

Chapter 13

OBJECTIVE

Test program operations and perform the necessary procedure to produce a finished part.

INTRODUCTION

Once the machine is ready to operate, you will need to test the program. This will involve first testing the program and then the program's interaction with the machine.

PROGRAM INTEGRITY

The following steps can be used to determine if the codes and values entered for the program are correct. This **does not** mean that the program is right, simply that typing and math errors were not encountered during the actual writing of the program.

1. Ensure that the MACHINE LOCK key is selected; the light in the corner of the key should be lit.

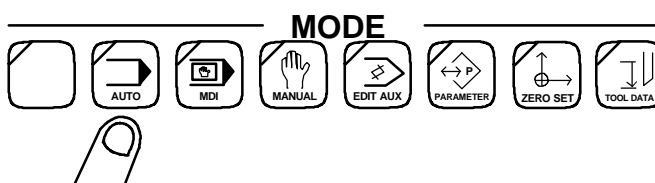


2. Ensure that the DRY RUN key is selected; the light in the corner of the key should be lit.

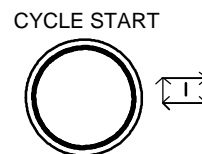


NEVER PLACE THE MACHINE IN DRY RUN UNLESS THE MACHINE IS ALSO IN MACHINE LOCK!!! THE MACHINE WILL OPERATE AT THE RAPID FEEDS *DURING CUTTING FEEDS* IF YOU ARE ONLY IN DRY RUN.

3. On the Operation Panel, select the Auto mode of operation.



4. Use the information in Chapter 11 to review the procedures for Program Select.
5. *Double check to ensure that both the DRY RUN and MACHINE LOCK keys have been selected!!!*
6. Press the CYCLE START button.



The program will cycle. Because you are in the MACHINE LOCK condition no axis positioning or spindle operation is possible. Because you are in the DRY RUN condition, all feeds will be processed at the rapid feed allowing a *quick* test of your program.

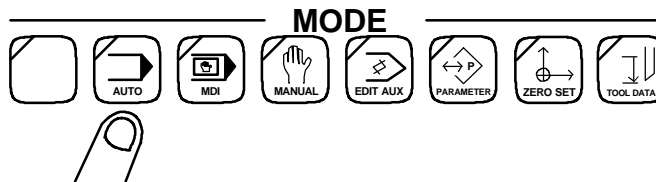
VIEWING GRAPHICS

The following information describes the procedure for testing your program by viewing the graphics.

1. Ensure that the MACHINE LOCK key is selected; the light in the corner of the key should be lit. Also ensure that the DRY RUN key is **not** selected; the light in the corner of the key should **not** be lit.

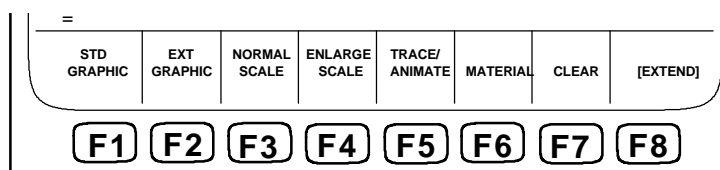


2. On the Operation Panel, select the Auto mode of operation.



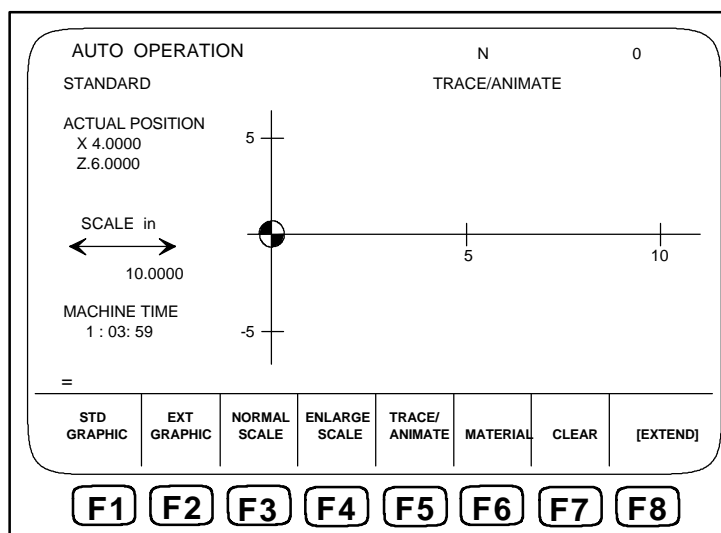
3. Use the instructions in Chapter 11 to select the program you want to run.

4. Select function key [F8] (EXTEND) as many times as necessary until the following guide is displayed.



Depending on the age of your machine, the exact wording of this guide may vary. In any case, the key **will** be [F1] and the word GRAPHIC will be part of the label.

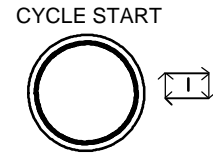
5. Select function key [F1] (STD GRAPHIC) and the following screen should be displayed.



!!! WARNING !!!

TAKE THIS TIME TO *INSURE* YOU ARE IN THE MACHINE LOCK CONDITION!!! FAILURE TO DO SO MAY RESULT IN SERIOUS DAMAGE TO THE MACHINE AND/OR PERSONAL INJURY.

6. Press the CYCLE START BUTTON. The program will be graphically displayed on the screen.



You should know that if you try to view the graphics while the DRY RUN key is active only tool path graphics will be displayed; no tool or shape graphics.

!!! WARNING !!!

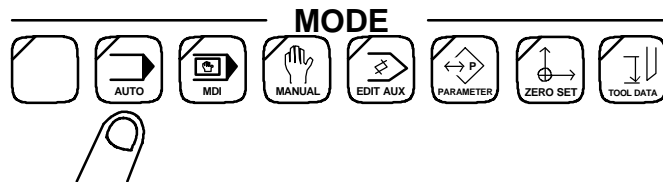
THIS TEST DOES NOT CHECK TOOL LENGTH OFFSETS!!!

Tool length offsets are only active when you are actually cutting the part. Use the next section in this chapter (Running a Program) to test tool length offsets.

RUNNING A PROGRAM

After you have determined that the program is functioning correctly and have used the graphics to assist in displaying any potential problems, you are ready to run the machine.

1. On the Operation Panel, select the Auto mode of operation.



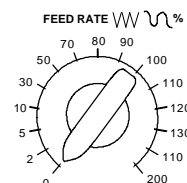
2. Use the instructions in Chapter 11 to select the program you want to run.

3. Ensure that the SINGLE BLOCK key is selected; the light in the corner of the key should be lit.



4. *Double check to ensure that both the DRY RUN and MACHINE LOCK keys have been deactivated; the light in the corner of each key should be OFF. The machine is now free to operate.*

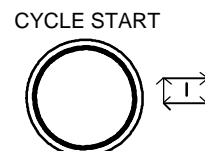
5. Rotate the FEED RATE OVERRIDE dial **fully counterclockwise** to zero. This sets the turret movements to zero percent.



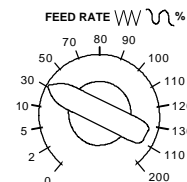
!!! WARNING !!!

IF YOU HAVE FORGOTTEN TO PLACE THE MACHINE IN THE SINGLE BLOCK CONDITION, THE FEED RATE OVERRIDE DIAL HAS NO EFFECT ON THE RAPID (G00) MOVEMENTS!!!

6. Press the CYCLE START button. No axis movement should occur.



7. Slowly rotate the FEED RATE OVERRIDE dial clockwise.



When in SINGLE BLOCK, the control will only perform one (1) block (or line) of information at a time. Because the graphic information and G50 maximum spindle RPM codes are first, your machine will not move the first time you press the CYCLE START button. Watch the RUN status indicator to determine if the machine needs you to rotate the FEED RATE OVERRIDE dial.

The **SAFEST** way to ensure that the program is correctly interfaced with the tool offsets, and other machine conditions, is to repeat steps 5 through 7 *for each block of your program!*

8. After you have gone (or blocked) through your entire programmed to determine that **all** processes are correct, you are ready to take your machine out of SINGLE BLOCK and run the remainder of the parts necessary.