

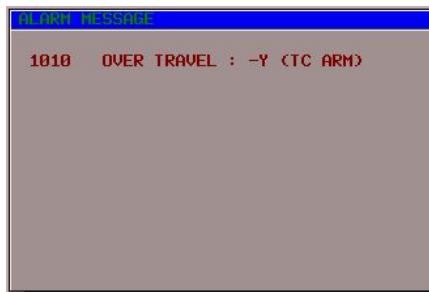


Instruction:	Rev Date:
Issued Date: 5/11/01	Rev Num: Draft #1
Issuer: Customer Service	
Approved By:	

## TC Reference Mach One S

### MACH 1S TOOL CHANGER REFERENCE (MITSUBISHI TOOLCHANGER DRIVE MOTOR ONLY)

1. Empty all pockets of the carousel
2. Load a toolholder in spindle
3. Call spindle down (Example: T102; M03 S0;) If the head will not come down, the green connector on the Mitsubishi amp may have to be unplugged and plugged back in.
4. Make sure machine is in TC manual mode (TC Auto/Man PB should not be lit)
5. Jog Y axis towards carousel until this message is displayed:



6. Hold down the OT 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:



7. Slowly turn the carousel to the approximate home position (pocket 1 in line with the spindle).
8. Using the MPG, move the toolholder into the # 1 pocket – centering it up as close as possible.

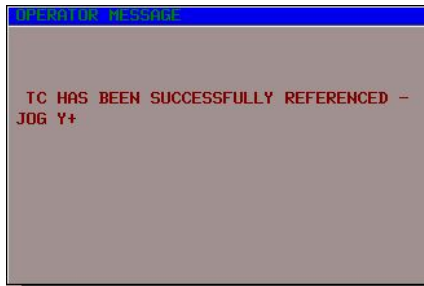




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9. Press the Home push-button to complete the reference sequence. You should see this message:



10. Press the Reset key to clear the message.  
11. Move the spindle away from the carousel in the positive Y direction.



12. 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).  
13. Command a toolchange to verify carousel position. (Example: T2001 M06;)  
14. If successful, home the ATC (**Home & Tool Change** PB) and load a tool in pocket 1. Command a toolchange for pocket 1 (T2001 M06;).  
15. If toolchange 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).