


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

AUX or AUX(L) : Active at low

3. Interpreting Connector indications



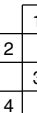
Removable connector



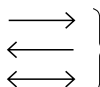
Wire soldered directly on board



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

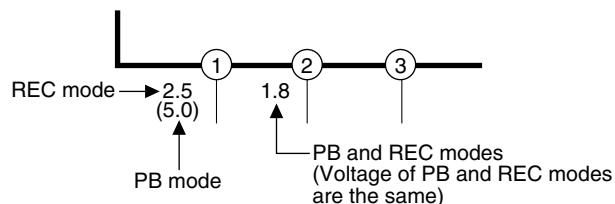
PB : REC then playback it

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

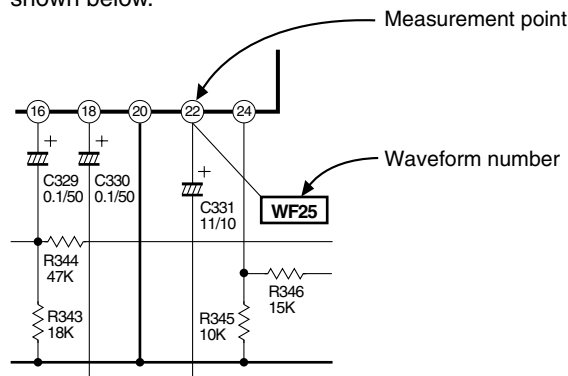
PB : REC then playback it

3) Movie Camera circuits

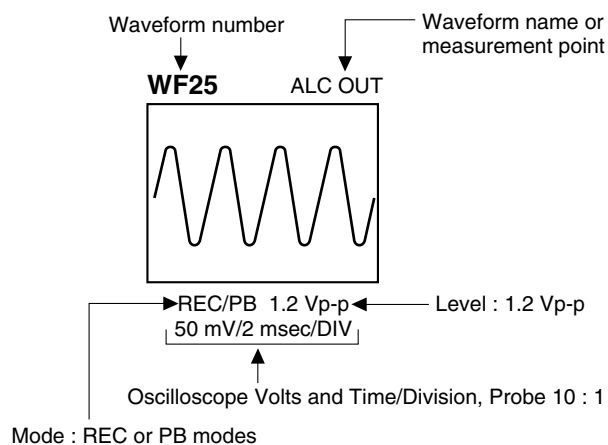
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode

4) Indication on schematic diagram

Waveform indications on the schematic diagram are as shown below.

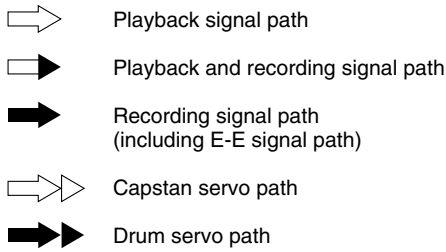


5) Waveform indications

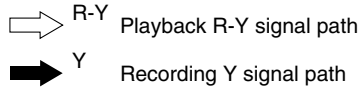


6. Signal path Symbols

The arrows indicate the signal path as follows.

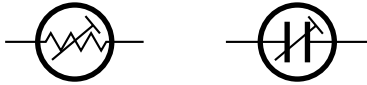


(Example)



7. Indication of the parts for adjustments

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



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

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



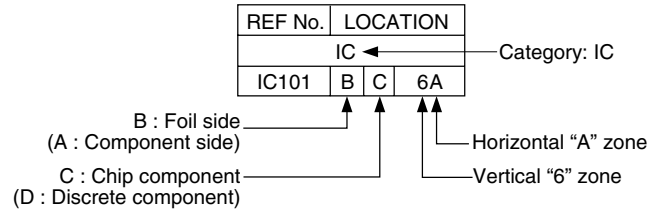
CIRCUIT BOARD NOTES

1. Foil and Component sides

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

2. Parts location guides

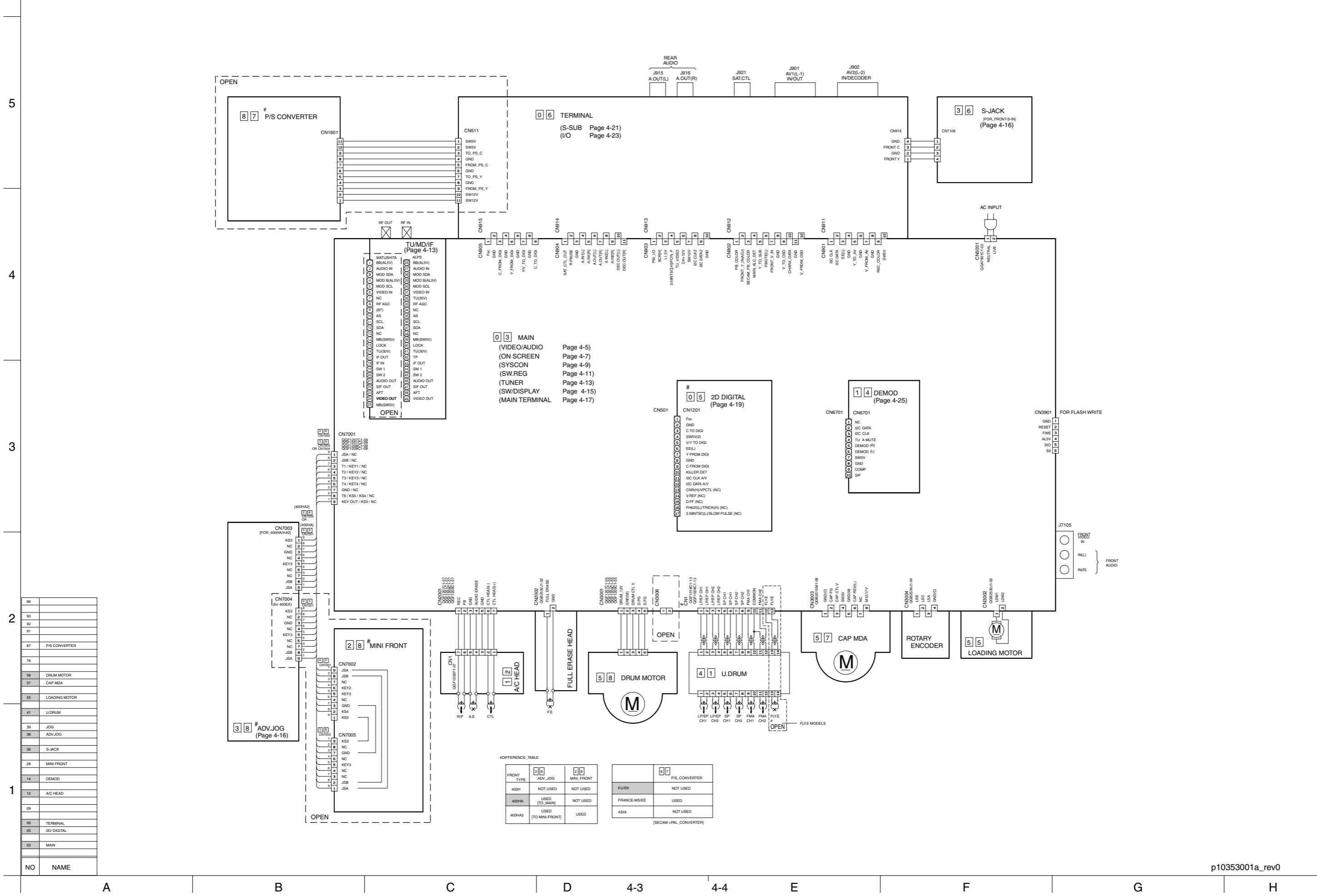
Parts location are indicated by guide scale on the circuit board.



Note:

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

4.1 BOARD INTERCONNECTIONS



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	AC HEAD
09	
06	TERMINAL
05	2D DIGITAL
03	MAIN
NO	NAME

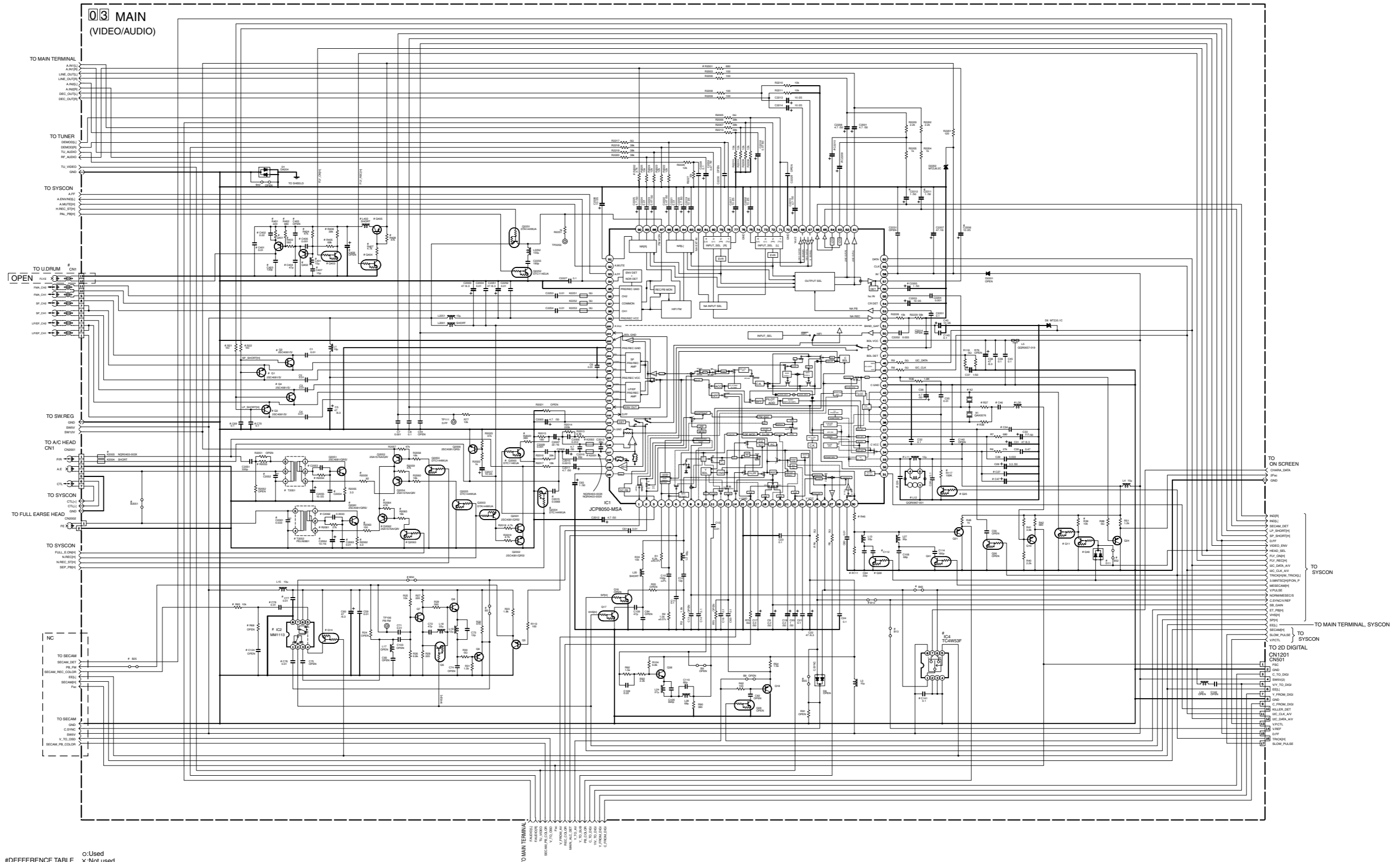
#DIFFERENCE TABLE

FRONT TYPE	2 8 ADV_JOG	2 8 MINI_FRONT	4 7 P/S_CONVERTER
400H	NOT USED	NOT USED	EUEK NOT USED
400HA	USED [TO MAIN]	NOT USED	FRANCE-MS/EE USED
400HA2	USED [TO MINI-FRONT]	USED	ASIA NOT USED

[SECAM-PAL_CONVERTER]

4.2 MAIN (VIDEO/AUDIO) SCHEMATIC DIAGRAM

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



#DIFFERENCE TABLE ○:Used
×:Not used

V14 LINEUP	FLYERASE		H-SHORT		Fsc-OUT		REC APC DET		PAL EP TRICK		ACC DET		3D		PB. C. LEVEL/TRAP		for MS		PAL		C SYNC		EPMODE		RF-OUT		T2051		B3051		R2053		R2054		R2056		C2052		C2053		C2054		C2061-C2063		LEVEL-IND		L11		L12		C25		R2001		R2002		R2003	
	ON1	R401-R402	Q41-Q42	R37	R38	C46	L30	C27-0.022	R39	B52	D11	C34	B13	X2	R4	R46	R111	C112	R22	R44	B50	B50	R3	B12	R2050	C2110	R2004	R2005	R2051	B3051	R2053	R2054	R2056	C2052	C2053	C2054	C2061-C2063	C2209	C2210	C2211	C2212	L11	L12	C25	R2001	R2002	R2003											
SD8800B1 25A2812K	1-11	X	O	X	1k	100p	SHORT	C27-0.022	O	O	X	0.1	X	X	O	560	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O									
SD8800K	1-11	X	O	X	1k	100p	SHORT	C27-0.022	X	X	X	0.22	O	0.01uF	X	470	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O								
SD7850 7851EU	1-13	O	X	X	1k	100p	SHORT	C27-0.022	O	O	X	0.1	X	X	O	560	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O							
SD8800LEK	1-13	O	X	X	1k	100p	SHORT	C27-0.022	X	X	X	0.22	O	0.01uF	X	470	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O							
SD8800MS	1-11	X	O	X	1k	100p	SHORT	C27-0.022	O	O	X	0.1	X	X	O	560	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O								
SD7850 7851MS	1-14	O	X	X	1k	100p	SHORT	C27-0.022	O	O	X	0.1	X	X	O	560	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O								
SD8800MS	1-14	O	X	X	1k	100p	SHORT	C27-0.022	X	X	X	0.22	O	0.01uF	X	470	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O								
SD8800SAM	1-11	X	O	1k	X	15p	100p	C47-2.250	O	X	O	0.1	X	0.04575	O	330	3.3k	O	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O									
SD7850EE	1-11	X	O	1k	X	15p	100p	C47-2.250	O	X	O	0.1	X	0.04575	O	330	3.3k	O	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O								

TITLE REC	B05	IC1	CT41
YES	X	O	
NO	O	X	

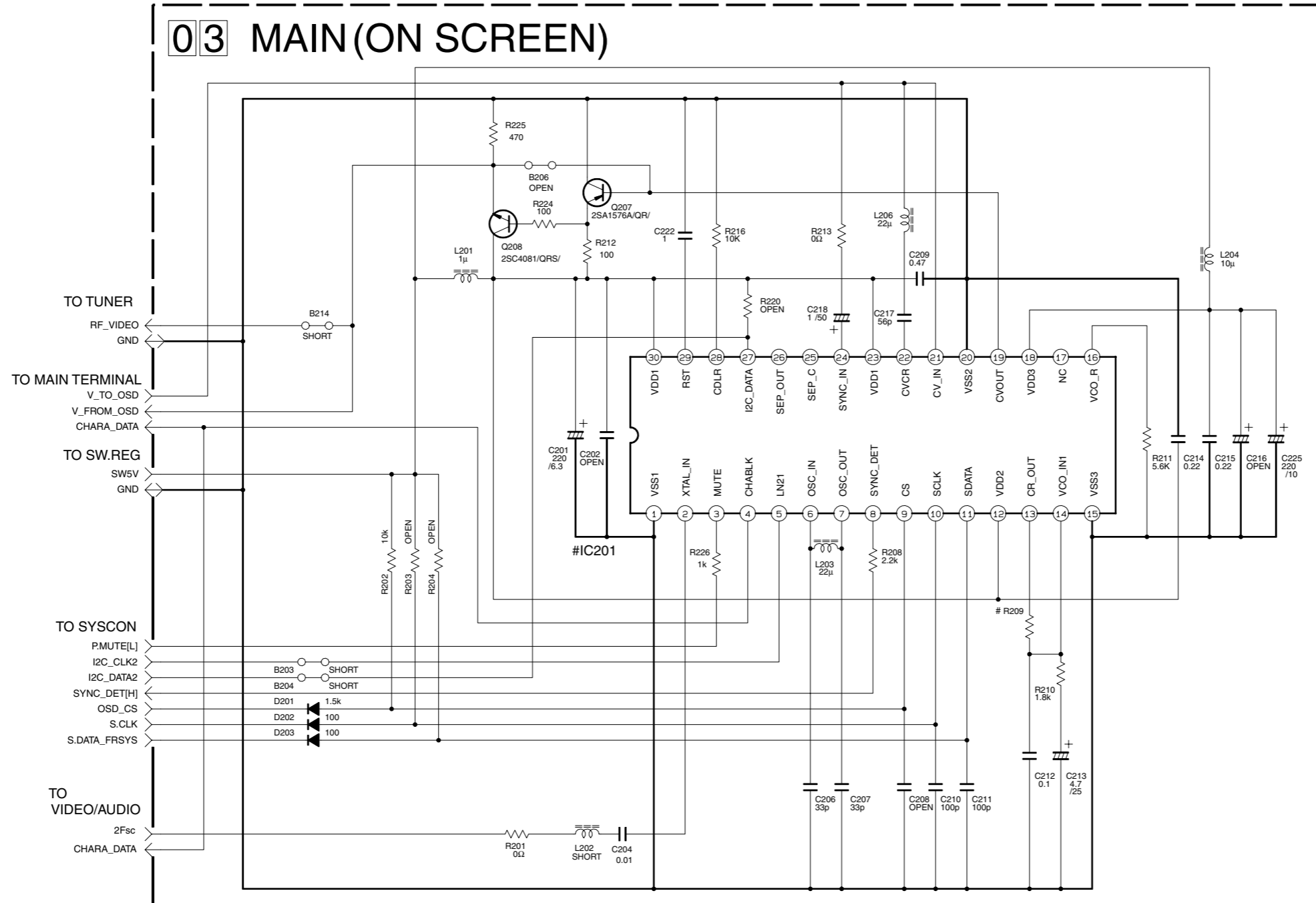
NOTES-UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
 CERAMIC
 MYLAR
 NON POLAR

ALL NPN TYPE TRANSISTORS ARE 2SC4081(QRS) or 2SD1819A(QRS) or 2PC4081(R)
ALL PNP TYPE TRANSISTORS ARE 2SA157A(QRI) or 2SD1216A(QRI) or 2PA157A(R)
ALL NPN TYPE DIGITAL TRANSISTORS ARE DTC144VUA or UNG21E or R91308 or P0T144VU
ALL PNP TYPE DIGITAL TRANSISTORS ARE DTA144VUA or UNG11E or R91309 or P0T144VU

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 μ F.

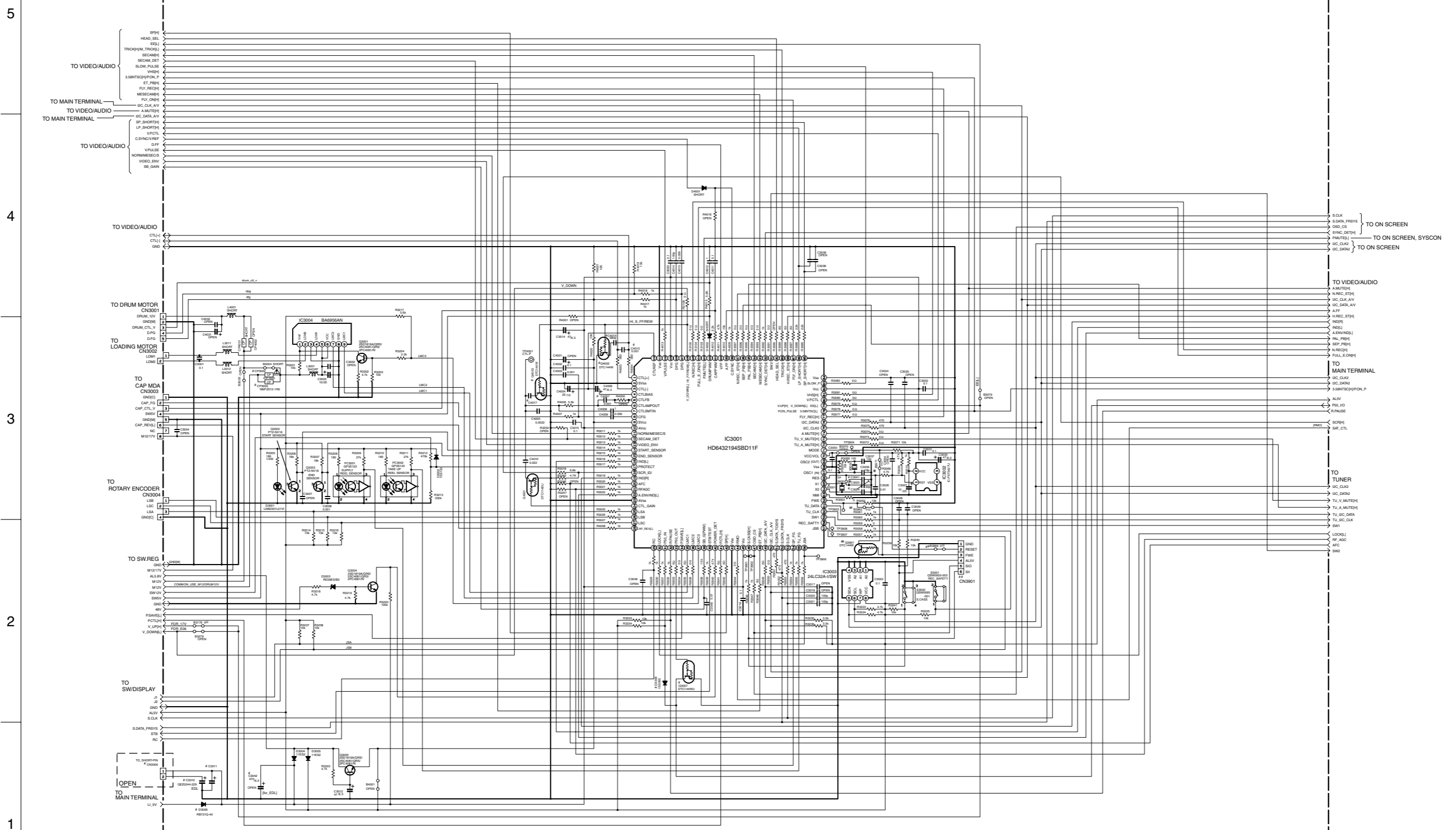
- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

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

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.

03 MAIN(SYSCON)



#DIFFERENCE_TABLE
 O : Used
 X : Not used

BACKUP_TIME	C3010	C3011	C3042	C3043	C3008
10MIN	X	3300V.3	X	X	X
EDMN	O	X	O	X	X
LI.BATT	X	1000 #E.3	X	O	X

FEATURE_TYPE	03000
TV(LINK)P(S)	O

MECHA_TYPE	C4015	C4016	G4052	C4055	C4017	G4053
Y20-2	0.001	X	X	O	X	X
Y20-T	0.001	X	X	X	O	O
Y20-T-PALEP	880p	O	O	O	X	O

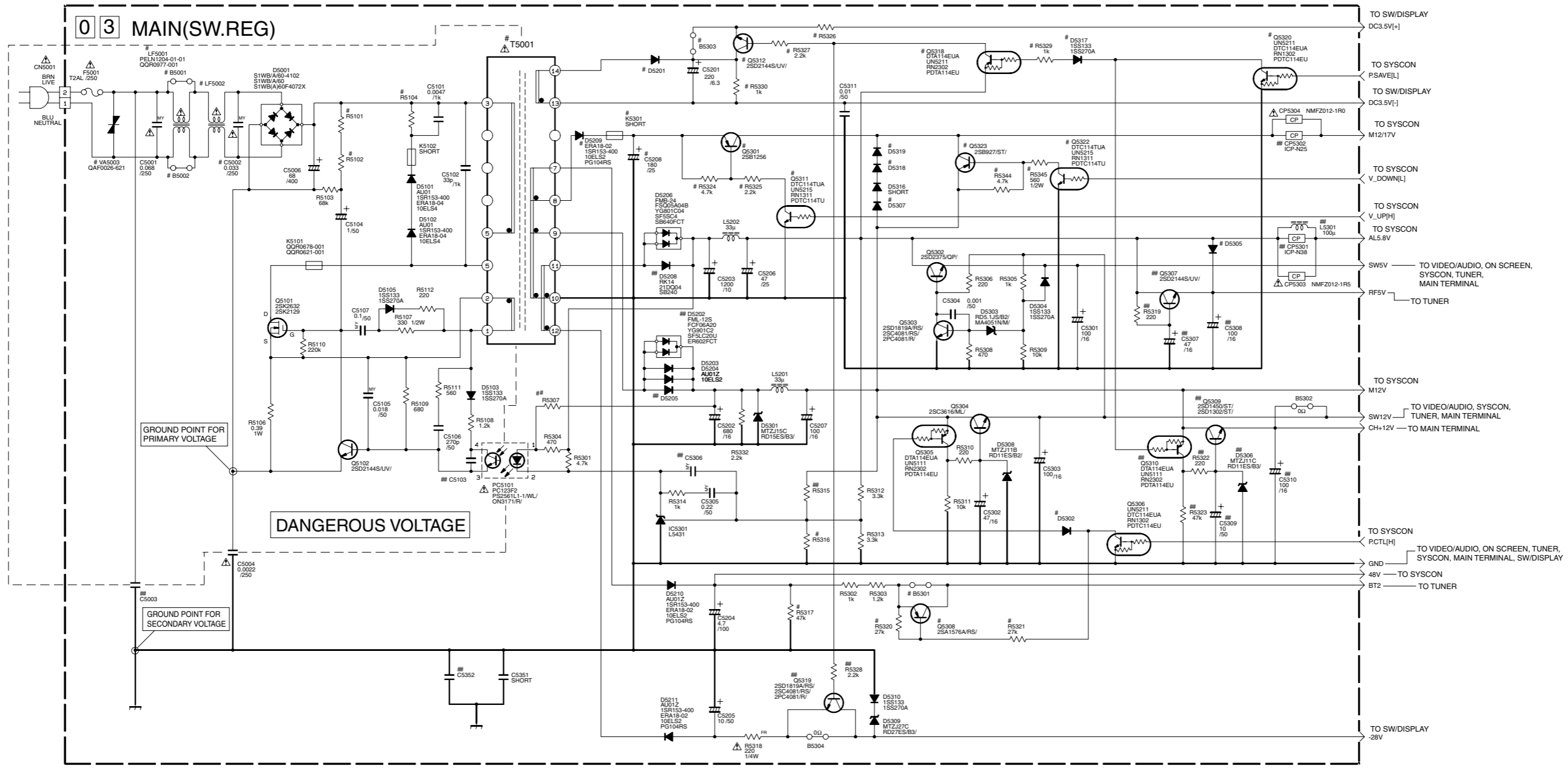
SUB_CLK_ADJ	X3001	C3035	C3041	C3034
ADJ	QA03045	O	X	22p
FIX	QA03044	X	15p	12p

CP_TYPE	Leadert_type	Surface_type
	CP000	CP000
	CP005	NMF2013-1R0

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

4.5 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.



#DIFFERENCE TABLE 1

	Q5301	C5208	R5325	D5307
HIGH SPEED FF/REW	Q5311 R5301 D5209	R5304		
-YES-	YES			11ES2 ERA15-02 1A3G
-NO-	NO			SHORT

#DIFFERENCE TABLE 2

	R5101	R5102	R5104	B5301	D5302	Q5308	R5320	R5321	R5317	B5303	Q5312	D5317	R5330	D5305	R5316
POWER SAVE															
-YES-	330k	150k	2W	NO	1S133 1SS270A	YES	NO	NO	YES	NO	YES	R5327 R5329	AK94 11EG504 1S4	12k	
-NO-	220k	68k	2W	YES	SHORT	NO	YES	NO	NO	NO	NO	NO	AK94 11EG504 1S4	10k	

#DIFFERENCE TABLE 3

	B5001	C5002	LF5001	LF5002	T5001
CE	NO	YES	YES	YES	YES
OTHER	YES	NO	NO	NO	NO

#DIFFERENCE TABLE 4

	EP	Q5323	R5344	D5318
-YES-	YES	YES	YES	YES
-NO-	NO	NO	NO	SHORT

#DIFFERENCE TABLE 5

	D5201	R5326
LEVEL IND.		
-YES-	AK04 11EG504 1S4	2.2
-NO-	AU01Z 10ELS2	SHORT

#DIFFERENCE TABLE 6

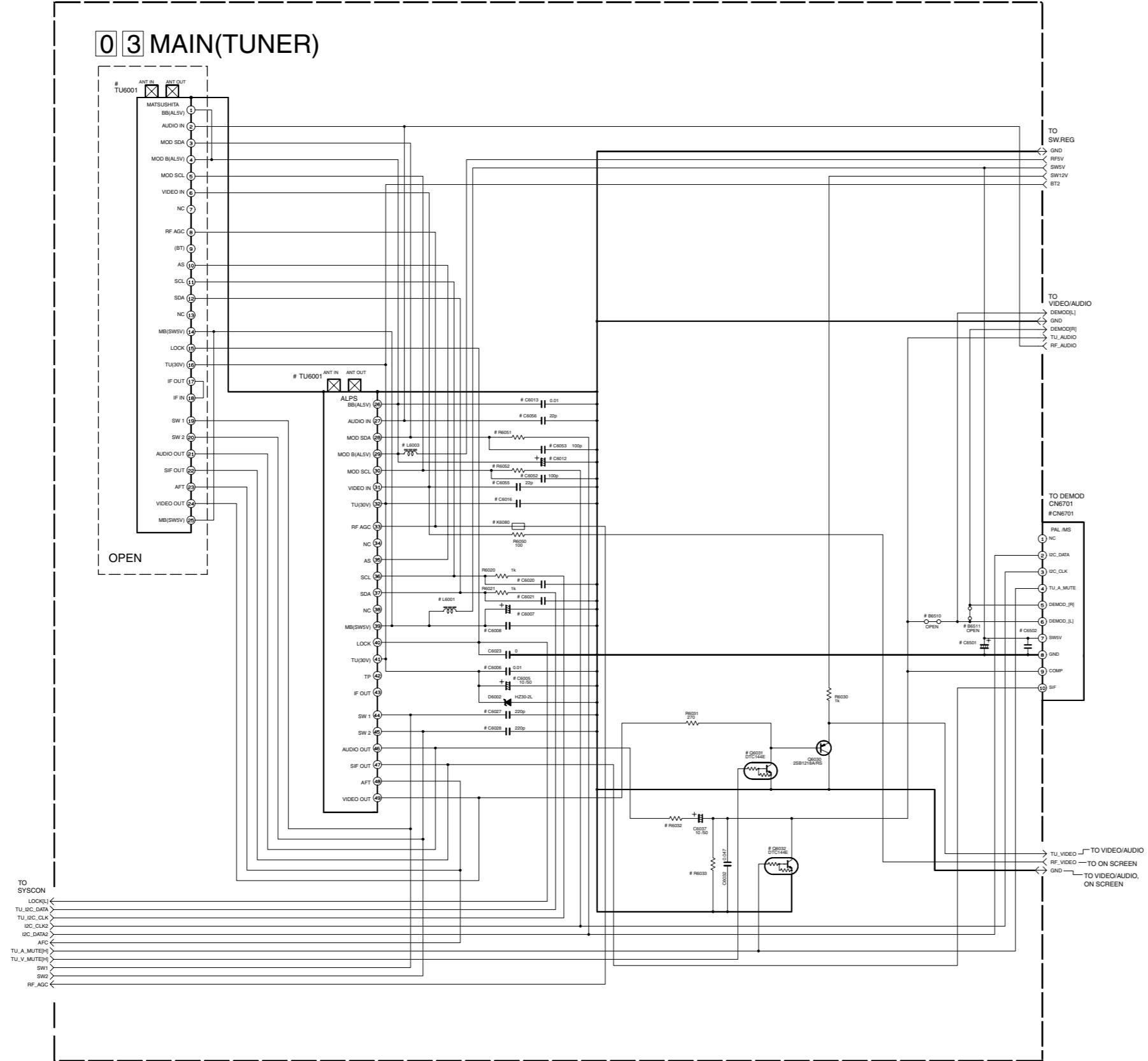
	VA5003
SURGE	YES
PHILIPS 110-240V	YES
OTHER	NO

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

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.



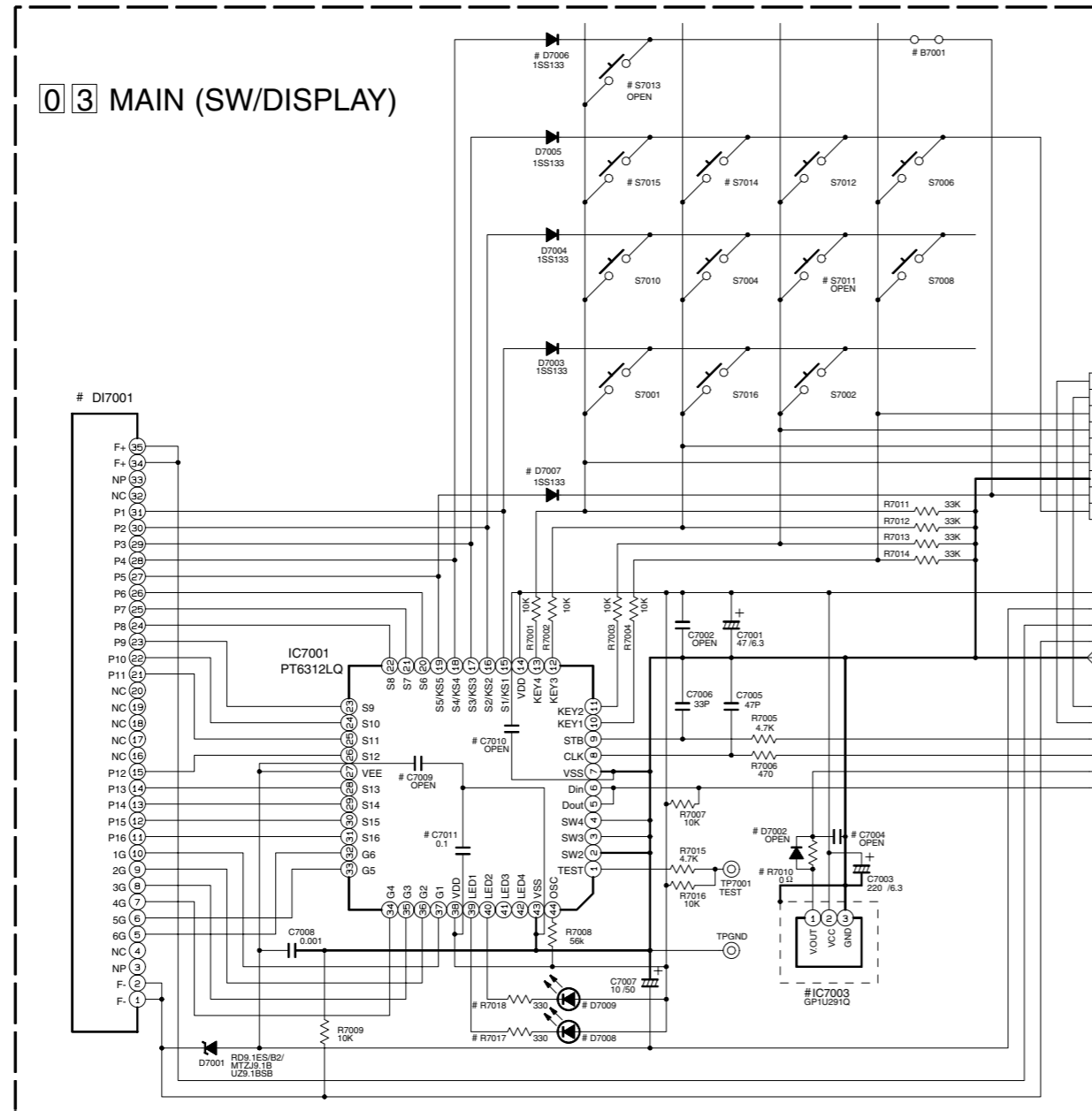
DIFFERENCE TABLE O : Used x : Not used

		EU/EX	FRANCE	ASIA	ASIA	HR/F31EU	
		ALPS	LG	3SYSTEM	4SYSTEM	ALPS	
TUNER	TU6001	QALJ0208	QALJ0210	QALJ0212	QALJ0206	QALJ0208	
ATS-	K6080	1kΩ	1kΩ	X	X	10kΩ	
SWSV	L6001	10μ	10μ	10μ	10μ	10μ	
	C6007	220kΩ	220kΩ	220kΩ	220kΩ	220kΩ	
	C6008	0.01	X	0.01	0.01	0.01	
RFSV	L6003	47μ	47μ	47μ	47μ	10μ	
	C6012	100kΩ	100kΩ	100kΩ	100kΩ	330kΩ	
	C6013	0.01	0.01	0.01	0.01	0.01	
BT2	PC CONV.	C6016	0.01	X	0.01	0.01	2200p
	TUNER	C6005	X	X	X	X	O
RF CONV. IC		C6009	X	X	X	X	X
		R6001	100	X	100	100	470
		R6003	O	X	O	O	X
		R6002	100	X	100	100	470
		C6002	O	X	O	O	O
AUDIO IN		C6006	X	X	X	X	O
		R6000	O	X	O	O	O
VIDEO IN		C6005	X	X	X	X	X
		C6000	X	X	X	X	X
TUNER IC		C6000	X	X	X	X	X
		C6021	X	X	X	X	X
SYSTEM SW		C6027	X	X	X	X	X
		C6008	X	X	X	X	X
AUDIO OUT		R6002	4.7k	10k	10k	O	3.3k
		R6003	1.0k	10k	30k	X	1.0k
		C6002	O	X	O	X	O
VIDEO OUT		C6001	O	O	X	X	O
		C6001	X	X	X	X	X
DEMOD PASS CON		C6002	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.
 [Symbol] ELECTROLYTIC
 [Symbol] CERAMIC
 [Symbol] MYLER
 [Symbol] NON POLAR

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

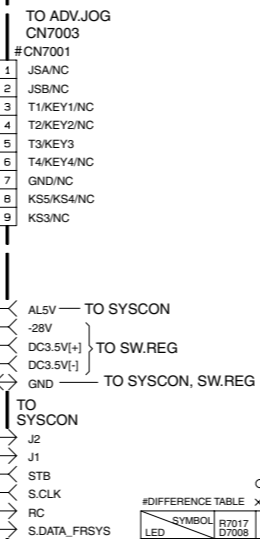
Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.



#DIFFERENCE TABLE		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



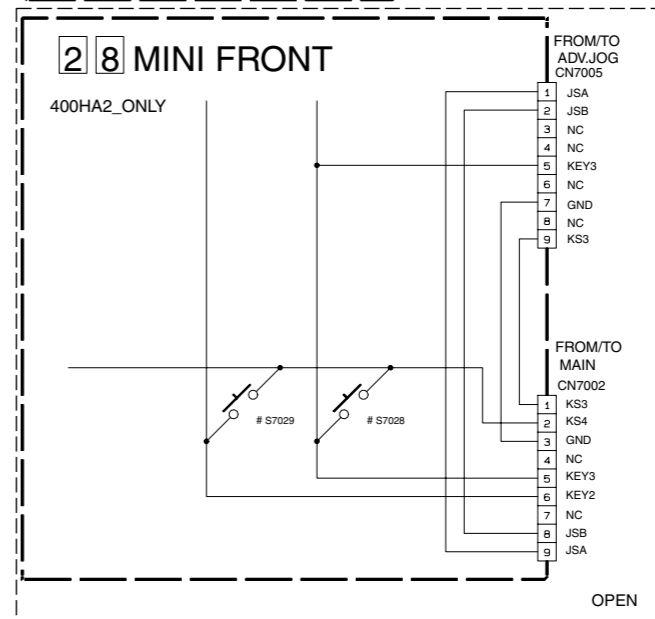
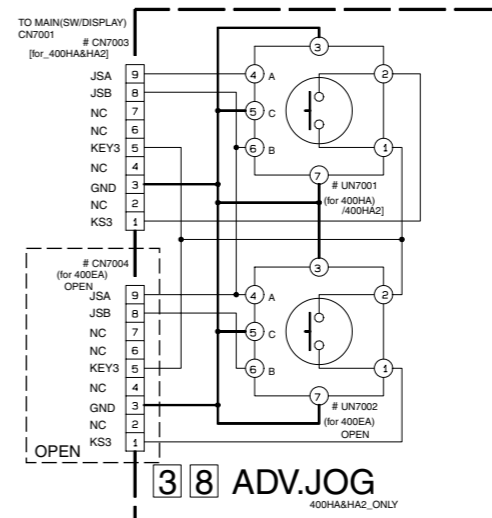
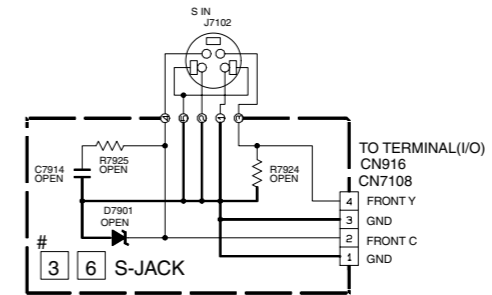
O : Used
X : Not used

SYMBOL	R7017	R7018
LED	○	○
for S7002	○	X
for S7016	X	○

RCU	R7010	C7004	D7002	IC7003
JVC	SHORT	X	GP1U291Q PNA4652MOOYC PIC-28143LJ	
PHILIPS	SHORT	X	GP1U2990 PNA4652MOOYC PIC-28142LJ	

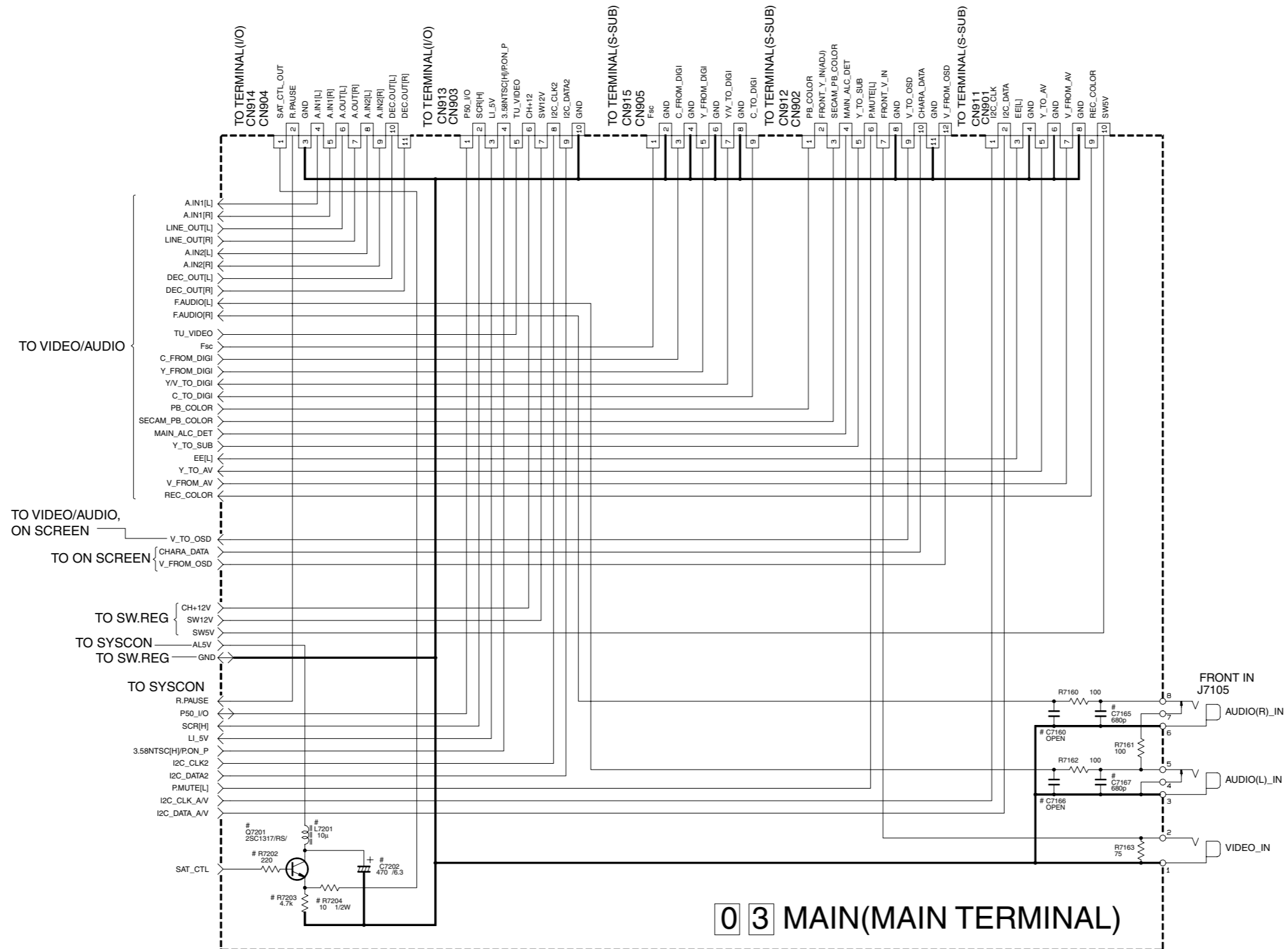
CN7001 PIN No.	FDP					
	AJ+	AJ-	JIS	S/Play	MINI OPE	OTHERS
1	JSA	JSA	JSA	NC	NC	NC
2	JSB	JSB	JSB	NC	NC	NC
3	NC	NC	T1	T1	KEY1	NC
4	KEY2	NC	T2	T2	KEY2	NC
5	KEY3	KEY3	T3	T3	KEY3	NC
6	NC	NC	T4	T4	KEY4	NC
7	GND	GND	GND	GND	NC	NC
8	KS4	NC	KSS	KSS	KS4	NC
9	KS3	KS3	NC	KS3	NC	NC

	D7007	B7001	CN7001	S7014	S7015
AJ+	X	○	○	○	X
AJ-	X	X	○	○	X
JIS	○	X	○	○	X
S/Play	○	X	○	○	X
MINI OPE	X	○	○	○	X
OTHERS	X	X	X	○	○



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.



0 3 MAIN(MAIN TERMINAL)

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

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

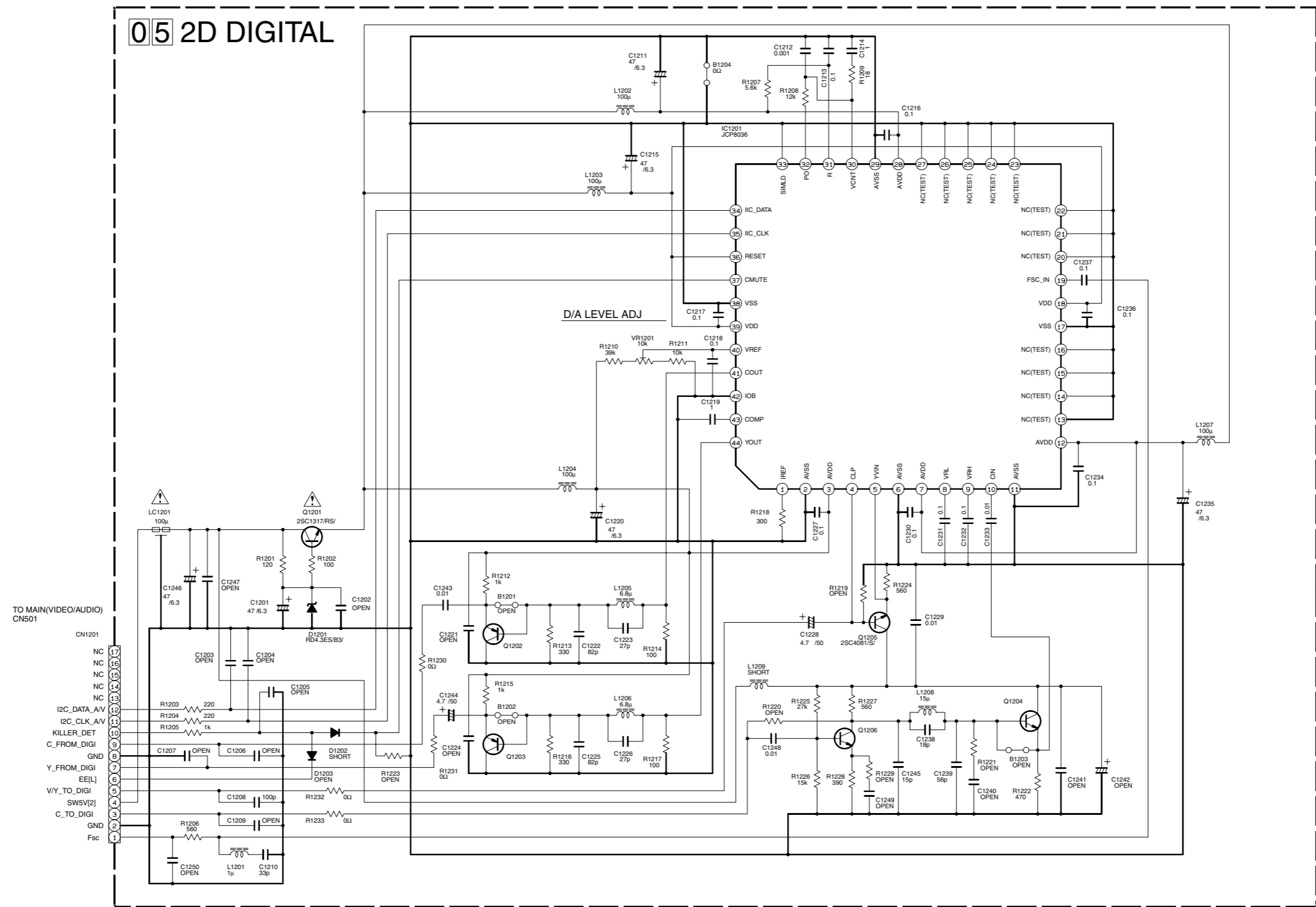
○ : Used
 × : Not used

	C7165 C7167
CE	○
YES	○
NO	×

4.9 2D DIGITAL 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.

05 2D DIGITAL

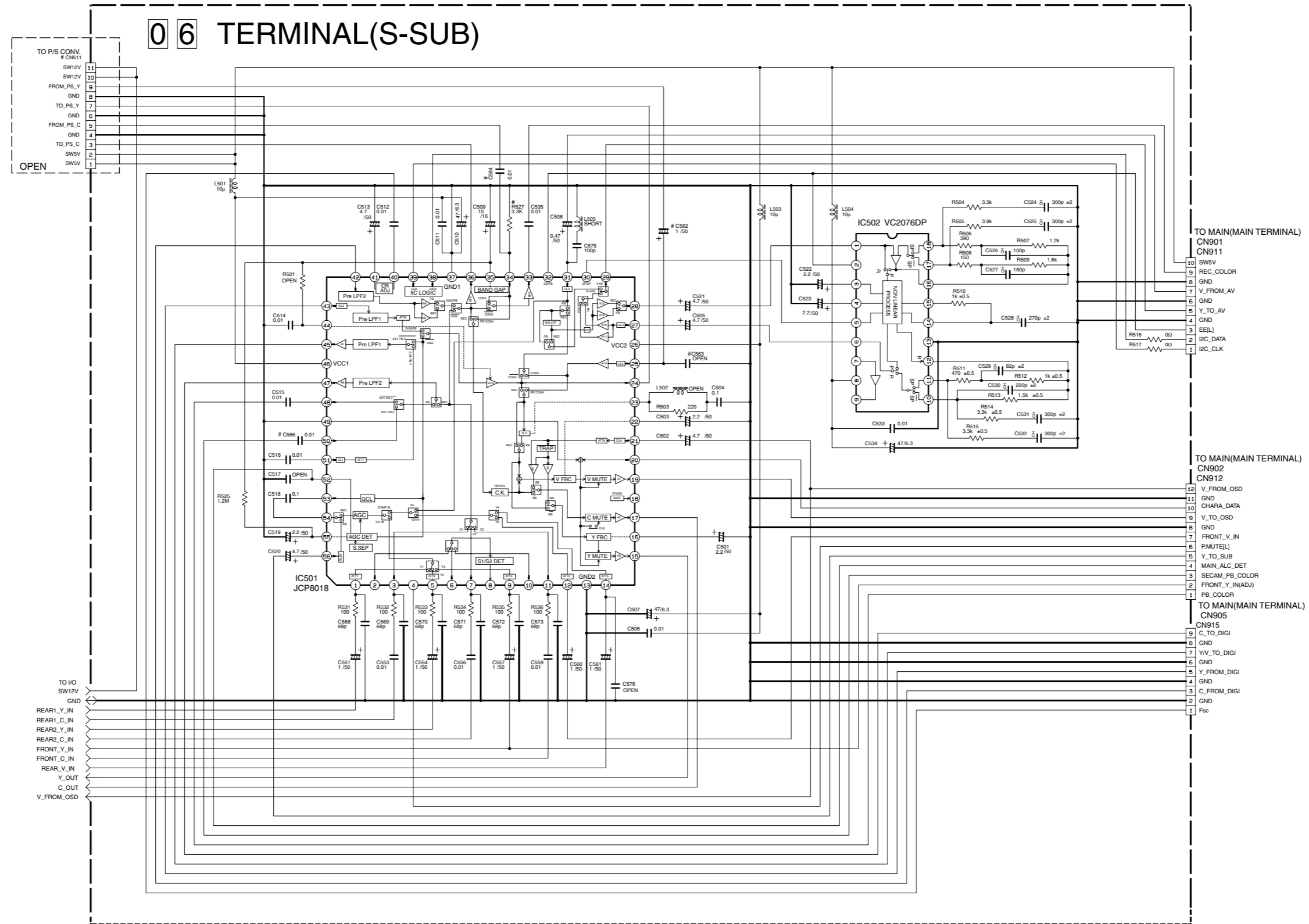


NOTES: UNLESS OTHERWISE SPECIFIED.
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN μF.

+ ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

4.10 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.



DIFFERENCE TABLE

	○ : Used	× : Not used
MS	○	×
OTHERS	×	○

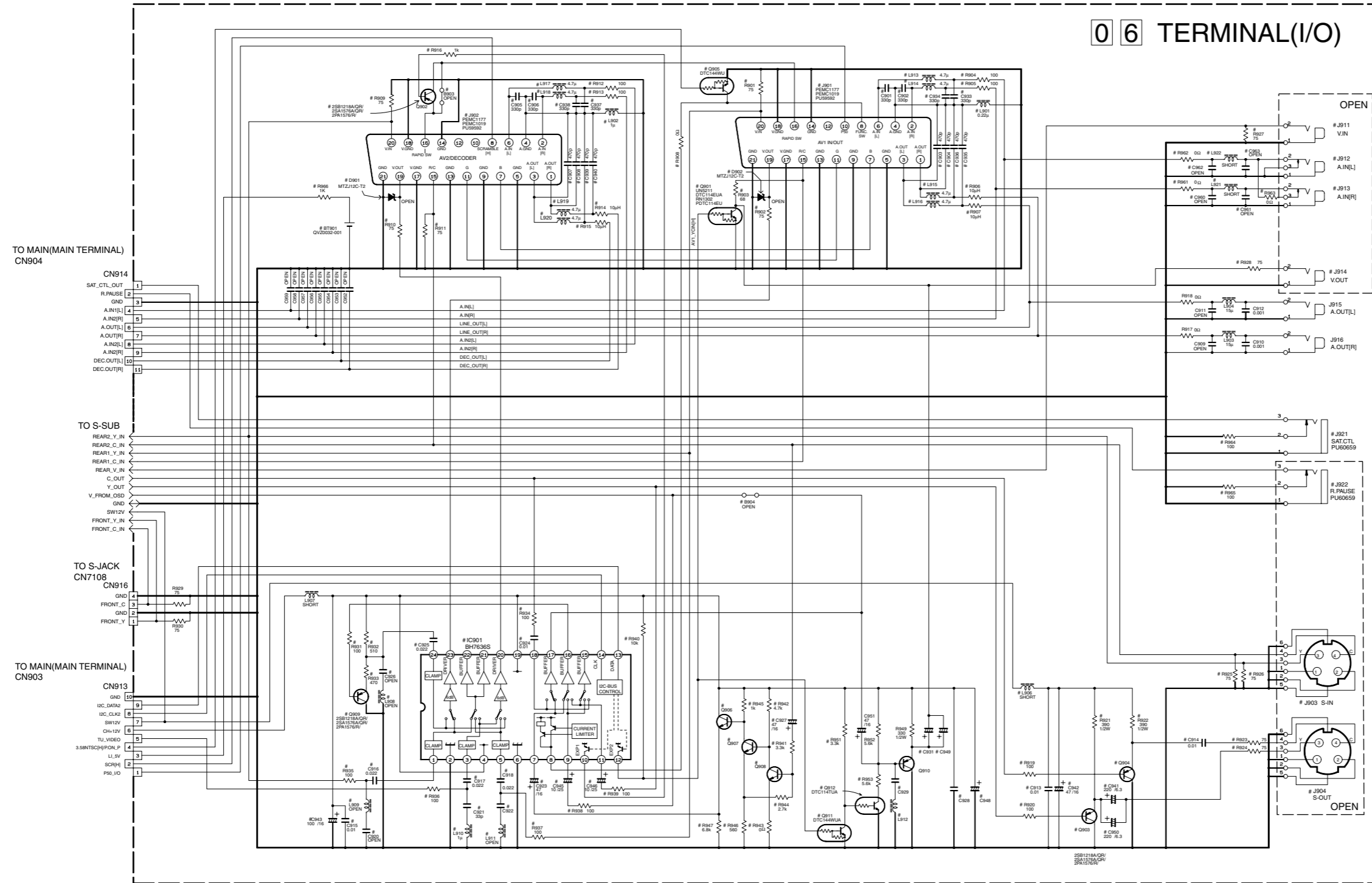
NOTES: UNLESS OTHERWISE SPECIFIED.
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL INDUCTANCE VALUES ARE IN H.
 ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
 CERAMIC
 MYLER
 NON POLAR

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.

06 TERMINAL(I/O)



○ : Used
x : Not used

		CH+	REAR S-OUT	S-IN	REAR IN/OUT	SAT CTL	R.PAUSE	C915	C943	C928	C948	C929	L912	C931	C949	BACK UP
EURO MODELS	WITHOUT REAR S-OUT	○	x	x	x	○	x	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	x
	WITH REAR S-OUT	○	○	x	x	○	○	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	x
ARC MODELS		x	○	○	○	x	x	OPEN	OPEN	0.01	47/16	5.6k	SHORT	220/6.3	220/6.3	○

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

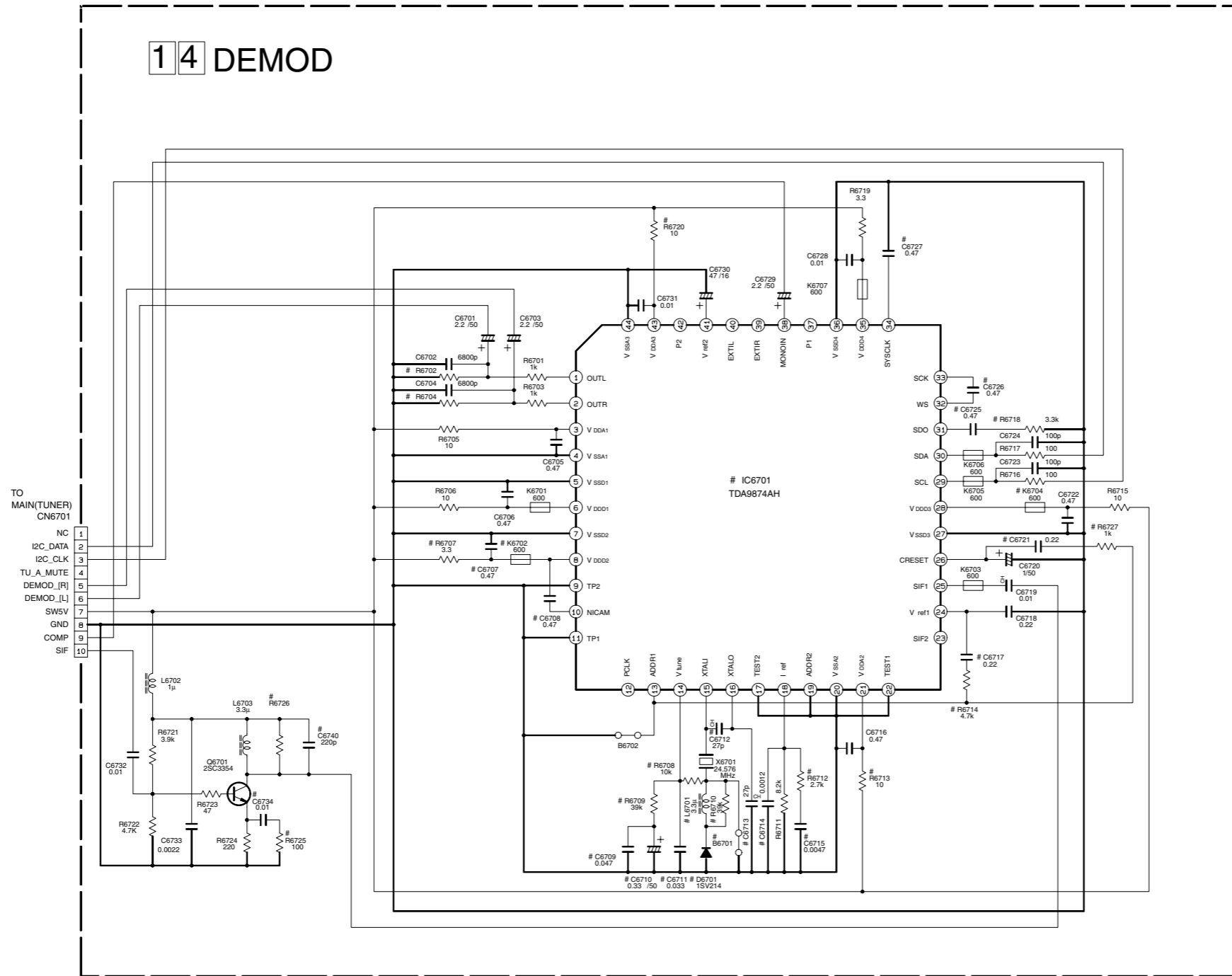
- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

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

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.

1 4 DEMOD



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	15V214	←	NOT USED
K6702	600	←	NOT USED
R6702,R6704, R6712,R6714, R6717,R6718, C6708,C6709, C6715,C6717, C6721,C6725, C6726,C6727, B6701	NOT USED	←	←

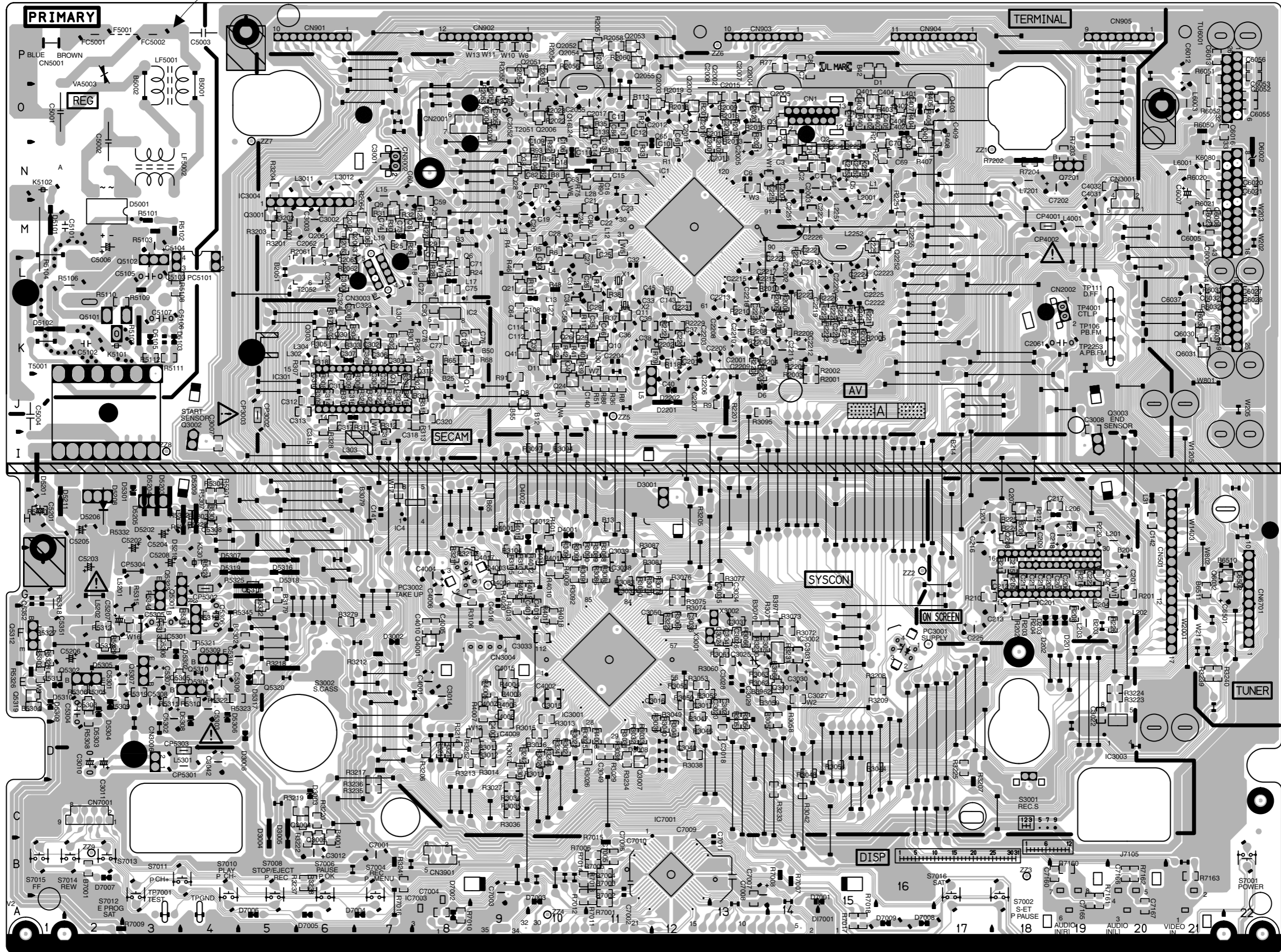
NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

- ⊕ — ELECTROLYTIC
- — CERAMIC
- MY— MYLER
- — NON POLAR

4.15 MAIN CIRCUIT BOARD

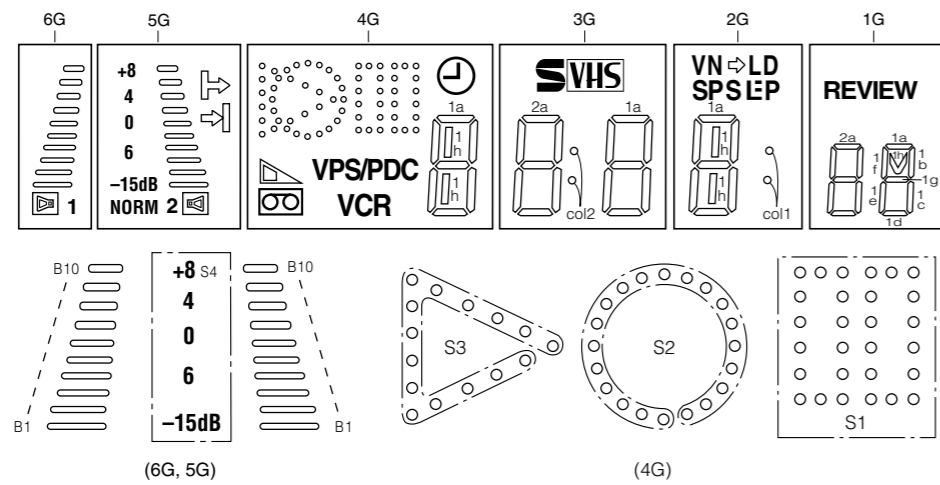
DANGEROUS VOLTAGE

<03> MAIN
LPB10140-001A

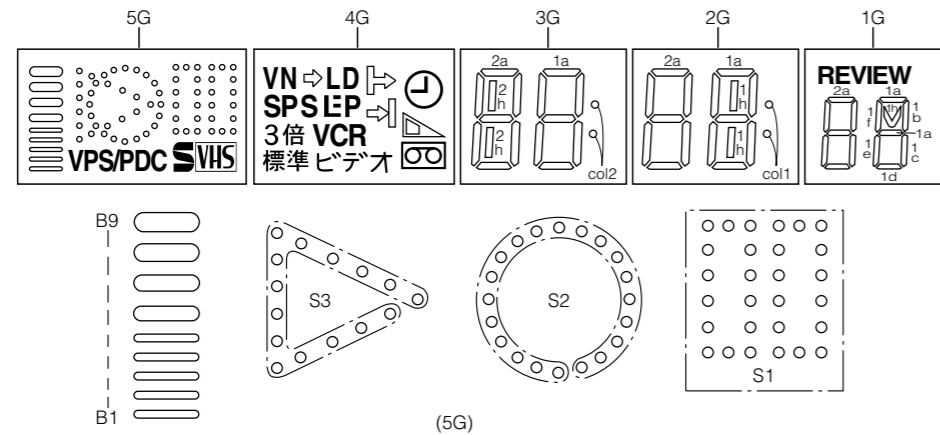


4.17 FDP GRID ASSIGNMENT AND ANODE CONNECTION

[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

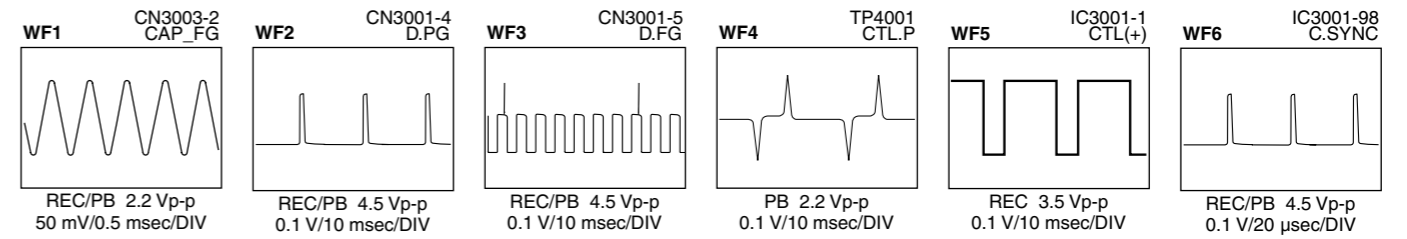
ANODE CONNECTION

[B]

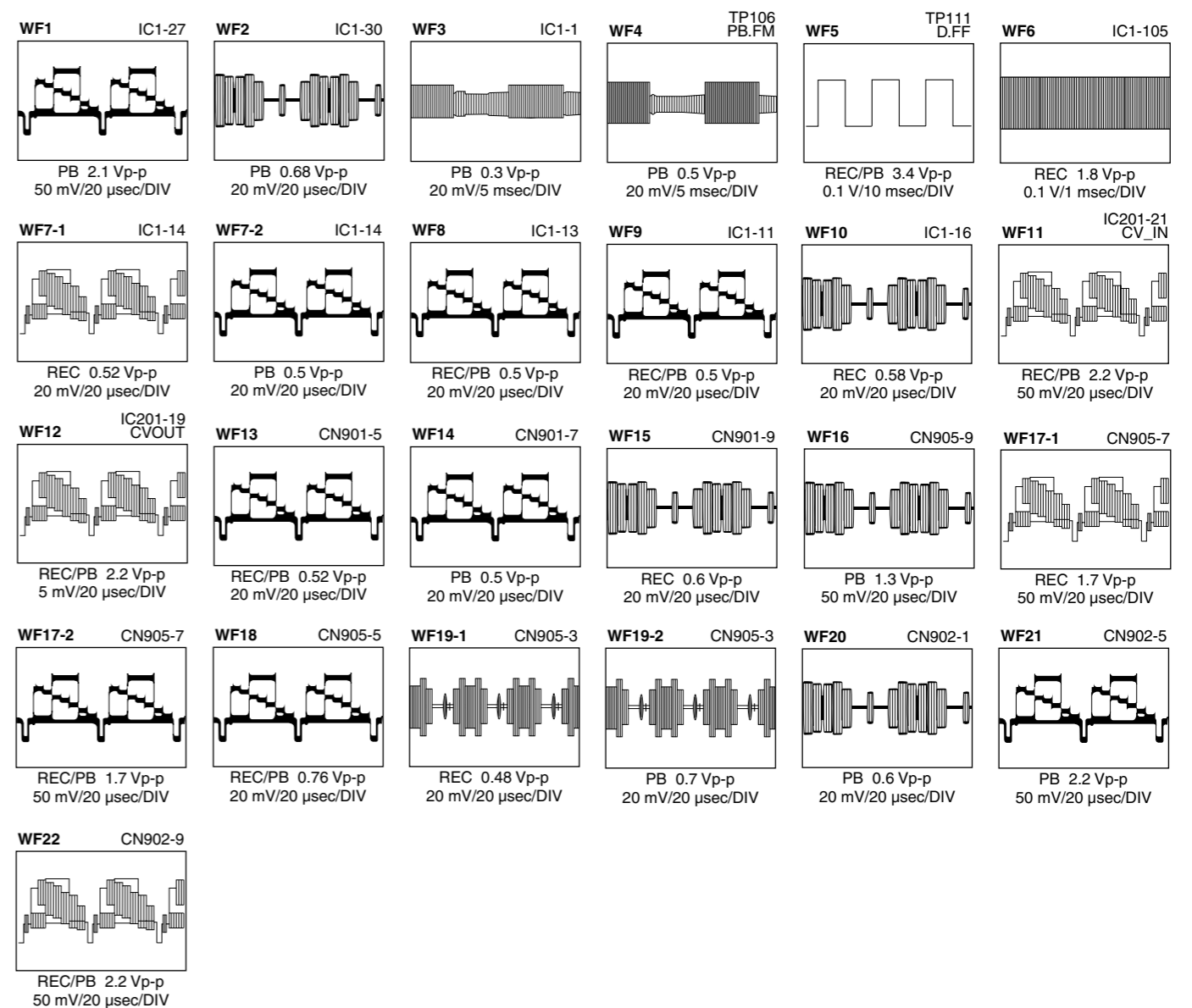
	5G	4G	3G	2G	1G
P 1	S2	▶	1a	1a	1a
P 2	S1	◀	1b	1b	1b
P 3	S3	3倍	1f	1f	1f
P 4	VPS/PDC	標準	1g	1g	1g
P 5	SVHS	⌚	1c	1c	1c
P 6	—	▶	1e	1e	1e
P 7	—	⏮	1d	1d	1d
P 8	B9	VCR	col2	1h	1h
P 9	B8	ビデオ	2a	2a	2a
P10	B7	◀	2b	2b	2b
P11	B6	VN	2f	2f	2f
P12	B5	LD	2g	2g	2g
P13	B4	SP	2c	2c	2c
P14	B3	S _(SEP)	2e	2e	2e
P15	B2	◻ _(SEP)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

4.18 WAVEFORMS

< SYSCON >



< VIDEO >



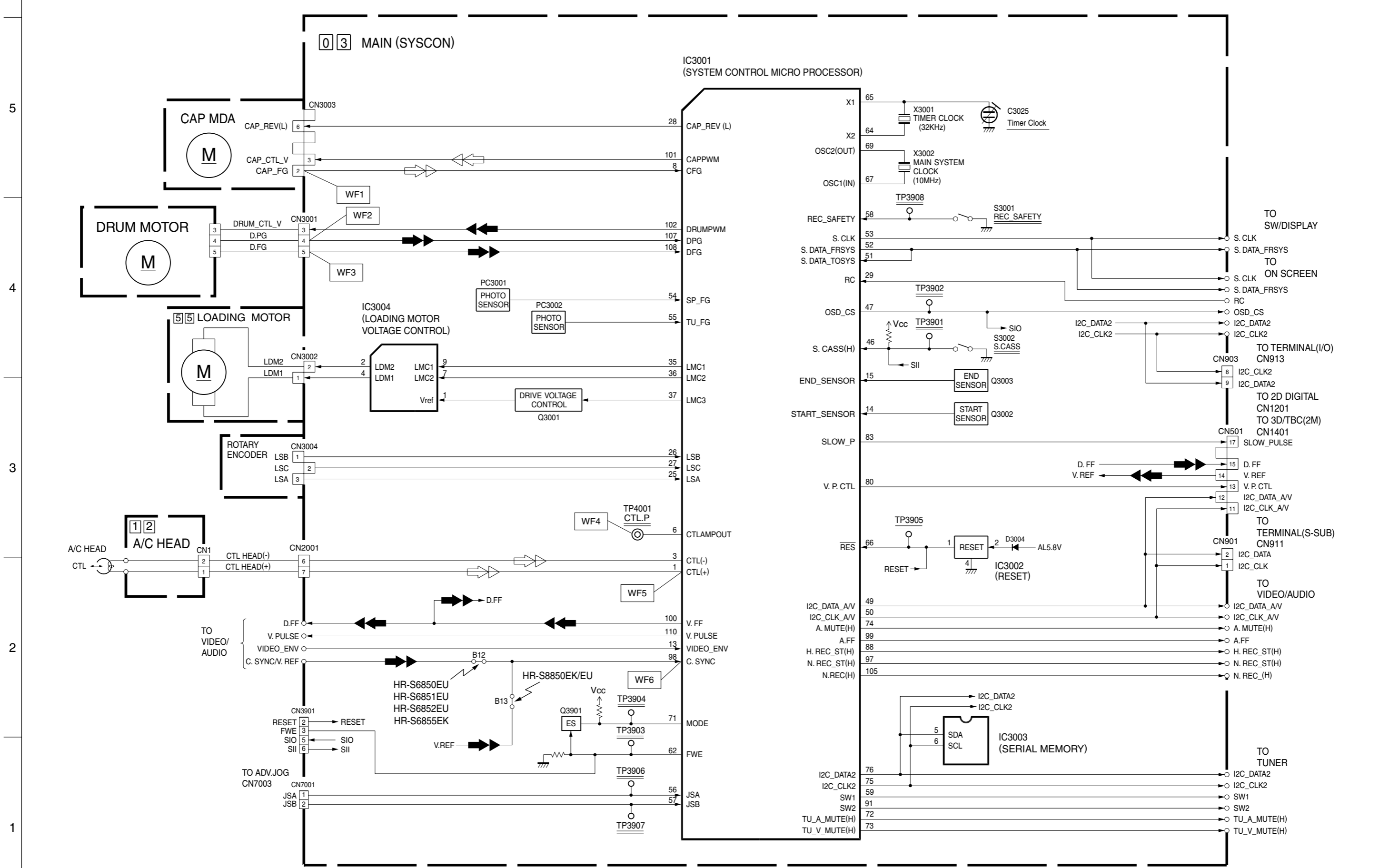
4.20 CPU PIN FUNCTION

<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)	-	NC
17	PROTECT	IN	DETECTION SIGNAL FOR SW POWER SUPPLY
18	SCR_ID	IN	SCRAMBLE CONTROL INPUT (SCRAMBLE:H)
19	IND(R)	-	NC
20	AFC	IN	TUNING CHECK
21	RF AGC	IN	CHANGES IN ATSC 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	-	NC
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	FWE MODE
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)	-	NC
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	VHS MODE(H)
82	VCC	-	SYSTEM POWER
83	SLOW_P	-	NC
84	VSS	-	GND
85	SP_SHORT(H)	OUT	MODE SELECT
86	LP_SHORT(H)	OUT	MODE SELECT
87	FLY_ON(H)	-	NC
88	H.REC_ST(H)	OUT	HIFI AUDIO SOUND RECORDING START
89	TRICK(H)	-	NC
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 VOLTA

4.21 SYSTEM BLOCK DIAGRAM

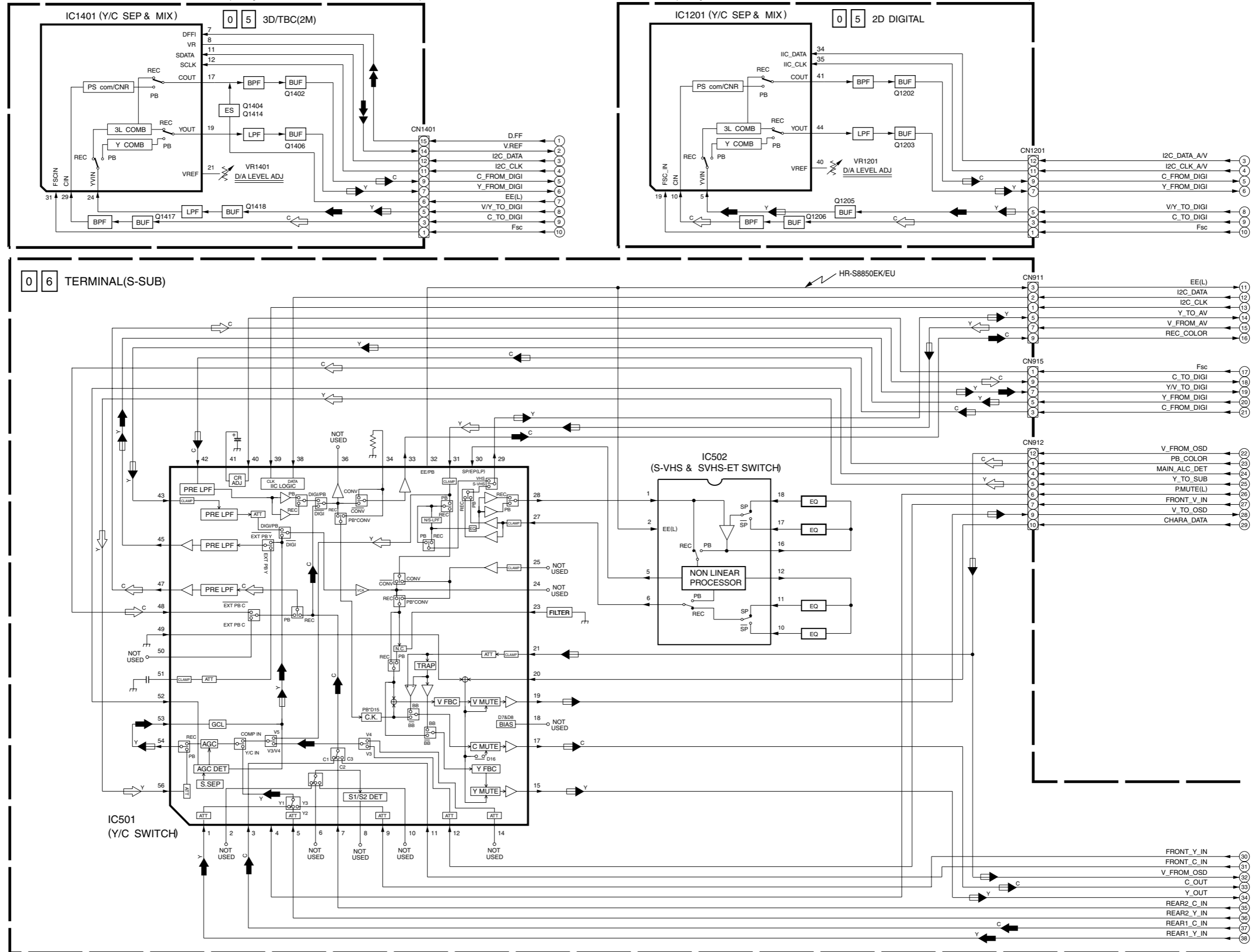


Note : For the waveforms in this block diagram, refer to page 4-34.

4.22 VIDEO BLOCK DIAGRAM

(Only used for HR-S8850EK/EU)

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



A

B

C

D 4-1

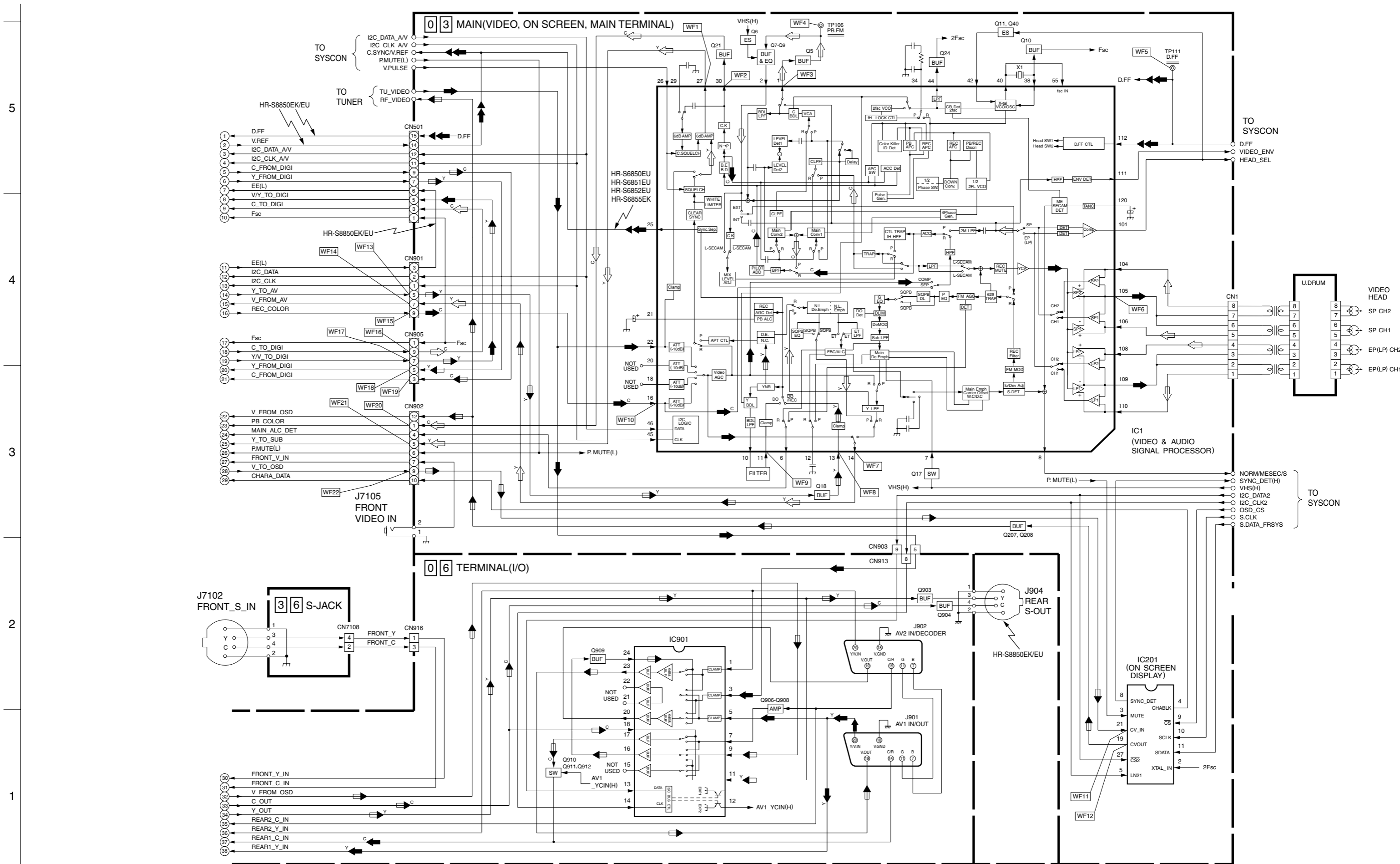
4-2

E

F

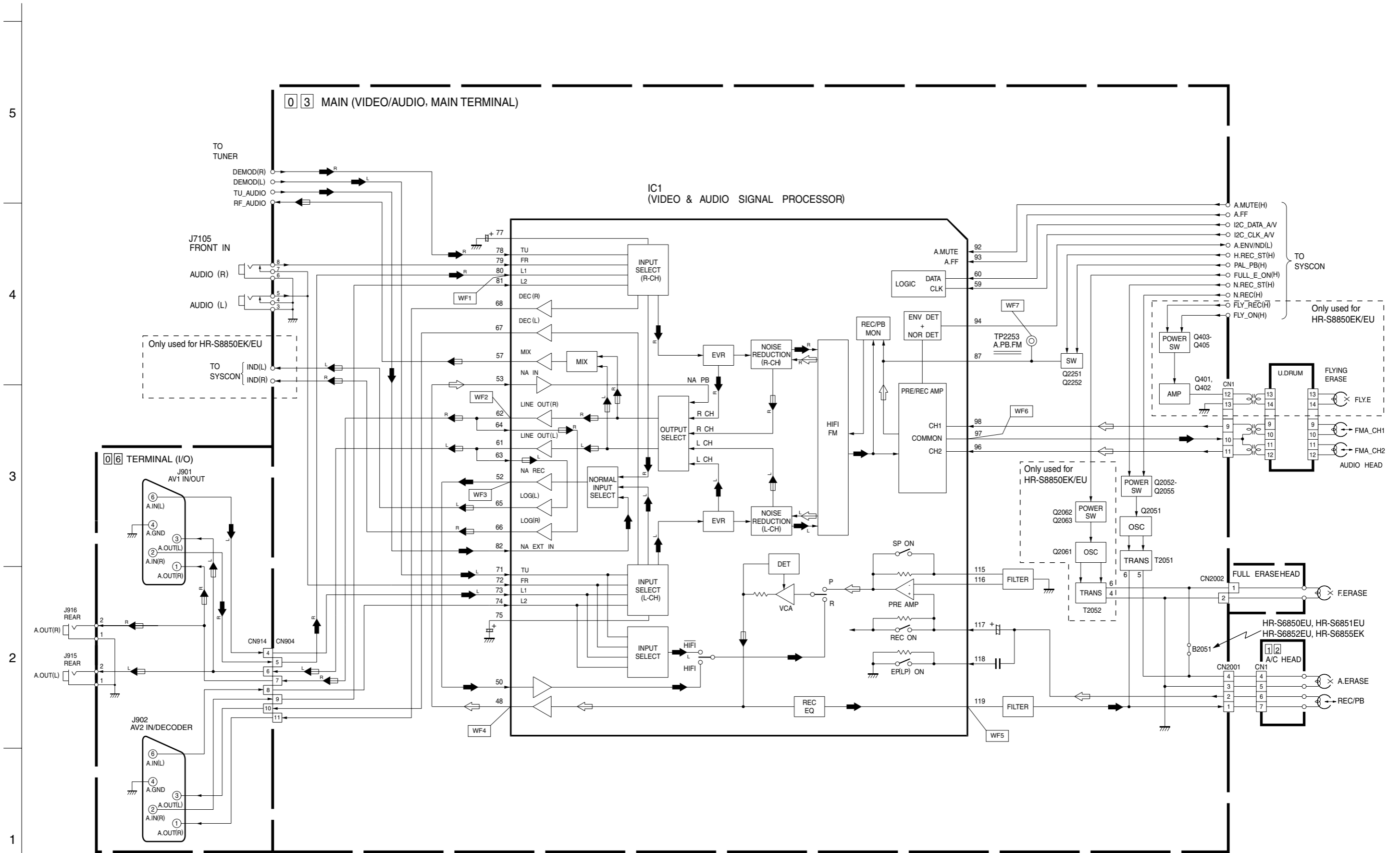
G

H



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

4.23 AUDIO BLOCK DIAGRAM



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