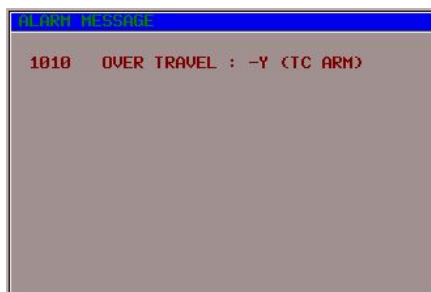




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Issuer: Quality Department	
Approved By:	

TC Reference Mach One S and TG Solutions (Fanuc Beta)

1. Press the E-stop button (the Big Red button)
2. Rotate the carousel manually 360 Deg and then align pocket one to spindle, (Carousel should be empty of all tools)
3. Press the [SYSTEM] hard key and then press the right-most soft key [+] three times until you see PMM.
4. Press the [PMM] soft key, at this time the screen will turn black, then, press the [SYSTEM] soft key and then the [PARAM] soft key.
5. Arrow down until you find parameter 11, enter 10000001 then press [INPUT] soft key
6. Cycle the power. (Properly Shut down Windows **“Shut down, not Restart”** and power off and then back on at control)
7. Pull E-stop back out.
8. Power up machine (There should be no alarms) ATC must be homed Message will be displayed.
9. Go to MDI and lower spindle T102; M3S0; Insert Cycle Start
10. Manually put any tool holder in the spindle.
11. Open Shroud Doors and then press E-stop Button.
12. Press the [SYSTEM] hard key and then press the right-most soft key [+] three times until you see PMM.
13. Press the [PMM] soft key, at this time the screen will turn black, then, press the [SYSTEM] soft key and then the [PARAM] soft key.
14. [Arrow] down until you find parameter 11, enter 10000000 then press [INPUT] soft key.
15. Pull E-stop back out 1066 Tool Changer 2 Not Ready Alarm should be displayed.
16. Make sure machine is in TC manual mode (TC Auto/Man PB should not be lit).
17. Jog Y axis towards carousel until this message is displayed:



18. Hold down the Over Travel Bypass push-button, Tool Change push-button and the IN POSN push-button simultaneously until the Tool Change and IN POSN push-buttons illuminate. The carousel should now turn freely (or somewhat freely). You should see this message:



19. Carousel pocket 1 should be lined up with tool in spindle. If not, do so now.



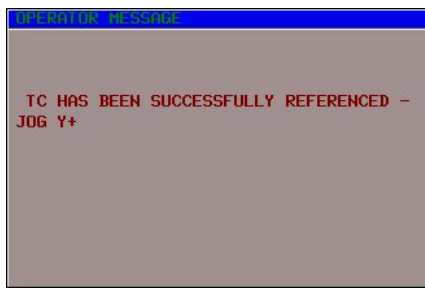
Instruction:	Rev Date:
Issued Date: 5/11/01	Rev Num: Draft #1
Issuer: Customer Service	
Approved By:	

TC Reference - Mach One S (Fanuc Beta)

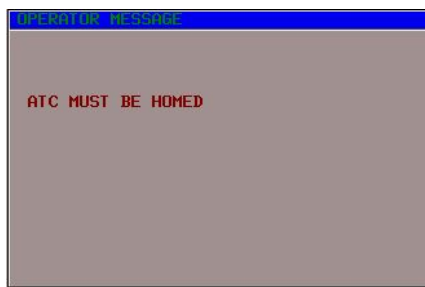
20. Using the MPG, move the toolholder into the # 1 pocket – centering it up as close as possible.



21. Press the Home push-button to complete the reference sequence. You should see this message:
This step will 'grab' the current Z & Y positions and insert them into macro variables (#500-#505)



22. Press the [SYSTEM] hard key and then press the right-most soft key [+] three times until you see PMM.
23. Press the [PMM] soft key, at this time the screen will turn black, next, press the [SYSTEM] soft key and then the [PARAM] soft key.
24. Page down until you find parameter 11, enter 10000001 then press [INPUT] soft key (this will set home position of the carousel). 10000001
25. Move the spindle away from the carousel in the positive Y direction.
26. Cycle the power. (Properly Shut down Windows “**Shut down, not Restart**” and power off and then back on at control)
27. Upon Power up, home X axis as required (TG Models only). If not a TG Model, then continue with next step.
28. Home the ATC (Press the **Home** and **Tool Change** push-buttons simultaneously). Empty the spindle as required (even if the spindle is empty the Drawbar push-button must be pressed).





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TC Reference - Mach One S (Fanuc Beta)

29. Turn Rapid Override Knob to 25%. Command a tool change to empty pocket to verify carousel position. (Example: T2001 M06; Insert, Cycle Start)
30. If successful, home the ATC (**Home & Tool Change PB** and empty tool from spindle) and load a tool into pocket 1 of carousel. Command a toolchange for pocket 1 (T2001 M06 ;).
31. If tool change is successful and alignment looks OK, home the ATC (**Home & Tool Change PB**) - load the carousel and run the TC test program for approx. 15 minutes (so at least every pocket is tested).
32. Sample program for tool changer program
Example: T2001M6;G4 X4.; T2002M6;G4X4.; T2003M6;G4 X4.; T2004M6;G4X4.;M99;