


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.

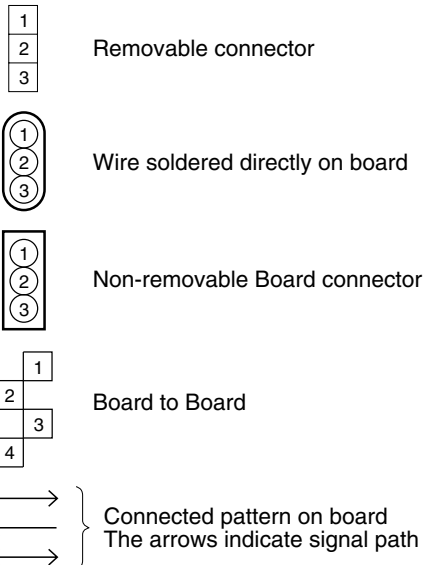
- 1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K or k: k Ω (1000 Ω), M: M Ω (1000k Ω)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values are in μ H, (m: mH).
- 4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

AUX or AUX(L) : Active at low

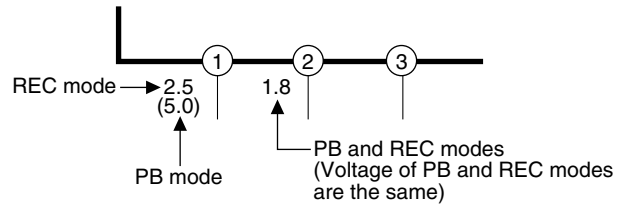
3. Interpreting Connector indications



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

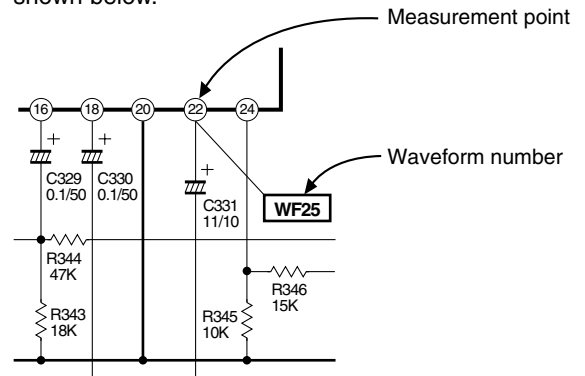
- 4) Indication on schematic diagram
Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



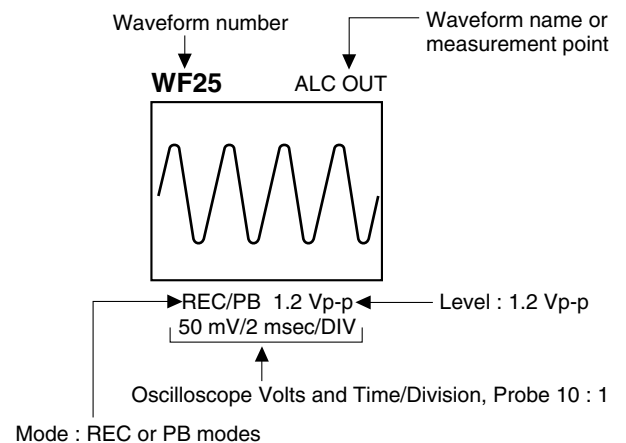
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

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 charts in the E-E mode
- 4) Indication on schematic diagram
Waveform indications on the schematic diagram are as shown below.

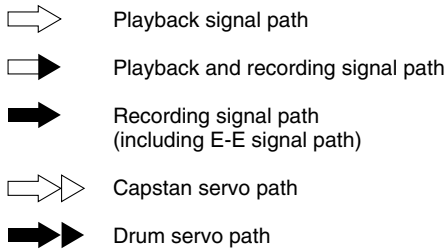


5) Waveform indications

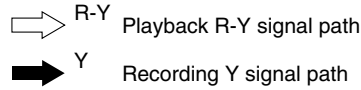


6. Signal path Symbols

The arrows indicate the signal path as follows.

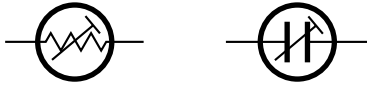


(Example)



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.



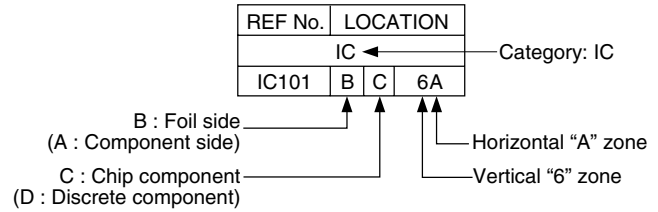
CIRCUIT BOARD NOTES

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

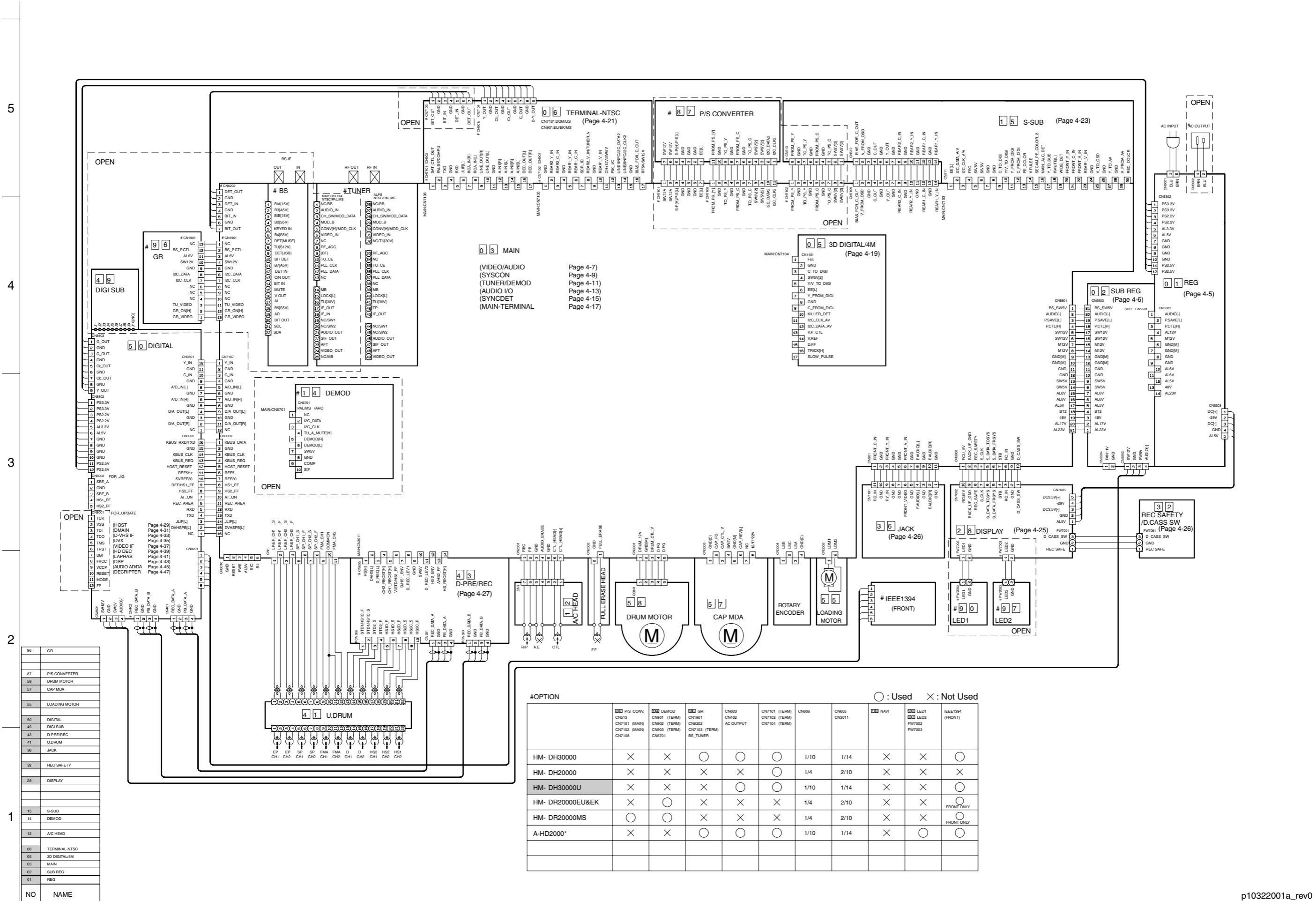
Parts location are indicated by guide scale on the circuit board.



Note:

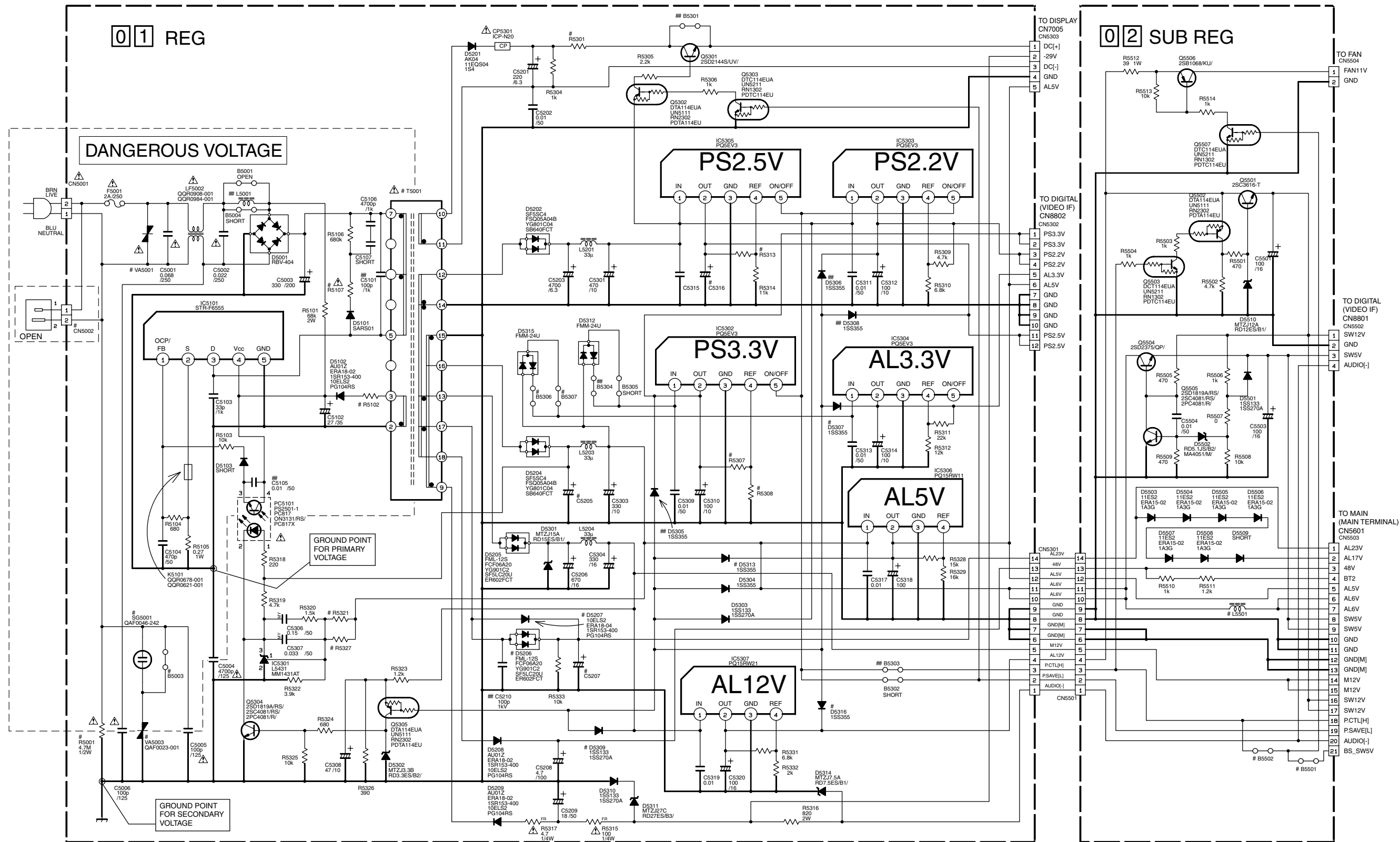
For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS



4.2 REGULATOR AND SUB REGULATOR SCHEMATIC DIAGRAMS

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.



##MARK ELEMENTS ARE NOT MOUNTED

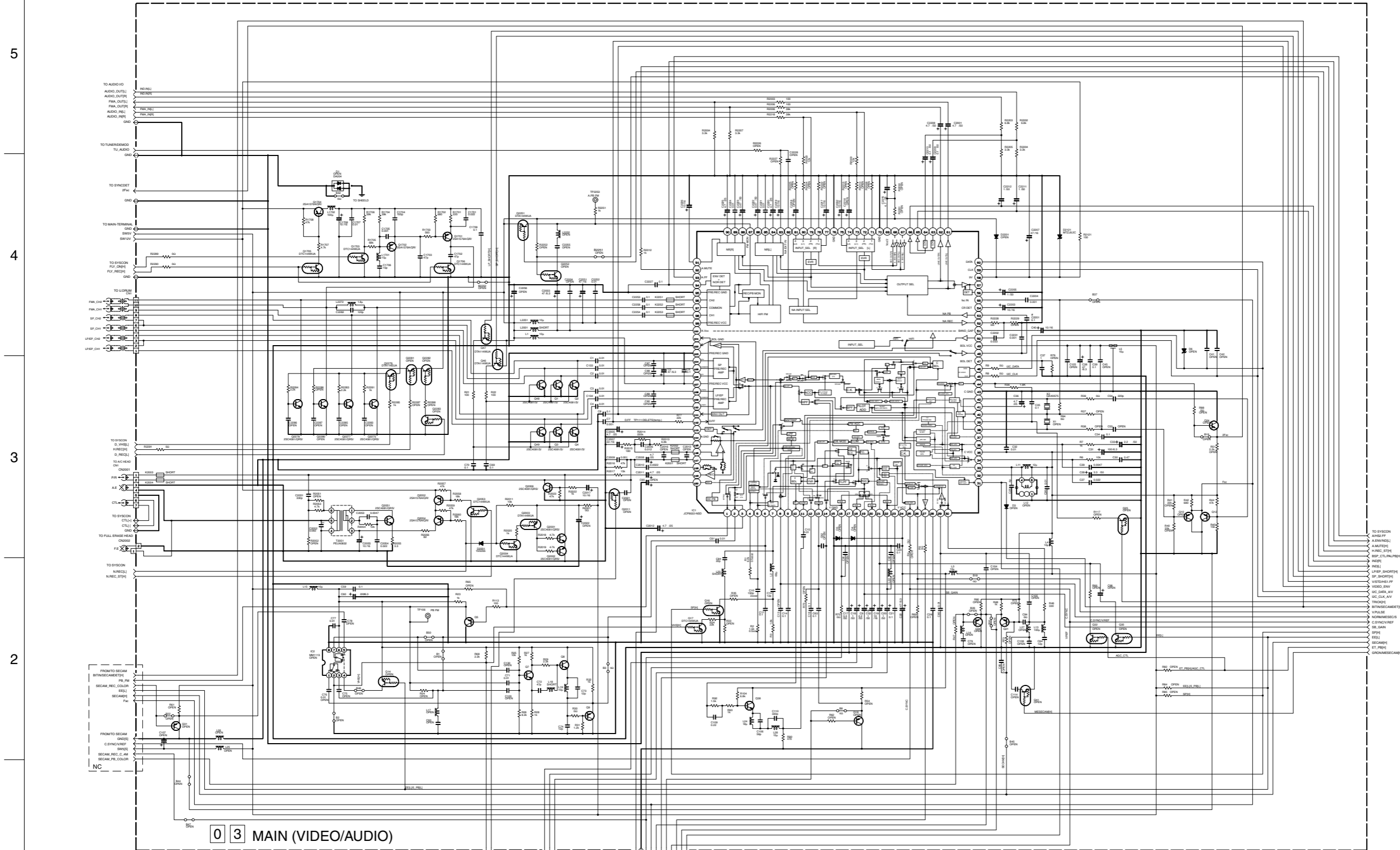
#DIFFERENCE TABLE 1

	B5003	B5306	B5307	B5501	B5502	C5205	C5207	C5316	CN5002	D5206	D5207	D5307	D5309	D5313	L5501	R5001	R5102	R5107	R5307	R5308	R5313	R5321	R5327	SG5001	T5001	VA5001	VA5003		
JPN	HS	YES	YES	NO	YES	NO	4700 /10	220 /35	330 /10	NO	NO	YES	YES	NO	YES	NO	1	47 /12W	1	13k	6.8k	15k	8.2k	12k	NO	QQS0079-001		NO	
	STD	YES	NO	YES	YES	NO	3300 /10	150 /35	330 /10	NO	NO	NO	NO	NO	YES	NO	1	47 /12W	1	5.6k	3k	13k	5.6k	68k	NO	QQS0079-001	QAF0023-431	NO	
US	HS	YES	NO	YES	NO	YES	3300 /10	150 /35	100 /10	NO	NO	YES	NO	NO	0.22u	YES	56	1/4W	FR	1.8	13k	6.8k	15k	5.6k	68k	NO	QQS0106-001	QAF0024-431	NO
	STD	YES	NO	YES	NO	YES	3300 /10	150 /35	330 /10	NO	NO	YES	NO	NO	0.22u	YES	56	1/4W	FR	1.8	5.6k	3k	13k	5.6k	68k	NO	QQS0106-001	QAF0039-431	NO
US(PH)		NO	NO	YES	NO	YES	3300 /10	150 /35	330 /10	NO	NO	YES	NO	NO	0.22u	YES	56	1/4W	FR	1.8	5.6k	3k	13k	5.6k	68k	YES	QQS00106-001	QAF0023-431	YES

NOTES: UNLESS OTHERWISE SPECIFIED.
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN uF.
 + ELECTROLYTIC
 - CERAMIC
 - MYLER
 - NON POLAR

4.3 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.



0 3 MAIN (VIDEO/AUDIO)

#DIFFERENCE TABLE

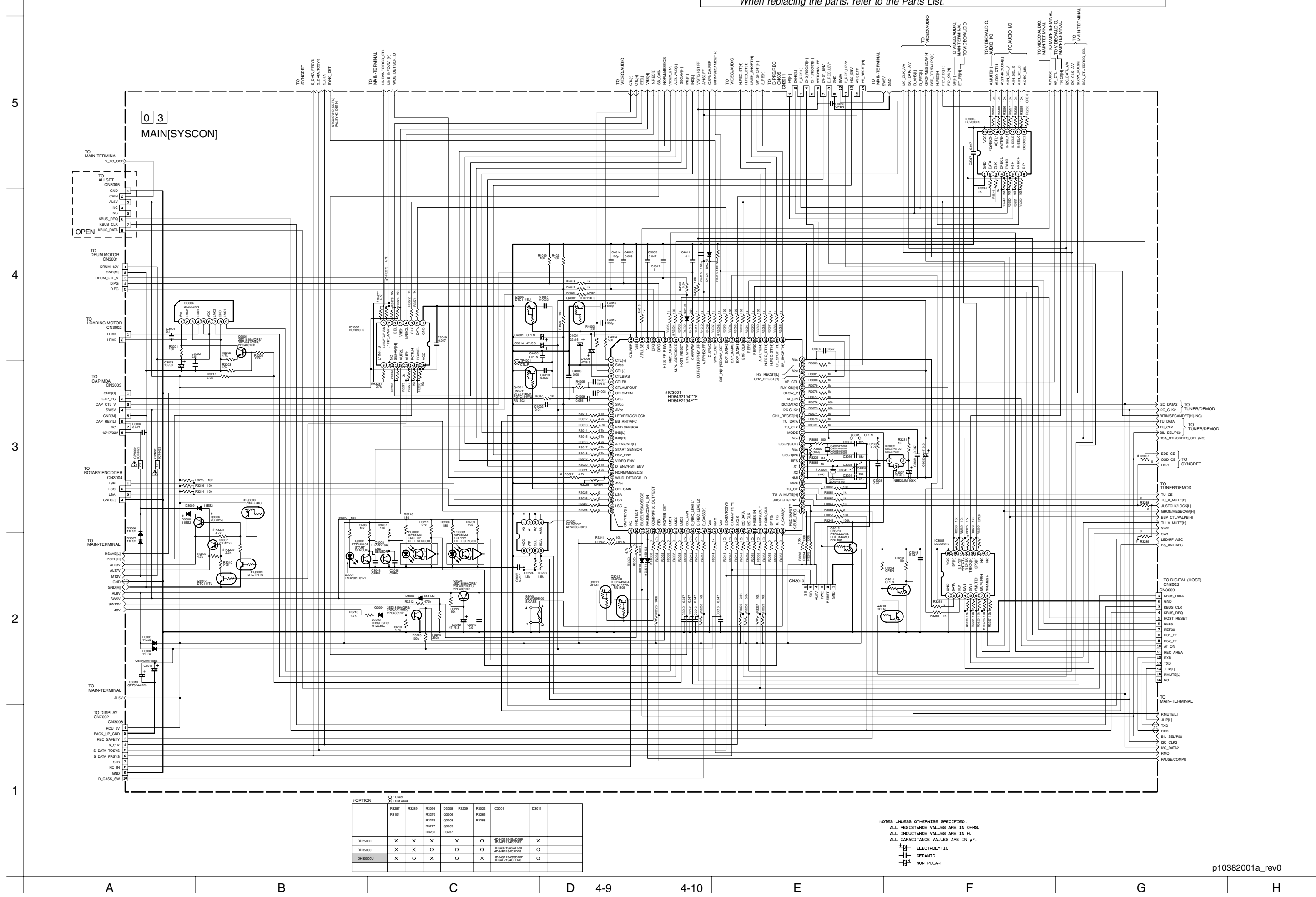
REV.	IN
CS4	
H84D40000	0
H84D40000	OPEN

○ Used

NOTES: UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN μF.
 ALL NPN TYPE TRANSISTORS ARE 2SC4811 (OR) V3PC4811R-X
 ALL PNP TYPE TRANSISTORS ARE 2SA1515A (OR) V3P1515R-X
 ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

4.4 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.

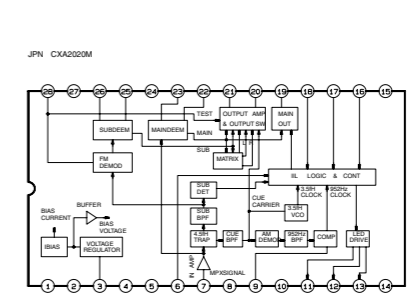
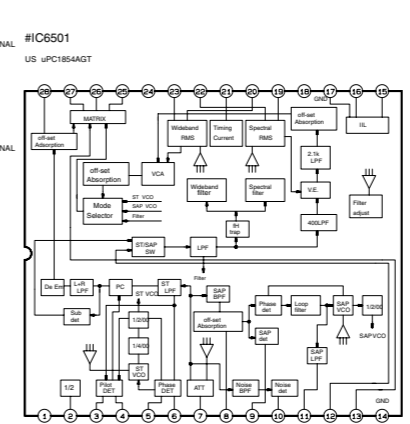
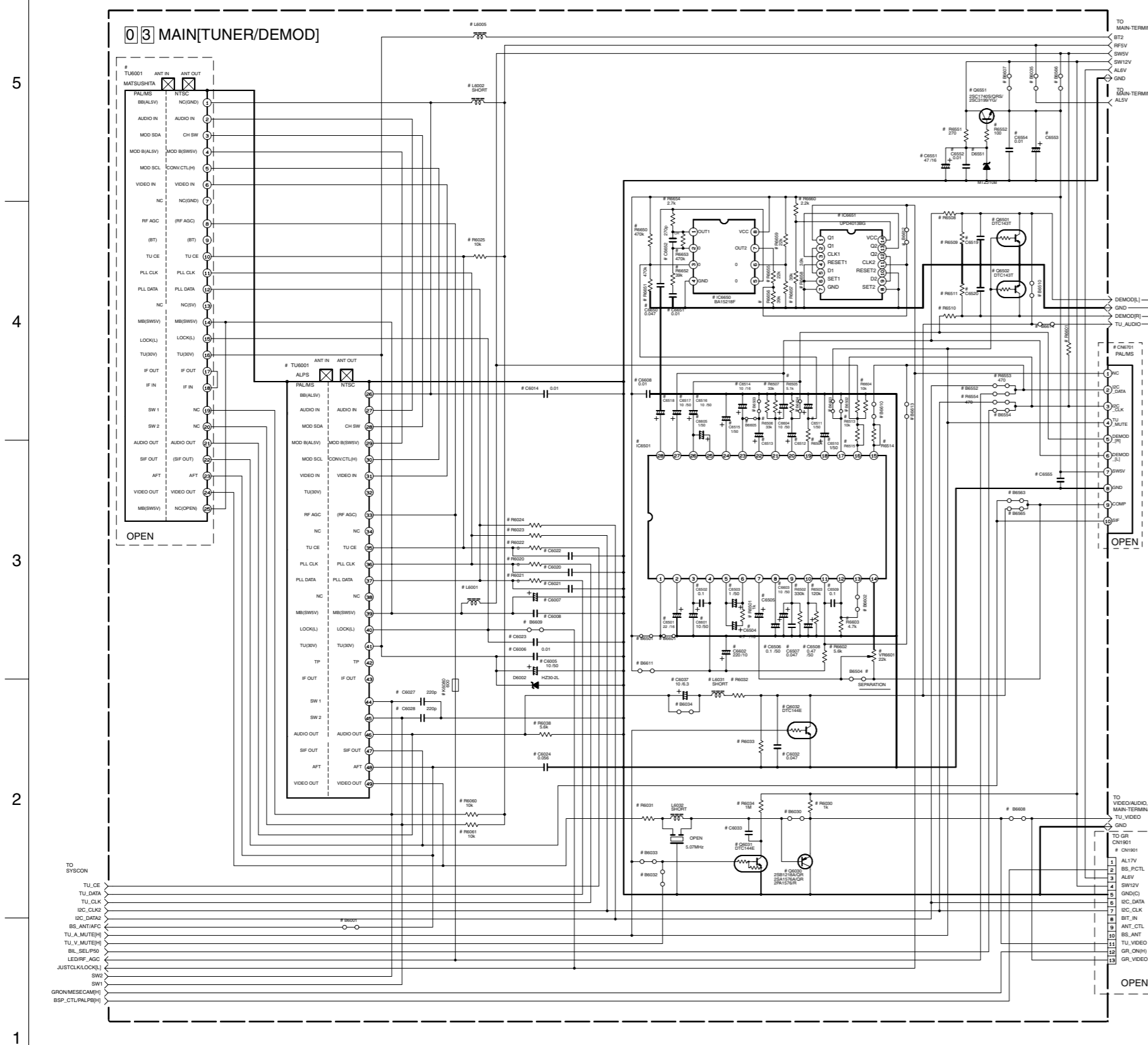


#OPTION	R3287	R3289	R3306	D3008	R3333	R3322	IC3001	D3011
DH3900	X	X	X	X	X	O	HD64F2194-1	X
DH3900	X	X	O	O	O	O	HD64F2194-2	O
DH3900U	X	O	X	O	O	X	HD64F2194-2	O

NOTES: UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN μ F.
 — ELECTROLYTIC
 — CERAMIC
 — NON POLAR

4.5 MAIN (TUNER/DEMODO) 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

TUNER	SYMBOL	JAPAN	US
TUNER	TU6001	DH30000	DH30000
		MATSUSHITA	MATSUSHITA
ATTN	R6005	GA0198	GA0198
	R6006	GA0198	GA0198
VIDEO BUFFER	IC6003	GA0198	GA0198
	IC6004	GA0198	GA0198
TU_V_MUTE	R6004	1k	1k
	R6005	1k	1k
TU_A_MUTE	R6003	0.0047	0.0047
	R6004	0.0047	0.0047
AUDIO OUT	R6002	0	0
	R6003	0	0
AFC	IC6001	X	X
	IC6002	X	X
CENELEC	IC6007	X	X
	IC6008	X	X
TU30V	L6005	SHORT	SHORT
	L6006	SHORT	SHORT
MS(SW)	IC6007	10000.3	10000.3
	IC6008	X	X
BR(ALSV)	L6001	1	1
	L6002	X	X
PLL CLK	R6020	1k	1k
	R6021	X	X
PLL DATA	R6022	1k	1k
	R6023	X	X
TU CE	R6024	1k	1k
	R6025	X	X
LOCK	R6026	1M	1M
	R6027	X	X
SYSTEM SW	R6028	X	X
	R6029	X	X
GR	IC6001	0	0
	IC6002	X	X

DIFFERENCE TABLE

DEMODO	SYMBOL	JAPAN	US
DEMODO PWB ASSY	IC6001	X	X
	IC6002	X	X
V REG	R6001	0	0
	R6002	X	X
DEMODO REG	R6003	X	X
	R6004	X	X
PASS CON	R6005	X	X
	R6006	X	X
SW12V	R6007	X	X
	R6008	12k	3.3k
DEMODO OUT	R6009	3.3k	1.2k
	R6010	9000p	X
MUTE	R6011	X	0
	R6012	X	0
TUNER MONO	R6013	X	X
	R6014	X	X
DEMODO SELECTION	R6015	X	0
	R6016	0	X
AFC	R6017	X	X
	R6018	X	X
CENELEC	R6019	X	X
	R6020	X	X
TU30V	R6021	0	0
	R6022	X	X
MS(SW)	R6023	X	X
	R6024	X	X
BR(ALSV)	R6025	X	X
	R6026	X	X
PLL CLK	R6027	0.01	0.01
	R6028	0.01	0.01
PLL DATA	R6029	0.01	0.01
	R6030	0.01	0.01
TU CE	R6031	0.01	0.01
	R6032	0.01	0.01
LOCK	R6033	0.01	0.01
	R6034	0.01	0.01
SYSTEM SW	R6035	0.01	0.01
	R6036	0.01	0.01
GR	R6037	0.01	0.01
	R6038	0.01	0.01

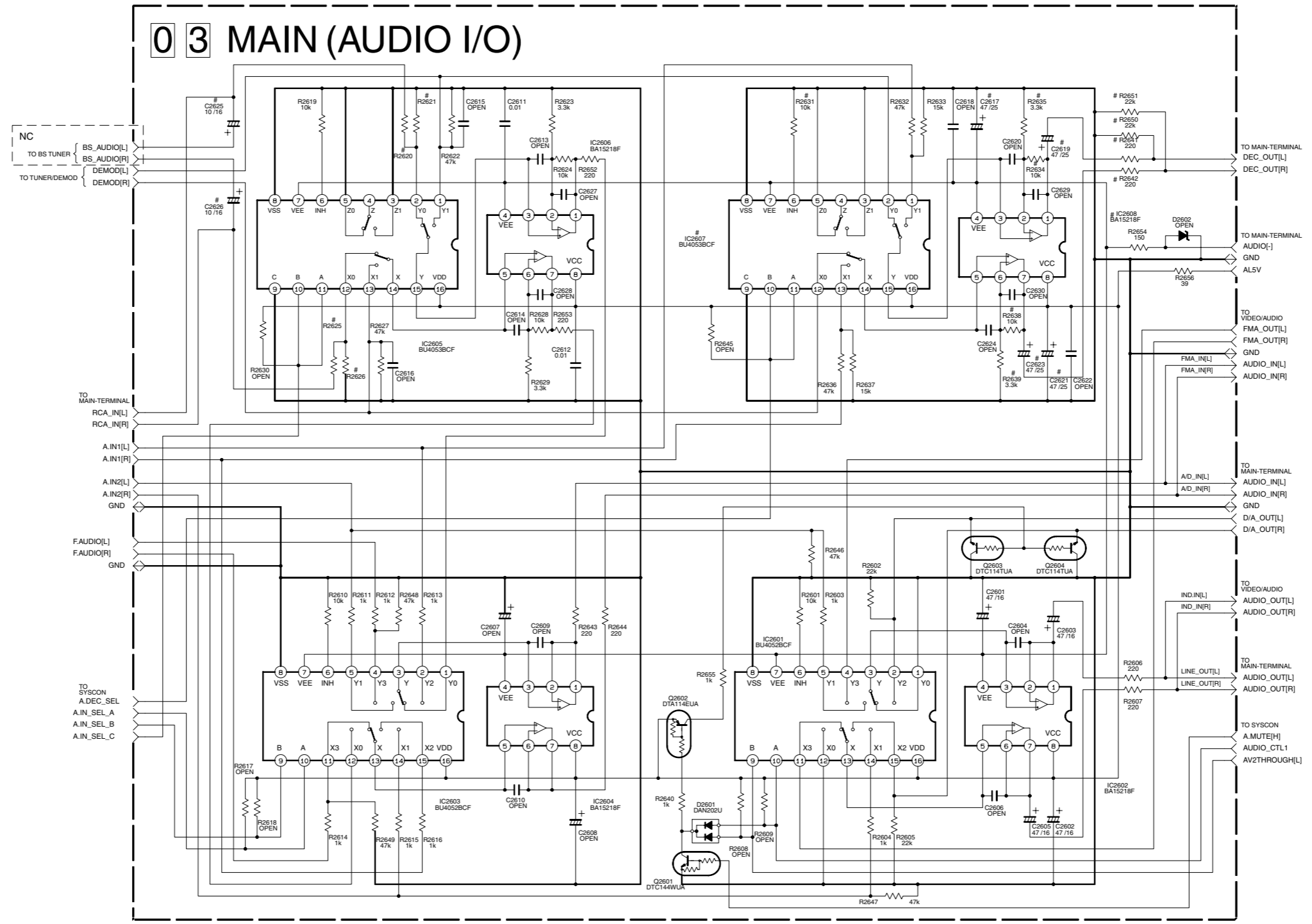
5
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A B C D 4-11 4-12 E F G H

NOTES: UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN pF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

4.6 MAIN (AUDIO I/O) 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

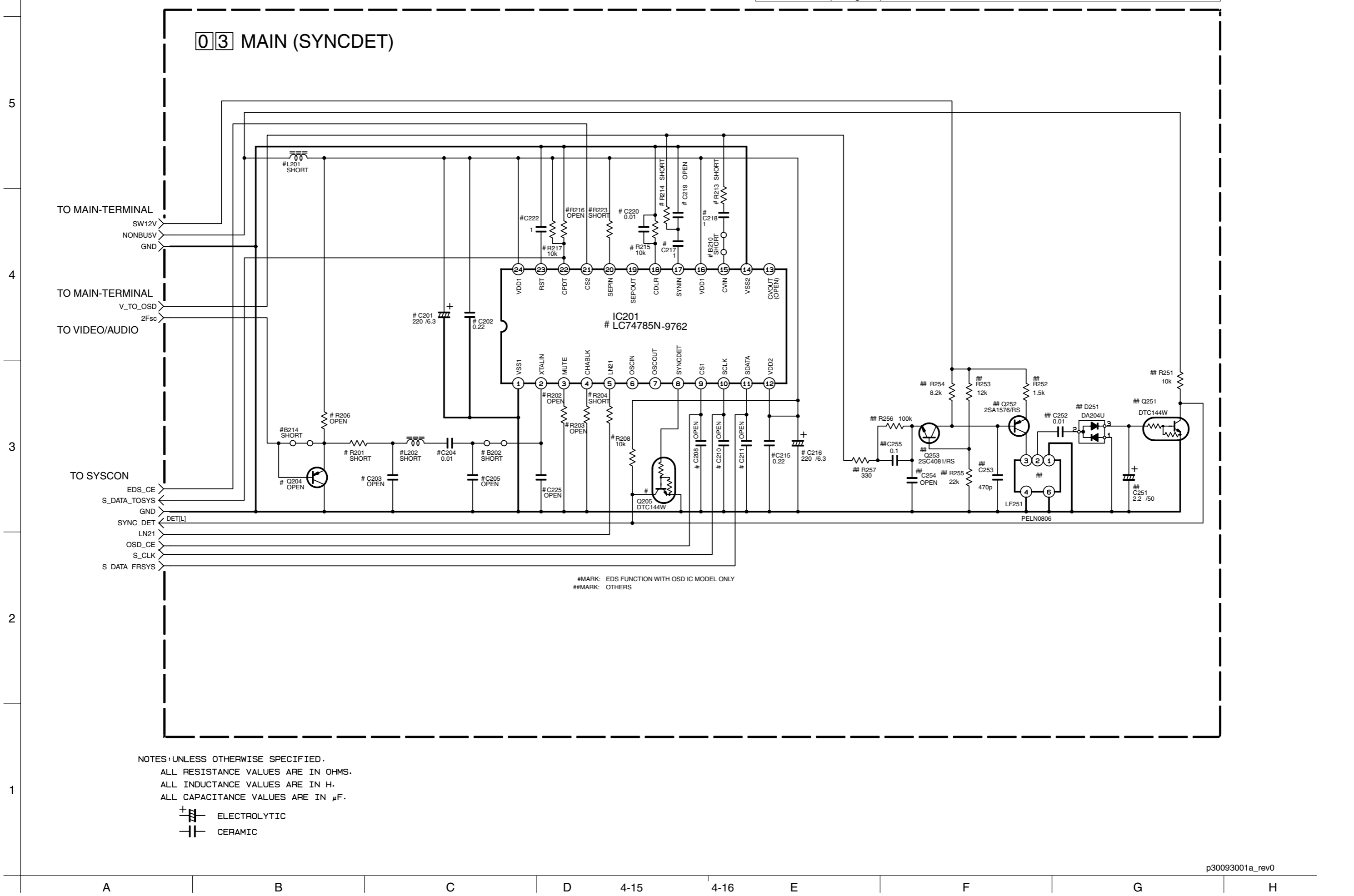
SYMBOL	C2625	R2620	R2621	IC2607	R2631	R2634	R2635	C2617	C2619
JPN	O	6.8k	10k	O					X
US	X	X	X						X
EU /EK /MS	X	1k	47k						O

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

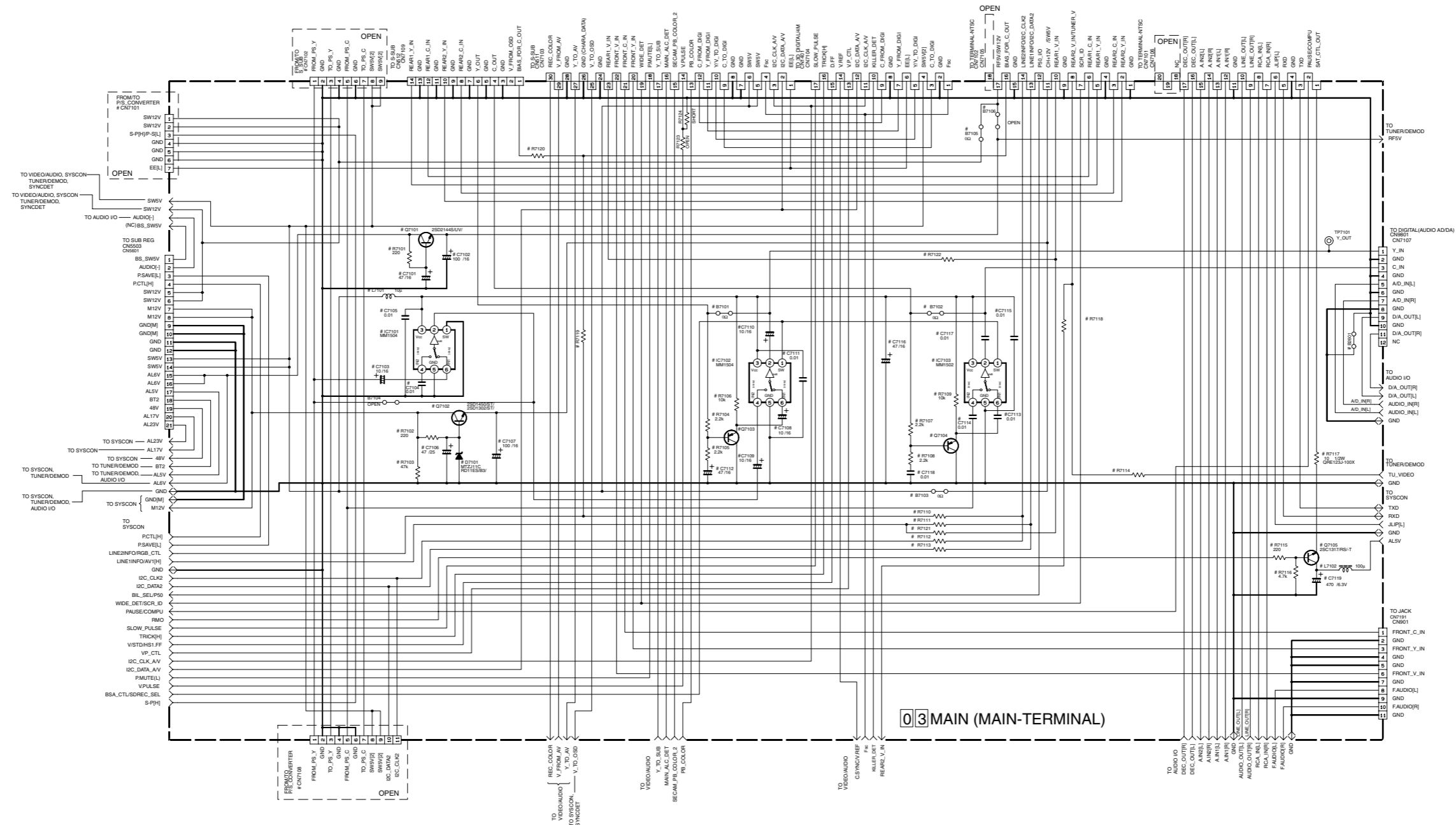
4.7 MAIN (SYNCDT) SCHEMATIC DIAGRAM

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.



4.8 MAIN (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.



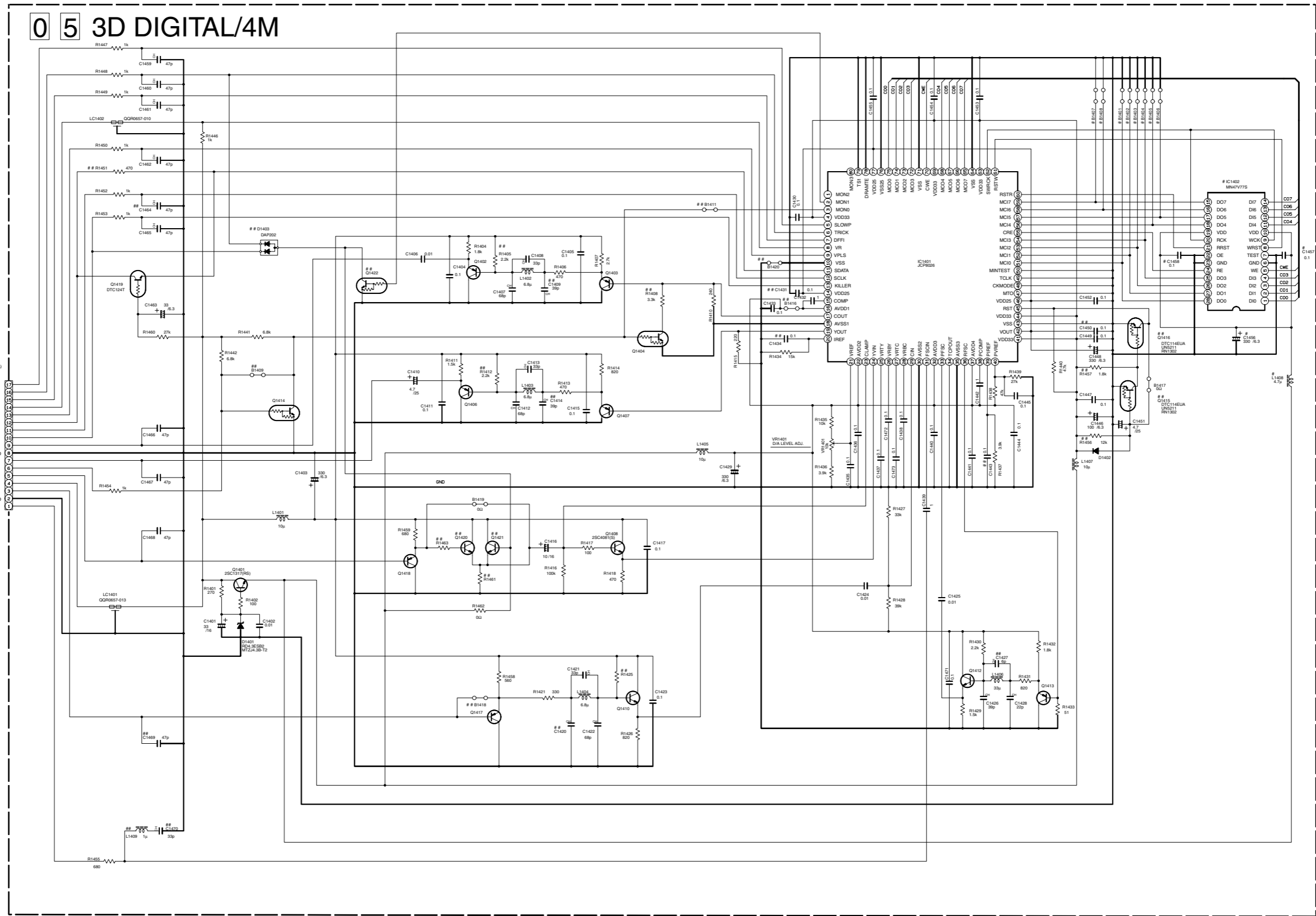
○ : Used × : Not used

# OPTION	C7103	C7115	L7101	B7106	R7103	C7119	B7105	B7100	B7101	R7110	R7120	R7112	R7118	B2001
HM-DK00000 AHD0007		×		×	×	×	○	○	○	×	×	×	×	×
HM-DK00000		×		×	×	×	×	○	○	×	×	×	×	×
HM-DK00000J		×		×	○	○	○	○	○	×	×	×	×	×
HM-DK00000LUBK		×		○	○	○	×	×	×	×	×	×	×	×
HM-DK00000MS		○		○	○	×	×	×	×	×	×	×	×	×

NOTES-UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN μH.
 ALL CAPACITANCE VALUES ARE IN μF.
 ELECTROLYTIC
 CERAMIC

4.9 3D DIGITAL/4M 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 μ F.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

MARK ELEMENTS ARE NOT MOUNTED.
 ALL DIODES ARE 1SS133 OR 1N4148
 ALL PNP TYPE TRANSISTORS ARE 2SA1576A(QR) OR 2SA1576
 ALL NPN TYPE TRANSISTORS ARE 2SC4081(QRS) OR 2SC4081
 ALL NPN TYPE DIGITAL TRANSISTORS ARE DTC144W(UA) OR UN621E OR RN1309

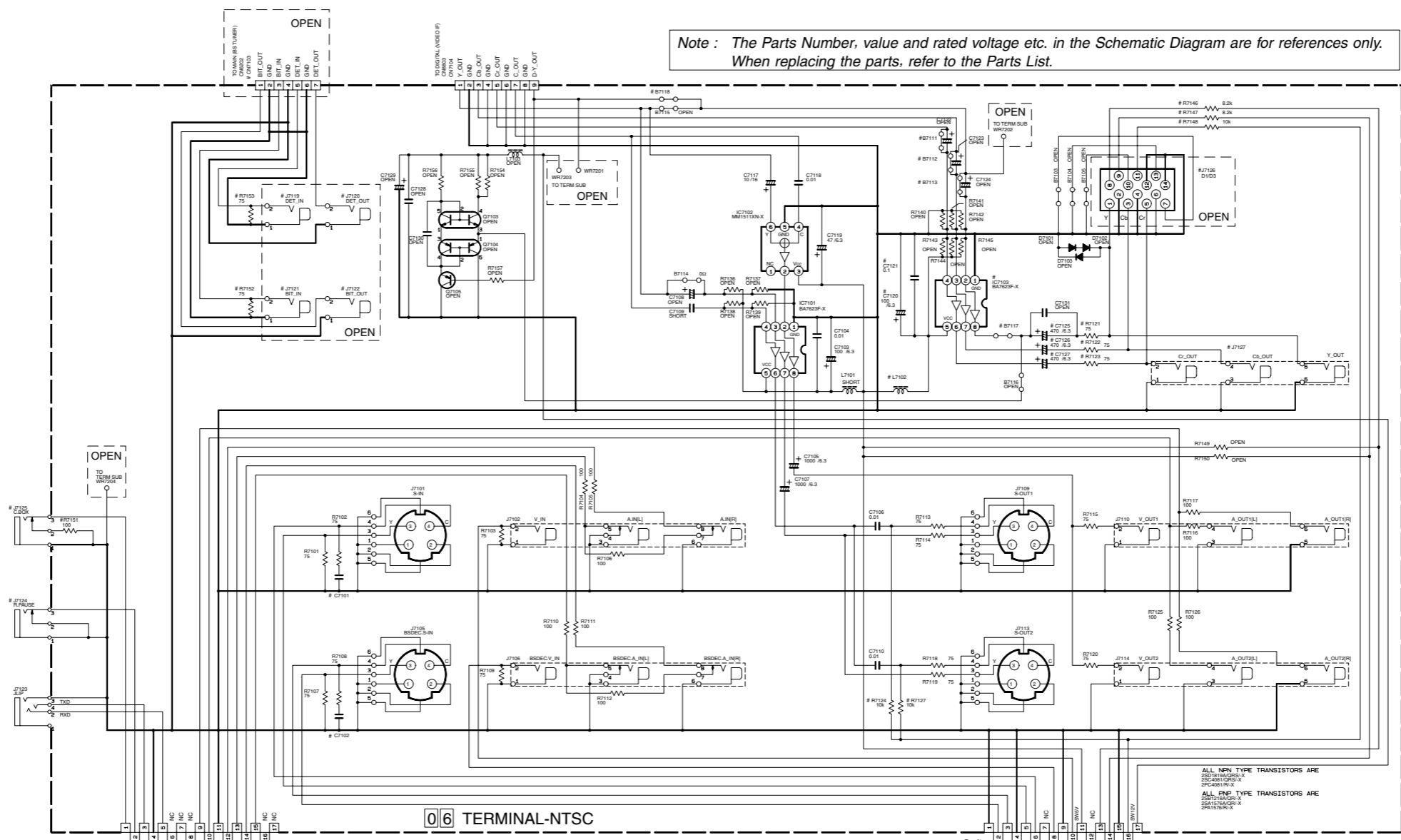
DIFFERENCE TABLE

SYSTEM	IC1402, L1408, C1406, C1407, C1408	B1401-B1406
4M	○	×
2M	×	○

○ : Used
 × : Not used

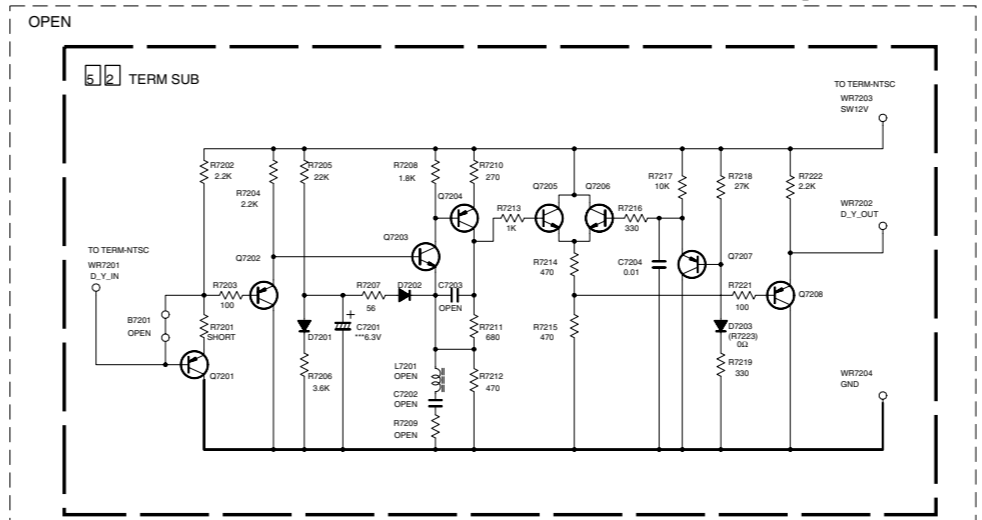
4.10 TERMINAL-NTSC SCHEMATIC DIAGRAM

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.



ALL NPN TYPE TRANSISTORS ARE 2SD1815ADALX
SPE4819R1X
ALL PNP TYPE TRANSISTORS ARE 2SD1715ADALX
SPE4819R1X

# OPTION	O : Used x : Not used													
	J7127	J7125	CON7103	R7153	B7111	IC7103	R7124	J7124	C7101	L7102	C7102	C7103	C7104	C7105
HM-DH30000	x	x	o	o	o	o	o	o	o	o	o	o	o	o
HM-DH20000	x	x	x	x	o	o	o	o	o	o	o	o	o	x
HM-DH30000U	o	o	x	o	o	o	x	o	o	o	o	o	o	o
A-HD2000*	x	x	o	o	o	o	o	x	o	o	o	o	o	o

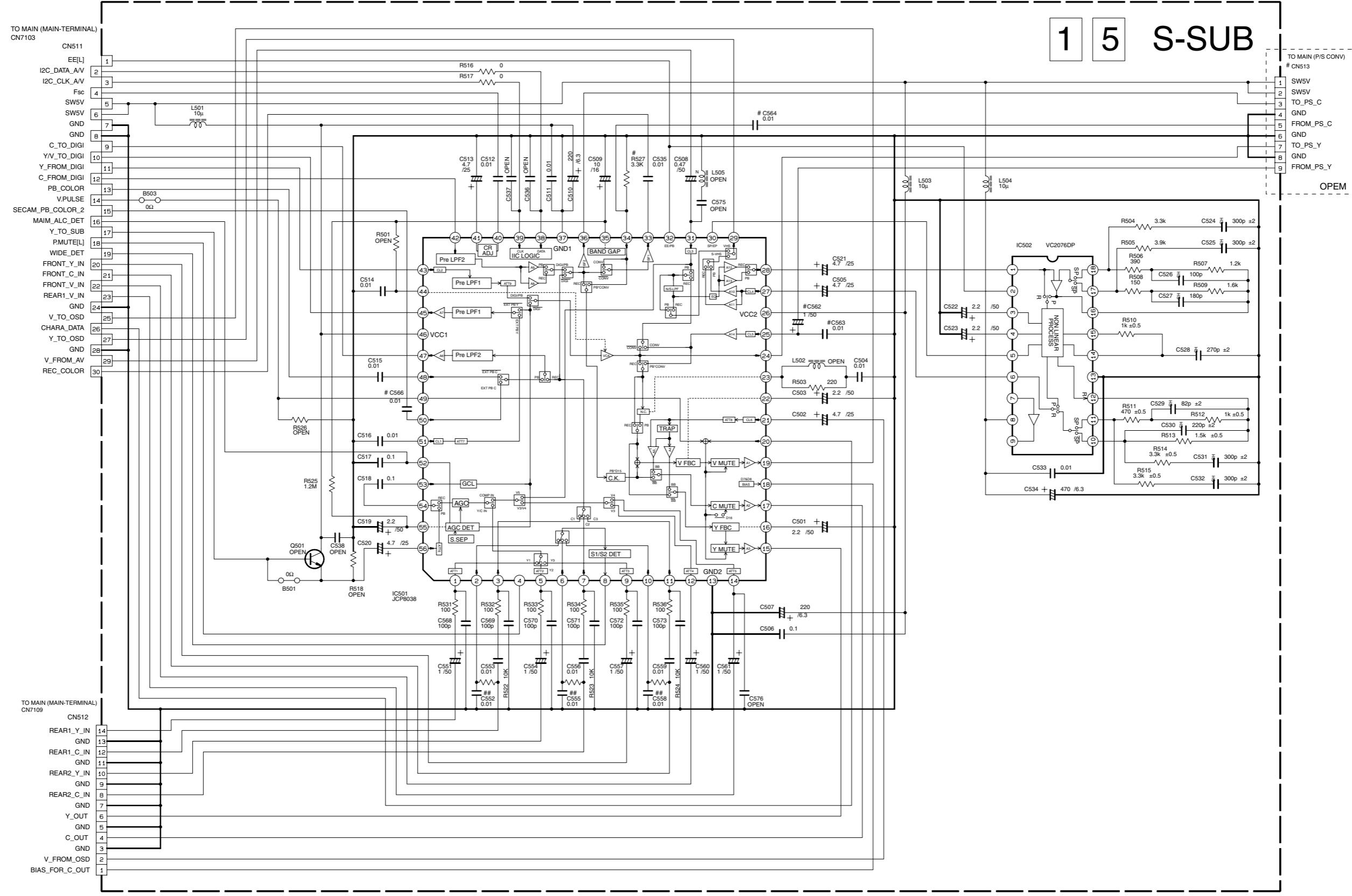


NOTES-UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN P.F.
ELECTROLYTIC
CERAMIC

4.11 S-SUB 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.

1 5 S-SUB



DIFFERENCE TABLE

	○ : Used	×
MS	○	×
OTHERS	×	○

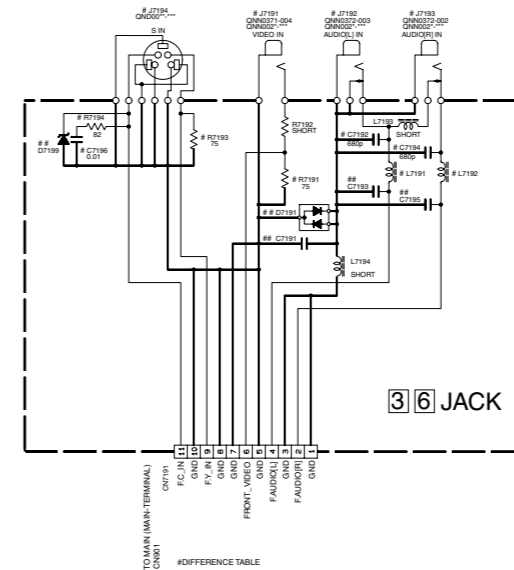
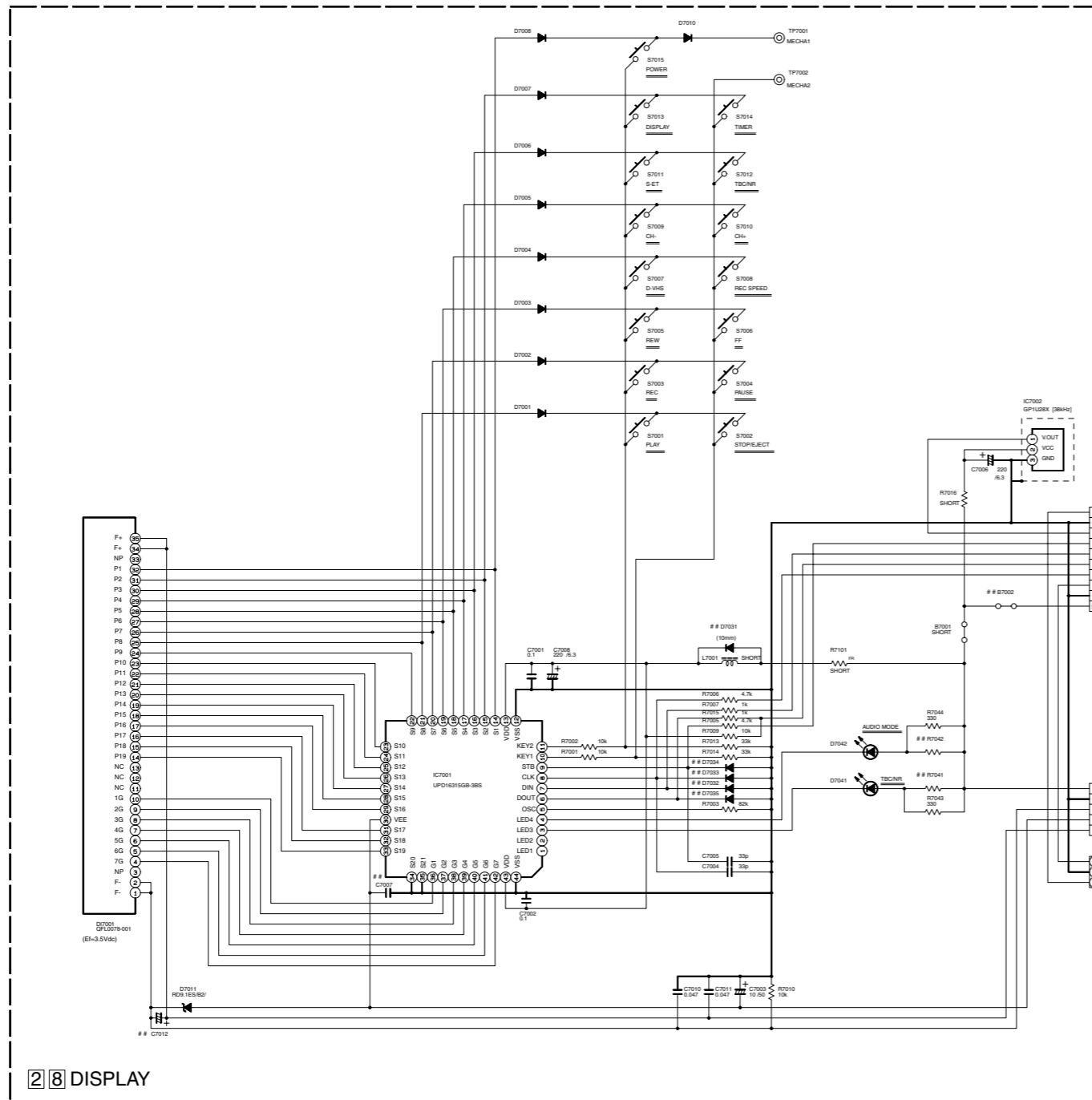
Marked elements may differ depending on the model.
Be sure to check the Parts List.

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

4.12 DISPLAY, REC SAFETY/D.CASS SW AND JACK SCHEMATIC DIAGRAMS

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

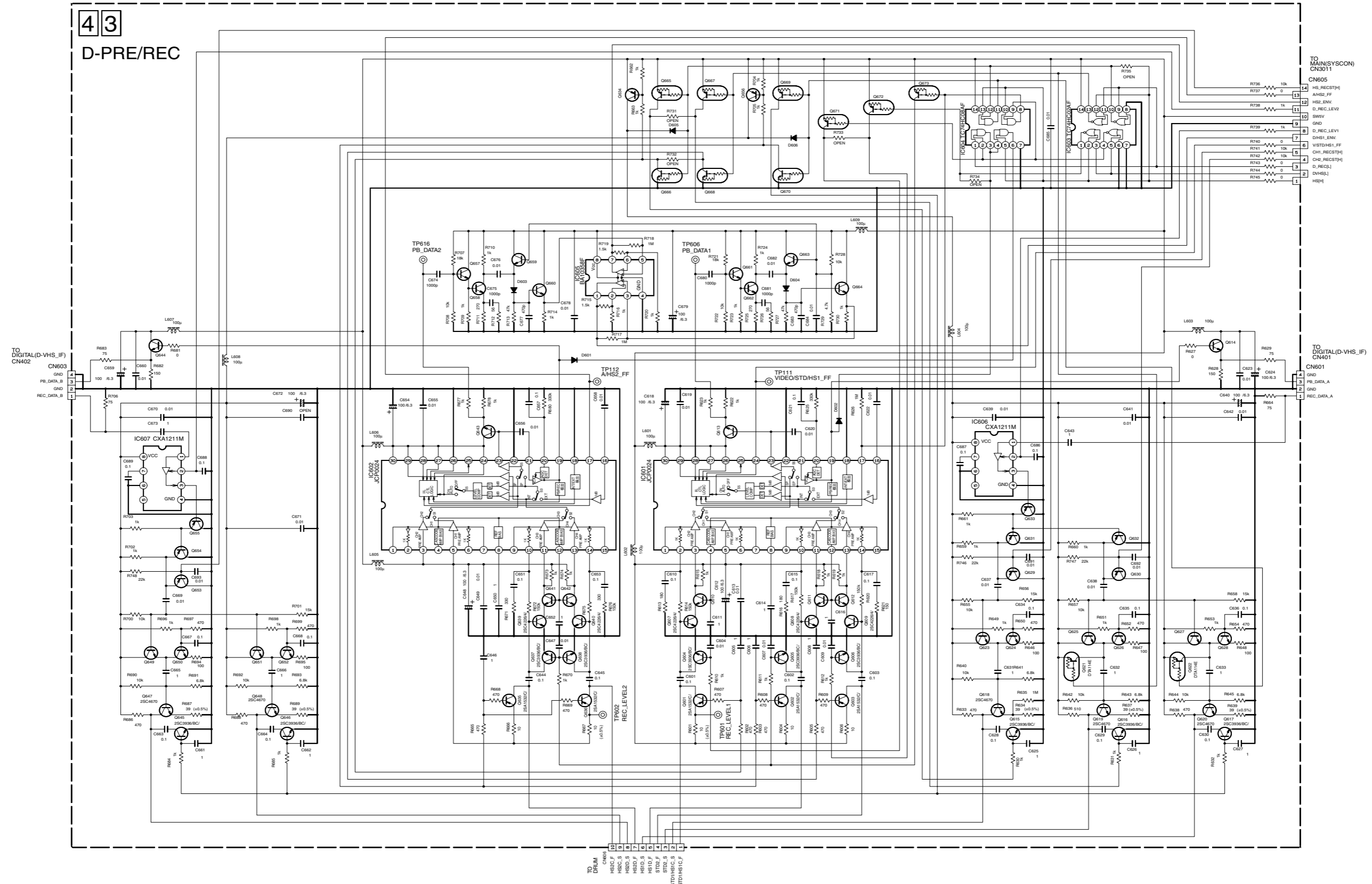
	R7181	R7183	R7184	C7182	C7184	C7186	L7181	L7182
18A CH2000	○	X	X	X	X	X		
18A CH2000S	○	X	X	X	X	X	100μ	100μ

○ : Used × : Not used

NOTES-UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN μF.
 ELECTROLYTIC
 CERAMIC
 MYLAR
 NON POLAR
 ALL SWITCHES ARE QSW0381-001 OR QSW0522-002Z.
 ALL DIODES ARE 1SS133 OR 1SS270A.
 # ARE OPEN.

4.13 D-PRE/REC 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.

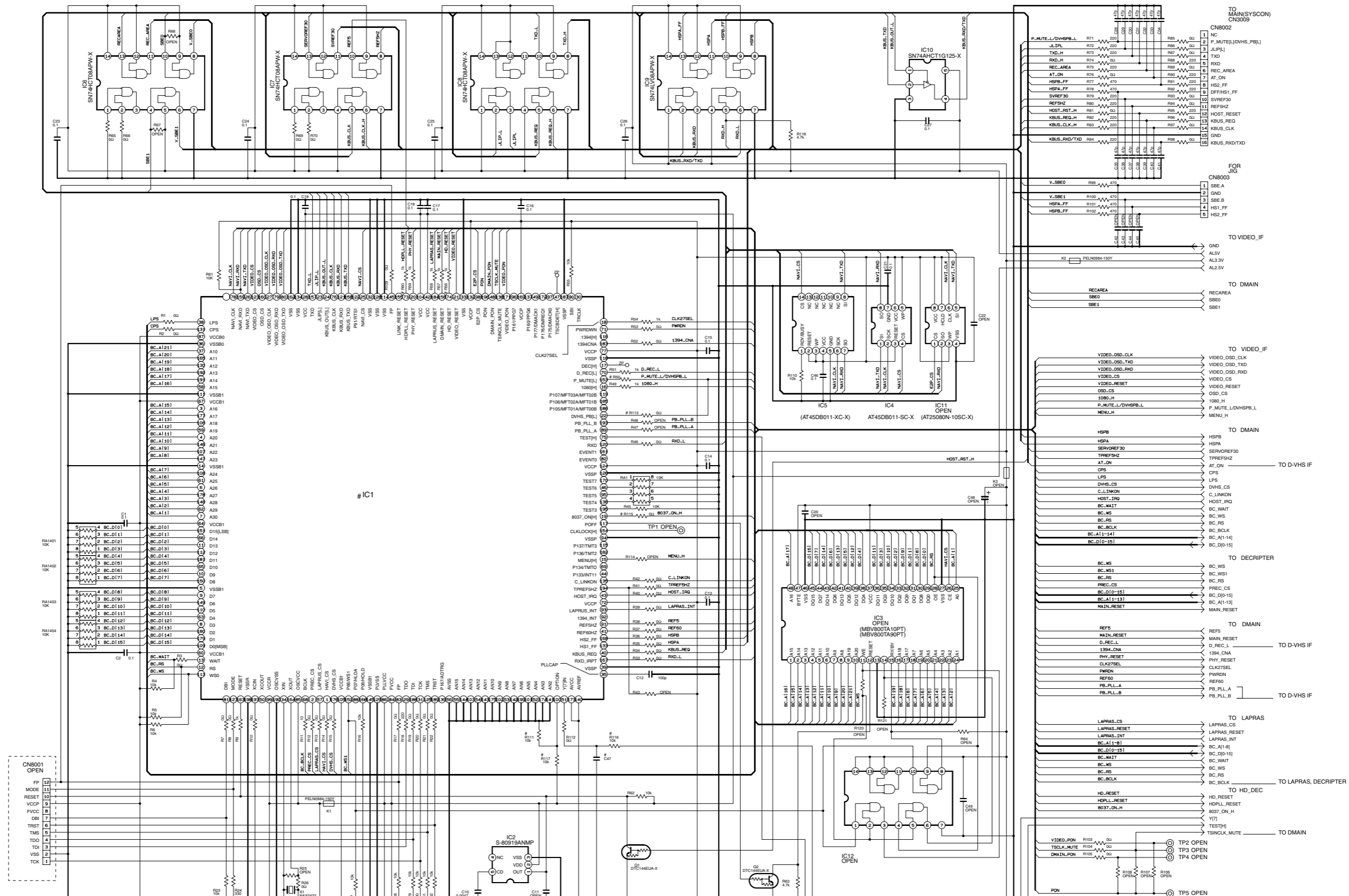


NOTES-UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN pF.
 ELECTROLYTIC
 CERAMIC

ALL PNP TYPE TRANSISTORS ARE 2SC4081
 ALL PNP TYPE TRANSISTORS ARE 2SA1019B
 ALL NPN TYPE DIGITAL TRANSISTORS ARE DT1C144W
 ALL PNP TYPE DIGITAL TRANSISTORS ARE DT1A144W
 ALL DIODES ARE 1SS855

4.14 DIGITAL (HOST) 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.



# MARKS	Used	Not used	R50	R56	R60	R111	R113	R115	R116	R117	C47	IC1
HM-DH3000U	X	O	O	O	X	X	O	O	O	O	1	MS2129FC-125WG
HM-DH25000	O	X	X	O	X	X	X	X	X	X	0.01	MS2129FC-125WG

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

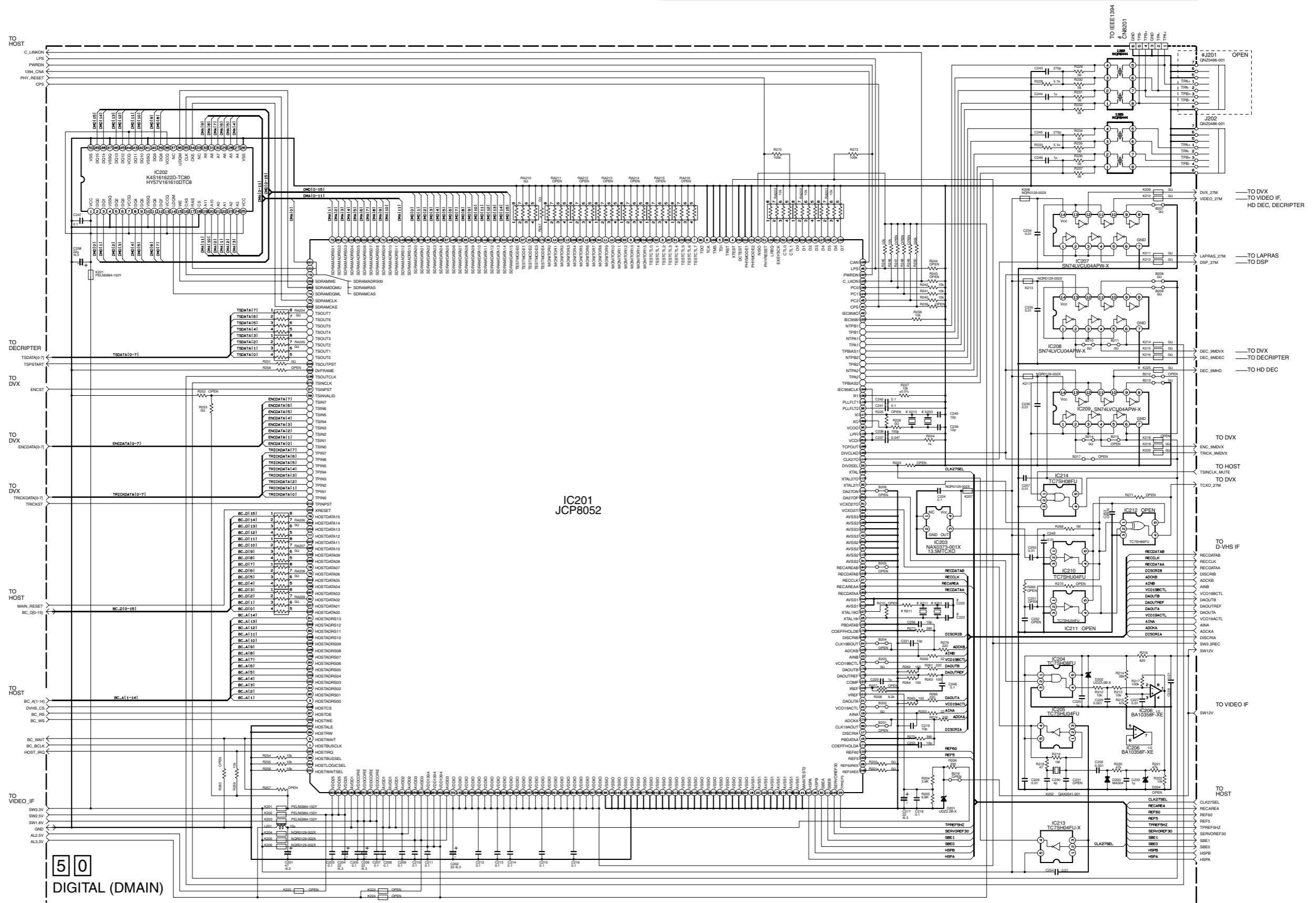
ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

50 DIGITAL (HOST)

4.15 DIGITAL (DMAIN) 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.

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4
3
2
1



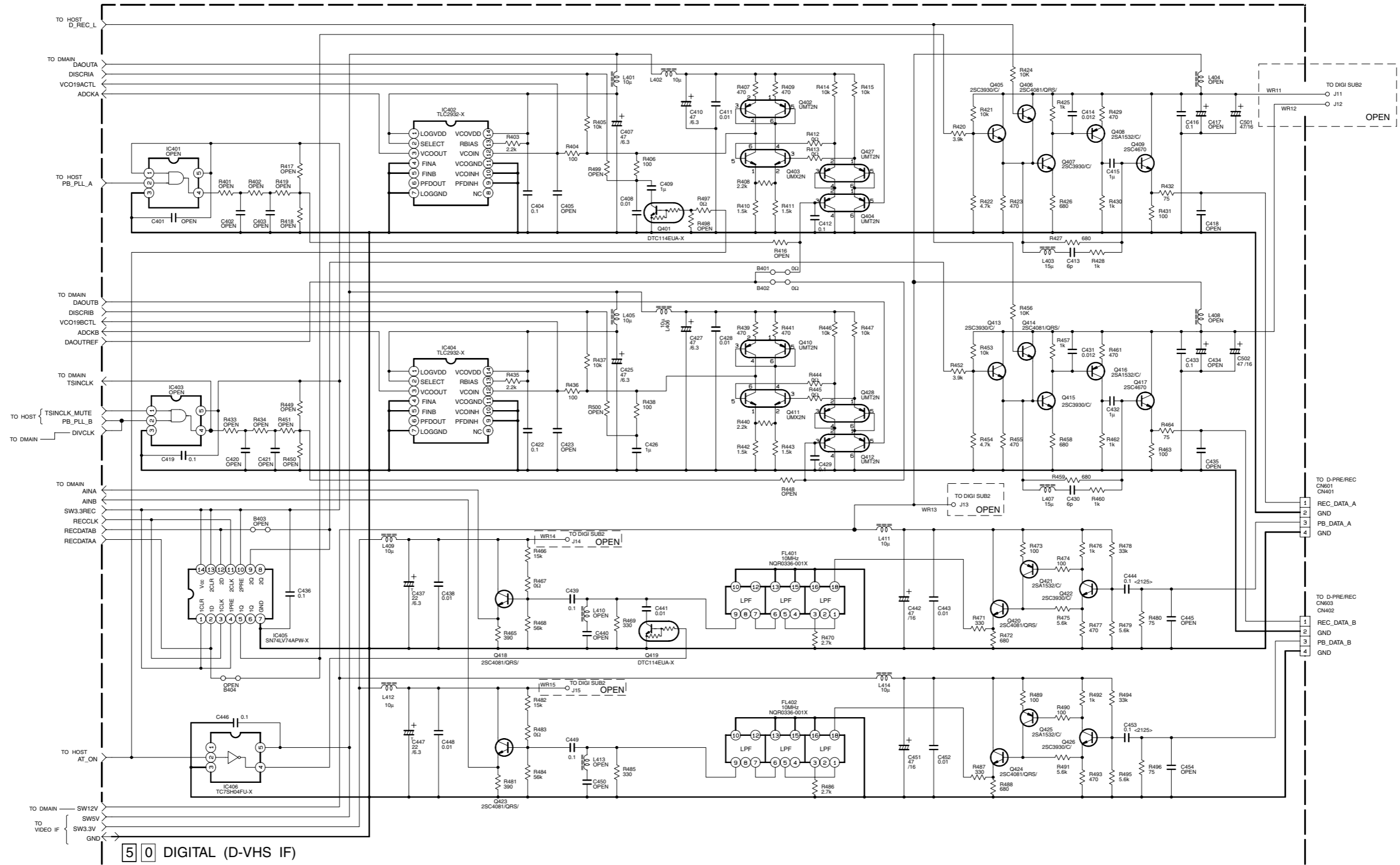
50
DIGITAL (DMAIN)

# MARKS	○ Used	× Not used	J201	CN6201	X201	X211	R211	C222	C223	X203	X213	K225
HM-DH30000U	×	○	×	×	×	×	47	12p	12p	NAX0336-001X	×	○
HM-DH25000	○	×	×	×	×	×	47	12p	12p	NAX0336-001X	×	×
HM-DH35000	×	○	×	×	×	×	200	5p	5p	×	NAX0509-001X	○

NOTES UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN #F.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

4.16 DIGITAL (D-VHS IF) 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.

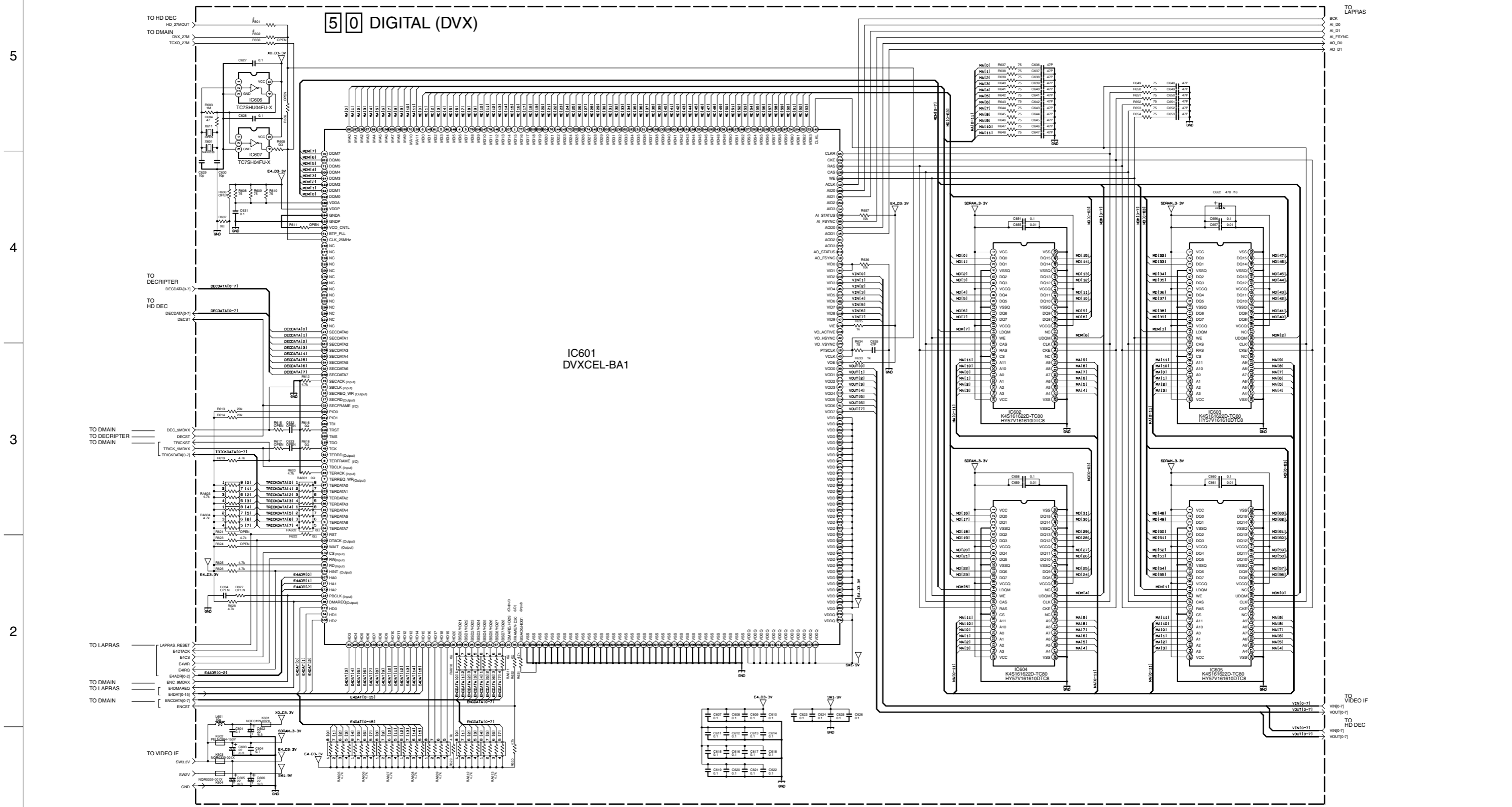


5 0 DIGITAL (D-VHS IF)

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

4.17 DIGITAL (DVX) 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.

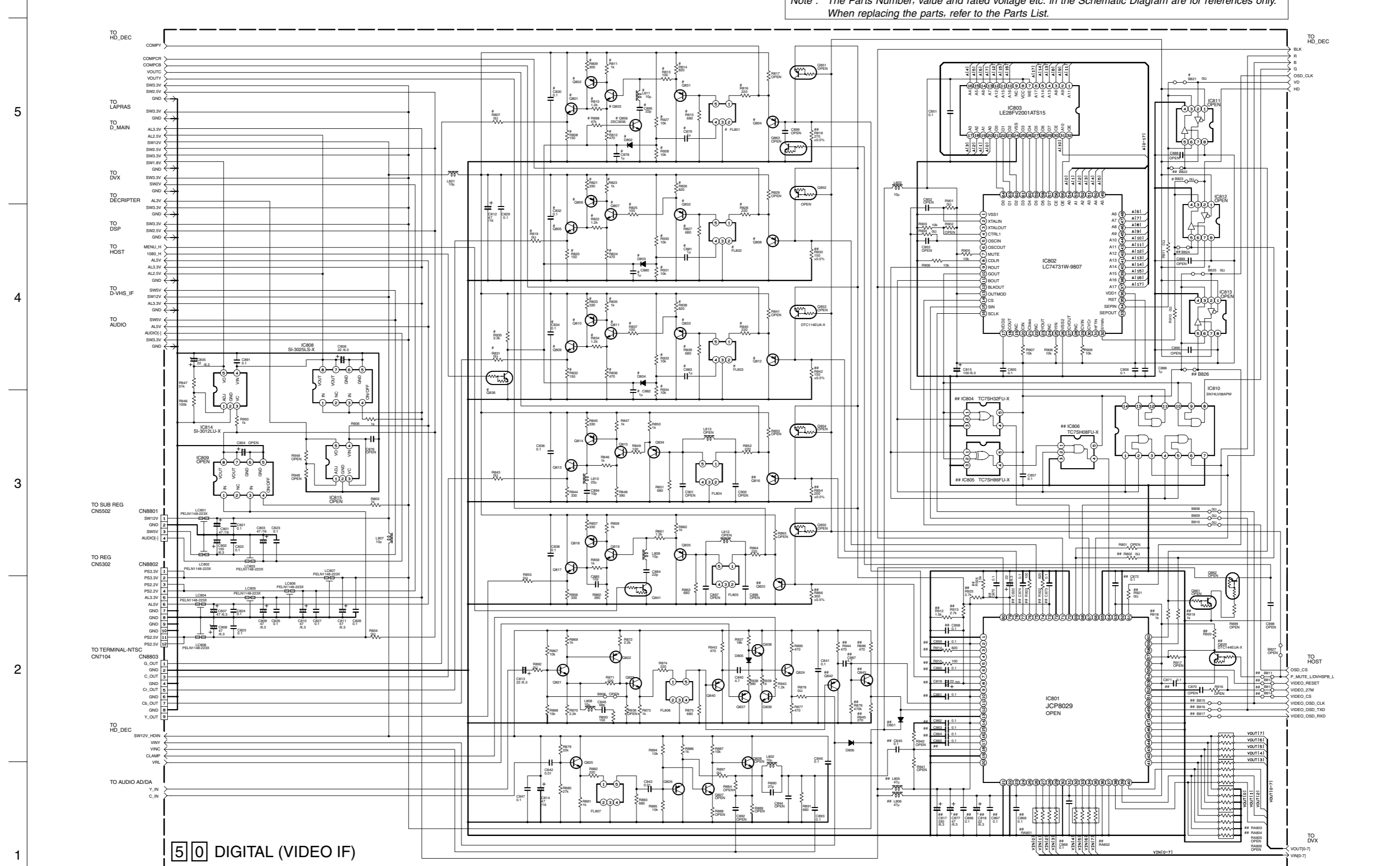


# MARKS	○ : Used	× : Not used
HMA-DH30000U	○	×
HMA-DH25000	×	○
HMA-DH35000	○	×

NOTES-UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN #F.
 [Symbol] ELECTROLYTIC
 [Symbol] CERAMIC
 [Symbol] MYLER
 [Symbol] NON POLAR

4.18 DIGITAL (VIDEO IF) 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.



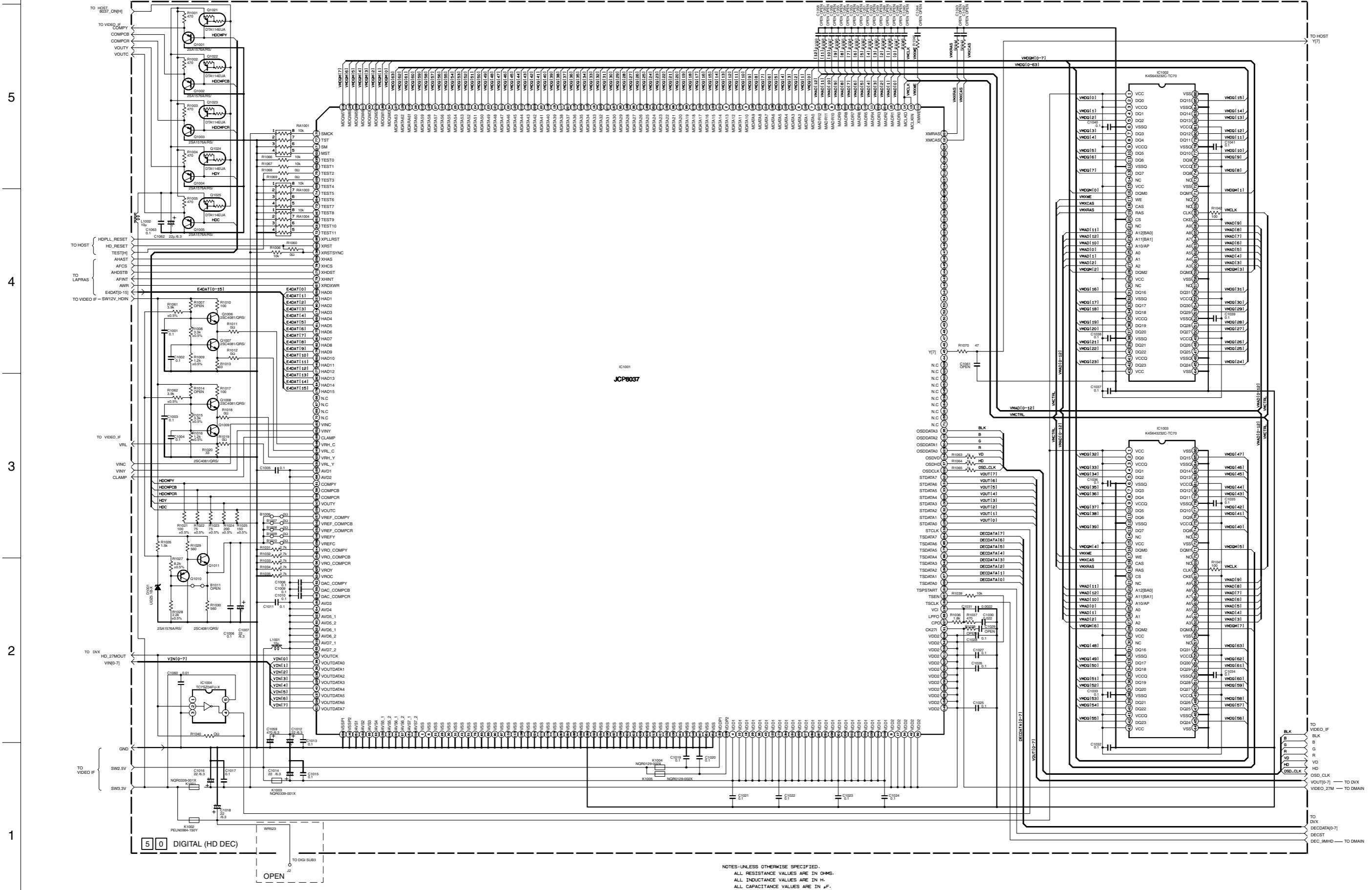
5 0 DIGITAL (VIDEO IF)

MARKS ELEMENTS ARE MOUNTED ONLY HM-DH30000U.
MARKS ELEMENTS ARE MOUNTED ONLY HM-DH25000.

NOTES: UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN P.F.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

4.19 DIGITAL (HD DEC) 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.

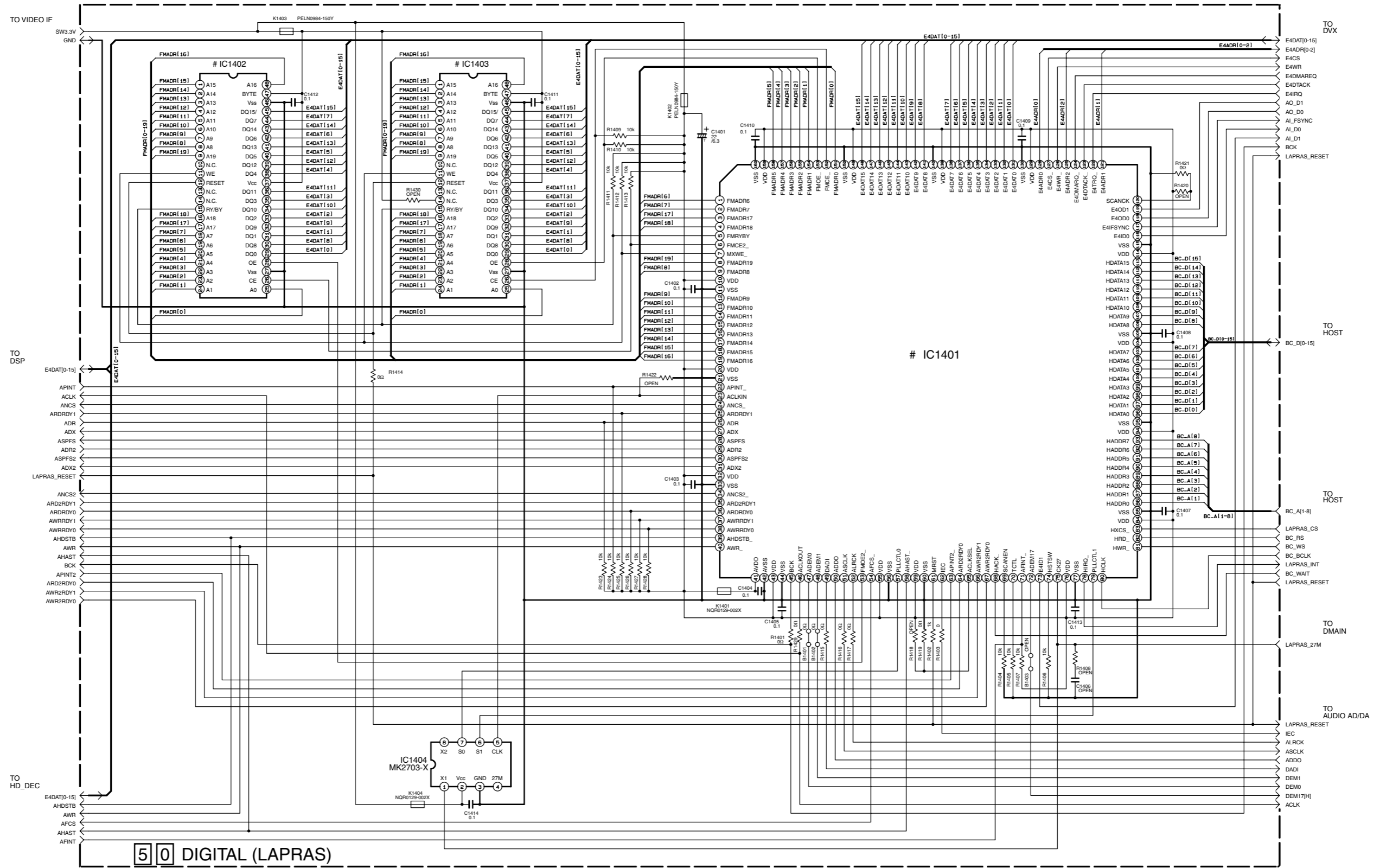


NOTES-UNLESS OTHERWISE SPECIFIED.
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN pF.

ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

4.20 DIGITAL (LAPRAS) 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.



5 0 DIGITAL (LAPRAS)

NOTICE

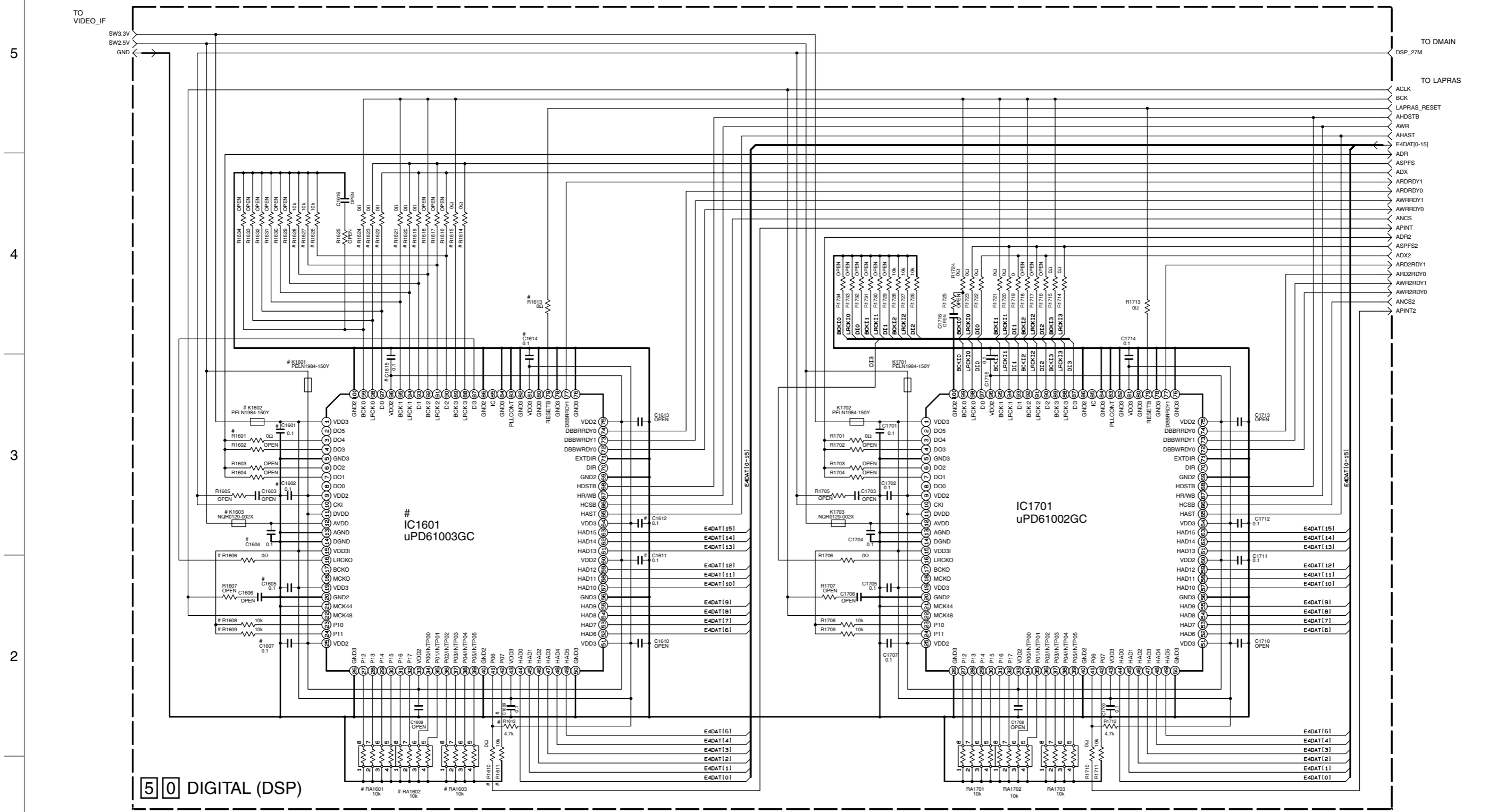
	IC1401	IC1402	IC1403
HM-DH30000U	JCP8034-2	OPEN	SST39VF160-7CEK
HM-DH25000	JCP8034	OPEN	MBV800TA90PT
HM-DH35000	JCP8034-2	MR27V1602E-1STN	SST39VF160-7CEK

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

4.21 DIGITAL (DSP) 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.



5 0 DIGITAL (DSP)

MARKS ELEMENTS ARE MOUNTED ONLY HM-DH30000U.

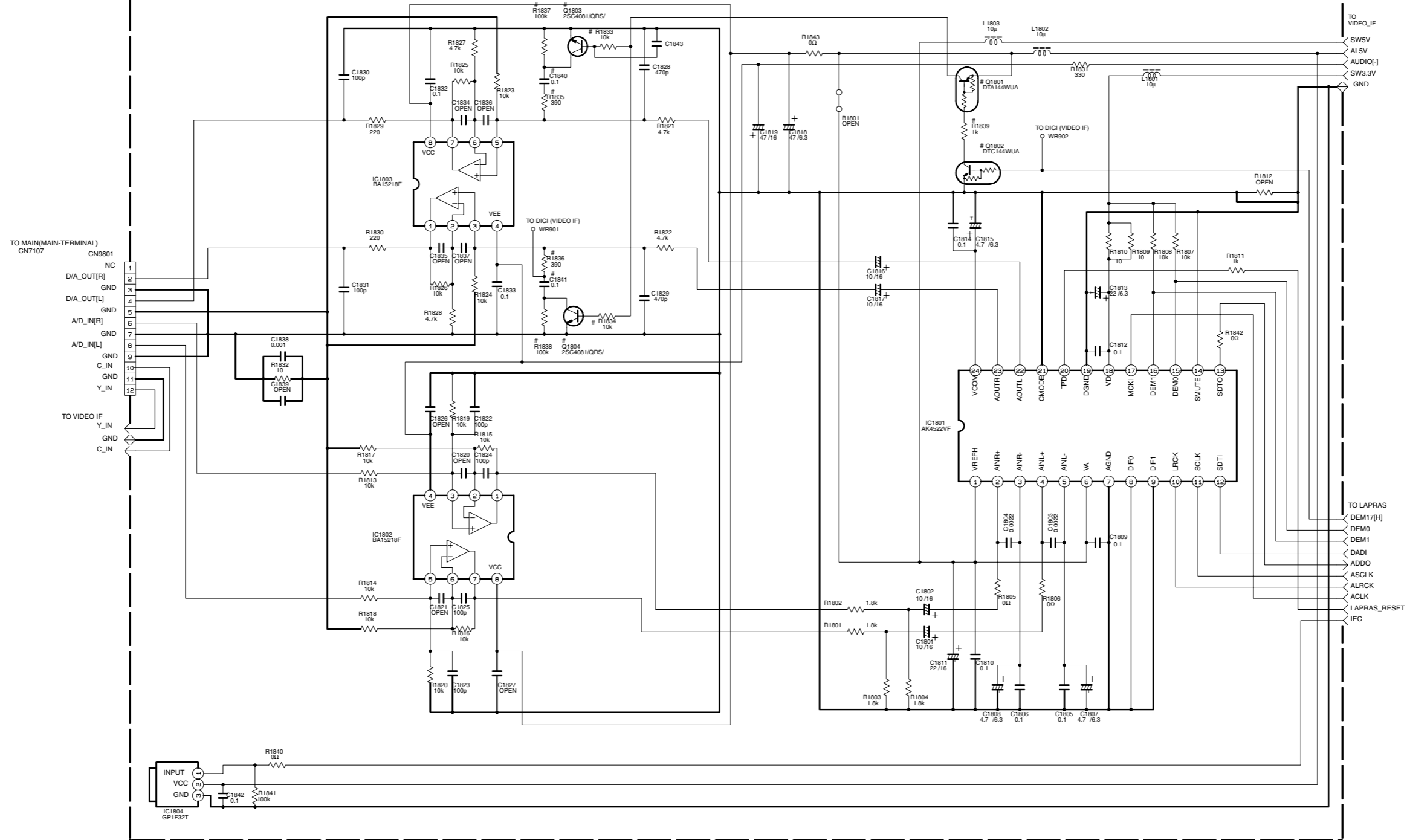
NOTES: UNLESS OTHERWISE SPECIFIED.
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN µF.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

4.22 DIGITAL (AUDIO AD/DA) 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.

5 0 DIGITAL(AUDIO AD/DA)



#DIFFERENCE TABLE

SYMBOL	Q1801 - Q1804 R1833 - R1839 C1840, C1841	SYMBOL	IC1804 R1840 R1841 C1842
JPN /US	X	OPTICAL OUT	O
EU/EK /MS	O	NO	X

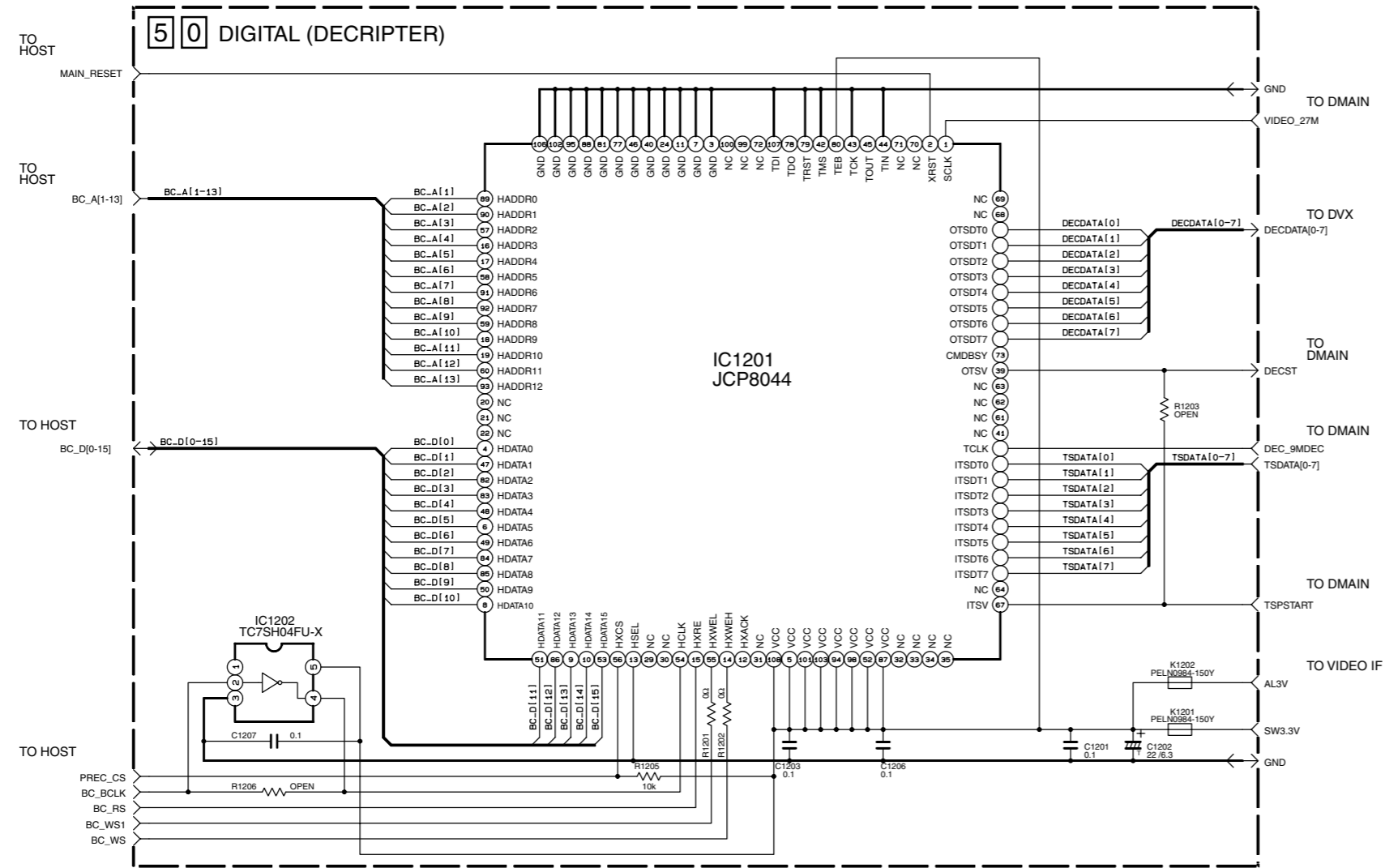
O : Used X : Not used

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

4.23 DIGITAL (DECRYPTER) 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.

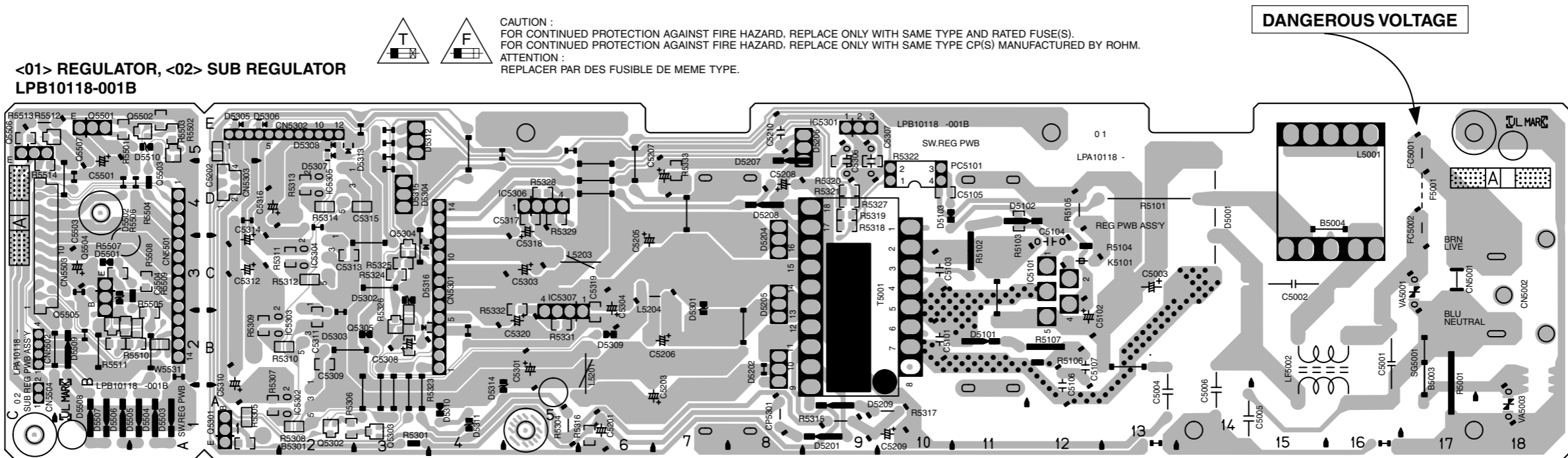


NOTES: UNLESS OTHERWISE SPECIFIED.
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN μ F.

ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

5
4
3
2
1

4.24 REGULATOR AND SUB REGULATOR CIRCUIT BOARDS

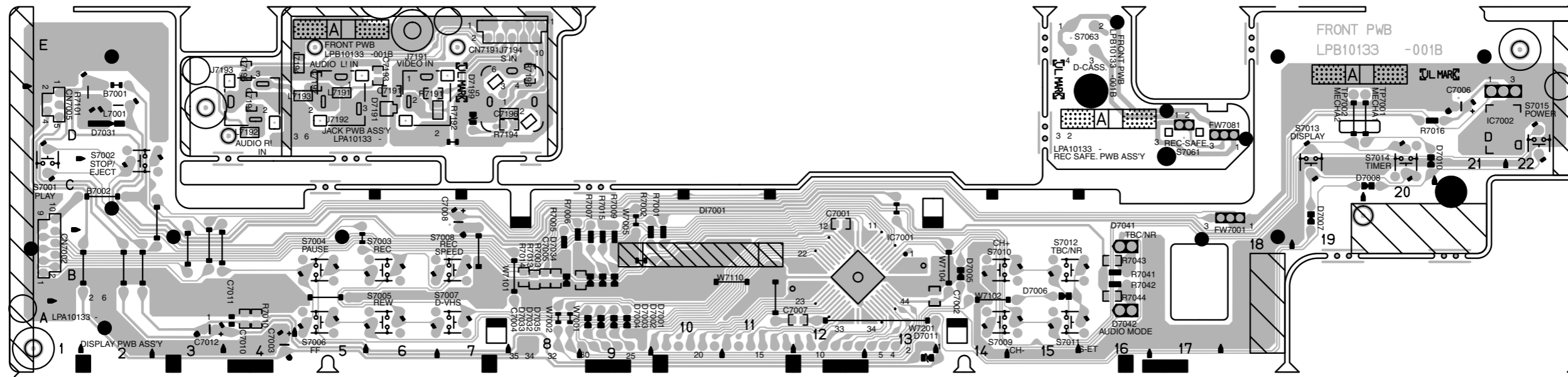


COMPONENT PARTS LOCATION GUIDE <REGULATOR AND SUB REGULATOR>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR									
C5001	A D 17B	C5311	B C 2B	D5302	A D 4C	TRANSISTOR			
C5002	A D 16C	C5312	A D 2C	D5303	A D 3B	Q5301	A D 1A	R5318	B C 9D
C5003	A D 14C	C5313	B C 3C	D5304	B C 4C	Q5302	B C 3A	R5319	B C 9D
C5004	A D 14B	C5314	A D 2C	D5305	B C 1E	Q5303	B C 3A	R5320	B C 9D
C5005	A D 15A	C5315	B C 3D	D5306	B C 2E	Q5304	B C 4C	R5321	B C 9D
C5006	A D 14A	C5316	A D 2D	D5307	B C 3E	Q5305	B C 3B	R5322	B C 10D
C5101	A D 11B	C5317	A D 5D	D5308	B C 3E	RESISTOR			
C5102	A D 13C	C5318	A D 5D	D5309	A D 6B	R5001	A D 18A	R5323	B C 3C
C5103	A D 11C	C5319	B C 6B	D5310	A D 4A	R5101	A D 13D	R5324	B C 3C
C5104	A D 12C	C5320	A D 5B	D5311	A D 4A	R5102	A D 11D	R5325	B C 3C
C5105	B C 11D	CONNECTOR		D5312	A D 4E	R5103	B C 12D	R5326	B C 4B
C5106	A D 12A	CN5001	A D 18C	D5313	B C 3E	R5104	A D 13C	R5327	B C 9D
C5107	A D 13B	CN5002	A D 18C	D5314	A D 5A	R5105	A D 13D	R5328	B C 5D
C5201	A D 6A	CN5301	A D 4B	D5315	A D 4D	R5106	A D 12B	R5329	B C 6D
C5202	B C 1E	CN5302	A D 1E	D5316	B C 4B	R5107	A D 12B	R5330	B C 6B
C5203	A D 7A	CN5303	A D 1D	IC		R5108	A D 12B	R5331	B C 5C
C5205	A D 7D	DIODE		IC5101	A D 12C	R5109	A D 12B	R5332	B C 7D
C5206	A D 7B	D5001	A D 14C	IC5301	A D 9E	R5301	A D 4A	OTHER	
C5207	A D 7D	D5101	A D 11B	IC5302	A D 2A	R5302	B C 6A	CP5301	A D 9A
C5208	A D 8D	D5102	A D 11D	IC5303	A D 2C	R5303	B C 1A	F5001	A D 17C
C5209	A D 10A	D5103	A D 11D	IC5304	A D 3C	R5304	B C 3A	FC5001	A D 17C
C5210	A D 9E	D5201	A D 9A	IC5305	A D 3D	R5305	B C 2A	FC5002	A D 17E
C5301	A D 5B	D5202	A D 9B	IC5306	A D 5D	R5306	B C 2A	K5101	A D 12C
C5303	A D 5C	D5204	A D 9C	IC5307	A D 6B	R5307	B C 2C	LF5002	A D 16A
C5304	A D 6B	D5205	A D 9B	COIL		R5308	B C 2B	PC5101	A D 10D
C5306	A D 9E	D5206	A D 9E	L5001	A D 17C	R5309	B C 2C	SG5001	A D 17A
C5307	A D 10E	D5207	A D 9E	L5201	A D 6A	R5310	B C 2D	T5001	A D 10D
C5308	A D 3B	D5208	A D 9D	L5203	A D 6C	R5311	B C 2C	VA5001	A D 17C
C5309	B C 2B	D5209	A D 10A	L5204	A D 7C	R5312	B C 2D	VA5003	A D 18A
C5310	A D 1A	D5301	A D 8C						

4.27 DISPLAY, REC SAFETY AND JACK CIRCUIT BOARDS

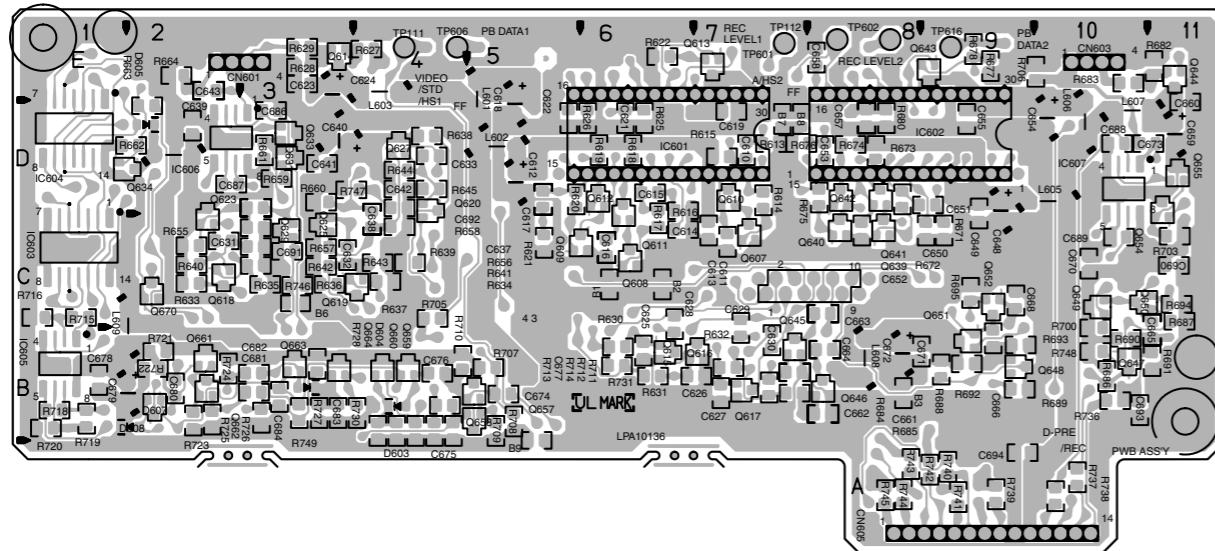
<28> DISPLAY, <32> REC SAFETY, <36> JACK
LPB10133-001B



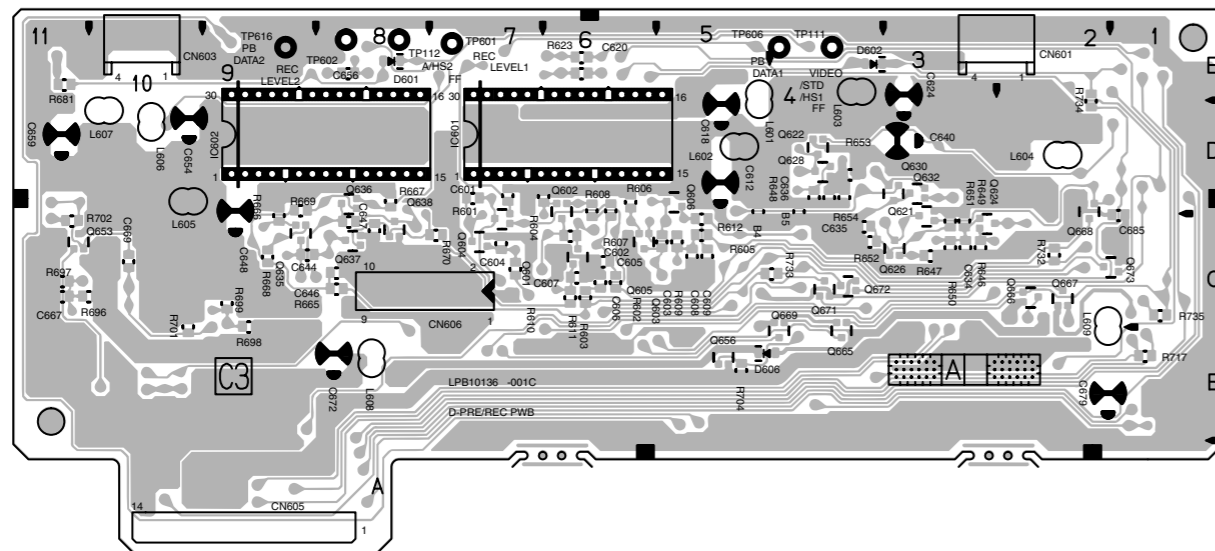
4.28 D-PRE/REC CIRCUIT BOARD

<43> D-PRE/REC
LPB10136-001C

— FOIL SIDE(B)—



— COMPONENT SIDE(A)—



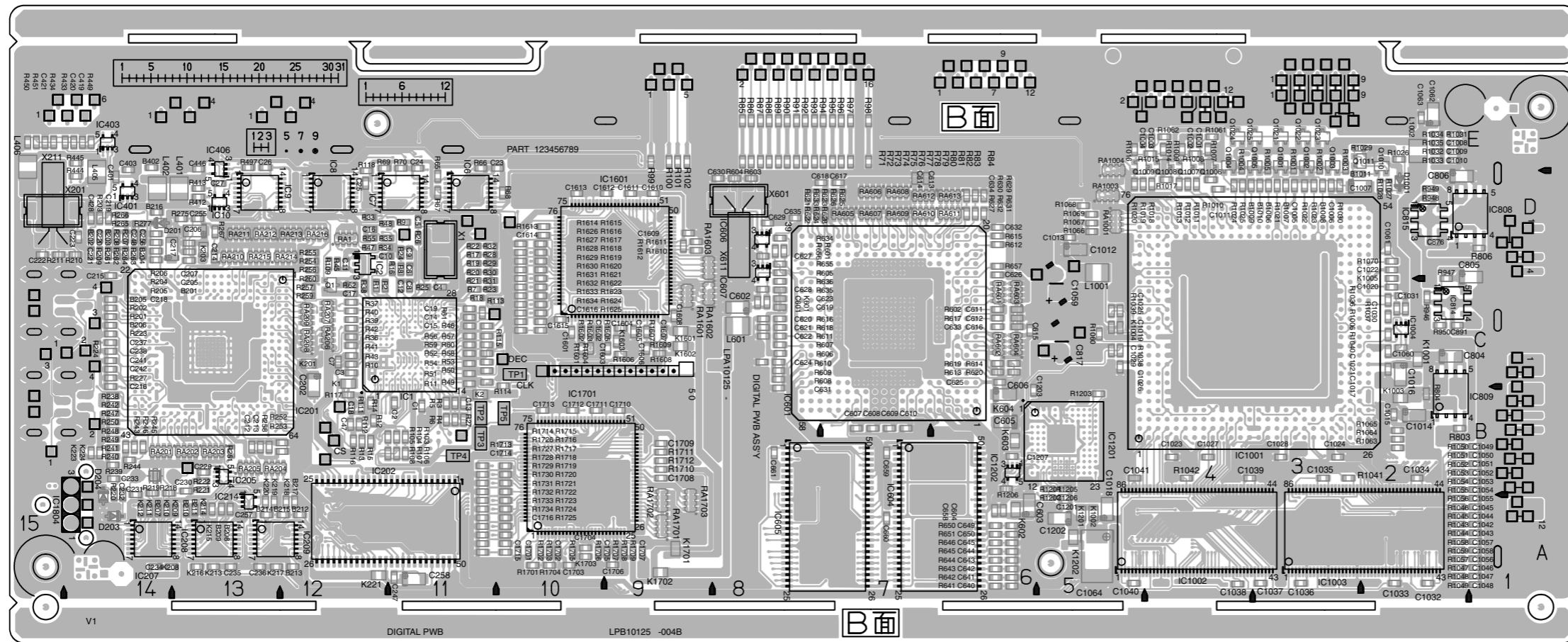
COMPONENT PARTS LOCATION GUIDE

<D-PRE/REC>

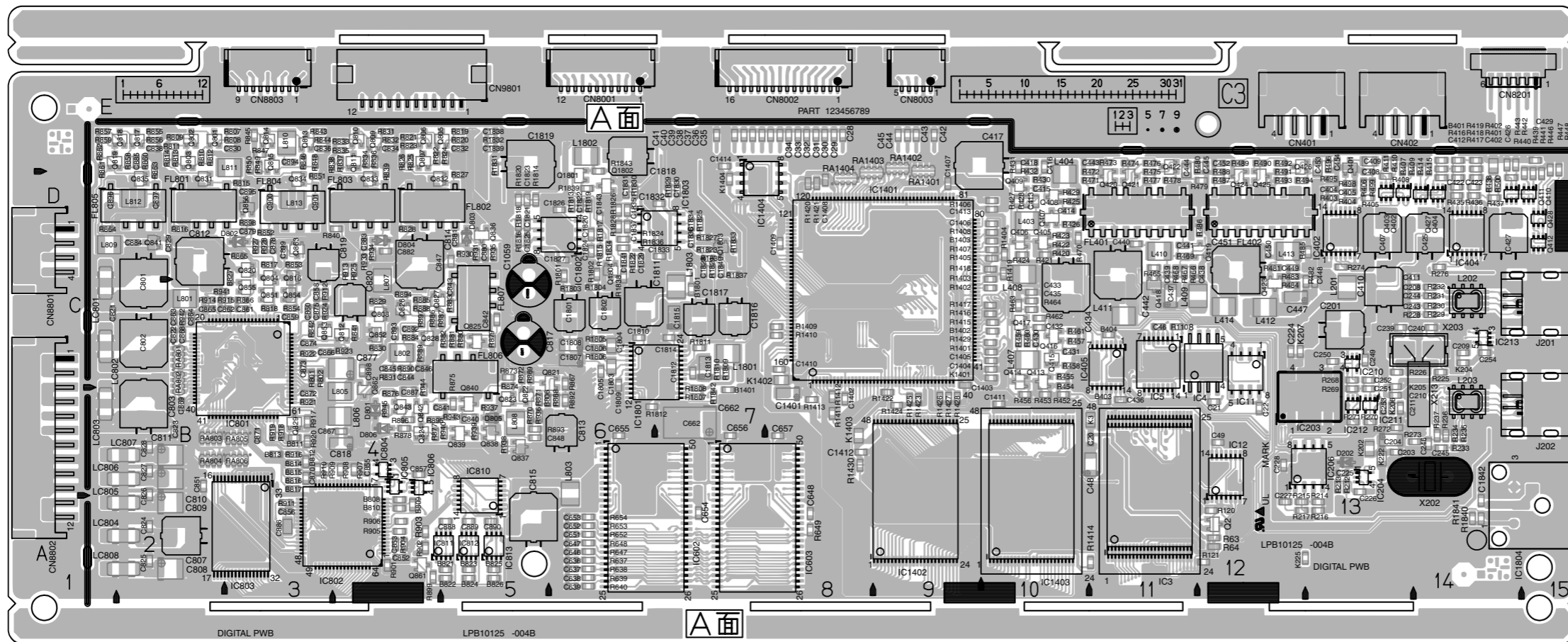
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR							
C601	A C 7D	C690	B C 11C	Q650	B C 10C	R666	A C 9C
C602	A C 6C	C691	B C 3C	Q651	B C 9B	R667	A C 8D
C603	A C 5C	C692	B C 4D	Q652	B C 9C	R668	A C 9C
C604	A C 7C	C693	B C 10B	Q653	A C 11C	R669	A C 9D
C605	A C 6C	C694	B C 9A	Q654	B C 11D	R670	A C 7C
C606	A C 6C	CONNECTOR		Q655	B C 11D	R671	A C 9C
C607	A C 6C	CN601	A D 2E	Q656	A C 5B	R672	B C 8D
C608	A C 5C	CN603	A D 10E	Q657	B C 5B	R673	B C 8D
C609	A C 5C	CN605	A D 8A	Q658	B C 5B	R674	B C 8D
C610	B C 7D	CN606	A D 7C	Q659	B C 4B	R675	B C 8D
C611	B C 7C	DIODE		Q660	B C 4B	R676	B C 7D
C612	A D 5D	D601	A C 8E	Q661	B C 2B	R677	B C 9E
C613	B C 7C	D602	A C 4E	Q662	B C 2B	R678	B C 9E
C614	B C 6C	D603	B C 4B	Q663	B C 3B	R680	B C 8D
C615	B C 6D	D604	B C 3B	Q664	B C 3B	R681	A C 11E
C616	B C 6C	D605	B C 2D	Q665	A C 4B	R682	B C 11E
C617	B C 5D	D606	A C 5B	Q666	A C 2C	R683	B C 10E
C618	A D 5E	D607	B C 2B	Q667	A C 2C	R684	B C 7B
C619	B C 7D	D608	B C 2B	Q668	A C 2D	R685	B C 7B
C620	A C 6E	IC		Q669	A C 4B	R686	B C 10B
C621	B C 6D	IC601	A D 7D	Q670	B C 2C	R687	B C 11C
C622	B C 5D	IC602	A D 9D	Q671	A C 4C	R688	B C 9B
C623	B C 3E	IC603	B C 1C	Q672	A C 4C	R689	B C 9B
C624	A D 3E	IC604	B C 1D	Q673	A C 1C	R690	B C 10B
C625	B C 6B	RESISTOR		R601	A C 7D	R691	B C 11B
C626	B C 7B	R602	A C 6C	R603	A C 6C	R692	B C 9B
C627	B C 7B	IC606	B C 2D	R604	A C 6D	R693	B C 9B
C628	B C 6C	IC607	B C 10D	R605	A C 5C	R694	B C 11C
C629	B C 7B	COIL		R606	A C 6D	R695	B C 9C
C630	B C 7B	L601	A D 5D	R607	A C 6D	R696	A C 11C
C631	B C 2C	L602	A D 5D	R608	A C 6D	R697	A C 11C
C632	B C 3C	L603	A D 4E	R609	A C 5C	R698	A C 9C
C633	B C 4D	L604	A D 2D	R610	A C 7C	R699	A C 9C
C634	A C 3C	L605	A D 10D	R611	A C 6C	R700	B C 10B
C635	A C 4C	L606	A D 10D	R612	A C 5C	R701	A C 10C
C636	A C 4D	L607	A D 11D	R613	A C 5C	R702	A C 11C
C637	B C 3D	L608	A D 8B	R614	B C 7D	R703	B C 11C
C638	B C 4C	L609	A D 2C	R615	B C 7D	R704	A C 5B
C639	B C 2D	TRANSISTOR		R616	B C 6D	R705	B C 4C
C640	A D 3D	Q601	A C 7C	R617	B C 6C	R706	B C 10E
C641	B C 3D	Q602	A C 6D	R618	B C 6D	R707	B C 5B
C642	B C 4D	Q603	A C 6C	R619	B C 6D	R708	B C 5B
C643	B C 2E	Q604	A C 7C	R620	B C 5D	R709	B C 5B
C644	A C 9C	Q605	A C 6C	R621	B C 5C	R710	B C 4B
C645	A C 8C	Q606	A C 5D	R622	B C 6E	R711	B C 4B
C646	A C 8C	Q607	B C 7C	R623	A C 6E	R712	B C 4B
C647	A C 8C	Q608	B C 6C	R624	A C 6E	R713	B C 4B
C648	A D 9D	Q609	B C 6C	R625	B C 6D	R714	B C 4B
C649	B C 9D	Q610	B C 7D	R626	B C 6D	R715	B C 1C
C650	B C 9C	Q611	B C 6D	R627	B C 4E	R716	B C 1C
C651	B C 9D	Q612	B C 6D	R628	B C 3E	R717	A C 1B
C652	B C 8C	Q613	B C 7E	R629	B C 3E	R718	B C 1B
C653	B C 8D	Q614	B C 3E	R630	B C 6B	R719	B C 1B
C654	A D 10D	Q615	B C 6B	R631	B C 6B	R720	B C 1B
C655	A C 9D	Q616	B C 7B	R632	B C 7B	R721	B C 2B
C656	A C 8E	Q617	B C 7B	R633	B C 2C	R722	B C 2B
C657	B C 8D	Q618	B C 2C	R634	B C 3C	R723	B C 2B
C658	B C 8E	Q619	B C 4C	R635	B C 3C	R724	B C 2B
C659	A D 11D	Q620	B C 4D	R636	B C 3C	R725	B C 2B
C660	B C 11D	Q621	A C 3C	R637	B C 4D	R726	B C 3B
C661	B C 7B	Q622	A C 4D	R638	B C 4D	R727	B C 3B
C662	B C 8B	Q623	B C 2C	R639	B C 4C	R728	B C 3B
C663	B C 8C	Q624	A C 3C	R640	B C 2C	R729	B C 4B
C664	B C 8B	Q625	B C 3C	R641	B C 3C	R730	B C 4B
C665	B C 11B	Q626	A C 3C	R642	B C 3C	R731	B C 6B
C666	B C 9B	Q627	B C 4D	R643	B C 4C	R732	A C 2C
C667	A C 11C	Q628	A C 4D	R644	B C 4D	R733	A C 4C
C668	B C 9C	Q629	B C 3C	R645	B C 4D	R734	A C 2D
C669	A C 10C	Q630	A C 3D	R646	A C 3C	R735	A C 1C
C670	B C 10C	Q631	B C 3D	R647	A C 3C	R736	B C 10B
C671	B C 9B	Q632	A C 3D	R648	A C 4D	R737	B C 10A
C672	A D 8B	Q633	B C 3D	R649	A C 4D	R738	B C 10A
C673	B C 11D	Q634	B C 2D	R650	A C 3C	R739	B C 9A
C674	B C 5B	Q635	A C 9C	R651	A C 3C	R740	B C 9A
C675	B C 4B	Q636	A C 8D	R652	A C 4C	R741	B C 9A
C676	B C 4B	Q637	A C 8C	R653	A C 4D	R742	B C 8A
C677	B C 4B	Q638	A C 8C	R654	A C 4D	R743	B C 8A
C678	B C 1B	Q639	B C 8C	R655	B C 2C	R744	B C 8A
C679	A D 2B	Q640	B C 8C	R656	B C 3C	R745	B C 3C
C680	B C 2B	Q641	B C 8D	R657	B C 3C	R746	B C 3D
C681	B C 3B	Q642	B C 8D	R658	B C 4C	R747	B C 10B
C682	B C 3B	Q643	B C 9E	R659	B C 3D	R748	B C 10B
C683	B C 3B	Q644	B C 11E	R660	B C 3D	R749	B C 3B
C684	B C 3B	Q645	B C 7B	R661	B C 3D	TEST POINT	
C685	A C 1C	Q646	B C 8B	R662	B C 2D	TP111	A D 4E
C686	B C 3D	Q647	B C 10B	R663	B C 2D	TP112	A D 8E
C687	B C 2D	Q648	B C 9B	R664	B C 2E	TP601	A D 7E
C688	B C 10D	Q649	B C 10C	R665	A C 8C	TP602	A D 8E
C689	B C 10C					TP606	A D 4E
						TP616	A D 9E

4.29 DIGITAL CIRCUIT BOARD
 <50> DIGITAL
 LPB10125-004B

- FOIL SIDE(B) -



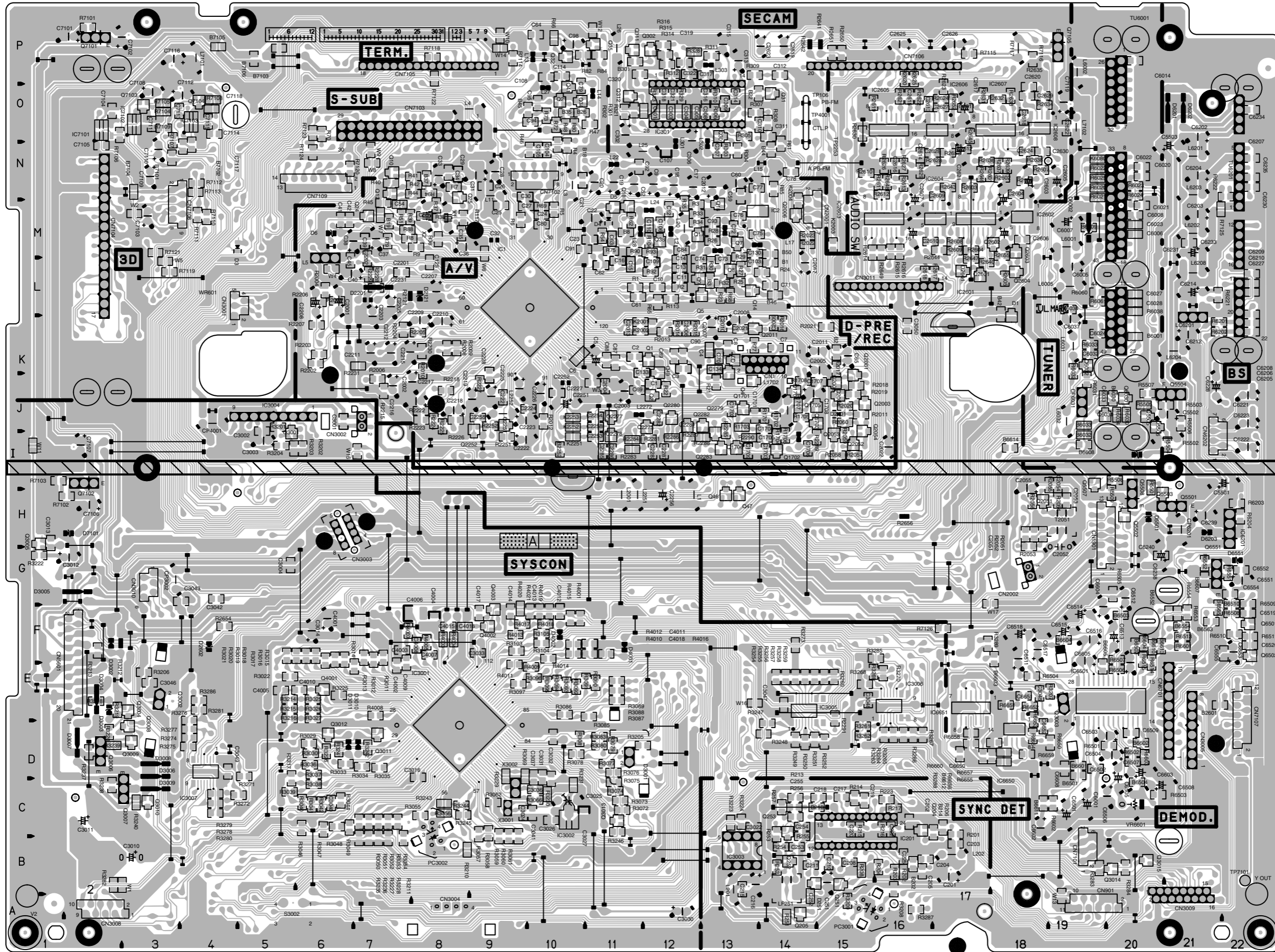
- COMPONENT SIDE(A) -



4.30 MAIN CIRCUIT BOARD

<03> MAIN

LPB10135-001C



COMPONENT PARTS LOCATION GUIDE <MAIN>

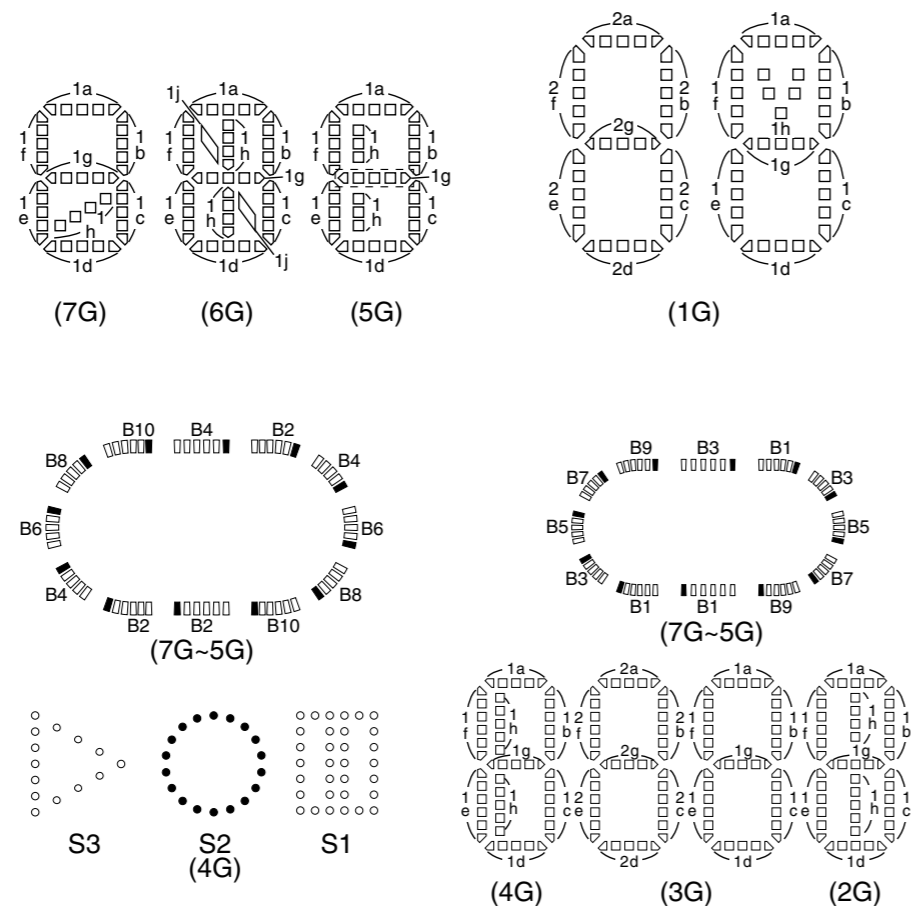
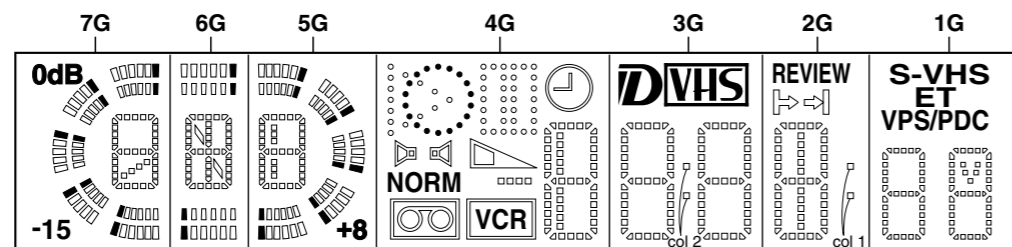
Main component location guide table with columns for REF.NO., LOCATION, REF.NO., LOCATION, etc. including categories like CAPACITOR, COIL, CONNECTOR, RESISTOR, TRANSISTOR, DIODE, SWITCH, TEST POINT, and IC.

4.31 VOLTAGE CHARTS

Voltage charts table showing MODE PIN NO., REC, PLAY, and various voltage values for different components and modes.

4.32 FDP GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT

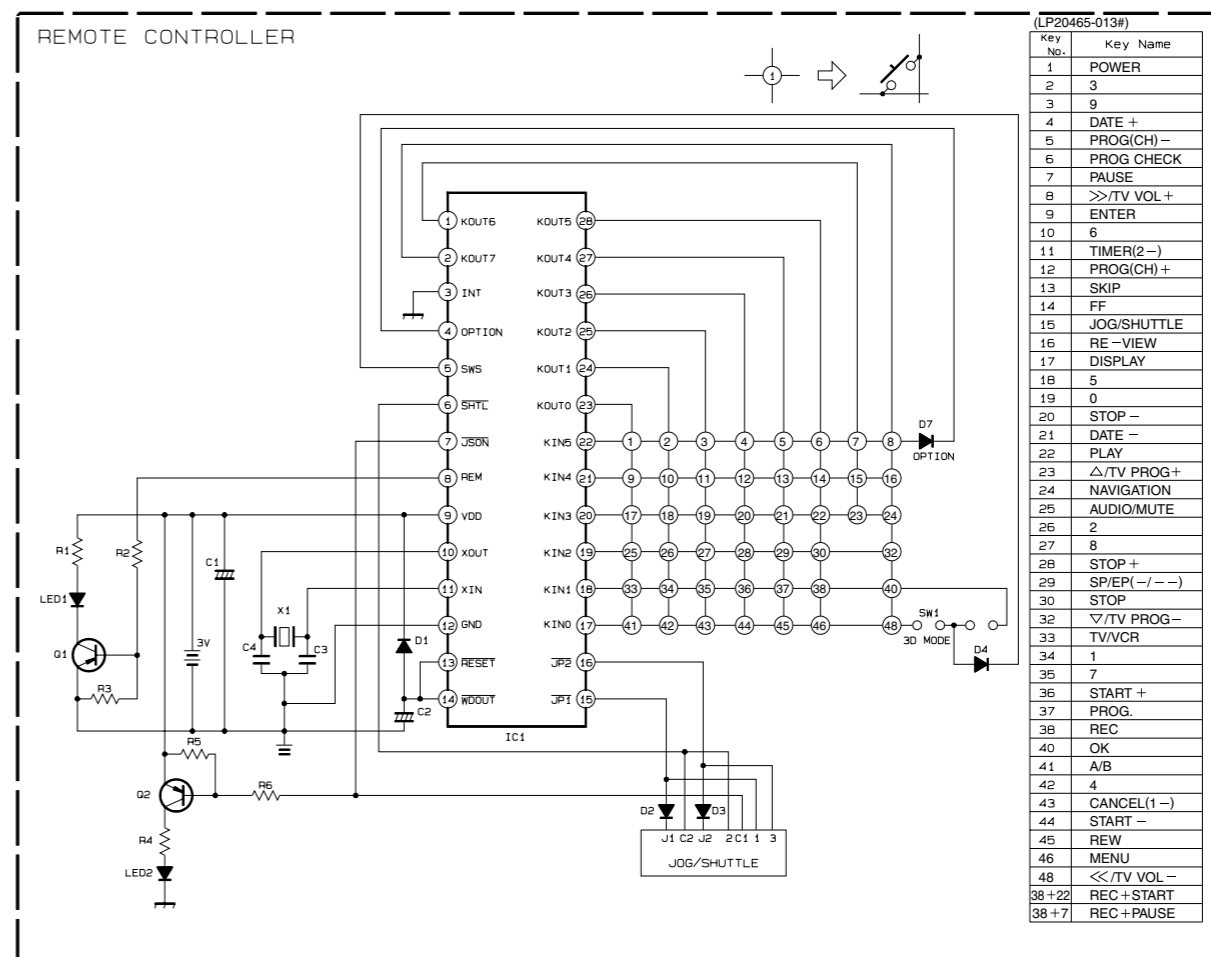


ANODE CONNECTION

	7G	6G	5G	4G	3G	2G	1G
P1	1a	1a	1a	1a	1a	1a	1a
P2	1b	1b	1b	1b	1b	1b	1b
P3	1f	1f	1f	1f	1f	1f	1f
P4	1g	1g	1g	1g	1g	1g	1g
P5	1c	1c	1c	1c	1c	1c	1c
P6	1e	1e	1e	1e	1e	1e	1e
P7	1d	1d	1d	1d	1d	1d	1d
P8	1h	1h	1h	1h	col 2	1h	1h
P9	B1	B1	B1	□ □ □ □	2a	col 1	2a
P10	B2	B2	B2	⌚	2b	-	2b
P11	B3	B3	B3	▽	2f	-	2f
P12	B4	B4	B4	S1	2g	-	2g
P13	B5	-	B5	S2	2c	-	2c
P14	B6	-	B6	S3	2e	-	2e
P15	B7	-	B7	▶	2d	-	2d
P16	B8	-	B8	▶	DVHS	REVIEW	S-VHS
P17	B9	-	B9	VCR	-	▶	ET
P18	B10	1j	B10	NORM	-	▶	-
P19	0dB -15	-	+8	Ⓜ	-	-	VPS/PDC

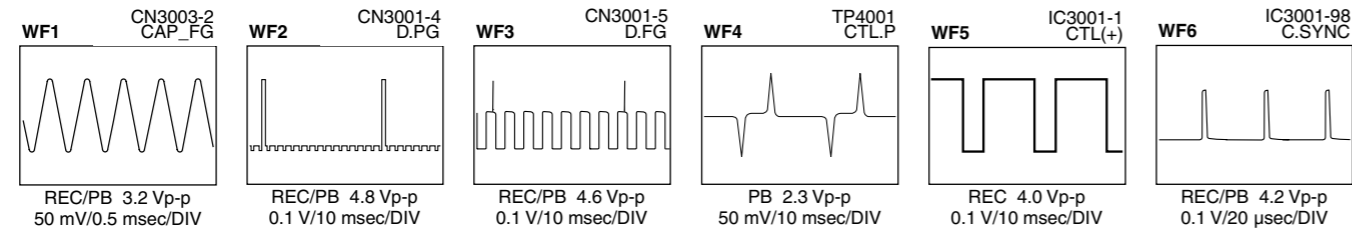
4.33 REMOTE CONTROLLER SCHEMATIC DIAGRAM

- NOTES:
 1. All parts shown in this schematic are critical for safety.
 2. This schematic is only for reference.
 Avoid replacing individual parts.
 Replace the entire unit only.

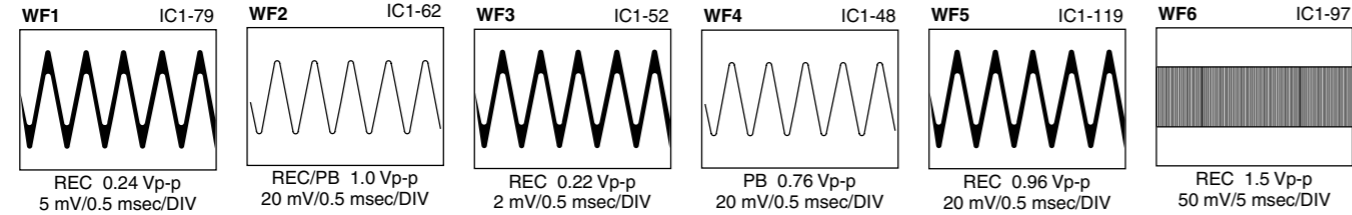


4.34 WAVEFORMS

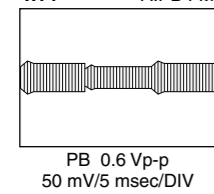
< SYSCON >



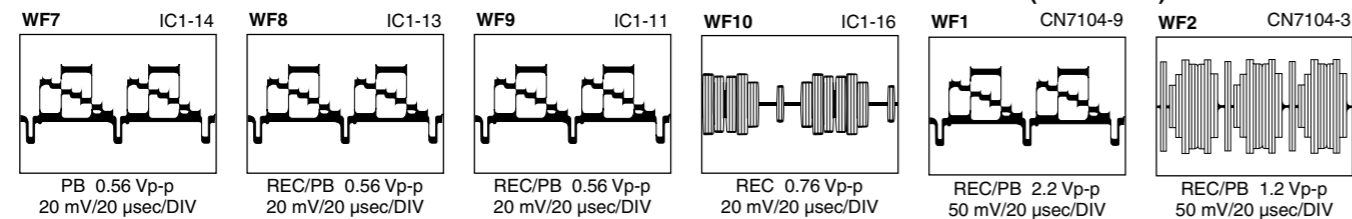
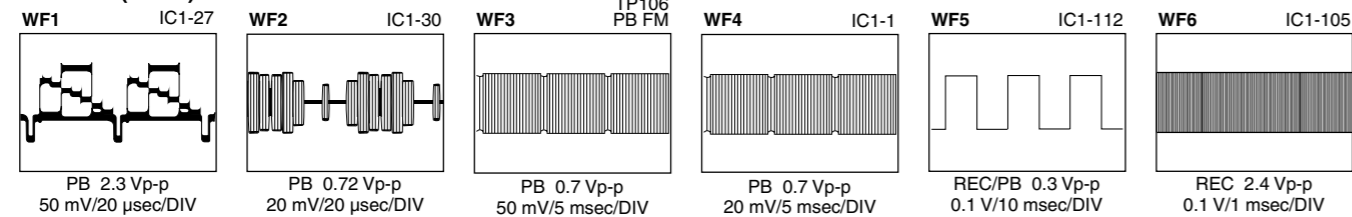
< AUDIO >



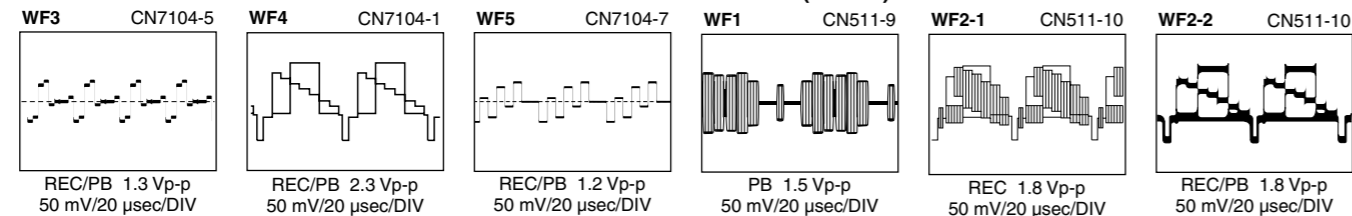
WF7 TP2253 A.PB FM



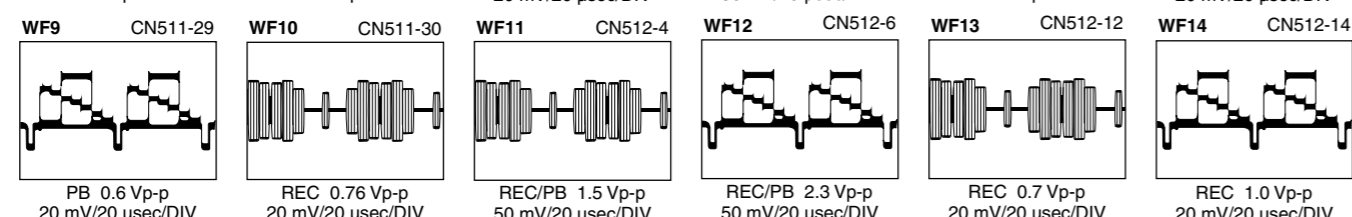
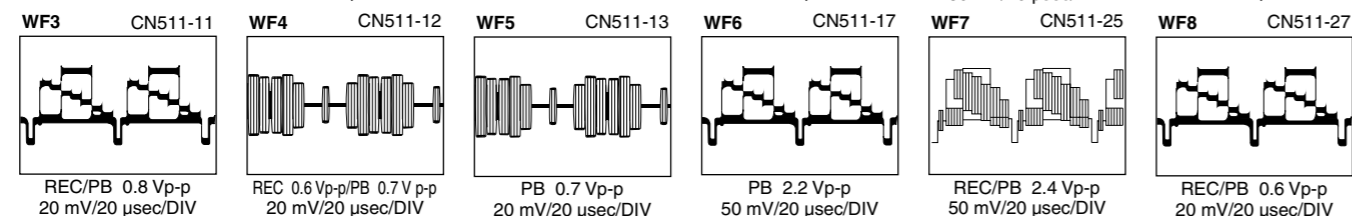
< VIDEO (MAIN) >



< VIDEO (TERMINAL) >



< VIDEO (S-SUB) >



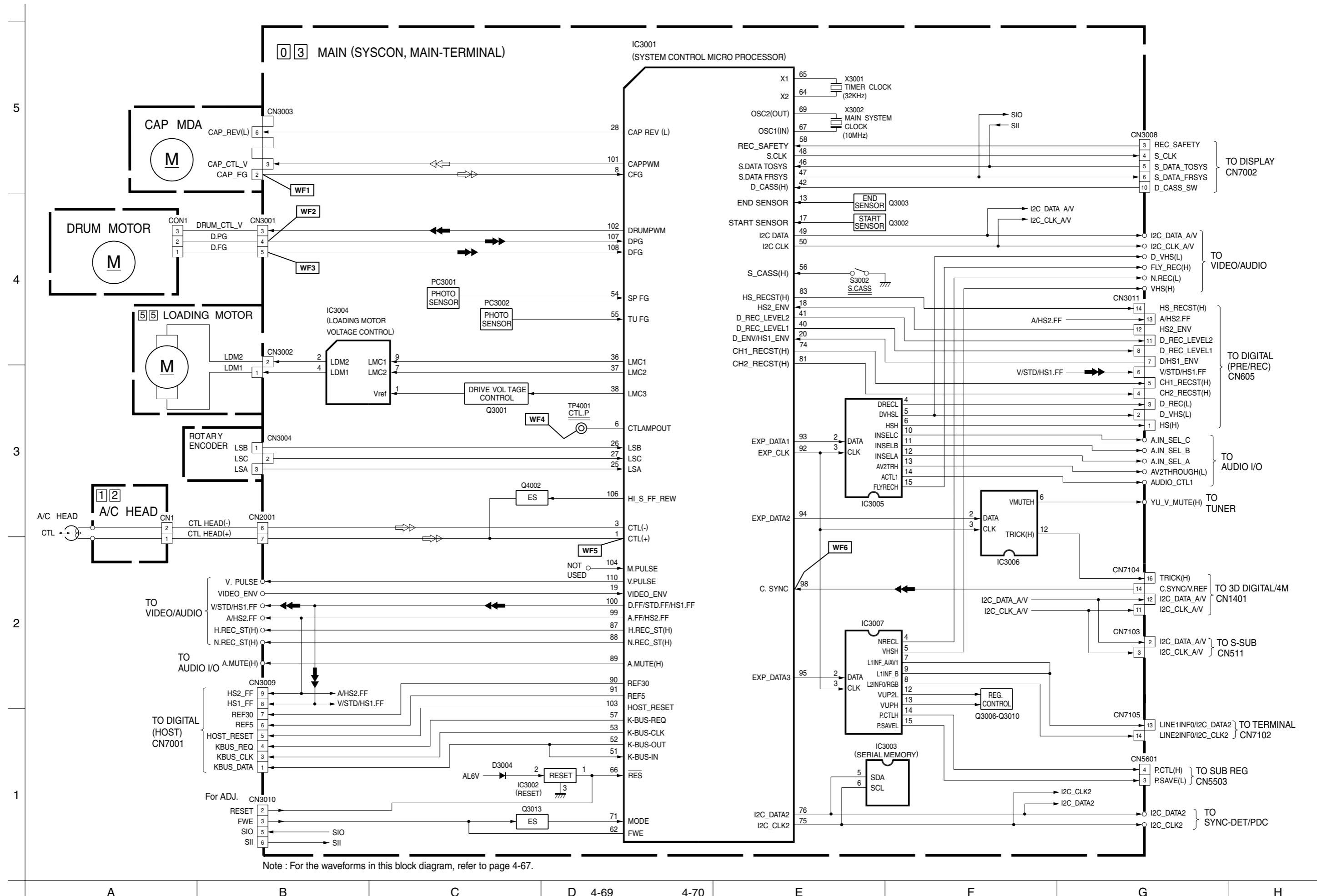
4.35 CPU PIN FUNCTION

<SYSCON IC3001>

PIN NO.	LABEL	IN/OUT	FUNCTION
1	CTL(+)	IN/OUT	CTL(+) SIGNAL
2	SVSS	-	GND
3	CTL(-)	IN/OUT	CTL(-) SIGNAL
4	CTLBIA	-	CTL BIAS VOLTAGE
5	CTLFB	IN	CTL PULSE FEEDBACK
6	CTLAMP/OUT	OUT	CTL PULSE OUTPUT
7	CTLSMT/IN	IN	CTL PULSE INPUT
8	CFG	IN	CAPSTAN FG PULSE INPUT
9	SVcc	-	SYSTEM POWER
10	Avcc	-	ANALOG POWER
11	LED/RFAGC/LOCK	IN	NC/NC/TUNING PLL LOCK DETECT:L
12	BS_ANT/AFC	IN	NC/TUNING CHECK
13	END SENSOR	IN	END SENSOR
14	IND(L)	IN	AUDIO INPUT(L CH) FOR THE FDP AUDIO INDICATOR
15	IND(R)	IN	AUDIO INPUT(R CH) FOR THE FDP AUDIO INDICATOR
16	A.ENV/ND(L)	IN	AUDIO PB FM ENV. INPUT/NON HI-FI MODEL:L
17	START SENSOR	IN	START SENSOR
18	HS2_ENV	IN	AT DETECTION
19	VIDEO ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
20	D_ENV/HS1_ENV	IN	PB FM INPUT / AT DETECTION
21	NORM/MESEC/S	IN	S-VHS MODE:HAINORMAL MODE:LMESECAM MODE:LNC&
22	WAID_DET/SCR_ID	IN	WIDE ASPECT DETECTION/NC
23	Avss	-	GND FOR ANALOG CIRCUIT
24	CTL GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING
25	LSA	IN	MECHANISM MODE DETECT(A)
26	LSB	IN	MECHANISM MODE DETECT(B)
27	LSC	IN	MECHANISM MODE DETECT(C)
28	CAP REV(L)	OUT	CAPSTAN MOTOR REVERSE CONTROL (FWD/H/REV:L)
29	RC	IN	REMOTE CONTROL DATA INPUT
30	PROTECT	IN	DETECTION SIGNAL FOR SWITCHING POWER SUPPLY
31	BILSEL/P50/OSDCE	IN	NC/CONTROL SIGNAL FOR TV LINK/NC
32	PAUSE/COMPU_IN	IN	REMOTE PAUSE CONTROL/NC
33	COMPU/P50_OUT/TEST	OUT	CONTROL SIGNAL FOR TV LINK/CONTROL SIGNAL FOR TV LINK/MECHA TEST MODE
34	STB	OUT	STROBE SIGNAL
35	POWER_DET	IN	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
36	LMC1	OUT	LOADING MOTOR DRIVE(1)
37	LMC2	OUT	LOADING MOTOR DRIVE(2)
38	LMC3	OUT	LOADING MOTOR DRIVE(3)
39	SB_GAIN	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
40	D_REC_LEVEL1	OUT	LEVEL1 CONTROL SIGNAL OF D-VHS RECORDING
41	D_REC_LEVEL2	OUT	LEVEL2 CONTROL SIGNAL OF D-VHS RECORDING
42	D_CASS(H)	IN	DETECTION SIGNAL FOR D-VHS CASSETTE (DETECTION:H)
43	Vss	-	GND
44	RMO	OUT	REMOTE CONTROL OUTPUT FOR SATELLITE RECEIVER
45	Vcc	-	SYSTEM POWER
46	S.DATA TOSYS	IN	SERIAL DATA TRANSFER OUTPUT FROM THE ON-SCREEN IC TO THE FDP DRIVER
47	S.DATA FRSYS	OUT	SERIAL DATA TRANSFER OUTPUT FROM THE FDP DRIVER TO THE ON-SCREEN IC
48	S.CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FROM THE FDP DRIVER TO THE ON-SCREEN IC
49	I2C DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE VIDEO/AUDIO IC
50	I2C CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR THE VIDEO/AUDIO IC
51	K-BUS_IN	IN	SERIAL DATA INPUT FOR THE D-VHS HOST CPU
52	K-BUS_OUT	OUT	SERIAL DATA OUTPUT FOR THE D-VHS HOST CPU
53	K-BUS_CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FOR THE D-VHS HOST CPU
54	SP FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN
55	TU FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
56	S_CASS(H)	IN	DETECTION SIGNAL FOR S-VHS CASSETTE

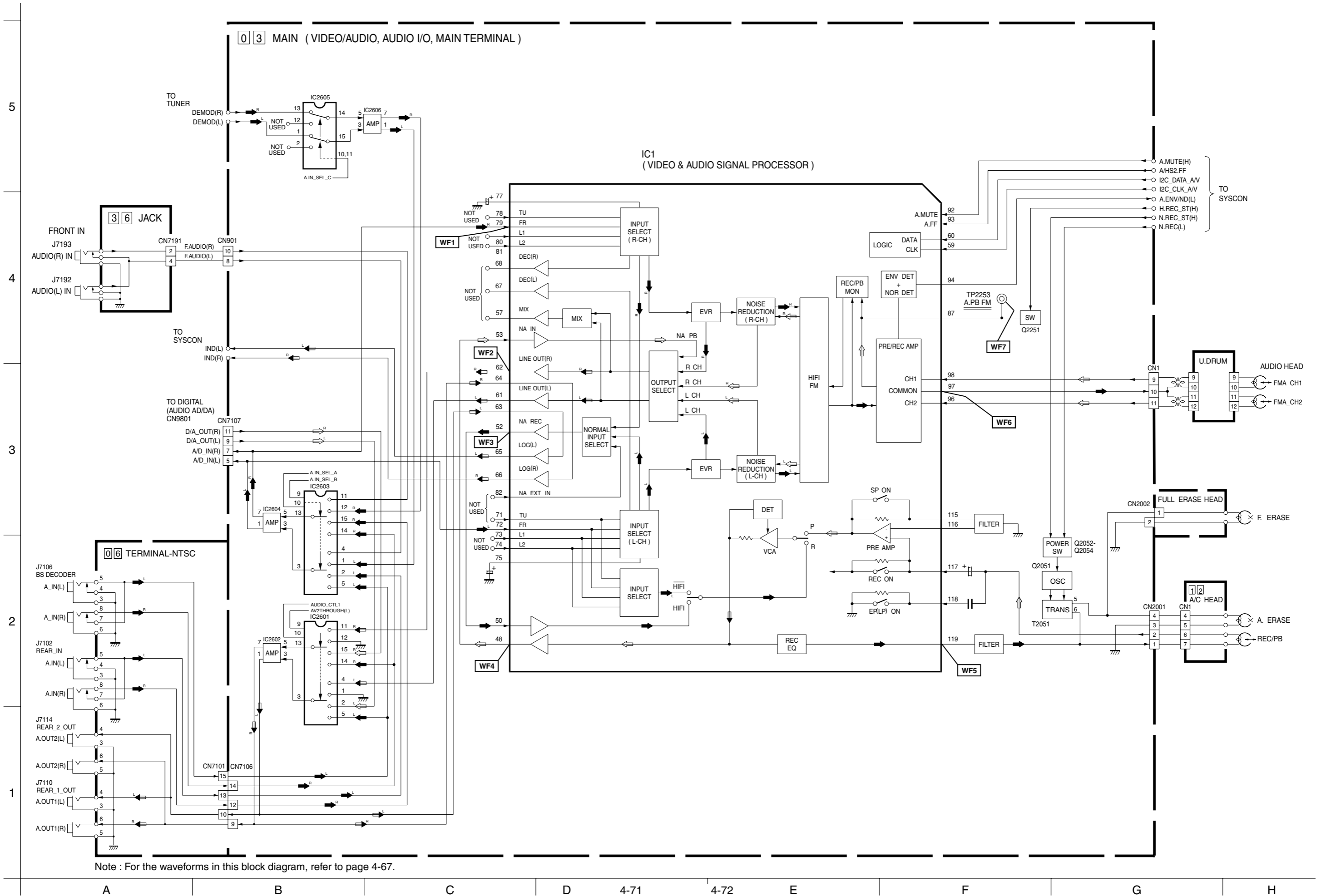
PIN NO.	LABEL	IN/OUT	FUNCTION
57	K-BUS_REQ	OUT	REQUEST OF SERIAL DATA FOR THE D-VHS HOST CPU
58	REC SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
59	JUSTCLK/LN21	-	NC/NC
60	TU_A_MUTE(H)	OUT	TUNER AUDIO MUTE CONTROL (MUTE:H)
61	TU_CE	OUT	CHIP ENABLE OF THE TUNER UNIT
62	FWE	-	NC
63	NMI	-	NC
64	X2	-	TIMER CLOCK(32kHz)
65	X1	-	TIMER CLOCK(32kHz)
66	RES	-	RESET TERMINAL (RESET ON:L)
67	OSC1(IN)	-	MAIN SYSTEM CLOCK (10MHZ)
68	Vss	-	GND
69	OSC2(OUT)	-	MAIN SYSTEM CLOCK (10MHZ)
70	Vcc	-	SYSTEM POWER
71	MODE	-	NC
72	TU_CLK	OUT	CLOCK FOR DATA TRANSFER TO THE TUNER UNIT
73	TU_DATA	OUT	TUNING DATA
74	CH1_RECST(H)	OUT	REC START CONTROL FOR CH1
75	I2C CLK2	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC
76	I2C DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
77	AT_ON	OUT	D-VHS LS3 REC TIMING CONTROL
78	SLOW_P	OUT	MEMORY TIMING CONTROL IN THE SLOW MODE
79	FLY_ON (H)	OUT	FLY REC START: FH
80	VP_CTL	OUT	V.PULSE CONTROL V COMPENSATION DURING SPECIAL PLAYBACK
81	CH2_RECST(H)	OUT	REC START CONTROL FOR CH2
82	Vcc	-	SYSTEM POWER
83	HS_RECST(L)	OUT	D-VHS HS RECORDING START
84	Vss	-	GND
85	SP_SHORT(H)	OUT	MODE SELECT
86	LP_SHORT(H)	OUT	MODE SELECT
87	H.REC_ST(H)	OUT	Hi-Fi AUDIO SOUND RECORDING START
88	N.REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START
89	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE ON: H)
90	REF30	IN	REFERENCE SIGNAL INPUT (30HZ)
91	REF5	IN	REFERENCE SIGNAL INPUT (5HZ)
92	EXP_CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR AUDIO/VIDEO AND TUNER/REG CONTROL
93	EXP_DATA1	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR AUDIO/VIDEO CONTROL
94	EXP_DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR TUNER/REG CONTROL
95	EXP_DATA3	IN/OUT	SERIAL DATA TRANSFER OUTPUT
96	BIT_IN(H)/SECAM_DET	-	NC/NC
97	SYNC_DET	IN	DETECTION OF VIDEO SYNC SIGNAL(DETECTED:H)
98	C.SYNC	IN	COMPOSITE SYNC
99	A.FF/HS2.FF	OUT	AUDIO FF OUTPUT
100	D.FF/STD.FF/HS1.FF	OUT	ROTATION DETECTION SIGNAL FOR DRUM MOTOR/TIMING CONTROL SIGNAL FOR REC
101	CAPPWM	OUT	CAPSTAN MOTOR CONTROL
102	DRUMPWM	OUT	DRUM MOTOR CONTROL
103	HOST_RESET	OUT	RESET CONTROL FOR D-VHS HOST CPU
104	M.PULSE/EDSCE	OUT	NC/NC
105	REC_AREA	OUT	D-VHS REC AREA CTL(STD MODE:H)
106	HL_S_FF_REW	OUT	DETECTION OF HIGH SPEED FF/REW SIGNAL
107	DPG	IN	DRUM PICKUP PULSE INPUT (SWITCHING PULSE)
108	DFG	IN	DRUM FG PULSE INPUT
109	Vcc	-	SYSTEM POWER
110	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL
111	Vss	-	GND
112	CTLREF	-	CTL REFERENCE VOLTAGE

4.36 SYSTEM CONTROL BLOCK DIAGRAM



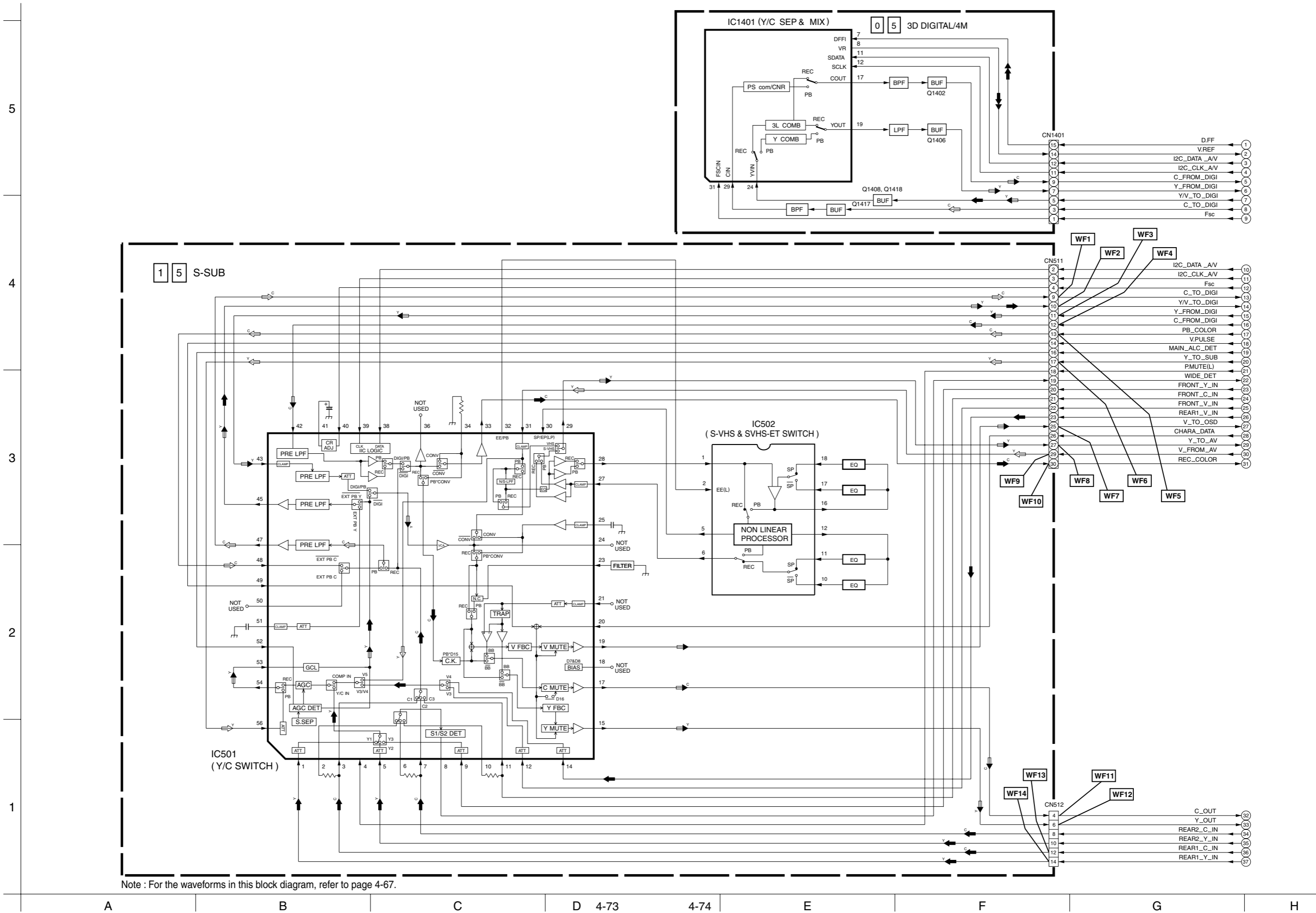
Note : For the waveforms in this block diagram, refer to page 4-67.

4.37 AUDIO BLOCK DIAGRAM

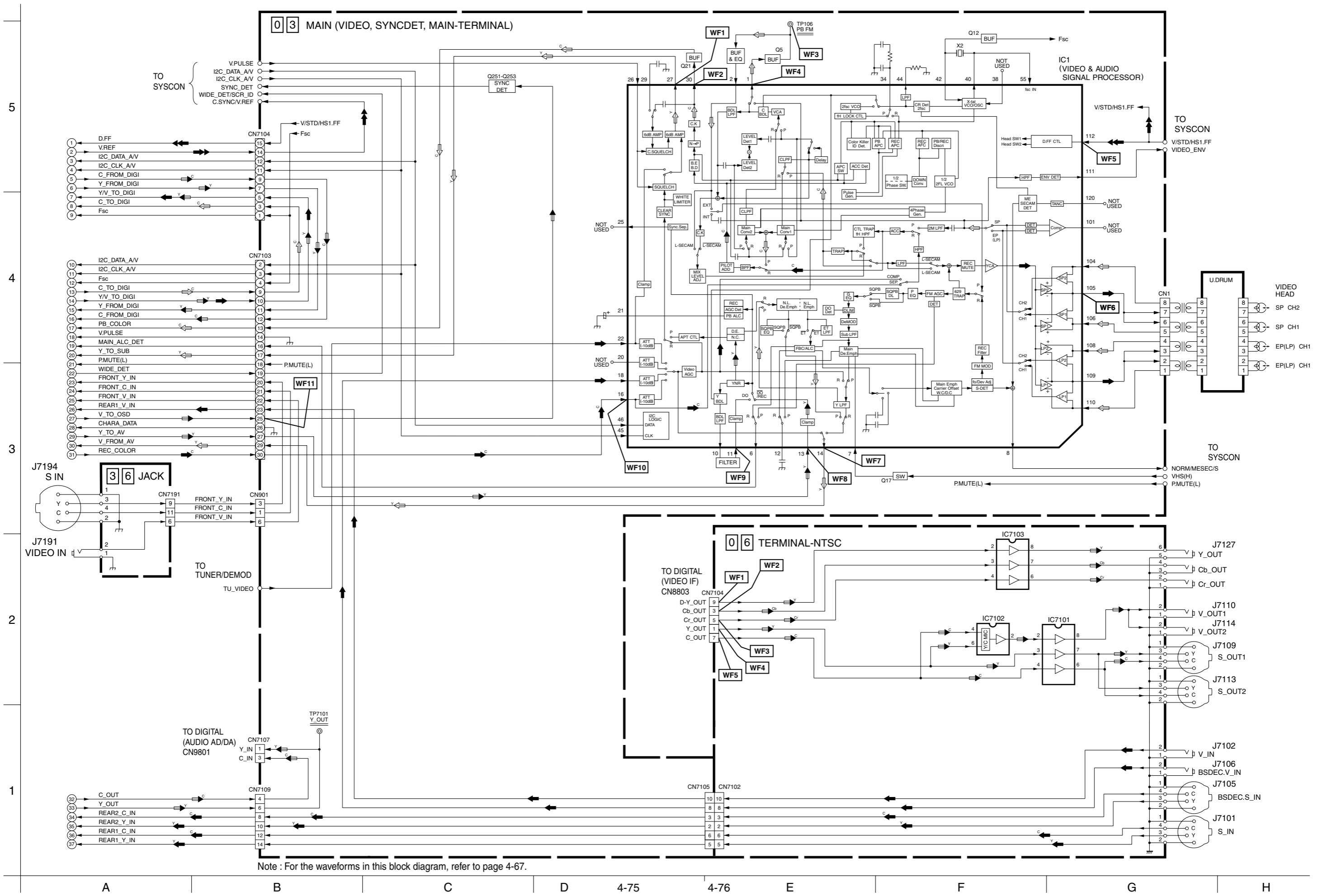


Note : For the waveforms in this block diagram, refer to page 4-67.

4.38 VIDEO BLOCK DIAGRAM



Note : For the waveforms in this block diagram, refer to page 4-67.



Note : For the waveforms in this block diagram, refer to page 4-67.

4.39 D-VHS BLOCK DIAGRAM

