TSG The Service Group

Here is the procedure for changing the gridshift of a 5-axis machine with a FANUC 16i.

Read all the way through before performing ANY changes!

1. Zero-return the tables and look at the distance between the hard over-travel and deceleration dog and switches. We want the switches in-between the dogs, preferably in the middle, see the "Grid Shift Starters for Single Table Machines".

2. Select "***MDI***" mode of operation.

3.   Flip the "***Program Protect***" switch up, yellow one.

4. Measure the distance difference from where the axis is now to where you want it to be.

5. Push the "***Offset/Setting***" button, usually twice, to show the "***Setting (Handy)***" page.

6. Move the cursor to "***Parameter Write***". Change the setting from a 0 to a **1** ***NOTE *** You have to be in MDI mode to change it. ******

7. At this point you will have a "Parameter Write Enable" alarm. You cannot clear this alarm until parameter 8000 bit #0 to a 0.

8. Push the "***Service***" button, usually once, to show the system parameters. Type in **1850** and push the "***inp no.***" soft key to find parameter 1850. You will see each axis's grid shift at this point.

9. Using the ***cursor controls*** select the axis you want to change. Input a number in a positive direction in an increment of **2000** and push the soft key "***input +***".

10. At this point you will get an alarm saying to turn off power. ***Turn off the controller for at least 30 seconds***, then turn it on again and zero return the axis. Check the distance moved and direction for the axis you changed. If it went the wrong way then "***input +***" a negative number. If it when the right way then keep using positive numbers until the axis lines up to where you want it.

11. You can figure out how big of a number to use by finding the distance moved and dividing that by how much more you have to go to fix it. For example, if you input + 2000 and the axis move 0.125" in the correct direction, and you need to move it 0.375""more still, then you would input + 6000 more to correct the position. Or if the axis moved 0.125" in the wrong direction, and you now have 0.675" to correct, then input + -10000.

12. ***As a note***, some controller's leave the "Parameter Write Enable" turned on after you have turned off the controller and turned it back on, some do not. If your controller does not, then you will have to set the "***Parameter Write***" in the "***Setting (Handy)***" screen before changing 1850 in the "Service" a second time. If the parameter write is still enabled, you will still have the alarm when you turn it on again.

13. Once you have the tables corrected, check that the parameter write has been disabled by going to the "*Setting (Handy)*" screen and checking that "*Parameter Write*" setting = <u>**0**</u>. If not, set it to 0 and then clear the alarm.

If you have any questions, please don't hesitate to call.