PCB Sorter Bowl Installment Procedure 110906

P/N: 110853

14140 NE 200th St.
Woodinville, WA. 98072
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Tools required: Phillips screw driver, tweezers, an 11/32" socket wrench and a grounding wrist strap.

Step 1: Turn off, un-plug the power cord and communication cable.

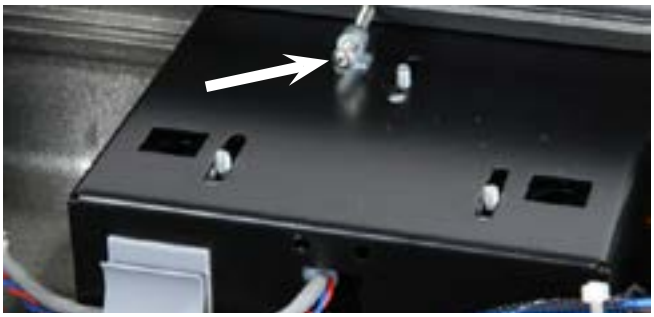
Step 3: From the sorter bowl that you need to replace the new PCB in, un-screw the 3 nylon locking nuts (counter clockwise).

Step 5: Using the 11/32" socket wrench, un-screw (counter clockwise), the nylon locking nut from the front of the bowl as shown.

Step 7: Pull the sorter bowl towards you to clear the threaded stud, and then lift slightly up, then pull the bowl out and place it on the table as shown. (Wires are still connected to the PCB board at this point)

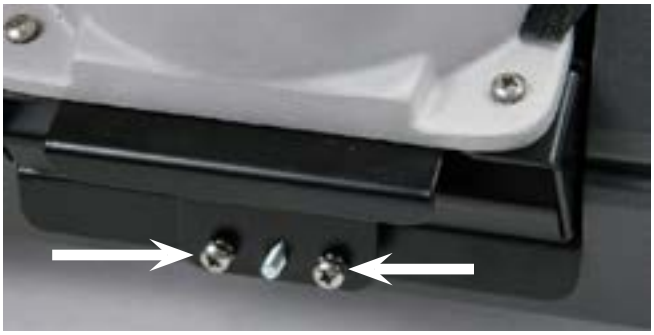
You will need to support and balance the CrystalPress when you turn it up-side down.

Step 2: Turn the CrystalPress over, remove the 7 screws, take the bottom pan off and place aside.

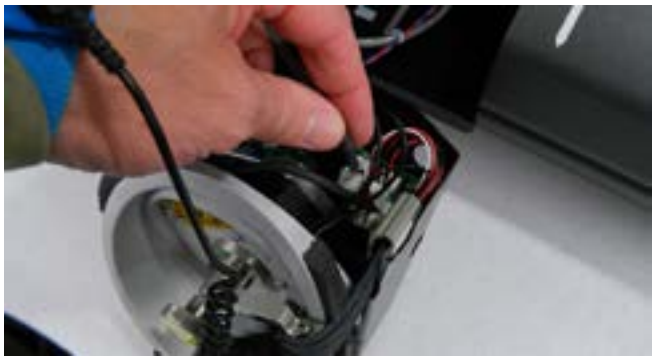


Step 4: All 3 nylon locking nuts are removed. **No need to remove the silver screw (arrow).**

You can turn the CrystalPress back on its legs.



Step 6: Sorter bowl is shown with the locking nut removed. **(You do not need to remove the 2 screws shown by the arrows)**



Step 8: **IMPORTANT: WRIST STRAP MUST BE WORN UNTIL FINISHED WITH THE INSERTION AND CONNECTIONS ON THE BOARD.**

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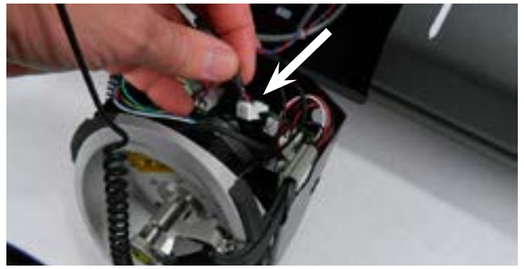
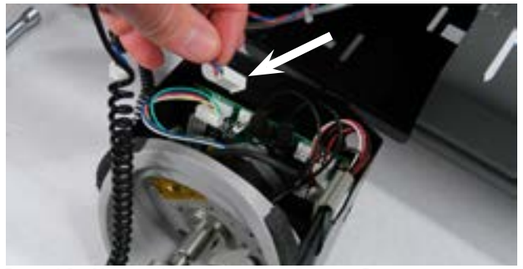
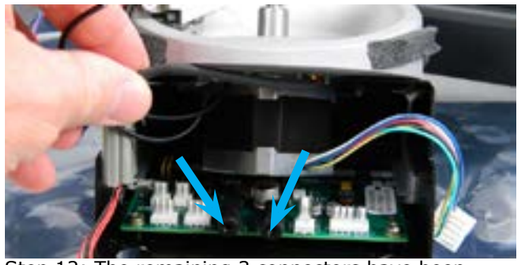


Step 9: Start by disconnecting the Communication Connector as shown by the arrow by pulling up off the pins.



Step 10: Next, disconnect the Power Connector as shown by the arrow by pulling up off the pins.

Step 11: The Sorter bowl is now free to move away from the CPII. This will allow easier access to the remaining connectors and fiber optic cables.

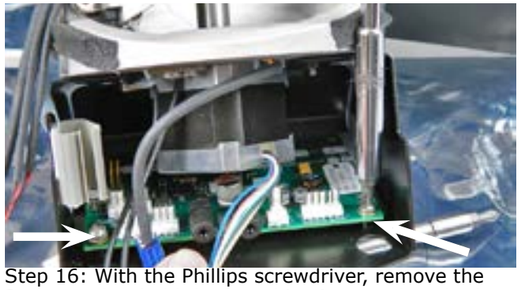


Step 12: The remaining 3 connectors have been removed in the same manner as the 2 before it. The (2) black knurled knobs are loosened (counter clock-wise) first, then the fiber optics are pulled straight out 1/2 inch. (Blue arrows).

Step 13: You need to remove the black coated wires from the gray clip. You do this by squeezing the clip as shown. Index finger on the back pushing towards you, and the thumb holding in the front larger por-tion. This will separate the 2 locking edges.

Step 14: With the clip open, you can pull out the 3 black LED wires.

Step 15: The 3 black wires are removed, as well as all the wires. You are ready to remove the PCB board after the 2 screws are removed.



Step 16: With the Phillips screwdriver, remove the 2 screws that hold the board in. Arrows show both screws to be removed. **NOTE: The screwdriver can be inserted in the clip to remove the left hand screw.**

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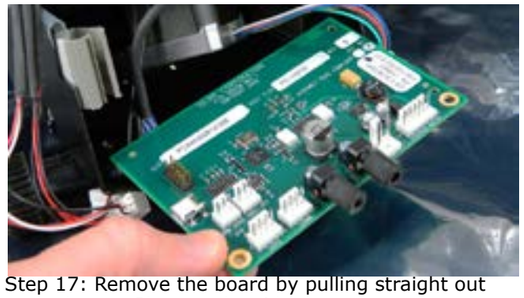
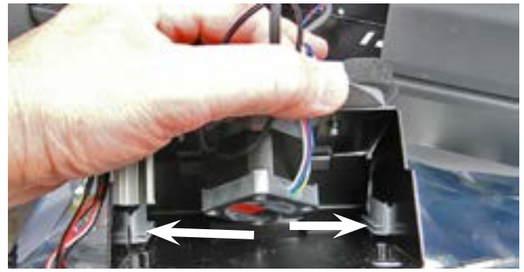


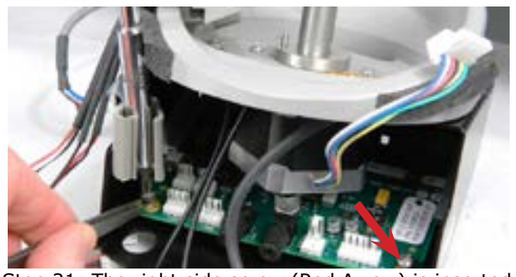
Step 17: Remove the board by pulling straight out towards you. Place to the side.



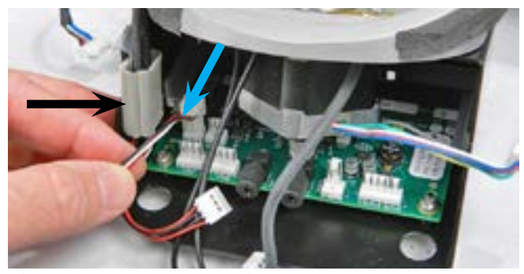
Step 18: The 2 arrows point the plastic clips that held the old board, and will now hold the new board.

Step 19: **REMINDER: The grounding wrist strap needs to be worn.** The new board is ready to be inserted.

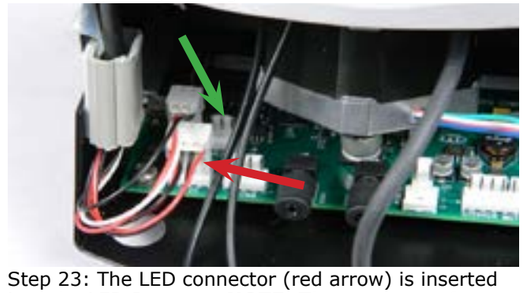
Step 20: The new board is shown placed into the clips on either side. This stabilizes the board until the 2 screws are inserted.



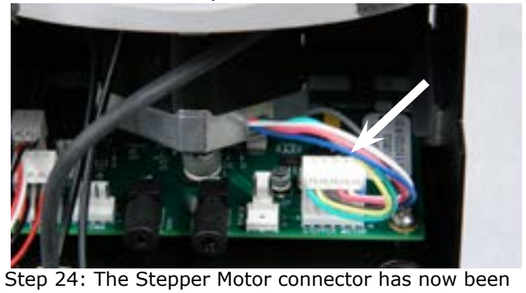
Step 21: The right side screw (Red Arrow) is inserted first. A tweezers will help to hold the screw for the left side. With the gray clip open, slide the screwdriv-er in the opening and tighten down the final screw.



Step 22: The 3 black coated wires are placed back in the gray clip and the clip is snapped closed (black arrow). The Arm Sensor (blue arrow) is plugged into the Arm Sensor Receptor.



Step 23: The LED connector (red arrow) is inserted into the LED Receptor. **NOTE: The receptor, (green arrow) marked 'HALL EFF' is NOT USED.**



Step 24: The Stepper Motor connector has now been inserted onto the Stepper Motor receptor (white ar-row).

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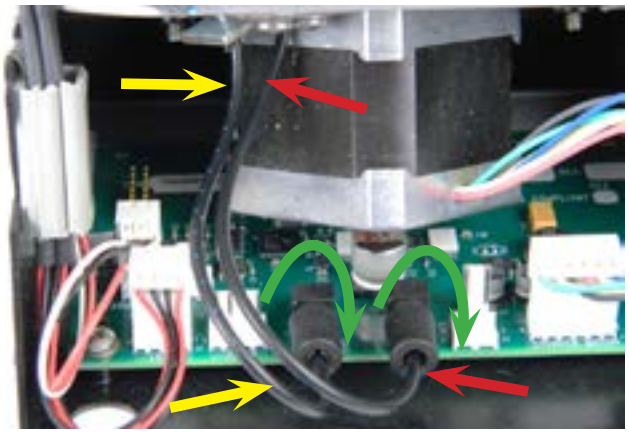
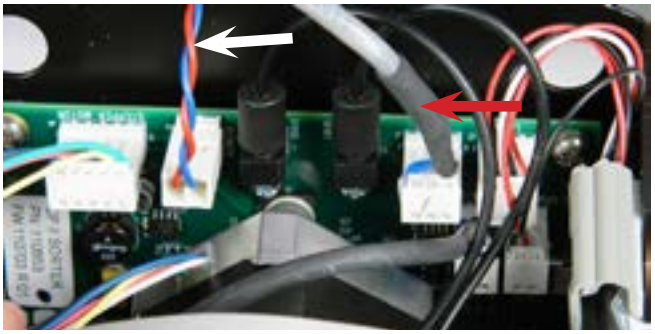


Step 25: Connect both fiber optic cables into the corresponding knurled inserts. Wheel ID (red arrow) into sens2 and (yellow arrow) into sens1. **NOTE: Fiber optic cables are pushed in 1/2 inch, then, tighten the knurled knobs clockwise.**

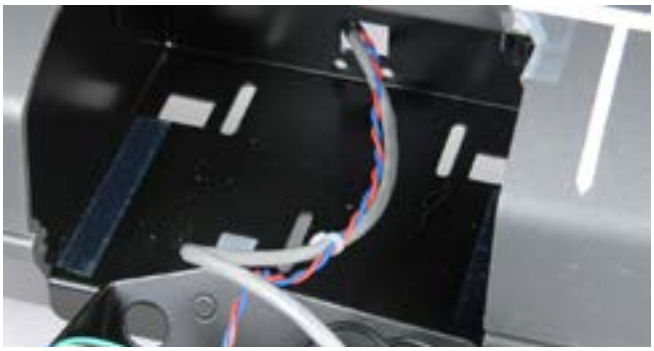


Step 27: A close up of the last 2 connections. The gray (thick) wire (red arrow), is connected to the COMM. receptor. The smaller red/blue wire connector (white arrow), is connected to the power receptor.

Step 29:The sorter bowl is fully inserted. The threaded insert is shown (arrow) and ready for the locking nylon nut to tighten the bowl in.

Step 31:With the CPII upside down again, you can place and tighten the 3 locking nuts. NOTE: On all 3 nuts, turn clockwise until tight, then back off 1/6th of a turn on each one. This will allow further adjustments of the bowl for the re-alignment if necessary.

Step 26:You can turn the bowl towards the platten to attach the last 2 connections from the CPII to the bowl board.



Step 28: You are ready to place the sorter bowl back into the bay bracket on the CPII. You can grab the wires and help guide them through the slot. Slide the sorter bowl into the bracket fully.

Step 30: With the 11/32” socket wrench, proceed to tighten the locking nut down until it bottoms out. **NOTE: Do not over tighten, it WILL bend the metal plate in.**

Step 32: Turn the CPII back on the legs, (No bottom cover at this time). Plug in the power and communication cords and turn on. You need to make sure that everything is connected correctly. If it is, you will need to check that the alignment of that bowl is still correct. Once you have done that, re-place the bottom cover and proceed to place stones. ..FINISHED