

JV4 Head Alignment Procedure

Items Needed:

Metric Hex Wrench key 2.5 3 1/2 inches long found at Sears stores.

Philip head screw driver.

50 power Lupe with a measurement line. Buy it from us at \$165 including shipping.

Pet Gloss Paper

Note:

The adjustments should be performed with the metal plunger's tip of the Mimaki JV4 just touching the paper. If the head height is re-set higher than this position for your material at a later date, you must recalculate Fine Bi-directional and Fine Re. settings. You will see these settings on page 3.

Before proceeding with the functions, remove the long left side cover of the printer with the plastic window flap. Remove the cover from the carriage so you can get to the heads.

Steps:

1: Head Adjust / Slant Adjust

On the JV4 panel: Function / # Adjust / Head Adjust / Slant Adjust.

When viewing the dot pattern through a 50 power magnifier, you will see a row of dots that form a line. Look at the last group of 4 passes and see if the combination of dots have formed a thin line with the dots varying by a half a dot on both sides of the line. This will be as good as it gets.

The procedure is as follows:

1. Run the Slant Adjust pattern first.
2. If any head is out of alignment push the left arrow key and the carriage will jog out.
3. Loosen the 2 Metric screws on the head as seen in the maintenance manual page 6.13. One screw is in the back of the head and the other is in the front of the head. The angle adjustment is shown on page 6.14. Once you make the adjustment tighten the screws up
4. Repeat the procedure until the dots are producing a straight line.

2: Head Adjust R/F

Adjust / R/F

Here is where you adjust the distance from heads 1 to 2, heads 3 to 4, heads and 4 to 6. The goal is to have the nozzles of the front head and the nozzles of the rear head lay down a line of dots equi distant creating an invisible blend line. Look at the horizontal row of dots of each of the front and rear heads where they meet. They should be the same distance apart as the row of dots within each head.

On the JV4 panel: Function / # Adjust / Head Adjust / R/F

1. Run the R/F Test first with K.
2. If there is a gap or an overlap the front head must be adjusted.
3. Push the left arrow key and the carriage will jog out.
4. Loosen the front and rear brass screws and turn the distance control screw as shown in illustration on page 6.15
5. Tighten the screws and perform the test over.
6. Once the heads are aligned proceed to the next set of heads 3 and 4 and then 5 and 6 and repeat the procedure.

3: Adjust X Direction

Adjust / Prn adjust 2

On the JV4 panel: Function / # Adjust / Prn adjust 2 / X Direction
X Direction controls heads 1 to 3 and 1 to 5

1. Run the X Direction test
2. Enter in the values that most accurately describe the best alignment.

4: Adjust / Variable 2 Y Fine

#Adjust / Prn adjust 2 Variable 2

On the JV4 panel: Function / # Adjust / Prn adjust // Variable 2 / SY Fine
Variable 2 for Res 720 and up using variable dot.

The adjustment procedure controls each dot position to produce the finest alignment possible. In this procedure you choose the numbers that best position the dots in an overlapping straight line. See page 4.8 Write down your starting point for each head. If a row of dots is off to the right, reduce the number one the readout. If the row is off by about a half a dot start reducing the number by 1.0 point.

1. Run the fine adjust first for K only. This will ensure that you are focused on producing the finest alignment between heads 1 and 2.
2. Repeat the test changing the numbers of 1 to 2 only until they line up the best you can make it.
3. Proceed by going to End to go back to the control of color heads. Add K and M.
4. Now that you have heads 1 and 2 well positioned you will be adjusting only heads 1 to 3 and 1 to 4. You may want to only work on one at a time or both.
5. When 1 to 3 and 3 and 4 are perfectly aligned forming the best overlap possible, then proceed to 1 to 5 and 1 to 6.

5: Adjust 2 Fine Y Bi

Adjust / Prn adjust

On the JV4 panel: Function / # Adjust / Prn adjust 2 / SY / Variable 2 / Fine / Bi

The adjustment here is critical for bi directional usage. The test relates to head 1 and 2.

1. Run the test for Bi
2. Choose the most accurate alignment.

6: Adjust Fine Re

On the JV4 panel: Function / # Adjust / Prn adjust 2 / SY / Variable 2 / Fine / Re

Perform the test just like Fine Variable 2 S Y.

Once this step has been completed you have effectively controlled every dot to its best placement.

7: High Speed / Maintenance Mode

On the JV4 panel: Function / Maintenance Mode / Print Adjust

Perform the test and set the alignment points to the best combination just like X Adjust.

8: Head Adjust 2 Final

Adjust / Prn Fine / Final

On the JV4 panel: Function / # Adjust / Prn adjust 2 / SY / Variable 2 /
Fine / Final

This step is used to check your alignment. See Page 4.9. You cannot
make adjustments here. You must go back to the area of problem.