

 **PIONEER®**
The Art of Entertainment

*Service
Manual*

ORDER NO.
ARP2561

AV DIGITAL SURROUND AMPLIFIER

VSA-701S

HB, HE

- Refer to the service manual ARP2560 for VSA – D801S.
- This manual is applicable to VSA – 701S/HB and HE.

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

VSA-701S/HB, HE and VSA-D801S/SD have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		VSA-D801S/SD	VSA-701S/HB	VSA-701S/HE	
●	AMP assembly	AWZ4286	AWZ4538	AWZ4538	
●	POWER SUPPLY assembly	AWZ4381	AWZ4539	AWZ4539	
●	REAR SP CENTER SP assembly	AWZ4382	AWZ4540	AWZ4540	
●	CONNECTION assembly	AWZ4385	AWZ4390	AWZ4390	
●	VOLUME assembly	AWZ4387	AWZ4545	AWZ4545	
●	FL. U-COM assembly	AWK1552	AWK1560	AWK1560	
●	DSP assembly	AWZ4294	.....	.....
	DOL. PRO. MOD. assembly	.....	AXQ1009	AXQ1009	
Δ	Q7 Power transistor	2SC4688	.....	.....
Δ	Q9 Power transistor	2SA1803	.....	.....
Δ	S1 Voltage selector (AC110V/120-127V/220V/240V)	AKX-507	.....	.....
Δ	S2 Voltage selector (AC110V-127V/220V-240V)	AKX1004	.....	.....
Δ	T1 Power transformer (AC110V, 120-127V, 220V, 240V)	ATS1427	.....	.....
Δ	T1 Power transformer (AC220V-230V, 240V)	.....	ATS1435	ATS1435	
Δ	C10-C12 Mylar film capacitor	.....	CQMA104K250	CQMA104K250	See pages 22, 23
Δ	C15-C17 Mylar film capacitor	CQMA104K250	.....	.....
Δ	FU1 Fuse (4A/125V)	AEK-125	.....	.....
Δ	FU1 Fuse (T2.5A/250V)	.....	AEK-512	AEK-512	
Δ	FU2 Fuse (4A/125V)	AEK-125	.....	.....
Δ	FU3, FU4 Fuse (4A/125V)	AEK-125	.....	.....
Δ	FU3, FU4 Fuse (T2.5A/250V)	.....	AEK-512	AEK-512	
Δ	FU5, FU6 Fuse (1.25A/125V)	AEK-120	.....	.....
Δ	FU5, FU6 Fuse (T1.25A/250V)	.....	AEK-509	AEK-509	
Δ	AC Power cord	ADG1051	ADG1087	ADG1049	
Δ	Fuse holder	AKR1001	.....	.....
NSP	FL filter	AAK2313	AAK2364	AAK2364	
	Barrier (PVC)	AEC1412	.....	.....
	Panel base	AMB2003	AMB2004	AMB2004	
	Front panel	ANB1518	ANB1519	ANB1519	

Mark	Symbol & Description	Part No.			Remarks
		VSA - D801S/SD	VSA - 701S/HB	VSA - 701S/HE	
NSP	Rear panel	ANC1898	ANC1928	ANC1928	
NSP	Heat sink	ANH1379	ANH1399	ANH1399	
	Packing case	AHD2396	AHD2394	AHD2394	
	Operating instructions (English)	ARB1382	ARB1399	.....
	Operating instructions (Dutch, Swedish, Spanish, Portuguse)	.....	.....	ARC1373	
	Operating instructions (English, French, German, Italian)	.....	.....	ARE1248	
	Remote control unit (CU - VSA019)	AXD1271	.....	.....
	Remote control unit (CU - VSA022)	.....	AXD1283	AXD1283	

2. PCB PARTS LIST (FOR VSA - 701S/HB AND HE)

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω \rightarrow 56 \times 10¹ \rightarrow 561 RD1/8PM \square \square \square J
 47k Ω \rightarrow 47 \times 10³ \rightarrow 473 RD1/4PS \square \square \square J
 0.5 Ω \rightarrow 0R5 RN2H \square \square \square K
 1 Ω \rightarrow 010 RS1P \square \square \square K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562 \times 10¹ \rightarrow 5621 RN1/4PC \square \square \square \square F

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES				FL. U - COM ASSEMBLY			
●		FL. U - COM ASSEMBLY	AWK1560	SEMICONDUCTORS			
NSP		FRONT SP ASSEMBLY	AWZ4261		IC601		PDG083A
NSP		TRANS TERMINAL ASSEMBLY	AWZ4268		Q601 - Q604		2SC2458
●		SP SW ASSEMBLY	AWZ4289		Q606 - Q610		XDC124ES
●		AMP ASSEMBLY	AWZ4538		D604		AEL1108
●		POWER SUPPLY ASSEMBLY	AWZ4539		D601 - D603, D607 - D625,		HSS104 - 02
●		REAR SP CENTER SP ASSEMBLY	AWZ4540		D628 - D633		
●		REG. (12V) ASSEMBLY	AWZ4266	SWITCHES			
●		REG. (5.6V) ASSEMBLY	AWZ4267		S601, S603, S605, S609, S614, S617,		ASG1034
●		AUDIO FUNCTION ASSEMBLY	AWZ4383		S618, S621, S622, S625, S626, S629,		
●		A/V FUNCTION ASSEMBLY	AWZ4384		S630, S634, S637, S638, S641, S642,		
NSP		PRE OUT ASSEMBLY	AWZ4386		S645, S646, S649, S650, S654,		
●		CONNECTION ASSEMBLY	AWZ4390		S657 - S659		
●		VOLUME ASSEMBLY	AWZ4545				
		S TERM ASSEMBLY	AWQ1017				
		DOL. PRO. MOD. ASSEMBLY	AXQ1009				

Mark	No.	Description	Parts No.
COIL			
	F601		ATF1108
CAPACITORS			
	C601		ACH1135
	C606		CEAS010M50
	C602		CEAS100M50
	C605		CEAS101M10
	C608, C621		CEJA100M50
	C604		CKDYX104M25
	C607		CKPUYF223Z25
	C603, C609, C610, C620		CKPUYF473Z16
RESISTORS			
	All Resistors		RD1/8PM□□□J
OTHERS			
	REMOTE RECEIVER UNIT		AXX1010
	X602 (8.00MHZ)		ASS1015
	PIN JACK 1P		AKB1082
	SOCKET (DIN)		AKP1067
	V601 FL TUBE		AAV1146
	FL SPACER		AEB1120
CONNECTION ASSEMBLY			
SEMICONDUCTORS			
	IC301, IC302		NJM4558DXP
	IC303		TC9162N
	Q301		2SC2458
	Q304		2SK246
	Q302		XDA124ES
	Q303		XDC124ES
CAPACITORS			
	C314		CCSQCH471J50
	C305, C306		CCSQCH680J50
	C319		CEAS101M16
	C311, C312, C315		CEAS470M16
	C301-C304, C307-C309		CEAS4R7M50
	C320		CFTXA473J50
	C310, C313		CKSQYB103K50
	C317		CKSQYF103Z50
RESISTORS			
	R323, R324, R329		RS1/10S102J
	R303		RS1/10S104J
	R316		RS1/10S113J
	R315, R318		RS1/10S114J
	R307		RS1/10S122J
	R308		RS1/10S152J
	R310		RS1/10S182J
	R304-R306		RS1/10S223J
	R325, R326		RS1/10S224J
	R309		RS1/10S273J

Mark	No.	Description	Parts No.
	R321, R322		RS1/10S333J
	R313, R314, R317		RS1/10S334J
	R301, R302, R311, R312		RS1/10S473J
	R319		RS1/10S822J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	CN14 6P JUMPER CONNECTOR		KPE6
	CN15 9P JUMPER CONNECTOR		KPE9
AMP ASSEMBLY			
SEMICONDUCTORS			
	IC162		UPC1270H
	Q107, Q108		2SA1145
	Q103, Q104, Q201		2SA1240
	Q115, Q116, Q204		2SA1306
	Q105, Q106		2SA970
	Q101, Q102		2SC1845
	Q117, Q118, Q206		2SC2240
	Q162, Q164		2SC2458
	Q111, Q112, Q203		2SC2603
	Q109, Q110, Q202		2SC2705
	Q113, Q114, Q205		2SC3298
	D197, D198		D5SB20F
	D101-D108, D111-D114,		HSS104-02
	D117-D122, D162, D164, D166,		
	D199, D200, D204-D206		
	D109, D110, D115, D116, D201		RD10ESB
	D202, D203		RD4.3ESB
RELAY			
	RY199		ASR-112
	RY198		ASR1035
COILS			
	L102-L104		ATH1004
CAPACITORS			
	C200 (0.01/AC150V)		ACG1005
	C198 (8200/DC71V)		ACH1224
	C199 (8200/DC71V)		ACH1225
	C113, C114		CCCSL050C500
	C105-C108		CCCSL101J50
	C212, C222		CCCSL101K500
	C207, C2914		CCCSL121K500
	C117-C120		CCCSL151K500
	C204, C205		CCCSL470J50
	C109, C110, C2915, C2916		CCCSL470K500
	C170		CCCSL680J50
	C123, C124		CEANP010M100
	C176, C211		CEANP2R2M50
	C174		CEAS100M100
	C201, C203		CEAS2R2M50

Mark	No.	Description	Parts No.
	C111, C112, C208 C209 C101, C102 C168 C162		CEAS470M16 CEAS470M25 CEAS4R7M50 CEHAQ101M10 CEHAQ2R2M50
	C121, C122, C210, C2917-C2919 C115, C116, C206, C213 C103, C104 C125, C126, C166, C202 C172		CFTXA104J50 CKCYB102K50 CKCYB122K50 CKCYB222K50 CKCYX333M25
RESISTORS			
	R178 (0.22, 2W) R145, R146, R218 (0.33, 5W) R208 R115, R116 R207		ACN-131 ACN1087 RD1/4PM123J RD1/4PM152J RD1/4PM431J
	R117, R118 R147, R148, R220, R225 R153-R156, R180, R182, R221, R222 R139-R142, R233, R234 R121, R122		RD1/4PM473J RD1/4PMF100J RD1/4PMF222J RD1/4PMF4R7J RD1/4PMF680J
	R129-R136, R214-R217 R210 R111-R114 R127, R128 R137, R138, R143, R144, R228, R230-R232		RD1/4PMFL101J RD1/4PMFL470J RFA1/4PS391J RFA1/4PS470J RFA1/4PS4R7J
	R151, R152 R198, R199 R197		RS1LMF100J RS1PMF681J RS2LMF103J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	CN29 9P JUMPER CONNECTOR	KPC9	

POWER SUPPLY ASSEMBLY

IC51	NJM78M56FAS
Q54, Q56, Q57, Q59 Q60 Q51, Q52, Q62, Q63, Q91 Q64 Q61, Q65, Q66	2SA1048 2SA1145 2SC2458 XDC124ES XDC143ES
D73 D52-D55, D60, D68, D91 D61 D58 D62	D3SBA20 (A) HSS104-02 HZS6A1L RD5.1ESB RD6.2ESB
D67 D63-D66, D69-D72	RD8.2ESB S5566

Mark	No.	Description	Parts No.
RELAY			
	RY51		ASR1027
COIL & TRANSFORMER			
	L51 T51		ATF1006 ATT1015
CAPACITORS			
△	C72, C73 (0.01/AC400V) C71 (0.01/AC150V) C68, C69 (4700/DC35V) C61 C75		ACG1002 ACG1005 ACH1021 CEAS100M50 CEAS101M35
	C65 C66 C59, C62 C67 C74		CEAS102M25 CEAS102M35 CEAS221M16 CEAS222M35 CEAS470M10
	C63 C60, C64, C70		CEAS470M16 CKCYB103K50
RESISTORS			
	R66 R200 R79 R75 R80		RD1/2PM132J RD1/2PM432J RD1/4PM332J RD1/4PMF101J RD1/4PMF4R7J
	R81 R56, R57 R55		RD1/4PMFL470J RS1LMFR22J RS2LMFR22J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	2P MINI JACK CN17 13P JUMPER CONNECTOR		AKN1006 KPE13

REAR SP CENTER SP ASSEMBLY

SEMICONDUCTORS			
	Q251		XDC143ES
	D251		HSS104-02
RELAY			
	RY251		ASR-111
COIL			
	L251		ATH1004
CAPACITORS			
	C253, C2911		CFTXA104J50

Mark	No.	Description	Parts No.
RESISTORS			
	R255, R257 R260		RD1/4PMF100J RS1LMF681J
	Other Resistors		RD1/8PM□□□□J

OTHERS			
	3P PIN JACK		AKB1120
	4P SPEAKER TERMINAL		AKE-109
	4P SPEAKER TERMINAL		AKE1026
	CN25 4P JUMPER CONNECTOR		KPE4

VOLUME ASSEMBLY

SEMICONDUCTORS			
	IC561, IC564 IC501, IC521, IC523 IC503 IC522, IC562 IC563		M5220L NJM4558DXP TA8409S TC9154AP TC9184P
	Q501		XDC124ES
	D521-D524, D561-D566 D506 D501, D502		HSS104-02 RD3.3ESB2 RD5.1ESB2

CAPACITORS			
	C567, C568 C507, C508, C559, C560 C525, C526, C535, C536 C511 C565, C566		CCSQCH121J50 CCSQCH331J50 CCSQCH470J50 CEANP101M10 CEAS010M50
	C569, C570 C512 C561, C562 C501, C502 C503, C504, C509, C510, C521, C522, C527, C528, C531, C532, C550, C551, C553, C579, C580		CEAS100M50 CEAS101M16 CEAS2R2M50 CEAS470M10 CEAS4R7M50
	C585 C505, C506, C523, C524, C533, C534 C539 C563, C564, C581, C582, C586, C587 C571, C572, C577, C578		CKSQYB102K50 CKSQYB103K50 CKSQYB471K50 CKSQYF103Z50 CQMA153J50
	C575, C576 C573, C574		CQMA272J50 CQMA823J50

RESISTORS			
	VR501 (100k×4)		ACX1074
	R517 R501, R502 R599 R527, R528, R537-R539, R561, R562, R569, R570, R585-R590, R2943, R2944 R525, R526		RD1/2PM470J RD1/4PM681J RS1/10S000J RS1/10S102J RS1/10S103J

Mark	No.	Description	Parts No.
	R567, R568 R583, R584 R505, R506, R559, R560, R2946, R2948 R577, R578 R529, R530		RS1/10S104J RS1/10S154J RS1/10S222J RS1/10S223J RS1/10S224J

	R523, R524 R571, R572 R579, R580 R531, R532 R503, R504, R521, R522, R563, R564		RS1/10S332J RS1/10S362J RS1/10S392J RS1/10S472J RS1/10S473J
	R565, R566 R508 R575, R576 R533, R534 R581, R582 R573, R574		RS1/10S474J RS1/10S561J RS1/10S564J RS1/10S623J RS1/10S821J RS1/10S823J
	Other Resistors		RD1/8PM□□□□J

OTHERS			
	CN16, CN18 9P JUMPER CONNECTOR		KPE9

DOL. PRO. MOD. ASSEMBLY

	IC1901 IC1903 IC1902 IC1906 IC1904 IC1905		LA2780 LM3364K-15 LV1001M-A M66320FP NJM4558M-D NJM4558M-D
	Q1903 Q1901 Q1902		2SD438 DTA143EK DTC143EK
	D1901-D1905		1SS226

CAPACITORS			
	C1938, C1964 C1971-C1973 C1940, C1962 C1953 C1906, C1922, C1934, C1959		CCSCH102J50 CCSQCH101J50 CCSQCH151J50 CCSQCH471J50 CCSQCH681J50
	C1909, C1910, C1917, C1918 C1950 C1956 C1951 C1903, C1904, C1926, C1927, C1952, C1957, C1958, C1960		CEANL2R2M50 CEANP100M35 CEANPR33M50 CEAS010M50 CEAS100M50
	C1902 C1928, C1929 C1968, C1941, C1942, C1943 C1930, C1931 C1901		CEAS101M10 CEAS220M16 CEAS221M10 CEAS2R2M50 CEAS470M25

Mark	No.	Description	Parts No.
	C1936		CEAS471M16
	C1937, C1965		CEAS4R7M50
	C1911, C1916		CEASR15M50
	C1945		CEASR22M50
	C1912, C1915		CEYA3R3M50
	C1905, C1925		CEYAR33M50
	C1933		CFTXA103J50
	C1907, C1908, C1920, C1923, C1924, C1935		CFTXA104J50
	C1932		CFTXA153J50
	C1913, C1914, C1961		CFTXA154J50
	C1939, C1963		CFTXA223J50
	C1949		CFTXA333J50
	C1921		CFTXA334J50
	C1919		CFTXA473J50
	C1946		CFTXA683J50
	C1967		CKSQYB103K50
	C1970		CKSQYB562K50
	C1944, C1966		CKSQYF104Z50
	C1947		CQMA392J50
	C1948		CQMA472J50
	C1954		CQMA562J50
	C1955		CQMA682J50

RESISTORS

VR1901 (47k)	ACP1045
R1962, R1964	RS1/10S100J
R1917, R1918, R1921, R1922	RS1/10S101J
R1929, R1930, R1935-R1938, R1943, R1959-R1961, R1963	RS1/10S102J
R1914, R1940	RS1/10S103J
R1939	RS1/10S105J
R1915	RS1/10S152J
R1906, R1910, R1945	RS1/10S153J
R1905, R1912	RS1/10S202J
R1950	RS1/10S222J
R1933, R1934	RS1/10S223J
R1931, R1932, R1944, R1951-R1953	RS1/10S224J
R1942	RS1/10S332J
R1949	RS1/10S393J
R1903, R1094, R1916, R1925, R1926	RS1/10S472J
R1907, R1909, R1923, R1924, R1941, R1957	RS1/10S473J
R1913	RS1/10S474J
R1958	RS1/10S513J
R1908, R1911	RS1/10S752J
R1946-R1948	RS1/10S822J
R1901, R1902, R1927, R1928	RS1/10S911J

OTHERS

X1901 (8.00MHZ)	ASS1015
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- The other assemblies of VSA - 701S/HB and HE are the same as those of VSA - D801S/SD.

3. SCHEMATIC DIAGRAMS AND PCB PATTERNS

Note: (Type 1)

1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

3. RESISTORS:

Unit: k: k Ω , M: M Ω , or Ω unless otherwise noted.

Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.

Tolerance: (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ or $\pm 5\%$ unless otherwise noted.

4. CAPACITORS:

Unit: p: pF or μ F unless otherwise noted.

Ratings: capacitor (μ F)/ voltage (V) unless otherwise noted.


Rated voltage: 50V except for electrolytic capacitors.


5. COILS:

Unit: m: mH or μ H unless otherwise noted.

6. VOLTAGE AND CURRENT:

 : Signal voltage at rated output.

 : DC voltage (V) at no input signal unless otherwise noted. Value in () is DC voltage at rated power.

 mA or \leftarrow mA : DC current at no input signal unless otherwise noted.

7. OTHERS:

• \rightarrow : Signal route.

• \otimes : Adjusting point.

• \blacktriangledown (Red) : Measurement point.

• The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

8. SWITCHES (Underline indicates switch position):

S3 CENTER SP SW SINGLE – DUAL

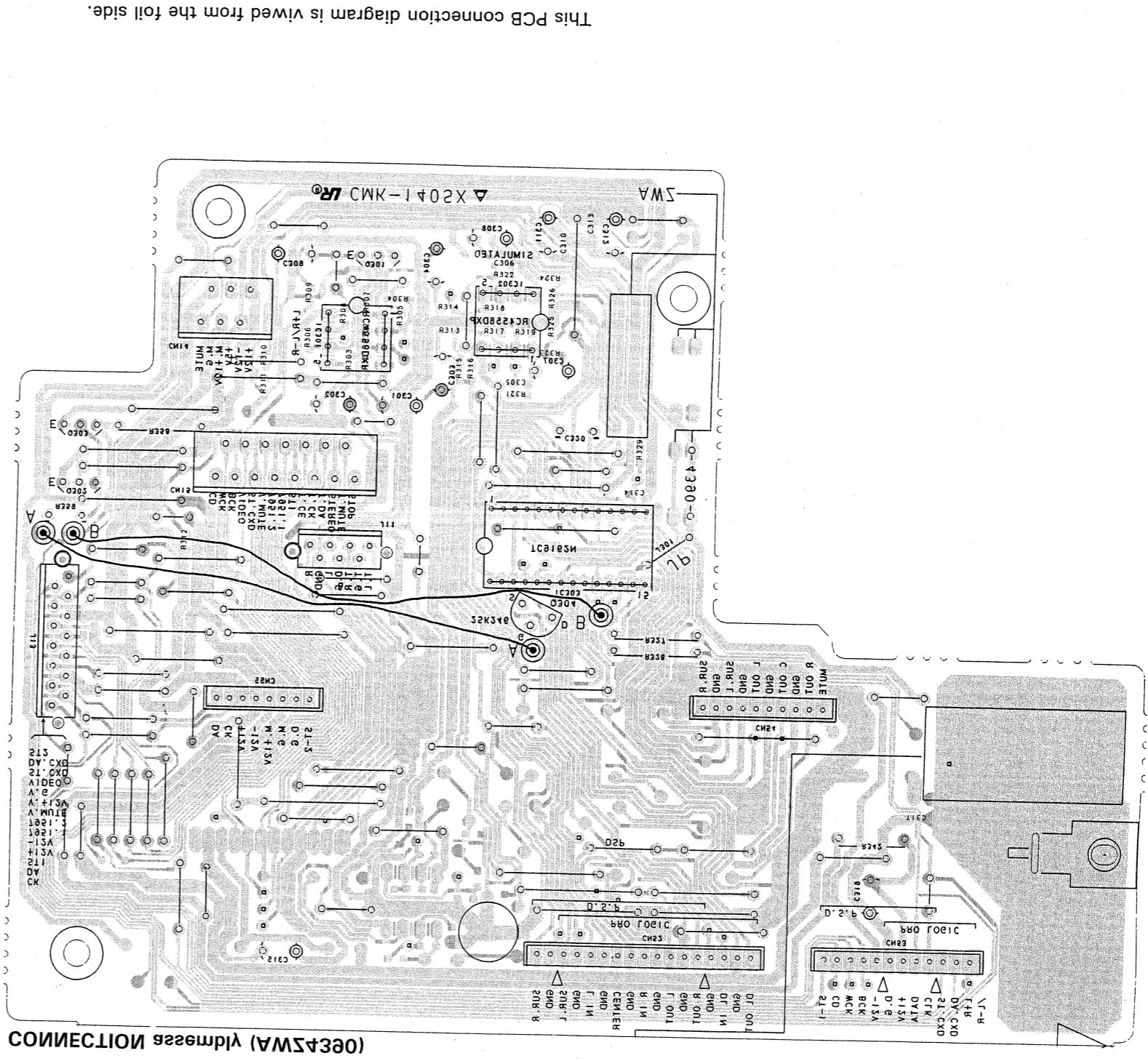
FL. U – COM assembly

S601 SIMULATED STEREO
S603 POWER STANDBY/ON
S605 SIMULATED SURR.
S609 STUDIO
S614 VCR 1
S617 BASS DOWN (–)
S618 VCR 2
S621 TREBLE DOWN (–)
S622 LD
S625 DOLBY PRO LOGIC
S626 TV
S629 BALLANCE LCH
S630 VIDEO
S634 TAPE 1/DAT
S637 BASS UP (+)
S638 TAPE 2/MONITOR
S641 DOLBY 3CH LOGIC
S642 CD
S645 TREBLE UP (+)
S646 TUNER
S649 BALLANCE RCH
S650 PHONO
S654 ACOUSTIC SELECT
S657 MUTING
S658 ACOUSTIC MEMORY
S659 RESET

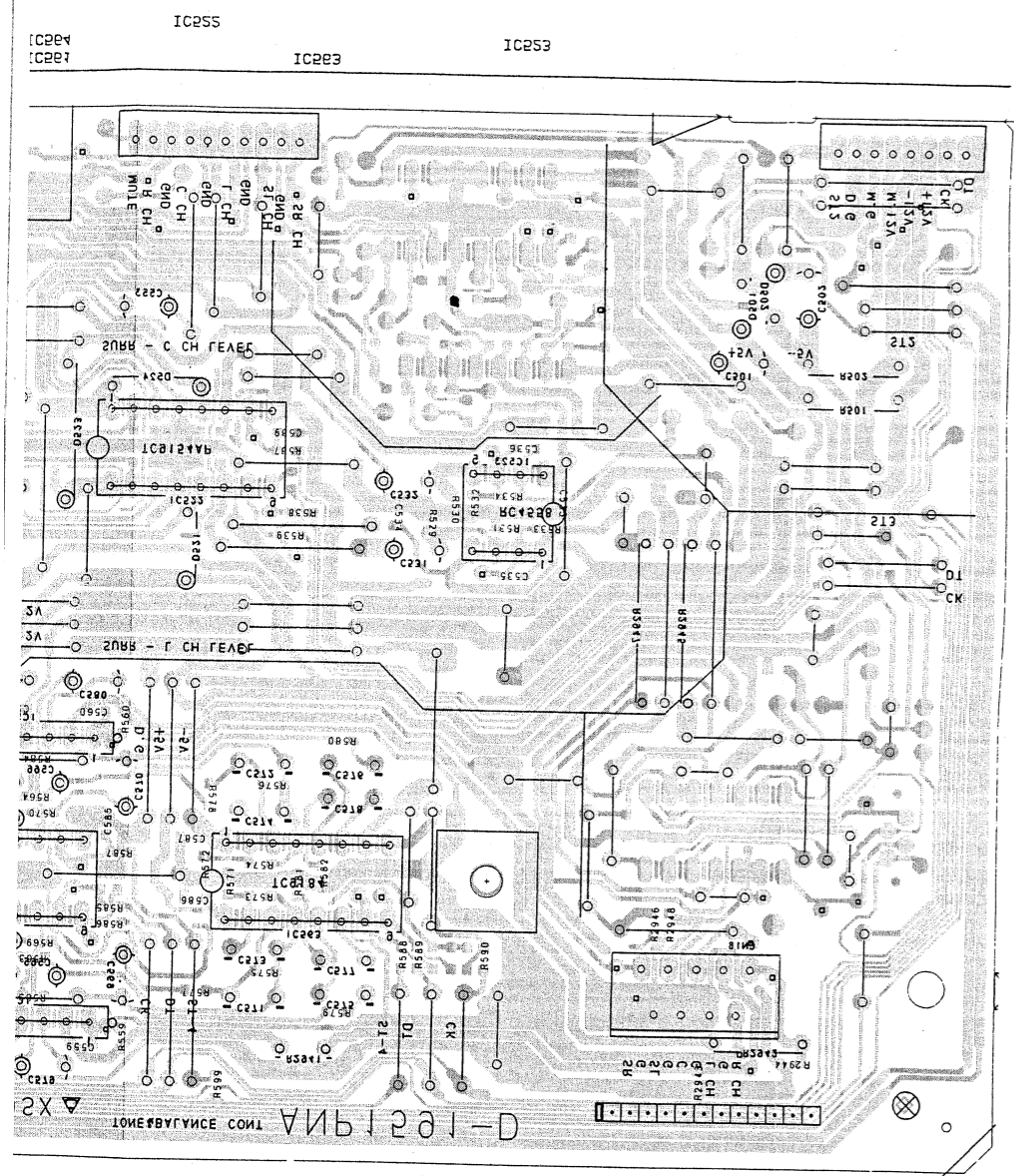
SP SW assembly

S251 SP – A ON/OFF
S251 SP – B ON/OFF

3.1 VOLUME ASSEMBLY AND CONNECTION ASSEMBLY



This PCB connection diagram is viewed from the foil side.

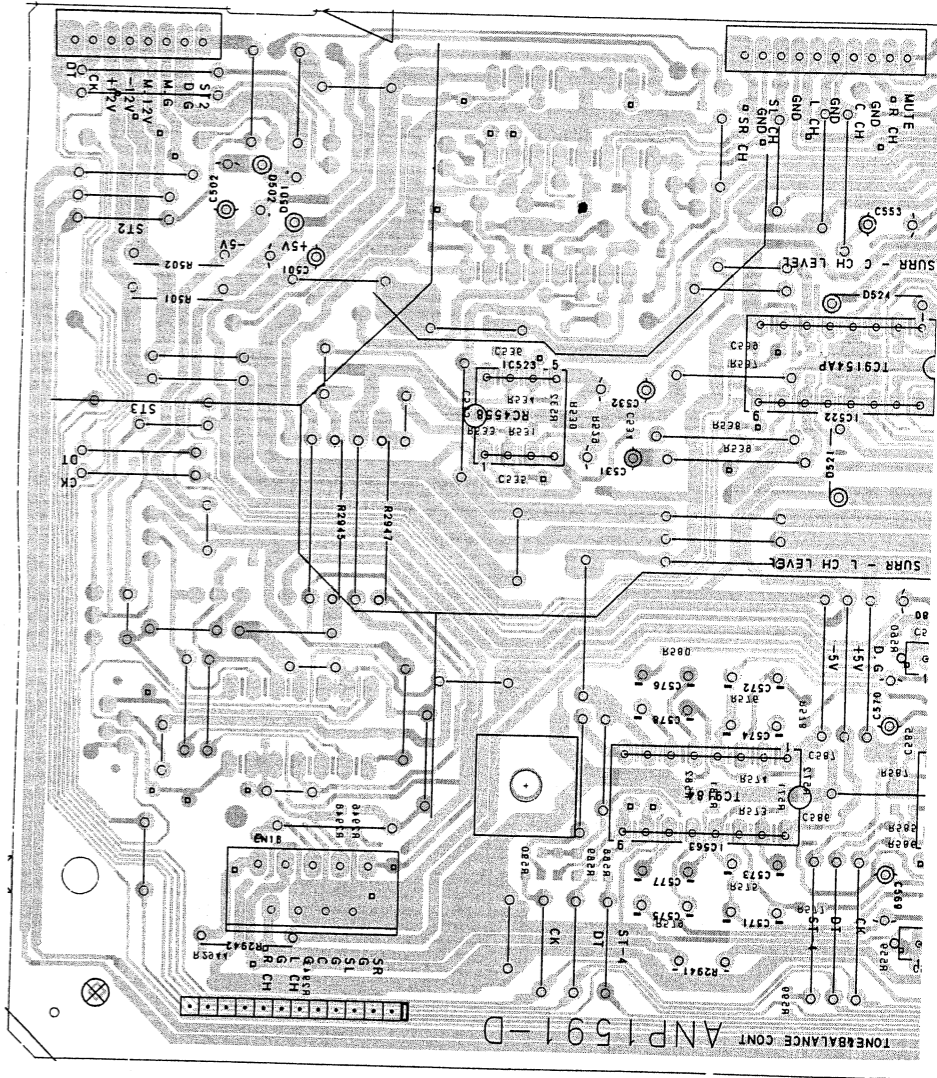


IC251
IC252
IC253

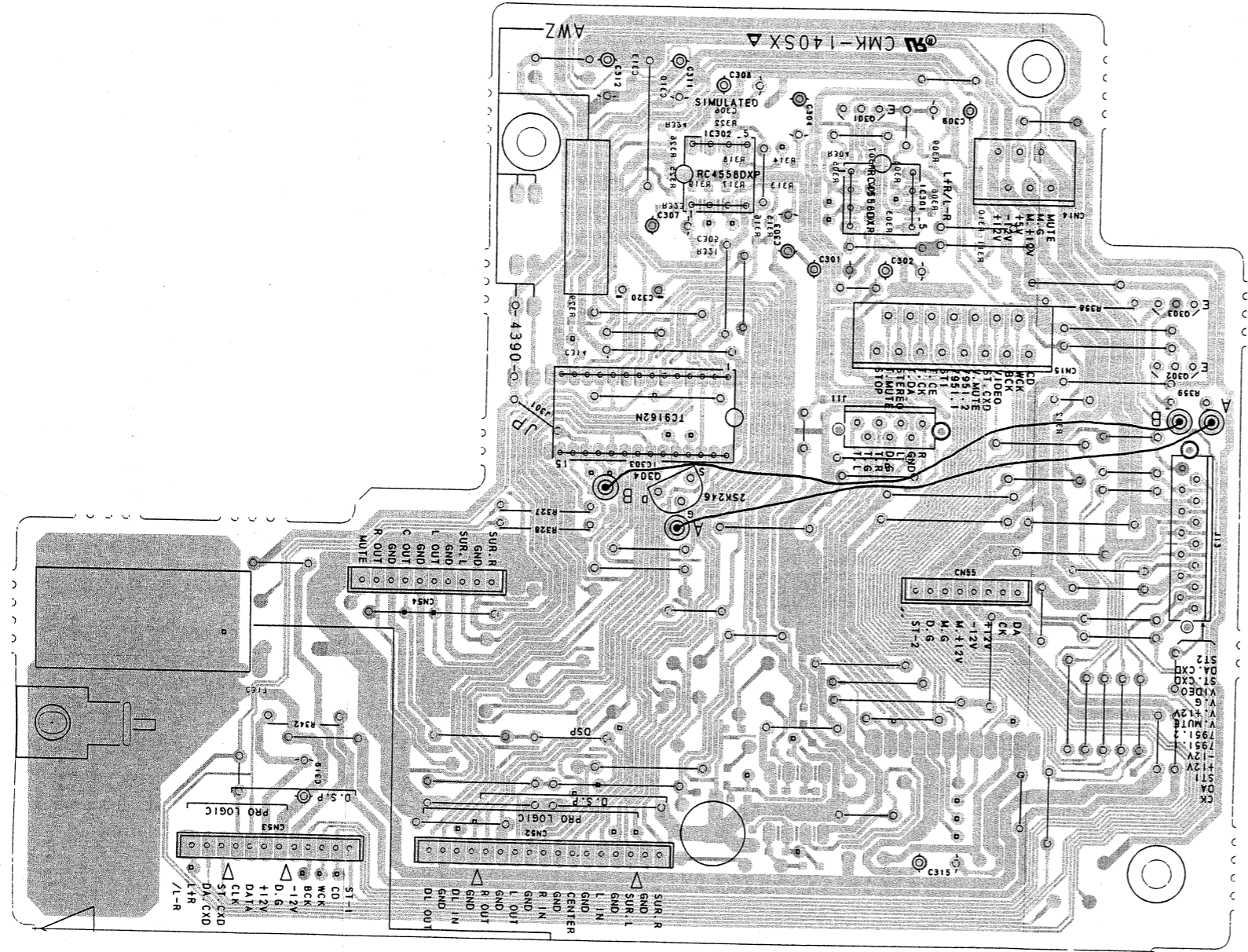
IC251
IC252
IC253

Part Name	IC	Switch	Relay	Coil	Filter	Variable resistor or Serrn-fixed resistor
Others						

- C,B, pattern diagram indication
- IC
- Switch
- Relay
- Coil
- Filter
- Variable resistor or Serrn-fixed resistor
- The capacitor terminal marked with @ (double circles) shows negative terminal.
- The diode terminal marked with @ (double circles) shows cathode side.
- The transistor terminal marked with @ (double circles) shows the emitter.



This PCB connection diagram is viewed from the parts mounted side.



CONNECTION assembly (AWZ4390)

B connection diagram is viewd from the parts mounted side.

Line Voltage Selection

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.
4. Stick the line voltage label on the rear panel.

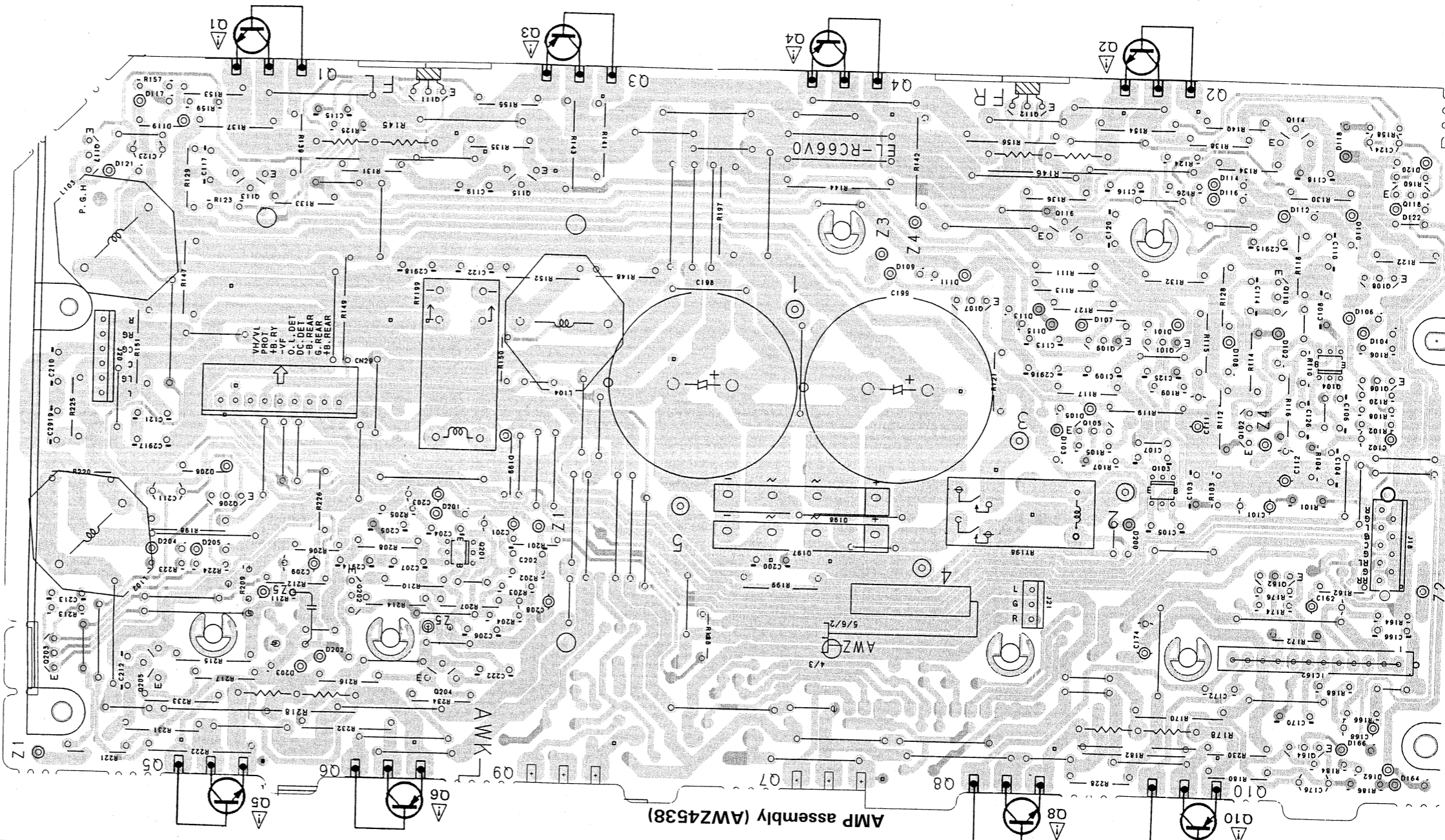
Description

Part No.

AC POWER CORD
AC220-230/240V
50/60HZ

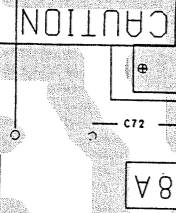
AAX-193
220V label

AAX-192
240V label

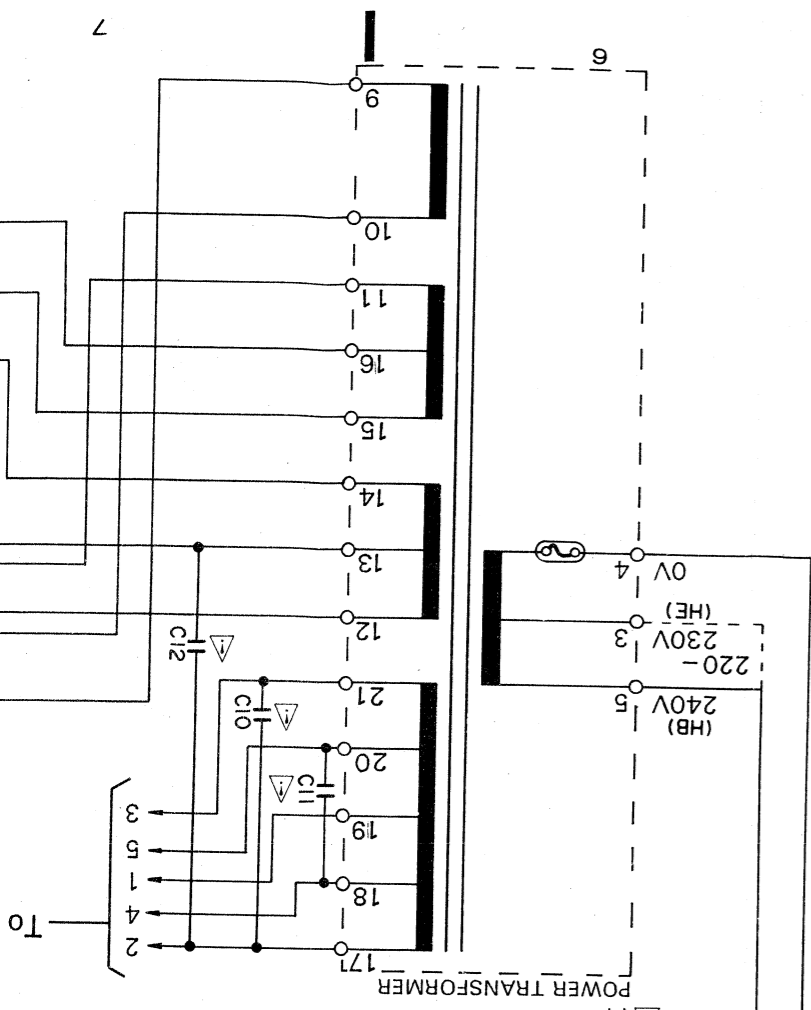


Q10 IC162 Q164 Q162
Q10 Q103 Q101 Q109 Q105
Q2
Q8 Q15 Q12 Q17
Q4
Q3 Q15
Q201 Q204
Q6 Q202
Q5 Q205
Q13 Q1
Q17

ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.



CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE FUSES WITH SAME TYPE AND RATINGS ONLY.



POWER SUPPLY assembly (AWZ4539)

AMP assembly (AWZ4538)

A

B

C

D

E

F

- STOP
- T. MUTE
- STEREO
- DT-T
- CK-T
- CE-T
- ST1
- 7951.1
- 7951.2
- V. MUTE
- ST. CXD
- VIDEO
- BCK
- WCK
- CD

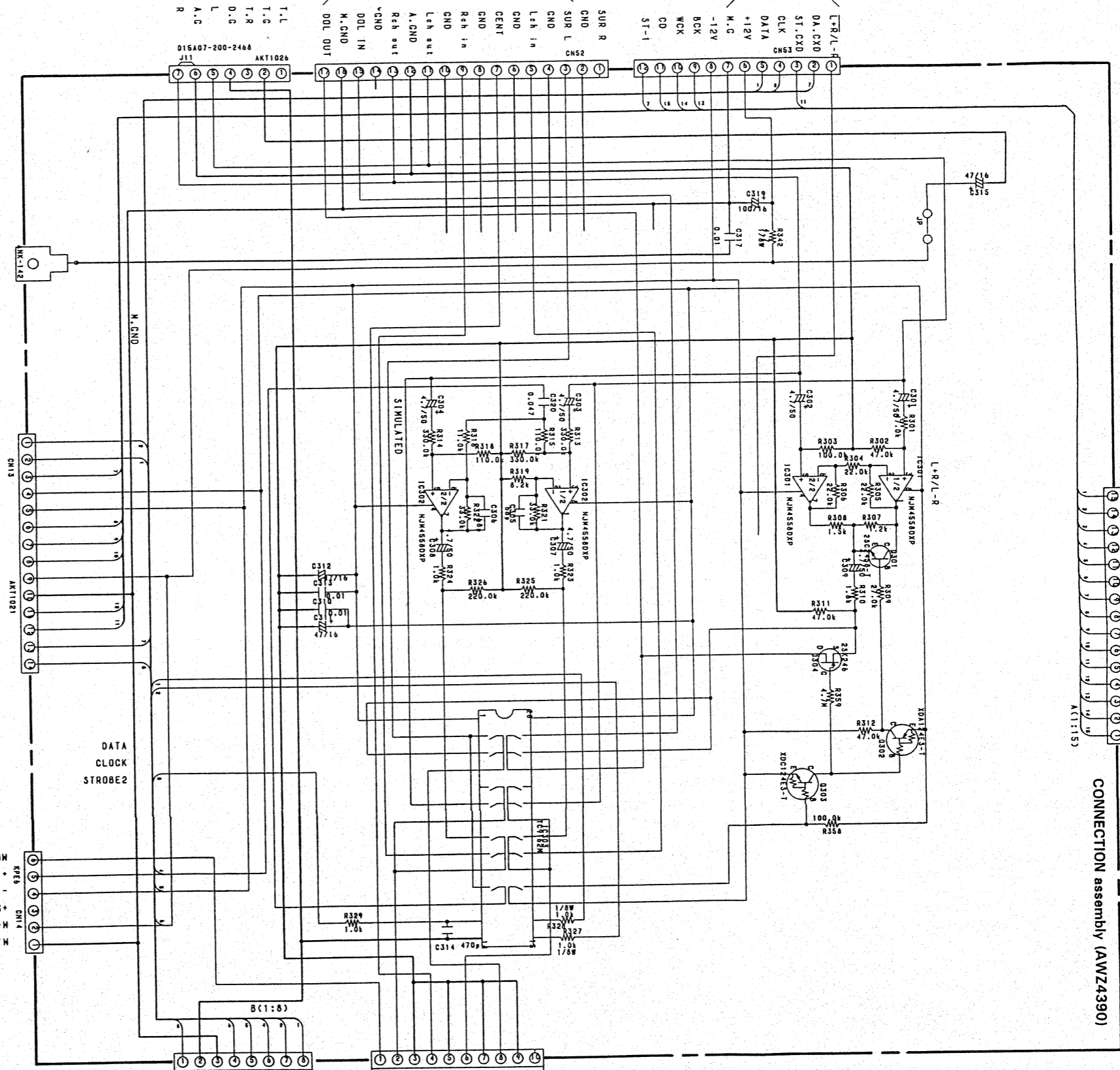
To FL. U - COM assembly J15 (P35)
KPE9

CONNECTION assembly (AWZ4390)
AK11:153

To DOL. PRO. MOD. assembly
CN1902 (P34)

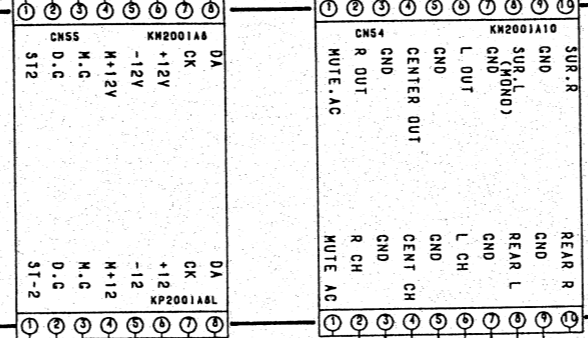
To DOL. PRO. MOD. assembly
CN1901 (P33)

To AUDIO FUNCTION
assembly CN11

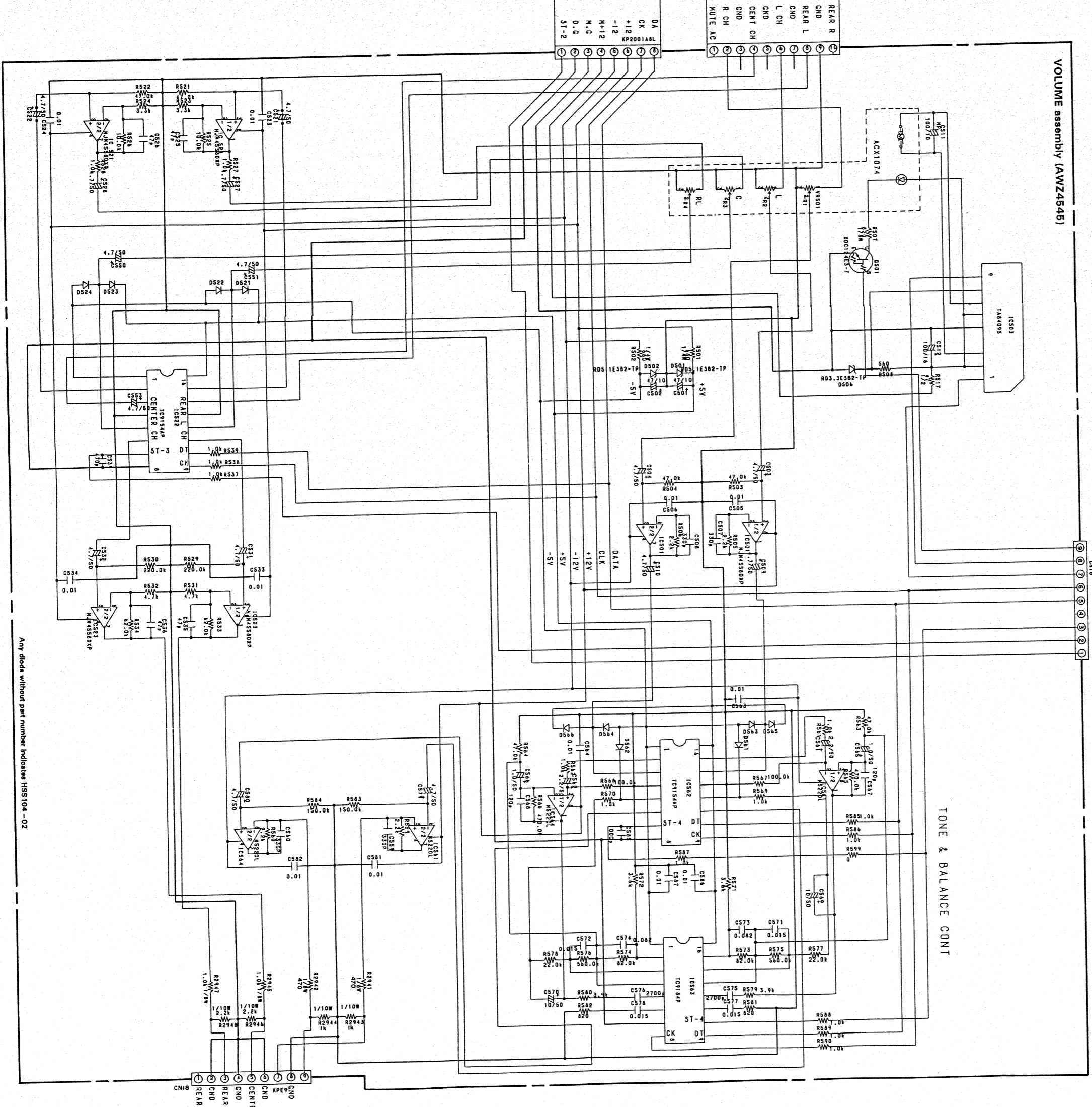


To AVF FUNCTION assembly J13
AK10:21

To POWER SUPPLY assembly J14 (P19)
KPE3



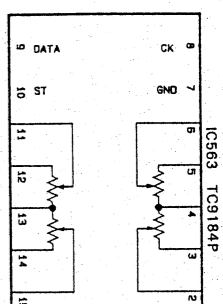
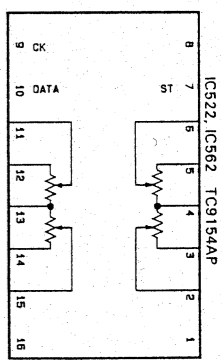
1 2 3 4



VOLUME assembly (AWZ4545)

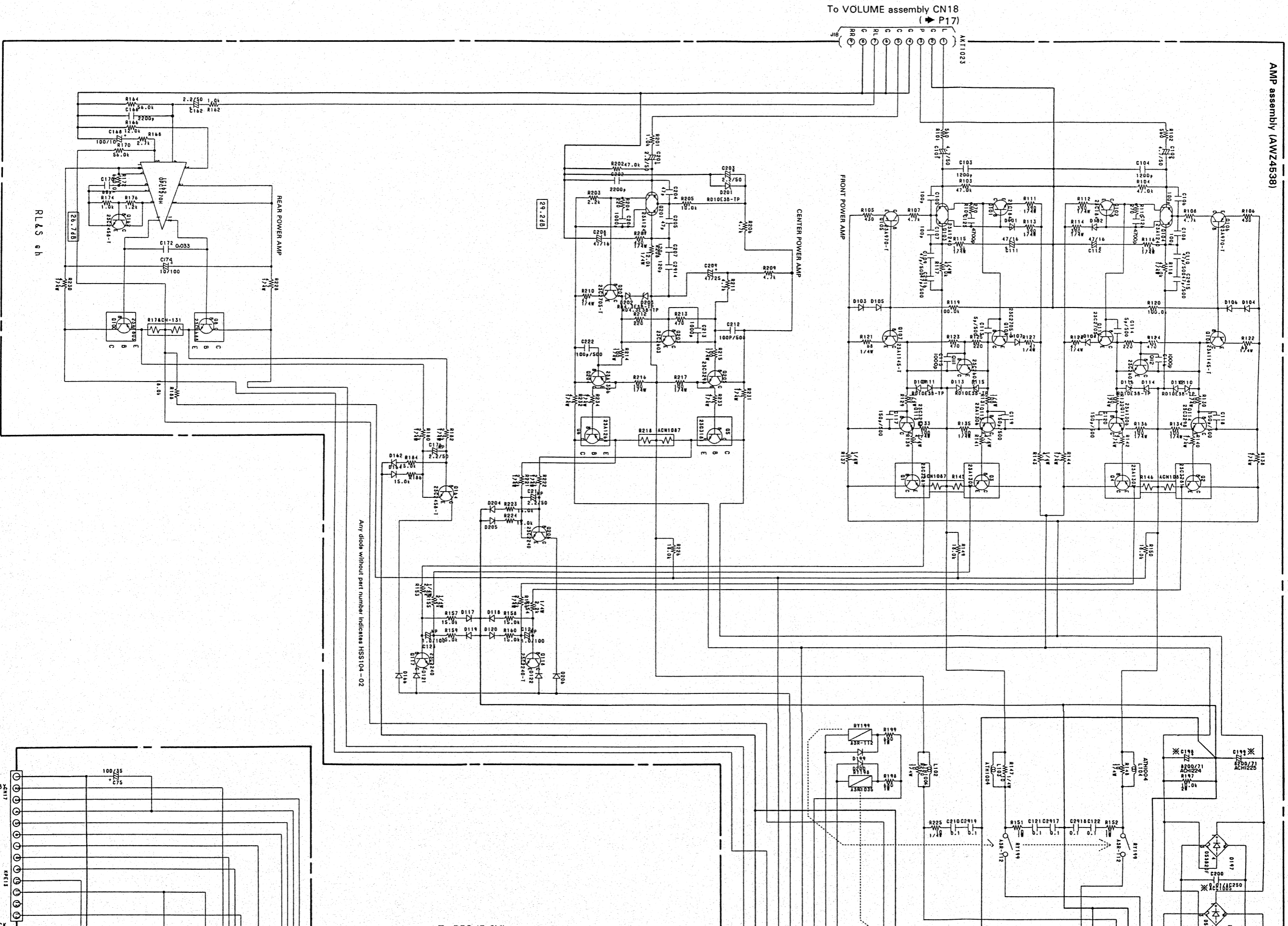
To FL. U - COM assembly J16 (P35)
KPE9
LED DOWN
UP
CK
DT
ST-5
ST-4
ST-3
ST-2

TONE & BALANCE CONT



Any diode without part number indicates HSS104-02

3.2 AMP ASSEMBLY, REAR SP CENTER SP ASSEMBLY, POWER SUPPLY ASSEMBLY AND TRANS TERMINAL ASSEMBLY



To FL. U - COM assembly J17 (P17)

D.C
 +5V STAND BY
 +5V MAIN
 -V FDP
 FL-1
 FL-2
 WAKE UP
 PDW RY
 C/R RY
 RMC
 SR IN
 SR OUT ASC
 VH/VL
 DMC NR CHECK

AMP assembly (AWZ4538)

To VOLUME assembly CN18 (P17)

RL&S eh

Any diode without part number indicates HSS104 - 02

2

3

4

5

F

E

D

C

B

A

1B

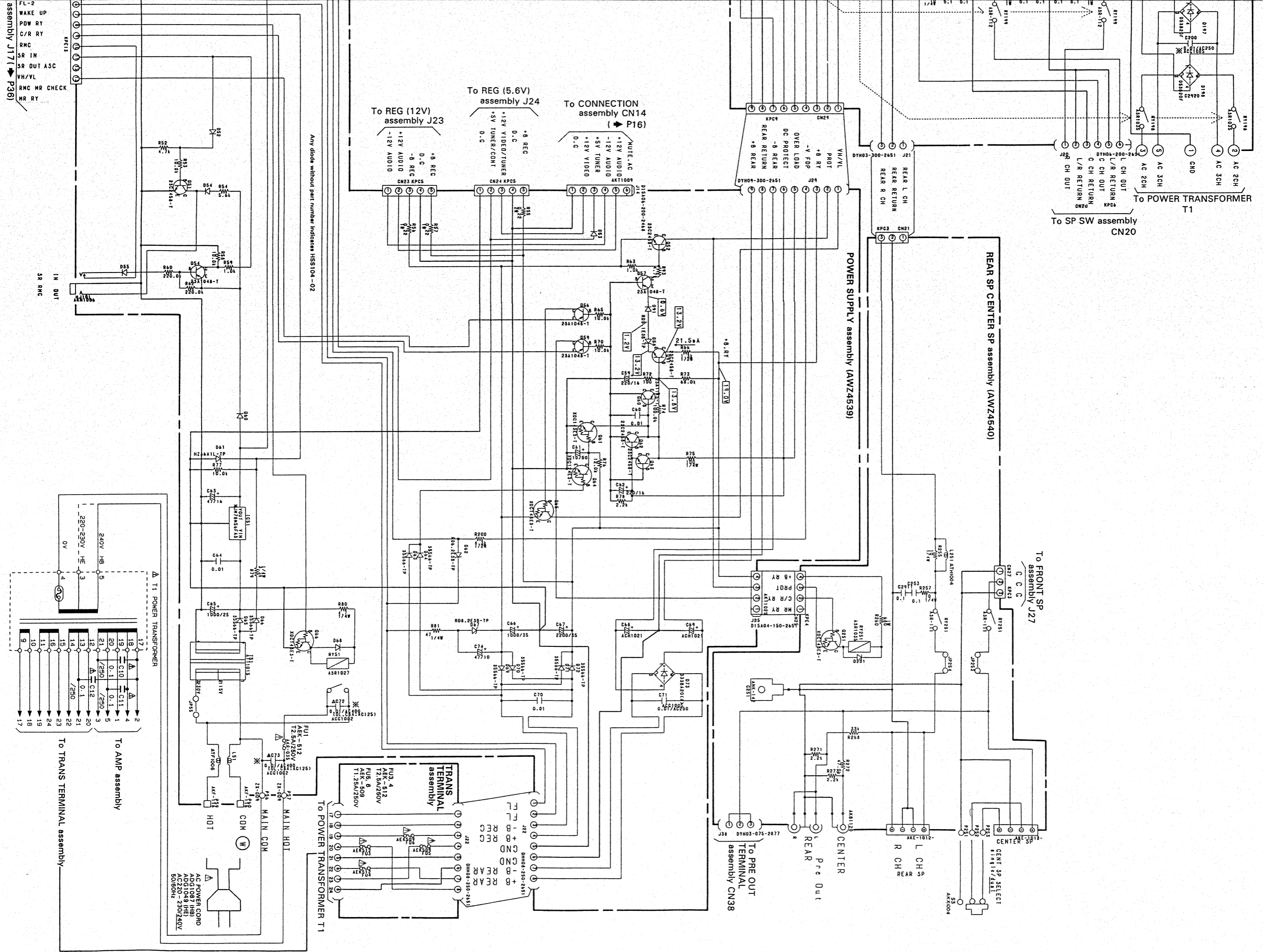
1

2

3

4

5



FL-2
WAKE UP
POW RY
C/R RY
RMC
SR IN
SR OUT ASC
VH/VL
RMC MR CHECK
HR RY

Assembly J17 (P36)

IN OUT
SR RMC

240V HB
220-230V HE
0V

To AMP assembly
To TRANS TERMINAL assembly

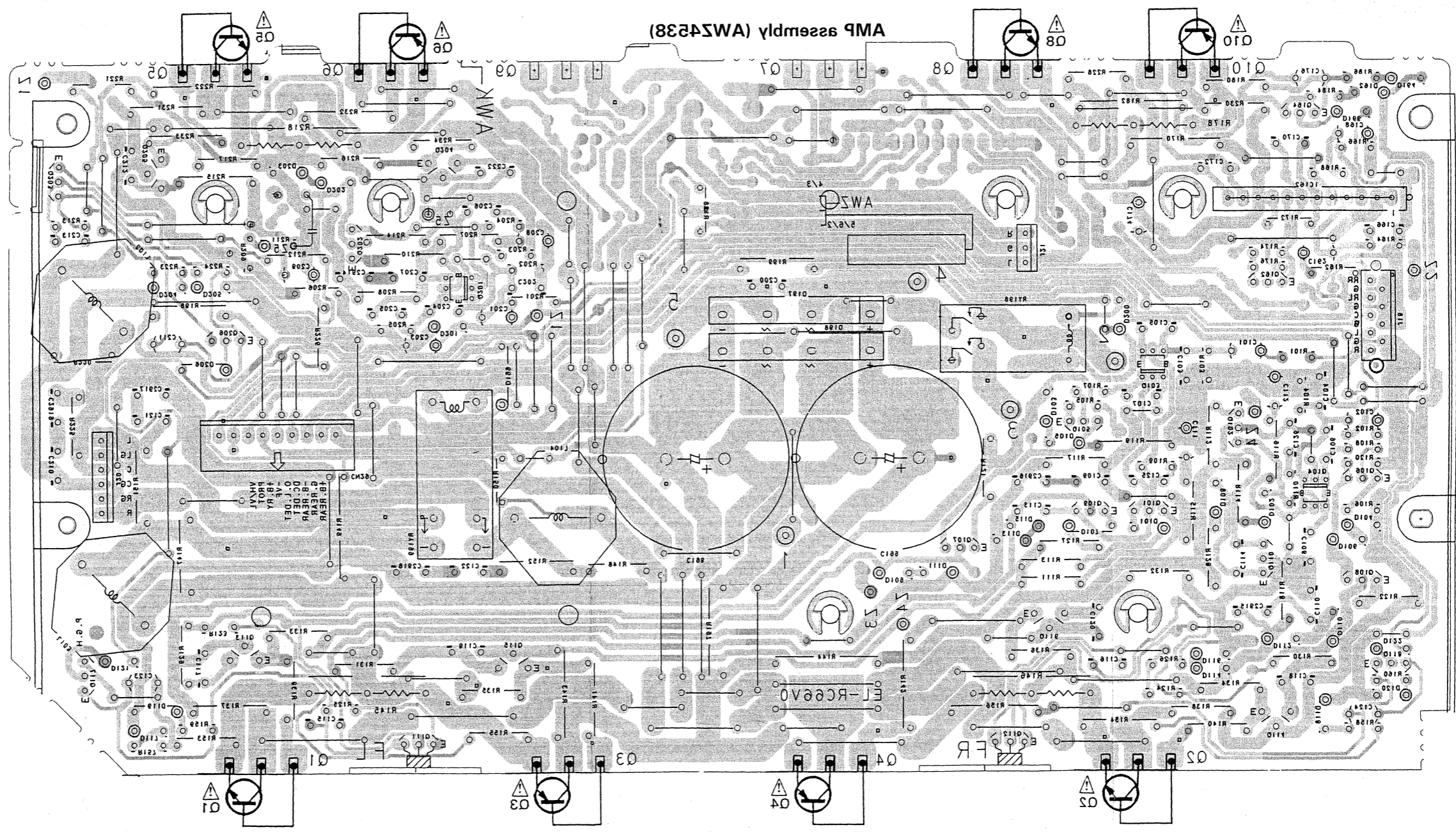
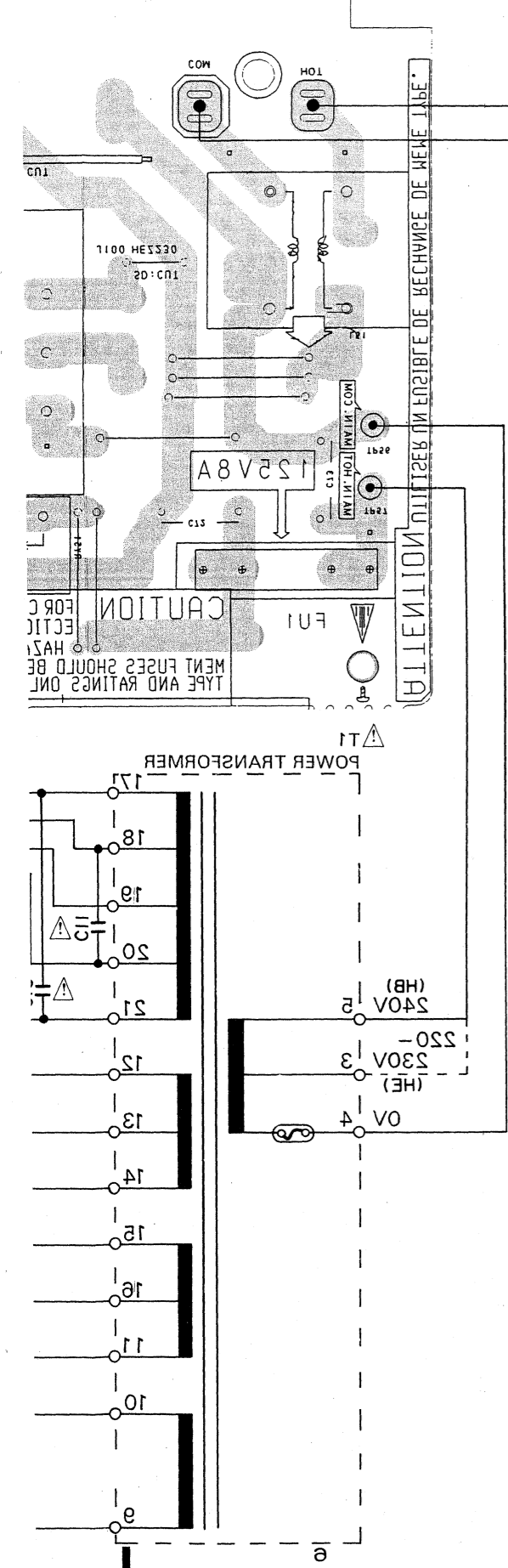
5
6
7
8
9

This PCB connection diagram is viewed from the foil side.

- Line Voltage Selection**
1. Disconnect the AC Power cord.
 2. Remove the top cover.
 3. Change the connection with the power transformer (T1) primary taps.
 4. Stick the line voltage label on the rear panel.

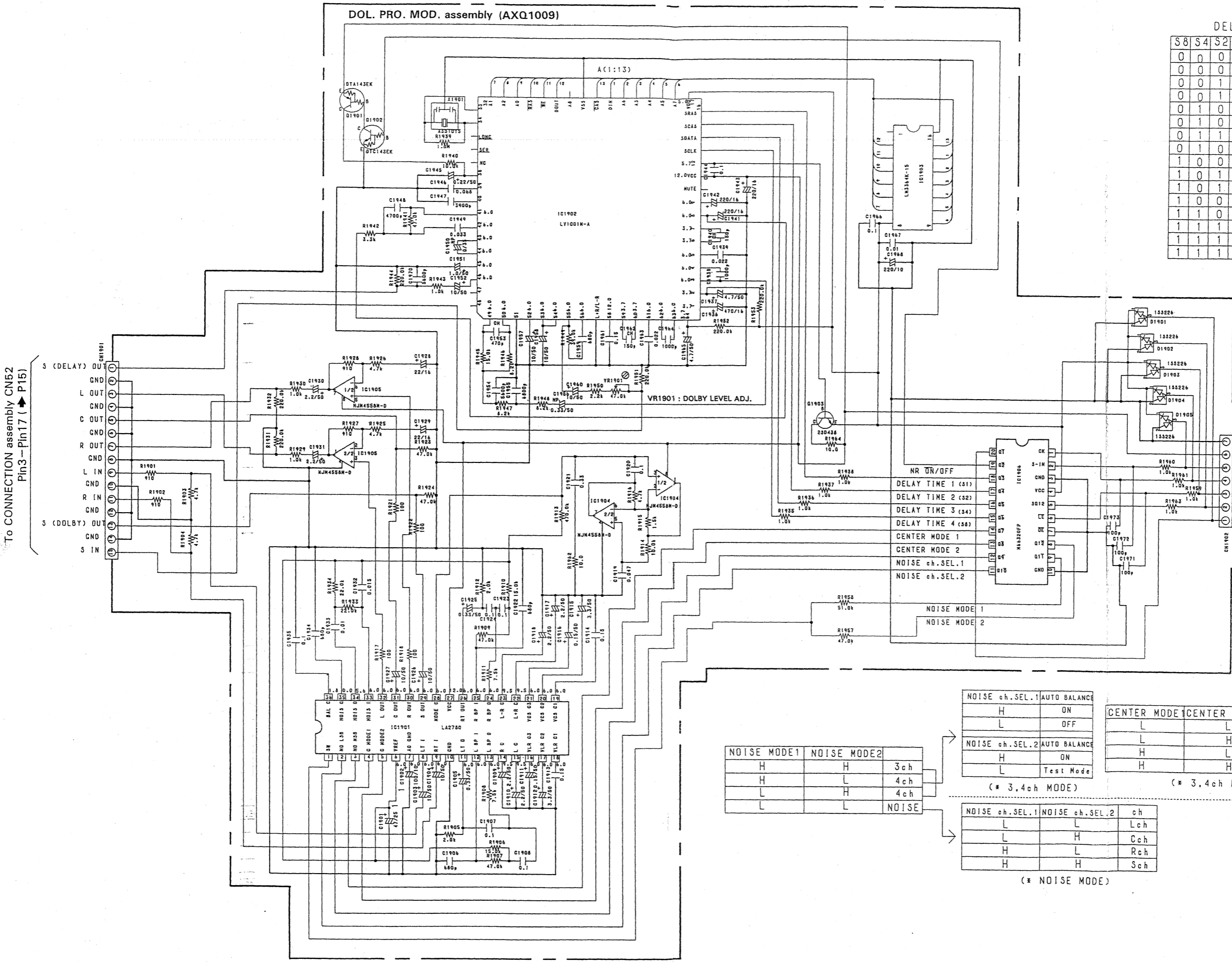
Part No.	Description
AAX - 193	220V label
AAX - 192	240V label

POWER SUPPLY assembly (A)



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A
B
C
D



DELAY TIME

S8	S4	S2	S1	SHORT MODE
0	0	0	0	20.4ms
0	0	0	1	30.7ms
0	0	1	0	28.7ms
0	0	1	1	26.6ms
0	1	0	0	24.6ms
0	1	0	1	22.5ms
0	1	1	0	20.5ms
0	1	1	1	18.4ms
1	0	0	0	16.4ms
1	0	1	1	14.3ms
1	0	1	0	12.3ms
1	0	0	1	10.2ms
1	1	0	0	8.2ms
1	1	1	1	6.1ms
1	1	1	0	4.1ms
1	1	1	1	2.0ms

To CONNECTION assembly CN52
Pin3 - Pin17 (▲ P15)

To CONNECTION assembly CN53
Pin1 - Pin7 (▲ P15)

NOISE MODE1	NOISE MODE2	ch
H	H	3ch
H	L	4ch
L	H	4ch
L	L	NOISE

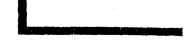
NOISE ch.SEL.1	AUTO BALANCE
H	ON
L	OFF

CENTER MODE1	CENTER MODE2	ch
L	L	NORMAL
L	H	WIDE
H	L	PHANTOM
H	H	OFF

(* 3.4ch MODE)

NOISE ch.SEL.1	NOISE ch.SEL.2	ch
L	L	Lch
L	H	Cch
H	L	Rch
H	H	Sch

(* NOISE MODE)

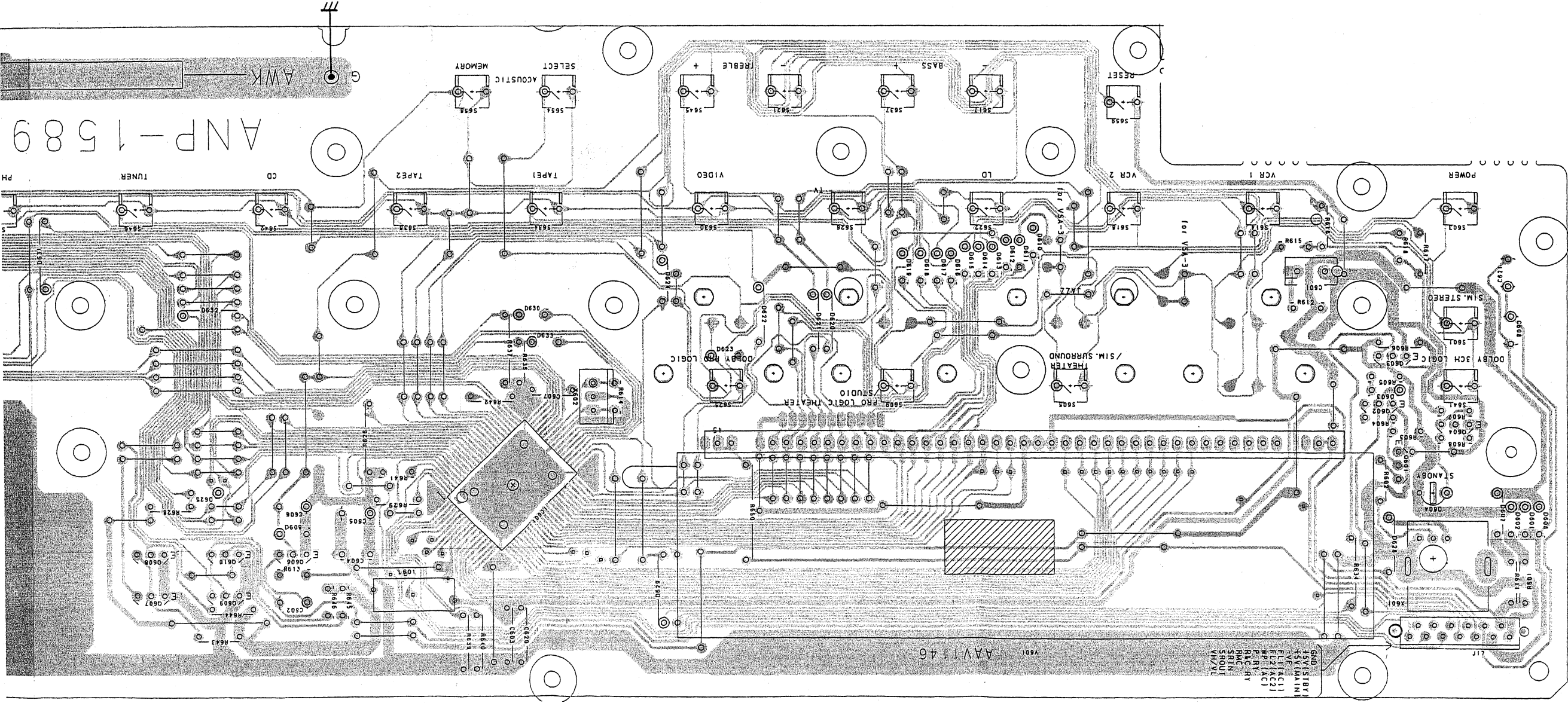
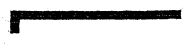


D

C

B

A



NOTE

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

Others

Part Name	Corresponding part symbol	P.C.B. pattern diagram indication
Transistor		E 0504 C 0215
Radiator type		0215
Diode		D203
Resistor		R237
Capacitor (Polarized)		C513
Capacitor (Non-polarized)		C518

Part Name	P.C.B. pattern diagram indication
IC	IC
Switch	S
Relay	RY
Coil	L
Filter	F
Variable resistor or Semi-fixed resistor	VR

3. The capacitor terminal marked with @ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

6

3

2

1

6

5

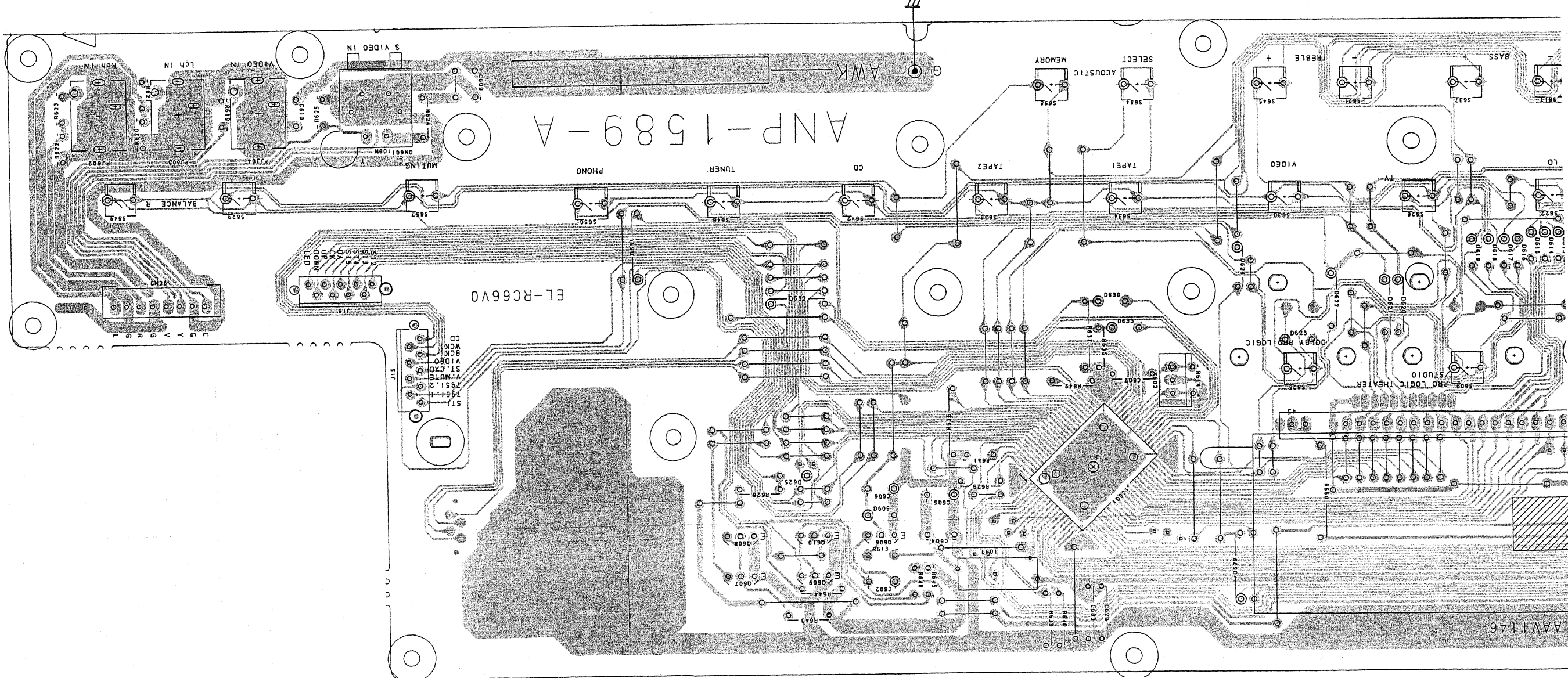
4

3

2

1

FL. U - COM assembly (AWK1560)



NOTE

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

Others

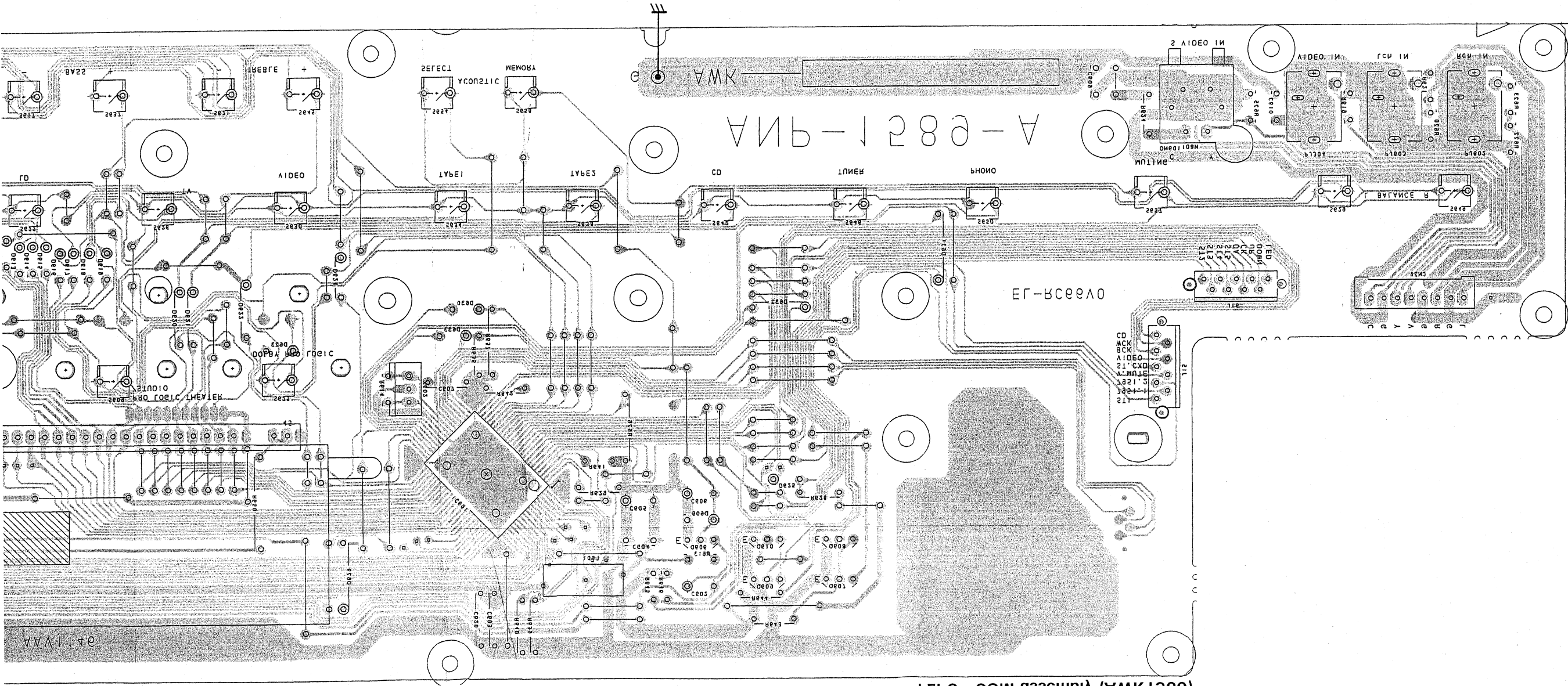
Part Name	Part Name	P.C.B. pattern diagram indication
IC	IC	
Switch	S	
Relay	RY	
Coil	L	
Filter	F	
Variable resistor or Semi-fixed resistor	VR	

3. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

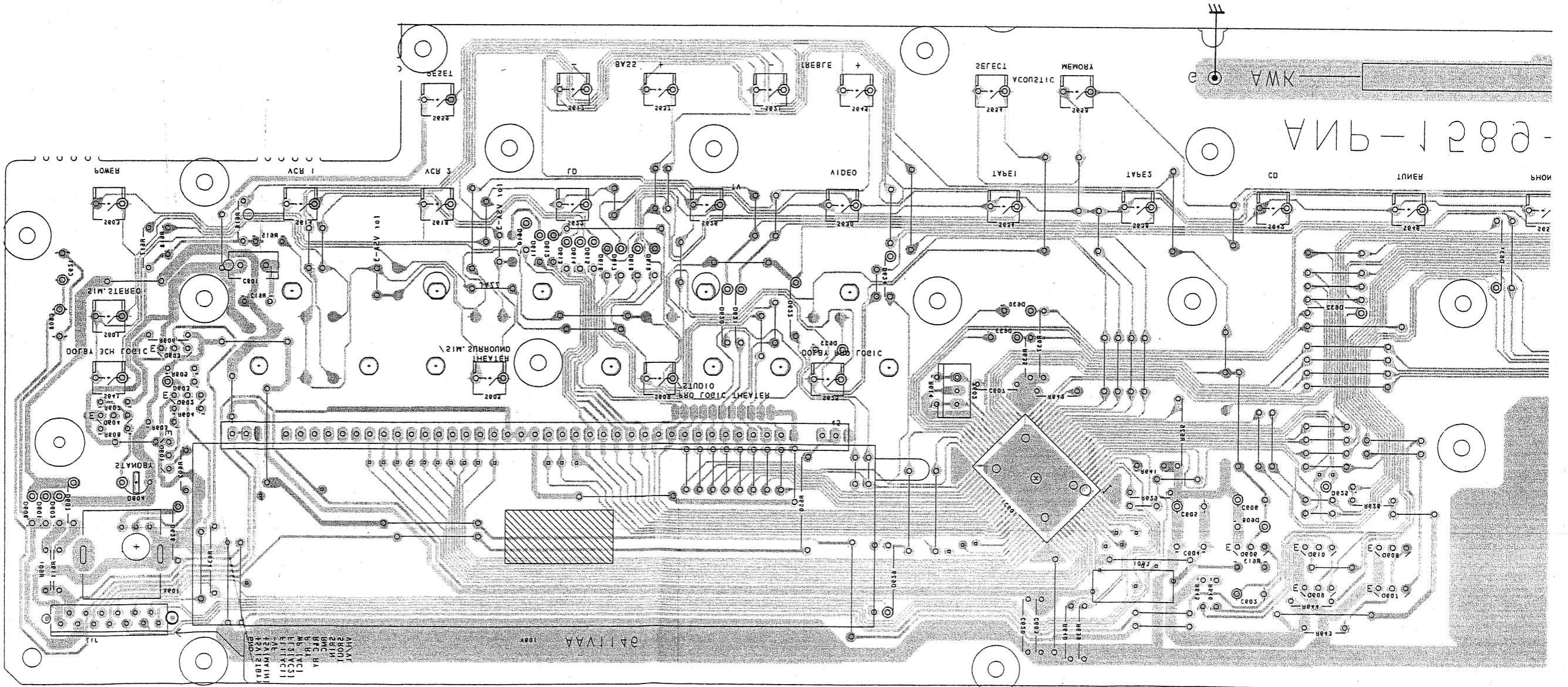
Part Name	Corresponding part symbol	P.C.B. pattern diagram indication
Transistor		
Radiator type transistor		
Diode		
Resistor		
Capacitor (Polarized)		
Capacitor (Non-polarized)		

This PCB connection diagram is viewed from the parts mounted side.

(0817KWA) Yldmssm MO3-U .LJ



This PCB connection diagram is viewed from the foil side.



WPA

ЭПР-1288

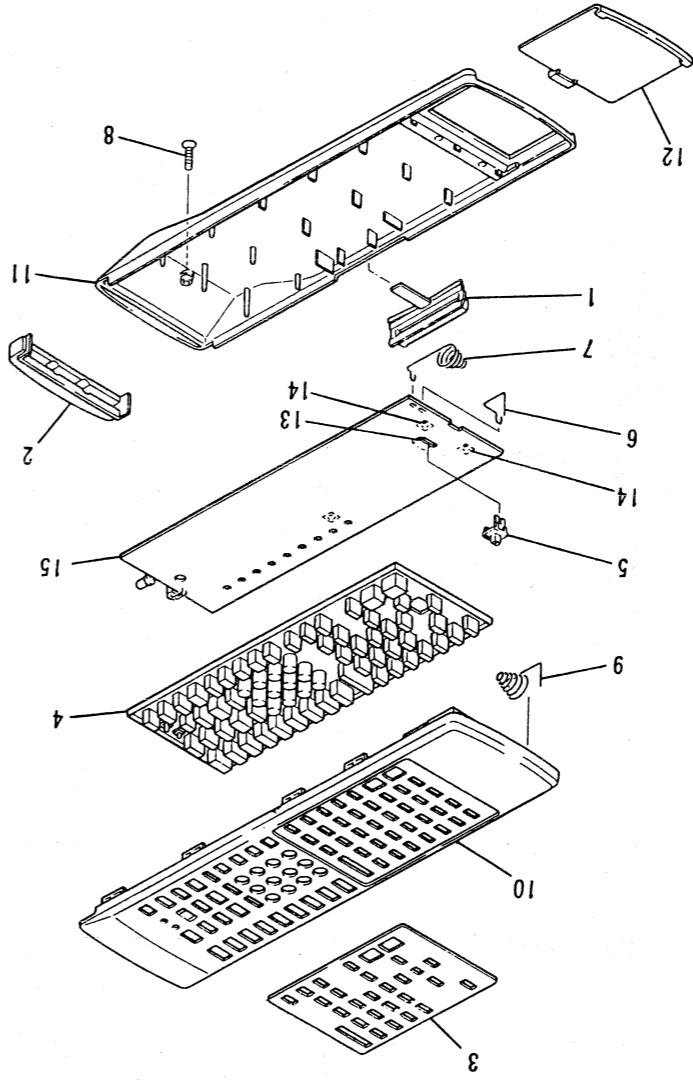
ЭПР-1288
 1. АВИАТ
 2. БУД
 3. М. П.
 4. М. П.
 5. М. П.
 6. М. П.
 7. М. П.
 8. М. П.
 9. М. П.
 10. М. П.
 11. М. П.

4. REMOTE CONTROL UNIT [CU - VSA022 (AXD1283)]

4.1 EXPLODED VIEW AND PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark No.	Description	Parts No.
1	MODE CHECK KEY	AZA1335
2	FILTER	AZA1336
3	PLATE	AZA1410
4	RUBBER SHEET	AZA1366
5	KNOB	AZA1349
6	TERMINAL (+)	AZB1327
7	TERMINAL (-)	AZB1328
8	SCREW	AZB1329
9	TERMINAL (C)	AZB1330
10	CASE (A)	AZN2089
11	CASE (B)	AZN2090
12	BATTERY COVER	AZN2091
13	SLIDE SW	AZS117
14	FACT SW	AZS118
15	P. C. BOARD	AZW1130



4.2 PCB PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples:

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω \rightarrow 56 $\times 10^1$ \rightarrow 561 \rightarrow RDI/8PM \square \square J
 47k Ω \rightarrow 47 $\times 10^3$ \rightarrow 473 \rightarrow RD1/4PS \square \square J
 0.5 Ω \rightarrow 0R5 \rightarrow RN2H \square \square K
 1 Ω \rightarrow 010 \rightarrow RS1P \square \square K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562 $\times 10^1$ \rightarrow 5621 \rightarrow RN1/4PC \square \square \square F

Mark No.	Description	Parts No.
IC1	μ -COM	ACM001-030
IC2	IC	AZC1564
IC3	LOGIC IC	MC74HC138F
Q1, 2	CHIP TRANSISTOR	ZSC305ZE
Q3, 4	TRANSISTOR	ZSD1622
D1-6	DIODE	DWA010-TE
D9-17	LED	AZC1573
D7	LED	SLR-938C
D8	DIODE	SPS-503C-3
C1, 2	CERAMIC CAPACITOR	CCDSL221J50
C3	CERAMIC CAPACITOR	CKDYX104M25
C4	CERAMIC CAPACITOR	CEAS470M10
C5	ELECT. CAPACITOR	CEAS470M10
C6	CERAMIC CAPACITOR	CKDYB103K50
C7	ELECT. CAPACITOR	CEAS221M10
C8	ELECT. CAPACITOR	CEAS4R7M50
R7, 8	CARBON FILM RESISTOR	RDI/4PMFL1R5J
	Other resistors	RDI/8PM \square \square \square J
X1	RESONATOR	AZC1570

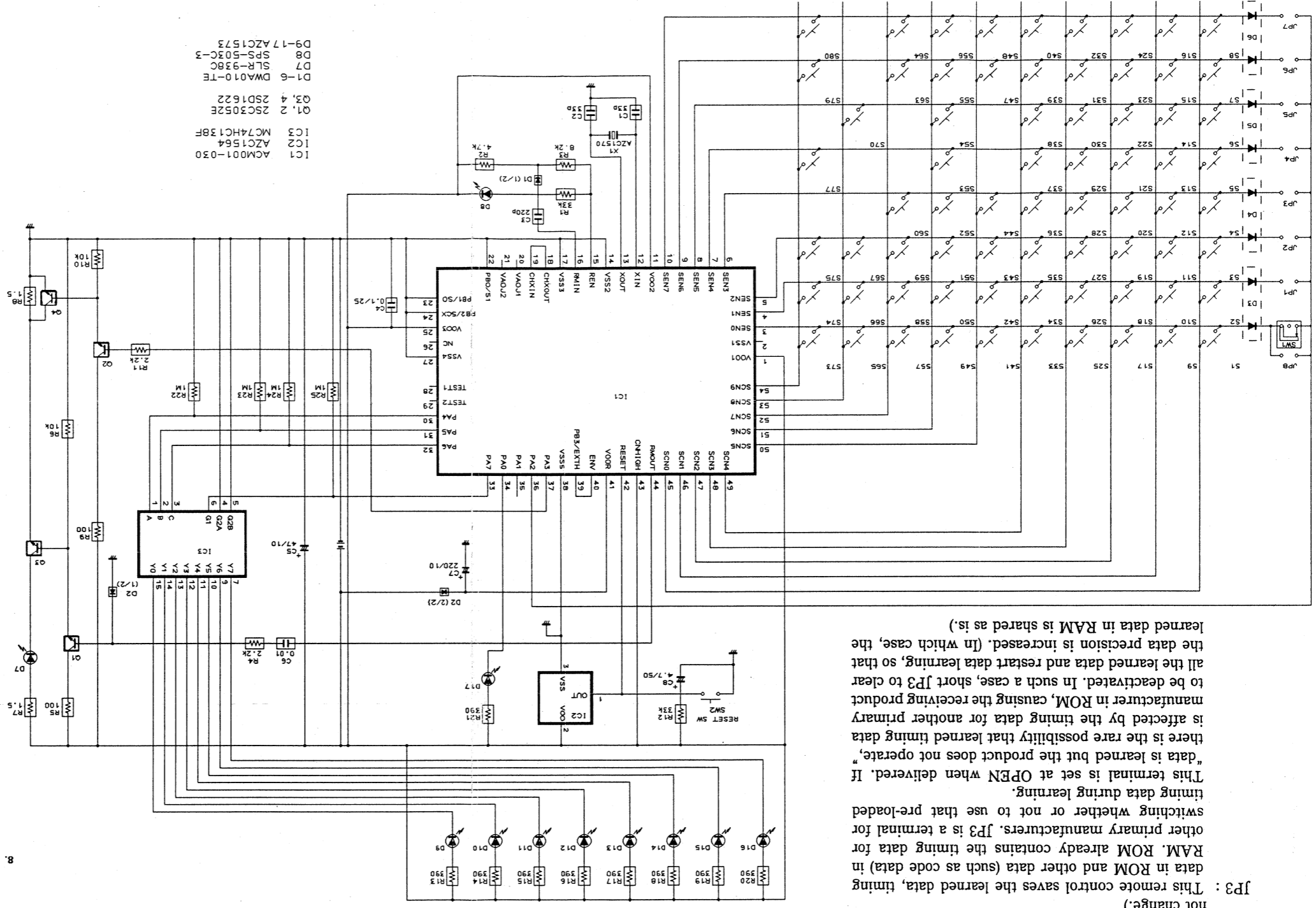
4.3 SCHEMATIC DIAGRAM

(NOTE)

JP2 : The terminal for switching Fc (carrier frequency of the fixed code). This terminal is set at OPEN (Fc = 40kHz) when delivered. If a product of another manufacturer accidentally receives the PIONEER code, short the terminal so that Fc will be 36.7KHz. (In which case, the learned code and preset code do not change.)

JP3 : This remote control saves the learned data, timing data in ROM and other data (such as code data) in RAM. ROM already contains the timing data for other primary manufacturers. JP3 is a terminal for switching whether or not to use that pre-loaded timing data during learning.

This terminal is set at OPEN when delivered. If "data is learned but the product does not operate," there is the rare possibility that learned timing data is affected by the timing data for another primary manufacturer in ROM, causing the receiving product to be deactivated. In such a case, short JP3 to clear all the learned data and restart data learning, so that the data precision is increased. (In which case, the learned data in RAM is shared as is.)







- IC1 ACM001-030
- IC2 AZC1564
- IC3 MC74HC13BF
- Q1, 2 2SC3052E
- Q3, 4 2SD1622
- D1-6 DWA010-TE
- D7 SLR-938C
- D8 SPS-503C-3
- D9-17 AZC1573
- S80 MASTER VOLUME -
- S79 MASTER VOLUME +
- S77 CENTER -
- S75 DELAY TIME
- S74 REAR R
- S73 REAR L
- S70 CENTER +
- S67 MUTING
- S66 TEST TONE
- S65 CENTER MODE
- S64 3CH LOGIC
- S63 SURR MODE
- S60 VIDEO SIGNAL SELECT
- S59 ACOUSTIC
- S58 SIMULATED STEREO
- S57 PHONO
- S56 TUNER
- S55 CD
- S54 TAPE2/MONITOR
- S53 TAPE1/DAT
- S52 VIDEO
- S51 TV
- S50 LD
- S49 VCR2
- S48 VCR1
- S47 SLEEP
- S44 AMP POWER
- S43 FREQ CH (V)
- S42 FREQ CH (A)
- S41 SCAN (TV VOL-)
- S40 CUSTOM (TV VOL+)
- S39 1/2/CLEAR
- S38 1/1/PGM
- S37 1/0/
- S36 9
- S35 8
- S34 7
- S33 6
- S32 5
- S31 4
- S30 3
- S29 2
- S28 1
- S27 TV FUNC (BAND)
- S26 SELECT (DISP)
- S25 TV/VCR (+10)
- S24
- S23
- S22
- S21
- S20
- S19
- S18
- S17 REC
- S16
- S15 POWER
- S14 M. CLEAR
- S13 MULTI COMMAND
- S12 EDIT
- S11 LEARN
- S10 MODE CHECK
- S9 DAT
- S8 DECK I
- S7 DECK I
- S6 TUNER
- S5 CD
- S4 TV
- S3 LD
- S2 VCR2
- S1 VCR1
- SW2 RESET
- SW1 CENT. BAL./REAR-REAR BAL.

- Note: (Type 2)
1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".
 2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.
 3. RESISTORS:
Unit: k: kΩ, M: MΩ, or Ω unless otherwise noted.
Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
 4. CAPACITORS:
Unit: p: pF or pF unless otherwise noted.
Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.
 5. COILS:
Unit: m: mH or μH unless otherwise noted.
 6. VOLTAGE AND CURRENT:
□ : DC voltage (V) at no input signal unless otherwise noted.
◁ : mA or — : mA; DC current at no input signal unless otherwise noted.
 7. OTHERS:
⊙ : Adjusting point.
• The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
 8. SWITCHES (Underline indicates switch position):
SW1: CENT. BAL./REAR-REAR BAL.

NOTE:

- : Indicates a chip resistor.
- : Indicates a chip capacitor.
- ▣ : Indicates a chip diode.

4.4 P. C. BOARD PATTERN

-  : Indicates a chip resistor.
-  : Indicates a chip capacitor.
-  : Indicates a chip transistor.
-  : Indicates a chip diode.

A

B

C

D

