

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.

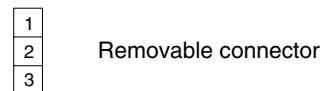
- 1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K or k: kΩ (1000Ω), M: MΩ (1000kΩ)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values are in μ H, (m: mH).
- 4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

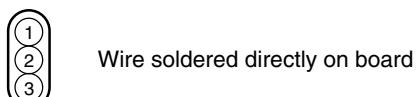
AUX : Active at high

AUX or AUX(L) : Active at low

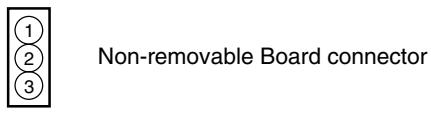
3. Interpreting Connector indications



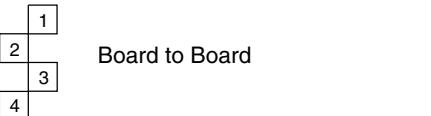
Removable connector



Wire soldered directly on board



Non-removable Board connector



Board to Board



Connected pattern on board

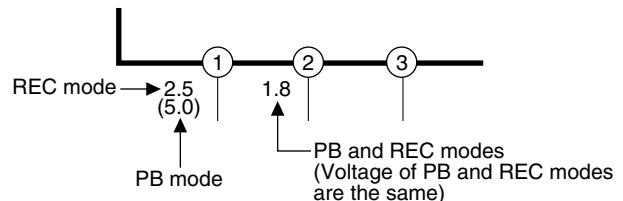
The arrows indicate signal path

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

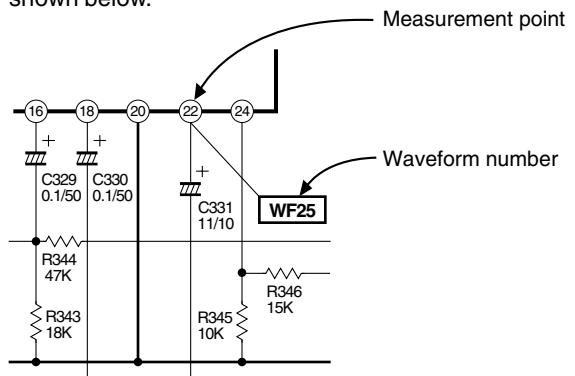
Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



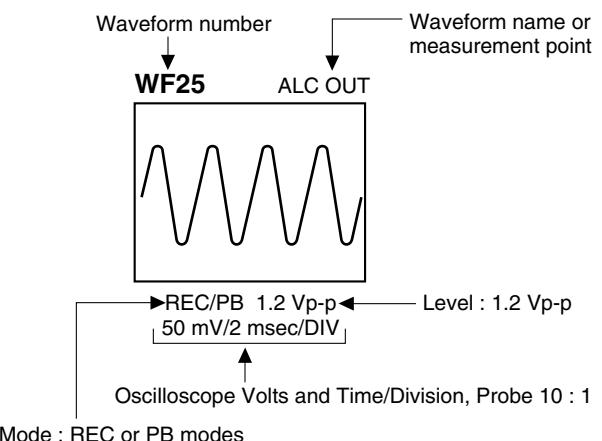
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

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.

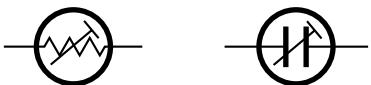
- Playback signal path
- Playback and recording signal path
- Recording signal path
(including E-E signal path)
- Capstan servo path
- Drum servo path

(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.

REF No.	LOCATION		
IC	IC ←		
IC101	B	C	6A

Category: IC

B : Foil side
(A : Component side)

C : Chip component
(D : Discrete component)

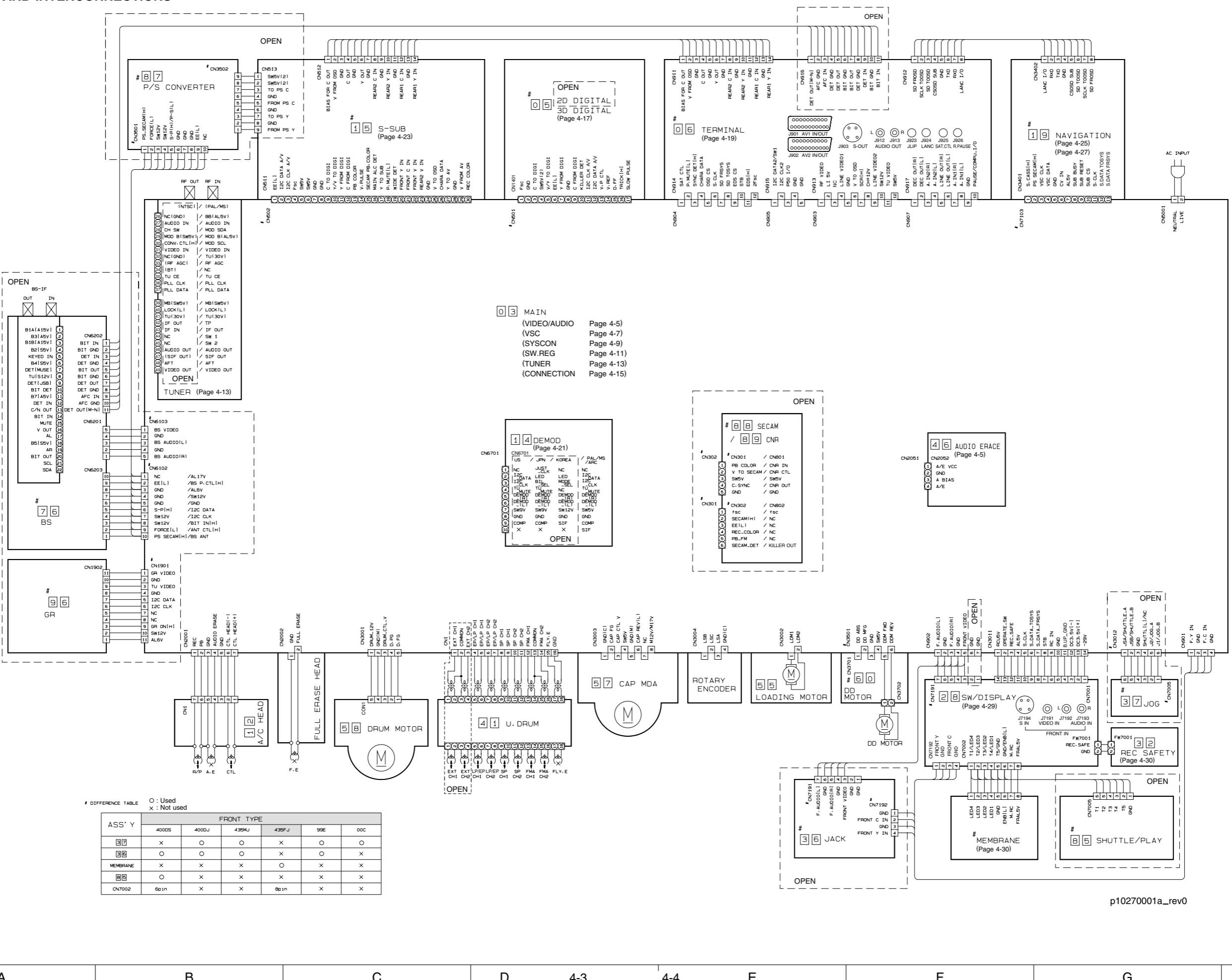
Horizontal "A" zone

Vertical "6" zone

Note:

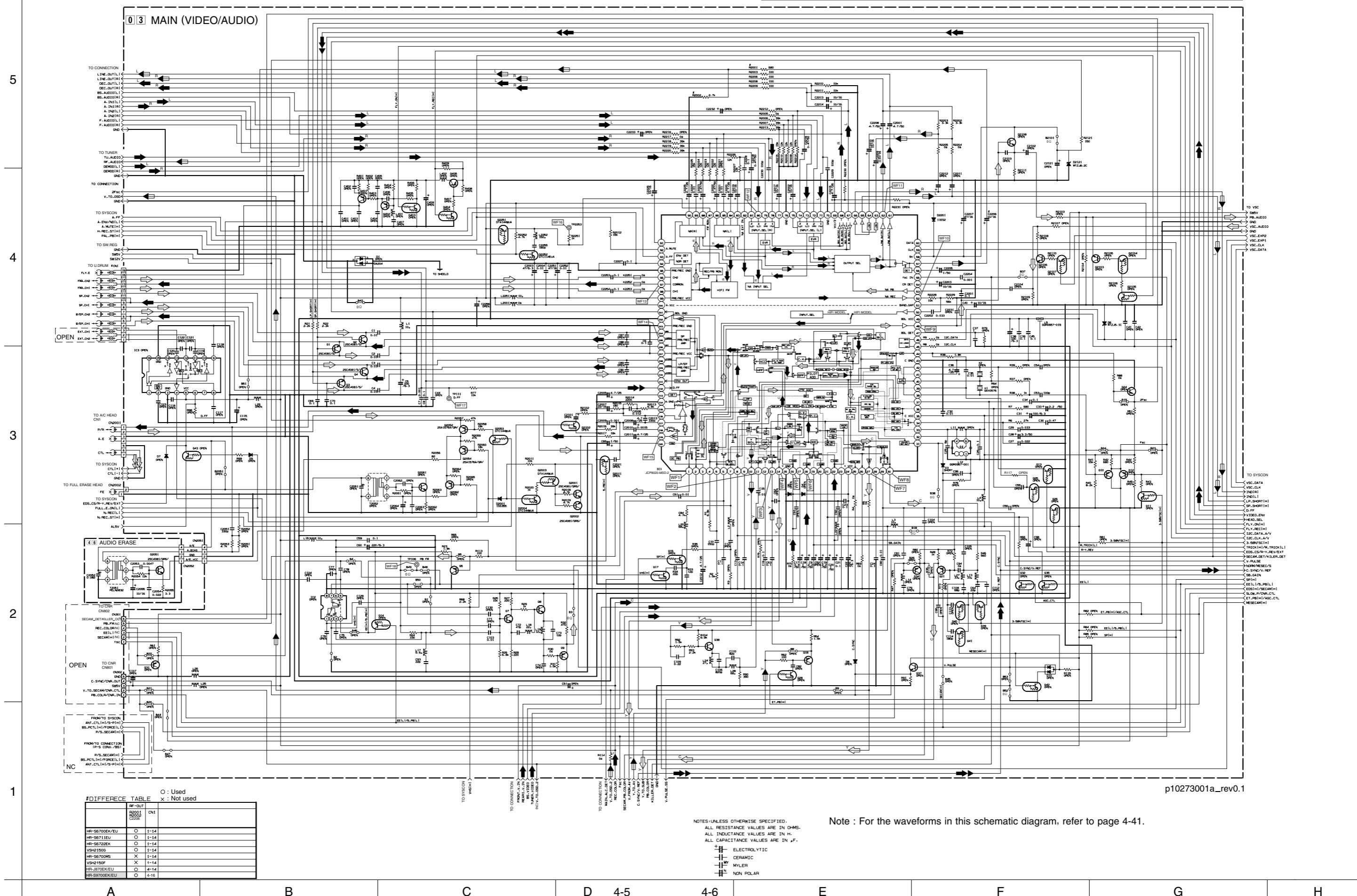
For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS



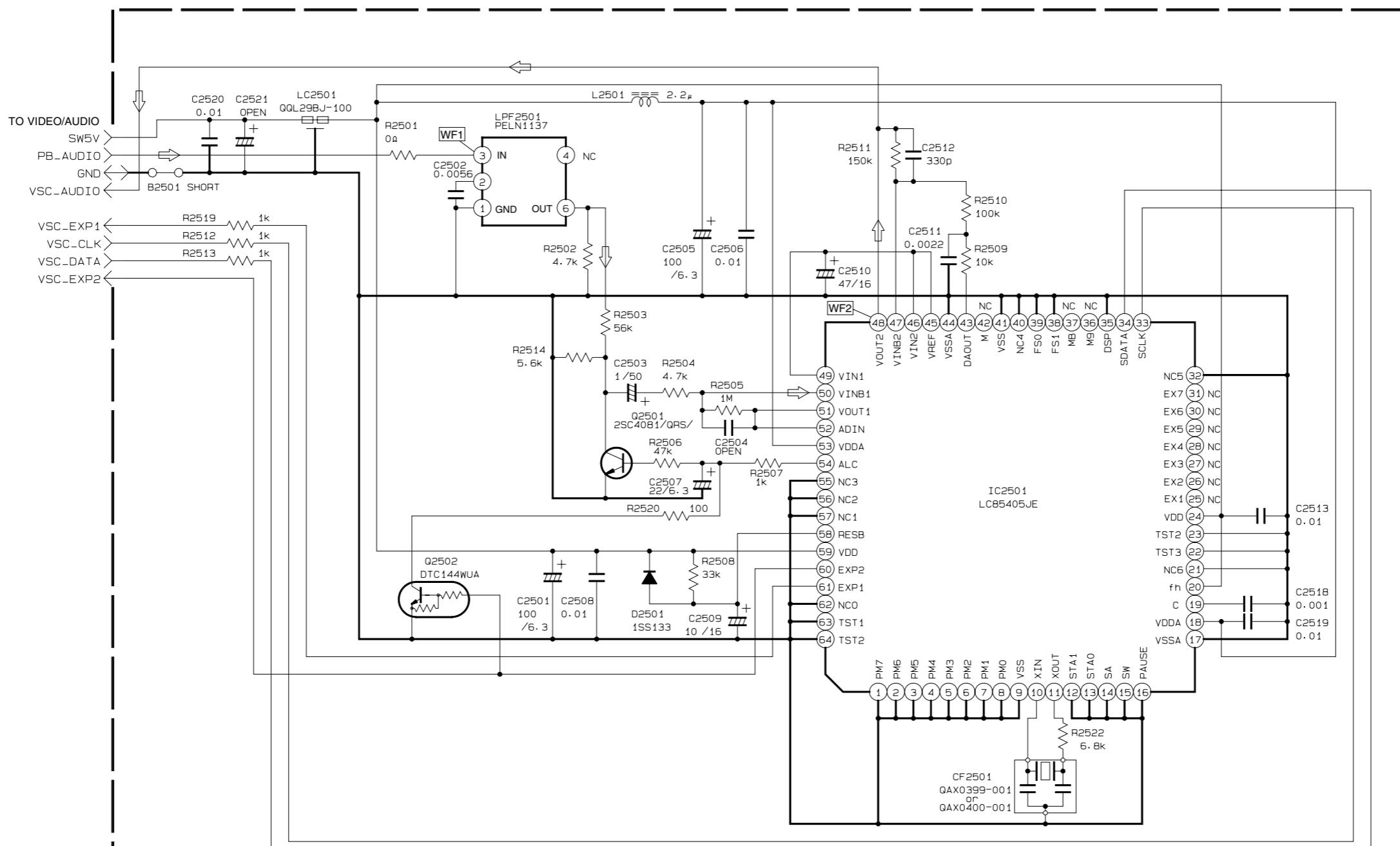
4.2 VIDEO/AUDIO AND AUDIO ERASE SCHEMATIC DIAGRAMS

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.



4.3 VSC 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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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

A

B

C

D

E

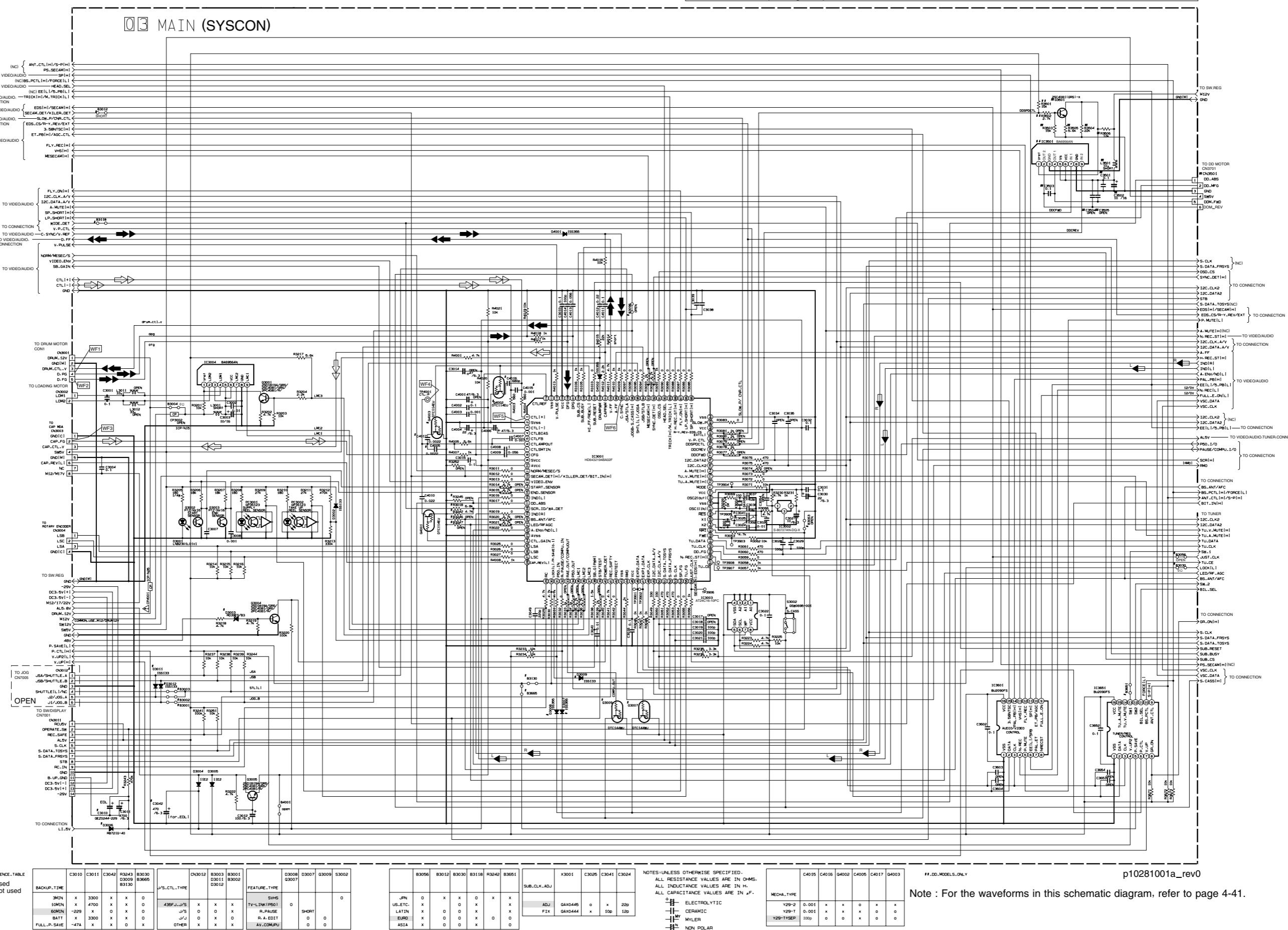
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H

4.4 SYSTEM CONTROL SCHEMATIC DIAGRAM

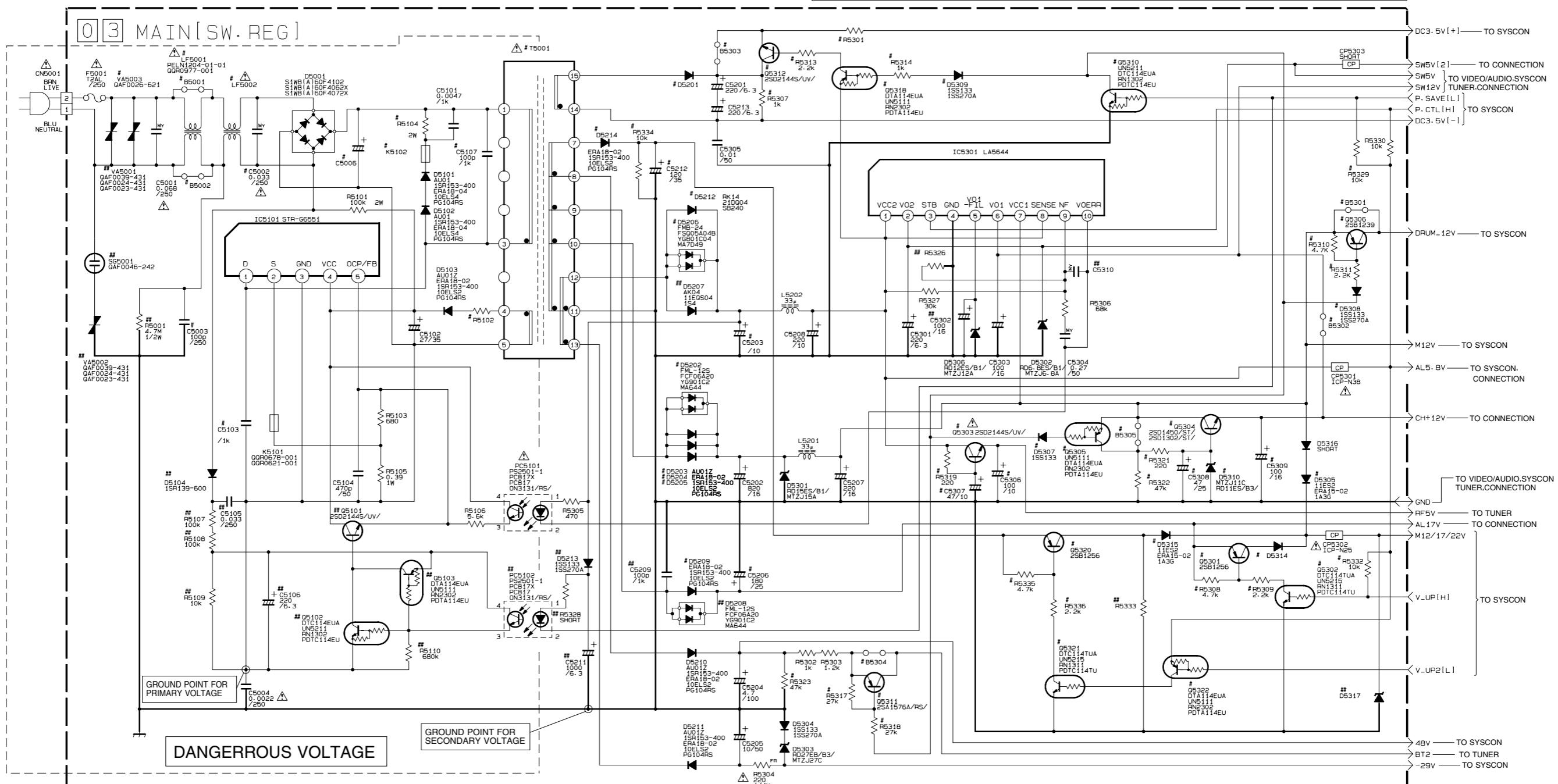
Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



Note : For the waveforms in this schematic diagram, refer to page 4-41.

4.5 SWITCHING REGULATOR 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 1					
	D5203 D5204 D5205	D5206	D5212	C5203	
D25	EU/EK/MS/A/M	NO	YES	NO	YES
S1	EU/EK	YES	NO	YES	NO
	MS	YES	NO	YES	NO
A	YES	NO	YES	NO	1200
UM/M/EN/K	NO	YES	YES	NO	1200
S2	EU/EK/MS	YES	NO	YES	NO
S2E S2G	EU/EK/MS	YES	NO	YES	NO
	S2E S2G	YES	NO	YES	NO
	S2E S2G	YES	NO	YES	NO
	OTHER	150k	NO	33p	NO

# DIFFERENCE TABLE 2					
	LF5001	LF5002	C5002	C5006	B5001 B5002
AC INPUT 220-240V (CE)	YES	QQR0978-001 QQR0508-001 QQR0510-001	YES	68/400	NO
AC INPUT 110-240V (OTHER)	NO	QQR0533-001 QQR0516-001 QQR0527-001 QQR0816-001	NO	82/400	YES

# DIFFERENCE TABLE 3					
	CH+12V	B5302	D5304 D5310 R5321	R5322 C5308 R5309	R5313 R5317
YES	NO	YES			
NO	YES	NO			

# DIFFERENCE TABLE 4					
	P. SAVE	B5302	D5304 D5310 R5321	R5322 C5308 R5309	R5313 R5317
YES	FF/REW B55	NO	QGS0052-001	4.7	
NO	OTHER	NO	QGS0052-001	4.7	
NO	YES	NO	QGS0057-001	33	
NO	OTHER	YES	QGS0057-001	39	

# DIFFERENCE TABLE 5					
	LEVEL IND YES	R5301	D5201		
LEVEL IND YES	EU/EK/MS	1	AK04 1SE0504 154		
OTHER	SHORT	10EL52			

MARK ELEMENTS ARE NOT MOUNTED

# DIFFERENCE TABLE 6					
	R5104	C5003	C5103	C5107	K5102
PHILIPS /75	68k	YES	33p	NO	SHORT
PHILIPS /78	68k	YES	100p	YES	YES
OTHER	150k	NO	33p	NO	SHORT

# DIFFERENCE TABLE 7					
	HIGH SPEED FF/REW B55	V5003	D5305	D5314	T5001
NO	NO	SHORT	NO	NO	QGS0052-001
100p B55	YES	YES	SHORT	NO	QGS0052-001
S1-S2	YES	YES	11E52 1A3G	YES	QGS0057-001
S2-S3	YES	YES	SHORT	YES	QGS0057-001

# DIFFERENCE TABLE 8					
	V5003	JVC	PHILIPS		
NO	NO	NO	NO	YES	
100p B55	YES	YES	SHORT	NO	QGS0052-001
S1-S2	YES	YES	11E52 1A3G	YES	QGS0057-001
S2-S3	YES	YES	SHORT	YES	QGS0057-001

# DIFFERENCE TABLE 9					
	V5003	C5309			
NO	NO	NO	NO	YES	
100p B55	YES	YES	11E52 1A3G	YES	QGS0057-001
UM/M/EN	NO	NO	NO	NO	NO
OTHER	YES	NO	NO	YES	NO

# DIFFERENCE TABLE 10					
	V5003	C5309			
NO	NO	NO	NO	YES	
100p B55	YES	YES	11E52 1A3G	YES	QGS0057-001
UM/M/EN	NO	NO	NO	NO	NO
OTHER	YES	NO	NO	YES	NO

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

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

4.6 TUNER 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.

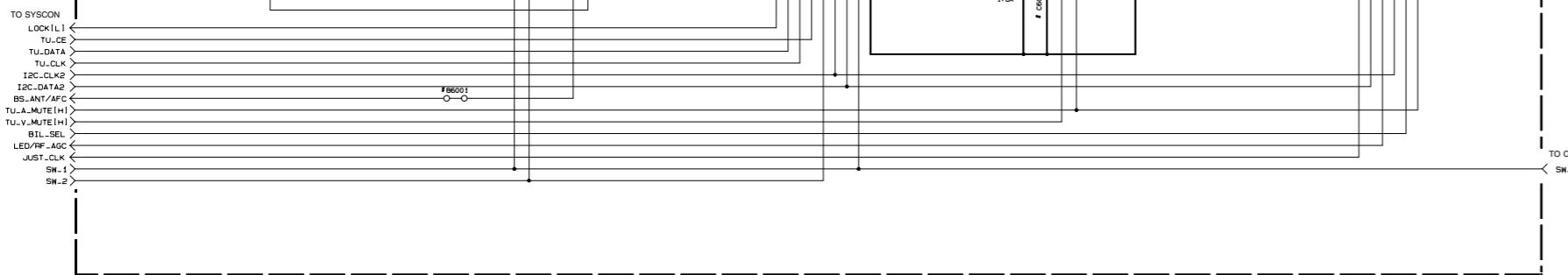
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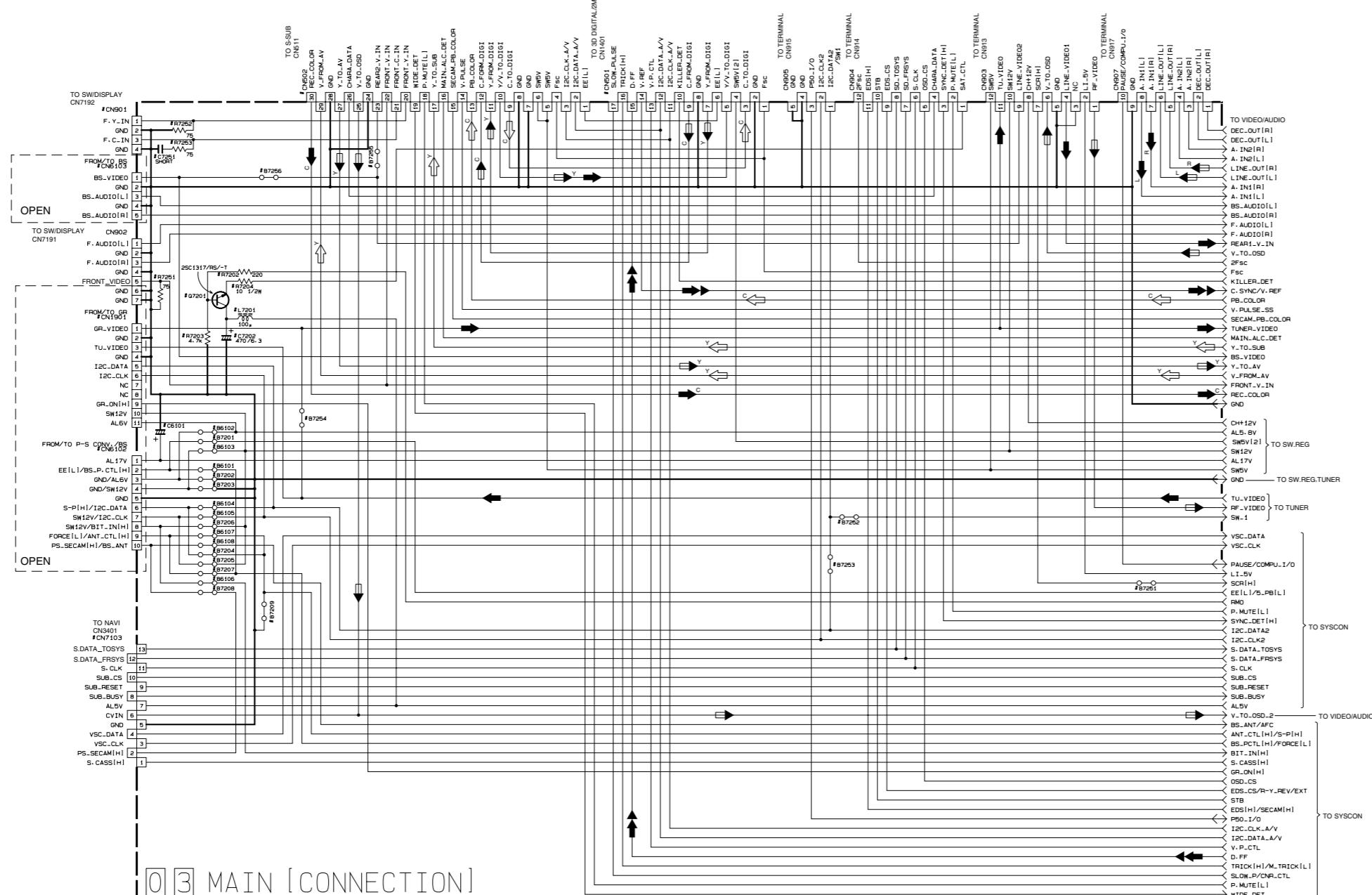
NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

TUNER	SYMBOL	# DIFFERENCE TABLE					
		US/UM/ PAL-M/PAL-N	JAPAN	KOREA (K2)	FRANCE MS	EU/EK	ARC 3SYSTEM
MATSU SHITA	ALPS	MATSU SHITA	SANYO	MATSU SHITA	LG	ALPS	ALPS
TUNER UNIT	TU5001	GAU170	GAU163	GAU169	GAU158	GAU126	GAU175
AT&T	R6025	X	X	X	O	X	X
VIDEO BUFFER	I65080	X	X	X	X	O	X
	R6030	O	X	X	X	X	X
TU-A.MUTE	G6031	X	X	X	X	O	O
	R6034	X	X	X	X	X	X
	C6033-C6032	X	X	X	X	O	O
TU-A.MUTE	G6032	X	X	X	X	O	O
AUDIO OUT	I6031	SHORT	SHORT	SHORT	X	SHORT	SHORT
	R6032	12k Ω	12k Ω	0 Ω	X	2.7k Ω	3.3k Ω
	C6033	12k Ω	12k Ω	X	X	1.8k Ω	1.8k Ω
AFC	B6034	O	O	O	X	X	X
CENELEC	C6035	X	X	X	X	X	X
TU 3DV	C6005	X	X	X	X	X	X
	C6006	X	X	X	X	O	O
MB15W5V1	C6007	X	X	X	X	200/F-6.3V	200/F-6.3V
	C6008	X	X	X	X	O	O
MOD B15V1	C6012-C6013	X	X	X	X	O	O
	L6003	O	O	O	O	X	X
MOD B15V1	L6004	X	X	X	X	O	O
BB15L5V1	C6014-L6002	X	X	X	X	O	O
PLL CLK	C6020	X	X	X	X	X	X
PLL DATA	C6021	X	X	X	X	X	X
TU CE	C6022	X	X	X	X	X	X
LOCK	C6023	X	X	X	X	O	X
MOD SDA / CH SW	R6053	O	O	O	O	X	X
	R6054	X	X	X	X	X	X
MOD SCL / CONV-CTL	R6055-R6061	X	X	X	X	O	O
	C6052	X	X	X	X	X	X
	L6005	X	X	X	X	X	X
	R6056	X	X	X	X	X	X
	C6057	X	X	X	X	X	X
	R6058	X	X	X	X	X	X
	C6059	X	X	X	X	X	X
	R6060	X	X	X	X	X	X
	C6061	X	X	X	X	X	X
	R6062	X	X	X	X	X	X
	C6063	X	X	X	X	X	X
	R6064	X	X	X	X	X	X
	C6065	X	X	X	X	X	X
	R6066	X	X	X	X	X	X
	C6067	X	X	X	X	X	X
	R6068	X	X	X	X	X	X
	C6069	X	X	X	X	X	X
	R6070	X	X	X	X	X	X
	C6071	X	X	X	X	X	X
	R6072	X	X	X	X	X	X
	C6073	X	X	X	X	X	X
	R6074	X	X	X	X	X	X
	C6075	X	X	X	X	X	X
	R6076	X	X	X	X	X	X
	C6077	X	X	X	X	X	X
	R6078	X	X	X	X	X	X
	C6079	X	X	X	X	X	X
	R6080	X	X	X	X	X	X
	C6081	X	X	X	X	X	X
	R6082	X	X	X	X	X	X
	C6083	X	X	X	X	X	X
	R6084	X	X	X	X	X	X
	C6085	X	X	X	X	X	X
	R6086	X	X	X	X	X	X
	C6087	X	X	X	X	X	X
	R6088	X	X	X	X	X	X
	C6089	X	X	X	X	X	X
	R6090	X	X	X	X	X	X
	C6091	X	X	X	X	X	X
	R6092	X	X	X	X	X	X
	C6093	X	X	X	X	X	X
	R6094	X	X	X	X	X	X
	C6095	X	X	X	X	X	X
	R6096	X	X	X	X	X	X
	C6097	X	X	X	X	X	X
	R6098	X	X	X	X	X	X
	C6099	X	X	X	X	X	X
	R6100	X	X	X	X	X	X
	C6101	X	X	X	X	X	X
	R6102	X	X	X	X	X	X
	C6103	X	X	X	X	X	X
	R6104	X	X	X	X	X	X
	C6105	X	X	X	X	X	X
	R6106	X	X	X	X	X	X
	C6107	X	X	X	X	X	X
	R6108	X	X	X	X	X	X
	C6109	X	X	X	X	X	X
	R6110	X	X	X	X	X	X
	C6111	X	X	X	X	X	X
	R6112	X	X	X	X	X	X
	C6113	X	X	X	X	X	X
	R6114	X	X	X	X	X	X
	C6115	X	X	X	X	X	X
	R6116	X	X	X	X	X	X
	C6117	X	X	X	X	X	X
	R6118	X	X	X	X	X	X
	C6119	X	X	X	X	X	X
	R6120	X	X	X	X	X	X
	C6121	X	X	X	X	X	X
	R6122	X	X	X	X	X	X
	C6123	X	X	X	X	X	X
	R6124	X	X	X	X	X	X
	C6125	X	X	X	X	X	X
	R6126	X	X	X	X	X	X
	C6127	X	X	X	X	X	X
	R6128	X	X	X	X	X	X
	C6129	X	X	X	X	X	X
	R6130	X	X	X	X	X	X
	C6131	X	X	X	X	X	X
	R6132	X	X	X	X	X	X
	C6133	X	X	X	X	X	X
	R6134	X	X	X	X	X	X
	C6135	X	X	X	X	X	X
	R6136	X	X	X	X	X	X
	C6137	X	X	X	X	X	X
	R6138	X	X	X	X	X	X
	C6139	X	X	X	X	X	X
	R6140	X	X	X	X	X	X
	C6141	X	X	X	X	X	X
	R6142	X	X	X	X	X	X
	C6143	X	X	X	X	X	X
	R6144	X	X	X	X	X	X
	C6145	X	X	X	X	X	X
	R6146	X	X	X	X	X	X
	C6147	X	X	X	X	X	X
	R6148	X	X	X	X	X	X
	C6149	X	X	X	X	X	X
	R6150	X	X	X	X	X	X
	C6151	X	X	X	X	X	X
	R6152	X	X	X	X	X	X
	C6153	X	X	X	X	X	X
	R6154	X	X	X	X	X	X
	C6155	X	X	X	X	X	X
	R6156	X	X	X	X	X	X
	C6157	X	X	X	X	X	X

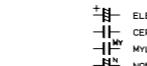
4.7 CONNECTION SCHEMATIC DIAGRAM

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		O : Used	X : Not used		
NAV1	CN7103	GR	CN1901	B7254	SVHS
YES	O		O	X	YES

NOTES: UNLESS OTHERWISE SPECIFIED
ALL RESISTANCE VALUES ARE IN OHMS
ALL INDUCTANCE VALUES ARE IN HENRIES
ALL CAPACITANCE VALUES ARE IN FARADS



LAST NO					VACANT NO
R	—	—	—	—	7253 7201-7205-7250
C	—	—	6101	—	7251 7201-7203-7250
Q	—	—	—	—	7201
L	—	—	—	—	7201
CN	502	907	1901	6103	7103 — 906-6101-7101-7102
B	—	—	6108	—	7256 7210-7250

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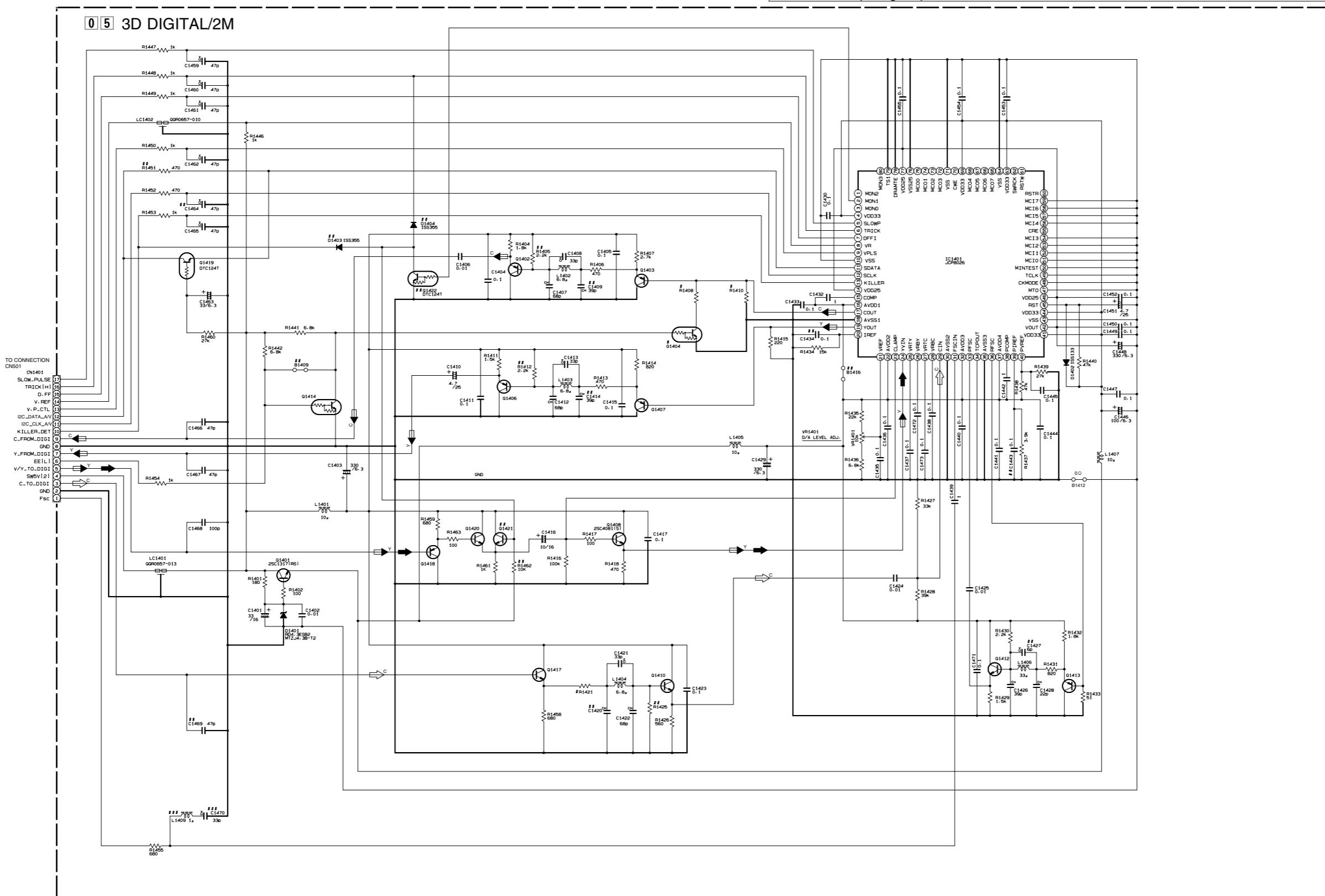
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4.8 3D DIGITAL/2M SCHEMATIC DIAGRAM

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亨
 ALL CAPACITANCE VALUES ARE IN FARADS
 ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

MARK ELEMENTS ARE NOT MOUNTED.
ALL SINGLE DIODE 1S1133 OR IN4148.
ALL PNP TRANSISTOR 2SA1761GA (RS) OR 2SB1218A (GR) OR 2PA111
ALL NPN TRANSISTOR 2SC4081 (GRS) OR 2SD1619 (GRS) OR 2PC100
ALL NPN DIGITAL TRANSISTOR DTC144WA OR U651E OR RN130

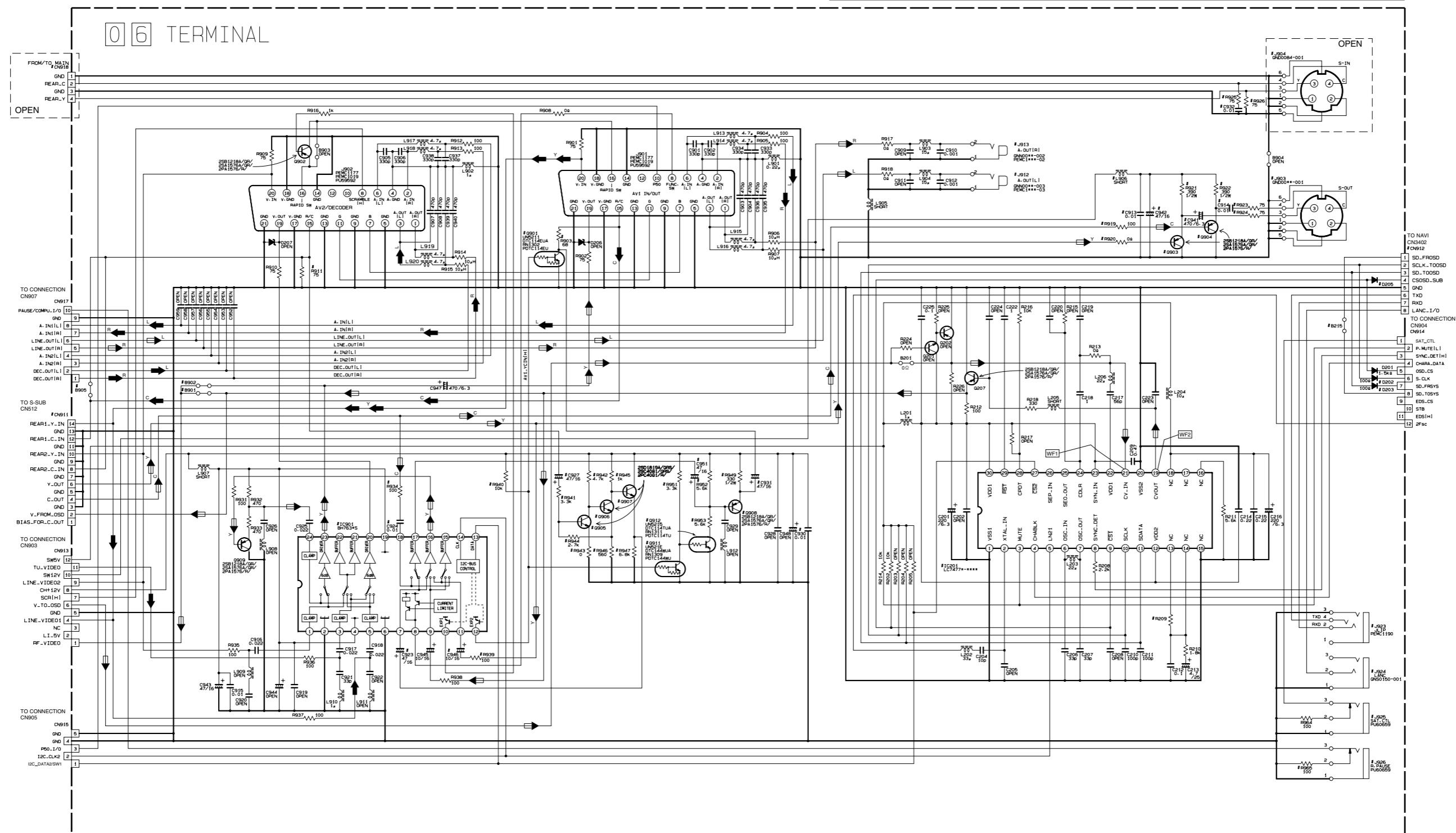
Marked elements may differ depending on the model.
Be sure to check the parts List.

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

# DIFFERENCE TABLE				O : Used	X : Not used
	01404	R1408	R1410	R1421	
PAL/MS	O	1-2K	390	390	
NTSC	X	OPEN	240	330	

4.9 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.



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# DIFFERENCE TABLE	O : Used X : Not used	S-VHS														
		S	IN	OSD	LANGUAGE	NAVIGATION	PWB	S	OUT	A-	OUT	JL	IP	LANC	SAT-CL	R.PAUSE
SYMBOLS																
MODELS		B903-B914; B914-B924; B939-B947														
		B904														
V13536 EU/EK	O	X	X	6-9791	12k	X	O	X	85	21/126	O	O	O	O	O	O
V13536 MS	O	X	X	5-9750	5..1k	X	O	X	85	21/126	O	O	O	O	O	O
V13536 EU/(PHILIPS)	O	X	X	6-9791	12k	X	O	X	84	23/009	X	O	X	O	O	O
V13536 EU/EK	O	X	X	6-9791	12k	X	O	X	84	23/009	X	O	O	O	O	O
V13536 MS	O	X	X	5-9750	5..1k	X	O	X	84	23/009	X	O	O	O	O	O
V13536 EU/(EU-EK-S21 EU)	O	X	X	6-9791	12k	X	O	X	84	23/009	X	X	O	O	O	O
V13536 EU/EK/(PHILIPS)	O	X	X	5-9750	5..1k	X	O	X	84	23/009	X	X	O	O	O	O
V13536 MS	O	X	X	5-9750	5..1k	X	O	X	84	23/009	X	X	O	O	O	O
V13536 MS/(PHILIPS)	O	X	X	5-9750	5..1k	X	O	X	84	23/009	X	X	O	O	O	O
V1351 EU/EK-S11EU-S12EK	O	X	X	6-9791	12k	X	O	X	84	23/009	X	X	O	O	O	O
V1351 MS	O	X	X	5-9750	5..1k	X	O	X	84	23/009	X	X	O	O	O	O
V1302 EU/EK	X	O	X	6-9791	12k	X	O	X	X	23/009	O	O	O	O	O	O
V1302 MS	X	O	X	5-9750	5..1k	X	O	X	X	23/009	O	O	O	O	O	O

6	R	226	965	201-206-207-219-223	927-930-948-950-954
6	C	225	959	203-221	949-950
5	D	207	—	204	
	G	207	912	203-206	910
	L	206	920		
	B	215	905	202-214	
	I	215	905	201-203	905-911-914-922
	IC	201	901		
	CH	910			901-910-916
	ELECTROLYTIC				
	CERAMIC				
	MYLER				
	NON POLAR				

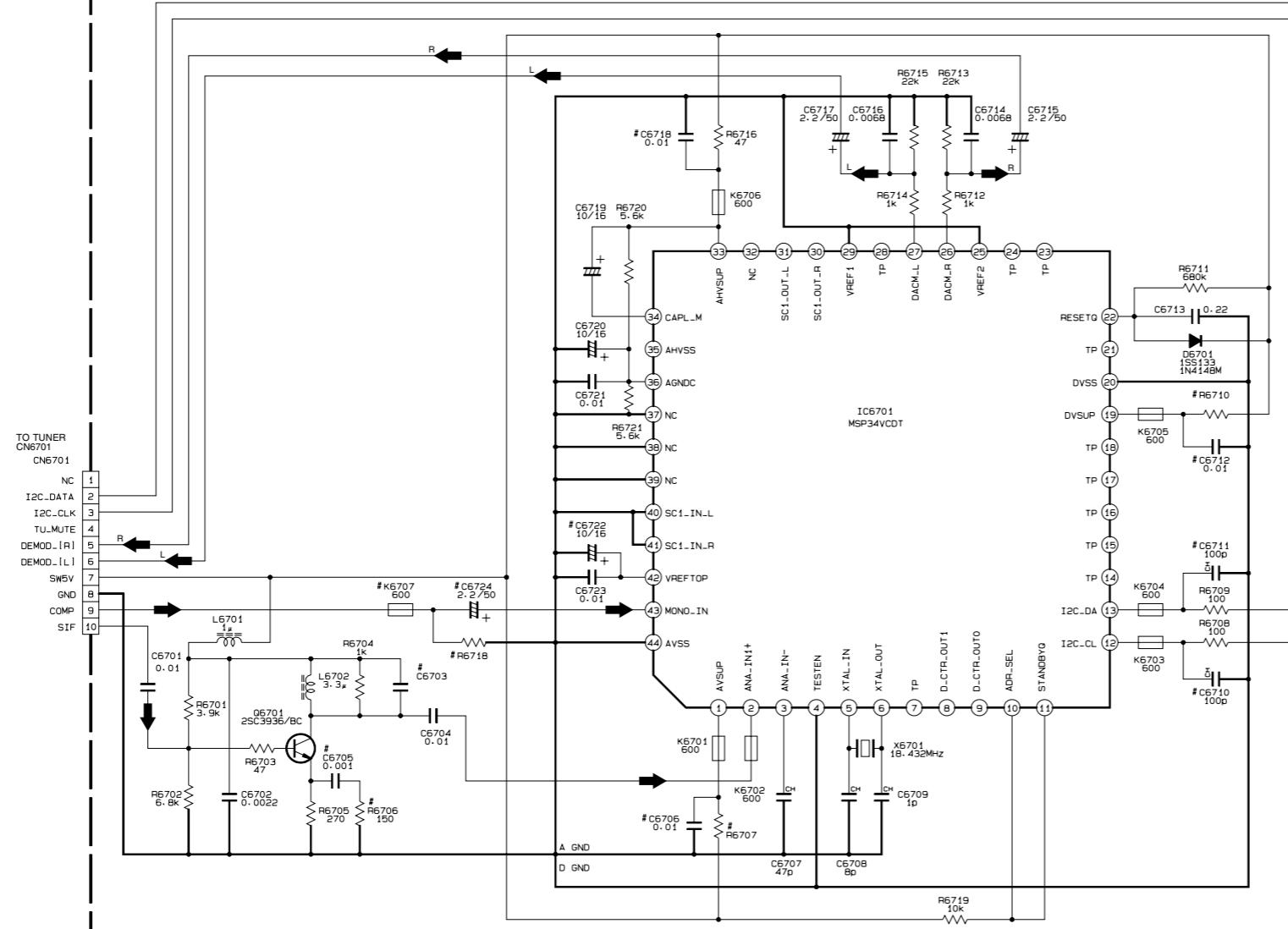
4.10 DEMODULATOR SCHEMATIC DIAGRAM

5

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

1 4 DEMOD



3

2

1

A

B

C

D

4-21

4-22

E

F

G

H

DIFFERENCE TABLE
O : Used
X : Not used

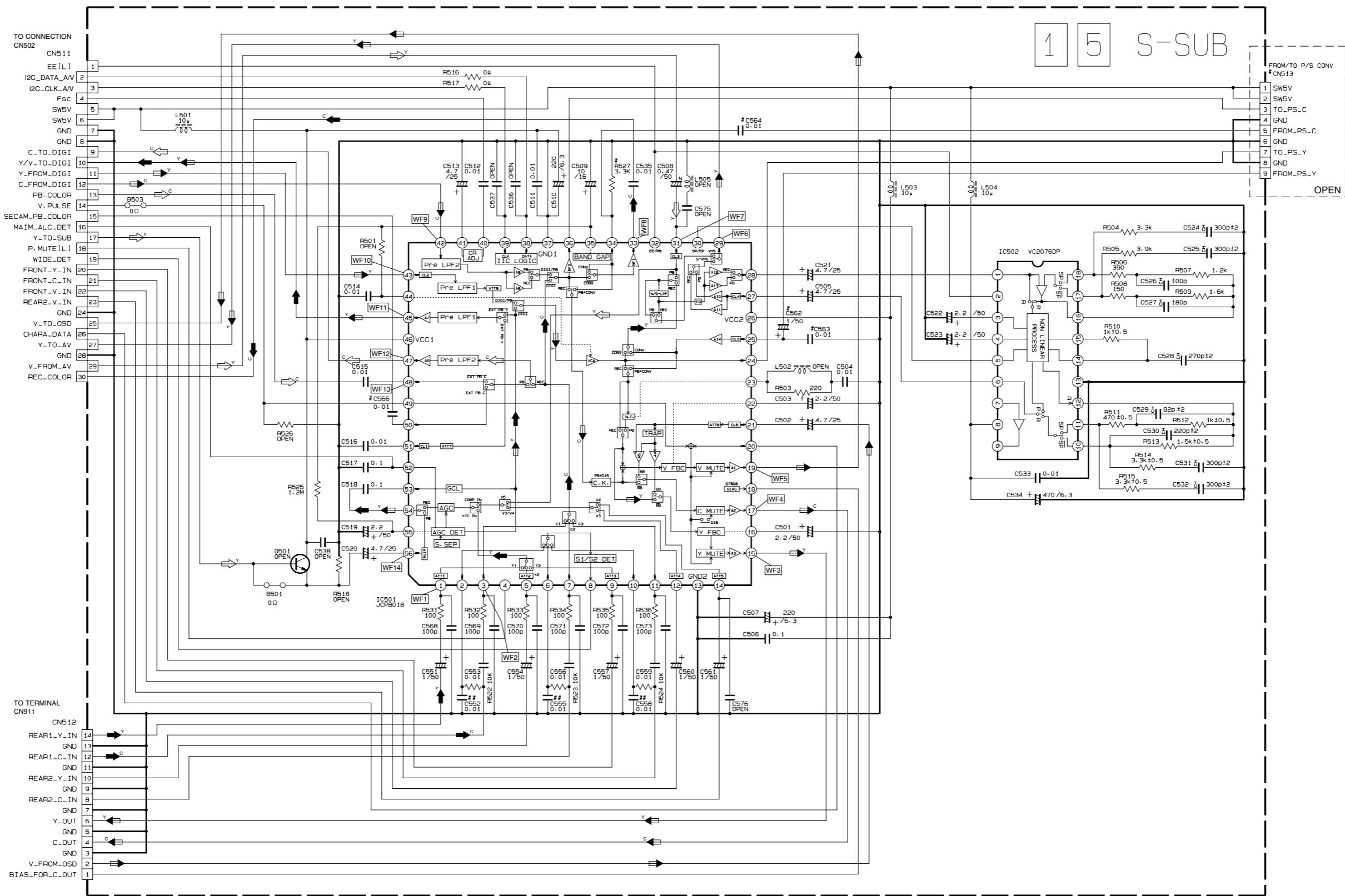
	SYMBOL	FRANCE MS		ARC	
		STEP UP EU/EK	EU/EK	3SYSTEM	4SYSTEM
PRE AMP	R6706	O	O	X	X
	C6705	X	X	180p	220p
	C6703	X	X		
MONO IN	C6724	O	X	X	X
	K6707	X	X		
ANALOG Vcc	R6718	X	X	X	X
	C6706	22	47	47	47
	IC6707	X	X	X	X
I2C-bus	C6710	X	X	X	X
	C6711	X	X	X	X
DIGITAL Vcc	R6710	10	12	12	12
	C6712	X	X	X	X
DAC Vcc	C6718	X	X	X	X
C6722	X	X	X	X	X

p20162001a_rev2

+ ELECTROLYTIC
 || CERAMIC
 ||| MY MYLER
 |||| N NON POLAR

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.



Note : For the waveforms in this schematic diagram, refer to page 4-4

p20168001a_rev0

# DIFFERENCE TABLE		
	CN513 C562 C564 C566	C563 R527
MS	○	✗
OTHERS	✗	○

○ : Used
× : Not used

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

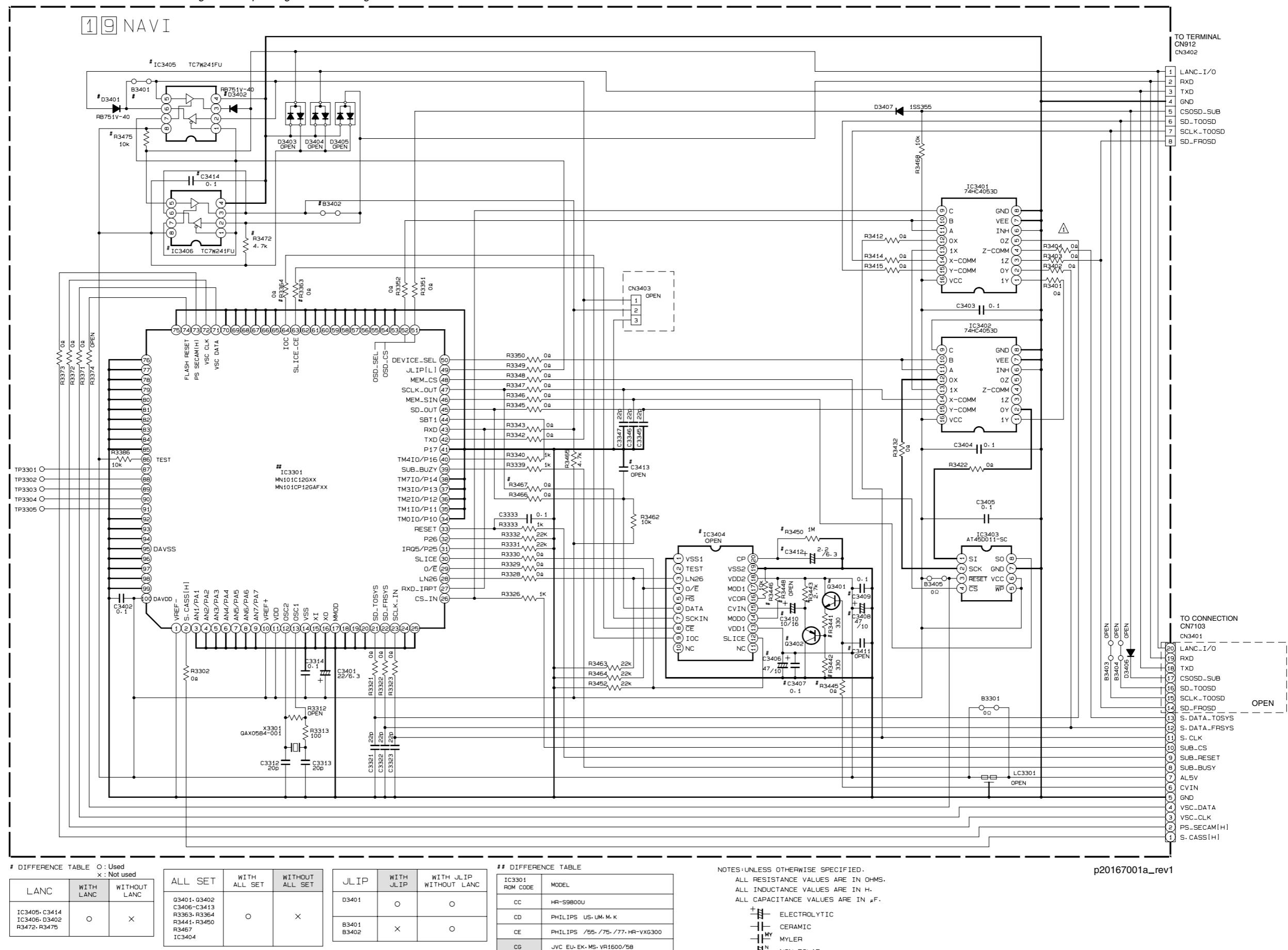
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS
ALL INDUCTANCE VALUES ARE IN HENRIES
ALL CAPACITANCE VALUES ARE IN FARADS

 ELECTRO
 CERAMIC
 MYLER
 NON POL

4.12 NAVIGATION SCHEMATIC DIAGRAM [LPB10108-001*]

There are currently two types of Navigation boards in used, these are the LPB10108-001 and the LPB10108-002*. These two boards have different Schematic Diagrams and Parts Lists. Be sure to check the board number before selecting its corresponding Schematic Diagram and Parts List.*

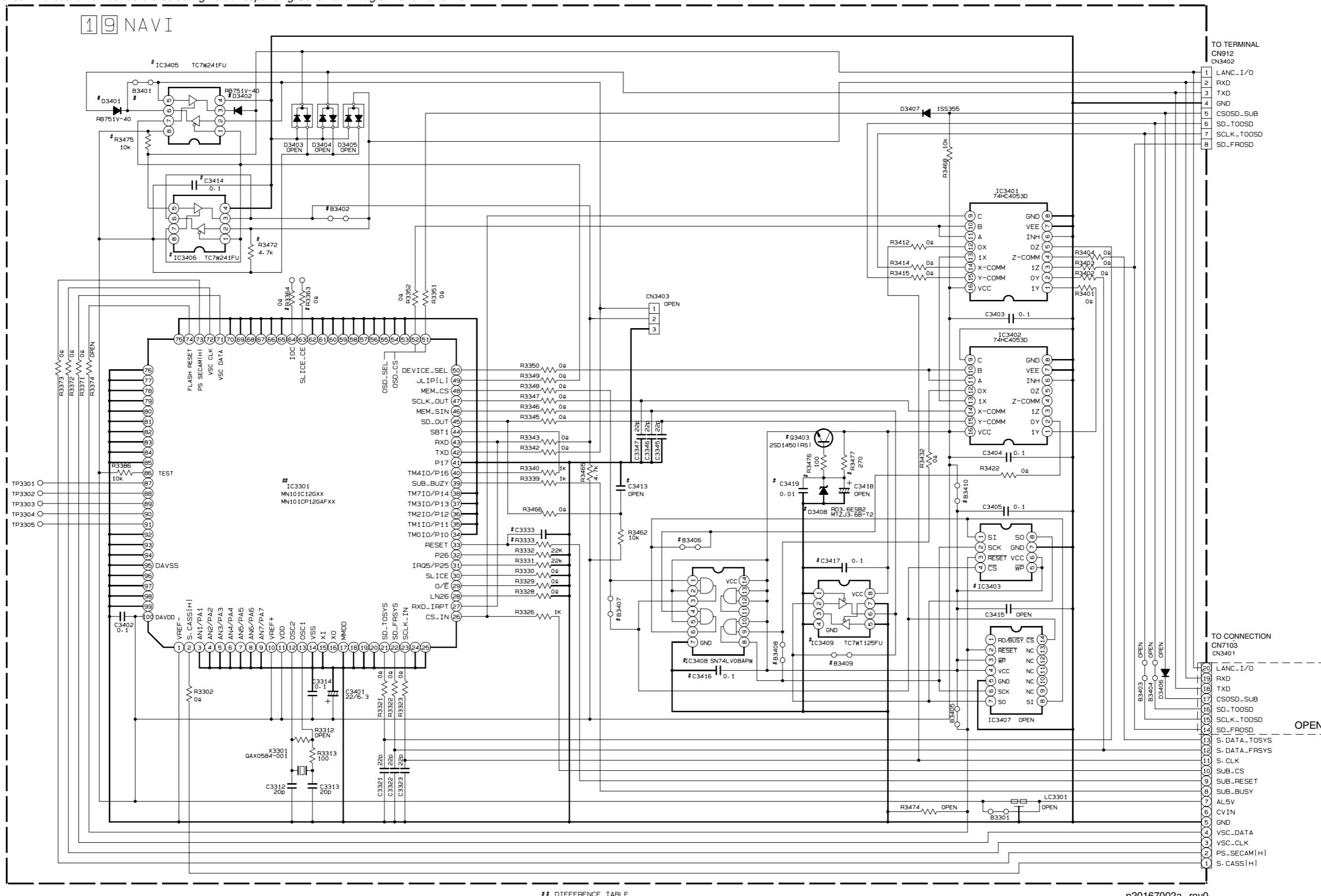
Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



4.13 NAVIGATION SCHEMATIC DIAGRAM [LPB10108-002*]

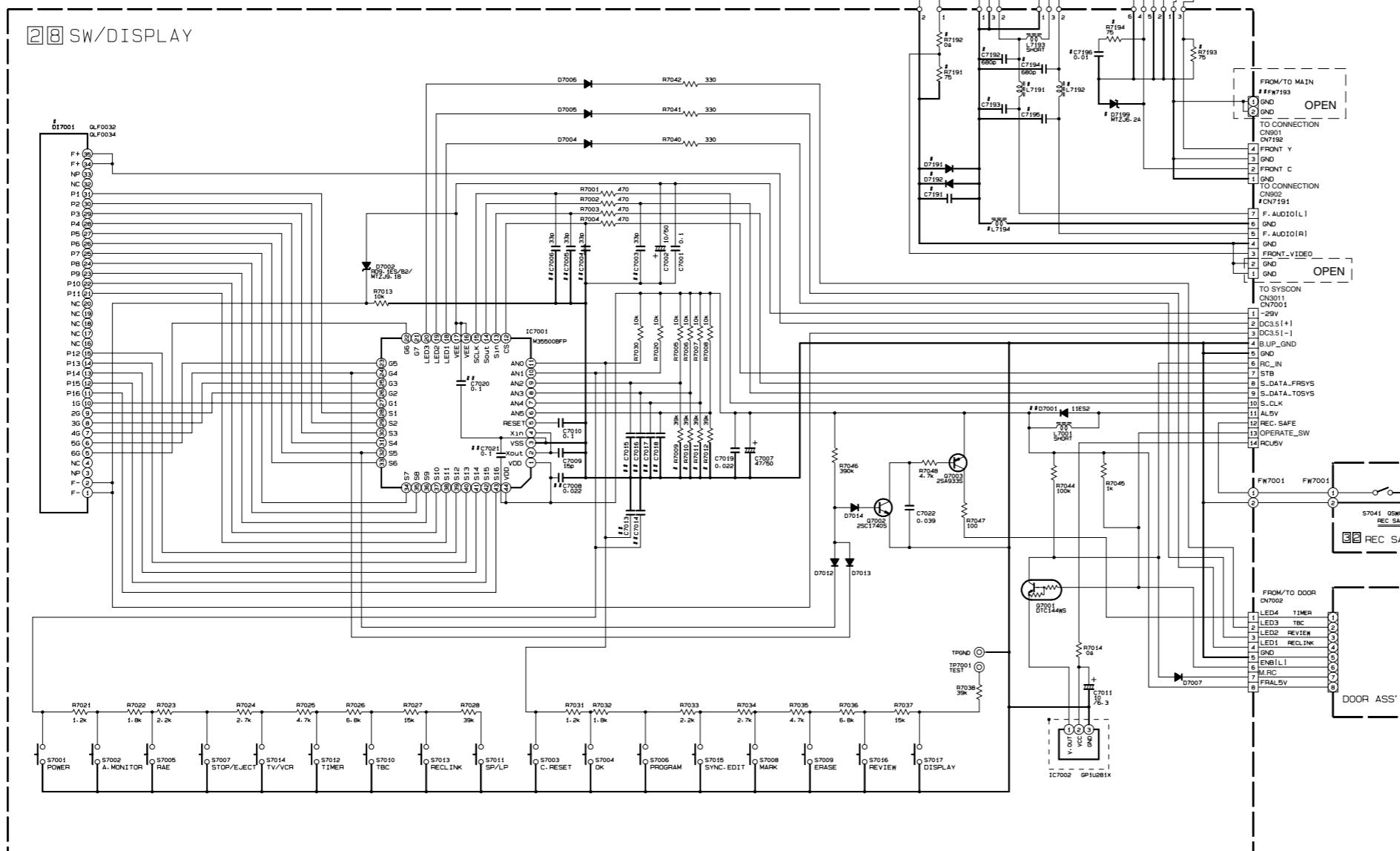
There are currently two types of Navigation boards in used, these are the LPB10108-001* and the LPB10108-002*. These two boards have different Schematic Diagrams and Parts Lists. Be sure to check the board number before selecting its corresponding Schematic Diagram and Parts List.

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.



4.14 SW/DISPLAY AND REC SAFETY 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 1				
OPTION	R7009	R7010	R7011	R7012
S36EU S36EK S36MS	NO	NO	NO	NO

#DIFFERENCE TABLE 2							
AV IN	C7191	R7191	R7192	L7191	L7192	C7194	D7191
S36EU S36EK S36MS	3-7	NO	YES	100 μ A	SHORT	YES	NO

#DIFFERENCE TABLE 3						
S-JACK	J7194	R7193	R7194	C7196	D7199	
S36EU S36EK S36MS	YES	NO	NO	NO	NO	

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

M MYLER

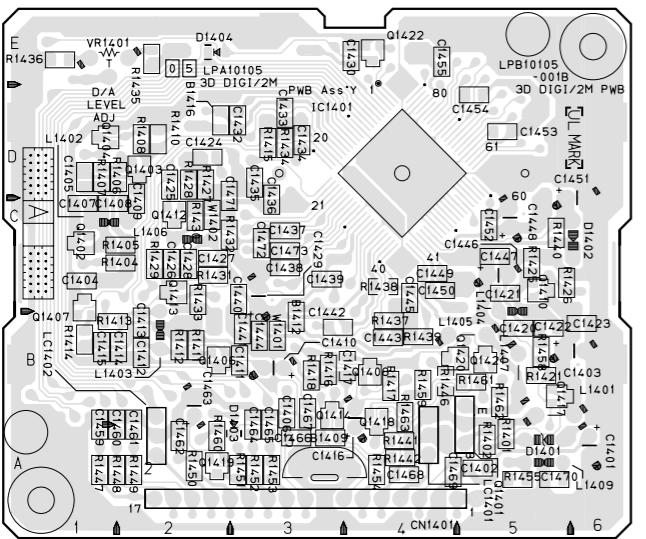
N NON POLAR

ALL DIODES ARE 1SS133.

NOT USED

4.15 3D DIGITAL/2M AND S-SUB CIRCUIT BOARDS

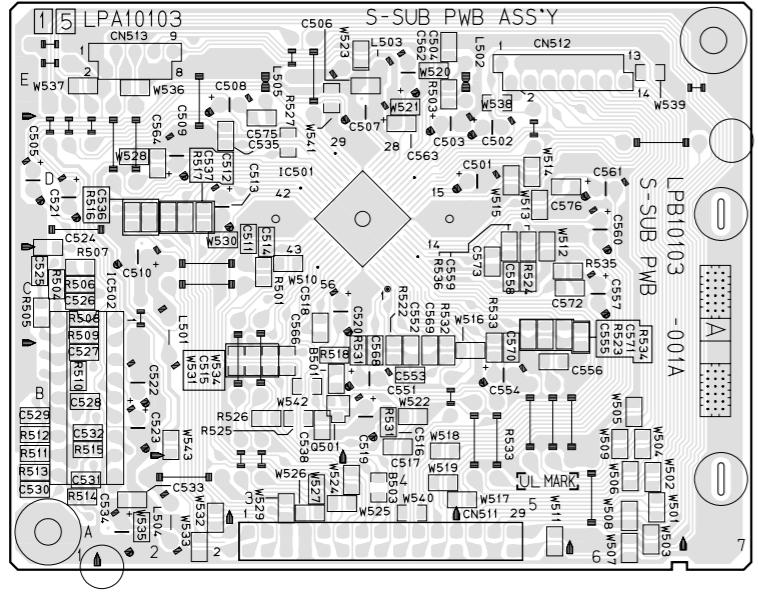
<05>3D DIGITAL/2M
LPB10105-001B



COMPONENT PARTS LOCATION GUIDE
<3D DIGITAL/2M >

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR							
C1446	A D 5C	L1407	A D 5B	R1429	B C 2C		
C1447	B C 5A	L1409	A D 5A	R1430	B C 2C		
C1448	B D 5C			R1431	B C 2C		
C1449	B C 4C			R1432	B C 2C		
C1450	B C 4G			R1433	B C 2C		
C1451	B C 5D			R1434	B C 3D		
C1452	B C 5C			R1435	B C 2E		
C1453	B C 5D			R1436	B C 1E		
C1454	B C 5D			R1437	B C 4B		
C1455	B C 4E			R1438	B C 4C		
C1456	B C 5C			R1439	B C 5C		
C1457	B C 5B			R1440	B C 5C		
C1458	B C 5B			R1441	B C 4A		
C1459	B C 2B			R1442	B C 4A		
C1460	B C 2B			R1443	B C 3B		
C1461	B C 2B			R1444	B C 4A		
C1462	B C 2A			R1445	B C 4B		
C1463	A D 2A			R1446	B C 4B		
C1464	B C 3B			R1447	B C 1A		
C1465	B C 3B			R1448	B C 2A		
C1466	B C 3B			R1449	B C 2A		
C1467	B C 3B			R1450	B C 2A		
C1468	B C 3B			R1451	B C 3A		
C1469	B C 4A			R1452	B C 3A		
C1470	B C 5A			R1453	B C 3A		
C1471	B C 2D			R1454	B C 4A		
C1472	B C 3C			R1455	B C 5A		
C1473	B C 3C			R1456	B C 4B		
CONNECTOR							
CN1401	A D 5A			R1457	B C 2A		
DIODE							
D1401	A D 5A			R1458	B C 5A		
D1402	A D 6C			R1459	B C 4B		
D1403	B C 3B			R1460	B C 2D		
D1404	B C 2E			R1461	B C 5B		
IC							
IC1401	B C 4D			R1462	B C 4B		
COIL							
R1401	B C 2B			R1463	B C 4B		
R1402	B C 2B			VR1401	A D 1E		
OTHER							
L1401	A D 5B						
L1402	A D 2C						
L1403	A D 2B						
L1404	A D 4B						
L1405	A D 2C						
L1406	B C 2D						

<15>S-SUB
LPB10103-001A

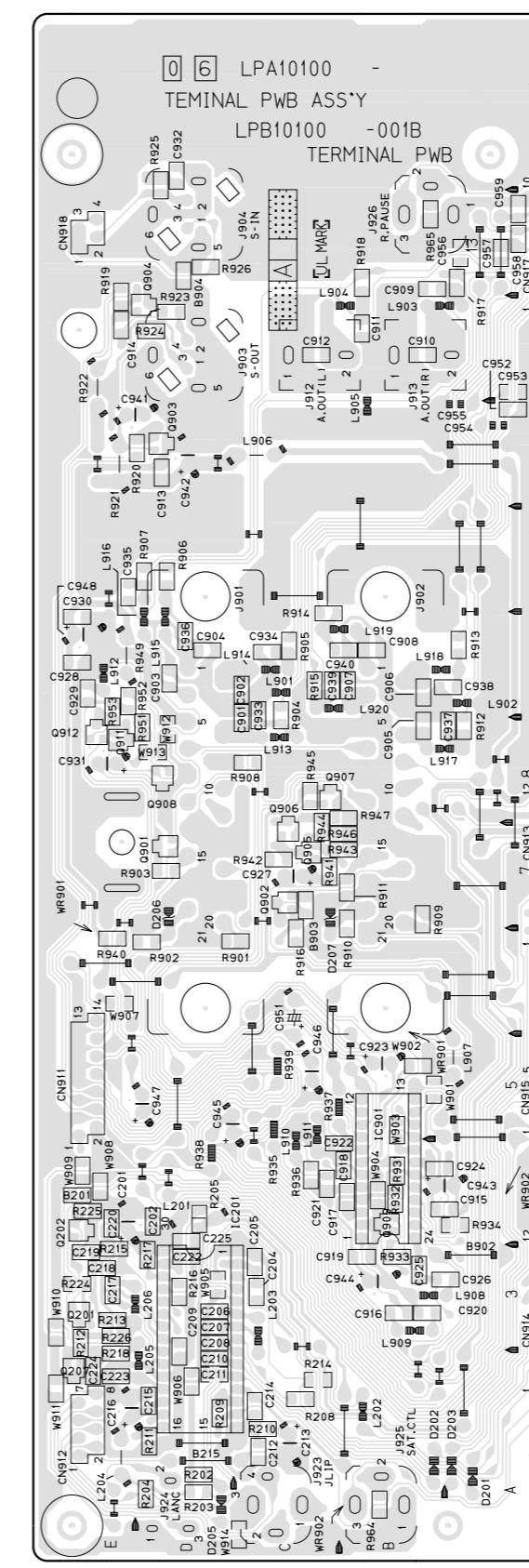


COMPONENT PARTS LOCATION GUIDE
<S-SUB >

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR					
C501	A D 5D	R504	B C 1C		
C502	A D 5D	R505	B C 1C		
C503	A D 4D	R506	B C 1C		
C504	B C 4E	R507	B C 1C		
C505	A D 1D	R509	B C 1B		
C506	B C 4E	R510	B C 1B		
C507	A D 2E	R511	B C 1B		
C508	A D 2D	R512	B C 1A		
C509	A D 2C	R513	B C 1A		
C510	B C 3C	R514	B C 1B		
C511	B C 2D	R515	B C 2D		
C512	B C 2D	R516	B C 2D		
C513	A D 2D	R517	B C 2D		
C514	B C 3C	R518	B C 3B		
C515	B C 3B	R519	B C 4B		
C516	B C 4B	R520	B C 5C		
C517	B C 4B	R521	B C 5C		
C518	B C 3C	R522	B C 3B		
C519	A D 3C	R523	B C 3B		
C520	B C 1D	R524	B C 3B		
C521	A D 2B	R525	B C 3D		
C522	B C 2B	R526	B C 4B		
C523	A D 1C	R527	B C 4B		
C524	B C 1C	R528	B C 5B		
C525	B C 1C	R529	B C 5B		
C526	B C 1B	IC501	B C 4D		
C527	B C 1B	IC502	A D 1C		
C528	B C 1B				
C529	B C 1B				
C530	B C 1A				
C531	B C 1B				
C532	B C 2A				
C533	B C 2A				
C534	B C 2D				
C535	B C 2D				
C536	B C 2D				
C537	B C 3B				
C538	B C 3B				
C539	A D 4B				
C552	B C 4B				
CONNECTOR					
CN511	A D 3A				
CN512	A D 1E				
IC					
IC501	B C 4D				
IC502	A D 1C				
COIL					
L501	A D 2B				
L502	A D 5E				
L503	A D 3E				
L504	A D 2A				
L505	A D 3E				
TRANSISTOR					
Q501	B C 3B				
RESISTOR					
R501	B C 3C				
R503	B C 4E				

4.16 TERMINAL CIRCUIT BOARD

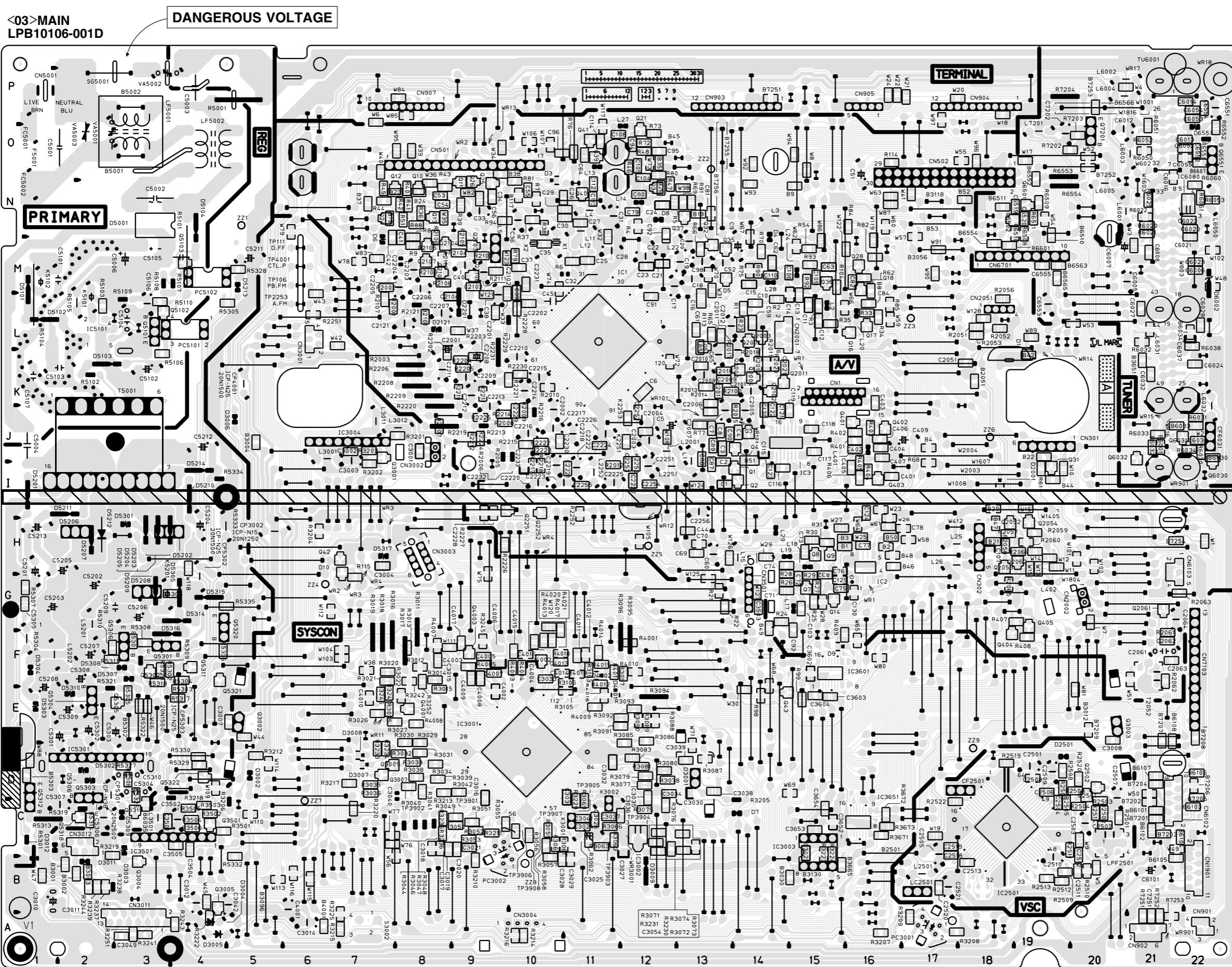
<06>TERMINAL
LPB10100-001B



COMPONENT PARTS LOCATION GUIDE <TERMINAL>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR							
C201	A D 4E	C937	B C 8B	L902	A D 9B	R908	B C 8C
C202	B C 3C	C938	B C 9C	L903	A D 12B	R909	B C 7C
C204	B C 3C	C940	B C 9C	L904	A D 12B	R911	B C 8A
C205	B C 3C	C941	A D 11E	L905	A D 11C	R912	B C 8A
C206	B C 3D	C942	A D 11D	L906	A D 5B	R913	B C 9A
C207	B C 3D	C944	A D 3B	L907	A D 3B	R915	B C 9C
C208	B C 3D	C945	A D 5D	L908	A D 4C	R916	B C 6C
C209	B C 2D	C946	A D 5C	L911	A D 5C	R917	B C 13A
C210	B C 2D	C947	A D 4E	L912	A D 9E	R918	B C 13B
C211	B C 2D	C948	A D 9E	L913	A D 8C</td		

4.17 MAIN, A/C HEAD, AUDIO ERASE AND LOADING MOTOR CIRCUIT BOARDS

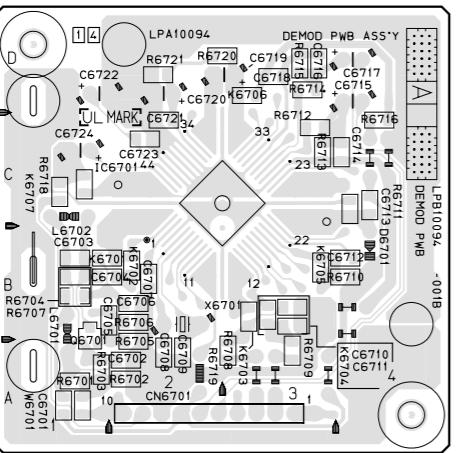


COMPONENT PARTS LOCATION GUIDE <MAIN>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR															
C1	B C 13I	C2001	A D 9K	C3041	B C 11C	CN3001	A D 6L	L2001	A D 12J	R2107	B C 7L	R3085	B C 12D	P5322	B C 3E
C2	B C 13I	C2002	A D 10K	C3042	A D 5B	CN3002	A D 8J	L2251	A D 13I	R2108	B C 15L	R3086	B C 12E	P5323	B C 3F
C3	B C 13J	C2003	A D 12J	C3049	B C 3A	CN3003	A D 8H	L2252	A D 11I	R2109	B C 12N	R3087	B C 13D	P5326	B C 3D
C4	B C 14J	C2005	A D 14J	C3050	B C 12C	CN3004	A D 10A	L2501	A D 17B	R2110	B C 8M	R3088	B C 12E	P5327	B C 3D
C5	B C 13J	C2006	B C 13J	C3051	B C 14G	CN3011	A D 3A	L3001	A D 6J	R2111	B C 11M	R2089	B C 12E	P5328	B C 5M
C6	B C 12K	C2007	A D 13J	C3053	B C 14G	CN3012	A D 2C	L3011	A D 7J	R2121	B C 10N	R3090	B C 12E	P5329	B C 4D
C7	B C 13J	C2008	A D 13J	C3054	B C 14G	CN3051	A D 14H	L3012	A D 7J	R2202	B C 8K	R3091	B C 12E	P5330	B C 4D
C8	B C 13J	C2009	B C 13K	C3055	B C 4C	CN6102	A D 21C	L5201	A D 2G	R2204	B C 9K	R3093	B C 12E	P5333	A D 4H
C9	A D 14M	C2010	B C 13C	C3062	B C 15F	M6103	A D 21H	L5202	A D 20N	R2205	B C 9K	R3094	A D 5I	P5334	A D 5I
C10	B C 14L	C2011	A D 14L	C3063	B C 15E	M6701	A D 18M	L6001	A D 20A	R2206	B C 14L	R3095	A D 12F	P5335	B C 5G
C11	B C 15L	C2012	A D 15C	C3064	B C 15E	N7013	A D 22E	L6003	A D 20P	R2207	B C 15G	R3096	A D 12F	P5336	B C 4F
C12	B C 15L	C2013	B C 13K	C3652	B C 15C	N7015	A D 15C	L6004	A D 20P	R2208	B C 14G	R3097	B C 12B	P6020	B C 21N
C13	B C 15L	C2014	B C 14K	C3653	B C 15C	N7017	A D 15C	L6005	A D 20N	R2209	B C 9K	R3098	B C 11E	P6022	B C 21N
C14	B C 15L	C2051	B C 18C	C3654	B C 15C	N7019	A D 15C	L6005	A D 20N	R2211	B C 15G	R3099	B C 11E	P6022	B C 21N
C15	B C 14M	C2061	A D 21F	C4001	A D 6B	D1	B C 100	L6031	B C 21L	R2212	B C 14H	R3106	B C 11F	R6025	B C 21N
C16	B C 13L	C2062	B C 21F	C4002	B C 9E	D4	B C 14M	L6032	A D 22N	R2213	B C 15G	R3107	B C 8J	R6030	B C 22J
C17	A D 12M	C2063	B C 21F	C4003	B C 9F	D5	A D 7N	L7201	A D 19O	R2214	B C 15H	R3108	B C 7I	R6031	B C 22J
C18	A D 13M	C2064	A D 21G	C4004	B C 10F	D7	A D 13C	L7201	A D 19O	R2215	B C 10J	R3109	B C 7J	R6032	B C 21L
C19	A D 13M	C2101	A D 14K	C4005	B C 10F	D7	A D 13C	L7201	A D 19O	R2216	B C 10J	R3109	B C 6H	R6033	B C 21J
C20	A D 13M	C2102	A D 9M	C4006	B C 9F	D8	A D 12N	L7201	A D 19O	R2217	B C 10L	R3109	A D 14C	R6034	B C 22J
C21	B C 12M	C2103	B C 9L	C4008	B C 9F	D9	B C 15F	L7201	A D 19O	R2218	B C 10L	R3109	B C 5C	R6038	B C 22L
C22	A D 12M	C2121	A D 8L	C4009	B C 9F	D9	B C 15F	L7201	A D 19O	R2219	A D 6J	R3207	B C 16A	R6050	B C 21O
C23	B C 12M	C2201	B C 9C	C4100	B C 7E	D7	B C 13M	L7201	A D 19O	R2220	B C 10N	R3208	B C 17A	R6051	B C 21O
C24	B C 12N	C2202	B C 10C	C4101	B C 11F	D5	B C 13M	L7201	A D 19O	R2221	B C 10K	R3209	B C 17A	R6052	B C 21O
C25	B C 11M	C2202	B C 10C	C4101	B C 11F	D5	B C 13M	L7201	A D 19O	R2222	B C 10J	R3210	B C 9B	R6053	B C 22N
C26	B C 10N	C2203	A D 8M	C4102	B C 11F	D5	B C 13M	L7201	A D 19O	R2223	B C 10J	R3211	B C 9C	R6060	B C 22N
C27	B C 11N	C2204	A D 8M	C4103	B C 10F	D5	B C 13M	L7201	A D 19O	R2224	B C 9H	R3212	B C 5D	R6061	B C 22N
C28	A D 11M	C2205	A D 8M	C4104	B C 10F	D5	B C 13M	L7201	A D 19O	R2225	B C 9H	R3213	B C 5D	R6061	B C 22N
C29	B C 11N	C2206	A D 8M	C4105	B C 10F	D5	B C 13M	L7201	A D 19O	R2226	B C 8N	R3214	B C 10A	R6059	B C 19N
C30	B C 11N	C2207	A D 8L	C4106	B C 10F	D5	B C 13M	L7201	A D 19O	R2227	B C 8N	R3215	B C 7A	R6150	B C 19N
C31	A D 11N	C2208	A D 9K	C4017	B C 9F	D5	B C 13M	L7201	A D 19O	R2228	B C 7N	R3228	B C 10L	R3216	B C 19
C32	A D 11M	C2209	A D 9K	C5001	A D 20	D7	B C 13M	L7201	A D 19O	R2229	B C 7N	R3229	B C 7D	R6551	A D 22O
C33	A D 9N	C2210	A D 10K	C5002	A D 4N	D3	B C 13M	L7201	A D 19O	R2230	B C 7D	R3231	B C 4D	R6552	B C 22O
C34	B C 9N	C2211	A D 8K	C5003	A D 4P	D3	B C 13M	L7201	A D 19O	R2231	B C 12B	R3231	B C 2B	R6553	A D 20O
C35	B C 10M	C2212	A D 9K	C5004	A D 1J	D3	B C 13M	L7201	A D 19O	R2232	B C 12B	R3231	B C 7C	R6554	A D 20O
C36	A D 10N	C2213	A D 9J	C5006	A D 3M	D3	B C 13M	L7201	A D 19O	R2233	B C 12B	R3231	B C 21A	R6555	B C 21A
C37	B C 10M	C2214	A D 10K	C5010	A D 2M	D4	B C 13M	L7201	A D 19O	R2234	B C 12B	R3231	B C 21A	R6601	B C 18M
C38	A D 9L	C2215	A D 10K	C5012	A D 3K	D4	B C 13M	L7201	A D 19O	R2235	B C 12B	R3231	B C 15C	R7202	B C 20O
C39	B C 10M	C2216	A D 10J	C5013	A D 3L	D3	B C 13M	L7201	A D 19O	R2236	B C 12B	R3231	B C 15C	R7203	B C 20O
C40	A D 9M	C2217	A D 10J	C5014	A D 3L	D3	B C 13M	L7201	A D 19O	R2237	B C 12B	R3231	B C 11C	R7204	A D 19P
C41	B C 8M	C2218	A D 11J	C5015	A D 3M	D3	B C 13M	L7201	A D 19O	R2238	B C 12B	R3231	B C 12C	R7252	B C 21A
C42	B C 7M	C2219	A D 10J	C5016	A D 3L	D3	B C 13M	L7201	A D 19O	R2239	B C 12B	R3231	B C 12B	R7253	B C 21A
C44	B C 13H	C2220	A D 10I	C5107	A D 1K	D3	B C 13M	L7201	A D 19O	R2507	B C 19D	R3233	B C 7D	TESTPOINT	
C45	A D 10L	C2221	B C 12I	C5201	A D 1G	D3	B C 13M	L7201	A D 19O	R2508	B C 14M	R3234	B C 7D	TESTPOINT	
C51	A D 16N	C2222	A D 11I	C5202	A D 2G	D4	B C 13M	L7201	A D 19O	R2509	B C 19B	R3235	B C 8C	TESTPOINT	
C52	A D 13M	C2223	A D 11I	C5203	A D 1G	D4	B C 13M	L7201	A D 19O	R2510	B C 12D	R3236	B C 8C	TESTPOINT	
C53	B C 8N	C2224	B C 11J	C5204	A D 4H	D4	B C 13M	L7201	A D 19O	R2511	B C 14M	R3237	B C 2B	TESTPOINT	
C54	B C 8N	C2225	A D												

4.19 DEMODULATOR, SW/DISPLAY AND REC SAFETY CIRCUIT BOARDS

<14>DEMODULATOR LPB10094-001B



COMPONENT PARTS LOCATION GUIDE <DEMODULATOR>

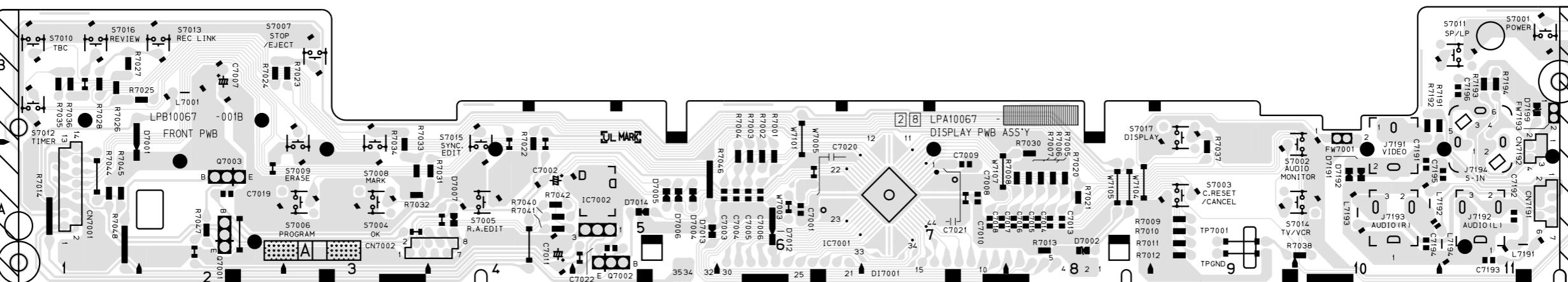
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		CONNECTOR		DIODE	
C6701	B C 1A	CN6701	A D 3A	R6711	B C 4C
C6702	B C 2A			R6712	B C 3C
C6703	B C 1B	D6701	A D 4B	R6713	B C 3D
C6704	B C 1B			R6714	B C 3D
C6705	B C 2B			R6715	B C 3D
C6706	B C 2B	IC		R6716	B C 4C
C6707	B C 2B	IC6701	B C 3C	R6718	B C 1C
C6708	B C 2A			R6719	A D 2A
C6709	B C 2A	COIL		R6720	B C 3D
C6710	B C 3B	L6701	A D 1A	R6721	B C 2D
C6711	B C 3B	L6702	A D 1C		
TRANSISTOR					
C6712	B C 4B	Q6701	B C 1B	K6701	B C 1B
C6713	B C 4C			K6702	B C 2B
C6714	B C 4C	RESISTOR		K6703	B C 3B
C6715	A D 4D	R6701	B C 1A	K6704	B C 3B
C6716	B D 3D	R6702	B C 2A	K6705	B C 3B
C6717	A D 4D	R6703	B C 1A	K6706	B C 3D
C6718	B C 3D	R6704	B C 1B	K6707	B C 1C
C6719	A D 3D	R6705	B C 2A	X6701	A D 2B
C6720	A D 2D	R6706	B C 2B		
C6721	B C 2C	R6707	B C 1B		
C6722	A D 1D	R6708	B C 3A		
C6723	B C 2C	R6709	B C 3A		
C6724	A D 1C	R6710	B C 4B		

COMPONENT PARTS LOCATION GUIDE <SW/DISPLAY>

<32>REC SAFETY
LPB10067-001B

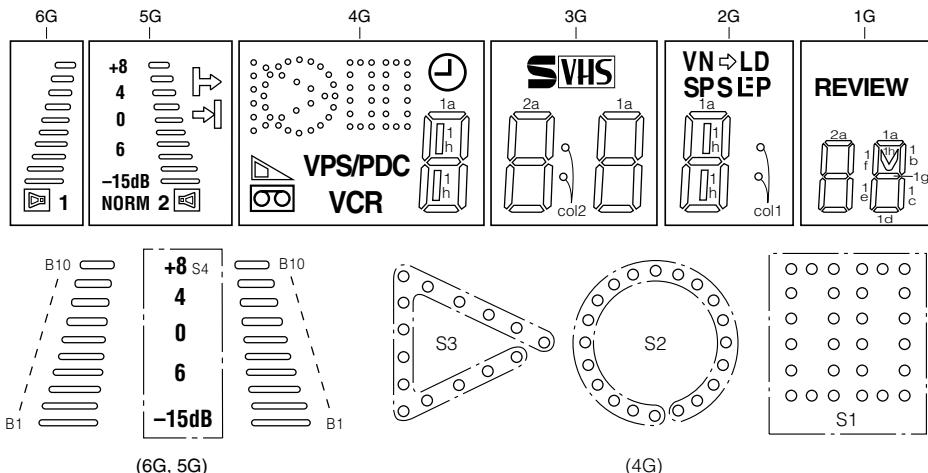


<28>SW/DISPLAY
PB10067-001B

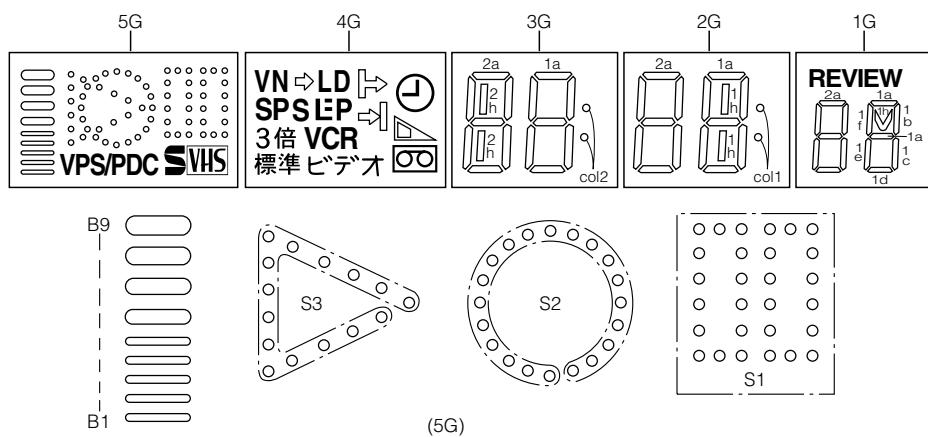


4.20 FDP GRID ASSIGNMENT AND ANODE CONNECTION

[A] (FDP with audio level indicator)



[B] (FDP without audio level indicator)



ANODE CONNECTION

[A]

	6G	5G	4G	3G	2G	1G
P 1	—	—	S2	1a	1a	1a
P 2	—	—	S1	1b	1b	1b
P 3	—	S4	S3	1f	1f	1f
P 4	—	NORM	VPS/PDC	1g	1g	1g
P 5	1	2	①	1c	1c	1c
P 6	■	■	△	1e	1e	1e
P 7	B10	B10	□	1d	1d	1d
P 8	B9	B9	VCR	col2	1h	1h
P 9	B8	B8	1a	2a	col1	2a
P10	B7	B7	1b	2b	▷	2b
P11	B6	B6	1f	2f	VN	2f
P12	B5	B5	1g	2g	LD	2g
P13	B4	B4	1c	2c	SP	2c
P14	B3	B3	1e	2e	S	2e
P15	B2	B2	1d	2d	=	2d
P16	B1	B1	1h	■	LP _(SEP)	REVIEW

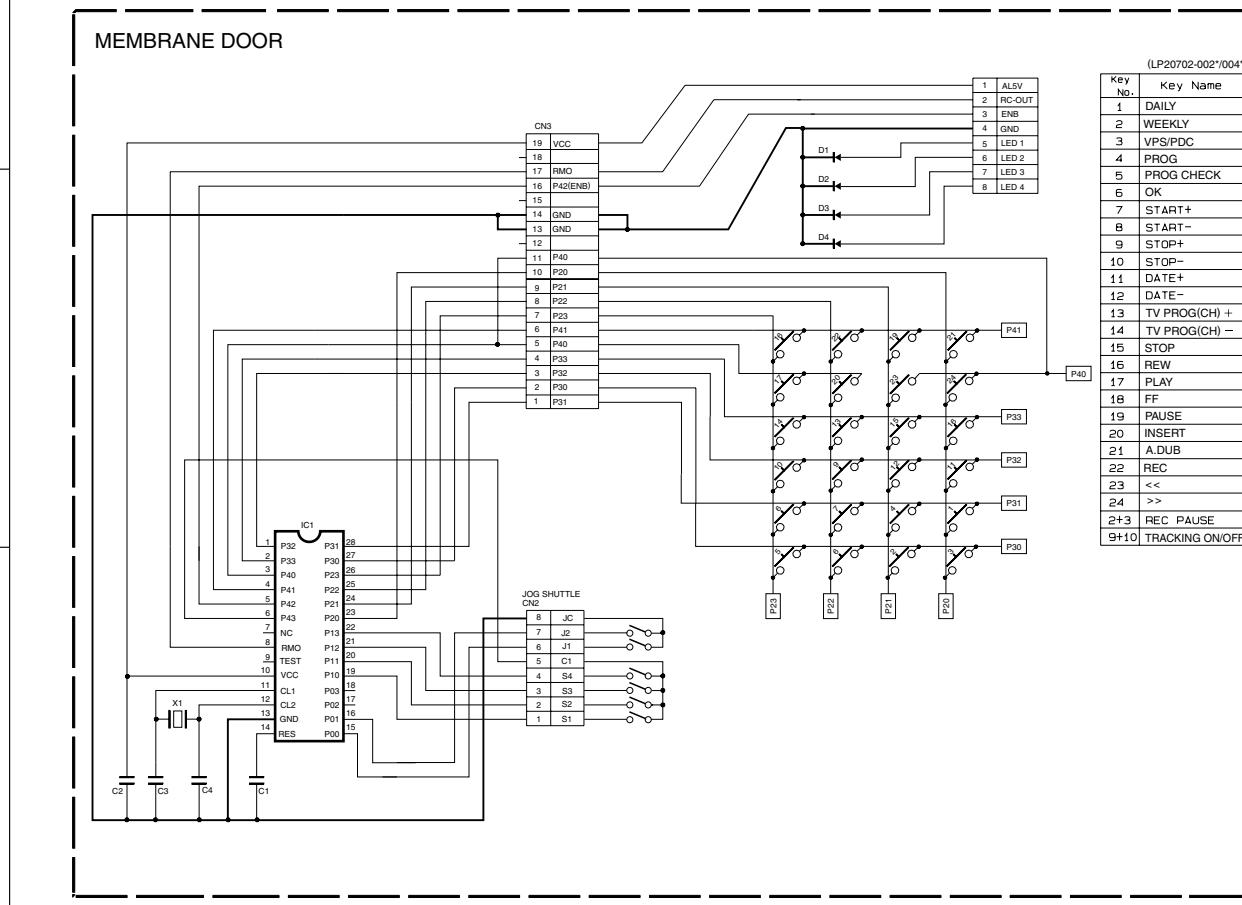
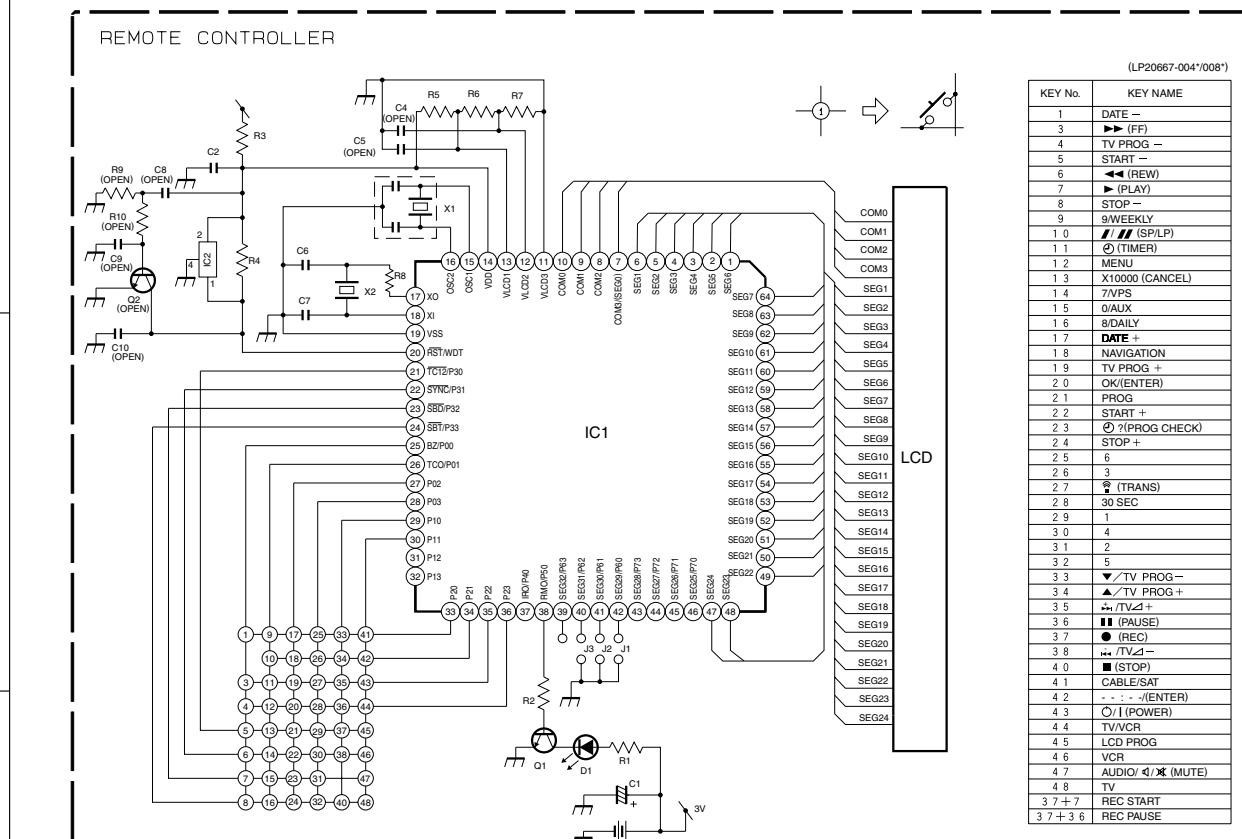
ANODE CONNECTION

[B]

	5G	4G	3G	2G	1G
P 1	S2	—	1a	1a	1a
P 2	S1	—	1b	1b	1b
P 3	S3	3倍	1f	1f	1f
P 4	VPS/PDC	標準	1g	1g	1g
P 5	■	①	1c	1c	1c
P 6	—	△	1e	1e	1e
P 7	B10	B10	□	1d	1d
P 8	B9	B9	VCR	col2	1h
P 9	B8	B8	1a	2a	col1
P10	B7	B7	1b	2b	▷
P11	B6	B6	1f	2f	VN
P12	B5	B5	1g	2g	LD
P13	B4	B4	1c	2c	SP
P14	B3	B3	1e	2e	S _(SEP)
P15	B2	B2	1d	2d	= _(SEP)
P16	B1	B1	1h	■	LP _(SEP)

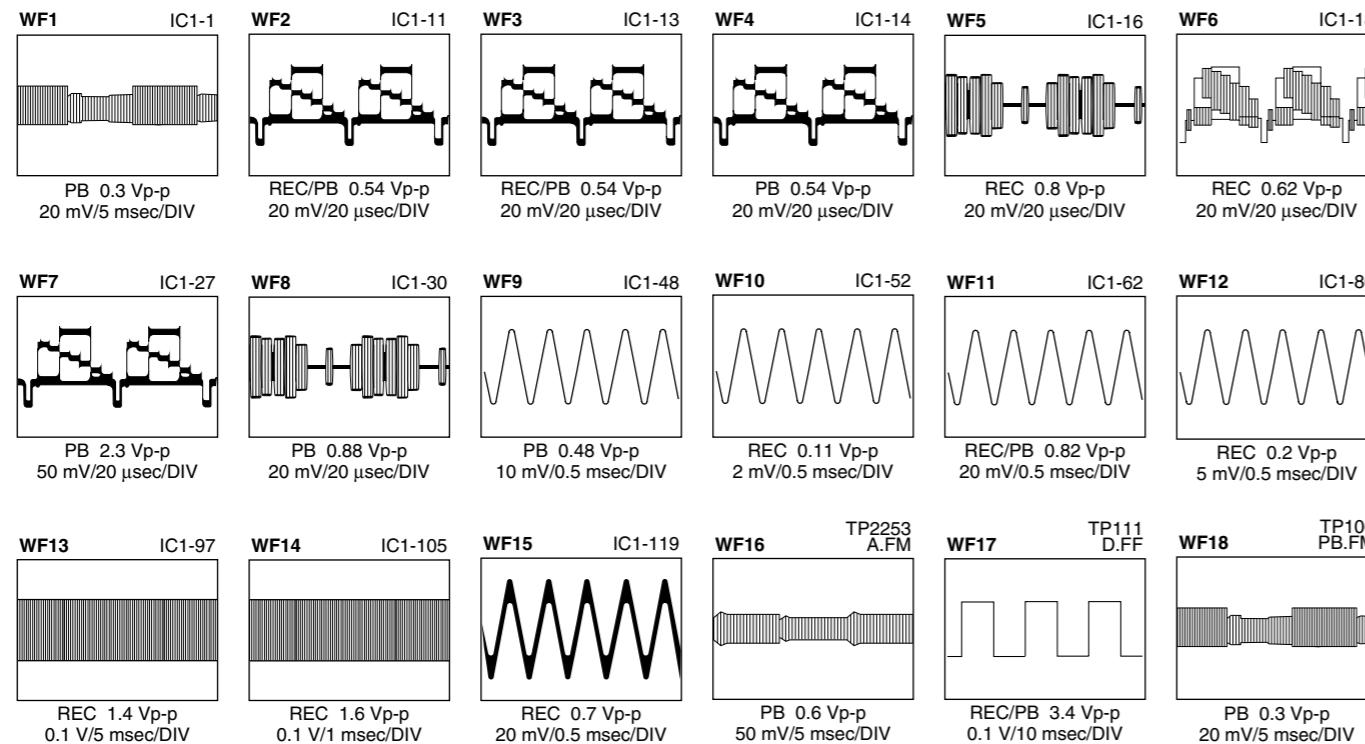
4.21 REMOTE CONTROL AND MEMBRANE DOOR SCHEMATIC DIAGRAMS

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.

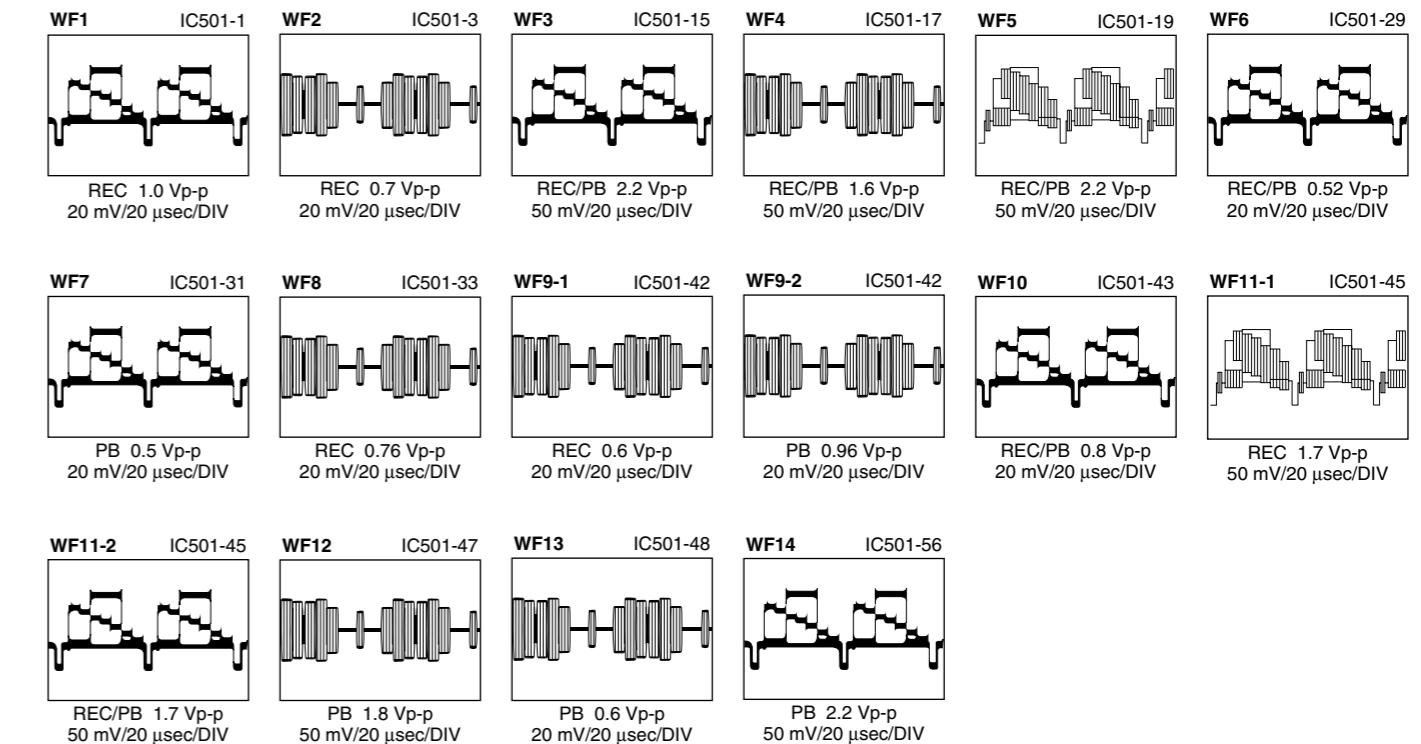


4.22 WAVEFORMS

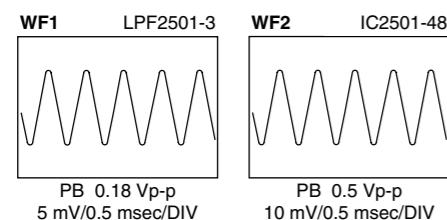
< VIDEO/AUDIO >



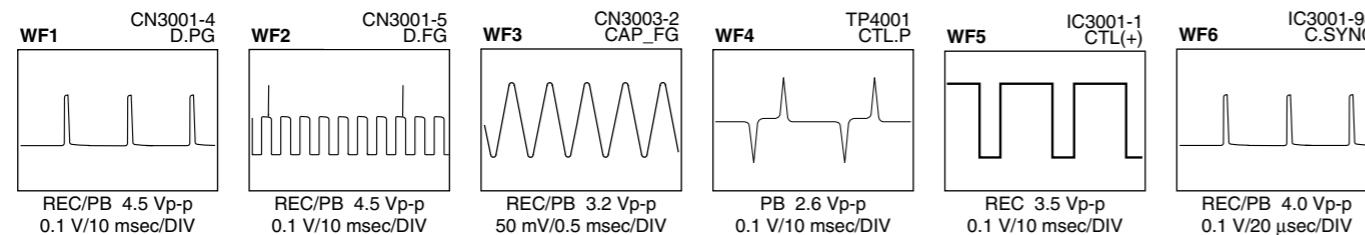
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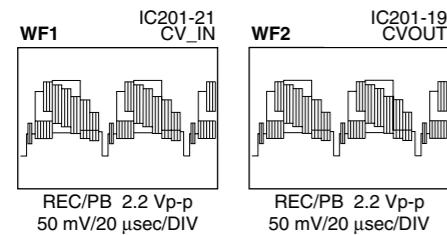
< VSC >



< SYSCON >



< TERMINAL >



4.23 VOLTAGE CHARTS

<VIDEO/AUDIO>

MODE PIN NO.	REC	PLAY
IC1		
1	4.2	2.1
2	2.8	2.8
3	2.6	2.6
4	1.9	1.9
5	1.9	1.9
6	2.4	2.1
7	1.5	1.2
8	0	4.1
9	2.6	1.9
10	2.8	2.8
11	3.1	3.1
12	2.8	2.5
13	3.1	3.1
14	3.5	2.5
15	0	0
16	2.8	2.8
17	1.5	1.5
18	2.8	2.8
19	3.3	3.3
20	2.8	2.8
21	1.6	2.0
22	2.8	2.8
23	3.1	2.8
24	4.9	5.0
25	0.3	0.3
26	0	0
27	1.3	2.1
28	2.8	2.3
29	1.9	1.9
30	2.1	2.1
31	0	0
32	2.6	2.6
33	4.9	4.9
34	2.7	2.2
35	4.9	4.9
36	2.5	2.5
37	2.3	2.3
38	-	-
39	1.3	1.3
40	-	-
41	2.7	2.7
42	2.2	2.2
43	0	0
44	2.1	2.1
45	4.7	4.7
46	4.1	4.1
47	3.0	3.0
48	2.6	2.6
49	4.9	4.9
50	2.5	2.5
51	2.8	2.8
52	2.3	2.3
53	2.3	2.3
54	2.5	2.5
55	2.2	2.2
56	0.4	0.4
57	2.4	2.4
58	8.3	8.3
59	4.7	4.7
60	4.1	4.1
61	4.2	4.2
62	4.2	4.2
63	2.3	2.3
64	2.3	2.3
65	0.6	0.6
66	3.2	3.2
67	4.2	4.2
68	4.2	4.2
69	2.4	2.4
70	0	0
71	0.3	0.3
72	0.2	0.2
73	0.3	0.3
74	2.3	2.3
75	2.6	2.6
76	0	0
77	2.6	2.6
78	0.3	0.3
79	0.2	0.2
80	0.2	0.2
81	2.3	2.3
82	0.8	0.8
83	0	0
84	2.4	2.4
85	2.3	2.3
86	2.3	2.3
87	1.7	1.9
88	2.3	2.3
89	2.3	2.3
90	2.4	2.4
91	0	0
92	0	0
93	0	2.3
94	1.9	1.3
95	0	0
96	2.5	2.3
97	2.7	2.3
98	2.5	2.3
99	5.0	5.0
100	5.0	5.0

<SYSTEM CONTROL>

MODE PIN NO.	REC	PLAY
IC3001		
1	2.7	2.3
14	2.7	2.3
15	0	0
16	0	0
CN2001		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0.3
6	2.5	2.5
7	2.4	2.4
8	2.4	2.4
9	5.0	5.0
10	4.9	4.9
11	2.4	2.3
12	2.7	2.3
13	2.7	2.3
14	2.7	2.3
CN2002		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	2.2	2.4
7	2.4	2.4
11	0	0
12	0	0
13	0	3.1
14	4.7	4.7
CN2051		
1	7.9	0.2
2	0	0
3	0	0
4	0	0
CN2052		
1	7.9	0.2
2	0	0
3	0	0
4	0	0
CN3002		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	4.9	4.9
7	4.9	4.9
8	4.9	4.9
9	4.9	4.9
10	4.9	4.9
11	4.9	4.9
12	2.4	2.4
13	0	0
14	4.7	4.7
15	4.8	4.8
16	0.5	0.5
IC3003		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	4.8	4.8
7	4.8	4.8
8	4.8	4.8
9	4.8	4.8
10	4.8	4.8
11	4.8	4.8
12	4.8	4.8
13	4.8	4.8
14	4.8	4.8
15	4.8	4.8
16	4.8	4.8
17	4.8	4.8
18	4.8	4.8
19	4.8	4.8
20	0	0
21	0	0
22	0	0
23	0	0
24	4.9	4.9
25	0	0
26	4.9	4.9
27	4.9	4.9
28	4.9	4.9
29	4.9	4.9
30	4.9	4.9
31	4.9	4.9
32	0.6	0.6
33	0	0
34	0	0
35	0	0
36	0	0
37	0	0
38	3.4	3.3
39	4.3	4.3
40	0	0
41	4.9	4.9
42	4.5	4.5
43	0	0
44	0	0
45	4.9	4.9
46	0	0
47	0	0
48	-	-
49	4.0	4.0
50	4.8	4.6
51	4.9	4.9
52	4.0	4.0
53	4.3	4.3
54	-	-
55	-	-
56	0	0
57	9.0	5.0
58	4.9	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	3.2	3.2
67	4.2	4.2
68	4.2	4.2
69	2.4	2.4
70	0	0
71	0.3	0.3
72	0.2	0.2
73	0.3	0.3
74	2.3	2.3
75	2.6	2.6
76	0	0
77	2.6	2.6
78	0.3	0.3
79	0.2	0.2
80	0.2	0.2
81	2.3	2.3
82	0.8	0.8
83	0	0
84	2.4	2.4
85	2.3	2.3
86	2.3	2.3
87	1.7	1.9
88	2.3	2.3
89	2.3	2.3
90	2.4	2.4
91	0	0
92	0	0
93	0	2.3
94	1.9	1.3
95	0	0
96	2.5	2.3
97	2.7	2.3
98	2.5	2.3
99	5.0	5.0
100	5.0	5.0

<AUDIO ERASE>

MODE PIN NO.	REC	PLAY
CN2052		
1	7.9	0.2
2	0	0
3	0	0
4	0	0
IC3004		

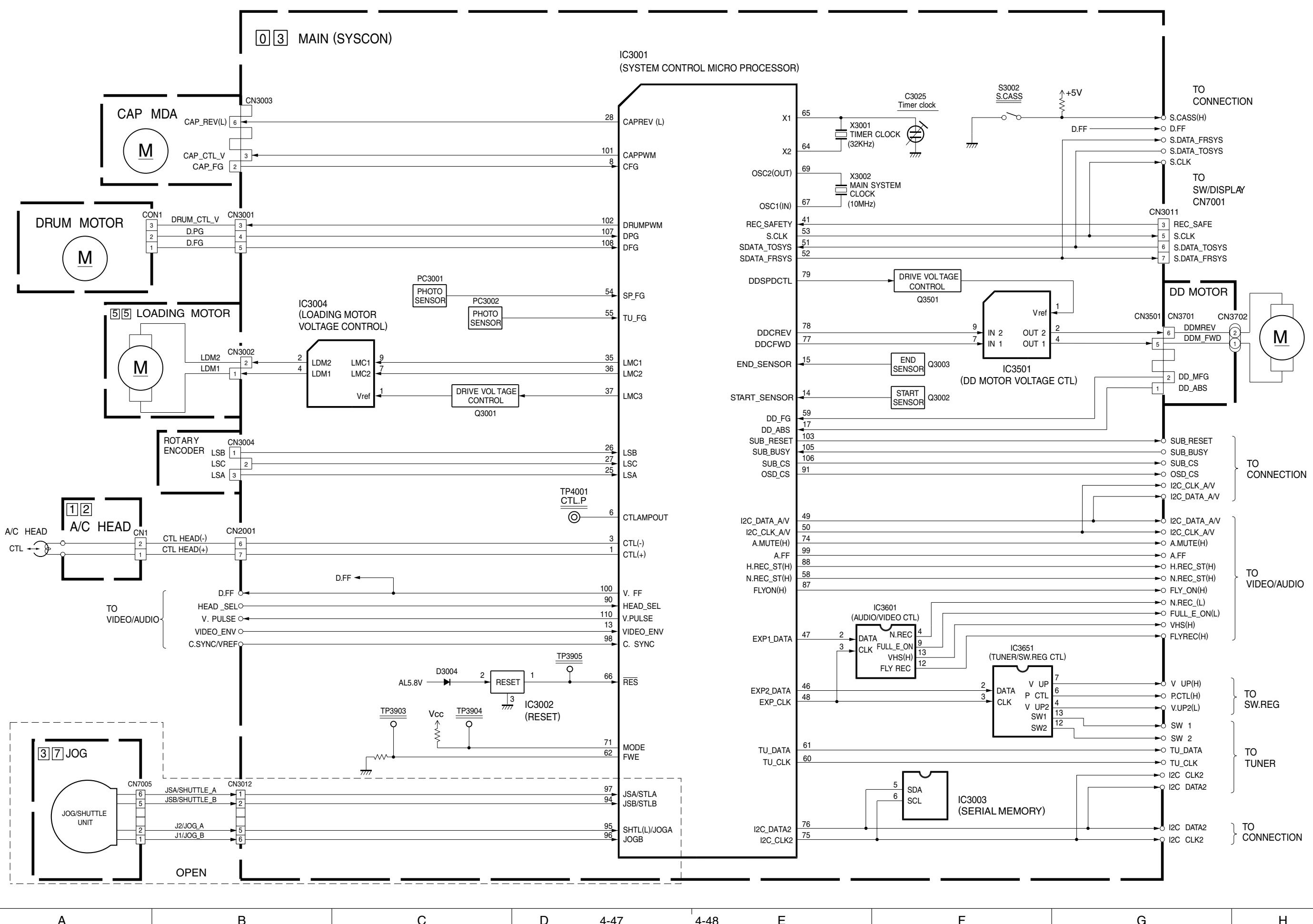
4.24 CPU PIN FUNCTION

<SYSCON IC3001>

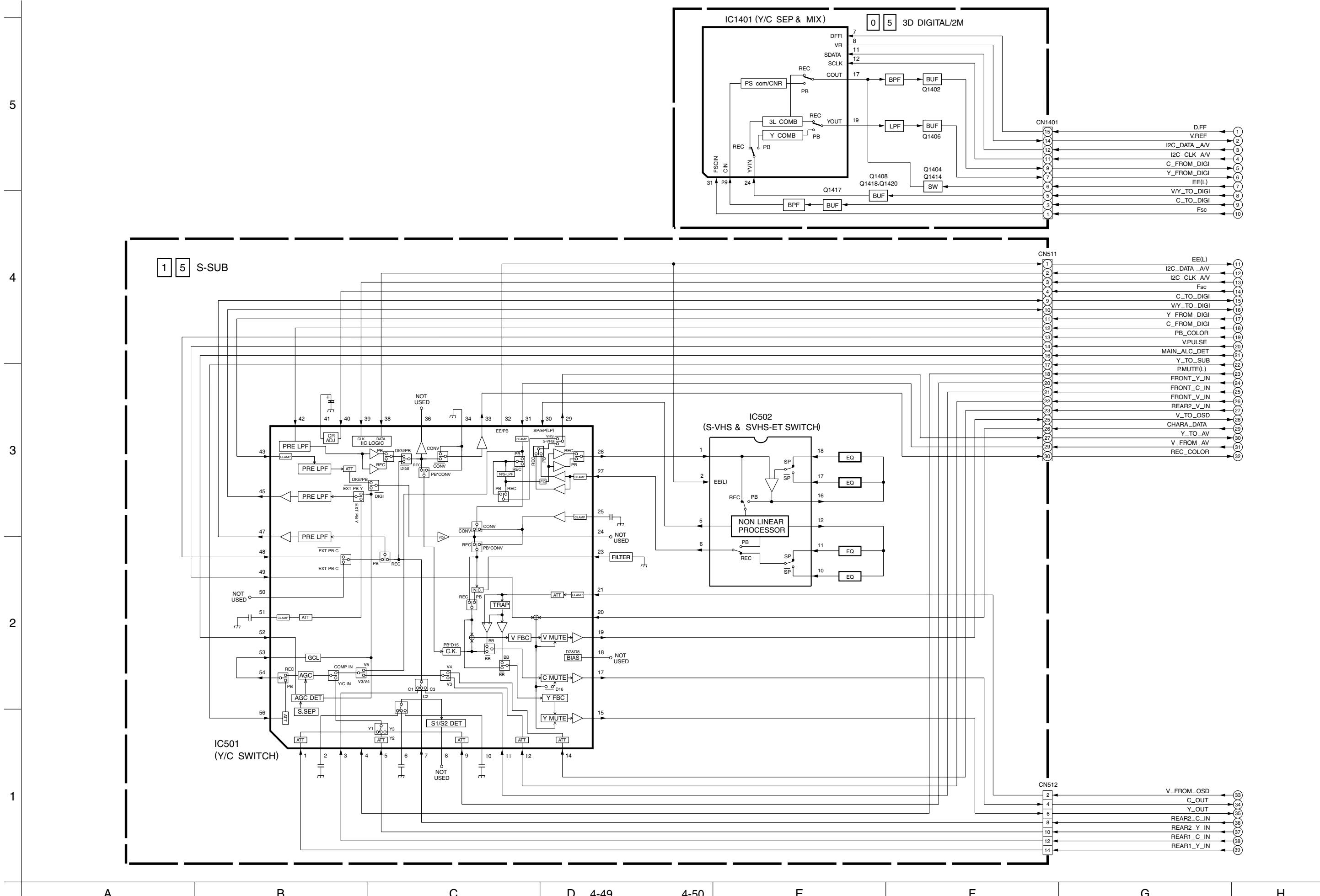
PIN NO.	LABEL	IN/OUT	FUNCTION
1	CTL(+)	IN/OUT	CTL(+) SIGNAL
2	SVSS	-	GND
3	CTL(-)	IN/OUT	CTL(-) SIGNAL
4	CTLBIAIS	-	CTL BIAS VOLTAGE
5	CTLFB	IN	CTL PULSE FEEDBACK
6	CTLAMPOUT	OUT	CTL PULSE OUTPUT
7	CTLSMTIN	IN	CTL PULSE INPUT
8	CFG	IN	CAPSTAN FG PULSE INPUT
9	SVCC	-	SYSTEM POWER
10	AVCC	-	SYSTEM POWER FOR ANALOG CIRCUIT
11	NORM/MESEC/S	IN	SVHS MODE:H
12	SECAM_DET(H)/KILLER_DET/BIT_IN(H)	IN	NC/COLOR KILLER DETECT/NC
13	VIDEO_ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
14	START_SENSOR	IN	START SENSOR
15	END_SENSOR	IN	END SENSOR
16	IND(L)	IN	AUDIO INPUT (LCH) FOR THE FDP AUDIO INDICATOR
17	DD_ABS	IN	DYNAMIC DRUM POSITION DETECT
18	SCR_ID/WA_DET	IN	SCRAMBLE CONTROL INPUT (SCRAMBLE:H)/NC
19	IND(R)	IN	AUDIO INPUT (RCH) FOR THE FDP AUDIO INDICATOR
20	BS_ANT/AFC	IN	TUNING CLOCK
21	LED/RF AGC	IN	NO CHANGES IN AT&IC OUTPUT AS CAUSED BY CHANGES IN RECEIVER SENSITIVITY WHEN THE SAME CHANNEL IS RECEIVED MORE THAN ONCE ARE INPUT.
22	A-ENV/ND(L)	IN	AUDIO PB FM ENV.INPUT/NON HIIFI MODE:L
23	AVSS	-	GND FOR ANALOG CIRCUIT
24	CTL_GAIN	OUT	CONTROLAMP 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	LOCK(L)/PSAVE[0:1]	IN	TUNING PLL LOCK DETECT:L/NC
31	P50_IN	IN	CONTROL SIGNAL FOR TV LINK
32	R.PAUSE/COMPU_IN	IN	REMOTE PAUSE CONTROL / A/V COMPULINK INPUT
33	RAE_OUT/COMPUOUT	OUT	NC / A/V COMPULINK OUTPUT
34	P50_OUT	OUT	CONTROL SIGNAL FOR TV LINK
35	LMC1	OUT	LOADING MOTOR DRIVE(1)
36	LMC2	OUT	LOADING MOTOR DRIVE(2)
37	LMC3	OUT	LOADING MOTOR DRIVE(3)
38	SB_G(PWM)	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
39	STB/TEST	OUT	STROBE SIGNAL (FOR FDP DRIVER)
40	POWER_DET	IN	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
41	REC_SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
42	PROTECT	IN	DETECTION SIGNAL FOR SW POWER SUPPLY
43	VSS	-	GND
44	RMO	OUT	REMOTE CONTROL OUTPUT FOR SATELLITE RECEIVER
45	VCC	-	SYSTEM POWER
46	EXP2_DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR TUNER/REG CONTROL
47	EXP1_DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR AUDIO/VIDEO CONTROL
48	EXP_CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR AUDIO/VIDEO AND TUNER/REG CONTROL
49	I2C_DATA_A/V	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE VIDEO/AUDIO IC
50	I2C_CLK_A/V	OUT	SERIAL DATA TRANSFER CLOCK FOR THE VIDEO/AUDIO IC
51	S.DATA_TOSYS	IN	SERIAL DATA TRANSFER OUTPUT FROM THE ON-SCREEN IC TO THE FDP DRIVER
52	S.DATA_FRSYS	OUT	SERIAL DATA TRANSFER OUTPUT FROM THE FDP DRIVER TO THE ON-SCREEN IC
53	S.CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FROM THE FDP DRIVER TO THE ON-SCREEN IC
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	JUST_CLK/EDS(H)	-	NC

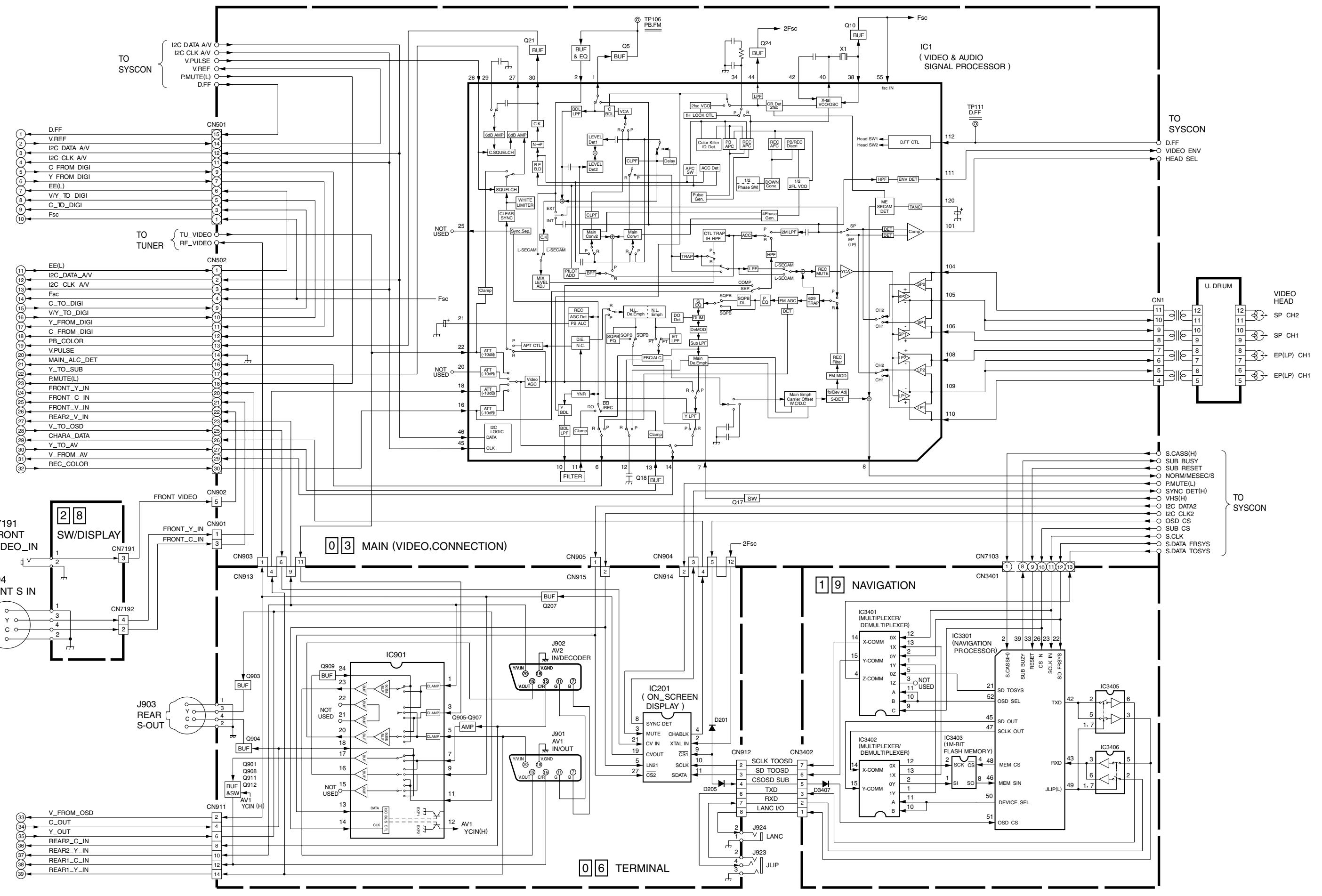
PIN NO.	LABEL	IN/OUT	FUNCTION
57	TU_CE	OUT	CHIP ENABLE OF THE TUNER UNIT
58	N.REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START
59	DD_FG	IN	DYNAMIC DRUM FG INPUT
60	TU_CLK	OUT	CLOCK FOR DATA TRANSFER TO THE TUNER UNIT
61	TU_DATA	OUT	TUNING DATA
62	FWE	-	NC
63	NMI(L)	-	NC
64	X2	-	TIMER CLOCK (32.768kHz)
65	X1	-	TIMER CLOCK (32.768kHz)
66	RES(L)	-	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_A_MUTE(H)	OUT	TUNER AUDIO MUTE CONTROL (MUTE:H)
73	TU_V_MUTE(H)	OUT	TUNER VIDEO CONTROL (MUTE:H)
74	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE:H)
75	I2C_CLK2	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC
76	I2C_DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
77	DDCFWD	OUT	DYNAMIC DRUM CONTROL (FORWARD)
78	DDCREV	OUT	DYNAMIC DRUM CONTROL (REVERSE)
79	DDSPDCTL	OUT	DYNAMIC DRUM SPEED CONTROL
80	V.PCTL	OUT	V.PULSE CONTROL, V COMPENSATION DURING SPECIAL PLAYBACK
81	R-Y_REV/EDS_CS/EXT(L)	OUT	PAL EP MODE CONTROL/NC/NC
82	VCC	-	SYSTEM POWER
83	SLOW_P/CNP_CTL	OUT	MEMORY TIMING CONTROL IN THE SLOW MODE / NC
84	VSS	-	GND
85	SP_SHORT(H)	OUT	MODE SELECT
86	LP_SHORT(H)	OUT	MODE SELECT
87	FLY_ON(H)	OUT	FLYING ERASE ON:H
88	H.REC_ST(H)	OUT	HIFI AUDIO SOUND RECORDING START
89	TRICK(H)_M/TRICK(L)	OUT	SPECIAL PLAYBACK: H/REC AFC FILTER, PB APC FILTER, BURST ACC FILTER, COLOR KILLER DET FILTER
90	HEAD_SEL	OUT	HEAD SELECT(LP HEAD:H, SP HEAD:L)
91	OSD_CS	OUT	CHIP SELECT FOR THE ON-SCREEN IC
92	SYNC_DET(H)	IN	DETECTION OF VIDEO SYNC SIGNAL (DETECTED:H)
93	MESECAM(H)	OUT	MESECAM:H
94	JSB/STLB	-	NC
95	SHTL(L)/JOGA	-	NC
96	JOGB/S_CASS(H)	-	NC
97	JSA/STLA	-	NC
98	C.SYNC	IN	COMPOSITE SYNC
99	A.FF	OUT	AUDIO FF OUTPUT
100	V.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	SUB_RESET	OUT	RESET SIGNAL FOR THE SUB CPU (NAVI)
104	HI_FF/REW(L)	OUT	HIGH FF/REW:L
105	SUB_BUSY	IN	SUB CPU (NAVI) BUSY
106	SUB_CS	OUT	CHIP SELECT FOR THE SUB CPU (NAVI)
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

4.25 SYSTEM CONTROL BLOCK DIAGRAM



4.26 VIDEO BLOCK DIAGRAM





4.27 AUDIO BLOCK DIAGRAM

