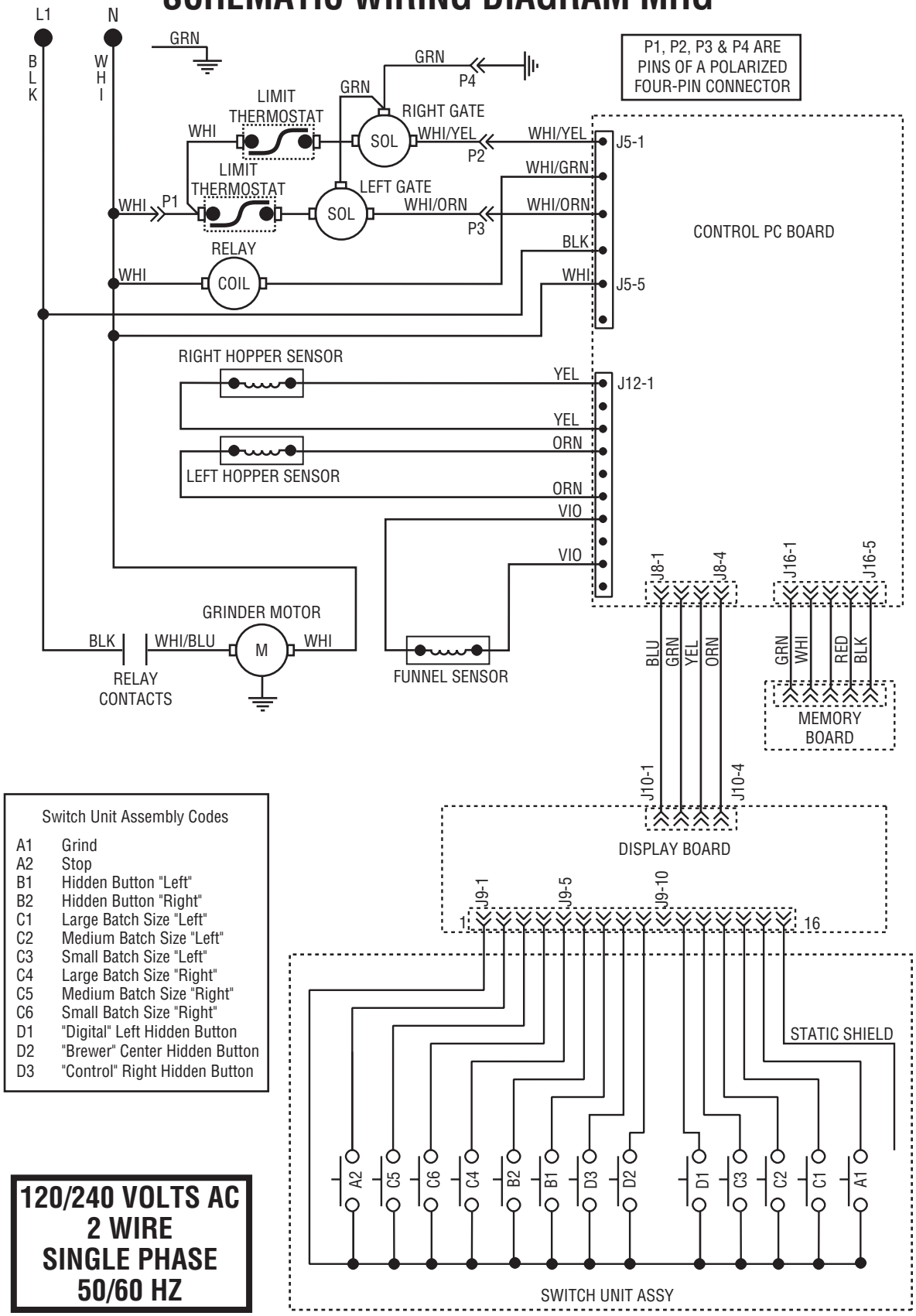
| NUMBER | NAME | NUMBER | NAME |
|---|---|---|---|
| 1 | Regular | 15 | Jamaica Blue Mtn |
| 2 | Decaf | 16 | Guatemalan |
| 3 | Colombian | 17 | Light Roast |
| 4 | Colombia Supremo | 18 | Dark Roast |
| 5 | Costa Rican | 19 | Expresso |
| 6 | Ethiopian | 20 | Amaretto |
| 7 | Kona | 21 | Hazelnut |
| 8 | Kenya AA | 22 | French Vanilla |
| 9 | Sumatran | 23 | Irish Creme |
| 10 | French Roast | 24 | Vanilla Nut |
| 11 | Italian Roast | 25 | Caramel |
| 12 | Mocha Java | 26 | Raspberry |
| 13 | House Blend | 27 | Almond |
| 14 | Breakfast Blend | 28 | Dark Mtn Roast |

## COMMUNICATING WITH COFFEE BREWER (Continued)
## Entering A Coffee Name Using A Recipe Card

Press the STOP button and place the chip portion of the card under the sensor coil on the front of the grinder. The LCD display will enter the RECIPE CARD menu.



# SCHEMATIC WIRING DIAGRAM MHG




Switch Unit Assembly Codes

| | |
|---|---|
| A1 | Grind |
| A2 | Stop |
| B1 | Hidden Button "Left" |
| B2 | Hidden Button "Right" |
| C1 | Large Batch Size "Left" |
| C2 | Medium Batch Size "Left" |
| C3 | Small Batch Size "Left" |
| C4 | Large Batch Size "Right" |
| C5 | Medium Batch Size "Right" |
| C6 | Small Batch Size "Right" |
| D1 | "Digital" Left Hidden Button |
| D2 | "Brewer" Center Hidden Button |
| D3 | "Control" Right Hidden Button |

**120/240 VOLTS AC**
**2 WIRE**
**SINGLE PHASE**
**50/60 HZ**