OEM DROs

Function	OEMCode
Jog Inc Inc DRO	1
Pulse Freq DRO	2
Slow Jog % DRO	3
X min DRO	4
Y min DRO	5
Z min DRO	6
A min DRO	7
B min DRO	8
C min DRO	9
X max DRO	10
Y max DRO	11
Z max DRO	12
A max DRO	13
B max DRO	14
C max DRO	15
X G92 Axis Off DRO	16
Y G92 Axis Off DRO	17
Z G92 Axis Off DRO	18
A G92 Axis Off DRO	19
B G92 Axis Off DRO	20
C G92 Axis Off DRO	21
Queue Depth DRO	22
Time Scale DRO	23
PWM Base DRO	24
Torch Correction Speed DRO	25
Torch Height Corrorrection DRO	26
Torch Height Max DRO	27
CPU Load DRO	28
Encoder 1 (X) position DRO	29
Encoder 2 (Y) position DRO	30
Encoder 3 (Z) position DRO	31
Tool length offset	32
X axis Ref Sw DRO	33
Y axis Ref Sw DRO	34
Z axis Ref Sw DRO	35
A axis Ref Sw DRO	36
B axis Ref Sw DRO	37
C axis Ref Sw DRO	38
True spindle DRO	39
Worst Case DRO	40
Tool X Offset DRO	41
Tool Z Offset DRO	42
Tool Dia DRO	43
Tool Tip Rad DRO	44
Touch Correction DRO	45
Current Fixture Number DRO	46
Part X Offset DRO	47
Part Y Offset DRO	48
Part Z Offset DRO	49
Part A Offset DRO	50
Part B Offset DRO	51
Part C Offset DRO	52
CPU Speed DRO	53
Safe Z DRO	54
Overidden Feed Rate DRO	55
Pulley DRO	56
Max Spindle Speed on current pulley DRO	57
Velocity per Rev DRO	58
X Scale DRO	59
Y Scale DRO	60
Z Scale DRO	61
A Scale DRO	62
B Scale DRO	63
C Scale DRO	64
Lowest Torch Correction DRO	65
Threading Entrance Angle DRO	66
Max Entrance Points DRO	67
Rotational Time Error DRO	68
Entrance Trigger DRO	69
Time Correction Derivative DRO	70
Interrupts per spindle rev DRO	71
Current Spin Counts DRO	72
Spin Adder DRO	73
Spin up/down increment DRO.	74
Stock Size DRO	75
Laser X Grid DRO	76
Laser Y Grid DRO	77
Repetitions DRO	78
Lower Z-Inhibit By DRO	79
Z-Inhibit DRO	80
Port Bit-test DRO (diagnostic)	81
Anti-dive limit DRO	82
X Machine Coord DRO	83
Y Machine Coord DRO	84
Z Machine Coord DRO	85
A Machine Coord DRO	86
B Machine Coord DRO	87
C Machine Coord DRO	88
Blend factor DRO	89
Number of spindle disc slots DRO	90
G73 Pull-off value DRO	91
Tangential lift threshold angle DRO	92
Tangential lift Z level DRO	93
reserved	94
reserved	95
reserved	96

OEM DROs

Function	OEMCode
??? Engine lookahead DRO	133
??? Spindle ratio DRO	99
A axis Distance to Go DRO	199
A axis home location used by G28 DRO	193
A axis Ref Sw DRO	36
A Cont. Pnt. coord (Machine - Work - G52/G92) DRO	187
A DRO	803
A Fixture Off DRO	833
A Fixture Orig Off DRO	833
A G92 Axis Off DRO	19
A Machine Coord DRO	86
A max DRO	13
A min DRO	7
A Scale DRO	62
A Vel DRO	809
Actual count from encoder 1 - debug use only DRO	140
Actual count from encoder 2 - debug use only DRO	141
Actual count from encoder 3 - debug use only DRO	142
Actual count from encoder 4 - debug use only DRO	143
Actual count from encoder 5 - debug use only DRO	144
Actual count from encoder 6 - debug use only DRO	145
Angle of rotation of X/Y coordinate system (cf G68)	118
Angle of taper to be cut with MPG tapering DRO	116
Anti-dive limit DRO	82
Axis 6 Tripcount - system debug use only DRO	132
B axis Distance to Go DRO	200
B axis home location used by G28 DRO	194
B axis Ref Sw DRO	37
B Cont. Pnt. coord (Machine - Work - G52/G92) DRO	188
B DRO	804
B Fixture Off DRO	834
B Fixture Orig Off DRO	834
B G92 Axis Off DRO	20
B Machine Coord DRO	87
B max DRO	14
B min DRO	8
B Scale DRO	63
B Vel DRO	810
Blend factor DRO	89
Blended Velocity DRO	813
Brains exe time (ms)	220
C axis Distance to Go DRO	201
C axis home location used by G28 DRO	195
C axis Ref Sw DRO	38
C Cont. Pnt. coord (Machine - Work - G52/G92) DRO	189
C DRO	805
C Fixture Off DRO	835
C Fixture Orig Off DRO	835
C G92 Axis Off DRO	21
C Machine Coord DRO	88
C max DRO	15
C min DRO	9
C Scale DRO	64
C Vel DRO	811
Count of actual pulses output on A - debug use only DRO	137
Count of actual pulses output on B - debug use only DRO	138
Count of actual pulses output on C - debug use only DRO	139
Count of actual pulses output on X - debug use only DRO	134
Count of actual pulses output on Y - debug use only DRO	135
Count of actual pulses output on Z - debug use only DRO	136
CPU Load DRO	28
CPU Speed DRO	53
Curr Line no DRO	816
Current Fixture Number DRO	46
Current pulley reversed direction	203
Current Spin Counts DRO	72
Current Tool length DRO	836
Current velocity of MPG 1 DRO	124
Current velocity of MPG 2 DRO	125
Current X offset of Turn tool	204
CV Feedrate DRO	97
Diameter of current tool DRO	105
Distance from front to rear toolpost DRO	162
Elapsed DRO	814
Encoder 1 (X) position DRO	29
Encoder 2 (Y) position DRO	30
Encoder 3 (Z) position DRO	31
Encoder 4 position DRO	100
Encoder X reading corrected by offsets	208
Encoder Y reading corrected by offsets	209
Encoder Z reading corrected by offsets	210
Entrance Trigger DRO	69
Error between Encoder 1 and abs X position DRO	127
Error between Encoder 2 and abs Y position DRO	128
Error between Encoder 3 and abs Z position DRO	129
Estimate DRO	815
Feed override increment value DRO	98
Feed rate ignoring that set in F word DRO	122
Feedrate DRO	818
Feedrate for use with MPG step jogs DRO	126
Feedrate Override (FRO)	821
G73 Pull-off value DRO	91
Interrupts per spindle rev DRO	71
Jog Inc DRO	828
Jog Inc Inc DRO	1
Laser grid spacing DRO	119

CV Feedrate DRO	97	Laser X Grid DRO	76
Feed override increment value DRO	98	Laser Y Grid DRO	77
??? Spindle ratio DRO	99	Lower Z-Inhibit By DRO	79
Encoder 4 position DRO	100	Lowest Torch Correction DRO	65
MPG 1 count DRO	101	Machine A coord - A Work Offset DRO	181
MPG 2 count DRO	102	Machine B coord - B Work Offset DRO	182
MPG 3 count DRO	103	Machine C coord - C Work Offset DRO	183
Rapid feedrate DRO	104	Machine X coord - X Work Offset DRO	178
Diameter of current tool DRO	105	Machine Y coord - Y Work Offset DRO	179
Tip direction of current tool DRO	106	Machine Z coord - Z Work Offset - Tool length DRO	180
Tool nose radius of current tool DRO	107	Max Entrance Points DRO	67
X offset of current tool DRO	108	Max Spindle Speed on current pulley DRO	57
Z offset of current tool DRO	109	Minimum spindle speed on current pulley DRO	121
X wear offset of current tool DRO	110	ModBus input 64 DRO	146
Z wear offset of current tool DRO	111	ModBus input 65 DRO	147
Tool turret angle of current tool DRO	112	ModBus input 66 DRO	148
Velocity of MPG 1 DRO	113	ModBus input 67 DRO	149
Velocity of MPG 2 DRO	114	MPG 1 count DRO	101
Velocity of MPG 3 DRO	115	MPG 2 count DRO	102
Angle of taper to be cut with MPG tapering DRO	116	MPG 3 count DRO	103
Spindle speed as surface speed DRO	117	Number of incremental jogs that can be buffered DRO	120
Angle of rotation of X/Y coordinate system (cf G68)	118	Number of spindle disc slots DRO	90
Laser grid spacing DRO	119	Overridden Feed Rate DRO	55
Number of incremental jogs that can be buffered DRO	120	Overriden spindle speed DRO	202
Minimum spindle speed on current pulley DRO	121	Part A Offset DRO	50
Feed rate ignoring that set in F word DRO	122	Part B Offset DRO	51
Tool post offset (between front and rear posts DRO	123	Part C Offset DRO	52
Current velocity of MPG 1 DRO	124	Part X Offset DRO	47
Current velocity of MPG 2 DRO	125	Part X radius/diameter for Touching to tooltable DRO	175
Feedrate for use with MPG step jogs DRO	126	Part Y Offset DRO	48
Error between Encoder 1 and abs X position DRO	127	Part Z location for Touching to tooltable DRO	176
Error between Encoder 2 and abs Y position DRO	128	Part Z Offset DRO	49
Error between Encoder 3 and abs Z position DRO	129	Port Bit-test DRO (diagnostic)	81
Time (uSec) in interrupt handler DRO	130	Probe Radius	221
SLS Dist - laser position measurement DRO	131	Pulley DRO	56
Axis 6 Tripcount - system debug use only DRO	132	Pulse Freq DRO	2
??? Engine lookahead DRO	133	PWM Base DRO	24
Count of actual pulses output on X - debug use only DRO	134	Queue Depth DRO	22
Count of actual pulses output on Y - debug use only DRO	135	Rapid feedrate DRO	104
Count of actual pulses output on Z - debug use only DRO	136	Rapid Override	223
Count of actual pulses output on A - debug use only DRO	137	Repetitions DRO	78
Count of actual pulses output on B - debug use only DRO	138	reserved	94
Count of actual pulses output on C - debug use only DRO	139	reserved	95
Actual count from encoder 1 - debug use only DRO	140	reserved	96
Actual count from encoder 2 - debug use only DRO	141	reserved	205
Actual count from encoder 3 - debug use only DRO	142	reserved	206
Actual count from encoder 4 - debug use only DRO	143	reserved	207
Actual count from encoder 5 - debug use only DRO	144	reserved	218
Actual count from encoder 6 - debug use only DRO	145	reserved	219
ModBus input 64 DRO	146	reserved DRO	177
ModBus input 65 DRO	147	Rot A diameter DRO	825
ModBus input 66 DRO	148	Rot B diameter DRO	826
ModBus input 67 DRO	149	Rot C diameter DRO	827
Softlimit X Maximum DRO	150	Rotational Time Error DRO	68
Softlimit Y Maximum DRO	151	Safe Z DRO	54
Softlimit Z Maximum DRO	152	Slow Jog % DRO	3
Softlimit A Maximum DRO	153	SLS Dist - laser position measurement DRO	131
Softlimit B Maximum DRO	154	Softlimit A Maximum DRO	153
Softlimit C Maximum DRO	155	Softlimit A Minimum DRO	159
Softlimit X Minimum DRO	156	Softlimit B Maximum DRO	154
Softlimit Y Minimum DRO	157	Softlimit B Minimum DRO	160
Softlimit Z Minimum DRO	158	Softlimit C Maximum DRO	155
Softlimit A Minimum DRO	159	Softlimit C Minimum DRO	161
Softlimit B Minimum DRO	160	Softlimit X Maximum DRO	150
Softlimit C Minimum DRO	161	Softlimit X Minimum DRO	156
Distance from front to rear toolpost DRO	162	Softlimit Y Maximum DRO	151
Part X radius/diameter for Touching to tooltable DRO	175	Softlimit Y Minimum DRO	157
Part Z location for Touching to tooltable DRO	176	Softlimit Z Maximum DRO	152
reserved DRO	177	Softlimit Z Minimum DRO	158
Machine X coord - X Work Offset DRO	178	Spin Adder DRO	73
Machine Y coord - Y Work Offset DRO	179	Spin up/down increment DRO.	74
Machine Z coord - Z Work Offset - Tool length DRO	180	Spindle requested DRO	817
Machine A coord - A Work Offset DRO	181	Spindle Seconds CW	217
Machine B coord - B Work Offset DRO	182	Spindle speed as surface speed DRO	117
Machine C coord - C Work Offset DRO	183	Stock Size DRO	75
X Cont. Pnt. coord (Machine - Work - G52/G92) DRO	184	Sub Program depth	222
Y Cont. Pnt. coord (Machine - Work - G52/G92) DRO	185	Tangential lift threshold angle DRO	92
Z Cont. Pnt. coord (Machine - Work - Tool len. - G52/G92) DRO	186	Tangential lift Z level DRO	93
A Cont. Pnt. coord (Machine - Work - G52/G92) DRO	187	Threading Entrance Angle DRO	66
B Cont. Pnt. coord (Machine - Work - G52/G92) DRO	188	Time (uSec) in interrupt handler DRO	130
C Cont. Pnt. coord (Machine - Work - G52/G92) DRO	189	Time Correction Derivative DRO	70
X axis home location used by G28 DRO	190	Time Scale DRO	23
Y axis home location used by G28 DRO	191	Tip direction of current tool DRO	106
Z axis home location used by G28 DRO	192	Tool Dia DRO	43
A axis home location used by G28 DRO	193	Tool length offset	32
B axis home location used by G28 DRO	194	Tool nose radius of current tool DRO	107
C axis home location used by G28 DRO	195	Tool number DRO	824
X axis Distance to Go DRO	196	Tool post offset (between front and rear posts DRO	123
Y axis Distance to Go DRO	197	Tool Tip Rad DRO	44
Z axis Distance to Go DRO	198	Tool turret angle of current tool DRO	112
A axis Distance to Go DRO	199	Tool X Offset DRO	41
B axis Distance to Go DRO	200	Tool Z Offset DRO	42
C axis Distance to Go DRO	201	Torch Correction Speed DRO	25
Overriden spindle speed DRO	202	Torch Height Corrorrection DRO	26
Current pulley reversed direction	203	Torch Height Max DRO	27
Current X offset of Turn tool	204	Touch Correction DRO	45
reserved	205	True spindle DRO	39
reserved	206	Velocity of MPG 1 DRO	113

reserved	207	Velocity of MPG 2 DRO	114
Encoder X reading corrected by offsets	208	Velocity of MPG 3 DRO	115
Encoder Y reading corrected by offsets	209	Velocity per Rev DRO	58
Encoder Z reading corrected by offsets	210	Worst Case DRO	40
X soft limits Max	211	X axis Distance to Go DRO	196
y soft limits Max	212	X axis home location used by G28 DRO	190
Z soft limits Max	213	X axis Ref Sw DRO	33
X soft limits Min	214	X Cont. Pnt. coord (Machine - Work - G52/G92) DRO	184
y soft limits Min	215	X DRO	800
Z soft limits Min	216	X Fixture Off DRO	830
Spindle Seconds CW	217	X Fixture Orig Off DRO	830
reserved	218	X G92 Axis Off DRO	16
reserved	219	X Machine Coord DRO	83
Brains exe time (ms)	220	X max DRO	10
Probe Radius	221	X min DRO	4
Sub Program depth	222	X offset of current tool DRO	108
Rapid Override	223	X Scale DRO	59
X DRO	800	X soft limits Max	211
Y DRO	801	X soft limits Min	214
Z DRO	802	X Vel DRO	806
A DRO	803	X wear offset of current tool DRO	110
B DRO	804	Y axis Distance to Go DRO	197
C DRO	805	Y axis home location used by G28 DRO	191
X Vel DRO	806	Y axis Ref Sw DRO	34
Y Vel DRO	807	Y Cont. Pnt. coord (Machine - Work - G52/G92) DRO	185
Z Vel DRO	808	Y DRO	801
A Vel DRO	809	Y Fixture Off DRO	831
B Vel DRO	810	Y Fixture Orig Off DRO	831
C Vel DRO	811	Y G92 Axis Off DRO	17
Blended Velocity DRO	813	Y Machine Coord DRO	84
Elapsed DRO	814	Y max DRO	11
Estimate DRO	815	Y min DRO	5
Curr Line no DRO	816	Y Scale DRO	60
Spindle requested DRO	817	y soft limits Max	212
Feedrate DRO	818	y soft limits Min	215
Feedrate Override (FRO)	821	Y Vel DRO	807
Tool number DRO	824	Z axis Distance to Go DRO	198
Rot A diameter DRO	825	Z axis home location used by G28 DRO	192
Rot B diameter DRO	826	Z axis Ref Sw DRO	35
Rot C diameter DRO	827	Z Cont. Pnt. coord (Machine - Work - Tool len. - G52/G92) DRO	186
Jog Inc DRO	828	Z DRO	802
X Fixture Off DRO	830	Z Fixture Off DRO	832
X Fixture Orig Off DRO	830	Z Fixture Orig Off DRO	832
Y Fixture Off DRO	831	Z G92 Axis Off DRO	18
Y Fixture Orig Off DRO	831	Z Machine Coord DRO	85
Z Fixture Off DRO	832	Z max DRO	12
Z Fixture Orig Off DRO	832	Z min DRO	6
A Fixture Off DRO	833	Z offset of current tool DRO	109
A Fixture Orig Off DRO	833	Z Scale DRO	61
B Fixture Orig Off DRO	834	Z soft limits Max	213
B Fixture Off DRO	834	Z soft limits Min	216
C Fixture Orig Off DRO	835	Z Vel DRO	808
C Fixture Off DRO	835	Z wear offset of current tool DRO	111
Current Tool length DRO	836	Z-Inhibit DRO	80

OEM Buttons

Function	OEMCode
Program Run screen select	1
MDI screen select	2
Toolpath screen select	3
Positioning screen select	4
Diagnostics screen select	5
Corrections screen select	6
Tables screen select	7
Inc Inc Up	100
Inc Inc Down	101
Reset Interp	102
Jog mode toggle	103
Goto Safe Z	104
Home Z then X then Y, A, B, C - set machine coords	105
Units	106
Mach coords	107
Feed raise	108
Feed lower	109
Spindle CW, reset THC height	110
Slow Jog Up	111
Slow Jog Dn	112
Flood toggle	113
Mist toggle	114
Edit G-code	115
Zero radius DRO on X	116
Zero radius DRO on Y	117
Zero radius DRO on Z	118
Software limits	119
Touch button for Tool length offset	120
Tool Tab Save	121
Fixture Tab Save	122
Torch Enable Toggle	123
Torch Cal Zero	124
Enc Load X	125
Enc To X	126
Enc Load Y	127
Enc To Y	128
Enc Load Z	129
Enc To Z	130
Toggle Mill/Turn mode	131
Tool Path Toggle	132
Zero X Encoder	133
Zero Y Encoder	134
Zero Z Encoder	135
Tool Offset Tog	136
Fixture Off	137
Go Home	138
Part X Offset Touch	139
Part Y Offset Touch	140
Part Z Offset Touch	141
Part A Offset Touch	142
Part B Offset Touch	143
Part C Offset Touch	144
Tool X Offset Touch	145
Tool Z Offset Touch	146
Joy Throttle select	147
Touch Corr Enable Toggle	148
Auto Lim Override Toggle	149
OverRide Limits	150
SS on Act4 Toggle	151
reserved	152
reserved	153
reserved	154
Units/rev - Units/min toggle	155
Set this line as next to execute	156
Jog Follow	157
Joystick ON	158
Joystick OFF	159
Regen toolpath display	160
Zero X-Z to stock as defined in DROs (Turn)	161
Coordinate mode (G90/91)	162
Raise spindle speed	163
Lower spindle speed	164
Laser Probe Enable Toggle	165
Zero laser grid at current location	166
Z inhibit toggle	167
Ignore Tool Change toggle	168
Close current file	169
Re-load last file	170
Jog increment cycle	171
Clear error label	172

OEM Buttons

Function	OEMCode
??? Set formlas	289
??? Toggle Spindle actual	182
Anti-dive enabled toggle	221
Auto Lim Override Toggle	149
Block Delete "switch" toggle	176
Calibrate MPGs	315
Clear error label	172
Clear X tool offset (Turn)	209
Clear Z tool offset (Turn)	208
Close current file	169
Code for OEMTriggers runs the macro in SetTriggerMacro	301
Coord System	1018
Coordinate mode (G90/91)	162
Corrections screen select	6
Crop current dwell now	288
CV feed OFF	248
CV feed ON	249
CV feed toggle	247
Cycle axis controlled by MPG 1	175
Cycle axis controlled by MPG 2	281
Cycle MPG jogging mode	302
Cycle start	1000
Decrement feedrate	278
Def-Ref all axes	240
Diagnostics screen select	5
Disable movement on axis A	253
Disable movement on axis B	254
Disable movement on axis C	255
Disable movement on axis X	250
Disable movement on axis Y	251
Disable movement on axis Z	252
Display Abs Machine coordinates (i.e. macnine coords ON)	179
Display history	215
Display Wizard select dialog	320
Display Wizard selection window	230
Display Work + G92 coordinates (i.e. Machine coords OFF)	180
Display Work coords (i.e. not with G92)	181
do G0G53 to G59.254 offset location	243
Do screw calibration routine	296
Drag on toolpath does Pan toggle	319
Drag on toolpath does Zoom toggle	318
Edit File	1006
Edit G-code	115
Emergency bailout - tester use only	322
Enc Load X	125
Enc Load Y	127
Enc Load Z	129
Enc To X	126
Enc To Y	128
Enc To Z	130
Engine OFFline	257
Engine ONline	258
Estimate Job	1015
Feed lower	109
Feed override Feed	203
Feed override Jog	202
Feed override Off	201
Feed raise	108
Feedrate reset	1014
Fixture Off	137
Fixture Tab Save	122
Flood OFF	225
Flood ON	224
Flood toggle	113
Force Referenced on all axes	246
Go Home	138
Goto Safe Z	104
GotoZs	1017
Home X (Turn)	212
Home X Home Z (Turn)	211
Home X, Home Z (Turn)	184
Home Z (Turn)	213
Home Z then X then Y, A, B, C - set machine coords	105
Ignore Tool Change toggle	168
Inc Inc Down	101
Inc Inc Up	100
Increment feedrate	277
Inhibit jog of A axis	293
Inhibit jog of B axis	294
Inhibit jog of C axis	295

Spindle CCW toggle	173	Inhibit jog of X axis	290
Parallel Port Encoder3 MPG Jog Toggle	174	Inhibit jog of Y axis	291
Cycle axis controlled by MPG 1	175	Inhibit jog of Z axis	292
Block Delete "switch" toggle	176	Jog Follow	157
Optional Stop "switch" toggle	177	Jog increment cycle	171
Offline toggle	178	Jog mode Continuous	204
Display Abs Machine coordinates (i.e. macnine coords ON)	179	Jog mode Step	205
Display Work + G92 coordinates (i.e. Machine coords OFF)	180	Jog mode toggle	103
Display Work coords (i.e. not with G92)	181	Jog Toggle	1031
??? Toggle Spindle actual	182	Joy Throttle select	147
Home X, Home Z (Turn)	184	Joystick OFF	159
Select X for MPG 1	185	Joystick Off	207
Select Y for MPG 1	186	Joystick ON	158
Select Z for MPG 1	187	Joystick On	206
Select A for MPG 1	188	Joystick Toggle	1028
Select B for MPG 1	189	Laser Probe Enable Toggle	165
Select C for MPG 1	190	Load G-code	216
Select Jog Increment 1	191	Load Teach file	228
Select Jog Increment 2	192	Load the normal screens when Wizard done	231
Select Jog Increment 3	193	Lower spindle speed	164
Select Jog Increment 4	194	Mach coords	107
Select Jog Increment 5	195	MDI screen select	2
Select Jog Increment 6	196	Mist OFF	227
Select Jog Increment 7	197	Mist ON	226
Select Jog Increment 8	198	Mist toggle	114
Select Jog Increment 9	199	Move to G59.254 with midpoint selection	244
Select Jog Increment 10	200	Offline toggle	178
Feed override Off	201	Optional Stop "switch" toggle	177
Feed override Jog	202	Output 4 OFF	234
Feed override Feed	203	Output 4 ON	233
Jog mode Continuous	204	Output 5 OFF	236
Jog mode Step	205	Output 5 ON	235
Joystick On	206	Output 6 OFF	238
Joystick Off	207	Output 6 ON	237
Clear Z tool offset (Turn)	208	OverRide Limits	150
Clear X tool offset (Turn)	209	Parallel Port Encoder3 MPG Jog Toggle	174
Set stock correction to Zero (Turn)	210	Part A Offset Touch	142
Home X Home Z (Turn)	211	Part B Offset Touch	143
Home X (Turn)	212	Part C Offset Touch	144
Home Z (Turn)	213	Part X Offset Touch	139
Show recent G-code files list	214	Part Y Offset Touch	140
Display history	215	Part Z Offset Touch	141
Load G-code	216	Pause	1001
Tool flip toggle (Turn front/rear toolposts)	217	Port Bit-Test Set (diagnostic)	220
Z-inhibit ON	218	Positioning screen select	4
Z-inhibit OFF	219	Program Run screen select	1
Port Bit-Test Set (diagnostic)	220	Push to jog A--	314
Anti-dive enabled toggle	221	Push to jog A++	313
THC Anti-dive OFF	222	Push to jog X--	308
THC Anti-dive ON	223	Push to jog X++	307
Flood ON	224	Push to jog Y--	310
Flood OFF	225	Push to jog Y++	309
Mist ON	226	Push to jog Z--	312
Mist OFF	227	Push to jog Z++	311
Load Teach file	228	Radius Tracking Toggle	1030
Toolpath Machine/Job toggle	229	Raise spindle speed	163
Display Wizard selection window	230	Ref A	1025
Load the normal screens when Wizard done	231	Ref B	1026
Simple Complex screen toggle	232	Ref C	1027
Output 4 ON	233	Ref X	1022
Output 4 OFF	234	Ref Y	1023
Output 5 ON	235	Ref Z	1024
Output 5 OFF	236	Regen toolpath display	160
Output 6 ON	237	Re-load last file	170
Output 6 OFF	238	Remember paused state	286
Set Help context	239	reserved	152
Def-Ref all axes	240	reserved	153
Tangential toggle	241	reserved	154
Save XYZ to G59.254 work offset	242	reserved	298
do G0G53 to G59.254 offset location	243	Reset	1021
Move to G59.254 with midpoint selection	244	Reset Interp	102
Toggle Jog Mode through Cont/Step/MPG as relevant	245	Resume	1005
Force Referenced on all axes	246	Return to paused state	285
CV feed toggle	247	Rewind	1002
CV feed OFF	248	Run from here	1016
CV feed ON	249	Run Newfangled Wizard	321
Disable movement on axis X	250	Run reverse	279
Disable movement on axis Y	251	Save tool table	316
Disable movement on axis Z	252	Save work offset table	317
Disable movement on axis A	253	Save XYZ to G59.254 work offset	242
Disable movement on axis B	254	Select A for MPG 1	188
Disable movement on axis C	255	Select B for MPG 1	189
Engine OFFline	257	Select C for MPG 1	190

Engine ONline	258	Select encoder jog on axis A	262
Select encoder jog on axis X	259	Select encoder jog on axis B	263
Select encoder jog on axis Y	260	Select encoder jog on axis C	264
Select encoder jog on axis Z	261	Select encoder jog on axis X	259
Select encoder jog on axis A	262	Select encoder jog on axis Y	260
Select encoder jog on axis B	263	Select encoder jog on axis Z	261
Select encoder jog on axis C	264	Select Jog Increment 1	191
Select Step value 1	265	Select Jog Increment 10	200
Select Step value 2	266	Select Jog Increment 2	192
Select Step value 3	267	Select Jog Increment 3	193
Select Step value 4	268	Select Jog Increment 4	194
Select Step value 5	269	Select Jog Increment 5	195
Select Step value 6	270	Select Jog Increment 6	196
Select Step value 7	271	Select Jog Increment 7	197
Select Step value 8	272	Select Jog Increment 8	198
Select Step value 9	273	Select Jog Increment 9	199
Select Step value 10	274	Select MPG jog mode	327
Set Jog mode STEP	275	Select Step value 1	265
Set Jog mode CONT	276	Select Step value 10	274
Increment feedrate	277	Select Step value 2	266
Decrement feedrate	278	Select Step value 3	267
Run reverse	279	Select Step value 4	268
Switch to last used Wizard	280	Select Step value 5	269
Cycle axis controlled by MPG 2	281	Select Step value 6	270
Toggle taper mode on MPG 2	282	Select Step value 7	271
Toggle dual MPG flag	283	Select Step value 8	272
Toggle shuttle mode for MPG	284	Select Step value 9	273
Return to paused state	285	Select X for MPG 1	185
Remember paused state	286	Select Y for MPG 1	186
Toggle override of rapid feeds	287	Select Z for MPG 1	187
Crop current dwell now	288	Set Help context	239
??? Set formlas	289	Set Jog mode CONT	276
Inhibit jog of X axis	290	Set Jog mode STEP	275
Inhibit jog of Y axis	291	Set MPG jogging mode = do multiple exact steps	306
Inhibit jog of Z axis	292	Set MPG jogging mode = do single eaxct steps	305
Inhibit jog of A axis	293	Set MPG jogging mode = Velocity	303
Inhibit jog of B axis	294	Set MPG jogging mode = Velocity/Step	304
Inhibit jog of C axis	295	Set stock correction to Zero (Turn)	210
Do screw calibration routine	296	Set this line as next to execute	156
Unconditional crop any dwell now	297	Show recent G-code files list	214
reserved	298	Simple Complex screen toggle	232
Toggle bypass feed (enables value in OEM DRO 122)	299	Single	1004
Toggle current tool is in front toolpost	300	Slow Jog Dn	112
Code for OEMTriggers runs the macro in SetTriggerMacro	301	Slow Jog Up	111
Cycle MPG jogging mode	302	Softlimits Toggle	1029
Set MPG jogging mode = Velocity	303	Software limits	119
Set MPG jogging mode = Velocity/Step	304	Spindle CCW toggle	173
Set MPG jogging mode = do single eaxct steps	305	Spindle CW, reset THC height	110
Set MPG jogging mode = do multiple exact steps	306	SS on Act4 Toggle	151
Push to jog X++	307	Stop	1003
Push to jog X--	308	Switch to last used Wizard	280
Push to jog Y++	309	Tables screen select	7
Push to jog Y--	310	Tangential toggle	241
Push to jog Z++	311	THC Anti-dive OFF	222
Push to jog Z--	312	THC Anti-dive ON	223
Push to jog A++	313	Toggle bypass feed (enables value in OEM DRO 122)	299
Push to jog A--	314	Toggle current tool is in front toolpost	300
Calibrate MPGs	315	Toggle dual MPG flag	283
Save tool table	316	Toggle Jog Mode through Cont/Step/MPG as relevant	245
Save work offset table	317	Toggle Mill/Turn mode	131
Drag on toolpath does Zoom toggle	318	Toggle override of rapid feeds	287
Drag on toolpath does Pan toggle	319	Toggle shuttle mode for MPG	284
Display Wizard select dialog	320	Toggle taper mode on MPG 2	282
Run Newfangled Wizard	321	Toggle use of spindle step line to control Torch volts	325
Emergency bailout - tester use only	322	Toggle visibility of screen 50	323
Toggle visibility of screen 50	323	Tool flip toggle (Turn front/rear toolposts)	217
Turn mode tool touch off X axis	324	Tool Offset Tog	136
Toggle use of spindle step line to control Torch volts	325	Tool Path Toggle	132
Turn mode tool touch off Z axis	326	Tool Tab Save	121
Select MPG jog mode	327	Tool X Offset Touch	145
Cycle start	1000	Tool Z Offset Touch	146
Pause	1001	Toolpath Machine/Job toggle	229
Rewind	1002	Toolpath screen select	3
Stop	1003	Torch Cal Zero	124
Single	1004	Torch Enable Toggle	123
Resume	1005	Touch button for Tool length offset	120
Edit File	1006	Touch Corr Enable Toggle	148
Zero All	1007	Turn mode tool touch off X axis	324
Zero X	1008	Turn mode tool touch off Z axis	326
Zero Y	1009	Unconditional crop any dwell now	297
Zero Z	1010	Units	106
Zero A	1011	Units/rev - Units/min toggle	155
Zero B	1012	Verify	1020

Zero C	1013	Z inhibit toggle	167
Feedrate reset	1014	Zero A	1011
Estimate Job	1015	Zero All	1007
Run from here	1016	Zero B	1012
GotoZs	1017	Zero C	1013
Coord System	1018	Zero laser grid at current location	166
Verify	1020	Zero radius DRO on X	116
Reset	1021	Zero radius DRO on Y	117
Ref X	1022	Zero radius DRO on Z	118
Ref Y	1023	Zero X	1008
Ref Z	1024	Zero X Encoder	133
Ref A	1025	Zero X-Z to stock as defined in DROs (Turn)	161
Ref B	1026	Zero Y	1009
Ref C	1027	Zero Y Encoder	134
Joystick Toggle	1028	Zero Z	1010
Softlimits Toggle	1029	Zero Z Encoder	135
Radius Tracking Toggle	1030	Z-inhibit OFF	219
Jog Toggle	1031	Z-inhibit ON	218

OEM LEDs			OEM LEDs	
Function	FCode	Co	Function	Fcode
G92 LED	10		A-- Home LED	839
Spindle CW LED	11		A-- jogging switch active LED	128
Mist LED	12		A-- Limit LED	838
Flood LED	13		A radius corr. LED	20
Jog mode Cont LED	14		A ref LED	810
Jog mode Incr LED	15		A Scale LED	44
Mach coords warn LED	16		A++ jogging switch active LED	127
Feed override LED	17		A++ Limit LED	837
Estimating LED	18		Abs Coordinate Mode LED	48
Emergency LED	19		Active 1 LED	821
A radius corr. LED	20		Active 2 LED	822
B radius corr. LED	21		Active 3 LED	823
C radius corr. LED	22		Active 4 LED	824
Software limits LED	23		Alternative feedrate in use (see OEM DRO 122) LED	113
Torch En LED	24		Anti-dive enabled LED	70
True spindle Acc LED	25		Auto Lim override LED	33
True spindle Dec LED	26		Axis formula mappin ON LED	110
Tool Path LED	27		Axis inhibited A LED	89
Tool Offset on LED	28		Axis inhibited B LED	90
Part Offset on LED (always in 6.11)	29		Axis inhibited C LED	91
Throttle is Slow Jog LED	30		Axis inhibited X LED	86
Throttle is Feedrate LED	31		Axis inhibited Y LED	87
reserved	32		Axis inhibited Z LED	88
Auto Lim override LED	33		B-- Home LED	842
Override Limits/home switches LED	34		B-- Limit LED	841
SS on Act4 LED	35		B radius corr. LED	21
THC Arc Good LED	36		B ref LED	811
Torch Up active LED	37		B Scale LED	45
Torch Down active LED	38		B++ Limit LED	840
Feed per Rev LED	39		Block Delete On LED	66
Feed per Min LED	40		C-- Home LED	845
X Scale LED	41		C-- Limit LED	844
Y Scale LED	42		C radius corr. LED	22
Z Scale LED	43		C ref LED	812
A Scale LED	44		C Scale LED	46
B Scale LED	45		C++ Limit LED	843
C Scale LED	46		Cont. Jog is at full speed LED	58
reserved	47		CV feed enabled LED	84
Abs Coordinate Mode LED	48		CV mode OFF LED	56
Incremental Coordinate Mode LED	49		CV Mode ON LED	54
Threading Sync Mode LED (Turn)	50		Diameter mode active (Turn) LED	92
Laser Probe enabled LED	51		Digitise In LED	825
Z-Inhibit ON LED	52		Digitise Out LED	855
Ignore Tool Change ON LED	53		Dwell LED	813
CV Mode ON LED	54		Emergency LED	19
M30 Repeats Enabled LED	55		Enable 1 LED	846
CV mode OFF LED	56		Enable 2 LED	847
MPG Jog On LED	57		Enable 3 LED	848
Cont. Jog is at full speed LED	58		Enable 4 LED	849
MPG 1 Jogs X axis LED	59		Enable 5 LED	850
MPG 1 Jogs Y axis LED	60		Enable 6 LED	851
MPG 1 Jogs Z axis LED	61		Enhanced Pulsing NOT in use LED	85
MPG 1 Jogs A axis LED	62		Estimating LED	18
MPG 1 Jogs B axis LED	63		Feed override LED	17
MPG 1 Jogs C axis LED	64		Feed per Min LED	40
Optional Stop On LED	65		Feed per Rev LED	39
Block Delete On LED	66		Feedhold when part of a block executed - remainder pending LI	111
Offline indicator LED	67		Fixture LED	816
Threading feed related to true Spindle speed LED	68		Flood LED	13
Index signal awaited LED (Turn)	69		Front tool post selected LED	114
Anti-dive enabled LED	70		G92 LED	10
Spindle speed stable LED	71		G-code teaching file is open LED	74
IJ Mode is Absolute LED	72		Hotkeys enabled LED	94
IJ Mode is Incremental LED	73		Idle LED	803
G-code teaching file is open LED	74		Ignore Tool Change ON LED	53
Offset in effect on at least one axis LED	75		IJ Mode is Absolute LED	72
reserved	76		IJ Mode is Incremental LED	73
Output 4 Active LED	77		Inch LED	801
Output 5 Active LED	78		Incremental Coordinate Mode LED	49
Output 6 Active LED	79		Index LED	826
Pause Active LED	80		Index signal awaited LED (Turn)	69
Tangential control Active LED	81		Jog mode Cont LED	14
Single Step mode Active LED	82		Jog mode Incr LED	15
Jogging enabled LED	83		Jogging enabled LED	83
CV feed enabled LED	84		Joystick enable LED	814
Enhanced Pulsing NOT in use LED	85		Laser Probe enabled LED	51
Axis inhibited X LED	86		Limit OV LED	827

Axis inhibited Y LED	87	M30 Repeats Enabled LED	55
Axis inhibited Z LED	88	Mach coords warn LED	16
Axis inhibited A LED	89	Mist LED	12
Axis inhibited B LED	90	MMs LED	802
Axis inhibited C LED	91	Mouse in tool path Pans LED	130
Diameter mode active (Turn) LED	92	Mouse in tool path Zooms LED	129
Timing signal active (Turn) LED	93	MPG 1 Jogs A axis LED	62
Hotkeys enabled LED	94	MPG 1 Jogs B axis LED	63
Units per minute mode LED	95	MPG 1 Jogs C axis LED	64
Units per rev mode LED	96	MPG 1 Jogs X axis LED	59
Running in reverse (duplicated by 112) LED	97	MPG 1 Jogs Y axis LED	60
MPG 2 Jogs X axis LED	98	MPG 1 Jogs Z axis LED	61
MPG 2 Jogs Y axis LED	99	MPG 2 in taper mode LED	104
MPG 2 Jogs Z axis LED	100	MPG 2 Jogs A axis LED	101
MPG 2 Jogs A axis LED	101	MPG 2 Jogs B axis LED	102
MPG 2 Jogs B axis LED	102	MPG 2 Jogs C axis LED	103
MPG 2 Jogs C axis LED	103	MPG 2 Jogs X axis LED	98
MPG 2 in taper mode LED	104	MPG 2 Jogs Y axis LED	99
Two MPGs in use LED	105	MPG 2 Jogs Z axis LED	100
Shuttle mode in use LED	106	MPG jog multiple steps selected LED	120
Spindle is in CSS (G96) mode LED	107	MPG Jog On LED	57
X/Y coordinate system is currently rotated LED	108	MPG jog single exact step mode selected LED	119
Rapids being overidden LED	109	MPG jog Velocity mode selected LED	117
Axis formula mappin ON LED	110	MPG jog Velocity/Step mode selected LED	118
Feedhold when part of a block executed - remainder pending L|	111	Offline indicator LED	67
Running in reverse (duplicate) LED - do not use	112	Offset in effect on at least one axis LED	75
Alternative feedrate in use (see OEM DRO 122) LED	113	Optional Stop On LED	65
Front tool post selected LED	114	Output 1/Extrn1 Active LED	852
Rear tool post selected LED	115	Output 2/Extrn2 Active LED	853
Spindle is running LED	116	Output 3/Extrn3 Active LED	854
MPG jog Velocity mode selected LED	117	Output 4 Active LED	77
MPG jog Velocity/Step mode selected LED	118	Output 5 Active LED	78
MPG jog single exact step mode selected LED	119	Output 6 Active LED	79
MPG jog multiple steps selected LED	120	Override Limits/home switches LED	34
X++ jogging switch active LED	121	Part Offset on LED (always in 6.11)	29
X-- jogging switch active LED	122	Pause Active LED	80
Y++ jogging switch active LED	123	Pause LED	805
Y-- jogging switch active LED	124	Rapids being overidden LED	109
Z++ jogging switch active LED	125	Rear tool post selected LED	115
Z-- jogging switch active LED	126	reserved	32
A++ jogging switch active LED	127	reserved	47
A-- jogging switch active LED	128	reserved	76
Mouse in tool path Zooms LED	129	Reset LED	800
Mouse in tool path Pans LED	130	Running in reverse (duplicate) LED - do not use	112
Reset LED	800	Running in reverse (duplicated by 112) LED	97
Inch LED	801	Shuttle mode in use LED	106
MMs LED	802	Single Step mode Active LED	82
Idle LED	803	Software limits LED	23
Start LED	804	Spindle CW LED	11
Pause LED	805	Spindle is in CSS (G96) mode LED	107
Tool change LED	806	Spindle is running LED	116
X ref LED	807	Spindle speed stable LED	71
Y ref LED	808	SS on Act4 LED	35
Z ref LED	809	Start LED	804
A ref LED	810	Tangential control Active LED	81
B ref LED	811	THC Arc Good LED	36
C ref LED	812	Threading feed related to true Spindle speed LED	68
Dwell LED	813	Threading Sync Mode LED (Turn)	50
Joystick enable LED	814	Throttle is Feedrate LED	31
Fixture LED	816	Throttle is Slow Jog LED	30
Active 1 LED	821	Timing signal active (Turn) LED	93
Active 2 LED	822	Tool change LED	806
Active 3 LED	823	Tool Offset on LED	28
Active 4 LED	824	Tool Path LED	27
Digitise In LED	825	Torch Down active LED	38
Index LED	826	Torch En LED	24
Limit OV LED	827	Torch Up active LED	37
X++ Limit LED	828	True spindle Acc LED	25
X-- Limit LED	829	True spindle Dec LED	26
X-- Home LED	830	Two MPGs in use LED	105
Y++ Limit LED	831	Units per minute mode LED	95
Y-- Limit LED	832	Units per rev mode LED	96
Y-- Home LED	833	X-- Home LED	830
Z++ Limit LED	834	X-- jogging switch active LED	122
Z-- Limit LED	835	X-- Limit LED	829
Z-- Home LED	836	X ref LED	807
A++ Limit LED	837	X Scale LED	41
A-- Limit LED	838	X/Y coordinate system is currently rotated LED	108
A-- Home LED	839	X++ jogging switch active LED	121

B++ Limit LED	840	X++ Limit LED	828
B-- Limit LED	841	Y-- Home LED	833
B-- Home LED	842	Y-- jogging switch active LED	124
C++ Limit LED	843	Y-- Limit LED	832
C-- Limit LED	844	Y ref LED	808
C-- Home LED	845	Y Scale LED	42
Enable 1 LED	846	Y++ jogging switch active LED	123
Enable 2 LED	847	Y++ Limit LED	831
Enable 3 LED	848	Z-- Home LED	836
Enable 4 LED	849	Z-- jogging switch active LED	126
Enable 5 LED	850	Z-- Limit LED	835
Enable 6 LED	851	Z ref LED	809
Output 1/Extrn1 Active LED	852	Z Scale LED	43
Output 2/Extrn2 Active LED	853	Z++ jogging switch active LED	125
Output 3/Extrn3 Active LED	854	Z++ Limit LED	834
Digitise Out LED	855	Z-Inhibit ON LED	52

Standard DROs			Standard DROs	
Function	**FCode**	**Co**	**Function**	**FCode**
X DRO	0		A DRO	3
Y DRO	1		A Fixture Off DRO	33
Z DRO	2		A Fixture Orig Off DRO	33
A DRO	3		A Vel DRO	9
B DRO	4		B DRO	4
C DRO	5		B Fixture Off DRO	34
X Vel DRO	6		B Fixture Orig Off DRO	34
Y Vel DRO	7		B Vel DRO	10
Z Vel DRO	8		Blended Velocity DRO	13
A Vel DRO	9		C DRO	5
B Vel DRO	10		C Fixture Off DRO	35
C Vel DRO	11		C Fixture Orig Off DRO	35
Blended Velocity DRO	13		C Vel DRO	11
Elapsed DRO	14		Curr Line no DRO	16
Estimate DRO	15		Current Tool length DRO	36
Curr Line no DRO	16		Elapsed DRO	14
Spindle requested DRO	17		Estimate DRO	15
Feedrate DRO	18		Feedrate DRO	18
Feedrate Override (FRO)	21		Feedrate Override (FRO)	21
Tool number DRO	24		Jog Inc DRO	28
Rot A diameter DRO	25		Rot A diameter DRO	25
Rot B diameter DRO	26		Rot B diameter DRO	26
Rot C diameter DRO	27		Rot C diameter DRO	27
Jog Inc DRO	28		Spindle requested DRO	17
X Fixture Off DRO	30		Tool number DRO	24
X Fixture Orig Off DRO	30		X DRO	0
Y Fixture Off DRO	31		X Fixture Off DRO	30
Y Fixture Orig Off DRO	31		X Fixture Orig Off DRO	30
Z Fixture Off DRO	32		X Vel DRO	6
Z Fixture Orig Off DRO	32		Y DRO	1
A Fixture Off DRO	33		Y Fixture Off DRO	31
A Fixture Orig Off DRO	33		Y Fixture Orig Off DRO	31
B Fixture Orig Off DRO	34		Y Vel DRO	7
B Fixture Off DRO	34		Z DRO	2
C Fixture Orig Off DRO	35		Z Fixture Off DRO	32
C Fixture Off DRO	35		Z Fixture Orig Off DRO	32
Current Tool length DRO	36		Z Vel DRO	8

Standard LEDs	FCode		Standard LEDs	Fcode
Function			**Function**	
Reset LED	0		A-- Home LED	39
Inch LED	1		A-- Limit LED	38
MMs LED	2		A ref LED	10
Idle LED	3		A++ Limit LED	37
Start LED	4		Active 1 LED	21
Pause LED	5		Active 2 LED	22
Tool change LED	6		Active 3 LED	23
X ref LED	7		Active 4 LED	24
Y ref LED	8		B-- Home LED	42
Z ref LED	9		B-- Limit LED	41
A ref LED	10		B ref LED	11
B ref LED	11		B++ Limit LED	40
C ref LED	12		C-- Home LED	45
Dwell LED	13		C-- Limit LED	44
Joystick enable LED	14		C ref LED	12
Fixture LED	16		C++ Limit LED	43
Active 1 LED	21		Digitise In LED	25
Active 2 LED	22		Digitise Out LED	55
Active 3 LED	23		Dwell LED	13
Active 4 LED	24		Enable 1 LED	46
Digitise In LED	25		Enable 2 LED	47
Index LED	26		Enable 3 LED	48
Limit OV LED	27		Enable 4 LED	49
X++ Limit LED	28		Enable 5 LED	50
X-- Limit LED	29		Enable 6 LED	51
X-- Home LED	30		Fixture LED	16
Y++ Limit LED	31		Idle LED	3
Y-- Limit LED	32		Inch LED	1
Y-- Home LED	33		Index LED	26
Z++ Limit LED	34		Joystick enable LED	14
Z-- Limit LED	35		Limit OV LED	27
Z-- Home LED	36		MMs LED	2
A++ Limit LED	37		Output 1/Extrn1 Active LED	52
A-- Limit LED	38		Output 2/Extrn2 Active LED	53
A-- Home LED	39		Output 3/Extrn3 Active LED	54
B++ Limit LED	40		Pause LED	5
B-- Limit LED	41		Reset LED	0
B-- Home LED	42		Start LED	4
C++ Limit LED	43		Tool change LED	6
C-- Limit LED	44		X-- Home LED	30
C-- Home LED	45		X-- Limit LED	29
Enable 1 LED	46		X ref LED	7
Enable 2 LED	47		X++ Limit LED	28
Enable 3 LED	48		Y-- Home LED	33
Enable 4 LED	49		Y-- Limit LED	32
Enable 5 LED	50		Y ref LED	8
Enable 6 LED	51		Y++ Limit LED	31
Output 1/Extrn1 Active LED	52		Z-- Home LED	36
Output 2/Extrn2 Active LED	53		Z-- Limit LED	35
Output 3/Extrn3 Active LED	54		Z ref LED	9
Digitise Out LED	55		Z++ Limit LED	34

Standard Buttons

Note: To use these button codes in OEM trigger input you need to add 1000 to the values given in the table

Function	FCode	Function	Fcode
Cycle start	0	Cycle start	0
Pause	1	Pause	1
Rewind	2	Rewind	2
Stop	3	Stop	3
Single	4	Single	4
Resume	5	Resume	5
Edit File	6	Edit File	6
Zero All	7	Zero All	7
Zero X	8	Zero X	8
Zero Y	9	Zero Y	9
Zero Z	10	Zero Z	10
Zero A	11	Zero A	11
Zero B	12	Zero B	12
Zero C	13	Zero C	13
Feedrate reset	14	Feedrate reset	14
Estimate Job	15	Estimate Job	15
Run from here	16	Run from here	16
GotoZs	17	GotoZs	17
Coord System	18	Coord System	18
Verify	20	Verify	20
Reset	21	Reset	21
Ref X	22	Ref X	22
Ref Y	23	Ref Y	23
Ref Z	24	Ref Z	24
Ref A	25	Ref A	25
Ref B	26	Ref B	26
Ref C	27	Ref C	27
Joystick Toggle	28	Joystick Toggle	28
Softlimits Toggle	29	Softlimits Toggle	29
Radius Tracking Toggle	30	Radius Tracking Toggle	30
Jog Toggle	31	Jog Toggle	31