

## PARAMETER LIST

### LOOP CONTROL PARAMETERS

The table below outlines the Loop control parameters for the networks. Loop 2 parameter numbers are listed in brackets below the Loop 1 numbers.

<b>No:</b>	<b>NAME</b>	<b>DESCRIPTION</b>	<b>UNITS</b>	<b>RANGE</b>
1 (201)	Kerf	Width of saw blade. Used in forward-set calculations.	0.1mm	0 – 10.0
2 (202)	Probe Offset	Distance to the saw at maximum ram extension.	0.1mm	0 – 1000.0
3 (203)	Back Limit	The maximum distance from the saw that the ram can safely travel to.	0.1mm	0.1 – 2000.0
4 (204)				
5 (205)	Dogs-in Limit / Forward Limit	The minimum distance from the saw that can be set to when the Dogs are retracted. This is used as the forward limit on a Mini-Miser resaw or B-bench.	0.1mm	0 – 1000.0
6 (206)	Dogs-out Limit	The minimum distance from the saw that can be set to when the Dogs are extended.	0.1mm	0 – 1000.0
7 (207)	Forward Limit #4	Additional forward limit	0.1mm	0 – 1000.0
8 (208)	Forward Limit #5	Additional forward limit	0.1mm	0 – 1000.0

9 (209)	Forward Limit #6	Additional forward limit	0.1mm	0 – 1000.0
10 (210)	Flipper Limit	The minimum distance from the saw that can be set to when the Flipper is extended.	0.1mm	0 – 1000.0
11 (211)	Probe Stroke	Stroke of ram as measured between probe max and probe min.	0.1mm	100.0 – 2000.0
12 (212)	Probe Max Count	The probe count when the ram is at maximum extension for calibration.	1	100 – 30000
13 (213)	Probe Min Count	The probe count when the ram is at minimum extension for calibration.	1	100 – 30000
14 (214)	Electrical Offset Distance	Distance used when performing an offset operation.	0.1mm	0 – 1000.0
15 (215)	Slow Valve Delay	Sets the length of the delay between the fast and slow valves closing in a two-speed system.	0.1s	0 – 10.0
16 (216)	Park Position	Sets the target for the system when performing a Park operation.	0.1mm	1.0 – 2000.0
17 (217)	Forward Drift Distance	In <b>OPEN-LOOP MODE</b> this will set the drift distance for the ram after ramping down. In <b>CLOSED-LOOP MODE</b> this will set the PID band value.	0.1mm	0 – 20.0

18 (218)	Back Drift Distance	In <b>OPEN-LOOP MODE</b> this will set the drift distance for the ram after ramping down. In <b>CLOSED-LOOP MODE</b> this will set the PID band value.	0.1mm	0 – 20.0
19 (219)	Min Set Distance	Requested movements of a distance below this will cause a back up and set forward to the target	0.1mm	0 – 50.0
20 (220)	Back Up Distance	Distance to back up when the requested set distance is less than Min Set Distance. This is also the “Slow Band” value in a two-speed.	0.1mm	0 – 50.0
21 (221)	Probe Type	0 = Simulate Mode. 1 = P-Type Probe. 2 = L-Type Probe. 3 = Encoder.	1	0 – 3
22 (222)	Set Mode	1 = Normal set in both directions. 2 = Step up - always set forward. 3 = Absolute setting in either direction.	1	1 – 3
23 (223)	Valve Forward Max %	Limits the maximum forward valve output drive.	0.1%/mm	0.1 – 100.0
24 (224)	Valve Back Max %	Limits the maximum back valve output drive.	0.1%/mm	0.1 – 100.0
25 (225)	Max Forward Speed %	Maximum forward speed when setting.	0.1%/mm	0.1 – 100.0

26 (226)	Forward Deadband.	Forward deadband of the valve.	0.1%/mm	0.1 – 100.0
27 (227)				
28 (228)	Max Back Speed %	Maximum back speed when setting.	0.1%/mm	0.1 – 100.0
29 (229)	Back Deadband.	Back deadband of the valve.	0.1%/mm	0.1 – 100.0
30 (230)				
31 (231)	Forward Ramp Up	Acceleration rate when setting forward.	0.1%/mm	0.1 – 100.0
32 (232)	Back Ramp Up	Acceleration rate when setting backward.	0.1%/mm	0.1 – 100.0
33 (233)	Jog Forward Speed %	Maximum forward jogging speed.	0.1%/mm	0.1 – 100.0
34 (234)	Jog Back Speed %	Maximum back jogging speed.	0.1%/mm	0.1 – 100.0
35 (235)	Slow Jog Forward Speed %	Speed when jogging slow forward	0.1%/mm	0.1 – 100.0
36 (236)	Slow Jog Back Speed %	Speed when jogging slow backward.	0.1%/mm	0.1 – 100.0
37 (237)	Forward Ramp Down	Deceleration rate when setting forward.	0.1%/mm	0.1 – 100.0
38 (238)	Back Ramp Down	Deceleration rate when setting backward.	0.1%/mm	0.1 – 100.0
39 (239)	Kp (pos hold)	Proportional gain value used for PID control when holding position.	0.1%/mm	0.1 – 100.0
40 (240)				

41 (241)				
42 (242)	Kp limit	Limits the value holding Kp will reach	0.1%/mm	0 – 100.0
43 (243)				
44 (244)				
45 (245)				
46 (246)				
47 (247)				
48 (248)				
49 (249)				
50 (250)				
51 (251)				
52 (252)				
53 (253)	Jog Limit Ramp	Ramp down value used when jogging to a limit	0.1%/mm	0.1 – 100.0
54 (254)	Limit Type	1 = No Limits 2 = Manual Limits	1	1 - 2
55 (255)	Valve Dither %	Amount of physical dither on the valve used.	0.1%	0 – 25.0

56 (256)	Loop Type	0 = Loop Inactive 1 = Open loop control. 2 = Closed loop control	1	0 – 2
57 (257)	Valve Null Back %	Constant backward direction bias to be added to the valve output while holding position (this value should be set to zero if Parameter 58 is set).	0.1%	0 – 250
58 (258)	Valve Null Forward %	Constant forward direction bias to be added to the valve output while holding position (this value should be set to zero if Parameter 57 is set).	0.1%	0 – 250
59 (259)	Probe Invert	0 = Normal probe operation. 1 = Inverted probe operation.	1	0 – 1
60 (260)	Valve Output Invert	0 = Normal ram operation. 1 = Inverted ram operation.	1	0 – 1
61 (261)				
62 (262)	Output Drive Select	1 = Relay. 2 = PWM. 3 = Analog.	1	1 – 3
63 (263)	Ramp Up Boost	Extra % drive for valve when ramping up	0.1%	1 – 1000
64 (264)	Ramp Down Boost	Extra % driver for valve when ramping down	0.1%	1 – 1000
65 (265)	Jog Fwd Ramp Down	Deceleration rate when jogging forward.	0.1%/mm	1 – 10000
66 (266)	Jog Back Ramp Down	Deceleration rate when jogging backward.	0.1%/mm	1 – 10000

67 (267)	Jog Back Flag Override	0 = Flag stops all jog operations 1 = Jog back overrides Flag	1	0 - 1
68 (268)	Jog Button Invert	Swaps the function of the jog buttons: 0 = Normal 1 = Inverted	1	0 - 1
69 (269)				
70 (270)				
71 (271)				
72 (272)				
73 (273)				
74 (274)	Auto-Calibrate Inhibit	0 = Auto-calibrate allowed 1 = Inhibited	1	- 1
75 (275)	Run Confirm Bypass	0 = Run Confirm Bypass 1 = Normal Run Confirm	1	0 - 1
76 (276)	Flag Operation	0 = Flag bypass. 1 = Normal Flag (interrupted set resumes when flag closes). 2 = Current set cancelled by flag opening.	1	0 - 2
77 (277)	Auto Pullback	0 = No auto pullback. 1 = Auto pull back.	1	0 - 1
78 (278)	Pullback Delay	Auto pullback delay	0.1s	0 - 25.0

79 (279)	Flag Filtering Delay	Time delay used to filter the flag switch operation and prevent the stack from being effected by switch bounce.	0.1s	0 – 25.0
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## CONSOLE PARAMETERS

No:	NAME	DESCRIPTION	UNITS	RANGE
100	Display Rounding	0 = Rounding OFF. 1 = Rounding ON.	1	0 – 1
101	Setting Mode	1 = Flag used to move through the stack. 2 = Instant set, no stacking of sizes.	1	1 – 2
102	PIN Required	0 = PIN always required to enter parameter mode. 1 = PIN only required once to enter parameter mode.	1	0 – 1
103	Retract Position	FOR SOFTWARE VERSIONS 1-7 AND EARLIER ONLY (see P116).	0.1mm	1 – 2000.0
104	Display Flash Time	Controls the rate at which the Pushbutton and Console displays will flash.	1	1 – 100
105	Setworks Type	0 = Mini-miser Resaw / B-bench. 1 = Carriage. 2 = Maxi-miser Carriage with separate F.S and B.S per pushbutton 3 = 2 axis stacked edger 4 = Carriage / Slabber	1	0 - 4
106	Display Brightness	Adjusts the brilliance level of Pushbutton and Console displays.	1	1 – 7
107	Number of Layers	Number of console program layers.	1	1 - 8
108	Matrix Filter Counter	Controls the amount of filtering present on pushbutton matrix	1	1 - 100
109	Fwdset Counter Control	0 = Counter Off 1 = Counter Active	1	0 - 1
110	Crash Tolerance	Crash or rack tolerance in a 2 axis system	0.1mm	0 – 2000.0

111	Show Loop2 Position in loop display	FOR SOFTWARE V1-7 AND EARLIER ONLY (see P113). 0 = "Lr x" 1 = Loop2 position (Not used in 2 axis edger)	1	0 - 1
112	Throat Max	Max extension of both axis combined in a 2 axis edger	0.1mm	0 – 3000.0
113	VPD Select	Select the version of vertical position display to be written to: 0 = VPD1-0 1 = VPD 1-2; both loops status in one display, Loop2 position not shown. 2 = VPD1-2; Loop2 position shown in Layer display of VPD1. 3 = VPD1-2; separate VPD for each loop. 4 = VPD1-2; combined status, but Loop2 position in an SPD1-0.	1	0 - 4
114	Loop1 Negative Offset	Sets the distance that Loop1 can travel past the saw line when at full extension. Set to "0.0mm" when not in use.	0.1mm	0 – 500.0
115	Loop2 Negative Offset	Sets the distance that Loop2 can travel past the saw line when at full extension. Set to "0.0mm" when not in use.	0.1mm	0 – 500.0
116	Loop1 Retract Position	Sets the position to which Loop1 will target when Retract is pressed.	0.1mm	0 – 2000.0
117	Loop2 Retract Position	Sets the position to which Loop2 will target when Retract is pressed.	0.1mm	0 – 2000.0

## DIAGNOSTIC PARAMETERS

NO:	NAME	DESCRIPTION	UNITS	RANGE
196	Max Loop Time	Displays the maximum time the console has taken to perform a loop.	0.1ms	-
197	Software Version	Version of current software	0.1	-
198	Loop2 Probe Reading	Displays the current reading from the probe in counts for loop 2.	1	-
199	Loop1 Probe Reading	Displays the current reading from the probe in counts for loop 1.	1	-