

HEAD ASSEMBLY

6.1 GENERAL

Standard head assemblies contain three head stacks -- erase, record, and reproduce in that order from left to right as viewed from the front. Each stack for 1/4-inch tape can contain one head (full track or half track) or two heads (two tracks); each stack for 1/2-inch tape can contain three heads or four heads.

The head gate, on the front of the assembly, contains the playback and record shield covers, and controls the tape lifters. The tape lifter removes the tape from contact with the heads when the gate is opened; it is intended for use when tape is being transported in either fast-winding mode.

6.2 MAINTENANCE OF HEAD ASSEMBLY

6.2.1 Cleaning

Oxide from the magnetic tape will be deposited on the head assembly, and must be removed if the equipment is to operate to high standards. Heads, tape guides, and other components in the tape threading path, should be cleaned after each eight hour operating period, or oftener if visual inspection so indicates.

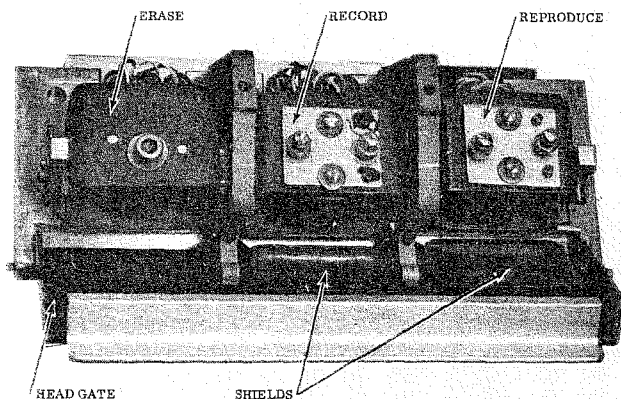


Fig. 6-1 Typical Head Assembly

CAUTION

USE ONLY THE RECOMMENDED SOLVENT TO CLEAN THE HEADS, AS SOME SOLVENTS WILL DAMAGE THESE PRECISE ASSEMBLIES. DO NOT LET THE SOLUTION DRIP OR SPRAY ON PLASTIC FINISHES OR PARTS, OR ON THE TIRE OF THE CAPSTAN IDLER. ALSO, DO NOT USE METAL TOOLS WHICH MIGHT SCRATCH THE HEAD ASSEMBLY.

Step 1: Fully open the head gate.

Step 2: Moisten a cotton swab on a small stick (Q-tip) with Ampex Head Cleaner, Catalog No. 01-0823 or 087-007, which consists of Xylene and 0.1% Aerosol. Clean each head.

Step 3: Clean the tape guiding elements, the capstan, and the capstan idler with denatured alcohol.

NOTE

The head cleaning solution can be used to clean all metallic components (not the capstan idler) if excessive oxide deposits are encountered.

6.2.2 Demagnetizing

Heads occasionally acquire a degree of permanent magnetization which can result in increased noise and distortion and the partial erasure of high frequency signals on recorded tapes. Demagnetize the heads after each eight hour operating period, or more often if there is any suspicion that the procedure is required. Demagnet-

ization is easily accomplished using an Ampex Head Demagnetizer, Catalog No. 4010820.

Step 1: Turn power off and remove any tape that is on or near the equipment (tape will be partially erased by the action of the demagnetizer).

Step 2: Cover the tips of the demagnetizer with electrician's tape (or some similar pressure sensitive tape) to prevent scratching the heads, and plug the demagnetizer into a source of 110-120 volt a-c power.

Step 3: Bring the tips of the demagnetizer into very light contact with the head, positioned so the tips straddle the gap in the center of the head.

Step 4: With a slow, smooth motion, run the tips up and down the stack several times. Then slowly withdraw the demagnetizer (slow withdrawal is required for effective demagnetization).

Step 5: Repeat Steps 3 and 4 at all head stacks, and at the tape guides.

Step 6: Withdraw the demagnetizer at least three feet from the recorder before unplugging it from the power source.