Zero Memory Procedure

Symptoms

Your machine may have corrupt and extraneous information in the control memory. Odd characters, strange data in your tool tables, garbage on the tool fixture offset table, and various odd movements can be something as simple as re-formatting the memory.

The Zero Memory Procedure is not clearing everything completely and properly with 2. START CNC. Rather than using this command, just power down your machine when the reformatting is done.

To access this area of the diagnostics, at the ENTER NEXT COMMAND prompt, type DI, press ENTER, then type GO 3000 and follow the prompts to Zero Memory Procedure.

Procedure

Zero Memory Procedure

1. Send machine back to cold start position. From the ENTER NEXT COMMAND prompt type CS [Enter] to perform cold start. If using the "2nd home" feature, write down the respective X-Y-Z-A-B values for later input.

2. Download all programs and offsets to your PC using the FadalCNC-DNC software or other communications software.

3. Load tool #1 into the spindle. (In MDI...M6 T1)

4. From the ENTER NEXT COMMAND, type BL, then press ENTER to display backlash values. There are 3 values for X, 3 values for Y, only 1 each for Z, A, or B. Record values on Table 1.

5. From ENTER NEXT COMMAND, type SETP, then press ENTER to display parameter page 1. Record values on Table 1. (You may not have all items listed on the table.)

6. After recording page 1, press P to advance to page 2, record values, and then P again for page 3. Press MANUAL to exit the parameter area.

7. From ENTER NEXT COMMAND, type DI, press ENTER, type GO 3000 (the digit after G is the number 0, not the letter O) then press ENTER. (You are now in diagnostic mode on page 1.)

8. Press the Spacebar 1 time to advance to page 2, then press 5 (Zero Memory). Press Y to answer yes, press Y to answer yes a 2nd time, wait several seconds.

9. Power off machine for 10 seconds. Power back up. Machine will default to a 4020. Don't panic. Re-enter the information you recorded, using the appropriate commands as used above. When you are entering the parameter values, each time you enter a value and press ENTER, the value will be changed, and the cursor will advance to the next question. Most questions have the potential answers listed on the bottom half of the screen. You will input the appropriate numeric value associated with each answer. When all parameters are input, press MANUAL and continue below:

To insert the backlash values, use this format:

    BL,1,value,value,value (for X)
    BL,2,value,value,value (for Y)
    BL,3,value (for Z)
    BL,4,value (for A)
    BL,5,value (for B)

10. Power machine off for 10 seconds again. On power-up, it will now recognize your parameters. If you have a 4th or 4th/5th axis, you will now have to enter the BL,4,value and the BL,5,value.

11. After cold start, at ENTER NEXT COMMAND type SETTO then press ENTER to reset ATC to tool #1. Jog any axis to its "2nd home" location then use the command SETX/SETY/SETZ accordingly.

12. Upload all saved programs and tooling.

You are now finished with the procedure. Your machine should run great after this procedure and if not, give our technicians a call and we will help you through any problems you encounter.

Table 1.

| Last Home Positions: | X_____ | Y_____ | Z_____ | A_____ | B_____ |

X Backlash Values: _____ , _____ , _____

Y Backlash Values: _____ , _____ , _____

Z Backlash Values: _____

A Backlash Values: _____

B Backlash Values: _____

Parameters Page 1

Format:	_____	Baud Rate:	_____	Spindle After M6:	_____
Axes:	_____	Travel:	_____	Pendant:	_____
Default:	_____	A-Axis Ratio:	_____	M60 A Brake:	_____
Default:	_____	B-Axes Ratio:	_____	M62 B Brake:	_____
Default:	_____	Tool Capacity:	_____	Immed Fixed Cycle:	_____
RPM Factor	_____	Spindle Type:	_____	Orientation Factor:	_____

Parameters Page 2

Default:	_____	M8:	_____	M7:	_____	3-Phase Low:	_____
PU Format:	_____	N Words Order:	_____			Tool Table:	_____
CRC Code:	_____	Binary Buffers:	_____			High Torque/RT:	_____
Spindle Off:	_____	Turret Factor:	_____			CMD Mode:	_____
Pallet:	_____	Gain:	_____			Ramp:	_____
Aspect:	_____	Timers:	_____			Overload Factor:	_____

Parameters Page 3

Screw:	_____	IPM:	_____	XYZ Ramp:	_____
Z Tap Gain:	_____	Vector:	_____	Axis Display	_____
Auto Brake:	_____	A Pallet:	_____	B Pallet:	_____
5-Axis Head:	_____	GO Detail:	_____	Feedback:	_____
At Speed:	_____	Slide Hold:	_____		