

NEWCO ENTERPRISES, INC

Programming Instructions for Dual Dilution TVT Tea Brewer (Firmware 705473-0)

INTRODUCTION

The dual dilution tea brewer is designed to accommodate two slim line tea dispensers on the brewer base for side by side brewing and serving. The operator may selectively brew into either one of the dispensers without shuffling container positions or the need to reposition the cold water dilution outlet. Simply place tea in the brew basket, slide it into the rails and rotate so outlet is over appropriate container, and press the corresponding left or right side brew button.

This brewer incorporates our latest TVT controller technology. The control features an LCD display with digital readout and icons indicating brewer functions. The end user need only set 3 brew criteria for each of the 4 brew profiles (2 for each side). Simply tell the brewer how hot (Temperature), how much (Volume), and how long (brew Time) for each brew profile. Both the brew concentrate and the cold water dilution are independently programmable for each of the 4 brew profiles. A supplemental programming mode allows control of additional features such as sentry timer, visa-brew time, calibration for flow rate, and display of temperature and volume units. All values are set from the front control panel using a digital display for precise control. The following pages will explain the control features and the process required to program your unit.

Power Up Modes

Once the brewer has been connected to a water supply, you are ready to plug unit in. When plugging brewer in it will go into one of three power up modes. These modes are; access to factory settings, load default settings, and normal mode. Normal mode will be discussed first.

Normal Power Up Mode – This is the mode used for setting up a new piece of equipment from the factory. This mode will be automatically selected by plugging in the brewer without holding in any of the controllers buttons.

When the brewer is initially plugged in the heater element will turn on momentarily in an attempt to heat the cold tank. Note: tank heating will be indicated by the thermometer icon at the top left edge of the display. The controller will monitor the rate of temperature rise in the tank. If the tank has not been manually filled, the rate of the temperature increase in the tank will exceed a preset value and the element will shut down. The thermometer icon will go out to indicate that heating has stopped and the display will prompt for user to "Fill" while the brewbasket icon flashes. Ensure that brewbasket is in place. Place a suitable container beneath brewbasket to catch any excess water. Depress any of the three buttons below the display to fill the tank. The brewer will now allow the fill valve to dispense 160 ounces of water into tank. The brewer will not heat until the fill cycle has been completed. This feature may be bypassed by entering and exiting program mode.

Once the unit has been filled, it will enter its idle mode. The brewer is considered idle when it is powered up but is not yet brewing and no settings are being adjusted. If the heater is on, the display will show the thermometer icon. If the unit is at least 1 degree away from set point temperature the happy face icon will turn on and the thermometer will pulse in synchrony with the heater as it maintains proper temperature. If the tank temperature is at or above set point, both the thermometer icon and tank heater will remain off. See "User Program Mode" to set brew profile information.

Access to Factory Settings Mode – This mode allows control of additional features such as sentry timer, visa-brew time, calibration for flow rate, and display of temperature and volume units. This mode may be selected by holding upper right button for 2 seconds when first plugging the unit in or when turning on switch located on rear. Increment values up using the upper left button and down using lower left button when the appropriate parameter is displayed. The following are the parameters that may be set in this mode and the icon that displays for each.



- a) Temperature display - (Thermometer icon flashes) Temperature may be displayed using either °F or °C. Selected unit is shown in main display area as well as to the right in a smaller font.



- b) Volume Display - (Pot icon flashes) Volume may be displayed using either units of ounces or liters, Oz or L. Selected unit is shown in main display area as well as to the right in a smaller font. Liters will be displayed in increments of .05. (.05L = 1.69oz).



- c) Sentry timer – (Pot & Clock icons flash) Will countdown after each brew (0:30min – 19:59 hours) After any brew, the sentry timer will activate & the CLOCK icon will turn on. The CLOCK icon will flash when the sentry timer expires to indicate the brewed beverage is no longer “fresh” (unless a new brew is started before the timer is allowed to expire).



- d) Visa time – (Clock & Brew Basket icons flash) This time will always be added to the end of the brew cycles to allow for the tea concentrate to finish draining from the brew basket. The timer display aids in preventing premature removal of either the brew basket or the dispenser. Each brew cycle Visa brew time setting is controlled independently and may be set between 30 seconds and 19 minutes and 59 seconds. Brew 1, 2, 3, and 4 are displayed sequentially.



- e) Calibration Countdown – (Brew Basket Flashes) This function will dispense water for 1 minute if either left/right button is pressed. Place a suitably sized container below the left side dilution outlet before initiating this cycle. A 1 gallon container or larger is recommended.



- f) Calibration Value – (Brew Basket Flashes) 1 minute flow rate setting. The volume of water dispensed for 1 minute during the calibration countdown must be entered for volume calibration purposes. Calibration is necessary if the programmed brew volume is not being dispensed.

When “End” is displayed the user may press either the right/left buttons to exit the factory settings menus. The machine will then continue to operate in idle mode as described under Normal Power Up Mode.

Other Modes

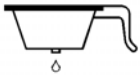
User Program Mode - By holding the upper right button continuously for 10 seconds, the machine will enter its user program mode. The heater will be disabled in this mode. The controller will scroll through all 4 settings (shown below) for each of 4 brew profiles (Pr1, Pr2, Pr3, Pr4) if the upper right button is pressed repeatedly. The left upper and lower buttons will either adjust the value up or down or will toggle the value between available options. The 4 available settings are:



- a) Brew Temperature – (Thermometer icon flashes) The minimum temperature at which a brew will start. Temperature may be set between 170-212. Temperature should be set at least a couple of degrees below the boiling point at the location where the equipment is to be installed. The lowest temperature setting for any of the four profiles will be used as the set point for the tank during idle/standby mode.



- b) Brew Volume - (Pot icon flashes) The combined total volume of brewed concentrate and dilution to be dispensed. Brew volume may be set for volumes between 30 and 704 ounces (5-1/2 gallons). Coffee can only be set for 300 ounce max. See “Delay Or Brewtime” below.



- c) Concentrate Volume - (Basket will be displayed flashing in tea mode and basket and pot icons will flash in coffee mode) This setting is for the concentrate portion of the “mix” described above. This is the volume that will be delivered into the brew basket over the tea or coffee. The adjustable range is 30 oz (min) – 300 oz (max). If the concentrate setting is set to equal the volume setting above, the controller will know the user wishes to brew COFFEE, thereby excluding any dilution. Maximum concentrate volume is set at 300 oz.



- d) Delay Or Brewtime – (In tea mode clock and basket icon flash, in coffee mode basket will not be displayed) TEA mode, this setting represents the delay between concentrate dispense and dilution dispense. If no delay is desired, 0:00 may be entered. In COFFEE mode, this setting represents the amount of time though which the volume of water is to be dispensed. The basket icon will have disappeared.

The brewer will continue to cycle through profiles until you choose to exit. To exit user program mode and save settings, press upper right button until “End” is displayed and select by depressing either lower left or lower right button.

Brew Mode - One of the four brew profiles may be requested by a simple press and release of any of the four buttons. The 2 buttons on the left side of the display are for brewing into a tea dispenser located on the left side of brewer base. Buttons to the right side, are for brewing into tea dispenser located on the right side of the brewer base. If the heater is on, the brewer will enter auto arm mode (basket & clock icon flashing). If the unit is up to temperature, a brew cycle will start immediately. Under coffee mode (see program mode) if the time programmed for the brew exceeds the minimum time required, the excess time will be distributed throughout as “pauses” in the brew cycle. Each pause may come only after 20 seconds of “on time”. Under tea mode, the machine will undergo a series of pauses during concentrate and dilution delivery, depending on its program settings. A brew may be cancelled by pressing any button.

Auto Arm Mode - Under AUTO ARM mode, the machine will display the TOP sensor temperature reading until it is ready to brew. The brew dispense will begin as soon as the preset temperature is reached. Auto arm mode may be cancelled by pressing any button.

Temperature Monitor Mode - By holding down the upper right button while the upper left button is pressed, the display will show the temperature readout for the TOP thermistor in the tank. Pressing any button at this point will clear the display. By holding down the upper right button while the lower left button is pressed, the display will show the temperature readout for the BOTTOM thermistor in the tank. Again, pressing any button at this point will clear the display.

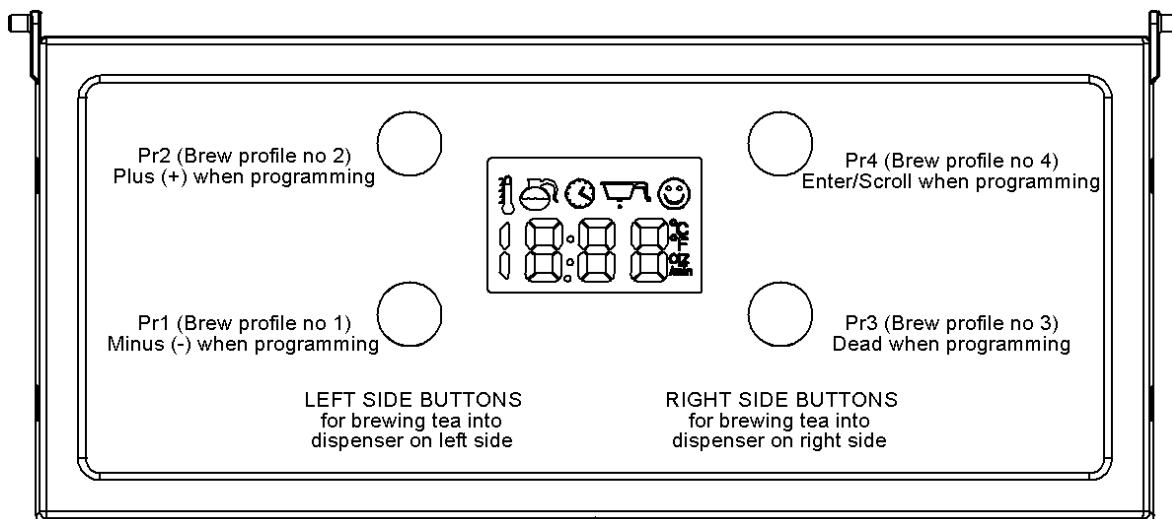
Load Default Settings Mode - This mode loads default settings for all four brew profiles and factory settings. Note: USE WITH CAUTION. Default settings are not necessarily the same as factory settings which have been customized for brewer. This mode may be selected by holding in the 2 outer buttons for 2 seconds while powering the unit up.

Error Modes - To reset an error condition simply power the machine off and back on. If the error continues, check the condition of all sensors, hardware & wiring.

- ER1 – Top thermistor shorted
- ER2 – Top thermistor open
- ER3 – Bottom thermistor shorted
- ER4 – Bottom thermistor open
- ER5 – Heater has run for more than 20 minutes continuously

NOTE: DO NOT REPLACE THIS CONTROL WITH AN OLDER CONTROL. PLEASE SPECIFY CONTROL WITH 705473-0 OR COMPATIBLE FIRMWARE.

SWITCH PLATE ILLUSTRATION



Newco Enterprises, Inc. * 1735 South River Rd. * P.O. Box 852 * St. Charles, MO 63302