



738/739
YC/COMPONENT TRANSLATORS

(REV. 1)

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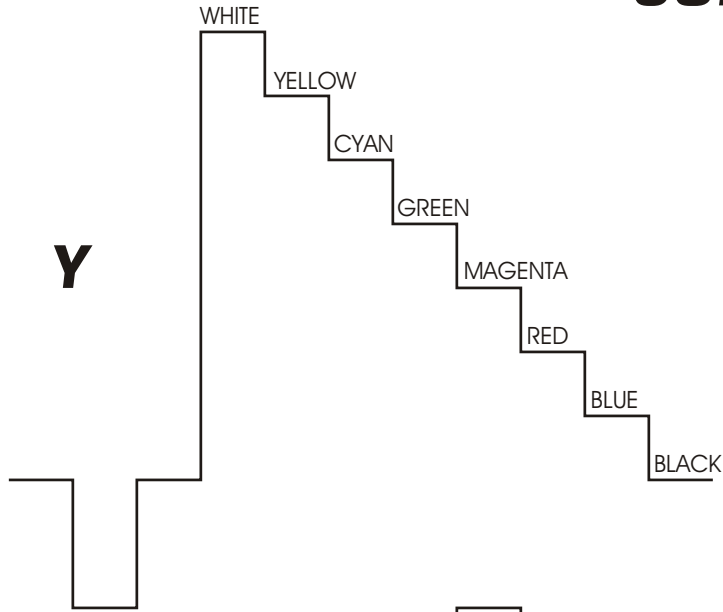
MODEL 738 CALIBRATION PROCEDURE

For NTSC operation, install jumpers JP1 and JP4.

For PAL operation, install jumpers JP2, JP3 and JP4.

- 1) Connect YC color bar signal to appropriate inputs.
(75% saturation for NTSC, 100% saturation for NTSC, 100% saturation for PAL)
- 2) Monitor Y output on waveform monitor or oscilloscope.
- 3) Adjust Y GAIN (R19) for 100 IRE or 1Vp-p on white flag.
- 4) Scope Y output with terminated oscilloscope DC input.
- 5) Adjust Y DC (R15) for 0 VDC at blanking of Y waveform.
- 6) Connect multiburst signal to Y input.
- 7) Adjust Y frequency response (C15) for flat response.
- 8) Re-connect Y signal from Betacam bars.
- 9) Scope B-Y output with terminated oscilloscope DC input.
- 10) Adjust HUE (R60) for equal positive and negative excursion on alternate bars, of the B-Y signal above and below blanking.
- 11) Adjust B-Y GAIN (R43) for 700mVp-p.
- 12) Adjust B-Y DC (R38) for 0 VDC at blanking.
- 13) Scope R-Y output with terminated oscilloscope DC input.
- 14) Adjust R-Y GAIN (R34) for 700mVp-p.
- 15) Adjust R-Y DC (R28) for 0 VDC at blanking.
- 16) Adjust C28 to cancel PAL interfield "twitter" on B-Y output.

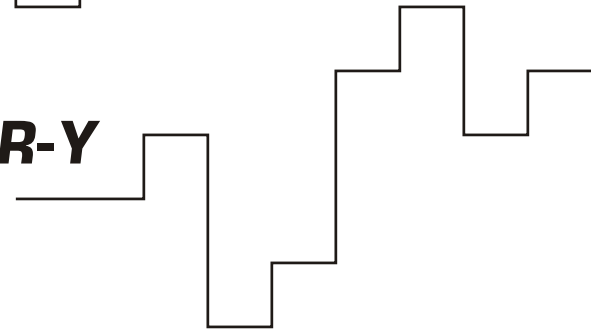
COMPONENT LEVELS



Y

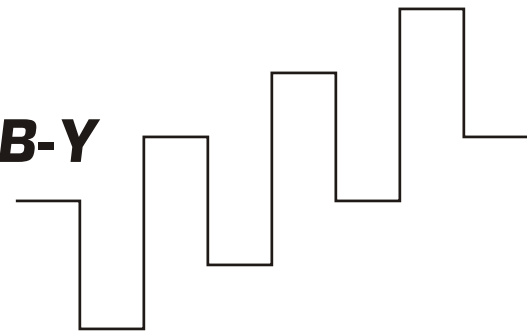
BARS	BETACAM		MII		SMPTE/EBU
	100%	75%	100%	75%	100%
PK. TO PK.	1.000V	.835V	1.000V	.848V	1.000V
WHITE	.714	.549	.700	.548	.700
SETUP	.054	.054	.053	.053	.000
SYNC	.286	.286	.300	.300	.300
BLANKING 0V DC					

R-Y



PK. TO PK.	.934	.700	.648	.486	.700
POS. EXCURS'N.	.467	.350	.324	.243	.350
NEG. EXCURS'N.	.467	.350	.324	.243	.350
BLANKING 0V DC					

B-Y



PK. TO PK.	.934	.700	.648	.486	.700
POS. EXCURS'N.	.467	.350	.324	.243	.350
NEG. EXCURS'N.	.467	.350	.324	.243	.350
BLANKING 0V DC					

CALIBRATION INSTRUCTIONS
TYPE 739 Y, R-Y, B-Y TO YC AND NTSC TRANSLATOR

For NTSC operation, install JP1.

For PAL operation, remove JP1.

- 1) Connect 1Vp-p Y signal to Y input. Connect color black signal to 'S' input.
- 2) Monitor NTSC composite output on 'B' BNC.
- 3) Adjust COMP Gain for 40 IRE units of color burst.
- 4) Adjust Y IN GAIN for 1Vp-p at NTSC output ('B' BNC).
- 5) Adjust COMP DC for 0 VDC at blanking.
- 6) Connect R-Y and B-Y signals from component color bar generator to R-Y, B-Y inputs.
- 7) Monitor NTSC output on externally referenced vectorscope.
- 8) Adjust PLL ADJ (C26) to center subcarrier lock up range.
- 9) Adjust R-Y and B-Y LVL for correct vector amplitude.
- 10) Connect multiburst signal to Y input.
- 11) Monitor Y output ('R' BNC).
- 12) Adjust Y frequency response for flat response.
- 13) Adjust Y GAIN for 1 Vp-p.
- 14) Adjust Y DC for 0 VDC at blanking.
- 15) Monitor chroma output on 'G' BNC with vectorscope.
- 16) Adjust CHROMA LEVEL for correct vector amplitude.

738 -- YC to COMPONENT TRANSCODER

BILL OF MATERIALS

Revision: 1.0 Revised: Friday, May 23, 1997

Item	Quant	Reference	Part
1	16	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C13, C14, C23, C24, C25, C27	0u1
2	1	C11	1u0 NP
3	1	C12	1n5
4	1	C15	5-60pF
5	2	C19, C18	1u0/16V
6	2	C22, C20	4n7
7	1	C21	1u0
8	1	C26	22n
9	2	C29, C28	18p
10	4	C30, C31, C33, C34	1u0/35V tant
11	2	C32, C35	10n
12	1	C36	2u2/16V
13	1	C37	220p
14	1	DLY1	SP-1677
15	2	D1, D2	1N4004
16	1	D3	1N5231
17	4	JP1, JP2, JP3, JP4	
18	2	L1, L2	VK-20009-3B
19	1	P1	64 PIN PLUG
20	5	Q1, Q2, Q3, Q4, Q5	2N4124
21	4	R1, R4, R22, R24	6K8
22	7	R2, R5, R11, R12, R21, R35, R44	75R 1%
23	4	R3, R6, R23, R25	4K7
24	1	R7	750R
25	1	R8	510R
26	1	R9	2K2
27	4	R10, R31, R41, R42	470R
28	10	R13, R14, R16, R26, R27, R29, R36, R37, R39, R59	1K
29	3	R15, R28, R38	2K POT
30	6	R17, R18, R20, R30, R32, R40	680R
31	3	R19, R34, R43	1K POT
32	2	R46, R45	10K
33	4	R47, R48, R49, R50	8K2

34	6	R51, R52, R53, R54, R57, R58	270K
35	1	R55	12K
36	1	R56	100K
37	1	R60	10K POT
38	2	R61, R63	1K3
39	2	R62, R64	240R
40	1	U1	TDA8310A
41	1	U2	GB4550
42	3	U3, U4, U5	CLC430
43	1	VR1	LM317T
44	1	VR2	LM337T
45	1	Y1	4.43MHz
46	1	Y2	3.58MHz

739-COMPONENT TO YC TRANSCODER/ENCODER

BILL OF MATERIALS

Revision: 1.0 Revised Tuesday, September 08, 1998

Item	Quant	Reference	Part
1	6	C1, C2, C3, C19, C35, C36	10n
2	1	C4	1u0 NP
3	1	C5	1n5
4	12	C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17	0u1
5	5	C18, C31, C32, C33, C34	1u0/35V tant
6	2	C20, C22	1n0
7	1	C21	n15
8	1	C23	4n7
9	1	C24	470p
10	1	C25	10u/16V tant
11	1	C26	2-22p
12	3	C27, C28, C29	AOT
13	1	C30	5-60p
14	1	DLY1	1436
15	2	D1, D2	1N4004
16	1	FLTR1	CHROMA FILTER
17	1	JP1	
18	2	L1, L2	VK-20009-3B
19	1	P1	DIN1
20	4	Q1, Q2, Q3, Q4	2N4124
21	7	R1, R7, R13, R24, R41, R49, R60	75R 1%
22	2	R2, R8	5K POT
23	8	R3, R9, R18, R30, R33, R52, R53 R54	1k
24	5	R4, R10, R14, R25, R28	4K7
25	5	R5, R11, R15, R17, R26	2K2
26	6	R6, R12, R16, R27, R51, R62	75R
27	1	R19	7K5
28	4	R20, R29, R38, R39	220R
29	2	R21, R40	500R POT
30	2	R22, R23	1K2
31	1	R31	1K1
32	1	R32	47K
33	1	R34	22K
34	1	R35	10R

35	2	R36, R55	2K POT
36	2	R47, R58	2K7
37	2	R48, R59	680R
38	2	R50, R61	100R POT
39	2	R63, R65	1K8
40	2	R64, R66	270R
41	1	TP1	Y IN
42	1	TP2	PLL
43	1	U1	MC13077
44	1	U2	MC44144
45	1	U3	GB4550
46	3	U4, U5, U6	CLC430
47	1	VR1	LM317T
48	1	VR2	LM337T
49	1	VR3	MC7805ACT
50	1	Y1	14.31818 MHz (NTSC)

PS-1 POWER SUPPLY, PARTS LIST

240	2	R1, R2
1N4004	10	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
14 PIN IC	1	J1
0.1uF/63v	4	C5, C6, C9, C10
PS-1 POWER SWITCH	1	SW1
10uF/35v	2	C7, C8
5K POT	2	RV1, RV2
19782 FUSE HOLDER	1	F1
2200uF/35v	2	C2, C4
3300uF/35v	2	C1, C3
EAC-333 RECEPTACLE	1	POWER PLUG
HEAT SINK	2	IC1, IC2
LM317	1	IC1
LM337	1	IC2