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.

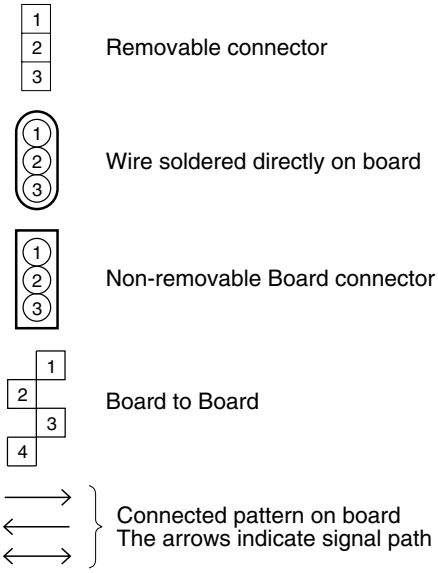
1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K or k: kΩ (1000Ω), M: MΩ (1000kΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

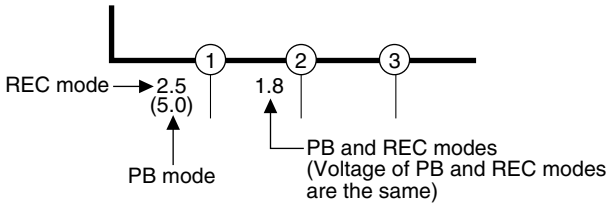
$\overline{\text{AUX}}$ or AUX(L) : Active at low

3. Interpreting Connector indications



4. Voltage measurement

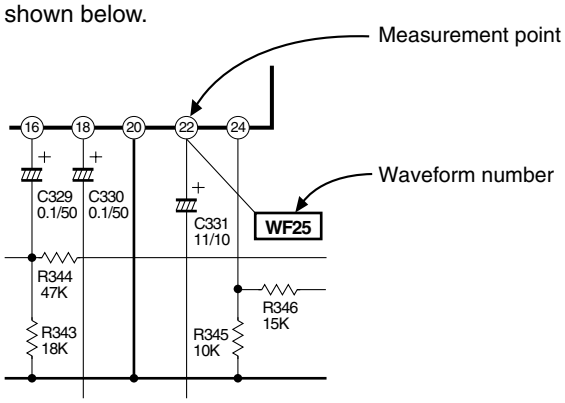
1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
   — : Unmeasurable or unnecessary to measure
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, Normal VHS mode
   PB : REC then playback it
3) Movie 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.



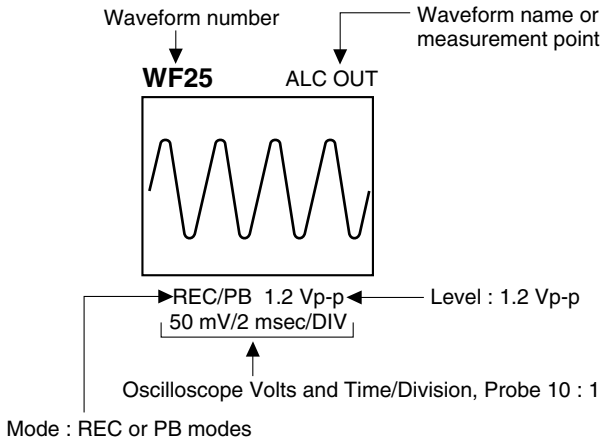
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

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

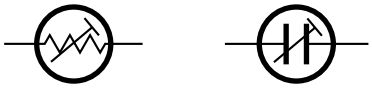
(Example)

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.

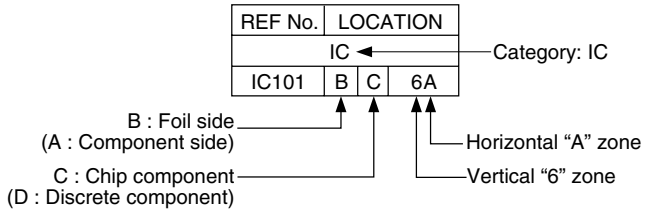
CIRCUIT BOARD NOTES

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

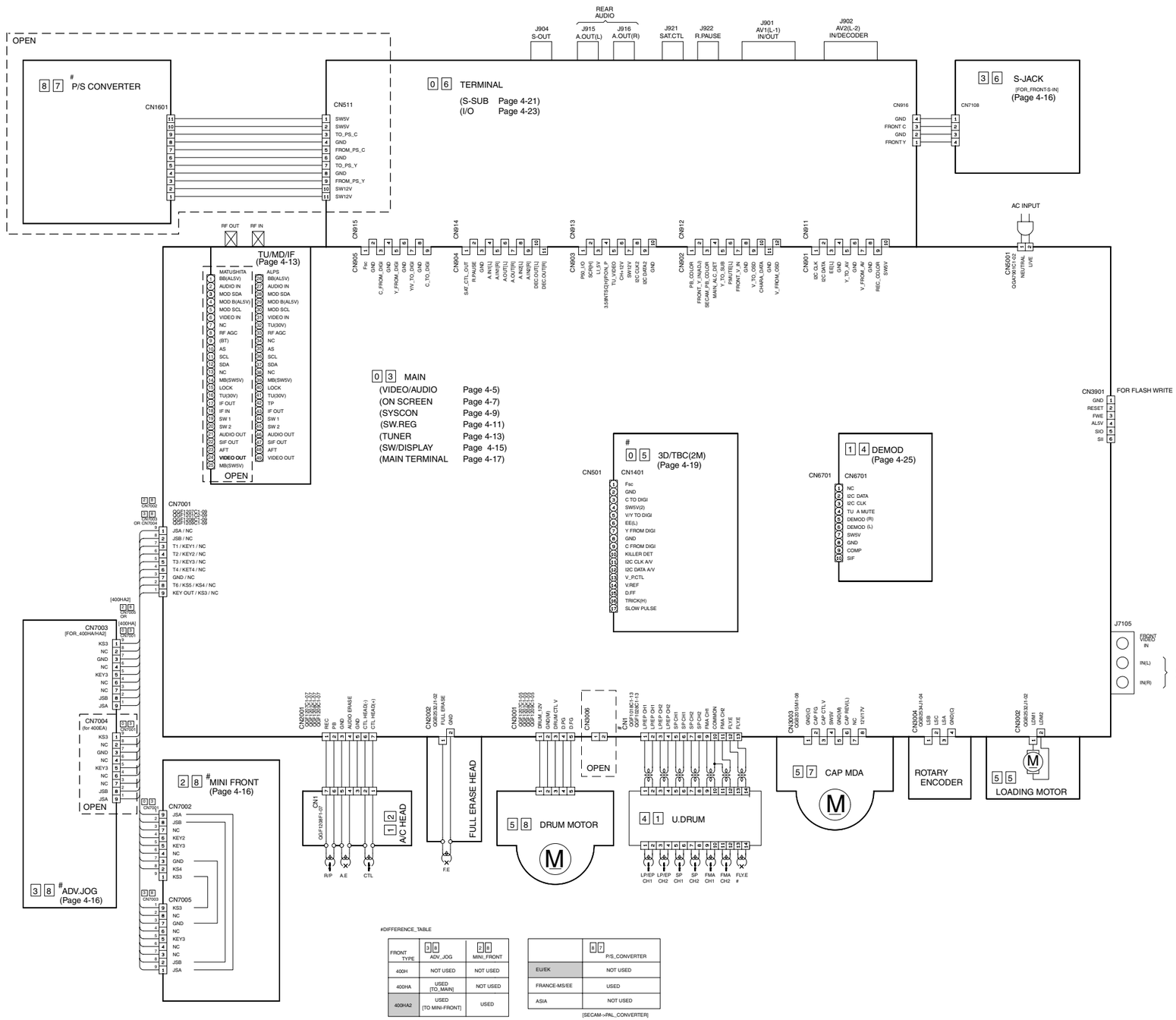
Parts location are indicated by guide scale on the circuit board.



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



#DIFFERENCE_TABLE

FRONT TYPE	[3 8] ADV_JOG	[2 8] MINI_FRONT
400H	NOT USED	NOT USED
400HA	USED [TO_MAIN]	NOT USED
400HA2	USED [TO MINI-FRONT]	USED

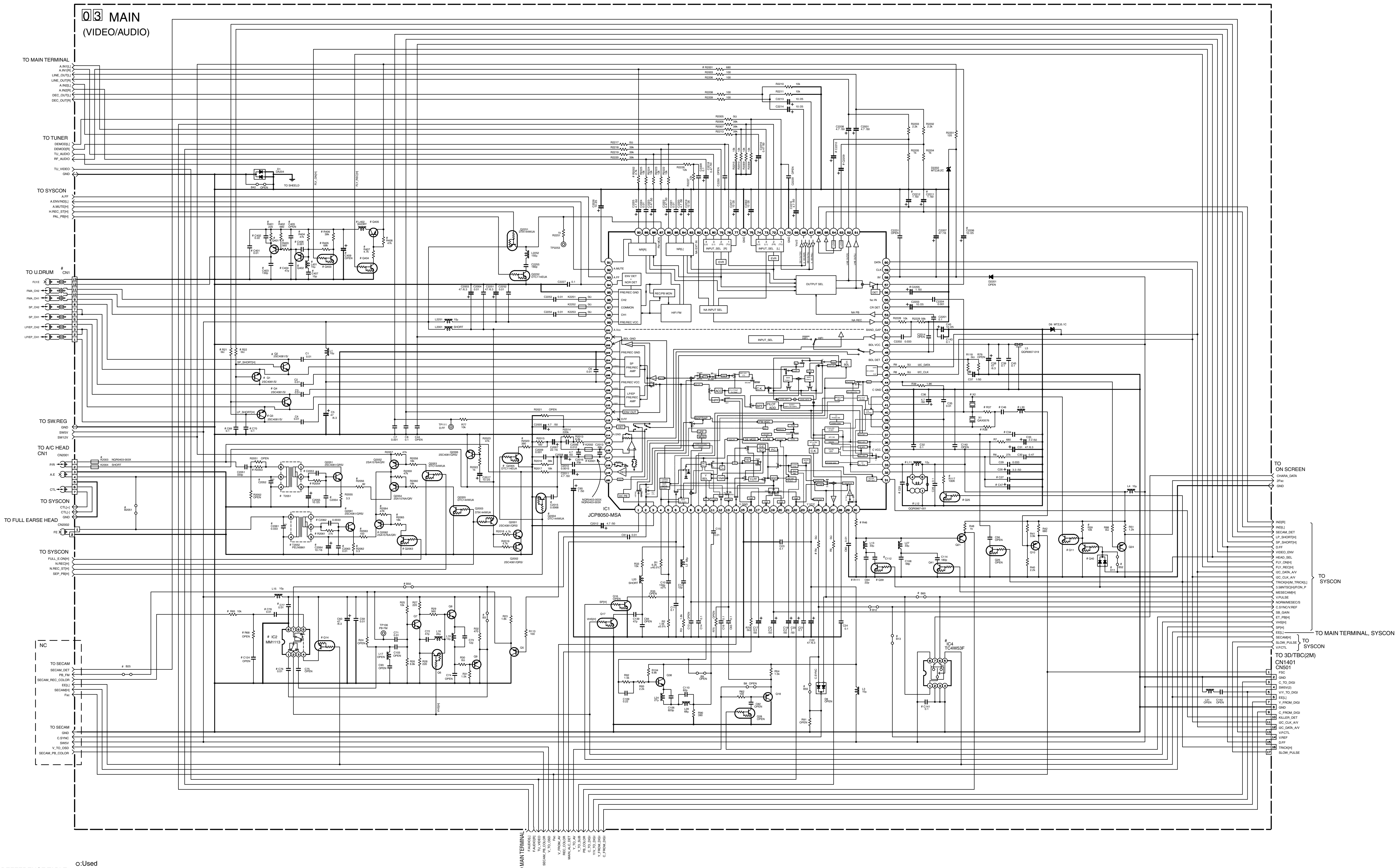
	[8 7] P/S_CONVERTER
EU/EK	NOT USED
FRANCE-MS/EE	USED
ASIA	NOT USED

[SECAM->PAL_CONVERTER]

NO	NAME
96	
93	
92	
91	
87	P/S CONVERTER
76	
58	DRUM MOTOR
57	CAP MDA
55	LOADING MOTOR
41	U.DRUM
39	JOG
38	ADV.JOG
36	S-JACK
28	MINI FRONT
14	DEMOD
12	A/C HEAD
09	
06	TERMINAL
05	3D/ TBC(2M)
03	MAIN

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.



#DEFFERENCE TABLE ○:Used ×:Not used

V14 LINEUP	CN1	FLY.ERASE	H.SHORT	Fsc OUT				REC APC DET	PAL_EP TRICK			ACC DET	3D			PB_C_LEVEL/TRAP			for_MS	PAL	C.SYNC	EP.MODE	RF-OUT	AUDIO.DUBBING									LEVEL.IND.		CE			
		R401-R408 Q401-Q405 C401-C407 L401,L402 C409	Q1-Q4 C69,C70 R21,R22	R37	R38	C46	L30	C27 or C47	R39 Q11 Q40	B52	D11	C34	B13	X2 0.01uF QAX0575	R4	R46	R111	C112 Q39	IC2, Q14, B55 R65, B25, B50 C76-C78 R68,C124	B3	B12	R2020 C2015 Q2004 Q2005	R2001 R2002 C2205 C2206	T2051	B2051	R2053	R2054	R2056	C2052	C2053	C2054	Q2061-Q2063 T2052 R2061-R2065 C2061-C2064	C2209 C2210	C2211 C2212	L11	L12	C25	K2001 K2002 K2003
S6855,50,51,52,53EU/EK	1-11	×	○	×	1k	100p	SHORT	C27=0.022	○	○	×	0.1	×	×	○	560	×	×	×	○	○	○	○	PELN0832	○	4.7k	12k	47	0.082	0.0047	0.022	×	10/16	×	×	○	6p	○
S7860EK	1-11	×	○	×	1k	100p	SHORT	C27=0.022	×	×	×	0.22	○	0.01uF	×	470	×	×	×	○	×	○	○	PELN0860	×	4.7k	15k	100	0.033	0.0033	0.01	○	0.1/50	○	×	○	6p	○
S7850,7851EU	1-13	○	×	×	1k	100p	SHORT	C27=0.022	○	○	×	0.1	×	×	○	560	×	×	×	○	○	○	○	PELN0860	×	4.7k	15k	100	0.033	0.0033	0.01	○	0.1/50	○	×	○	6p	○
S8850EU/EK	1-13	○	×	×	1k	100p	SHORT	C27=0.022	×	×	×	0.22	○	0.01uF	×	470	×	×	×	○	×	○	○	PELN0860	×	4.7k	15k	100	0.033	0.0033	0.01	○	0.1/50	○	×	○	6p	○
S6850MS	1-11	×	○	×	1k	100p	SHORT	C27=0.022	○	○	×	0.1	×	×	○	560	×	×	○	×	○	○	×	PELN0832	○	4.7k	12k	47	0.082	0.0047	0.022	×	10/16	×	×	○	6p	○
S7850,7851MS	1-14	○	×	×	1k	100p	SHORT	C27=0.022	○	○	×	0.1	×	×	○	560	×	×	○	×	○	○	×	PELN0860	×	4.7k	15k	100	0.033	0.0033	0.01	○	0.1/50	○	×	○	6p	○
S8850MS	1-14	○	×	×	1k	100p	SHORT	C27=0.022	×	×	×	0.22	○	0.01uF	○	470	×	×	○	×	×	○	×	PELN0860	×	4.7k	15k	100	0.033	0.0033	0.01	○	0.1/50	○	×	○	6p	○
S5800,80AM	1-11	×	○	1k	×	15p	100µ	C47=2.2/50	○	×	○	0.1	×	QAX0575	○	330	3.3k	○	×	○	○	○	○	PELN0860	×	4.7k	15k	100	0.033	0.0033	0.01	○	0.1/50	○	○	×	4p	SHORT
S7855EE	1-11	×	○	1k	×	15p	100µ	C47=2.2/50	○	×	○	0.1	×	QAX0575	○	330	3.3k	○	×	○	○	○	○	PELN0860	×	4.7k	15k	100	0.033	0.0033	0.01	○	10/16	×	○	×	4p	SHORT

TITLE REC	B65	IC4 C141
YES	×	○
NO	○	×

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

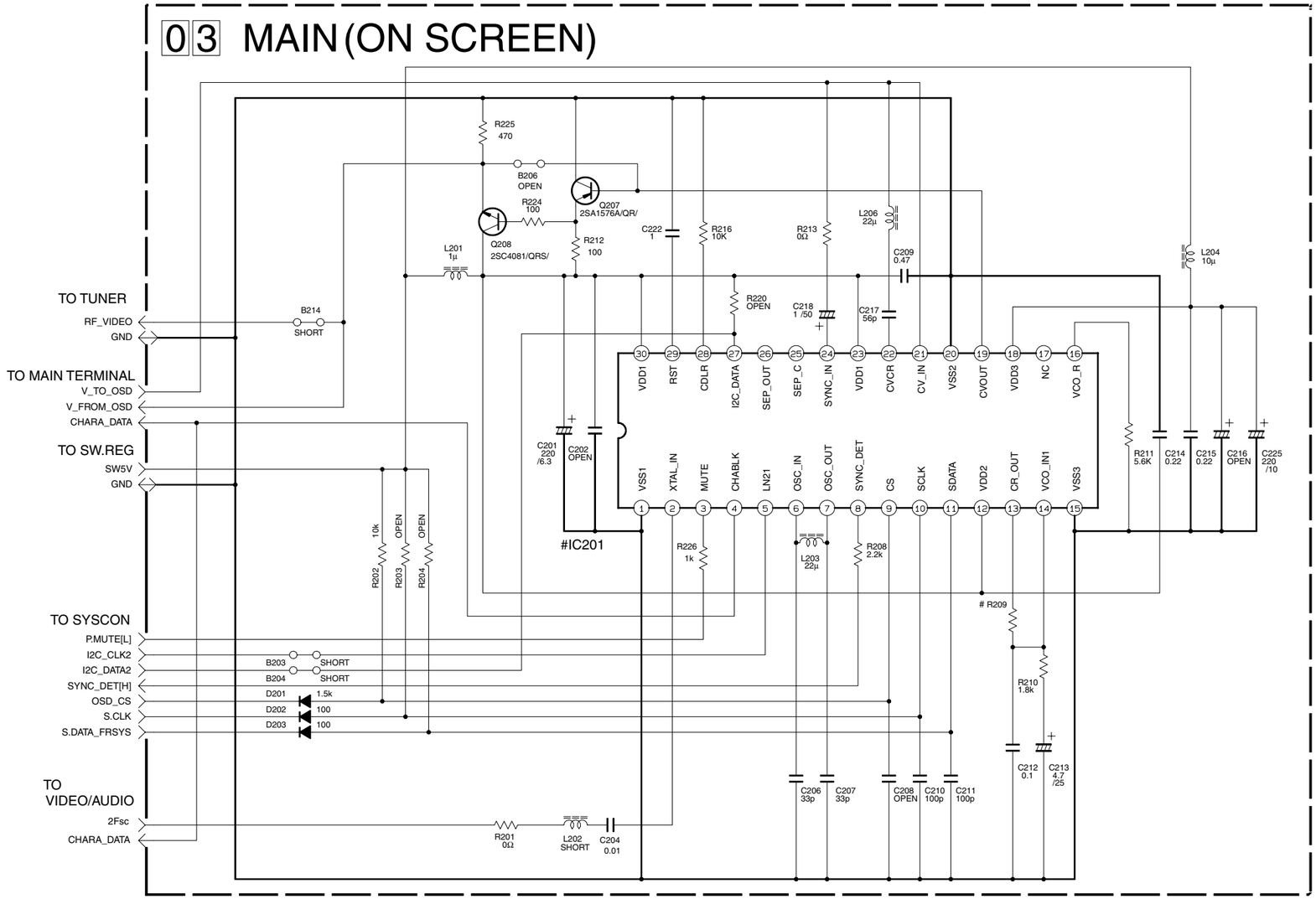
- ELECTROLYTIC
- CERAMIC
- MY MYLER
- N NON POLAR

ALL NPN TYPE TRANSISTORS ARE 2SC4081/QRS/ or 2SD1819A/QRS/ or 2PC4081/R/
ALL PNP TYPE TRANSISTORS ARE 2SA1576A/QR/ or 2SB1218A/QR/ or 2PA1576/R/
ALL NPN TYPE DIGITAL TRANSISTORS ARE DTC144WUA or UN521E or RN1309 or PDTC144WU
ALL PNP TYPE DIGITAL TRANSISTORS ARE DTA144WUA or UN511E or RN2309 or PDTA144WU

p10352001a_rev0

4.3 MAIN (ON SCREEN) 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

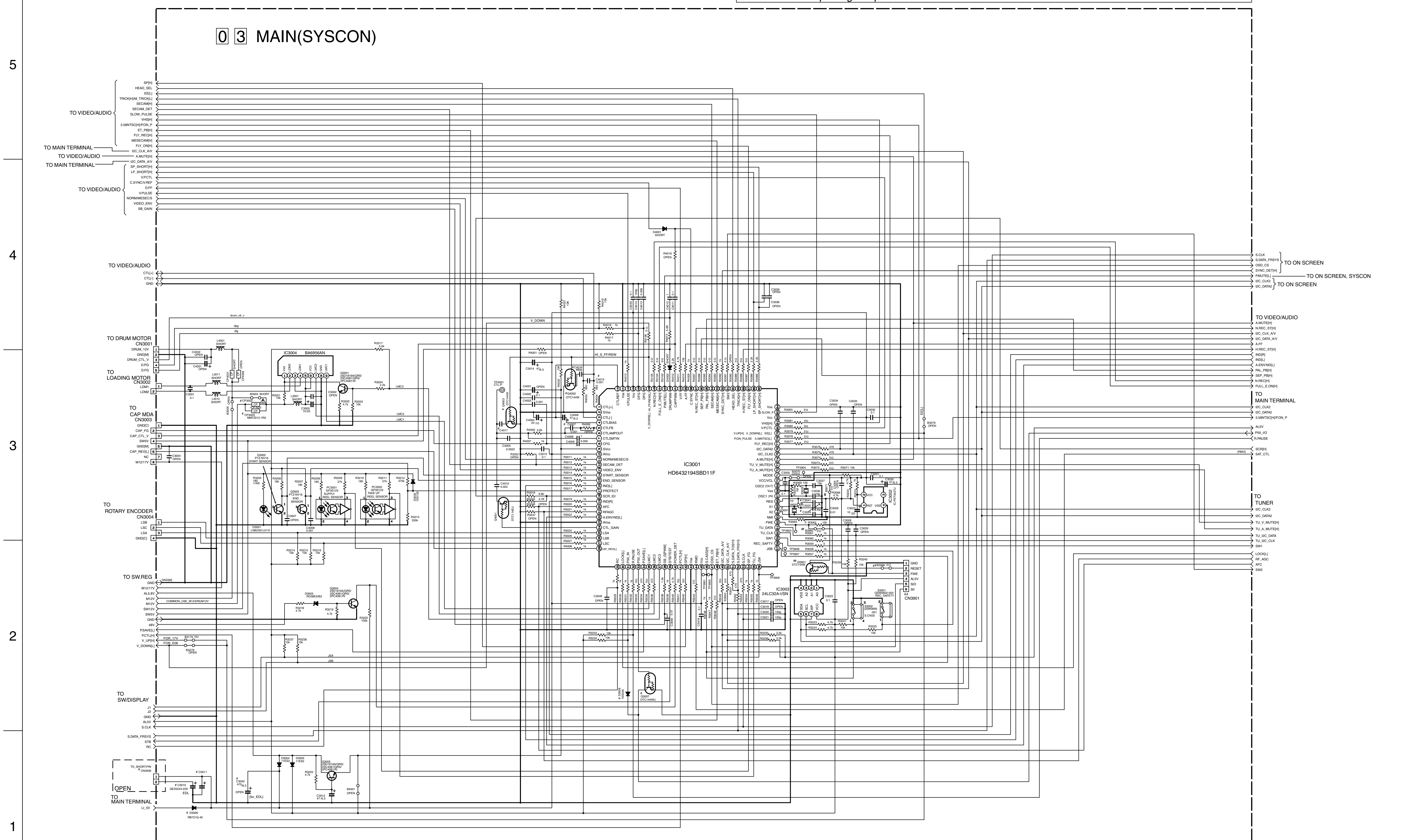
DIFFERENCE TABLE

	IC201	R209
EE	LC74776-9791	6.8k
OTHER	LC74775-9750	5.1k

p30088001a_rev0

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.



#DIFFERENCE_TABLE

O : Used
x : Not used

BACKUP_TIME	C3010	C3011	C3042 CN3006	D3006
10MIN	X	3300/6.3	X	X
60MIN	O	X	O	X
LI_BATT	X	1000 /6.3	X	O

FEATURE_TYPE	D3008 Q3007
TV-LINK(P50)	o

MECHA_TYPE	C4015	C4016	Q4002	C4005	C4017	Q4003
Y29-2	0.001	x	x	o	x	x
Y29-T	0.001	x	x	x	o	o
Y29-T+PALEP	680p	o	o	x	o	o

SUB_CLK_ADJ	X3001	C3025	C3041	C3024
ADJ	QAX0445	o	x	22p
FIX	QAX0444	x	10p	12p

CP_TYPE	
Leaded_type	CP3002 ICP-N25
Surface_type	CP3003 NMFZ012-1R0

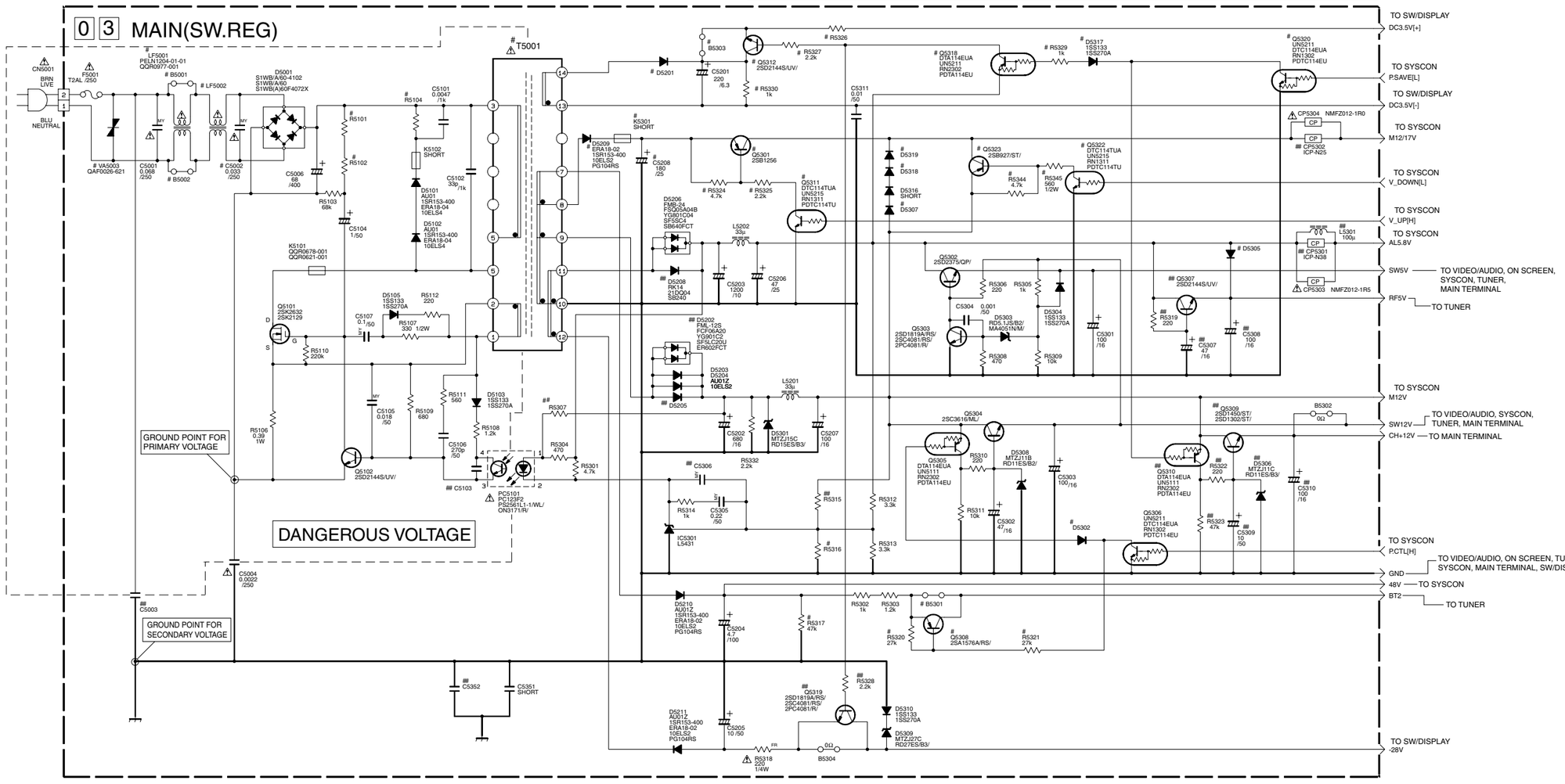
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

##_FOR_FLASH_WRITE

p10356001a_rev0

4.5 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.



##MARK ELEMENTS ARE NOT MOUNTED

#DIFFERENCE TABLE 1

HIGH SPEED FF/REW	Q5301 Q5311 D5209	C5208 K5301 R5324 R5325	D5307
-YES-	YES		11ES2 ERA15-02 1A3G
-NO-	NO		SHORT

#DIFFERENCE TABLE 2

POWER SAVE	R5101 R5102	R5104	B5301	D5302	Q5308 R5320 R5321	R5317	B5303	Q5312 Q5318 Q5320	D5317 R5327 R5329	R5330	D5305	R5316
-YES-	330k	150k 2W	NO	1S133 1SS270A	YES		NO	YES			AK04 11EQS04 1S4	12k
-NO-	220k	68k 2W	YES	SHORT	NO		YES	NO			11ES2 ERA15-02 1A3G	10k

#DIFFERENCE TABLE 3

	B5001 B5002	C5002	LF5001	LF5002	T5001
CE	NO	YES	YES	QQR0978-001 QQR0608-001 QQR0609-001 QQR0610-001	QQS0033-001 QQS0034-001
OTHER	YES	NO	NO	QQR0530-001 QQR0533-001 QQR0516-001 QQR0926-001 QQR0816-001	QQS0030-002 QQS0031-002 QQS0036-001

#DIFFERENCE TABLE 4

EP	Q5323 Q5322	R5344 R5345	D5318 D5319
-YES-	YES		11ES2 ERA15-02 1A3G
-NO-	NO		SHORT

#DIFFERENCE TABLE 5

LEVEL IND.	D5201	R5326
-YES-	AK04 11EQS04 1S4	2.2
-NO-	AU01Z 10ELS2	SHORT

#DIFFERENCE TABLE 6

SURGE	VA5003
PHILIPS 110-240V	YES
OTHER	NO

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

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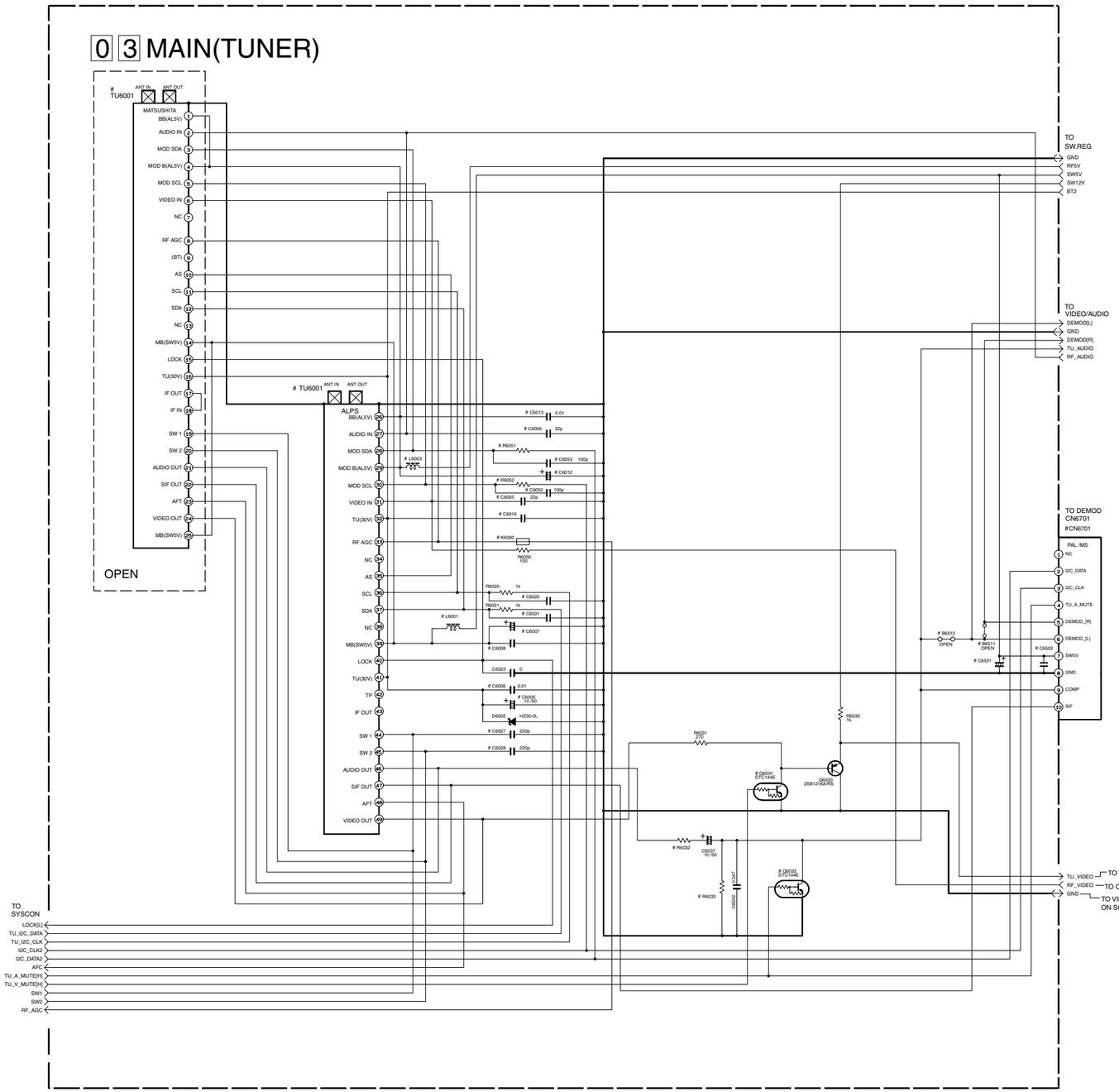
4-11 4-12

4.6 MAIN (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.



DIFFERENCE TABLE ○ : Used × : Not used

			EU/EK	FRANCE MS	ASIA 33/SYSTEM	ASIA 43/SYSTEM	HR-FS1EU
TUNER		TU6001	ALPS	LG	MATSUSHITA	MATSUSHITA	ALPS
			QAU0208	QAU0210	QAU0212	QAU0236	QAU0208
ATS+		K6080	1kΩ	1kΩ	×	×	10kΩ
SW5V		L6001	10μ	10μ	10μ	10μ	10μ
		C6007	220/6.3	220/6.3	220/6.3	220/6.3	220/6.3
		C6008	0.01	×	0.01	0.01	0.01
RF5V		L6003	47μ	47μ	47μ	47μ	10μ
		C6012	100/16	100/16	100/16	100/16	330/6.3
		C6013	0.01	0.01	0.01	0.01	0.01
BT2	RF CONV.	C6016	0.01	×	0.01	0.01	2200p
	TUNER	C6005	×	×	×	×	○
		C6006	×	×	×	×	×
RF CONV.	I2C	R6051	100	×	100	100	470
		C6053	○	×	○	○	×
		R6052	100	×	100	100	470
		C6052	○	×	○	○	○
	AUDIO IN	C6056	×	×	×	×	○
	VIDEO IN	R6050	○	×	○	○	○
		C6055	×	×	×	×	×
TUNER I2C		C6020	×	×	×	×	×
		C6021	×	×	×	×	×
SYSTEM SW		C6027	×	×	×	×	×
		C6028	×	×	×	×	×
AUDIO OUT		R6032	4.7k	18k	18k	0	3.3k
		R6033	1.8k	18k	33k	×	1.5k
		C6032	○	×	○	×	○
		Q6032	○	○	×	×	○
VIDEO OUT		Q6031	○	○	×	×	○
DEMOD PASS CON		C6501	×	×	×	×	×
		C6502	0.01	0.01	0.01	0.01	2200p

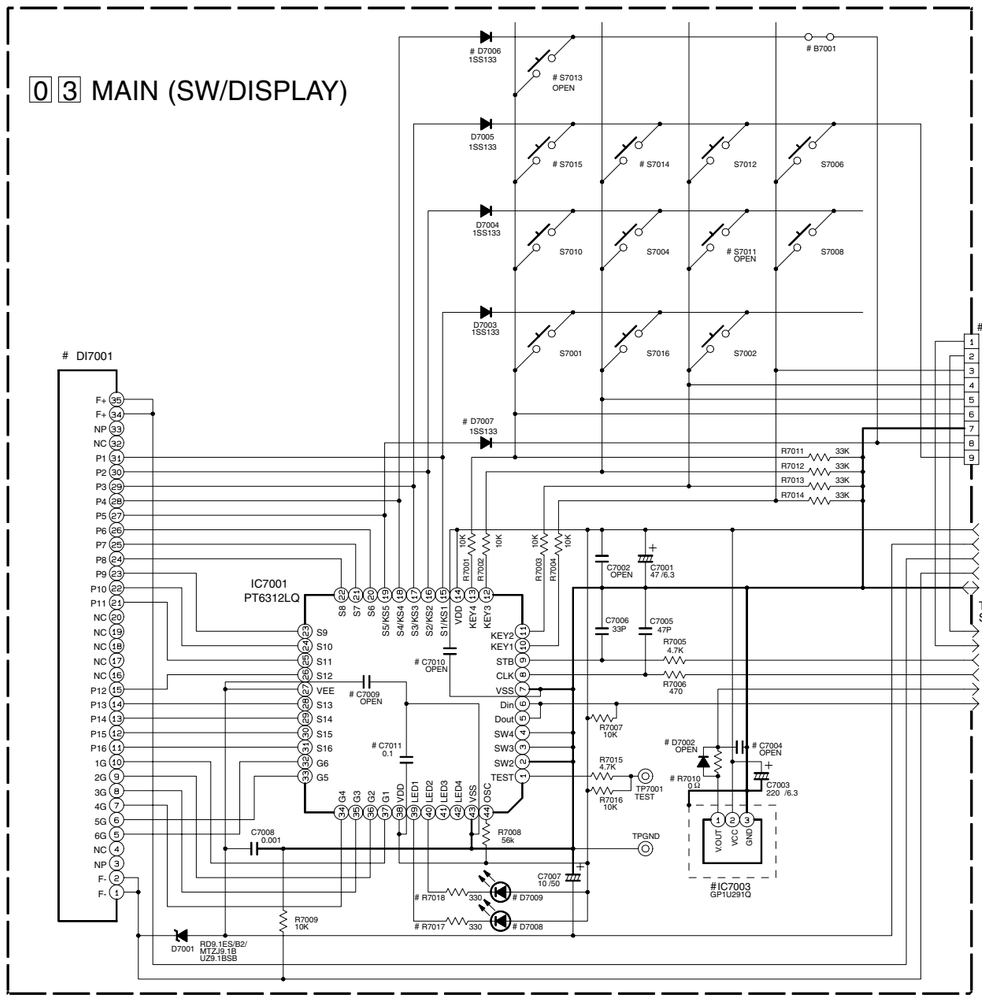
NOTES·UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

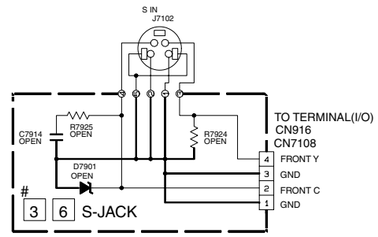
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

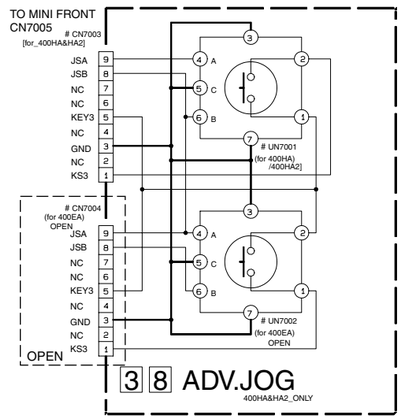
p10355001a_rev0

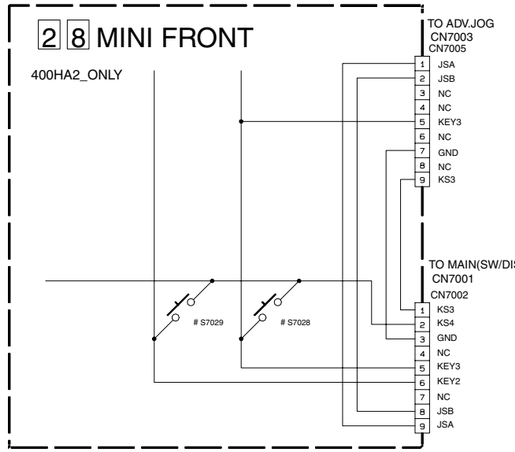
4.7 MAIN (SW.DISPLAY), MINI FRONT, S-JACK AND ADV.JOG SCHEMATIC DIAGRAMS

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.









○ : Used
× : Not used

#DIFFERENCE TABLE

SYMBOL / LED	R7017 D7008	R7018 D7009
for S7002	○	×
for S7016	×	○

RCU	R7010	C7004 D7002	IC7003
JVC	SHORT	X	GP1U291Q PNA4652MOOYC PIC-28143LJ
PHILIPS	SHORT	X	GP1U290Q PNA4655MOOYC PIC-28142LJ

CN7001 PIN No.	FDP A/J+	A/J JOG	A/J S	S/Play	MINI OPE	OTHERS
1	JSA	JSA	JSA	NC	NC	NC
2	JSB	JSB	JSB	NC	NC	NC
3	NC	NC	T1	T1	KEY1	NC
4	KEY2	NC	T2	T2	KEY2	NC
5	KEY3	KEY3	T3	T3	KEY3	NC
6	NC	NC	T4	T4	KEY4	NC
7	GND	GND	GND	GND	NC	NC
8	KS4	NC	KS5	KS5	KS4	NC
9	KS3	KS3	NC	KS3	NC	NC

	D7007	B7001	CN7001	S7014	S7015
A/J+	×	○	○	x	
A/J JOG	×	×	○	x	
A/J S	○	×	○	x	
S/Play	○	×	○	x	
MINI OPE	×	○	○	x	
OTHERS	×	×	×	o	

FDP_TYPE

WITHOUT LEVEL_IND	QLF0031-001 OR QLF0033-001
WITH LEVEL_IND	QLF0032-001 OR QLF0034-001

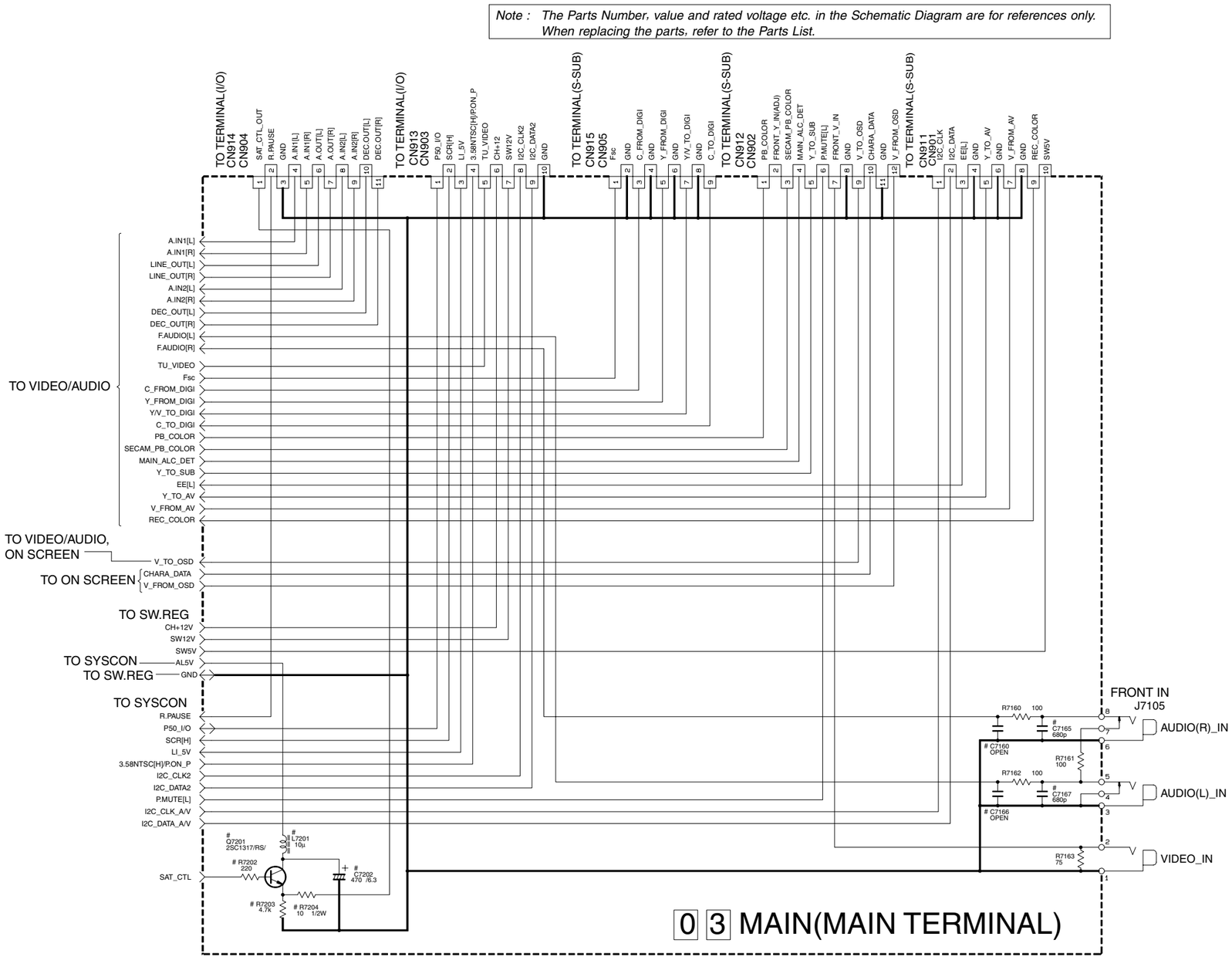
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20218001a_rev0

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.



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

DIFFERENCE TABLE

SAT CTL	Q7201 R7202 R7203 R7204 C7202 L7201
YES	○
NO	×

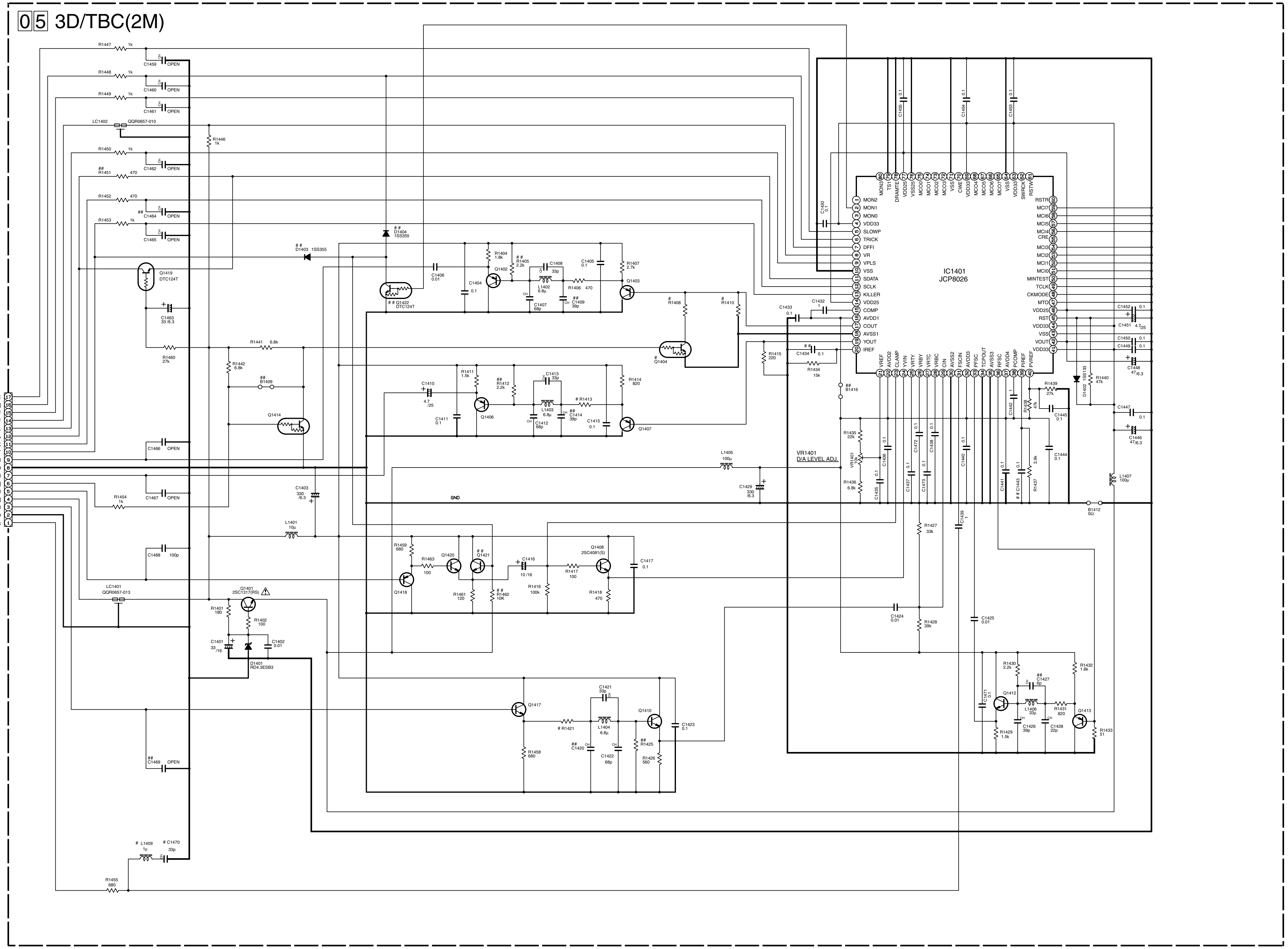
○ : Used
× : Not used

CE	C7165 C7167
YES	○
NO	×

p30089001a_rev0

4.9 3D/TBC(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 H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

MARK ELEMENTS ARE NOT MOUNTED.
ALL SINGLE DIODE:1SS133 OR 1N4148.
ALL PNP TRANSISTOR:2SA1576A(QR) OR 2SB1218A(QR) OR 2PA1576(R)
ALL NPN TRANSISTOR:2SC4081(QRS) OR 2SD1819A(QRS) OR 2PC4081(R)
ALL NPN DIGITAL TRANSISTOR:DTC144WUA OR UN521E OR RN1309

DIFFERENCE TABLE

	Q1404	R1408	R1410	R1413	R1421	C1470	L1409	
PAL/MS	USED	1.2k	390	330	390	33p	1u	
NTSC	NOT USED	OPEN	240	470	330	OPEN	OPEN	

p10354001a_rev0

4.10 TERMINAL (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.

0 6 TERMINAL(S-SUB)

TO P/S CONV. # CN611
SW12V 11
SW12V 10
FROM_PS_Y 9
GND 8
TO_PS_Y 7
GND 6
FROM_PS_C 5
GND 4
TO_PS_C 3
SW5V 2
SW5V 1
OPEN

IC501 JCP8018

IC502 VC2076DP

TO MAIN(MAIN TERMINAL) CN901 CN911
10 SW5V
9 REC_COLOR
8 GND
7 V_FROM_AV
6 GND
5 Y_TO_AV
4 GND
3 EE[L]
2 I2C_DATA
1 I2C_CLK

TO MAIN(MAIN TERMINAL) CN902 CN912
12 V_FROM_OSD
11 GND
10 CHARA_DATA
9 V_TO_OSD
8 GND
7 FRONT_V_IN
6 P.MUTE[L]
5 Y_TO_SUB
4 MAIN_ALC_DET
3 SECAM_PB_COLOR
2 FRONT_Y_IN(ADJ)
1 PB_COLOR

TO MAIN(MAIN TERMINAL) CN905 CN915
9 C_TO_DIGI
8 GND
7 Y/V_TO_DIGI
6 GND
5 Y_FROM_DIGI
4 GND
3 C_FROM_DIGI
2 GND
1 Fsc

TO I/O
SW12V
GND
REAR1_Y_IN
REAR1_C_IN
REAR2_Y_IN
REAR2_C_IN
FRONT_Y_IN
FRONT_C_IN
REAR_V_IN
Y_OUT
C_OUT
V_FROM_OSD

○ : Used
× : Not used

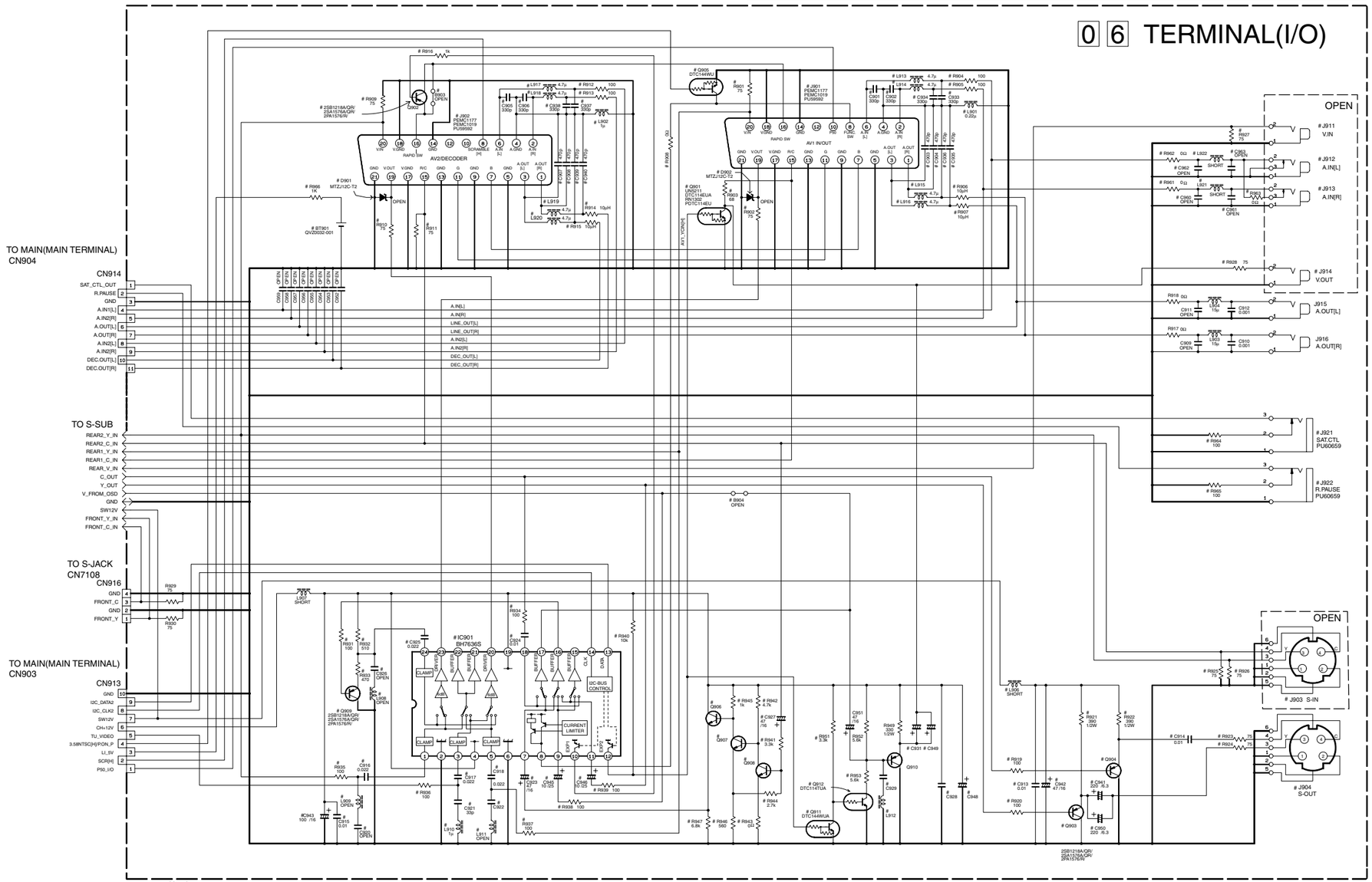
# DIFFERENCE TABLE	CN511 C562 C564 C566	C563 R527
MS	○	×
OTHERS	×	○

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

p20213001a_rev0

4.11 TERMINAL (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

○ : Used
× : Not used

		CH+	REAR S-OUT	S-IN	REAR IN/OUT	SAT CTL	R.PAUSE	SW12VDECUP				CE/V-OUT DRIVER				BACK UP
		R901-R908, R909-R916, R931-R947, R951,R953 L901,L902 L908-L911, L913-L916, L917-L920, IC901 B903,B904 D901,D902 J901,J902	C901-C904, C905-C908, C916-C918, C920-C927, C933-C936, C937-C940, C945,C946 Q902 Q901 Q905, Q906-Q909, Q911,Q912	J904 R919-R924 C913,C914 C941,C942 C950 Q903,Q904 L906	J903 R925,R926	J911-J914 R927,R928 R961-R963 L921,L922 C960-C963	J921 R964	J922 R965	C915	C943	C928	C948	C929	L912	C931	C949	R966 BT901
EURO MODELS	WITHOUT REAR S-OUT	○	×	×	×	○	×	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	×
	WITH REAR S-OUT	○	○	×	×	○	○	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	×
ARC MODELS		×	○	○	○	×	×	OPEN	OPEN	0.01	47/16	5.6k	SHORT	220/6.3	220/6.3	○

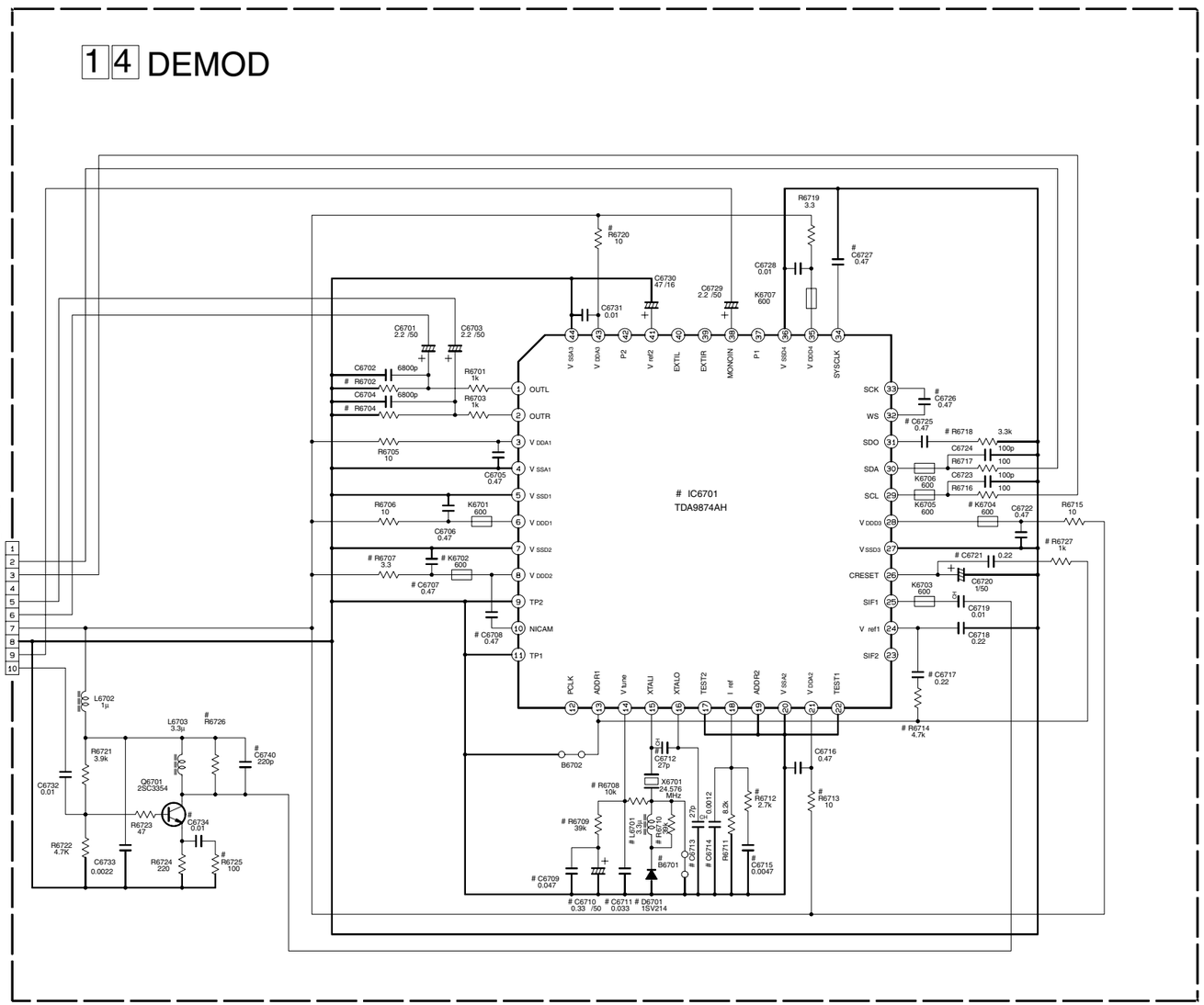
ALL NPN TYPE TRANSISTORS ARE 2SC4081/QRS/ or 2SD1819A/QRS/ or 2PC4081/R/.
ALL PNP TYPE TRANSISTORS ARE 2SA1576A/QR/ or 2SB1218A/QR/ or 2PA1576/R/.

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

4.12 DEMODULATOR 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

	V12 EK/ARC	V12 EU/MS	V13/V14
IC6701	TDA9874H	←	TDA9874AH
R6707	10	←	NOT USED
R6708	10k	←	0Ω
R6709	39k	←	NOT USED
R6710	39k	←	NOT USED
R6713	10	←	NOT USED
R6720	10	←	NOT USED
R6725	100	NOT USED	100
R6726	1k	2.2k	1k
C6707	0.47	←	NOT USED
C6710	0.33/50	←	NOT USED
C6711	0.033	←	NOT USED
C6712	27p	←	NOT USED
C6713	27p	←	0Ω
C6714	0.0012	←	NOT USED
C6734	0.01	NOT USED	0.01
C6740	NOT USED	220p	NOT USED
L6701	3.3µ	←	NOT USED
D6701	1SV214	←	NOT USED
K6702	600	←	NOT USED
R6702,R6704, R6712,R6714, R6717,R6718, C6708,C6709, C6715,C6717, C6721,C6725, C6726,C6727, B6701	NOT USED	←	←

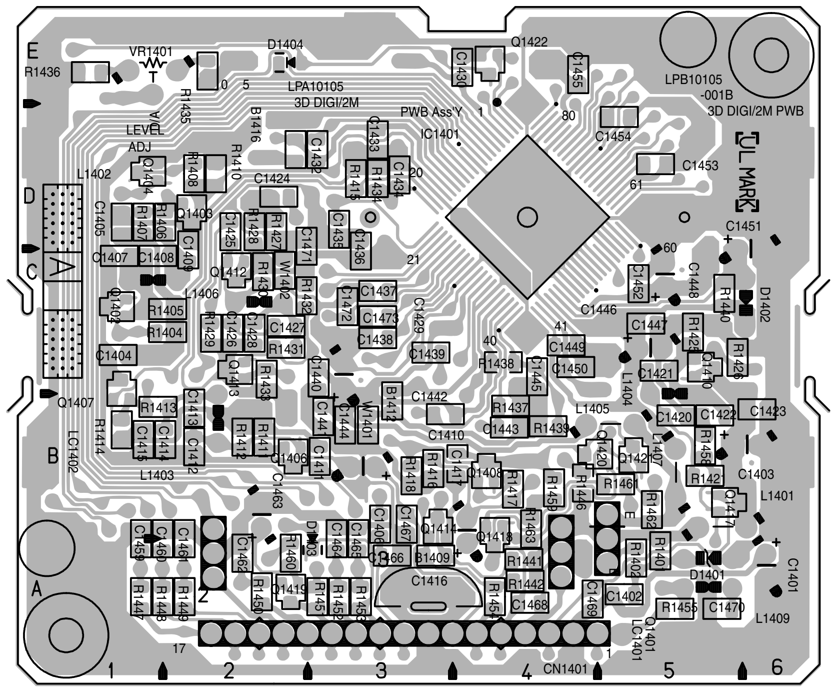
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20130001a_rev1

4.13 3D DIGITAL/2M AND DEMODULATOR CIRCUIT BOARDS

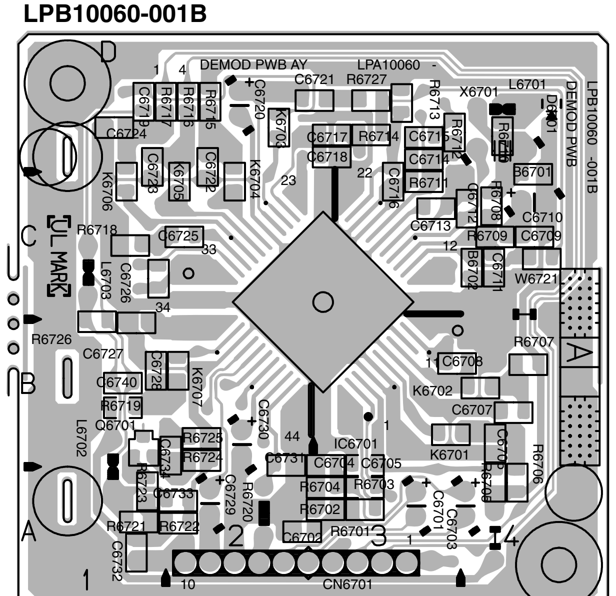
<05> 3D DIGITAL/2M
LPB10105-001B



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

REF.NO.	LOCATION		
CAPACITOR			
C1401	A	D	5A
C1402	B	C	5A
C1403	A	D	5B
C1404	B	C	2B
C1405	A	C	1C
C1406	B	C	3A
C1407	B	C	2B
C1408	B	C	1B
C1409	B	C	1B
C1410	A	D	2B
C1411	A	C	1B
C1412	B	C	2B
C1413	A	C	2B
C1414	A	C	2C
C1415	B	C	1C
C1416	A	D	3B
C1417	A	C	3B
C1420	A	C	4B
C1421	A	C	4B
C1422	A	C	4B
C1423	B	C	4B
C1424	B	C	3B
C1425	A	C	4C
C1426	B	C	5B
C1427	B	C	5B
C1428	A	C	5C
C1429	A	D	3B
C1430	A	C	2D
C1431	A	C	2D
C1432	B	C	2C
C1433	A	C	3C
C1434	B	C	3B
C1435	B	C	1E
C1436	B	C	2E
C1437	A	C	3C
C1438	B	C	3C
C1439	A	C	5A
C1440	B	C	3C
C1441	A	C	3C
C1442	B	C	4C
C1443	B	C	4C
C1444	A	C	4C
C1445	A	C	4C
C1446	A	D	5C
C1447	B	C	5B
C1448	A	D	5C
C1449	A	C	4D
C1450	A	C	3D
C1451	A	D	5D
C1452	A	C	3D
C1453	A	C	3D
C1454	A	C	2D
C1455	B	C	2D
C1456	A	D	5D
C1457	A	C	5E
C1458	A	C	5D
C1459	A	C	1A
C1460	A	C	1B
C1461	A	C	1B
C1462	A	C	2A
C1463	A	D	1D
C1464	A	C	3A
C1465	A	C	3A
C1466	A	C	3A
C1467	B	C	3A
C1468	B	C	4A
C1469	B	C	4A
C1470	B	C	6A
C1471	B	C	5B
C1472	A	C	3C
C1473	A	C	3C
CONNECTOR			
CN1401	A	D	5A
DIODE			
D1401	A	D	6B
D1402	A	D	5D
D1403	A	C	1C
IC			
IC1401	B	C	3D
IC1402	A	C	4D
COIL			
L1401	A	D	4B
L1402	A	D	1B
L1403	A	D	2B
L1404	A	D	4C
L1405	A	D	4B
L1406	A	D	5B
L1407	A	D	6B
L1408	A	D	6C
L1409	A	D	5A
TRANSISTOR			
Q1401	A	D	5B
Q1402	B	C	2B
Q1403	A	C	2C
Q1404	A	C	2C
Q1406	A	C	2B
Q1407	B	C	2C
Q1408	A	C	3B
Q1410	B	C	4B
Q1412	A	C	5B
Q1413	A	C	5C
Q1414	A	C	3A
Q1415	B	C	5D
Q1416	A	C	4D
Q1417	A	C	4B
Q1418	B	C	4A
Q1419	A	C	2B
Q1420	A	C	4A
Q1421	A	C	4B
Q1422	A	C	1C
RESISTOR			
R1401	B	C	5B
R1402	B	C	5A
R1404	B	C	2B
R1405	B	C	2B
R1406	B	C	1B
R1407	A	C	2C
R1408	A	C	2C
R1410	A	C	2C
R1411	A	C	2B
R1412	A	C	2B
R1413	A	C	2C
R1414	A	C	2C
R1415	B	C	2C
R1416	B	C	3B
R1417	B	C	3B
R1418	A	C	3B
R1421	A	C	4B
R1425	A	C	4B
R1426	B	C	3C
R1427	B	C	3B
R1428	A	C	3B
R1429	A	C	4B
R1430	A	C	5B
R1431	B	C	5C
R1432	A	C	5C
R1433	A	C	5C
R1434	B	C	2B
R1435	B	C	1E
R1436	B	C	1E
R1437	B	C	4C
R1438	A	C	3C
R1439	A	C	4C
R1440	B	C	5C
R1441	A	C	3A
R1442	A	C	3A
R1446	A	C	2A
R1447	B	C	1A
R1448	B	C	1A
R1449	B	C	2A
R1450	B	C	2A
R1451	B	C	3A
R1452	B	C	3A
R1453	B	C	3A
R1454	B	C	4A
R1455	B	C	5A
R1456	B	C	5C
R1457	A	C	4C
R1458	A	C	4B
R1459	A	C	4B
R1460	A	C	2B
R1461	A	C	3B
R1462	A	C	3B
R1463	A	C	4A
VR1401	A	D	1E
OTHER			
LC1401	A	D	4A
LC1402	A	D	2A

<14> DEMODULATOR
LPB10060-001B

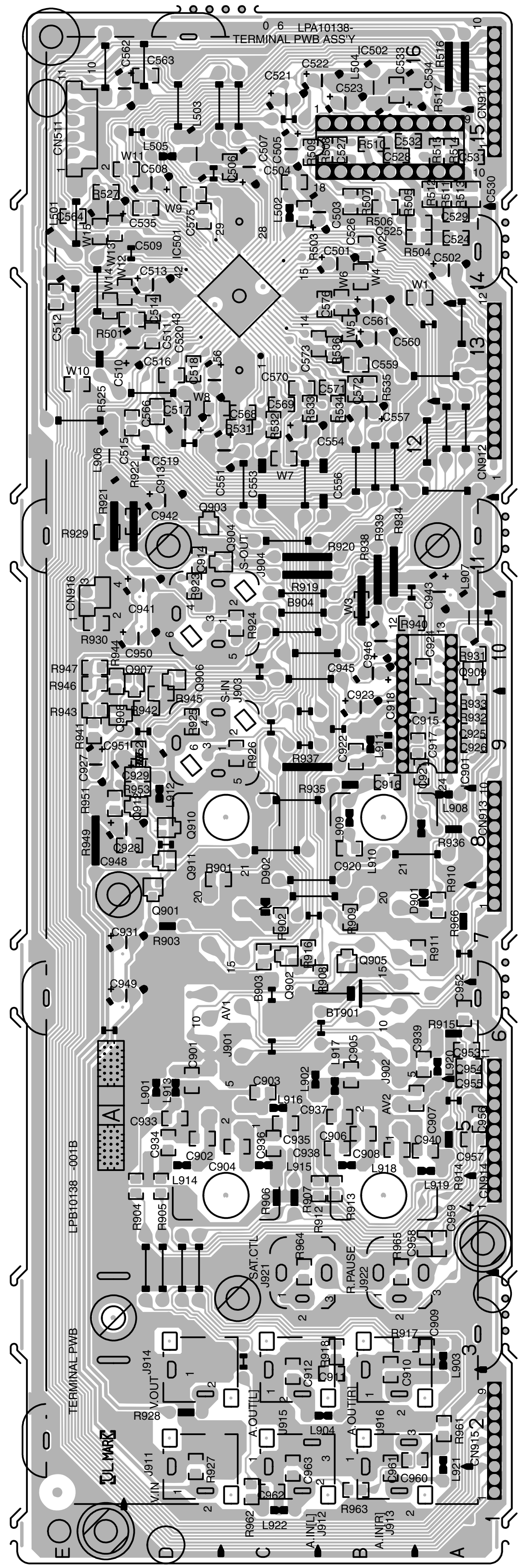


COMPONENT PARTS LOCATION GUIDE <DEMODULATOR>

REF.NO.	LOCATION		
CAPACITOR			
C6701	A	D	3A
C6702	B	C	2A
C6703	A	D	4A
C6704	B	C	3B
C6705	B	C	3B
C6706	B	C	4B
C6707	B	C	4B
C6708	B	C	3B
C6709	B	C	4C
C6710	A	D	4C
C6711	B	C	4C
C6712	B	C	4C
C6713	B	C	3C
C6714	B	C	3D
C6715	B	C	3D
C6716	B	C	3C
C6717	B	C	3D
C6718	B	C	3D
C6719	B	C	1D
C6720	A	D	2D
C6721	B	C	3D
C6722	B	C	2D
C6723	B	C	1D
C6724	B	C	1D
C6725	B	C	2C
C6726	B	C	1C
C6727	B	C	1B
C6728	B	C	1B
C6729	A	D	2A
C6730	A	D	2B
C6731	B	C	2B
C6732	B	C	1A
C6733	B	C	2A
C6734	B	C	2B
CONNECTOR			
CN6701	A	D	3A
DIODE			
D6701	B	C	4D
IC			
IC6701	B	C	3C
COIL			
L6701	A	D	4D
L6702	A	D	1A
L6703	A	D	1C
TRANSISTOR			
Q6701	B	C	1B
RESISTOR			
R6701	B	C	3A
R6702	B	C	3A
R6703	B	C	3A
R6704	B	C	3A
R6705	B	C	4A
R6706	B	C	4A
R6707	B	C	4B
R6708	B	C	4C
R6709	B	C	4C
R6710	B	C	4D
R6711	B	C	3C
R6712	B	C	3D
R6713	B	C	3D
R6714	B	C	3D
R6715	B	C	2D
R6716	B	C	2D
R6717	B	C	2D
R6718	B	C	1C
R6719	B	C	1B
R6720	A	D	2A
R6721	B	C	1A
R6722	B	C	2A
R6723	B	C	1A
R6724	B	C	2B
R6725	B	C	2B
R6726	B	C	1B
R6727	B	C	3D
OTHER			
K6701	B	C	3B
K6702	B	C	4B
K6703	B	C	2D
K6704	B	C	2C
K6705	B	C	2C
K6706	B	C	1C
K6707	B	C	2B
X6701	A	D	4D

4.14 TERMINAL CIRCUIT BOARD

<06> TERMINAL
LPB10138-001B

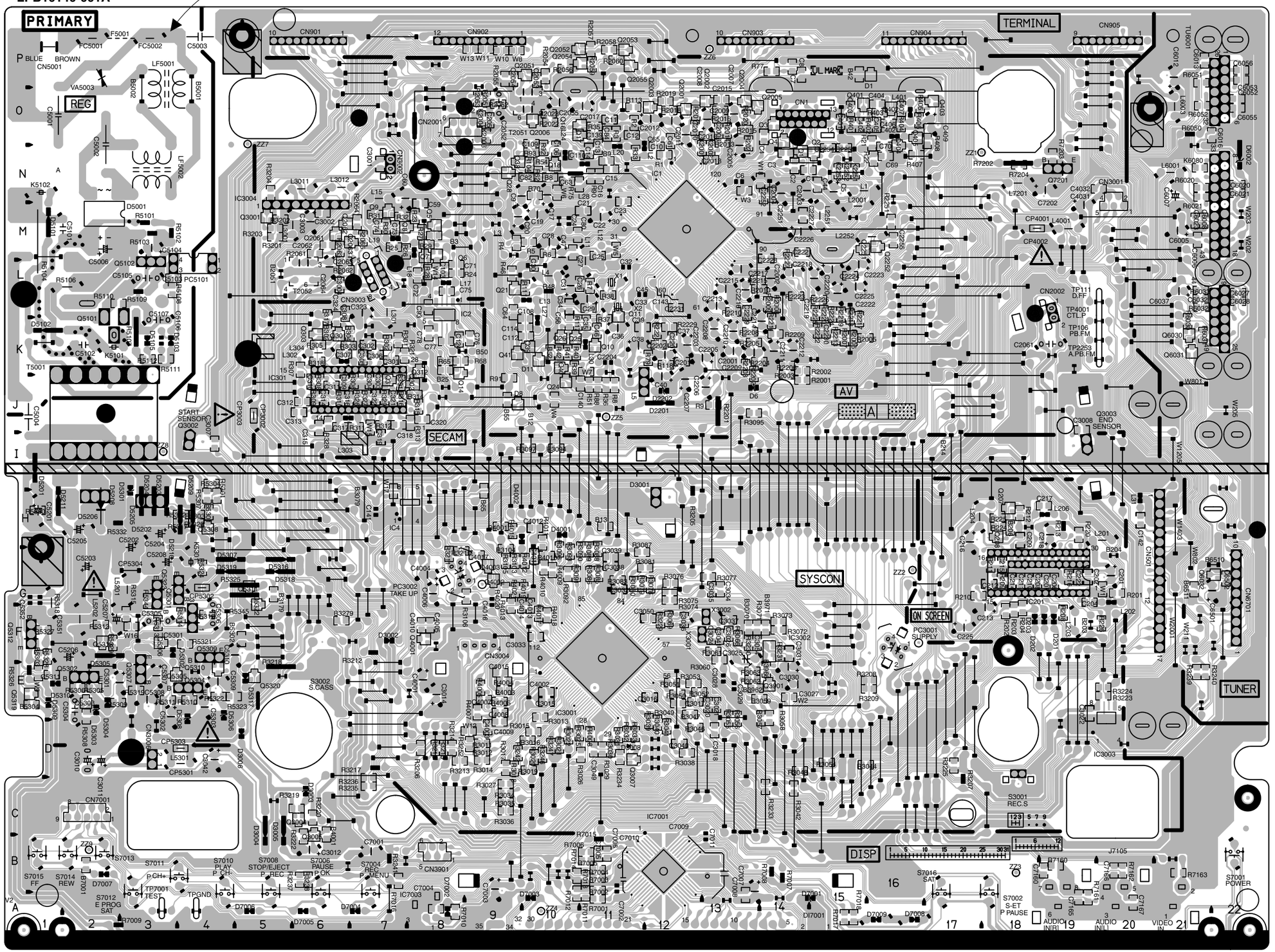


COMPONENT PARTS LOCATION GUIDE
<TERMINAL>

REF.NO.	LOCATION		
CAPACITOR			
C501	A	D	14B
C502	A	D	14A
C503	A	D	14B
C504	B	C	15C
C505	A	D	15C
C506	B	C	15C
C507	A	D	15C
C508	A	D	15D
C509	A	D	14E
C510	A	D	13D
C511	B	C	13D
C512	B	C	14E
C513	A	D	14D
C514	B	C	13D
C515	B	C	12D
C516	B	C	13D
C517	B	C	12D
C518	B	C	13D
C519	A	D	12D
C520	A	D	13D
C521	A	D	16C
C522	A	D	16C
C523	A	D	16B
C524	B	C	14A
C525	B	C	14A
C526	B	C	15B
C527	B	C	15B
C528	B	C	15B
C529	B	C	14A
C530	B	C	15A
C531	B	C	15A
C532	B	C	15B
C533	B	C	16B
C534	A	D	16A
C535	B	C	14D
C551	A	D	12C
C553	A	D	12C
C554	A	D	12C
C556	A	D	12B
C557	A	D	12B
C559	B	C	13B
C560	A	D	13B
C561	A	D	13B
C562	A	D	16D
C563	B	C	16D
C564	B	C	14E
C566	B	C	12D
C568	B	C	12C
C569	B	C	12C
C570	B	C	13C
C571	B	C	13B
C572	B	C	13B
C573	B	C	13B
C575	B	C	14D
C576	B	C	13B
C901	B	C	5D
C902	B	C	5D
C903	B	C	5C
C904	B	C	5C
C905	B	C	6B
C906	B	C	5B
C907	B	C	5A
C908	B	C	5B
C909	B	C	3A
C910	B	C	3B
C911	B	C	2B
C912	B	C	2C
C913	B	C	11D
C914	B	C	11D
C915	B	C	9A
C916	B	C	9B
C917	B	C	9A
C918	A	D	9B
C920	B	C	8B
C921	B	C	9A
C922	B	C	9B
C923	A	D	9B
C924	B	C	10A
C925	B	C	9A
C926	B	C	9A
C927	A	D	9E
C928	B	C	8D
C929	B	C	9D
C931	A	D	7E
C933	B	C	5D
C934	B	C	5D
C935	B	C	5C
C936	B	C	5C
C937	B	C	5B
C938	B	C	5B
C939	B	C	6A
C940	B	C	5A
C941	A	D	11D
C942	A	D	11D
C943	A	D	11A
C945	A	D	10B
C946	A	D	10B
C948	A	D	8E
C949	A	D	6E
C950	A	D	10D
C951	A	D	9E
C952	B	C	6A
C953	B	C	6A
C954	B	C	6A
C955	B	C	5A
C956	B	C	5A
C957	B	C	5A
C958	B	C	4A
C959	B	C	4A
C960	B	C	2B
C961	B	C	1B
C962	B	C	1C
C963	B	C	1C
CONNECTOR			
CN511	A	D	15E
CN911	A	D	15A
CN912	A	D	12A
CN913	A	D	7A
CN914	A	D	4A
CN915	A	D	1A
CN916	A	D	10E
DIODE			
D901	A	D	8A
D902	A	D	7C
IC			
IC501	B	C	14C
IC502	A	D	15B
IC901	A	D	9B
JACK			
J901	A	D	6C
J902	A	D	6B
J903	A	D	9D
J904	A	D	10D
J911	A	D	2D
J912	A	D	2C
J913	A	D	2B
J914	A	D	3D
J915	A	D	3C
J916	A	D	3B
J921	A	D	4C
J922	A	D	4B
COIL			
L501	A	D	14E
L502	A	D	14C
L503	A	D	15D
L504	A	D	16B
L505	A	D	15D
L901	A	D	5D
L902	A	D	5C
L903	A	D	3A
L904	A	D	2B
L906	A	D	12E
L907	A	D	10A
L908	A	D	8A
L909	A	D	8B
L910	A	D	8A
L911	A	D	9B
L912	A	D	8D
L913	A	D	6D
L914	A	D	5D
L915	A	D	5C
L916	A	D	5C
L917	A	D	6B
L918	A	D	5B
L919	A	D	5B
L920	A	D	5A
L921	A	D	2A
L922	A	D	1C
TRANSISTOR			
Q901	B	C	7D
Q902	B	C	7C
Q903	B	C	11D
Q904	B	C	11D
Q905	B	C	7B
Q906	B	C	10D
Q907	B	C	10D
Q908	B	C	9E
Q909	B	C	10A
Q910	B	C	8D
Q911	B	C	8D
Q912	B	C	8D
RESISTOR			
R501	B	C	13D
R503	B	C	14C
R504	B	C	14A
R505	B	C	15B
R506	B	C	14B
R507	B	C	15B
R508	B	C	15B
R509	B	C	15C
R510	B	C	15B
R511	B	C	15A
R512	B	C	15A
R513	B	C	15A
R514	B	C	15A
R515	B	C	15A
R516	A	D	16A
R517	A	D	16A
R525	A	D	13E
R527	B	C	15E
R531	B	C	12C
R532	B	C	12C
R533	B	C	12C
R534	B	C	12B
R535	B	C	13B
R536	B	C	13B
R901	B	C	8D
R902	B	C	7C
R903	A	D	7D
R904	B	C	4D
R905	B	C	4D
R906	A	D	4C
R907	A	D	4C
R908	B	C	7B
R909	B	C	7B
R910	B	C	7A
R911	B	C	7A
R912	B	C	4B
R913	B	C	4B
R914	A	D	5A
R915	A	D	6A
R916	B	C	7C
R917	B	C	3B
R918	B	C	3B
R919	A	D	11B
R920	A	D	11B
R921	A	D	11E
R922	A	D	11D
R923	B	C	11D
R924	B	C	10C
R925	B	C	9D
R926	B	C	9C
R927	B	C	2D
R928	A	D	2D
R929	B	C	11E
R930	B	C	10E
R931	B	C	10A
R932	B	C	9A
R933	B	C	9A
R934	A	D	11B
R935	A	D	9B
R936	A	D	8A
R937	A	D	9B
R938	A	D	11B
R939	A	D	11B
R940	B	C	10B
R941	B	C	9E
R942	B	C	9D
R943	B	C	9E
R944	B	C	10E
R945	B	C	9D
R946	B	C	10E
R947	B	C	10E
R949	A	D	8E
R951	B	C	8E
R952	B	C	9D
R953	B	C	8D
R961	B	C	2A
R962	B	C	1C
R963	B	C	1B
R964	B	C	4C
R965	B	C	4B
R966	A	D	7A
OTHER			
BT901	A	D	6B

4.15 MAIN CIRCUIT BOARD

<03> MAIN
LPB10140-001A



COMPONENT PARTS LOCATION GUIDE <MAIN>

REF.NO.	LOCATION
CAPACITOR	
C1	B C 14N
C2	B C 14N
C3	B C 14N
C4	B C 14O
C5	A D 15N
C6	A D 13N
C7	B C 14P
C8	B C 14P
C9	A D 9N
C10	B C 12N
C11	B C 11O
C12	B C 11O
C13	B C 11N
C14	B C 11N
C15	B C 11N
C16	B C 11N
C17	A D 10N
C19	A D 10M
C20	A D 9M
C21	B C 11M
C22	A D 11M
C23	B C 11N
C24	A D 10M
C25	B C 11M
C26	B C 11L
C27	B C 10M
C28	A D 10M
C29	B C 11L
C30	B C 10L
C31	A D 10L
C32	A D 11L
C33	A D 11L
C34	B C 10L
C35	B C 11K
C36	A D 11K
C37	A D 12K
C38	A D 11K
C39	B C 12K
C40	A D 12J
C44	B C 15N
C45	A D 12L
C46	B C 11K
C47	A D 10M
C56	B C 10K
C59	B C 8M
C60	A D 7M
C61	B C 12O
C63	B C 10N
C64	B C 9L
C65	A D 12O
C69	B C 16N
C70	B C 16N
C71	B C 8L
C72	B C 8L
C73	B C 7M
C74	B C 7M
C75	B C 8L
C76	B C 9K
C77	B C 8K
C78	B C 8K
C80	B C 10M
C82	B C 10N
C84	B C 11O
C93	B C 8L
C103	B C 8L
C106	B C 10N
C108	B C 10K
C109	B C 10O
C110	B C 10N
C112	B C 10K
C114	B C 10K
C124	B C 8K
C139	B C 11O
C140	B C 11J
C141	A D 7H
C142	B C 20H
C143	A D 12L
C201	A D 20G
C202	B C 19G
C204	B C 19G
C206	B C 19G
C207	B C 19G
C208	B C 18G
C209	B C 18H
C210	B C 18G
C211	B C 18G
C212	B C 18G
C213	A D 18F
C214	B C 18G
C215	B C 18G
C216	A D 17H
C217	B C 19H
C218	A D 19H
C222	B C 19G
C225	A D 17F
C301	B C 7K
C302	B C 7K
C303	B C 7J
C304	B C 7J
C305	B C 7K
C306	B C 7K
C307	B C 6K
C308	B C 6L
C309	B C 6J
C310	B C 6J
C311	B C 6J
C312	B C 6J
C313	B C 6J
C314	B C 6J

REF.NO.	LOCATION
C315	B C 6J
C316	B C 6J
C317	B C 6J
C318	B C 7J
C319	B C 7I
C320	B C 8J
C321	B C 7J
C322	B C 7J
C323	A D 7L
C324	B C 6K
C401	B C 15O
C402	B C 15O
C403	B C 15O
C404	B C 16O
C405	B C 16O
C406	B C 16O
C407	B C 16O
C409	A D 17O
C2001	A D 13K
C2002	A D 14L
C2003	A D 14N
C2004	B C 14N
C2005	A D 13N
C2006	B C 13O
C2007	A D 13O
C2008	A D 13O
C2009	B C 13O
C2010	B C 13O
C2011	A D 12O
C2012	A D 12O
C2013	B C 13N
C2014	B C 12K
C2015	B C 13O
C2016	B C 13O
C2017	A D 11O
C2051	B C 9O
C2052	A D 9O
C2053	B C 10P
C2054	B C 9P
C2055	A D 10O
C2061	A D 19K
C2062	B C 6M
C2063	B C 6L
C2064	A D 6L
C2201	B C 12K
C2202	B C 12K
C2203	A D 12K
C2204	A D 11K
C2205	A D 13K
C2206	A D 13J
C2207	A D 12J
C2208	A D 13K
C2209	A D 13K
C2210	A D 13K
C2211	A D 14K
C2212	A D 14K
C2213	A D 13L
C2214	A D 14L
C2215	A D 13L
C2216	A D 13L
C2217	A D 13L
C2218	A D 14L
C2219	A D 15L
C2220	A D 15L
C2221	B C 14M
C2222	A D 15L
C2223	A D 15L
C2224	B C 15L
C2225	A D 15L
C2226	A D 14M
C2227	B C 14M
C2228	B C 14M
C2229	B C 13L
C2230	B C 15K
C2231	B C 12L
C2251	A D 14N
C2252	B C 14N
C2253	B C 15N
C2254	B C 15N
C2255	B C 16M
C3001	B C 7N
C3002	B C 6M
C3003	A D 6M
C3004	B C 6L
C3007	B C 4I
C3008	B C 19J
C3010	A D 2D
C3011	A D 2D
C3012	A D 6B
C3014	A D 8E
C3015	B C 10E
C3016	B C 12E
C3017	B C 13E
C3018	B C 13D
C3020	B C 13E
C3021	B C 13E
C3022	B C 19E
C3024	B C 13F
C3025	A D 13F
C3026	B C 13F
C3027	A D 14E
C3028	A D 13E
C3029	A D 13E
C3030	A D 14E
C3031	B C 14F
C3032	B C 11G
C3033	B C 10F
C3034	B C 13G
C3035	B C 13G
C3036	B C 12F
C3037	B C 13F

REF.NO.	LOCATION
C3038	B C 11G
C3039	B C 11G
C3040	B C 12D
C3041	B C 13F
C3042	A D 4D
C3049	B C 11D
C3050	B C 12F
C3054	B C 14F
C4001	A D 8E
C4002	B C 10E
C4003	B C 9D
C4004	A D 8G
C4005	B C 8F
C4006	A D 8G
C4007	B C 9E
C4008	B C 9E
C4009	B C 9D
C4010	B C 8F
C4011	B C 10G
C4012	B C 10H
C4013	B C 10F
C4014	B C 10F
C4015	B C 9E
C4016	A D 9G
C4017	B C 9G
C4031	A D 19M
C4032	B C 20N
C5001	A D 1P
C5002	A D 2N
C5003	A D 4P
C5004	A D 1J
C5006	A D 2M
C5101	A D 2M
C5102	A D 2K
C5103	B C 3L
C5104	A D 3M
C5105	A D 3L
C5106	A D 3K
C5107	A D 3K
C5201	A D 1H
C5202	A D 3G
C5203	A D 2G
C5204	A D 3H
C5205	A D 2H
C5206	A D 2F
C5207	A D 2F
C5208	A D 3G
C5301	A D 3E
C5302	A D 3E
C5303	A D 4E
C5304	A D 2E
C5305	A D 3F
C5306	A D 4G
C5307	A D 4G
C5308	A D 4D
C5309	A D 1E
C5310	A D 2E
C5316	A D 5G
C5317	A D 5E
C5318	A D 6G
C5319	A D 5G
D6002	A D 22O
D7001	A D 15A
D7002	A D 8A
D7003	A D 10A
D7004	A D 7A
D7005	A D 6A
D7006	A D 5A
D7007	A D 2B
D7008	A D 16A
D7009	A D 16A

IC

IC1	B	C	12M
IC2	B	C	8L
IC4	B	C	8H
IC201	A	D	19G
IC301	A	D	7J
IC3001	B	C	11F
IC3002	B	C	14F
IC3003	B	C	20E
IC3004	A	D	5M
IC5301	A	D	4F
IC7001	B	C	12B
IC7003	A	D	8A

JACK

J7105	A	D	20A

COIL

L1	A	D	16N
L2	A	D	12O
L3	A	D	9M
L4	A	D	10L
L5	A	D	12K
L11	A	D	11M
L12	A	D	11L
L13	A	D	9L
L15	A	D	7N
L17	A	D	8L
L18	A	D	8L
L19	A	D	7M
L20	A	D	11N
L24	A	D	10N
L27	A	D	10L
L28	A	D	10N
L30	A	D	11K
L31	A	D	20H
L201	A	D	20H
L202	A	D	20G
L203	A	D	19F
L204	A	D	17H
L206	A	D	18H
L301	A	D	7K
L302	A	D	6K
L303	A	D	6J
L304	A	D	6K
L401	A	D	16O
L402	A	D	16O
L2001	A	D	16M

CONNECTOR

CN1	A	D	14O
CN501	A	D	21H
CN901	A	D	6P
CN902	A	D	10P
CN903	A	D	14P
CN904	A	D	17P
CN905	A	D	20P
CN2001	A	D	9O
CN2002	A	D	19L
CN3001	A	D	20M
CN3002	A	D	7N
CN3003	A	D	7L
CN3004	A	D	9F

REF.NO.	LOCATION
CN3006	A D 3D
CN3901	A D 8B
CN5001	A D 1P
CN6701	A D 22F
CN7001	A D 2C

DIODE

D1	B	C	16P
D6	A	D	13J
D8	B	C	9J
D11	B	C	10K
D201	A	D	19F
D202	A	D	19F
D203	A	D	18F
D2201	A	D	12J
D2202	A	D	12J
D3001	A	D	12H
D3002	A	D	7F
D3003	A	D	6C
D3004	A	D	5C
D3005	A	D	5C
D3006	A	D	5D
D3008	B	C	11D
D4001	A	D	10H
D4002	A	D	10H
D5001	B	C	2M
D5101	A	D	1M
D5102	A	D	2K
D5103	A	D	3K
D5105	A	D	3K
D5201	A	D	1I
D5202	A	D	3H
D5203	A	D	3I
D5204	A	D	3I
D5205	A	D	3I
D5206	A	D	2H
D5208	A	D	2I
D5209	A	D	4H
D5210	A	D	4H
D5211	A	D	1H
D5301	A	D	3I
D5302	A	D	3F
D5303	A	D	2E
D5304	A	D	2E
D5305	A	D	2F
D5306	A	D	4D
D5307	A	D	4G
D5308	A	D	4D
D5309	A	D	1E
D5310	A	D	2E

TRANSISTOR

Q1	B	C	14N
Q2	B	C	15N
Q3	B	C	14O
Q4	B	C	14O
Q5	B	C	8M
Q6	B	C	8M
Q7	B	C	8M
Q8	B	C	7M
Q9	B	C	7M
Q10	B	C	11K
Q11	B	C	11L
Q14	B	C	8K
Q16	B	C	11O
Q17	B	C	11O
Q18	B	C	10N
Q21	B	C	9L
Q24	B	C	10J
Q25	B	C	10K
Q26	B	C	10K
Q28	B	C	9N
Q38	B	C	9N
Q39	B	C	10K
Q40	B	C	10K
Q41	B	C	9K
Q207	B	C	18H
Q208	B	C	18H
Q301	B	C	6K
Q302	B	C	8J
Q303	B	C	6K
Q311	B	C	7J
Q312	B	C	8K
Q401	B	C	15O
Q402	B	C	16O
Q403	B	C	17O
Q404	B	C	16N
Q405	B	C	16O
Q2001	B	C	12O
Q2002	B	C	13O
Q2003	B	C	12O
Q2004	B	C	13O
Q2005	B	C	14O
Q2006	B	C	10O
Q2051	B	C	10P
Q2052	B	C	10P
Q2053	B	C	11P
Q2054	B	C	11P
Q2055	B	C	11P
Q2061	B	C	6M
Q2062	B	C	6M
Q2063	B	C	7M
Q2251	B	C	15M
Q2252	B	C	16M
Q3001	B	C	5M
Q3002	A	D	4I
Q3003	A	D	19I
Q3004	B	C	6C
Q3005	B	C	6C
Q3007	B	C	11D
Q3901	B	C	14E
Q4001	B	C	8F
Q4002	B	C	9G
Q4003	B	C	9G
Q5101	A	D	2L
Q5102	A	D	3L
Q5301	A	D	4G
Q5302	A	D	2E
Q5303	B	C	2E
Q5304	A	D	4E
Q5305	B	C	3E
Q5306	B	C	3F
Q5307	A	D	3F
Q5308	B	C	4H
Q5309	A	D	4F
Q5310	B	C	4E
Q5311	B	C	5G
Q5312	A	D	1F
Q5318	B	C	2F
Q5319	B	C	1E
Q5320	B	C	5E
Q5322	B	C	5G
Q5323	A	D	3G
Q6030	B	C	21K
Q6031	B	C	21K
Q6032	B	C	22G
Q7201	A	D	19N

RESISTOR

R1	B	C	12N
R2	B	C	11O
R3	B	C	11O
R4	B	C	9M
R5	B	C	10M
R6	B	C	10M
R7	B	C	11L
R8	B	C	11J
R9	B	C	13J
R21	B	C	16O
R22	B	C	16N

REF.NO.	LOCATION
R23	B C 8M
R24	B C 8L
R25	B C 7M
R26	B C 7M
R27	B C 8M
R28	B C 8L
R29	B C 8M
R30	B C 7M
R31	B C 7M
R32	B C 7M
R33	B C 11N
R35	B C 11O
R36	B C 11J
R37	B C 11K
R38	B C 11L
R39	B C 10K
R40	B C 10K
R41	B C 10K
R42	B C 10K
R46	B C 9L
R48	A D 10L
R51	B C 11J
R62	B C 10N
R65	B C 8K
R68	B C 8K
R70	B C 10N
R75	B C 11N
R77	B C 14P
R79	B C 12K
R88	B C 11J
R90	B C 11N
R91	B C 9J
R92	B C 10N
R93	B C 10N
R104	B C 10N
R111	B C 10L
R113	B C 11O
R117	B C 18H
R118	B C 18H
R201	B C 20G
R202	B C 18F
R203	B C 18F
R209	B C 18G
R210	B C 17G
R211	B C 18G
R212	B C 18H
R213	A D 19H
R216	B C 19G
R220	B C 19H
R224	B C 18H
R225	B C 18H
R226	B C 20F
R301	B C 7K
R302	B C 7K
R303	B C 6K
R305	B C 6K
R306	B C 7J
R307	B C 6K
R308	B C 6J
R309	B C 6J
R310	B C 6J
R311	B C 7J
R312	B C 7J
R313	B C 8J
R314	B C 8J
R315	B C 8J
R316	B C 7J
R317	B C 6L
R318	B C 6K
R321	B C 7K
R326	B C 7J
R327	B C 7J
R328	B C 6J
R329	B C 7J
R401	B C 15O
R402	B C 16O
R403	B C 16O
R404	B C 16O
R405	B C 16O
R406	B C 16O
R407	B C 16N
R408	B C 17O
R2001	B C 14J
R2002	B C 14K
R2003	B C 14K
R2005	B C 15K
R2006	B C 15K
R2007	B C 15K
R2008	B C 14L
R2009	B C 14L
R2010	B C 14L
R2013	B C 13O
R2014	B C 13O
R2015	B C 13O
R2016	B C 13O
R2017	B C 13O
R2018	B C 12O
R2019	B C 12O
R2020	B C 13O
R2021	B C 13O
R2022	B C 10O
R2023	B C 10O
R2051	B C 9O
R2052	B C 9O
R2053	B C 9O
R2054	B C 10P
R2055	B C 9P

REF.NO.	LOCATION
R2056	B C 10P
R2057	B C 11P
R2058	B C 11P
R2059	B C 11P
R2060	B C 11P
R2061	B C 6M
R2062	B C 6L
R2063	B C 6M
R2064	B C 7M
R2065	B C 7M
R2201	A D 13J
R2202	B C 14K
R2203	B C 13K
R2204	B C 14K
R2205	B C 14K
R2206	B C 14K
R2208	B C 13K
R2209	B C 14K
R2210	B C 13L
R2211	B C 14K
R2213	B C 15K
R2215	B C 14L
R2217	B C 15K
R2218	B C 15L
R2219	B C 15L
R2220	B C 15L
R2221	B C 15L
R2222	B C 15K
R2223	B C 14L
R2224	B C 15L
R2225	B C 15L
R2226	B C 15L
R3015	B C 10D
R3016	B C 10D
R3017	B C 9D
R3018	B C 9D
R3019	B C 10D
R3020	B C 10D
R3021	B C 10D
R3022	B C 10D
R3025	B C 11D
R3026	B C 11D
R3027	B C 9C
R3029	B C 11D
R3030	B C 11D
R3031	B C 11D
R3032	B C 11D
R3033	B C 11D
R3034	B C 9C
R3035	B C 9C
R3036	B C 9C
R3038	B C 12D
R3039	B C 12D
R3040	B C 12D
R3041	B C 12D
R3042	B C 14C
R3044	B C 15D
R3046	B C 13D
R3047	B C 12E
R3048	B C 14D
R3049	B C 12E
R3050	B C 12E
R3051	B C 12E
R3052	B C 13E
R3053	B C 12E
R3054	B C 15D
R3055	B C 13E
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R3057	B C 14E
R3058	B C 14E
R3059	B C 14E
R3060	B C 13F
R3061	B C 13F
R3062	B C 14E
R3063	B C 14E
R3066	B C 13F
R3069	B C 12F
R3071	B C 14F
R3072	B C 14F
R3073	B C 14F
R3074	B C 12G
R3075	B C 12G
R3076	B C 12G
R3077	B C 13G
R3078	B C 12G
R3079	B C 12G
R3080	B C 11G
R3081	B C 12G
R3083	B C 11G
R3085	B C 11G
R3086	B C 11G
R3087	B C 12G
R3088	B C 11G
R3089	B C 11G
R3090	B C 11G
R3091	B C 10G
R3092	B C 10G
R3093	B C 10G
R3094	B C 10I
R3095	B C 14J
R3096	B C 10G
R3097	B C 10I
R3103	B C 9G
R3104	B C 9G

REF.NO.	LOCATION
R3105	B C 9G
R3106	B C 9G
R3201	B C 5M
R3202	B C 5M
R3203	B C 5M
R3204	B C 5N
R3205	A D 12I
R3206	B C 8D
R3207	A D 17D
R3208	B C 16E
R3209	B C 16E
R3210	B C 8G
R3211	B C 8G
R3212	A D 7F
R3213	B C 8D
R3214	B C 8D
R3215	B C 8D
R3216	B C 8D
R3217	A D 7D
R3218	A D 6E
R3219	B C 6C
R3220	B C 6C
R3222	B C 6B
R3223	B C 20E
R3224	B C 20E
R3225	B C 17D
R3229	B C 12F
R3230	B C 13F
R3231	B C 14F
R3233	B C 14C
R3234	B C 11D
R3235	B C 7C
R3236	B C 7C
R3238	B C 6B
R3239	B C 21E
R3240	B C 21E
R3241	A D 7B
R3242	B C 9D
R3246	B C 10D
R3247	B C 10D
R3252	B C 9D
R4001	B C 9H
R4003	B C 9E
R4004	B C 9E
R4005	B C 9E
R4006	B C 9E
R4007	B C 9E
R4008	B C 11D
R4009	B C 10G
R4010	B C 10G
R4011	B C 10H
R4012	B C 10G
R4013	B C 9F
R4015	B C 9H
R4016	B C 10G
R4017	B C 10F
R4018	B C 10F
R4019	B C 10G
R4020	B C 9G
R4021	B C 9G
R5101	A D 3M
R5102	A D 3M
R5103	A D 3M
R5104	A D 1L
R5106	A D 1L
R5107	A D 3K
R5108	B C 3L
R5109	A D 3L
R5110	B C 2L
R5111	B C 3K
R5112	B C 3K
R5301	B C 4H
R5302	B C 4H
R5303	B C 4H
R5304	B C 4I
R5305	B C 2E
R5306	B C 2E
R5307	B C 4H
R5308	B C 2E
R5309	B C 4E
R5310	B C 4E
R5311	B C 3E
R5312	B C 2F
R5313	B C 3F
R5314	B C 4F
R5315	B C 3F
R5316	B C 4F
R5317	B C 4H
R5318	A D 1F
R5319	B C 3E
R5320	B C 4H
R5321	B C 4F
R5322	B C 4E
R5323	B C 4E
R5324	B C 4G
R5325	A D 4G
R5326	A D 1F
R5327	B C 1F
R5328	B C 1F
R5329	B C 2F
R5330	B C 1H
R5332	A D 3H
R5344	B C 3G
R5345	A D 4G
R6020	B C 21N
R6021	B C 21N
R6030	B C 21K
R6031	B C 21K
R6032	B C 21L
R6033	B C 21L

REF.NO.	LOCATION
R6050	A D 21O
R6051	B C 21P
R6052	B C 21O
R7001	B C 11A
R7002	B C 11B
R7003	B C 11B
R7004	B C 11B
R7005	B C 11B
R7006	B C 11B
R7007	A D 14B
R7008	A D 14B
R7009	A D 3A
R7010	B C 8A
R7011	B C 11A
R7012	B C 10A
R7013	B C 11B
R7014	B C 10B
R7015	A D 11B
R7016	B C 7B
R7017	B C 15A
R7018	B C 15A
R7160	B C 19B
R7161	B C 19A
R7162	B C 20B
R7163	B C 21B
R7202	B C 18N
R7203	B C 19N
R7204	A D 18N

SWITCH

S3001	A	D	18C
S3002	A	D	6F
S7001	A	D	22B
S7002	A	D	18B
S7004	A	D	7B
S7006	A	D	6B
S7008	A	D	5B
S7010	A	D	4B
S7011	A	D	4B
S7012	A	D	3B
S7013	A	D	2B
S7014	A	D	2B
S7015	A	D	1B
S7016	A	D	17B

TEST POINT

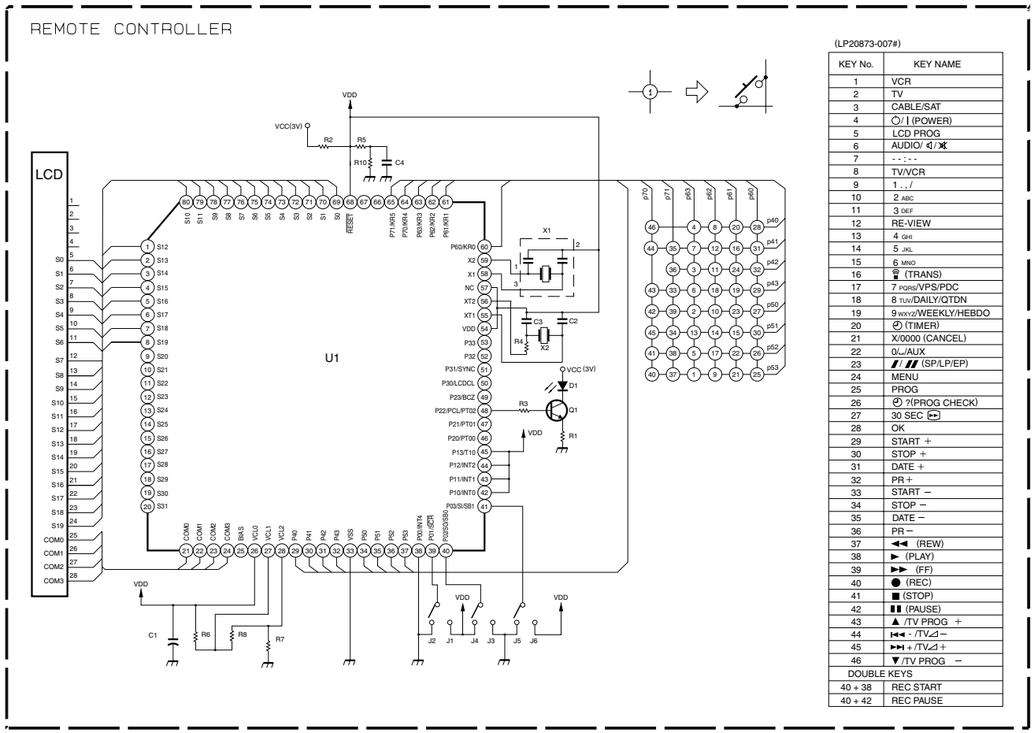
TP106	A	D	20K
TP111	A	D	20L
TP2253	A	D	20K
TP3901	B	C	12D
TP3902	B	C	12E
TP3903	B	C	13E
TP3904	B	C	14F
TP3905	B	C	13F
TP3906	B	C	13E
TP3907	B	C	14E
TP3908	B	C	14E
TP4001	A	D	20K
TP7001	A	D	3A
TPGND	A	D	4A

OTHER

CP3002	A	D	5J
CP3003	B	C	5J
CP4001	A	D	19M
CP4002	B	C	18M
CP5301	A	D	4D
CP5302	A	D	4G
CP5303	B	C	4D
CP5304	B	C	4G
DI7001	A	D	12A
F5001	A	D	2P
FC5001	A	D	2P
FC5002	A	D	3P
K2001	B	C	13N
K2002	B	C	13N
K2003	B	C	9O
K2004	B	C	9O
K2251	B	C	15N
K2252	B	C	15N
K2253	B	C	15N
K5101	A	D	2K
K5102	A	D	1N
K5301	A	D	4G
K6080	B	C	21N
LF5001	A	D	4P
LF5002	A	D	3N
PC3001	A	D	16F
PC3002	A	D	8G
PC5101	A	D	4M
T2051	A	D	9O
T2052	A	D	6L
T5001	A	D	1K
TU6001	A	D	22P
VA5003	A	D	2O
X1	A	D	11L
X2	A	D	11L
X3001	A	D	13F
X3002	A	D	13F

4.16 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.

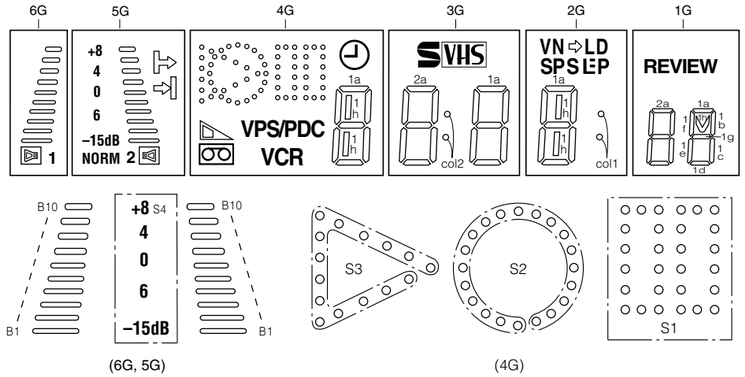


(LP20873-007#)

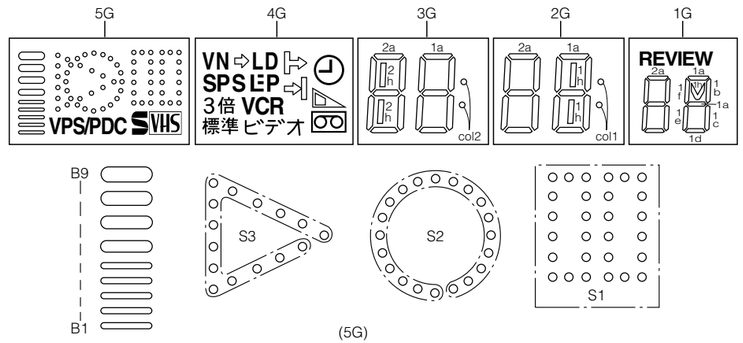
KEY No.	KEY NAME
1	VCR
2	TV
3	CABLE/SAT
4	⏻/ I (POWER)
5	LCD PROG
6	AUDIO/ ◀/ ✖
7	- - : - -
8	TV/VCR
9	1 . , /
10	2 ABC
11	3 DEF
12	RE-VIEW
13	4 GHI
14	5 JKL
15	6 MNO
16	(TRANS)
17	7 PQRS/VPS/PDC
18	8 TUV/DAILY/QTDN
19	9 WXYZ/WEEKLY/HEBDO
20	(TIMER)
21	X/0000 (CANCEL)
22	0/␣/AUX
23	/ (SP/LP/EP)
24	MENU
25	PROG
26	?(PROG CHECK)
27	30 SEC
28	OK
29	START +
30	STOP +
31	DATE +
32	PR +
33	START −
34	STOP −
35	DATE −
36	PR −
37	◀◀ (REW)
38	▶ (PLAY)
39	▶▶ (FF)
40	● (REC)
41	■ (STOP)
42	▮▮ (PAUSE)
43	▲ /TV PROG +
44	⏮ - /TV⊿ −
45	⏭ + /TV⊿ +
46	▼ /TV PROG −
DOUBLE KEYS	
40 + 38	REC START
40 + 42	REC PAUSE

4.17 FDP GRID ASSIGNMENT AND ANODE CONNECTION

[A] (FDP with audio level indicator)



[B] (FDP without audio level indicator)



ANODE CONNECTION [A]

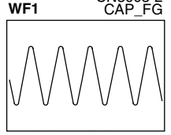
	6G	5G	4G	3G	2G	1G
P 1	—	⇨	S2	1a	1a	1a
P 2	—	⇨	S1	1b	1b	1b
P 3	—	S4	S3	1f	1f	1f
P 4	—	NORM	VPS/PDC	1g	1g	1g
P 5	1	2	🕘	1c	1c	1c
P 6	▷	◁	◺	1e	1e	1e
P 7	B10	B10	📼	1d	1d	1d
P 8	B9	B9	VCR	col2	1h	1h
P 9	B8	B8	1a	2a	col1	2a
P10	B7	B7	1b	2b	⇨	2b
P11	B6	B6	1f	2f	VN	2f
P12	B5	B5	1g	2g	LD	2g
P13	B4	B4	1c	2c	SP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

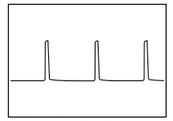
ANODE CONNECTION [B]

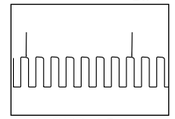
	5G	4G	3G	2G	1G
P 1	S2	⇨	1a	1a	1a
P 2	S1	⇨	1b	1b	1b
P 3	S3	3倍	1f	1f	1f
P 4	VPS/PDC	標準	1g	1g	1g
P 5	SVHS	🕘	1c	1c	1c
P 6	—	◺	1e	1e	1e
P 7	—	📼	1d	1d	1d
P 8	B9	VCR	col2	1h	1h
P 9	B8	ビデオ	2a	2a	2a
P10	B7	⇨	2b	2b	2b
P11	B6	VN	2f	2f	2f
P12	B5	LD	2g	2g	2g
P13	B4	SP	2c	2c	2c
P14	B3	S (SEP)	2e	2e	2e
P15	B2	= (SEP)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

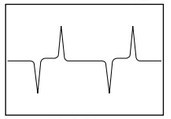
4.18 WAVEFORMS

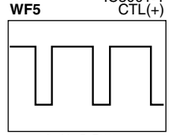
< SYSCON >

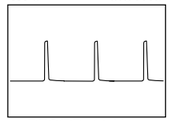
WF1 CN3003-2 CAP_FG

REC/PB 2.2 Vp-p
50 mV/0.5 msec/DIV

WF2 CN3001-4 D.PG

REC/PB 4.5 Vp-p
0.1 V/10 msec/DIV

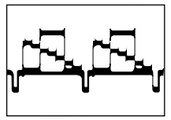
WF3 CN3001-5 D.FG

REC/PB 4.5 Vp-p
0.1 V/10 msec/DIV

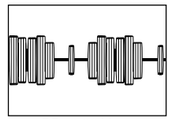
WF4 TP4001 CTL.P

PB 2.2 Vp-p
0.1 V/10 msec/DIV

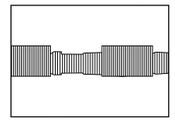
WF5 IC3001-1 CTL(+)

REC 3.5 Vp-p
0.1 V/10 msec/DIV

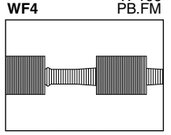
WF6 IC3001-98 C.SYNC

REC/PB 4.5 Vp-p
0.1 V/20 µsec/DIV

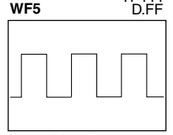
< VIDEO >

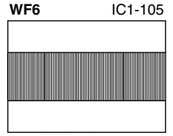
WF1 IC1-27

PB 2.1 Vp-p
50 mV/20 µsec/DIV

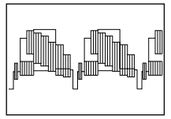
WF2 IC1-30

PB 0.68 Vp-p
20 mV/20 µsec/DIV

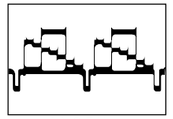
WF3 IC1-1

PB 0.3 Vp-p
20 mV/5 msec/DIV

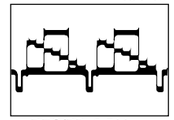
WF4 TP106 PB.FM

PB 0.5 Vp-p
20 mV/5 msec/DIV

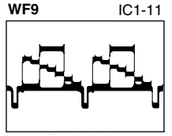
WF5 TP111 D.FF

REC/PB 3.4 Vp-p
0.1 V/10 msec/DIV

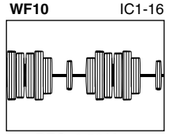
WF6 IC1-105

REC 1.8 Vp-p
0.1 V/1 msec/DIV

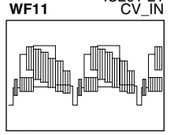
WF7-1 IC1-14

REC 0.52 Vp-p
20 mV/20 µsec/DIV

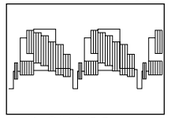
WF7-2 IC1-14

PB 0.5 Vp-p
20 mV/20 µsec/DIV

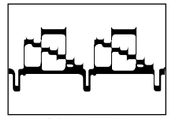
WF8 IC1-13

REC/PB 0.5 Vp-p
20 mV/20 µsec/DIV

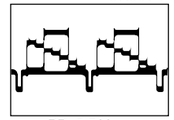
WF9 IC1-11

REC/PB 0.5 Vp-p
20 mV/20 µsec/DIV

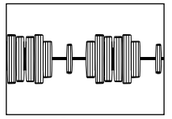
WF10 IC1-16

REC 0.58 Vp-p
20 mV/20 µsec/DIV

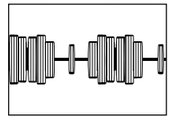
WF11 IC201-21 CV_IN

REC/PB 2.2 Vp-p
50 mV/20 µsec/DIV

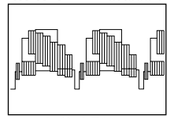
WF12 IC201-19 CVOUT

REC/PB 2.2 Vp-p
5 mV/20 µsec/DIV

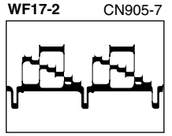
WF13 CN901-5

REC/PB 0.52 Vp-p
20 mV/20 µsec/DIV

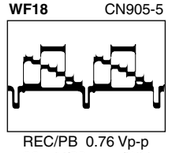
WF14 CN901-7

PB 0.5 Vp-p
20 mV/20 µsec/DIV

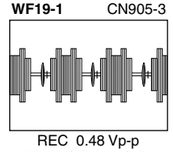
WF15 CN901-9

REC 0.6 Vp-p
20 mV/20 µsec/DIV

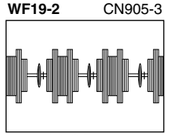
WF16 CN905-9

PB 1.3 Vp-p
50 mV/20 µsec/DIV

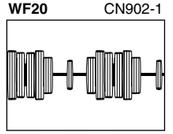
WF17-1 CN905-7

REC 1.7 Vp-p
50 mV/20 µsec/DIV

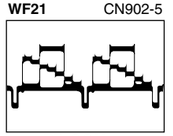
WF17-2 CN905-7

REC/PB 1.7 Vp-p
50 mV/20 µsec/DIV

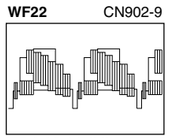
WF18 CN905-5

REC/PB 0.76 Vp-p
20 mV/20 µsec/DIV

WF19-1 CN905-3

REC 0.48 Vp-p
20 mV/20 µsec/DIV

WF19-2 CN905-3

PB 0.7 Vp-p
20 mV/20 µsec/DIV

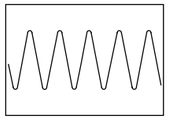
WF20 CN902-1

PB 0.6 Vp-p
20 mV/20 µsec/DIV

WF21 CN902-5

PB 2.2 Vp-p
50 mV/20 µsec/DIV

WF22 CN902-9

REC/PB 2.2 Vp-p
50 mV/20 µsec/DIV

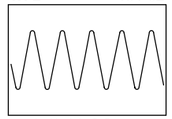
< AUDIO >

WF1 IC1-80



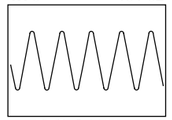
REC 0.2 Vp-p
5 mV/0.5 msec/DIV

WF2 IC1-62



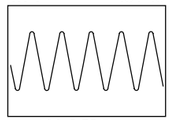
REC/PB 0.9 Vp-p
20 mV/0.5 msec/DIV

WF3 IC1-52



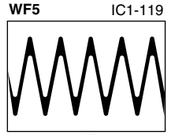
REC 0.11 Vp-p
2 mV/0.5 msec/DIV

WF4 IC1-48



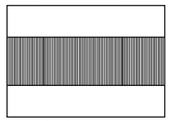
PB 0.58 Vp-p
10 mV/0.5 msec/DIV

WF5 IC1-119



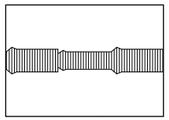
REC 0.7 Vp-p
20 mV/0.5 msec/DIV

WF6 IC1-97



REC 1.1 Vp-p
0.1 V/5 msec/DIV

WF7 TP2253 A.PB.FM



PB 0.5 Vp-p
50 mV/5 msec/DIV

4.19 VOLTAGE CHARTS

<MAIN>

MODE PIN NO.	REC	PLAY
IC1		
1	4.2	2.2
2	2.8	2.9
3	2.6	2.6
4	1.9	1.4
5	1.9	1.4
6	2.4	2.1
7	1.6	0.7
8	0	0
9	2.6	3.0
10	1.9	2.0
11	3.1	3.1
12	2.8	2.4
13	3.1	3.1
14	3.5	2.4
15	0	0
16	2.8	2.8
17	1.5	1.5
18	2.8	2.8
19	0	4.8
20	2.8	2.8
21	1.5	2.0
22	2.8	2.8
23	3.1	2.9
24	4.9	4.9
25	0.3	0.3
26	0	0
27	1.3	2.3
28	2.8	2.5
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	2.4
35	4.9	4.9
36	2.6	2.6
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	4.6	4.6
46	4.1	4.1
47	2.9	2.9
48	2.6	2.6
49	5.0	5.0
50	2.5	2.5
51	2.8	2.8
52	2.3	2.3
53	2.3	2.3
54	2.6	2.6
55	2.2	2.2
56	0.5	0.5
57	2.3	2.3
58	8.3	8.3
59	4.6	4.6
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	3.1	3.1
67	4.2	4.2
68	4.2	4.2
69	2.3	2.3
70	0	0
71	0.2	0.2
72	0.2	0.2
73	0.3	0.3
74	2.3	2.3
75	2.5	2.5
76	0	0
77	2.6	2.6
78	0.3	0.3
79	0.3	0.3
80	0.2	0.2
81	2.3	2.3
82	0	0.7
83	0	0
84	2.3	2.3
85	2.3	2.3
86	2.3	2.3
87	1.6	1.8
88	2.3	2.3
89	2.3	2.3
90	2.3	2.3
91	0.1	0
92	0	0
93	0	2.4
94	0	1.8
95	0	0
96	2.6	2.3
97	2.6	2.3
98	2.6	2.3
99	4.9	4.9
100	4.9	4.9
101	0	0
102	0	0
103	0	0
104	2.3	2.3
105	2.3	2.3
106	2.4	2.4
107	4.9	4.9
108	0	0
109	0	0
110	0	0
111	0	1.8
112	2.5	2.5
113	0.7	0.7
114	0	0
115	2.5	2.5
116	2.5	2.5
117	2.5	2.5
118	0	0
119	2.5	2.5
120	4.5	4.5
IC201		
1	0	0
2	2.5	2.5
3	4.9	4.9
4	0	0
5	4.4	4.4
6	2.4	2.4
7	2.4	2.4
8	4.9	4.9
9	3.3	3.3
10	4.2	4.2
11	1.6	1.6
12	4.9	4.9
13	2.7	2.7
14	2.7	2.7
15	0	0
16	1.2	1.2
17	0	0
18	4.9	4.9
19	2.3	2.3
20	0	0
21	2.3	2.3
22	0.5	0.5
23	4.9	4.9
24	2.9	2.9
25	2.5	2.5
26	4.9	4.9
27	4.6	4.6
28	3.5	3.5
29	4.9	4.9
30	4.9	4.9
IC3001		
1	2.5	2.5
2	0	0
3	2.5	2.5
4	2.4	2.4
5	0	1.5
6	2.4	2.6
7	2.4	2.4
8	2.4	2.4
9	4.8	4.8
10	4.8	4.8
11	0	0
12	0	0.2
13	0	2.0
14	4.4	4.6
15	4.9	4.6
16	0.6	0.6
17	4.0	4.0
18	0	0
19	3.1	3.1
20	4.5	4.5
21	3.8	3.8
22	0.2	1.9
23	0	0
24	4.8	4.8
25	0	0
26	4.9	4.9
27	4.9	4.9
28	4.9	4.9
29	4.9	4.9
30	0	0
31	4.9	4.9
32	4.9	4.9
33	0	0
34	4.9	4.9
35	0	0
36	0	0
37	0	0
38	0	4.9
39	4.0	4.0
40	0	0
41	4.8	4.8
42	4.8	4.8
43	0	0
44	0	0
45	4.9	4.9
46	0	0
47	2.8	2.8
48	0	0
49	4.1	4.1
50	4.6	4.6
51	1.3	1.3
52	1.3	1.3
53	4.2	4.2
54	5.0	5.0
55	5.0	5.0
56	4.9	4.9
57	0	0
58	4.9	4.9
59	0	0
60	4.9	4.9
61	4.9	4.9
62	0	0
63	0	0
64	-	-
65	-	-
66	-	-
67	-	-
68	0	0
69	-	-
70	3.3	3.3
71	4.9	4.9
72	4.9	4.9
73	4.9	4.9
74	0	0
75	4.4	4.4
76	4.4	4.4
77	4.9	0
78	0	0
79	0	0
80	0	0
81	4.9	4.9
82	4.9	4.9
83	2.4	2.4
84	0	0
85	0	0
86	4.9	4.9
87	4.9	0
88	4.9	4.9
89	0	0
90	0	0
91	0	0
92	4.9	4.9
93	0	0
94	0	0
95	4.9	4.9
96	0	0
97	4.9	0
98	0.8	0.8
99	0	2.2
100	2.4	2.4
101	2.4	2.4
102	1.4	1.4
103	4.9	4.9
104	4.9	0
105	4.9	0
106	0	0
107	0	0
108	1.2	1.2
109	4.9	4.9
110	0	0
111	0	0
112	2.4	2.4
IC3002		
1	4.9	4.9
2	4.9	4.9
3	0	0
4	0	0
IC3003		
1	0	0
2	0	0
3	0	0
4	0	0
5	4.5	4.5
6	4.5	4.5
7	0	0
8	4.9	4.9
IC3004		
1	11.4	11.4
2	0.2	0.2
3	0	0
4	0.2	0.2
5	11.4	11.4
6	11.4	11.4
7	0	0
8	0	0
9	0	0
IC5301		
1	2.4	2.4
2	0	0
3	4.4	4.4
IC7001		
1	4.9	4.9
2	0	0
3	0	0
4	0	0
5	1.6	1.6
6	0	0
7	0	0
8	4.2	4.2
9	3.9	3.9
10	0	0
11	0	0
12	0	0
13	0	0
14	4.9	4.9
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-26.0	-26.0
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	4.9	4.9
39	4.9	4.9
40	4.9	4.9
41	4.9	4.9
42	0	0
43	0	0
44	2.7	2.7
IC7003		
1	4.9	4.9
2	4.9	4.9
3	0	0
CN1		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.3	2.3
6	2.3	2.3
7	2.3	2.3
8	2.3	2.3
9	2.6	2.3
10	2.6	2.3
11	2.6	2.3
12	0	0
13	0	0
CN501		
1	2.4	2.4
2	0	0
3	2.3	2.3
4	4.9	4.9
5	2.1	2.1
6	0.3	4.5
7	3.3	3.3
8	0	0
9	2.8	2.8
10	0	0
11	4.6	4.6
12	4.1	4.1
13	0	0
14	0.8	0.8
15	2.5	2.5
16	0	0
17	2.5	2.5
CN901		
1	4.6	4.6
2	4.1	4.1
3	0.3	0.3
4	0	0
5	2.5	2.3
6	0	0
7	3.5	2.4
8	0	0
9	2.8	2.8
10	4.9	4.9
CN902		
1	2.8	2.8
2	0	0
3	0	0
4	2.4	2.1
5	1.3	2.3
6	4.9	4.9
7	0	0
8	0	0
9	2.3	2.3
10	0	0
11	0	0
12	2.4	2.1
CN903		
1	4.7	4.7
2	0	0
3	0	0
4	0	0
5	0.8	0.8
6	10.1	10.1
7	10.1	10.1
8	4.5	4.5
9	4.5	4.5
10	0	0
CN904		
1	0	0
2	4.9	4.9
3	0	0
4	0.2	0.2
5	0	0.2
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN905		
1	2.4	2.4
2	0	0
3	2.8	2.8
4	0	0
5	3.3	3.3
6	0	0
7	2.1	2.1
8	0	0
9	2.3	2.3
CN2001		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	2.3	2.3
7	2.2	2.2
CN2002		
1	0	0
2	0	0
CN3001		
1	11.4	11.4
2	0	0
3	1.3	1.3
4	0	0
5	1.3	1.3
CN3002		
1	0	0
2	0	0.2
CN3003		
1	0	0
2	2.5	2.5
3	2.4	2.4
4	4.8	4.8
5	0	0
6	4.9	4.9
7	-	-
8	9.2	9.2
CN3004		
1	4.9	4.9
2	4.9	4.9
3	0	0
4	0	0
CN3901		
1	0	0
2	4.9	4.9
3	0	0
4	4.9	4.9
5	3.0	3.0
6	0	0
CN6701		
1	0	0
2	4.6	4.6
3	4.5	4.5
4	4.8	4.8
5	0.3	0.3
6	0.3	0.3
7	5.0	5.0
8	0	0
9	0	0
10	0.1	0
CN7001		
1	4.9	4.9
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	1.6	1.6
9	3.2	3.2

<3D/TBC (2M)>

MODE PIN NO.	REC	PLAY
IC1401	-	-
CN1401		
1	2.4	2.4
2	0	0
3	2.3	2.3
4	4.9	4.9
5	2.1	2.1
6	0.3	4.5
7	3.3	3.3
8	0	0
9	2.8	2.8
10	0	0
11	4.6	4.6
12	4.1	4.1
13	0	0
14	0.8	0.8
15	2.5	2.5
16	0	0
17	2.5	2.5

<TERMINAL>

MODE PIN NO.	REC	PLAY
IC501	-	-
IC502		
1	2.0	2.0
2	0.1	4.9
3	3.3	3.3
4	3.4	3.4
5	4.9	4.9
6	2.2	2.2
7	2.0	2.0
8	4.9	0
9	1.4	0
10	2.9	2.9
11	2.9	2.9
12	2.9	2.9
13	0	0
14	2.8	2.8
15	2.8	2.8
16	1.9	1.9
17	2.0	2.0
18	1.9	1.9
IC901	-	-
CN911		
1	4.6	4.6
2	4.1	4.1
3	0.3	0.3
4	0	0
5	2.5	2.3
6	0	0
7	3.5	2.4
8	0	0
9	2.8	2.8
10	4.9	4.9
CN912		
1	2.8	2.8
2	0	0
3	0	0
4	2.4	2.1
5	1.3	2.3
6	4.9	4.9
7	0	0
8	0	0
9	2.3	2.3
10	0	0
11	0	0
12	2.4	2.1
CN913		
1	4.7	4.7
2	0	0
3	0	0
4	0	0
5	0.8	0.8
6	10.1	10.1
7	10.1	10.1
8	4.5	4.5
9	4.5	4.5
10	0	0
CN914		
1	0	0
2	4.9	4.9
3	0	0
4	0.2	0.2
5	0	0.2
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN915		
1	2.4	2.4
2	0	0
3	2.8	2.8
4	0	0
5	3.3	3.3
6	0	0
7	2.1	2.1
8	0	0
9	2.3	2.3
CN916		
1	0	0
2	0	0
3	0	0
4	0	0

<DEMOD>

MODE PIN NO.	REC	PLAY
IC6701		
1	4.3	4.3
2	1.5	1.5
3	1.5	0
4	0	0
5	2.0	2.0
6	1.9	1.9
7	0.2	0.2
8	0	0
9	0	0
10	3.6	3.6
11	3.6	3.6
12	4.5	4.5
13	4.5	4.5
14	2.2	2.2
15	2.1	2.2
16	0	0
17	0.3	0.3
18	0.3	0.3
19	4.5	4.5
20	0	0
21	0.3	0.3
22	4.7	4.7
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	2.4	2.4
31	2.4	2.4
32	0	0
33	4.7	4.7
34	3.8	3.8
35	0	0
36	2.4	2.4
37	0	0
38	0	0
39	0	0
40	0	0
41	0	0
42	2.5	2.5
43	2.4	2.4
44	0	0
CN6701		
1	0	0
2	4.6	4.6
3	4.5	4.5
4	4.8	4.8
5	0.3	0.3
6	0.3	0.3
7	5.0	5.0
8	0	0
9	0	0
10	0.1	0

<MINI FRONT>

MODE PIN NO.	REC	PLAY
CN7002		
1	3.2	3.2
2	1.6	1.6
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	4.9	4.9
CN7005		
1	4.9	4.9
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	3.2	3.2

<S-JACK>

MODE PIN NO.	REC	PLAY
CN7108		
1	0	0
2	0	0
3	0	0
4	0	0

<ADV.JOG>

MODE PIN NO.	REC	PLAY
CN7003		
1	3.2	3.2
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	4.9	4.9

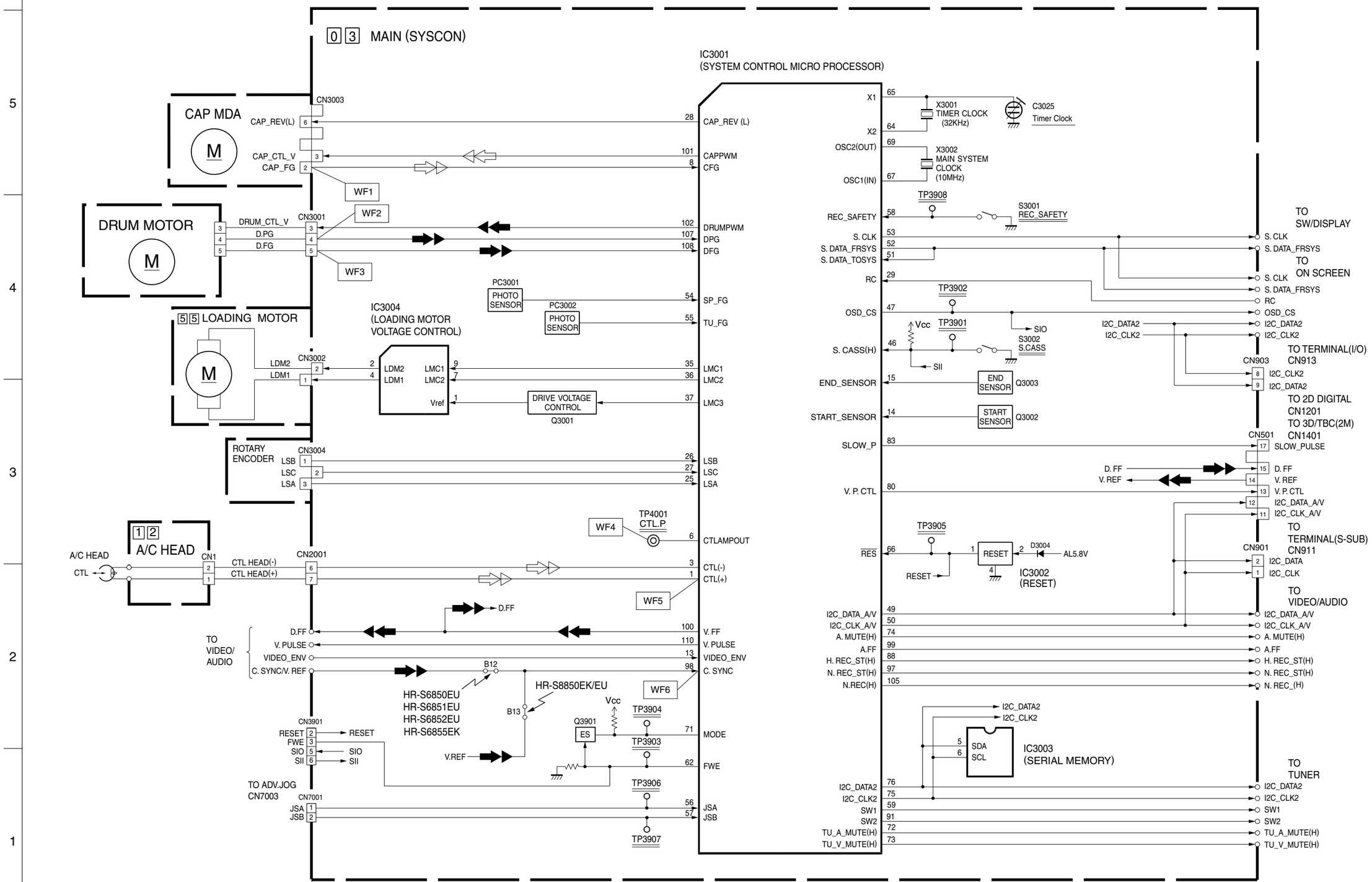
4.20 CPU PIN FUNCTION

<SYSCON IC3001>

PIN NO.	LABEL	IN/OUT	FUNCTION
1	CTL(+)	IN/OUT	CTL(+) SIGNAL
2	SVSS	-	GND
3	CTL(-)	IN/OUT	CTL(-) SIGNAL
4	CTLBIAS	-	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	IN	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 (L CH) FOR THE FDP AUDIO INDICATOR
17	PROTECT	IN	DETECTION SIGNAL FOR SW POWER SUPPLY
18	SCR_ID	IN	SCRAMBLE CONTROL INPUT (SCRAMBLE:H)
19	IND(R)	IN	AUDIO INPUT (R CH) FOR THE FDP AUDIO INDICATOR
20	AFC	IN	TUNING CHECK
21	RF AGC	IN	CHANGES IN ATS+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 HiFi MODE:L
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	LOCK(L)	IN	TUNING PLL LOCK DETECT:L
31	P50_IN	IN	CONTROL SIGNAL FOR TV LINK
32	R.PAUSE	IN	REMOTE PAUSE CONTROL
33	P50_OUT	OUT	CONTROL SIGNAL FOR TV LINK
34	P.SAVE(L)	OUT	POWER SAVE:L
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	P.CTL(H)	OUT	CONTROL SIGNAL FOR SWITCHING POWER SUPPLY
42	SP(H)	-	NC
43	VSS	-	GND
44	RMO	OUT	REMOTE CONTROL OUTPUT FOR SATELLITE RECEIVER
45	VCC	-	SYSTEM POWER
46	S.CASS(H)	IN	DETECTION SIGNAL FOR SVHS CASSETTE (SVHS:H)
47	OSD_CS	OUT	CHIP SELECT FOR THE ON-SCREEN IC
48	ET_PB(H)	-	NC
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	JSA	IN	INPUT FOR THE JOG SHUTTLE

PIN NO.	LABEL	IN/OUT	FUNCTION
57	JSB	IN	INPUT FOR THE JOG SHUTTLE
58	REC_SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
59	SW1	OUT	TUNER SYSTEM MODE:H
60	TU_CLK	OUT	CLOCK FOR DATA TRANSFER TO THE TUNER UNIT
61	TU_DATA	OUT	TUNING DATA
62	FWE	OUT	FLASH WRITE ENABLE
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/VCL	-	SYSTEM POWER
71	MODE	IN	
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	FLY_REC(H)	OUT	FLYING ERASE REC:H
78	P.ON_PULSE/3.58 NTSC(L)	OUT	P.ON_PULSE(H)
79	V.UP(H)/V_DOWN(L)/EE(L)	OUT	HIGH SPEED FF/REW TURBO SEARCH:H
80	V.P.CTL	-	NC
81	VHS(H)	OUT	VSH MODE(H)
82	VCC	-	SYSTEM POWER
83	SLOW_P	OUT	MEMORY TIMING CONTROL IN THE SLOW MODE
84	VSS	-	GND
85	SP_SHORT(H)	-	NC
86	LP_SHORT(H)	-	NC
87	FLY_ON(H)	OUT	FLYING ERASE ON:H
88	H.REC_ST(H)	OUT	HIFI AUDIO SOUND RECORDING START
89	TRICK(H)	OUT	SPECIAL PLAYBACK :H
90	HEAD_SEL	OUT	HEAD SELECT(LP HEAD:H, SP HEAD:L)
91	SW2	OUT	TUNER SYSTEM MODE:L
92	SYNC_DET(H)	IN	DETECTION OF VIDEO SYNC SIGNAL (DETECTED:H)
93	MESECAM(H)	OUT	MESECAM:H
94	SECAM(H)	-	NC
95	PAL_PB(H)	OUT	PAL FM (PB ON:H)
96	SEP_PB(H)	OUT	PAL EP MODE(H)
97	N.REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START
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	P.MUTE(L)	OUT	PICTURE MUTE CONTROL(MUTE:L)
104	FULL_E_ON(H)	-	NC
105	N.REC(H)	OUT	NORMAL AUDIO REC MODE CONTROL SIGNAL (REC:H)
106	V_DOWN(L)/HI_FF/REW(L)	OUT	NC/HIGH SPEED FF/REW:L
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

4.21 SYSTEM BLOCK DIAGRAM

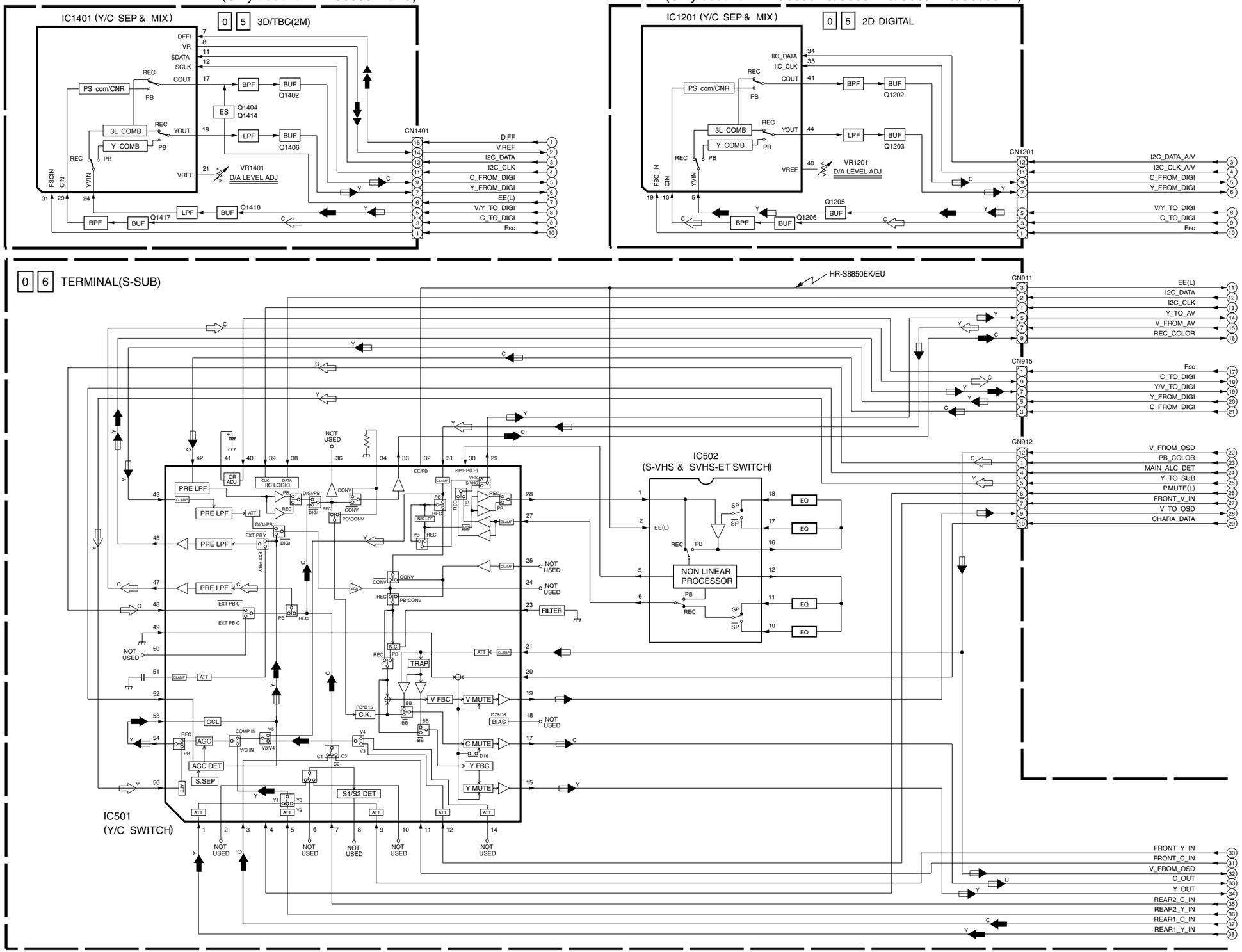


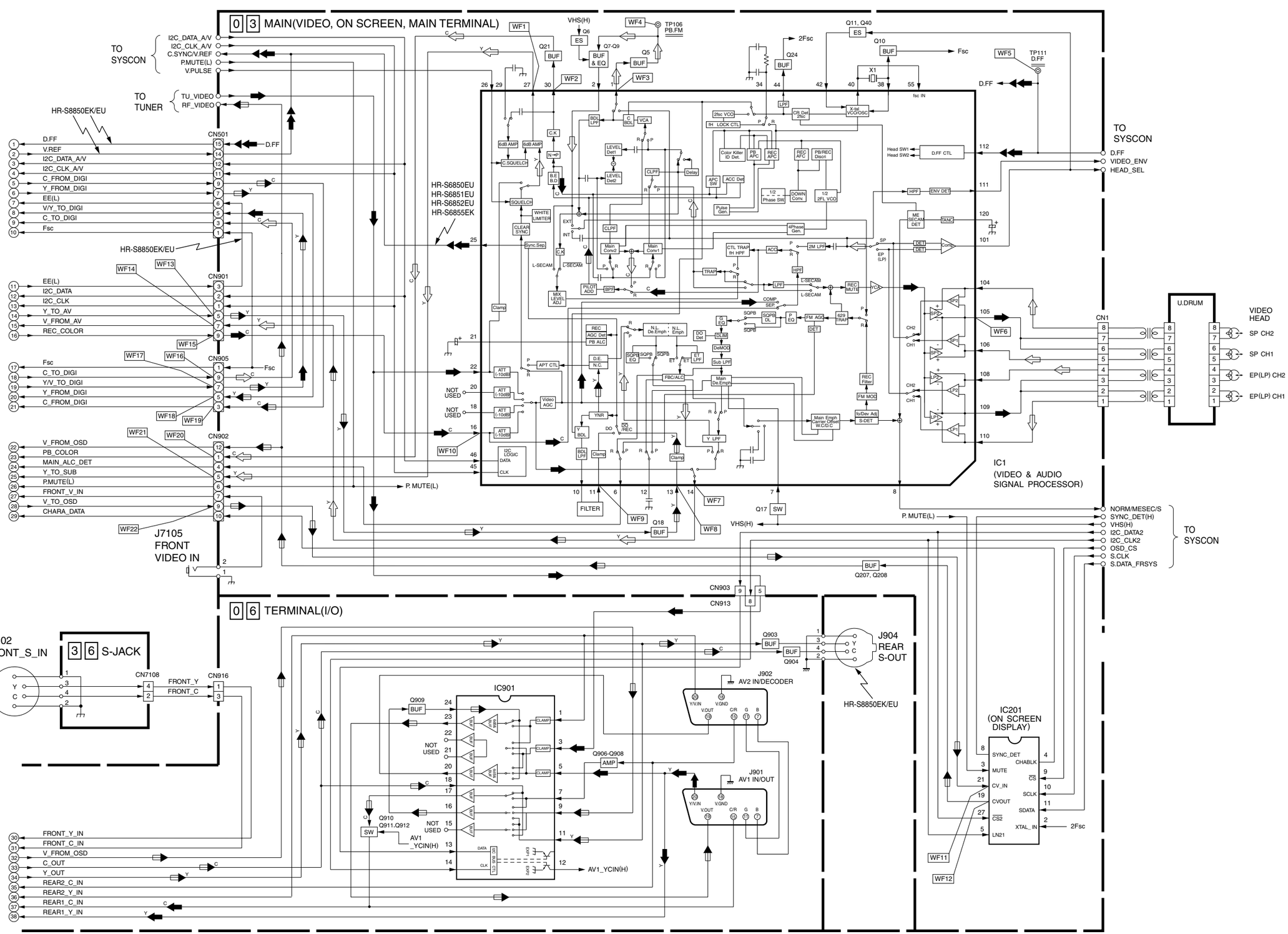
Note : For the waveforms in this block diagram, refer to page 4-34.

4.22 VIDEO BLOCK DIAGRAM

(Only used for HR-S8850EK/EU)

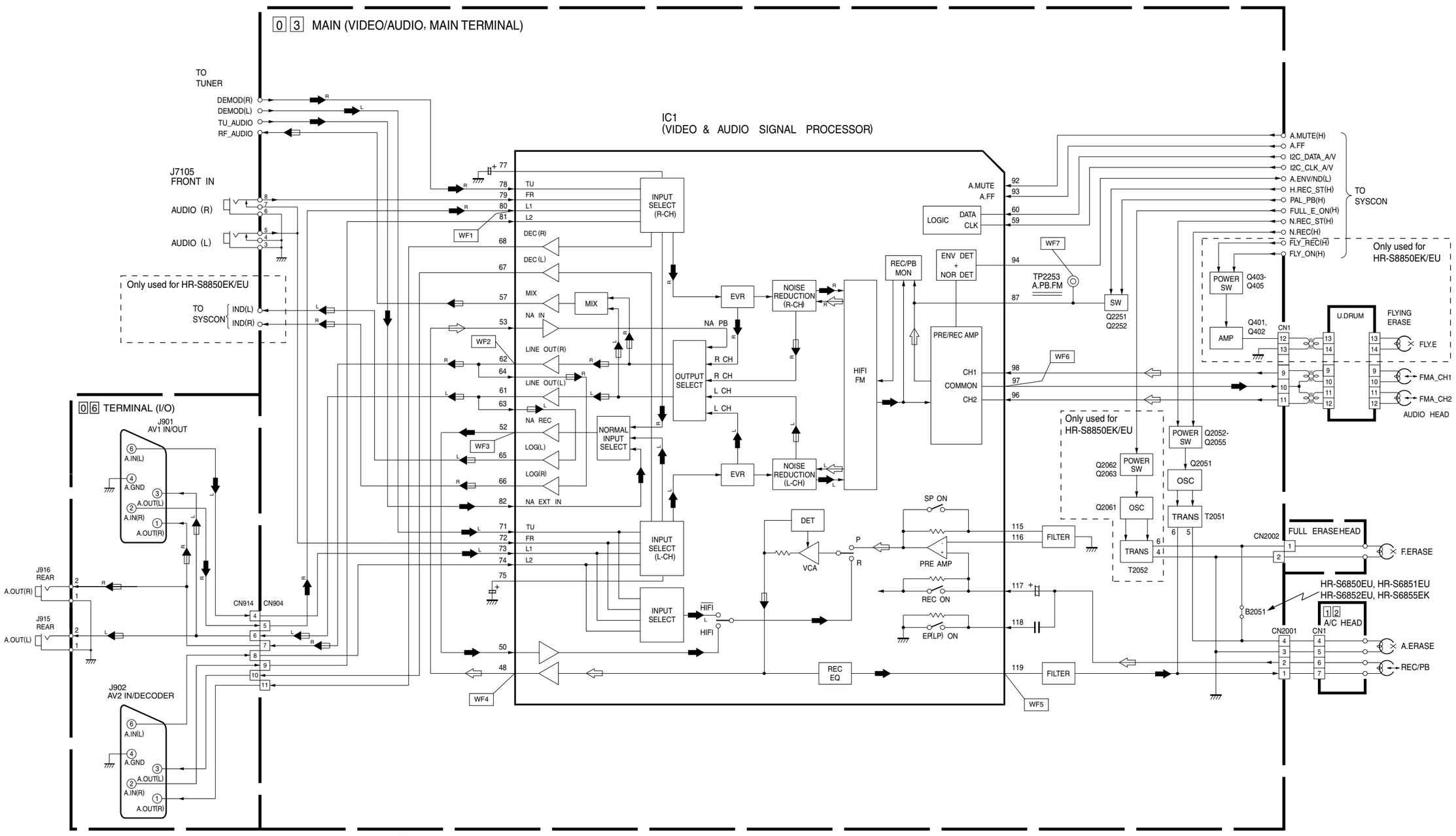
(Only used for HR-S6850EU/S6851EU/S6852EU/S6855EK)





Note : For the waveforms in this block diagram, refer to page 4-34.

4.23 AUDIO BLOCK DIIAGRAM



Note : For the waveforms in this block diagram, refer to page 4-35.