



INSTALLATION OF NEW CONTROLLER BD IN OLD 4T

Eff. Date: **08/16/11** Rev.: **A** Pg. **1** of **6**

I PURPOSE

Installing a new 4Ti Controller board (52244) in an old 4T machine. The new controller board requires a different magnet mounting bracket assembly due to the fact that the new controller board uses surface mount hall effect sensors

II APPLICATION

This is required when replacing the Controller board on an old 4T

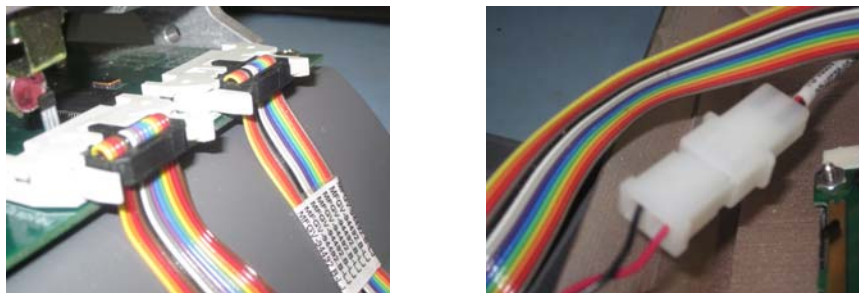
III TOOLS REQUIRED

- Phillip Head Screw Driver
- 3/32 and 5/64 allen wrench
- Needlenose pliers and small diagonal cutters

IV INSTRUCTION

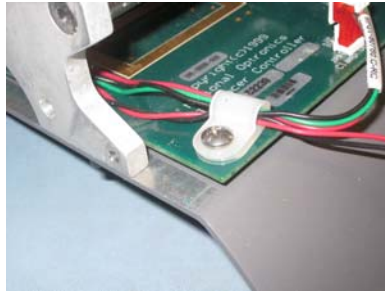


1. Remove the case top by taking out (8) 6-32 button head screws using a 5/64 Allen wrench.



2. Disconnect the display, keypad, and backlight cables. This will allow you to move the case top to the side out of your way.

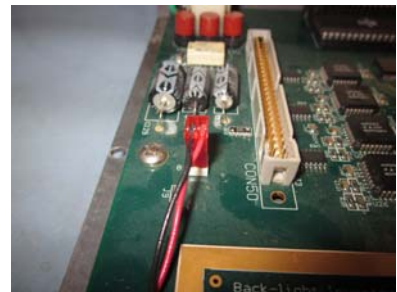
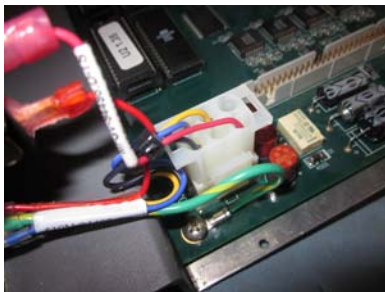
Approved by/date:		11190669– Upgrade Kit, 4Ti Controller Board
Derek Farrish – 08/16/11	N:\Manuals\WIP—Procedures\11190669 – Installation of New Controller Bd in Old 4T Procedure.pdf	



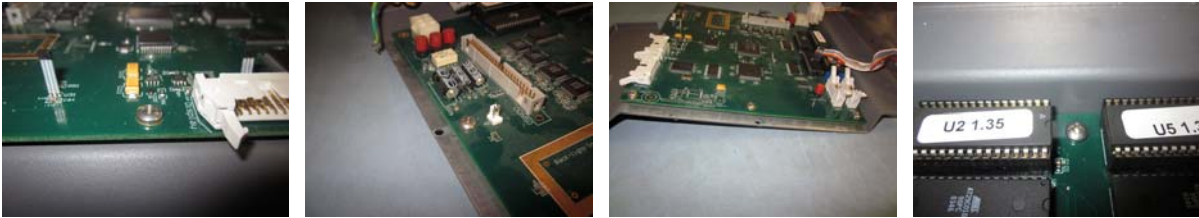
3. Remove the Phillips screw in the front left corner of the main board; this clip holds the cable for the home switch and the backlight. Also remove the small servo interface board that plugs into the main board, this is located in the back left side of the machine.



4. Turn the machine on its side and remove the (4) socket head screws that hold the carriage to the base plate. Use a 3/32 Allen wrench. This will allow you to move the carriage assembly to the side, out of your way.



5. Disconnect the 6 pin plug along with the Phillips screw in the left rear of the machine. Disconnect the (2) Com cables in the right rear of the machine. Also disconnect the backlight cable from the middle left of the board.



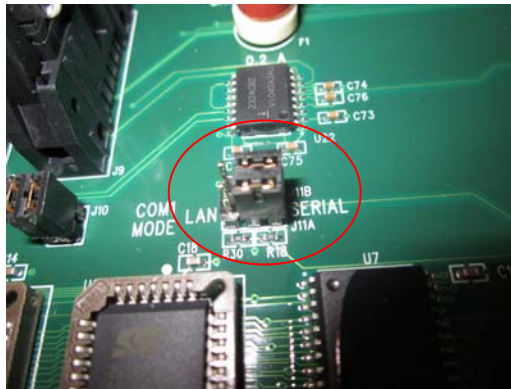
6. To remove the main board from the bottom plate you will have to remove (6) Phillips head screws. This will allow you to take the main board off of the bottom plate.



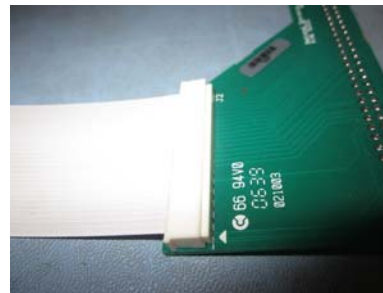
7. Lay the new board on the bottom plate and reinstall the (6) screws that you removed from the old main board.



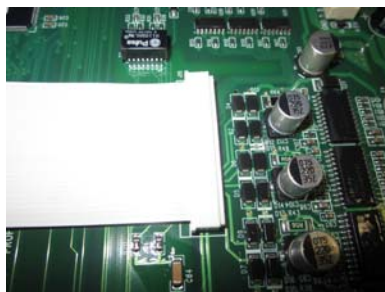
8. Plug the (2) Com cables into the main board. Plug the 6 pin plug into the main board and screw the ground cable into the back left corner.



9. Look at the jumper labeled COM 1 Mode. You want the jumper to be set like the picture so that you can use your machine for serial communication.



10. Unplug the flex cable from your carriage assembly and from the servo interface board.



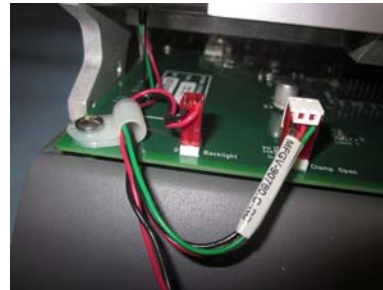
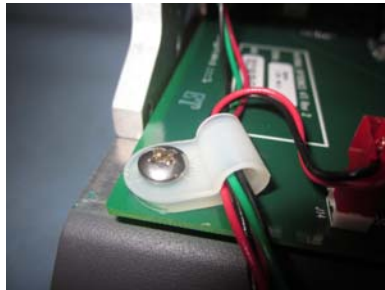
11. Your new main board has the flex cable connector directly on the main board. We have done away with the servo interface board that originally plugged into the main board. Take the flex cable that you just disconnected in the previous step and install this cable into the flex cable connector on the main board.



12. Remove your magnet bracket from your carriage assembly and install the new magnet assembly that you received with your main board replacement kit. The reason for the new magnet bracket is the switches that the magnet activates are now surface mount to avoid getting broken off. Now your magnet needs to point straight down to activate the switches.



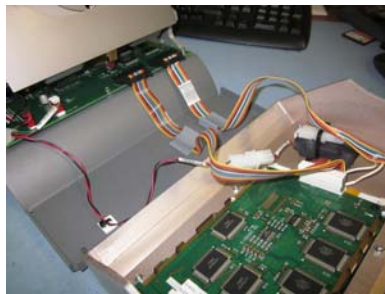
13. Set your carriage assembly back onto your bottom plate and lay the machine on its side and screw your (4) socket head screws that you removed in step 4 using a 3/32 Allen wrench.



14. You can now plug the home switch and the backlight cable into the front right corner of the main board. You will want to install the clip that holds both wires with a Phillips screw.



15. Use the sticky pad and tie wrap that came in the main board replacement kit to tie down the backlight cable to the bottom plate so it doesn't get hung up in the carriage assembly.



16. Plug your display, keypad, and backlight cable into the main board.



17. Put the case top back on the machine and install the (8) 6-32 button head screws using a 5/64 Allen wrench.

*** End of Work Instruction***