

## 1.0 – How to:

The user must home the machine before any jogging or automated movement can occur. Before and during the homing sequence, a notification (“! **Needs Homing** !”) will flash on the display. Both the position and target value will be set to 0.000 on startup and after homing. Jogging the machine will update the position value every 100ms on the display.

Pressing the “**B**” key will allow the user to edit the target value. While in edit mode, the user can perform basic mathematical operations such as addition and division for quick measurement entry. This follows PEMDAS so both “**12+3/8**” and “**3/8+12**” will result in “**12.375**”. Once the user has typed in their desired target value, pressing the “**#**” key will set the target value.

Pressing the green “**GO**” button will move the motors from the current position until it reaches the requested target value. The user can jog the motors to move something out of the way and press the “**GO**” button again and it will always return to the designated target value.

Pressing the “**C**” key will cycle the speed value and allow the user to move the machine at different speeds. This speed value applies to both jogging and when the machine moves towards the target position. The homing sequence uses its own speed values.

## 2.0 – Controls:

### 2.1 – Keypad

Mode	Key	Function
Default	A	
	B	Edit mode
	C	Cycle speed (1-5)
	D	
	*	
	#	
Edit	A	Addition ( + )
	B	Subtraction ( - )
	C	
	D	Fraction bar ( / )
	*	Decimal point ( . )
	#	Enter or set

### 2.2 – Buttons

Button	Function
<b>ESTOP</b>	Emergency stop; stops all motion and functions
<b>JOG+</b>	Move motors away position 0”
<b>JOG-</b>	Move motors toward position 0”
<b>HOME</b>	Initiate homing sequence
<b>GO</b>	Go to set position