

<u>Laser</u>	<u>CNC</u>	<u>Default</u>	<u>Description</u>
\$0 = 4	4	10	Step pulse width microseconds
\$1 = 25	25	25	Stepper disable delay msec 255 = keep power on
\$2 = 0	0	0	Step pulse invert
\$3 = 5	5	5	Axis directions invert <u>DO NOT CHANGE IF DIR ARE CORRECT</u>
\$4 = 0	0	0	Step enable input pin invert 0 = pin low steppers enabled
\$5 = 0	0	0	Limit switch invert 0 = switches N.O. 1 = N.C.
\$6 = 0	0	0	Probe trigger invert
\$10 = 1	1	1	Status report 1 = machine position 0 = work position
\$11 = .500	.010	.010	Junction deviation mm
\$12 = .002	.002	.002	Arc tolerance mm
\$13 = 1	1	0	Report in inches 0 = mm 1 = inches
\$20 = 0	0	0	Enable soft limits
\$21 = 1	1	0	Enable limit switches
\$22 = 1	1	0	Enable homing capability
\$23 = 3	3	0	Homing direction invert for each axis
\$24 = 25	25	25.000	Homing limit switch final search speed mm/min
\$25 = 1000	1000	500.000	Homing limit switch first search speed mm/min
\$26 = 100	100	250	Home switch electrical debounce msec
\$27 = 1.000	1	1.000	Home pull off mm
\$30 = 255	1000	255	Max spindle RPM or max laser power
\$31 = 0	0	1	Min spindle RPM
\$32 = 1	0	0	1= laser mode 0= spindle CNC
\$100 = 1600	1600	800	X steps per mm
\$101 = 1600	1600	800	Y steps per mm
\$102 = 1600	1600	800	Z steps per mm
\$110 = 1300	1300	800	X max stepper speed mm/sec
\$111 = 1300	1300	800	Y max stepper speed mm/sec
\$112 = 800	800	800	Z max stepper speed mm/sec
\$120 = 60	60	10	X stepper acceleration mm/sec
\$121 = 60	60	10	Y stepper acceleration mm/sec
\$122 = 10	10	10	Z stepper acceleration mm/sec
\$130 = 280	280	200	X max travel distance mm
\$131 = 165	165	200	Y max travel distance mm
\$132 = 30	30	200	Z max travel distance mm

<u>Device</u>	<u>Material</u>	<u>Speed</u>	<u>Power</u>
GRBL	MDF	30in/min	46%
GRBL-M3	MDF	100in/min	46%
UGS	Pine	10in/min	500RPM Step down .020 Over 30% Spiral end mill
GRBL-M3	Felt	15in/min	100%

Revision 10/11/2019