

Service Manual



TV / VCR Combination

TC-14SV10S

TV : MX-3V Chassis

VCR : K-Mechanism

VHS PAL
NTSC PLAYBACK

Specifications

Power Source : AC 110 - 220V, 50/60Hz

Power Consumption : 90W (Max.)
Stand-by condition
41W (VCR REC)
5W (VCR STOP)

Aerial Impedance : 75 Ω unbalanced,
Coaxial type

Receiving System : 7 Systems
PAL-B/G
PAL-D, K
NTSC 4.43
AV NTSC 3.58
SECAM D/K
SECAM B/G
PAL 60Hz

Tuning System : Frequency Synthesizer
60 position (Auto Search)

Receiving Channels :

VHF Band	1 - 12	(PAL - D)
UHF Band	21 - 69	(PAL - I)
	13 - 57	(PAL - D, K)
CATV	S1 - S20	(OSCAR)
	S21 - S41	(HYPER)
	Z1 - Z37	(CHINA)

Intermediate Frequency :

Video	38.0 MHz	
Sound	31.5 MHz	(D, K)
	32.0 MHz	(I)
Colour	33.57 MHz	(PAL)

Video / Audio Terminals :

AV IN	Video (Phono)	1 Vp-p 75 Ω
	Audio (Phono)	Approx. 400mV
VCR OUT	Video (Phono)	1 Vp-p 75 Ω
	Audio (Phono)	Approx. 400mV

High Voltage : 24.5 (+0.7, -1.5)kV
at zero beam current

Picture Tube : 37GDC85X
Type 14 (36cm)
90° deflection

Audio Output :
Internal Speaker 3.0 W (Max.)
Impedance 8 Ω

Speaker : 1 speaker system

Head Phones : Impedance 8 Ω

Dimensions : Height : 371 mm
Width : 400 mm
Depth : 383.5 mm

Mass : 14.0 kg (Net)

Accessories

Supplied : Remote Controller x 1
(TNQ10481)
" R6 " Battery x 2

Continued to the following page.

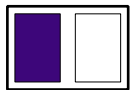
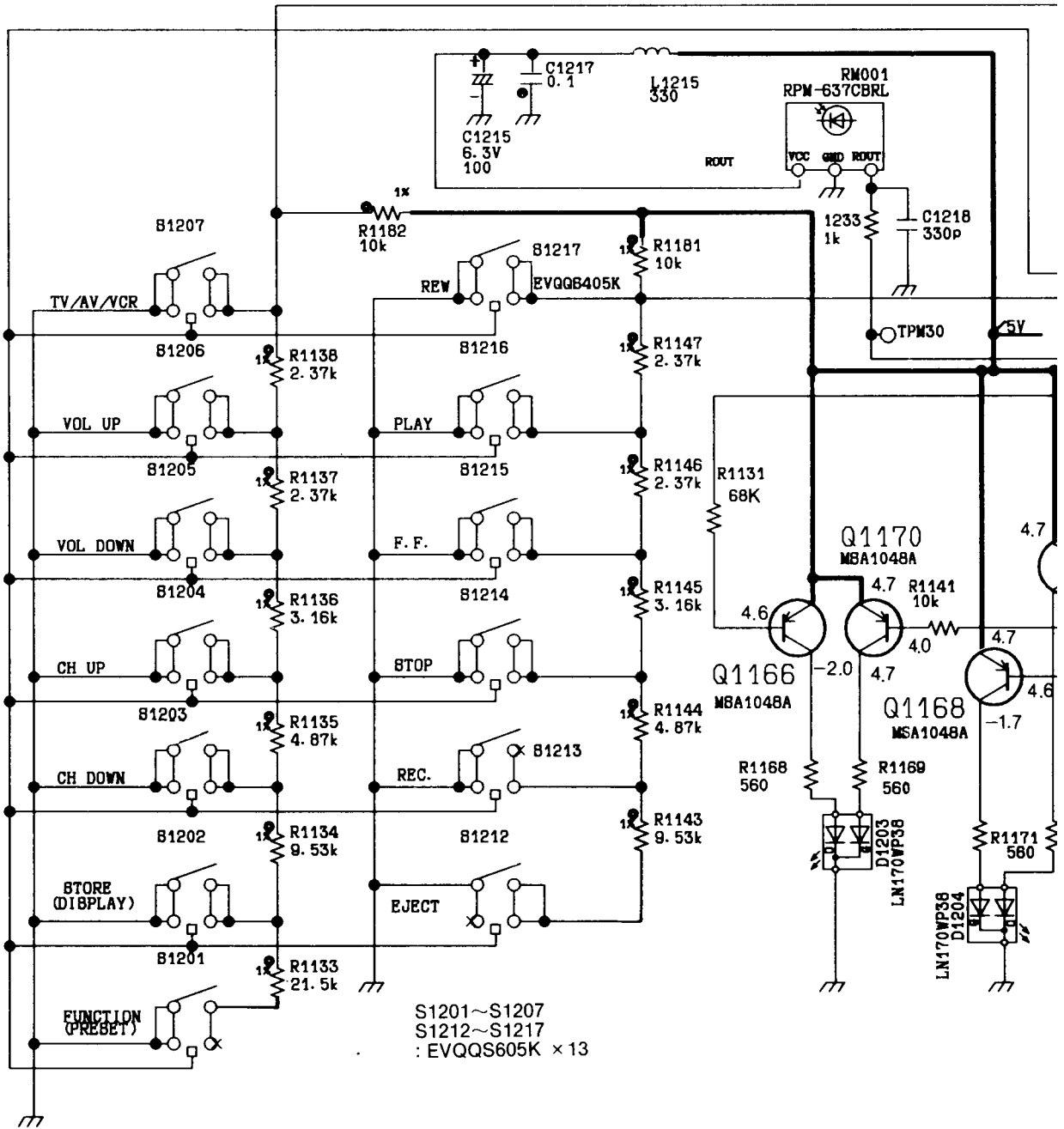
Specifications are subject to change without notice.
Mass and dimensions shown are approximate.

Panasonic

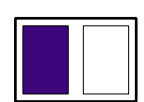
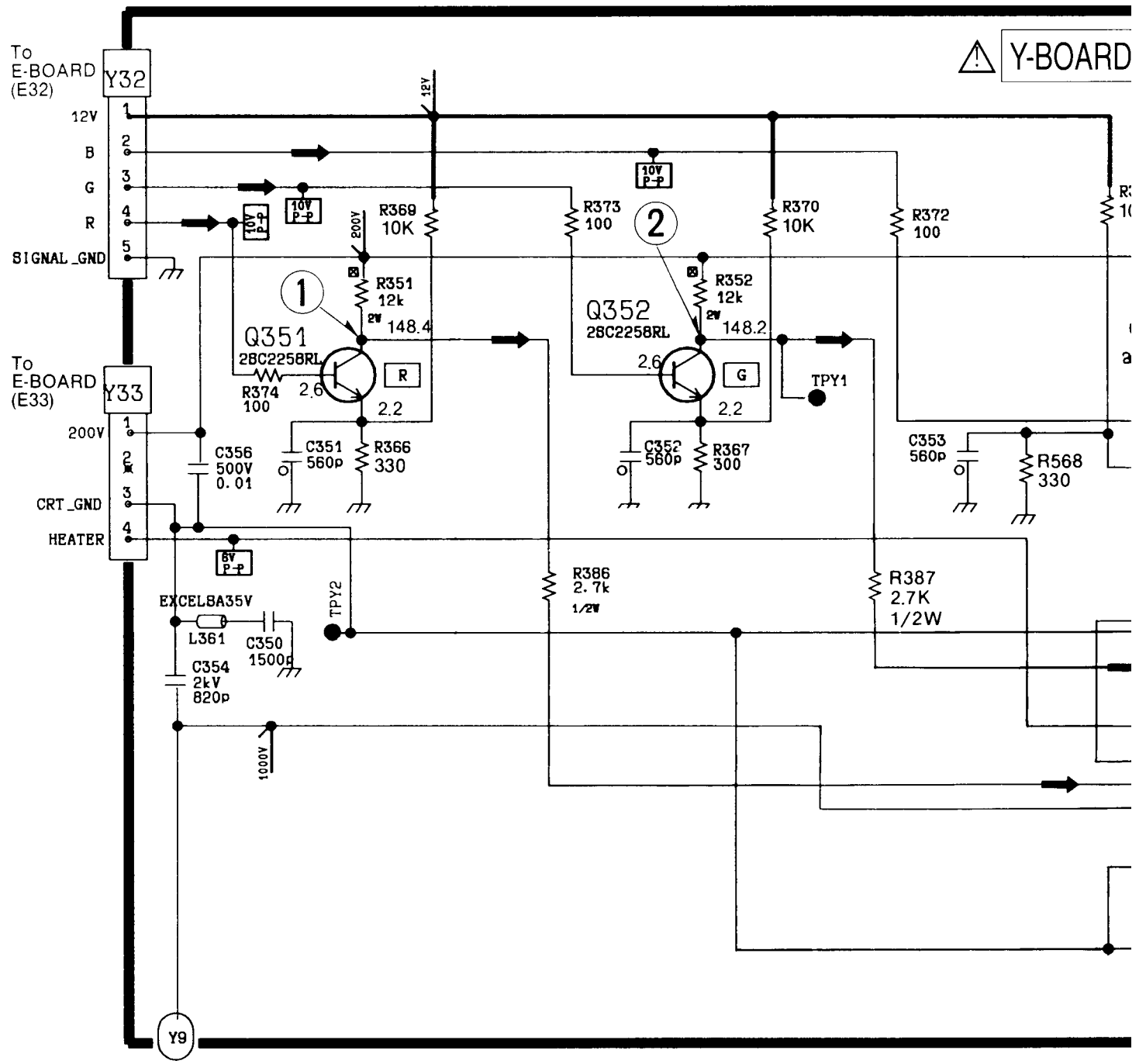
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TV Section

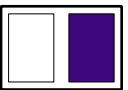
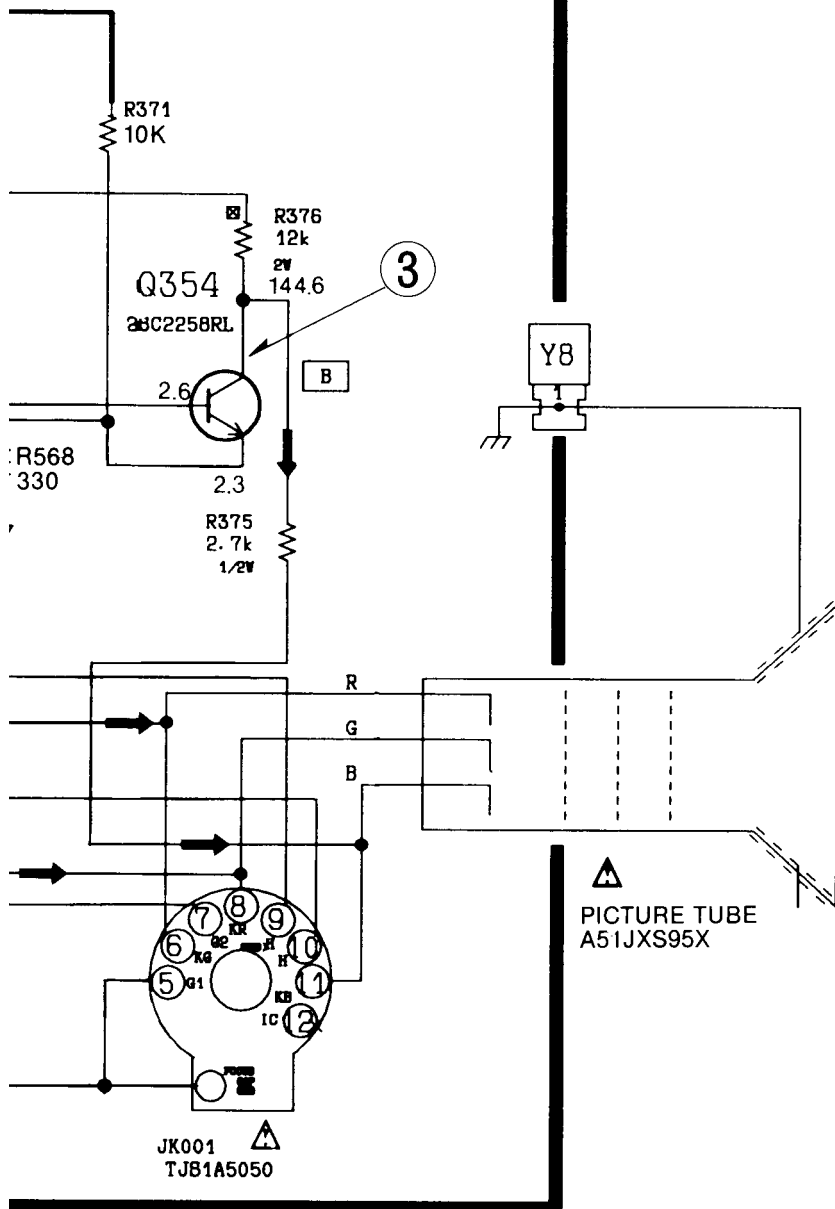
⚠ M-BOARD TNP117060



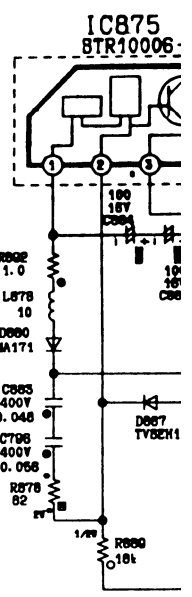
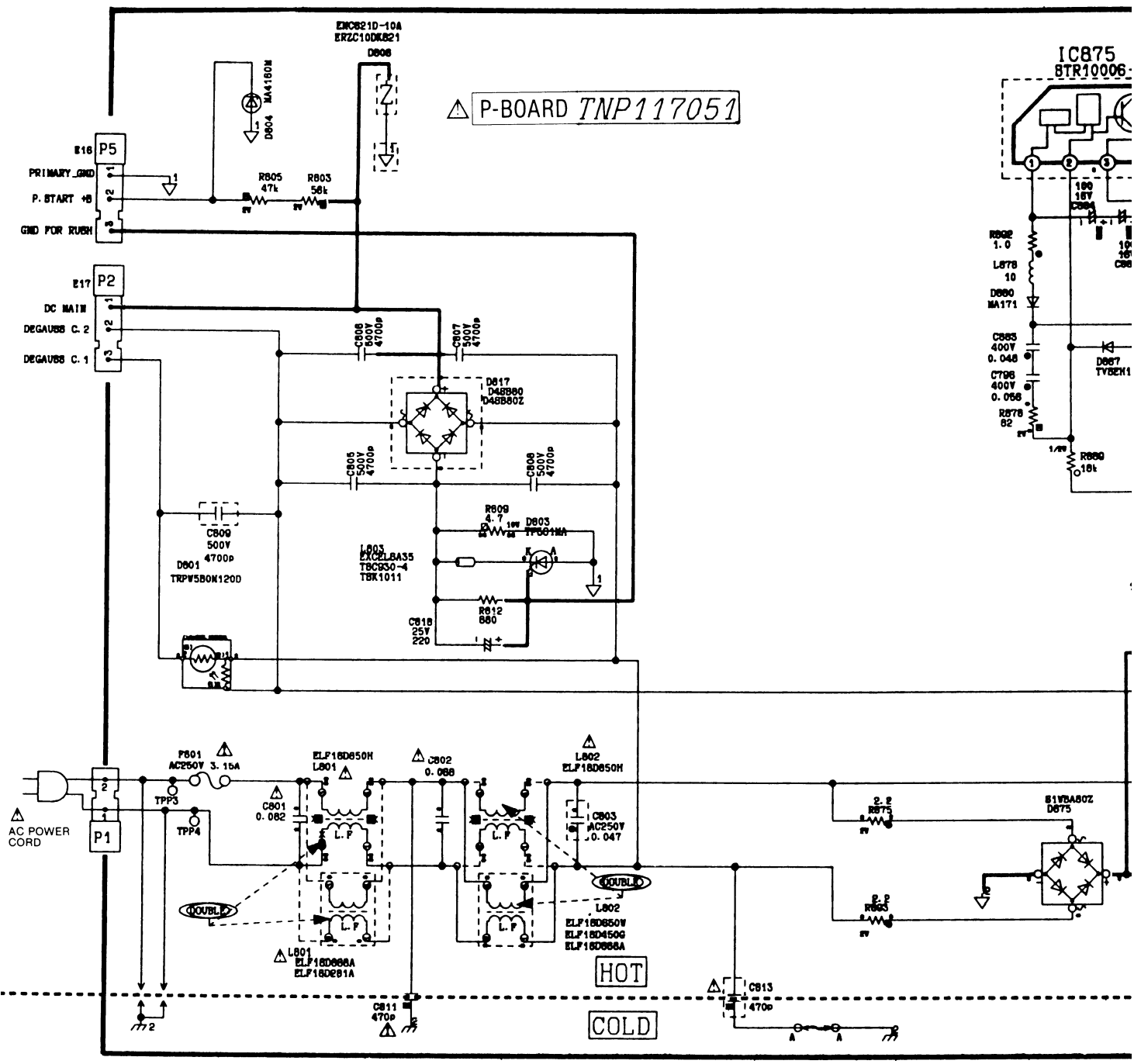
⚠ Y-BOARD



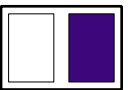
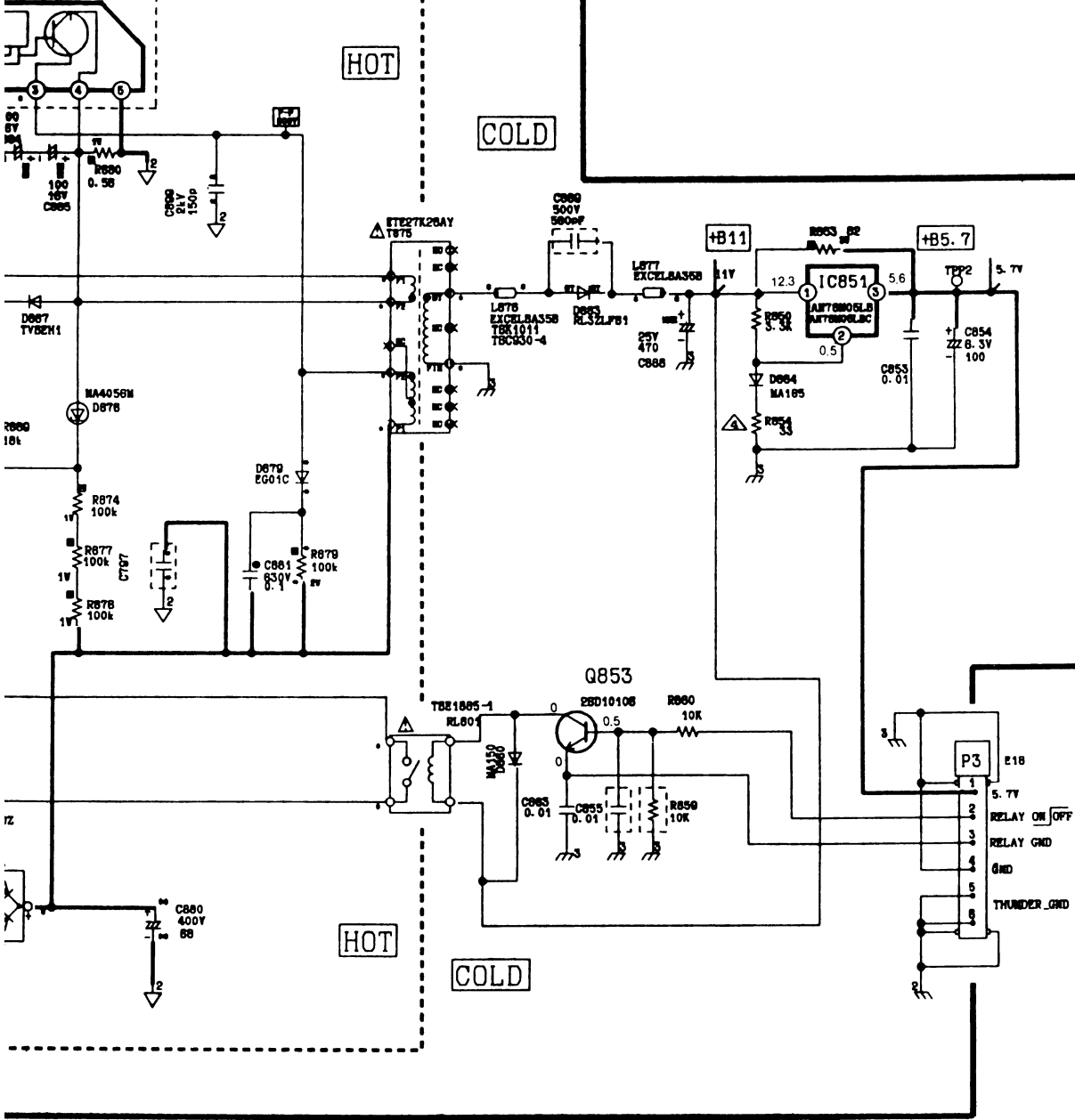
BOARD TNP117066

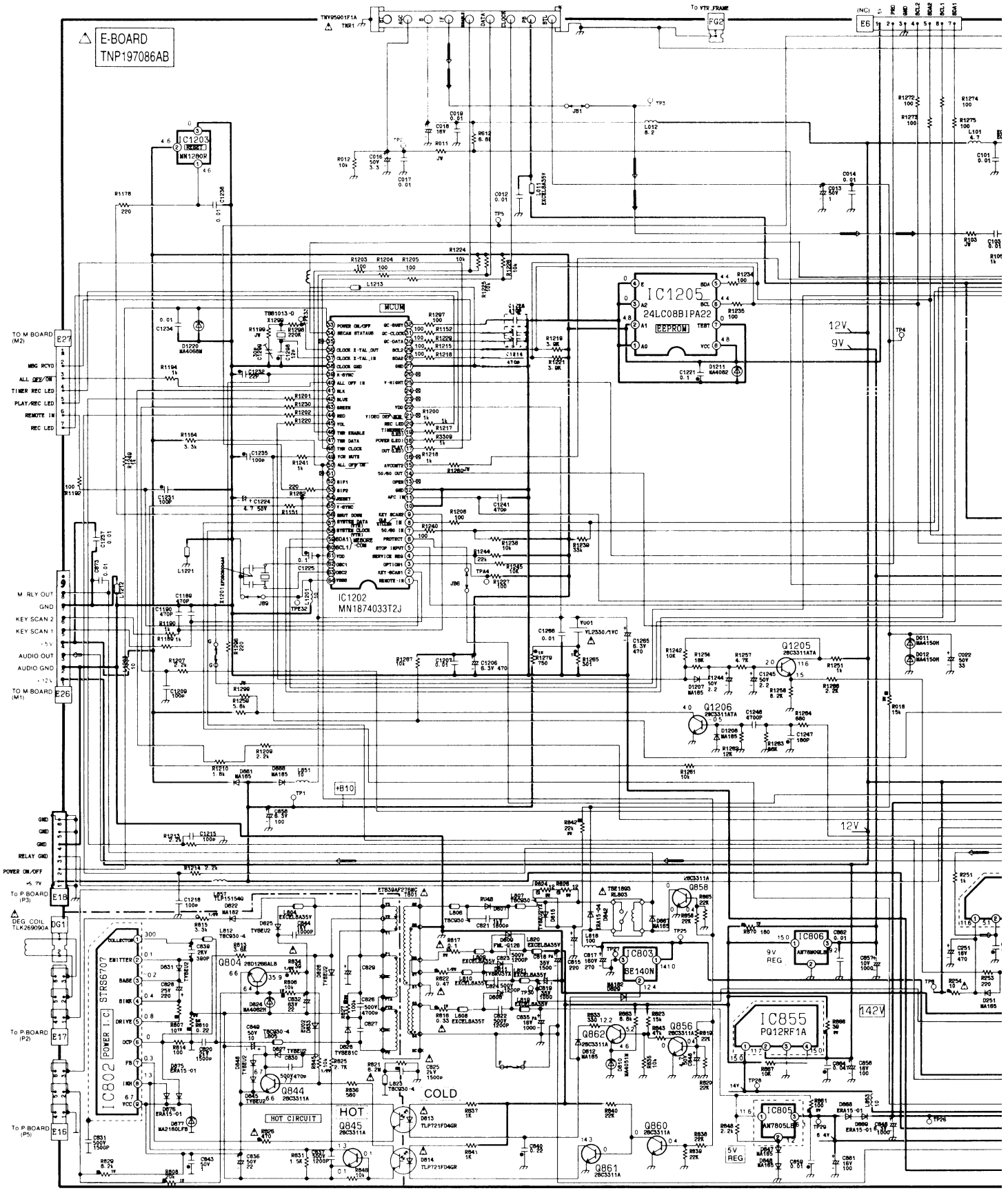


△ P-BOARD TNP117051

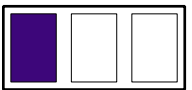
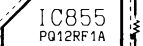
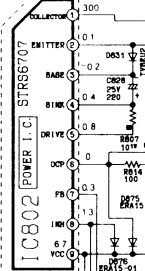
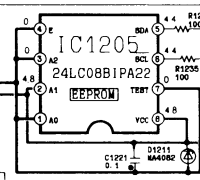


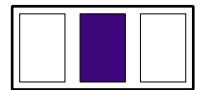
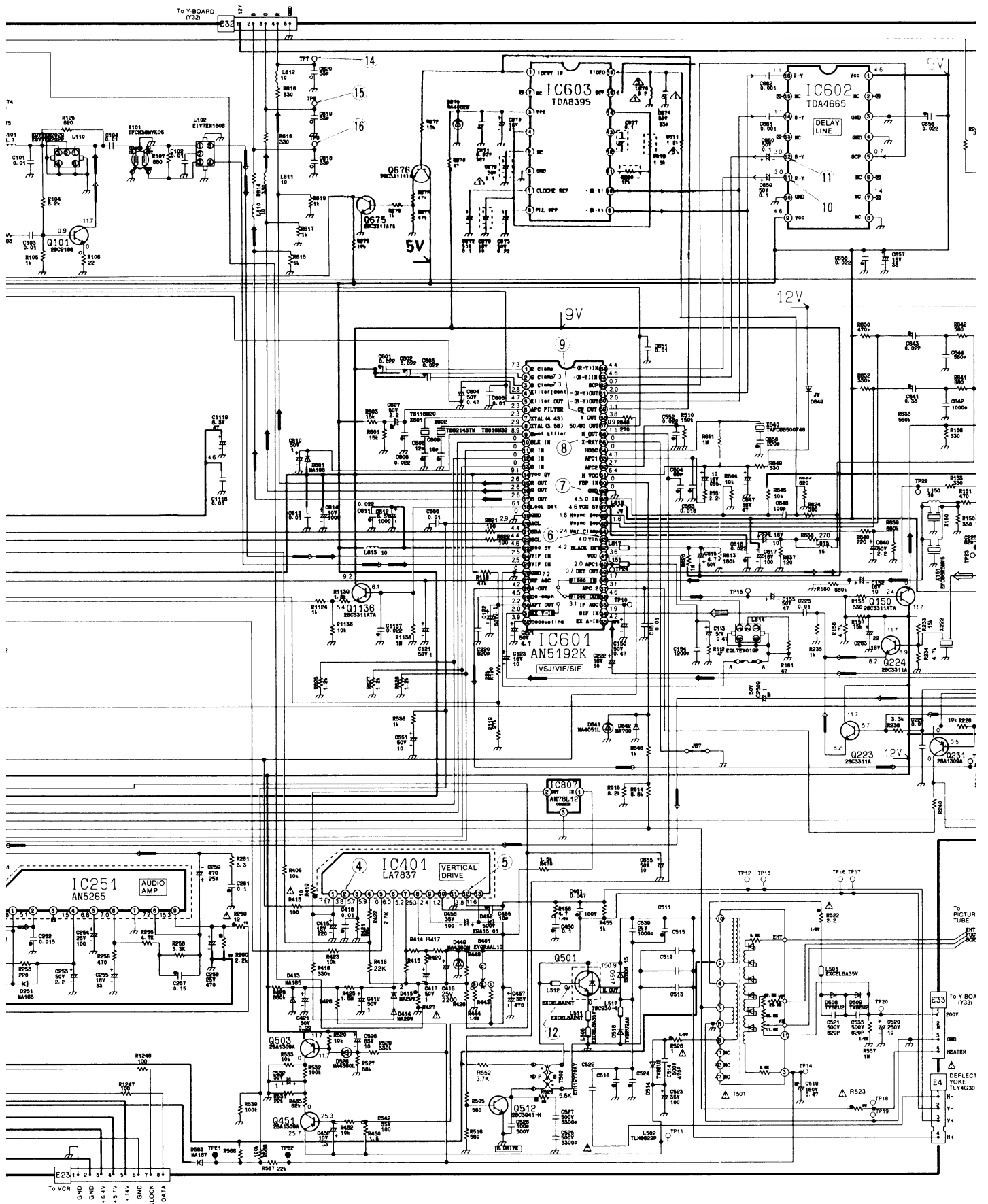
875
10006-M

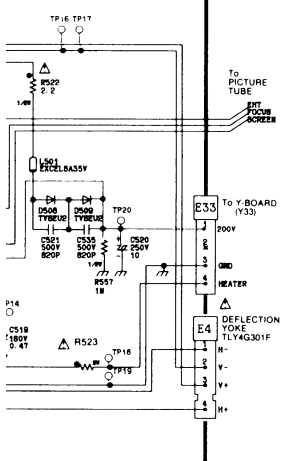
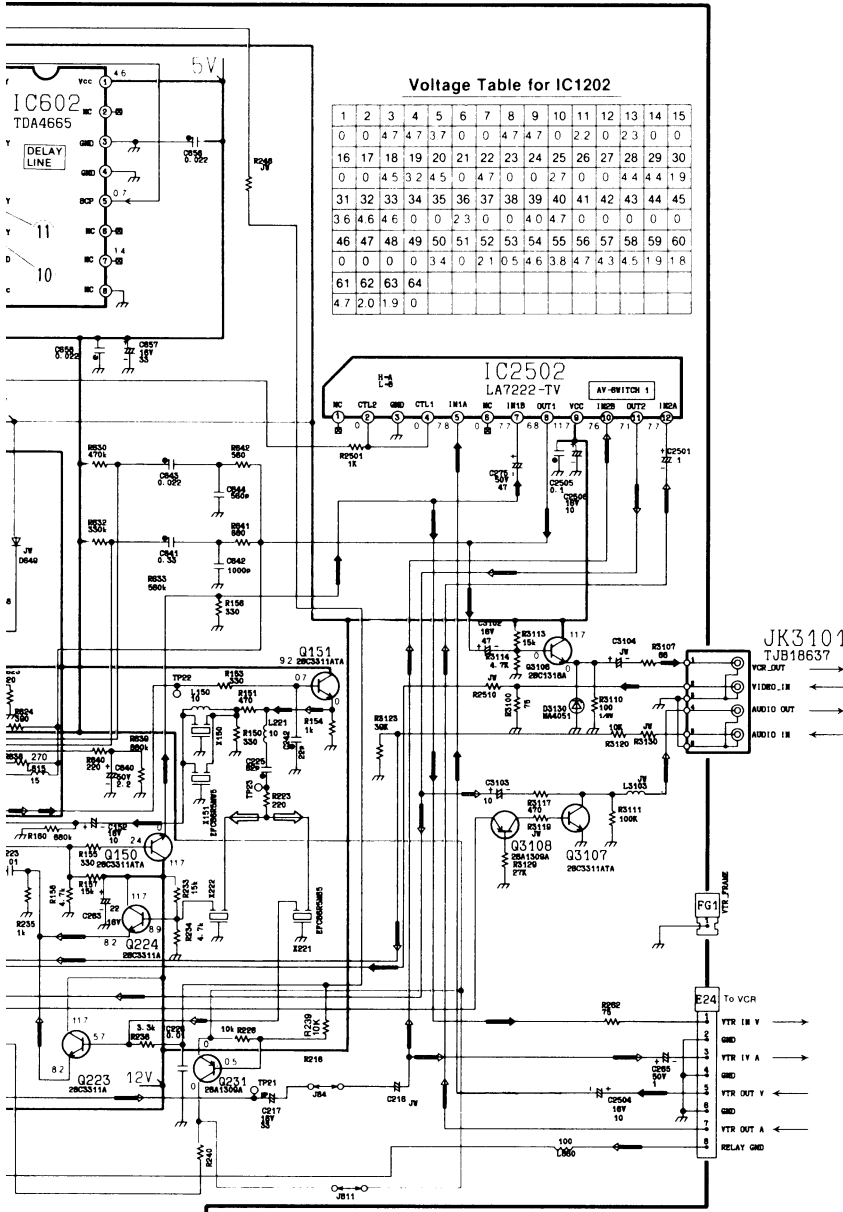




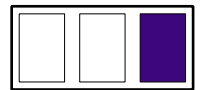
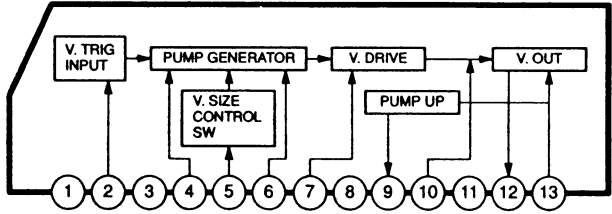
E-BOARD
TNP197086AB



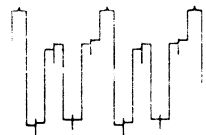
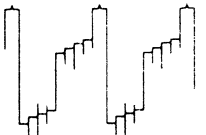
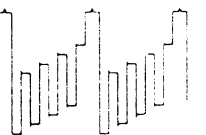
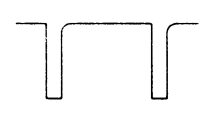

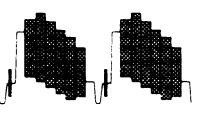
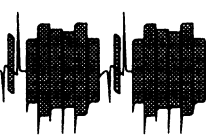
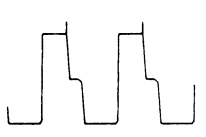
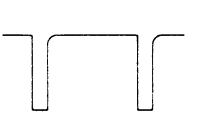


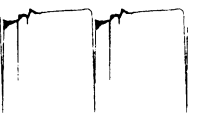
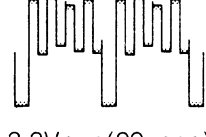






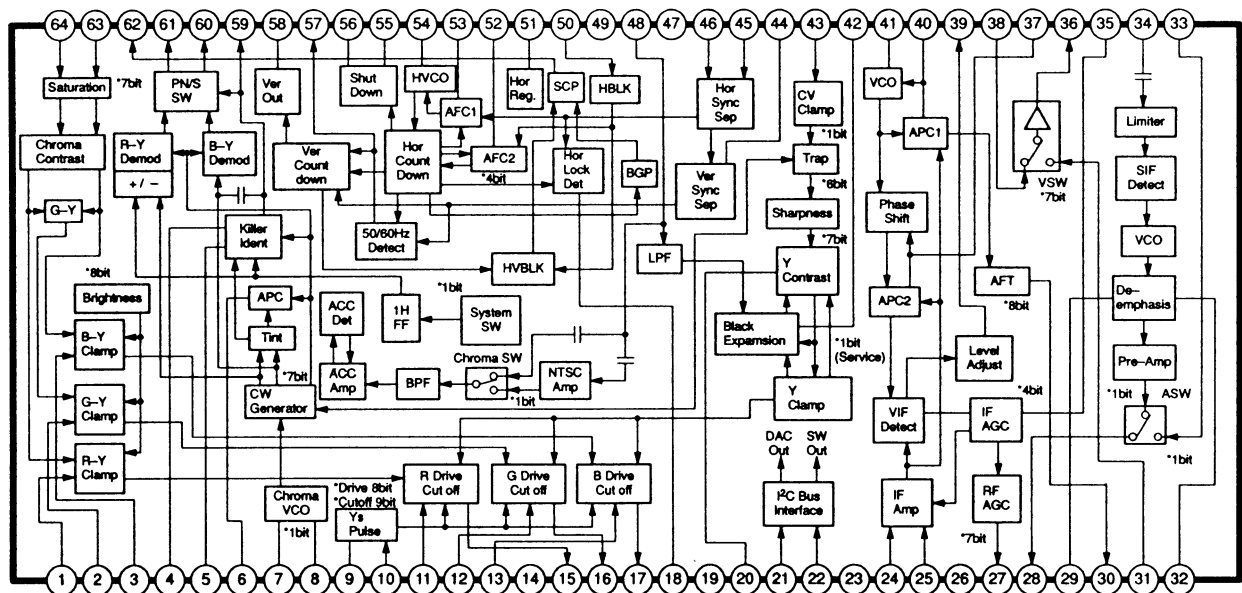
IC451 (VERTICAL DRIVE : LA7837)



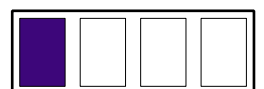
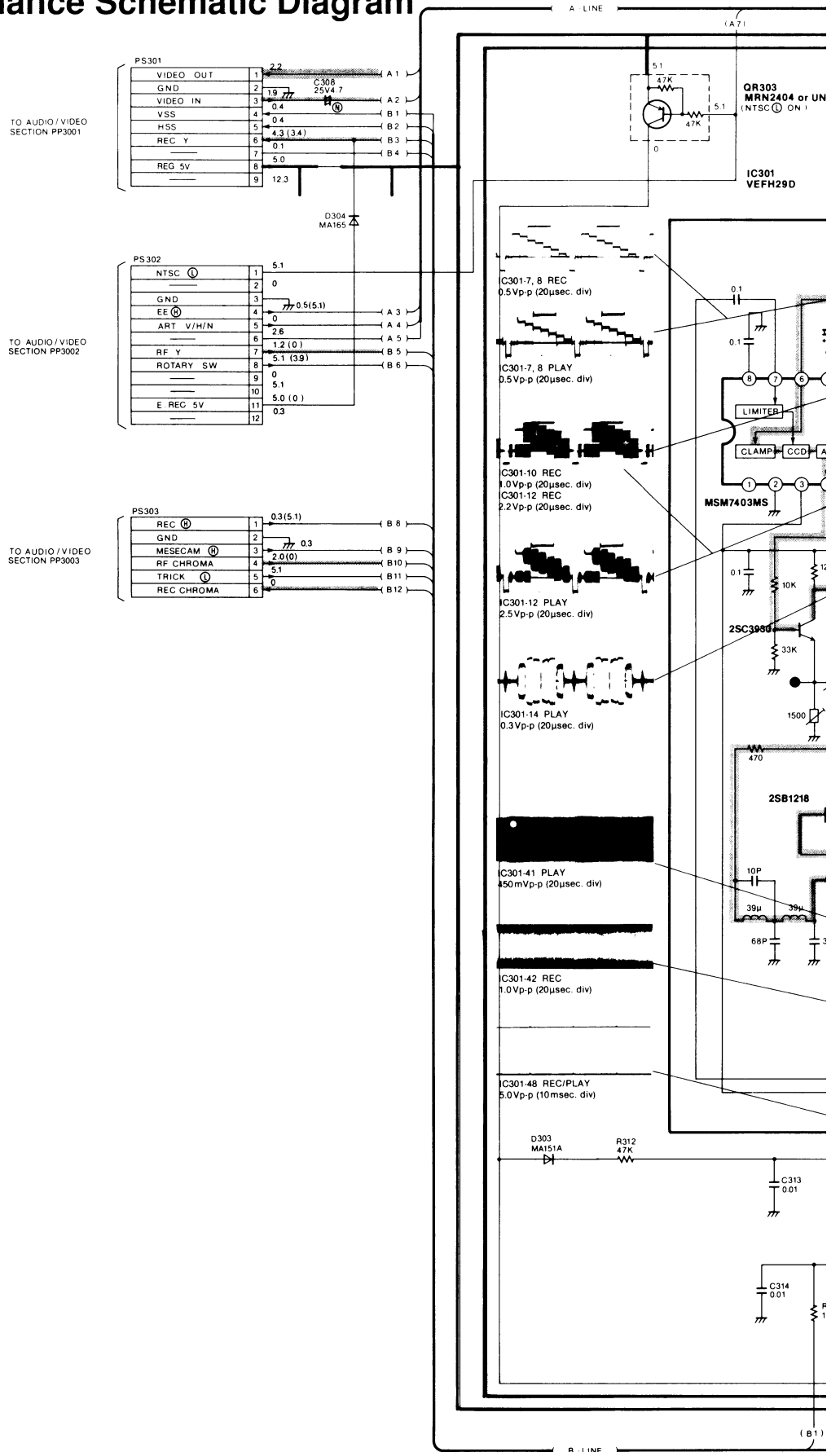
WAVEFORM PATTERN TABLE

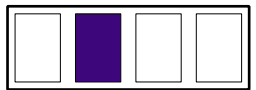
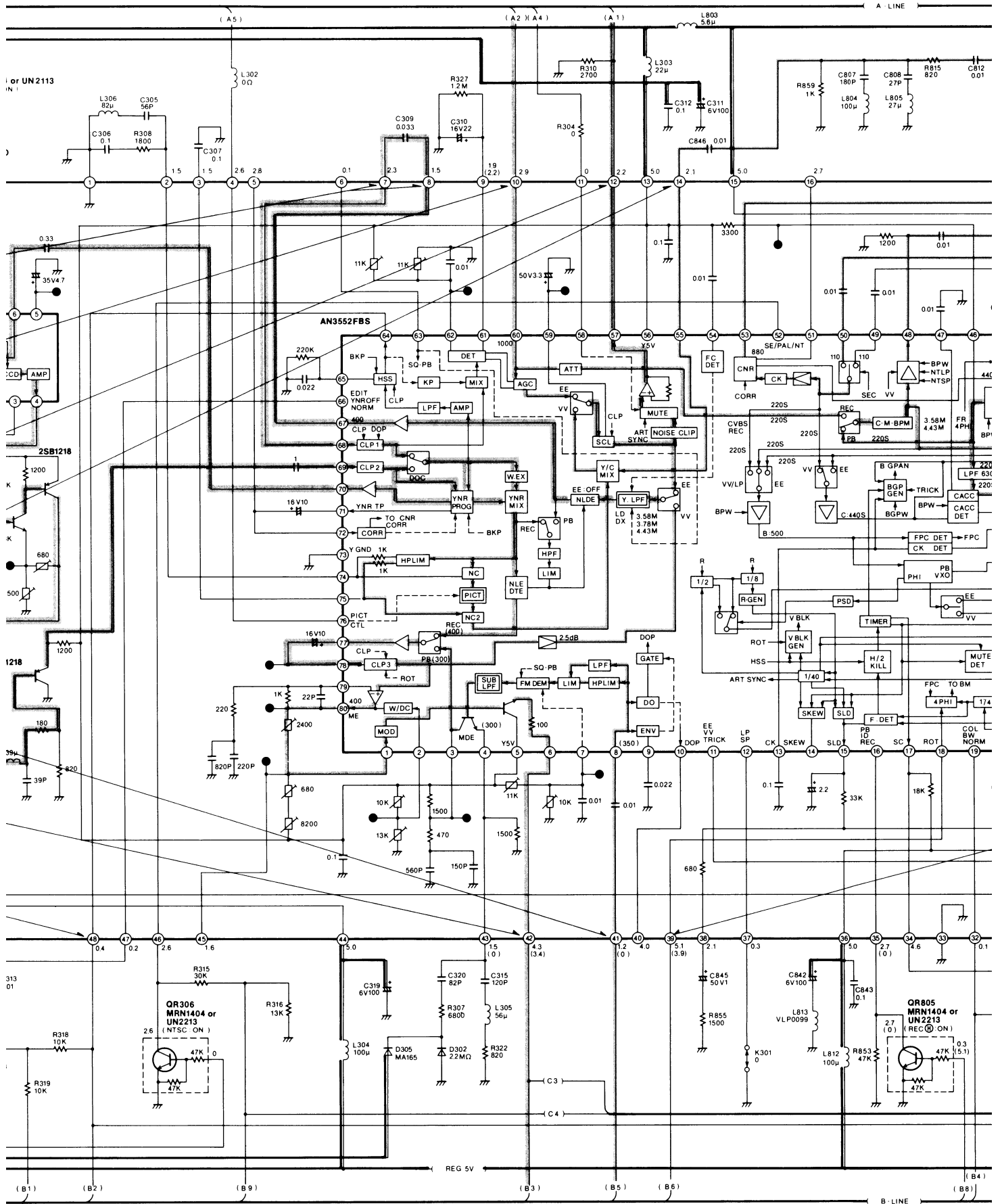
① Q351-C  84.4Vp-p(20μsec)	② Q352-C  90.6Vp-p(20μsec)	③ Q354-C  81.9Vp-p(20μsec)
④ IC401-2  4.4Vp-p(5msec)	⑤ IC401-12  51.9Vp-p(5msec)	⑥ IC601-43  1.5Vp-p(20μsec)
⑦ IC601-48  0.9Vp-p(20μsec)	⑧ IC601-56  3.7Vp-p(20μsec)	⑨ IC601-58  4.7Vp-p(5msec)
⑩ IC602-11  1.2Vp-p(20μsec)	⑪ IC602-12  1.7Vp-p(20μsec)	⑫ Q501-B  15.2Vp-p(20μsec)
⑬ TP9  3.3Vp-p(20μsec)	⑭ TP7  3.6Vp-p(5msec)	⑮ TP8  3.8Vp-p(20μsec)

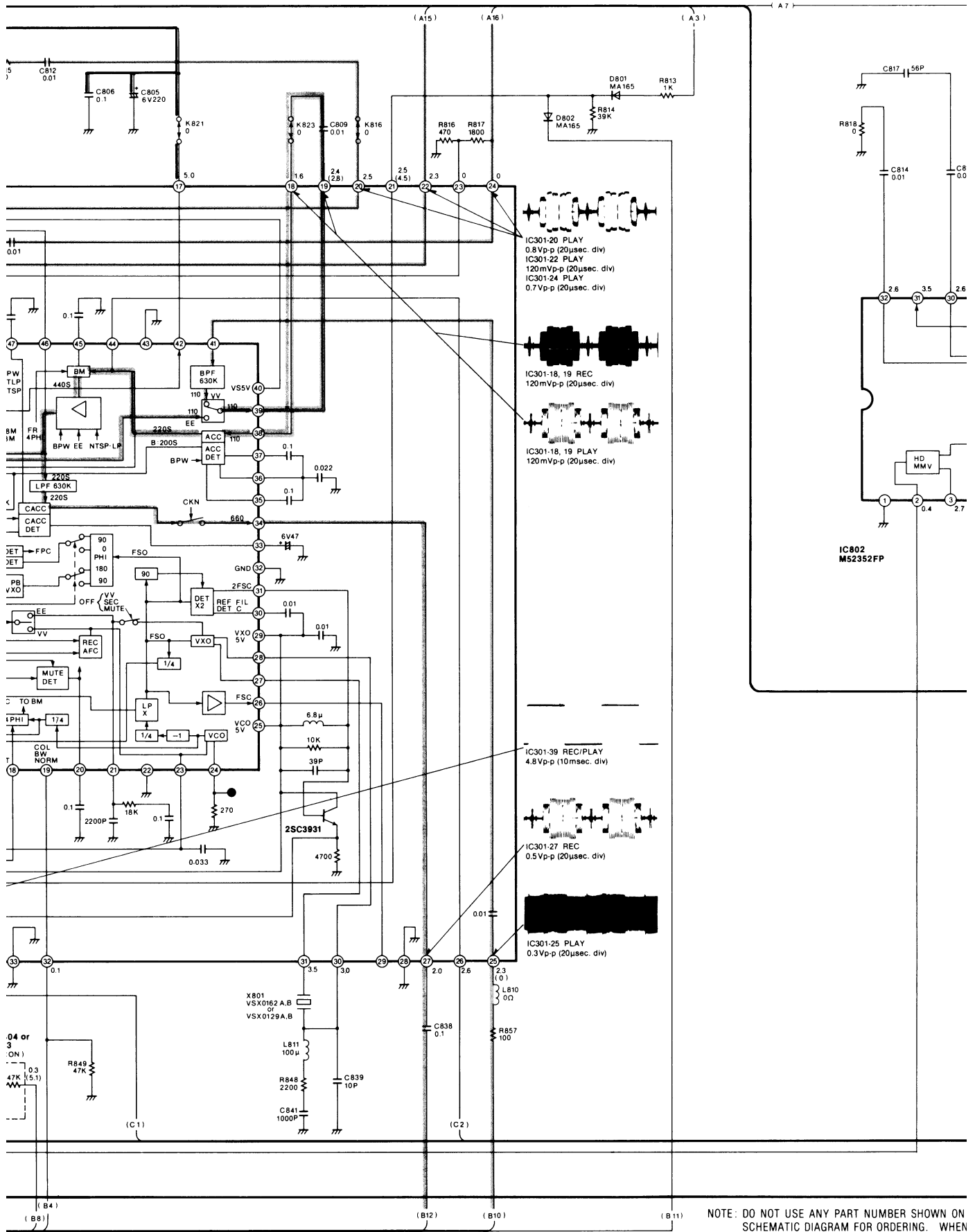
IC601 (VJC / VIF / SIF : AN5192K)



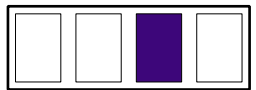
VCR Section Luminance & Chrominance Schematic Diagram





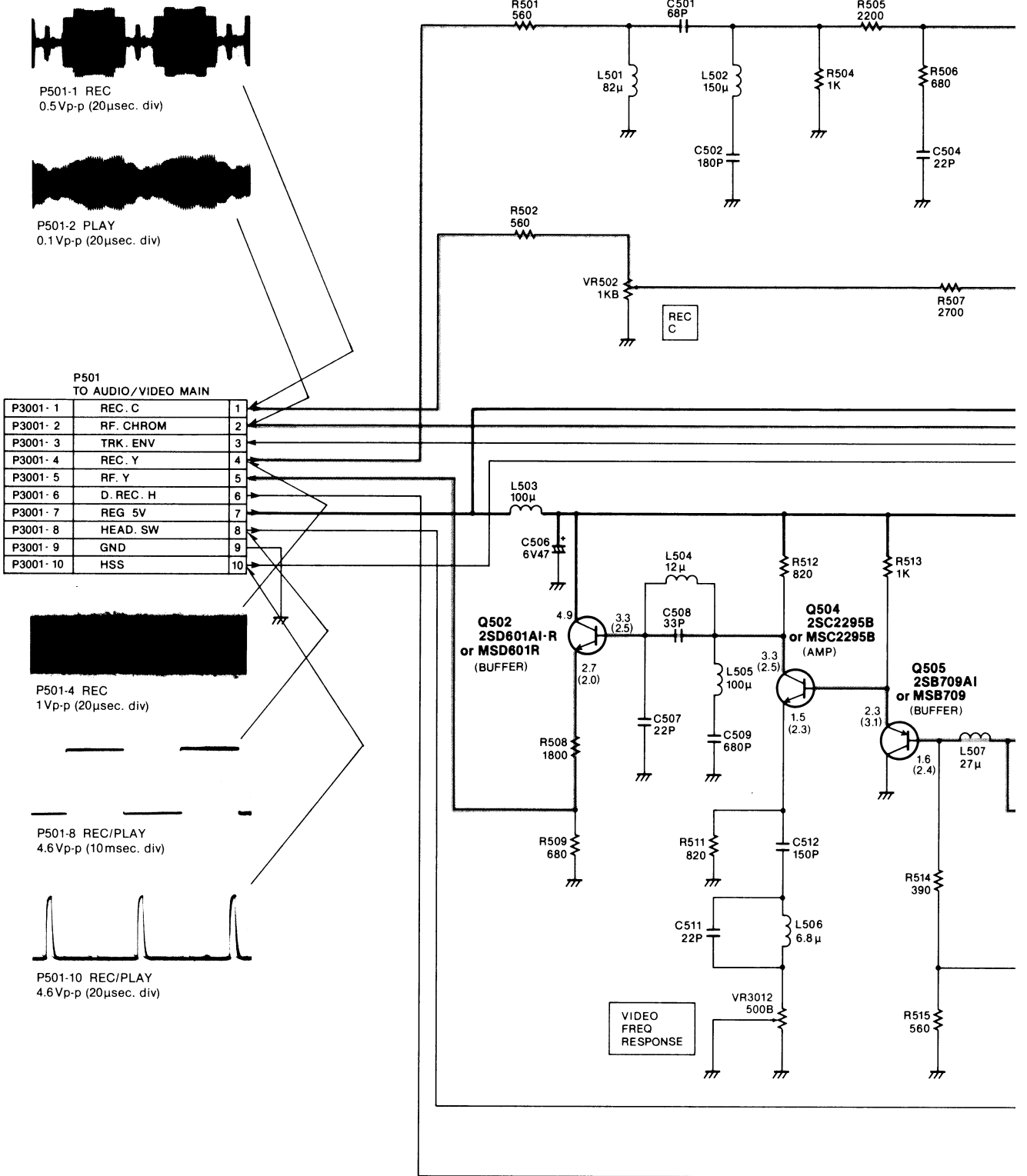


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON SCHEMATIC DIAGRAM FOR ORDERING. WHEN ORDER A PART, PLEASE REFER TO PARTS LIST



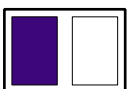
Head Amp Schematic Diagram

MA



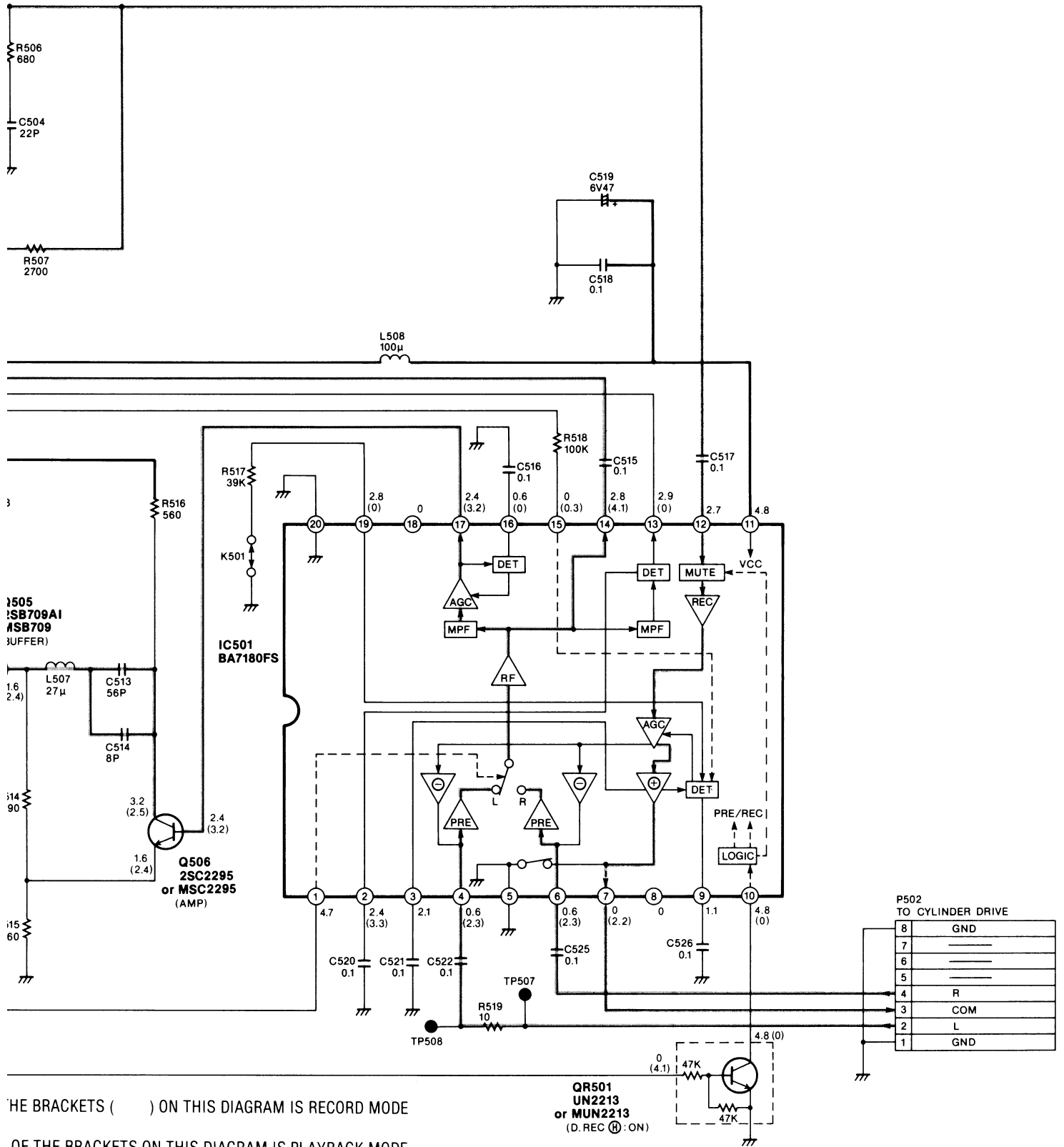
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKET WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRAC WITH PAL COLOUR SIGNAL.



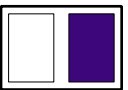
MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE



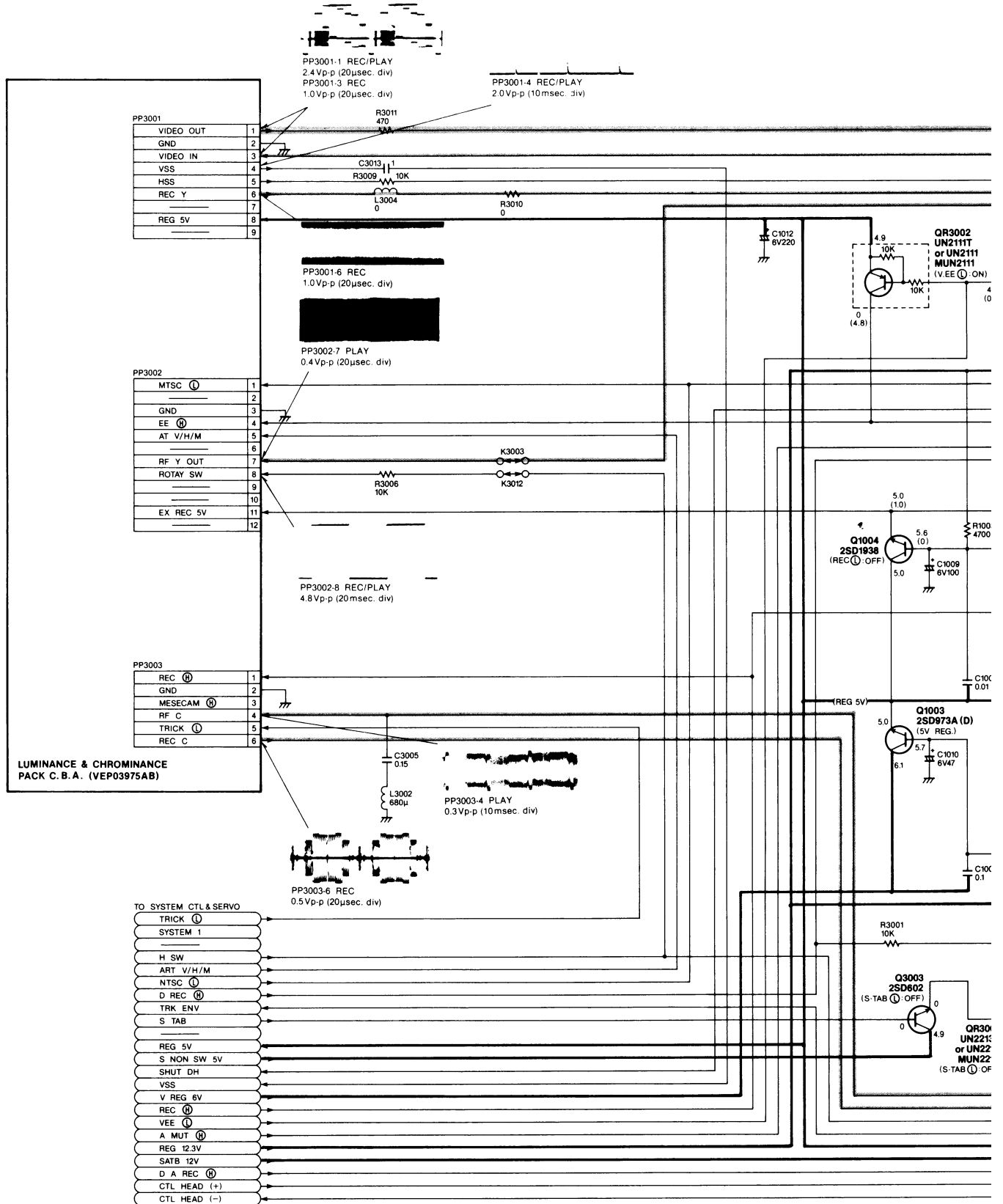
THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE

OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE



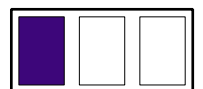
Audio & Video Schematic Diagram

F
E
D
C
B
A



NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTA WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTA WITH PAL COLOUR SIGNAL.

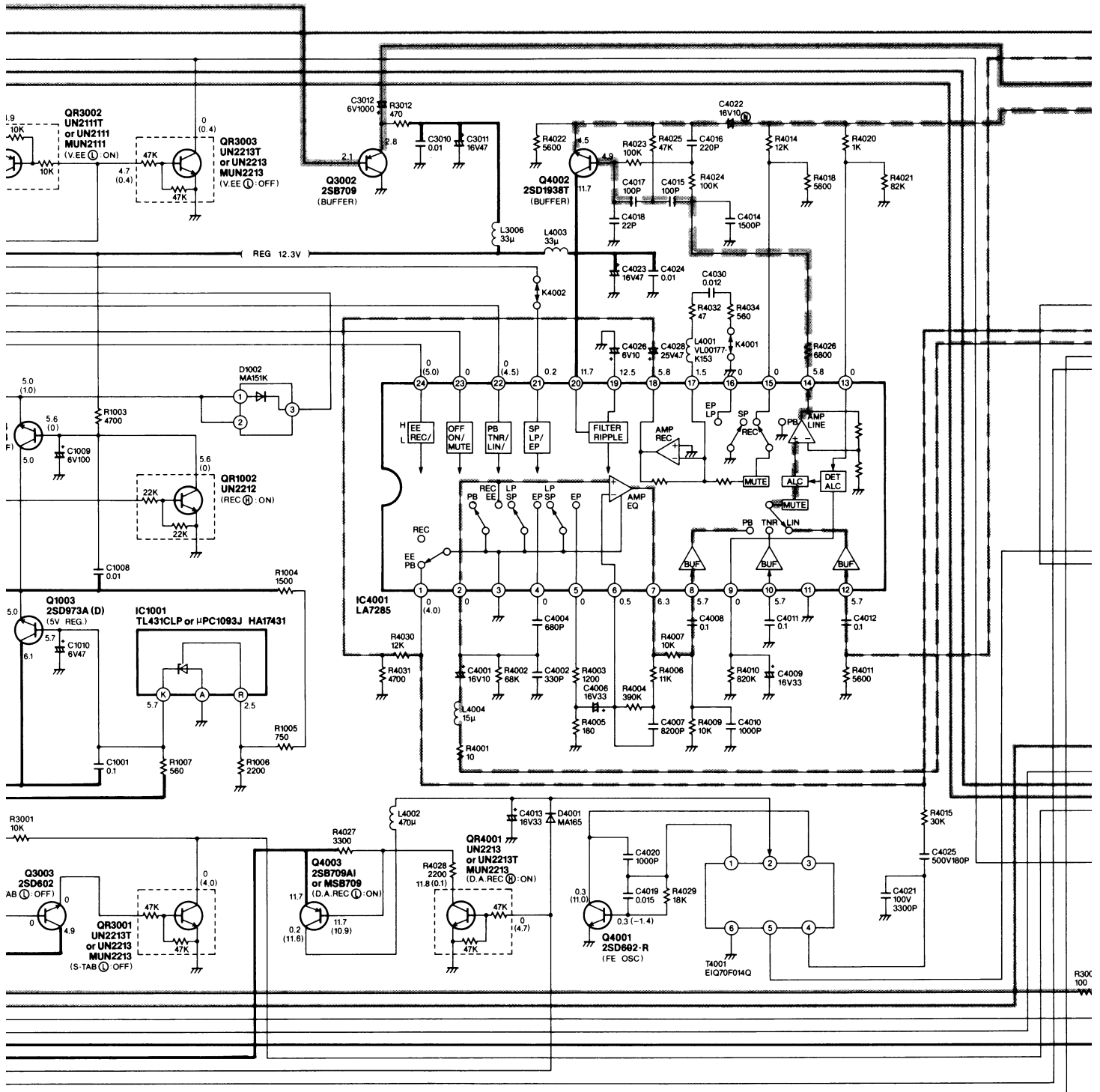


VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

AUI

AUI

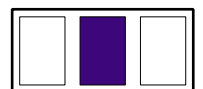


IDE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE

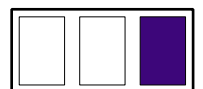
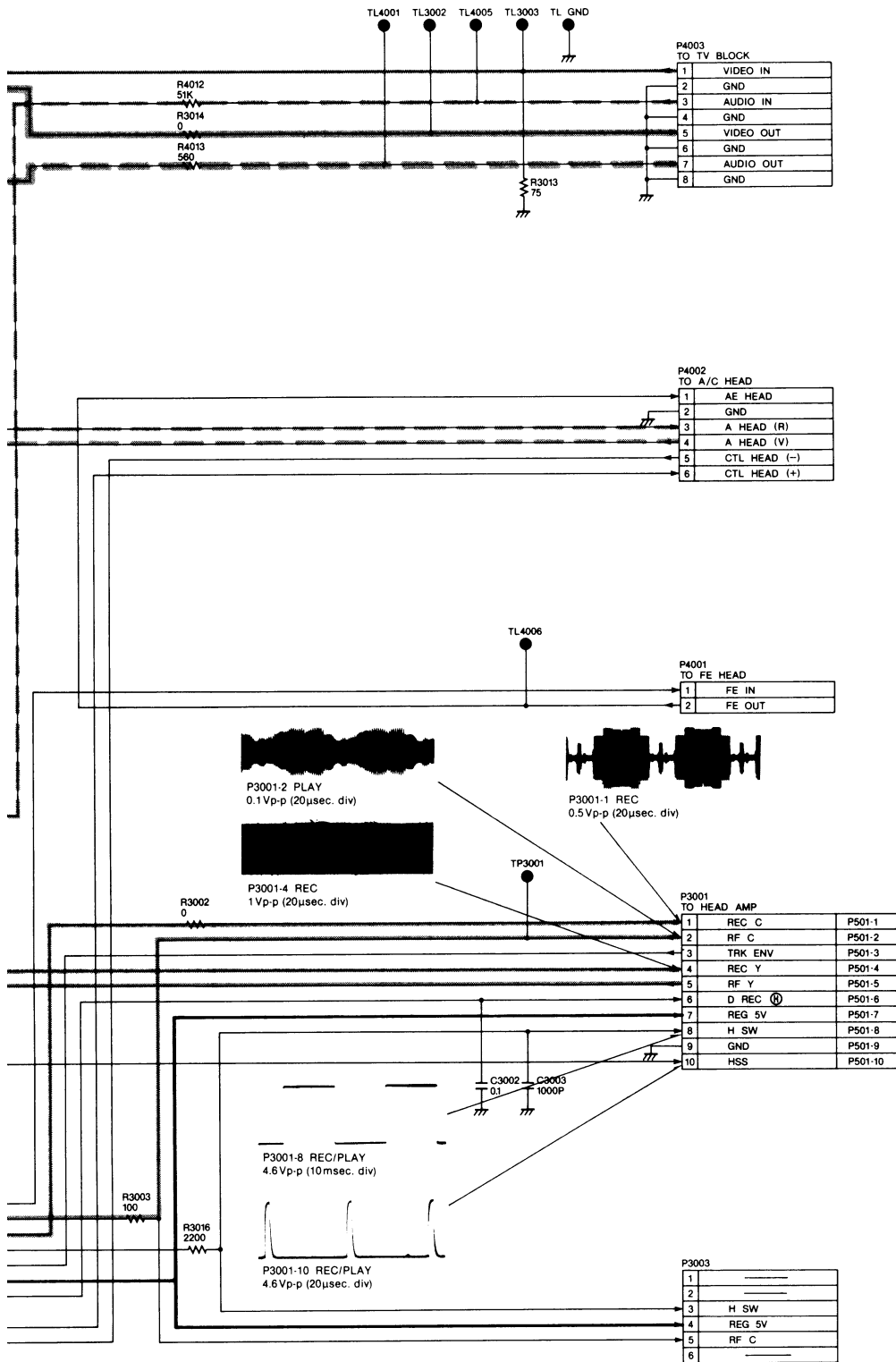
JAL.

IDE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

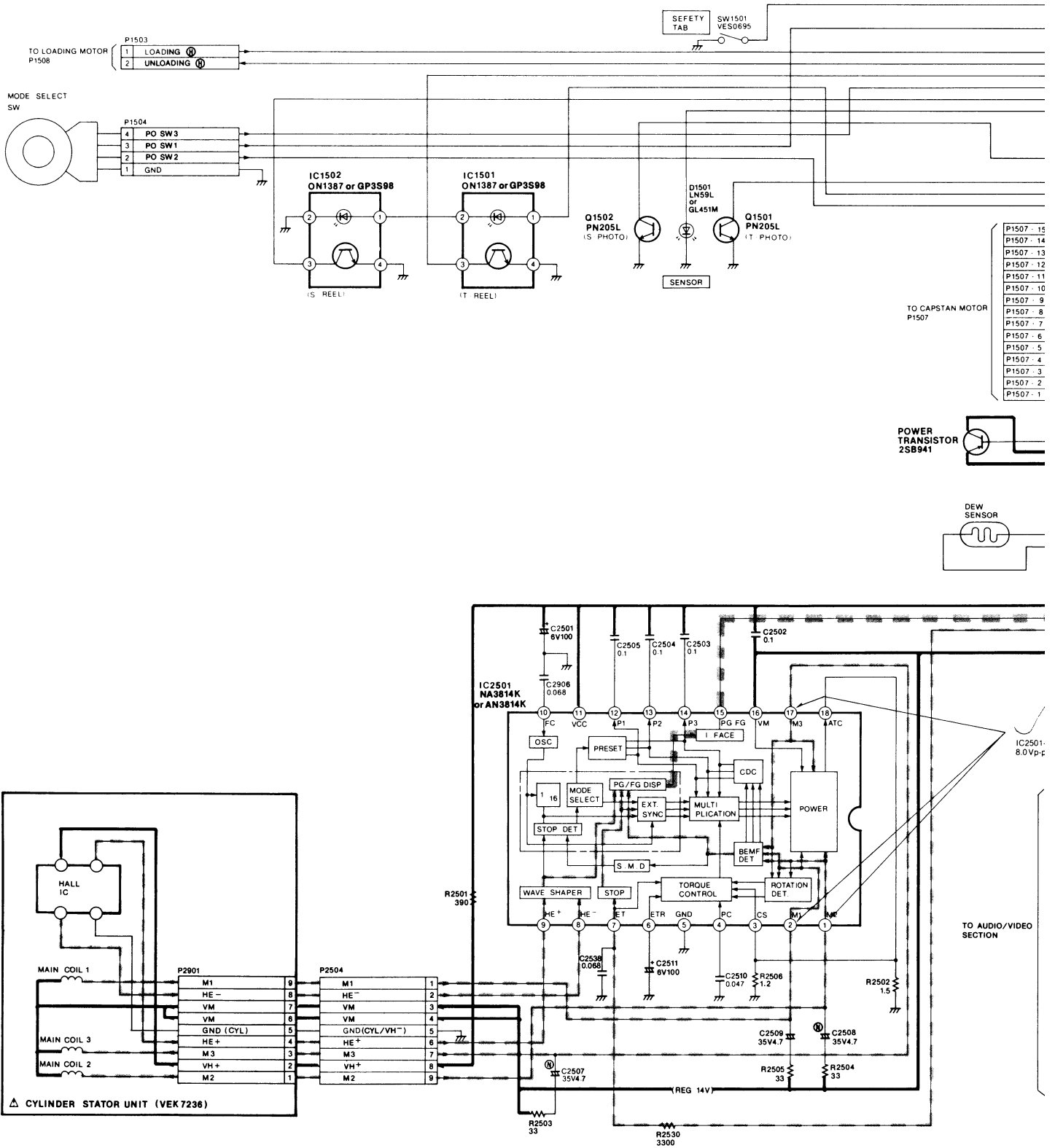
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AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

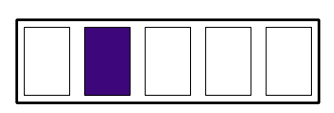
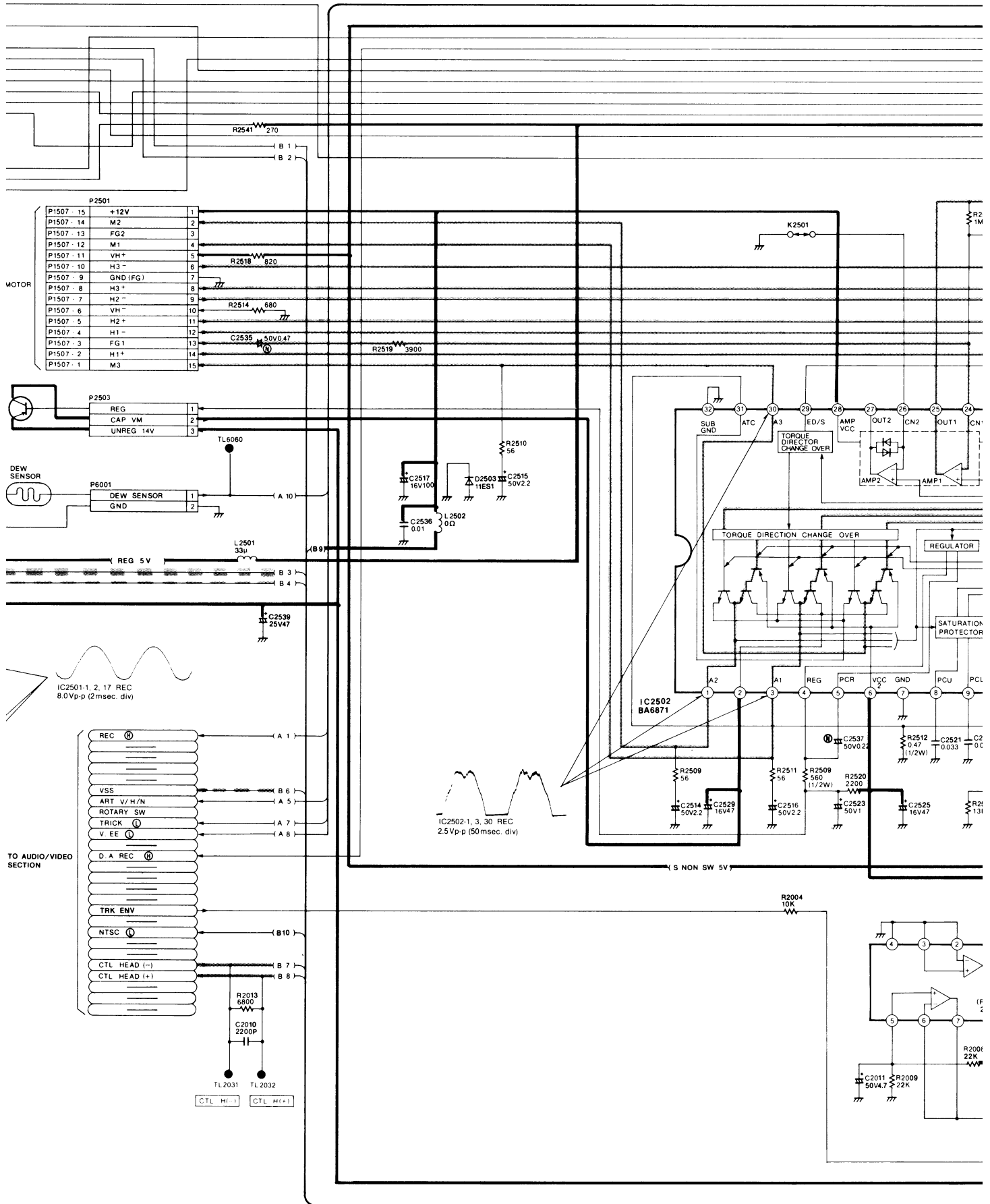


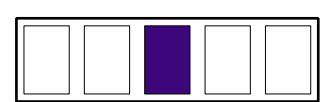
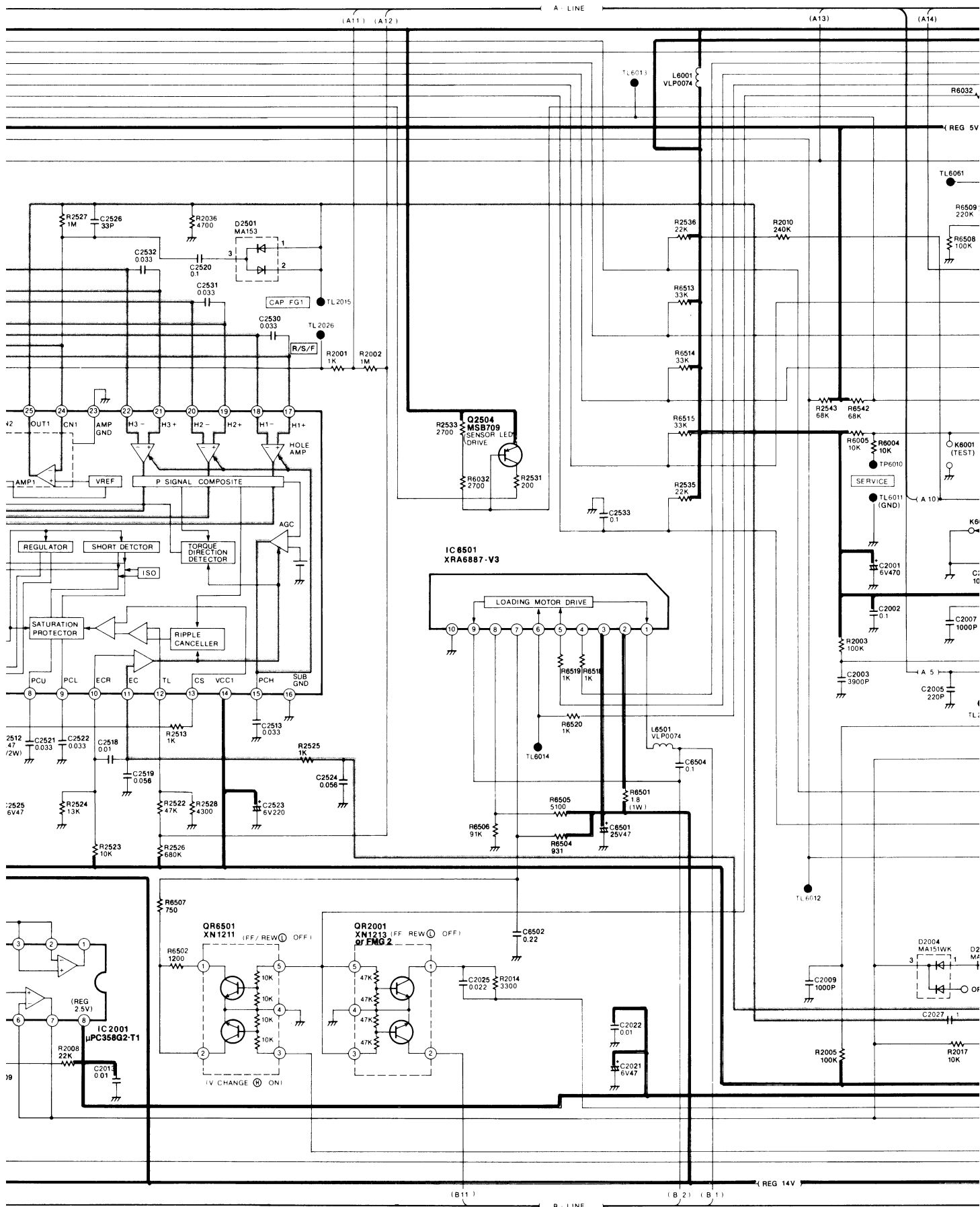
System Control & Servo Schematic Diagram



IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

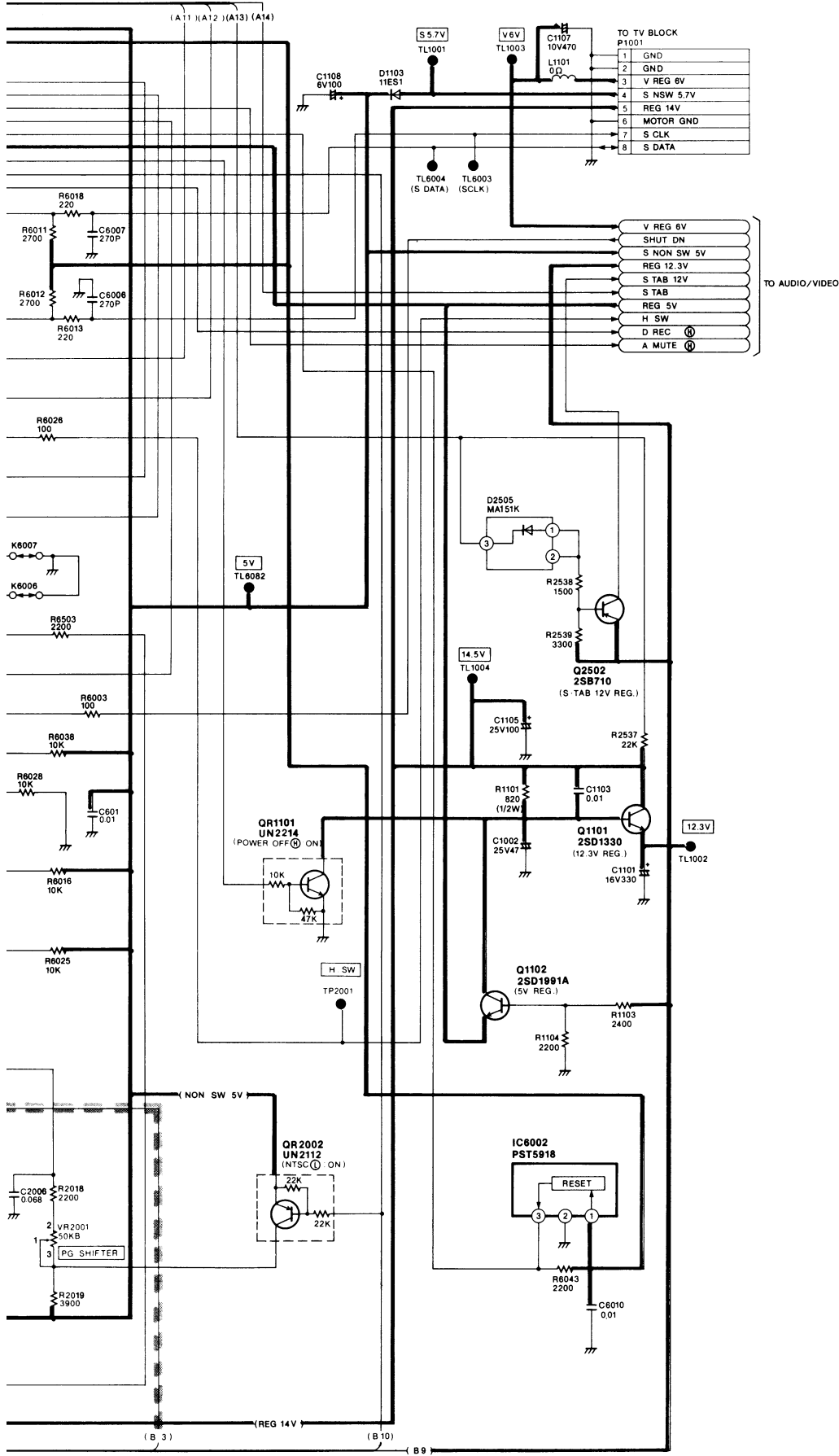






SERVO SPEED LOOP

CYLINDER SERVO PHASE LOOP



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