Installation
And
Programming Guide

BISTRO 2
By NEWCO Enterprises
Section 1 – Installation Instructions
Section 2 – Set-Up Programming Instructions
Section 3 – Service Level Programming Instructions

**Section 1**

**Installation Instructions:**

Place Machine on a Level Countertop Surface

Connect ¼ Inch Flare water Supply to the Water Inlet located on lower Left Rear of the Machine.

*(NEWCO recommends copper tubing for use as water supply to all of our brewing equipment)*

Turn water Supply On

Plug or wire brewer to the appropriate voltage circuit as indicated on the **serial tag**.

Locate power switch on the lower left rear of the machine and turn machine power on.

Machine will begin to fill.

*If machine has not filled to probe level within 6 minutes it will enter an error mode. Error code E-4 will appear on the display screen. To reset the error and resume filling turn power switch off and then on.*

When water in tank reaches probe level, heating cycle will begin.

**BY DEFAULT THE MACHINE IS SET FOR SINGLE, DOUBLE, AND TRIPLE SHOT DISPENSES. TO CHANGE THESE SETTINGS, SEE SET-UP PROGRAMMING INSTRUCTIONS ON THE NEXT PAGE**
Set-Up Programming Instructions:

Open machine cabinet door and locate the 3-switch control panel w/lighted display screen. Three dashed lines will appear on the display screen, as shown in figure 1.

### Step 1. Enter a Programming Mode

Press and hold the center switch labeled “Settings”. Continue to hold in the switch and the temperature will appear, (Release the switch when temp. appears on the display.) as shown in figure 2A.
Step 2. Adjust Temperature

The machine features an adjustable temperature range of 170-190F. Use the + or – switch to scroll to the desired temperature setting, as shown in figure 3. **NOTE: SETTING TEMP ABOVE 185 MAY DEGRADE DRINK QUALITY**

Press the “Settings” switch to save and proceed to the next programming option. Proceed to Step 3.

Step 3. Beeper Selection ON or OFF

On or OFF will appear on the display screen, as shown in figure 3A. Toggle the Beeper ON or OFF with the + or – switch, Fig 4. (Beeper signals when drink is ready, it can be turned on or off) Press the SETTINGS button and screen will display SEL as in Fig 5. Proceed to Step 4.

Step 4. Program Selector Switches

This machine features a 6-selector switch control panel. These 6 switches can be programmed to deliver different strength drinks or different sized drinks—See Programming directions on page 5.
To Program the selector switch:

1. When the screen shows “SEL”, on the selector switch control panel, press the switch labeled Single Milk Shot. The display will change to identify the switch that you have chosen as in Fig 6.

2. Press “Settings”. The number “1” and the current auger speed will appear in the display, as shown in figure 7.

3. Using the + or – button to scroll, set Auger speed for the desired speed. (See Gram throw chart page 6)

4. Press “Settings” & Repeat STEP 2 and STEP 3 for Auger #2 (Note that Auger Speed 0 turns auger “OFF”)
Changing the Gram Throw (Auger Speed): To change the AUGER SPEED for the Augers using the selector switch (Figure 9)

Gram Throw Speed (1-25)

<table>
<thead>
<tr>
<th>Approx. Gram Throw</th>
<th>Auger Speed Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5 g / oz</td>
<td>25</td>
</tr>
<tr>
<td>5 g / oz</td>
<td>23</td>
</tr>
<tr>
<td>4.5 g / oz</td>
<td>21</td>
</tr>
<tr>
<td>4.0 g / oz</td>
<td>19</td>
</tr>
<tr>
<td>3.5 g / oz</td>
<td>17</td>
</tr>
<tr>
<td>3.0 g / oz</td>
<td>15</td>
</tr>
<tr>
<td>2.5 g / oz</td>
<td>13</td>
</tr>
</tbody>
</table>

5. Press “Settings” to save and proceed with the set-up program.

6. The display will change to C:10 (Fig 8). This setting controls the whipper blending speed in 25 increments (0-25) with a speed of 25 the normal default (fastest speed). Decreasing the value slows the speed down-setting the value to “0” will turn the whipper motor off. Press the ‘Settings” button to store the value.

NOTE: REDUCING THE WHIPPER SPEED MAY RESULT IN THE MIXING BOWL CLOGGING DUE TO UNDISSOLVED POWDER.
7. A time value (min: sec) will appear in the display. If the switch is in a continuous flow (push and hold) mode, the time value will be 0:00 Shown in figure 9. Changing the value from 00.0 to 25.5 will produce a timed dispense in 1/10th second increments. (In the example shown in fig 10, the dispense time is set for 8.1 seconds.)

8. Press and release the “settings button to store switch settings. The display will return to “SEL”. To program another switch, repeat the instructions for programming the selector switch, above. Pressing the settings button after all the switches have been programmed will return normal operating mode and the display will change to “- - -“ as in figure 1, page 3.

**Rinsing Instructions:** Rinse the mixing chambers by pressing and holding the “Rinse “ button until the bowl is clean and the water runs clear.
## Error Messages:

<table>
<thead>
<tr>
<th>Error Number</th>
<th>Description</th>
<th>Cause</th>
<th>What to Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>tHU/ tHL</td>
<td>Thermistor warning – immediately upon detection the machine will beep twice and show the warning message for a minute as well as turn on the right most upper dot on the display. This dot will stay on to signify there is a thermistor out. Also upon power up the machine will beep twice and show the warning message for a short period of time and turn on the high dot if the warning conditions are present.</td>
<td>Resistance extremely high from upper or lower thermistor will cause or the resistance extremely low from upper or lower thermistor will cause a tHU or tHL warning for the thermistor that sees the condition and causes the control board to switch from watching the lower to the upper thermistor. If both the upper and lower resistors fail then we flag a thermistor ErC error.</td>
<td>This warns you that 1 thermistor has failed. Nothing is required at this time as the upper thermistor has taken over but ordering a replacement thermistor is advisable.</td>
</tr>
<tr>
<td>Er3</td>
<td>Heater Run Error</td>
<td>Water did not heat within timeout period. Timeout period is 4 min which is reloaded whenever the heater is off or the fill valve is on.</td>
<td>Check element for short and proper resistance. Check heater relay. Check for tripped button on Hi-Limit Thermostat.</td>
</tr>
<tr>
<td>Er4</td>
<td>Tank Fill Error</td>
<td>Water did not reach probe in timeout period of 6 minutes for initial fill and 1 minute during normal operation. The 6 minute fill time is reloaded if no key is pressed within 24 hours.</td>
<td>Check valve function and flow rate. Replace valve or increase flow rate. Check probes for excess scale.</td>
</tr>
<tr>
<td>Er5</td>
<td>Comm Error</td>
<td>Serial communication error to/from non-volatile memory (EEPROM).</td>
<td>Hold down the enter key to enter Machine Set up mode pressing the enter key to cycle through all options then exit mode. This resets all the defaults. If the error still occurs then replace main board.</td>
</tr>
<tr>
<td>Er7</td>
<td>Open Motor Circuit - The motor errors (Er7 and Er8) do not cause a system error and will not shut down the machine. Immediately upon detection the machine will beep twice and show the error message. Every time the key is pressed to activate a auger motor it clears the error and allow another attempt to be made. If this error occurs the dump valve still will release water.</td>
<td>Open motor circuit, Product Auger</td>
<td>Retry auger if the error still occurs then check harness/motor continuity. Replace if defective.</td>
</tr>
</tbody>
</table>

**Note:** Turn machine Off then back On to Clear Error Messages
## Error Messages Cont’d:

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
<th>Possible Cause</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Er8</td>
<td>Bad (Open) Motor Driver - The motor errors (Er7 and Er8) do not cause a system error and will not shut down the machine. Immediately upon detection the machine will beep twice and show the error message. Every time the key is pressed to activate the auger motor it clears the error and allows another attempt to be made. If this error occurs the dump valve still will release water.</td>
<td>The control board has either seen a rise in temperature of 1 degree a second, for 5 seconds or has seen the temperature rise to 215°F or above.</td>
<td>Retry auger if the error still occurs then replace main board.</td>
</tr>
<tr>
<td>Erb</td>
<td>Dry Firing Tank – the tank is empty but the heater is on.</td>
<td>The unit has been in the intent to brew timeout for an extended period of time, allowing the tank to evaporate to the point where there is little water in the tank</td>
<td></td>
</tr>
<tr>
<td>ErC</td>
<td>Thermistor Error</td>
<td>Resistance extremely high from upper or lower thermistor will cause or the resistance extremely low from upper or lower thermistor will cause a tHU or tHL warning for the thermistor that sees the condition and causes the control board to switch from watching the lower to the upper thermistor. If both the upper and lower resistors fail then we flag a thermistor error</td>
<td>Check/replace thermistor.</td>
</tr>
</tbody>
</table>

**Note:** Turn machine Off then back On to Clear Error Messages
Dimensions & Electrical Specifications:

**Electrical Specs**

IDQ Machine
120V 1600W
15 Amps
NEWCO PRODUCT WARRANTY

NEWCO warrants equipment manufactured by it for 1-year parts and labor.

These warranty periods run from the date of purchase. NEWCO 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 NEWCO or that, in NEWCO’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 NEWCO prompt notice of any claim to be made under this warranty by telephone at (800) 556-3926 or by writing to PO Box 852, Saint Charles, MO 63302 2) If requested by NEWCO, shipping the defective equipment prepaid to an authorized NEWCO service location 3) Receiving prior authorization, from NEWCO, 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 NEWCO are not authorized to make modifications to this warranty or to make additional warranties that are binding on NEWCO. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

If NEWCO determines in its sole discretion that the equipment does not conform to the warranty, NEWCO, 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 NEWCO Authorized Service Representative or 2) Shall replace the equipment or refund the purchase price for the equipment.

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

In no event shall NEWCO be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claim’s of BUYER’S customers, cost of capital, cost of downtime, cost of substitute equipment, facilities or services, or any other special, incidental, or consequential damages.