



ELROD MACHINE & MFG.

CNC Machine Tool Sales & Service

3880 E. Hwy. 66 Suite 6 - Flagstaff, AZ. - 86004

Ph. : 928-526-9032 Fax: 928-526-2301

E Mail : sales@elrodmachine.com www.elrodmachine.com

QUILL DRIVE LUBRICATION

1. LUBRICATE YOUR QUILL DRIVE SCREW WITH LUBRIPLATE WHITE LITHIUM GREASE.
 2. GREASE EVERY 3 MONTHS OR SOONER IF THE SCREW LOOKS DRY.
 3. GREASE THE SCREW THROUGH THE 10-32 TAPPED HOLE IN THE BALL NUT.
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Elrod Smart Z Instructions for Centroid Control

The Elrod Smart-Z Option when used with the Centroid allows the operator to have 3 machines in one.

The three modes of operation are

1. *3 Axis CNC*
2. *2 Axis CNC with Z Axis disconnected from the Ball Screw with Z Axis Positional Feedback*
3. *Manual machine with a 3 Axis DRO.*

The Elrod Quill Drive with Quick Disconnect allow the operator to switch between Servo Driven Z Axis and a manually operated quill with the same feel they had when the quill was just a manual machine. Power tapping can be accomplished in this mode just like a manual mill!

Steps to Switch Between CNC and 2 Axis Mode or Manual Mill Mode

1. Jog the Quill down to the extreme minus position.
2. Tighten the quill lock lever.
3. Press F1 Setup (See Figure 1)



Figure1

4. Press F5 2 Axis and your Z axis Label will turn into a Z Axis Quill Icon See Figure 2
5. Swivel the gold tag on the left side of the quill drives lower housing
6. Loosen the 5/16-24 SHCS with a ¼” Allen Wrench **ONE Turn of the Screw Only!**
7. Remove the wrench and loosen the quill lock lever



Figure 2

After Switching to the 2 Axis Mode you will notice that X & Y motors are shut off. This mode takes the operator directly into the manual mode with 3 axis DRO. If 2 axis mode is desired just simply press the X & Y Axis buttons and the motors will be re-energized for 2 Axis CNC Mode.

When in the 2 axis mode Intercon Creates 2 Axis G code prompting the operator to raise and lower the Z Axis when needed. See Figure 3

This also works with the One Shot Codes as well, if they are configured on the control.

If an Intercon or One Shot program is written in 2 Axis Mode and the operator switches back to 3 Axis Mode the CNC code can be reposted to 3 axis CNC code by simply pressing the F10 Post Button in Intercon.

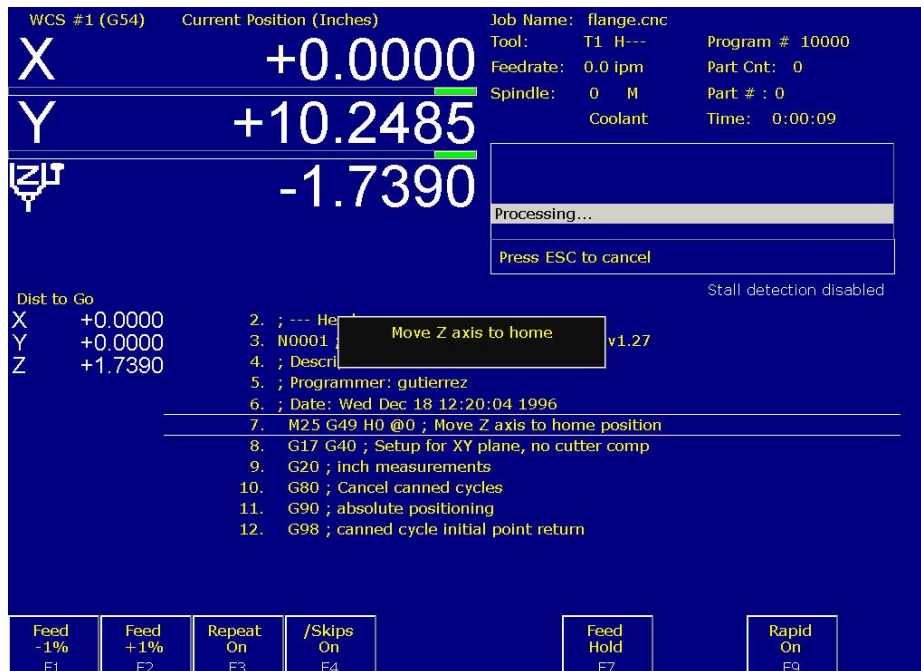


Figure 3

Switching Back To 3 Axis CNC Steps.
THIS IS IMPORTANT TO REMEMBER
IN THE ORDER DEPICTED

1. Lower The Quill Down To The Extreme Minus Position
2. Lock the Quill lever
3. Re-Tighten the 5/16-24 SHCS on the ball nut block with a 1/4" allen wrench
Torque To 22 ft. lbs
4. Press F1 Setup on the Centroid (See Figure 1)
5. Press F5 3 Axis (See Figure 2) Note: you will notice that when you are in the 2 Axis Mode the F5 Button says 3 Axis. This is the next mode of operation since you are in the 2 Axis Mode.
6. Loosen the Quill Lock Lever

The Control is now back into the 3 Axis CNC Mode