

Service Manual

Video Cassette Player

Panasonic **VHS**
PAL/NTSC

Hi-Fi HQ

NV-HP10RAMA

K-MECHANISM



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Hi-Fi echo pack schematic diagram\принципиальная схема

обработки аудиосигнала

Head amp schematic diagram\принципиальная схема усилителя видеоголовок

Panasonic

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INTRODUCTION

This service manual contains technical information which will help service personnel to understand and service the VHS Video Cassette Player NV-HP10RAMA.

Since this model has been developed from NV-HP10RAM, this manual does not cover the same part which is already described in the service manual for NV-HP10RAM.

Therefore, when servicing, refer to the descriptions in the one for NV-HP10RAM Order No. VRD9411M155.

SPECIFICATIONS

ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	SOURCE: 110/127/220/230 – 240V, 50/60 Hz	TAPE FORMAT	VHS Cassette tape (Tape width 12.7 mm)
	CONSUMPTION: 31 watts	TAPE SPEED	23.39 mm/s (PAL) 33.35 mm/s (NTSC) Recording/Playback Time: 4 hours with 240 min. type tape (NV-E240) FF/REW Time: 3 minutes with 180 min. type tape (NV-E180)
RECORDING SYSTEM	2 rotary heads, helical scanning system		
	PAL/NTSC		
RF OUT SYSTEM	UHF : CHE38 $\pm 2_6^2$ (PAL-G,H,I) CHC25 $\pm 2_1^2$ (PAL-D) 73 \pm 3 dB μ , 75 Ω terminated	OPERATING CONDITION	Temperature : 5°C – 40°C Humidity : 35% – 80%
VIDEO	HEADS: 2 rotary heads 1 pair for recording, playback (L-R head)	DIMENSIONS	380 (W)X91 (H)X292(D) mm
	INPUT: VIDEO IN Connector (Phono type) 1.0 Vp-p, 75 Ω terminated	WEIGHT	4.9 kg
	OUTPUT: VIDEO OUT Connector (Phono type) 1.0 Vp-p, 75 Ω terminated	STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Remote Controller
AUDIO	HEAD: 1 Stationary head (Normal Audio) 2 rotary heads (Hi-Fi 2CH)		
	INPUT: AUDIO IN Connector (Phono type) –8 dBV (400mV), 47 k Ω MICROPHONE JACK (M6 type) –56dBV		
	OUTPUT: AUDIO OUT Connector (Phono type) –8 dBV (400mV), Less than 1 k Ω		

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

1. COMPARISON CHART

These charts show the difference between the basic model NV-HP10RAM and the new model NV-HP10RAMA.

Note : IMPORTANT SAFETY NOTICE

Parts indicated by the mark < ! > have the special safety characteristics.

When replacing any of these parts, use only the same type.

NV-HP10RAMA Mechanical Replacement Parts				(A) = Added, (C) = Changed, (D) = Deleted	
Ref. No.	NV-HP10RAM	NV-HP10RAMA	Pieces	Parts Name & Descriptions	Remarks
70 (1)	VEG1151	VEG1220 or VEG1151	1	CYLINDER UNIT	(C)
71 (1)	VEH0668	VEH0714	1	UPPER CYLINDER UNIT	(C)

NOTE : 1. Between the DD Cylinder Units, VEG1151 for NV-HP10RAM and VEG1220 for NV-HP10RAMA have interchangeability.
However, between the Upper Cylinder Units, VEH0668 for NV-HP10RAM and VEH0714 for NV-HP10RAMA do not have interchangeability.

2. Replacement of the DD Cylinder Unit
NV-HP10RAM which is using the cylinder units, VEG1151 originally, can be changed for the both cylinder units, VEG1151 and VEG1220.
Also NV-HP10RAMA which is using the cylinder units, VEG1220 originally, can be changed for the both cylinder units, VEG1151 and VEG1220.

3. Replacement of the Upper Cylinder Unit
Please confirm the Upper Cylinder Unit number indicated on the Upper Cylinder Unit, before replacing it.

VEH0714 has to be used for the cylinder unit VEG1220 only.

VEH0668 has to be used for the cylinder unit VEG1151 only.

4. The following parts are supplied from VED in Japan.

VEG1220, VEH0668, VEH0714

VEG1151 will not be supplied in the future, because between VEG1151 and VEG1220 have interchangeability.

NV-HP10RAMA Electrical Replacement Parts					(A) = Added, (C) = Changed, (D) = Deleted
Ref. No.	HP10RAM	HP10RAMA	Pieces	Parts Name & Descriptions	Remarks
IC302	AN3553FBP	AN3553NFBP	1	IC	(C)
IC2502	BA6871	BA6871S	1	IC	(C)
IC4501	XLH7773KS	XLH7773AKS	1	IC	(C)
IC6001	MN67434VRST	MN67434VRSY	1	IC	(C)
J1	_____	VEL4N180XEFZ	0 → 1	SHIELD WIRE	(A)
P1504	VJS3317A004	VJS3820	1	CONNECTOR	(C)
PP301	VJP3042A007W	VJP3042G007W	1	CONNECTOR	(C)
PP302	VJP3042A006W	VJP3042G006W	1	CONNECTOR	(C)
PP303	VJP3042A008W	VJP3042G008W	1	CONNECTOR	(C)
PS301	VJS3042B007W	VJS3042F007W	1	CONNECTOR	(C)
PS302	VJS3042B006W	VJS3042F006W	1	CONNECTOR	(C)
PS303	VJS3042B008W	VJS3042F008W	1	CONNECTOR	(C)
R259	ERJ6GMY392	_____	1 → 0	RESISTOR	(D)
R361	ERJ6GMYJ183	ERJ6GMZ0R00	1	RESISTOR	(C)
R362	ERJ6GMYJ183	_____	1 → 0	RESISTOR	(D)
R2169	ERDS2TJ472	_____	1 → 0	RESISTOR	(D)
R2517	_____	ERDS2TJ472	0 → 1	RESISTOR	(A)
R2519	_____	ERJ6GMY392	0 → 1	RESISTOR	(A)
R6508	_____	VWJ0023	0 → 1	JUMPER WIRE	(A) NOT SUPPLIED AS SPARE PARTS
VR304	EVMEASA00B54	_____	1 → 0	V. RESISTOR	(D)
VR305	EVMEASA00B24	_____	1 → 0	V. RESISTOR	(D)
VR4801,2	EVUJF0F0153S	EVUJFAFN353S	1	V. RESISTOR	(C)
VR4803	EVUJF1F01C24	EVUF2KFN3C24	1	V. RESISTOR	(C)
K302	_____	ERJ6GMZ0R00	0 → 1	RESISTOR	(A)
K304	ERJ6GMZ0R00	_____	1 → 0	RESISTOR	(D)
K305,6	_____	ERJ6GMZ0R00	0 → 1	RESISTOR	(A)

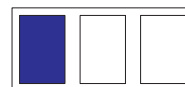
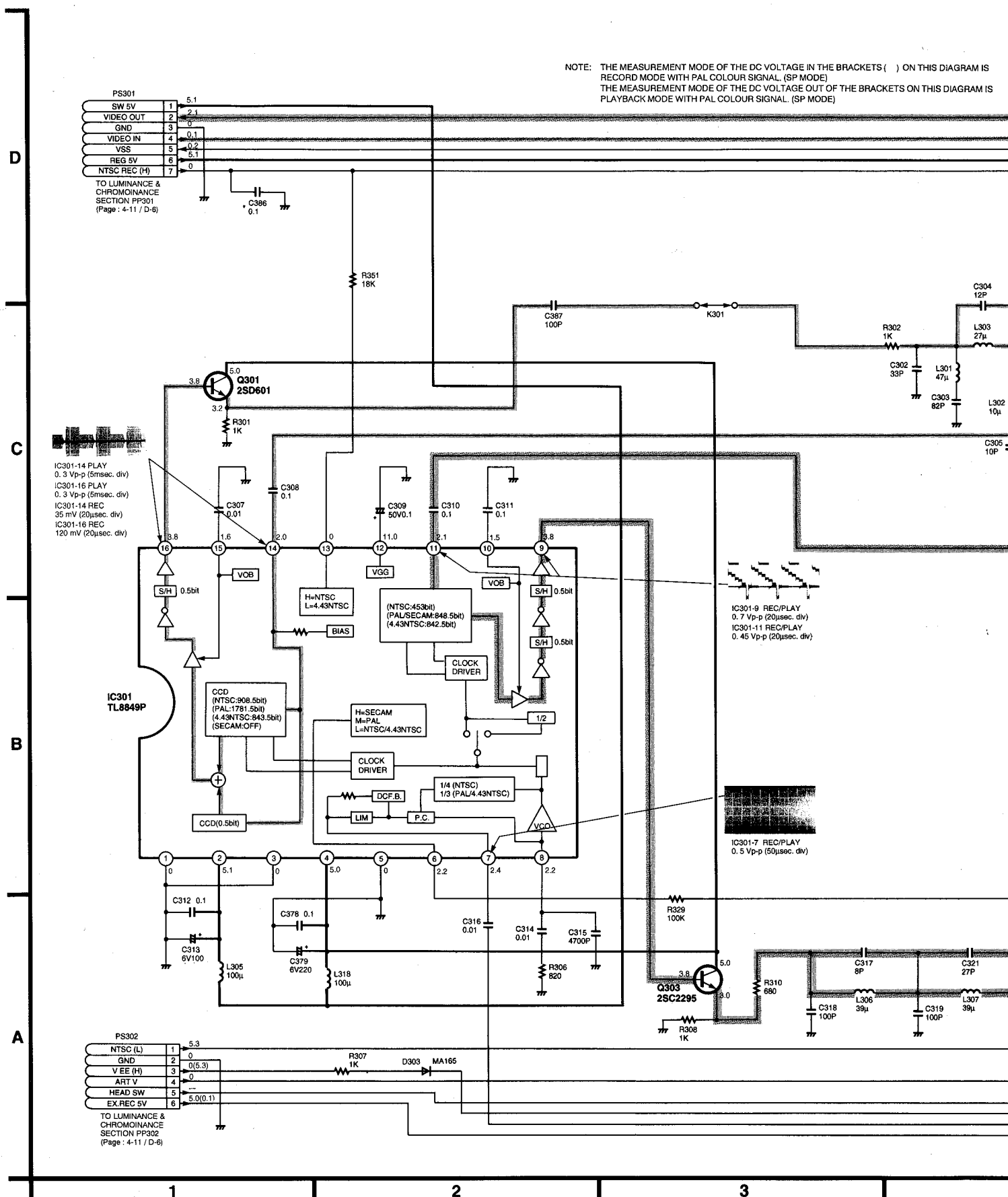
2. ELECTRICAL ADJUSTMENT PROCEDURES

The following Electrical Adjustment Procedures have been deleted.

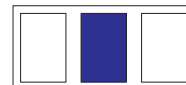
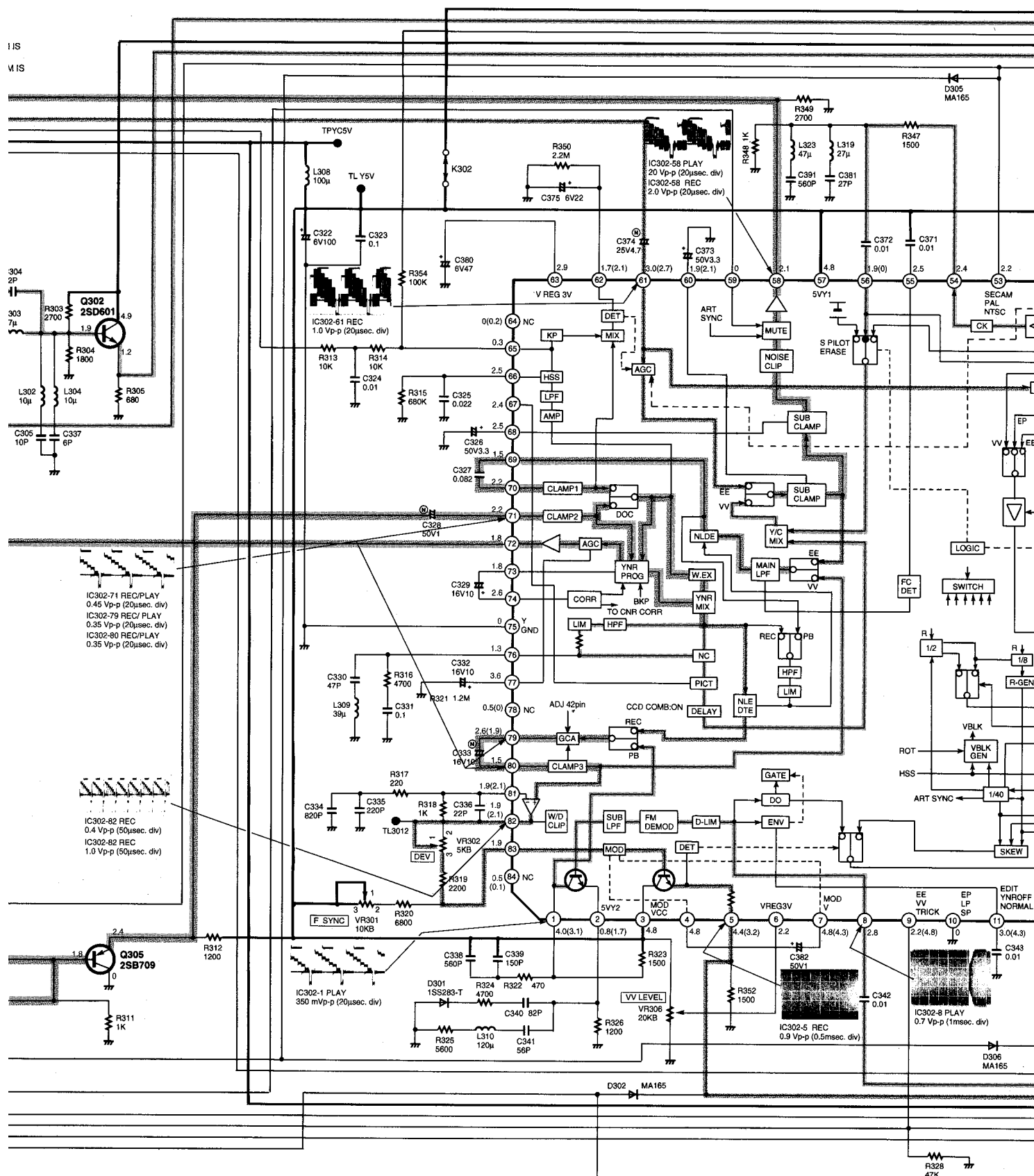
2-3-5. VIDEO EE LEVEL ADJUSTMENT

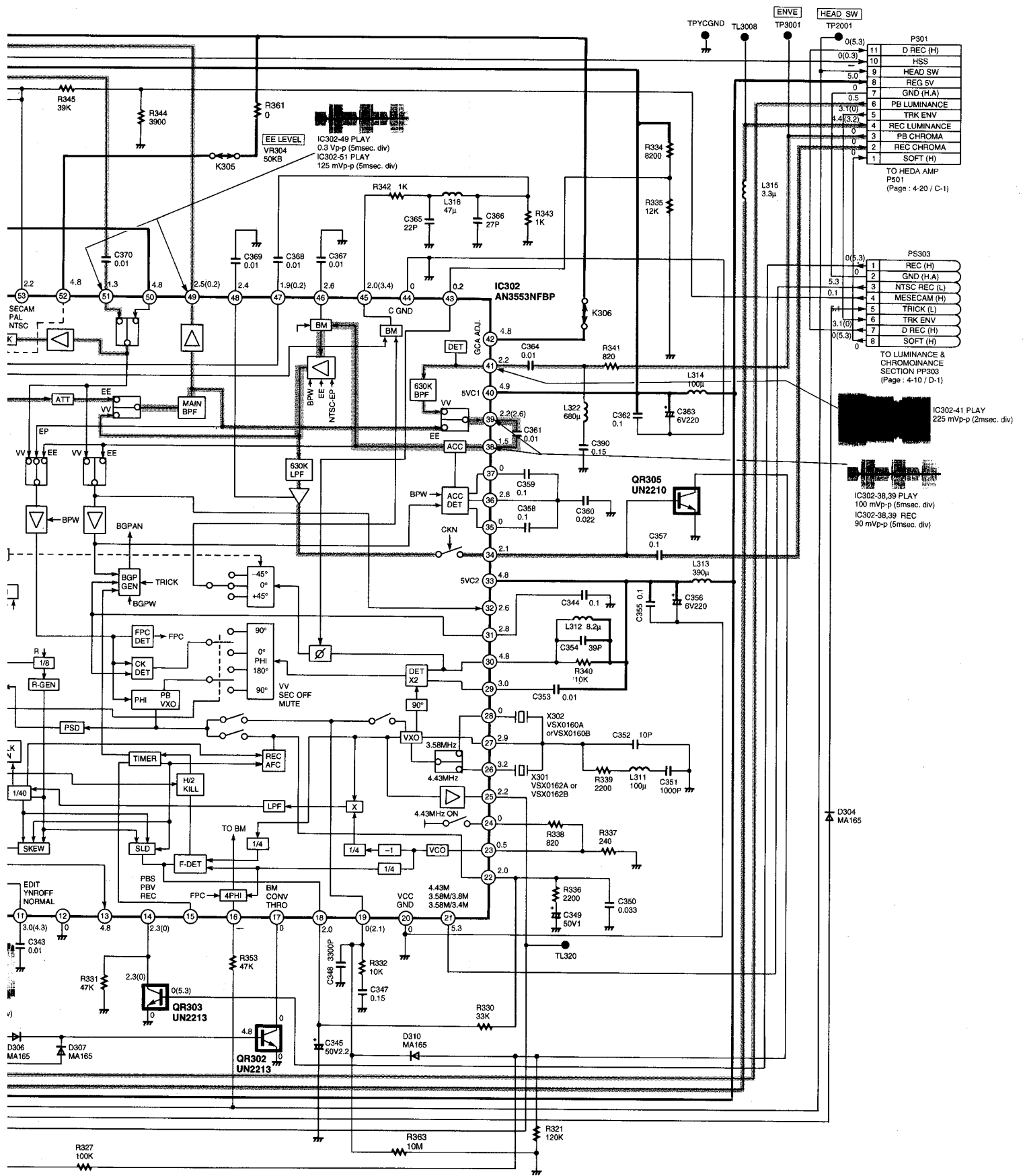
2-3-7. WHITE CLIP ADJUSTMENT

3-2. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM



VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE





P301

11	D REC (H)
10	HSS
9	HEAD SW
8	REG 5V
7	GND (H.A)
6	PB LUMINANCE
5	TRK ENV
4	REC LUMINANCE
3	PB CHROMA
2	REC CHROMA
1	SOFT (H)

TO HEDA AMP
P501
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P303

1	REC (H)
2	GND (H.A)
3	NTSC REC (L)
4	MESECAM (H)
5	TRICK (L)
6	TRK ENV
7	D REC (H)
8	SOFT (H)

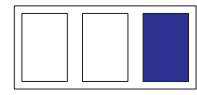
TO LUMINANCE &
CHROMINANCE
SECTION PP303
(Page: 4-10 / D-1)

IC302-41 PLAY
225 mVp-p (2msec. div)

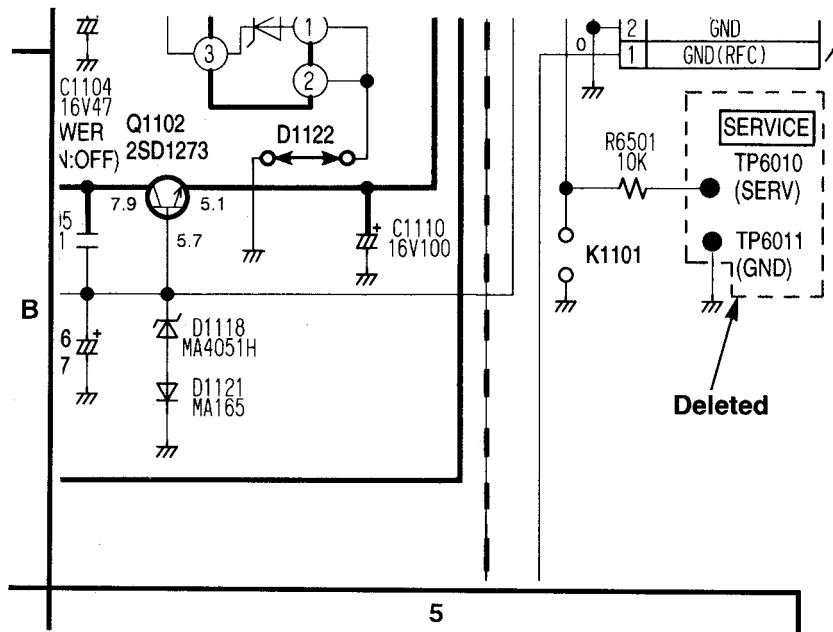
IC302-38,39 PLAY
100 mVp-p (5msec. div)

IC302-38,39 REC
90 mVp-p (5msec. div)

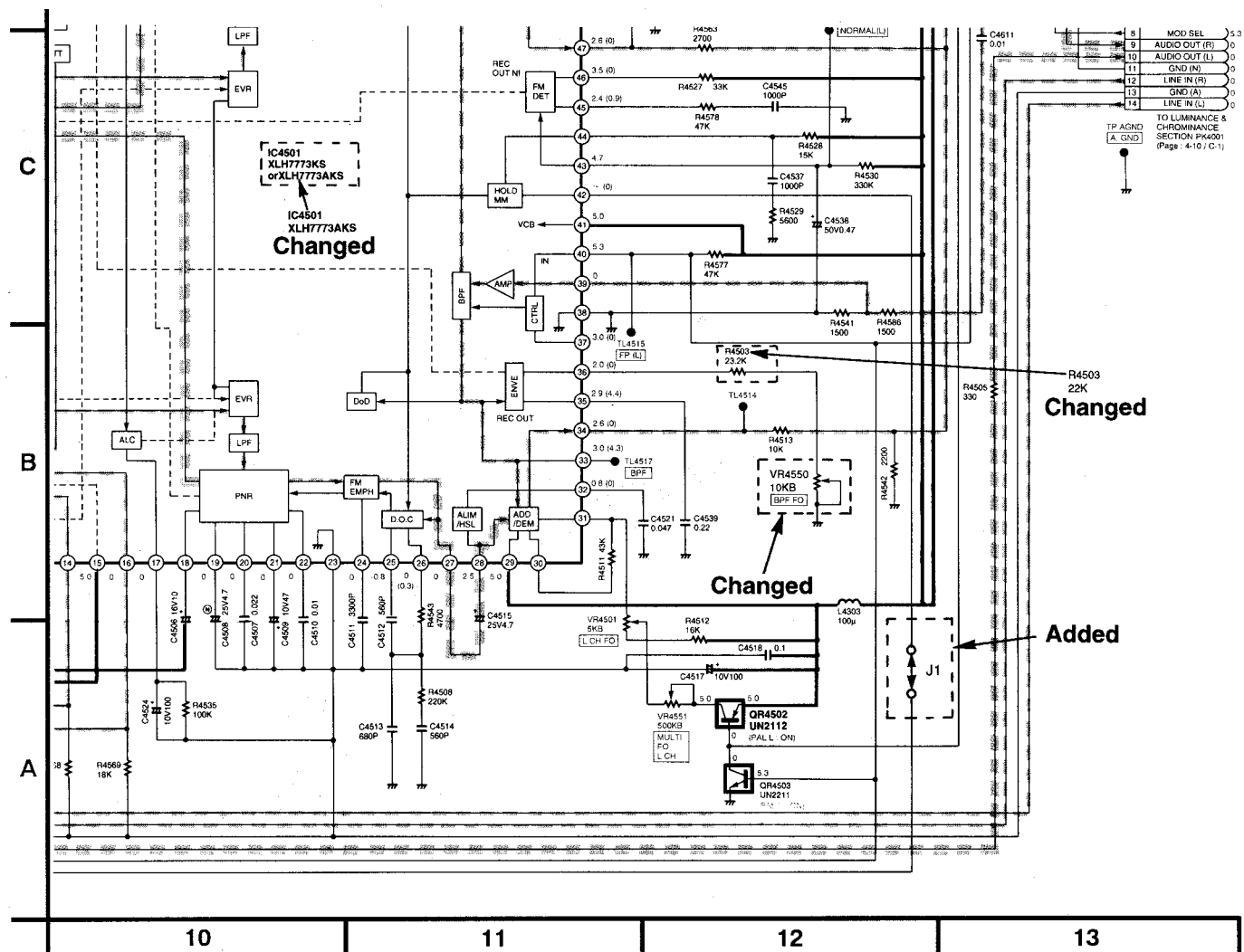
D304
MA165



3-4. POWER SCHEMATIC DIAGRAM



3-6. Hi-Fi ECHO PACK SCHEMATIC DIAGRAM



3-7. HEAD AMP SCHEMATIC DIAGRAM

