



## **CLEANING HEADS**

### **96 pin picking head:**

1. Set head on table with pins facing up. Look at the head and note any bent pins. Unscrew the four screws at the corners of the head. Place screws in an empty Q-tray container.
2. The beige part of the head must be lifted off the head. It is not easy, and you may need to use a thin flat head screwdriver to assist. The dowels will come off with the beige piece. Be careful not to damage the pins or the head. Set beige piece in ultrasonic cleaner containing cleaning fluid.
3. Begin separating pins and springs- placing pins in one empty Q-tray, and the springs in the Q-tray with the 4 screws. Discard the bent pins, and add new ones.
4. Place pins in a mesh basket and place in the ultrasonic cleaner with the beige piece.
5. Run ultrasonic cleaner for about 15 minutes.
6. Remove basket of pins from ultrasonic cleaner, and run tap water, then deionized water over the pins. Rinse them well. Pour the pins into a Q-tray lined with paper towels to dry.
7. Remove beige piece from ultrasonic cleaner and rinse with tap water then deionized water.
8. Smack beige piece onto stack of paper towels to remove water from holes.
9. When pins and beige piece are completely dry, fill the head with the pins.
10. Place one spring onto each pin. If any springs look stretched or smashed, replace them with a new spring.
11. Line up dowels on beige piece with the holes on the head.
12. Carefully slide beige piece over the pins.

13. Add the screws, and finally tap in the dowels.

**384-well gridding head:**

1. Place head on table with the pins facing up.
2. Knock the dowels all the way in.
3. Place head pins down onto the special holder (cut out in middle).
4. Unscrew the four screws at the corners of the head. Place screws in Q-tray.
5. Carefully lift off black part of head and set aside.
6. Place a 384 well plate over the springs so that each spring is under a well.
7. Do this over a Q-tray:

Carefully, while holding plate to head, lift special holder and head and tilt slightly until the springs begin to slide into the wells. You can slightly bump the head so that more springs slide out. Then carefully separate the plate from the head and holder so that most of the springs go into the 384 well plate, and the pins stay in the head. Some springs will remain in the head. Remove them and place in the plate, then place lid on plate and set aside.
8. Remove each pin and place in a mesh basket. Place basket of pins and beige part in ultrasonic cleaner for 15 minutes.
9. Rinse the pins and beige part with tap water and then deionized water. Pour the pins into a Q-tray lined with paper towels to dry. Smack beige piece onto stack of paper towels to remove water from holes.
10. When pins and beige piece are completely dry, fill the head with the pins.
11. Open 384 well plate full of springs, and hold a piece of transparency paper over the top. Carefully flip the 384 well plate so that the transparency paper is the only thing preventing the springs from falling into the head. Line up the wells and springs over the pins, then slowly pull transparency in a horizontal direction so that the springs fall into the head column by column.

12. Replace the black part of the head, and screw down.
13. Flip head over and knock the dowels back down the other way.