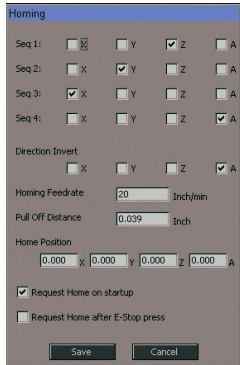


MASSO DEFAULT FUNCTION SETTINGS—BALL SCREW MILLS

These are lists of all of the default settings for the “Function Settings” for each Sherline Machine. Scroll through the document to find the settings for your machine. Click the following link for detailed instructions on setting the MASSO default functions. https://www.sherline.com/wp-content/uploads/2020/06/masso_default_settings_inst.pdf

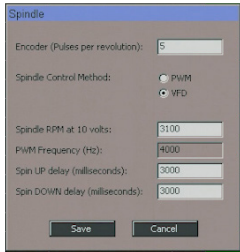
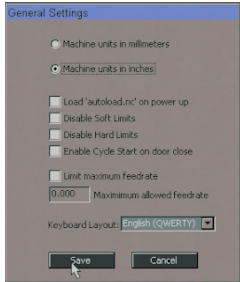
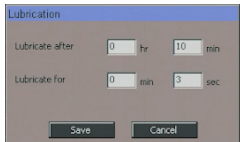
1. First go to the F1 - Setup page. Enter your pass code. Then look at the list of “Function Settings”.
2. The function settings are going to be different for each machine depending on the machine size, the type of leadscrew or ball screw, and which direction the axis must go to home out.
3. All General settings are in Inch. To convert to Metric, just multiply by 25.4.
4. The default settings below are for our standard machines. If you have upgraded your machine to a longer base, table, or column, then you will need to choose the axis information that coincides with the sizes of your axes.

BALL SCREW MILLS

FUNCTION SETTINGS		18" MILL P/N 6858	18" MILL P/N 6858	14" MILL P/N 6820	14" MILL P/N 6820	12" MILL P/N 6854	12" MILL P/N 6854	10" MILL P/N 5000	10" MILL P/N 5100	
		18" Base, 18" Table, & 15" Column	18" Base, 18" Table, & 15" Column	14" Base, 13" Table, & 11" Column	14" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column	
HOMING	SETTINGS	INCH VALUES	METRIC VALUES	INCH VALUES	METRIC VALUES	INCH VALUES	METRIC VALUES	INCH VALUES	METRIC VALUES	
	SEQ 1	Z	Z	Z	Z	Z	Z	Z	Z	
	SEQ 2	Y	Y	Y	Y	Y	Y	Y	Y	
	SEQ 3	X	X	X	X	X	X	X	X	
	SEQ 4	A	A	A	A	A	A	A	A	
	Direction Invert	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES	X, Y, & Z=NO A-Axis=YES
	Homing Feedrate	20IN/MIN	508MM/MIN	20IN/MIN	508MM/MIN	20IN/MIN	508MM/MIN	20IN/MIN	508MM/MIN	
	Pull Off Distance	0.039"	0.991MM	0.039"	0.991MM	0.039"	0.991MM	0.039"	0.991MM	
	Home Position	X0,Y0,Z0,A0	X0,Y0,Z0,A0	X0,Y0,Z0,A0	X0,Y0,Z0,A0	X0,Y0,Z0,A0	X0,Y0,Z0,A0	X0,Y0,Z0,A0	X0,Y0,Z0,A0	
	Request Home on Startup	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	
	Request Home after E-Stop	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	

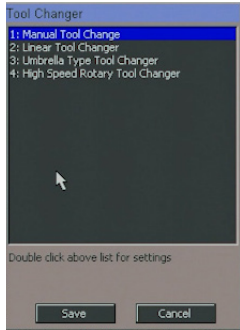
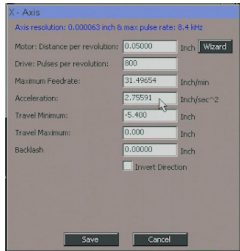
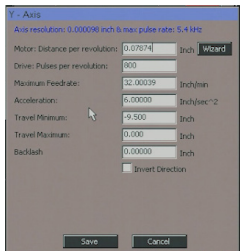
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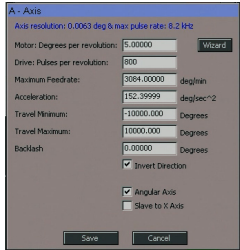
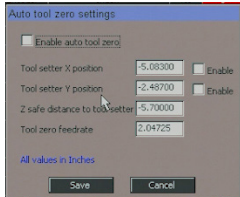
BALL SCREW MILLS

FUNCTION SETTINGS		18" MILL P/N 6858	18" MILL P/N 6858	14" MILL P/N 6820	14" MILL P/N 6820	12" MILL P/N 6854	12" MILL P/N 6854	10" MILL P/N 5000	10" MILL P/N 5100
SPINDLE	Encoder (Pulse per revolution)	5	5	5	5	5	5	5	5
	Spindle control method (PWM or VFD)	VFD	VFD	VFD	VFD	VFD	VFD	VFD	VFD
	Spindle RPM at 10 Volts NOTE: If you have a 10,000 RPM spindle, this must be set to 10,000	3100	3100	3100	3100	3100	3100	3100	3100
	PWM Frequency (Hz)	4000	4000	4000	4000	4000	4000	4000	4000
	Spin Up Delay (Milliseconds)	3000	3000	3000	3000	3000	3000	3000	3000
	Spin Down Delay (Milliseconds)	3000	3000	3000	3000	3000	3000	3000	3000
GENERAL SETTINGS	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control	Choose Millimeter or Inch for your control
	For our machines, none of the choices from Load "autoload.nc" to "Limit Max Feedrate" are checked.	ALL BLANK	ALL BLANK	ALL BLANK	ALL BLANK	ALL BLANK	ALL BLANK	ALL BLANK	ALL BLANK
	Max Allowed Feedrate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Keyboard Layout: Pick your language of choice.	YOUR CHOICE	YOUR CHOICE	YOUR CHOICE	YOUR CHOICE	YOUR CHOICE	YOUR CHOICE	YOUR CHOICE	YOUR CHOICE
LUBRICATION									
	Does not apply to our machines.								

NOTE: When you set your "Machine units" to either Inch or Millimeter, you are setting the CONTROL page AND your SETUP page to Inch or Millimeter for data input. You can have an Inch or Metric leadscrew and choose to have your Control page and Setup values in either inch or metric.

BALL SCREW MILLS

FUNCTION SETTINGS		18" MILL P/N 6858	18" MILL P/N 6858	14" MILL P/N 6820	14" MILL P/N 6820	12" MILL P/N 6854	12" MILL P/N 6854	10" MILL P/N 5000	10" MILL P/N 5100
TOOL CHANGER									
 <p>NOTE: All of our Mills use "Manual Tool Changer"</p>	MANUAL TOOL CHANGE	MANUAL TOOL CHANGE	MANUAL TOOL CHANGE	MANUAL TOOL CHANGE	MANUAL TOOL CHANGE	MANUAL TOOL CHANGE	MANUAL TOOL CHANGE	MANUAL TOOL CHANGE	
		18" Base, 18" Table, & 15" Column	18" Base, 18" Table, & 15" Column	14" Base, 13" Table, & 11" Column	14" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column
X-AXIS	SETTINGS	INCH VALUES	METRIC VALUES	INCH VALUES	METRIC VALUES	INCH VALUES	METRIC VALUES	INCH VALUES	METRIC VALUES
	Motor: Distance per Revolution	0.07874"	2.00	0.07874"	2.00	0.07874"	2.00	0.07874"	2.00
	Drive: Pulses per Revolution	800	800	800	800	800	800	800	800
	Maximum Feedrate	32.00	812.812	32.00	812.812	32.00	812.812	32.00	812.812
	Acceleration	6.00	152.40	6.00	152.40	6.00	152.40	6.00	152.40
	Travel Minimum	-12.80	-325.12	-7.80	-198.12	-7.80	-198.12	-7.80	-198.12
	Travel Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Backlash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Invert: Check or Blank	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK
Y-AXIS	SETTINGS	18" Base, 18" Table, & 15" Column	18" Base, 18" Table, & 15" Column	14" Base, 13" Table, & 11" Column	14" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column
	Motor: Distance per Revolution	0.07874"	2.00	0.07874"	2.00	0.07874"	2.00	0.07874"	2.00
	Drive: Pulses per Revolution	800	800	800	800	800	800	800	800
	Maximum Feedrate	32.00	812.81	32.00	812.81	32.00	812.81	32.00	812.81
	Acceleration	6.00	152.40	6.00	152.40	6.00	152.40	6.00	152.40
	Travel Minimum	-9.50	-241.30	-5.55	-140.97	-4.55	-115.57	-3.55	-90.17
	Travel Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Backlash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Invert: Check or Blank	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK

FUNCTION SETTINGS		18" MILL P/N 6858	18" MILL P/N 6858	14" MILL P/N 6820	14" MILL P/N 6820	12" MILL P/N 6854	12" MILL P/N 6854	10" MILL P/N 5000	10" MILL P/N 5100
Z-AXIS	SETTINGS	18" Base, 18" Table, & 15" Column	18" Base, 18" Table, & 15" Column	14" Base, 13" Table, & 11" Column	14" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column
	Motor: Distance per Revolution	0.07874"	2.00	0.07874"	2.00	0.07874"	2.00	0.07874"	2.00
	Drive: Pulses per Revolution	800	800	800	800	800	800	800	800
	Maximum Feedrate	32.00	812.81	32.00	812.81	32.00	812.81	32.00	812.81
	Acceleration	6.00	152.40	6.00	152.40	6.00	152.40	6.00	152.40
	Travel Minimum	-9.10	-231.14	-5.10	-129.54	-5.10	-129.54	-5.10	-129.54
	Travel Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Backlash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Invert: Check or Blank	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK
A-AXIS	SETTINGS	18" Base, 18" Table, & 15" Column	18" Base, 18" Table, & 15" Column	14" Base, 13" Table, & 11" Column	14" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	12" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column	10" Base, 13" Table, & 11" Column
	Motor: Degrees per Revolution	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Drive: Pulses per Revolution	800	800	800	800	800	800.00	800	800.00
	Maximum Feedrate	3084.00	3084.00	3084.00	3084.00	3084.00	3084.00	3084.00	3084.00
	Acceleration	152.00	152.00	152.00	152.00	152.00	152.00	152.00	152.00
	Travel Minimum	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00
	Travel Maximum	10000.00	10000.00	10000.00	10000.00	10000.00	10000.00	10000.00	10000.00
	Backlash								
	Invert: Check or Blank	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK
	Angular Axis	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK	YES/CHECK
	Slave to X-Axis	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK	NO/BLANK
AUTO TOOL ZERO SETTINGS	 <p>The Auto Tool Zero Settings are not used on our Sherline Machines. The software for the tool setter was designed for CNC routers that hold their tools in collets. Changing a tool on a router means that there are constant tool length changes. After every tool change, the tool would go over to the touch pad and reset the tool zero. Then it would continue with the program. Since our tools are rigid mount and the length doesn't change, the sequence and time to touch off every tool after every tool change was something that most of our customers deemed unnecessary and did not want.</p>								