



Technical Newsletter

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IBM 5114 Diskette Unit Maintenance Information Manual

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This technical newsletter provides replacement pages for the subject publication. These replacement pages remain in effect for subsequent changes unless specifically altered. Pages to be inserted and/or removed are:

2-25, 2-26

Changes to text and illustrations are indicated by a vertical line at the left of the change.

Summary of Amendments

Correct an error on the diskette control card drawing.

Note: Please file this cover letter at the back of the manual to provide a record of changes.

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130 HEAD LOAD SOLENOID AND BAIL

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Service Check

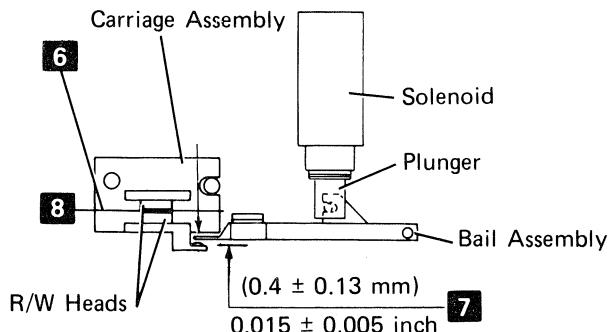
1. Prepare for the service check as follows:
 - a. Turn off the IPO switch.
 - b. Remove the 5114covers (110).
 - c. Remove the diskette drive assembly (111). (Disconnect the drive motor power cable but leave the signal cable connected.)
 - d. Remove diskette adapter card A1C1 (103).
 - e. Remove the diskette drive cover (112).

DANGER

Voltage is present at the socket when the power cable is disconnected and the IPO switch is on.

- f. Turn on the IPO switch. Verify that system power is turned on.

2. Check the bail and carriage arm gap as follows:
 - a. Insert a clean strip of paper between the read/write heads **6**.
 - b. Check for tension on the head load spring.



CAUTION

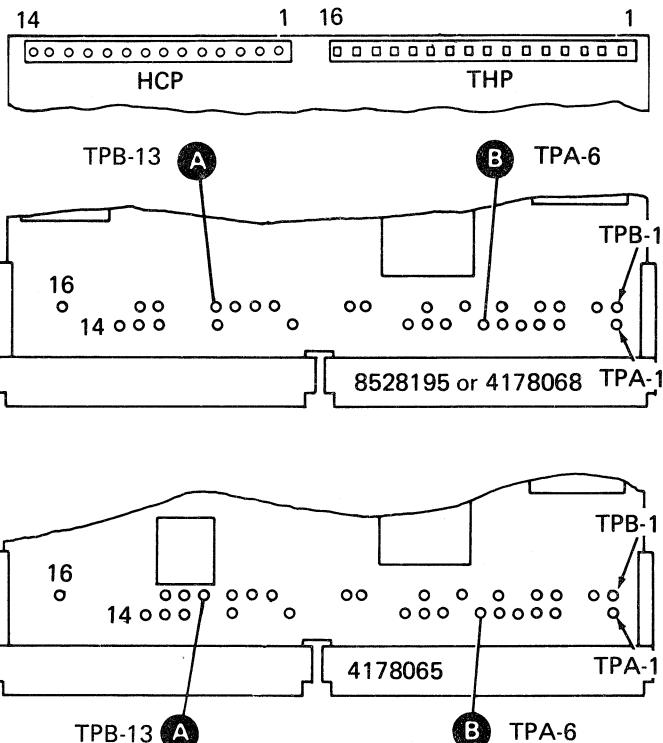
The PTX, LED, or drive card can be damaged if the incorrect test pins are jumped.

- c. Install a jumper from **A** (-head load) to **B** (ground) to activate the head load solenoid.

DANGER

The solenoid case becomes hot after continuous use.

Diskette Control Card



- d. Verify a 0.015 ± 0.005 inch (0.4 ± 0.13 mm) gap **7** between the bail and the carriage arm tab for full length of carriage travel (tracks 00 to 76).
- e. If the gap is correct, go to step 3. If the gap is not correct, go to step 1 of the adjustment procedure.
3. Check the gap between the head surfaces as follows:
 - a. Remove the jumper.
 - b. Remove the strip of paper from between the read/write heads.
 - c. Visually check for a gap of approximately 1/8 inch (about 3 mm) between the head surfaces **8** (This gap cannot be measured.)
 - d. If the gap is correct, go to step 4. If the gap is not correct, go to step 2 of the adjustment procedure.

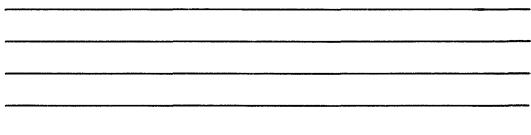
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4. Return the 5114 to operational status as follows:
 - a. Turn off the IPO switch.
 - b. Reinstall the diskette drive cover (112).

CAUTION

The cable routing must be the same as when the diskette drive was removed because of the electrostatic noise.



- c. Connect the drive motor power cable.
- d. Reinstall diskette adapter card A1C1.
- e. Reinstall the diskette drive in the 5114.
- f. Turn on the IPO switch.

Adjustment

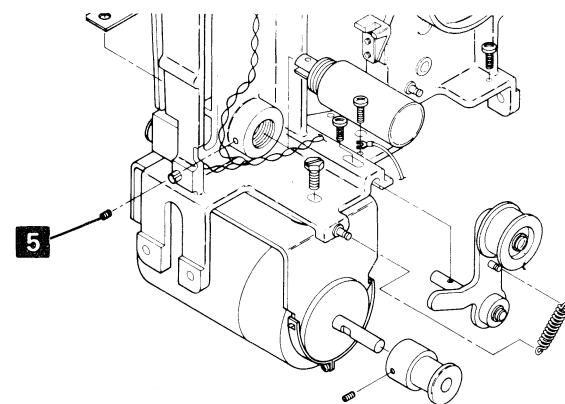
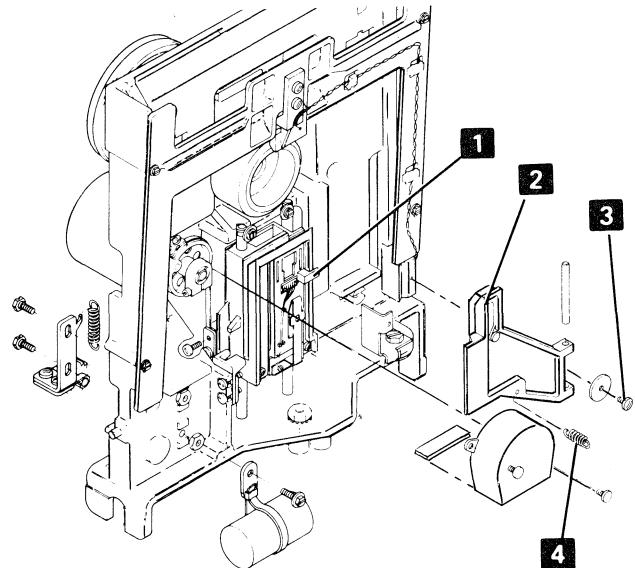
Perform the service check before performing the adjustment procedure.

1. Adjust the bail and carriage arm gap as follows:
 - a. Loosen the solenoid locking screw **5**.
 - b. Turn the solenoid in the casting for a 0.015 ± 0.005 inch (0.4 ± 0.13 mm) gap **7** between the bail **2** and the carriage arm tab **1**. (A clockwise rotation of the solenoid decreases the gap.)
 - c. Tighten the solenoid locking screw **5**.
 - d. Remove the jumper installed in step 2 of the service check.
 - e. Reinstall the diskette drive cover assembly.
 - f. If the head gap is to be adjusted, go to step 2. If the head gap is not to be adjusted, go to step 3 of the service check.

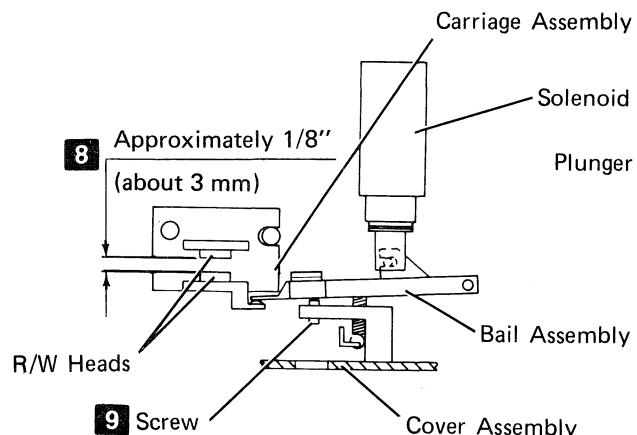
2. Adjust the gap between the heads as follows:

Turn the bail stop screw **9** clockwise until the heads just touch; then turn the screw counterclockwise one turn.

3. Perform the service check.



- 1** Carriage Arm Tab
- 2** Bail
- 3** Bail Mounting Screw
- 4** Bail Return Spring
- 5** Solenoid Locking Screw



- 8** Read/Write Head Gap
- 9** Bail Stop Screw