

CAUTION : When doing repair of GE-722, be sure to have the customer bring the A-722, or use power supply jig RM-90PS, or supply to 16V AC to jumper leads W18 and W19 on X14-3200-00 PC board ass'y. If not get 16V AC, please order the A-848's power transformer (parts No. L07-0038-05 / 120V / 220V / 240V). Don't use the "RHEOSTAT".

CONTENTS/ACCESSORIES

CONTENTS

ACCESSORIES	2	3. DSP Microprocessor : LC66516B-4677 (IC12 : X11-3070-00)	7
CONTROLLERS	3	4. DSP IC : LC83010 (IC11 : X11-3070-00)	9
JIG	3	PC BOARD (COMPONENT SIDE VIEW)	11
BLOCK DIAGRAM	4	SCHEMATIC DIAGRAM	15
CIRCUIT DESCRIPTION		EXPLODED VIEW	25
1. Main Microprocessor : M38063M6-151FP (IC1 : X11-3070-00)	5	PARTS LIST	26
2. TEST MODE	6	SPECIFICATIONS	BACK COVER

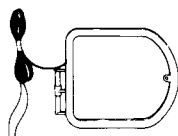
System name	Receiver	Graphic equalizer	Cassette deck	CD player	Speaker
UD-90	A-722	GE-722	X-722	DP-722	LS-722

Outer packing case	Instruction manual	Warranty card
H60-0028-04 (M, P, Y) : J	B60-0513-00 (M) : SPANISH	B46-0092-03 (K)
H60-0029-04 (X) : J	B60-0583-00 (M) : CHINA	B46-0094-03 (Y)
H60-0030-04 (T) : J	B60-0508-00 (E) : ENGLISH	B46-0095-03 (Y)
H60-0031-04 (K) : J	B60-0509-00 (E) : FRENCH	B46-0096-23 (X)
H60-0033-04 (M, P, Y) : S	B60-0510-00 (E) : GERMANY	B46-0122-13 (E)
H60-0034-04 (X) : S	B60-0511-00 (E) : NETHERLANDS	B46-0143-13 (T)
H60-0035-04 (T) : S	B60-0512-00 (E) : ITALY	

J=JAPAN MADE S=SINGAPORE MADE

ACCESSORIES

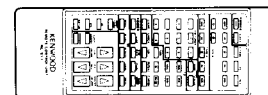
- AM loop antenna 1
(T90-0173-05) : J
(T90-0174-05) : S



- Loop antenna stand 1
(J19-2815-04)

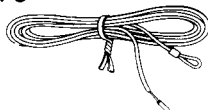


- Remote control unit 1
(A70-0535-05)



(Supplied with DP-722)

- FM indoor antenna 1
(T90-0176-05) : J
(T90-0175-05) : S

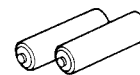


- Speaker cords 2
(E30-1297-05) : RED/BLK
(E30-5091-05) : BLU/BLK



(Supplied with the LS-722)

- Battery (R06 / AAA) 2
(-)



- Antenna adaptor 1
(T90-0136-05) T, E TYPE ONLY



- AC plug adaptor 1
(E03-0115-05) M TYPE ONLY



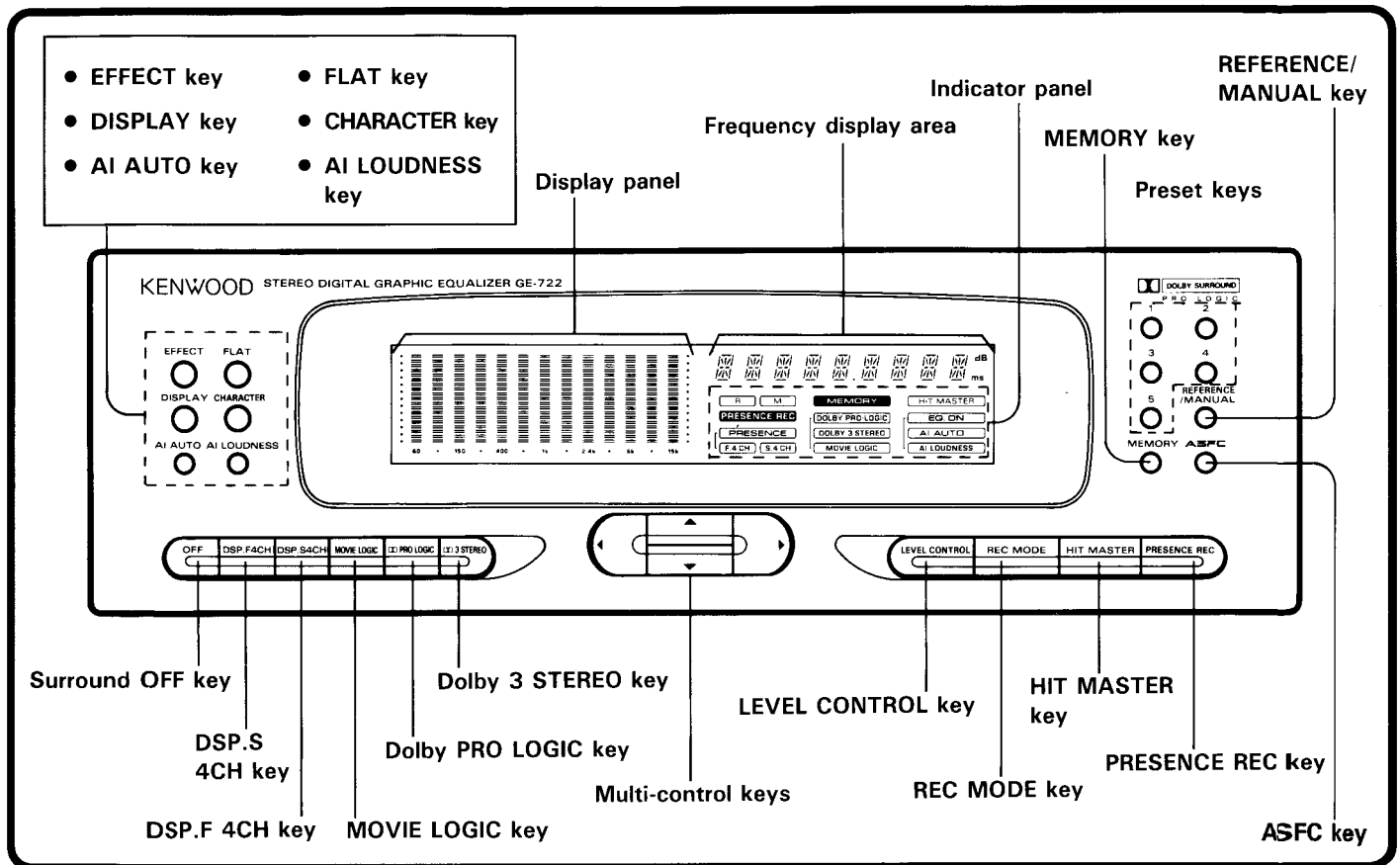
(Except for some areas)
For the unit with a European
AC plug in areas other than Europe.

J = JAPAN MADE
S = SINGAPORE MADE

Note : A-722/L has accessories with no attached models.

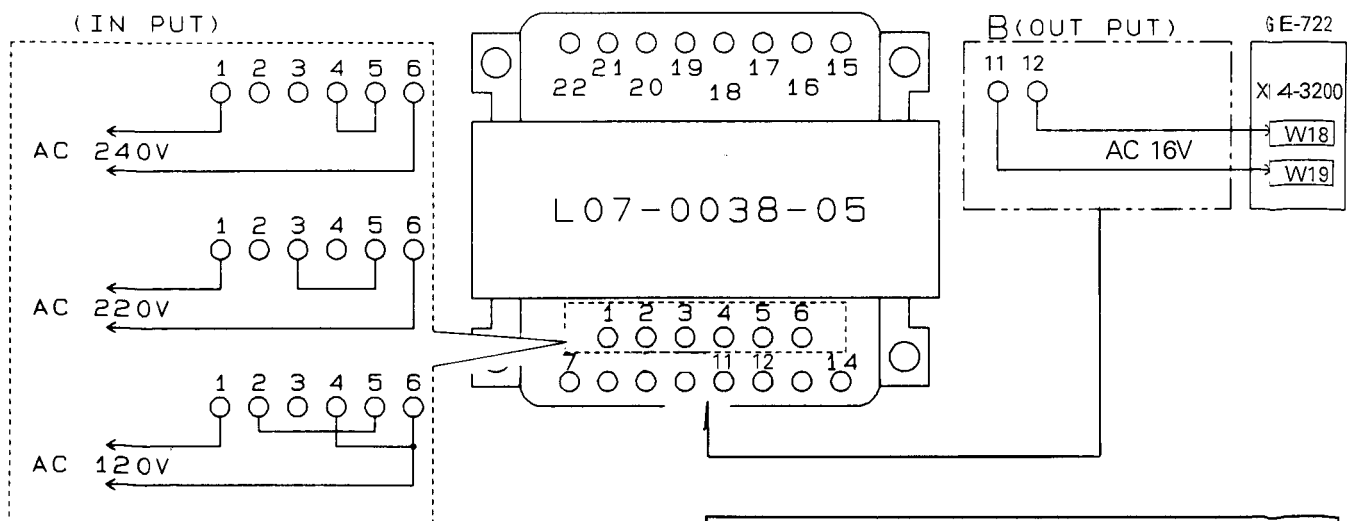
CONTROLES/ JIG

CONTROLES



JIG

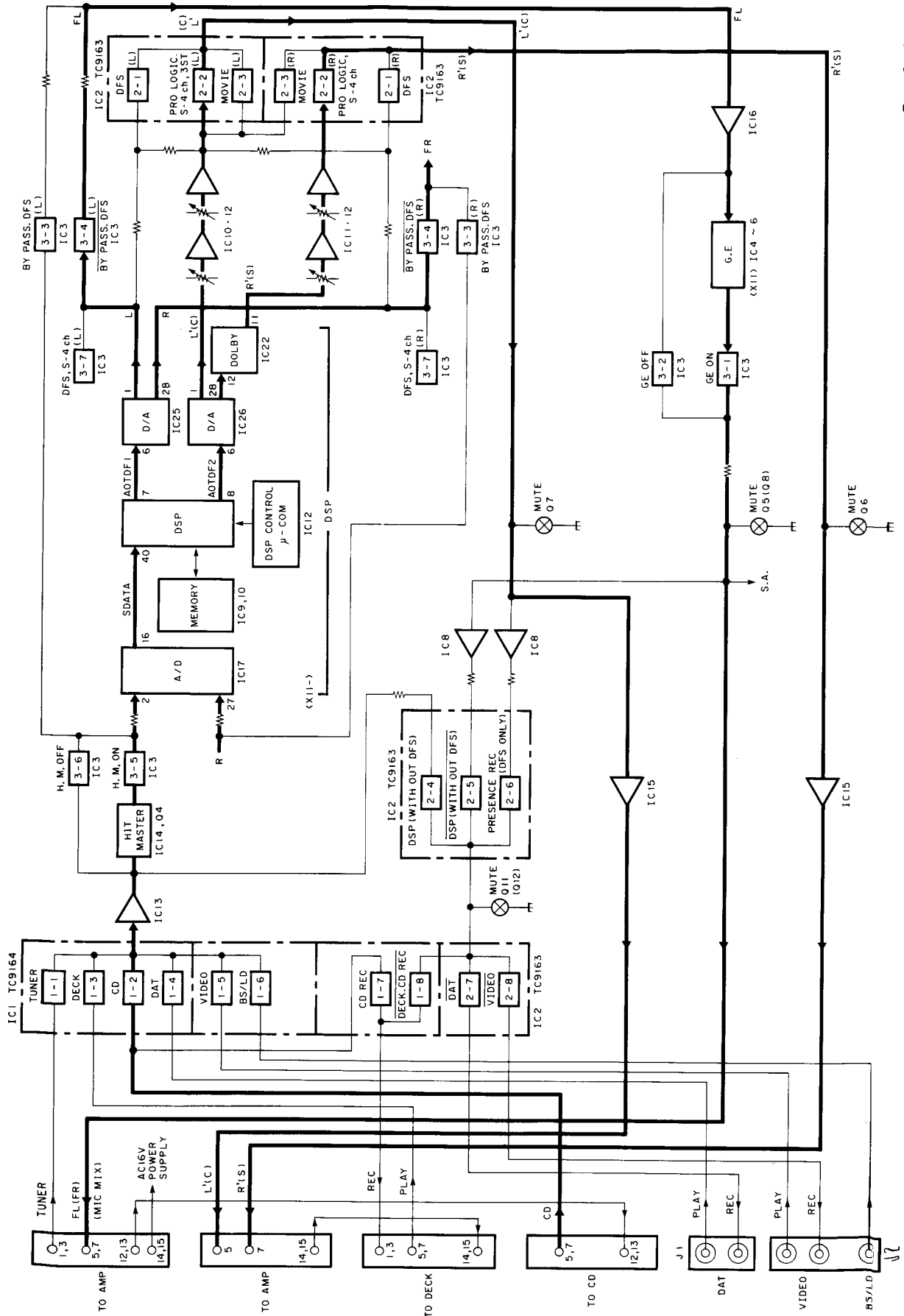
POWER TRANSFORMER



CAUTION: When doing repair of GE-722, be sure to have the customer bring the A-722, or use power supply jig RM-90PS, or supply to 16V AC to jumper leads W18 and W19 on X14-3200-00 PC board ass'y. If not get 16V AC, please order the A-722's power transformer (parts No. L07-0038-05 / 110V / 220V / 240V). Don't use the "RHEOSTAT".

GE-722

BLOCK DIAGRAM



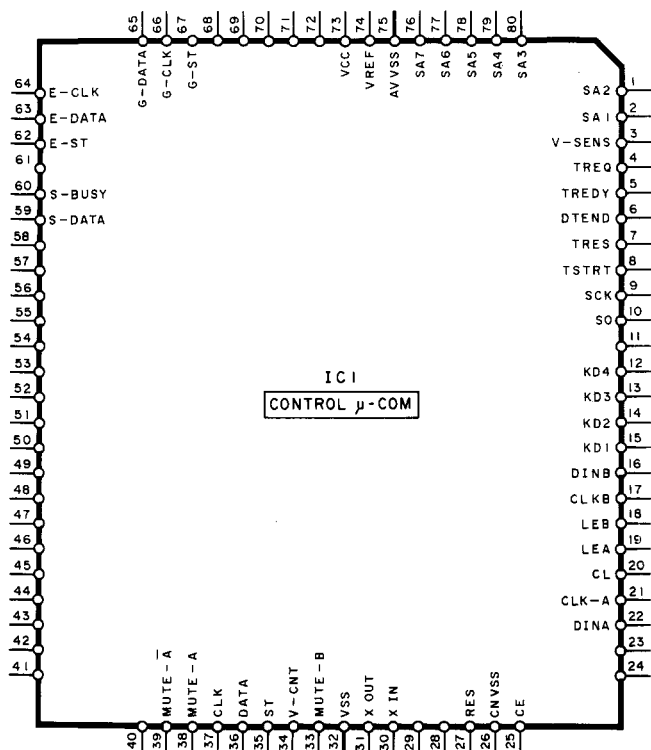
Symbol

1-3
3rd sw of IC1.

CIRCUIT DESCRIPTION

1. Main Microprocessor : M38063M6-151FP (IC1)

1-1. Pin connection diagram



1-2. Pin functions

Pin No.	Pin Name	I/O	Functions
1	SA2	I	Spectrum analyzer
2	SA1	I	Spectrum analyzer
3	V-SENS	I	VOLUME SENS for AI LOUDNESS
4	TREQ	O	DSP(Digital Surround Processor) demand
5	TREDY	I	DSP ready
6	DTEND	I	DSP data end
7	TRES	O	DSP reset
8	TSTRT	O	DSP start
9	SCK	O	DSP clock
10	SO	O	DSP data
11	-	I	Not use
12 ~ 15	KD4 ~ 1	I	Key return
16	DINB	O	Grid data
17	CLKB	O	Grid clock
18	LEB	O	Grid latch
19	LEA	O	Segment latch
20	CL	O	Display clear
21	CLKA	O	Segment clock
22	DINA	O	Segment data
23, 24	-	I	Not use
25	\overline{CE}	I	Backup enable
26	CNVSS	-	GND
27	\overline{RESET}	I	Reset

Pin No.	Pin Name	I/O	Functions
28, 29	-	I	Not use
30	XIN	-	Oscillator input
31	XOUT	-	Oscillator output
32	VSS	-	GND
33	MUTE \overline{B}	O	Mute B
34	V-CNT	O	Video control
35	ST	O	Selector ST
36	DATA	O	Selector data
37	CLK	O	Selector clock
38	MUTE \overline{A}	O	Mute A
39	\overline{MUTEA}	O	Inverted Mute A
40 ~ 58	-	I	Not use
59	SDATA	I/O	Extra serial data
60	SBUSY	I/O	Extra serial busy
61	-	I	Not use
62	EST	O	Electric volume ST
63	EDATA	O	Electric volume data
64	ECLK	O	Electric volume clock
65	GDATA	O	GE electric volume data
66	GCLK	O	GE electric volume clock
68 ~ 72	-	I	Not use
73	VCC	-	Power supply (5V)
74	VREF	-	Reference voltage
75	AVSS	-	GND
76 ~ 80	SA7 ~ 3	I	Spectrum analyzer

Refer to page 29 on the Input sensitivity of spectrum analyzer.

CIRCUIT DESCRIPTION

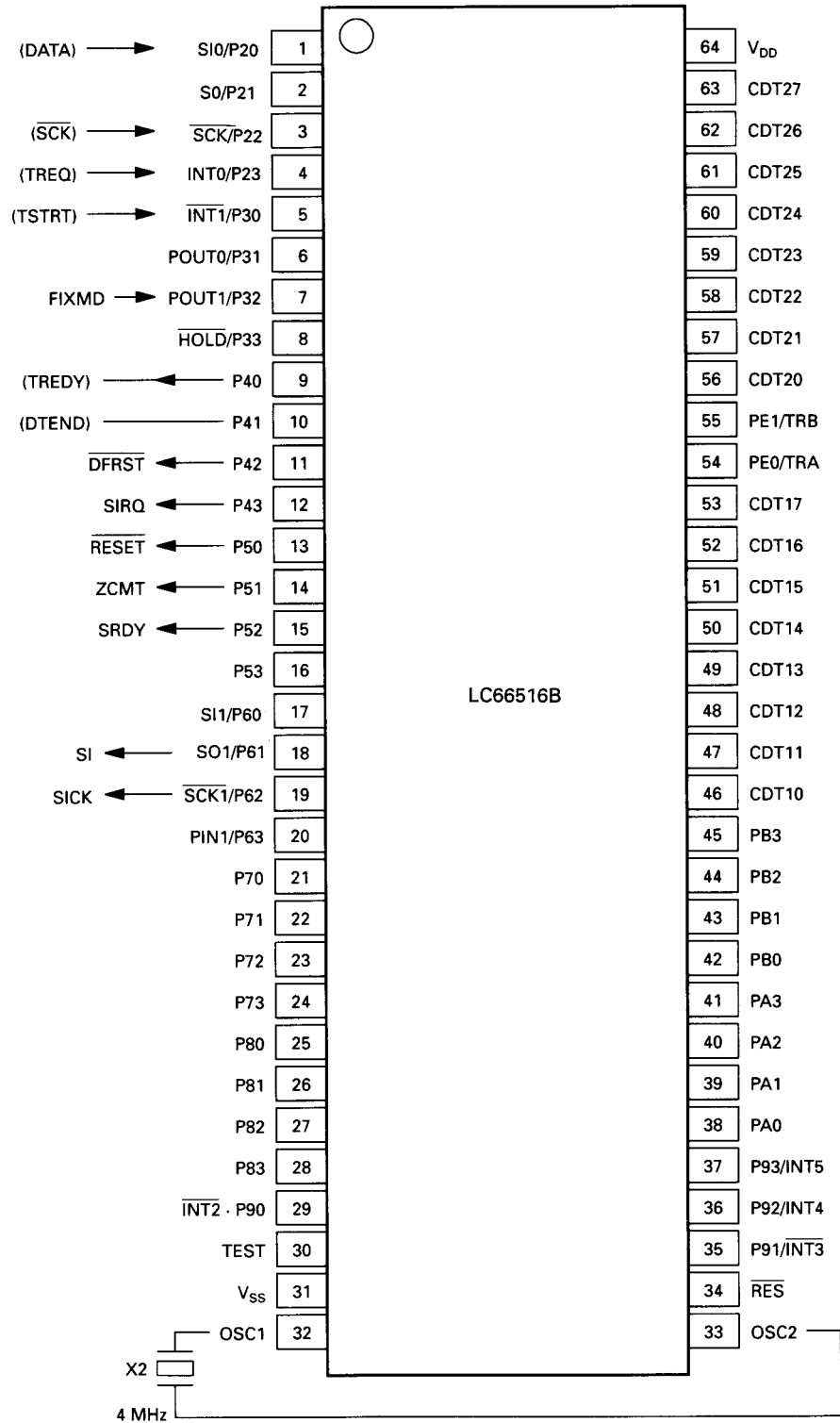
2. TEST MODE

TEST MODE	SETTING	RESETTING	CONTENTS																																																																																																
1. MEMORY CLEAR	Turn POWER sw to ON with pressing MEMORY key.	-	The memory is set initially (to RESET state), then the normal operation is started.																																																																																																
2. SELECTOR	Turn POWER sw to ON with pressing EJECT key.	Turn POWER sw to ON with pressing no key.	<p>Display</p> <p>a) CD→TUNER→DECK→DAT→VIDEO→DBS/LD →CD (Freq. UP key) CD←TUNER←DECK←DAT←VIDEO←DBS/LD ←CD (Freq. DOWN key)</p> <p>b) No key is accepted except Freq. UP and DOWN.</p>																																																																																																
3. GRAPHIC EQUALIZER	Turn POWER sw to ON with pressing FLAT key.	Turn POWER sw to ON with pressing no key.	<p>a) All of segments turn on at first time. If pressed key, turn to normal indicator.</p> <p>b) Set segments as follows, M1 : ±0 (FLAT) M2 : +10 (All max.) M3 : -10 (All min.)</p> <p>c) In all of frequency range, EQ's UP/DOWN keys used to set 3 points of +10dB, 0 and -10dB.</p> <p>d) In DSP-OFF mode, function mode is set to Surround 4 channels and DSP output data is free.</p> <p>e) AI AUTO KEY (Remote controller) is no acceptable.</p> <p>f) Other operation is the same as the normal mode.</p> <p>g) SELECTOR is set to TUNER.</p> <p>h) Operation words with pressing EJECT key.</p> <p>i) By pressing CHARACTER key, turn on and check all of segments.</p>																																																																																																
4. SEGMENT	Turn POWER sw to ON with pressing R/M key.	Turn POWER sw to ON with pressing no key.	<p>a)</p> <table style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">interval</td> </tr> <tr> <td style="text-align: right;">→ S1</td> <td style="text-align: center;">S9</td> <td style="text-align: center;">S17</td> <td style="text-align: center;">S25</td> <td style="text-align: center;">S33</td> <td style="text-align: center;">↖</td> </tr> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">250ms</td> </tr> <tr> <td style="text-align: center;">S2</td> <td style="text-align: center;">S10</td> <td style="text-align: center;">S18</td> <td style="text-align: center;">S26</td> <td style="text-align: center;">S34</td> <td style="text-align: center;">↖</td> </tr> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td></td> </tr> <tr> <td style="text-align: center;">S3</td> <td style="text-align: center;">S11</td> <td style="text-align: center;">S19</td> <td style="text-align: center;">S27</td> <td style="text-align: center;">S35</td> <td></td> </tr> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td></td> </tr> <tr> <td style="text-align: center;">S4</td> <td style="text-align: center;">S12</td> <td style="text-align: center;">S20</td> <td style="text-align: center;">S28</td> <td style="text-align: center;">S36</td> <td></td> </tr> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td></td> </tr> <tr> <td style="text-align: center;">S5</td> <td style="text-align: center;">S13</td> <td style="text-align: center;">S21</td> <td style="text-align: center;">S29</td> <td style="text-align: center;">S37</td> <td></td> </tr> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td></td> </tr> <tr> <td style="text-align: center;">S6</td> <td style="text-align: center;">S14</td> <td style="text-align: center;">S22</td> <td style="text-align: center;">S30</td> <td style="text-align: center;">S38</td> <td></td> </tr> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td></td> </tr> <tr> <td style="text-align: center;">S7</td> <td style="text-align: center;">S15</td> <td style="text-align: center;">S23</td> <td style="text-align: center;">S31</td> <td style="text-align: center;">S39</td> <td></td> </tr> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td></td> </tr> <tr> <td style="text-align: center;">S8</td> <td style="text-align: center;">S16</td> <td style="text-align: center;">S24</td> <td style="text-align: center;">S32</td> <td style="text-align: center;">S40</td> <td></td> </tr> </table> <p>Each group turns on for 250ms. If pressed any key, turn to normal display.</p> <p>b) After procedure a), mode change to 3. GRAPHIC EQUALIZER.</p> <p>c) By pressing CHARACTER key, turn on and check all of segments.</p>		↓	↓	↓	↓	interval	→ S1	S9	S17	S25	S33	↖	↓	↓	↓	↓	↓	250ms	S2	S10	S18	S26	S34	↖	↓	↓	↓	↓	↓		S3	S11	S19	S27	S35		↓	↓	↓	↓	↓		S4	S12	S20	S28	S36		↓	↓	↓	↓	↓		S5	S13	S21	S29	S37		↓	↓	↓	↓	↓		S6	S14	S22	S30	S38		↓	↓	↓	↓	↓		S7	S15	S23	S31	S39		↓	↓	↓	↓	↓		S8	S16	S24	S32	S40	
	↓	↓	↓	↓	interval																																																																																														
→ S1	S9	S17	S25	S33	↖																																																																																														
↓	↓	↓	↓	↓	250ms																																																																																														
S2	S10	S18	S26	S34	↖																																																																																														
↓	↓	↓	↓	↓																																																																																															
S3	S11	S19	S27	S35																																																																																															
↓	↓	↓	↓	↓																																																																																															
S4	S12	S20	S28	S36																																																																																															
↓	↓	↓	↓	↓																																																																																															
S5	S13	S21	S29	S37																																																																																															
↓	↓	↓	↓	↓																																																																																															
S6	S14	S22	S30	S38																																																																																															
↓	↓	↓	↓	↓																																																																																															
S7	S15	S23	S31	S39																																																																																															
↓	↓	↓	↓	↓																																																																																															
S8	S16	S24	S32	S40																																																																																															

CIRCUIT DESCRIPTION

3. DSP Microprocessor : LC66516B-4677 (IC12)

3-1. Pin connection diagram



CIRCUIT DESCRIPTION

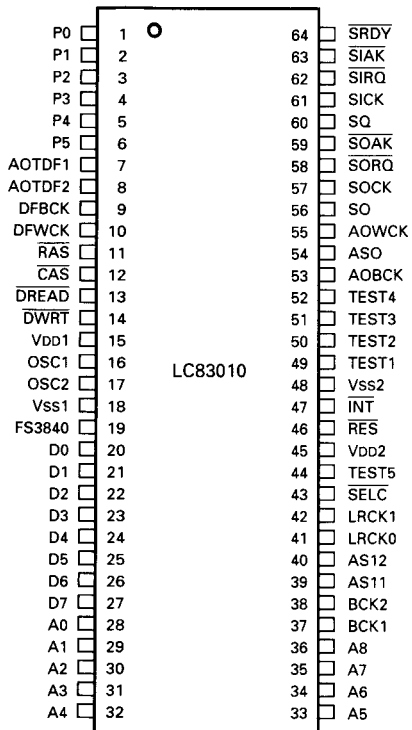
3-2. Pin functions

Pin No.	Pin name	I/O	Name	Description
1	SI0/P20	I	DATA	DATA signal input pin from system control μ -com
2	SO0			No used
3	SCK/P22	I	SCK	Clock signal input pin from system control μ -com
4	INT0/P23	I	TREQ	TREQ signal input pin from system control μ -com
5	INT1/P30	I	TSTRT	TSTRT signal input pin from system control μ -com
6	Pout0/P31	I		No used
7	Pout1/P32	I	FIXMD	Fixation terminal mode setting pin. Low: Normal mode High: Fixation terminal mode
8	HOLD/P33	I	TSTRT	HOLD mode control input
9	P40	O	TREDY	TREDY signal output pin to system control μ -com
10	P41	O	DTEND	At mode change (command 0 ~ 2) and during clear the DRAM, transfer the data to DSP IC.
11	P42	O	DFRST	Digital filter reset signal output pin (Normally High)
12	P43	O	SIRQ	DSP IC LC83010 SIRQ signal output pin
13	P50	O	RES	DSP IC LC83010 Reset signal output pin (Normally High)
14	P51	O	ZCMT	Zero cross mute control signal output pin
15	P52	O	SRDY	DSP IC LC83010 SRDY signal output pin
16,17	P53, SU/P06			No used
18	SO1/P61	O	SI	DSP IC LC83010 SI signal output pin
19	SCK1/P62	O	SICK	DSP IC LC83010 SICK signal output pin
20 ~ 28	PIN1/P63 P70 ~ P73 P80 ~ P83	O		No used
29	INT2/P90			DSP IC LC83010 SIAK signal input pin
30	TEST			CPU test pin. Connected to V _{ss} .
31	V _{ss}			GND pin
32	OSC1	I		System clock oscillator pin
33	OSC2	O		System clock oscillator pin
34	RES	I		System reset signal input pin
35 ~ 37	P91 ~ 93 INT3 ~ INT 5			No used
38 ~ 45	PA0 ~ PA3 PB0 ~ PB3	I I		No used
46 ~ 53	PC0	I	CDT10 ~ 17	Correspond to bit 0 ~ 7 of data address 1 of command data in the fixed pin mode.
54	PE0/TRA	I		Correspond to 2 low-order bits of command data in the fixed pin mode. The fixed pin mode can be set to 00, 01, 02 or 03.
55	PE1/TRB	I		
56 ~ 63	P35	I	CDT20 ~ 27	Corresponds to bit 0 ~ 7 of data address 2 of command data in the fixed pin mode.
64	V _{DD}			Power supply

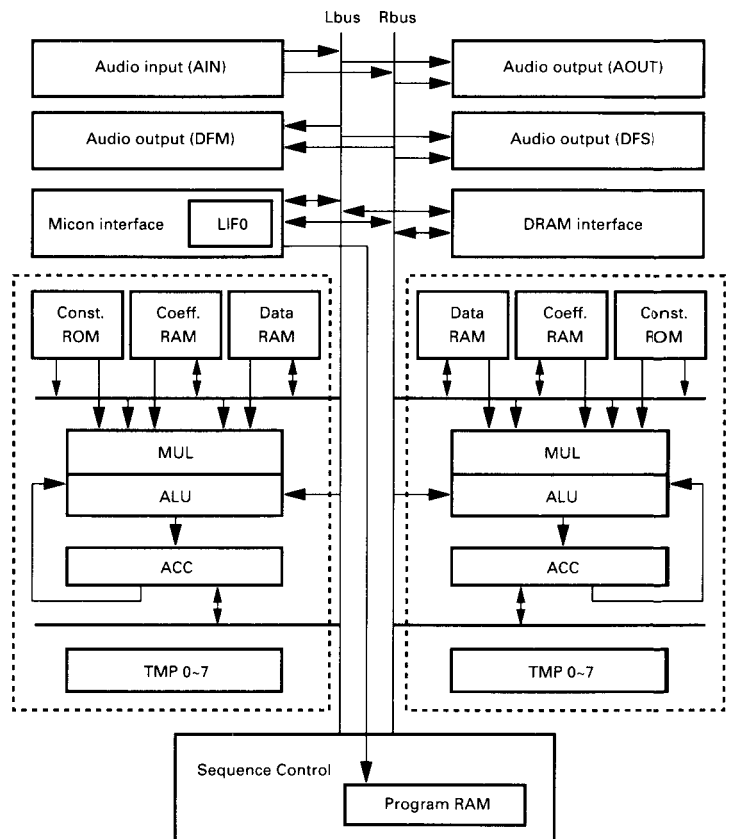
CIRCUIT DESCRIPTION

4. DSP IC : LC83010 (IC11)

4-1. Pin connection diagram



4-2. Block diagram

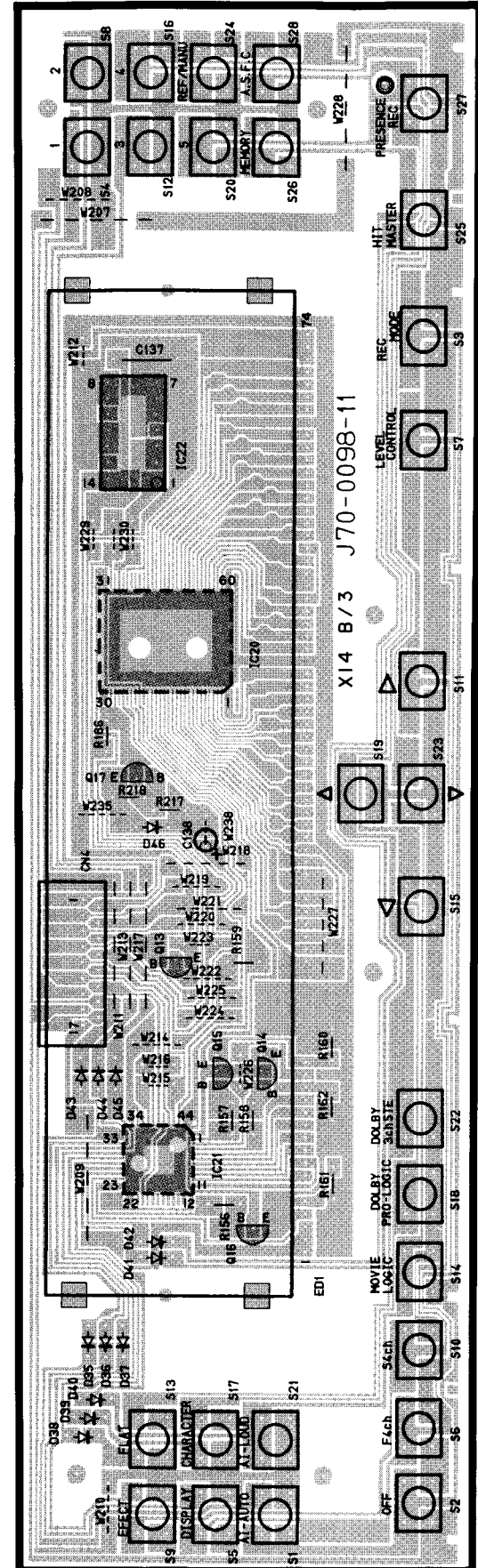
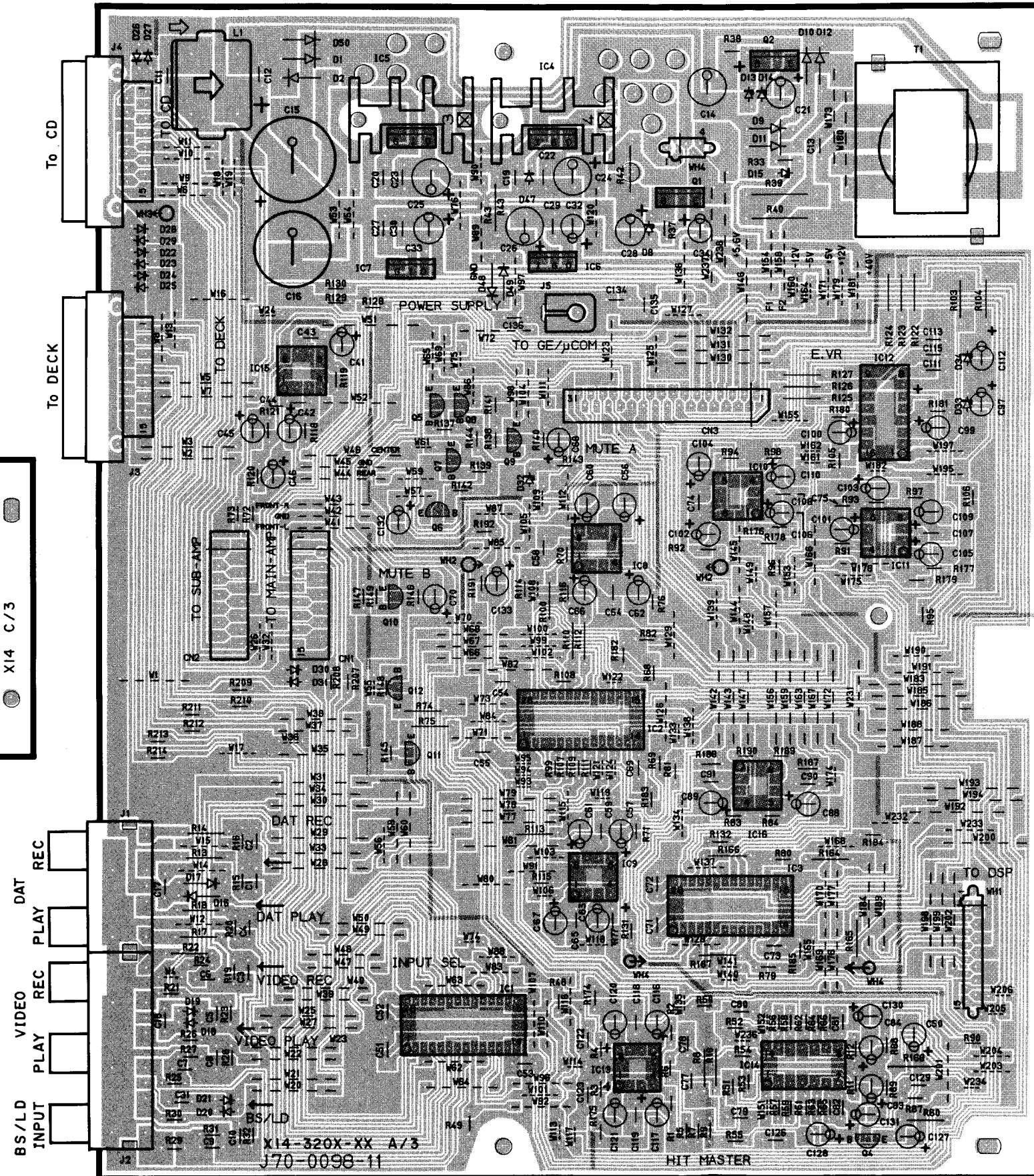
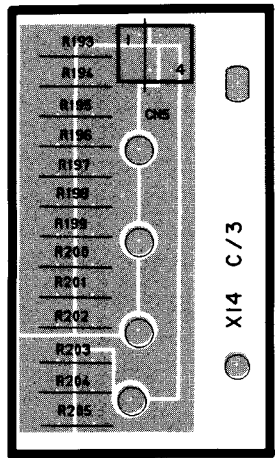


CIRCUIT DESCRIPTION

4-3. Pin functions

Pin No.	Pin name	I/O	Description	
1	P0	I	Digital mute - High: mute; Low: unmute during DSP program	
2	P1	I	Soft muting - High during DSP program: Soft mute with time constant of 1 ms; Low: Unmute	
3	P2	O	Overflow detection If the input data from the A/D converter becomes the maximum positive or negative value a low signal is output, held for 100 ms, and goes high.	
4	P3	I	Phase shifter control The phase shifter is turned on and off during 3-channel sound field program. Low: on; High; off. Always used with "LOW".	
5	P4	I	Direct sound add control Control whether direct sound is added in the DSP during sound field program. High: Add; Low: Do not add. Always used with "LOW".	
6	P5	I/O	General input/output port No used (open)	
7	AOTDF2	O	Audio data output 1 C ch and S ch data is output during Dolby pro logic and 4-ch sound field. If 3 stereo and 3-CH are set, only C ch data is output.	
8	AOTDF2	O	Audio data output 2 Decoded L/R data is output for Dolby. The L/R sound field signal is output for sound field.	
9	DFBCK	O	Bit clock for AOTDF 1 and 2 48 fs bit clock is output.	
10	DFWCK	O	Word clock for AOTDF 1 and 2 No used	
11	$\overline{\text{RAS}}$	O	For row address strobe DRAM access control	
12	$\overline{\text{CAS}}$	O	For column address strobe DRAM access control	
13	$\overline{\text{DREAD}}$	O	DRAM read control signal	
14	$\overline{\text{DWRT}}$	O	DRAM write control signal	
15, 45	VDD1, 2	I	Power supply pin	
18, 48	VSS1, 2		GND pin	
16	OSC1	I	Crystal oscillator pin	
17	OSC2	O	Crystal oscillator pin	
19	FS3840	O	384fs output pin	
20 ~ 27	D0 ~ D7	I/O	DRAM data I/O pin	
28 ~ 36	A0 ~ A8	O	DRAM address output pin (A8 is no used)	
37	BCK1	I	No used	
38	BCK2	O	Bit clock output pin 32fs bit clock output for A/D	
39	ASI1	I	No used	
40	ASI2	I	Audio data input pin 2 Data input from A/D	
41	LRCKO	O	L/R clock output pin	
42	LRCKI	I	No used	
43	$\overline{\text{SELC}}$	I	Self oscillation and external clock input switching	
44	TEST 5	O	Test pin Used by open	
46	$\overline{\text{RES}}$	I	Reset pin	
47	$\overline{\text{INT}}$	I	No used	
49 ~ 52	TEST 1 ~ 4	I	Test pin Connected to GND	
53	AOBCK	O	No used	
54	ASO	O	Audio data output (overflow detection)	
55 ~ 59	A0WCK etc.		No used	
60	SI	I	Serial data input from μ -com	DSP \leftrightarrow μ -com inteface
61	SICK	I	Serial clock input of SI input	
62	$\overline{\text{SIRQ}}$	I	SI request signal input	
63	$\overline{\text{SIACK}}$	O	Output signal to indicate that the SI serial communication is executing	
64	$\overline{\text{SRDY}}$	I	Input signal to indicate that the mail box communication is finished	

PC BOARD (COMPONENT SIDE VIEW)



Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (COMPONENT SIDE VIEW)

2

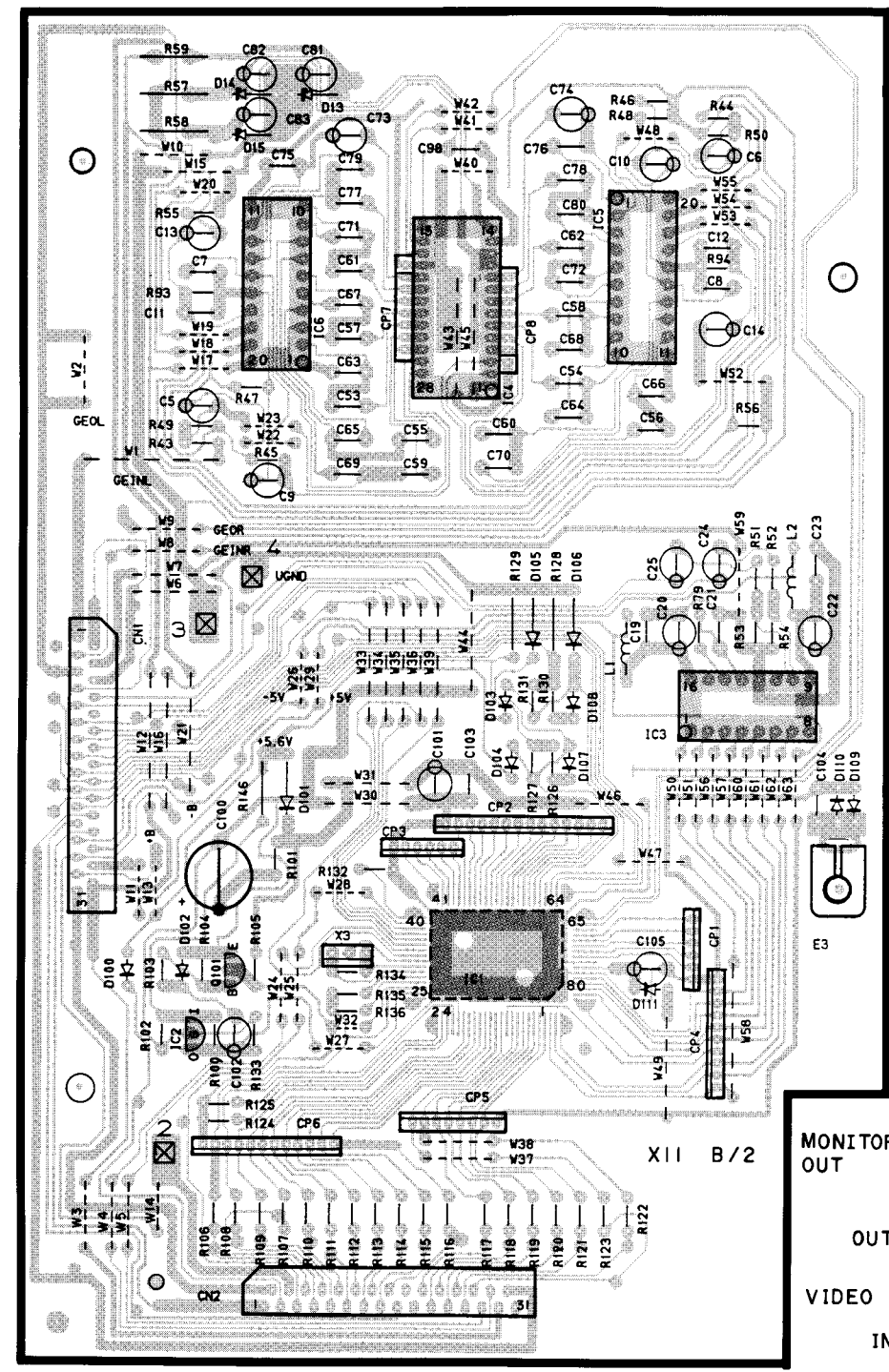
3

4

5

6

7

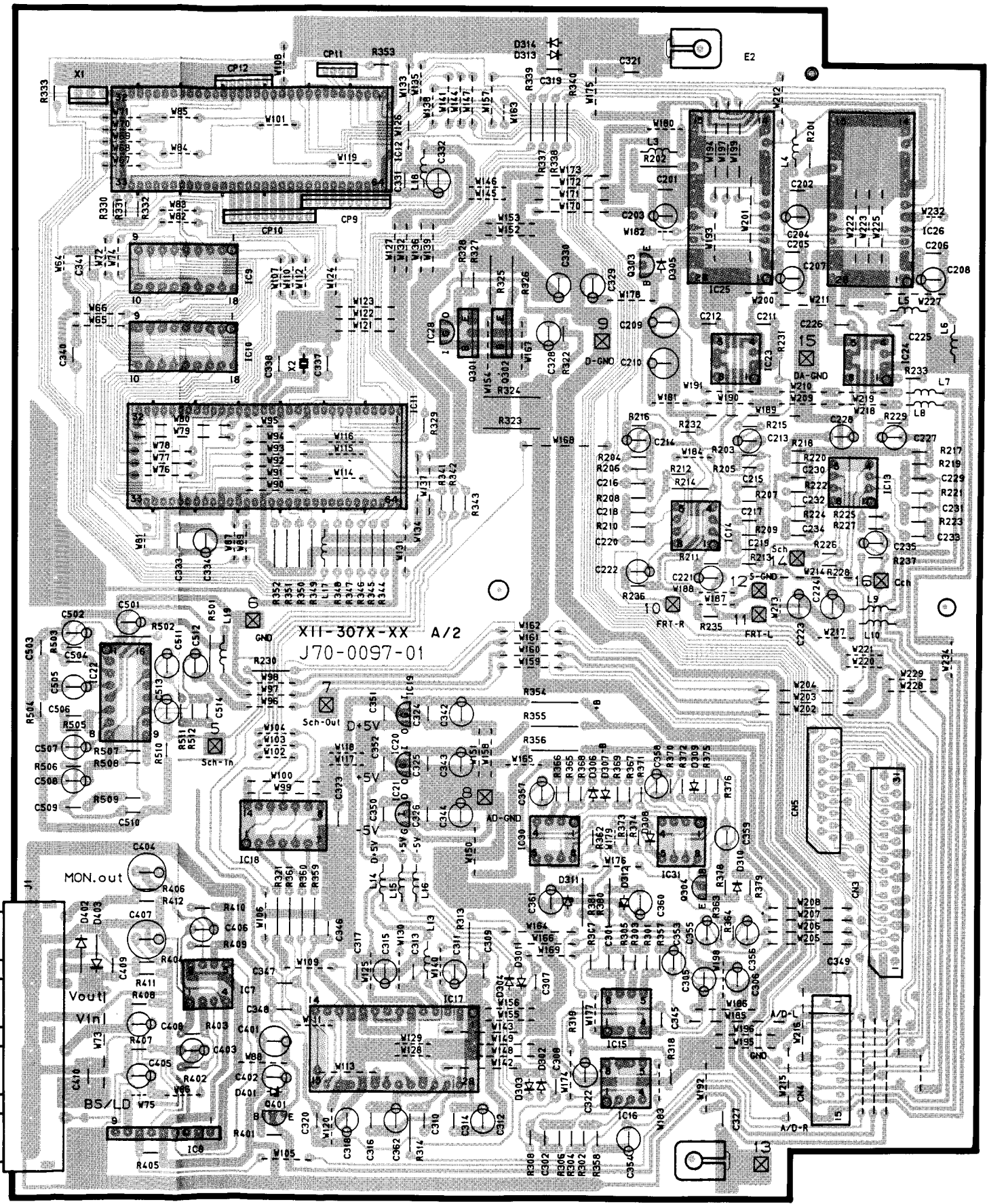


MONITOR
OUT

OUT

VIDEO
IN

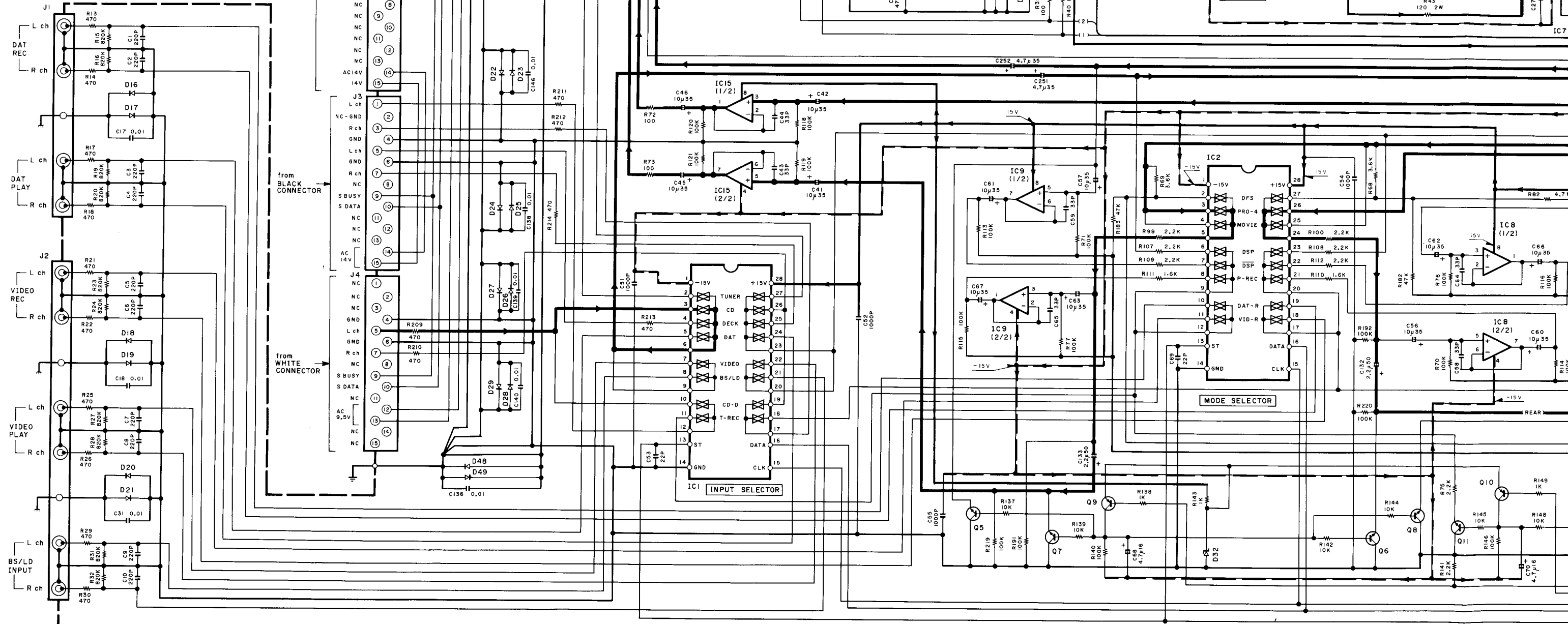
BS / LD

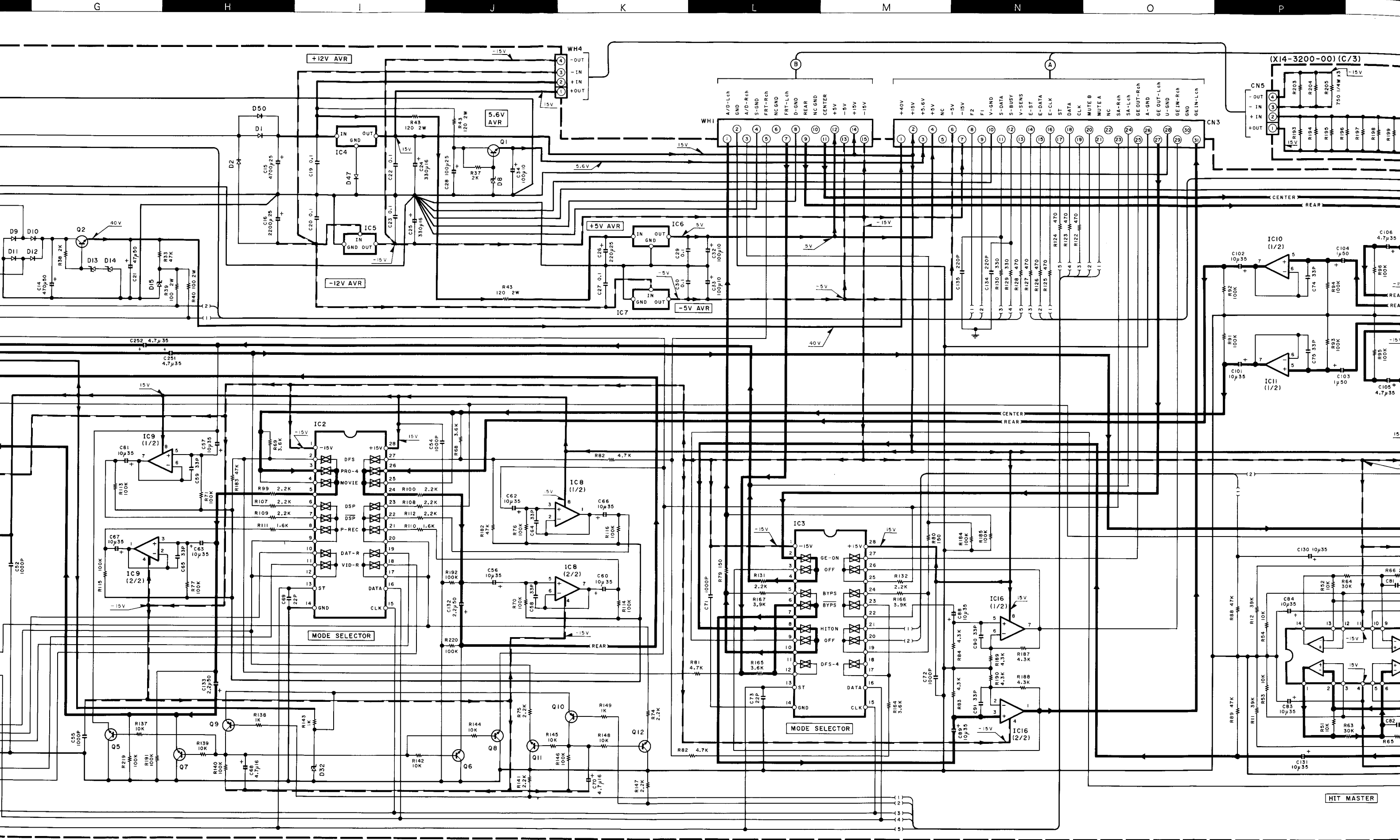


Refer to the schematic diagram for the values of resistors and capacitors.

- IC1 : TC9164N
- IC2 : TC9163N
- IC3 : TC9162N
- IC4 : μ PC7812HF or TA7812S
- IC5 : μ PC7912HF or TA790012S
- IC6 : μ PC7805HF or TA7805S
- IC7 : μ PC7905HF or TA79005S
- IC8~11,13,15,16 : RC4565D-D or NJM4565D-D
- IC12 : TC9213P
- IC14 : μ PC4574C
- Q1,2 : 2SD1266
- Q4 : 2SC245H(Y,GR) or 2SC1740S(Q,R)
- Q5~8,11,12 : 2SC2878(B)
- Q9,10 : 2SA1048(Y,GR) or 2SA933S(Q,R)

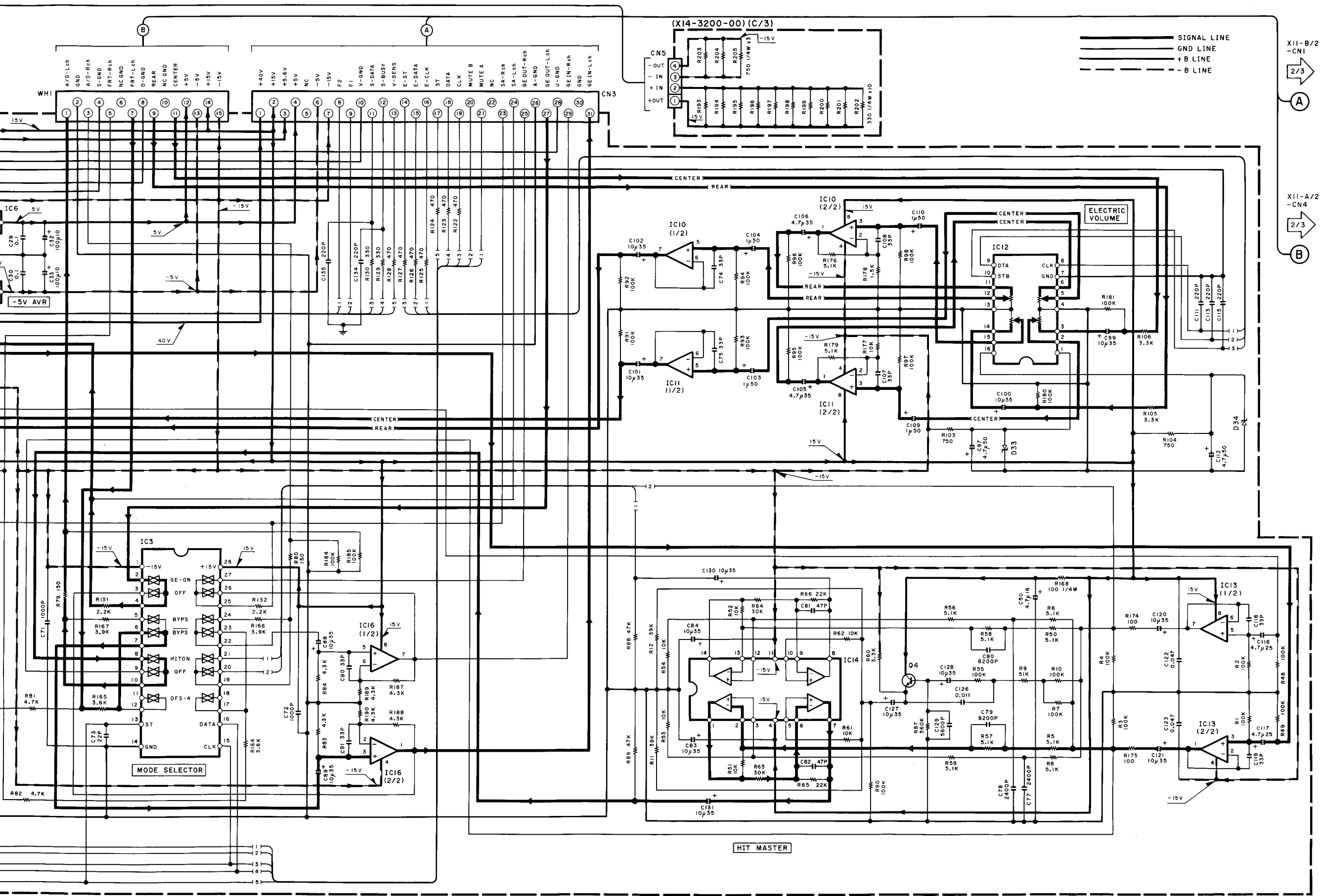
- D1,2,9~12,50 : S5688B or ISR139-100
- D8 : HZ56.2N(B2) or RD6.2ES(B2)
- D13 : RD24ES(B) or HZS24N(B)
- D14 : RD16ES(B2) or HZS16N(B2)
- D15 : HZS8.2N(B2) or RD8.2ES(B2)
- D16~31 : HSS104 or ISSI33
- D32 : HZS3.9N(B2) or RD3.9ES(B2)
- D33,34 : HZS11N(B2) or RD11ES(B2)
- D47~49 : HSS104 or ISSI33





CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

• DC voltages are as measured with voltmeter. Values may vary slightly between individual instruments or/



GE-722 (1/3)

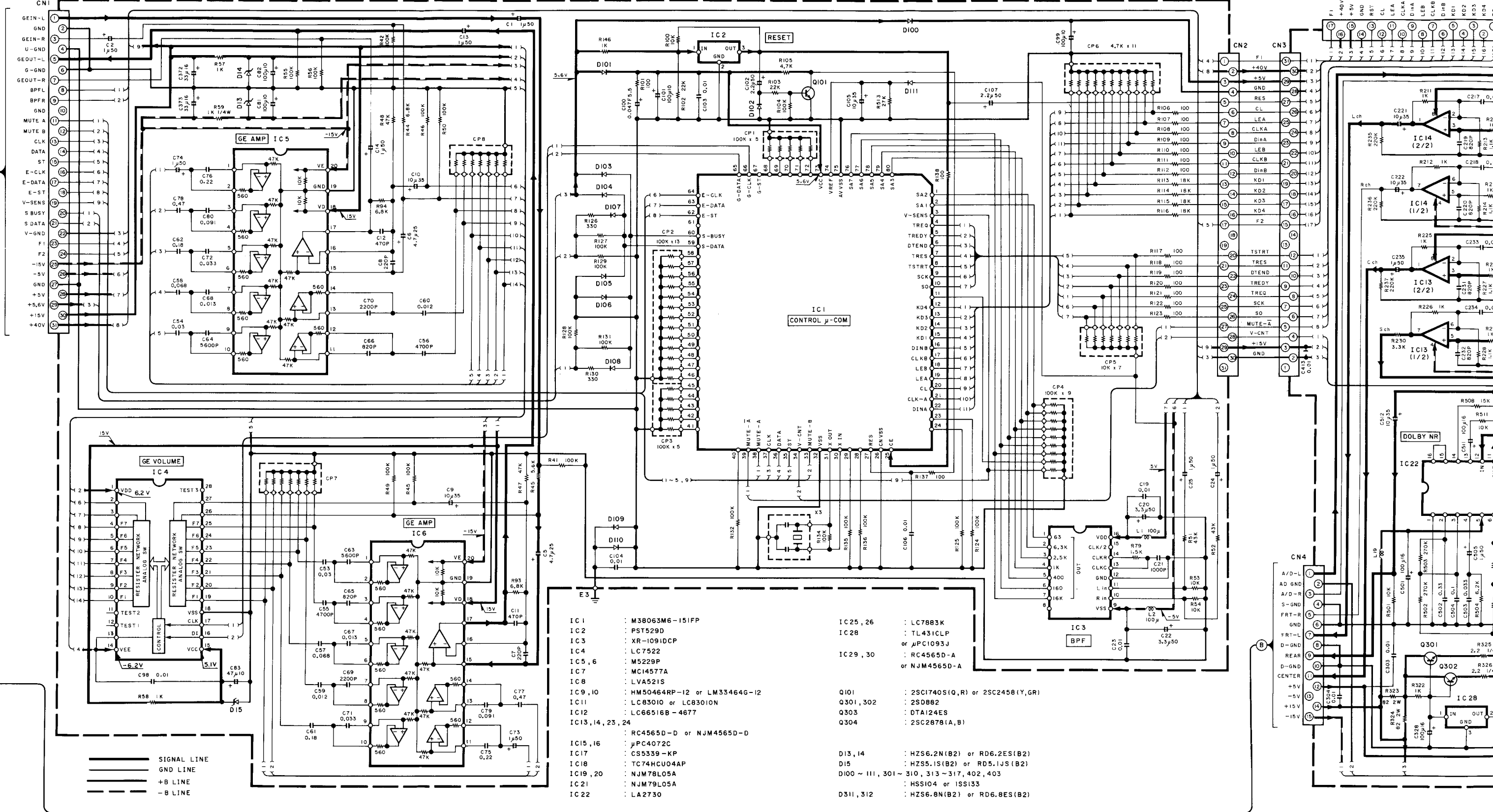
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

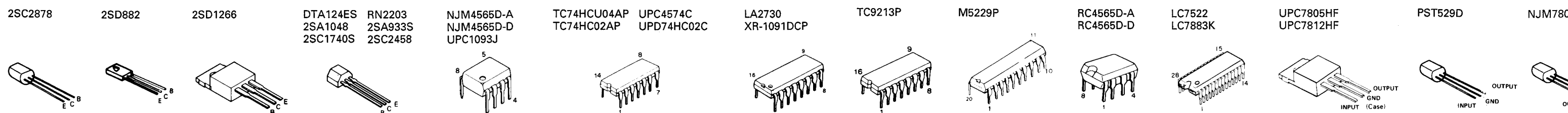
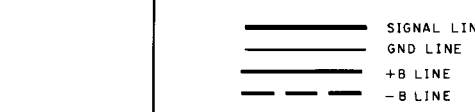
DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

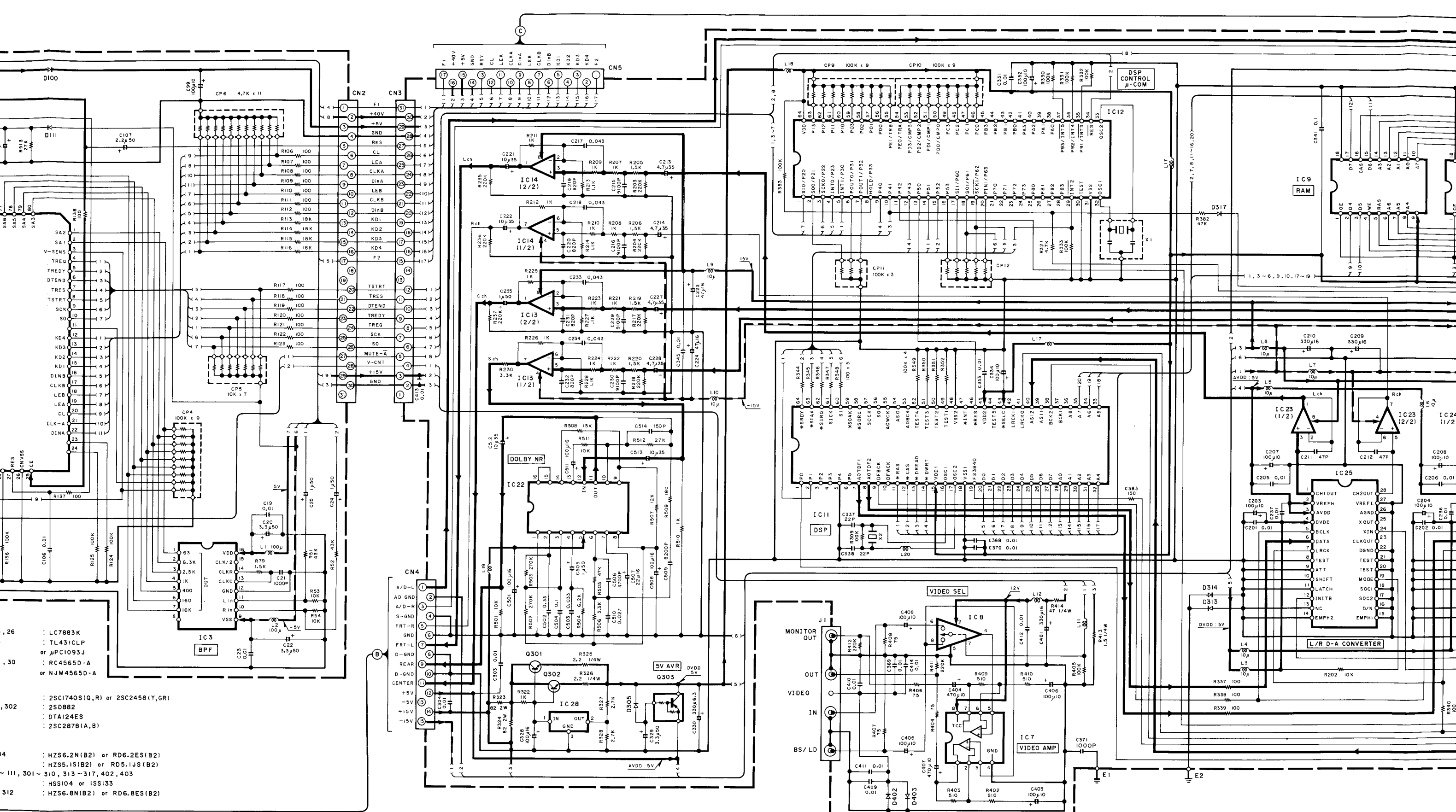


(X11-3070-00) (B/2)

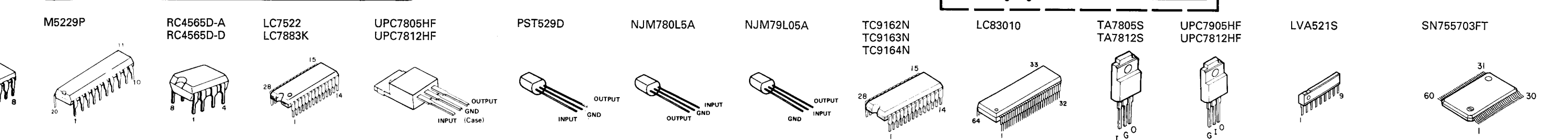


- IC 1 : M38063M6-151FP
- IC 2 : PST529D
- IC 3 : XR-1091DCP
- IC 4 : LC7522
- IC 5, 6 : M5229P
- IC 7 : MC14577A
- IC 8 : LVA521S
- IC 9, 10 : HM50464RP-12 or LM33464G-12
- IC 11 : LC83010 or LC83010N
- IC 12 : LC66516B-4677
- IC 13, 14, 23, 24 : RC4565D-D or NJM4565D-D
- IC 15, 16 : μPC4072C
- IC 17 : CS5339-KP
- IC 18 : TC74HC04AP
- IC 19, 20 : NJM78L05A
- IC 21 : NJM79L05A
- IC 22 : LA2730
- IC 25, 26 : LC7883K
- IC 28 : TL431CLP or μPC1093J
- IC 29, 30 : RC4565D-A or NJM4565D-A
- Q101 : 2SC1740S(Q,R) or 2SC2458(Y,GR)
- Q301, 302 : 2SD882
- Q303 : DTA124ES
- Q304 : 2SC2878(A,B)
- D13, 14 : HZS6.2N(B2) or RD6.2ES(B2)
- D15 : HZS5.1S(B2) or RD5.1JS(B2)
- D100 ~ I11, 301 ~ 310, 313 ~ 317, 402, 403 : HSS104 or ISS133
- D311, 312 : HZS6.8N(B2) or RD6.8ES(B2)

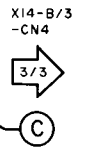
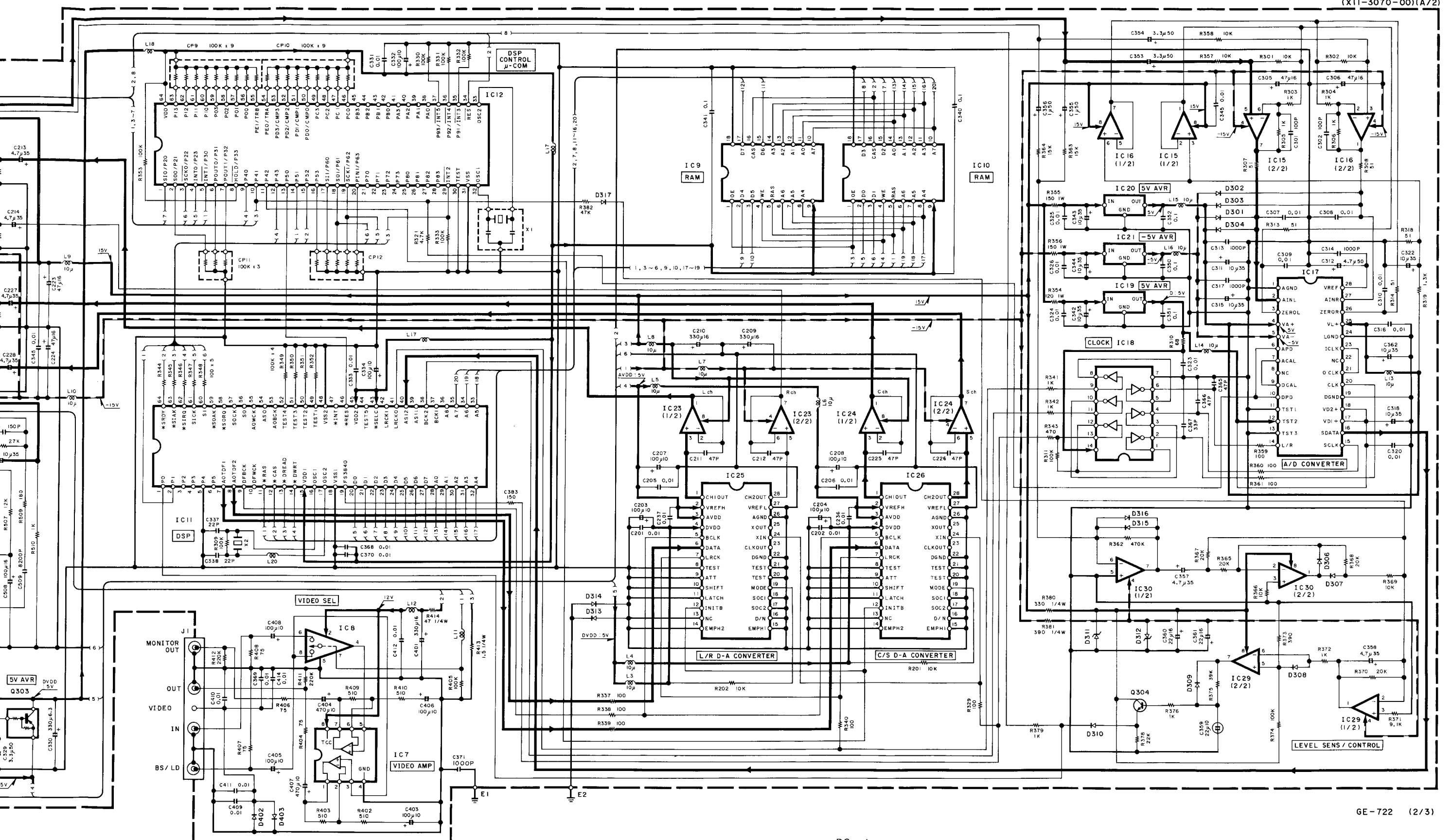




- 26 : LC7883K
- 30 : TL431CLP or μPC1093J or RC4565D-A or NJM4565D-A
- 302 : 2SC1740S(Q,R) or 2SC2458(Y,GR)
- 302 : 2SD882
- 302 : DTA124ES
- 302 : 2SC2878(A,B)
- 314 : HZS6.2N(B2) or RD6.2ES(B2)
- 314 : HZS5.1S(B2) or RD5.1JS(B2)
- 314 : HSS104 or ISS133
- 312 : HZS6.8N(B2) or RD6.8ES(B2)



• DC voltage between components (refer to terminals). or resistors or parts before

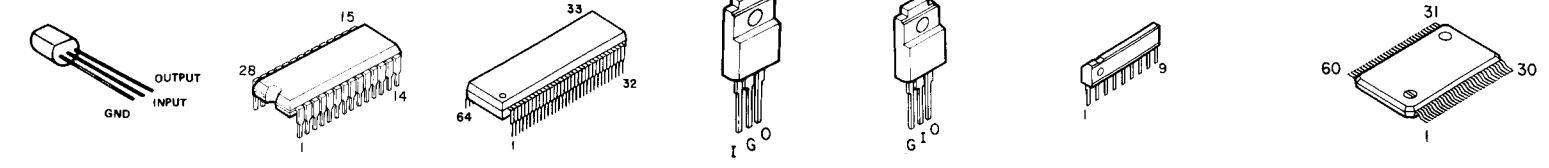


- NJM79L05A
- TC9162N
TC9163N
TC9164N
- LC83010
- TA7805S
TA7812S
- UPC7905HF
UPC7812HF
- LVA521S
- SN755703FT

• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

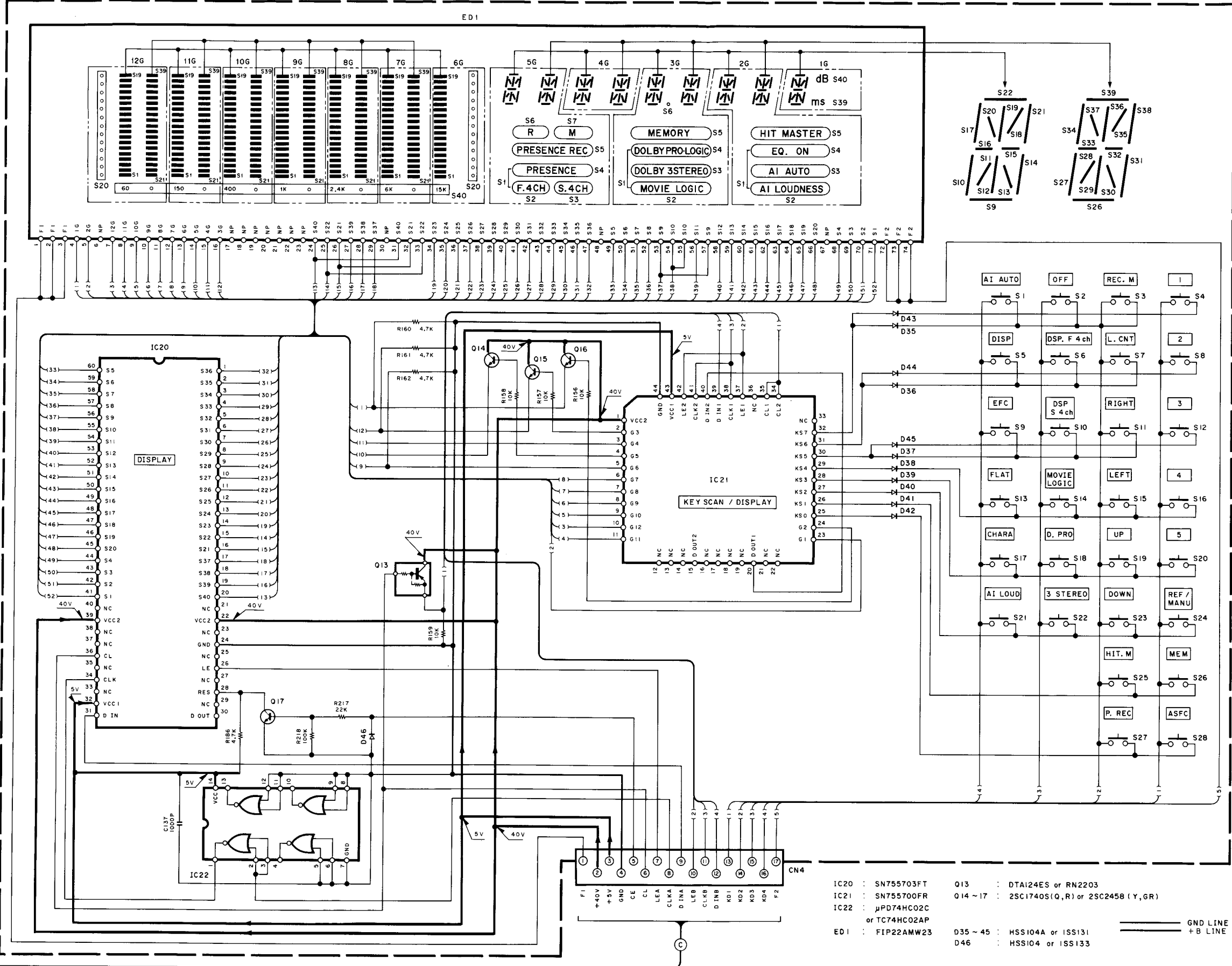
DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



Y09-3800-00

1
2
3
4
5
6
7



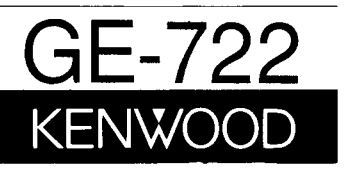
X11-A/2
-CNS
2/3
C

- | | | |
|------------------------------------|---|---------------------|
| IC20 : SN755703FT | Q13 : DTA124ES or RN2203 | GND LINE
+B LINE |
| IC21 : SN755700FR | Q14 ~ 17 : 2SC1740S1(Q,R) or 2SC2458 (Y,GR) | |
| IC22 : μPD74HC02C
or TC74HC02AP | D35 ~ 45 : HSS104A or ISS131 | |
| ED1 : FIP22AMW23 | D46 : HSS104 or ISS133 | |

DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



× New Parts

Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

1

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
GE-722						
601	1A	*	A01-1977-01	METALLIC CABINET		S
601	1A	*	A01-1989-01	METALLIC CABINET		J
602	1A	*	A09-0106-08	BATTERY COVER		
604	3A	*	A60-0071-11	PANEL		
605	1A	*	A70-0535-05	REMOTE CONTROLLER ASSY		
610	3A	*	B10-1853-03	FRONT GLASS		
615	2B	*	E30-2665-05	AC POWER CORD (GREEN)		
616	2B	*	E30-2666-05	AC POWER CORD (RED)		
617	1A, 2A	*	E31-4301-05	WIRING HARNESS (31P)		
618	1B, 2A	*	E35-0214-05	WIRING HARNESS		
625	3A, 3B		G11-2050-14	CUSHION		
-		*	H10-5147-02	POLYSTYRENE FOAMED FIXTURE		J
-		*	H10-5148-02	POLYSTYRENE FOAMED FIXTURE		J
-		*	H10-5192-02	POLYSTYRENE FOAMED FIXTURE		S
-		*	H10-5193-02	POLYSTYRENE FOAMED FIXTURE		S
-		*	H25-0397-04	PROTECTION BAG		S
-		*	H50-0085-04	ITEM CARTON CASE	KYM	J
-		*	H50-0086-04	ITEM CARTON CASE	EXT	J
-		*	H50-0147-04	ITEM CARTON CASE	KYM	S
-		*	H50-0148-04	ITEM CARTON CASE	EXT	S
630	2B		J19-3163-05	UNIT HOLDER		
635	2A	*	K29-4162-03	KNØB (R/L)		
636	2A	*	K29-4164-03	KNØB (DOWN)		
637	2A	*	K29-4165-02	KNØB (FUNCTION)		
638	2A	*	K29-4166-02	KNØB (1,2,3)		
A			N09-2782-05	TAPTITE SCREW (2.6X8)		
B			N89-3008-45	BINDING HEAD TAPTITE SCREW		
C			N89-3008-46	BINDING HEAD TAPTITE SCREW		
CONTROL (X11-3070-00) : JAPAN MADE, (X11-3070-11) : SINGAPORE MADE						
C1 ,2			CE04LW1H010M	ELECTRØ 1.0UF 50WV		
C5 ,6			C90-1919-05	ELECTRØ 4.7UF 25WV		
C7 ,8			CC45FSL1H221J	CERAMIC 220PF J		
C9 ,10			CE04LW1V100M	ELECTRØ 10UF 35WV		
C11 ,12			CF92FV1H471J	MF 470PF J		
C13 ,14			CE04LW1H010M	ELECTRØ 1.0UF 50WV		
C19			CK45FF1H103Z	CERAMIC 0.010UF Z		
C20			CE04LW1H3R3M	ELECTRØ 3.3UF 50WV		
C21			CF92FV1H102J	MF 1000PF J		
C22			CE04LW1H3R3M	ELECTRØ 3.3UF 50WV		
C23			CK45FF1H103Z	CERAMIC 0.010UF Z		
C24 ,25			CE04LW1H010M	ELECTRØ 1.0UF 50WV		
C53 ,54			CF92FV1H303J	MF 0.030UF J		
C55 ,56			CF92FV1H472J	MF 4700PF J		
C57 ,58			CF92FV1H683J	MF 0.068UF J		
C59 ,60			CF92FV1H123J	MF 0.012UF J		
C61 ,62			CF92FV1H184J	MF 0.18UF J		
C63 ,64			CF92FV1H562J	MF 5600PF J		
C65 ,66			CF92FV1H821J	MF 820PF J		
C67 ,68			CF92FV1H133J	MF 0.013UF J		
C69 ,70			CF92FV1H222J	MF 2200PF J		

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

Y: AAFES(Europe) X: Australia

S=SINGAPORE MADE
J=JAPAN MADE

⚠ indicates safety critical components.

× New Parts

Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

2

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
C71 ,72			CF92FV1H333J	MF 0.033UF J		
C73 ,74			CE04LW1H010M	ELECTRØ 1.0UF 50WV		
C75 ,76			CF92FV1H224J	MF 0.22UF J		
C77 ,78			CF92FV1H474J	MF 0.47UF J		
C79 ,80			CF92FV1H913J	MF 0.091UF J		
C81 ,82			CE04LW1A101M	ELECTRØ 100UF 10WV		
C83			CE04LW1A470M	ELECTRØ 47UF 10WV		
C98			CK45FF1H103Z	CERAMIC 0.010UF Z		
C99			CE04LW1A101M	ELECTRØ 100UF 10WV		
C100			C90-1826-05	BACKUP 0.047F 5.5WV		
C101			CE04LW1A101M	ELECTRØ 100UF 10WV		
C102			CE04LW1H2R2M	ELECTRØ 2.2UF 50WV		
C103, 104			CK45FF1H103Z	CERAMIC 0.010UF Z		
C105			CE04LW1V100M	ELECTRØ 10UF 35WV		
C106			CK45FF1H103Z	CERAMIC 0.010UF Z		
C107			CE04LW1H2R2M	ELECTRØ 2.2UF 50WV		
C201, 202			CK45FF1H103Z	CERAMIC 0.010UF Z		
C203, 204			CE04LW1A101M	ELECTRØ 100UF 10WV		
C205, 206			CK45FF1H103Z	CERAMIC 0.010UF Z		
C207, 208			CE04LW1A101M	ELECTRØ 100UF 10WV		
C209, 210			CE04LW1C331M	ELECTRØ 330UF 16WV		
C211, 212			CC45FSL1H470J	CERAMIC 47PF J		
C213, 214			CE04LW1V4R7M	ELECTRØ 4.7UF 35WV		
C215, 216			CF92FV1H912J	MF 9100PF J		
C217, 218			CF92FV1H433J	MF 0.043UF J		
C219, 220			CF92FV1H821J	MF 820PF J		
C221, 222			CE04LW1V100M	ELECTRØ 10UF 35WV		
C223, 224			CE04LW1C470M	ELECTRØ 47UF 16WV		
C225, 226			CC45FSL1H470J	CERAMIC 47PF J		
C227, 228			CE04LW1V4R7M	ELECTRØ 4.7UF 35WV		
C229, 230			CF92FV1H912J	MF 9100PF J		
C231, 232			CF92FV1H821J	MF 820PF J		
C233, 234			CF92FV1H433J	MF 0.043UF J		
C235			CE04LW1H010M	ELECTRØ 1.0UF 50WV		
C236, 237			CK45FF1H103Z	CERAMIC 0.010UF Z		
C301, 302			CC45FSL1H101J	CERAMIC 100PF J		
C303, 304			CK45FF1H103Z	CERAMIC 0.010UF Z		
C305, 306			CE04LW1C470M	ELECTRØ 47UF 16WV		
C307-310			CF92FV1H103J	MF 0.010UF J		
C311			CE04LW1V100M	ELECTRØ 10UF 35WV		
C312			CE04LW1V4R7M	ELECTRØ 4.7UF 35WV		
C313, 314			CK45FB1H102K	CERAMIC 1000PF K		
C315			CE04LW1V100M	ELECTRØ 10UF 35WV		
C316			CK45FF1H103Z	CERAMIC 0.010UF Z		
C317			CK45FB1H102K	CERAMIC 1000PF K		
C318			CE04LW1V100M	ELECTRØ 10UF 35WV		
C320			CK45FF1H103Z	CERAMIC 0.010UF Z		
C322			CE04LW1V100M	ELECTRØ 10UF 35WV		
C323-326			CK45FF1H103Z	CERAMIC 0.010UF Z		
C328			CE04LW1C101M	ELECTRØ 100UF 16WV		
C329			CE04LW1H3R3M	ELECTRØ 3.3UF 50WV		
C330			CE04LW0J331M	ELECTRØ 330UF 6.3WV		
C331			CK45FF1H103Z	CERAMIC 0.010UF Z		
C332			CE04LW1A101M	ELECTRØ 100UF 10WV		
C333			CK45FF1H103Z	CERAMIC 0.010UF Z		

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

Y: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

3

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
C334 C337, 338 C340, 341 C342-344 C345			CE04LW1A101M CC45FSL1H220J CF92FV1H104J CE04LW1V100M CK45FF1H103Z	ELECTR0 100UF 10WV CERAMIC 22PF J MF 0.10UF J ELECTR0 10UF 35WV CERAMIC 0.010UF Z		
C350-352 C353, 354 C355, 356 C357, 358 C359			CF92FV1H104J CE04LW1H3R3M CE04LW1H010M CE04LW1V4R7M C90-1333-05	MF 0.10UF J ELECTR0 3.3UF 50WV ELECTR0 1.0UF 50WV ELECTR0 4.7UF 35WV NP-ELEC 22UF 10WV		
C360, 361 C362 C365, 366 C367 C368			CE04LW1C220M CE04LW1V100M CC45FSL1H470J CC45FSL1H330J CK45FF1H103Z	ELECTR0 22UF 16WV ELECTR0 10UF 35WV CERAMIC 47PF J CERAMIC 33PF J CERAMIC 0.010UF Z		
C371 C372, 373 C401 C403 C404			CK45FB1H102K CE04LW1C330M CE04LW1C331M CE04LW1A101M CE04LW1A471M	CERAMIC 1000PF K ELECTR0 33UF 16WV ELECTR0 330UF 16WV ELECTR0 100UF 10WV ELECTR0 470UF 10WV		
C405, 406 C407 C408 C409-414 C501			CE04LW1A101M CE04LW1A471M CE04LW1A101M CK45FF1H103Z CE04LW1C101M	ELECTR0 100UF 10WV ELECTR0 470UF 10WV ELECTR0 100UF 10WV CERAMIC 0.010UF Z ELECTR0 100UF 16WV		
C502 C503 C504 C505 C506			CF92FV1H334J CF92FV1H333J CF92FV1H104J CE04LW1H010M CF92FV1H472J	MF 0.33UF J MF 0.033UF J MF 0.10UF J ELECTR0 1.0UF 50WV MF 4700PF J		
C507 C508 C509 C510 C511			CE04LW1C220M CE04LW1C101M CF92FV1H822J CF92FV1H273J CE04LW1C101M	ELECTR0 22UF 16WV ELECTR0 100UF 16WV MF 8200PF J MF 0.027UF J ELECTR0 100UF 16WV		
C512, 513 C514			CE04LW1V100M CC45FSL1H151J	ELECTR0 10UF 35WV CERAMIC 150PF J		
CN1 -3 CN5 J1	1B, 2B 1B 1B	*	E40-4171-05 E40-4157-05 E63-0024-05	FLAT CABLE CONNCTOR FLAT CABLE CONNCTOR PHONE JACK		
L1 ,2 L3 -10 L11 ,12 L13 -19 L20			L40-1011-17 L40-1001-17 L40-2291-17 L40-1001-17 L40-2291-17	SMALL FIXED INDUCTOR(100UH,K) SMALL FIXED INDUCTOR(10UH,K) SMALL FIXED INDUCTOR SMALL FIXED INDUCTOR(10UH,K) SMALL FIXED INDUCTOR		
X1 X2 X3		*	L78-0244-05 L77-1199-05 L78-0284-05	RESONATOR CRYSTAL RESONATOR RESONATOR		
CP1 CP2 CP3 CP4 CP5			R90-0855-05 R90-0483-05 R90-0855-05 R90-0493-05 R90-0815-05	MULTI-COMP 100KX5 J MULTI-COMP 100KX13 J 1/6W MULTI-COMP 100KX5 J MULTI-COMP 100KX9 J 1/6W MULTIPLE RESISTOR		

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

v: AAFES(Europe) X: Australia

△ indicates safety critical components.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
CP6 CP7 ,8 CP9 ,10 CP11 CP12			R90-0860-05 R90-0491-05 R90-0493-05 R90-0850-05 R90-0855-05	MULTIPLE RESISTOR MULTI-COMP 820KX7 J 1/6W MULTI-COMP 100KX9 J 1/6W MULTIPLE RESISTOR MULTI-COMP 100KX5 J		
R323, 324 R325, 326 R354 R355, 356 R380			RS14KB3D820J RD14NB2E2R2J RS14KB3A121J RS14KB3A151J RD14NB2E331J	FL-PROOF RS 82 J 2W RD 2.2 J 1/4W FL-PROOF RS 120 J 1W FL-PROOF RS 150 J 1W RD 330 J 1/4W		
R381 R414			RD14NB2E391J RD14NB2E470J	RD 390 J 1/4W RD 47 J 1/4W		
D13 ,14 D13 ,14 D15 D15 D100-111			HZS6.2N(B2) RD6.2ES(B2) HZS5.1S(B2) RD5.1JS(B2) HSS104	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE DIODE		
D100-111 D301-310 D301-310 D311, 312 D311, 312			1SS133 HSS104 1SS133 HZS6.8N(B2) RD6.8ES(B2)	DIODE DIODE DIODE ZENER DIODE ZENER DIODE		
D313-317 D313-317 D402, 403 D402, 403 IC1			HSS104 1SS133 HSS104 1SS133 M38063M6-151FP	DIODE DIODE DIODE DIODE IC		
IC2 IC3 IC4 IC5 ,6 IC7		*	PST529D XR-1091DCP LC7522 M5229P MC14577A	IC(SYSTEM RESET) IC(GE DISPLAY FILTER) IC(7CH GRAPHIC EQUALIZER) IC(7CH GRAPHIC EQUALIZER) IC		
IC8 IC9 ,10 IC9 ,10 IC11 IC11			LVA521S HMS0464RP-12 LM33464G-12 LC83010 LC83010N	IC(VIDEO SWITCH) IC(RAM) IC IC(SIGNAL PROCESSOR) IC		
IC12 IC13, 14 IC13, 14 IC15, 16 IC17		*	LC66516B-4677 NJM4565D-D RC4565D-D UPC4072C CSS339-KP	IC(MICROPROCESSOR) IC(OP AMP X2) IC(OP AMP X2) IC(OP AMP X2) IC(A/D CONVERTER)		
IC18 IC19, 20 IC21 IC22 IC23, 24			TC74HCU04AP NJM78L05A NJM79L05A LA2730 NJM4565D-D	IC(CMOS INVERTER) IC(VOLTAGE REGULATOR/ +5V) IC(VOLTAGE REGULATOR/ +5V) IC(DOLBY SYSTEM) IC(OP AMP X2)		
IC23, 24 IC25, 26 IC28 IC28 IC29, 30		f1700B	RC4565D-D LC7883K TL431CLP UPC1093J NJM4565D-A	IC(OP AMP X2) IC(DIGITAL FILTER & D/A CONVERTER) IC IC(REGULATOR) IC(OP AMP X2)		
IC29, 30 Q101		*	RC4565D-A 2SC1740S(Q, R)	IC(OP AMP X2) TRANSISTOR		

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

v: AAFES(Europe) X: Australia

△ indicates safety critical components.

PARTS LIST

GE-722

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

5

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
Q101 Q301, 302 Q303 Q303 Q304			2SC2458(Y, GR) 2SD882 DTA124ES RN1203 2SC2878(A, B)	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR		
STEREO (X14-3200-00) : JAPAN MADE, (X14-3200-11) : SINGAPORE MADE						
C1 -10 C11 -13 C14 C15 C16			CC45FSL1H221J CF92FV1H103J CE04LW1H471M CE04KW1E472M CE04KW1E222M	CERAMIC MF ELECTRO ELECTRO ELECTRO	220PF J 0.010UF J 470UF 50WV 4700UF 25WV 2200UF 25WV	
C17 ,18 C19 ,20 C21 C22 ,23 C24 ,25			CK45FF1H103Z CF92FV1H104J CE04LW1H470M CF92FV1H104J CE04LW1C331M	CERAMIC MF ELECTRO MF ELECTRO	0.010UF Z 0.10UF J 47UF 50WV 0.10UF J 330UF 16WV	
C26 C27 C28 C29 ,30 C31			CE04LW1E221M CF92FV1H104J CE04LW1E101M CF92FV1H104J CK45FF1H103Z	ELECTRO MF ELECTRO MF CERAMIC	220UF 25WV 0.10UF J 100UF 25WV 0.10UF J 0.010UF Z	
C32 -34 C41 ,42 C43 ,44 C45 ,46 C50			CE04LW1A101M CE04LW1V100M CC45FSL1H330J CE04LW1V100M CE04LW1C4R7M	ELECTRO ELECTRO CERAMIC ELECTRO ELECTRO	100UF 10WV 10UF 35WV 33PF J 10UF 35WV 4.7UF 16WV	
C51 ,52 C53 C54 ,55 C56 ,57 C58 ,59			CF92FV1H102J CC45FSL1H220J CF92FV1H102J CE04LW1V100M CC45FSL1H330J	MF CERAMIC MF ELECTRO CERAMIC	1000PF J 22PF J 1000PF J 10UF 35WV 33PF J	
C60 -63 C64 ,65 C66 ,67 C68 C69			CE04LW1V100M CC45FSL1H330J CE04LW1V100M CE04LW1C4R7M CC45FSL1H220J	ELECTRO CERAMIC ELECTRO ELECTRO CERAMIC	10UF 35WV 33PF J 10UF 35WV 4.7UF 16WV 22PF J	
C70 C71 ,72 C73 C74 ,75 C77 ,78			CE04LW1C4R7M CF92FV1H102J CC45FSL1H220J CC45FSL1H330J CF92FV1H242J	ELECTRO MF CERAMIC CERAMIC MF	4.7UF 16WV 1000PF J 22PF J 33PF J 2400PF J	
C79 ,80 C81 ,82 C83 ,84 C88 ,89 C90 ,91			CF92FV1H822J CC45FSL1H470J CE04LW1V100M CE04LW1V100M CE04LW1V100M CC45FSL1H330J	MF CERAMIC ELECTRO ELECTRO ELECTRO CERAMIC	8200PF J 47PF J 10UF 35WV 10UF 35WV 10UF 35WV 33PF J	
C97 C99 -102 C103,104 C105,106 C107,108			CE04LW1H4R7M CE04LW1V100M CE04LW1H010M CE04LW1V4R7M CC45FSL1H330J	ELECTRO ELECTRO ELECTRO ELECTRO CERAMIC	4.7UF 50WV 10UF 35WV 1.0UF 50WV 4.7UF 35WV 33PF J	
C109,110 C111 C112 C113			CE04LW1H010M CC45FSL1H221J CE04LW1H4R7M CC45FSL1H221J	ELECTRO CERAMIC ELECTRO CERAMIC	1.0UF 50WV 220PF J 4.7UF 50WV 220PF J	

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
C115 C116,117 C118,119 C120,121 C122,123		*	CC45FSL1H221J C90-1853-05 CC45FSL1H330J CE04LW1V100M CF92FV1H473J	CERAMIC ELECTRO CERAMIC ELECTRO MF	220PF J 4.7UF 25WV 33PF J 10UF 35WV 0.047UF J	
C126 C127,128 C129 C130,131 C132,133			CF92FV1H113J CE04LW1V100M CF92FV1H562J CE04LW1V100M CE04LW1H2R2M	MF ELECTRO MF ELECTRO ELECTRO	0.011UF J 10UF 35WV 5600PF J 10UF 35WV 2.2UF 50WV	
C134,135 C136 C137			CK45FF1H221J CK45FF1H103Z C91-0757-05	CERAMIC CERAMIC CERAMIC	220PF J 0.010UF Z 1000PF K	
CN1 ,2 CN3 CN4 J1 J2	3B 2A 2A 2B 2B		E40-4244-05 E40-4171-05 E40-4197-05 E63-0023-05 E63-0022-05	SOCKET FOR PIN ASSY FLAT CABLE CONNECTOR FLAT CABLE CONNECTOR PHONE JACK (DAT) PHONE JACK (VIDEO/LD)		
J3 J4	2B 2B		E08-1509-05 E08-1510-05	RECTANGULAR RECEPTACLE (BLK) RECTANGULAR RECEPTACLE (WHT)		
L1 T1		*	L79-0785-05 L07-0411-05	LINE FILTER POWER TRANSFORMER		
- -			N30-3006-46 N89-3006-46	PAN HEAD MACHIN SCREW BINDING HEAD TAPTITE SCREW		
R39 ,40 R42 R43 R168 R193-202			RS14KB3D101J RS14KB3D121J RS14DB3D121J RD14NB2E101J RD14NB2E331J	FL-PROOF RS FL-PROOF RS FL-PROOF RS RD RD	100 J 2W 120 J 2W 120 J 2W 100 J 1/4W 330 J 1/4W	
R203-205		*	RD14NB2E751J	RD	750 J 1/4W	
S1 -28			S40-1064-05	PUSH SWITCH		
D1 ,2 D1 ,2 D8 D8 D9 -12			S5688B 1SR139-100 HZS6.2N(B2) RD6.2ES(B2) S5688B	DIODE DIODE ZENER DIODE ZENER DIODE DIODE		
D9 -12 D13 D13 D14 D14			1SR139-100 HZS24N(B) RD24ES(B) HZS16N(B2) RD16ES(B2)	DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
D15 D16 -31 D16 -31 D32			HZS8.2N(B2) RD8.2ES(B2) HSS104 1SS133 HZS3.9N(B2)	ZENER DIODE ZENER DIODE DIODE DIODE ZENER DIODE		
D32 D33 ,34 D33 ,34 D35 -45 D35 -45			RD3.9ES(B2) HZS11N(B2) RD11ES(B2) HSS104A 1SS131	ZENER DIODE ZENER DIODE ZENER DIODE DIODE DIODE		

GE-7222

PARTS LIST

28

E: Scandinavia & Europe K: USA P: Canada W: Europe
Y: PX(Far East, Hawaii) T: England M: Other Areas
V: AAFES(Europe) X: Australia

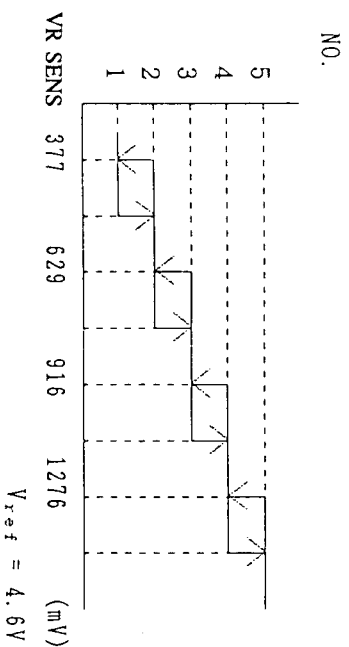
⚠ indicates safety critical components.

E: Scandinavia & Europe K: USA P: Canada W: Europe
Y: PX(Far East, Hawaii) T: England M: Other Areas
V: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

**A1 LOUDNESS CURVE VS LEVEL
LOUDNESS CURVE**



Segment	Input (dB)	Input voltage (mV)	A-D register
+9	21.5	4150.78	231
+8	20.4	3665.63	204
+7	19.2	3198.44	178
+6	18.0	2785.16	155
+5	16.8	2425.78	135
+4	15.6	2102.34	117
+3	14.4	1832.81	102
+2	13.2	1599.22	89
+1	12.1	1401.56	78
0	10.9	1221.88	68
-1	9.6	1060.16	59
-2	8.4	916.41	51
-3	7.3	808.59	45
-4	6.3	718.75	40
-5	5.3	646.88	36
-6	4.3	575.00	32
-7	3.2	503.13	28
-8	1.8	431.25	24
-9	0.2	359.38	20

$V_{REF}=4.6V$, $0dB=350mV$,
 Absolute accuracy $\pm 3LSB=53.9mV$
 Segments turn on if A-D register has equal or over
 value compared with above table's value.

www.manualscenter.com

7

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

29

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向	Re- marks 備考
D46 -49 D46 -49 D50 D50 ED1	2A	*	HSS104 1SS133 S5688B ISR139-100 FIP22AMW23	DIODE DIODE DIODE DIODE FLUORESCENT INDICATOR TUBE		
IC1 IC2 IC3 IC4 IC4			TC9164N TC9163N TC9162N TA7812S UPC7812HF	IC(16CH BILATERAL SELECTOR SW) IC(BILATERAL SWITCH X16) IC(ANALOG SWITCH ARRAY) IC(VOLTAGE REGULATOR/ +12V) IC(VOLTAGE REGULATOR/ +12V)		
IC5 IC5 IC6 IC6 IC7		*	TA790012S UPC7912HF TA7805S UPC7805HF TA79005S	IC IC(VOLTAGE REGULATOR/ -12V) IC(VOLTAGE REGULATOR/ +5V) IC(VOLTAGE REGULATOR/ +5V) IC		
IC7 IC8 -11 IC8 -11 IC12 IC13			UPC7905HF NJM4565D-D RC4565D-D TC9213P NJM4565D-D	IC(VOLTAGE REGULATOR/ -5V) IC(OP AMP X2) IC(OP AMP X2) IC(2CH ELECTRONIC VOLUME) IC(OP AMP X2)		
IC13 IC14 IC15, 16 IC15, 16 IC20			RC4565D-D UPC4574C NJM4565D-D RC4565D-D SN755703FT	IC(OP AMP X2) IC(OP AMP X4) IC(OP AMP X2) IC(OP AMP X2) IC(DISPLAY DRIVER)		
IC21 IC22 IC22 Q1 , 2 Q4		*	SN755700FR TC74HC02AP UPD74HC02C 2SD1266 2SC1740S(Q,R)	IC IC(QUAD 2-INPUT NOR GATE) IC(QUAD 2-INPUT NOR GATE) TRANSISTOR TRANSISTOR		
Q4 Q5 -8 Q9 , 10 Q9 , 10 Q11 , 12			2SC2458(Y,GR) 2SC2878(B) 2SA1048(Y,GR) 2SA933S(Q,R) 2SC2878(B)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q13 Q13 Q14 -17 Q14 -17			DTA124ES RN2203 2SC1740S(Q,R) 2SC2458(Y,GR)	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

Y: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

SPECIFICATIONS

Equalizer characteristics variable range	$\pm 10\text{dB}$
Individual channel adjust :	60kHz, 150Hz, 400Hz 1KHz, 2.4kHz, 6kHz, 15kHz
Dimensions	W : 270mm H : 85mm D : 255mm
Weight (Net)	2.7kg

KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.
DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD U.S.A. CORPORATION

2201 East Dominguez Street, Long Beach, CA 90810;

550 Clark Drive, Mount Olive, NJ 07828, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

P.O. BOX 1075, 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

TRIO-KENWOOD U.K. LTD.

KENWOOD HOUSE, Dwight Road, Watford, Herts., WD1 8EB United Kingdom

KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker-Str. 15, 6056 Heusenstamm, Germany

TRIO-KENWOOD FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

KENWOOD LINEAR S.p.A.

20125, MILANO-VIA ARBE, 50, ITALY

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (INCORPORATED IN N.S.W.)

P.O. BOX 504, 8 FIGTREE DRIVE, AUSTRALIA CENTRE, HOMEBUSH, N.S.W. 2140, AUSTRALIA

KENWOOD & LEE ELECTRONICS, LTD.

Wang Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong