

FIELD ENGINEERING BULLETIN

VOLUME II PART	7
REFERENCE NUMBER	70082
SHEET NUMBER	1 of 3
MODEL NUMBER	AG-350
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TITLE ELIMINATION OF POSSIBLE OVER-RECORDING**I** APPLICABILITY:

Model AG-350

II PURPOSE:

To eliminate the slow voltage decay time in the record amplifier B+ voltage. Slow B+ decay has occasionally caused over-recording when going from record to rewind mode.

III DISCUSSION:

The attached diagram illustrates a modification which should cure most over-recording problems. This circuit puts a section of the record relay (3K2) in the record head circuit, which opens the head and shorts the amplifier to ground. This will eliminate the voltage decay time in the record amplifier. A factor which causes this slow decay time is a high leakage 2N697 (IQ23).

Sticky contacts on the equalization relay (2K1) can also cause an intermittent over-recording that appears as an echo on the tape. Burnishing the contacts or cleaning with a good contact cleaner should cure this problem.

The meter switch, if poorly soldered, has also been the cause of an echo problem. This condition has been noted only with the switch placed in the output position. Thorough cleaning of all flux from the switch deck with flux remover will eliminated this condition.

IV PROCEDURE:

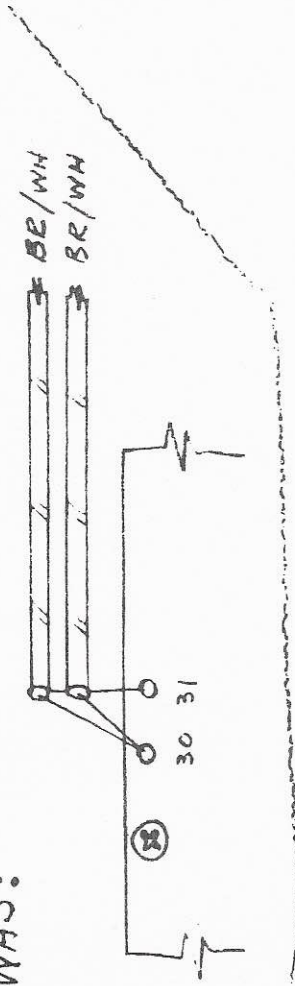
- A. Replace Q23 with 2N2219 or Ampex Catalogue Number 014-247.
- B. Replace 1CR11 and 1CR12 with 1N3277 or DI1151, Ampex C/N 013-157.
- C. Modify output circuit per attached instructions.

INSTRUCTION SHEET FOR AG-350 RECORD AMPLIFIER OUTPUT CIRCUIT MODIFICATION

1. Lift center conductor of two shielded wires connected to terminal 30 on the rear edge of printed circuit board.
2. Install tie point A₁ under screw next to terminal 30.
3. Connect two center conductors lifted from terminal 30 (Step 1) to tie point ungrounded lug as shown in illustration.
4. Connect a new piece of single conductor shielded cable* to tie point -- shield to ground lug and center to terminal on which two centers are connected. (Step 3)
5. Route the cable along edge of board, at the back of the pan and up the side toward the front, under the heat sync, and past the relay; then up and loop back down to relay terminals.
6. Connect shield to outer terminal of center row and center to the next terminal as shown in illustration (Cable X).
7. Connect a second new piece of single conductor shielded cable -- center to terminal "A" with shield floated.
8. Route the second piece of cable back along the first (Reverse of Step 5).
9. Connect the center conductor to terminal 30 of printed circuit board and shield to ground lug of tie point as shown in illustration.

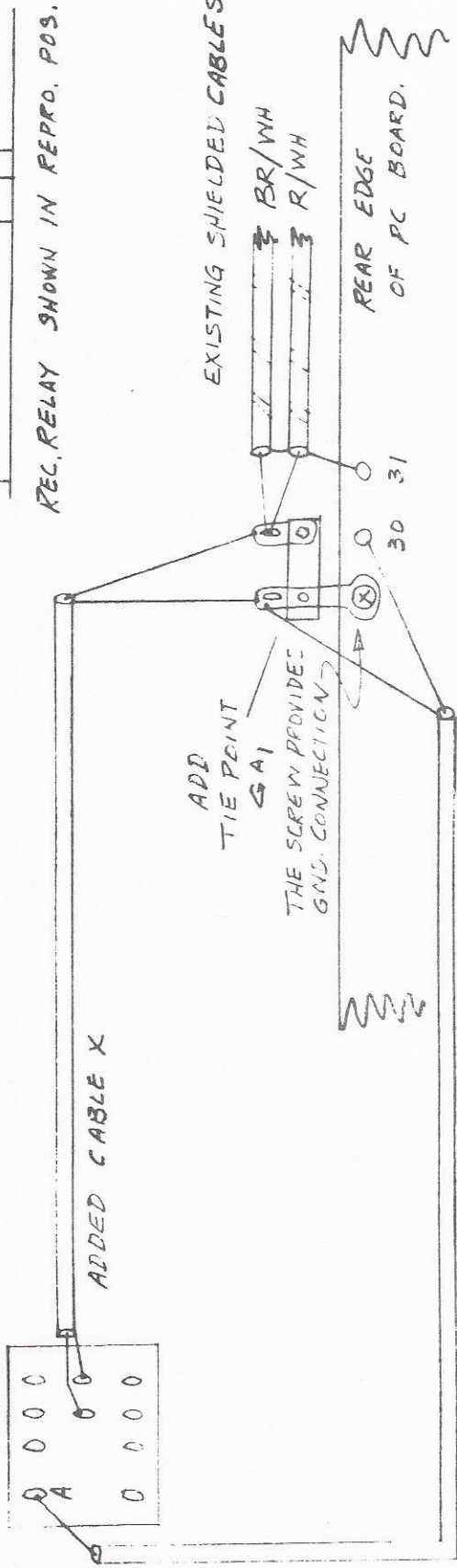
* Note: For cable use Ampex part number 613-054, Gavitt Type 26 7/34KSJ, or equivalent.

WAS:



IS:

RECORD RELAY
[LOCATED NEAR OUTPUT SELECTOR SW.]



NOTE: IF 2-CONDUCTOR SHIELDED CABLE IS AVAILABLE, THE SECOND WIRE IS CONNECTED FROM TERMINAL 30 OF THE BOARD TO TERMINAL A OF THE RELAY, AND CABLE Y IS NOT USED.

AG-350
RECORD CIRCUIT MODIFICATION

11-30-65 B.D.

