


TOOL LIFE OPERATION

F310i

- TO GET TO TOOL LIFE DATA SCREEN

1. Press **OFFSET / SETTING** key.
2. If tool life screen does not appear press  soft key until you see the **TOOL LIFE** soft key.
3. Press **TOOL LIFE** soft key.

- TOOL LIFE SCREEN EXPLANATION

1. The screen is set up by groups, (eg. Group 1 has T1 and T21, you will not see the “T” by the tool number. Both tools will be the same type and for the same operation)
2. You can use the cursor down key  to move to other groups.
3. A “@” sign next to the tool number shows which tool is currently being used in that group.
4. A * sign next to the tool number shows that the tool life has expired for that tool.
5. A “#” sign next to the tool number shows that the tool life has expired by manual intervention or external signal
6. The Tool number, pot number, and tool length offset number are all the same (eg. T1 = Pot1 = Tool length offset 1, Depending on machine and set-up conditions)
7. To make any EDIT changes in a group you must be in **MDI** mode.
8. Press **OPRT** then **EDIT** soft key to open a group for editing.
9. Always press **END** after editing changes are completed.
10. To add a tool to a group you must type the tool number then press **INSERT** soft key.
11. To make changes in a group you must use either the **INPUT** soft key or the **INPUT** on the NC keyboard.
12. Use the **STATE** soft key to change the current condition of a tool in a group. (eg. Clear the expired mark after a fresh tool is put in the machine or to manually expire the life of a tool)

Tool Life Test

Set Tool Life as Follows

Group 1

Type 1

Life 2

	T-Code	H-Code
No. 01	0001	001
02	0011	011

Group 2

Type 1

Life 2

	T-Code	H-Code
No. 01	0002	002
02	0012	012

Set G54 X0 Y0 at clear area and G54 Z offset should be 0

Enter Tool Offset value -4.0" for 1,2,11,12

To set up tool life press **OFFSET** key → **▶** key → **TOOL LIFE** → **OPRT** → **EDIT**. Place machine in **MDI** mode and Type in first tool # and press **INSERT** to create tool in group. → Type **H #** and press **INPUT**. Type the spare tool number and press **INSERT** then set **H #**. Set Type and Life for group and then press **END**. Do the same for Group 2.

Groups are the set of tools which will perform the same operation.

Each separate tool type will need a separate group.

T codes are set to actual tool numbers.

H codes are the offset numbers being used.

Use Type 1 life count

Make sure the following parameters are set.

#6800.2 (0)

#6810 (1000)

Tool Life Test Program

O1000;
G91G0G28Z0;
G30X0Y0;
T1001; ← (Depending on parameter #6810 this number will be T1001 or T101)
M6;
S200M3;
G54G0G90X0Y0T1002; ← (Depending on parameter #6810 this number will be T1002 or T102)
G43Z3.H99; ← (H99 command will use "H" offset of active tool in group that is called up)
G81Z-1.R.5F50.;
G80;
G0Z3.;
M5;
G91G28G0Z0;
G30X0Y0;
M6;
S200M3;
G0G54G90X0Y0;
G43Z3.H99;
G81Z-1.R.5F50.
G80;
G0Z3.;
M5;
G91G28Z0.;
M2;

Watch the screen to see what tools are being used and on the 3rd cycle the fresh tool and H value will be used. Make sure tools will clear and make program changes as necessary to run test safely.

NOTE: H99 CANNOT BE USED IN A PROGRAM THAT IS NOT USING TOOL LIFE. THE H99 COMMAND WILL SEARCH FOR THE ACTIVE TOOL LIFE GROUP TO THEN SELECT THE "H" OFFSET NUMBER. IF NO GROUP IS ACTIVE YOU WILL GET ALARM 154 NOT USING TOOL IN LIFE GROUP.