Vendo ®

Installation Instructions

The Next Dimension in Technical Service Information

Kit Number: 1187957 **Date:** 2-1-10

Installation Instructions: 1187945 **Rev:** A

Subject: Update the machine with current software **ECN:** 51810

Vendors: All VUE 30 **Rev. Date:** N/A

Purpose: To update older machines to current production level.

Parts List		
Quantity	***Part Number***	***Description***
1	1149131-61	VMC Software, VEC 15
1	1149143-21	PDC Software, Old Board
1	1179936-2.02	PDC Software, New Board
1	1165767	Harness, X-rail Ground
1	1167741	Harness, TVS Diode, Y-motor
1	1184129	Adapter Tab, Grounding, X-Rail
2	1183394	Wire Nut, 22-16GA
1	V801489	Screw, #10-16 Self Tapping
2	1184099	Wire, Ground, Strip/Eyelet, 6 in.
1	1187945	Instl Instr, Update Kit, Vue 30

Installation

PDC Software Update

Step #1 Identify which PDC software you need to update by identifying the PDC board located in the hand.

Step #2 Open the door.

Step #3 Press “Mode Button” on the VMC Board.

Step #4 The Display should read “Diagnostics“.

Step #5 Press ‘2’ to navigate to “Calibration”. (Press Button ‘2’, four times)

Step #6 Press ‘4’ to enter “Calibration”.

Step #7 Display should read “PDC Software Maintenance Off”.

Step #8 Press ‘4’ to enter “PDC Software Maintenance” -”Off” should blink.

Step #9 Press ‘2’ to Change PDC Software Maintenance to “On”.

Step #10 Press ‘4’ to set. The PDC should move to the top of the machine and extend the hand.

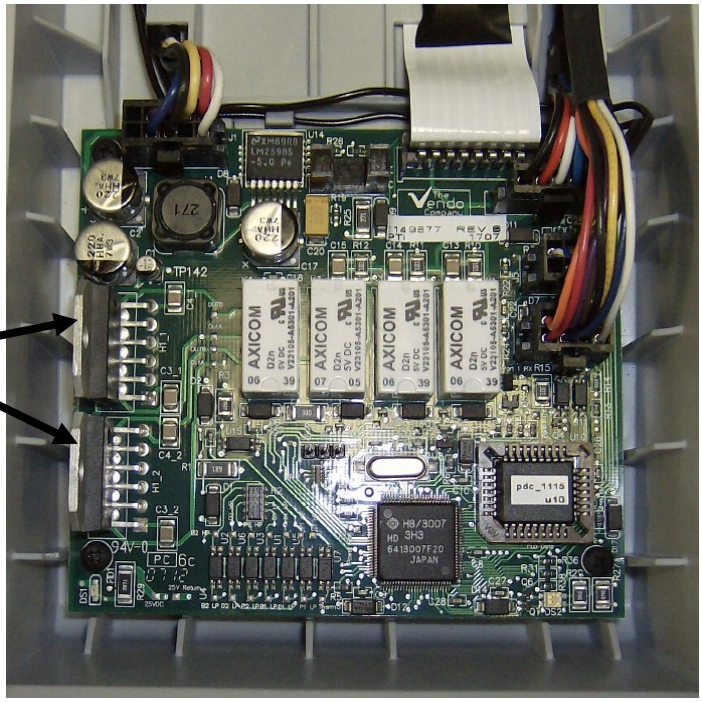
Step #11 **Power off** the machine by disconnecting the power source.

Step #12 Refer to the pictures below to identify which PDC board you have and which EPROM to use.

OLD BOARD: USE EPROM 1149143-21

The old board has 2 motor drivers and no large capacitor.

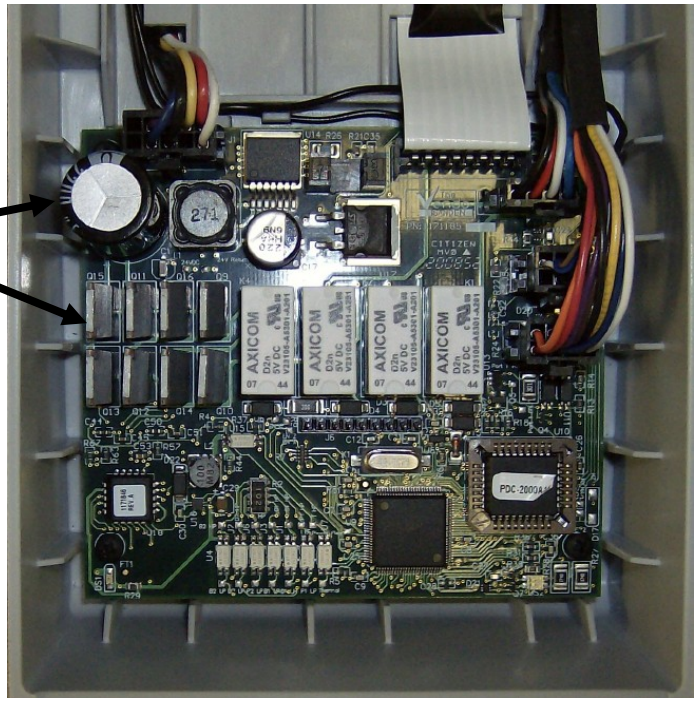
PDC
1.21



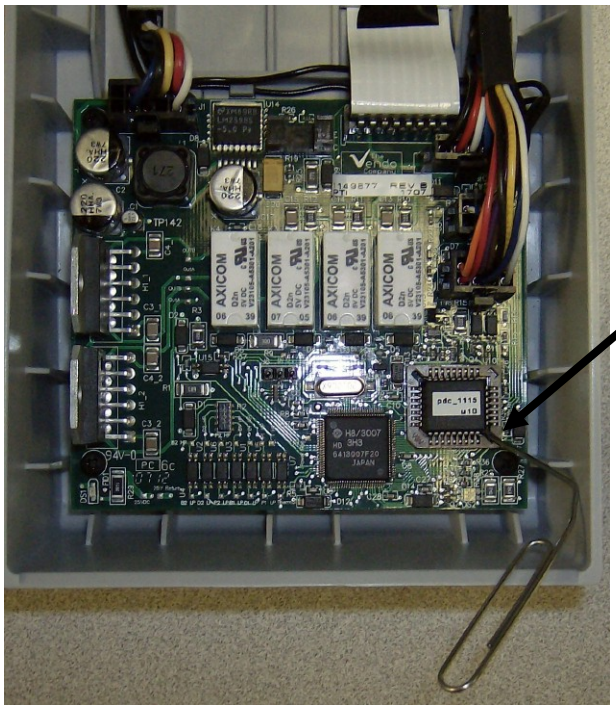
NEW BOARD: USE EPROM 1179936-2.02

The new board has 8 motor drivers and one large capacitor.

PDC
2.02



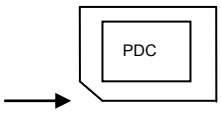
Step #13 Using a paper clip that has been unfolded, pull out the existing PDC EPROM.



Step #14 Insert the new corresponding EPROM.

Please note: The cut corner of the chip should be placed so that it is on the bottom left of the chip socket in the PDC Board.

Cut Corner on the PDC Software



VMC Software Update

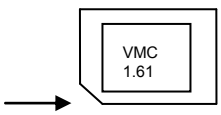
Step #1 With the power still off, remove the control board cover from the lower insulated panel.

Step #2 Using a paper clip that has been unfolded, pull out the existing VMC EPROM.

Step #3 Insert the new VMC software (p/n 1149131-61).

Please note: The cut corner of the chip should be placed so that it is on the bottom left of the chip socket in the VMC Board.

Cut Corner on the VMC Software

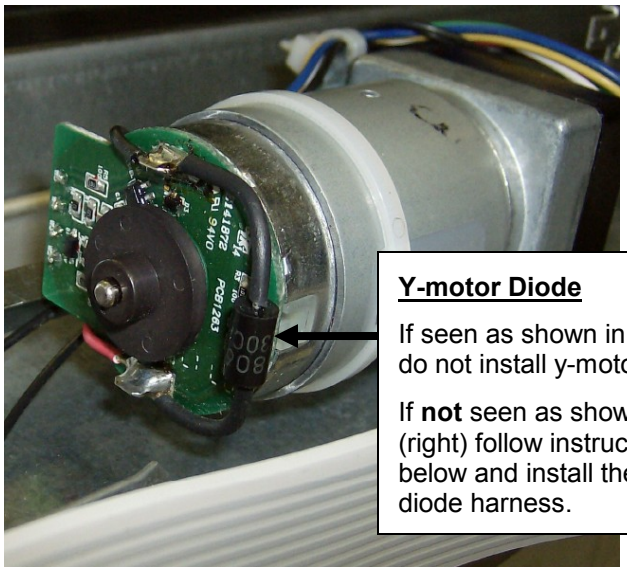


Step #4 Replace power to the machine and allow the hand to go through its startup.

Y-Motor Diode

Step #1 Remove the x-rail cover.

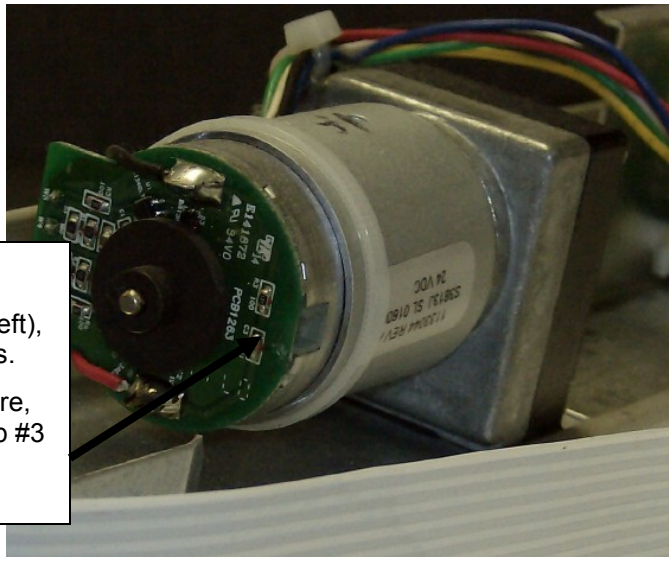
Step #2 Refer to the pictures below to determine if you need to install the y-motor diode harness. If not needed, skip to the next section.



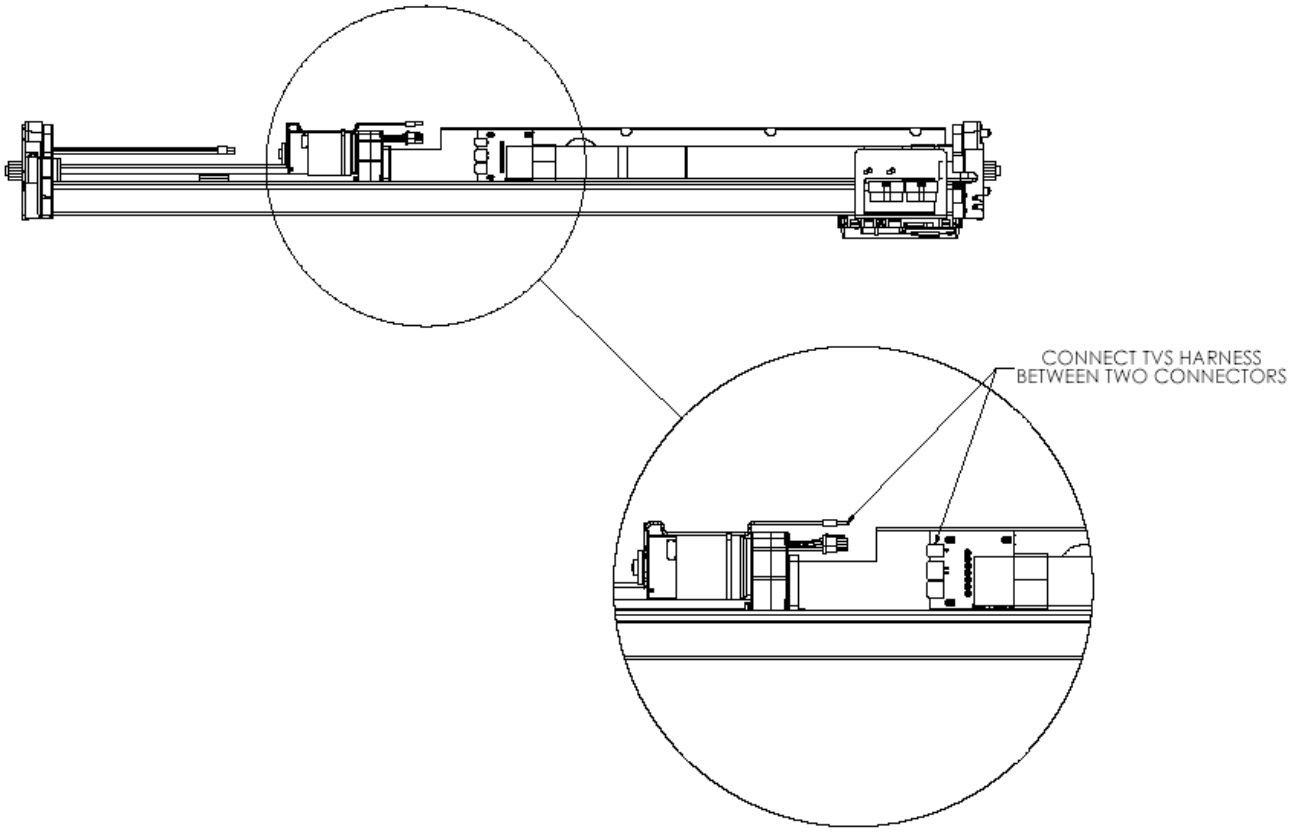
Y-motor Diode

If seen as shown in picture (left), do not install y-motor harness.

If **not** seen as shown in picture, (right) follow instructions Step #3 below and install the y-motor diode harness.



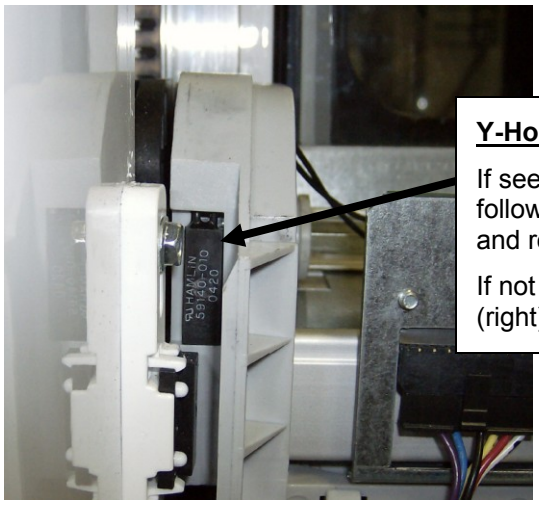
Step #3 **POWER OFF** the machine and install the y-motor diode harness (p/n 1147741) between the top connector on the PC board next to the y-motor and the red and black wire connector coming from the y-motor.



Y-Home Switch Removal

Step #1 Remove the x-rail cover and look at the left side end cap.

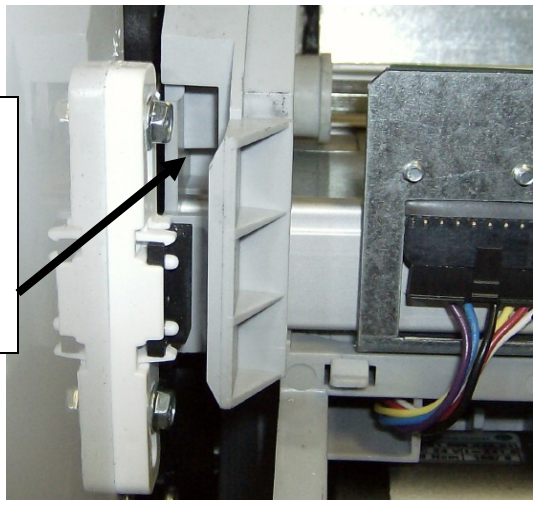
Step #2 Refer to the pictures below to determine if you need remove the y-home sensor. If it does not need to be removed, skip to next section.



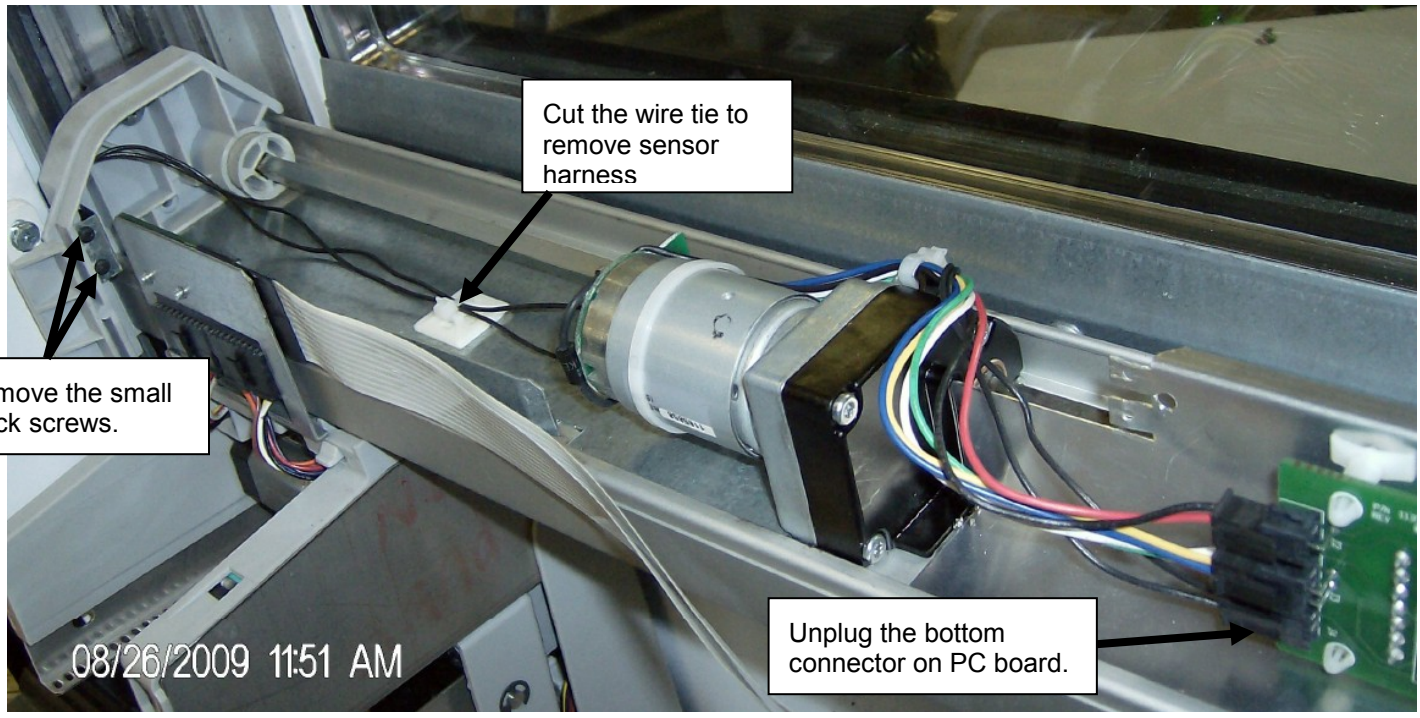
Y-Home Sensor

If seen as shown in picture (left), follow instructions Step #3 below and remove the sensor.

If not seen as shown in picture (right), skip to next section.

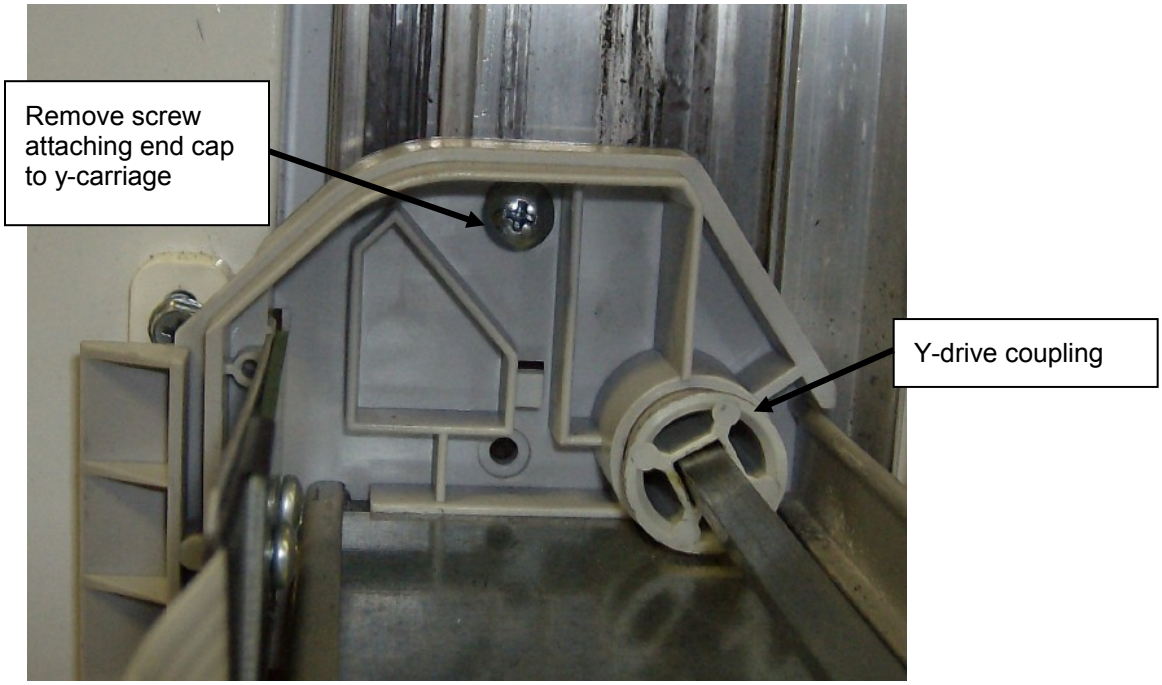


Step #3 Remove the y-home sensor by removing the (2x) small black screws holding the bracket against the left x-rail end cap. Unplug the harness from the bottom connection located on the PC board and cut the wire tie attaching the harness to the rail.

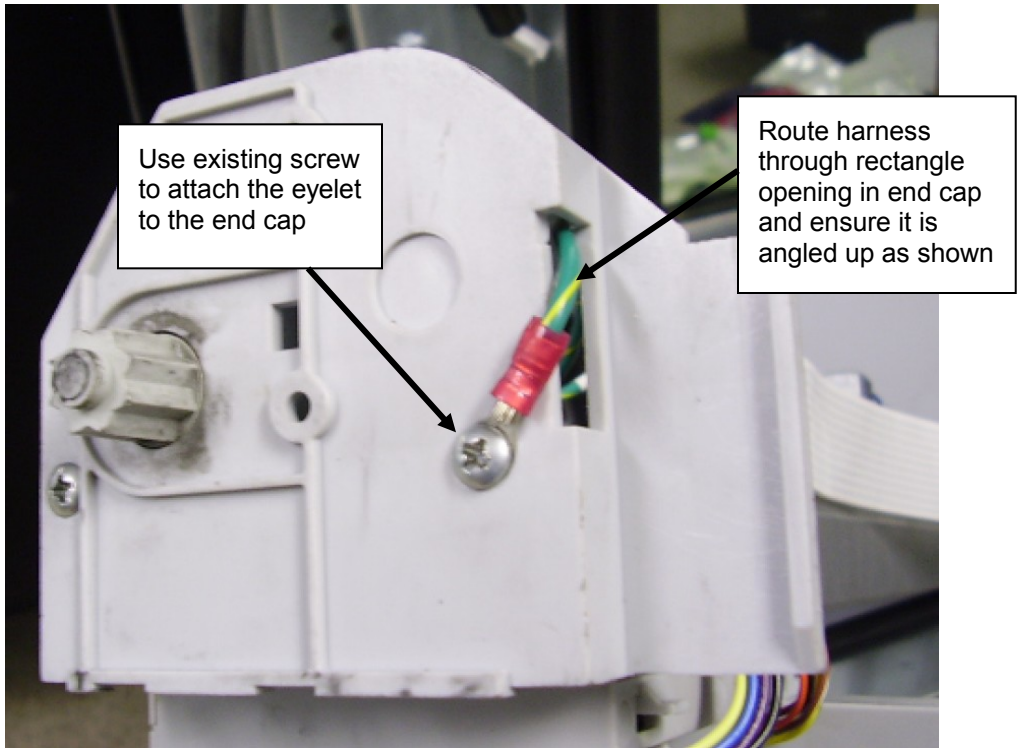


Grounding Harness Installation

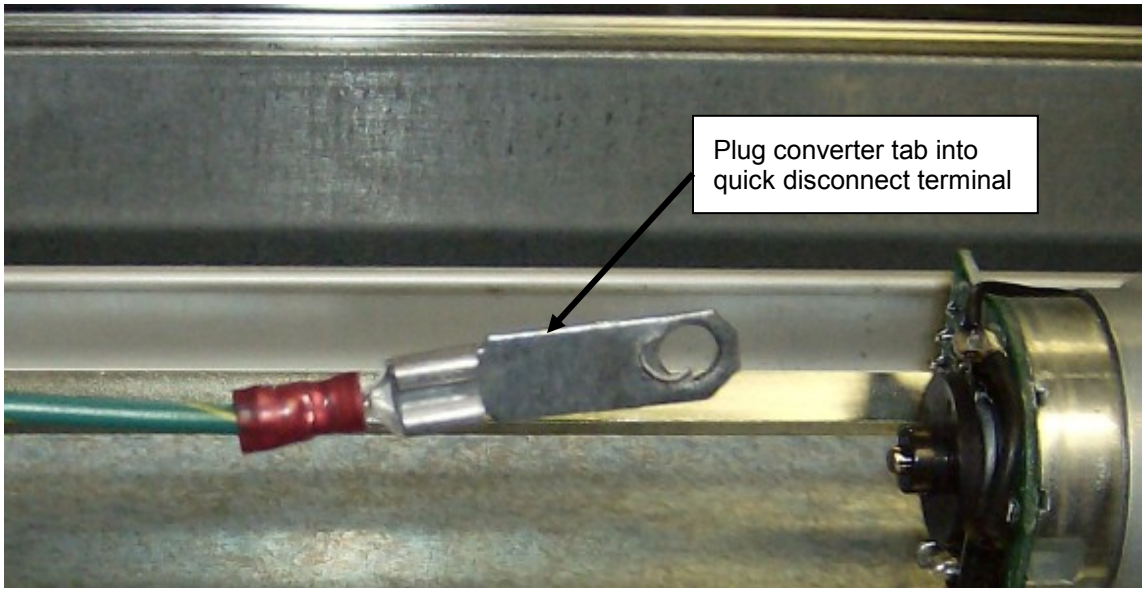
Step #1 Remove the x-rail cover and remove the screw attaching the left end cap to the y-carriage.



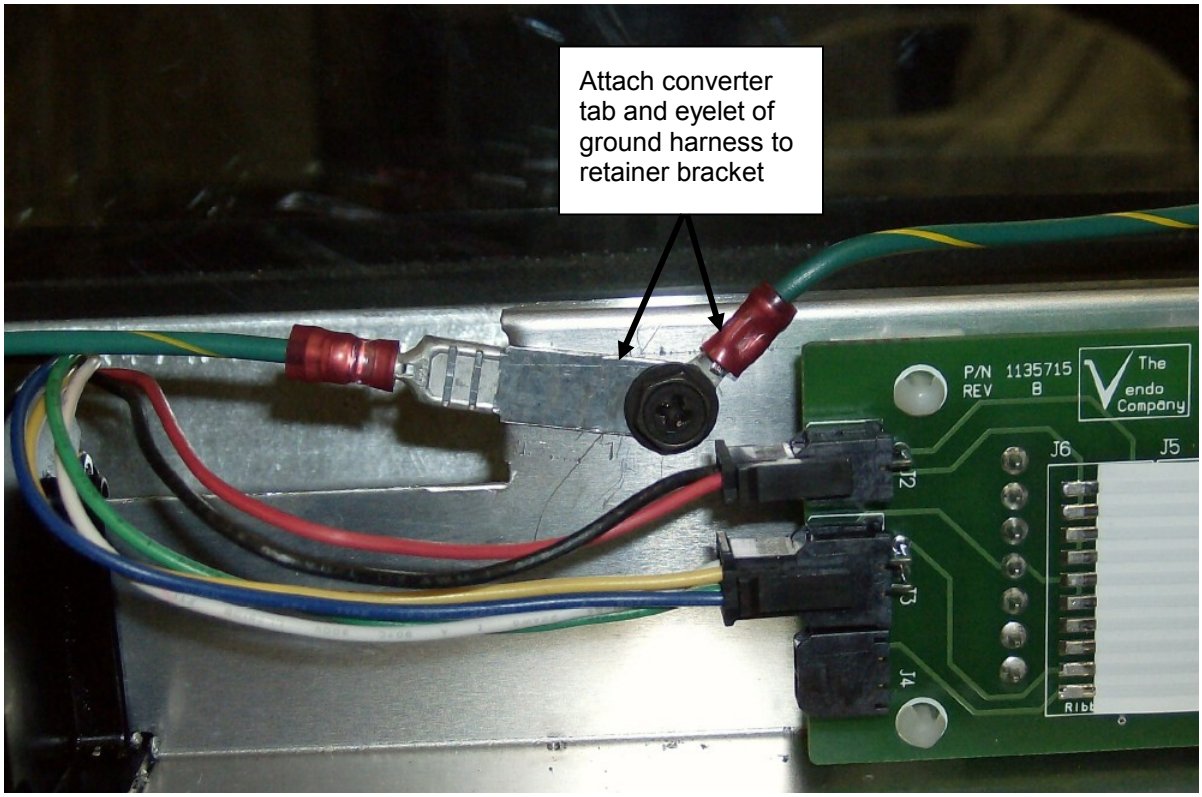
Step #2 Remove the x-rail from the y-carriage by pulling the y-drive coupling away from the end cap. See photo above. Attach the end of the x-rail grounding harness (p/n 1165767) with the eyelet into the x-rail using the existing screw. Route the harness through the rectangle opening in the end cap. Ensure the harness is angled up as shown below to prevent interference. Replace the x-rail into the door tracks and level.



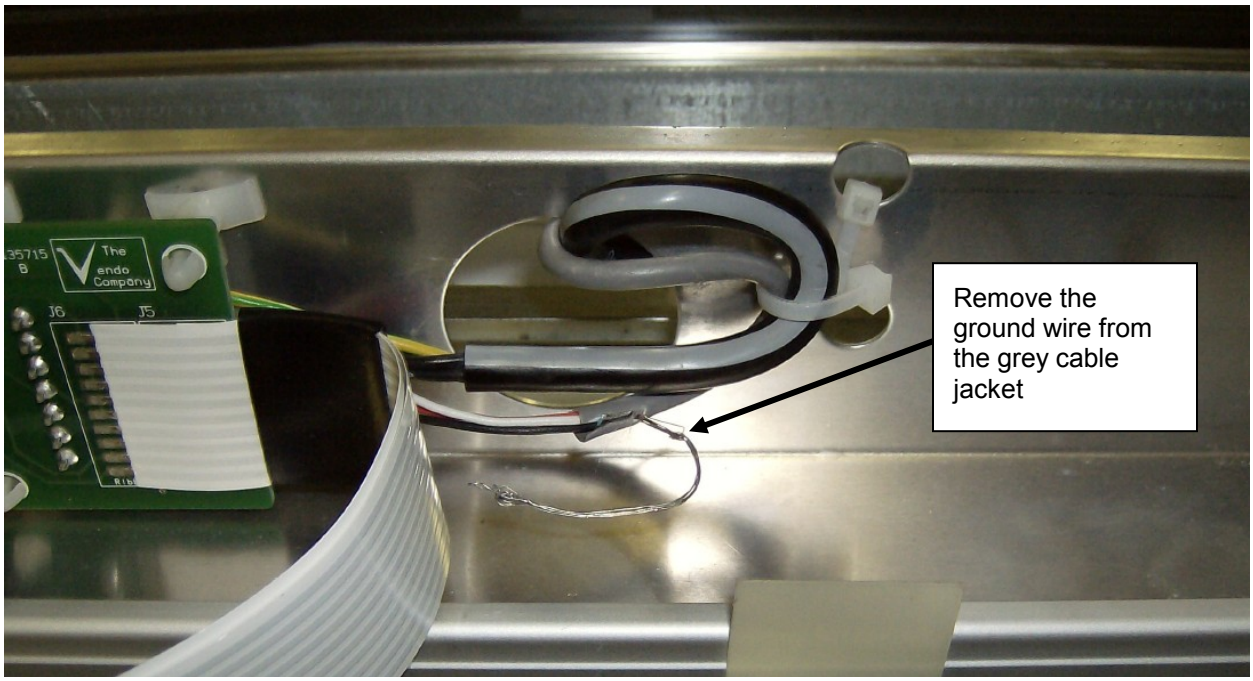
Step #3 Plug the converter tab (p/n 1184129) into the other end of the x-rail grounding harness.



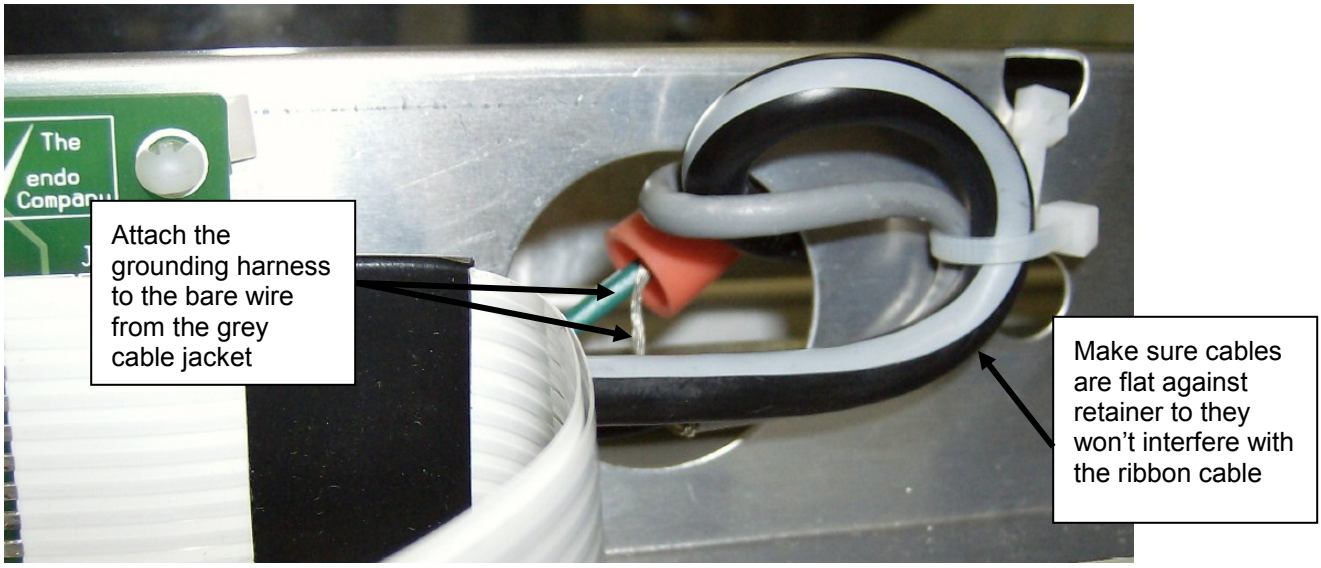
Step #4 Next, use the self tapping screw (p/n V801489) to attach the other end of the converter tab and the eyelet of the ground wire (p/n 1184099) included in kit to the right side motor retainer bracket next to the PC board.



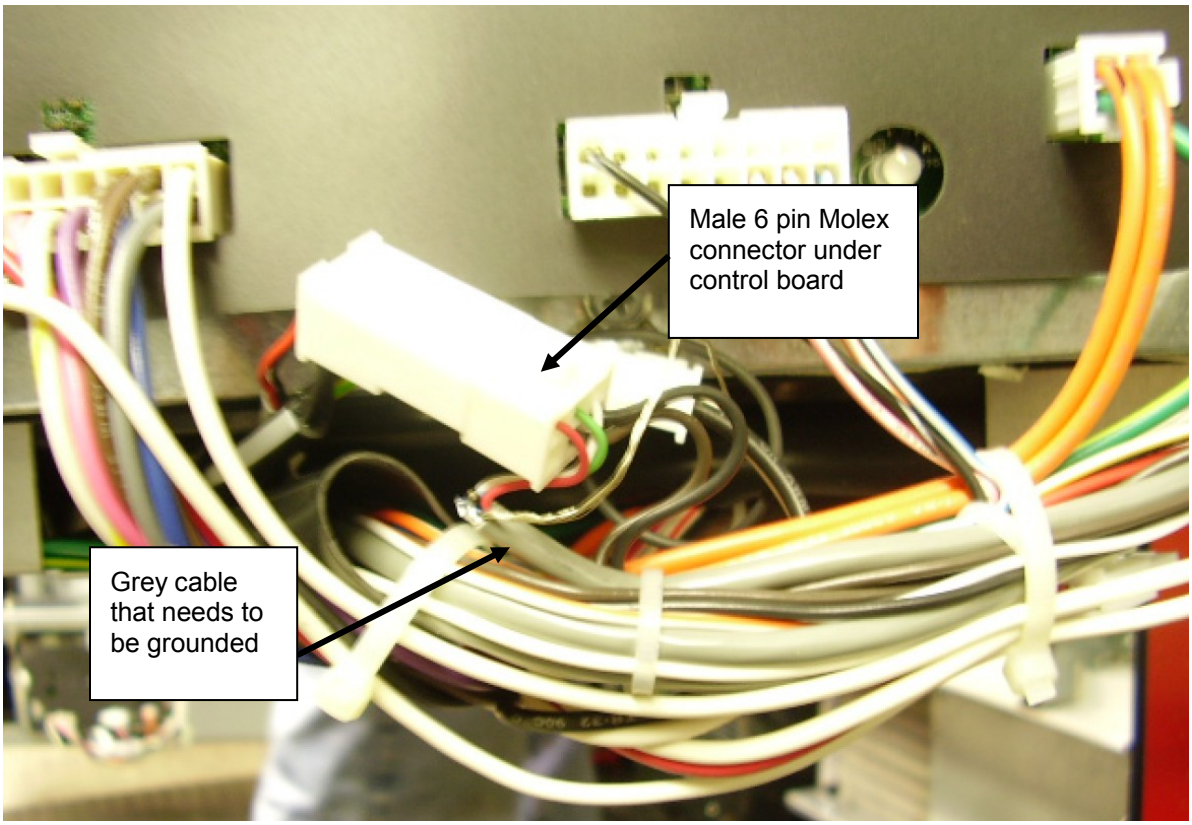
Step #5 Cut grey cable jacket open with knife to expose the ground wire. Be careful to not cut the red or black wires.



Step #6 Route the grounding harness behind the right motor retainer. Using the wire nut (p/n 1183394), attach the bare end of the grounding harness to the ground wire pulled from the cable jacket in Step #4. Ensure the cable will not interfere with the ribbon cable during movement.

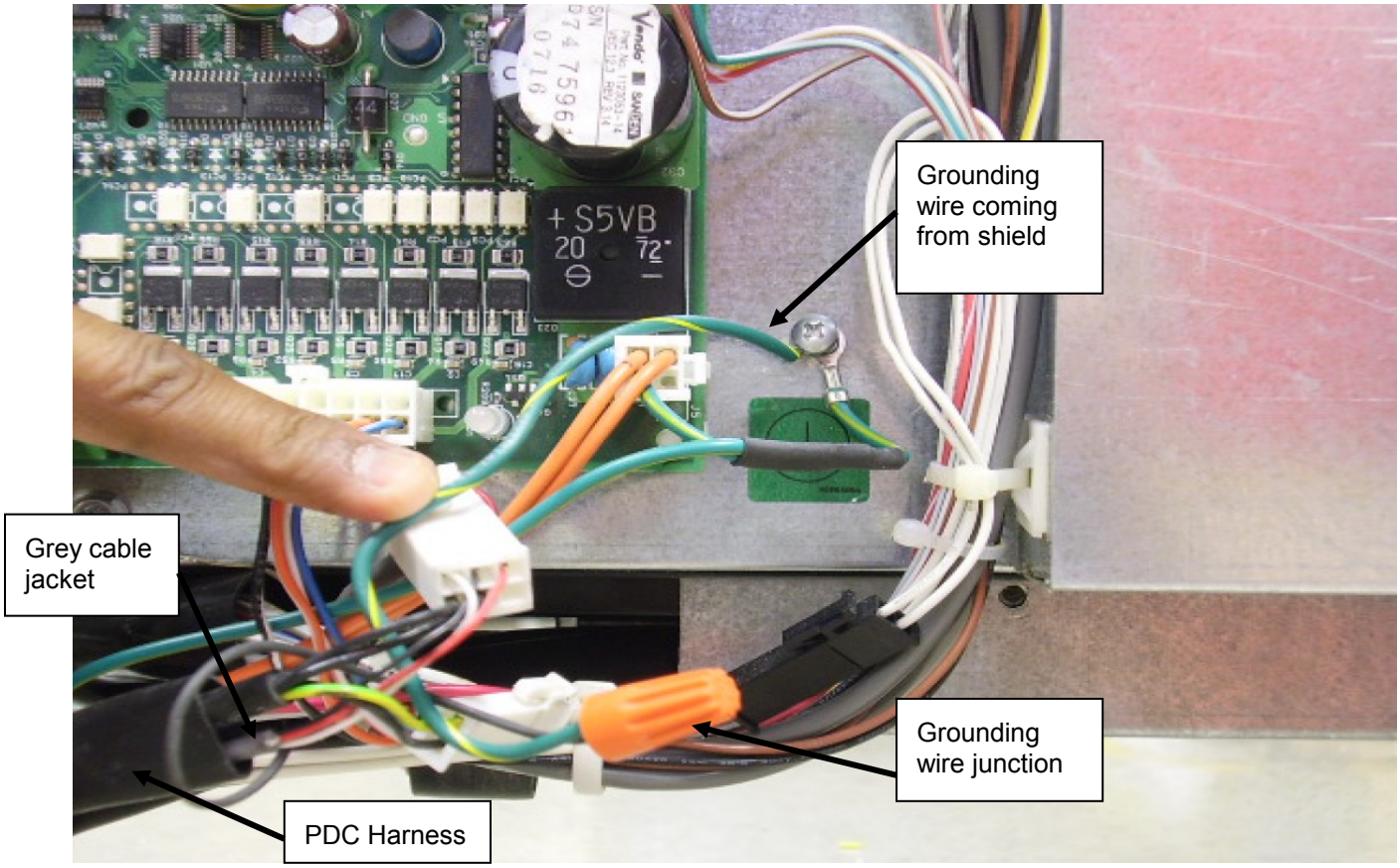


Step #7 Check the other end of the PDC harness that attaches to the VMC control board and ensure that it is grounded. If not, proceed to Step #7. If harness is grounded, replace the control board cover and proceed to test procedure. To check if grounded locate the grey cable jacket coming from the PDC harness coming from underneath the control board. The harness has a 6 pin male Molex connector attached at the end. The grey cable leading up to that Molex connector is the one that needs to be grounded.



Note: For older machines, when the control board is located in the top of the door, the PDC harness is grounded at a stud located in the bottom of the door.

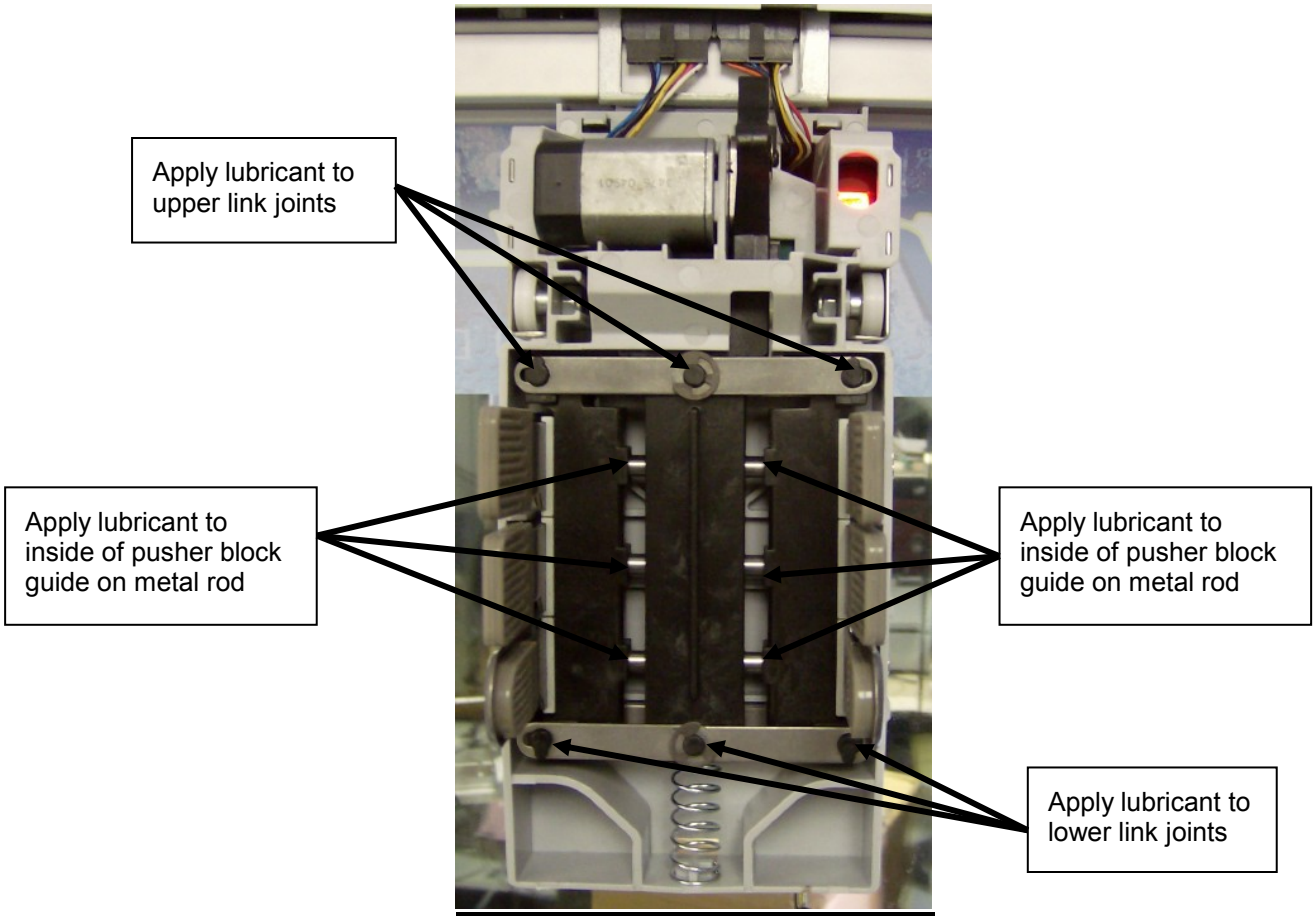
Step #8 Cut the grey cable jacket and expose the ground wire. Extend the ground wire by adding green wire (p/n 1184099) included in kit using the wire nut (p/n 1183394). Remove the grounding screw on the lower right side of the board and wrap the other end of the green wire around it. Replace the screw. Replace the control board cover and proceed to test procedure.



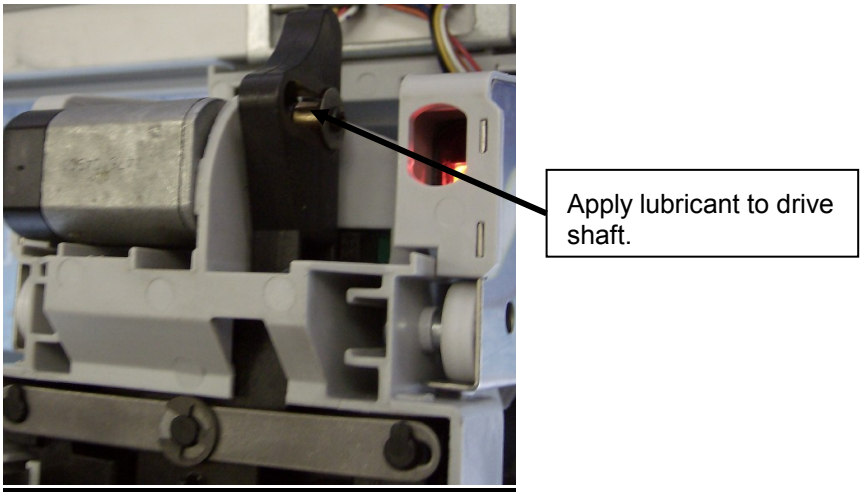
Finger and Hand Lubrication

Step #1 You will need either a silicone spray with “smart straw” red extender or white lithium grease with an applicator such as a small paint brush. **When applying lubricant be careful not to get any on the finger pads.**

Step #2 Repeat Step #2 through Step #10 from the **PDC Software Update** section. With the hand in the extended postion, use one of the lubricants above to lubricate the rods inside of both pusher block guides and the upper and lower link joints.



Step #3 While the hand is still extended, lubricate the drive shaft at the top of the driver.



Step #4 Power off the machine by removing the power source to exit PDC maintenance mode. Next, go to test mode and select test motors. Lubricate the metal rod outside of the pushers/fingers and the upper plastic edge of the z-direction track.

Step #1 Press “Mode Button” on the VMC Board.

Step #2 The Display should read “Diagnostics“.

Step #3 Press ‘2’ to scroll to “Test Mode”. (Press Button ‘2’, three times)

Step #4 Press ‘4’ to enter “Test Mode”.

Step #5 Press ‘2’ to scroll to “Test Motors”.

Step #6 Press ‘4’ to enter. The display will read, “Pls Wait…Entering Test Motors Mode”.

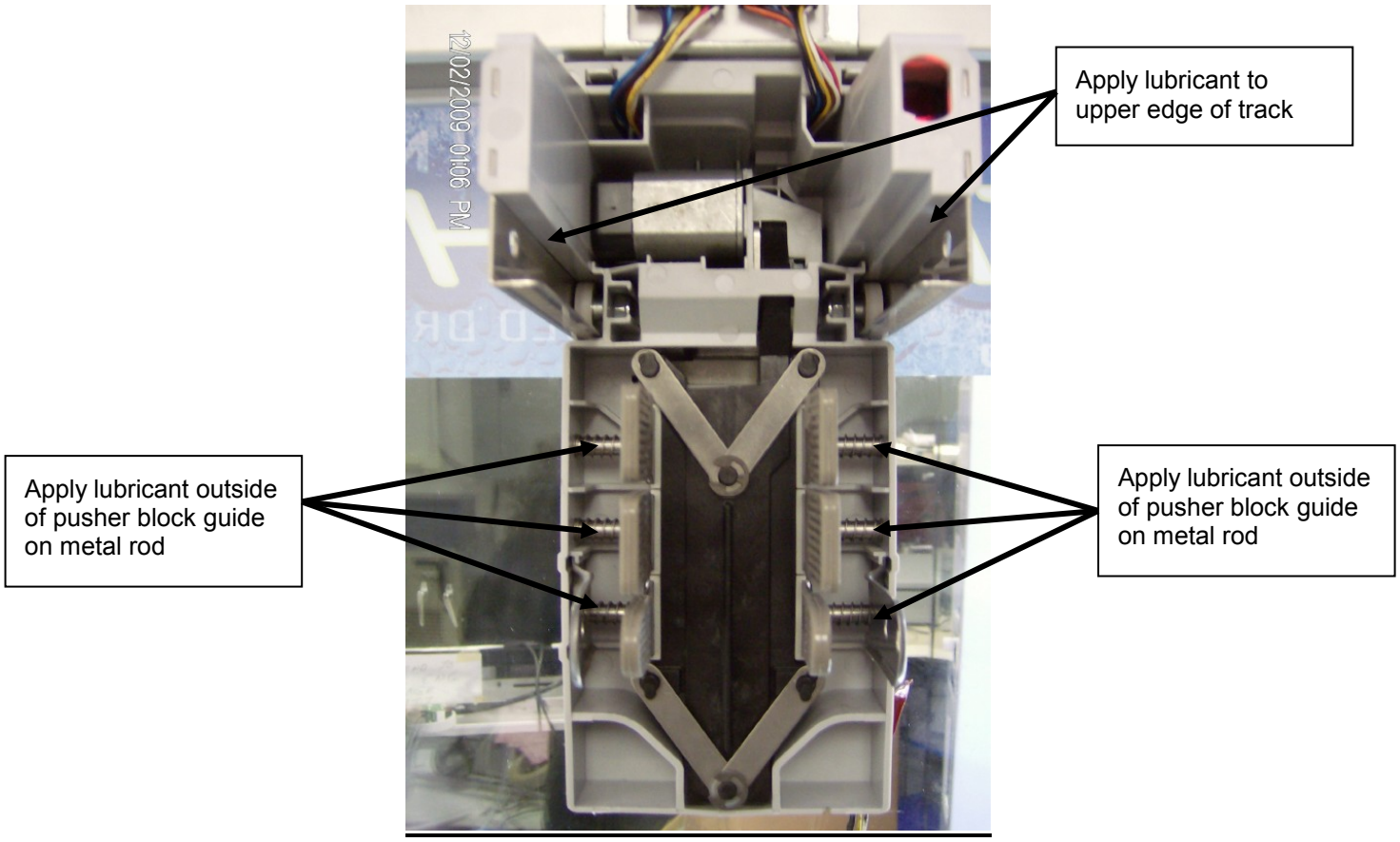
Step #7 Press ‘2’ to scroll to “Clamp Motor”.

Step #8 Press ‘4’ to enter. The display will read, “Clamp open”.

Step #9 Press ‘2’ to scroll to “Clamp Close”.

Step #10 Press ‘4’ to enter. The display will read, “Testing in Progress”.

Step #11 Apply lubricant.



Step #12 Press ‘1’ five times to exit out of “Test Mode”.

Vending Test Procedure

Step #1 Plug in the machine and follow the procedure to activate “Discovery Level 2”.

Step #2 Enter the Service Mode by pressing the Mode Button on the VMC board.

Step #3 Press “2” to scroll to “Calibration”.

Step #4 Press “4” to enter.

Step #5 Press “2” to scroll to “Discovery”.

Step #6 Press “4” to enter.

Step #7 Press “4” to activate – “Level 0” will flash.

Step #8 Press “2” to scroll to “Level 2”.

Step #9 Press “4” to enter. Display will read, “Pls Close Door”.

Step #10 Close the door and press “1” if the display reads “Press 1 to Accept”. Otherwise, the machine will perform automatically. The PDC hand will scan the right most tray location first and then proceed to the left most tray locations before returning to the “home” position.

Step #11 Open the door again and press the Mode Button on the VMC board.

Step #12 Press “2” to scroll to “Test Mode”.

Step #13 Press “4” to enter – “Vending” will be displayed.

Step #14 Press “4” to enter – “Close Door to Vend” will be displayed.

Step #15 Close the door and vend from the four corners, selections “10”, “17”, “50” and “57”. During each vend, ensure that the hand is aligned in the middle of the center gate.

Vendor Update Verification Form

Fill out form and fax to SandenVendo America engineering department at **(214) 221-7014**. Also ensure that you return the unused and replaced EPROMS to receive credit.

Name of Technician: _____ Date of Upgrade: _____

Unit Serial #: _____

Was a Y-home switch removed? Y / N
Did the vendor have a lower ground wire connection at the VMC board? Y / N
Did the VMC EPROM get replaced? Y / N
Did the PDC EPROM get replaced? Y / N
Was the vending test procedure performed? Y / N
Were there any issues observed/discovered during testing? Y/ N
If there were issues, please describe: _____
_____
_____
_____
_____
_____

List any other notes or observations: _____
_____
_____
_____
_____
_____
_____
_____
_____