

Con Birr

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VRC 840
BLG 840
NG 840



Service Schaltbilder
Circuit diagrams

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920 880

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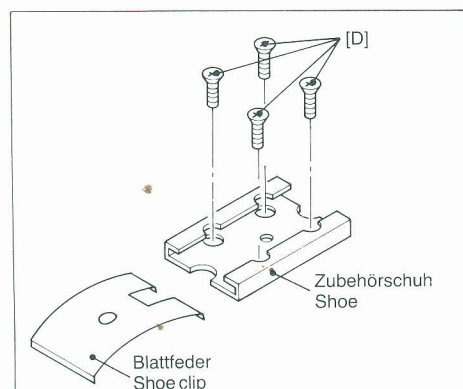
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Ausbauhinweise

1. Gehäuse

- a) Zuerst die Blattfeder im Zubehörschuh anheben und herausziehen. 4 Schrauben [D] lösen und Zubehörschuh abnehmen.
- b) Deckplatte an den Punkten [E] anheben, um die Rastnasen zu lockern und dann in Pfeilrichtung [F] abziehen.



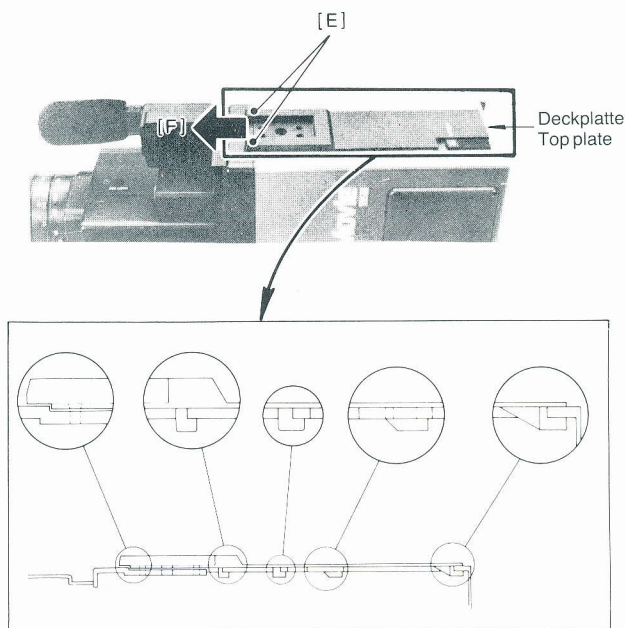
2. Gehäuse

2 Schrauben [G] und 4 Schrauben [H] herausdrehen, um die obere Gehäusehälfte von der unteren zu lösen.

Disassembly

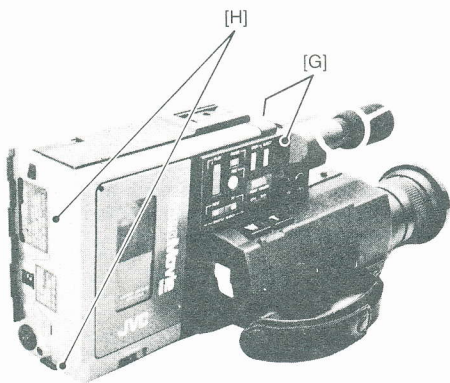
1. Top plate

- a) First remove the shoe clip by raising the part upwards and pulling it to the front. Then remove the 4 screws [D].
- b) Raise the two parts [E] of the top plate to unfasten its claws and then slide it in the direction of [F]:



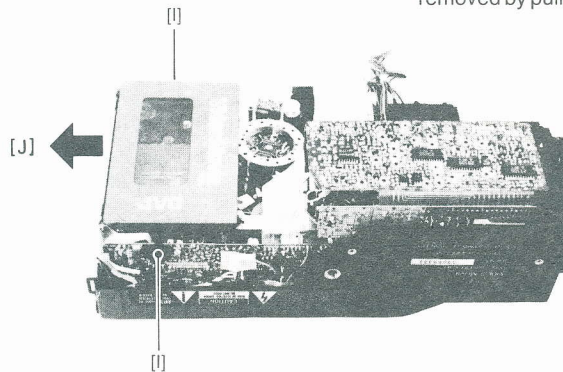
2. Housing

Remove the 2 screws [G] and 4 screws [H] to partially take off the upper case from the lower frame.



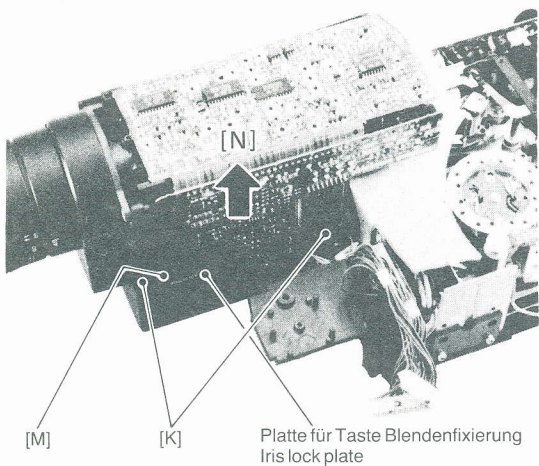
3. Cassettenfach-Abdeckung

2 Schrauben [I] lösen. Cassettenfach-Abdeckung in Pfeilrichtung [J] abziehen.



4. Camerateil

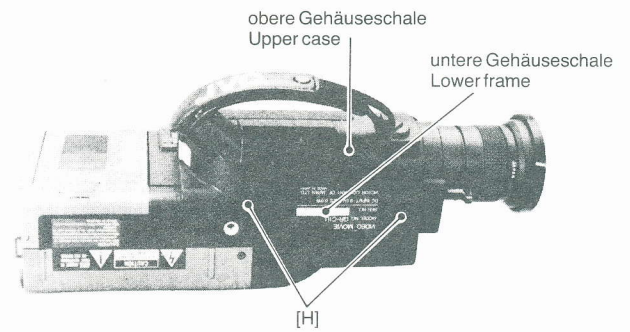
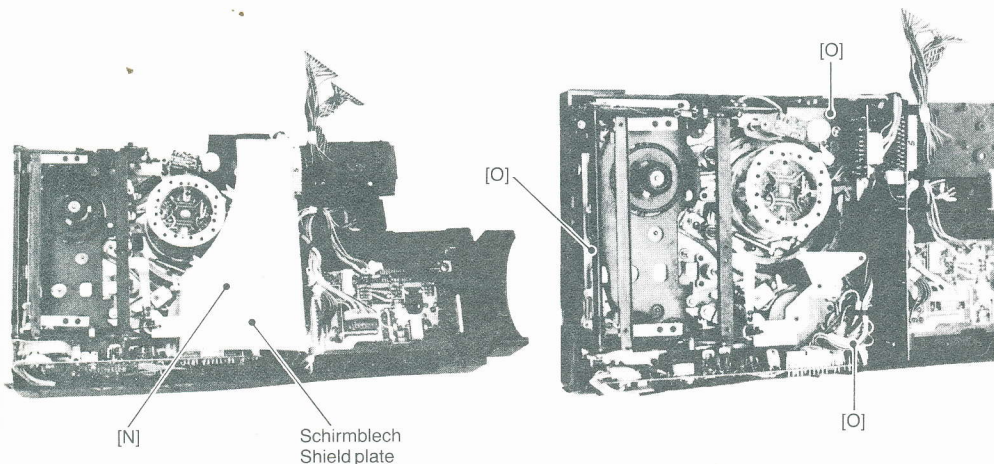
Zunächst 2 Schrauben [K] und 2 Schrauben [L] lösen. Schraube [M] lösen und die Platte für Taste Blendenfixierung in Pfeilrichtung abnehmen. Dann das Camerateil nach oben herausnehmen.



5. Recorderteil

Schraube [N] und Abschirmung entfernen. 3 Schrauben [O] lösen und das Recorderteil nach oben herausnehmen (Stecker [P] abziehen).

Hinweis: Das Recorderteil sehr vorsichtig herausnehmen, um freiliegende mechanische Teile nicht zu beschädigen.

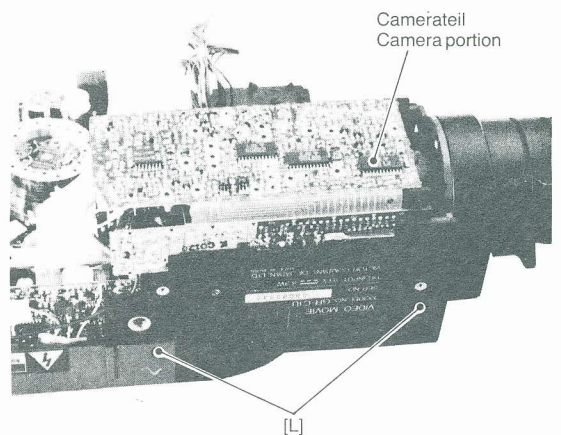


3. Cassette cover

Remove the two screws [I]. Then the cassette cover can be removed by pulling it in the direction of [J].

4. Camera portion

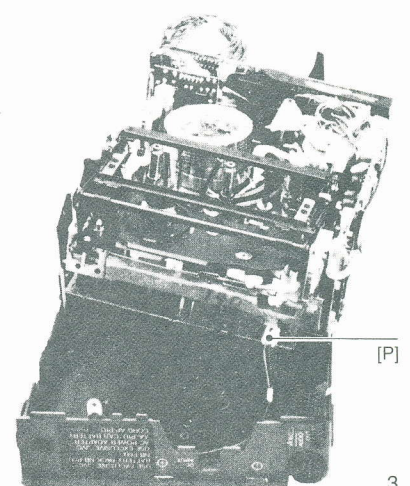
Remove the two screws [K] and two screw [L] first, and then remove a screw [M] to remove the iris lock plate by raising it upwards in the direction of [N]. After that, the camera can be removed by raising it upwards.



5. Tape recorder

Remove the screw [N] and the shield plate. Remove the 3 screws [O]. Then remove the deck by pulling it upwards. (Remove connector [P].)

Note: When removing the deck, pay the most careful attention not to touch the mechanism parts exposed.



6. E-E und Anzeigenplatte [2] [3]

3 Schrauben [Q] lösen und die Schaltungsplatte herausklappen.

6. E-E and Indicator board [2] [3]

Remove the three screws [Q] so that the E-E & IND board can be opened to this side.

7. Audio-Servoplatte [0] [4]

7 Stecker [R] abziehen und die Audio/Servoplatte in Pfeilrichtung [S] abziehen. Stecker für den Audio-Kopf abnehmen.

7. Audio-Servo board [0] [4]

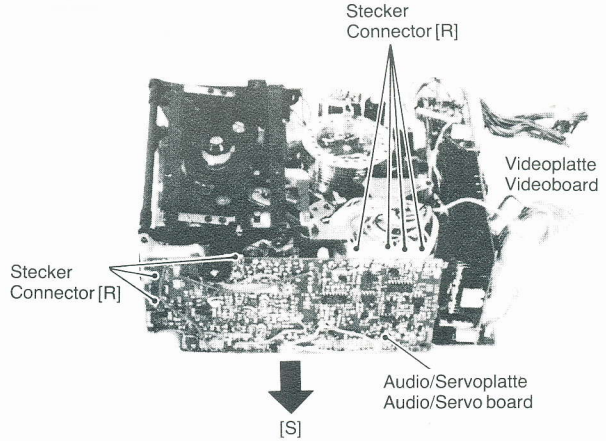
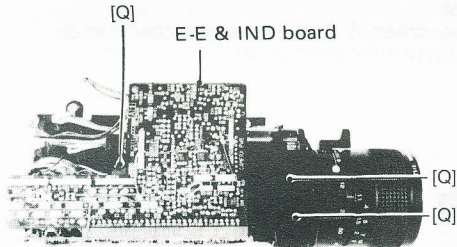
First remove the 7 connectors [R] and then remove the AUDIO/SERVO board by pulling it in the direction of the arrow [S]. Remove the connector for the audio head.

8. Videoplatte [0] [2]

nach oben abziehen.

8. Video board [0] [2]

Pull out in upwards direction.

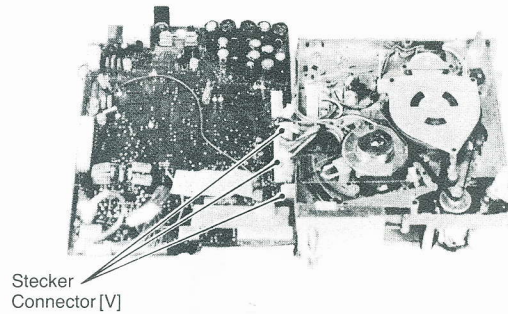
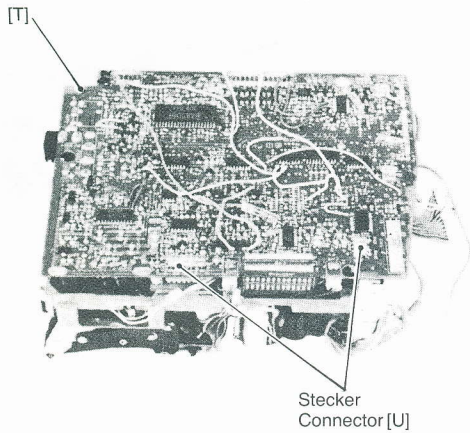


9. Platte für Servoregelung und Mechaniksteuerung [0] [1]

Eine Schraube [T] und 2 Stecker [U] entfernen und 3 Stecker [V] abziehen.

9. Mechacon/Servo board [0] [1]

Remove a screw [T] and the 2 connectors [U] to remove the MECHACON/SERVO board. Remove 3 connectors [V].

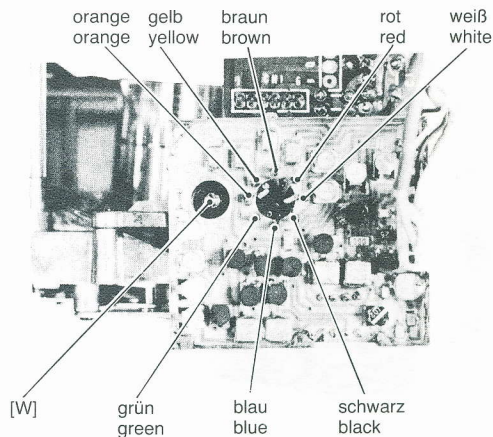


10. Videokopf-Vorverstärker

Abschirmung und Schraube [W] entfernen und 8 Kopftrommelzuleitungen ablöten.

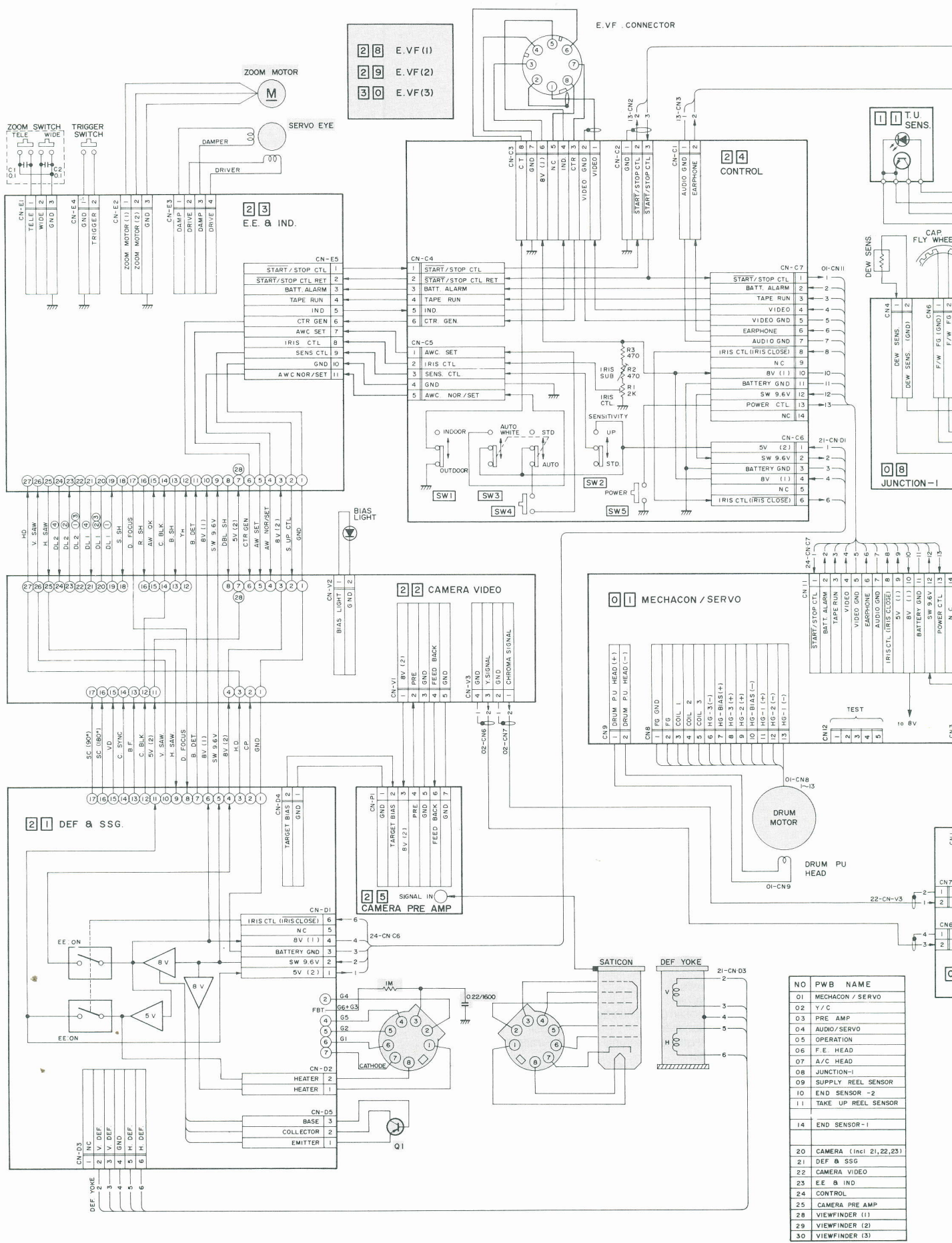
10. Drum-Preampfier

Remove the cover of the shield case, a screw [W] and desolder the eight wires to the drum.

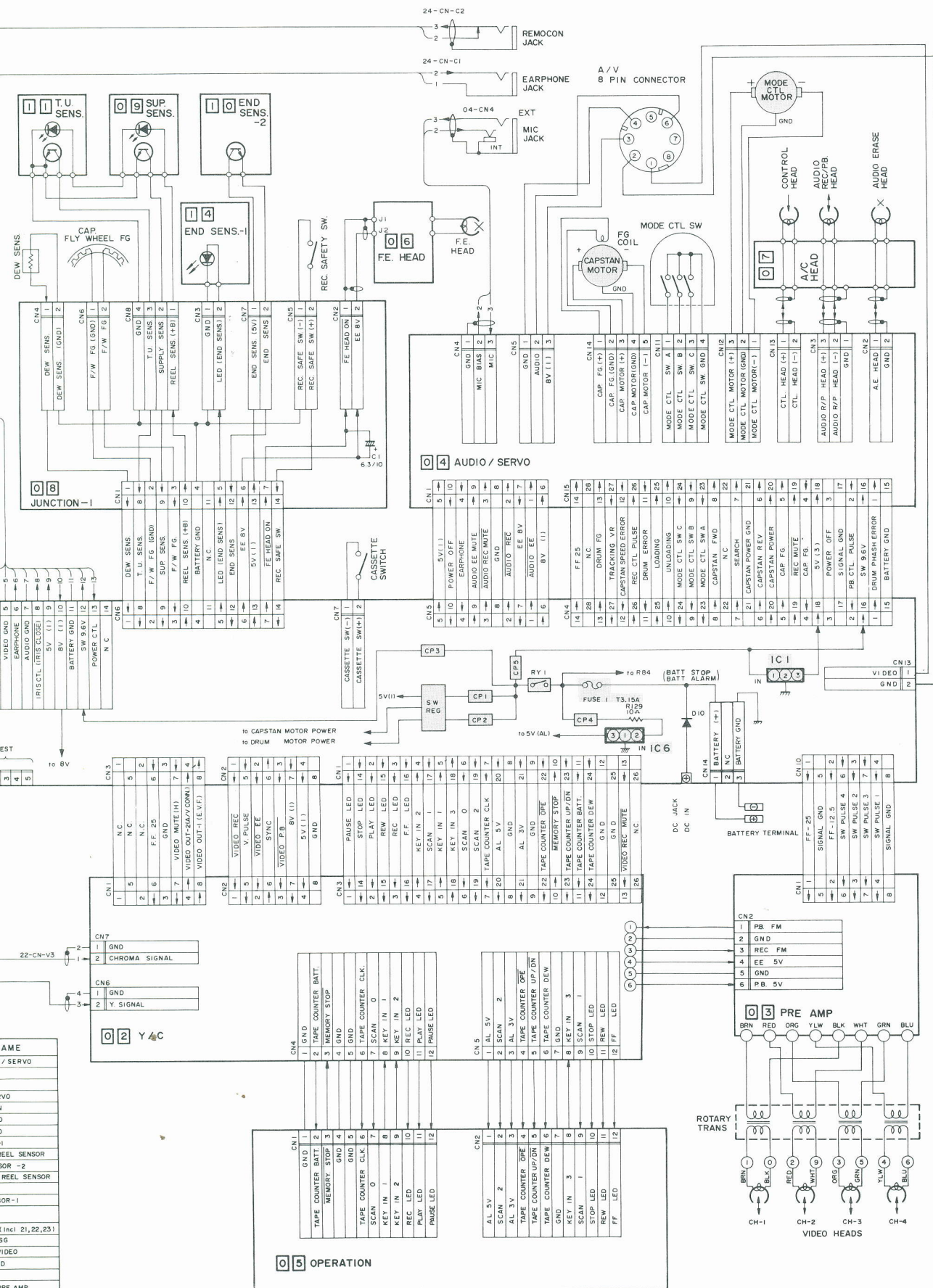


ID	Kennimpuls	Identification (Pulse)	RS FF	RS Flipflop	RS Flippflop
IF	ZF	Intermediate Frequency	RST	rücksetzen	Reset
IFR	Infrarot	Infrared	R/P	Aufnahme/Wiedergabe	Record/Playback
IFT	ZF-Übertrager	Intermediate Frequency Transformer	RPT	Wiederholung	Repeat
			RT	Rotationsübertrager	Rotary Transformer
IND	Anzeige	Indicator	RUN	Bandlauf	Running
INH	Inhibit	Inhibit	RY	Relais	Relay
INS	Insertschnitt	Insert			
INT	intern	Internal	S		
INV	Inverter	Inverter	SAW	Sägezahnspannung	Sawtooth
I/O	Eingang/Ausgang	Input/Output	SC	Sub-Träger	Subcarrier
IR	Infrarot	Infrared	SCH	Suchlauf	Search
			SEL	Auswahl	Select
K			SENS	Sensor	Sensor
K	Kathode	Cathode	SENS CTL	Empfindlichkeitsregelung	Sensitivity Control
			SEP	Trennung	Separation
L			SF	Sourcefolger	Source Follower
L	Low-Pegel (0)	Low	SFF	kurzes Vorspulen	Short Fast Forward
LED		Light Emitting Diode	SFWD	Suchlauf vorwärts	Search Forward
LIN	Linearität	Linearity	SH	Farbschattierung	Shading
LIM	Begrenzer	Limiter	SIF	Ton-ZF	Sound Intermediate Frequency
LOAD	Einfädeln	Loading			
LP	Langspielgeschwindigkeit	Long Play	SN	Signal/Rausch-Abstand	Signal to Noise Ratio
LPF	Tiefpaßfilter	Low-pass Filter	SOL	Magnet	Solenoid
LSB	unteres Seitenband	Lower Sideband	SOS	Ton-Mischbetrieb	Sound on Sound
			SP	Normalspiegelgeschwindigkeit	Standard Play
M			SR	Abwickelspulenteller	Supply Reel
M	Motor	Motor	SREV	Suchlauf rückwärts	Search Reverse
MANU	manuell	Manual	SREW	kurzes Rückspulen	Short Rewind
MAX	maximum	Maximum	S/S	Zeitlupe/Standbild	Slow/Still
MDA	Motortreiberverstärker	Motor Drive Amplifier	SSG	Synchron-Impulsgenerator	Sync Signal Generator
MECHACON	Mechaniksteuerung	Mechanism Control	S. SH	statische Farbschattierung	Static Shading
MIC	Mikrofon	Microphone	SSNS	Startsensor	Start Sensor
MIN	Minimum	Minimum	STD	Normal	Standard
MIX	Mischstufe	Mixer	SUP	Abwickelspule	Supply
MMV	Monomultivibrator	Monostable Multivibrator	SW	Schalter	Switch
MOD	Modulator	Modulator	SWD	geschaltet	Switched
MODEM	Modulator-Demodulator	Modulator-Demodulator	SW REG	Schaltregler	Switching Regulator
MON	Monitor	Monitor	SYNC	Synchronisation	Synchronization
MOS	MOS	Metal Oxide Silicon	SYNC SEP	Synchronimpuls Trennstufe	Sync Separator
MPX	Multiplexer	Multiplexer	SYSCON	System-Überwachung	System Control
MS	Betriebsartwahl	Mode Select			
MUT	Tonabschaltung	Muting	V		
			V	vertikal	Vertical
N			VCO	spannungsgesteuerter Oszillator	Voltage Controlled Oscillator
NAND	Not-And	Not-And	VD	vert. Treiberimpuls	Vertical Drive Pulse
NC	nicht belegt	Not Connected	VP	vert. Parabelimpuls	Vertical Parabolic Pulse
ND	Dämpfungsfiler	Neutral Density (Filter)	VR	Poti	Variable Resistor
NFB	Gegenkopplung	Negative Feedback	VS	vert. Sägezahnimpuls	Vertical Sawtoothed Pulse
NLN	nicht linear	Non-Linear	VXO	steuerbarer Quarzoszillator	Variable Crystal Oscillator
NO	normalerweise offen	Normally Open	VLT	violett	Violet
NOR	normal	Normal	V/T	Video/Fernsehen	Video/Television
			V/U	VHF/UHF	VHF/UHF
O			VSCH	variable Suchlaufgeschw.	Variable Search
OB	optischer Schwarzwert	Optical Black			
OPAMP	Operationsverstärker	Operational Amplifier	W		
OP	optisch	Optical	WARN	Warnanzeige	Warning
ORN	orange	Orange	W. BAL	Weißabgleich	White Balance
OSC	Oszillator	Oscillator	WHT	weiß	White
			WV	Arbeits-Spannung	Working Voltage
P			W & D	weiß und schwarz	White and Dark
PAR	Parabel	Parabola			
PB	Wiedergabe	Playback	X		
PC	Photokoppler	Photocoupler	XTAL	Quarz	Crystal
PCM	Puls-Code-Modulation	Pulse Code Modulation			
PED	Schwarzwert	Pedestal	Y		
PGM	Programm	Program	Y	Luminanzsignal	Luminance
PG	Impulsgenerator	Pulse Generator	YEL	gelb	Yellow
PI	Lichtschanke	Photo Interrupter	YL	Y-Signal, schmalbandig	Luminance Low Band Signal
PLL	Phasenregelkreis	Phase Locked Loop	YW	Y-Signal, breitbandig	Luminance Wide Band Signal
p-p	Spitze-Spitze	Peak-to-Peak			
POS	Position	Position			
PR	Andruckrolle	Pinch Roller			
PREAMP	Vorverstärker	Preamplifier			
PRL	Umschwenken (Zwischenrad)	Preroll			
P/S	Pause/Standbild	Pause/Still			
PSC	Impuls-Anstiegssteuerung	Pulse Swallowing Control			
PU	Aufnehmer	Pickup			
PWB	Schaltungsplatte	Printed Wiring Board			
PWM	Pulsbreitenmodulation	Pulse Width Modulation			
PWR	Stromversorgung	Power			
Q					
Q	Güte	Quality Factor			
R					
R	rot	Red			
RA	Widerstands-Array	Resistor Array			
RAM	RAM	Random Access Memory			
REC	Aufnahme	Recording			
REF	Bezug, Referenz	Reference			
REG	Regler	Regulator			
REMOCON	Fernsteuerung	Remote Control			
REV	Vertauschung	Reverse			
REW	Rückspulen	Rewind			
RF	HF	Radio Frequency			

Verdrahtungsplan · Wiring Diagram

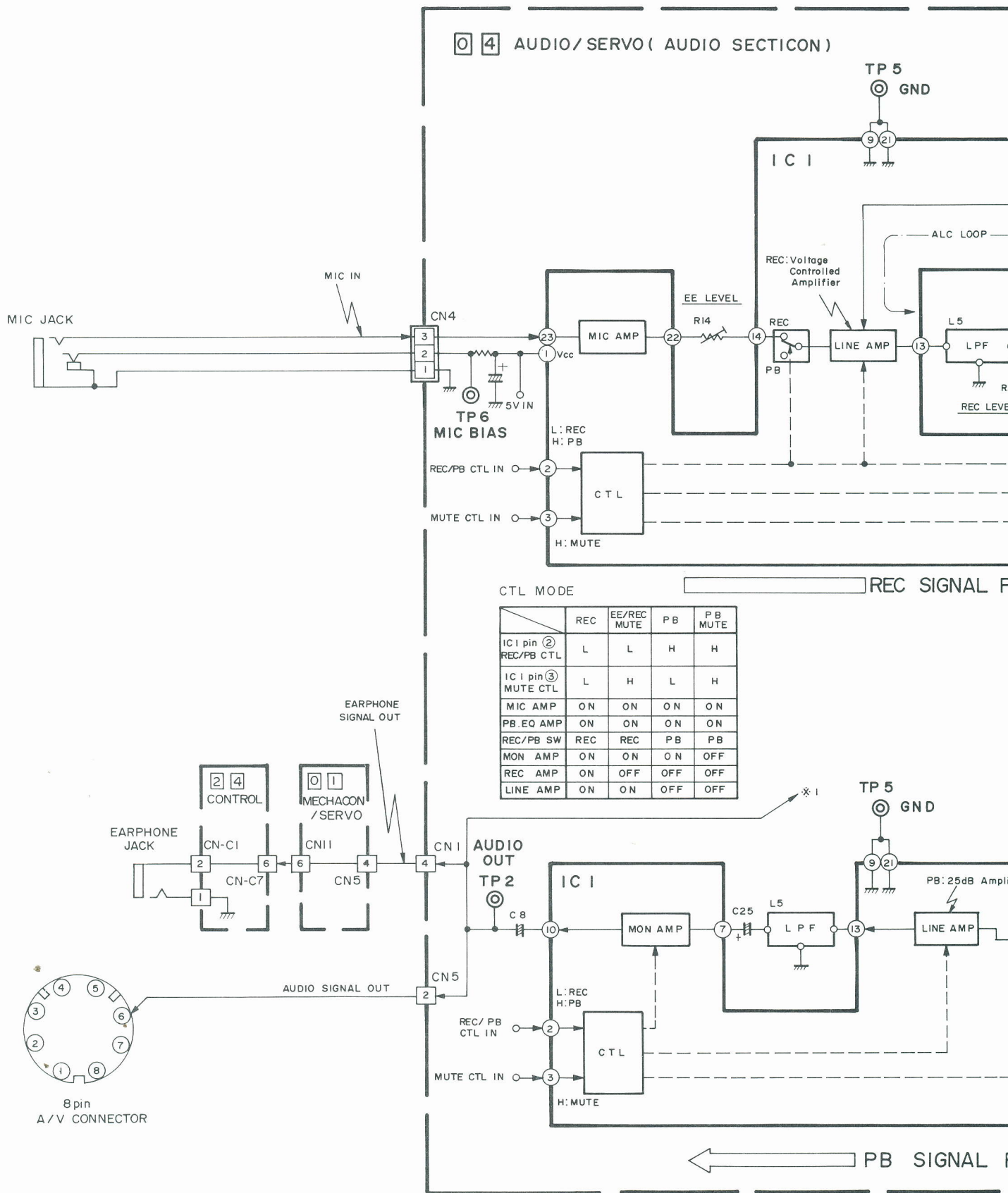


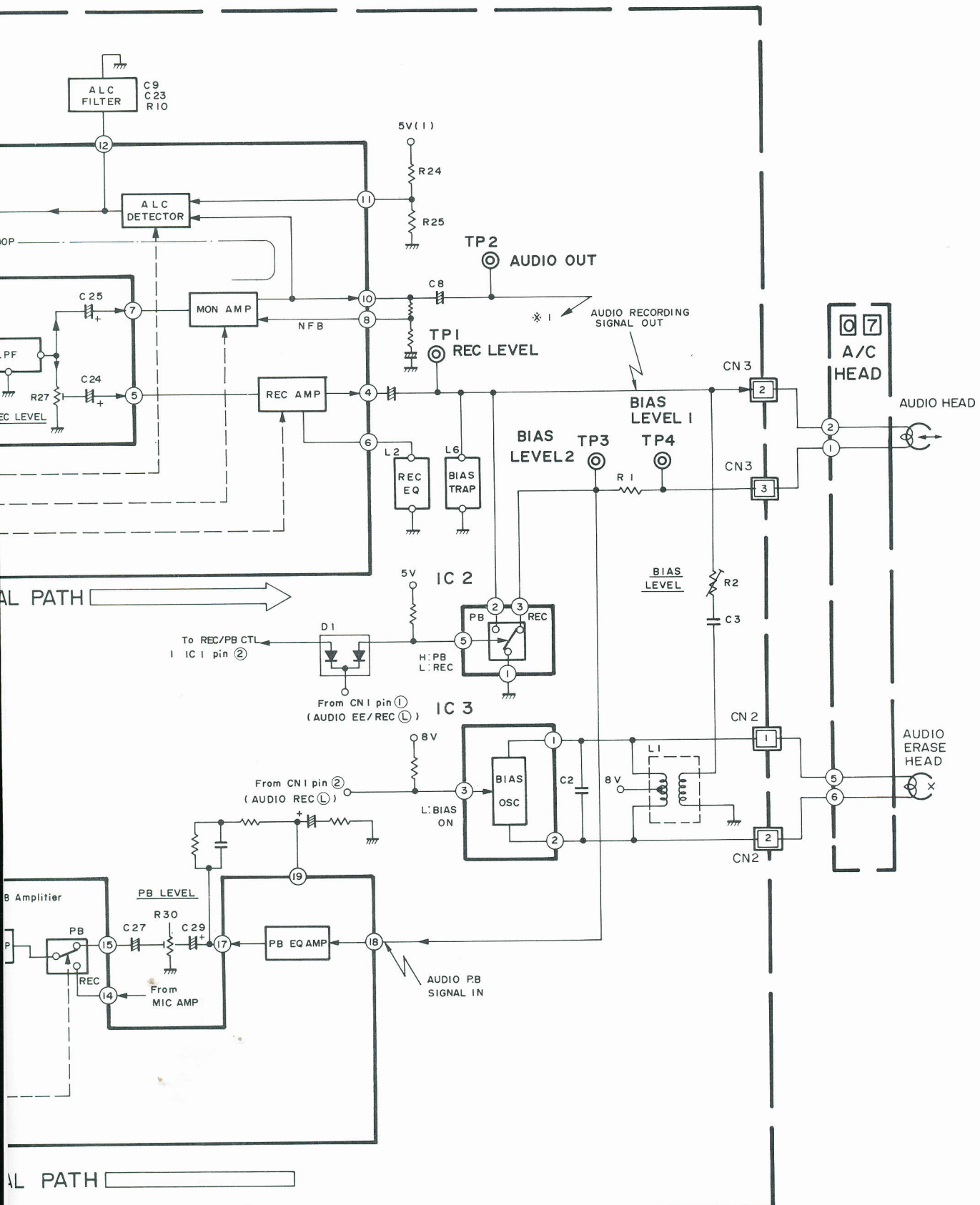
NO	PWB NAME
01	MECHA CON / SERVO
02	Y / C
03	PRE AMP
04	AUDIO / SERVO
05	OPERATION
06	F.E. HEAD
07	A/C HEAD
08	JUNCTION-1
09	SUPPLY REEL SENSOR
10	END SENSOR -2
11	TAKE UP REEL SENSOR
14	END SENSOR -1
20	CAMERA (Incl 21,22,23)
21	DEF & SSG
22	CAMERA VIDEO
23	E.E. & IND
24	CONTROL
25	CAMERA PRE AMP
28	VIEWFINDER (1)
29	VIEWFINDER (2)
30	VIEWFINDER (3)



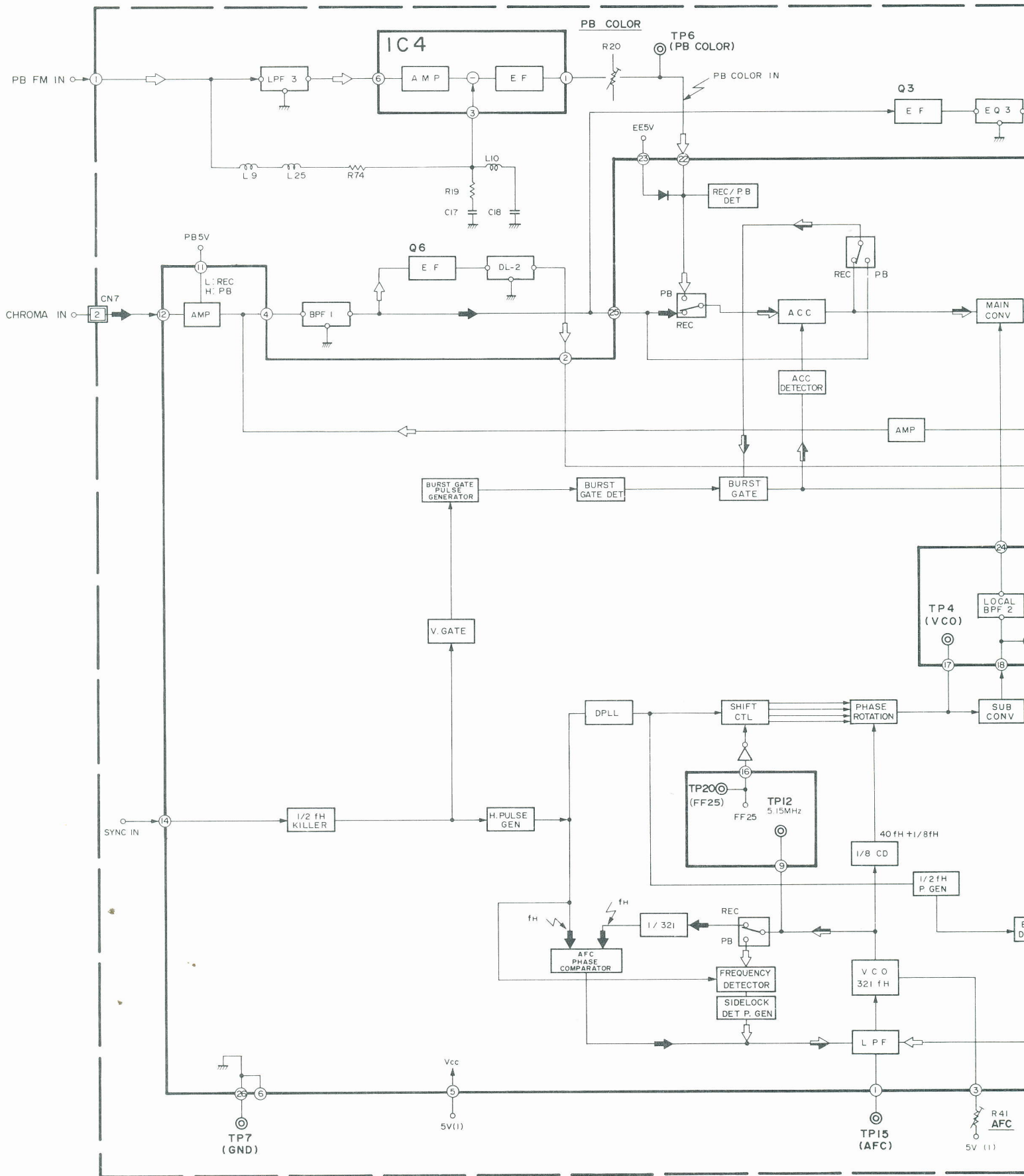
NOTE:
 [Shaded Box] parts are importantly related to safety.
 When replacing them, make sure to use specified parts.

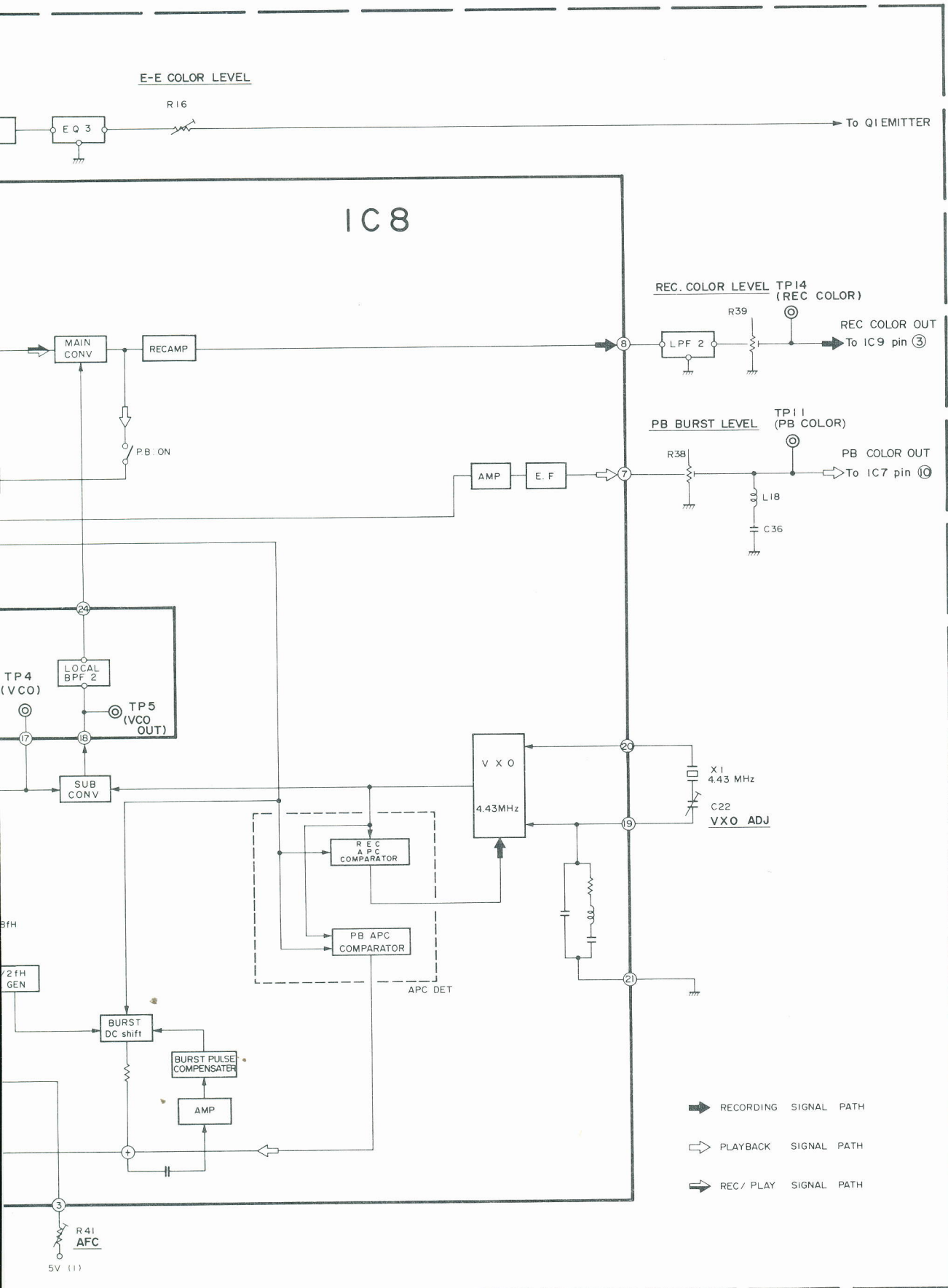
Audio-Blockschaltbild Audio block diagram



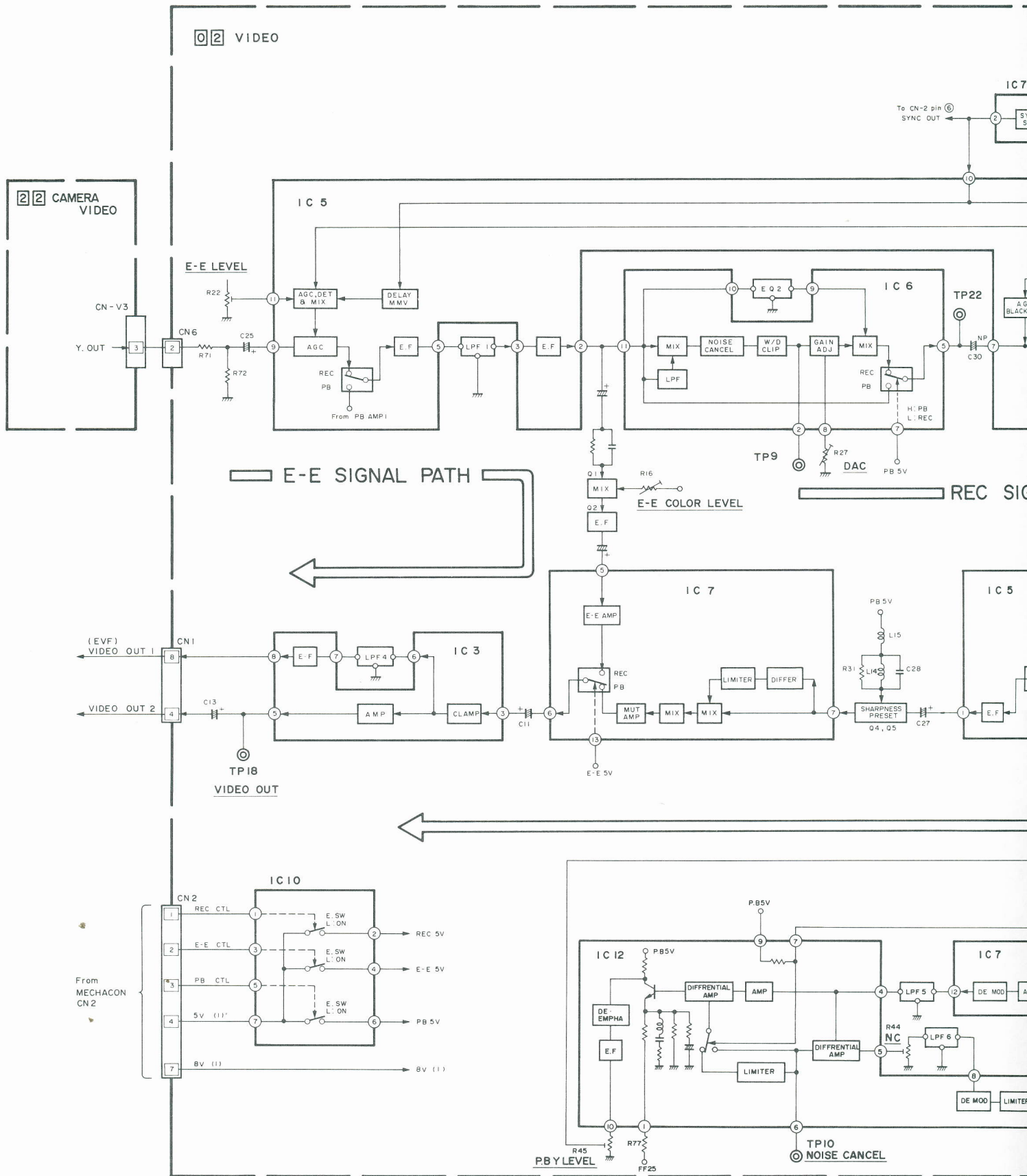


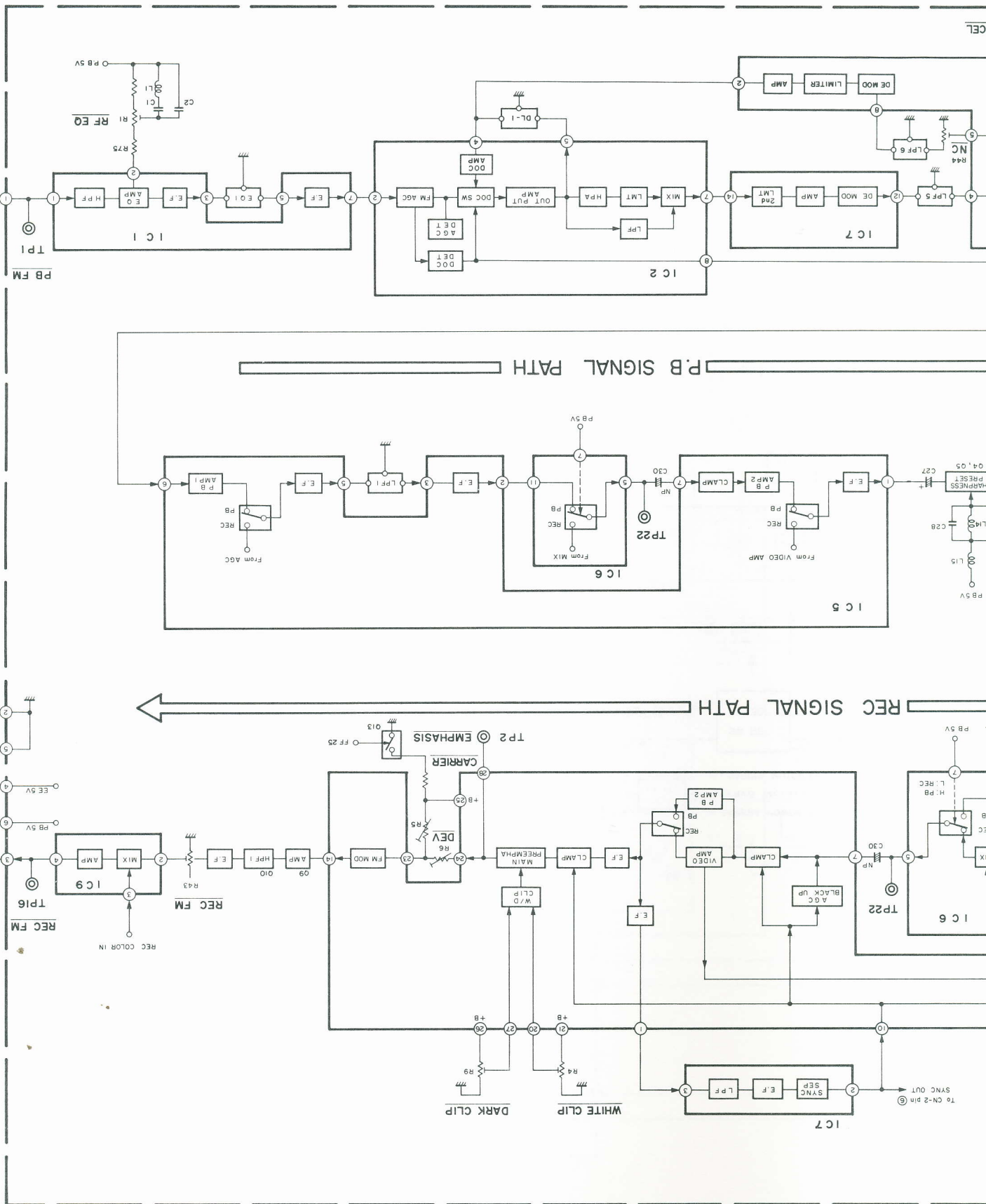
Video-Blockschaltbild (Farbsignal) Video block diagram (chroma signal)

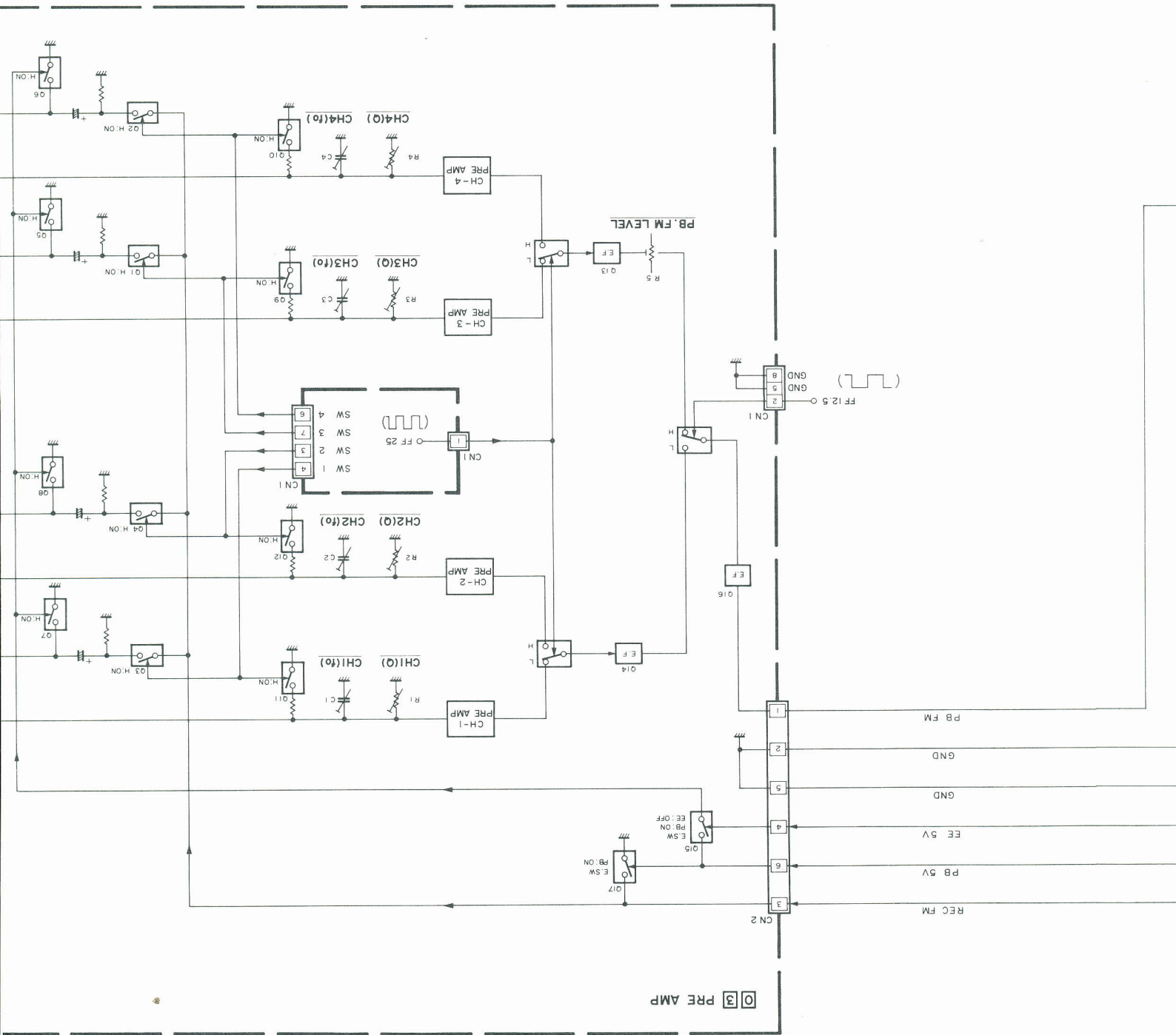




Video-Blockschaltbild (Luminanzsignal) Video block diagram (luminance signal)



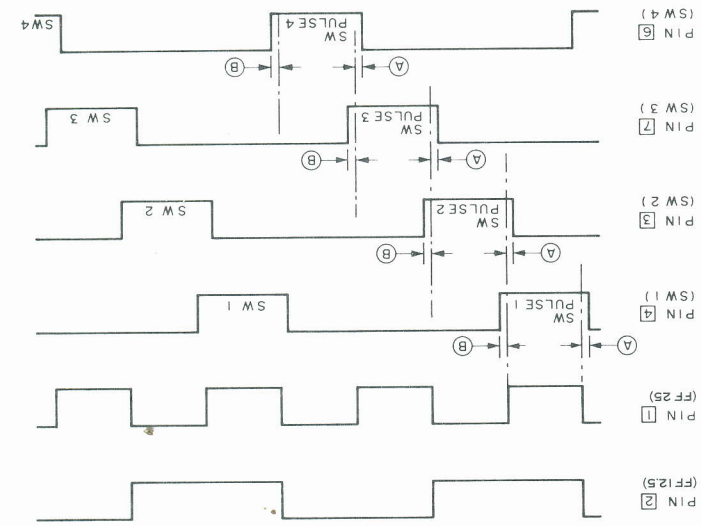




P-B MODE

SWITCHING PULSE TIMING CHART

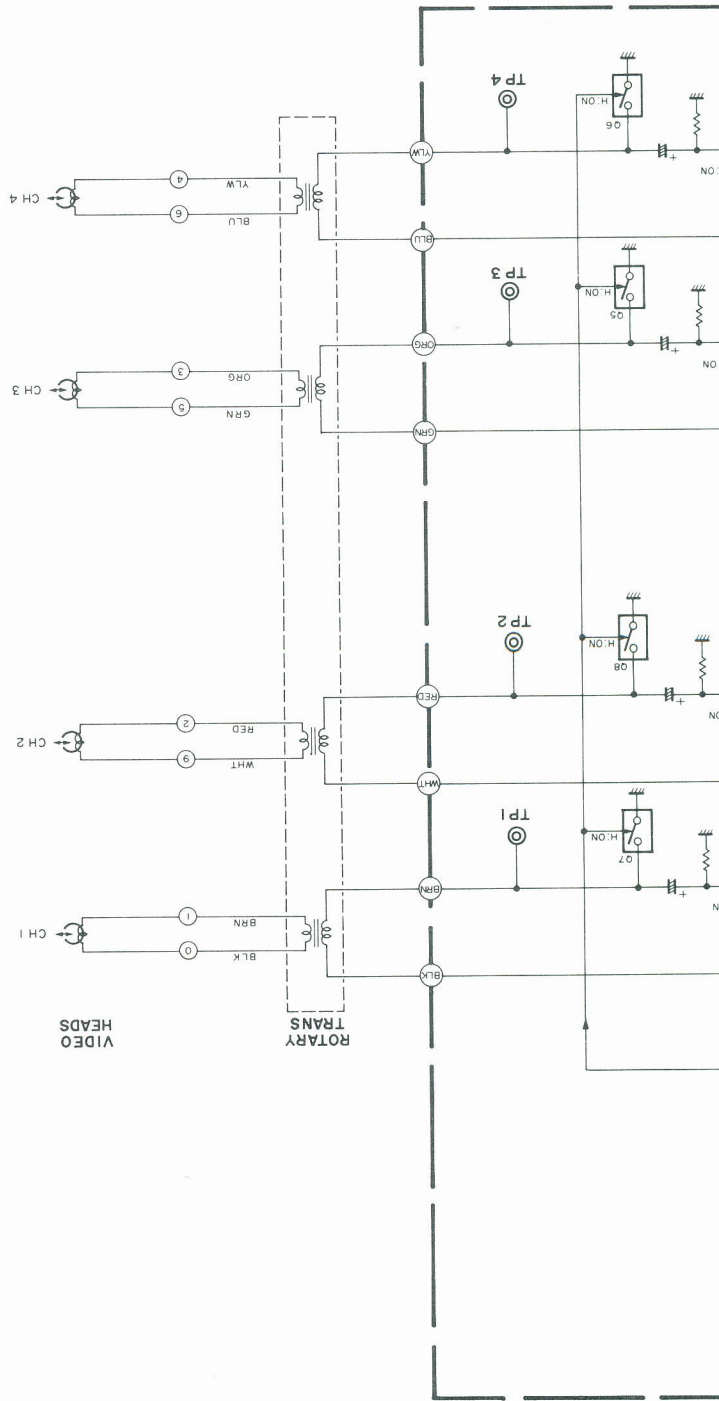
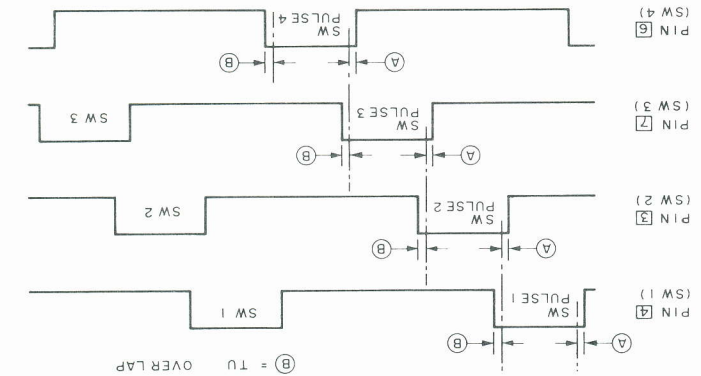
PRE AMP IC CN1
 (A) = SUP OVER LAP
 (B) = TU OVER LAP



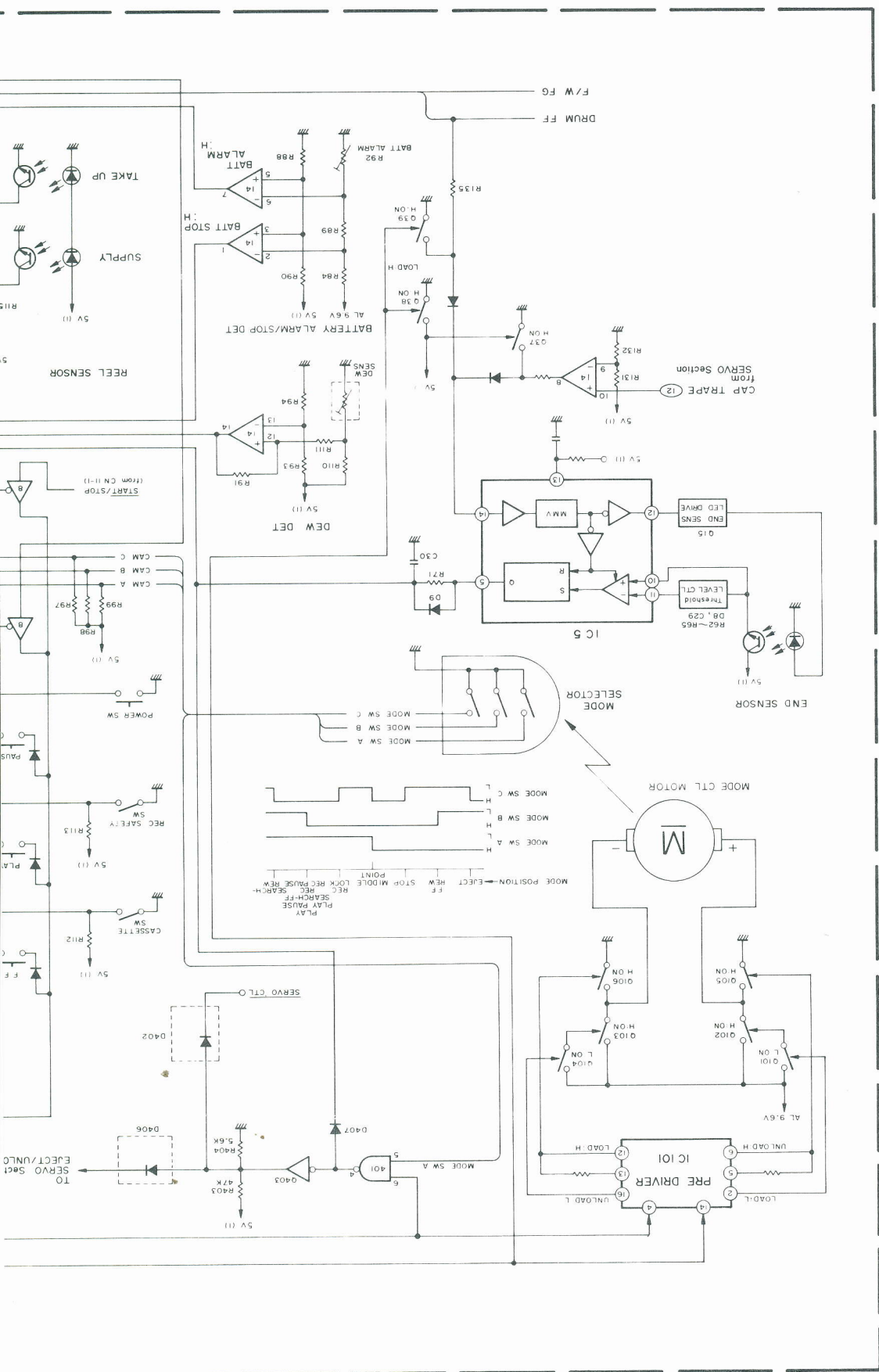
REC MODE

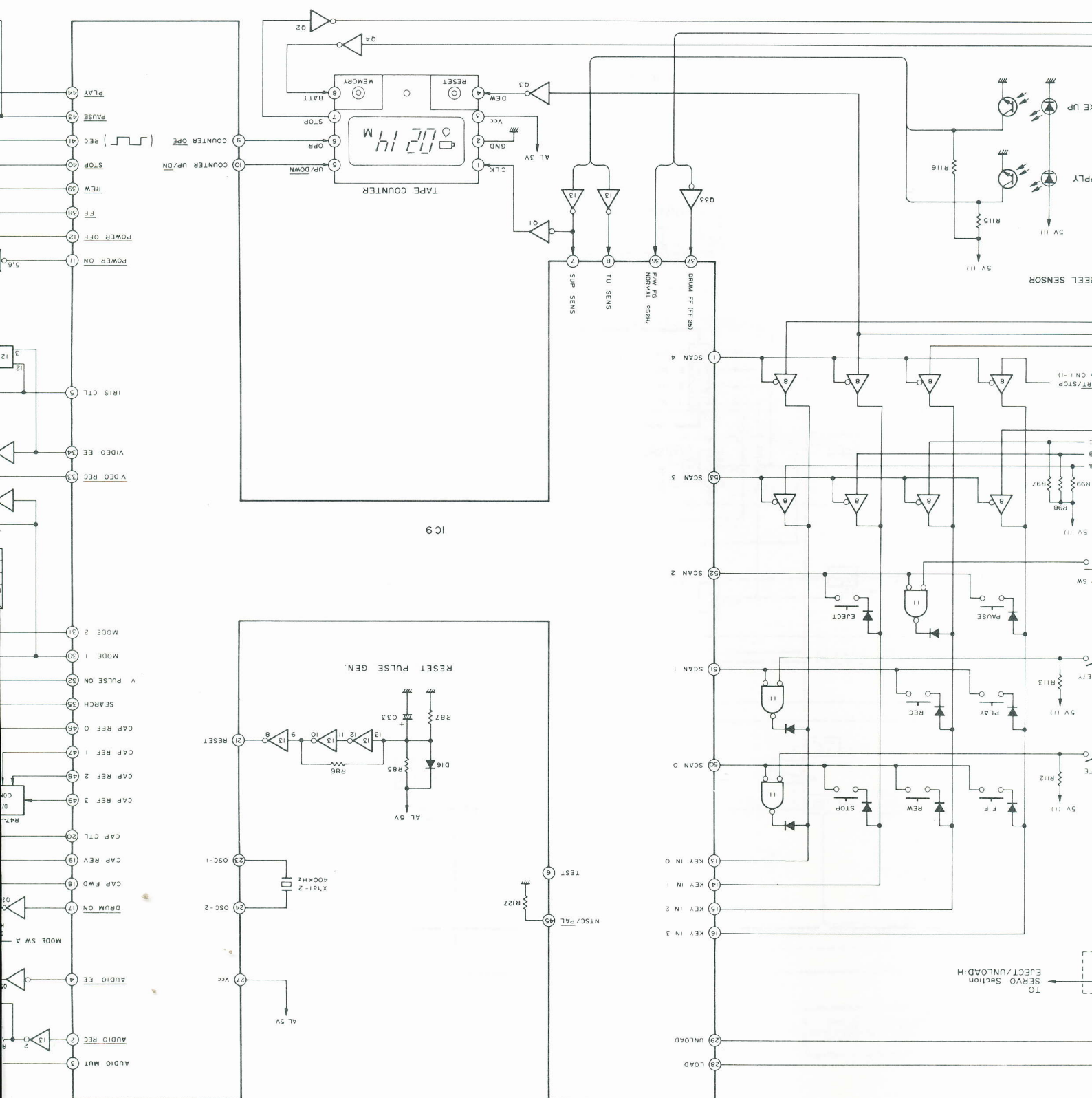
SWITCHING PULSE TIMING CHART

(A) = SUP OVER LAP
 (B) = TU OVER LAP



Mechaniksteuerung Blockschaltbild





IC9

RESET PULSE GEN.

FEEL SENSOR

RT/STOP

5V (1)

5V (1)

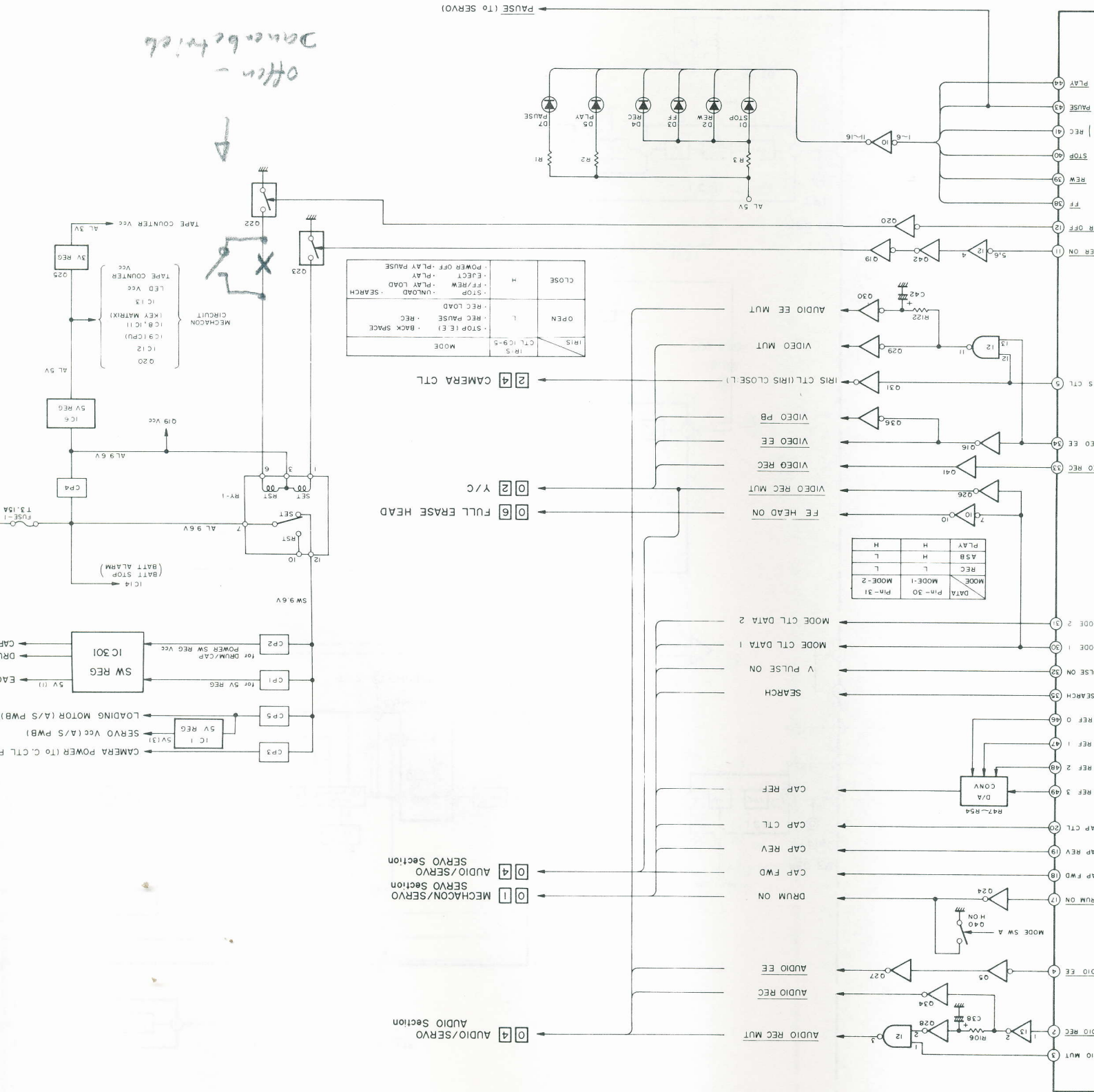
5V (1)

5V (1)

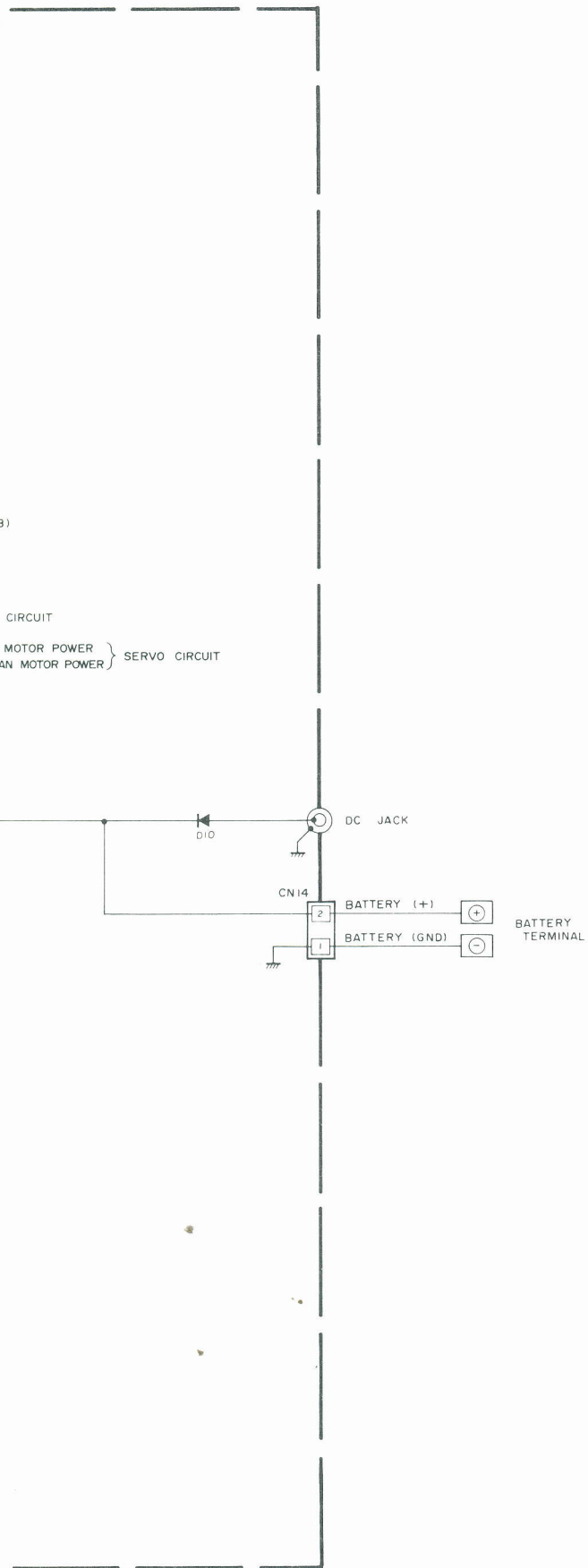
5V (1)

TO SERVO SECTION H
EJECT/UNLOAD H

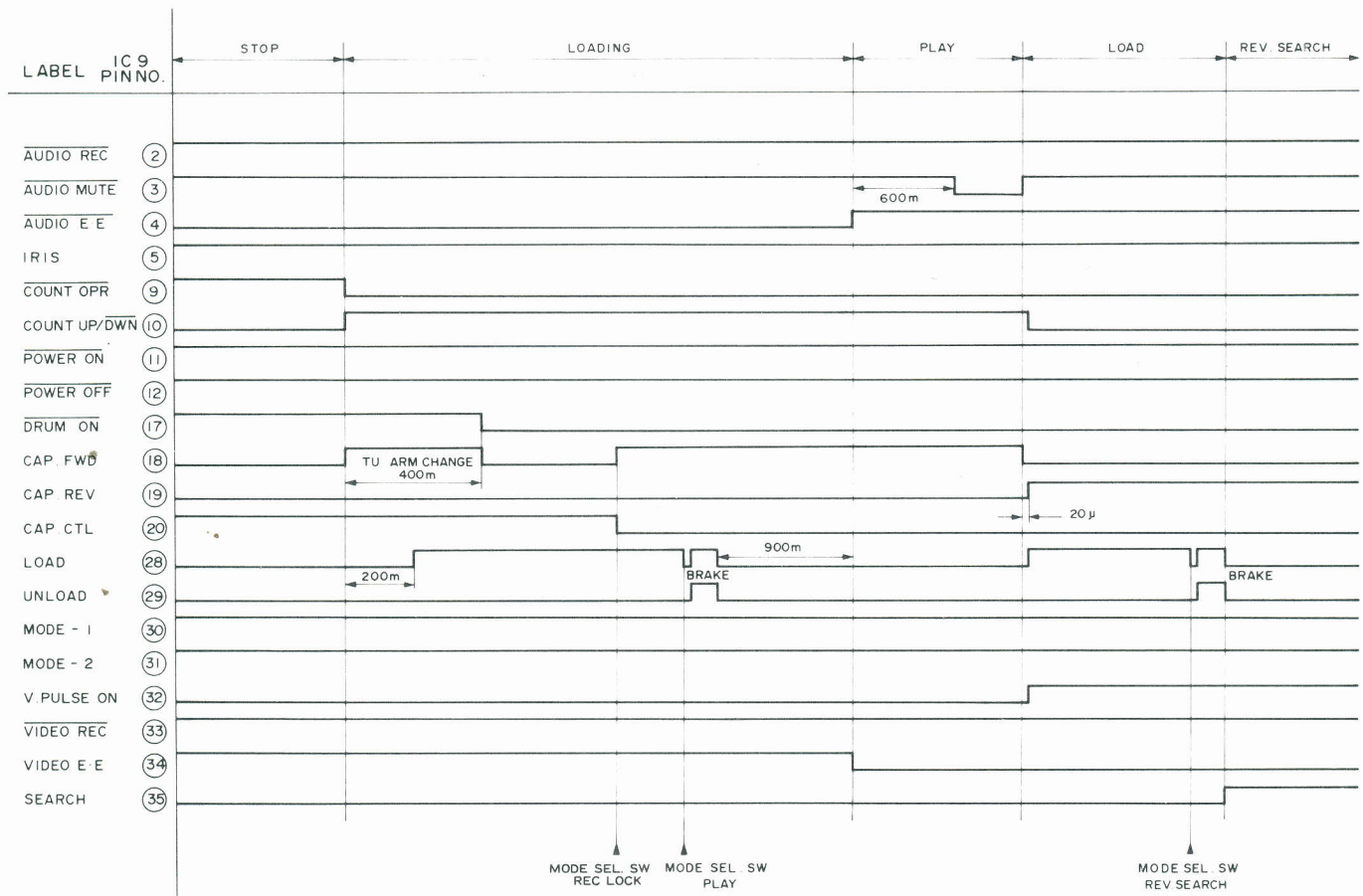
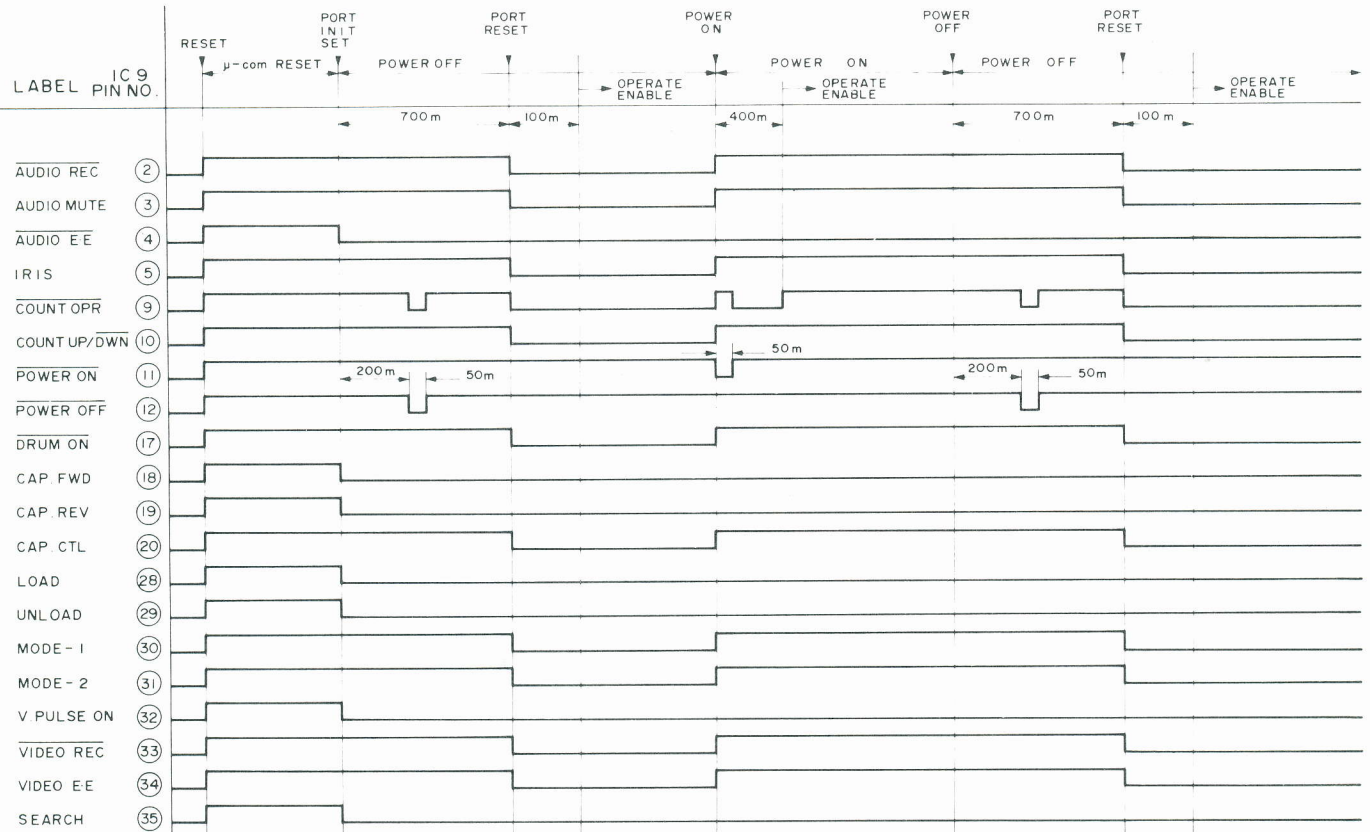
Offen -
Dauerbetrieb

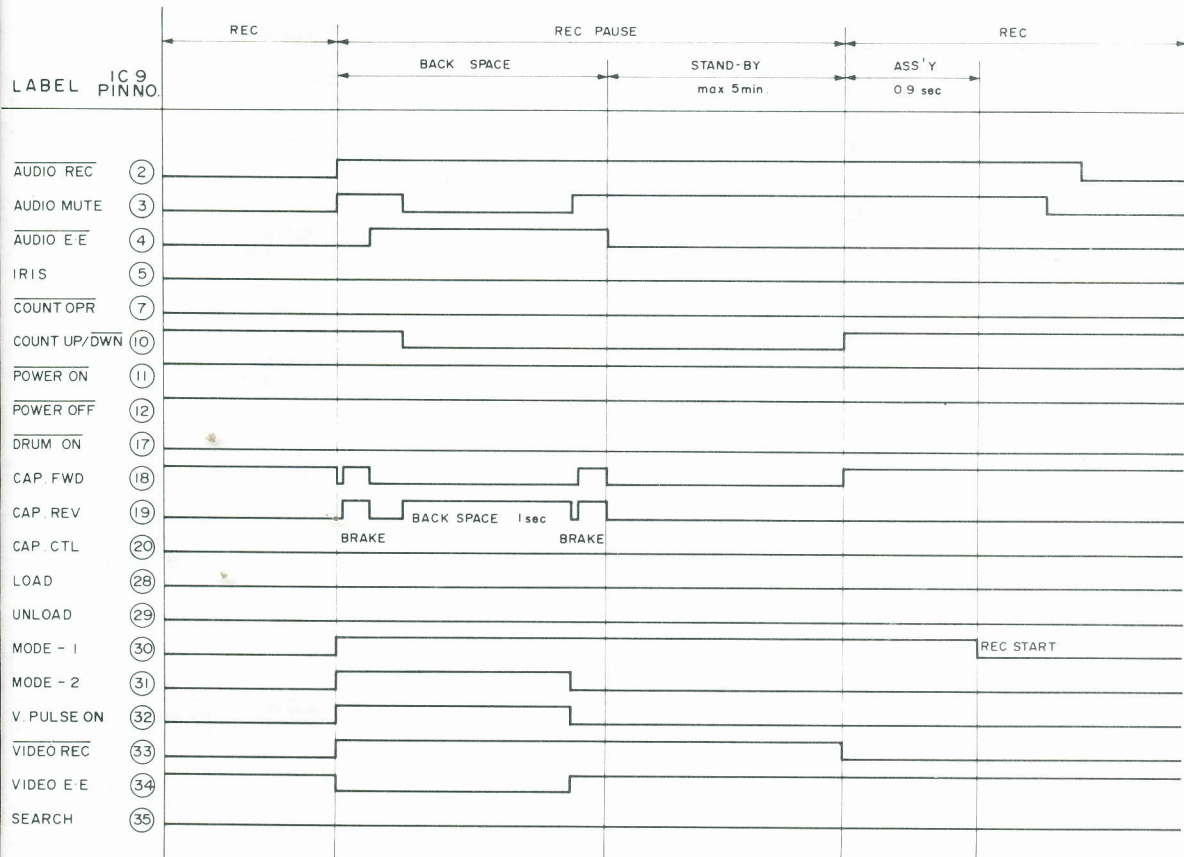
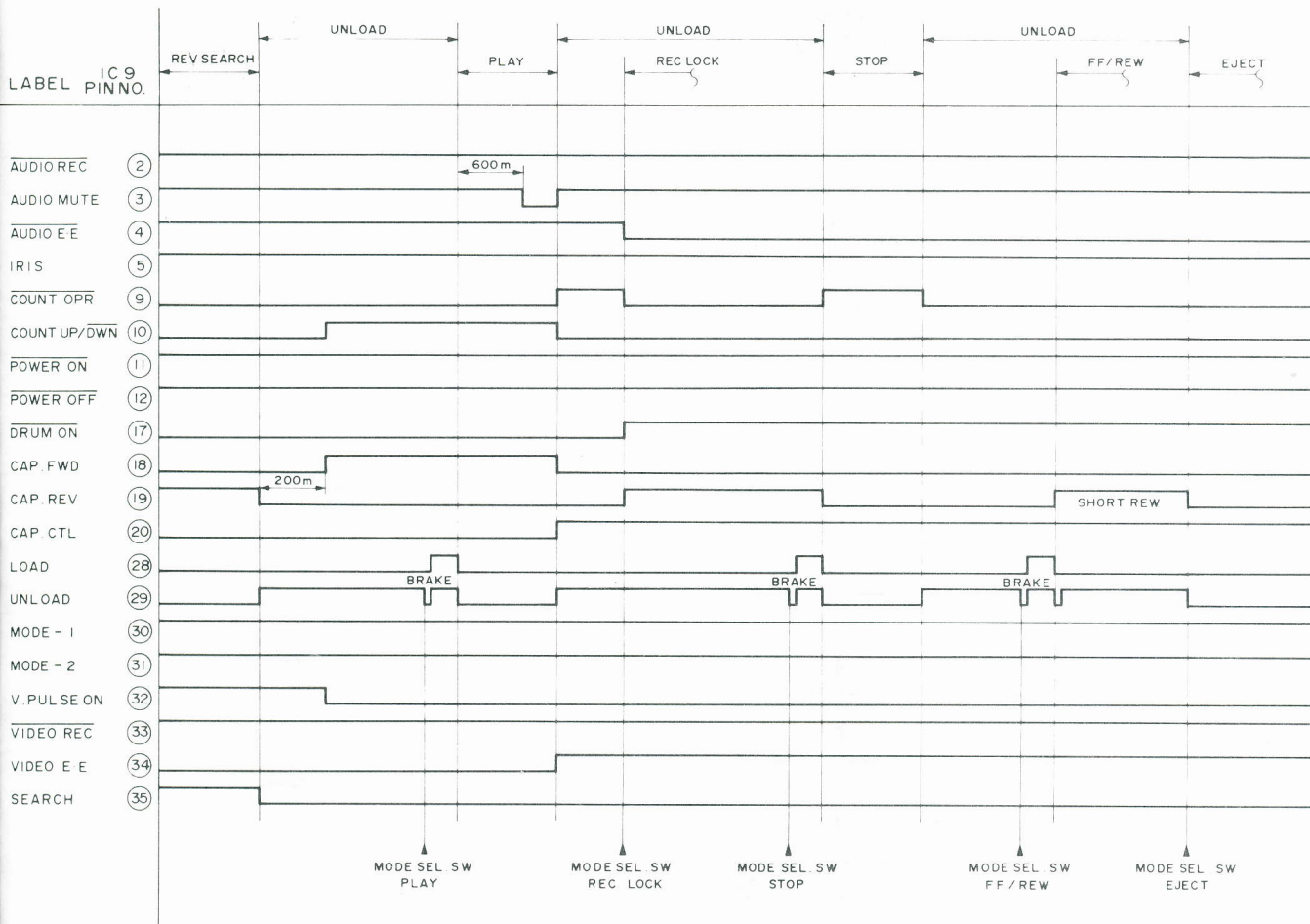


Mechaniksteuerung Blockschaltbild Mechacon block diagram



Mechaniksteuerung Impulsdiagramm Mechacon timing chart



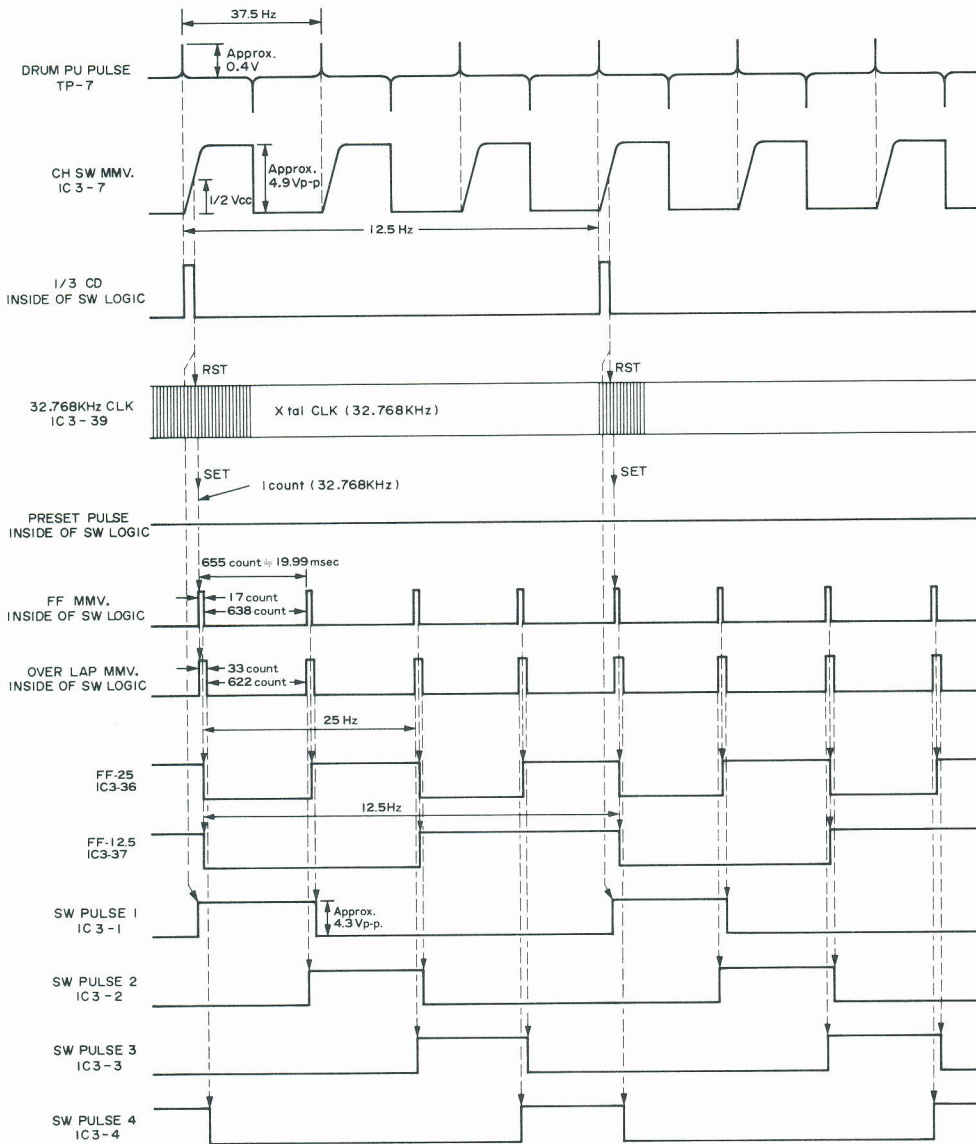


SYNC
 Y/C

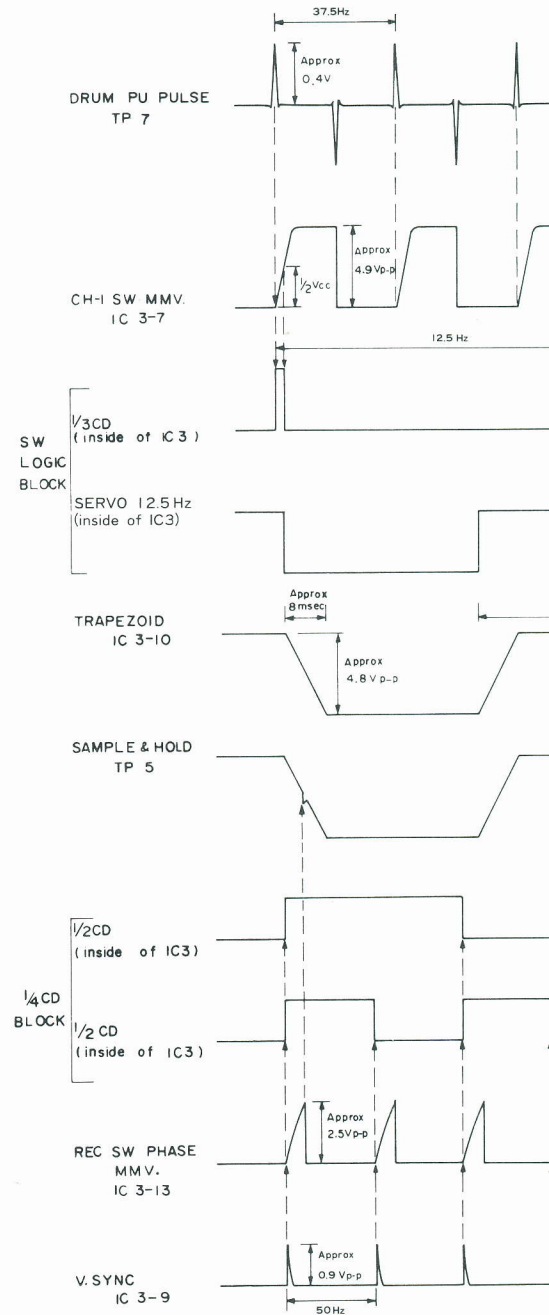
Kopftrommelservo Impulsdiagramm

Drum servo timing chart

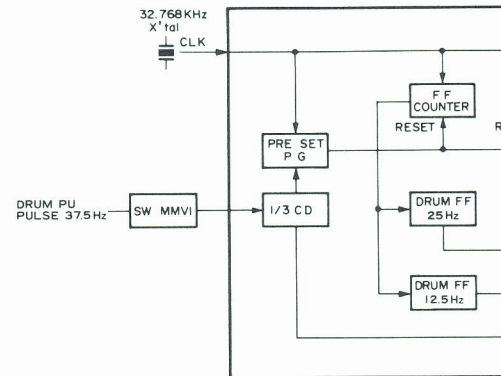
Schaltlogik
Switch logic



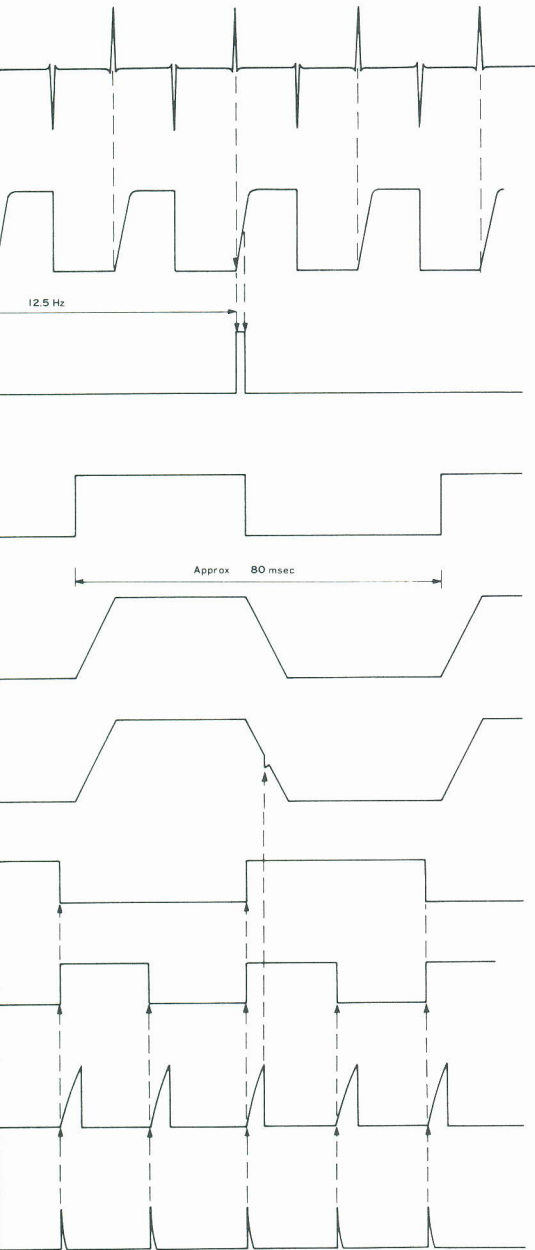
Aufnahm
REC mod



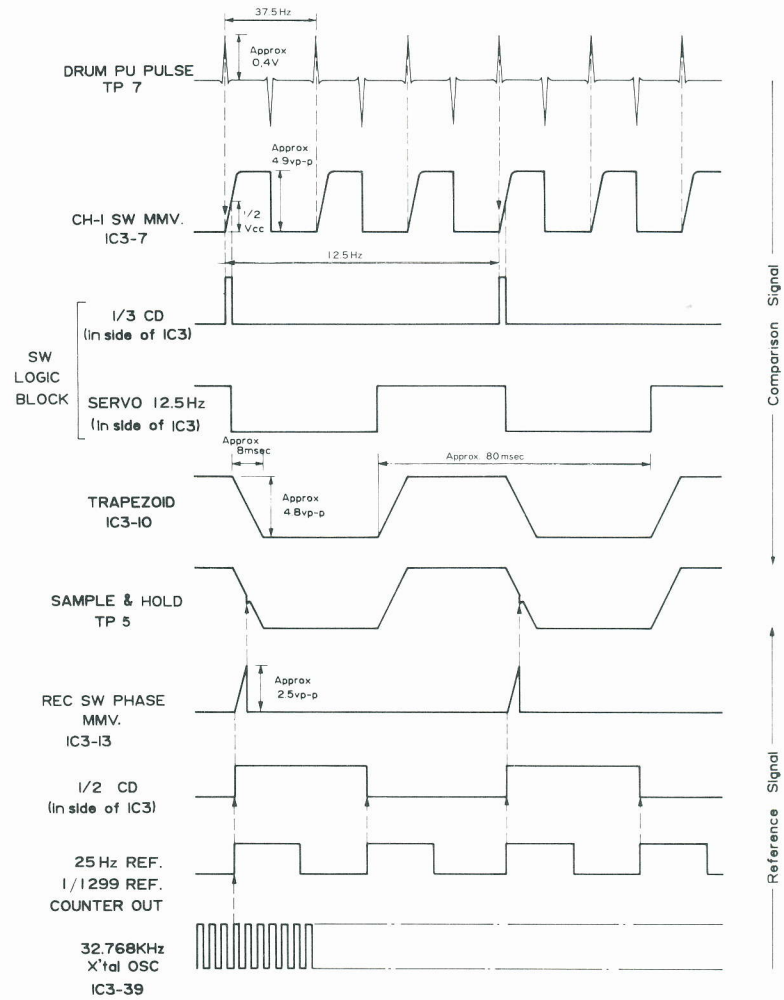
IC3 SWITCHING LOGIC



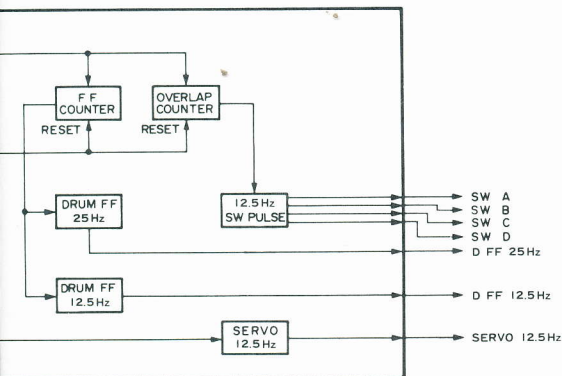
Aufnahme
REC mode

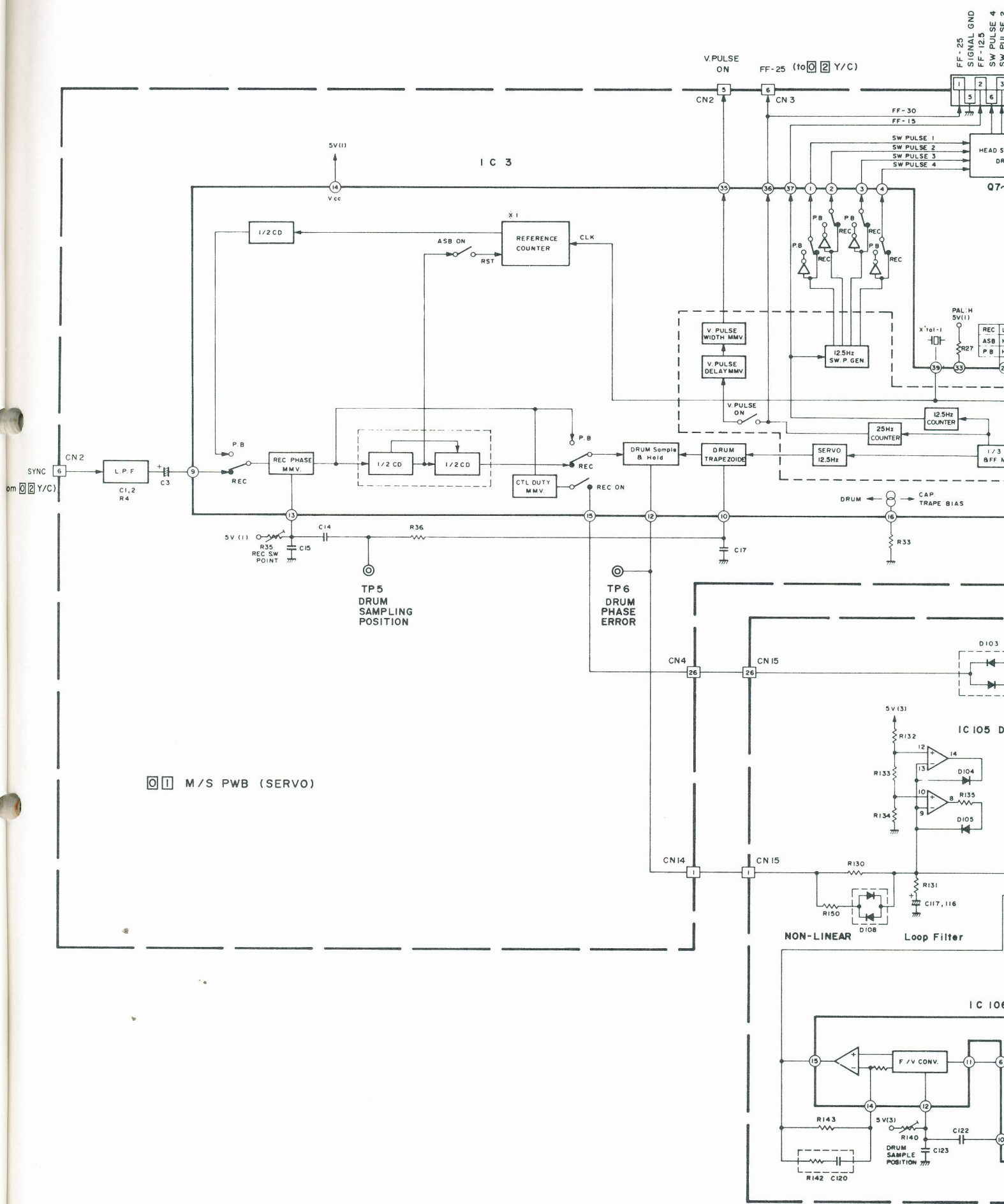


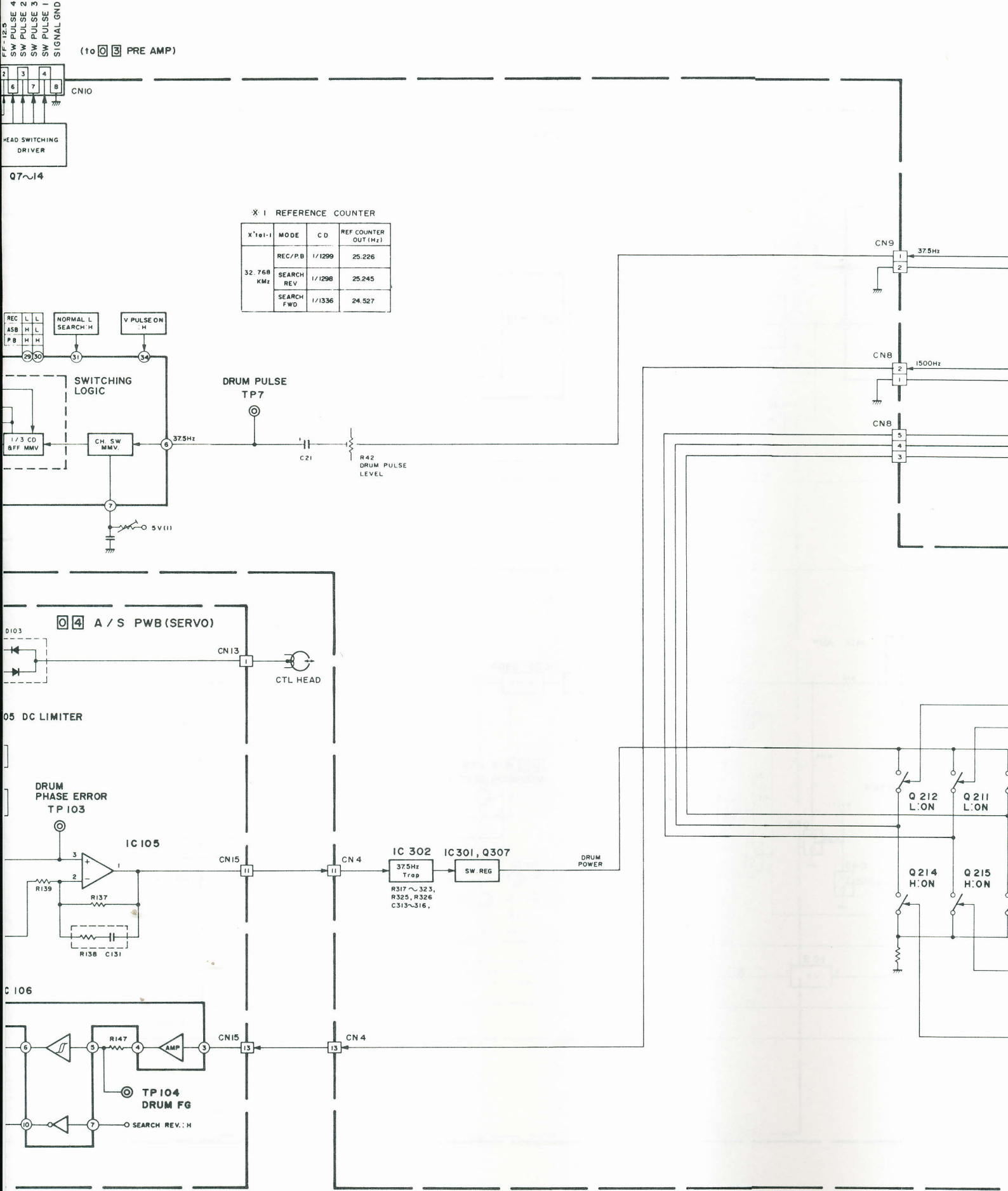
Wiedergabe
PB Mode



DRUM LOGIC BLOCK DIAGRAM

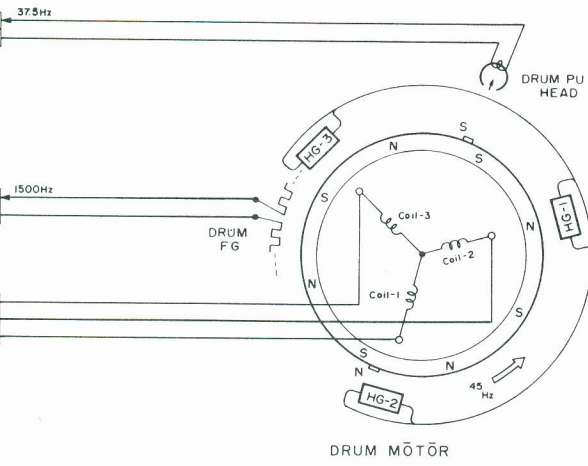
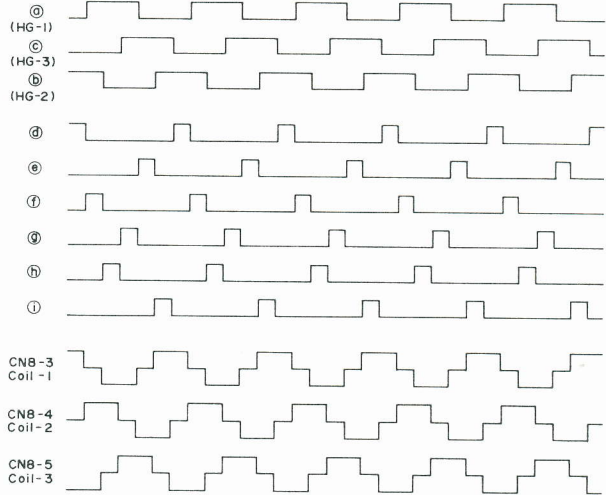




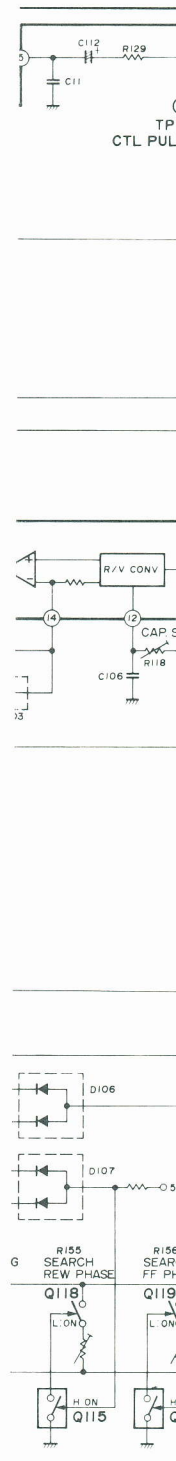
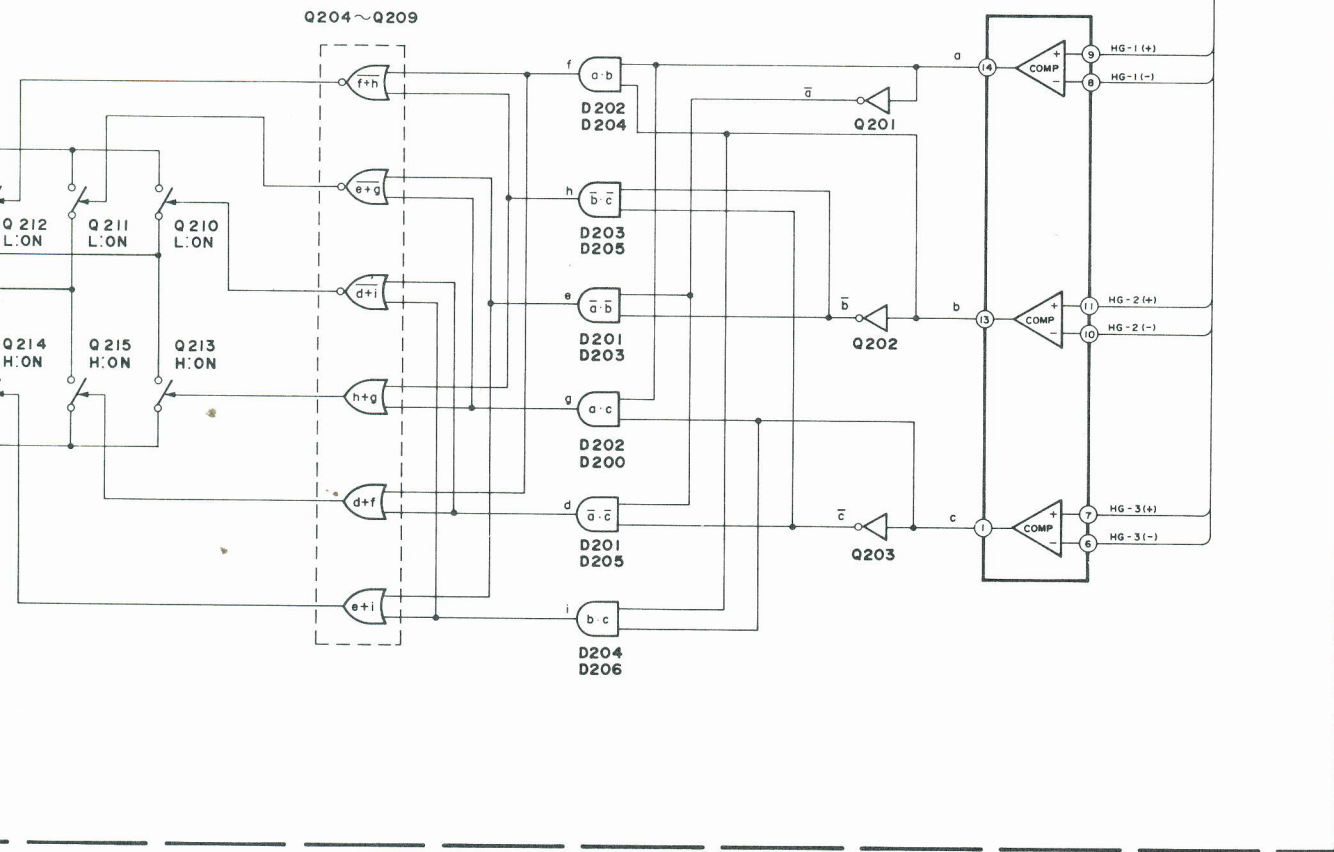


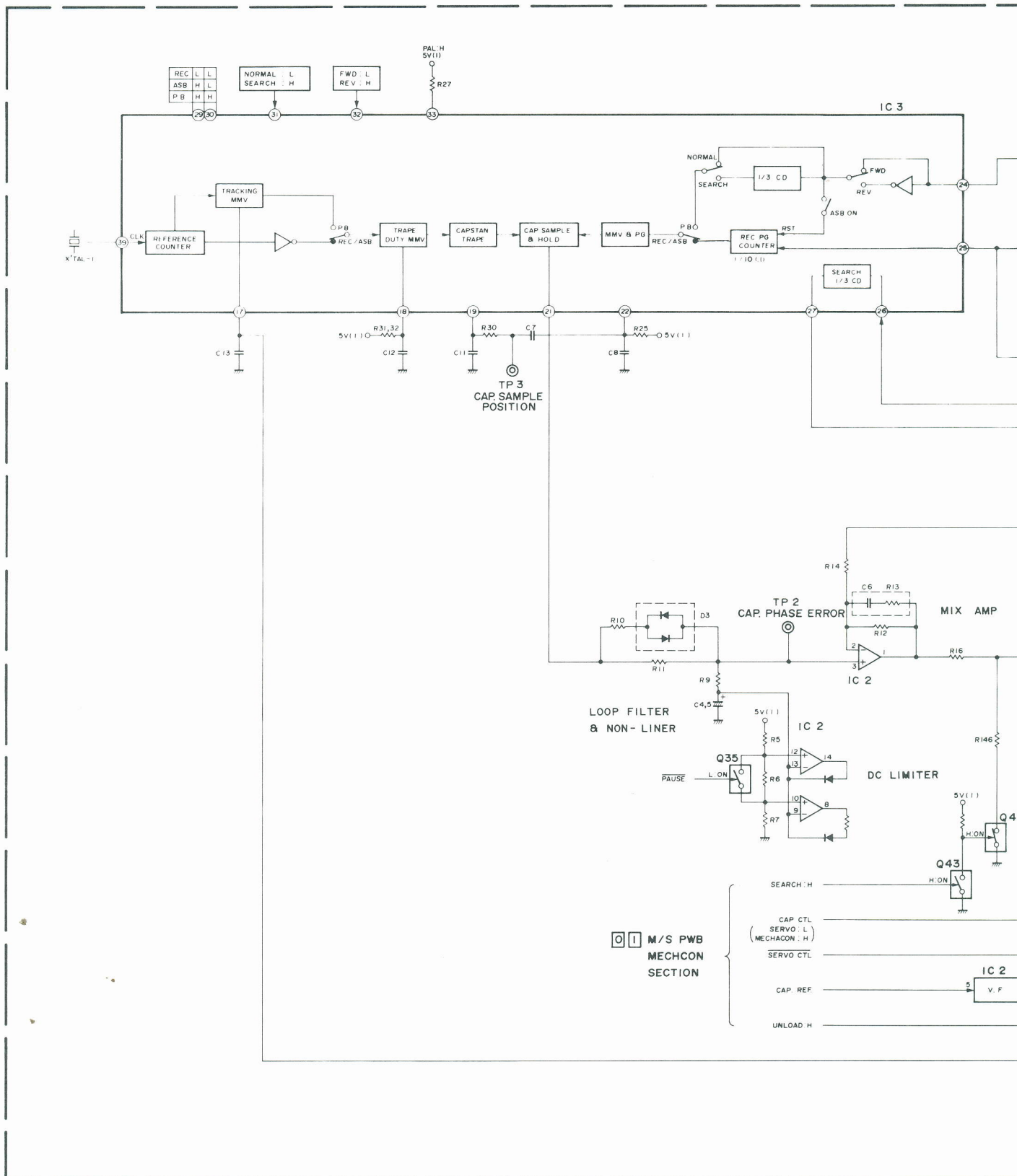
Kopffrommelservo Blockschaltbild Drum servo block diagram

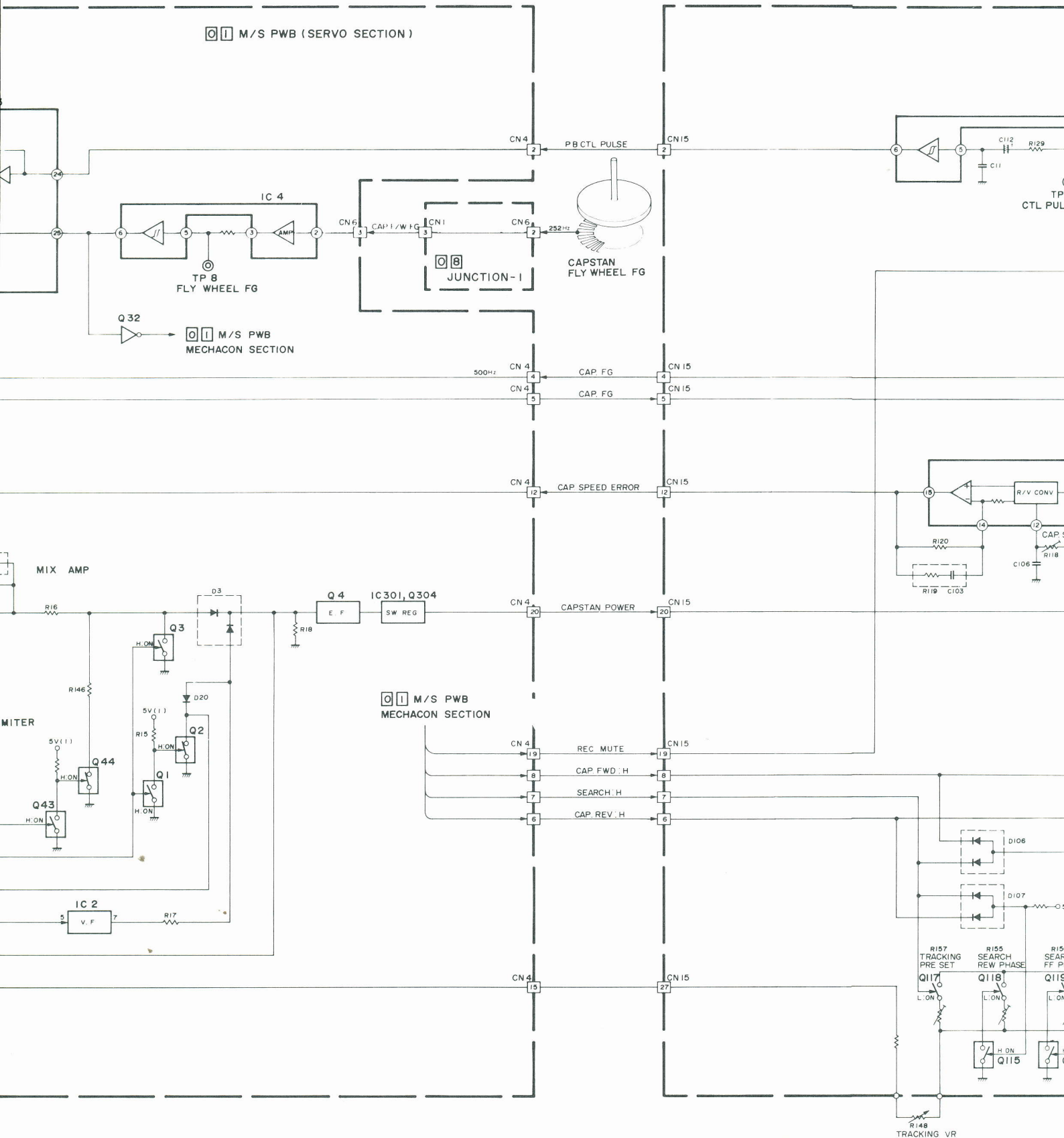
DRUM MDA TIMING CHART



DRUM MDA

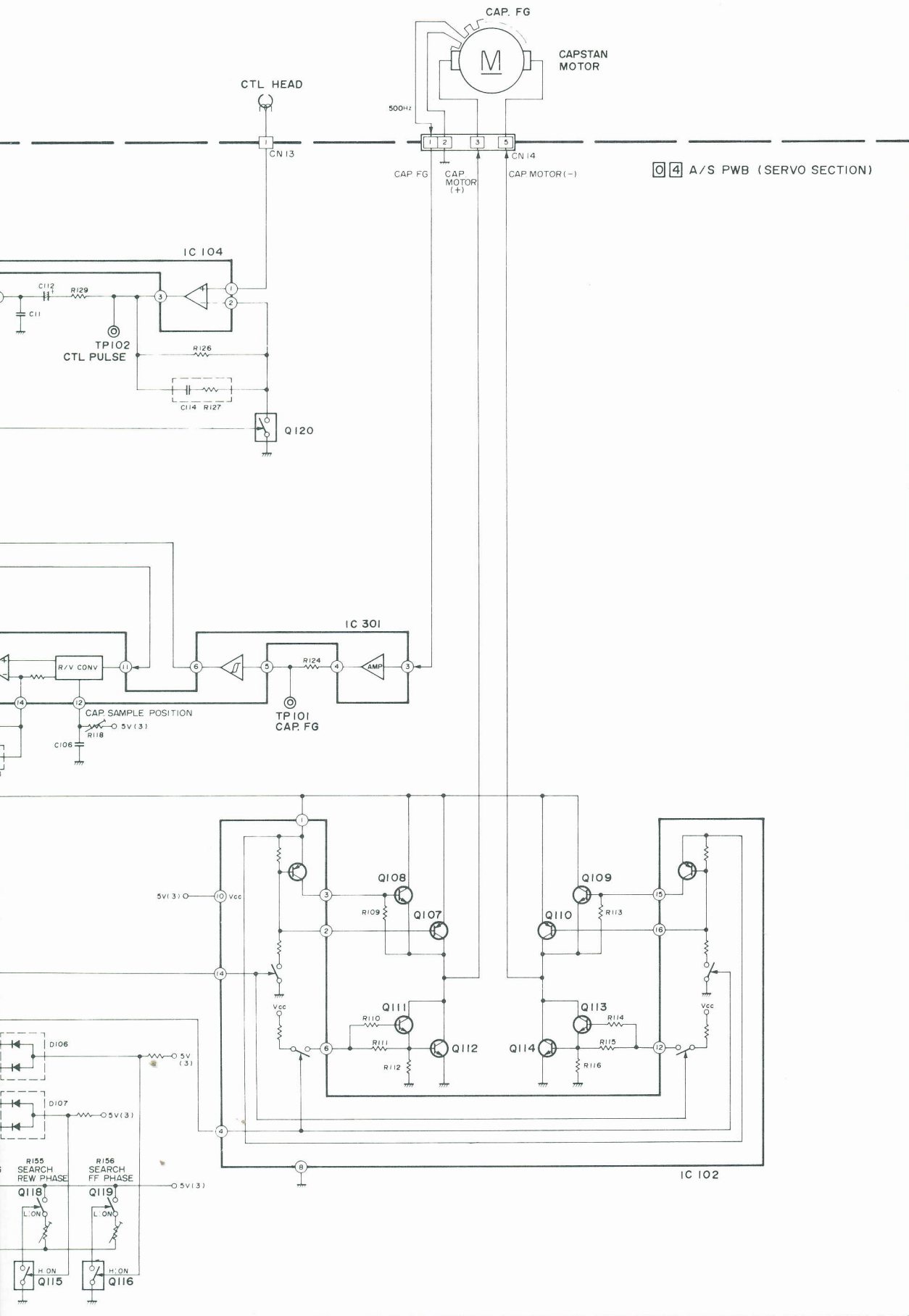






Capstanservo Blockschaltbild

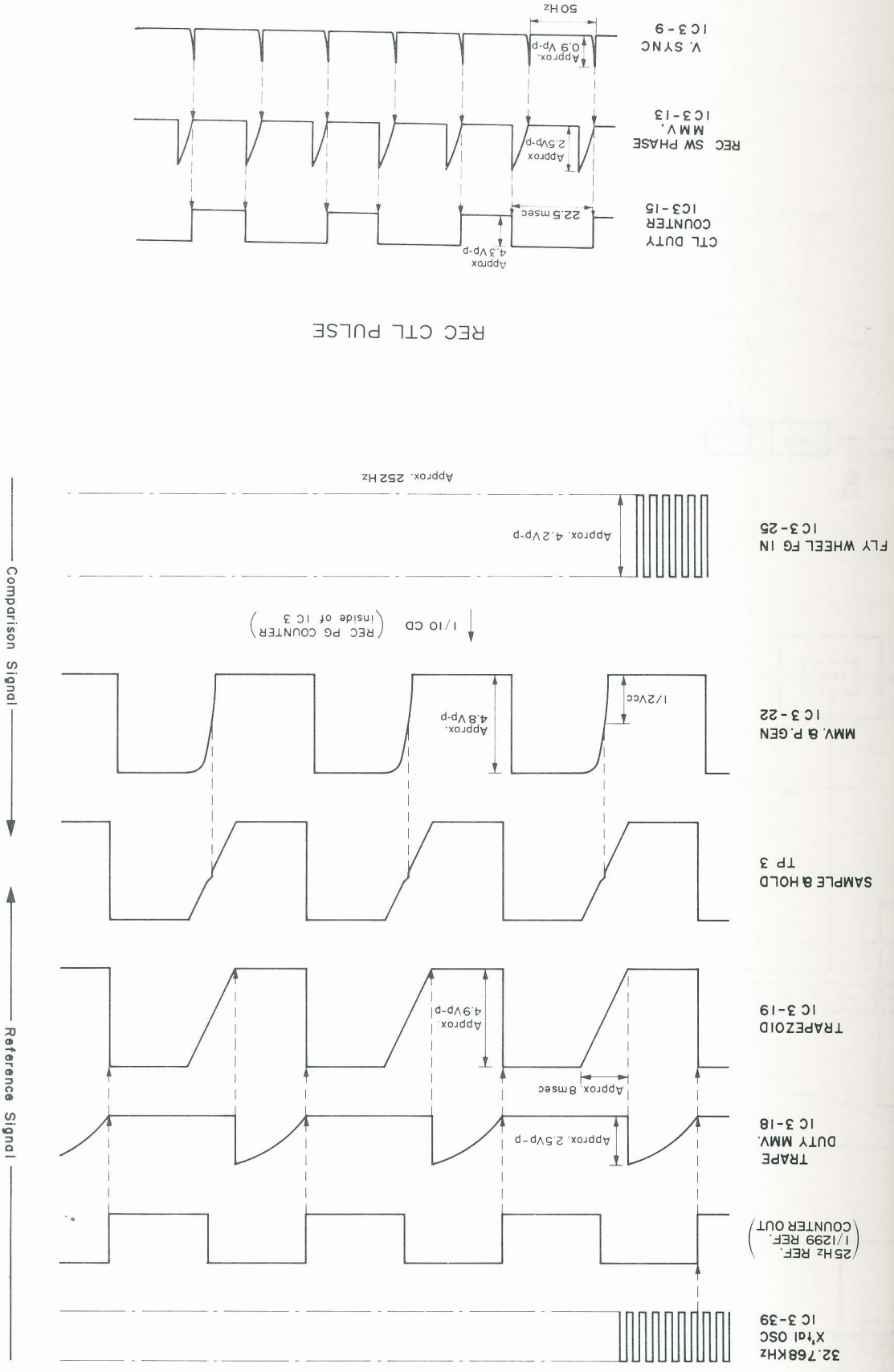
Capstan servo block diagram

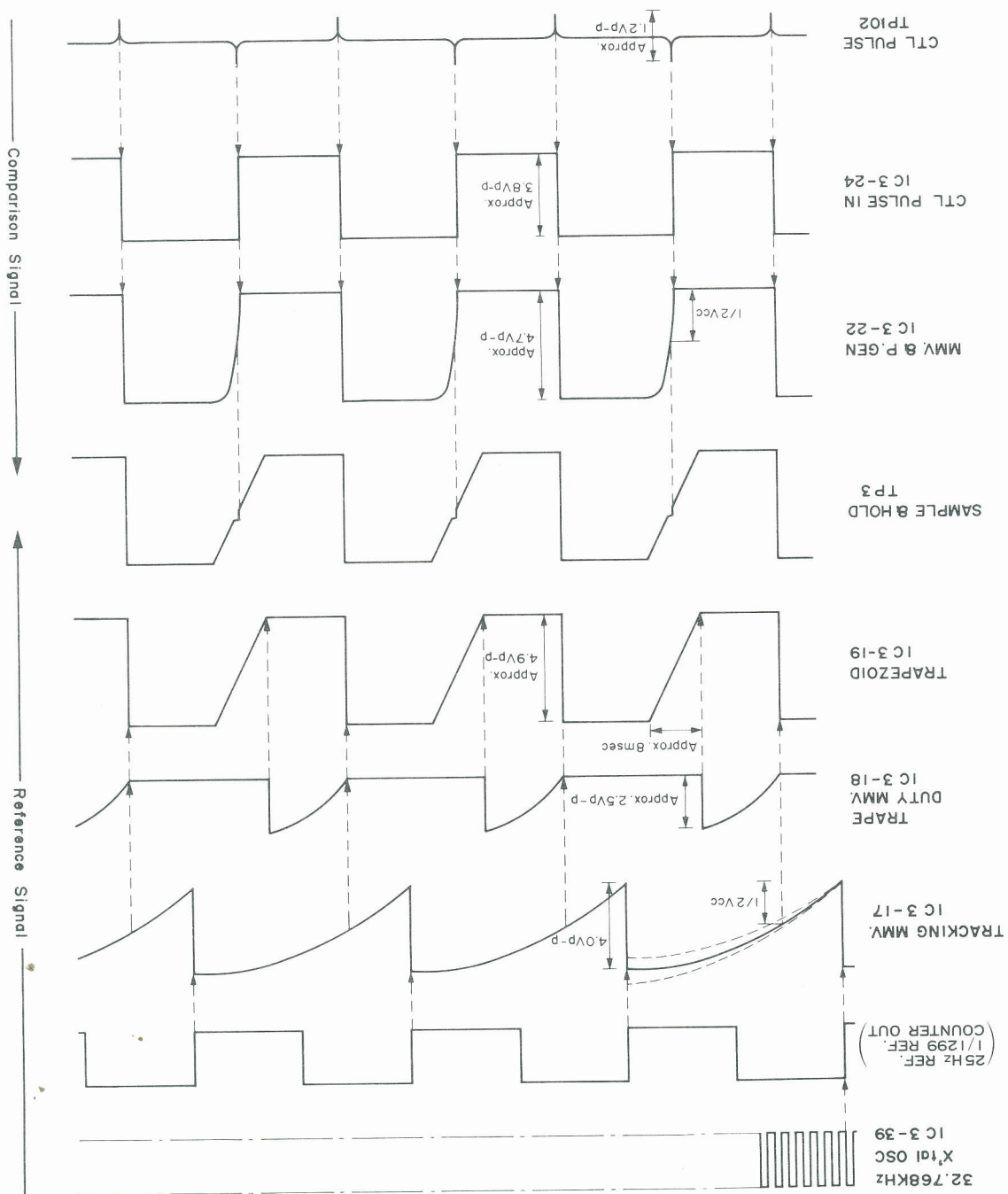


Capstan servo Impulsdiagramm

Capstan servo timing chart

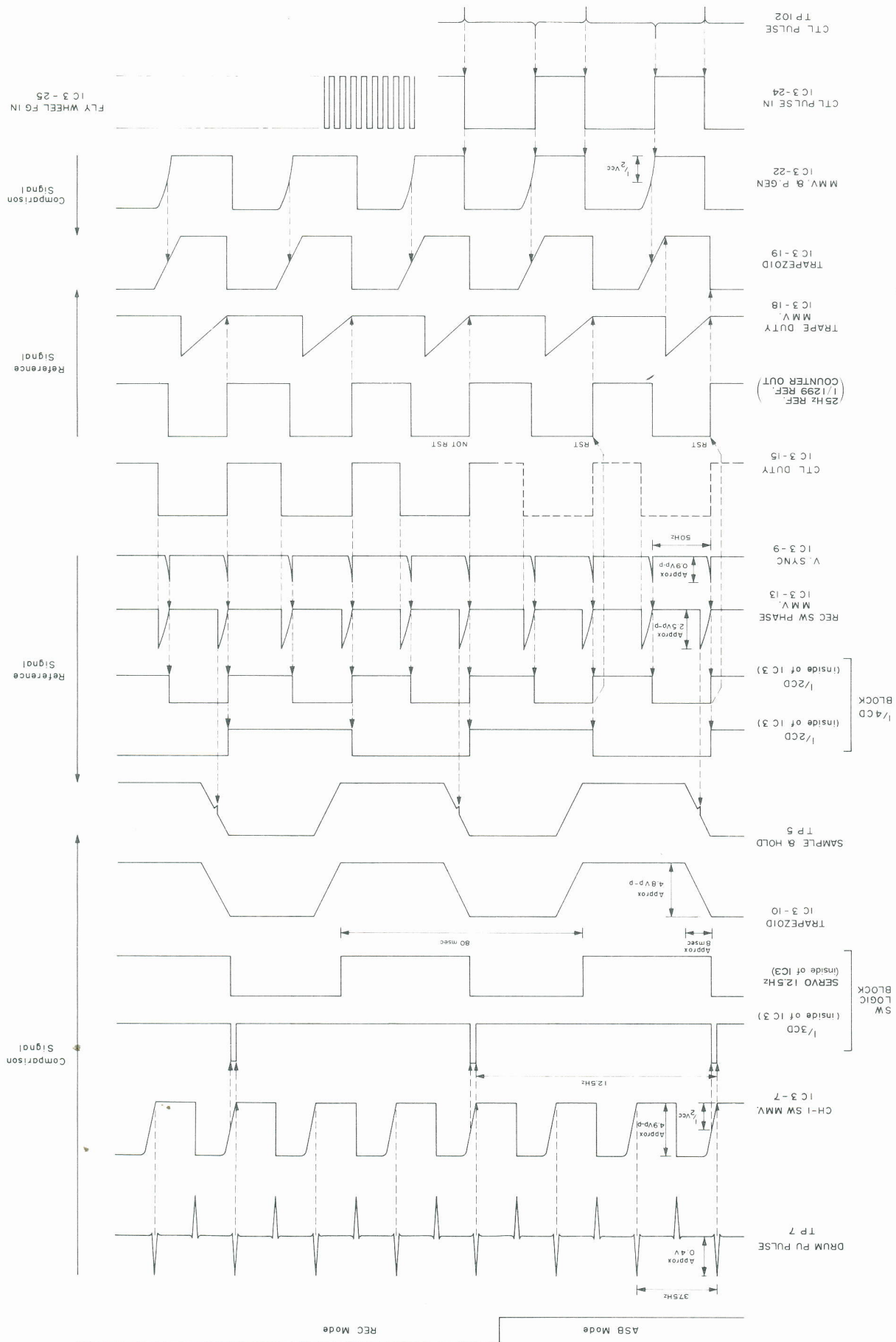
Aufnahme
REC mode





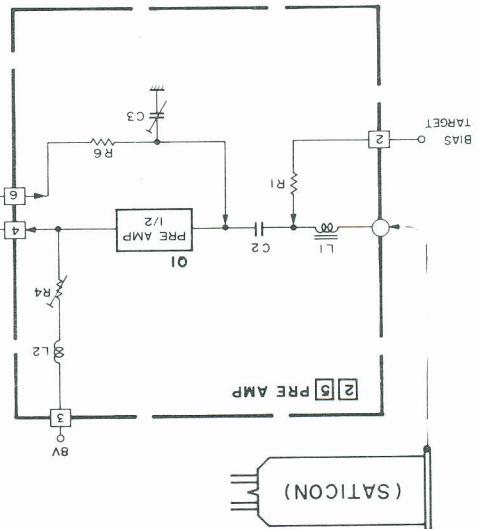
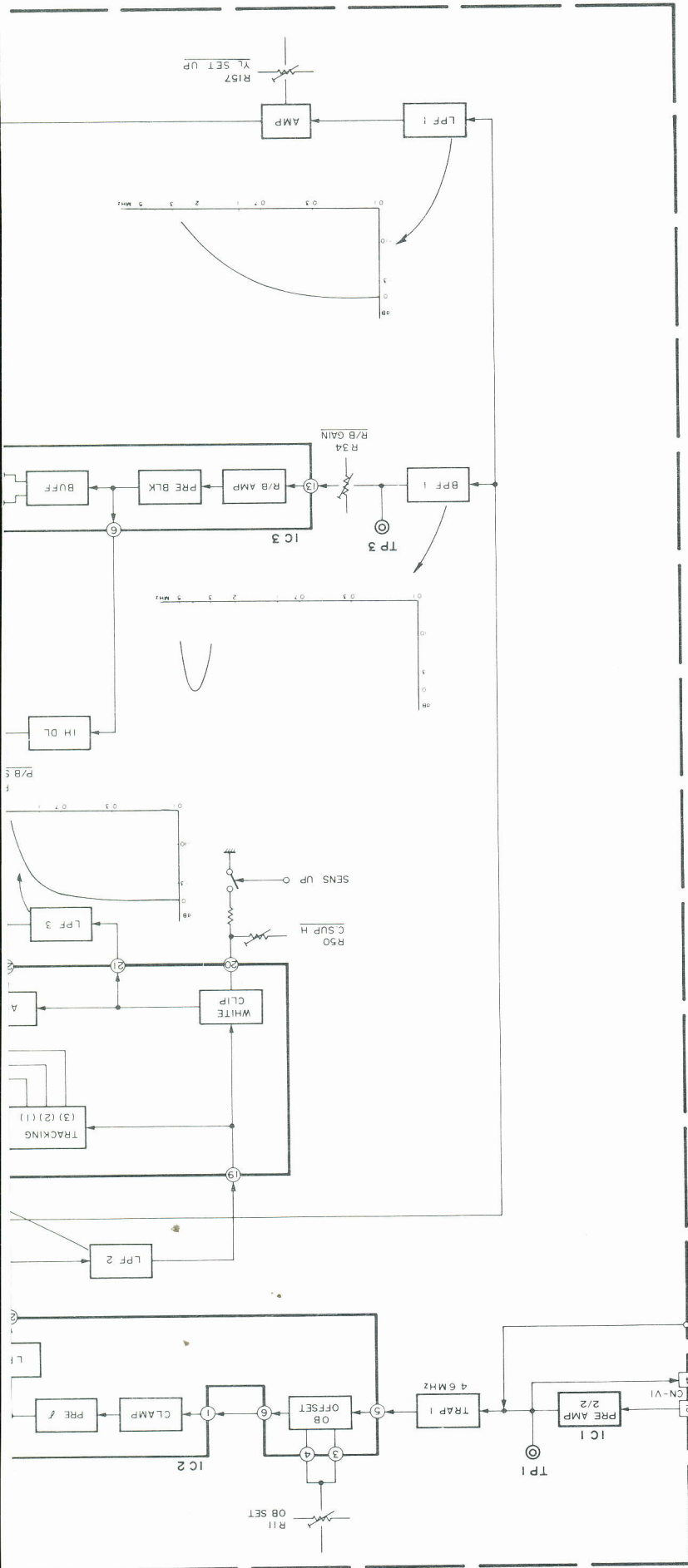
Wiedergabe P.B. mode

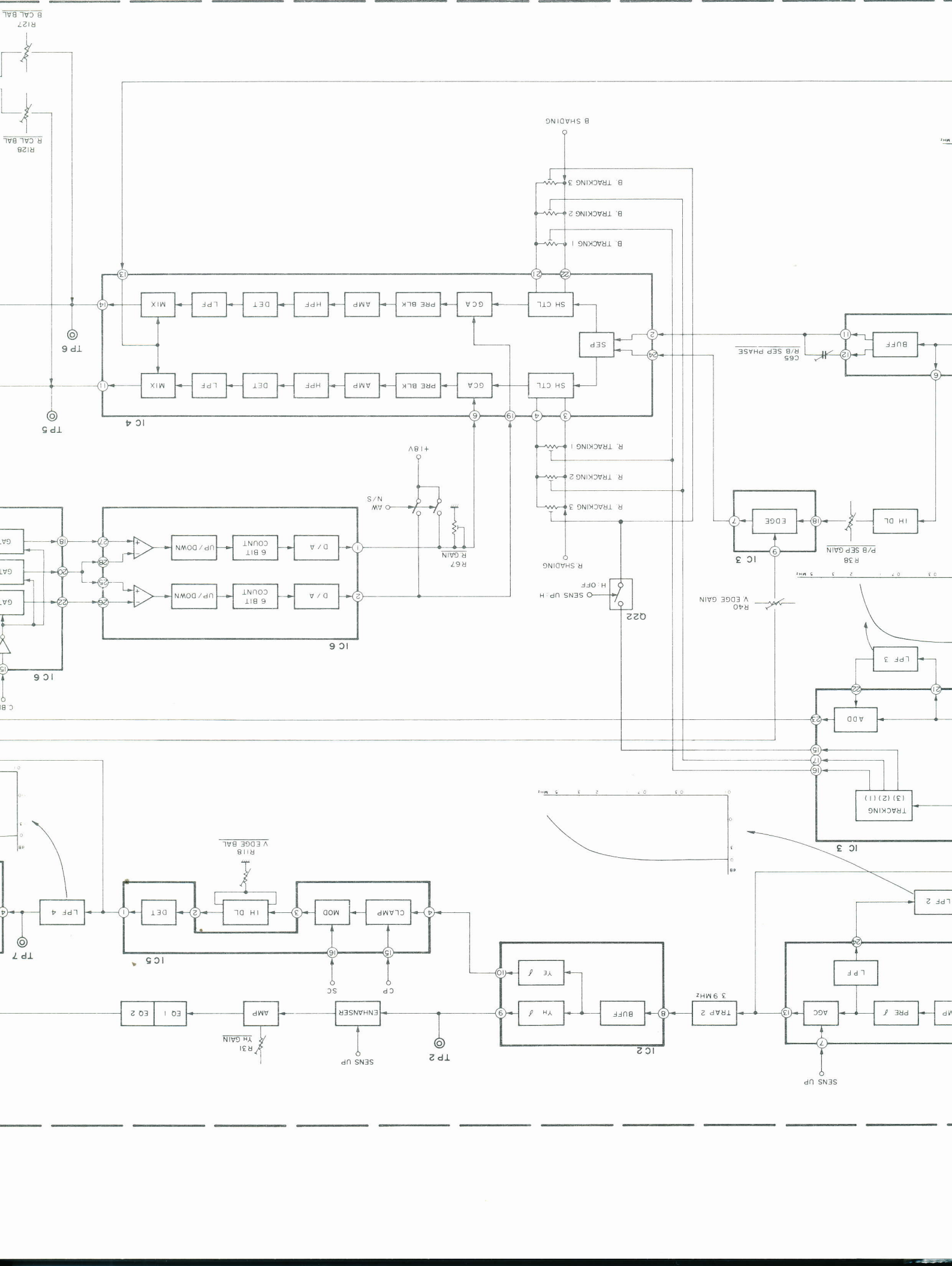
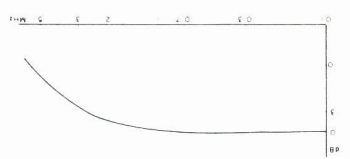
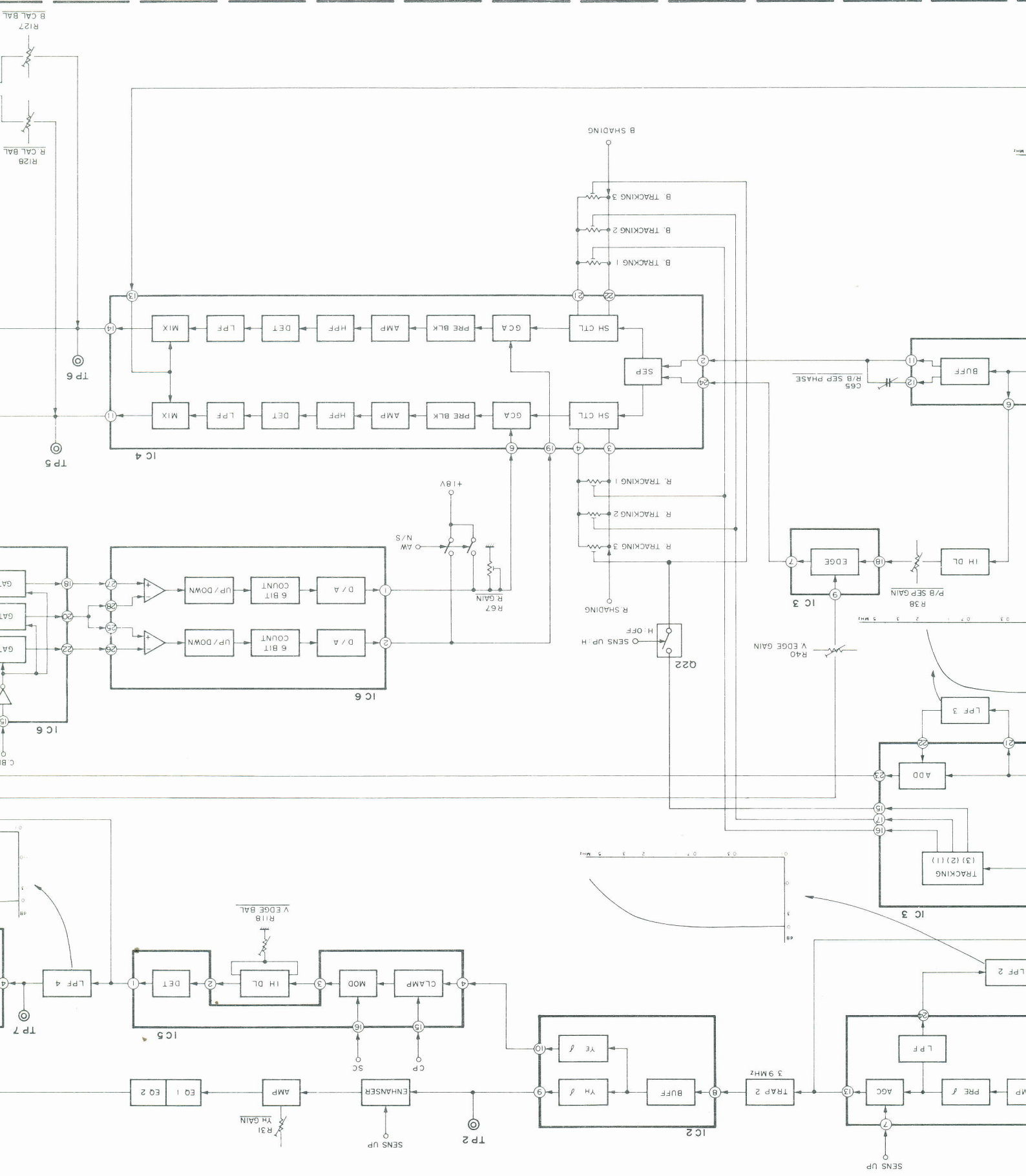
Assembly-Schnitt
Assembly mode

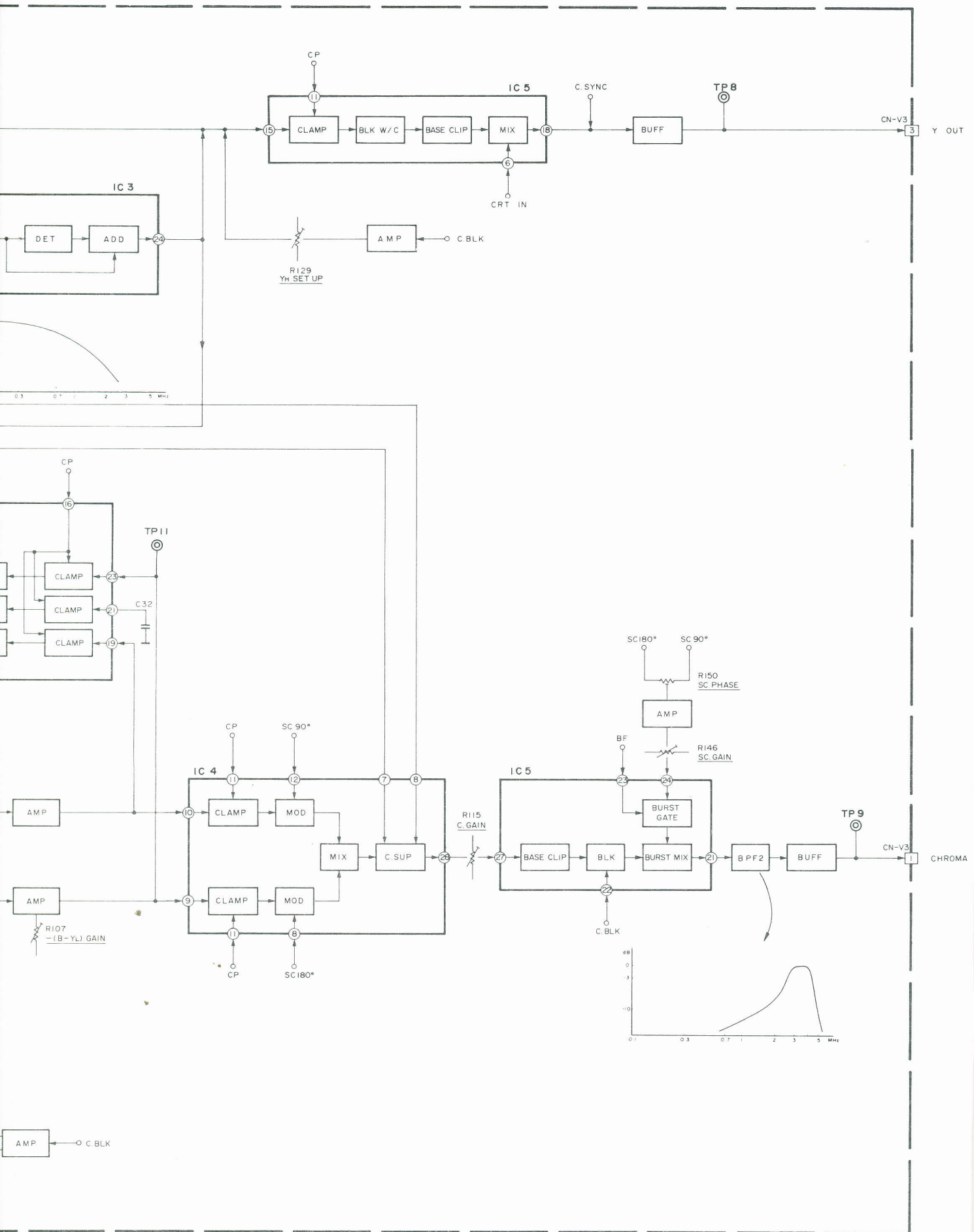


Camera Video Blockschaltbild

Camera video block diagram



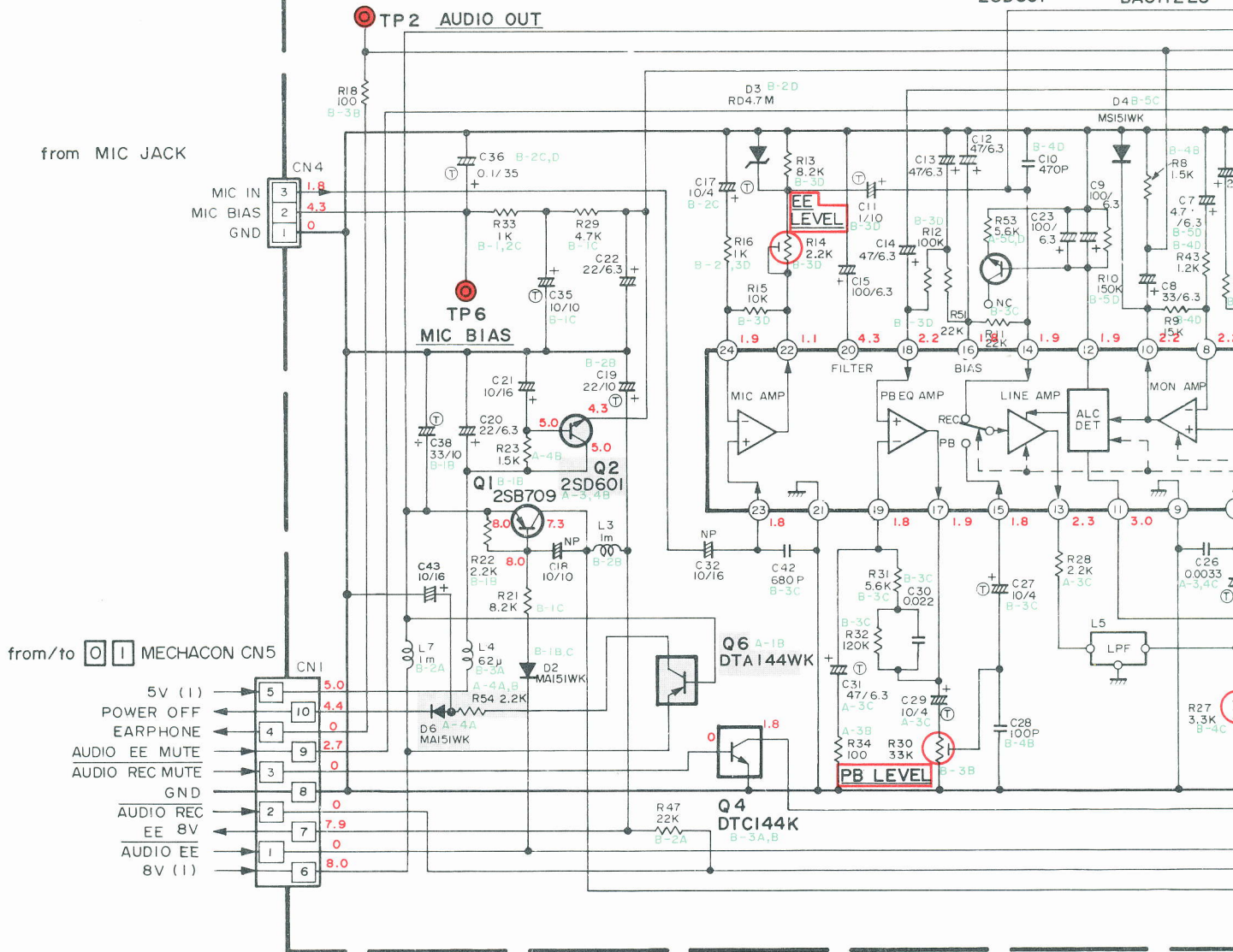




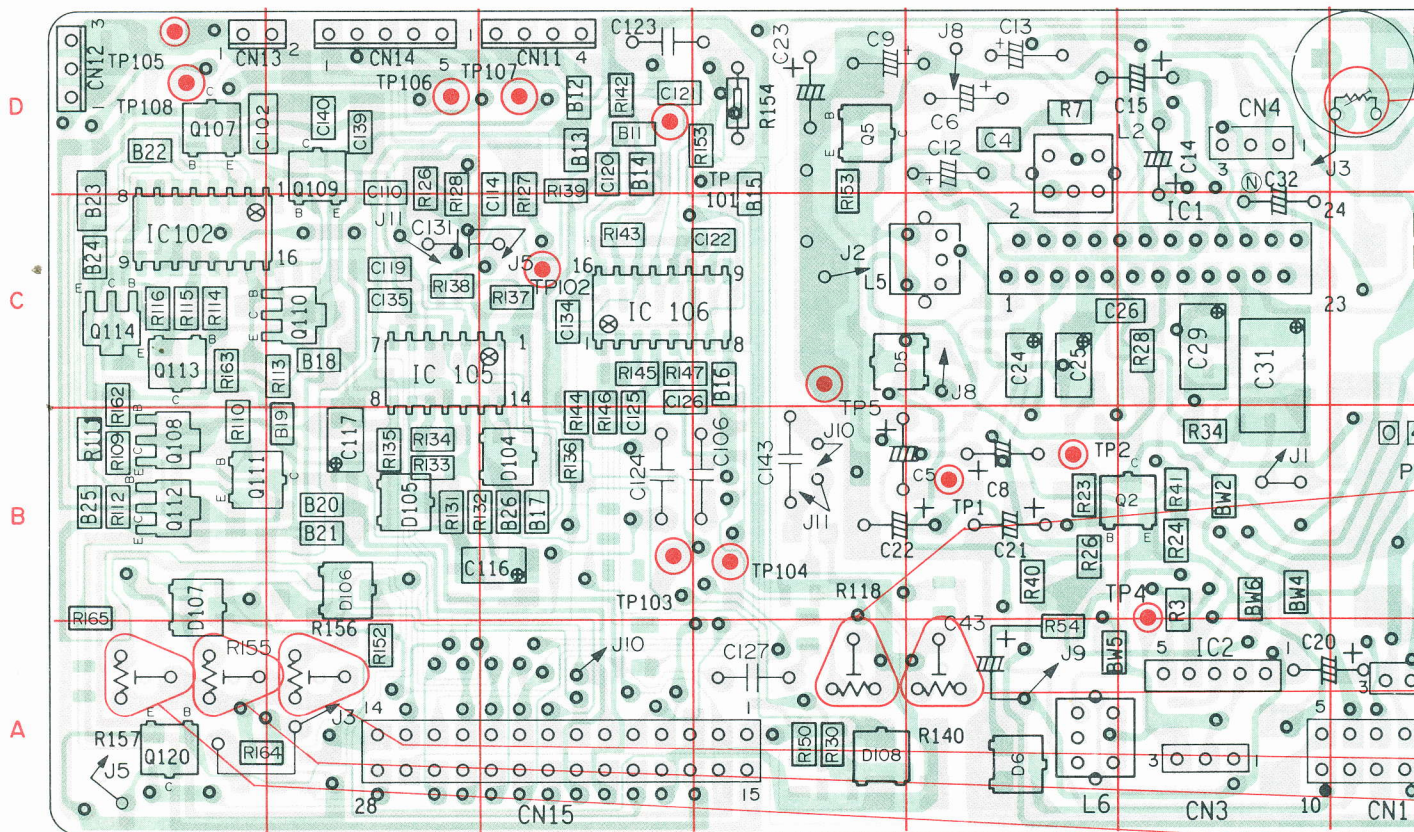
04 AUDIO/SERVO (AUDIO SECTION)

Q5 A-5D
2SD601

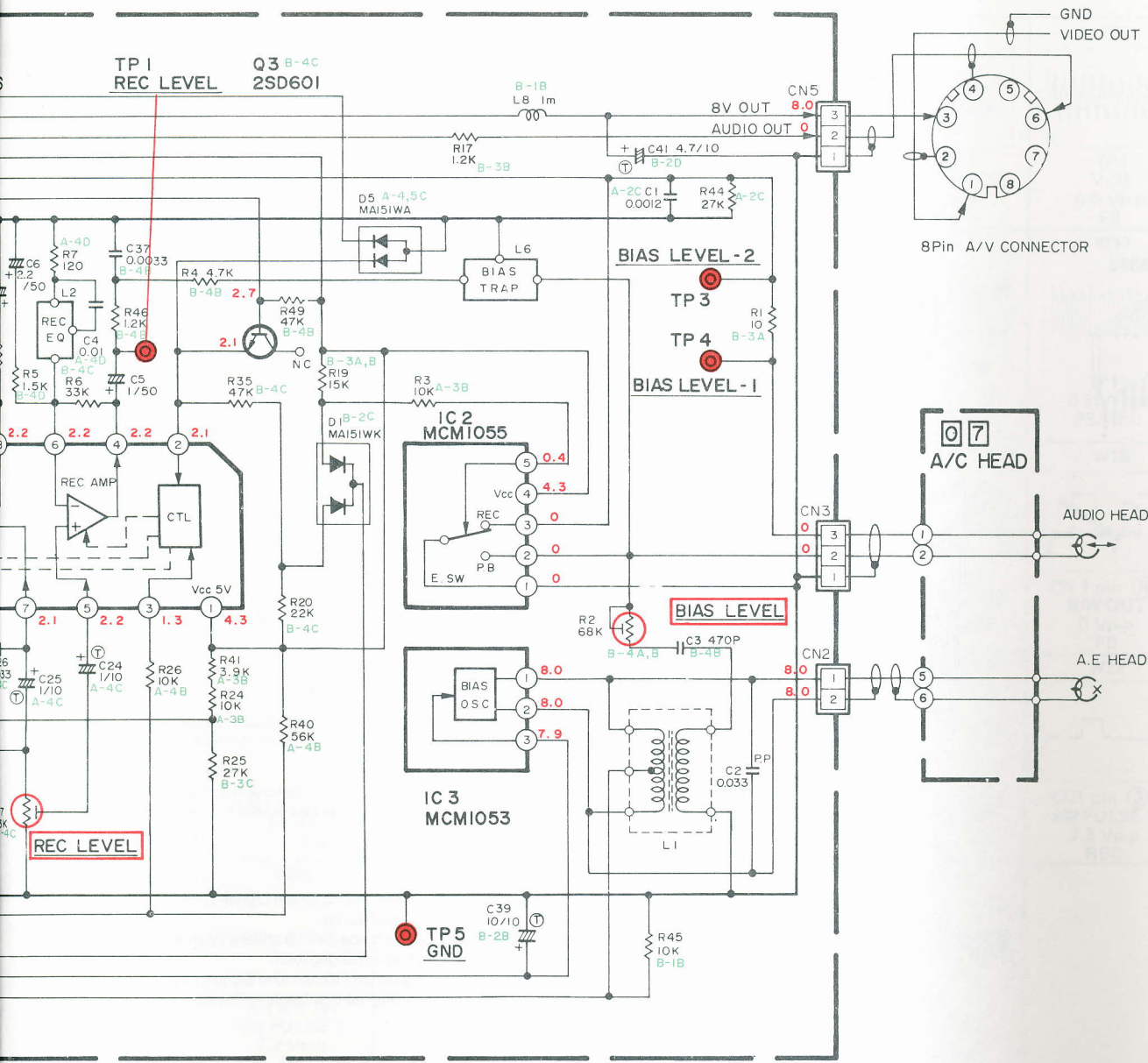
IC 1
BA5112LS



8 7 6 5 4 3



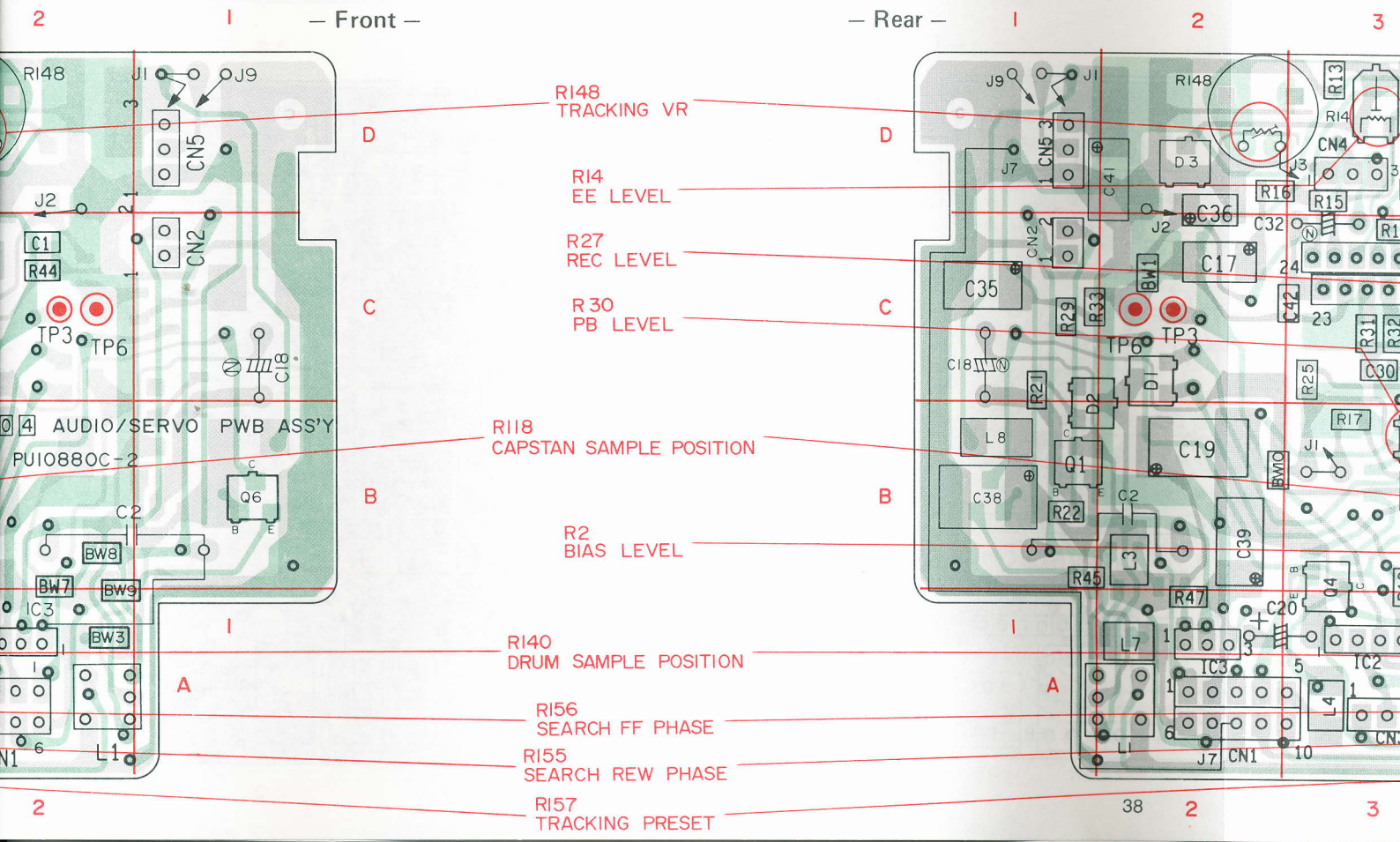
8 7 6 5 4 3 37



IC1 CTL MOD

IC1 pin (2)	REC/PB CTL
IC1 pin (3)	MUTE CTL
	MIC AMP
	PB. EQ AMP
	REC/PB SW
	MON AMP
	REC AMP
	LINE AMP

- NOTES: Unkl
1. All resi
 2. All ind
 3. All cap
- : Ch
 : El
 : Ta
 : Tol
 : DC Voltage stop mode
- Hinweis:
1. Alle Gleichspa ohne Signal g
 2. Bauteile in der Nur gegen Ori



Audio-Schaltbild Audio circuit diagram

IC1 CTL MODE

	REC	EE/REC MUTE	PB	PB MUTE
IC1 pin ② REC/PB CTL	L	L	H	H
IC1 pin ③ MUTE CTL	L	H	L	H
MIC AMP	ON	ON	ON	ON
PB EQ AMP	ON	ON	ON	ON
REC/PB SW	REC	REC	PB	PB
MON AMP	ON	ON	ON	OFF
REC AMP	ON	OFF	OFF	OFF
LINE AMP	ON	ON	OFF	OFF

NOTES: Unless otherwise specified.

- All resistance values are in ohms.
- All inductance values are in H.
- All capacitance values are in μF .
 - : Chip capacitor
 - : Mylar capacitor
 - : Electrolytic capacitor
 - : Non-polar capacitor
 - : Tantalum capacitor
 - : Polypropylene capacitor
- Shaded () parts are critical for safety. Replace only with specified part numbers.
- The digital transistor is a transistor that includes built in resistors. Both PNP and NPN transistors are available.

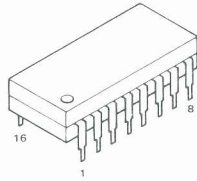


- DC voltages are measured with a digital voltmeter during stop mode without a signal.

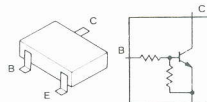
Hinweis:

- Alle Gleichspannungen sind mit einem Digital-Voltmeter im Stop-Betrieb ohne Signal gemessen.
- Bauteile in den schattierten Flächen sind Sicherheits-Bauteile! Nur gegen Original-Ersatzteile austauschen!

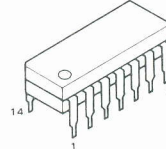
BA6322F
BA6302AF



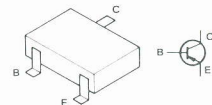
DTC144K



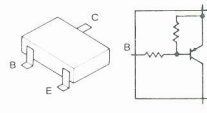
UPC451G



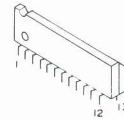
2SB709



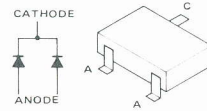
DTA124K



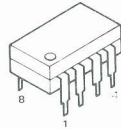
BA5112LS



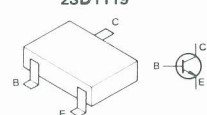
MA151WK



BAF6305



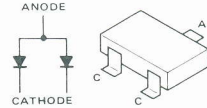
2SD601
2SD1119



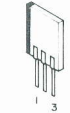
MCM1055



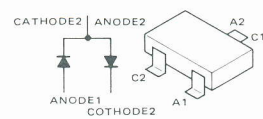
MA151WA



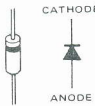
MCM1053



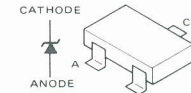
DA204K



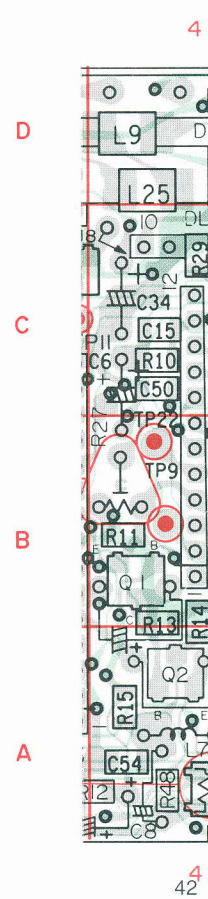
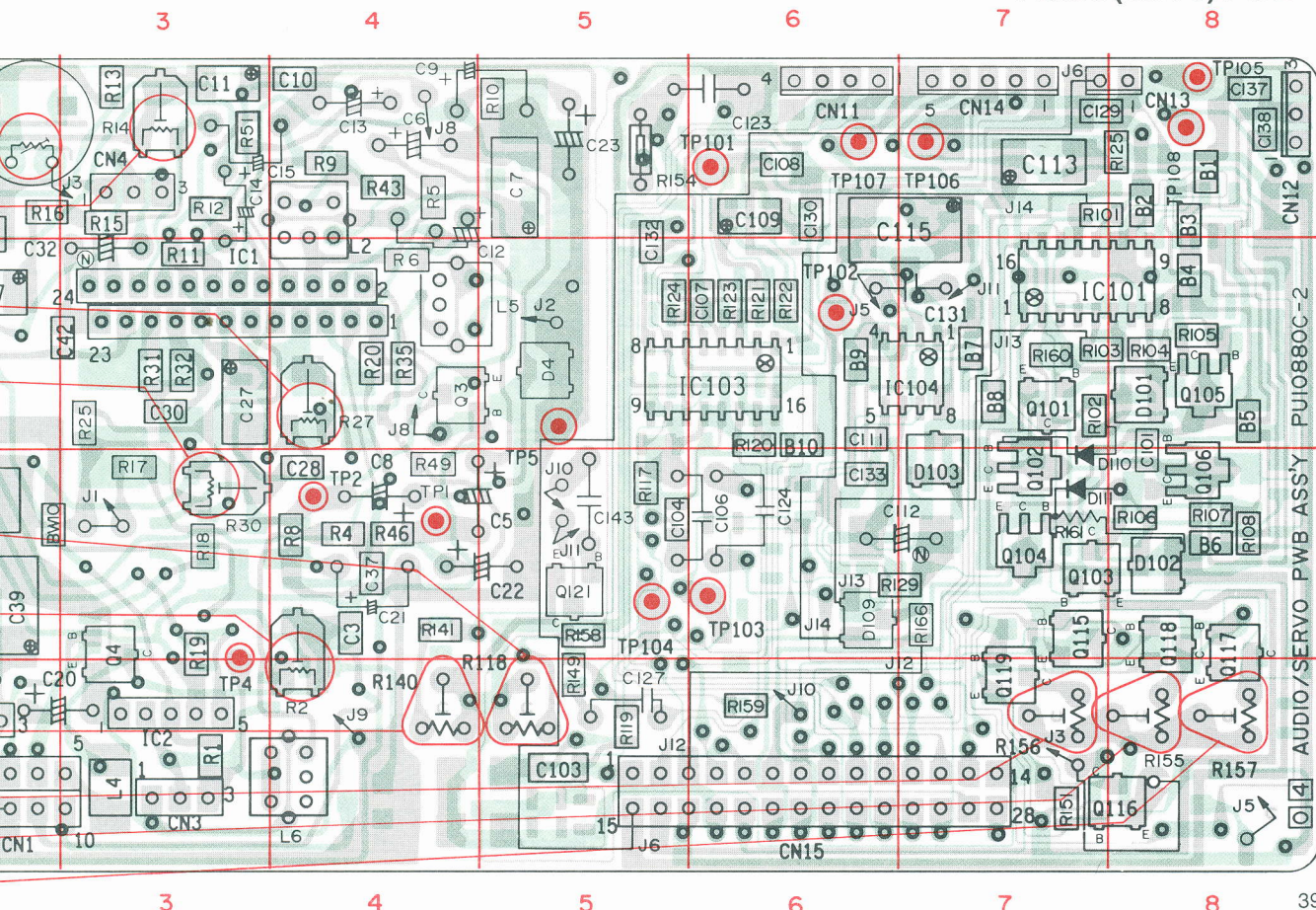
1SS133



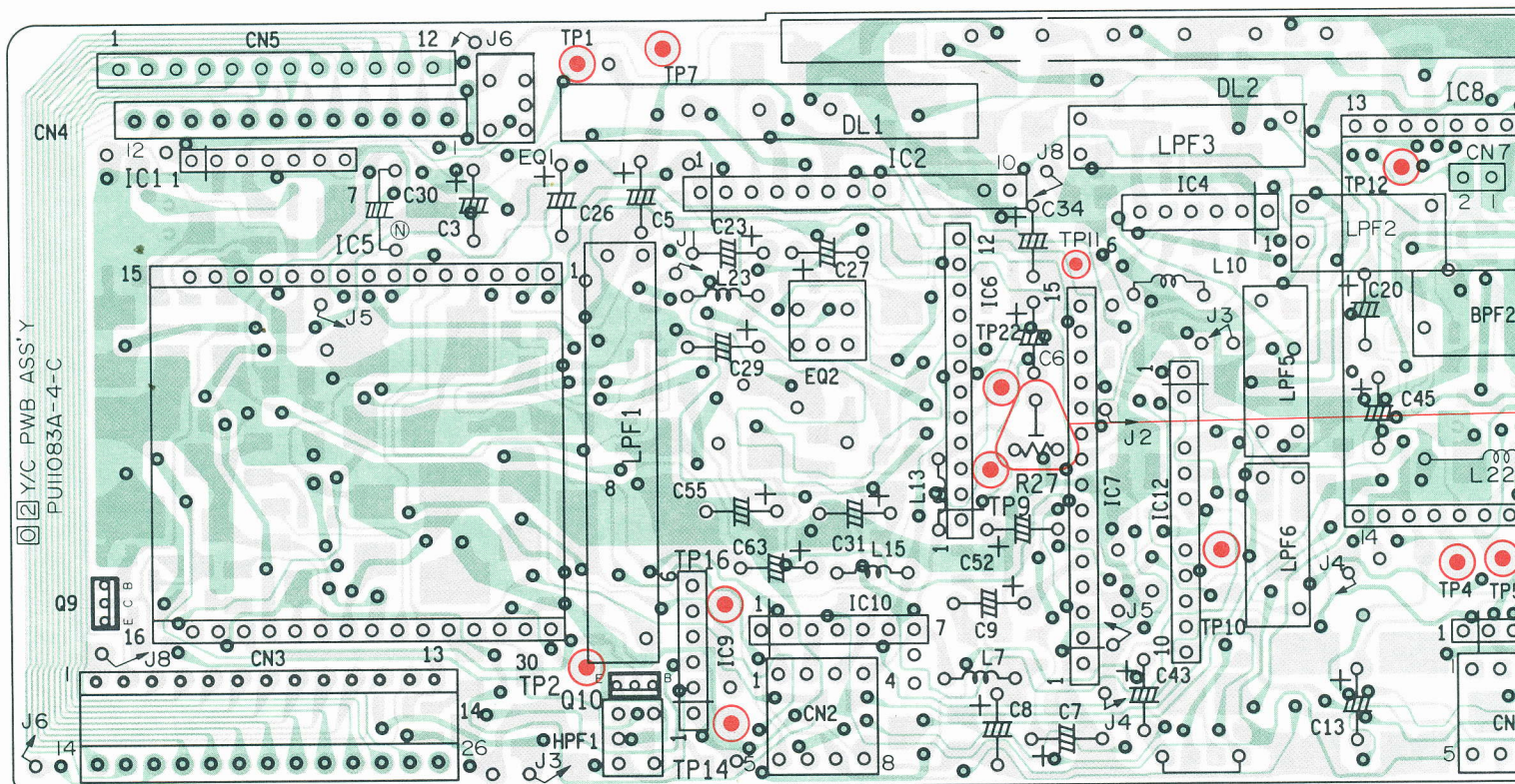
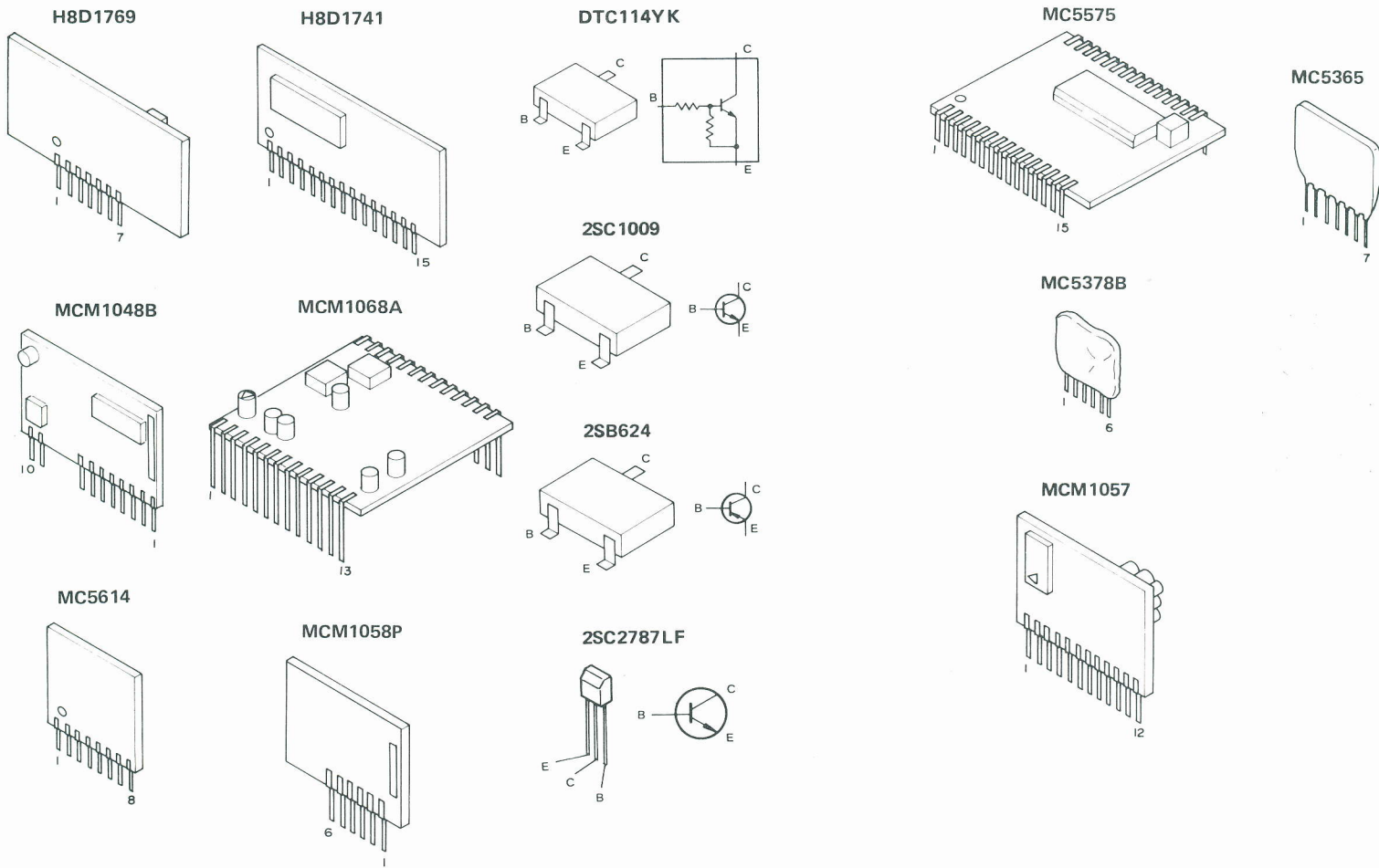
RD4.7M
RD8.2MB1
RD9.1MB2



04 Audio (Servo)-Platte Audio (servo) PWB



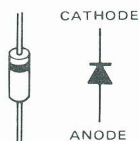
**0 2 Video-Platte (Recorder)
Video PWB (tape recorder)**



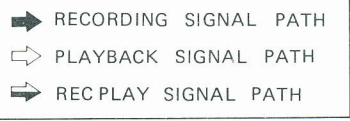
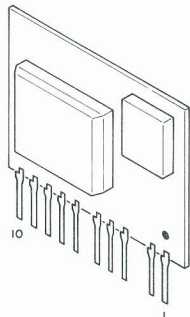
MC5365



1SS133

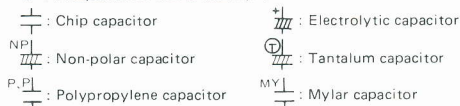


H8D1740



NOTES: Unless otherwise specified.

1. All resistance values are in ohms.
2. All inductance values are in H.
3. All capacitance values are in μF .



4. Shaded () parts are critical for safety. Replace only with specified part numbers.
5. The digital transistor that includes built in resistors. Both PNP and NPN transistors are available.

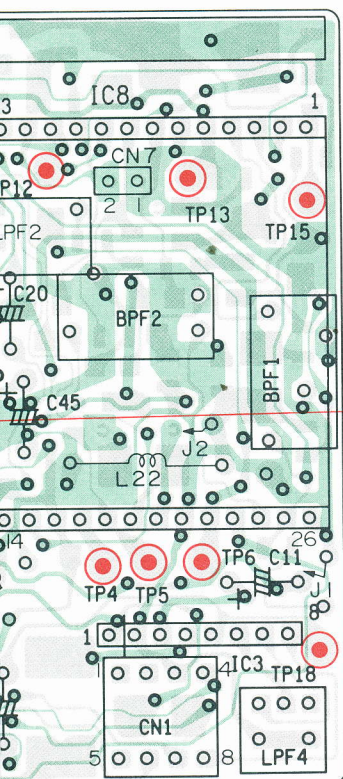


6. DC voltages are measured with a digital voltmeter during recording mode.
 7. Where voltage differs between recording and play-back, the voltage during play-back is shown in parentheses.
 8. Wave forms
- Recording: Measured by using "Y/C SEPARATOR" with color bar signal input.
 Play-back: Measured during play-back of color bar segment of Alignment Tape.

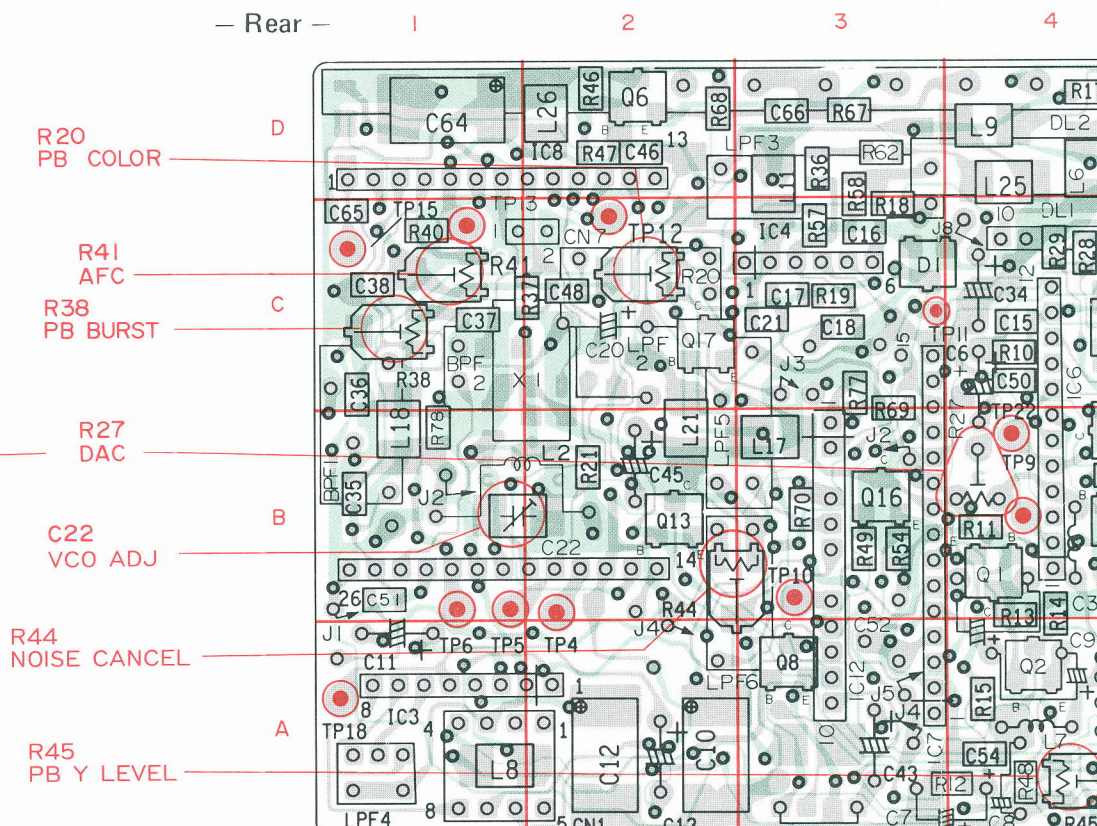
Hinweis:

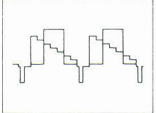
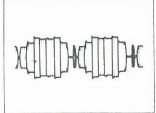
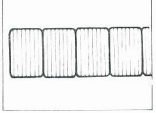
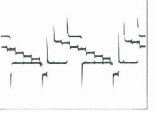

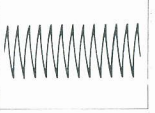


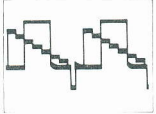
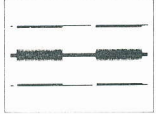
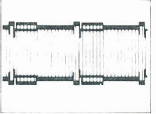

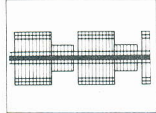

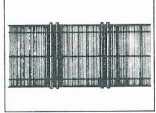
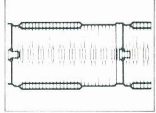
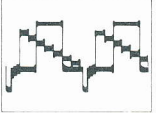
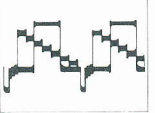
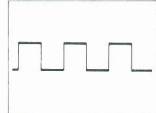
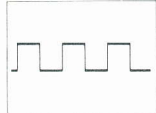
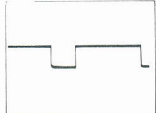
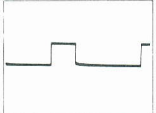
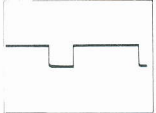
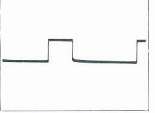
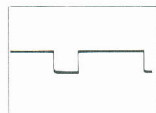
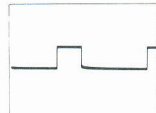
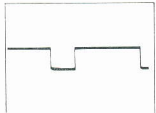
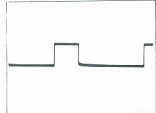

1. Alle Gleichspannungen sind mit einem Digital-Voltmeter im Aufnahmebetrieb gemessen.
2. Ergeben sich im Wiedergabe-Betrieb andere Spannungen, so sind diese in Klammern angegeben.
3. Bauteile in den schattierten Flächen sind Sicherheitsbauteile! Nur gegen Original-Ersatzteile wechseln!

— Front —

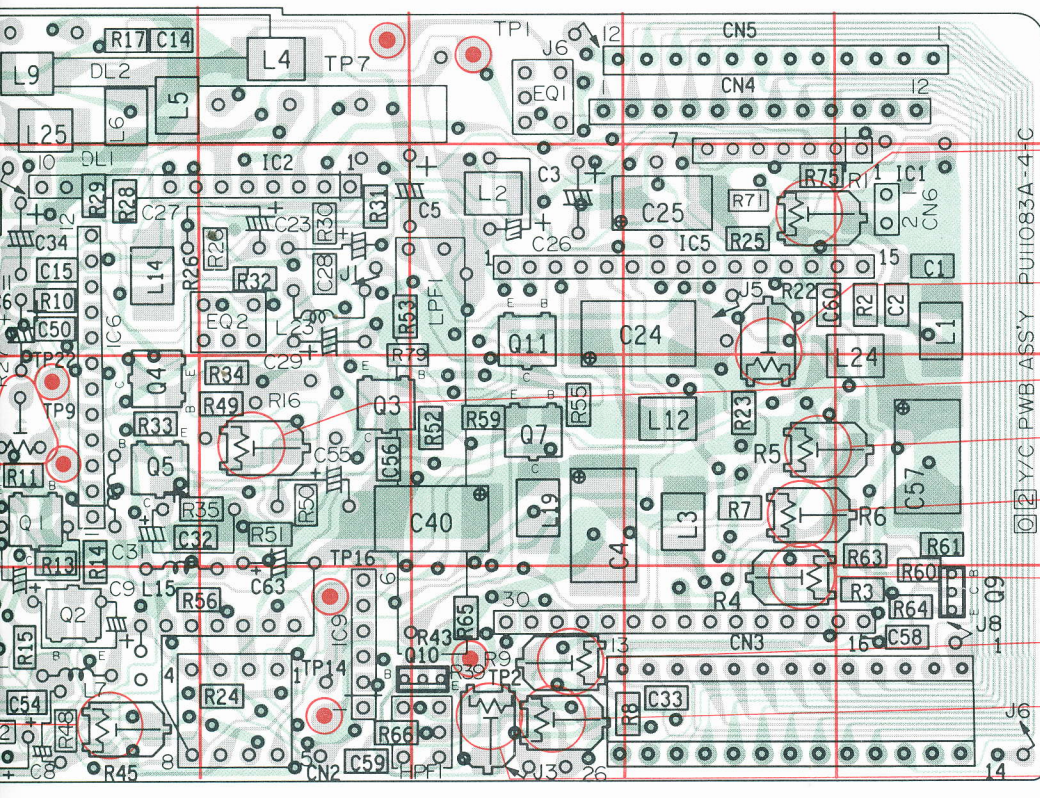


— Rear —



<p>W1</p>  <p>CN6 pin ② Y IN 1 Vp-p REC</p>	<p>W2</p>  <p>TP23 CHROMA IN BARST 0.2 Vp-p REC</p>	<p>W3</p>  <p>TP1 PB FM 0.28 Vp-p PB</p>	<p>W4</p>  <p>TP2 EMPHASIS 0.64 Vp-p REC</p>	<p>W5</p>  <p>TP18 VIDEO OUT 2 Vp-p PB</p>	<p>W6</p>  <p>TP4 VCO 0.5 Vp-p PB</p>
<p>W7</p>  <p>TP5 VCO OUT 0.9 Vp-p</p>	<p>W8</p>  <p>TP6 PB COLOR 0.2 Vp-p PB</p>	<p>W9</p>  <p>TP22 Y AMP IN 0.24 Vp-p REC 0.48 Vp-p PB</p>	<p>W10</p>  <p>TP9 DYAC 0.28 Vp-p REC</p>	<p>W11</p>  <p>IC7 pin ⑭ 2nd LMT IN 0.5 Vp-p PB</p>	<p>W12</p>  <p>TP12 0.55 Vp-p PB/REC</p>
<p>W13</p>  <p>TP14 REC COLOR 75 mVp-p REC</p>	<p>W14</p>  <p>TP15 AFC ERROR 2.6 V DC PB</p>	<p>W15</p>  <p>IC5 pin ⑭ FM MOD OUT 0.8 Vp-p REC</p>	<p>W16</p>  <p>TP16 REC FM 3.6 Vp-p REC</p>	<p>W17</p>  <p>IC5 pin ⑥ PB AMP-1 IN 0.36 Vp-p PB</p>	<p>W18</p>  <p>CN 1 pin ⑧ B/W OUT 2 Vp-p PB</p>
<p>W19</p>  <p>CN1 pin ① FF 25 4.0 Vp-p</p>	<p>W20</p>  <p>CN 1 pin ② FF 12.5 3.8 Vp-p</p>	<p>W21</p>  <p>CN 1 pin ⑥ SW PULSE 4 7.3 Vp-p PB</p>	<p>W21</p>  <p>CN1 pin ⑥ SW PULSE 4 7.3 Vp-p REC</p>	<p>W22</p>  <p>CN1 pin ③ SW PULSE 2 7.3 Vp-p PB</p>	<p>W22</p>  <p>CN1 pin ③ SW PULSE 2 7.3 Vp-p REC</p>
<p>W23</p>  <p>CN1 pin ④ SW PULSE 1 7.3 Vp-p PB</p>	<p>W23</p>  <p>CN1 pin ④ SW PULSE 1 7.3 Vp-p REC</p>	<p>W24</p>  <p>CN1 pin ⑦ SW PULSE 3 7.3 Vp-p PB</p>	<p>W24</p>  <p>CN1 pin ⑦ SW PULSE 3 7.3 Vp-p REC</p>	<p>W25</p>  <p>TP10 NOISE CANCEL PB</p>	

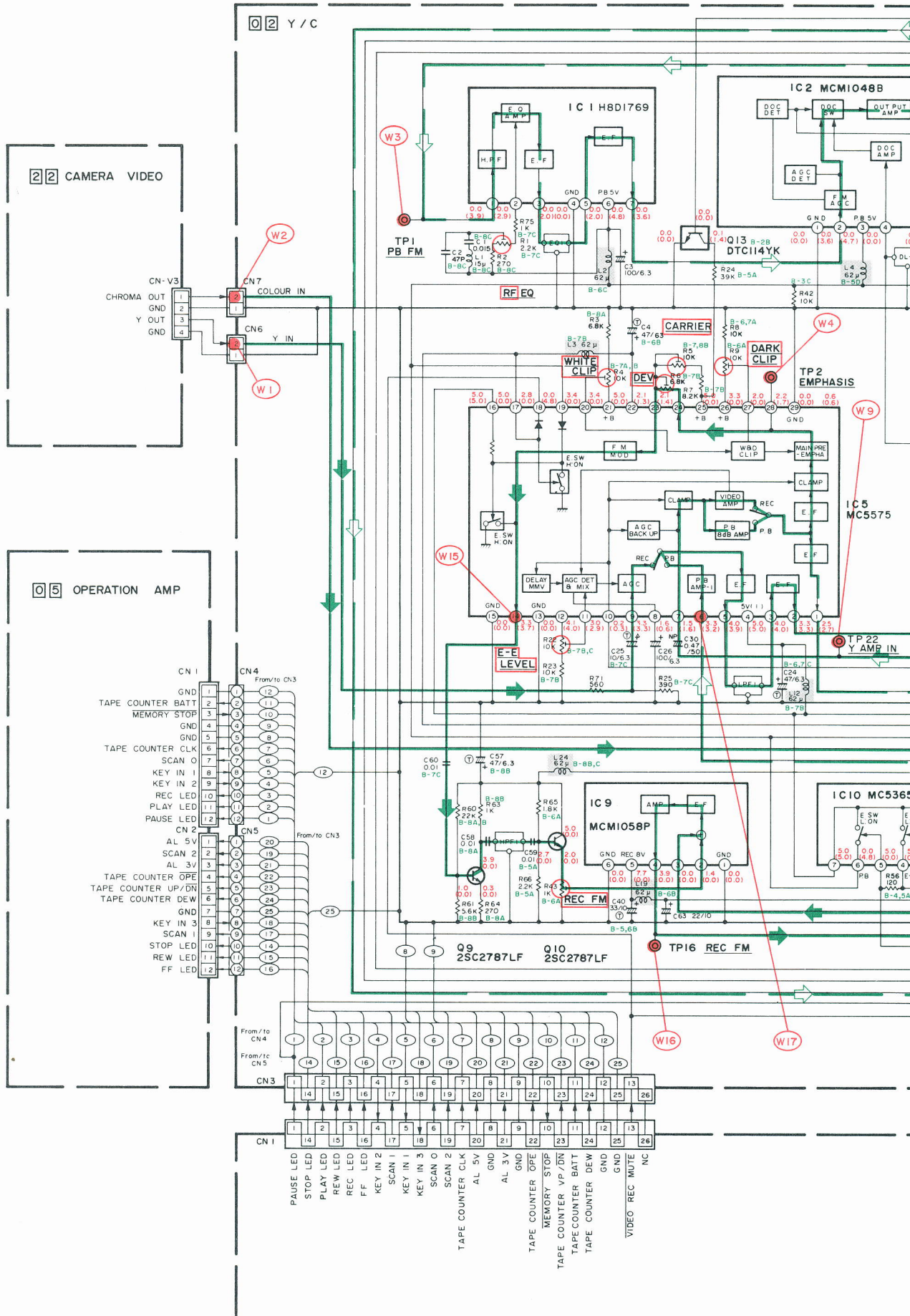
4 5 6 7 8

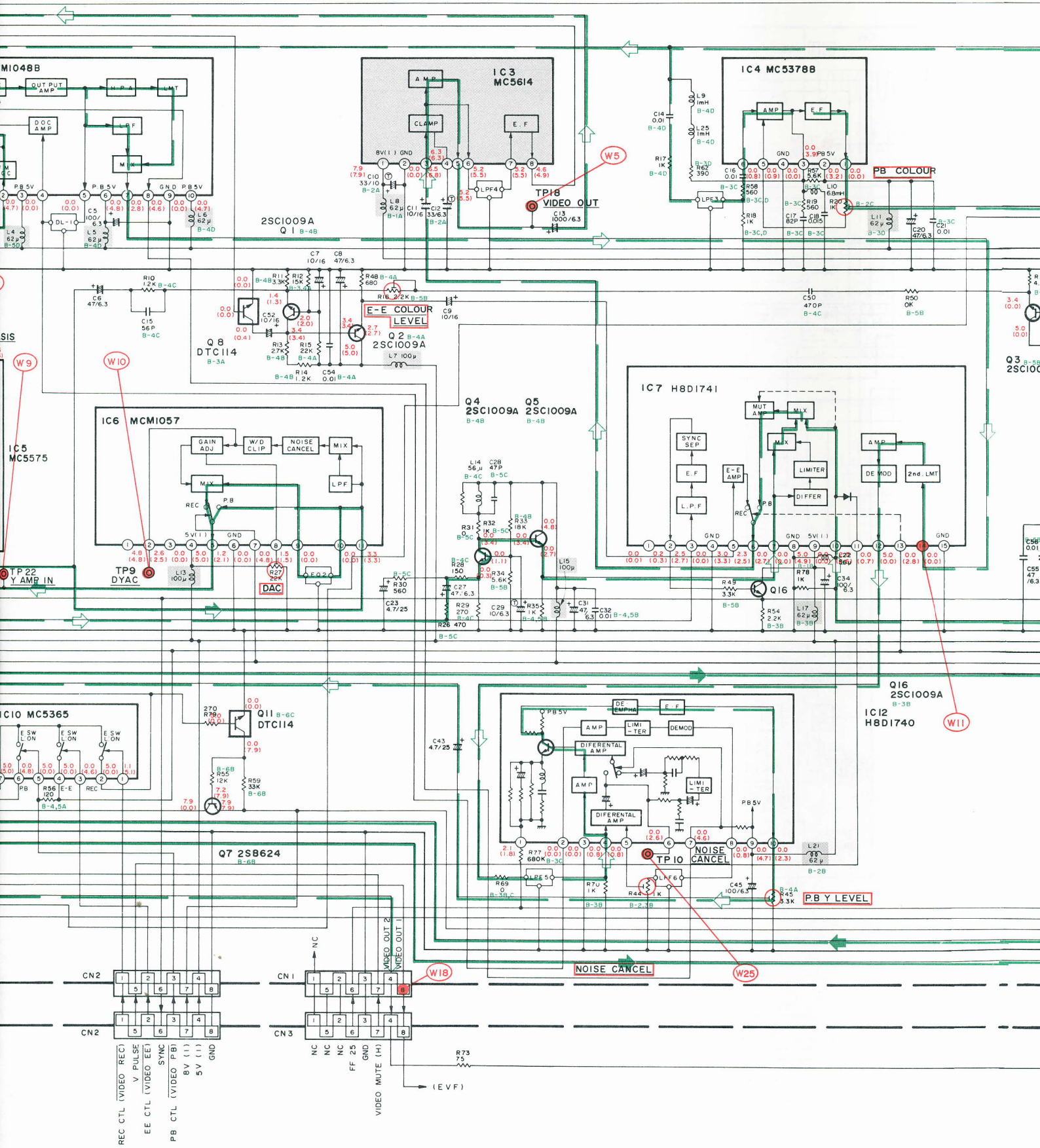


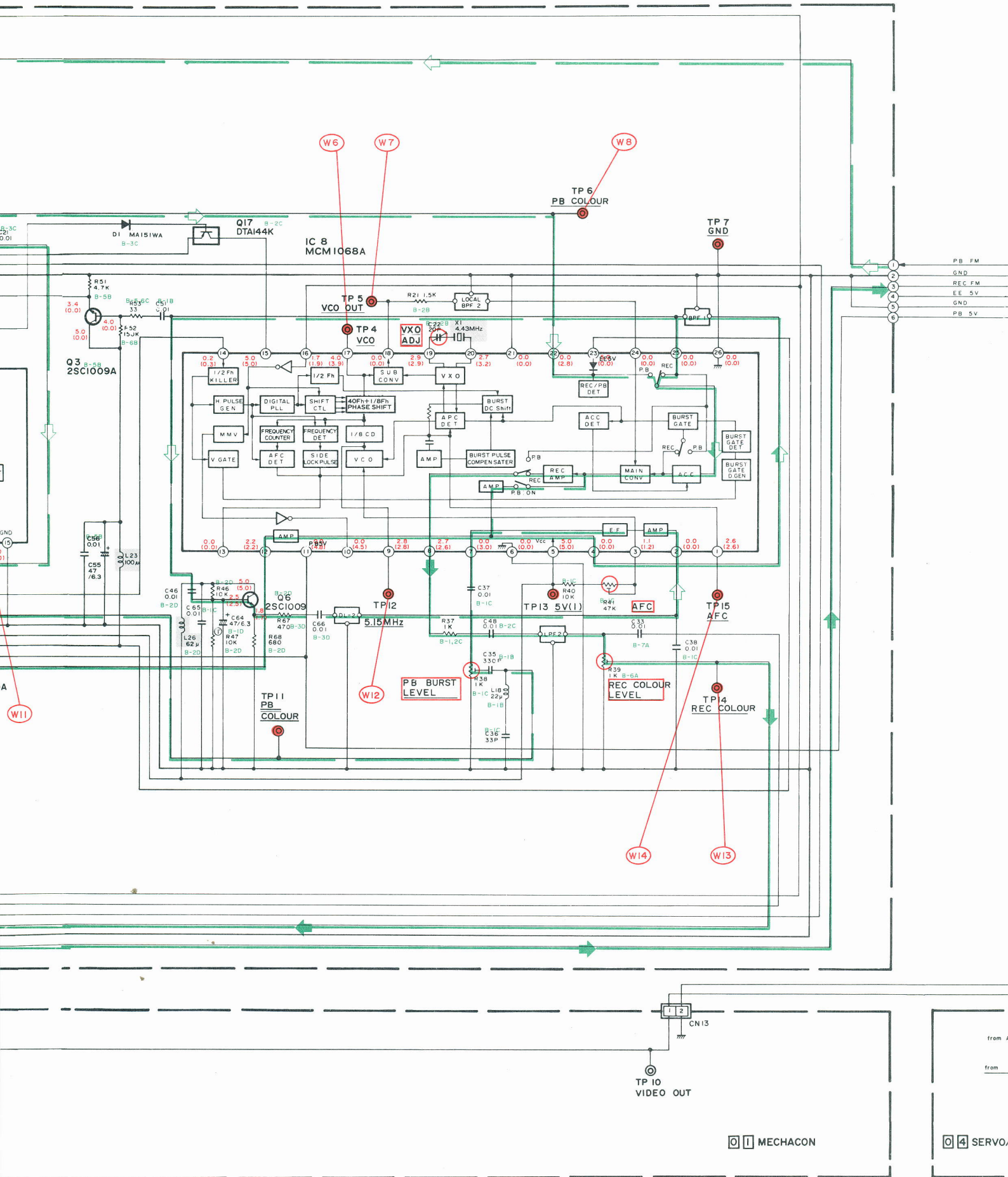
- R1 RF EQ
- R22 E-E LEVEL
- R16 E-E COLOR LEVEL
- R5 CARRIER
- R6 DEV
- R4 WHITE CLIP
- R9 DARK CLIP
- R39 REC COLOR LEVEL
- R43 REC FM

4 5 6 7 8

Video-Schaltbild (Recorder) Video circuit diagram (tape recorder)

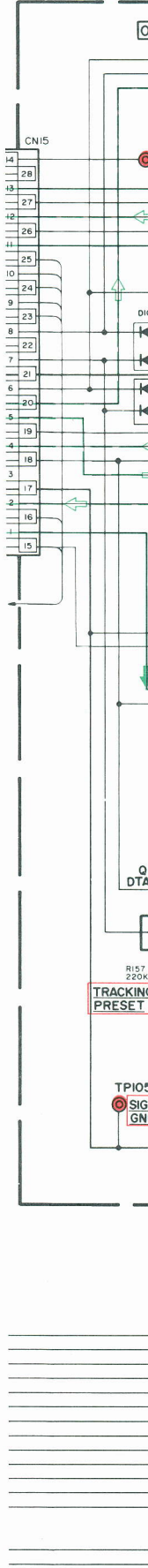
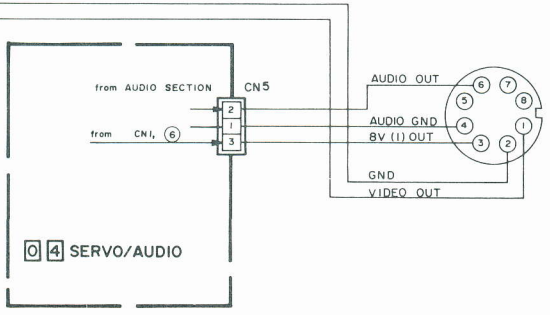
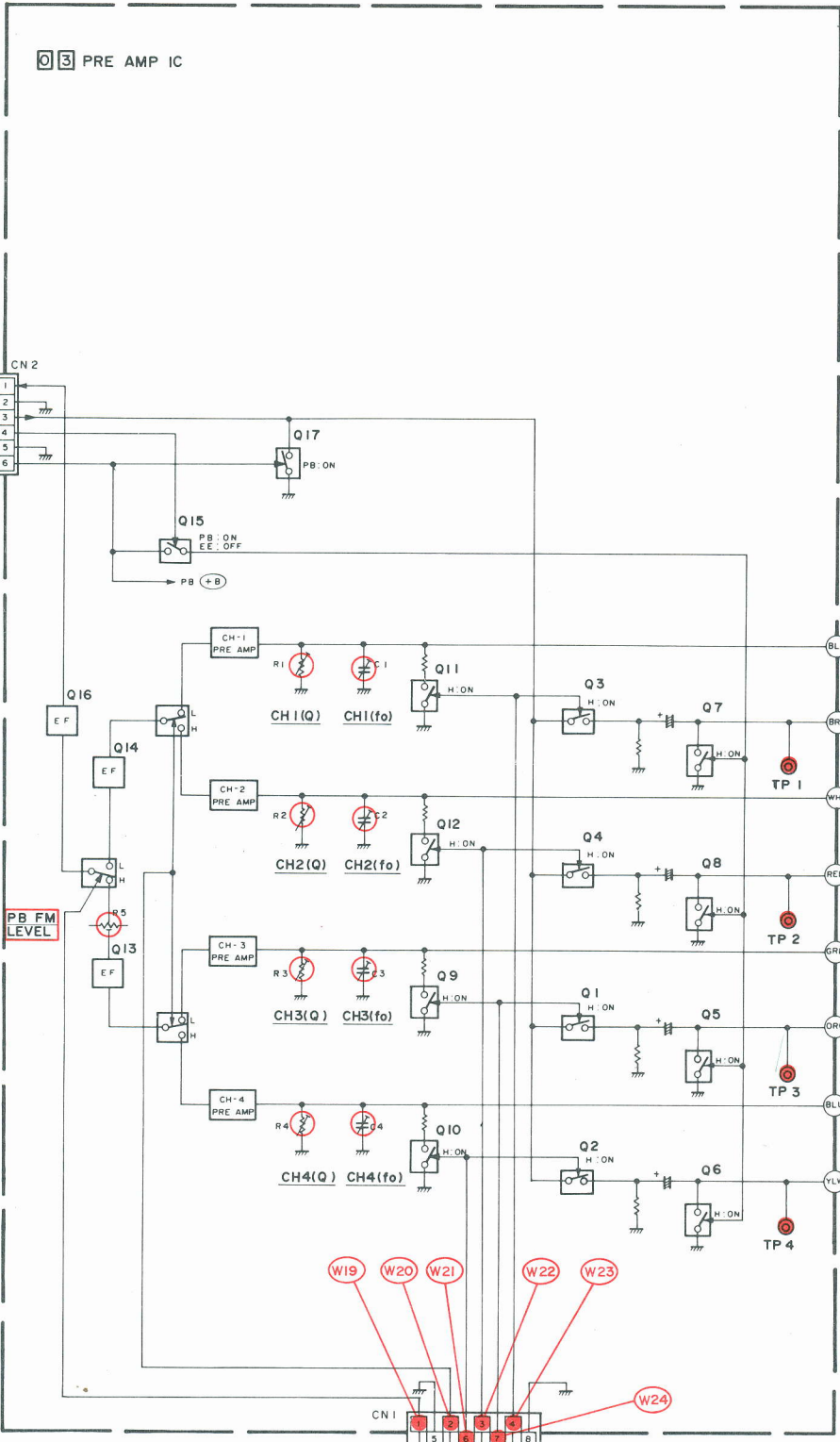






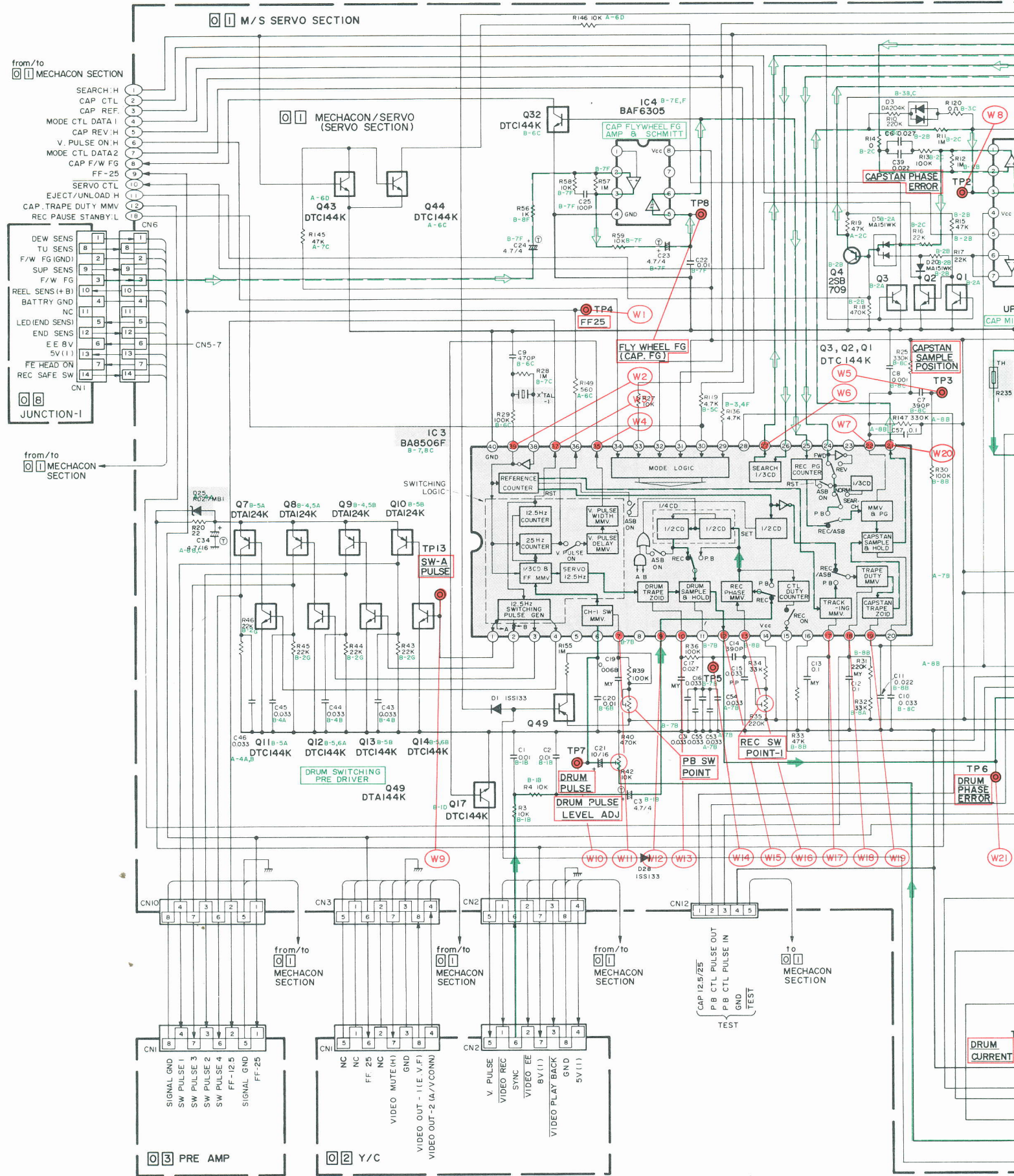
MECHACON

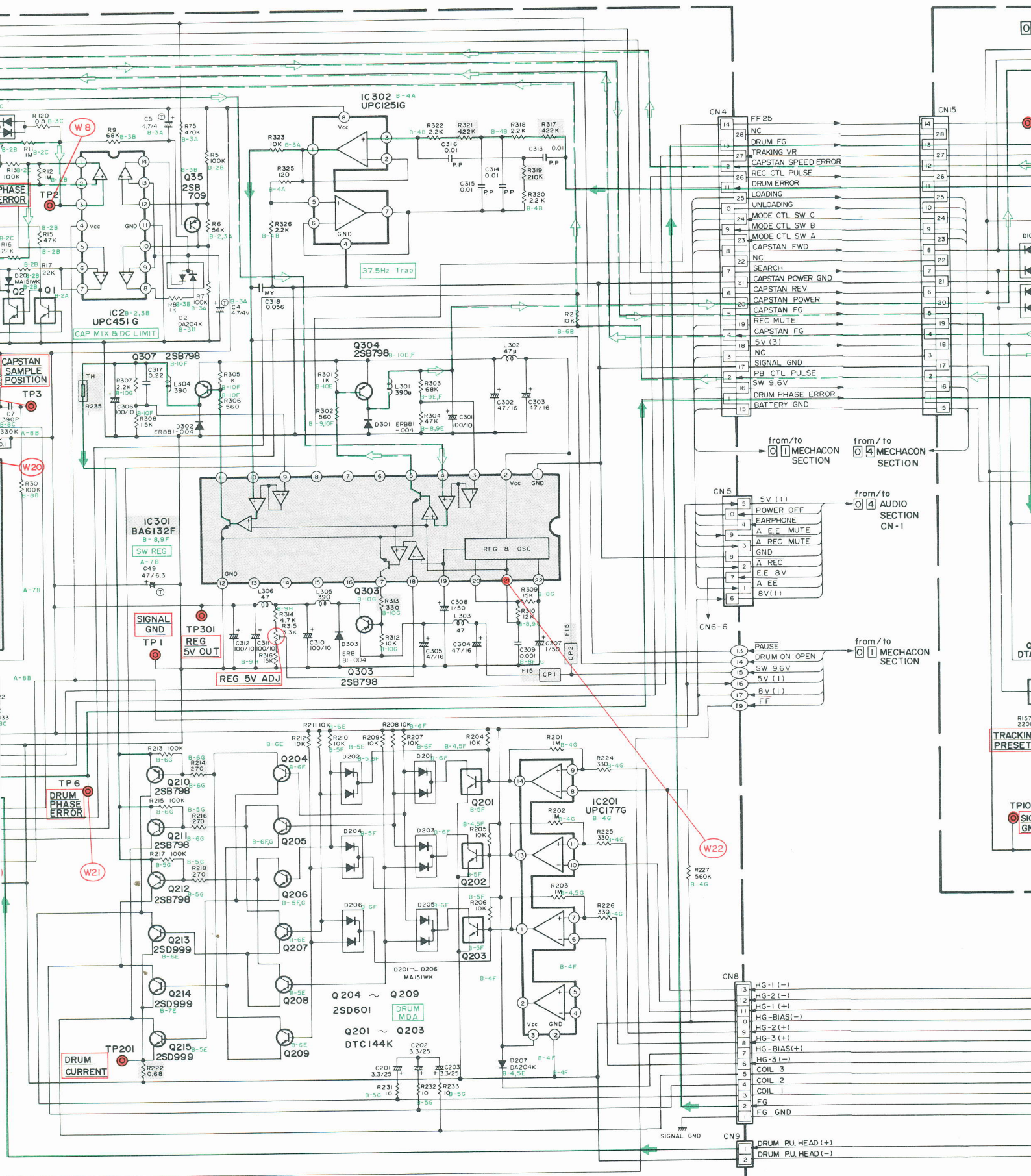
SERVO



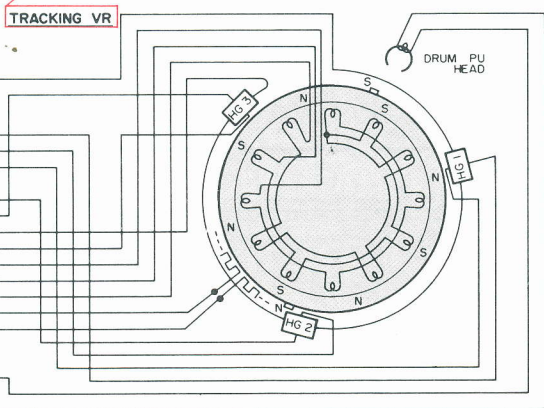
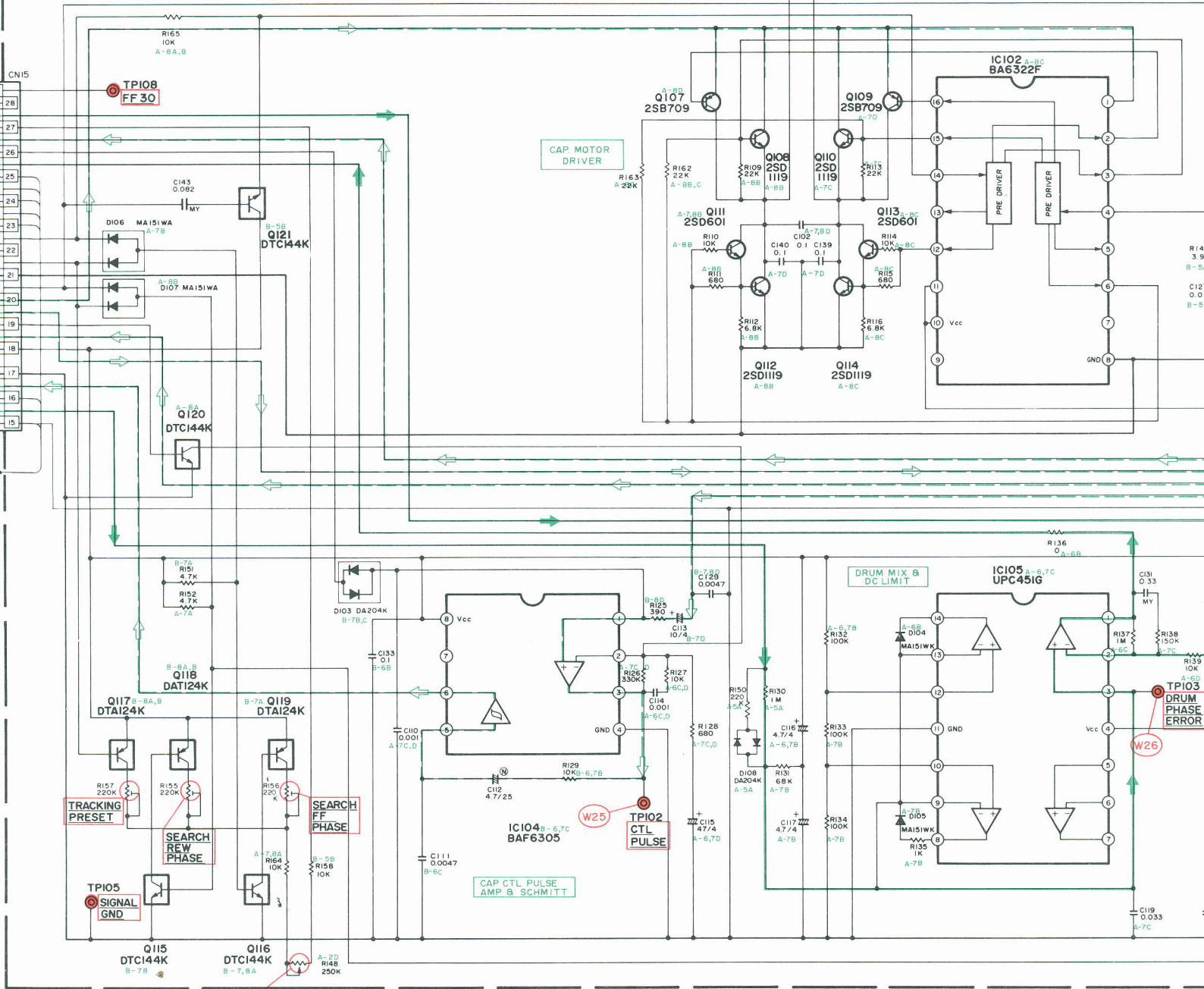
Servo-Regelung Schaltbild

Servo circuit diagram





4 AUDIO / SERVO (SERVO SECTION)



NOTES: Unless otherwise specified:

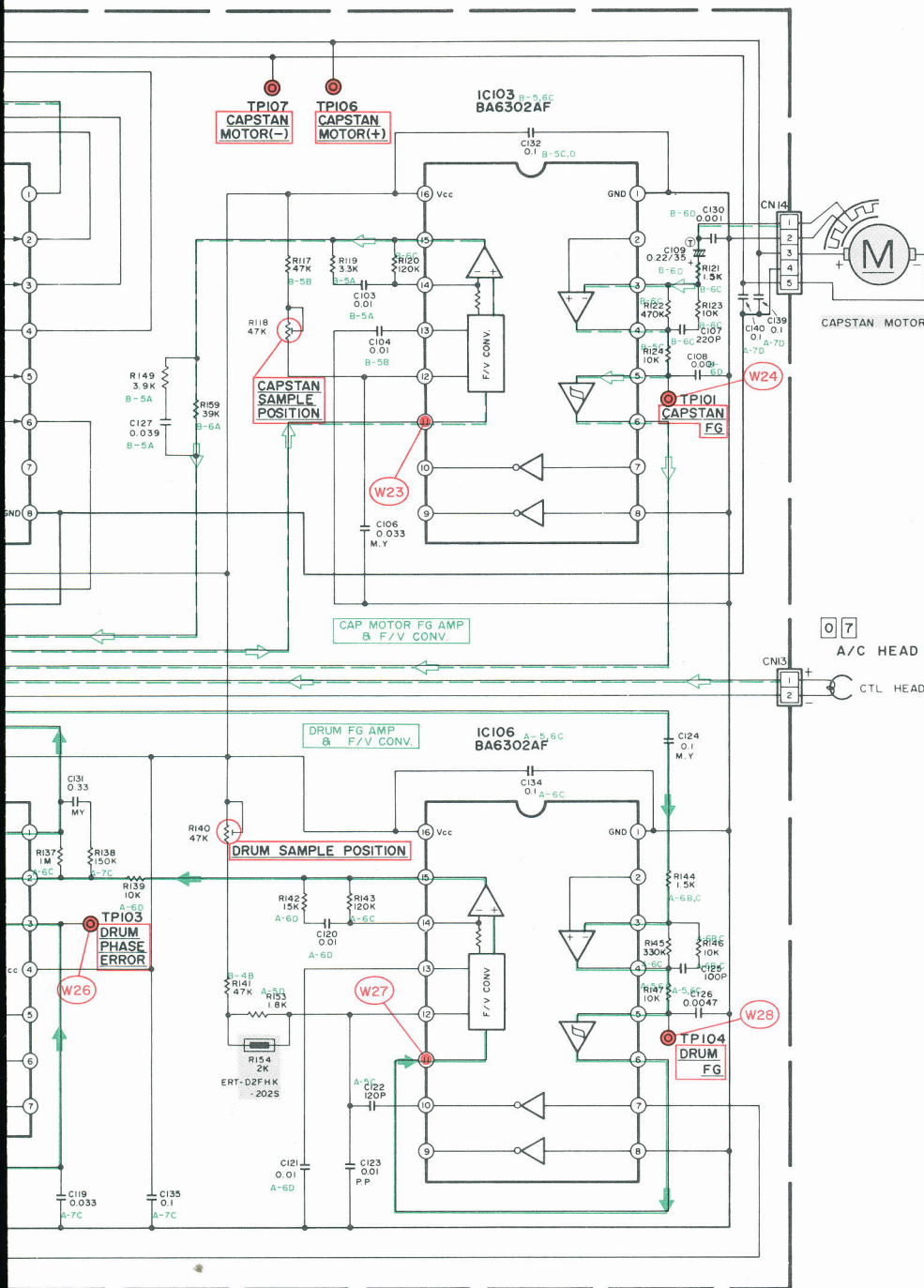
1. All resistance values are in Ω , $k\Omega$, or $M\Omega$.
2. All inductance values are in μH .
3. All capacitance values are in pF , nF , or μF .
4. Shaded () parts are optional.
5. The digital transistor is a PNP or NPN type.

➔ DRUM SERVO SIGNAL PATH
➔ CAPSTAN SERVO SIGNAL PATH

⊞ : Chip capacitor
⊞ : Electrolytic capacitor
⊞ : Tantalum capacitor

Servo-Regelung Schaltbild

Servo circuit diagram



<p>W1</p> <p>TP4 FF25 25 Hz 3.8 Vp-p</p>	<p>W2</p> <p>IC3 (39) PIN CRYSTAL 1 32.768 kHz 3.3 Vp-p</p>
<p>W5</p> <p>TP3 CAPSTAN SAMPLE POSITION 25 Hz 4.9 Vp-p</p>	<p>W6</p> <p>IC3 (27) PIN CAPSTAN FG 500 Hz 4.3 Vp-p</p>
<p>W9</p> <p>TP13 SW-A PULSE 12.5 Hz 4.4 Vp-p</p>	<p>W10</p> <p>TP7 DRUM PULSE 37.5 Hz 0.9 Vp-p</p>
<p>W13</p> <p>IC3 (10) PIN DRUM TRAPE 12.5 Hz 5.0 Vp-p</p>	<p>W14</p> <p>TP5 DRUM SAMPLE POSITION 12.5 Hz 5.0 Vp-p</p>
<p>W17</p> <p>IC3 17 PIN TRACKING MMV 25 Hz 3.9 Vp-p</p>	<p>W18</p> <p>IC3 (18) PIN TRAP DUTY MMV 25 Hz 2.5 Vp-p</p>
<p>W21</p> <p>TP6 DRUM PHASE ERROR DC 2.5 V</p>	<p>W22</p> <p>IC301 (21) PIN SW REG OSC 40 kHz 2.0 Vp-p</p>
<p>W25</p> <p>TP102 CTL PULSE 25 Hz 1.2 Vp-p</p>	<p>W26</p> <p>TP103 DRUM PHASE ERROR DC 2.5 V</p>

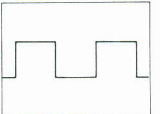
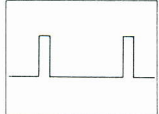
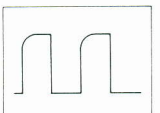
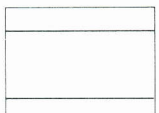
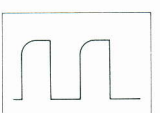
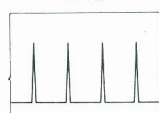
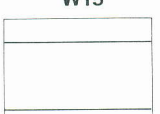



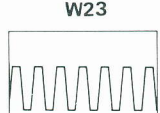
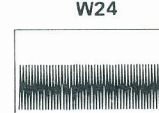

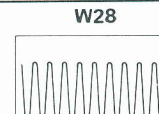
Unless otherwise specified, all resistance values are in ohms, inductance values are in H, and capacitance values are in μF .
 MYP: Mylar capacitor
 NP: Non-polar capacitor
 P, PI: Polypropylene capacitor
 () parts are critical for safety. Replace only with specified numbers.

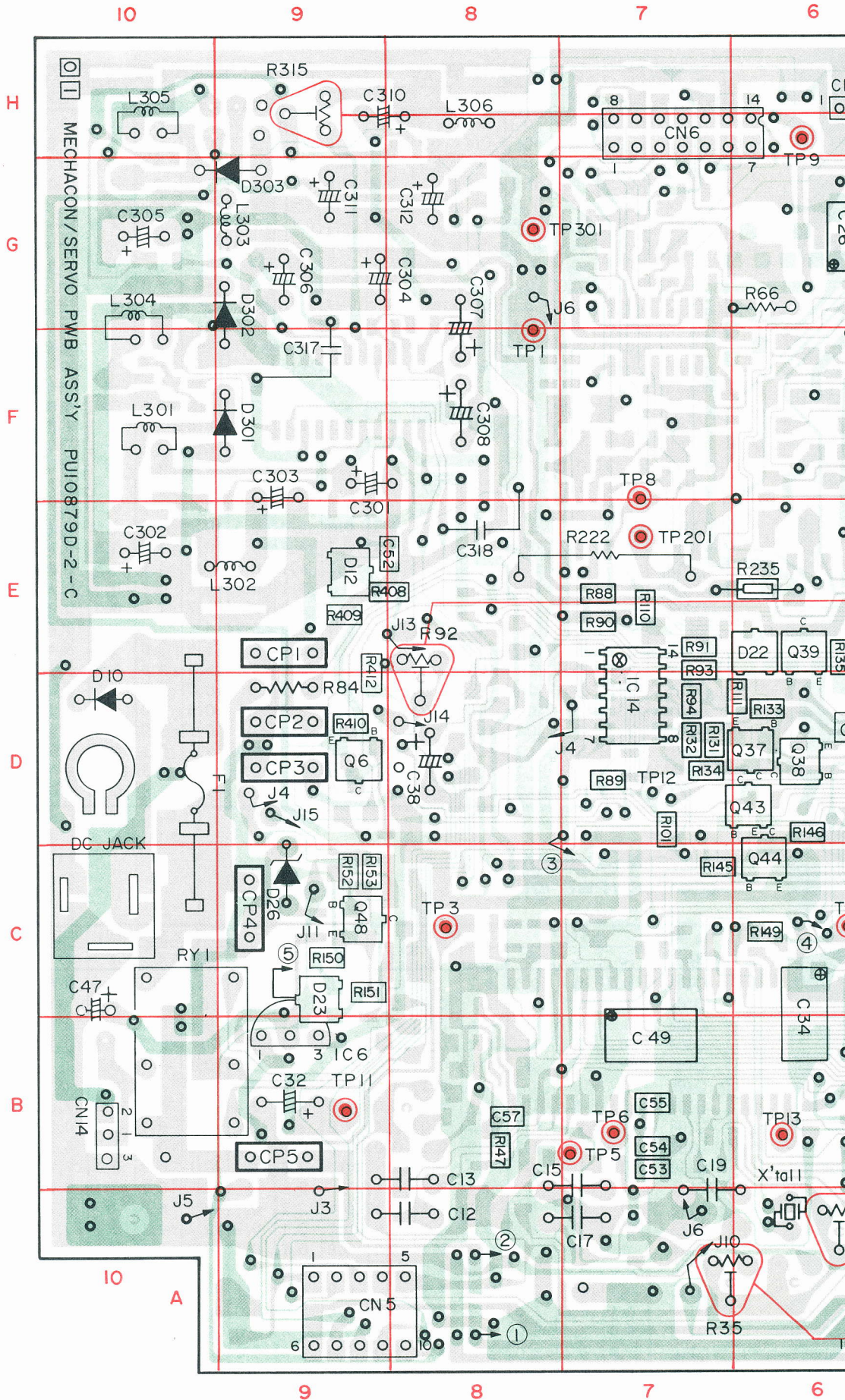
Hinweis:
 Bauteile in den schattierten Flächen sind Sicherheitsbauteile!
 Nur gegen Original-Ersatzteile auswechseln!

A digital transistor is a transistor that includes built-in resistors. NP and NPN transistors are available.

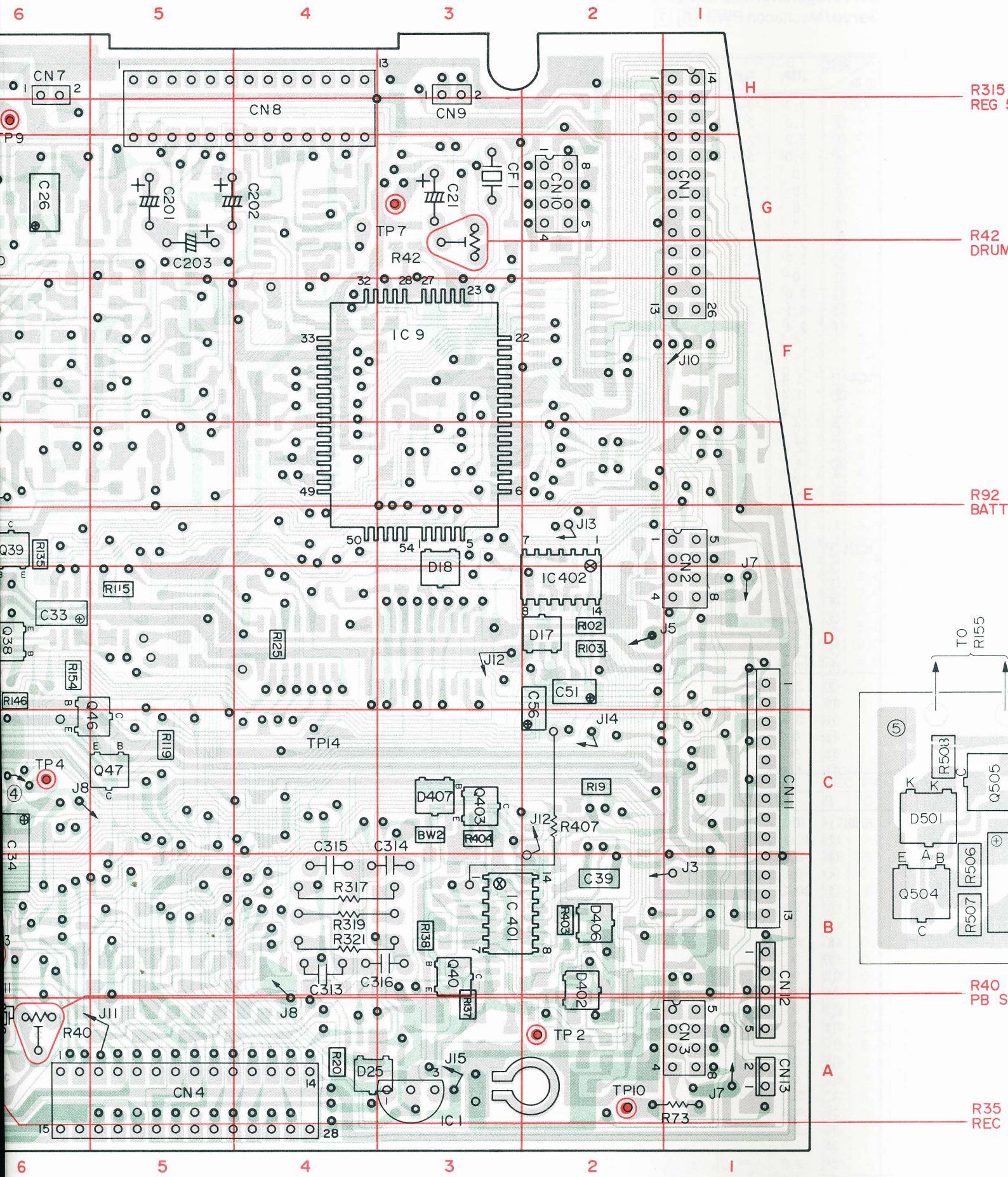


0 1 Platte Servo-Regelung / Mechaniksteuerung Mechacon / Servo PWB

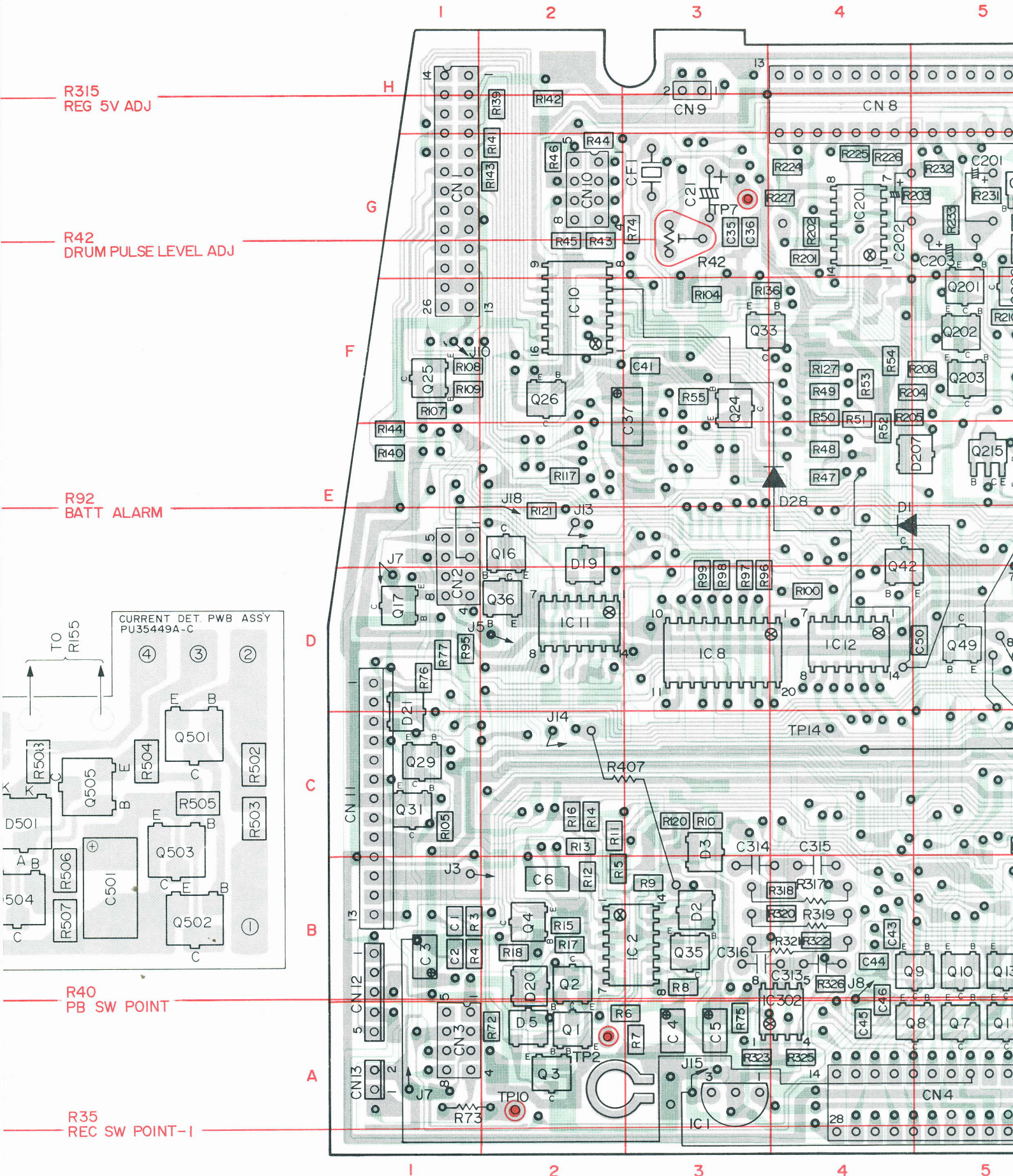
<p>W3</p>  <p>IC3 (37) PIN FF12.5 12.5 Hz 3.8 Vp-p</p>	<p>W4</p>  <p>IC3 (35) PIN V. PULSE 50 Hz 4.3 Vp-p duty (H) 180 μsec</p>
<p>W7</p>  <p>IC3 (22) PIN CAPSTAN MMV & PG 25 Hz 4.9 Vp-p</p>	<p>W8</p>  <p>TP2 CAPSTAN PHASE ERROR DC 2.5 V</p>
<p>W11</p>  <p>IC3 (7) PIN CH-1 SW MMV 37.5 Hz 4.9 Vp-p</p>	<p>W12</p>  <p>IC3 (9) PIN V. SYNC 50 Hz 0.9 Vp-p</p>
<p>W15</p>  <p>IC3 (12) PIN DRUM PHASE ERROR DC 2.5 V</p>	<p>W16</p>  <p>IC3 (13) PIN REC PHASE MMV 50 Hz 2.5 Vp-p</p>
<p>W19</p>  <p>IC3 (19) PIN CAPSTAN TRAPE -ZOID 30 Hz 4.9 Vp-p</p>	<p>W20</p>  <p>IC3 (21) PIN CAPSTAN PHASE ERROR DC 2.5 V</p>
<p>W23</p>  <p>IC103 (11) PIN CAPSTAN FG F/V IN 500 Hz 4.3 Vp-p</p>	<p>W24</p>  <p>TP101 CAPSTAN FG SCHMITT IN 500 Hz 2.1 Vp-p</p>
<p>W27</p>  <p>IC106 (11) PIN DRUM FG F/V IN 1500 Hz 4.2 Vp-p</p>	<p>W28</p>  <p>TP104 DRUM SCHMITT IN 1500 Hz 1.8 Vp-p</p>

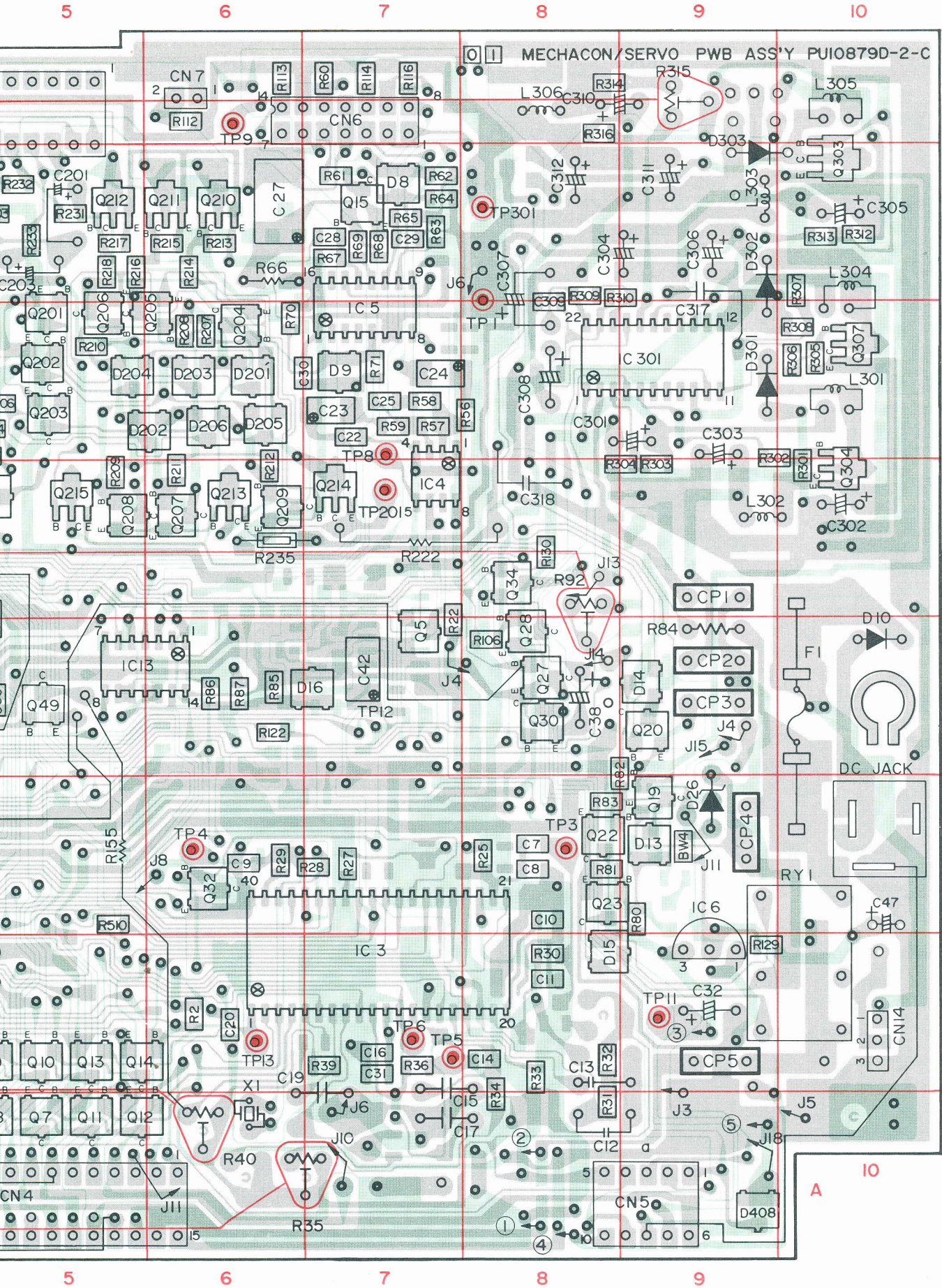


- Front -



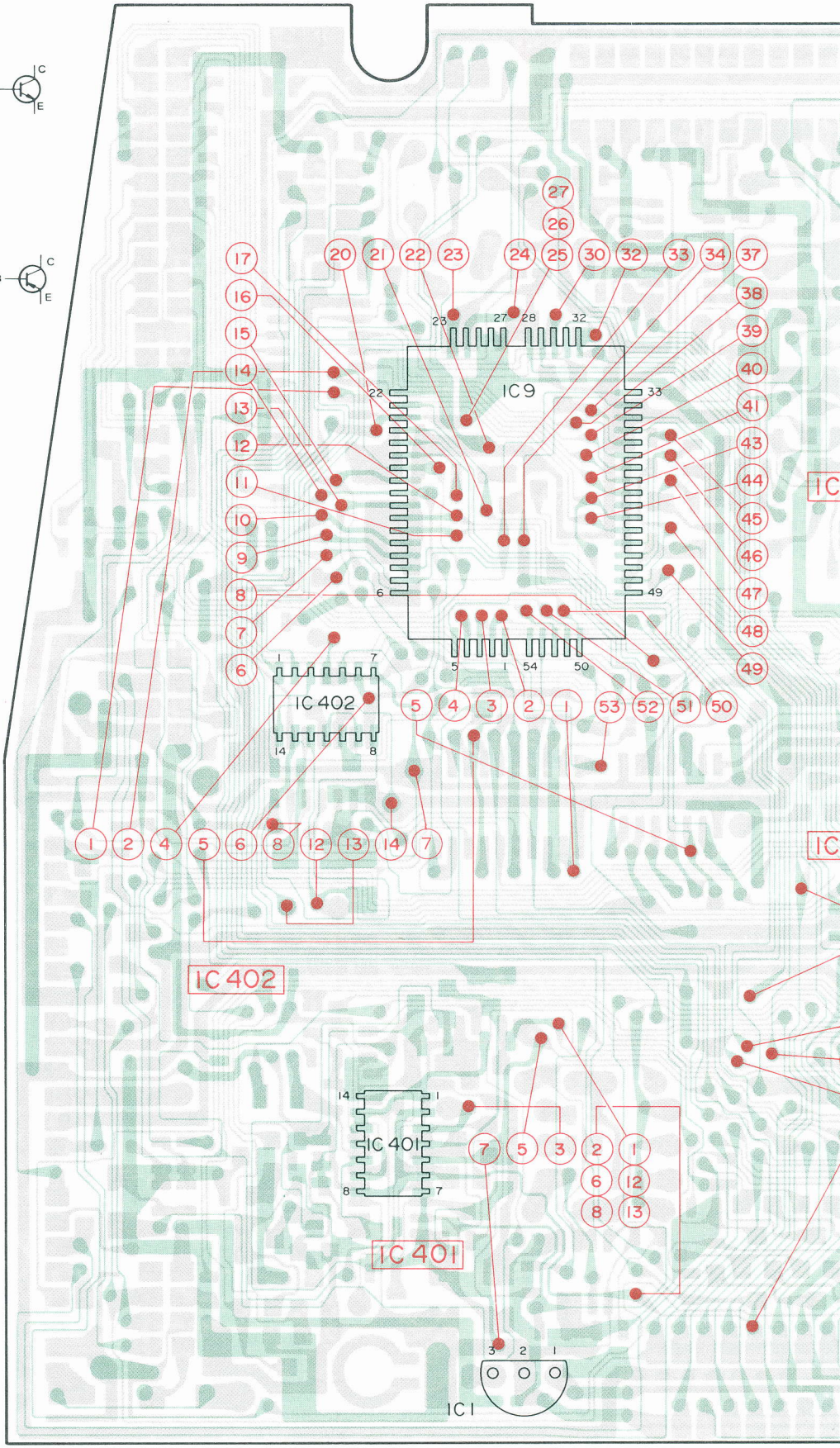
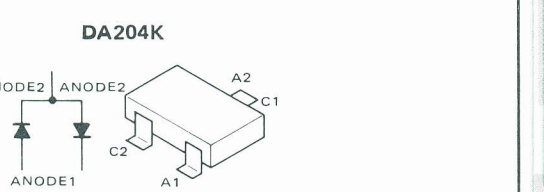
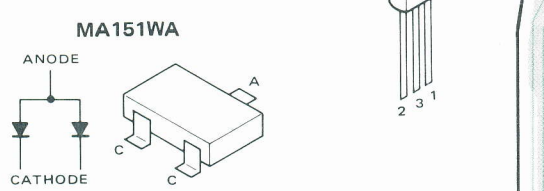
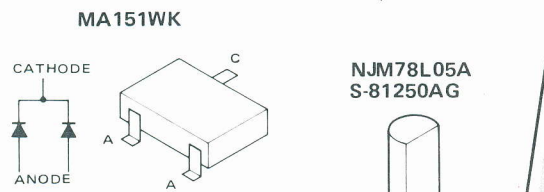
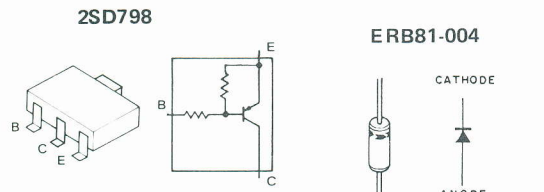
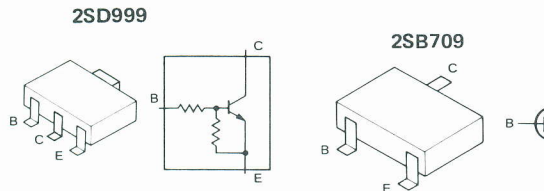
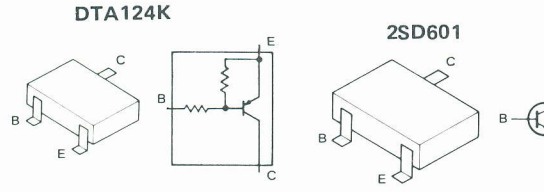
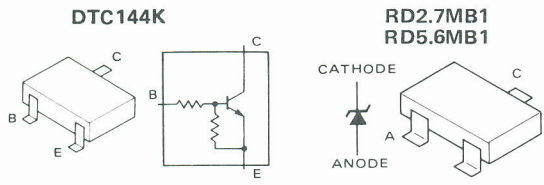
— Rear —

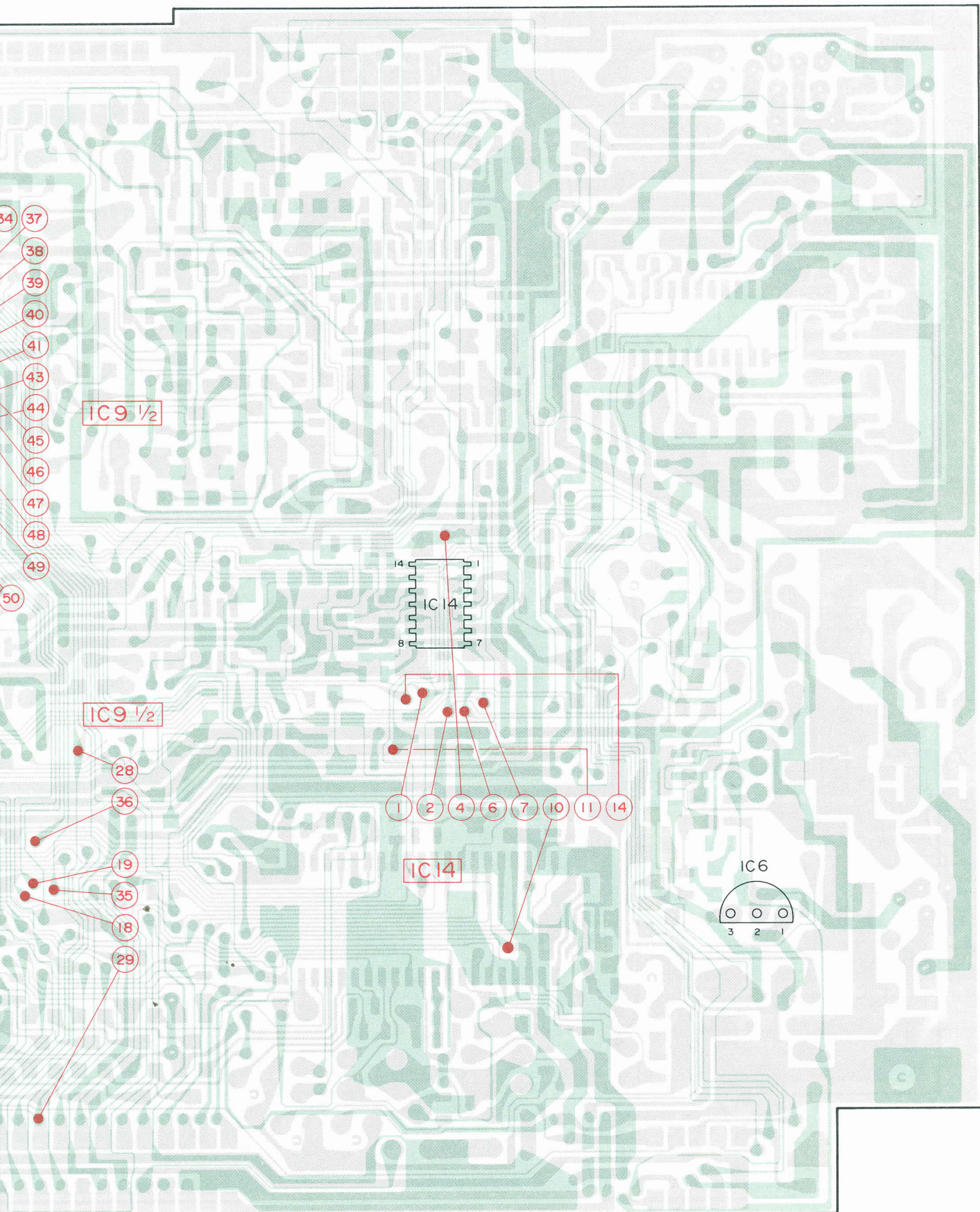




MODE	S
IC2-①	3
②	3
③	3
④	5
⑤	
⑥	
⑦	
⑧	
⑨	3
⑩	1
⑪	
⑫	3
⑬	3
⑭	2
IC4-①	
②	
③	
④	
⑤	
⑥	
⑦	
⑧	
IC201-①	
②	
③	
④	
⑤	
⑥	
⑦	
⑧	
⑨	
⑩	
⑪	
⑫	
⑬	
⑭	
IC301-①	
②	
③	
④	
⑤	
⑥	
⑦	
⑧	
⑨	
⑩	
⑪	
⑫	
⑬	
⑭	
⑮	
⑯	
⑰	
⑱	
⑲	
⑳	
㉑	
㉒	

0 1 Platte Servo-Regelung / Mechaniksteuerung (IC-Anschlüsse)
 Mechacon / Servo PWB (IC-Pin location)





MODE	ST
IC2-①	3
②	1
③	3
④	5
⑤	
⑥	
⑦	
⑧	
⑨	3
⑩	1
⑪	
⑫	3
⑬	3
⑭	2
IC4-①	
②	
③	
④	
⑤	
⑥	
⑦	
⑧	
IC201-①	
②	
③	
④	
⑤	
⑥	
⑦	
⑧	
⑨	
⑩	
⑪	
⑫	
⑬	
⑭	
IC301-①	1
②	
③	
④	
⑤	1
⑥	
⑦	
⑧	
⑨	
⑩	1
⑪	
⑫	
⑬	
⑭	
⑮	
⑯	
⑰	
⑱	
⑳	
㉑	
㉒	

Audio/Servo-Platte 0 4
 Audio/Servo PWB 0 4

MODE IC No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
IC101							
①	0.2	0.1	0.1	0.1	0.1	0.2	0.2
②	9.7	9.7	9.7	9.6	9.6	9.7	9.7
③	0	0	0	0	0.1	0.1	0.1
④	0.1	0.1	0	0.1	0	0	0
⑤	0.1	0	0	0	0.1	0.1	0.1
⑥	0	0	0	0.1	0.1	0	0
⑦	0	0.1	0	0	0.1	0	0.1
⑧	0	0	0	0.1	0	0	0
⑨	0.1	0	0	0	0	0	0.1
⑩	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑪	5.0	5.0	5.0	5.0	5.0	0	4.9
⑫	0	0	0	0.1	0	0.1	0.2
⑬	0	0	0.1	0.1	0.1	0	0.1
⑭	0	0	0.1	0	0	0	0
⑮	0.1	0.1	0.1	0.1	0.1	0.1	0
⑯	9.7	9.6	9.7	9.6	9.6	9.7	9.6
IC102-							
①	1.9	2.9	2.8	6.2	7.0	9.9	0
②	1.9	2.0	2.0	5.3	6.8	9.5	9.6
③	0	2.9	2.8	6.1	0.2	3.1	0
④	0.1	0.1	0	0.1	5.1	0.1	0.1
⑤	0	0	0	0.1	3.0	0	0
⑥	0	0	0	0	2.5	0	0
⑦	0.1	0.1	0.1	0	0.1	0.1	0.1
⑧	0.1	0	0.1	0	0	0	0
⑨	0	0.1	0.1	0	0.1	0	0
⑩	5.0	4.9	5.0	5.0	5.0	5.0	5.0
⑪	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑫	0	2.4	2.5	2.4	0.1	0	0
⑬	0.1	3.1	3.1	3.0	0.1	0	0
⑭	0.1	5.1	5.2	5.1	0.1	0	0.1
⑮	0	0.1	0.1	0.1	7.0	0.1	0
⑯	1.9	2.8	2.9	6.1	6.0	9.5	9.6
IC103-							
①	0.1	0	0	0.1	0	0	0
②	1.4	1.4	1.4	1.4	1.4	1.4	1.4
③	1.4	1.3	1.4	1.4	1.4	1.4	1.4
④	1.4	1.4	1.3	1.4	1.4	1.3	1.3
⑤	1.4	1.3	1.4	1.3	1.3	1.4	1.4
⑥	4.5	2.6	2.6	2.5	2.5	4.5	4.5
⑦	0.7	0.6	0.7	0.7	3.7	0.7	0.7
⑧	0	0	0.1	0	0.1	0.1	0
⑨	0.2	0.1	0.1	0.1	0	0.2	0.2
⑩	0	1.1	0.9	1.0	0.1	0.1	0
⑪	4.3	2.2	2.2	1.4	1.4	4.2	4.3
⑫	5.0	1.8	1.6	1.6	1.6	5.0	4.9
⑬	3.4	2.9	2.7	2.7	2.7	3.4	3.3
⑭	3.5	2.6	2.6	2.6	2.6	3.3	3.4
⑮	0.7	2.4	2.7	2.8	2.8	0.7	0.7
⑯	5.0	5.0	5.0	5.0	5.0	5.0	5.0
IC104-							
①	1.4	1.3	2.5	1.4	1.4	1.4	1.4
②	1.4	1.4	1.5	1.4	1.5	1.4	1.5
③	1.4	1.4	1.6	1.3	1.4	1.4	1.4
④	0	0	0.1	0.1	0.1	0.1	0
⑤	2.0	1.9	2.0	2.0	2.0	2.0	2.0
⑥	0.6	0.6	2.7	2.8	2.8	0.6	0.5
⑦	0	0	0	0	0	0	0
⑧	5.0	5.0	5.0	5.0	5.0	5.0	5.0

MODE IC No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
IC105-							
①	3.9	2.3	2.4	2.4	2.3	2.3	2.6
②	0.7	2.5	2.5	2.6	2.5	2.5	2.5
③	1.7	2.5	2.5	2.6	2.4	2.5	2.6
④	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑤	0.4	0.4	0.4	0.4	0.4	0.4	0.3
⑥	0.4	0.3	0.3	0.3	0.3	0.3	0.3
⑦	0	0	0.1	0	0	0	0
⑧	0	0	0	0	0	0	0
⑨	3.3	2.5	2.6	2.6	2.5	2.5	2.6
⑩	1.7	1.7	1.7	1.6	1.7	1.7	1.7
⑪	0	0	0	0.1	0.1	0	0
⑫	3.4	3.3	3.3	3.3	3.4	3.3	3.3
⑬	3.4	2.6	2.7	2.6	2.4	2.5	2.6
⑭	3.2	3.9	3.9	3.9	3.8	3.9	3.9
IC106-							
①	0.1	0.1	0.1	0.1	0	0	0.1
②	1.4	1.4	1.4	1.4	1.4	1.3	1.4
③	1.5	1.4	1.5	1.4	1.4	1.5	1.4
④	1.4	1.4	1.4	1.4	1.4	1.4	1.4
⑤	1.4	1.4	1.4	1.4	1.4	1.4	1.4
⑥	4.3	2.3	2.3	2.2	2.3	2.2	2.2
⑦	0.7	0.6	0.7	0.7	3.7	0.6	0.7
⑧	0.1	0	0.1	0	0	0	0
⑨	0.1	0.1	0.1	0.1	0.1	0.2	0.2
⑩	0.1	0.2	0.2	0.2	0.0	0.2	0.2
⑪	4.2	2.2	2.2	2.2	2.2	2.2	2.2
⑫	5.0	1.6	1.6	1.5	1.6	1.6	1.5
⑬	3.4	2.7	2.8	2.7	2.8	2.7	2.8
⑭	3.6	2.6	2.6	2.6	2.6	2.6	2.6
⑮	0.7	2.5	2.6	2.6	2.4	2.5	2.5
⑯	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Spannungstabellen · DC voltage tables

Servoregelung / Mechaniksteuerung Platte **0 1**

Servo / Mechacon PWB **0 1**

MODE IC No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
IC1-①	10.1	10.2	10.2	10.1	10.1	10.2	0.2
②	0	0	0	0	0	0.1	0.1
③	4.9	5.0	5.0	5.0	5.0	5.0	5.0
IC5-①	0	0	0	0	0	0	0
②	0	0	0	0	0	0	0.1
③	0	0	0	0	0	0	0.1
④	0.1	0	0	0	0	0	0
⑤	5.0	0	0	0	0	0	0
⑥	0	0	0.1	0	0	0.1	0
⑦	0.1	0	0	0	0	0	0
⑧	5.0	4.9	5.0	5.0	5.0	5.0	5.0
⑨	5.1	4.9	5.0	5.0	5.0	5.0	5.0
⑩	0	0	0.1	0	0	0.1	0
⑪	0.2	0.2	0.3	0.3	0.2	0.2	0.2
⑫	5.0	4.9	4.9	4.9	4.9	4.9	4.9
⑬	0	0	0	0	0	0.1	0.1
⑭	0	1.3	1.4	1.3	1.3	1.3	1.3
⑮	0	2.3	2.4	2.4	2.5	2.4	2.5
⑯	5.0	5.0	5.0	5.0	5.0	5.0	5.1
IC6-①	0	0	0	0	0	0	0.1
②	10.1	10.1	10.0	9.9	9.9	10.0	9.9
③	5.2	0	5.2	0	0	5.1	5.1
IC8-①	5.1	5.1	5.1	5.0	5.1	5.0	5.1
②	5.0	5.0	5.0	5.0	5.0	4.9	4.7
③	5.1	5.2	5.1	5.0	5.0	5.1	5.1
④	0	4.9	5.0	5.0	0	5.0	5.0
⑤	5.1	5.1	5.1	5.0	5.0	5.1	5.1
⑥	5.1	5.0	0	0	0	0.1	0
⑦	5.1	1.1	5.0	5.0	5.0	5.0	5.1
⑧	4.9	0.1	0	0.1	0	0	0
⑨	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑩	0	0	0	0	0.1	0.1	0
⑪	0	0	0	0	0	0	0
⑫	5.1	5.0	4.9	5.0	5.0	5.0	4.9
⑬	0	0	0	0	0	0	0
⑭	5.1	5.0	5.0	5.0	5.0	5.0	5.1
⑮	5.0	0	0.1	0	0	0	0
⑯	5.0	5.1	5.1	5.0	5.0	5.0	5.1
⑰	5.1	5.0	0	0	0.1	0	5.0
⑱	5.1	5.1	5.0	5.1	5.0	5.1	5.1
⑲	5.1	5.1	5.1	5.1	5.1	5.1	5.1
⑳	5.1	5.1	5.1	5.1	5.0	5.1	5.1
IC9-①	5.1	5.1	5.1	5.0	5.1	5.1	5.1
②	5.1	5.1	0.1	5.1	5.1	5.1	5.1
③	5.1	0.1	0	5.1	5.1	5.1	5.1
④	0.1	5.1	0	5.1	5.1	5.1	0.1
⑤	5.1	5.1	0	5.1	5.0	5.0	0.1
⑥	5.1	5.1	5.2	5.1	5.1	5.1	5.1
⑦	4.9	2.4	0.1	0.6	4.9	0	0
⑧	5.2	0.1	1.3	5.1	1.6	0.1	0
⑨	3.3	0.1	0.1	0.1	0	0	0.1
⑩	3.3	3.3	3.3	3.3	0.1	3.3	3.3
⑪	5.1	5.1	5.1	5.1	5.1	5.1	0
⑫	5.1	5.2	5.1	5.1	5.0	5.1	0
⑬	5.0	5.0	4.9	4.9	4.9	4.9	0
⑭	5.1	5.0	5.0	5.1	5.0	5.0	0

MODE IC No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
IC9-⑮	5.1	5.1	5.1	5.0	5.0	5.1	0
⑯	5.1	5.1	5.1	5.0	5.1	5.1	0
⑰	5.1	0	0	0	0	0.1	0
⑱	0	5.1	5.1	5.1	0	0.1	0
⑲	0	0	0.1	0.1	5.0	0.1	0
⑳	5.1	0	0	0.1	0	0.1	0
㉑	0	0	0.1	0	0	0	0
㉒	0	0	0	0.1	0	0.1	0
㉓	2.7	2.7	2.7	2.7	2.7	2.7	0
㉔	2.8	2.9	2.8	2.8	2.8	2.8	0
㉕	5.2	5.1	5.2	5.1	5.0	5.1	0
㉖	5.2	5.2	5.2	5.1	5.1	5.1	0
㉗	5.1	5.1	5.1	5.2	5.1	5.1	0
㉘	0.1	0.1	0.1	0	0.1	0	0
㉙	0.1	0	0.1	0	0	0.1	0
㉚	5.0	4.9	0.1	4.9	5.0	5.0	0.1
㉛	5.1	5.1	0.1	5.1	5.0	5.1	0.1
㉜	0.1	0.1	0.1	5.0	5.1	5.0	0
㉝	5.1	5.1	0.1	5.1	5.1	5.1	0
㉞	5.1	0.1	5.1	0.1	0.1	0	0
㉟	0.1	0.2	0.1	5.1	5.1	0.1	0
㊱	0	2.6	2.6	2.5	2.5	0.1	0
㊲	0	2.6	2.5	2.6	2.5	2.5	0
㊳	5.1	5.0	5.1	0	5.1	5.1	0
㊴	5.1	5.1	5.1	5.0	0	0	0
㊵	0.1	5.0	5.1	5.1	5.0	0	0
㊶	5.0	5.1	0	5.0	5.1	0	0
㊷	5.1	5.0	5.1	5.1	5.1	0	0.2
㊸	5.1	5.0	5.1	5.0	5.1	0	0
㊹	5.1	0	0	0.1	0.1	0	0
㊺	0.6	0.6	0.6	0.6	0.6	0.6	0.6
㊻	0	0	0.1	0	0	0	0
㊼	0.1	0	0	0	0	0	0
㊽	0.1	5.0	5.0	0.1	0.1	0	0
㊾	0.1	0	0.1	5.0	5.0	0	0
㊿	5.1	5.1	5.1	5.1	5.0	0	0
①	5.1	5.1	5.1	5.0	5.1	0	0
②	5.1	5.1	5.1	5.0	5.1	0	0
③	5.0	5.1	5.1	0	0	0	0
④	0	0	0.1	0	0.1	0	0.1
⑤	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑥	7.5	5.0	0	5.2	5.1	5.0	7.6
⑦	0.6	3.9	1.3	0.1	0.7	3.8	0.6
⑧	0.6	3.8	0.7	0.7	0	3.8	0.6
⑨	0.1	3.9	0.7	0.6	0.7	3.9	0.6
⑩	0.6	3.8	0	0.6	0.7	3.9	0
⑪	3.9	3.9	3.8	3.8	3.9	0.1	0
⑫	3.8	0.1	0.1	0	0	0.0	0.1

IC10-

①	5.0	0	0	0	0	0.1	0
②	5.0	5.1	5.0	5.1	5.1	0	0
③	5.1	5.0	0	5.0	5.1	5.0	0
④	0.1	5.0	5.0	5.0	5.0	5.1	5.1
⑤	5.1	5.1	5.0	5.1	0	5.0	5.1
⑥	5.1	5.1	5.0	0	5.0	5.1	5.1
⑦	5.0	5.0	0	4.9	5.0	5.0	5.0
⑧	0	0	0.1	0	0.1	0	0.1
⑨	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑩	7.5	5.0	0	5.2	5.1	5.0	7.6
⑪	0.6	3.9	1.3	0.1	0.7	3.8	0.6
⑫	0.6	3.8	0.7	0.7	0	3.8	0.6
⑬	0.1	3.9	0.7	0.6	0.7	3.9	0.6
⑭	0.6	3.8	0	0.6	0.7	3.9	0
⑮	3.9	3.9	3.8	3.8	3.9	0.1	0
⑯	3.8	0.1	0.1	0	0	0.0	0.1

Servoregelung/Mechaniksteuerung Platte **0 1**
 Servo/Mechacon PWB **0 1**

MODE IC No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
IC11-							
①	5.1	5.1	5.1	5.1	5.1	5.1	5.1
②	0	0	0	0	0	0.1	0.1
③	5.2	5.1	5.0	5.1	5.1	5.1	5.1
④	5.1	5.1	5.1	5.0	5.1	5.1	5.1
⑤	0	0	0	0	0.1	0	0
⑥	5.1	5.1	5.0	5.1	5.1	5.1	5.1
⑦	0.1	0	0.1	0	0	0.1	0.1
⑧	5.1	5.1	5.1	5.0	5.0	5.1	5.1
⑨	5.1	5.1	5.2	5.1	5.1	5.1	5.2
⑩	5.1	5.1	5.1	5.1	5.1	5.1	5.1
⑪	0	0	0	0.1	0	0	0
⑫	0.1	0.1	0.1	0	0	0	0.1
⑬	0	0.1	0	0	0.1	0	0
⑭	5.1	5.1	5.2	5.1	5.1	5.1	5.1
IC12-							
①	5.1	0	0	5.1	5.1	5.1	5.2
②	5.0	5.0	0.1	5.0	5.0	5.0	5.0
③	0	5.1	5.1	0.1	0	0.1	0.1
④	0.1	0	0.1	0	0.1	0	0.1
⑤	5.1	5.1	5.1	5.1	5.1	5.1	5.1
⑥	5.2	5.2	5.1	5.1	5.0	5.1	5.1
⑦	0	0	0	0	0	0.1	0.1
⑧	2.6	0.9	0.1	0.6	0.7	3.8	0.1
⑨	0	0	0	0	0	0	0.1
⑩	5.1	5.1	5.2	5.2	5.2	5.2	5.1
⑪	0	5.1	5.1	5.1	5.1	5.1	5.1
⑫	5.1	5.1	0.1	5.1	5.1	5.1	0.1
⑬	5.1	0	5.1	0.1	0.1	0	5.1
⑭	5.1	5.2	5.1	5.1	5.1	5.1	5.1
IC13-							
①	5.1	5.1	0	5.1	5.1	5.1	5.1
②	0	0	5.1	0	0.1	0	0
③	0.9	4.1	0.9	3.6	3.5	2.2	0.8
④	0.4	0.1	1.7	0.1	1.4	4.8	5.1
⑤	1.3	1.2	1.2	3.3	1.3	4.5	4.6
⑥	0.3	0	0.1	1.6	4.9	0.1	0
⑦	0.1	0	0	0	0	0	0
⑧	0	0.1	0.1	0	0.1	0	0
⑨	5.1	5.1	5.1	5.1	5.1	5.1	5.2
⑩	5.1	5.2	5.1	5.1	5.1	5.1	5.1
⑪	0.1	0	0	0.1	0	0	0
⑫	0.1	0	0	0	0	0	0.1
⑬	4.9	4.9	4.9	4.9	4.9	4.9	4.9
⑭	5.2	5.2	5.1	5.1	5.1	5.1	5.2
IC14-							
①	0	0	0	0	0	0	0
②	3.0	3.0	3.0	3.0	3.0	0.1	3.0
③	2.5	2.5	2.5	2.5	2.5	0	2.5
④	5.0	5.0	5.0	5.0	5.0	0	5.0
⑤	2.5	2.5	2.6	2.5	2.5	0	2.5
⑥	2.9	2.9	2.9	2.9	2.8	0	2.9
⑦	0	0	0	0	0	0	0
⑧	0.7	0.7	0.7	0.8	0.7	0	0
⑨	1.4	1.4	1.4	1.5	1.4	0	0
⑩	0.6	0.6	0.6	0.6	0.6	0	0.6
⑪	0	0	0	0	0	0	0
⑫	0.1	0.1	0.1	0.1	0.1	0	0.1
⑬	2.5	2.5	2.5	2.5	2.4	0.1	2.5
⑭	0	0	0.1	0	0	0	0

MODE IC No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
IC401-							
①	4.9	0	0	0	0.1	0	0
②	0.1	0.1	0	0	0	0	0
③	5.0	5.0	5.0	4.9	4.9	0	0
④	5.0	5.0	5.0	5.0	4.9	0	0.1
⑤	0.1	0	0.1	0	0.1	0	0
⑥	0.1	5.0	5.1	5.0	4.9	0	0
⑦	0	0	0.1	0.1	0	0	0
⑧	5.0	0.1	0	0	0	0	0
⑨	5.0	0	0.1	0	0.1	0	0
⑩	0.1	5.0	5.0	0	4.9	0	0
⑪	5.0	5.0	5.0	5.0	5.0	0	0
⑫	0	0	0	0.1	0	0	0
⑬	0	0	0	5.0	0	0	0
⑭	5.0	5.0	5.0	5.0	5.0	0	0
IC402-							
①	4.8	4.8	4.8	0	4.8	0	0
②	4.8	4.8	—	4.8	4.8	4.8	0
③	4.9	4.9	4.9	4.9	4.9	4.9	0
④	0	0	0	0	0	0	0
⑤	0	0	0	0	0	0	0
⑥	0	0	0	0	0	0	0
⑦	0	0	0	0	0	0	0
⑧	4.9	4.9	4.9	4.9	4.9	4.9	4.9
⑨	4.9	4.9	4.9	4.9	4.9	4.9	0
⑩	4.9	4.9	4.9	4.9	4.9	4.9	4.9
⑪	4.9	4.9	4.9	4.9	4.9	4.9	4.9
⑫	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑬	4.8	0	4.8	4.8	4.8	4.8	0
⑭	4.9	4.9	4.9	4.9	4.9	4.9	4.9

Spannungstabellen · DC voltage tables

Servoregelung/Mechaniksteuerung Platte **0 1**

Servo/Mechacon PWB **0 1**

TR No.	MODE			STOP			PLAY			REC			FWD. SEARCH			REV. SEARCH			PLAY PAUSE			REC PAUSE		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
Q 5	0	4.6	0	5.1	0.1	0.1	0	4.6	0	5.1	0.1	0	5.1	0	0	5.1	0.1	0	0.1	4.6	0.1			
Q15	5.0	0	5.1	5.0	0.1	5.0	5.0	0.2	5.0	4.9	0.1	5.0	5.0	0.1	4.9	5.0	0.1	5.0	5.0	0.2	5.0			
Q16	5.1	0.1	0	0.1	4.6	0	5.1	0	0	0	4.6	0	0	4.6	0	0	4.5	0	5.1	0.1	0			
Q19	10.2	0	10.1	10.1	0.1	10.2	10.1	0	10.2	10.1	0.1	10.1	10.1	0	10.1	10.1	0	10.1	10.2	0	10.1			
Q20	5.2	0	5.2	5.1	0.1	5.2	5.1	0	5.1	5.1	0	5.1	5.1	0.1	5.1	5.1	0.1	5.1	5.1	0.1	5.1			
Q22	0	10.2	0	0	10.2	0	0	10.1	0	0	10.1	0	0	10.1	0	0	10.2	0	0	10.2	0			
Q23	0.1	10.2	0	0	10.1	0.1	0.1	10.2	0	0	10.1	0	0	10.1	0	0	10.2	0	0	10.1	0			
Q24	3.7	0.1	0.1	0.1	2.5	0	0	2.5	0	1.2	10.1	0	5.1	3.8	0.1	0	2.5	0.1	0	2.9	0			
Q25	3.9	5.1	3.3	3.8	5.2	3.3	3.9	5.1	3.4	3.9	5.2	3.4	3.9	5.1	3.3	3.8	5.2	3.4	3.9	5.1	3.4			
Q26	5.0	0.1	0	5.0	0	0	0.1	3.3	0	5.0	0.1	0	5.0	0	0	5.0	0.1	0	5.0	0.1	0			
Q27	4.7	0	0	0.1	7.1	0	4.6	0.1	0	0	7.1	0	0.1	7.1	0	0	7.0	0	4.6	0.1	0			
Q28	0	5.0	0	0.1	4.9	0	3.7	0	0	0	5.0	0	0.1	5.0	0	0.1	5.0	0.1	0.1	5.0	0.1			
Q29	0	2.0	0	5.1	0	0	5.1	0	0	5.1	0	0	5.1	0	0.1	5.1	0.1	0	5.1	0.1	0			
Q30	0.1	2.7	0	3.6	0	0	3.6	0	0	3.5	0.1	0.1	3.5	0	0	3.6	0	0	3.6	0	0			
Q31	5.1	0	0	5.1	0	0.1	0	0.1	0	5.1	0	0	5.1	0	0	5.1	0	0	0	0.1	0			
Q33	0	5.1	0	2.1	2.5	0	2.1	2.6	0	2.1	0.5	0	2.0	2.6	0	2.1	2.5	0	2.1	2.6	0			
Q34	5.0	0	0	5.0	0	0	5.0	0	0	5.0	0	0	5.0	0	0	5.0	0	0	5.0	0	0			
Q36	0	5.0	0	4.5	0.1	0	0.1	5.0	0	4.6	0.1	0.1	4.6	0.1	0.1	4.6	0	0.1	0	5.1	0			
Q37	0	0.1	0.1	4.1	0	0	4.2	0	0	4.2	0	0	4.2	0	0	4.2	0	0	4.2	0	0			
Q38	0	4.2	0	0.1	0.1	0	0.1	4.2	0	0.1	4.2	0.1	0	4.2	0.1	0	4.2	0	0	4.2	0.1			
Q39	0.1	0	0	0	1.6	0	0.1	1.5	0	0	1.6	0	0	1.5	0	0	1.5	0.1	0.1	1.6	0.1			
Q40	0.5	0	0	0.1	2.5	0	0	2.6	0	0.1	2.5	0	0	2.5	0.1	0.1	2.5	0	0	2.9	0.1			
Q41	5.1	3.8	0	5.1	3.8	0	0	2.1	0	5.1	3.8	0	0	2.5	0	5.1	3.8	0.1	5.1	3.8	0			
Q42	0	10.2	0	0.1	10.1	0	0	10.1	0	0.1	2.5	0	0	10.1	0	0	10.1	0	0	10.2	0			

Servoregelung/Mechaniksteuerung Platte **0 1** (Steckeranschlüsse)

Servo/Mechacon PWB **0 1** (Connectors)

MODE CN No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
CN1-①	3.8	3.8	3.8	3.8	3.9	0	0.1
②	3.8	0.1	0.1	0	0.1	0	0
③	0.6	3.9	0	0.7	0.7	3.9	0.1
④	5.1	5.1	5.1	5.1	5.1	5.1	5.1
⑤	5.1	5.1	5.0	5.0	5.1	5.0	4.9
⑥	5.1	5.2	5.1	5.1	5.1	5.1	5.1
⑦	0.1	2.5	0.1	0	4.2	4.9	4.9
⑧	0.1	0	0	0.1	0	0	0.1
⑨	0	0	0	0	0	0.1	0.1
⑩	5.0	5.0	5.0	0.1	5.0	5.0	5.0
⑪	0	0	0.1	0.1	0.1	0	0
⑫	0	0.1	0	0	0	0	0
⑬	0	0	3.3	0	0.1	0	0
⑭	0.1	3.8	3.9	0.6	0.7	3.8	0.6
⑮	0.6	3.8	0.7	0.7	0	3.9	0.6
⑯	0.6	3.8	0.7	0	0.7	3.9	0.6
⑰	5.1	5.1	5.1	5.1	5.1	5.1	5.1
⑱	5.1	5.2	5.1	5.0	5.1	5.1	5.2
⑲	5.0	5.1	5.1	5.0	5.1	5.1	5.1
⑳	5.1	5.1	5.1	5.1	5.2	5.2	5.1
㉑	3.4	3.4	3.4	3.2	3.4	3.3	3.4
㉒	3.3	0.1	0.1	0.1	0.1	0	0.1
㉓	3.4	0	3.3	3.3	0	3.3	0
㉔	0	0.1	0.1	0	0	0	0
㉕	0	0	0	0	0	0	0
㉖	0	0.1	0	0	0.1	0.1	0

MODE CN No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
CN2-①	4.0	3.9	2.6	4.0	4.0	3.9	4.0
②	0.1	4.6	0.1	4.6	4.5	4.6	0
③	5.0	0.1	5.0	0.1	0.1	0.1	5.0
④	5.1	5.0	5.0	5.0	5.0	5.0	5.0
⑤	3.0	2.7	2.7	2.6	2.6	2.6	2.8
⑥	0.4	0.4	0.4	0.4	0.4	0.4	0.4
⑦	6.7	6.7	6.4	6.6	6.7	6.3	6.7
⑧	0.0	0	0.1	0.1	0	0.1	0
CN3-①	3.1	0	0.1	0.1	0.1	0	0
②	2.0	0	0.1	0	0	0.1	0
③	4.2	0.1	0	5.1	5.1	5.0	0.1
④	0	5.0	5.0	5.0	5.0	5.0	5.0
⑤	3.1	4.0	3.8	4.0	4.1	3.9	4.0
⑥	2.0	0	0.1	0.1	0	0	0.1
⑦	4.2	2.2	2.1	2.1	2.1	2.1	2.1
⑧	0	0	0.1	0	0	0.1	0.1

Servoregelung/Mechaniksteuerung Platte 0 1 (Steckeranschlüsse)

Servo/Mechacon PWB 0 1 (Connectors)

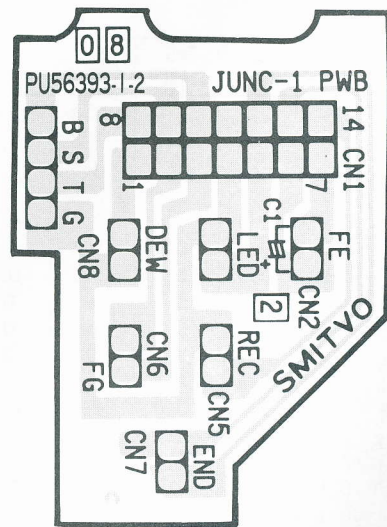
MODE CN NO.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
CN4-①	0.6	2.5	2.4	2.6	2.4	2.5	2.5
②	0.5	2.8	2.8	2.7	2.8	4.6	4.5
③	0	0	0	0	0	0.1	0
④	4.8	2.6	2.6	2.6	2.6	4.7	4.7
⑤	4.2	2.3	2.3	1.4	1.4	4.3	4.3
⑥	0.1	0.1	0.1	0.1	5.1	0.1	0
⑦	0.1	0.1	0.1	5.1	5.1	0.1	0.1
⑧	0.1	5.2	5.2	5.1	0.1	0	0.1
⑨	5.0	0	0	0.1	0	0	0
⑩	0.1	0.1	0.1	0	0	0	0.1
⑪	3.9	2.3	2.3	2.4	2.4	2.3	2.6
⑫	0.7	2.7	2.7	2.8	2.9	0.7	0.8
⑬	0	0.1	0	0	0.1	0.1	0.1
⑭	0.1	2.1	2.1	2.1	2.2	2.1	2.1
⑮	0.1	0.1	0	0	0	0.1	0
⑯	10.2	10.1	10.1	10.1	10.1	10.1	10.2
⑰	0	0	0	0	0.1	0	0.1
⑱	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑲	0.1	0	0	0.1	0	0	0
⑳	1.8	2.8	2.8	5.9	6.9	10.0	10.0
㉑	0	0.1	0.1	0	0	0	0
㉒	0	0.1	0	0	0.1	0.1	0
㉓	4.9	0	0	0.1	0	0.1	0
㉔	0.1	0	5.0	5.0	0	5.0	5.0
㉕	0.1	0.1	0	0	0	0.1	0.1
㉖	1.0	0.9	2.4	0.9	1.0	1.0	1.0
㉗	3.0	3.1	2.3	2.1	2.4	2.2	2.3
㉘	0	0	0.1	0	0.1	0.1	0
CN5-①	0.1	4.2	0.1	4.1	4.1	4.1	0
②	0	0.1	5.1	0.1	0	0	0
③	0.1	5.1	5.1	0	0.1	0.1	0.1
④	0	0.1	0	0	0	0.1	0
⑤	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑥	6.5	6.7	6.4	6.7	6.7	6.4	6.6
⑦	0.3	0.9	0.3	0.7	0.8	0.2	0.2
⑧	0.1	0	0	0	0	0	0.1
⑨	5.0	0.1	0	0.1	0	0	0
⑩	0.1	2.3	2.4	2.3	2.3	2.3	2.3
CN6-①	0.2	0.2	0.2	0.1	0.1	0.1	0.2
②	0	0.1	0	0	0	0	0
③	0	0	0	0.1	0.1	0	0
④	0	0	0.1	0.1	0	0	0.1
⑤	0.1	0.1	0.1	0.1	0.1	0.1	0.1
⑥	0.2	0.5	0.3	0.7	0.8	0.3	0.2
⑦	0.1	0.4	0.1	1.1	0.7	0.2	0.1
⑧	0.9	0.8	1.0	1.6	4.3	0.8	0.9
⑨	4.6	4.6	4.4	1.2	1.9	1.4	1.3
⑩	2.1	2.2	2.2	2.2	2.1	2.2	2.1
⑪	0	0	0	0.1	0	0	0
⑫	0.5	0.4	0.4	0.5	0.4	0.5	0.4
⑬	5.1	5.0	5.0	5.0	5.0	5.0	5.0
⑭	0.1	0.1	0	0	0.1	0	0
CN7-①	0	0	0.1	0.1	0.1	0	0.1
②	0	0.1	0.1	0	0	0	0

MODE CN No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
CN8-①	0	0	0	0.1	0	0.1	0
②	0	0	0.1	0	0.1	0	0
③	0	2.9	2.9	3.0	3.0	2.9	3.3
④	0.1	2.8	2.9	3.0	2.9	2.9	3.3
⑤	0.1	2.9	3.0	3.0	3.0	2.9	3.3
⑥	3.6	3.5	3.6	3.6	3.6	3.6	3.6
⑦	4.3	4.3	4.3	4.3	4.4	4.3	4.2
⑧	3.6	3.6	3.6	3.5	3.7	3.6	3.6
⑨	0.9	0.8	0.8	0.8	0.9	0.8	0.8
⑩	0	0	0	0	0	0	0
⑪	2.2	2.2	2.2	2.2	2.4	2.2	2.2
⑫	0.8	0.8	0.8	0.8	0.8	0.8	0.8
⑬	2.3	2.2	2.2	2.3	2.2	2.2	2.3
CN9-①	0.1	0	0	0	0	0	0
②	0.1	0.1	0	0.1	0	0	0
CN10-①	4.3	2.2	2.1	2.1	2.1	2.1	2.1
②	4.3	2.8	2.7	2.6	2.9	2.4	2.9
③	6.5	4.6	2.4	5.0	5.2	5.2	2.4
④	6.4	4.5	2.3	5.4	5.0	5.2	2.2
⑤	0	0.1	0.1	0	0	0	0
⑥	0.1	5.0	2.3	5.1	4.3	5.0	2.1
⑦	6.5	4.4	2.4	5.1	5.3	0	1.4
⑧	0	0	0.1	0.1	0	0	0
CN11-①	5.0	5.0	0.1	0	0	0.1	5.0
②	5.2	5.2	5.1	5.1	5.1	5.1	5.1
③	0.1	0.1	0	0.2	0.2	0.2	0.1
④	2.9	3.9	3.8	4.1	4.1	3.9	4.2
⑤	0	0.1	0	0	0	0	0
⑥	0.1	0	0.1	0	0	0.1	0
⑦	0	0	0	0	0	0.1	0.1
⑧	0.1	0	0	0	0.1	0	0
⑨	5.0	5.0	5.0	5.0	5.0	5.0	5.0
⑩	6.6	6.4	6.4	6.7	6.6	6.4	6.9
⑪	0.1	0	0	0	0.1	0	0.1
⑫	10.1	10.1	10.1	10.1	10.0	10.1	10.1
⑬	5.1	5.2	5.2	5.1	5.1	5.1	5.1
CN12-①	5.1	5.2	5.1	5.1	5.2	5.2	5.1
②	0.1	0	0	0	0	0	0
③	0.5	2.8	2.8	3.2	2.6	2.5	4.6
④	0	2.8	2.8	2.4	2.7	2.5	4.5
⑤	0.1	0	0	0	0	0.1	0.1

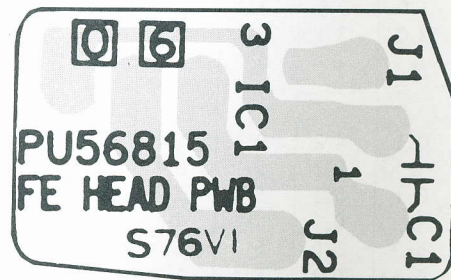
**0 4 Audio/Servo Platte (Steckeranschlüsse)
Audio/Servo PWB (Connectors)**

MODE CN No.	STOP	PLAY	REC	FWD. SEARCH	REV. SEARCH	PLAY PAUSE	REC PAUSE
CN2-①	7.9	5.1	7.5	5.3	5.3	5.3	7.9
②	7.9	5.1	7.5	5.3	5.3	5.4	8.0
CN3-							
①	0	0	0	0	0	0	0
②	0	0	0	0	0	0	0.1
③	0	0	0	0	0	0.1	0.1
CN4-							
①	0	0	0	0.1	0.1	0	0
②	4.3	4.2	4.3	4.2	4.2	4.2	4.3
③	2.0	1.8	1.8	1.7	1.7	1.6	1.6
CN5-							
①	0	0	0	0	0	0.1	0
②	0	0	0	0	0	0	0
③	7.9	7.9	7.7	7.9	8.0	8.0	7.9
CN11-							
①	5.0	0	0.1	0	0	0	0
②	5.0	0.1	0.1	0	0	5.0	5.0
③	0	5.0	5.1	4.9	0	5.0	5.0
④	0	0	0.1	0	0	0	0
CN12-							
①	2.4	0.1	0.1	2.5	0	2.3	0.2
②	0	0	0	0.1	0.1	0	0
③	0.1	0.1	0	0.1	0.1	0.1	0
CN13-							
①	0	0.1	0.1	0	0	0	0
②	0	0.1	0	0	0	0.1	0
CN14-							
①	0	0	0	0	0.1	0	0.1
②	0	0	0.1	0	0	0.1	0.1
③	0.1	2.2	2.2	5.8	0.1	1.8	0
④	0	0.1	0	0.1	0	0.1	0
⑤	0	0	0.1	0.1	6.3	0.1	0.1

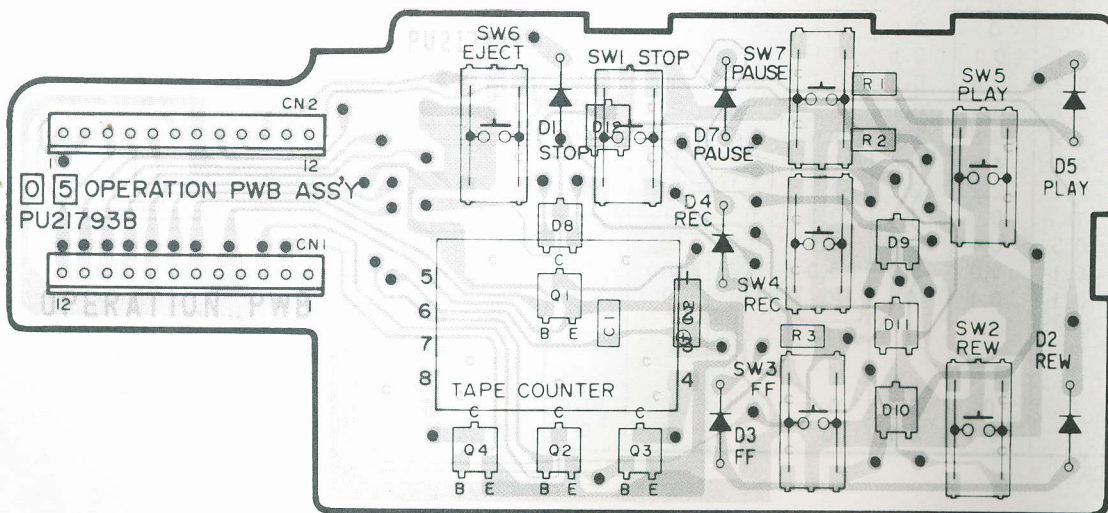
**0 8 Verbindungsplatte
Junction PWB**



**0 6 Löschkopfplatte
Full erase head PWB**



**0 5 Tastenplatte
Operation PWB**

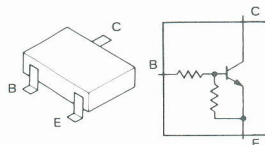


Mechaniksteuerung Schaltbild Mechacon circuit diagram

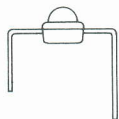
MCM1053



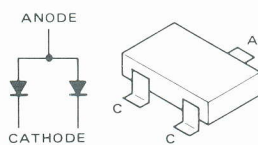
DTC114YK



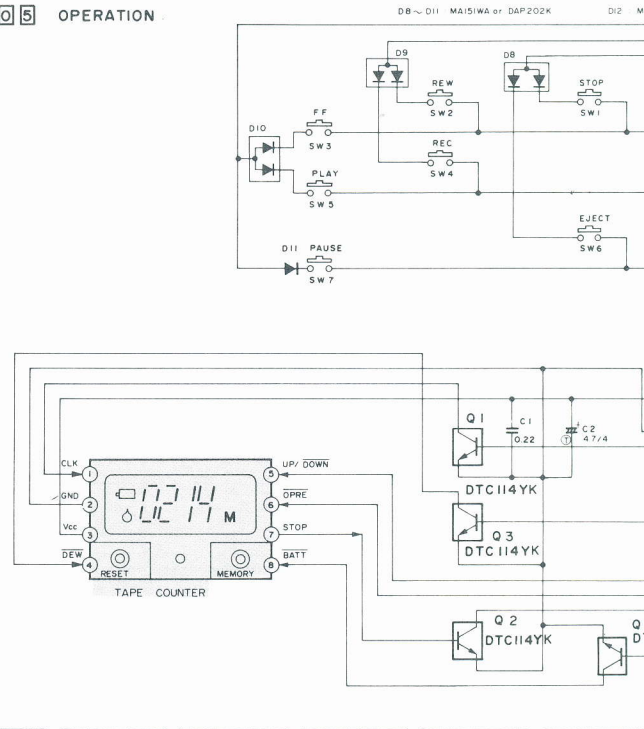
GL-1HD202



MA151WA



OPERATION



NOTES: Unless otherwise specified.

1. All resistance values are in ohms.
2. All inductance values are in H.
3. All capacitance values are in μF .

: Chip capacitor

: Electrolytic capacitor

: Non-polar capacitor

: Tantalum capacitor

: Polypropylene capacitor

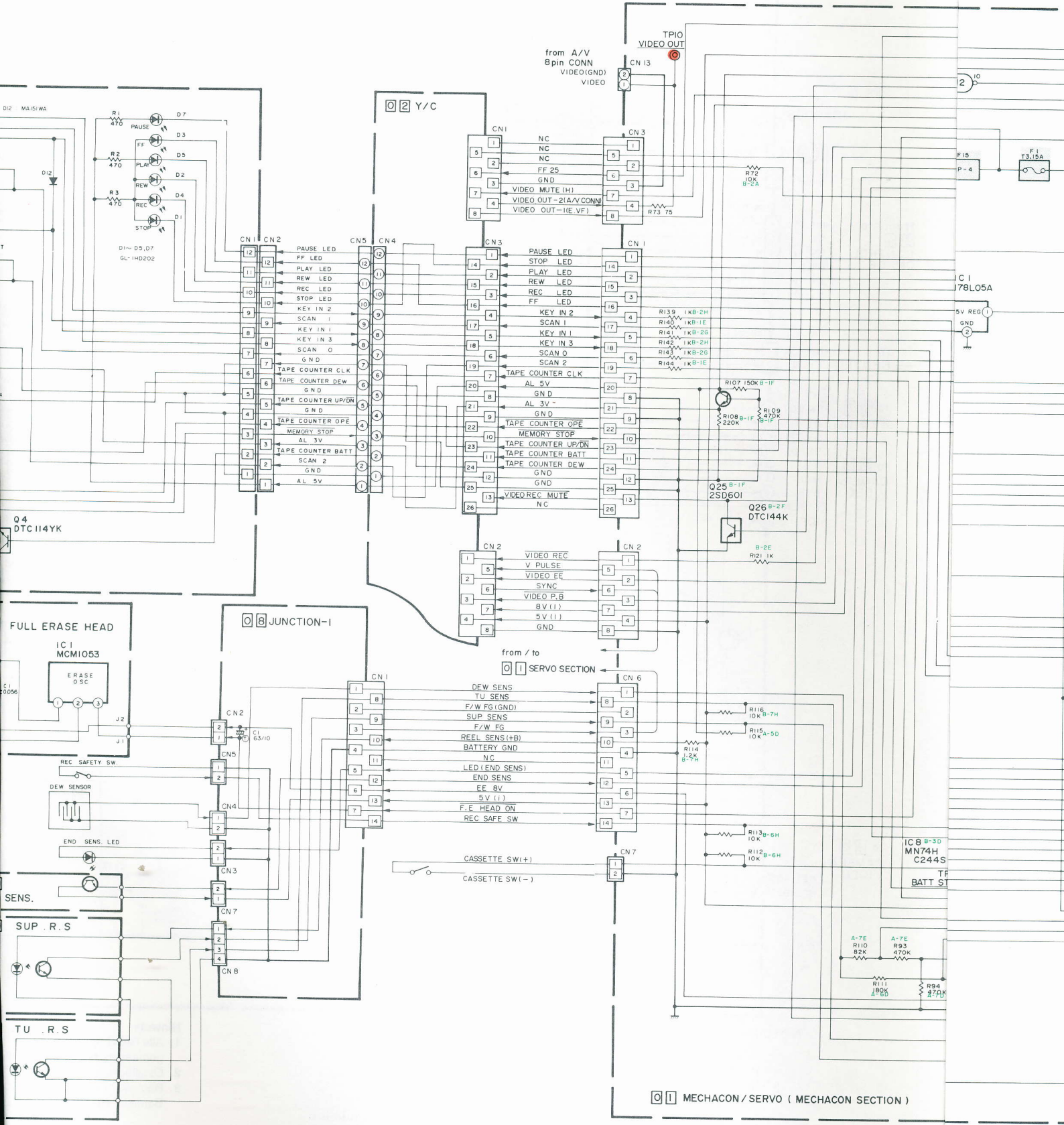
: Mylar capacitor

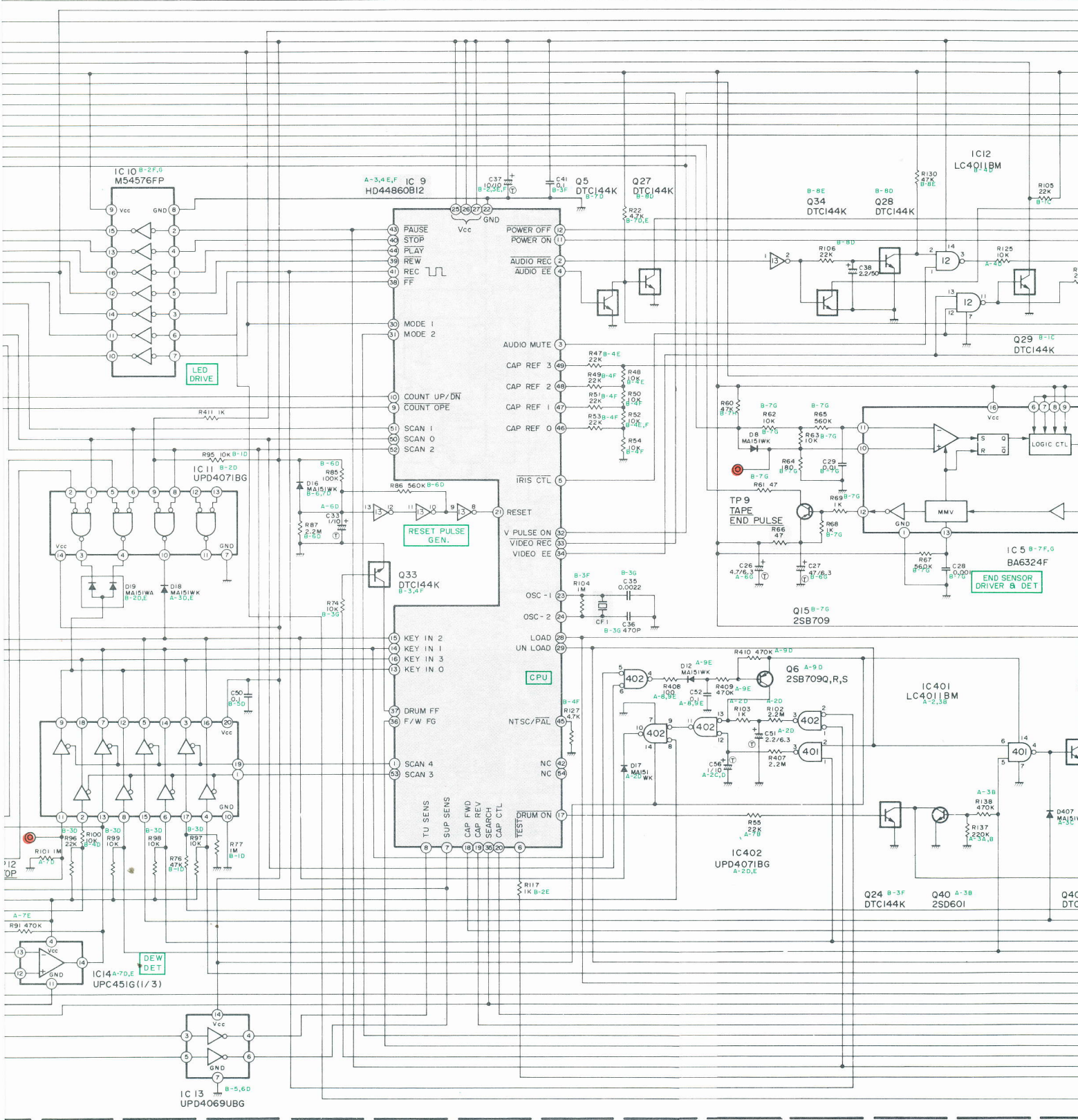
4. Shaded () parts are critical for safety. Replace only with specified part numbers.
5. The digital transistor is a transistor that includes built in resistors. Both PNP and NPN transistors are available.

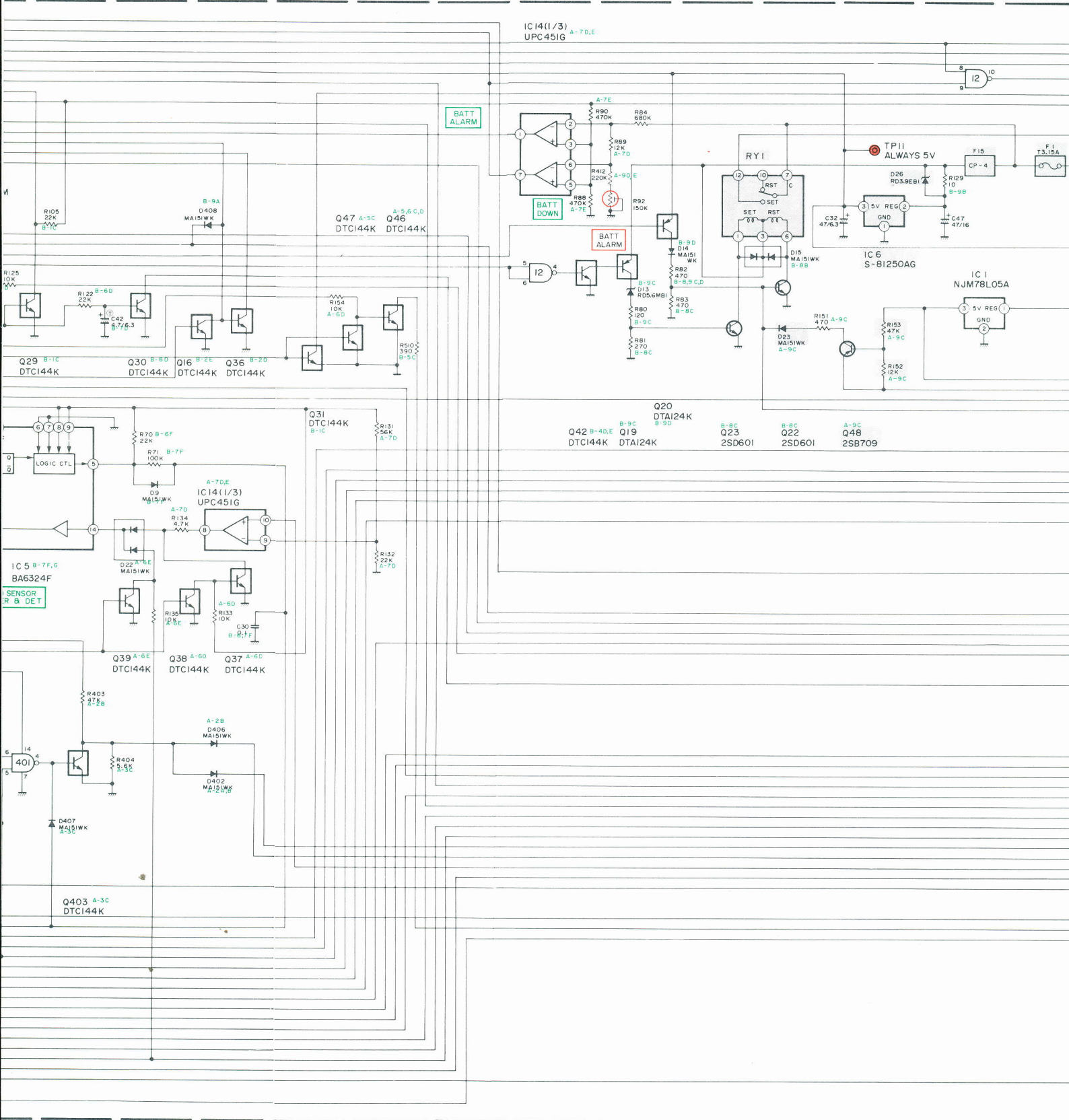


Hinweis:

Bauteile in den schattierten Flächen sind Sicherheitsbauteile! Nur gegen Original-Ersatzteile wechseln!

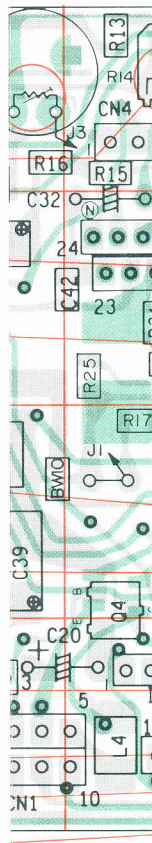
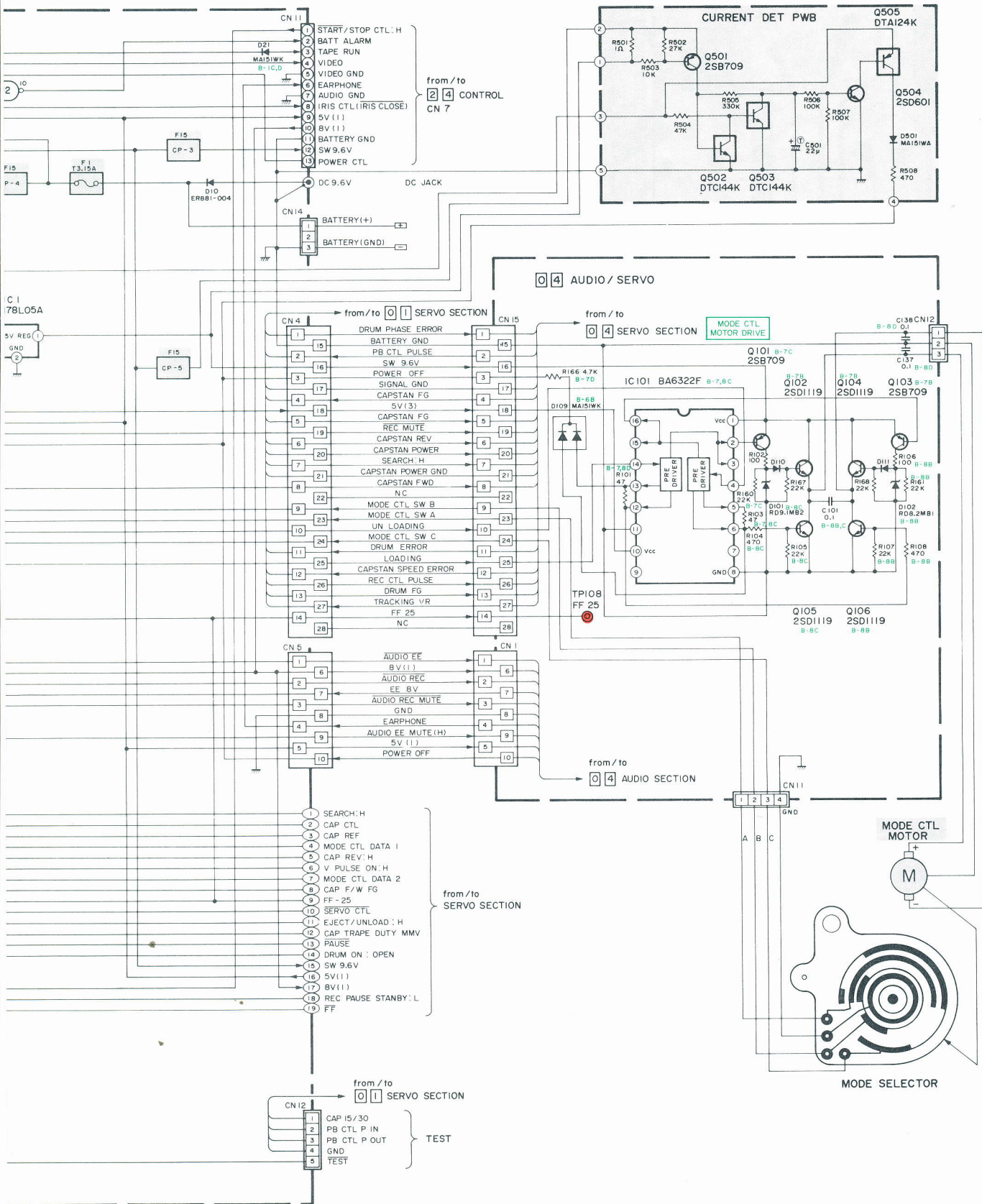


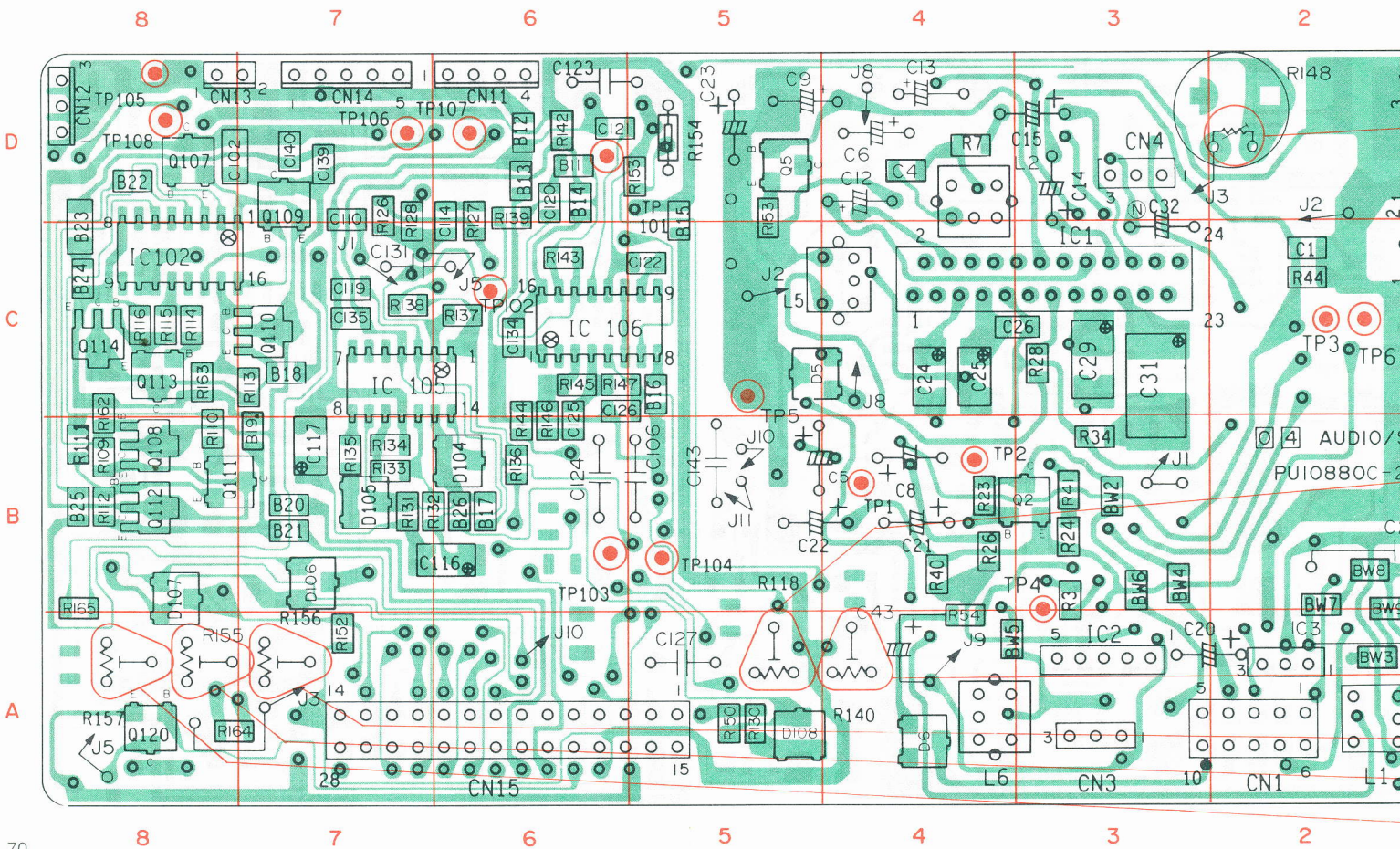
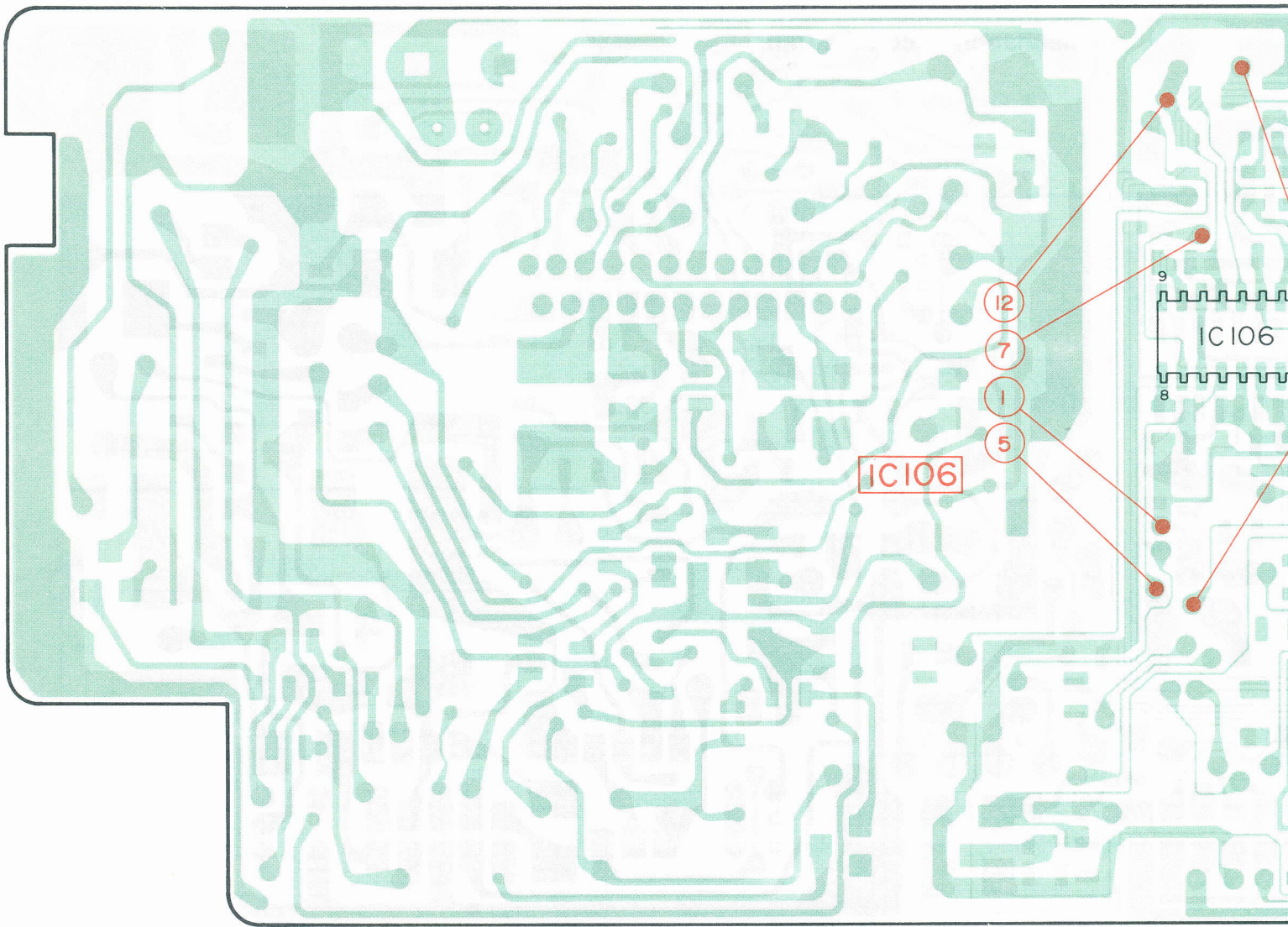


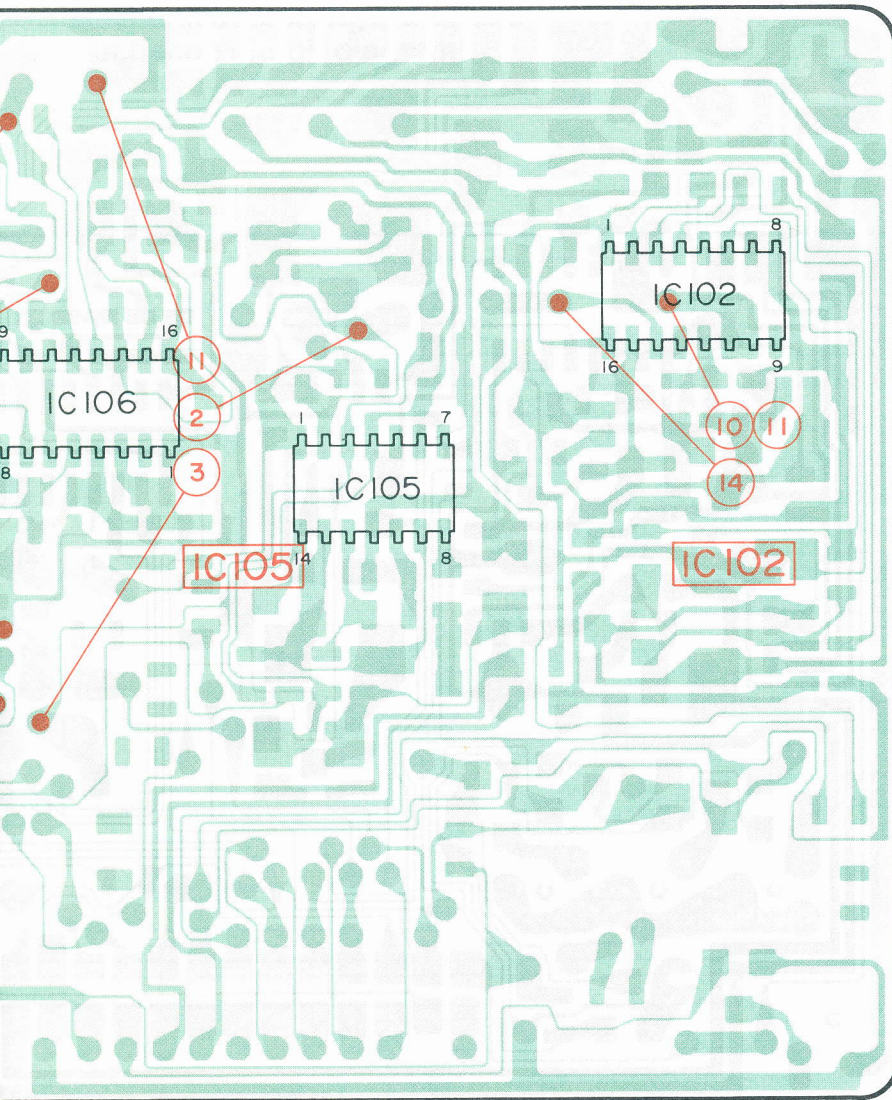


Mechaniksteuerung Schaltbild
 Mechacon circuit diagram

(Schlüsse)
 (Location)

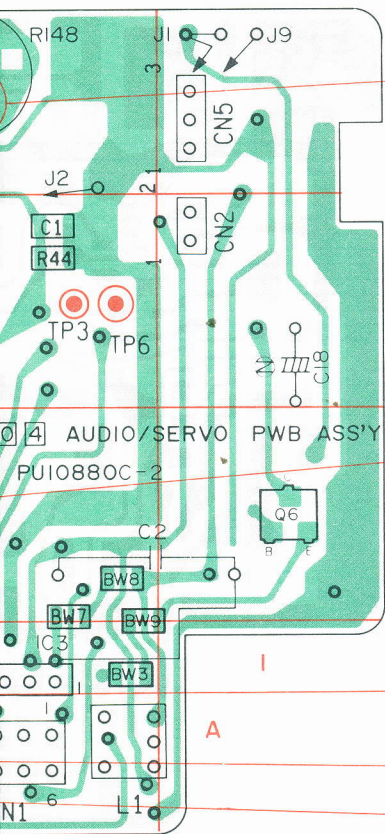




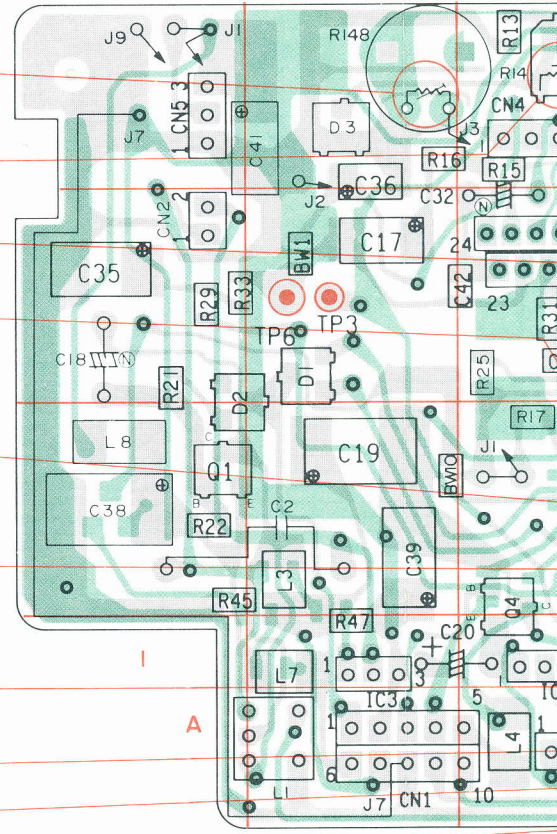


0 4 (Audio)-Servoplatte (IC-Anschlüsse)
 (Audio)-Servo PWB (IC-pin tocation)

2 1 — Front —



— Rear — 1 2



R148 TRACKING VR

R14 EE LEVEL

R27 REC LEVEL

R30 PB LEVEL

R118 CAPSTAN SAMPLE POSITION

R2 BIAS LEVEL

R140 DRUM SAMPLE POSITION

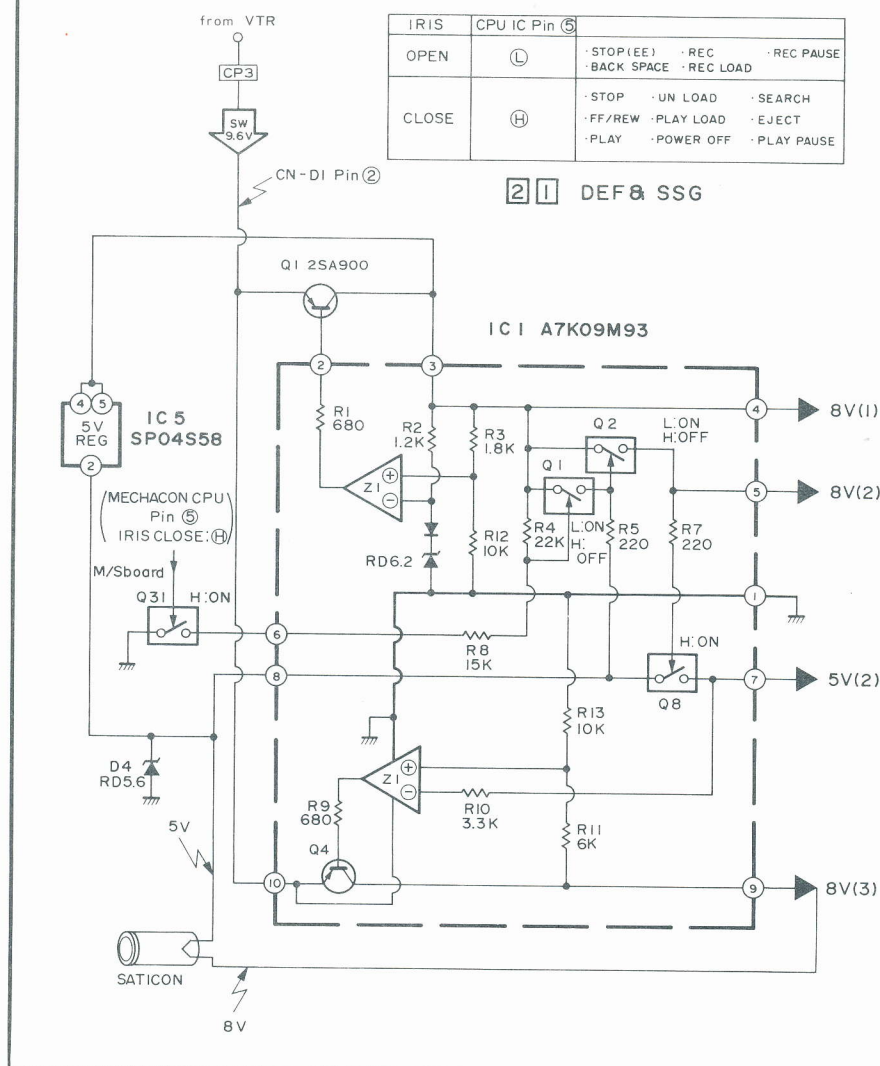
R156 SEARCH FF PHASE

R155 SEARCH REW PHASE

R157 TRACKING PRESET

schlüsse)
location)

Funktion IC 1 (Ablenplatte)
Function IC 1 (Def + SSG PWB)



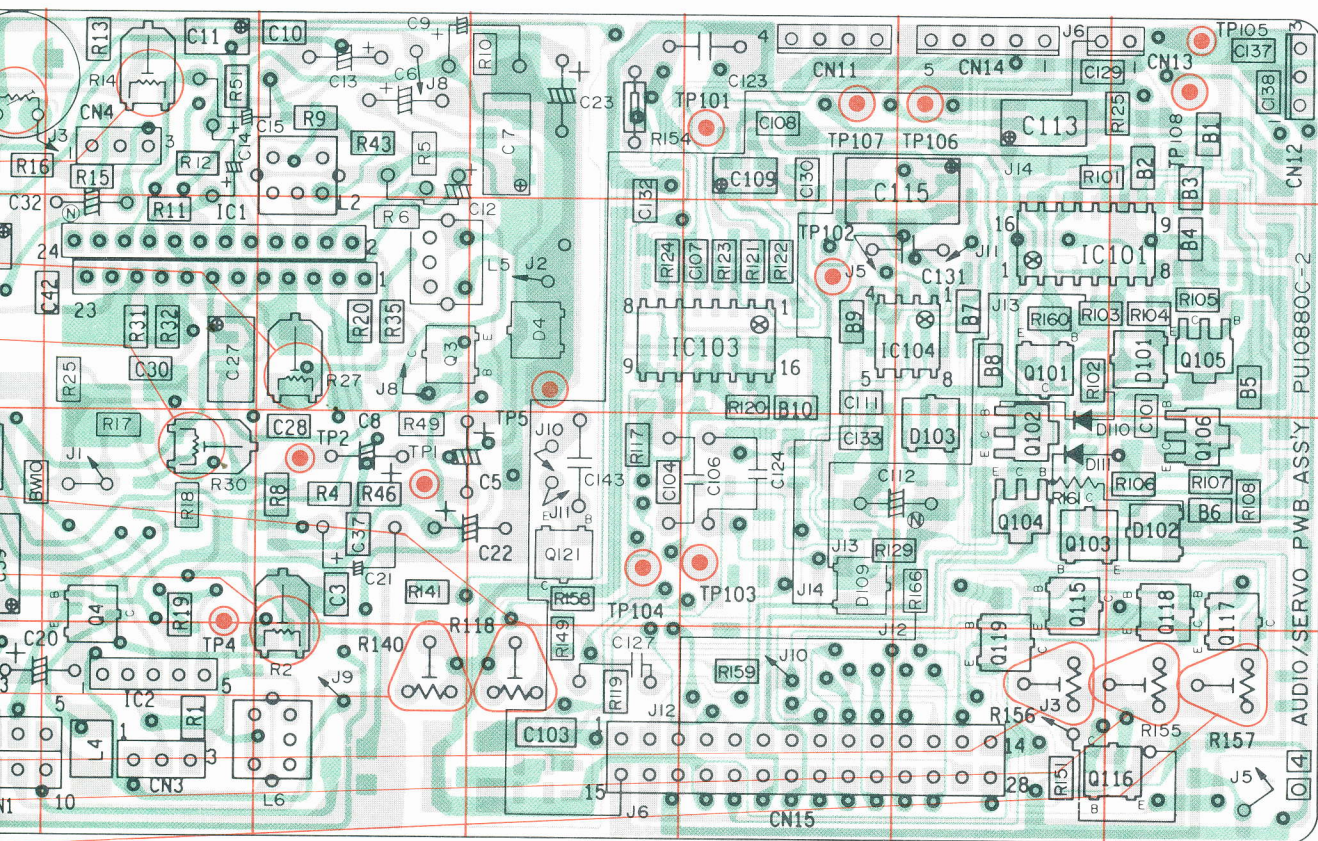
from / to
2 4
CONTROL
CN-C6

to
HEATE

to 2 3
EE&IN

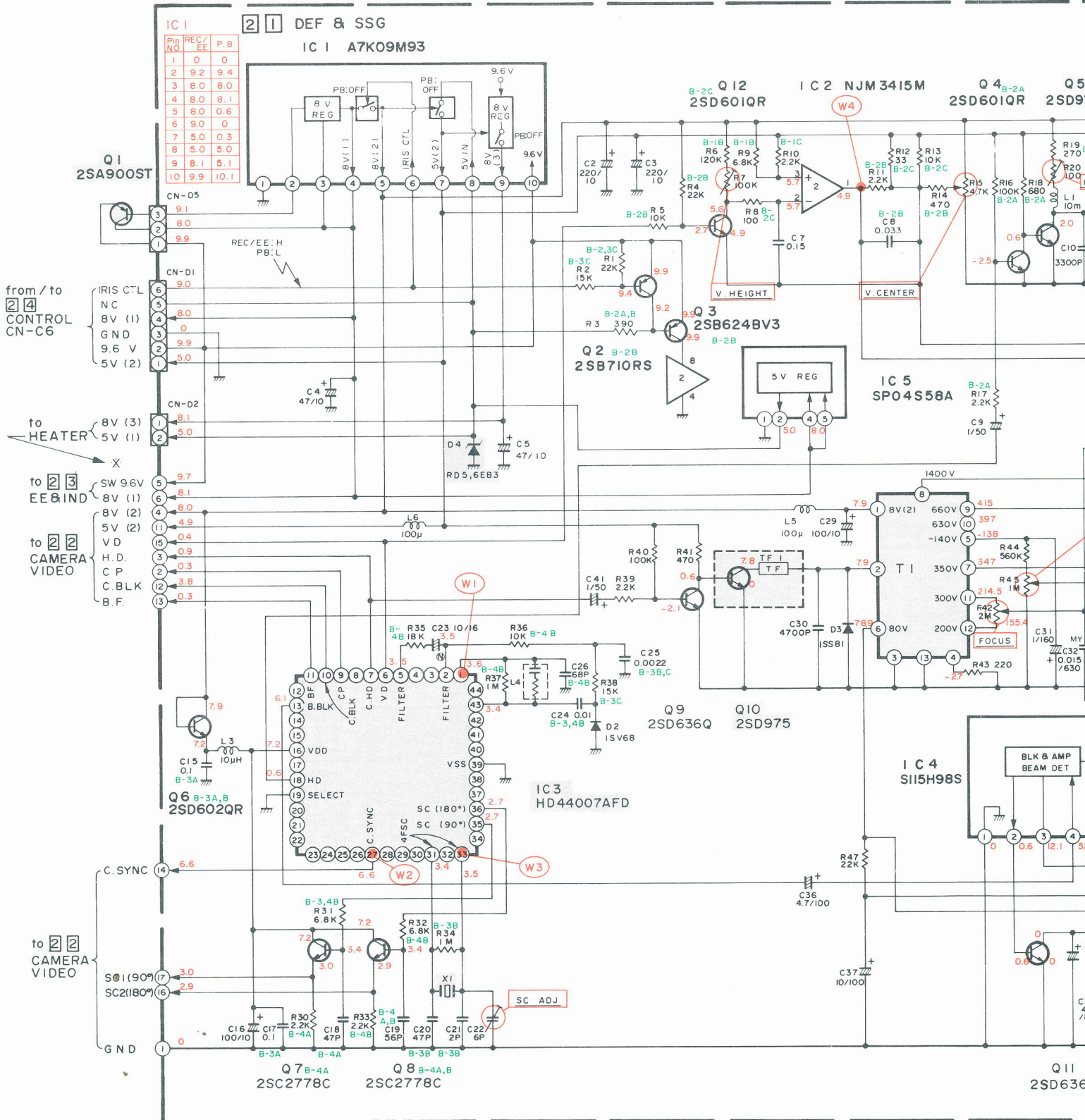
to 2 2
CAMER
VIDEO

3 4 5 6 7 8



to 2 2
CAMER
VIDEO

3 4 5 6 7 8



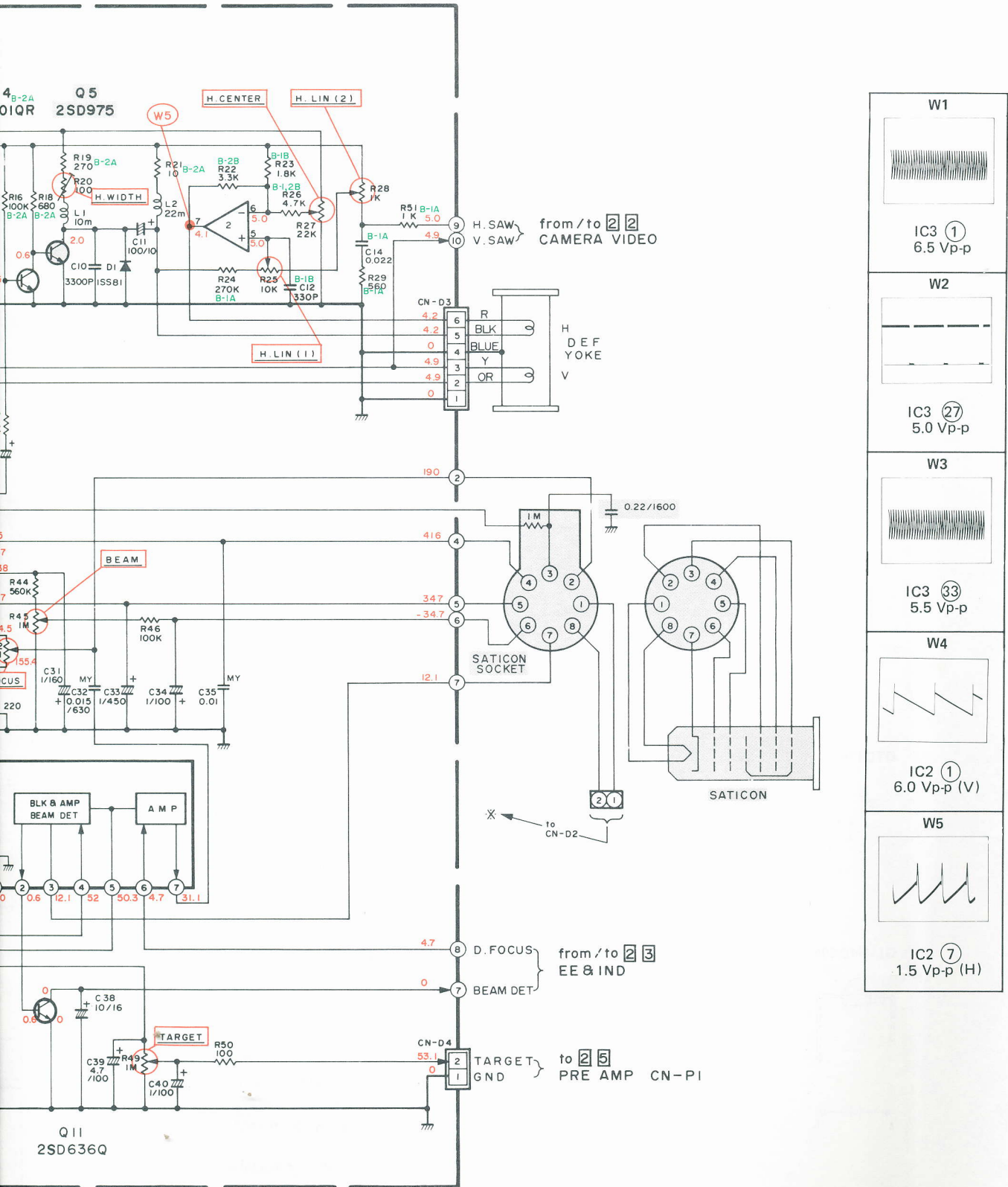
NOTES:

- parts are importantly related to safety. When replacing them, make sure to use specified parts.
- Voltage and waveform measurements. Voltage: Measured with digital voltmeter in DC range at iris closed. Waveform: With greyscale completely filling the picture area at auto-iris.

Hinweis:

- Alle Gleichspannungen sind mit einem Digital-Voltmeter gemessen, bei geschlossener Blende.
- Oszillogramme: Grautreppe, Blende auf Automatik.
- Bauteile in schraffierten Flächen sind Sicherheits-Bauteile! Nur gegen Original-Ersatzteile wechseln!

2 1 Ablenkplatte Schaltbild DEF + SSG circuit diagram



NOTES: Unless otherwise specified.

1. All resistance values are in ohms.
2. All inductance values are in H.
3. All capacitance values are in μF .

: Chip capacitor

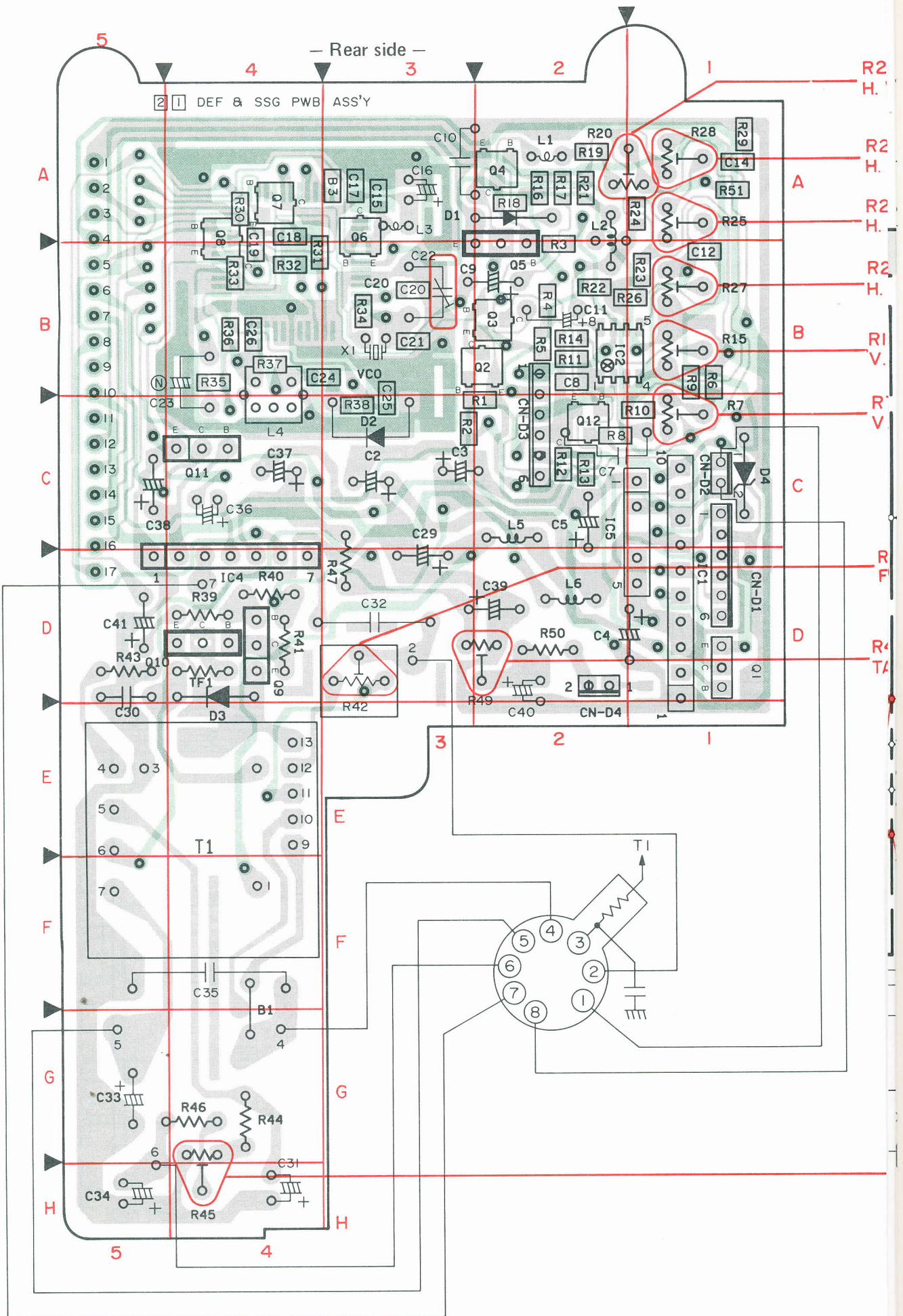
: Mylar capacitor

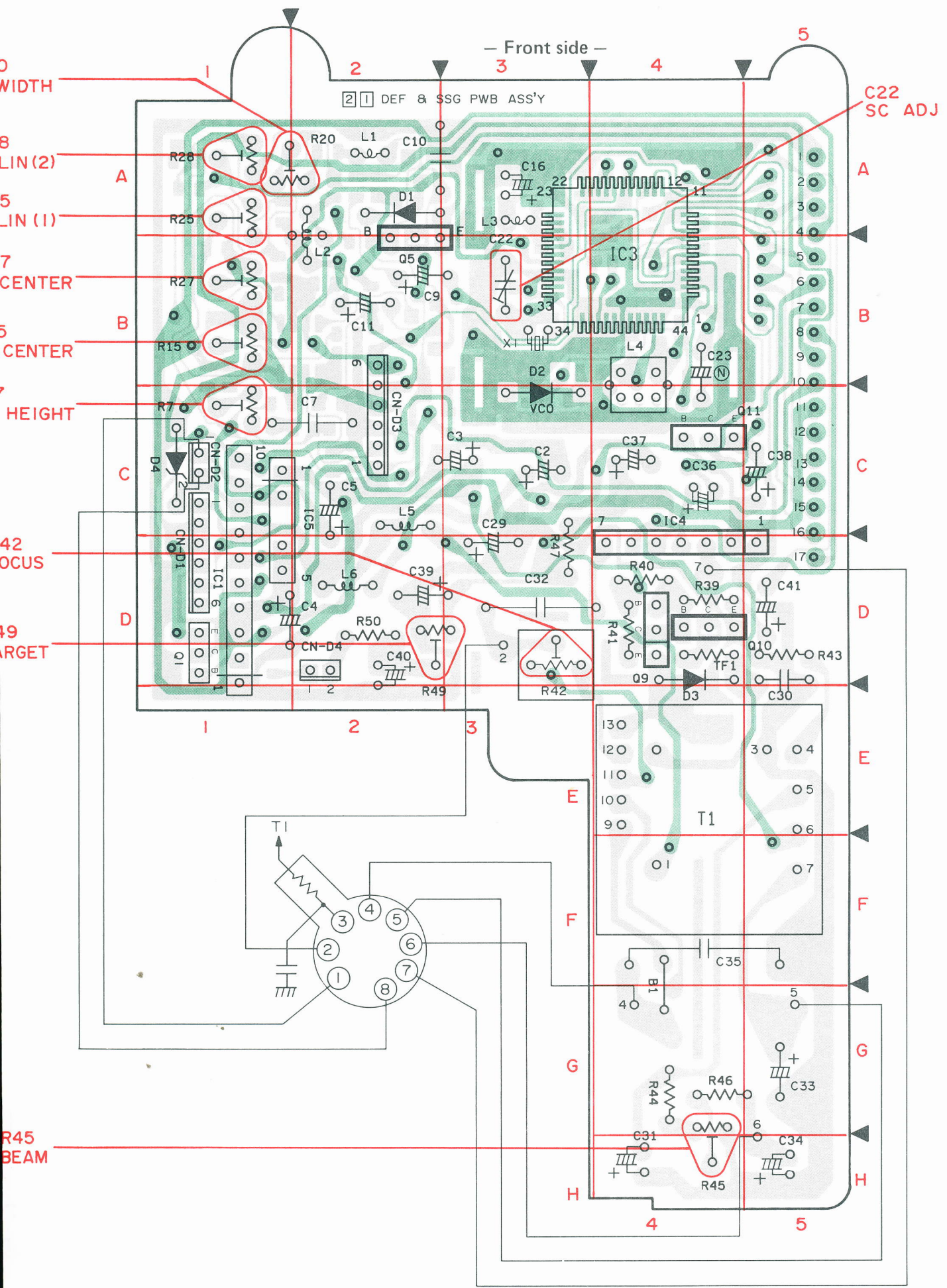
: Electrolytic capacitor

: Non-polar capacitor

: Tantalum capacitor

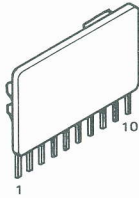
: Polypropylene capacitor



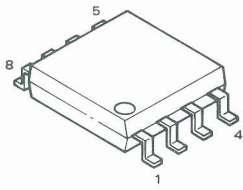


2 1 Ablenplatte
DEF + SSG PWB

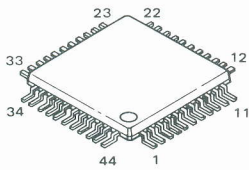
A7K09M93



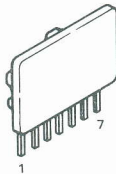
NJM3415M



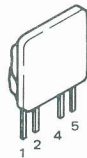
HD44007AFD



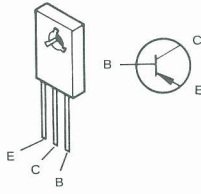
S115H98S



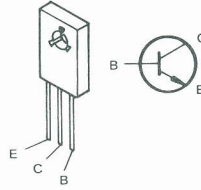
SP04S58A



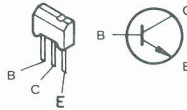
2SA900ST



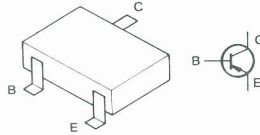
2SD975



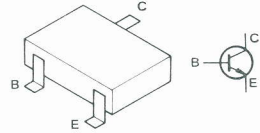
2SD636Q



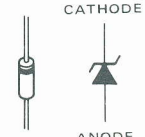
**2SB624BV3
2SB710RS**



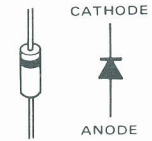
**2SC2778C
2SD601QR
2SD602QR**



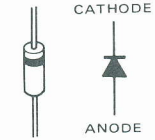
RD5.6EB3



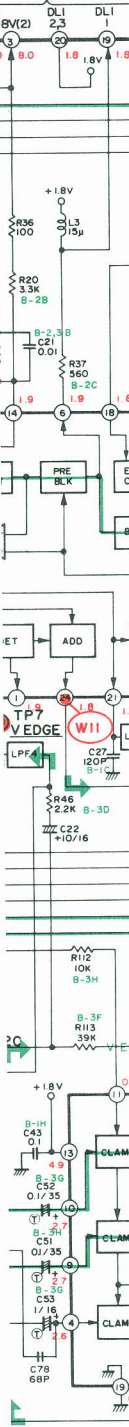
1SV68



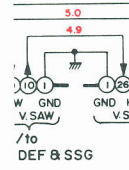
1SS81

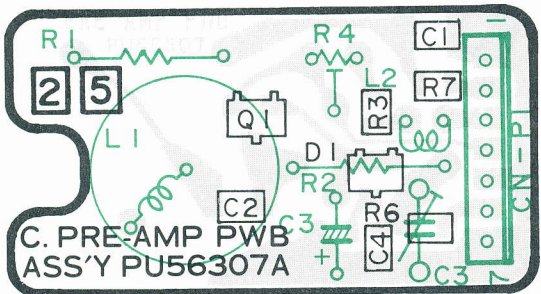
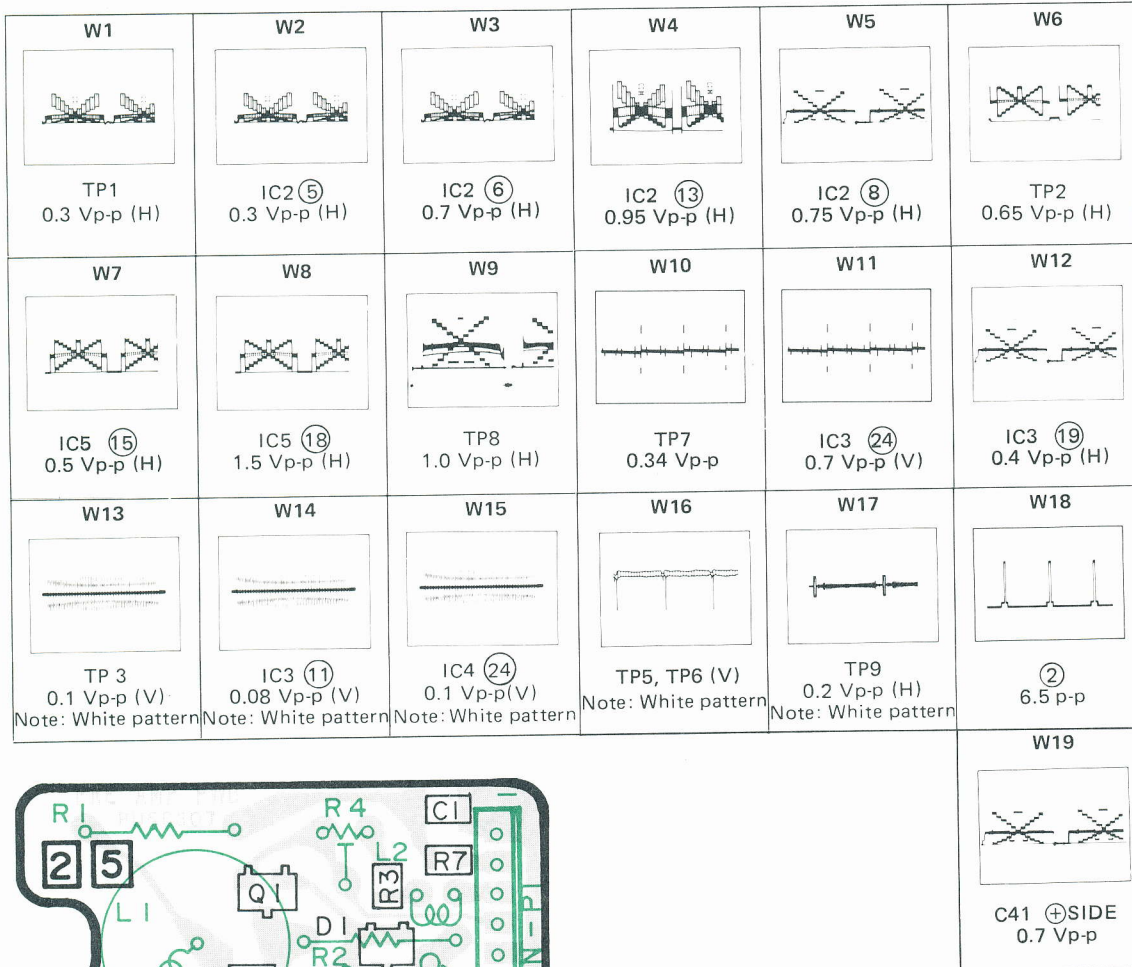


from/to
2 3 EE & IND

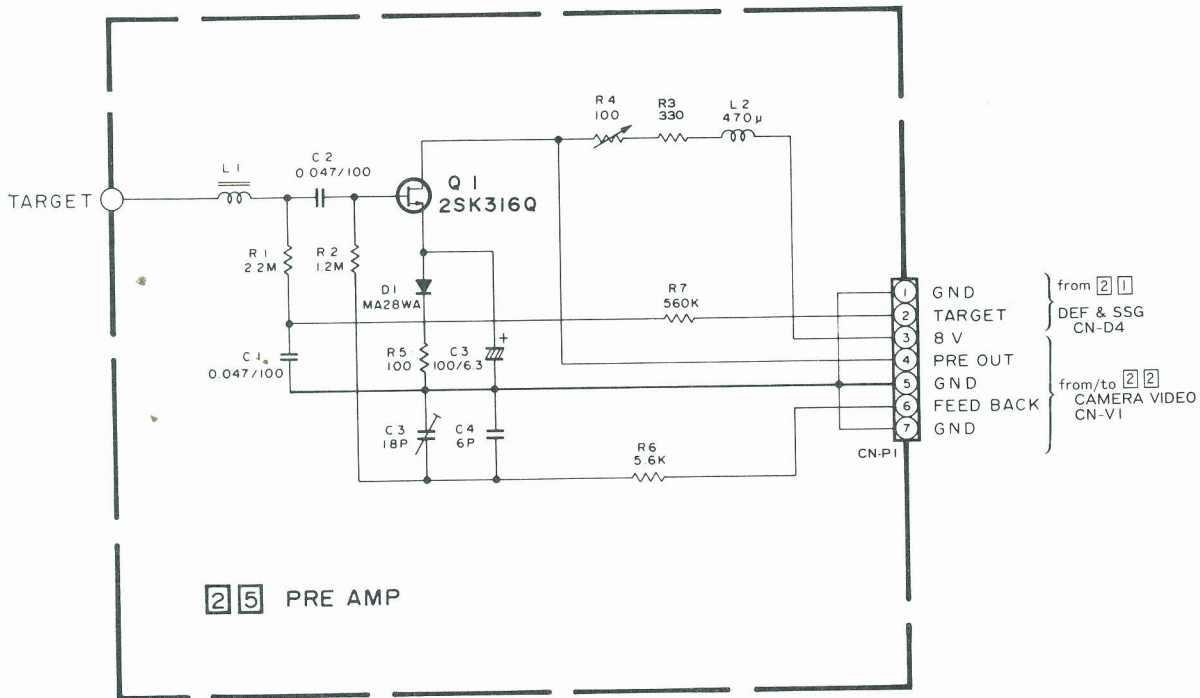


**IC5
HA11776AMP
B-26**



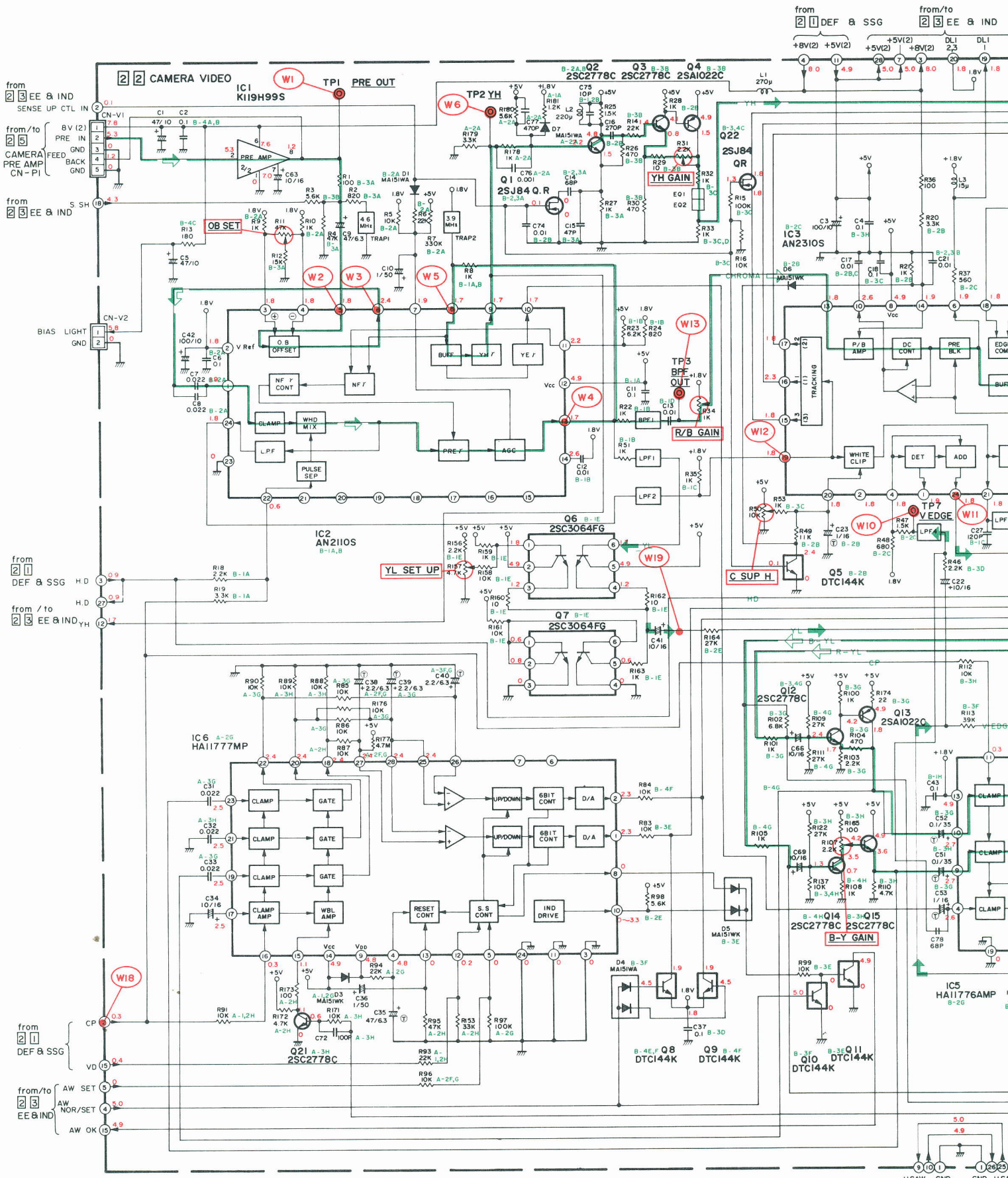


2 5 Vorverstärker Preamplifier



NOTES: Camera amp R4 and C3 are adjusted at the factory.
 Replace the entire camera pre-amp ass'y as a unit.
 Readjustment of R4 and C3 is not required, even after replacing the Saticon.

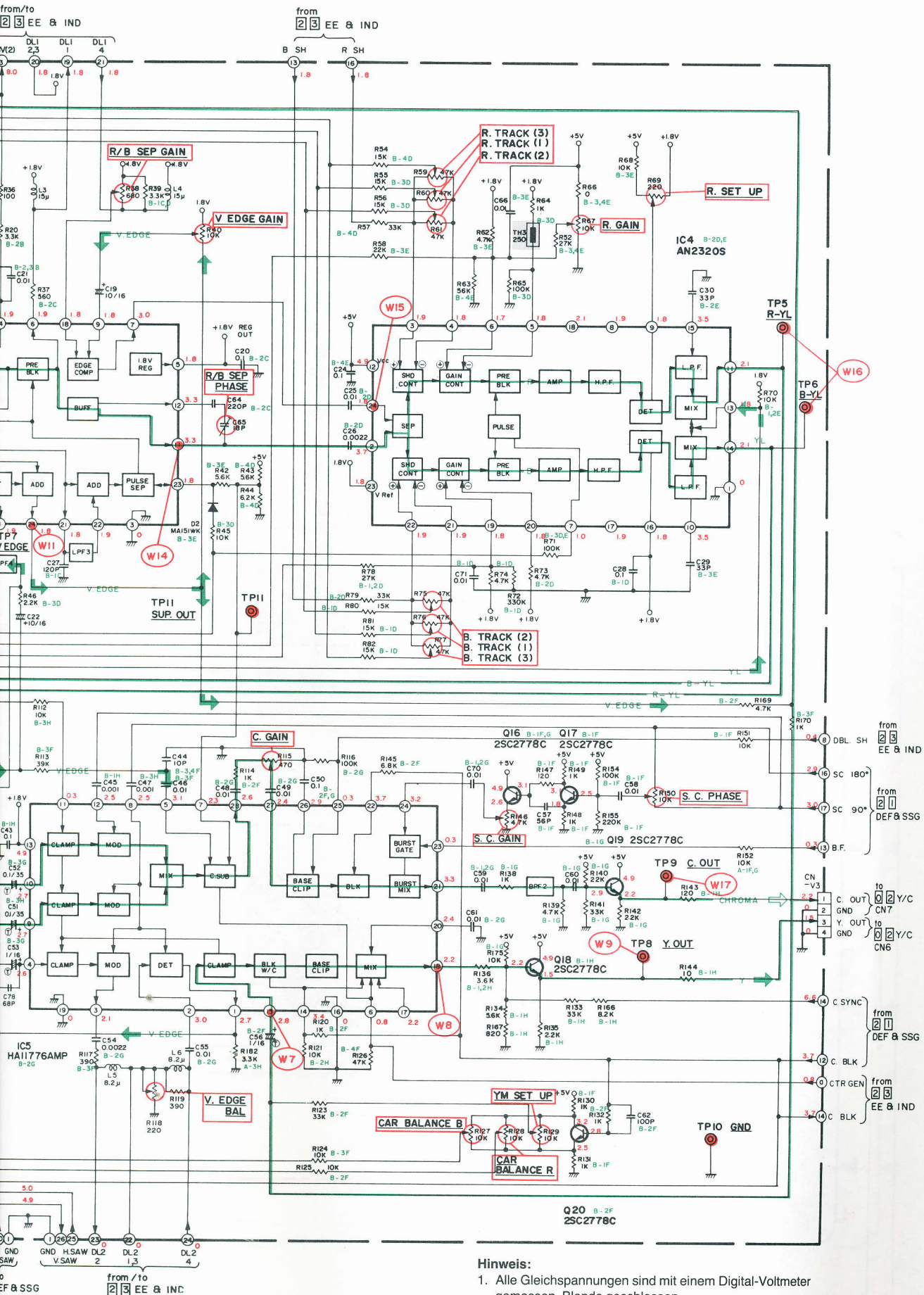
Hinweis:
 R4 und C3 sind fest eingestellt.
 Ein Abgleich ist nicht erforderlich.



NOTES:

- Parts are importantly related to safety. When replacing them, make sure to use specified parts.
- Voltage and waveform measurements
 Voltage: Measured with digital voltmeter in DC range at iris closed
 Waveform: With greyscale completely filling the picture area at auto-iris

2 2 Videoplatte (Camera) Schaltbild Video PWB (Camera) circuit diagram



Hinweis:

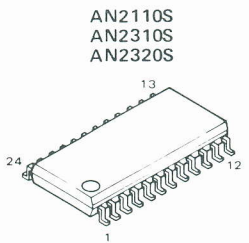
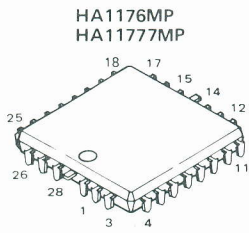
1. Alle Gleichspannungen sind mit einem Digital-Voltmeter gemessen. Blende geschlossen.
2. Oszillogramme: Grautreppe, Blende auf Automatik.
3. Bauteile in schattierten Flächen sind Sicherheitsbauteile! Nur gegen Original-Ersatzteile auswechseln!

2 3

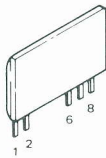
E-E &
IND



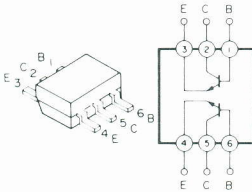
— Flexible board —



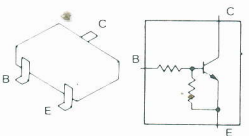
K119H99S



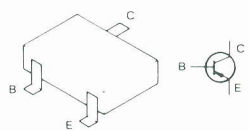
2SC3064FG



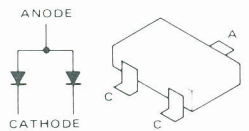
DTC144K



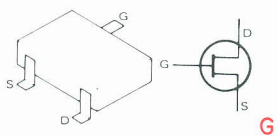
2SA1022C



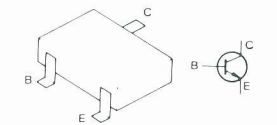
MA151WA



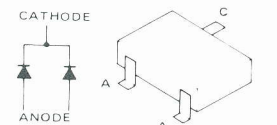
2SJ84QR



2SC2778C



MA151WK

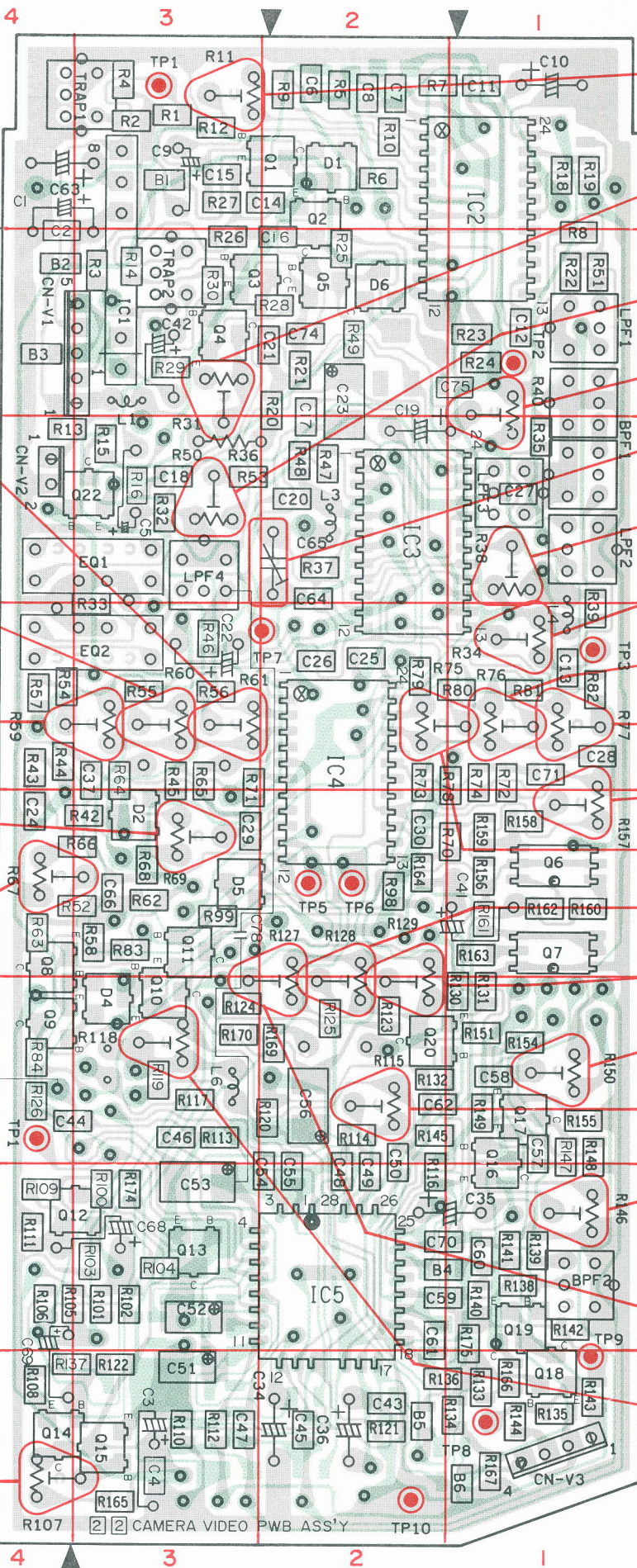


- Rear side -

2 1
DEF &
SSG



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17



R61
R TRACK (3)

R60
R TRACK (2)

R59
R TRACK (1)

R69
R SET UP

R67
R GAIN

To 2 3
EE & IND PWB
①

R107
B-Y GAIN

R11
OB SE

R31
YH GA

R50
C SUP

R40
V EDGE C

C65
R/B SEP P

R38
R/B SEP C

R34
R/B GA

R76
B TRACK

R77
B TRACK

R157
YL SET

R75
B TRACK

R128
CAR BALAN

R129
YH SET

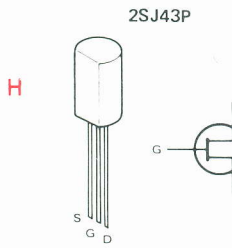
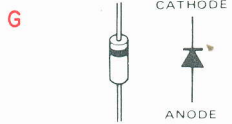
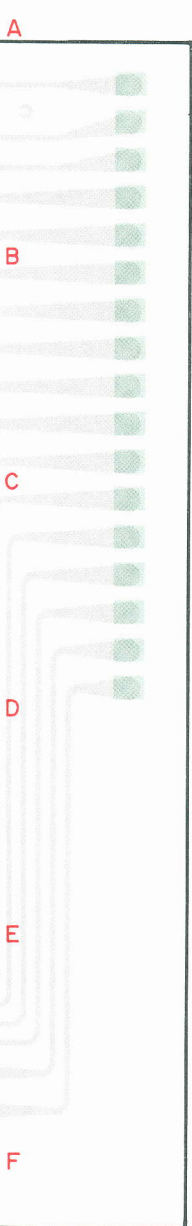
R150
SC PHA

R115
C GAIN

R146
SC GAI

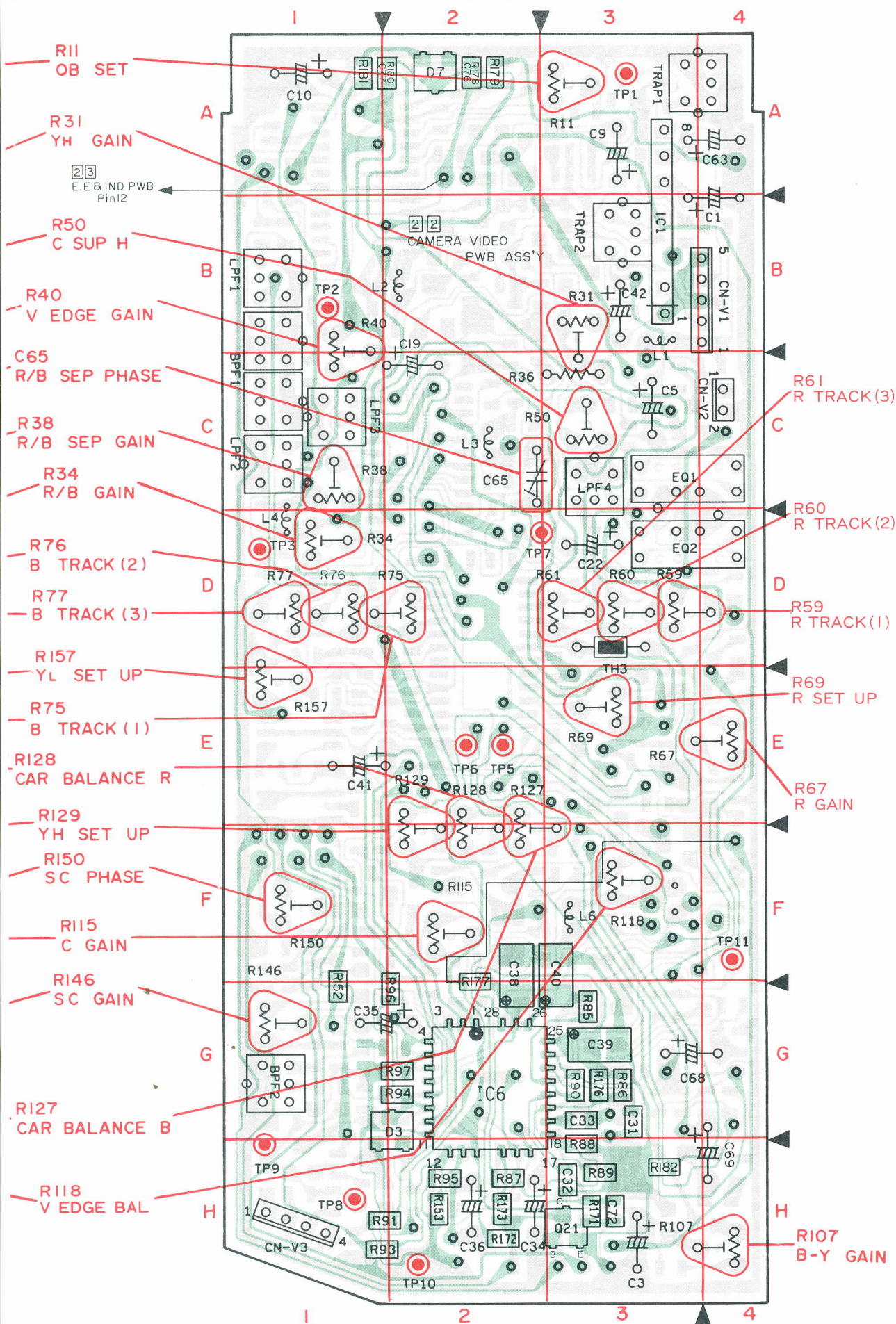
R127
CAR BALAN

R118
V EDGE B



**2 2 Videoplate (Camera)
Video PWB (Camera)**

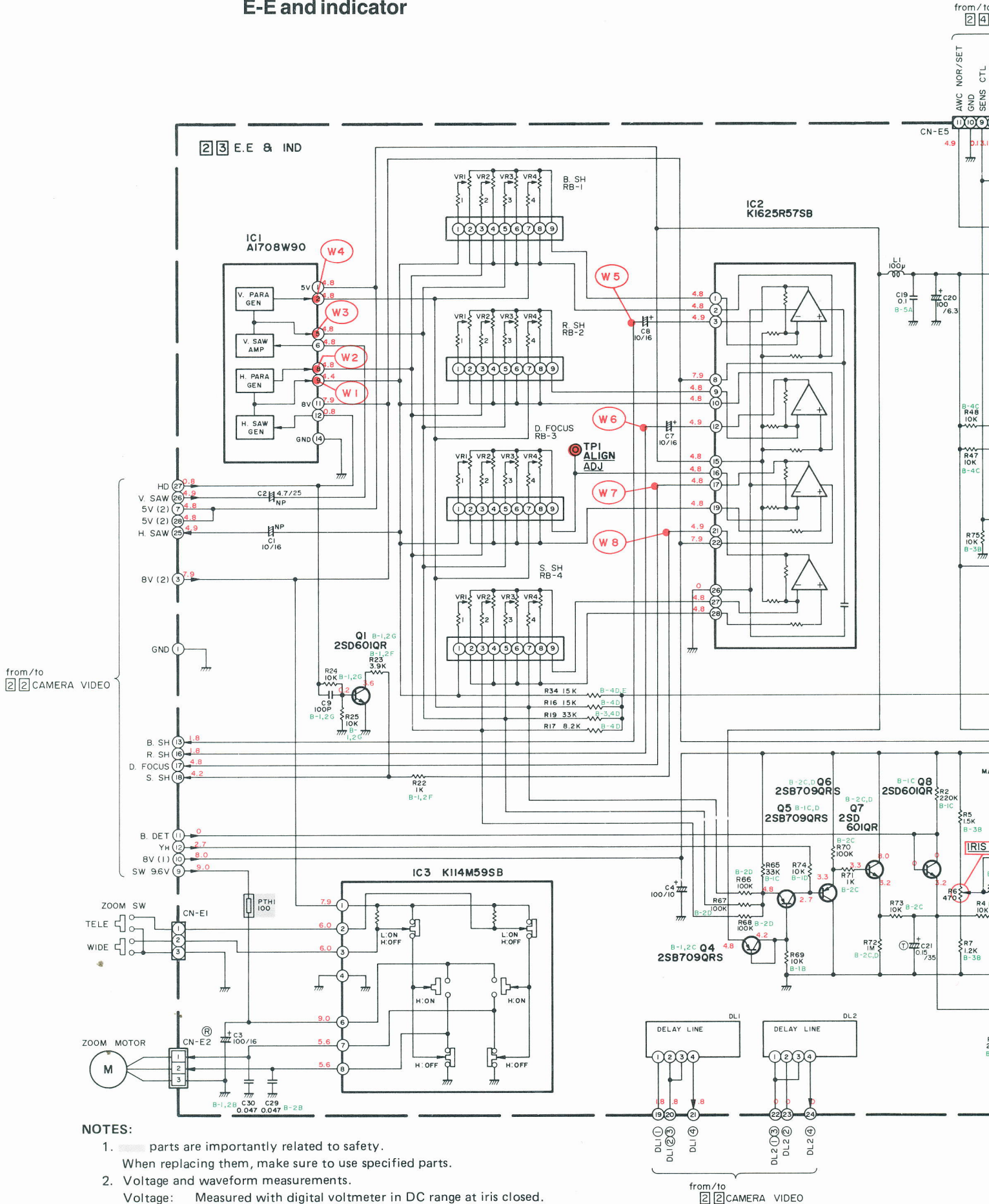
— Front side —



Legend symbols and values:

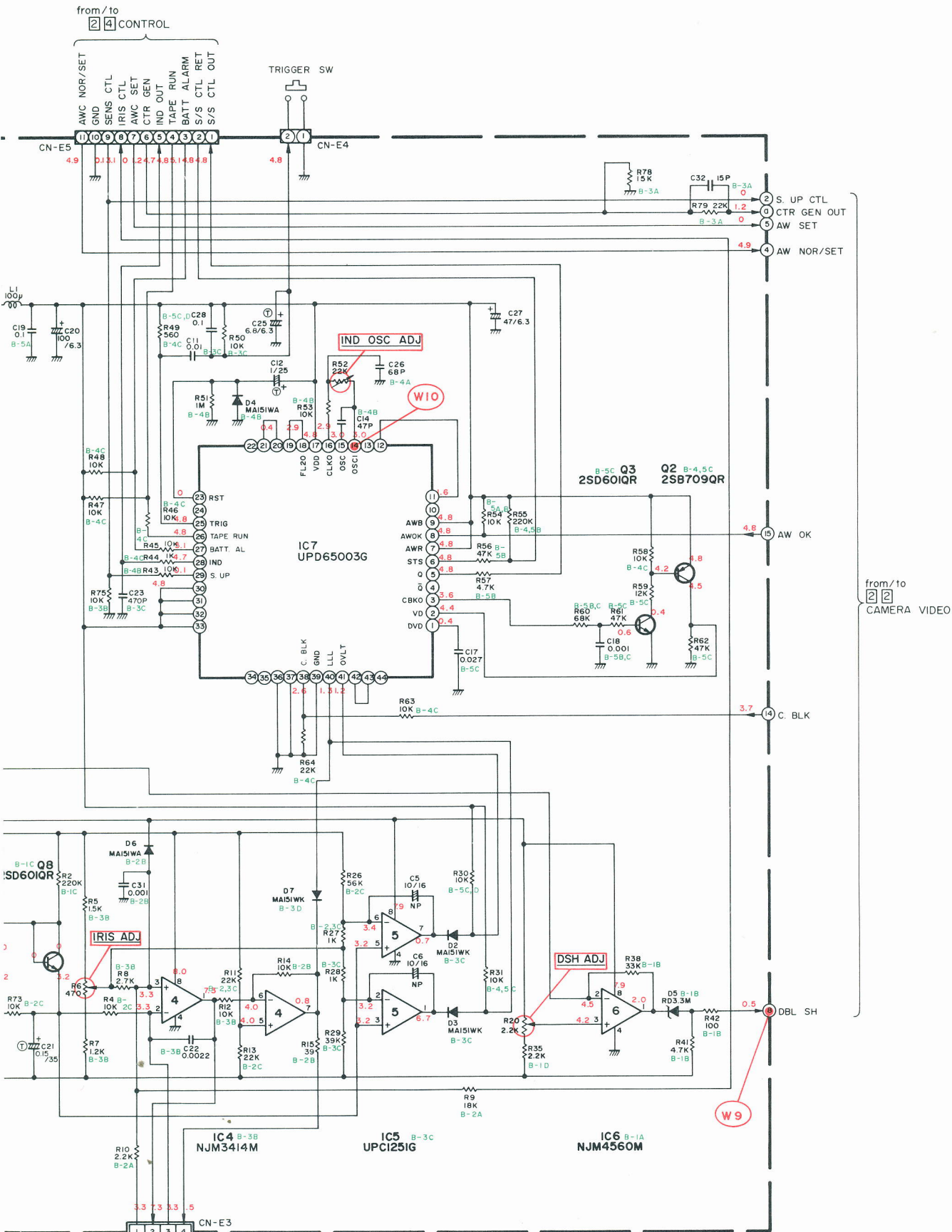
- IC 2.7 V
- IC 2.8 V
- IC
- IC
- IC
- 5.5 V

2 3 E-E und Anzeigenplatte E-E and indicator



NOTES:

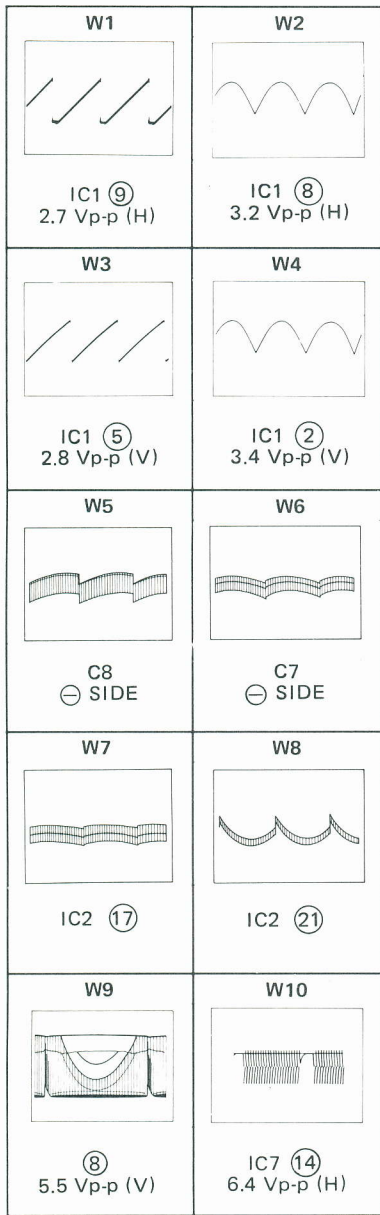
1. **parts are importantly related to safety.**
When replacing them, make sure to use specified parts.
2. **Voltage and waveform measurements.**
Voltage: Measured with digital voltmeter in DC range at iris closed.
Waveform: With greyscale completely filling the picture area at auto-iris.



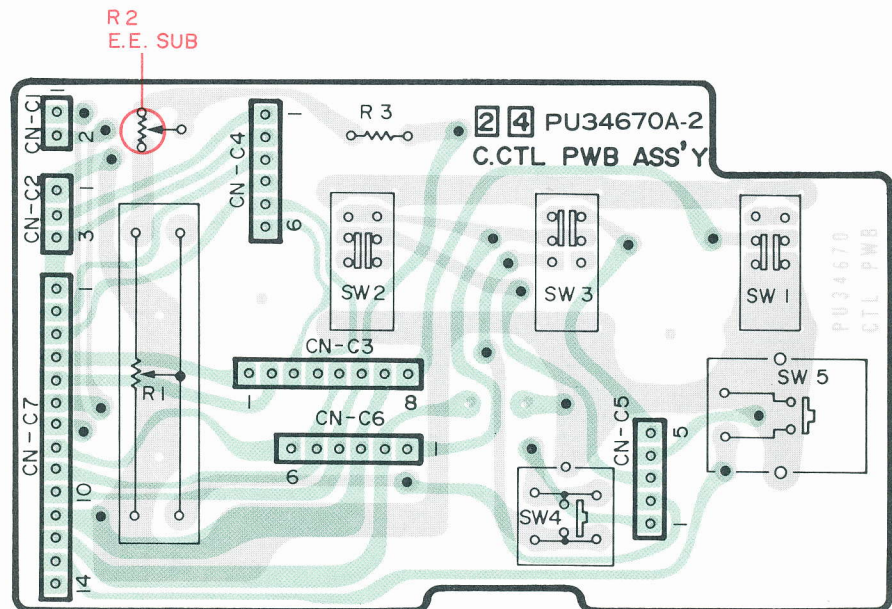
Hinweis:

1. Alle Gleichspannungen sind mit einem Digitalvoltmeter gemessen, bei geschlossener Blende.
2. Oszillogramme: Grautreppe, Blende auf Automatik.
3. Bauteile in den schattierten Flächen sind Sicherheitsbauteile! Nur gegen Original-Ersatzteile auswechseln!

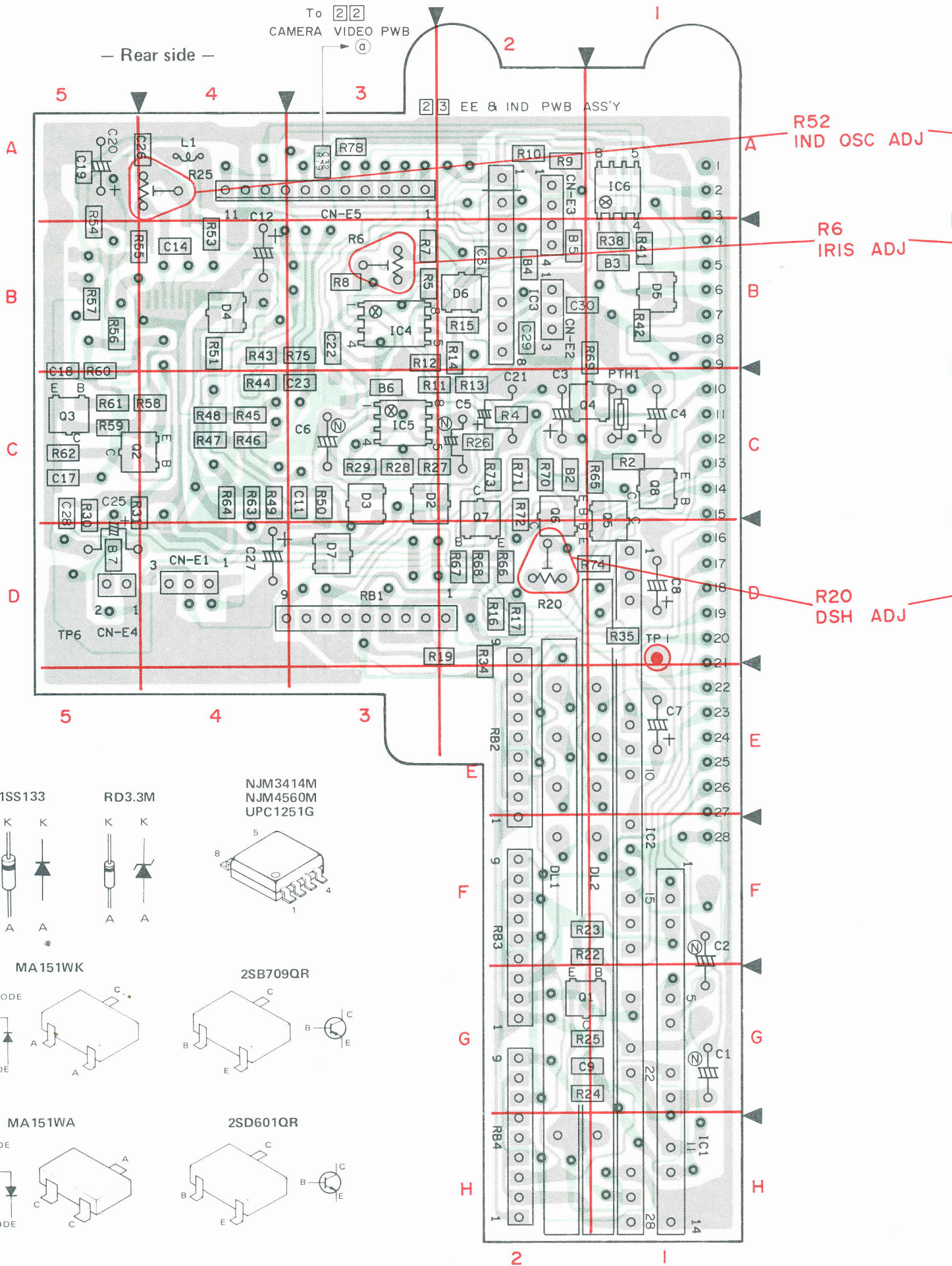


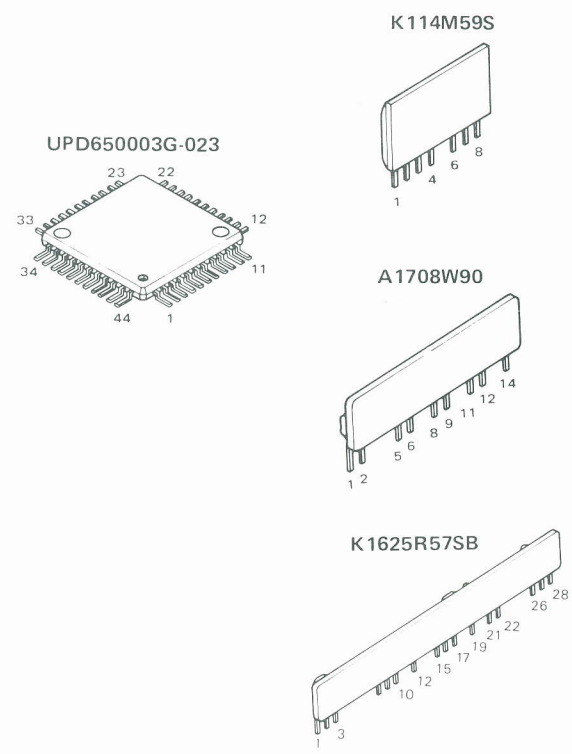
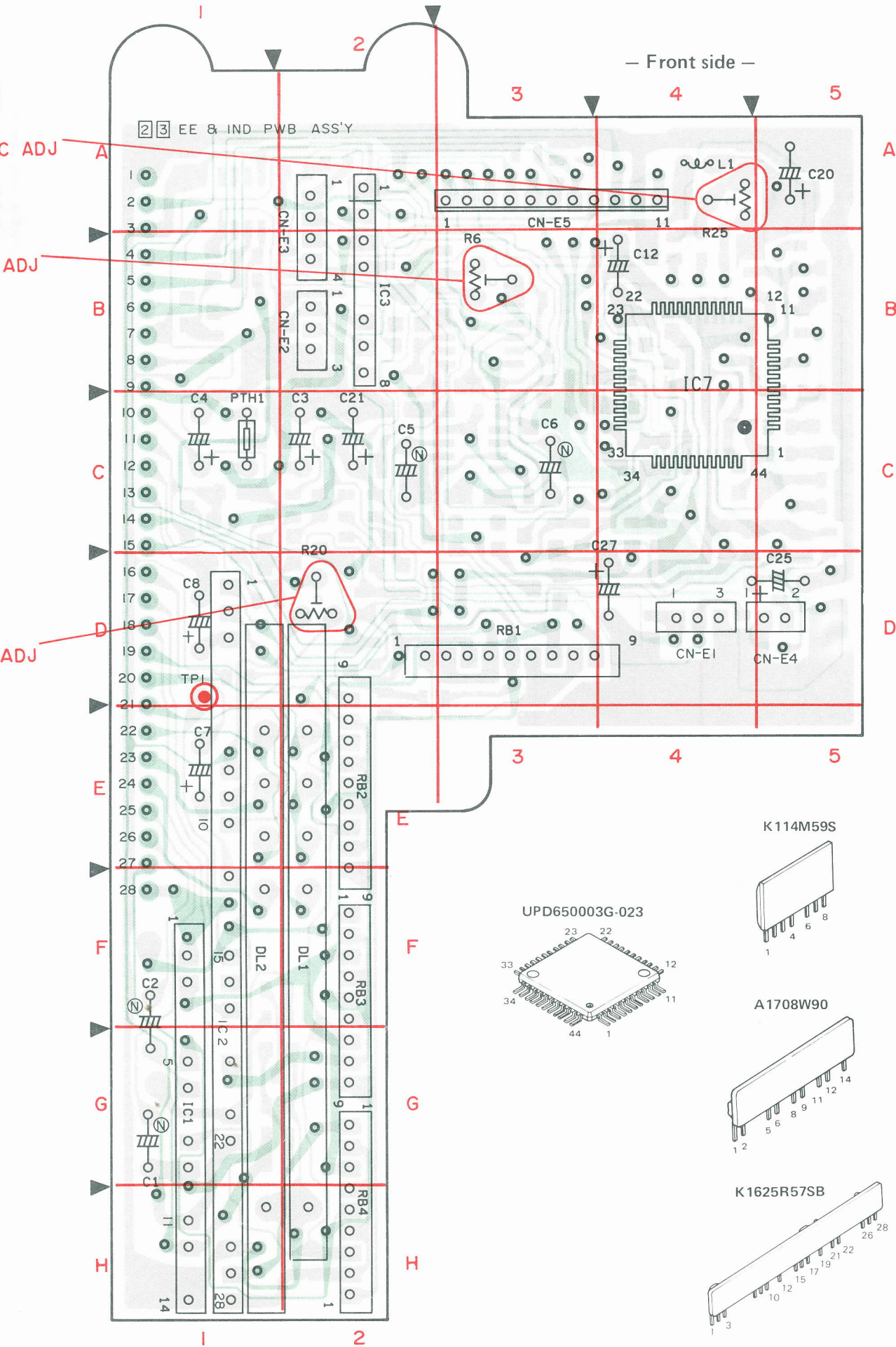


**2 4 Camera Schalterplatte
Camera control PWB**

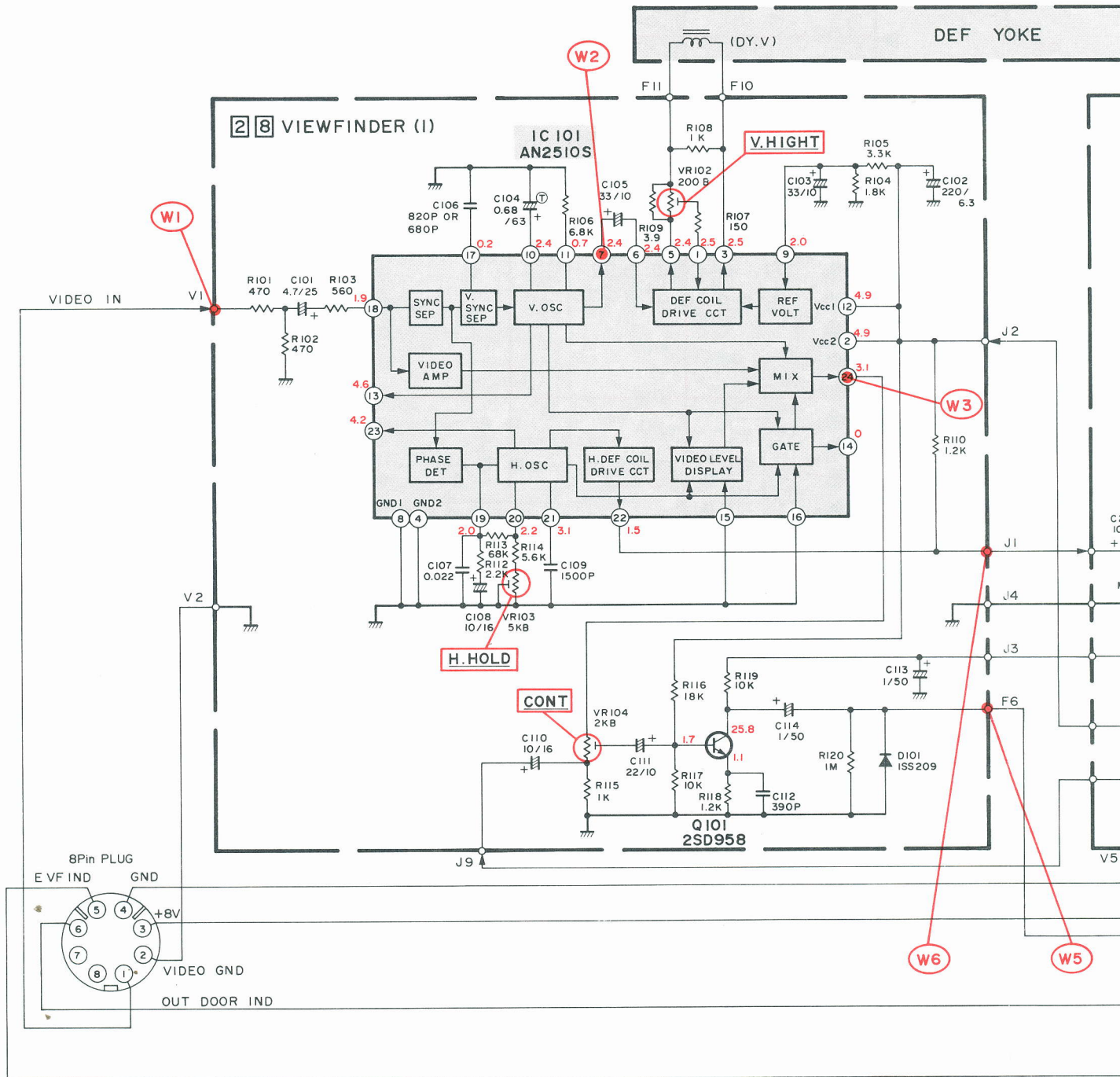


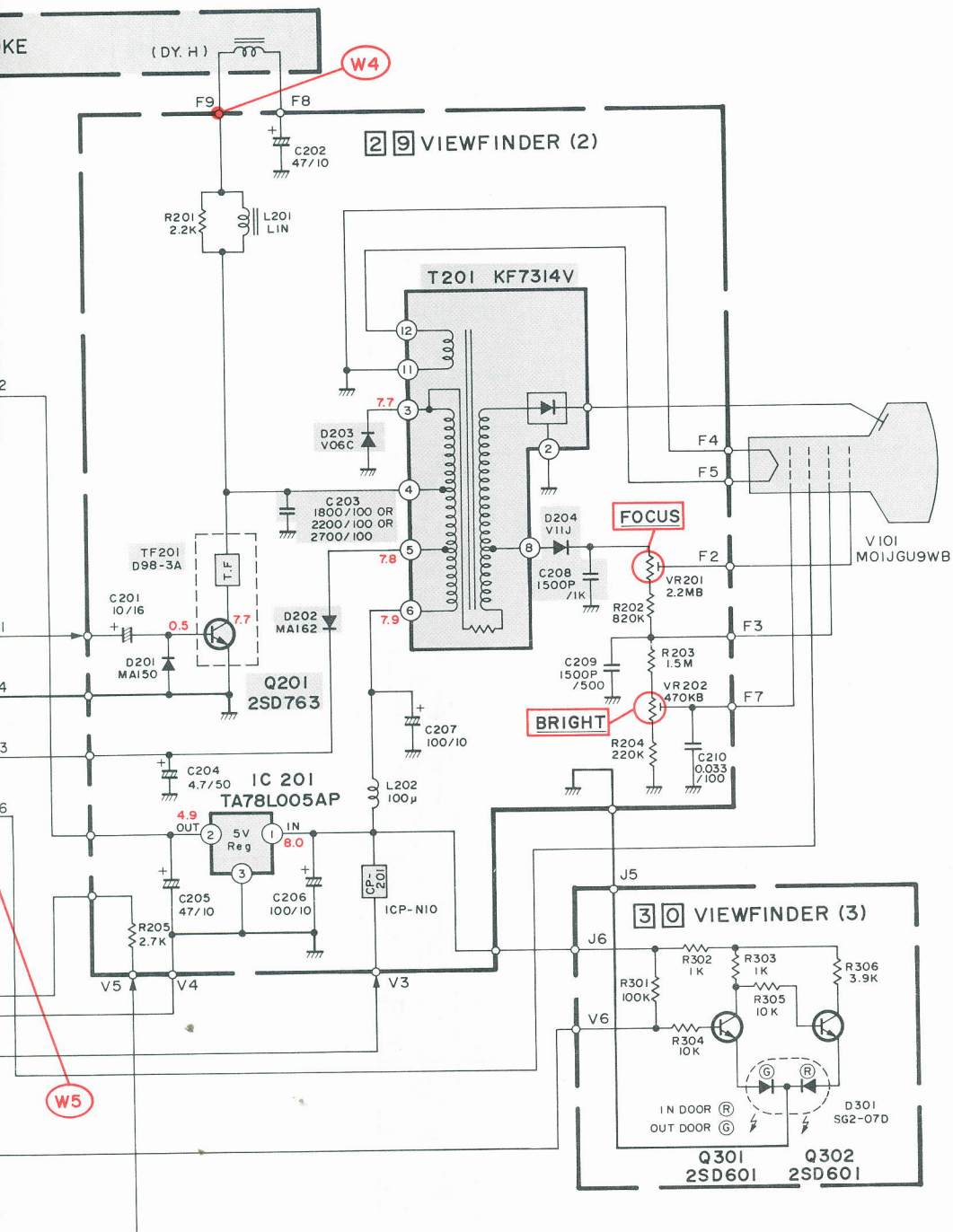
2 3 E-E und Anzeigeplatte
E-E and indicator PWB

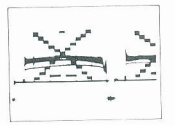

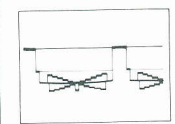


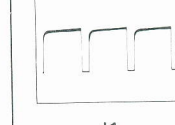


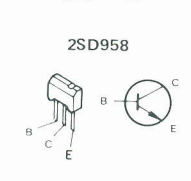
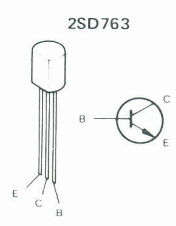
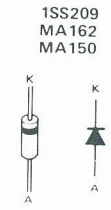
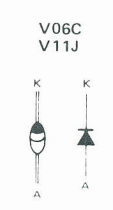
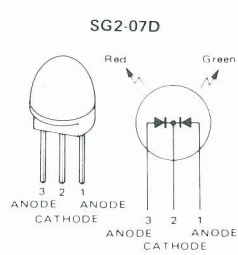
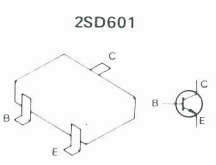
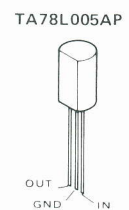
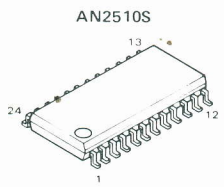
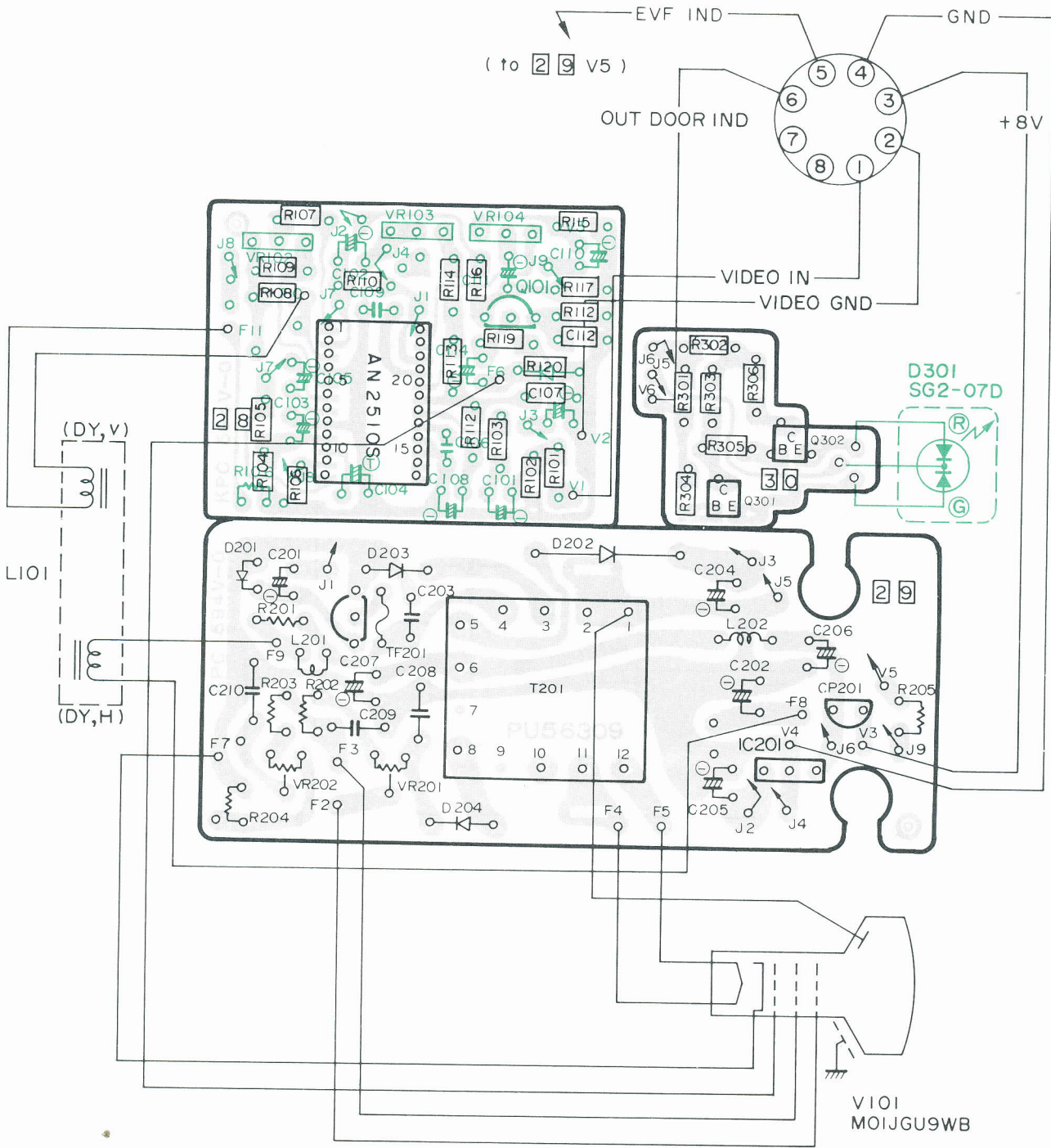


28, 29, 30 elektron. Sucher
Viewfinder

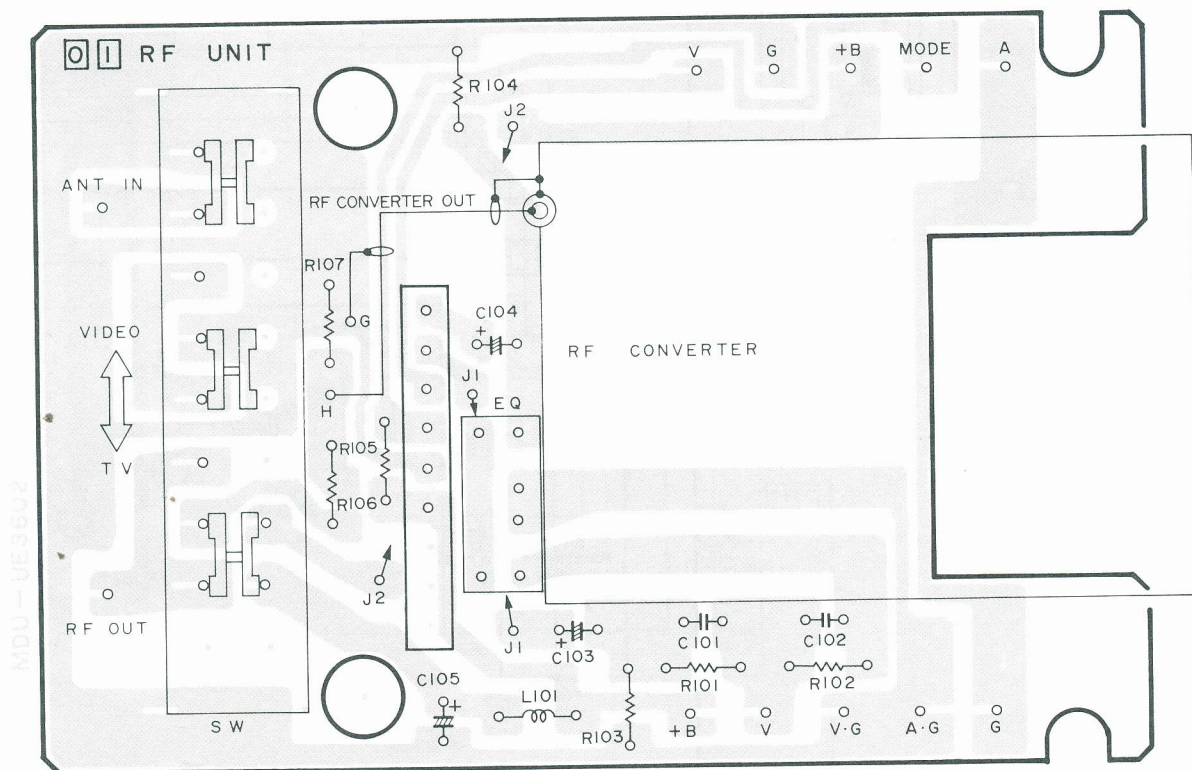
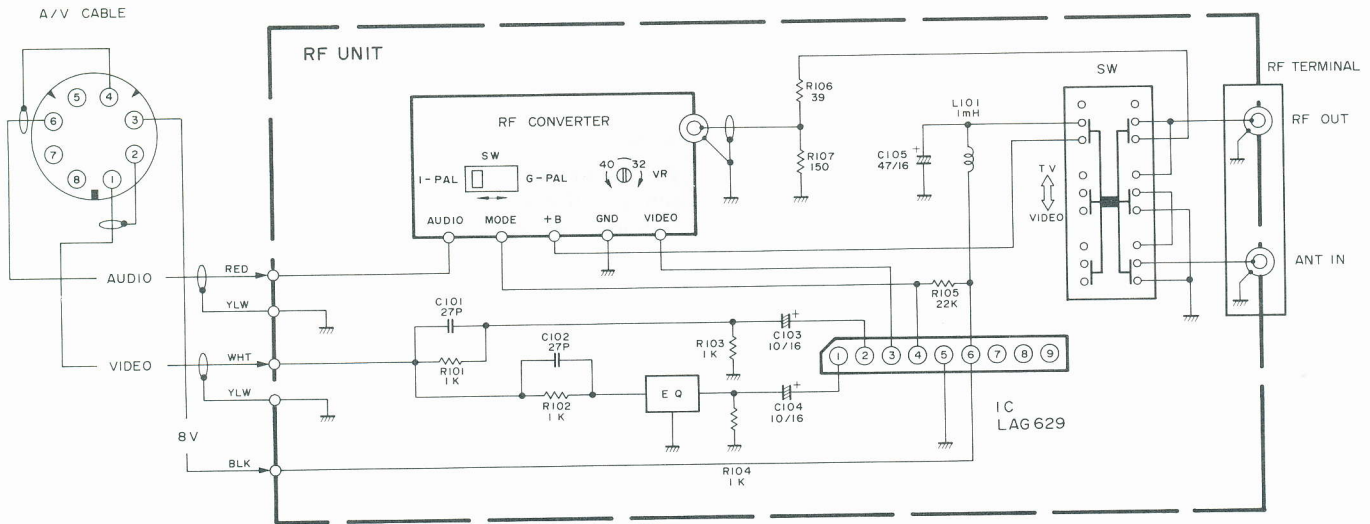




W1		V1 2.0 Vp-p
W2		IC101 (7) 3.0 Vp-p
W3		IC101 (24) 3.0 Vp-p
W4		F9 68 Vp-p
W5		F6 17 Vp-p
W6		J1 2.0 Vp-p







HF-Modulator RF-Unit



Netz- und Ladegerät AC power adaptor and battery charger

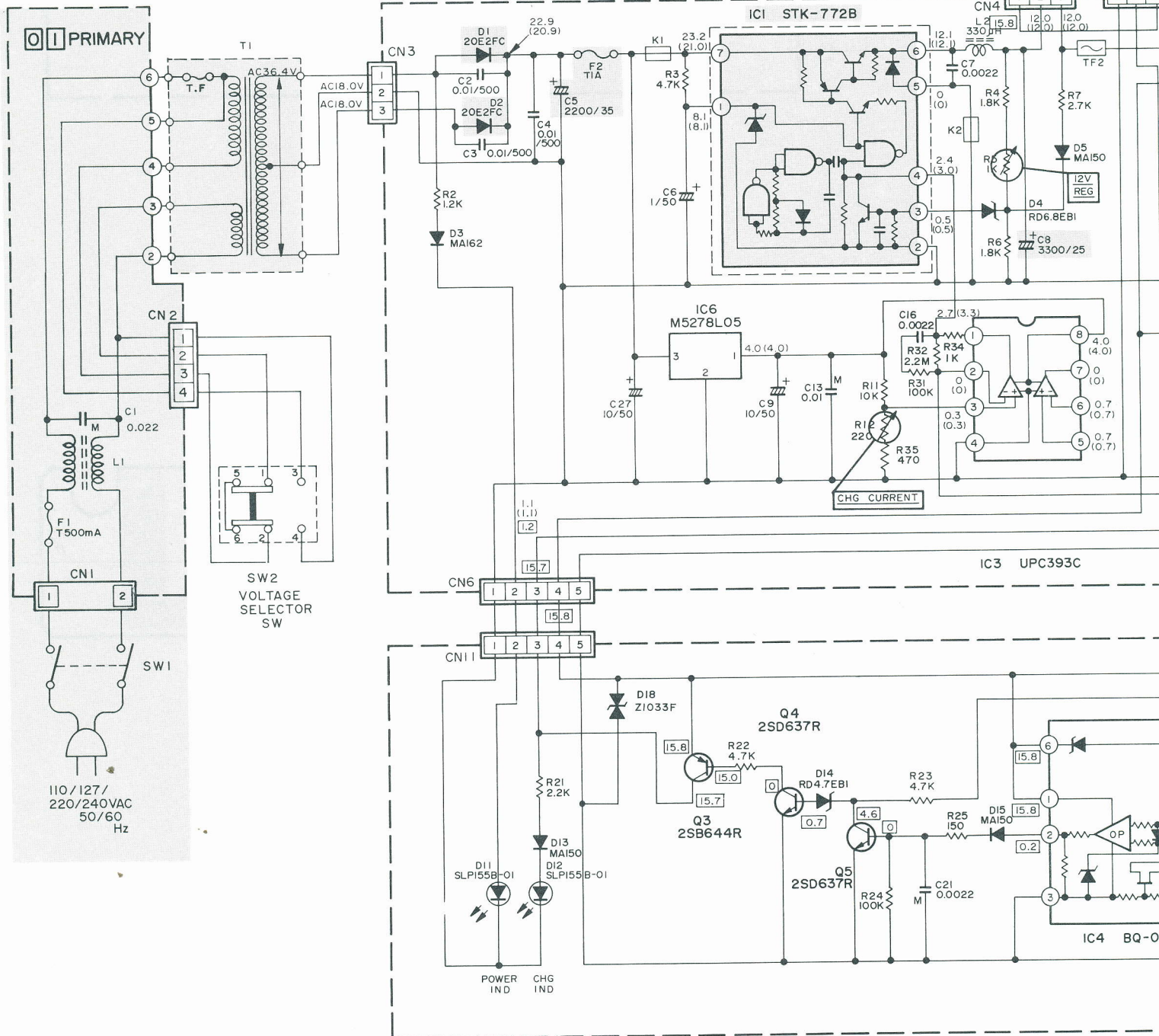
SCHEMATIC DIAGRAM

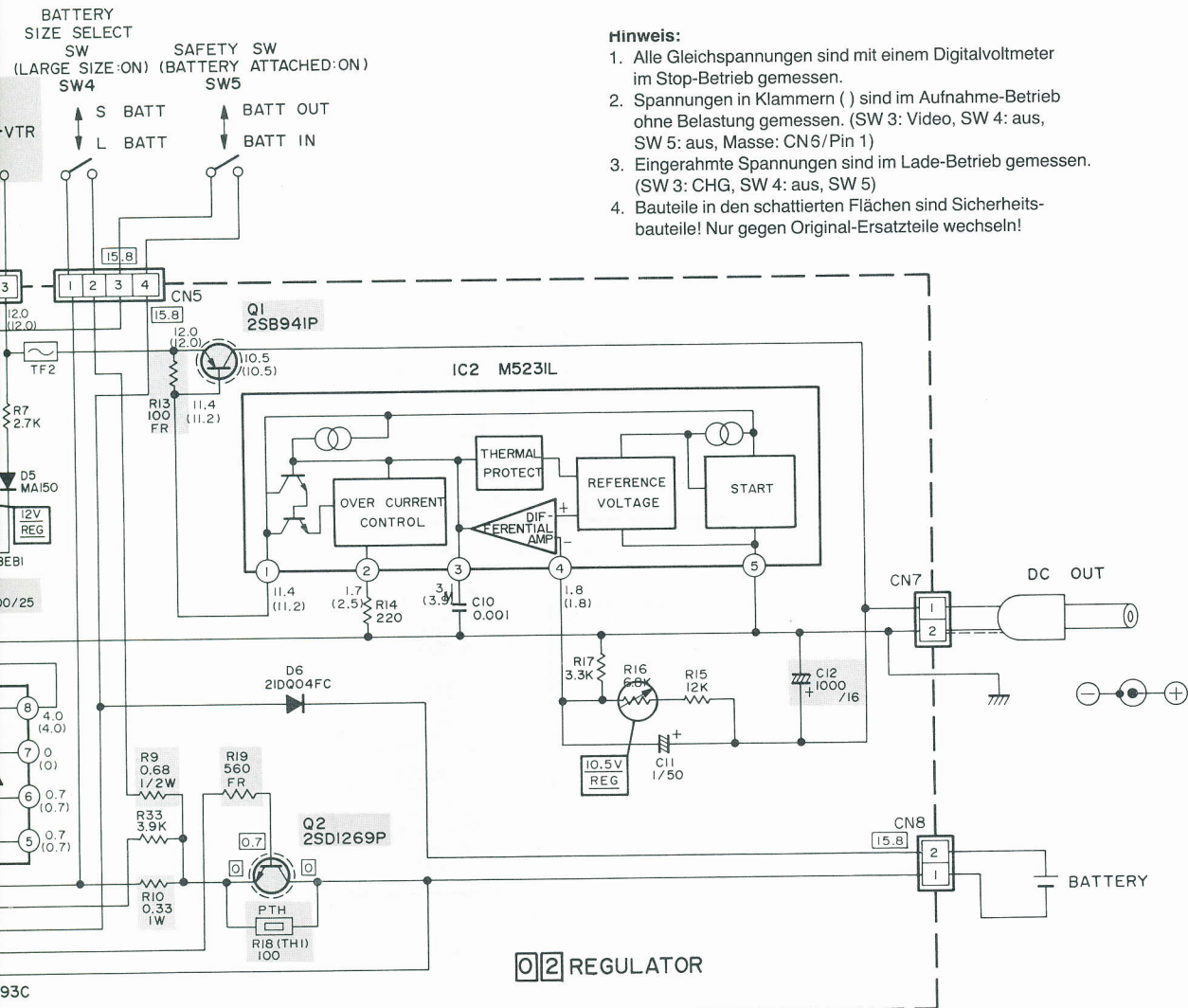
NOTES: Unless otherwise specified;

1. All resistance values are in ohms, 1/8 W.
 2. All inductance values are in μH .
 3. All capacitance values are in μF .
-  Electrolytic
  Ceramic
 Tantalum
  Mylar

4. Voltages are DC-measured with a digital voltmeter during STOP mode

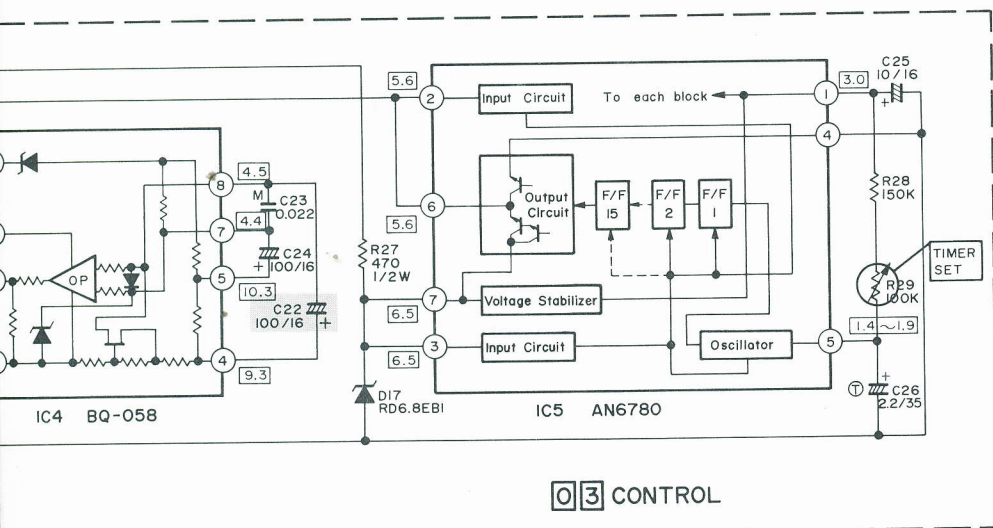
- 1) Voltages during REC mode is shown in parentheses (); (SW3: VIDEO, SW4: OFF, SW5: OFF, Ground: CN6 pin 1)
 - 2) Voltages during CHG mode at nor road is shown in frame ;
(SW3: CHG, SW4: OFF, SW5: ON, Ground: CN6 pin 1)
5. Shaded () parts are critical for safety.
Replace only with specified parts numbers.



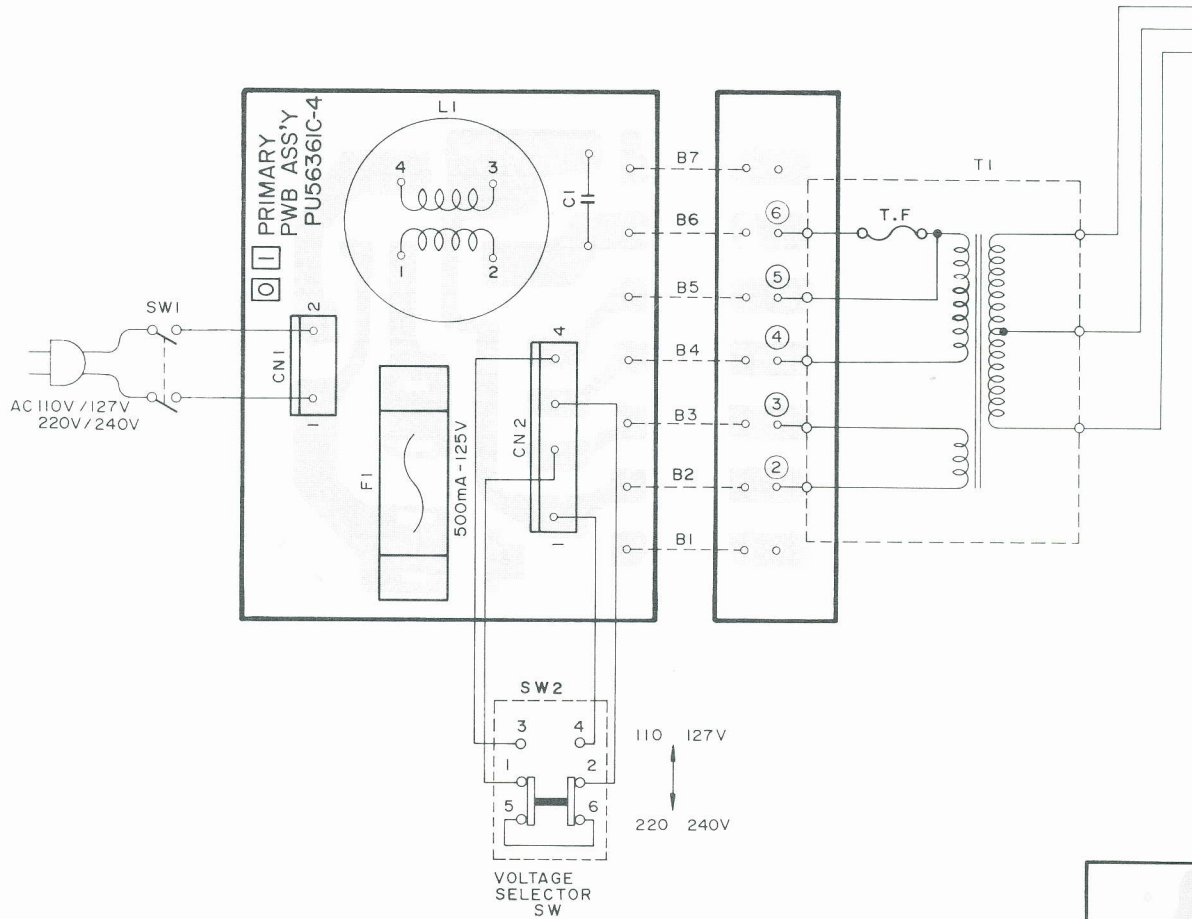


Hinweis:

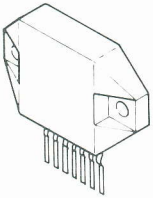
1. Alle Gleichspannungen sind mit einem Digitalvoltmeter im Stop-Betrieb gemessen.
2. Spannungen in Klammern () sind im Aufnahme-Betrieb ohne Belastung gemessen. (SW 3: Video, SW 4: aus, SW 5: aus, Masse: CN6/Pin 1)
3. Eingerahmte Spannungen sind im Lade-Betrieb gemessen. (SW 3: CHG, SW 4: aus, SW 5)
4. Bauteile in den schattierten Flächen sind Sicherheitsbauteile! Nur gegen Original-Ersatzteile wechseln!



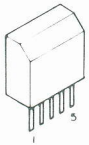
Netz- und Ladegerät AC power adaptor and battery charger



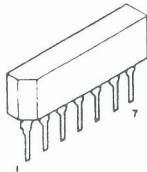
IC1 : STK-772B



IC2: M5231L



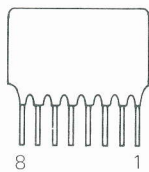
IC5: AN6780



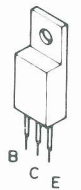
IC3: UPC393C



IC4 : BQ-058



Q3: 2SB644R



Q1: 2SB941P

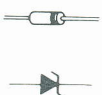


Q4, Q5: 2SD637R

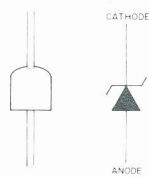


Q2: 2SD1269P

D4, D17 : RD6.8EB1
D14 : RD4.7EB1



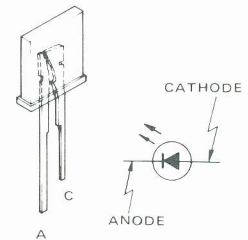
D18 : Z1033F



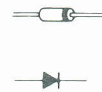
IC6 : M5278L05

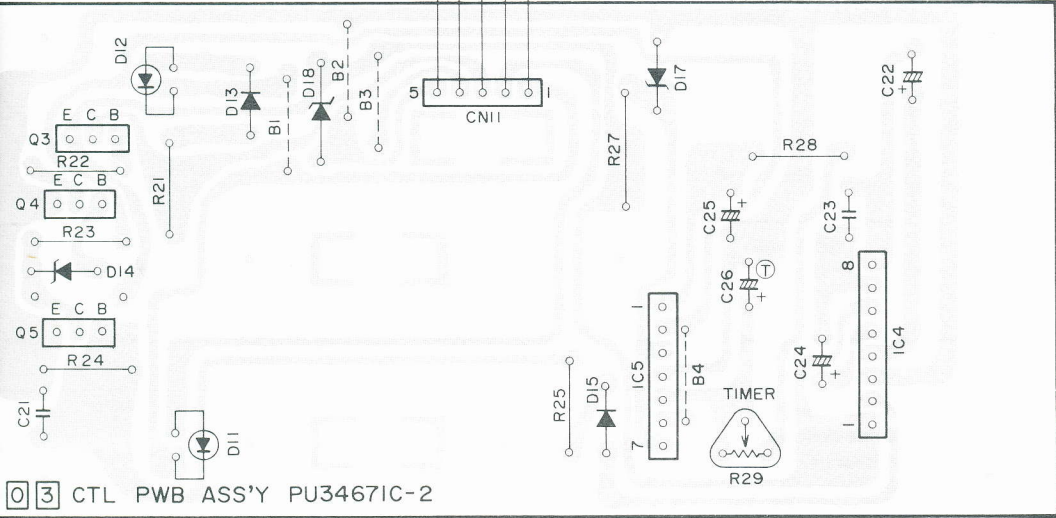
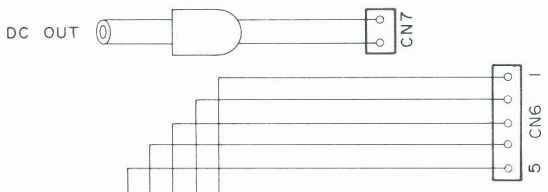
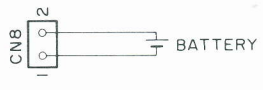
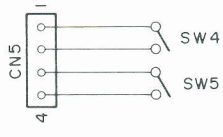
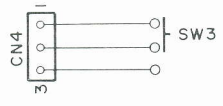
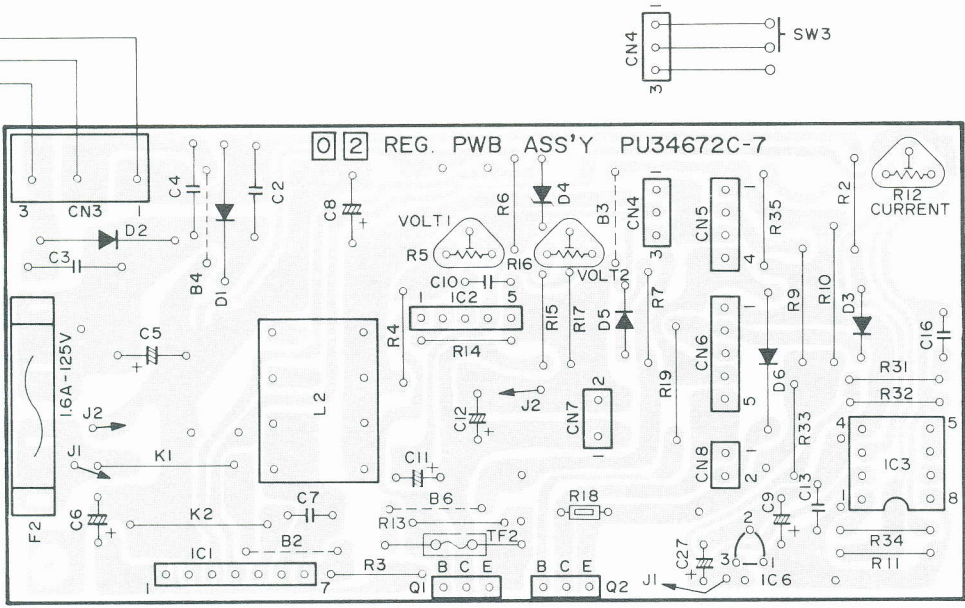


D11, D12 : SLP155B-01



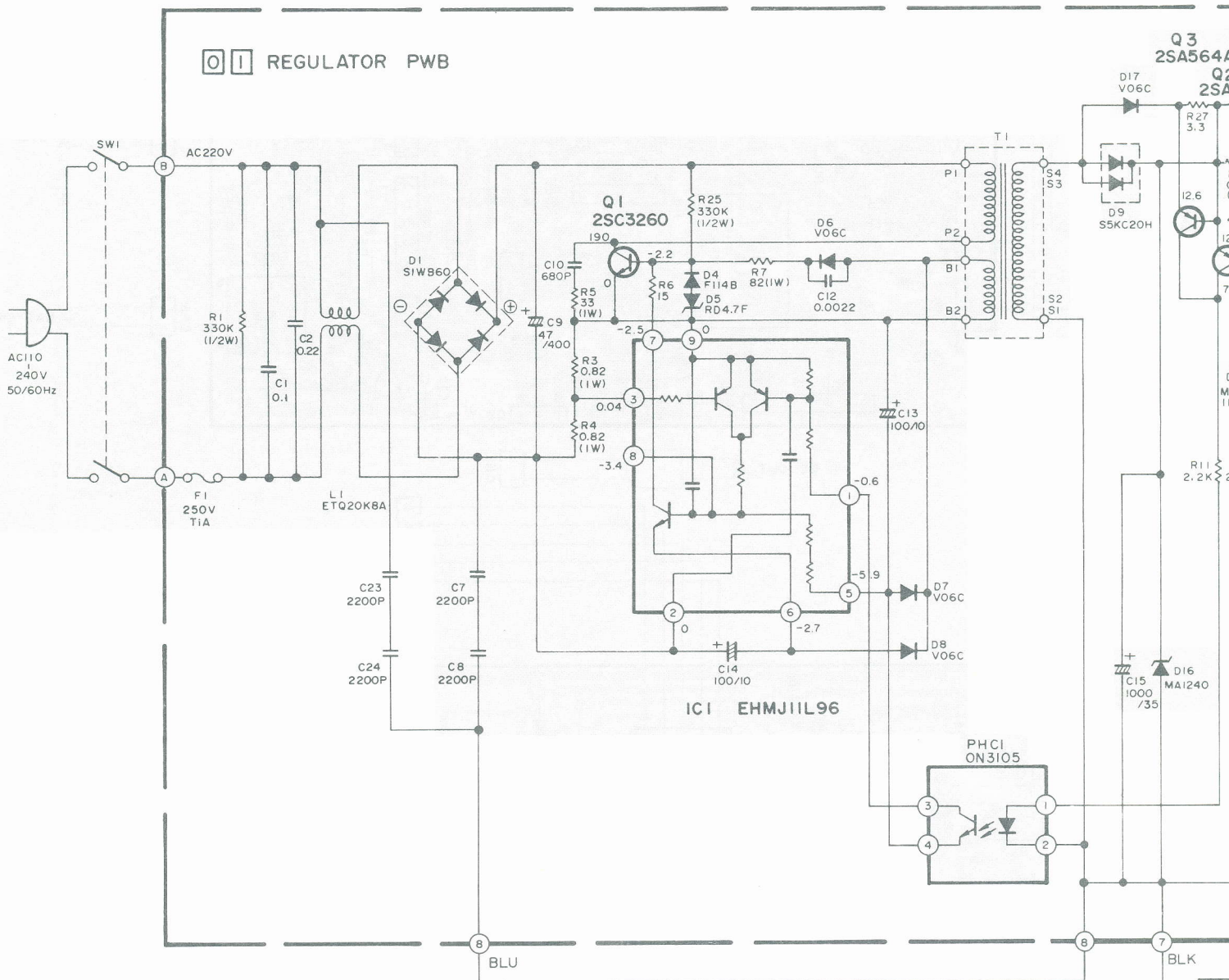
D1, D2 : 20E2FC
D3 : MA162
D6 : 21DQ04FC
D5, D13, D15, D18 : MA150





Y

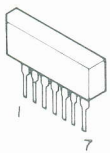
Akku-Ladegerät Battery charger



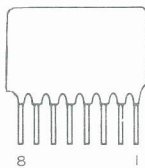
NOTE: Unless otherwise specified;

1. All resistance values are in ohms (1/4 W).
2. To measure voltages at T1 primary side, measure with D1 (⊖) grounded, at T1 secondary side, measure with PHC1 (Ⓜ) grounded.
3. Shaded () parts are critical for safety. Replace only with specified parts numbers.

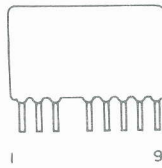
IC2 : AN6780



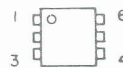
IC3 : BQ-058



IC3 : J11L96



PHC : ON3105

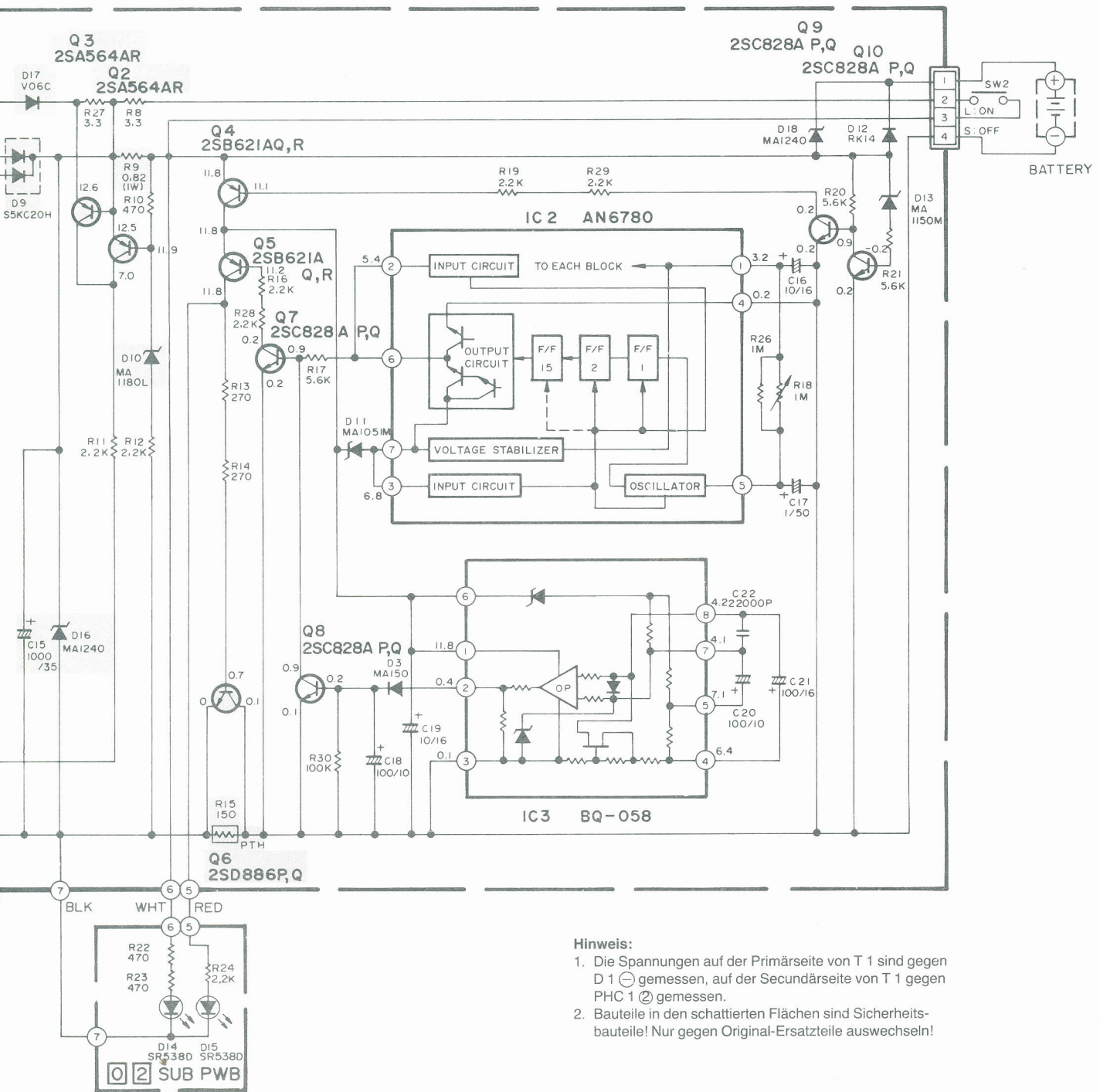


Q2, Q3 : 2SA564AR
Q4, Q5 : 2SB621AQ



Q7, Q8, Q9, Q10 : 2SC



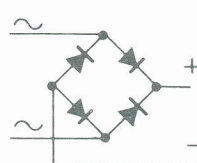
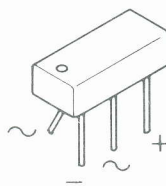
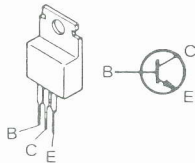
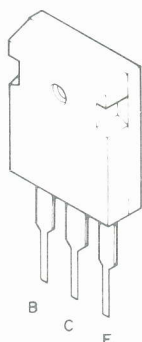


B, Q9, Q10 : 2SC828AP, Q

Q1 : 2SC3260

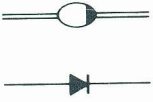
Q6 : 2SD886P, Q

D1 : S1WB60

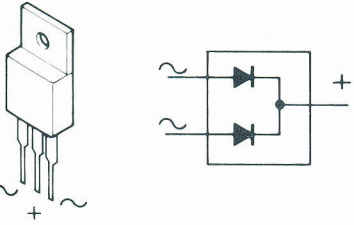


Akku-Ladegerät Battery charger

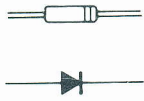
D6, D7, D8, D17 : V06C
D4 : F114B



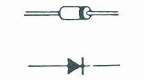
D9 : S5KC20H



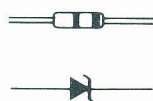
D3 : MA150



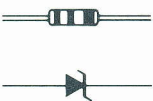
D12 : RK14



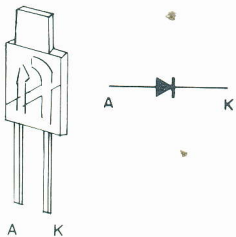
D10 : MA1180L
D13 : MA1150M
D16 : MA1240



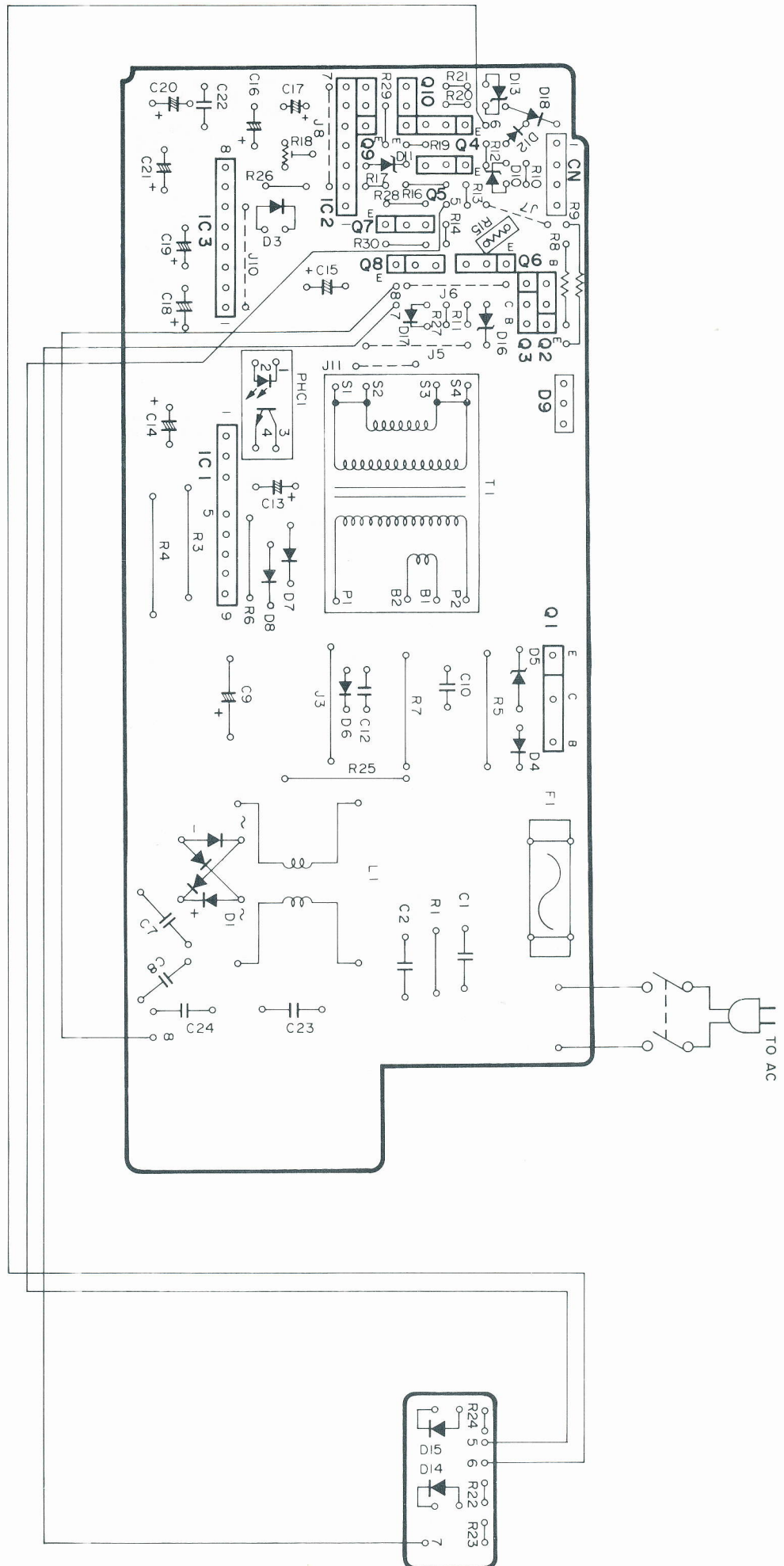
D11 : MA1051M



D14, D15 : SR538D



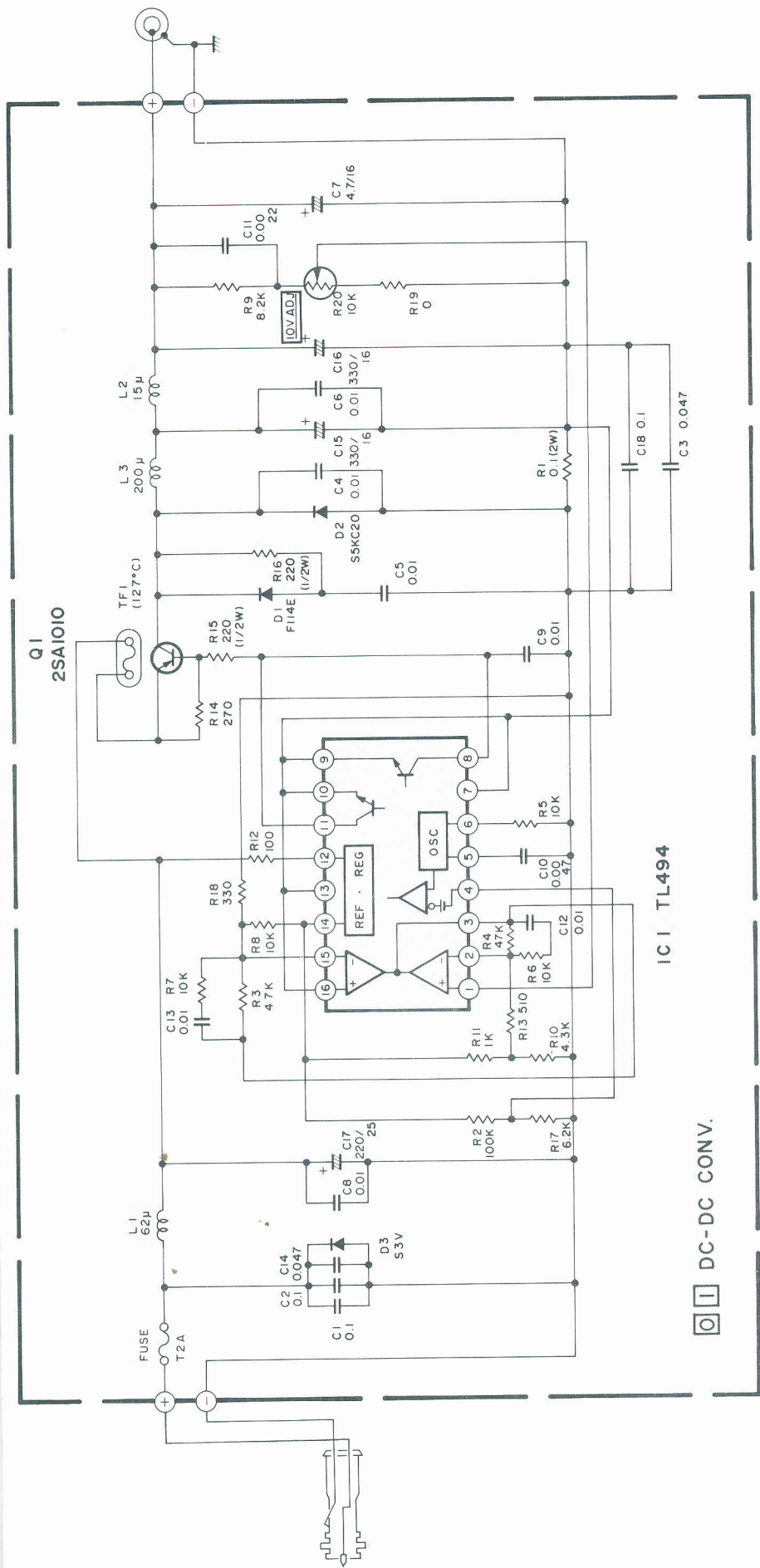
D5 : RD4.7F



Bo
DC

10

Bordnetzkabel (Autobatterie-Adapter) DC-DC Converter



Hinweis:
Bauteile in den schattierten
Flächen sind Sicherheitsbauteile!
Nur gegen Originalteile
auswechseln!

- NOTES:** Unless otherwise specified.
1. All resistance values are in ohms.
 2. All inductance values are in μ H.
 3. All capacitance values are in μ F.

- : Chip capacitor
- : Electrolytic capacitor
- : Non-polar capacitor
- : Tantalum capacitor
- : Polypropylene capacitor
- : Mylar capacitor

4. Shaded () parts are critical for safety.
Replace only with specified aprt numbers.