

FIELD ENGINEERING BULLETIN

TITLE: AUDIBLE NOISE FROM REEL MOTORS

I. APPLICABILITY

Printed Wiring Assemblies that have Ampex P/N's 4050771-01 or 4050771-02.

II. PURPOSE

To eliminate a possible source of audible noise from reel motors.

III. DISCUSSION

Occasionally a reel motor will produce an audible "buzzing" sound which is a source of annoyance and may result in increased flutter. Modification of the MDA PWA's to the latest dash number will preclude this from happening.

IV. PROCEDURE

To up-dash the PWA from P/N 4050771-01 to P/N 4050771-03 modify as follows, if necessary:

- a) Replace VR1 and VR2 with Ampex P/N 013-828, (1N3015B).
- b) Replace R6 and R27 with Ampex P/N 041-406 (22 K Ohms, 1/4 W, 5%, composition).
- c) Replace C2, C3 and C9 with Ampex P/N 064-434 (5000 pF, 1 KV, ceramic).
- d) Replace R1 and R25 with Ampex P/N 062-997 (18.2 K Ohms, 1/8 W, 1%, metal film).
- e) Replace R2 and R24 with Ampex P/N 076-065 (22.1 K Ohms, 1/8 W, 1%, metal film).
- f) Replace R19 and R20 with Ampex P/N 041-465 (680 Ohms, 1 W, 5%, composition).
- g) Replace C1 and C8 with a series network consisting of Ampex P/N 035-853 and Ampex P/N 041-415 (.056 mFd, 50 V, 5%, Mylar and 68 K Ohms, 1/4 W, 5%, composition). Designate new resistors R36 and R37.

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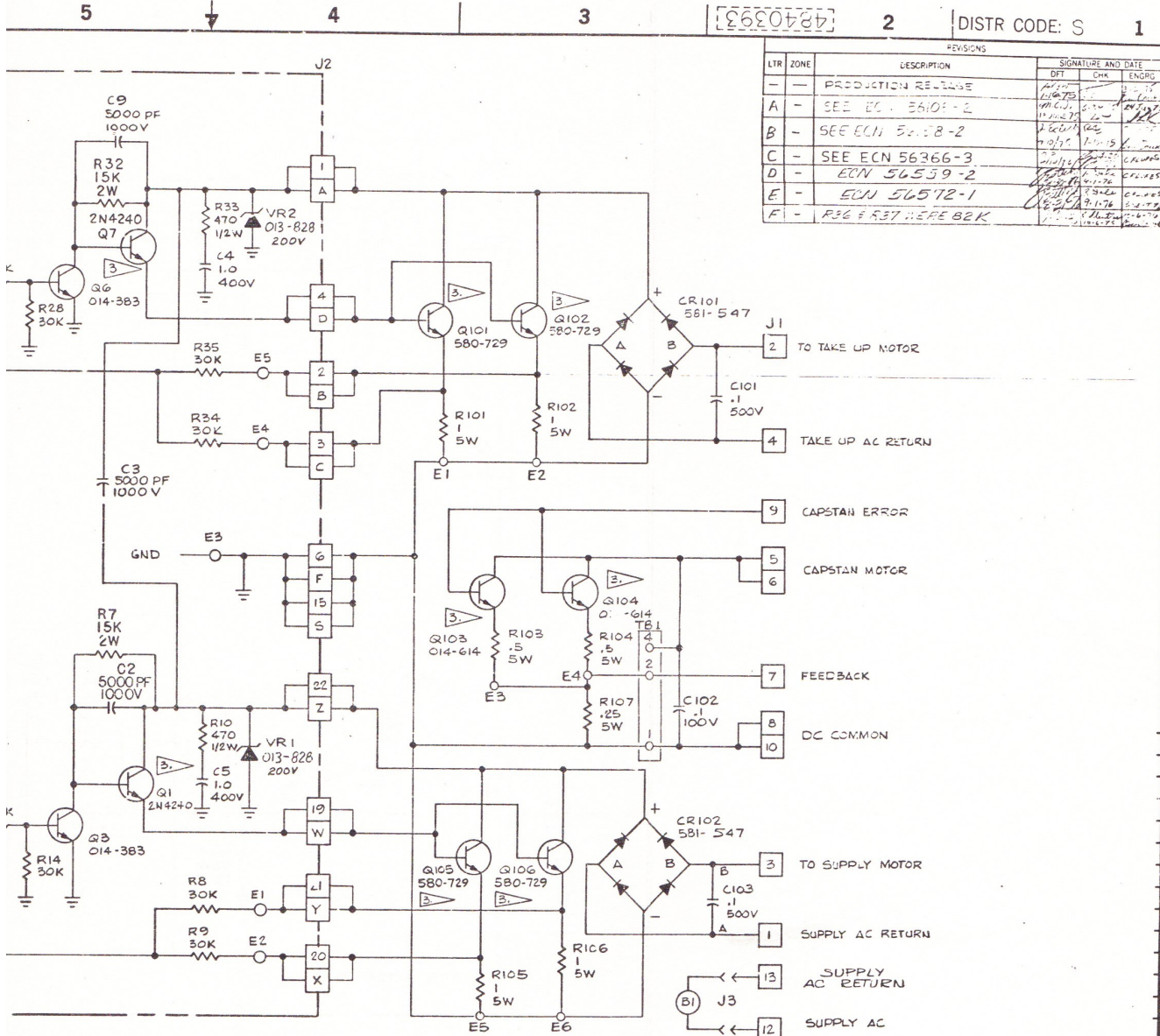
IV. PROCEDURE (CONTINUED)

To up-dash the PWA from P/N 4050771-02 to P/N 4050771-03 modify as follows, if necessary:

- a) Replace R19 and R20 with Ampex P/N 041-465 (680 ohms, 1 W, 5%, composition).
- b) Replace R7 and R32 with Ampex P/N 041-984 (15 K ohms, 2 W, 5%, composition), and re-locate the +27V end to the collector of Q1 and Q7.
- c) Replace C1 and C8 with a series network consisting of Ampex P/N 035-853 and Ampex P/N 041-415 (.056 mFd, 50 V, 5%, Mylar and 68 K ohms, 1/4 W, 5% composition). Designate new resistors R36 and R37.
- d) Remove and discard Q2, Q5, R5, R11, R12, R21 R22 and R26.

Verify conformance with schematic 4840393 issue "F".

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REVISIONS		
LTR	ZONE	DESCRIPTION
-	-	PRODUCTION RELEASE
A	-	SEE ECN 56101-2
B	-	SEE ECN 56538-2
C	-	SEE ECN 56366-3
D	-	ECN 56539-2
E	-	ECN 56572-1
F	-	R36 & R37 WERE B2K

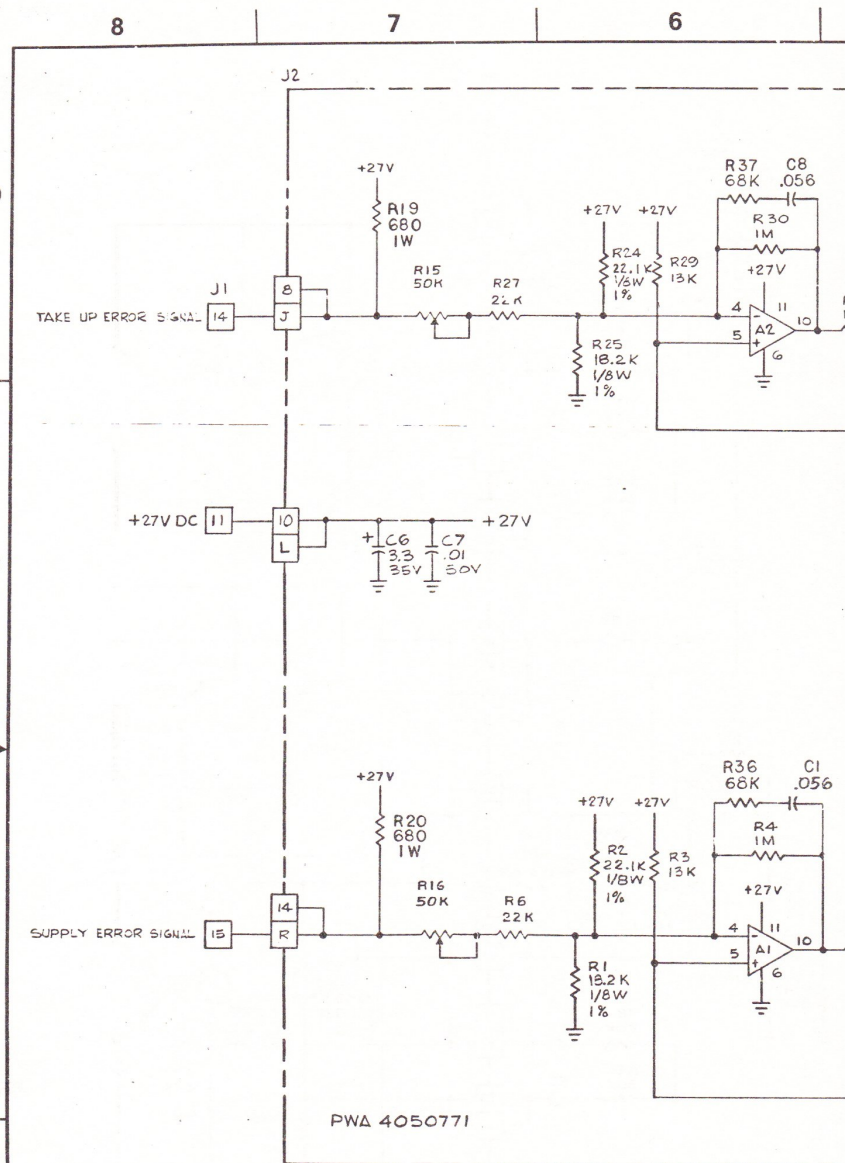
REFERENCE DESIGNATION	NOT USED
R5, 11, 12, 17, 18, 21-23, R26	
Q2, A, 5	

ITEM NO.	QUANTITY PER VERSION	PART NUMBER	DESCRIPTION
<p>NOTICE: THIS DRAWING SHALL NOT BE DUPLICATED, USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED OR DISCLOSED, IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF AMPLEX CORPORATION. PROVIDED HOWEVER, THAT IF THIS DRAWING IS SPECIFIED TO BE DELIVERED TO THE GOVERNMENT OR TO A GOVERNMENT CONTRACTOR, PURSUANT TO A GOVERNMENT PRIME OR SUBCONTRACT, THE GOVERNMENT MAY MAKE SUCH USE OF THIS DRAWING AS IS PERMITTED BY THE APPLICABLE "DATA" CLAUSE SET FORTH IN SUCH CONTRACT OR SUBCONTRACT.</p>			
<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES.</p>			
<p>REMOVE BURRS AND SHARP EDGES</p>			
<p>DO NOT SCALE THIS PRINT</p>			
<p>MATERIAL: _____ FINISH: _____</p>			
<p>4840393 MM1200</p>		<p>SIZE CODE IDENT NO D 92739 4840393</p>	
<p>APPLICATION</p>		<p>SCALE _____ SHEET 1 OF 1</p>	

AMPEX
 HEADQUARTERS
 Redwood City,
 California 94063

**SCHEMATIC
 MDA ASSEMBLY**

DATE: 9/76
 DRAWN BY: [Signature]
 CHECK BY: [Signature]
 ENGR. APP'D: [Signature]
 AUTH BY: [Signature]



PWA 4050771

NOTES: UNLESS OTHERWISE SPECIFIED

1. CAPACITANCE VALUES ARE IN MICROFARADS
2. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
3. HEATSINK REQUIRED.
4. PWA NO. IS 4050771-03, ARTWORK ISSUE LETTER IS 'J'.

FIELD SERVICE SUBSTITUTION		RE
AMPEX P/N	NEAREST EQUIVALENT	LA5
014-383	2N2484	R37
014-882	MPS 3638A	C9
580-729	2N5239	C7
586-26B	UA741 (U9A741393)	C1 VR2 A2