SERVICE LETTER

DATE: April 5, 1976 NUMBER: DK3035

PRODUCT: D3000 DISK DRIVES

SUBJECT: DATA ERRORS CAUSED BY STATIC DISCHARGE THROUGH HEAD CABLES

PURPOSE

This Service Letter describes a procedure for applying a non-silicone oil to disk drive head cables to minimize the effect of static discharge, through the head cables, on the Read/Write performance of the disk drive.

SYMPTOMS

Data errors occurring at random intervals, usually on one head and while executing long seeks. The type of problem where previously the head would have been replaced, with varying degrees of success.

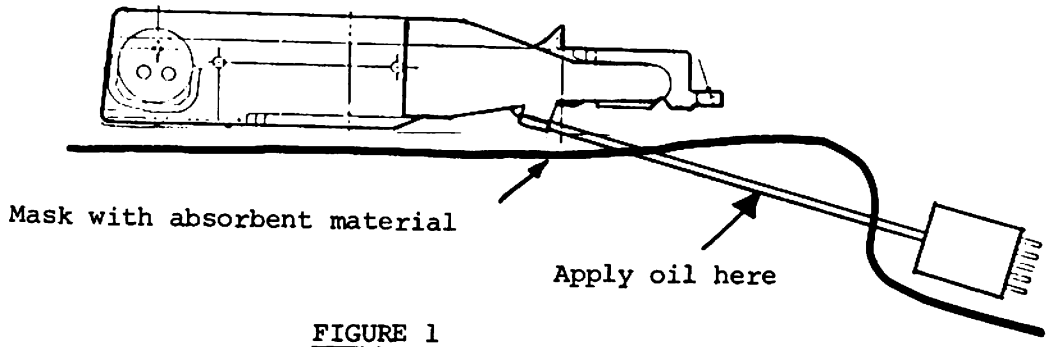

FIGURE 1

MATERIALS

1. Non-Silicone Oil: LPS-2 (available from LPS Research Labs, Los Angeles, Calif.)

2. Absorbent Material: Kim-Wipes or similar large absorbent sheet may be used to shield the head flyer pads and adjacent components.

PROCEDURE

The following procedure is applicable to treating individual heads or heads mounted in disk drives.

CAUTION: Head flyers and arms MUST BE MASKED sufficiently with a non-oiled absorbent paper to prevent any oil contamination.

1. Wrap absorbent material around the head flyer and arm to shield both the flyer and the head arm from the oil. (It is sufficient to tightly clasp the absorbent material at the head arm/cable tie area and permit the remaining material to fan-out over the head arm and flyer).

2. Place additional absorbent material immediately under the head cable to be treated; this should prevent any excess oil from being dropped into the disk drive or contaminating the work surface.

CAUTION: Extreme diligence must be exercised when heads are mounted in the drive to prevent any head arm/flyer contamination.

3. Stretch cable slightly and daub or lightly spray the head cable spring (approximately in the center of cable span) with the recommended oil. See Figure 1.

4. Clasp the treated cable with hand using the absorbent material which had been placed below the head cable. Let stand 30 seconds to absorb run-off and shake gently.

5. Wipe excess oil from shield immediately, using absorbent material clasped around cable and discard the materials.

6. Wipe excess oil from shield using absorbent material which had been clasped at the head arm/cable tie area and then dispose of this material also.

7. Treat remaining heads.

NOTE 1: Repeat applications may be necessary on an as-required basis. This is not meant to be a permanent fix. Head assemblies are being evaluated, which incorporate materials that are not susceptible to static build up.

NOTE 2: It is recommended that heads, sent as EMERGENCY SPARES for down units, which are experiencing data errors on read, should be treated prior to shipping.