1.0 – How to:

The user <u>must</u> 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 <u>position</u> and <u>target</u> value will be set to <u>0.000"</u> 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 <u>edit</u> the <u>target</u> value. While in edit mode, the user can perform basic mathematical operations such as <u>addition</u> and <u>division</u> 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 <u>target</u> value, pressing the **"#"** key will <u>set</u> the <u>target</u> value.

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

Pressing the **"C"** key will <u>cycle</u> the <u>speed</u> value and allow the user to move the machine at different speeds. This speed value applies to both <u>jogging</u> and when the machine moves towards the <u>target</u> 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	
	C	
	D	Fraction bar (/)
	*	Decimal point (.)
	#	Enter or set

2.2 – Buttons

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