
Section 3: Jog Mode

Jog Using the Manual Pulse Generator

- 1) At the "Enter Next Command" prompt, or any function menu mode, press the JOG button to get into the jog mode.
- 2) Select the axis to be jogged with the axis selector switch, located directly above and to the left of the manual pulse generator.
- 3) Select the increment to jog by with the increment selector switch, located directly above and to the right of the manual pulse generator.
- 4) To move the tool in a plus direction, turn the manual pulse generator in the clockwise direction.
- 5) To move the tool in a minus direction, turn the manual pulse generator in the counterclockwise direction.
- 6) The feed rate potentiometer has no effect on the rate of motion when using the manual pulse generator.



WARNING: When using the keyboard to jog. The increment and axis selection at the keyboard will override the current settings of the selector switches. When going from the keyboard to the manual pulse generator for jogging, move both selector switches and confirm they are selected by looking in the lower left portion of the screen to see the active Jog mode status.

Note: The jog status is located in the lower left corner of the screen. Before jogging always look in the lower left corner of the screen to see the active jog status.

Note: The manual pulse generator has detentes for each increment on the hand wheel. These may be counted or calculated to make the desired moves.

**Jog Using the
Keyboard**

- 1) At the *Enter Next Command* prompt or any function menu mode, press the JOG key to get into the *jog* mode.
- 2) Select the axis to be jogged by pressing the corresponding letter from the keyboard.
- 3) Select the direction to jog the tool using the + or - keys on the keyboard.
- 4) Select the increment to be jogged by typing H for increments of .010, M for increments of .001, and L for increments of .0001.
- 5) Each time the JOG key is pressed the tool will move in the direction and increment specified. The axis, direction, and increment are listed in the lower left hand corner of the screen.

EXAMPLE: If the setting in the lower left corner is X+H each time the jog key is pressed the tool will move in the X+ direction .01.

- 6) For continuous motion, depress the JOG key. The feed rate potentiometer will effect the rate of continuous motion.

Note: If the feed rate potentiometer is set to 0%, no motion will occur when using the JOG key.



WARNING: When using the keyboard to jog. The increment and axis selection at the keyboard will override the current settings of the selector switches. When going from the keyboard to the manual pulse generator for jogging, move both selector switches and confirm they are selected by looking in the lower left portion of the screen to see the active Jog mode status.

Note: The jog status is located in the lower left corner of the screen. Before jogging always look in the lower left hand corner of the screen to see the active jog status.

**Jog Using the
Remote Manual
Pulse Generator**

- 1) At the *Enter Next Command* prompt or any function menu mode, select REMOTE on the pendant jog axis selector switch then press the JOG key to get into the *jog* mode.
- 2) Select the axis to be jogged with the remote axis selector switch, located on the remote manual pulse generator.
- 3) Select the increment to jog by with the increment selector switch, located on the remote manual pulse generator.

- 4) To move the tool in a plus direction, turn the manual pulse generator in the clockwise direction.
- 5) To move the tool in a minus direction, turn the manual pulse generator in the counterclockwise direction.
- 6) The feed rate potentiometer has no effect on the rate of motion when using the manual pulse generator.



WARNING: When using the keyboard to jog. The increment and axis selection at the keyboard will override the current settings of the selector switches. When going from the keyboard to the manual pulse generator for jogging, move both selector switches and confirm they are selected by looking in the lower left portion of the screen to see the active Jog mode status.



Figure 3-1 Optional manual pulse generator remote.

Note: The jog status is located in the lower left corner of the screen. Before jogging, always look in the lower left corner of the screen to see the active jog status.

Note: The manual pulse generator has detentes for each increment on the hand wheel. These may be counted or calculated to make the desired moves.

Jog Using the Vector Jog for 5 Axis Head

This only functions when the 5 axis head parameter is selected in the SETP machine parameters page.

- 1) Select the z-axis either from the keyboard, pendant selector switch, or the remote selector switch.
- 2) Rotation CW or motion positive will move the z-axis in the positive direction.
- 3) Rotation CCW or motion negative will move the z-axis in the negative direction.

Single Step, Jog Away From

The operator can jog away from the current location when the machine is waiting to execute the next block, in the single step mode. The control will automatically return the axes to the original position if desired.

- 1) From the single step mode, when the single step message is flashing (See Figure 3-2), press the JOG key to get into the jog mode.
- 2) Use the keyboard or the manual pulse generator to jog away from the current location.

Note: The spindle can be turned off by pressing the SPINDLE ON/OFF key, and the coolant can be turned off by pressing the appropriate COOLANT key.

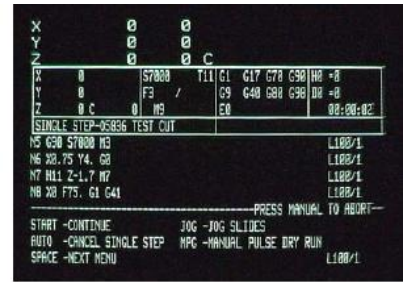


Figure 3-2 Single step mode.

- 3) To get the control to return to the position jogged away from, press the MANUAL key to get out of the *jog* mode. Then press the START button.

The control will prompt the operator with the message shown in figure 3-3.

Option 1 will cause the tool to return to the place where the JOG key was originally pressed. This movement will be at 150 inches per minute, moving the x-axis first, the y, a, and b-axes next, and the z-axis last. The control will then be ready to execute the next line in the program.



Figure 3-3 Screen display after pressing JOG button.

Option 2 will cause the tool to remain at this current position, the tool coordinate system will be shifted to this position, and execution of the program will continue.

Option 3 will cause the tool to remain at this current position, the tool coordinate system will remain at its original position, and execution of the program will continue.



WARNING: If the spindle and coolant were turned off, they must be turned on again by the operator before the START button is pressed.



WARNING: Before the START button is pressed, the z-axis must be jogged above the z-axis position jogged away from. Movement back is x and y-axis first, then the z-axis returns.

Slide Hold, Jog Away From

The operator can jog away from the position where the SLIDE HOLD button was pressed. The control will automatically return the axes to the original position if desired.

- 1) From the *slide hold* mode, when the slide hold message is flashing, press the JOG key to get into the *jog* mode.
- 2) Use the keyboard or the manual pulse generator to jog away from the position the machine is waiting in.

Note: The spindle can be turned off by pressing the SPINDLE ON/OFF key, and the coolant can be turned off by pressing the appropriate COOLANT key.

- 3) To get the control to return to the position jogged away from, press the MANUAL key to get out of the *jog* mode. Then press the START button.

The control will prompt the operator with the message shown in figure 3-3.

Option 1 will cause the tool to return to the place where the Jog button was originally pressed. This movement will be at 150

inches per minute, moving the X axis first, the Y, A, and B axes next, and the Z axis last. The control will then be ready to execute the next line in the program.

Option 2 will cause the tool to remain at this current position, the tool coordinate system will be shifted to this position, and execution of the program will continue.



Figure 3-4 Options for manual slide hold.

Option 5 will cause the tool to remain at this current position, the tool coordinate system will remain at its original position, and execution of the program will continue.



WARNING: If the spindle and coolant were turned off, they must be turned on again by the operator before the START button is pressed.



WARNING: Before the START button is pressed, the z-axis must be jogged above the z-axis position jogged away from. Movement back is x and y-axis first then the z-axis returns.

Waiting Stage, Jog Away From

The operator can jog away from the current location when the waiting message is flashing. The control will automatically return the axes to the original position if desired.

- 1) From the waiting stage, when the waiting message is flashing, press the JOG key to get into the jog mode.
- 2) Use the keyboard or the manual pulse generator to jog away from the current location.

Note: The spindle can be turned off by pressing the SPINDLE ON/OFF key, and the coolant can be turned off by pressing the COOLANT 1 key.

- 3) To get the tool to return to the position jogged away from, press the MANUAL key to get out of the jog mode. Then press the START button.

The control will prompt the operator with the message shown in figure 3-5.



Figure 3-5 "Waiting stage" options menu.

Option 1 will cause the tool to return to the place where the Jog button was originally pressed. This movement will be at 150 inches per minute, moving the x-axis first, the y, a, and b-axes next, and the z-axis last. The control will then be ready to execute the next line in the program.

Option 2 will cause the tool to remain at this current position, the tool coordinate system will be shifted to this position, and execution of the program will continue.

Option 5 will cause the tool to remain at this current position, the tool coordinate system will remain at its original position, and execution of the program will continue.



WARNING: If the z-axis was jogged more than four inches positive, the z-axis will over travel at a tool change command. Stop and jog down below four inches before a tool change.



WARNING: If the spindle and coolant were turned off, they must be turned on again by the operator before the START button is pressed.



WARNING: Before the START button is pressed, the z-axis must be jogged above the z-axis position jogged away from. Return movement is the x-axis first, followed by the y, a, and b-axes, and finally, the z-axis.



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