SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

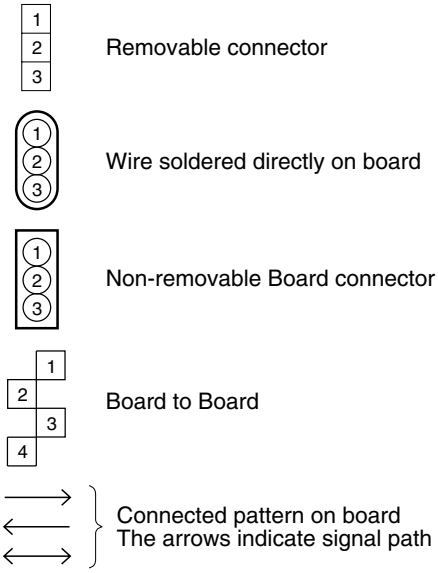
1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K or k: kΩ (1000Ω), M: MΩ (1000kΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

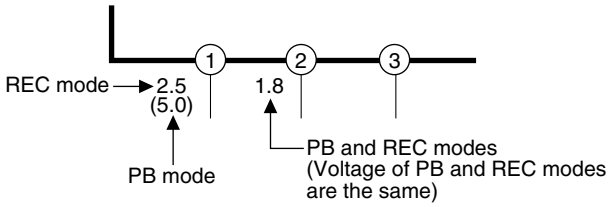
$\overline{\text{AUX}}$ or AUX(L) : Active at low

3. Interpreting Connector indications



4. Voltage measurement

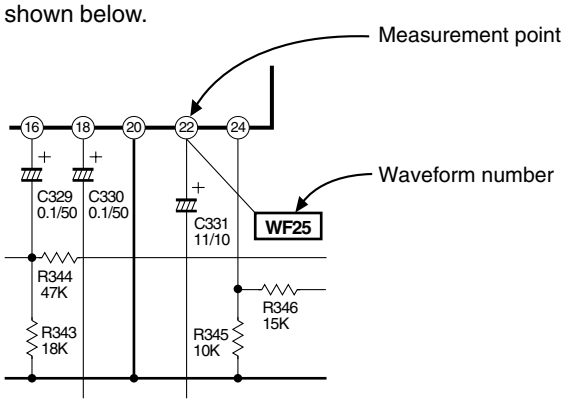
1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
   — : Unmeasurable or unnecessary to measure
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, Normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



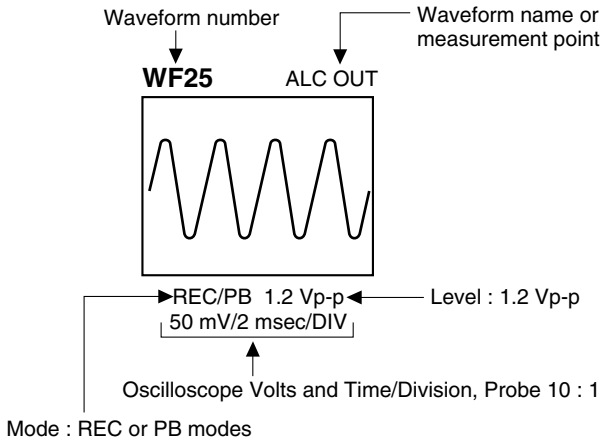
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test chatrs in the E-E mode
4) Indication on schematic diagram
   Waveform indications on the schematic diagram are as shown below.



5) Waveform indications



6. Signal path Symbols

The arrows indicate the signal path as follows.

Playback signal path

Playback and recording signal path

Recording signal path
(including E-E signal path)

Capstan servo path

Drum servo path

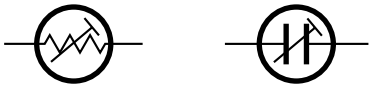
(Example)

R-Y Playback R-Y signal path

Y Recording Y signal path

7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

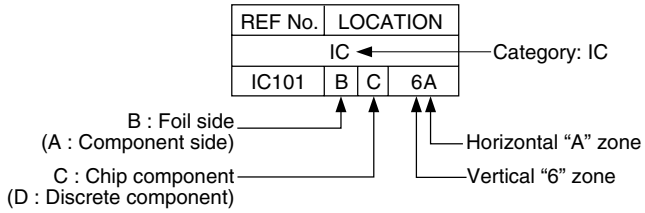
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

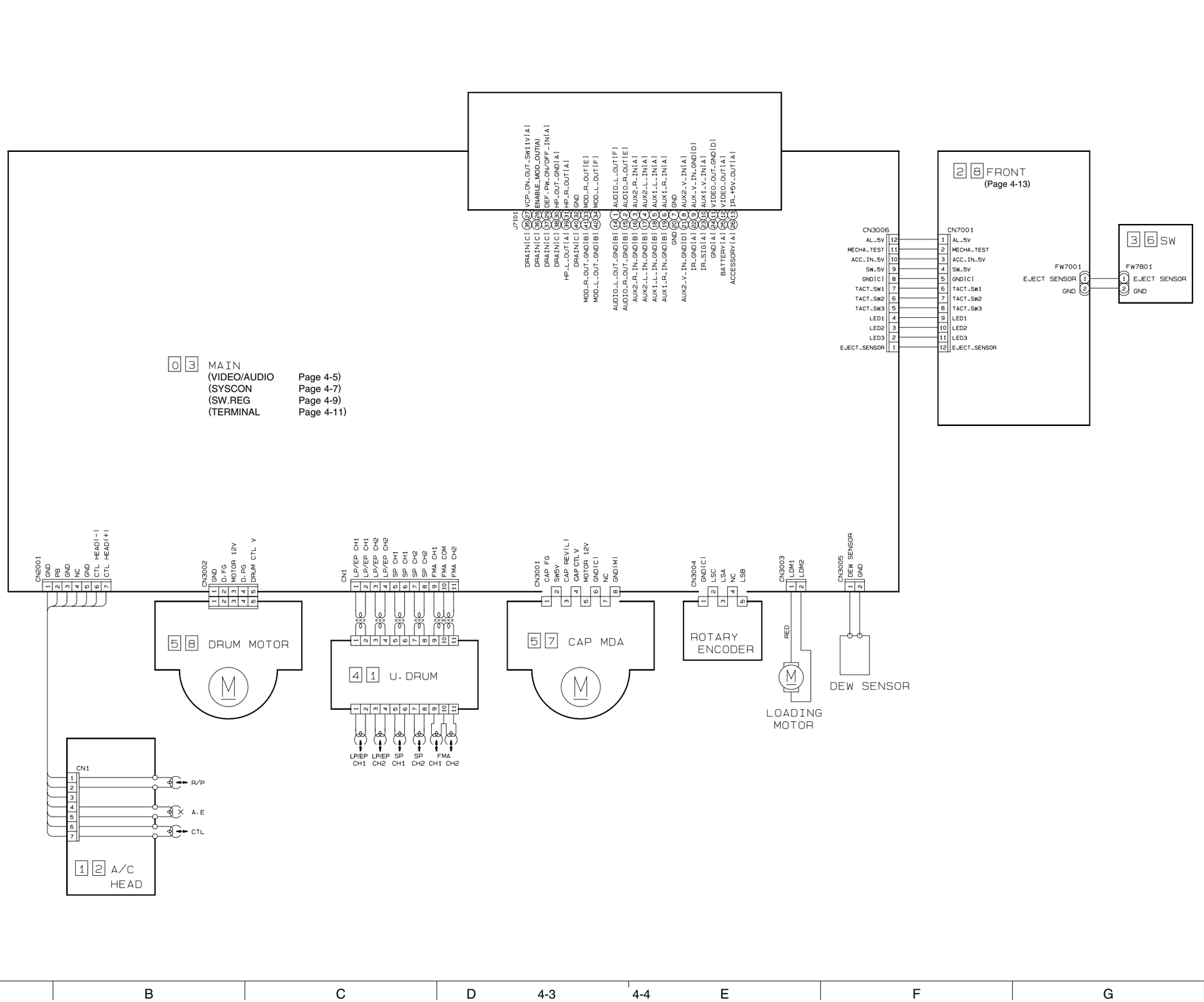
Parts location are indicated by guide scale on the circuit board.



Note:

For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS

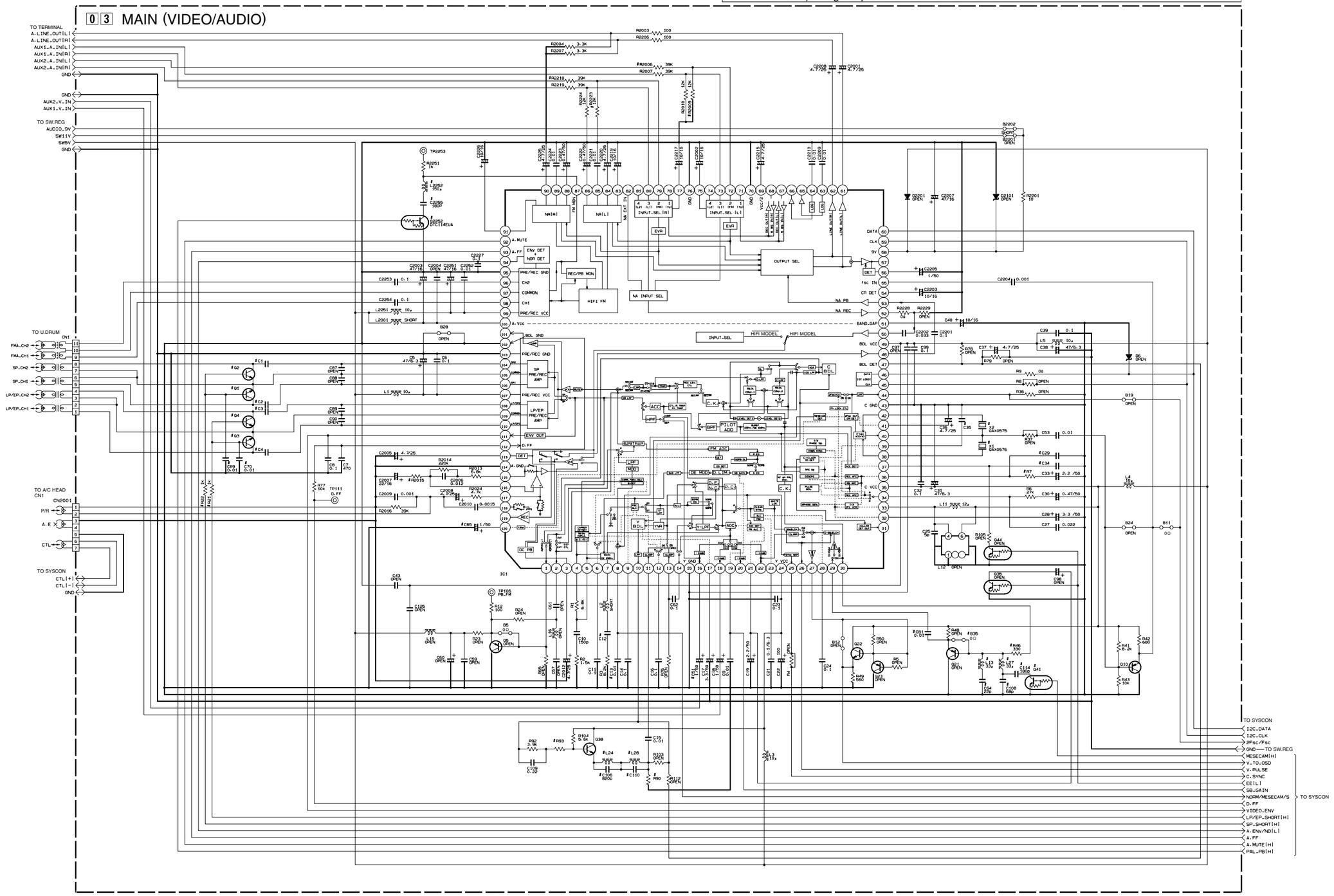


58	DRUM MOTOR
57	CAP MDA
41	U.DRUM
36	SW
28	FRONT
12	A/C HEAD
03	MAIN
NO	NAME

p20175001a_rev0

4.2 MAIN (VIDEO/AUDIO) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



DIFFERENCE TABLE

MODEL	SYMBOL	IC1	B35·R21·R22·R46·C64·C65·C69·C70·C81·C106·C108·C114·L13·L27·Q1·Q4·Q41·X1	X2 C13	R7	R90	R93	C1-C4	C12	C29	C34	C35	L24	L28	C110	C51	R2006·R2009 R2218·R2223	Q2252 L2252·C2255	R2015
				VIDEO													AUDIO		
NTSC	VISTEON	JCP8020-NVD	X	○	820	470	1k	1	33p	0.0047	0.1	0.033	SHORT	15μ	330p	○	○	X	180
	JVC	JCP8020-NVD	X	○	820	470	1k	1	33p	0.0047	0.1	0.033	SHORT	15μ	330p	X	X	X	180
PAL	JVC	JCP8020-MSD-2	○	X	680	390	2.2k	0.01	47p	0.033	0.22	0.01	27μ	68μ	82p	X	X	○	120

○ : Used
× : Not used

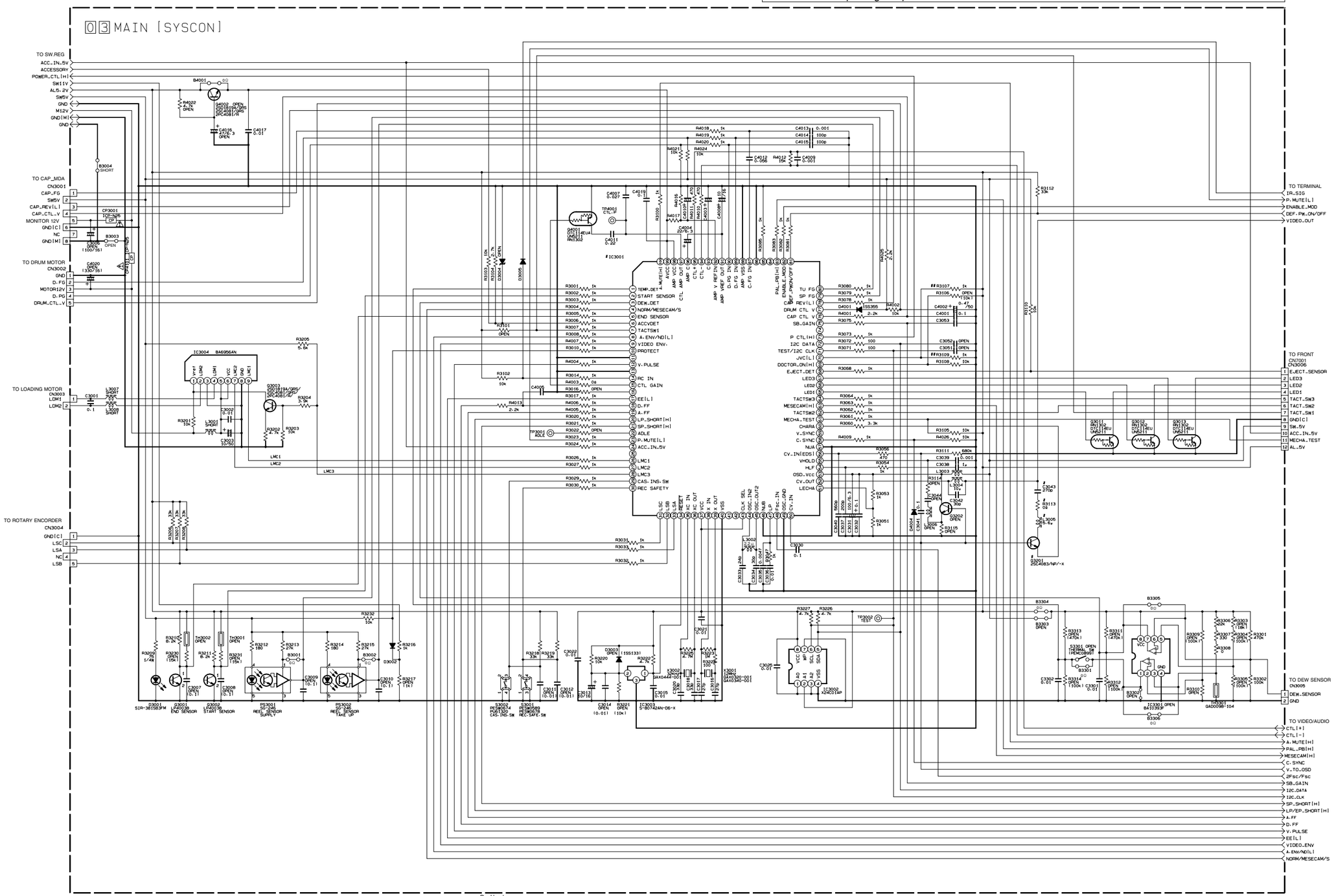
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL NPN TRANSISTOR ARE 2SC4081/QRS/ or 2SD1819A/QRS/ or 2PC4081/R/.
ALL PNP TRANSISTOR ARE 2SA1576A/QR/ or 2SB1218A/QR/ or 2PA1576/R/.
ALL NPN DIGITAL TRANSISTOR ARE DTC144WUA or UNS21E or PDTC144WU or RN1309.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p10294001a_rev1.1

4.3 MAIN (SYSCON) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



DIFFERENCE TABLE ○ : Used × : Not used

MODEL			SYMBOL IC3001	R3107	R3109	C3043-L3005 Q3201-R3113
NTSC	VISTEON		M37760M8-183GP	○	×	×
	JVC	US	M37760M8-183GP	×	○	×
		JAPAN	M37760M8-1A6GP	×	○	×
PAL			M37760M8-1A7GP	×	○	○

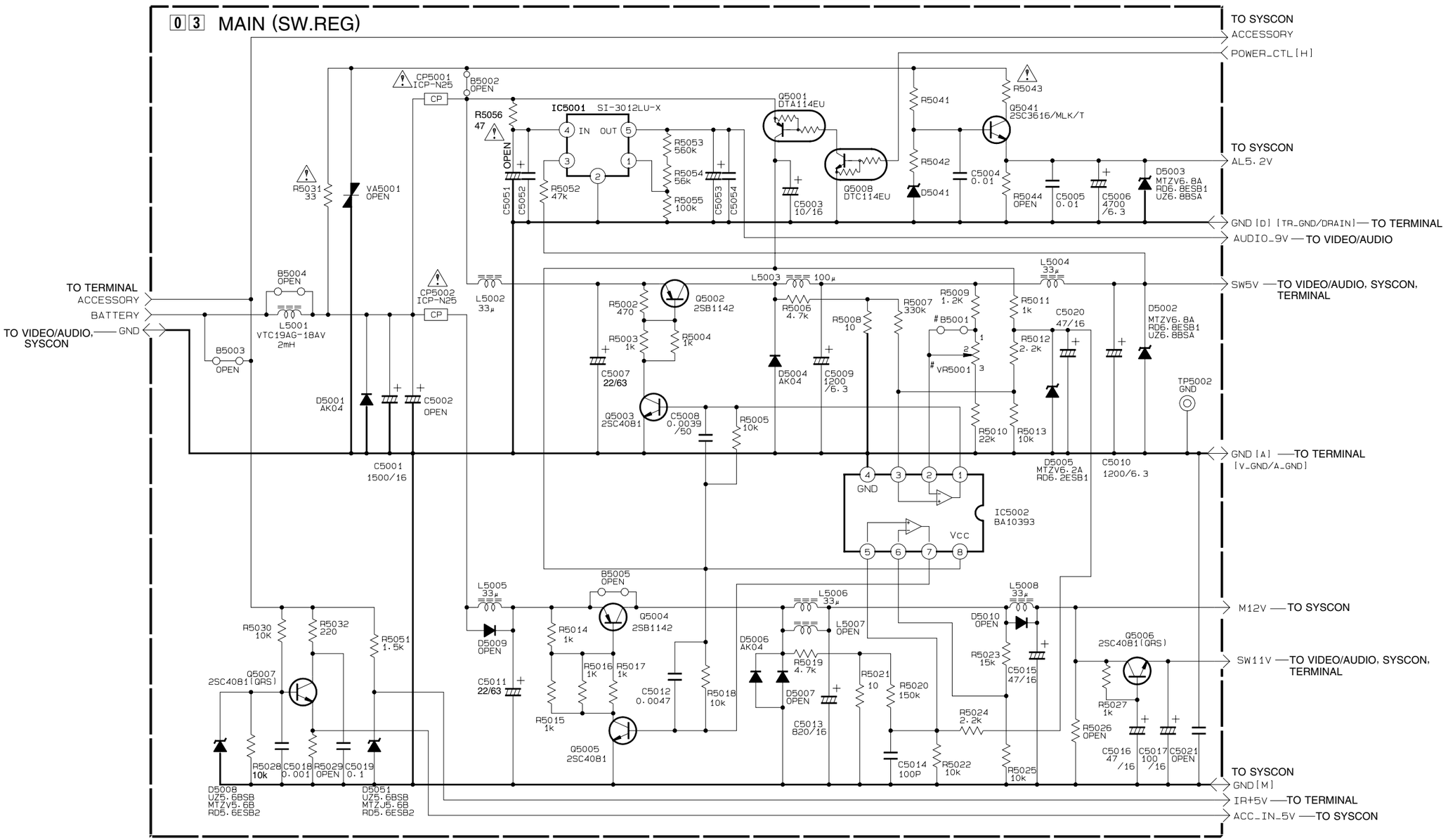
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF. ALL DIODES ARE 1N4148M OR 1SS133.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p10295001a_rev1.1

4.4 MAIN (SW.REG) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

+ ELECTROLYTIC
CERAMIC
MY MYLER
N NON POLAR

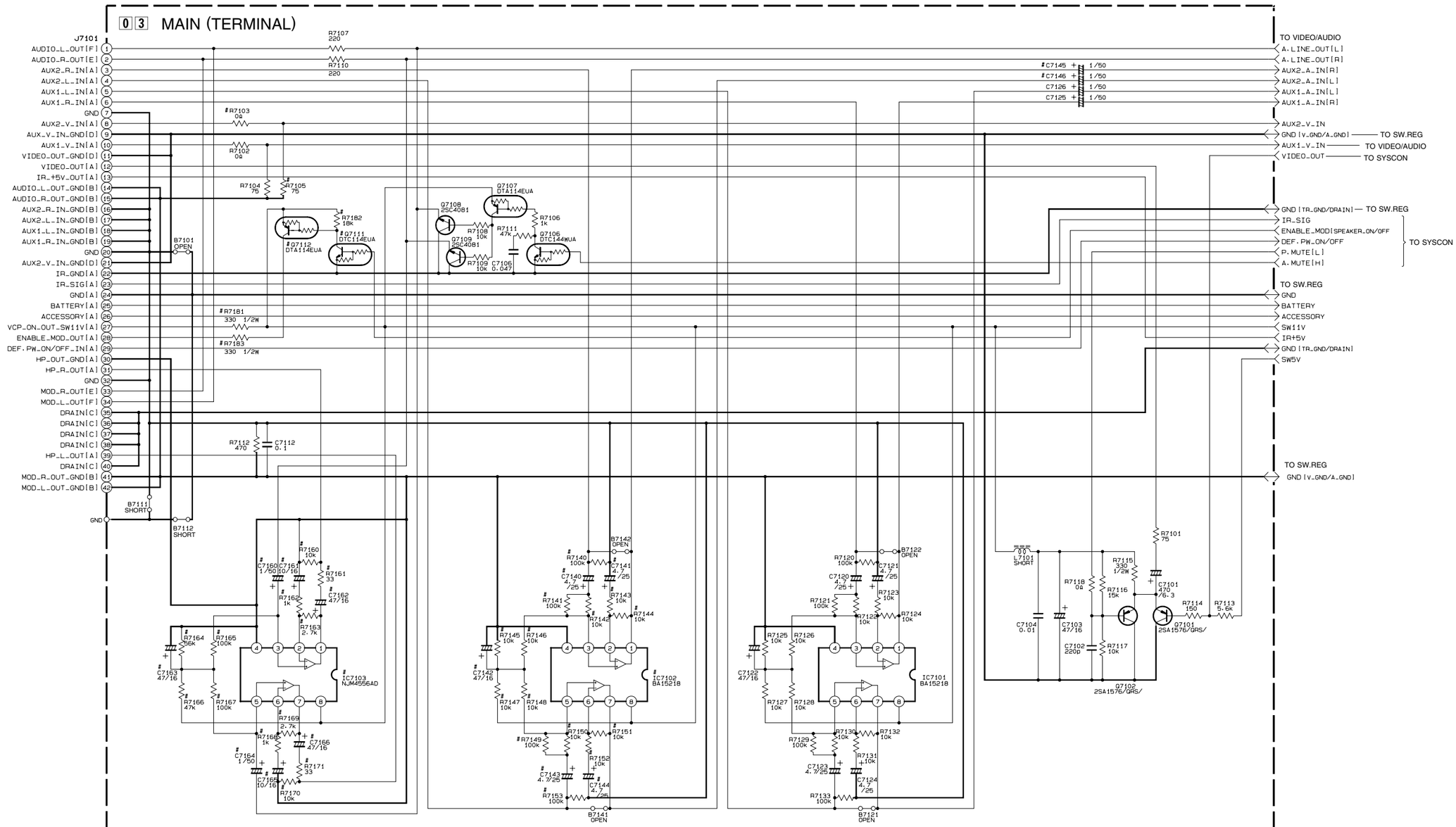
○ : Used
DIFFERENCE TABLE × : Not used

SYMBOL / MODEL	VR5001	B5001
NTSC	×	○
PAL	×	○

p30076001a_rev0.1

4.5 MAIN (TERMINAL) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



○ : Used
DIFFERENCE TABLE × : Not used

MODEL \ SYMBOL	ALL SYMBOL WITH #
VISTEON	○
JVC	×

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

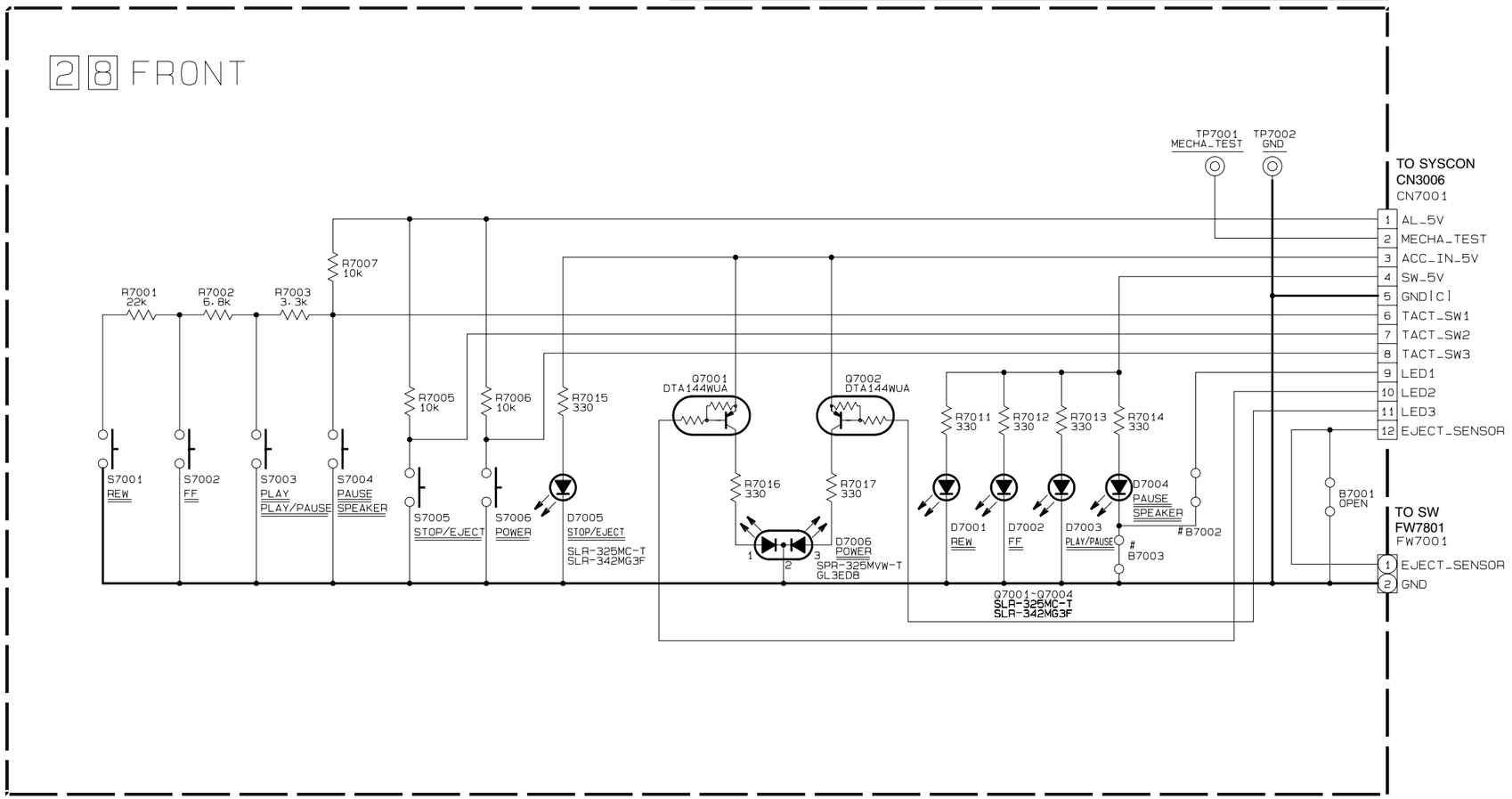
ELECTROLYTIC
CERAMIC
MY MYLER
N NON POLAR

p20176001a_rev1

5 4 3 2 1 — A B C D 4-11 4-12 E F G H

4.6 FRONT SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

○ : Used
× : Not used

DIFFERENCE TABLE

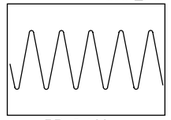
SYMBOL / MODEL	B7002	B7003
VISTEON	○	×
JVC	×	○

p30075001a_rev0

4.7 WAVEFORMS

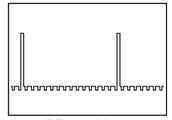
< SYSCON >

WF1 CN3001-1 CAP_FG



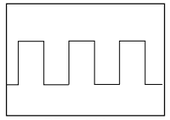
PB 2.1 Vp-p
50 mV/0.5 msec/DIV

WF2 CN3002-4 D.PG



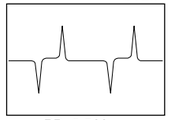
PB 4.5 Vp-p
0.2V/10 msec/DIV

WF3 CN3002-2 D.FG



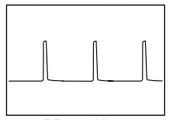
PB 4.6 Vp-p
0.1 V/0.5 msec/DIV

WF4 TP4001 CTL.P



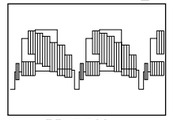
PB 3.5 Vp-p
50 mV/10 msec/DIV

WF5 IC3001-58 C.SYNC



PB 4.2 Vp-p
0.1 V/20 µsec/DIV

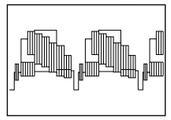
WF6 IC3001-50 CV_IN



PB 2.2 Vp-p
50 mV/20 µsec/DIV

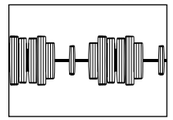
< VIDEO >

WF1 IC1-27



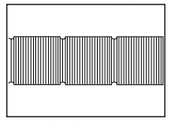
PB 2.2 Vp-p
50 mV/20 µsec/DIV

WF2 IC1-30



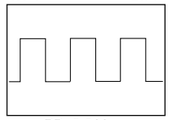
PB 0.64 Vp-p
20 mV/20 µsec/DIV

WF3 TP106 PB FM



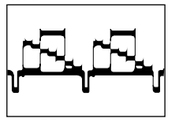
PB 0.4 Vp-p
20 mV/5 msec/DIV

WF4 TP111 D.FF



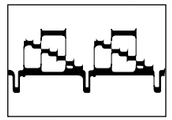
PB 3.2 Vp-p
0.1 V/10 msec/DIV

WF5 IC1-13



PB 0.52 Vp-p
20 mV/20 µsec/DIV

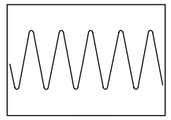
WF6 IC1-11



PB 0.48 Vp-p
20 mV/20 µsec/DIV

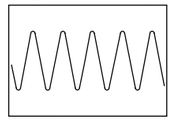
< AUDIO >

WF1 IC1-62



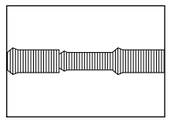
PB 0.9 Vp-p
20 mV/0.5 msec/DIV

WF2 IC1-48



PB 0.72 Vp-p
20 mV/0.5 msec/DIV

WF3 TP2253 A.FM



PB 0.8 Vp-p
50 mV/5 msec/DIV

4.8 VOLTAGE CHARTS

<VIDEO/AUDIO>

MODE PIN NO.	PLAY
IC1	
1	2.1
2	2.9
3	2.6
4	1.5
5	1.5
6	2.2
7	0
8	0
9	3.1
10	2.4
11	0
12	0
13	0
14	2.4
15	0
16	0
17	1.4
18	2.8
19	0
20	2.8
21	1.9
22	0
23	2.9
24	4.9
25	0.3
26	0
27	0
28	2.4
29	1.9
30	2.2
31	0
32	2.7
33	4.9
34	2.4
35	4.9
36	2.7
37	2.3
38	-
39	1.2
40	-
41	2.6
42	-
43	0
44	2.2
45	4.7
46	4.7
47	2.9
48	2.6
49	4.9
50	2.5
51	2.9
52	2.3
53	2.3
54	2.5
55	2.2
56	0.4
57	2.3
58	8.8
59	4.7
60	4.7
61	4.4
62	4.5
63	2.3
64	2.3
65	0.8
66	0.6
67	8.7
68	8.6
69	2.3
70	0
71	3.5
72	0.2
73	0.2
74	2.3
75	2.6
76	0
77	2.6
78	3.5
79	0.2
80	0.2
81	2.2
82	0.8
83	0
84	2.3
85	2.3
86	2.3
87	1.7
88	2.3
89	2.3
90	2.3
91	0.1
92	0
93	2.4
94	1.9
95	0
96	2.3
97	2.3
98	2.3
99	4.9
100	4.9

MODE PIN NO.	PLAY
101	0
102	0
103	0
104	2.3
105	2.2
106	2.2
107	4.9
108	0
109	0
110	0
111	3.0
112	2.5
113	0.5
114	0
115	2.6
116	2.5
117	2.5
118	0
119	2.5
120	0
IC3001	
1	3.9
2	4.7
3	0
4	0
5	4.7
6	2.5
7	4.8
8	1.8
9	3.0
10	4.9
11	0
12	0
13	0
14	4.8
15	4.8
16	0
17	4.8
18	2.4
19	2.4
20	0
21	0
22	0
23	4.8
24	4.3
25	0
26	0
27	0
28	0
29	0
30	4.8
31	4.8
32	0
33	4.8
34	-
35	-
36	-
37	4.9
38	-
39	-
40	0
41	-
42	-
43	4.9
44	2.3
45	2.3
46	0
47	1.3
48	2.2
49	0
50	1.7
51	2.5
52	1.7
53	4.9
54	2.0
55	0.3
56	1.8
57	0
58	0.3
59	0
60	0
61	4.9
62	4.8
63	0
64	4.8
65	4.8
66	0
67	4.8
68	4.9
69	0
70	4.9
71	4.7
72	4.7
73	4.8
74	0
75	0
76	2.5
77	1.1
78	4.8
79	-
80	-

MODE PIN NO.	PLAY
81	4.8
82	0
83	0
84	0
85	0
86	0
87	2.4
88	0
89	0
90	0.6
91	2.4
92	2.4
93	1.0
94	2.4
95	2.4
96	2.4
97	2.4
98	4.9
99	4.8
100	0
IC3002	
1	0
2	-
3	0
4	0
5	4.7
6	4.8
7	0
8	4.8
IC3003	
1	-
2	4.8
3	0
IC3004	
1	11.2
2	0.8
3	0
4	0.7
5	11.3
6	11.2
7	0
8	0
9	0
IC5001	
1	1.3
2	0
3	3.6
4	11.6
5	8.8
IC5002	
1	0.3
2	4.8
3	4.8
4	0
5	4.7
6	4.6
7	0.8
8	11.6
IC7101	
1	5.2
2	5.1
3	5.1
4	0
5	5.1
6	5.1
7	5.1
8	10.3
CN1	
1	0
2	0
3	0
4	0
5	2.2
6	2.2
7	2.2
8	2.2
9	2.3
10	2.3
11	2.3
CN2001	
1	0
2	0
3	0
4	0
5	0
6	2.4
7	2.4
CN3001	
1	2.5
2	4.9
3	4.8
4	2.4
5	11.3
6	0
7	0
8	0
CN3002	
1	0
2	2.3
3	11.3
4	0.5

MODE PIN NO.	PLAY
5	1.5
CN3003	
1	0.6
2	0.6
CN3004	
1	0
2	4.8
3	4.8
4	0
5	0
CN3005	
1	0
2	0
CN3006	
1	4.9
2	0
3	4.3
4	0
5	4.9
6	4.9
7	4.8
8	0
9	4.9
10	4.4
11	4.9
12	4.8

<FRONT>

MODE PIN NO.	PLAY
CN7001	
1	4.8
2	4.9
3	4.4
4	4.9
5	0
6	4.8
7	4.9
8	4.9
9	0
10	4.3
11	0
12	4.9
FW7001	
1	4.9
2	0

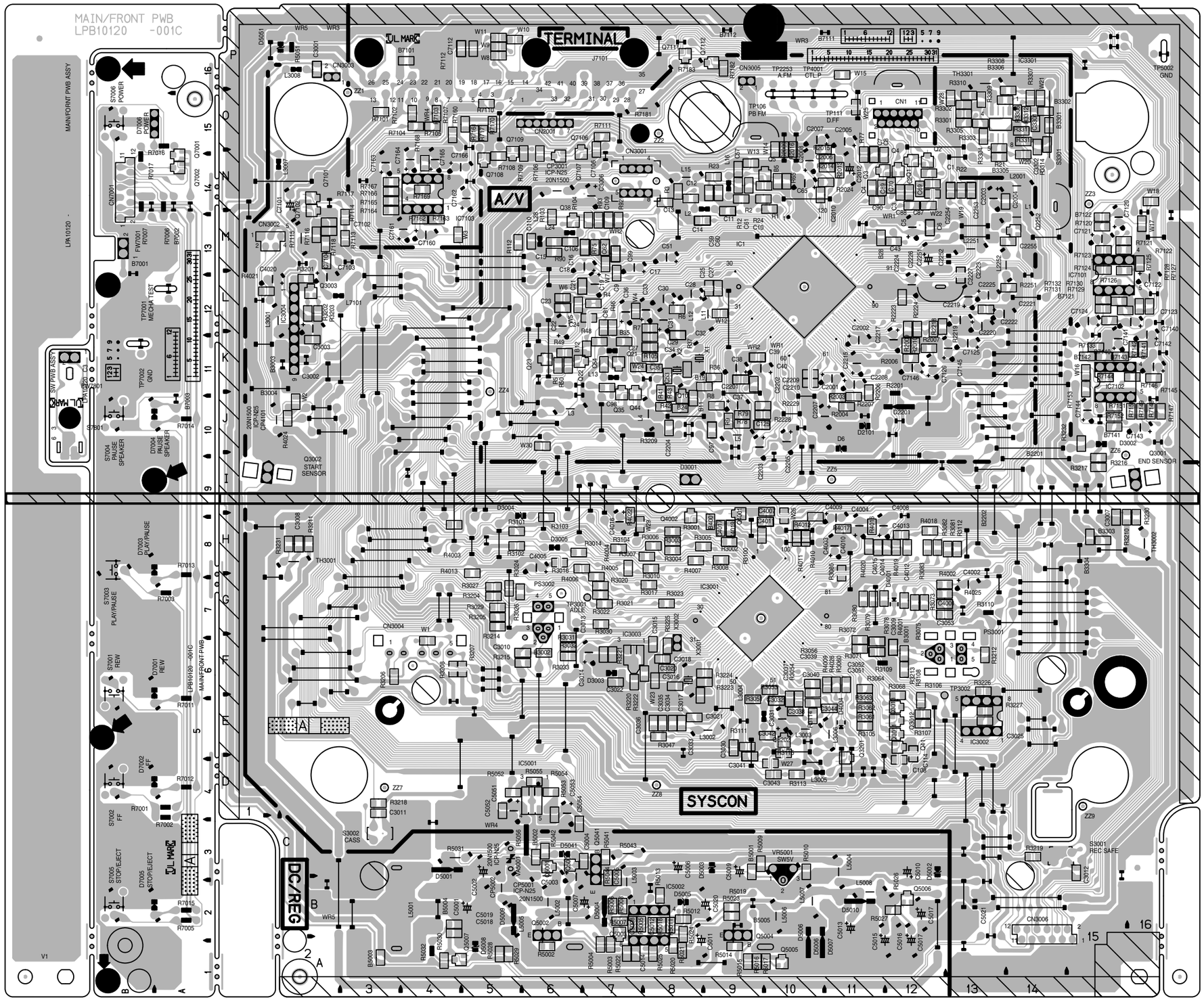
<SW>

MODE PIN NO.	PLAY
FW7801	
1	4.9
2	0

4.9 MAIN, FRONT AND SW CIRCUIT BOARDS

<03>MAIN, <28>FRONT, <36>SW
LPB10120-001C

CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S).
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE CP(S) MANUFACTURED BY ROHM.
ATTENTION :
REPLACER PAR DES FUSIBLE DE MEME TYPE.



COMPONENT PARTS LOCATION GUIDE ＜MAIN＞

REF.NO.	LOCATION
CAPACITOR	
C1	B C 12N
C2	B C 12M
C3	B C 12M
C4	B C 11N
C5	A D 12M
C6	B C 12M
C7	B C 11N
C8	B C 12N
C9	B C 7L
C10	B C 10M
C11	B C 9M
C12	B C 8M
C13	B C 8M
C14	B C 9M
C15	B C 6M
C16	B C 7M
C17	A D 8L
C18	A D 7L
C19	A D 7L
C21	B C 7L
C22	A D 6K
C23	B C 6L
C24	B C 7K
C25	B C 9L
C27	B C 9L
C28	A D 8L
C29	B C 8K
C30	A D 8L
C31	A D 8K
C32	B C 8K
C33	A D 8K
C34	B C 8K
C35	B C 8K
C36	A D 7K
C37	A D 9J
C38	A D 9K
C39	B C 9K
C40	A D 10K
C43	B C 12M
C51	A D 8L
C53	B C 8J
C57	B C 9N
C59	B C 9M
C60	B C 9M
C61	B C 9N
C62	B C 7M
C64	B C 7K
C65	A D 10N
C69	B C 12N
C70	B C 12N
C81	B C 7K
C87	B C 12M
C88	B C 12M
C89	B C 12N
C90	B C 11M
C97	B C 9J
C98	B C 7J
C99	B C 7L
C106	B C 6M
C108	B C 12D
C109	B C 7M
C110	B C 6M
C114	B C 12D
C125	B C 10J
C2001	A D 11J
C2002	A D 11K
C2003	A D 13M
C2004	B C 14M
C2005	A D 11N
C2006	B C 11N
C2007	A D 11N
C2008	A D 10N
C2009	B C 10N
C2010	B C 11M
C2012	A D 11N
C2201	B C 9J
C2202	B C 9J
C2203	A D 9I
C2204	B C 8J
C2205	A D 10I
C2207	A D 11J
C2208	A D 11J
C2209	B C 10J
C2210	B C 10J
C2215	A D 11K
C2217	A D 12K
C2219	A D 13K
C2220	A D 13K
C2221	B C 13L

REF.NO.	LOCATION
C2222	A D 13K
C2223	A D 13L
C2224	B C 12L
C2225	A D 13L
C2226	A D 12L
C2227	B C 13L
C2251	A D 12M
C2252	A D 13M
C2253	B C 13M
C2254	B C 13M
C2255	B C 14M
C3001	B C 2O
C3002	B C 2K
C3003	A D 2K
C3006	A D 7M
C3007	B C 15H
C3008	B C 2H
C3009	B C 12F
C3010	B C 6F
C3011	B C 3C
C3012	B C 15B
C3013	A D 7F
C3014	B C 7F
C3015	B C 8F
C3016	B C 8E
C3017	B C 9E
C3018	B C 8F
C3020	B C 8F
C3021	B C 8E
C3022	B C 7E
C3025	B C 13E
C3030	B C 9D
C3031	A D 10E
C3032	B C 10E
C3033	B C 8E
C3034	B C 8E
C3035	B C 8E
C3036	B C 8E
C3037	B C 10E
C3038	B C 10E
C3039	B C 10E
C3040	B C 10E
C3041	B C 9D
C3042	B C 10D
C3043	B C 10D
C3044	B C 11E
C3051	B C 11F
C3052	B C 11F
C3053	B C 13F
C3301	B C 14O
C3302	B C 14N
C4001	B C 13G
C4002	A D 13G
C4003	A D 11H
C4004	A D 11H
C4005	A D 6G
C4007	B C 10H
C4008	A D 12H
C4009	B C 10H
C4010	A D 11H
C4011	B C 10H
C4012	B C 12H
C4013	B C 12H
C4014	B C 12H
C4015	B C 11H
C4016	A D 7H
C4017	B C 9H
C4019	B C 9H
C4020	A D 2L
C5001	A D 5B
C5002	A D 5B
C5003	A D 6B
C5004	B C 7B
C5005	B C 7B
C5006	A D 8B
C5007	A D 7B
C5008	B C 7A
C5009	A D 9B
C5010	A D 12B
C5011	A D 9A
C5012	B C 8A
C5013	A D 11A
C5014	B C 7A
C5015	A D 12A
C5016	A D 12A
C5017	A D 12B
C5018	B C 4A
C5019	B C 4A
C5020	A D 9B
C5021	A D 13B

REF.NO.	LOCATION
C5051	A D 5C
C5052	B C 5C
C5053	A D 6C
C5054	B C 7C
C7101	A D 2M
C7102	B C 2M
C7103	A D 2L
C7104	B C 2L
C7106	B C 7N
C7112	B C 5P
C7120	A D 15M
C7121	A D 15M
C7122	A D 16L
C7123	A D 16K
C7124	A D 15K
C7125	A D 13K
C7126	A D 12K
C7140	A D 16K
C7141	A D 15K
C7142	A D 16K
C7143	A D 16J
C7144	A D 15J
C7145	A D 13K
C7146	A D 12K
C7160	A D 4M
C7161	A D 4M
C7162	A D 5M
C7163	A D 3N
C7164	A D 4N
C7165	A D 4N
C7166	A D 4N
CONNECTOR	
CN1	A D 12O
CN2001	A D 6O
CN3001	A D 7N
CN3002	A D 1M
CN3003	A D 3O
CN3004	A D 4F
CN3005	A D 9O
CN3006	A D 15A
DIODE	
D6	A D 11I
D2101	A D 11J
D2201	A D 12J
D3001	A D 8I
D3002	A D 15I
D3003	A D 7F
D3004	A D 5H
D3005	A D 6H
D4001	B C 12G
D4004	B C 11E
D5001	A D 4B
D5002	A D 12B
D5003	A D 9B
D5004	A D 7B
D5005	A D 8B
D5006	A D 10A
D5007	A D 11A
D5008	A D 5A
D5009	A D 5B
D5010	A D 11B
D5041	A D 6C
D5051	A D 2P
IC	
IC1	B C 10L
IC3001	B C 10F
IC3002	A D 13E
IC3003	B C 7F
IC3004	A D 2L
IC3301	B C 13O
IC5001	B C 6C
IC5002	A D 7B
IC7101	A D 15L
IC7102	A D 15K
IC7103	A D 4M
JACK	
J7101	A D 5P
COIL	
L1	A D 14M
L2	A D 8M
L3	A D 6J
L4	A D 8J
L5	A D 9I
L11	A D 9L
L12	A D 8K
L13	A D 7J
L15	A D 8N
L16	A D 9N

REF.NO.	LOCATION
L24	A D 7M
L27	A D 7K
L28	A D 6M
L2001	A D 14N
L2251	A D 13M
L2252	A D 14L
L3001	A D 2L
L3002	A D 8E
L3003	A D 10E
L3004	A D 10E
L3005	A D 10D
L3006	A D 11D
L3007	A D 2N
L3008	A D 2O
L5001	A D 4B
L5002	A D 6B
L5003	A D 7B
L5004	A D 11B
L5005	A D 5B
L5006	A D 10A
L5007	A D 10B
L5008	A D 11B
L7101	A D 3L
TRANSISTOR	
Q1	B C 12N
Q2	B C 12N
Q3	B C 12N
Q4	B C 12N
Q5	B C 10N
Q10	B C 8J
Q21	B C 7K
Q22	B C 7K
Q23	B C 6K
Q35	B C 7J
Q38	B C 6M
Q41	B C 12D
Q44	B C 7J
Q2252	B C 14M
Q3001	A D 16I
Q3002	A D 1I
Q3003	B C 2L
Q3011	B C 12E
Q3012	B C 12E
Q3013	B C 12E
Q3201	B C 11D
Q3202	B C 10D
Q4001	B C 9H
Q4002	B C 8H
Q5001	B C 6B
Q5002	A D 6A
Q5003	B C 7A
Q5004	A D 9A
Q5005	B C 10A
Q5006	B C 12B
Q5007	B C 5A
Q5008	B C 6B
Q5041	A D 7B
Q7101	B C 2M
Q7102	B C 2M
Q7106	B C 7N
Q7107	B C 6N
Q7108	B C 5N
Q7109	B C 5N
Q7111	B C 8P
Q7112	B C 9P
RESISTOR	
R1	B C 10M
R2	B C 9M
R3	B C 8M
R4	B C 7L
R5	B C 6K
R6	B C 8L
R7	B C 8K
R8	B C 9J
R9	B C 9J
R12	B C 9N
R21	B C 13N
R22	B C 12N
R23	B C 9N
R24	B C 10N
R36	B C 9J
R37	B C 8K
R41	B C 8J
R42	B C 8J
R43	B C 8J
R46	B C 7K
R48	B C 7K
R49	B C 6K
R50	B C 6K

REF.NO.	LOCATION
R65	B C 10N
R75	B C 7M
R77	B C 11N
R78	B C 9J
R79	B C 9J
R90	B C 6L
R92	B C 7M
R93	B C 7M
R103	B C 6M
R104	B C 7M
R105	B C 8K
R112	B C 6M
R2003	B C 11J
R2004	B C 11J
R2006	B C 12K
R2007	B C 12K
R2009	B C 12K
R2010	B C 12K
R2013	B C 11N
R2014	B C 11N
R2015	B C 11N
R2016	B C 10N
R2024	B C 11N
R2201	A D 12J
R2206	B C 11J
R2207	B C 11J
R2218	B C 12K
R2219	B C 13K
R2223	B C 12K
R2224	B C 12K
R2228	B C 10J
R2229	B C 10J
R2251	B C 14L
R3001	B C 8H
R3002	B C 9H
R3003	B C 8H
R3004	B C 8H
R3005	B C 9H
R3006	B C 8H
R3007	B C 8G
R3008	B C 9G
R3010	B C 8G
R3014	B C 7H
R3016	B C 6G
R3017	B C 8G
R3020	B C 7G
R3021	B C 7G
R3022	B C 7G
R3023	B C 8G
R3024	B C 5G
R3026	B C 6G
R3027	B C 5G
R3029	B C 5G
R3030	B C 7F
R3031	B C 6F
R3032	B C 6F
R3033	B C 6F
R3047	B C 8D
R3051	B C 9E
R3053	B C 10E
R3054	B C 10E
R3056	B C 10E
R3060	B C 11E
R3061	B C 11E
R3062	B C 11E
R3063	B C 11E
R3064	B C 11E
R3068	B C 12E
R3071	B C 11F
R3072	B C 11F
R3073	B C 12G
R3075	B C 12G
R3078	B C 12G
R3079	B C 11G
R3080	B C 11G
R3081	B C 13H
R3082	B C 12H
R3083	B C 12H
R3085	B C 11G
R3100	B C 10H
R3101	B C 5H
R3102	B C 5H
R3103	B C 6H
R3104	B C 7H
R3105	B C 11E
R3106	B C 12E
R3107	B C 12E
R3108	B C 12E
R3109	A D 11F
R3110	A D 13G

REF.NO.	LOCATION
R3111	B C 9D
R3112	B C 13H
R3113	B C 10D
R3114	B C 10E
R3115	B C 10D
R3201	B C 2L
R3202	B C 2K
R3203	B C 2K
R3204	B C 5G
R3205	B C 5F
R3206	B C 3E
R3207	B C 5F
R3208	B C 4F
R3209	A D 8I
R3210	B C 16H
R3211	B C 2H
R3212	B C 13F
R3213	B C 12F
R3214	B C 5F
R3215	B C 6F
R3216	B C 15I
R3217	B C 15I
R3218	B C 3C
R3219	B C 14B
R3220	B C 7E
R3221	B C 7F
R3222	B C 8F
R3223	B C 9E
R3224	B C 9F
R3225	B C 8F
R3226	B C 13E
R3227	B C 13E
R3230	B C 16H
R3231	B C 2H
R3232	B C 15I
R3301	B C 13O
R3302	B C 13O
R3303	B C 13O
R3304	B C 13N
R3305	B C 13O
R3306	B C 14O
R3307	B C 14O
R3308	B C 14O
R4001	B C 12G
R4002	B C 13G
R4003	B C 4H
R4004	B C 7G
R4005	B C 7G
R4006	B C 7G
R4007	B C 8G
R4009	B C 11E
R4010	B C 10H
R4011	B C 10H
R4012	B C 10H
R4013	B C 5G
R4016	B C 11H
R4017	B C 11H
R4018	B C 12H
R4019	B C 12H
R4020	B C 11H
R4021	B C 1L
R4022	B C 7H
R4024	B C 2J
R4025	B C 13G
R4026	B C 11E
R5002	B C 6A
R5003	B C 7A
R5004	B C 7A
R5005	B C 8A
R5006	B C 7B
R5007	B C 7A
R5008	B C 7B
R5009	B C 10B
R5010	B C 10B
R5011	B C 8A
R5012	B C 8A
R5013	B C 8B
R5014	B C 9A
R5015	B C 9A
R5016	B C 9A
R5017	B C 10A
R5018	B C 8A
R5019	B C 9B
R5020	B C 8A

REF.NO.	LOCATION
R5021	B C 8A
R5022	B C 7A
R5023	B C 9B
R5024	B C 8A
R5025	B C 8A
R5026	A D 12A
R5027	B C 12B
R5028	B C 5A
R5029	B C 5A
R5030	B C 4A
R5031	A D 5B
R5032	A D 4A
R5041	B C 7B
R5042	B C 6C
PS3001	A D 7C
PS3002	A D 6F
WR1	A D 10K
WR2	A D 9K
WR3	A D 10P
WR4	A D 4O
WR5	A D 2B
X1	A D 9K
X2	A D 8J
X3001	A D 8F
X3002	A D 8F
TESTPOINT	
TP106	A D 10O
TP111	A D 11O
TP2253	A D 10O
TP3001	A D 7G
TP3002	A D 13E
TP4001	A D 10O
TP5002	A D 16P
OTHER	
CP3001	A D 6M
CP4101	A D 2J
CP5001	A D 6B
CP5002	A D 5B
PS3001	A D 13F
PS3002	A D 6F
WR1	A D 10K
WR2	A D 9K
WR3	A D 10P
WR4	A D 4O
WR5	A D 2B
X1	A D 9K
X2	A D 8J
X3001	A D 8F
X3002	A D 8F
SWITCH	
S3001	A D 14B
S3002	A D 3C
S3301	A D 14N

COMPONENT PARTS LOCATION GUIDE ＜FRONT AND SW ＞

REF.NO.	LOCATION
CONNECTOR	
CN7001	A D 13B
DIODE	
D7001	A D 6B
D7002	A D 4B

REF.NO.	LOCATION
D7003	A D 8B
D7004	A D 10B
D7005	A D 2B
D7006	A D 15B
TRANSISTOR	
Q7001	B C 14A

REF.NO.	LOCATION
Q7002	B C 14A
RESISTOR	
R7001	A D 4A
R7002	A D 3B
R7003	A D 7A
R7005	A D 2A

REF.NO.	LOCATION
R7006	A D 14A
R7007	A D 14B
R7011	A D 5A
R7012	A D 4A
R7013	A D 7A
R7014	A D 10A

REF.NO.	LOCATION
R7015	A D 2A
R7016	A D 15A
R7017	A D 14B
SWITCH	
S7001	A D 6B
S7002	A D 4B

REF.NO.	LOCATION
S7003	A D 8B
S7004	A D 10B
S7005	A D 2B
S7006	A D 15B
S7801	A D 10B

REF.NO.	LOCATION
TESTPOINT	
TP7001	A D 12A
TP7002	A D 11B
OTHER	
FW7001	A D 13B

REF.NO.	LOCATION
FW7801	A D 11B

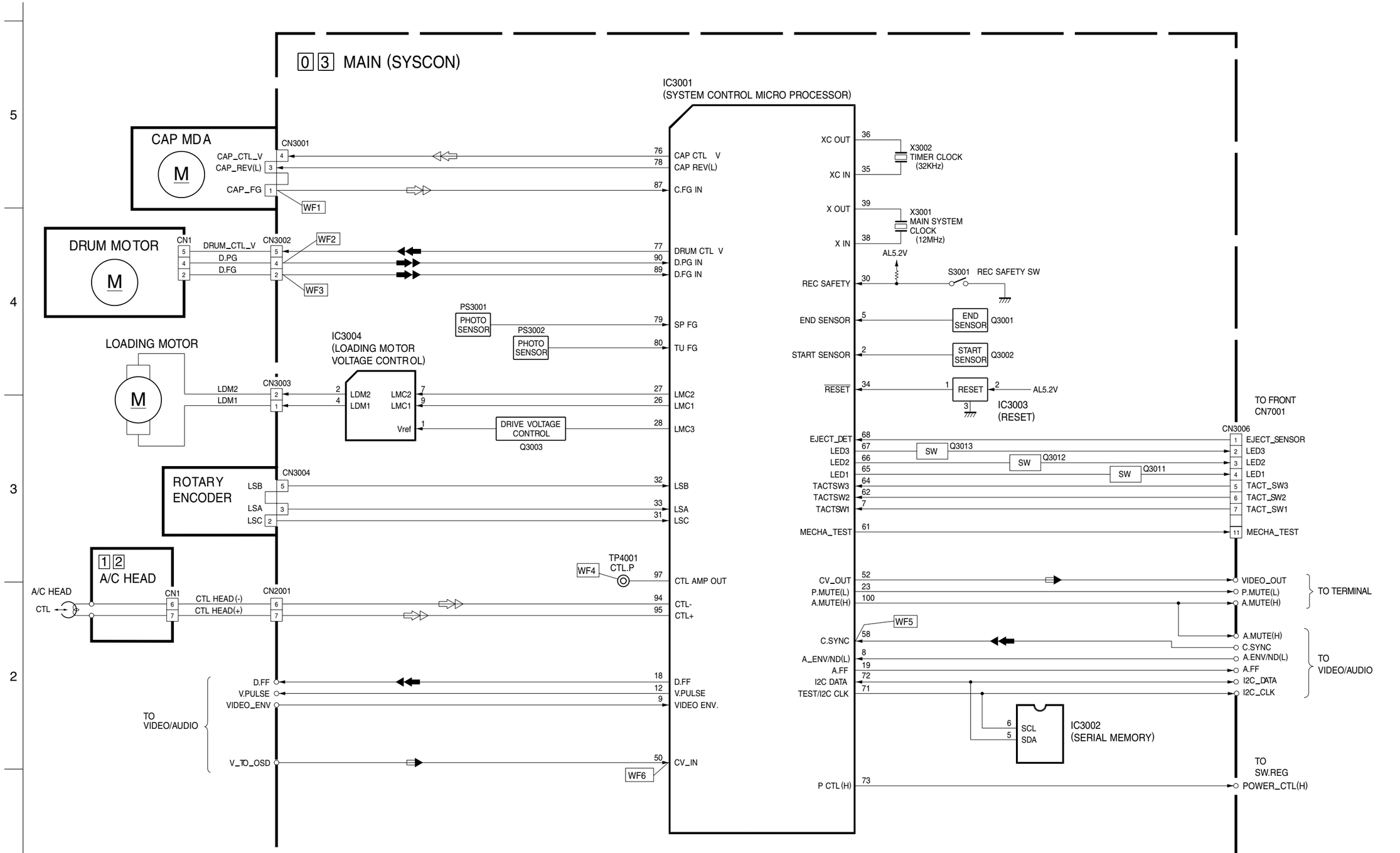
4.10 CPU PIN FUNCTION

<SYSCON IC3001>

PIN NO.	LABEL	IN/OUT	FUNCTION
1	TEMP_DET	IN	TEMPERATURE DETECTION SIGNAL
2	START SENSOR	IN	START SENSOR
3	DEW_DET	IN	CONDENSATION SENSOR SIGNAL
4	NORM/MESECAM/S	IN	NORMAL MODE:L
5	END SENSOR	IN	END SENSOR
6	ACCVDET	IN	ACCESSORY VOLTAGE DETECT
7	TACTSW1	IN	"REW,FF,PLAY,SPEAKER SWITCH INPUT"
8	A.ENV/ND(L)	IN	AUDIO PB FM ENV. INPUT/NON HiFi MODE:L
9	VIDEO ENV.	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
10	PROTECT	IN	DETECTION SIGNAL FOR SW POWER SUPPLY
11	-	-	NC
12	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL
13	-	-	NC
14	RC IN	IN	REMOTE CONTROL DATA INPUT
15	CTL GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING
16	-	-	NC
17	EE(L)	-	NC
18	D.FF	OUT	"VIDEO PB FM(CH1,CH2) SWITCHING PULSE"
19	A.FF	OUT	AUDIO FF OUTPUT
20	LP_SHORT(H)	-	NC
21	SP_SHORT(H)	-	NC
22	ADLE	-	NC
23	P.MUTE(L)	OUT	PICTURE MUTE CONTROL (MUTE:H)
24	ACC_IN_5V	-	5V
25	-	-	NC
26	LMC1	OUT	LOADING MOTOR DRIVE(1)
27	LMC2	OUT	LOADING MOTOR DRIVE(2)
28	LMC3	OUT	LOADING MOTOR DRIVE(3)
29	CAS.INS.SW	IN	CASSETTE TAPE LOAD SWITCH (CASS IN:L)
30	REC SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
31	LSC	IN	MECHANISM MODE DETECT(C)
32	LSB	IN	MECHANISM MODE DETECT(B)
33	LSA	IN	MECHANISM MODE DETECT(A)
34	RESET(L)	-	RESET (RESET:L)
35	XC IN	-	TIMER CLOCK (32.768kHz)
36	XC OUT	-	TIMER CLOCK (32.768kHz)
37	VCC	-	SYSTEM POWER
38	X IN	-	SYSTEM CLOCK (12MHz)
39	X OUT	-	SYSTEM CLOCK (12MHz)
40	VSS	-	GND
41	-	-	NC
42	-	-	NC
43	CLK SEL	-	CONNECT THE VCC (Hi)
44	OSC_IN2	IN	CLOCK INPUT FOR OSD CHARACTER
45	OSC_OUT2	OUT	CLOCK OUTPUT FOR OSD CHARACTER
46	NUB	-	CONNECT THE VSS
47	LP	IN	FILTER INPUT FOR INTERNAL SYNCHRONIZING SIGNAL
48	Fsc_IN	IN	FSC SIGNAL INPUT FOR OSD
49	OSC_GND	-	GND FOR OSD
50	CV_IN	IN	COMPOSITE VIDEO SIGNAL INPUT

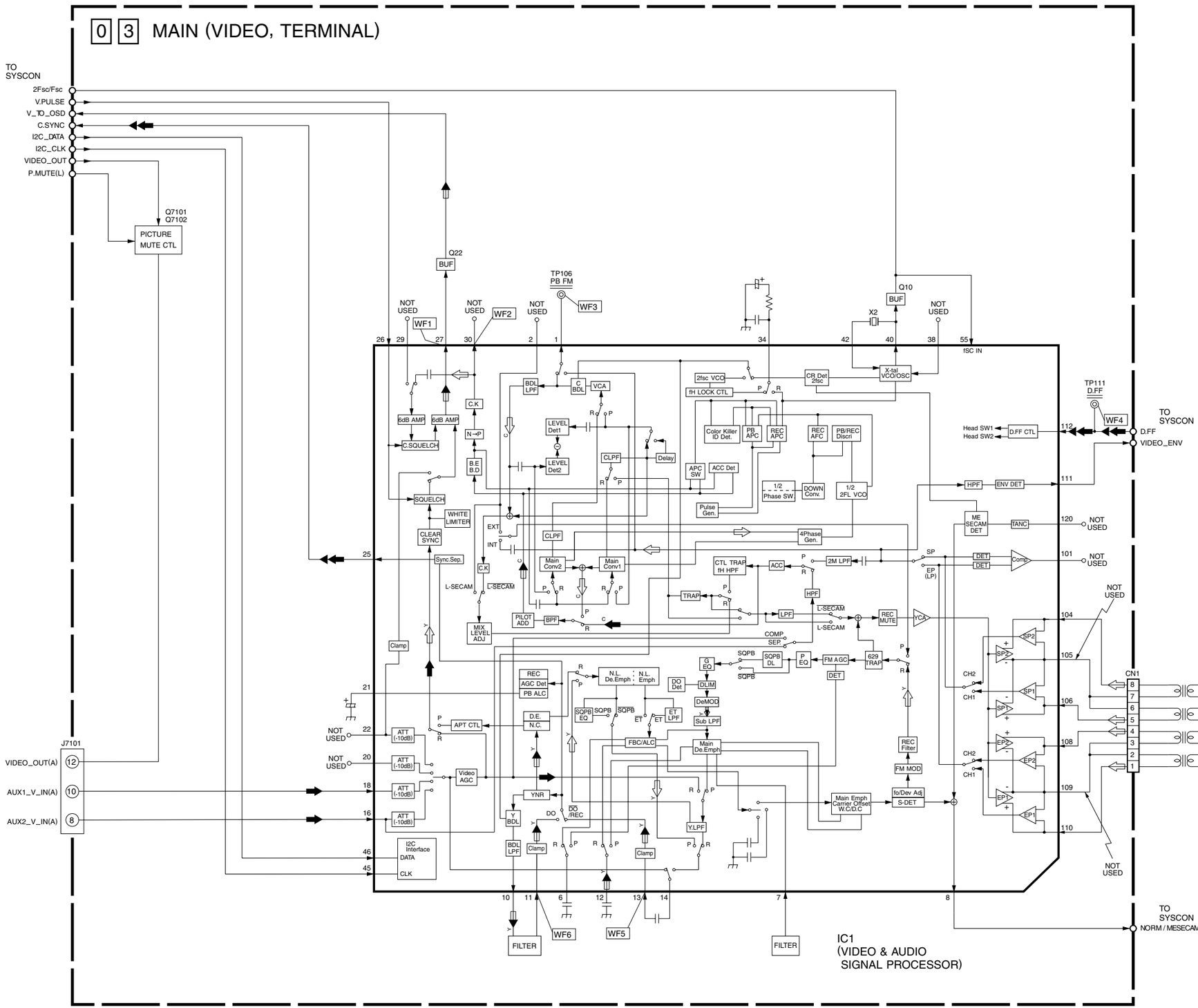
PIN NO.	LABEL	IN/OUT	FUNCTION
51	LECHA	IN	WHITH PEAK LEVEL OF COMPOSITE VIDEO SIGNAL INPUT
52	CV_OUT	OUT	COMPOSITE VIDEO SIGNAL OUTPUT
53	OSD_Vcc	-	SYSTEM POWER FOR OSD
54	HLF	IN	LPF CONNECT TERMINAL FOR CLOSED CAPTION DECODER
55	VHOLD	IN	CAPACITOR CONNECT TERMINAL FOR CLOSED CAPTION DECODER REFERENCE VOLT
56	CV_IN(EDS)	IN	COMPOSITE VIDEO SIGNAL INPUT (FOR EDS)
57	NUA	-	CONNECT THE VSS
58	C.SYNC	IN	COMPOSITE SYNC
59	V_SYNC	-	NC
60	CHARA	OUT	CHARACTER DATA OUTPUT
61	MECHA_TEST	OUT	MECHANISM TEST MODE OUTPUT
62	TACTSW2	IN	STOP/EJECT SWITCH INPUT
63	MESECAM(H)	OUT	MESECAM: H
64	TACTSW3	IN	POWER SWITCH INPUT
65	LED1	OUT	SPEAKER LED (SPEAKER ON:L)
66	LED2	OUT	POWER SW INPUT (STADBY:L)
67	LED3	OUT	POWER SW INPUT (POWER ON:L)
68	EJECT_DET	IN	EJECT SENSOR INPUT
69	DOCTOR_ON(H)	-	NC
70	JVC(L)	IN	JVC MODEL:L
71	TEST/I2C_CLK	OUT	MECHANISM TEST MODE/I2C DATA TRANSFER CLOCK
72	I2C_DATA	IN/OUT	I2C DATA INPUT/OUTPUT
73	P CTL(H)	OUT	POWER ON/OFF CONTROL (POWER ON:H)
74		-	NC
75	SB_GAIN	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
76	CAP CTL V	OUT	CAPSTAN MOTOR CONTROL
77	DRUM CTL V	OUT	DRUM MOTOR CONTROL
78	CAP REV(L)	OUT	CAPSTAN MOTOR REVERSE CONTROL (FWD:H/REV:L)
79	SP FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN
80	TU FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
81	DEF_PWON/OFF	IN	DEFAULT POWER ON/OFF (ON: L)
82	ENABLE_MOD	OUT	FM MODULATOR POWER CONTROL (ON: H)
83	PAL_PB(H)	OUT	PAL FM (PB ON: H)
84		-	NC
85		-	NC
86		-	NC
87	C.FG IN	IN	CAPSTAN FG PULSE INPUT
88	AMP VSS	-	GND
89	D.FG IN	IN	DRUM FG PULSE INPUT
90	D.PG IN	IN	DRUM PICKUP PULSE INPUT (SWITCHING PULSE)
91	AMP VREF OUT	OUT	CTL PULSE AMP CIRCUIT REFERENCE VOLTAGE OUTPUT
92	AMP VREF IN	IN	CTL PULSE AMP CIRCUIT REFERENCE VOLTAGE INPUT
93	C	-	NC
94	CTL-	IN/OUT	CTL(-) SIGNAL
95	CTL+	IN/OUT	CTL(+) SIGNAL
96	AMP C	IN	CAPACITOR CONNECT TERMINAL FOR CTL AMP CIRCUIT
97	CTL AMP OUT	OUT	CTL PULSE OUTPUT
98	AMP VCC	-	SYSTEM POWER
99	AVCC	-	SYSTEM POWER FOR ANALOG CIRCUIT
100	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE:H)

4.11 SYSTEM CONTROL BLOCK DIAGRAM



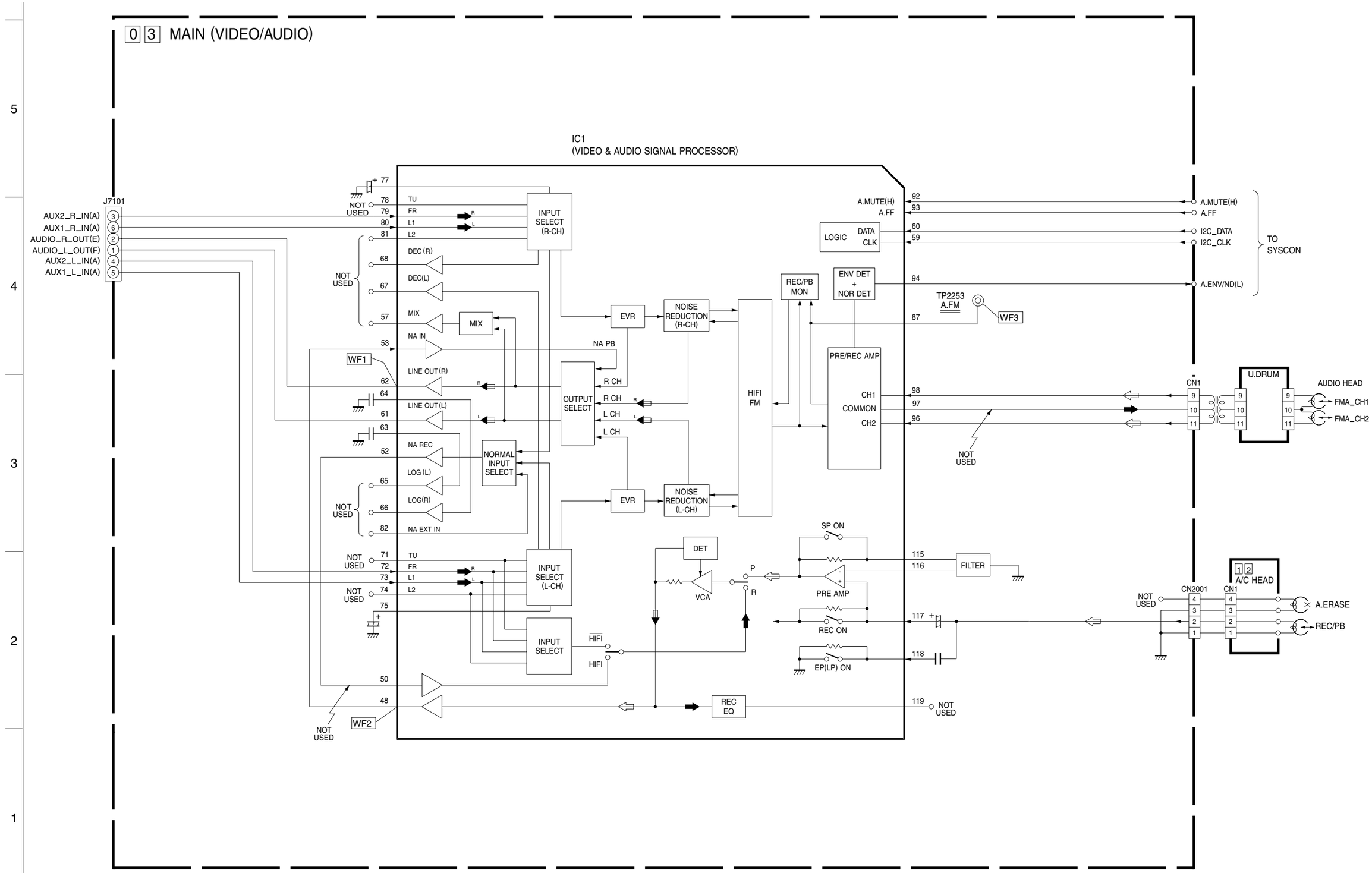
Note : For the waveforms in this block diagram, refer to page 4-15.

4.12 VIDEO BLOCK DIAGRAM



Note : For the waveforms in this block diagram, refer to page 4-15.

4.13 AUDIO BLOCK DIAGRAM



Note : For the waveforms in this block diagram, refer to page 4-15.