



# TSB---T-10-to-T-20-motor-replacement



Sayali Kothari  
Contractor

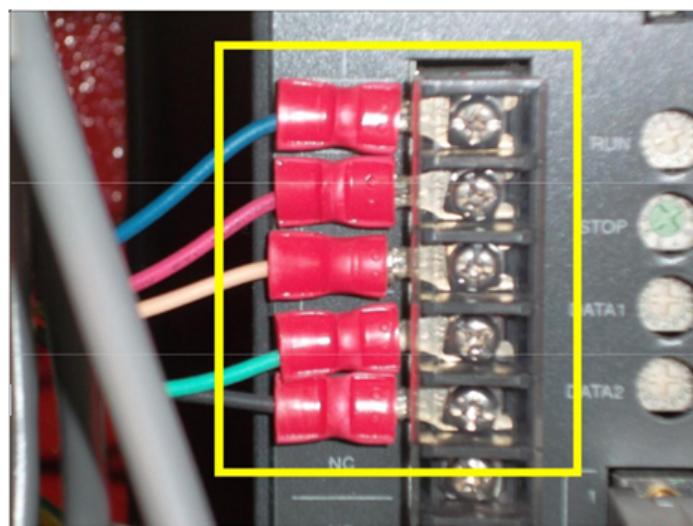
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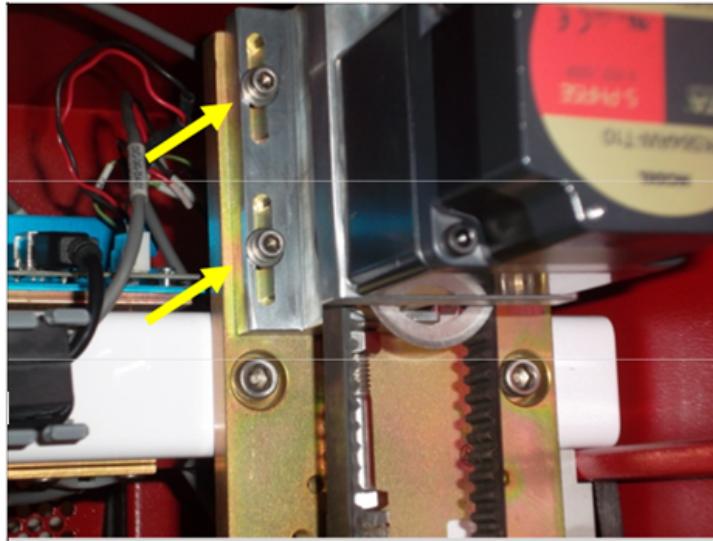
**Description:** This TSB will walk you through the process which is required to replace an old T-10 motor with the current T-20(A-94) motor.



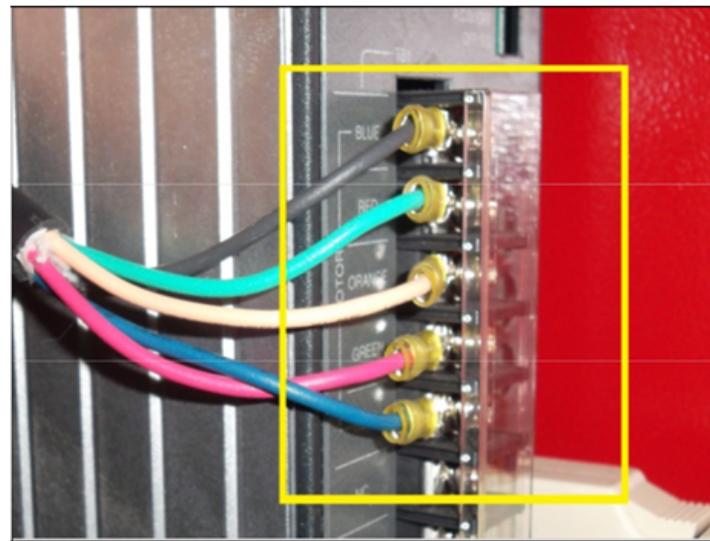
## 1. Removing and replacing the Y Motor.



Power the machine down. Remove the y-terminal connection for the motor from the Y-Amp (top amplifier) using a Phillips screwdriver.



With a 5/32" hex key, remove the 4 screws which hold the motor in place. Remove and replace the motor. Securely tighten the screws.



The T-20/A-94 motor wires should be connected back in the following order from top to bottom:

Black; Green; Yellow; Red; Blue

## 2. Adjusting Data 1 and Data 2 on both amps.



We will now adjust both data 1 and 2 on the Y and X amps. They are both currently set to 0. Remember, it is very important that this be done with the power to the machine off!

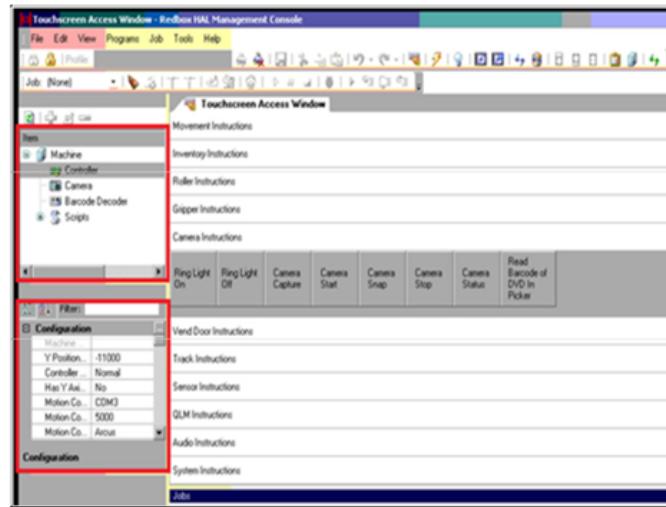


On the Y-amp (top amplifier), we will turn the dials on data 1 and 2 by turning the screw to the right 3 clicks so that the arrow is pointing on 3.



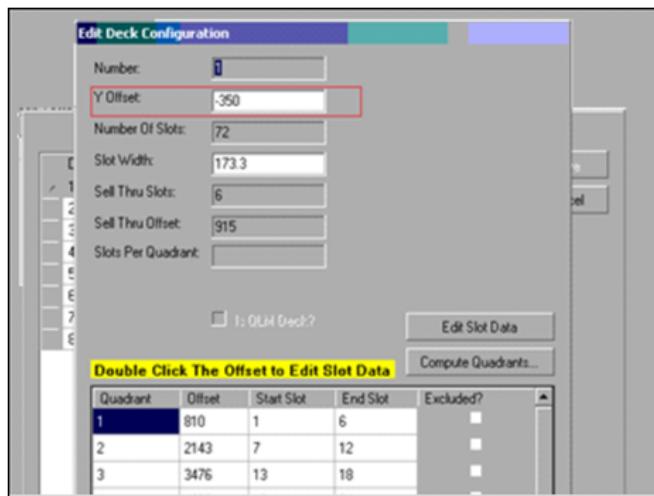
On the X-amp (bottom amplifier), we will turn the dials on data 1 and 2 by turning the screw to the right 5 clicks so that the arrow is pointing on 5.

### 3. Adjusting settings on the xml to work with the new motor as well as slot data.



Power the machine back on and log into Redbox Desktop. Open the Hal Management Console which can be opened using the advance mode button on Hal Tester. Select file and connect, then select controller under machine on the left pane. On the window below, adjust the following values. Once the changes have been made, select file on the top left corner, then save.

- StepResolution for gear X will change from 1 to 8
- StepRatio for gear Y will change from 10 to 20
- StepResolution for gear Y will change from 1 to 4
- Verify that InitAxisXSpeed Low is set to 600.
- Y-position for Vend value would need to be multiplied by 8 (e.g. if the old vend position is 3000, the new position would be 24000)



Now return to the Hal Tester and open Deck Configuration. For each deck, we will go into the properties and multiply the Y offset value by 8. Check the offset and adjust accordingly if need be. Remember to save the changes once complete.

*Tools/Parts Needed:*

Phillips or flathead screwdriver	1	DVD-99-088-00
Hex L Key Set 13PC	1	DVD-99-083-00
Z-Motor/Y axis Motor	1	DVD-80-000-01
Keyboard	1	DVD-99-027-00

**Associated TSB's:**

<b><i>Owner</i></b>		<b><i>Department</i></b>
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1.0.0	08/21/2011	Creation of new document

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