

Peter Butt: TIGHTER PUNCH-IN PERFORMANCE FOR AMPEX MM-1200 MULTITRACKS

Applicability: Ampex MM-1200 switcher card part number: 4050774.

Purpose: Reduce time required for entry and exit record function.

Warning: This modification may produce objectionable punch-in "thumps" if installation is not concurrent with proper termination of the reproducer preamp input transformer secondary. (See termination details in "Flatter Is Fatter — Magnetic Reproducer Equalization Accuracy," Peter Butt, R-e/p, October 1978, Volume 9, Number 5, p. 84.)

Deletions:

C7, C4, C6, and C3.

Changes:

C2 was 20 mfd to be 1.5 mfd $\pm 5\%$, 50 VDC (Kemet T110B125M050AS or equivalent, and install with strain relief for leads).

C13 was 6.8 mfd to be 2.2 mfd $\pm 20\%$ 35 VDC.

C10 was 6.8 mfd to be 3.3 mfd $\pm 20\%$ 35 VDC.

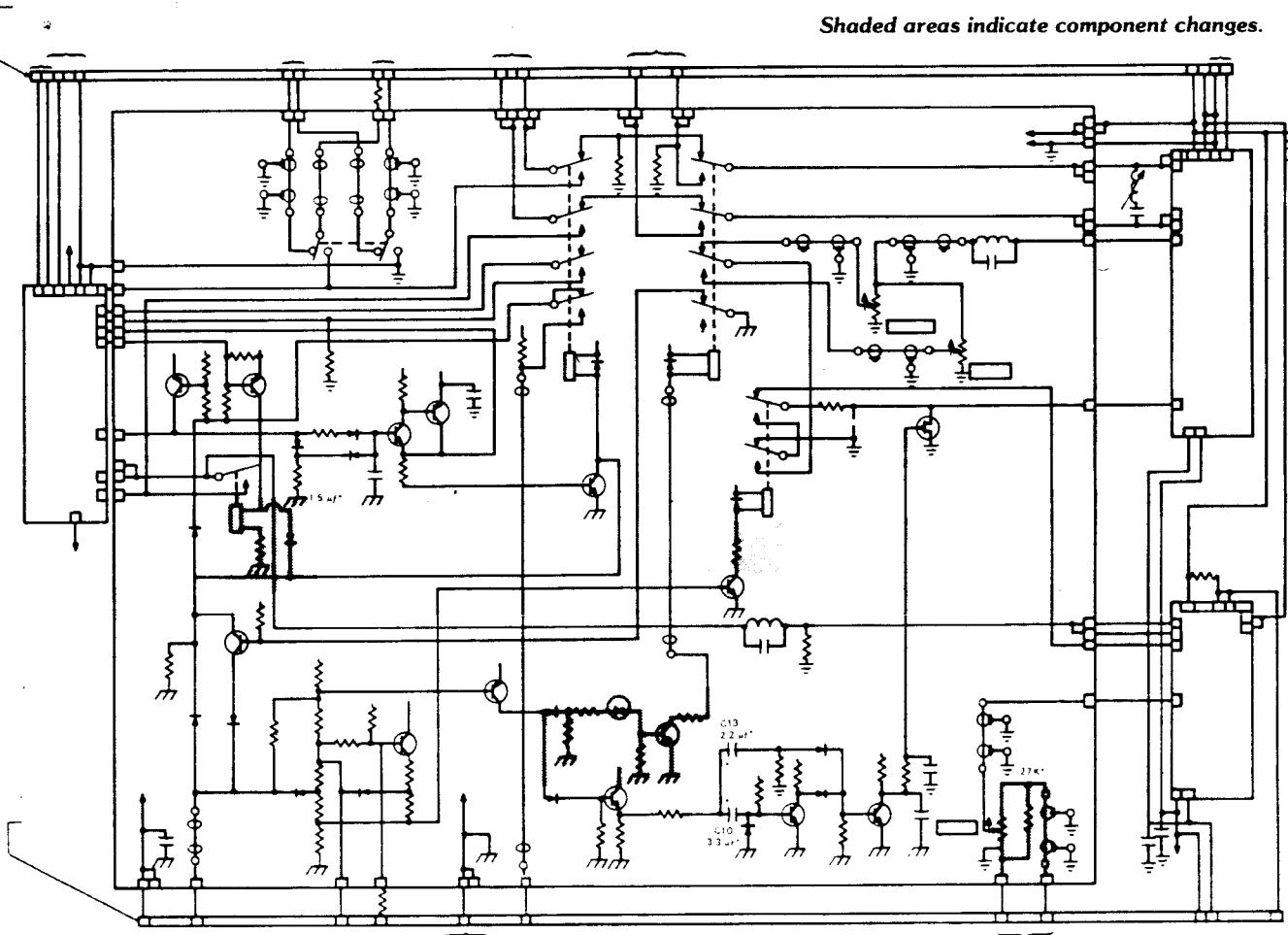
Additions:

Add diode, with anode to collector of Q3, cathode to collector of Q6. (Use 1N4148,

etc.) Add 27 kilohm $\frac{1}{4}$ -watt resistor in parallel with R11 for termination of line input transformer, if used.

This modification reduces the time required for 90% bias level to about 50 msec., from the stock time of about 180 msec. If the reproducer preamp is properly terminated, the punch-in/out thumps will be less in amplitude than for the stock configuration. This mod may be already partially installed in newer models of the MM-1200. Check your switcher card assembly as delivered.

Shaded areas indicate component changes.



AMPEX 1200

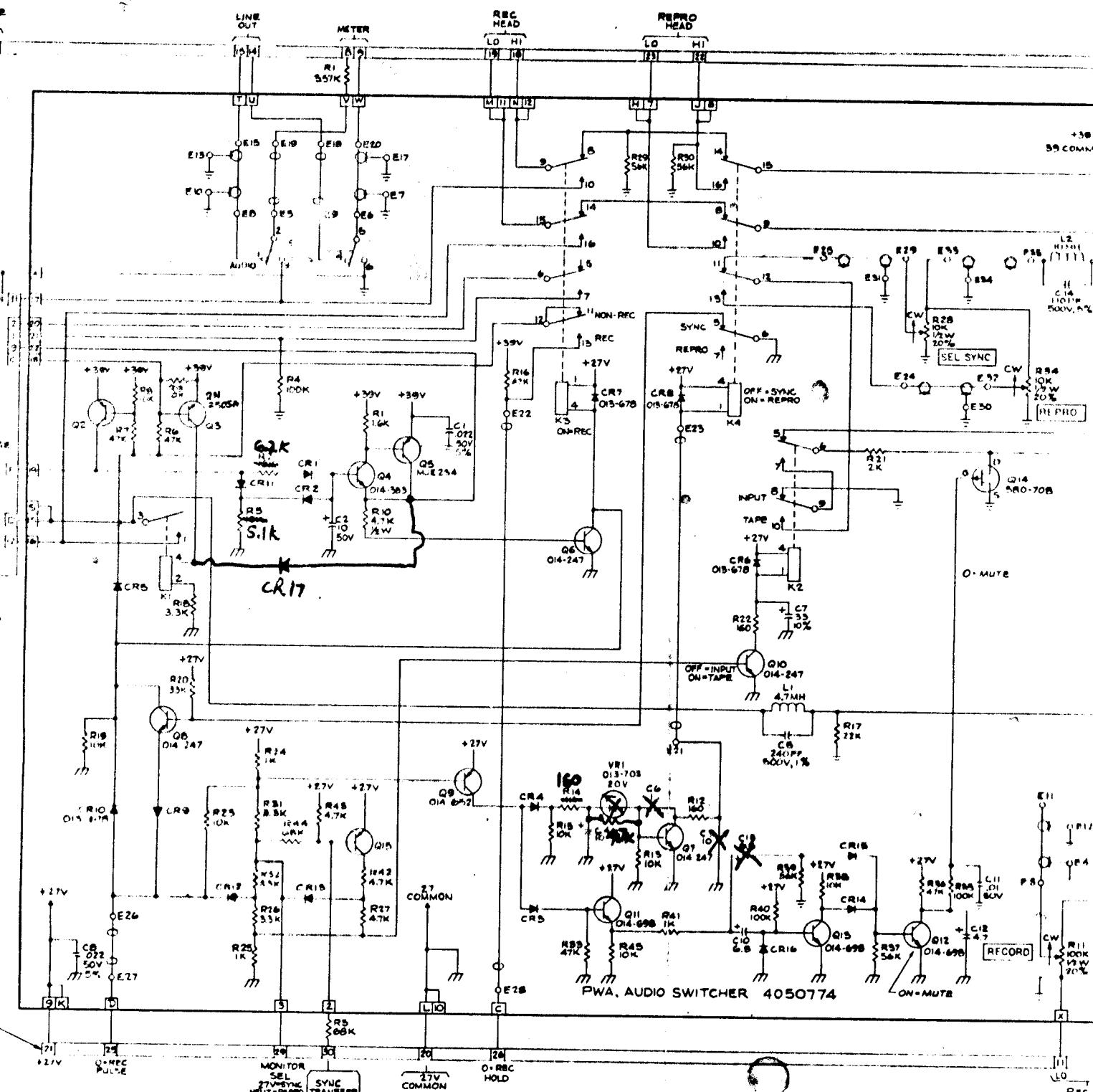
AUDIO SWITCHER SPEED-UP MOD. (DONE BY AMPEX
(IN LATER MACHINES))

1. REMOVE: R2 (10k)
R5 (60k)
R14 (1k)
VR1 - (013-703, 20V. ZENER)
C6 (1μF.)
C3 (10μF.)
C13 (6.8μF.)

2. INSTALL: R2 - 6.2K
R5 - 5.1K
R14 - 160Ω
4.7K IN PLACE OF VR1

(CAPACITORS JUST GO AWAY.)

3. MAKE SURE CR17 IS THERE (PROBABLY NEXT TO Q2 AND Q3, OR NEAR R18 AND K1)



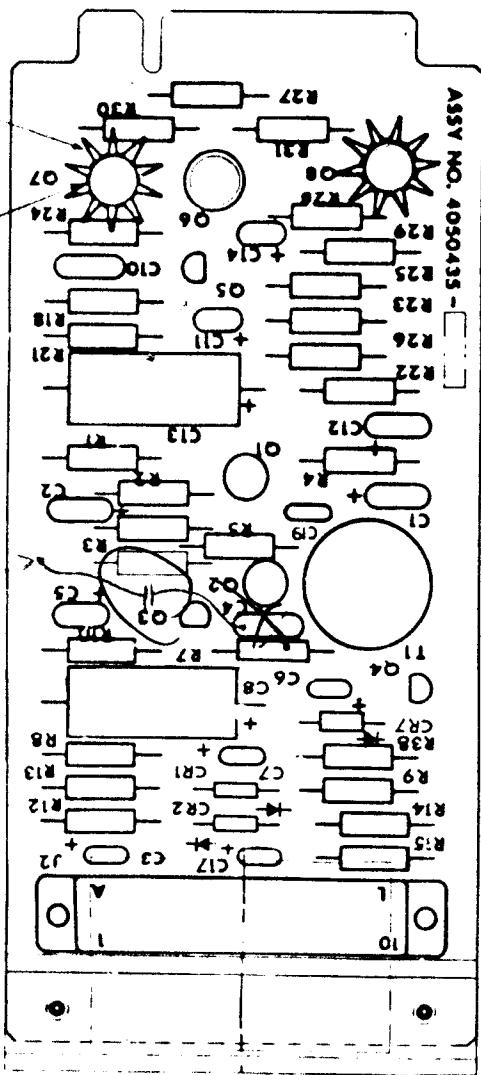
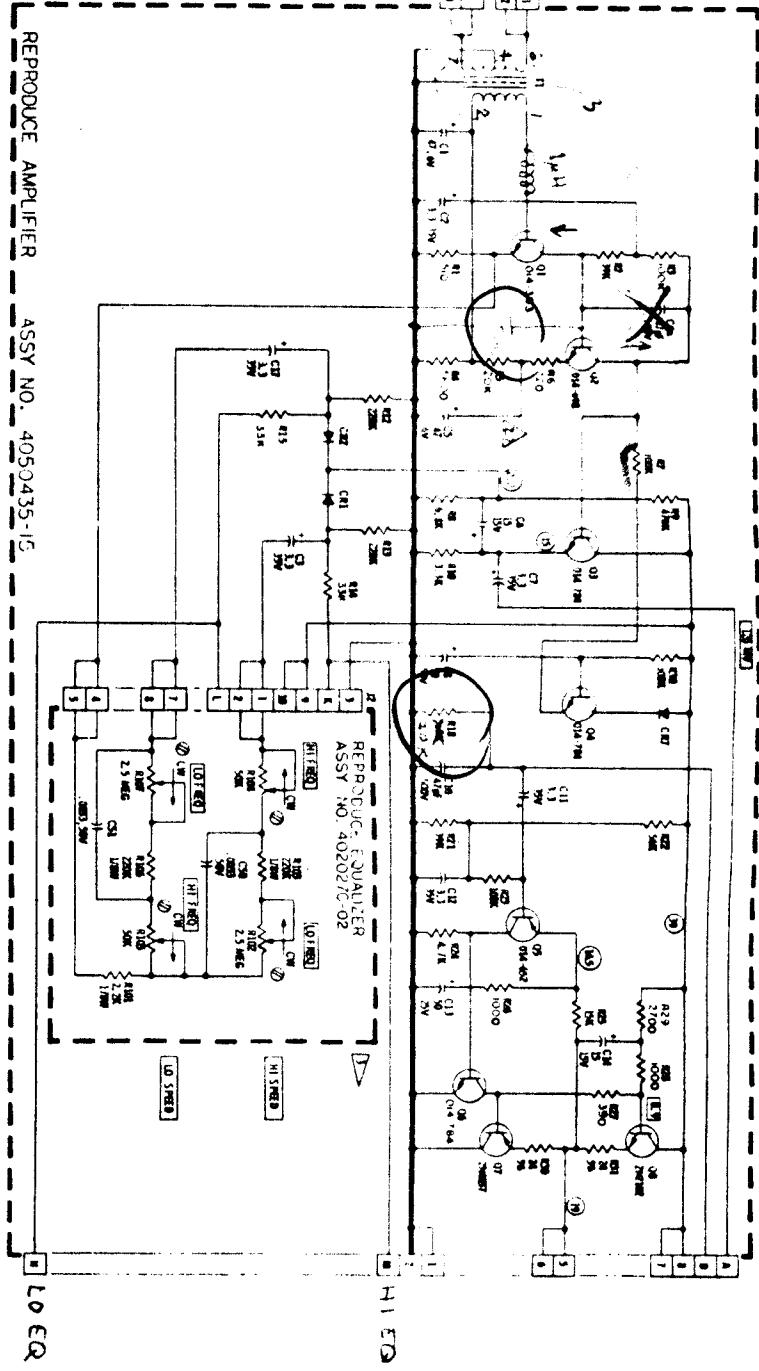
MOD: ADD CR-17

REMOVE: R-2(10K) REPLACE: R-2 = 6.2K
 R-5(10K) R-5 = 5.1K
 R-14(1K) R-14 = 160Ω
 C-3 (10μF) VR-1 = 4.7K
 C-6 (1μF)
 C-13 (6.8μF)
 VR-1 (20V ZENER)

REFERENCE DESIGNATIONS	LAST USED	NOT USED
C14	C9	
CR16	CR12	
E25		
K4		
L2		
Q15		
R45		
SI		
VR1		

.0033μf 20K.

*P
STABILITY
+ GAIN CLIPPER*



Assembly No. 41

6-62

Ampex MM1200 parts supply

#	part number	use	value	manufacture	notes	source	price
2	94F 221	psu			radial	newark	22.4
1	08WX8565	psu	220uf/63v	philips	axial	newark	1.01
2	50F6806	psu			radial	newark	11.75
2	89F3466	psu	.1uf/200v	sprague orange drop	axial	newark	1.15
1	08WX8550	psu	1000uf/25v	philips	axial	newark	1.16
1	08WX8556	psu	6800uf/25v	philips	axial	newark	3.57
24	18F2567	play back stability	.0033 /100v	sprague orange drop		newark	
6	2N5240	MDA Drive Transistors					
1	3296Y 105	trans control pwa R34	1 MEG	bourns	25 turns pots		2.5
7	3296P 103	trans control pwa R1,2,3,4,10,14,15	10K	bourns	25 turns pots		2.5
5	3296P 502	trans control pwa R5,6,7,8,11	5K	bourns	25 turns pots		2.5