


SECTION 4 CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions

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

1. Units of components on the schematic diagram

Unless otherwise specified.

1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).

Chip resistors are 1/16 W.

K or k: k Ω (1000 Ω), M: M Ω (1000k Ω)

2) All capacitance values are in μ F, (P: PF).

3) All inductance values are in μ H, (m: mH).

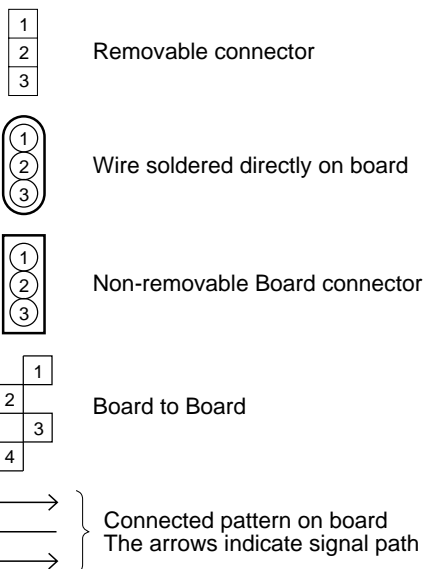
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

AUX or AUX(L) : Active at low

3. Interpreting Connector indications



4. Voltage measurement

1) Video circuits

REC : Colour bar signal in SP mode, normal VHS mode

PB : Alignment tape, colour bar SP mode, normal VHS mode

— : Unmeasurable or unnecessary to measure

2) Audio circuits

REC : 1KHz, -8 dBs sine wave signal in SP mode, Normal VHS mode

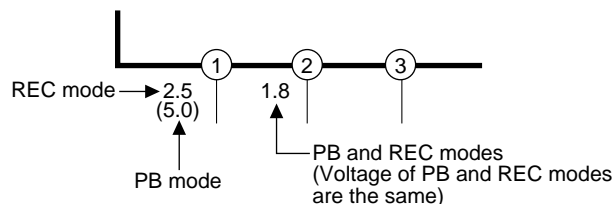
PB : REC then playback it

3) Movie Camera circuits

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

4) Indication on schematic diagram

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



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

5. Waveform measurement

1) Video circuits

REC : Colour bar signal in SP mode, normal VHS mode

PB : Alignment tape, colour bar SP mode, normal VHS mode

2) Audio circuits

REC : 1KHz, -8 dBs sine wave signal in SP mode, normal VHS mode

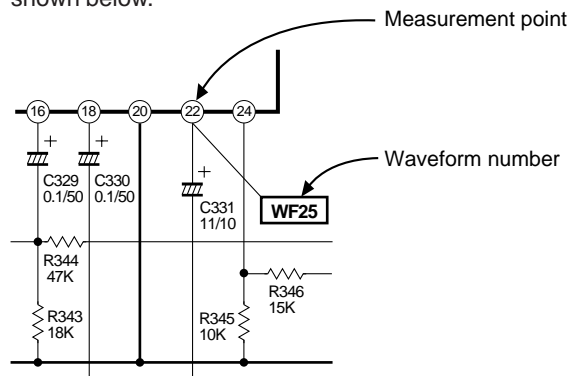
PB : REC then playback it

3) Movie Camera circuits

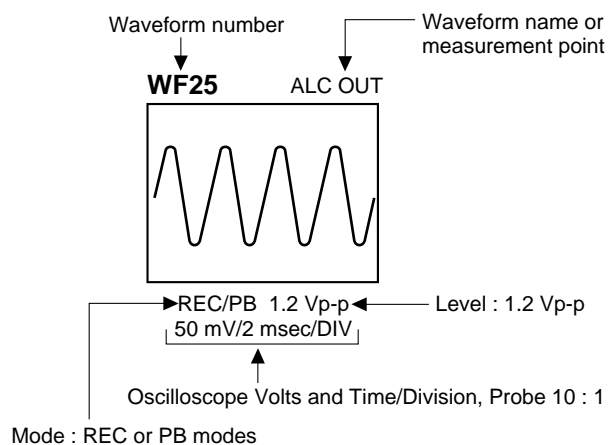
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode

4) Indication on schematic diagram

Waveform indications on the schematic diagram are as shown below.

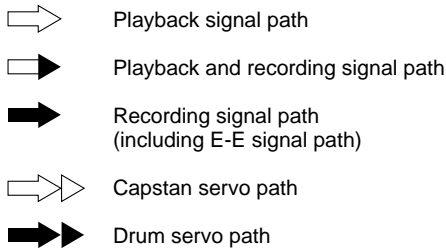


5) Waveform indications

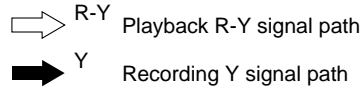


6. Signal path Symbols

The arrows indicate the signal path as follows.



(Example)



7. Indication of the parts for adjustments

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



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

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



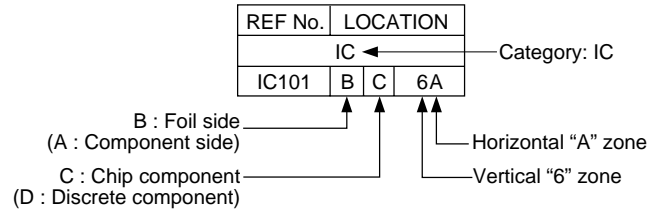
CIRCUIT BOARD NOTES

1. Foil and Component sides

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

2. Parts location guides

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

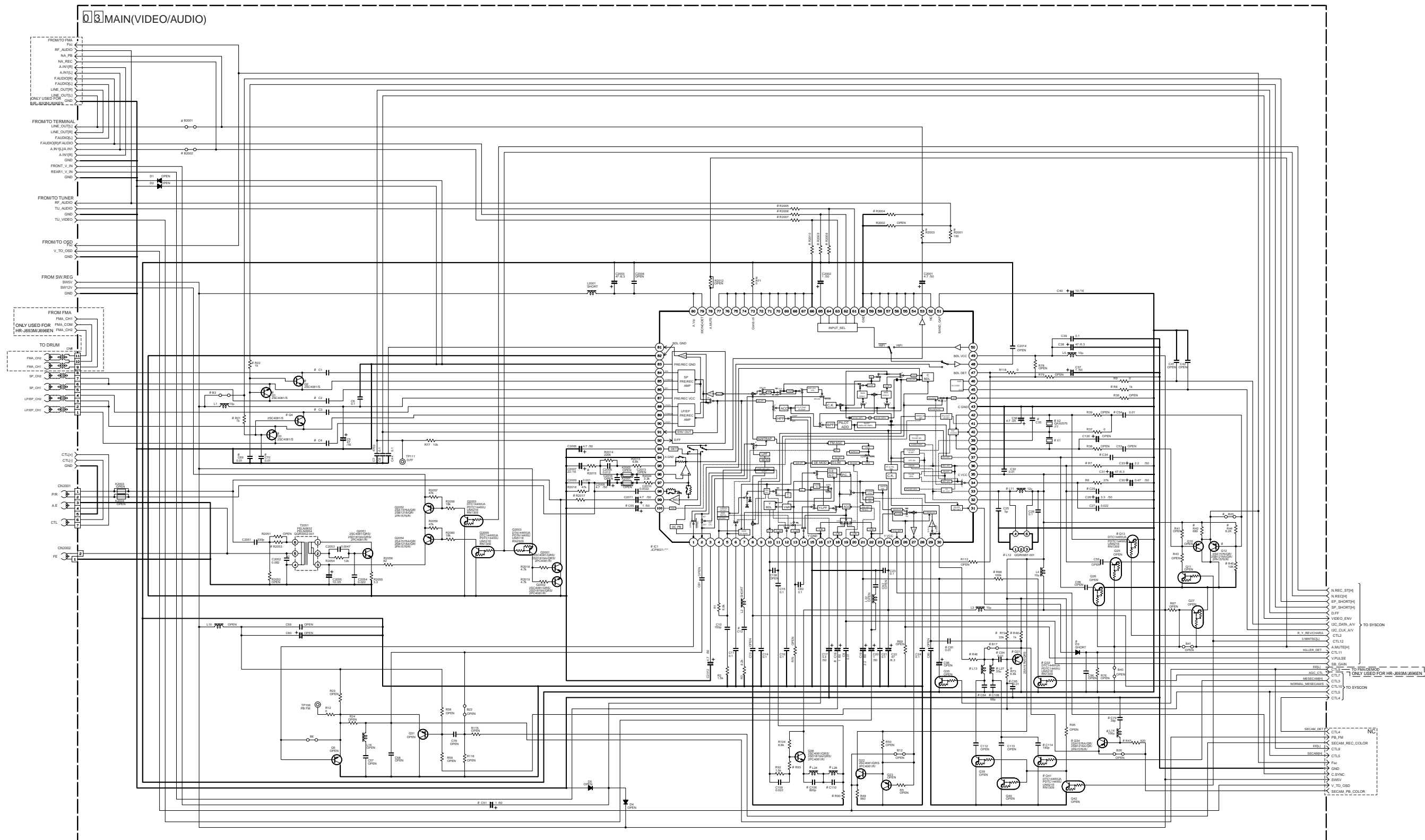


Note:

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

4.2 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 1

	IC1	X1	D3	Q12	Q13	Q32	Q41	R7	R8	R42,R44,R45	R46	R66	R90	R93	C12	C29	C34	C35	C54	C64	C65	C69,C70	C81	C106	C108	C110	C114	L13	L24	L27	L28	B17	B23	Q21,Q34,R47	R48,R72,R73,C79,C84,C85,L14	
NTSC	PCE1590	NVD-2	X	X	X	O	X	820	SHORT	X	O	O	470	1k	33p	4700p	0.1	0.033	SHORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
OTHERS		NVD-2	X	X	X	O	X	820	SHORT	X	O	O	470	1k	33p	4700p	0.1	0.033	SHORT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
HR-J496M,HR-J693M	MVD-2	QAX0578	O	O	O	X	820	SHORT	O	X	O	O	470	1k	33p	0.068	0.1	0.01	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PAL N	HR-J496N	MVD-2	QAX0580	X	O	X	O	680	SHORT	O	X	O	390	2.2k	47p	0.033	0.22	0.01	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
HR-J496N	HR-J496N	MVD-2	QAX0578/79	X	O	X	X	680	O	O	X	O	330	X	390	2.2k	47p	0.033	0.22	0.01	O	22p	O	O	O	O	O	O	O	O	O	O	O	O	O	
PALARC	HFI	MVD-2	QAX0578/79	X	O	X	O	680	O	O	X	O	330	X	390	2.2k	47p	0.033	0.22	0.01	O	22p	O	O	O	O	O	O	O	O	O	O	O	O	O	
HR-J496M,HR-J496N,HR-J496E,HR-J496S,HR-J496MS	HFI	MVD-2	QAX0578/79	X	O	X	O	680	SHORT	O	X	O	330	X	390	2.2k	47p	0.033	0.22	0.01	O	22p	O	O	O	O	O	O	O	O	O	O	O	O	O	O
HR	MONO	MVD-2	QAX0578/79	X	O	X	X	680	SHORT	O	X	O	330	X	390	2.2k	47p	0.033	0.22	0.01	O	22p	O	O	O	O	O	O	O	O	O	O	O	O	O	O

#DIFFERENCE TABLE 2

3.58NTSC	X2	INPUT	C18	C51
YES	O	HR-J496M,HR-J693M	X	O
NO	X	HR-J496N,HR-J696N,HR-J285EE	O	X

#DIFFERENCE TABLE 3

INPUT	C18	C51
HR-J496M,HR-J693M	X	O
HR-J496N,HR-J696N,HR-J285EE	O	X

#DIFFERENCE TABLE 4

HEAD TYPE	Q1,Q2	Q3,Q4	C1,C2	C3,C4	R71	R21	R22	B3	CN1
4HEAD HFI	HR-J693M	X	X	1	1	X	X	X	11 PIN(1-11)
HR-J496N	O	O	0.01	0.01	1	X	O	O	11 PIN(1-11)
HR-J496M	X	X	1	1	X	X	X	8 PIN(1-8)	
HR-J496E,HR-J481MS,HR-J481MS/S	X	X	0.1	0.1	X	X	X	4 PIN(1-4)	
2HEAD	J278EU	X	O	0.1	SHORT	O	O	X	4 PIN(5-8)
HR-J285EE	X	X	0.1	X	O	X	X	X	4 PIN(5-8)

#DIFFERENCE TABLE 5

CE	L11	L12
YES	X	O
NO	O	X

#DIFFERENCE TABLE 6

DESTINATION	INPUT	FRONT IN	FMA -A/F1(HFI)	REAR IN(FM MONO)
HR-J693M,HR-J696N	ARC	R2006	R2009	B2002
HR-J693M	ARC	X	X	X
HR-J696N	ARC	X	X	X
HR-J496M	ARC	X	X	X
HR-J496E,HR-J481MS,HR-J481MS/S	ARC	X	X	X
HR-J285EE	ARC	X	X	X

#DIFFERENCE TABLE 7

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 8

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 9

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 10

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 11

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 12

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 13

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 14

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 15

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 16

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 17

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 18

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 19

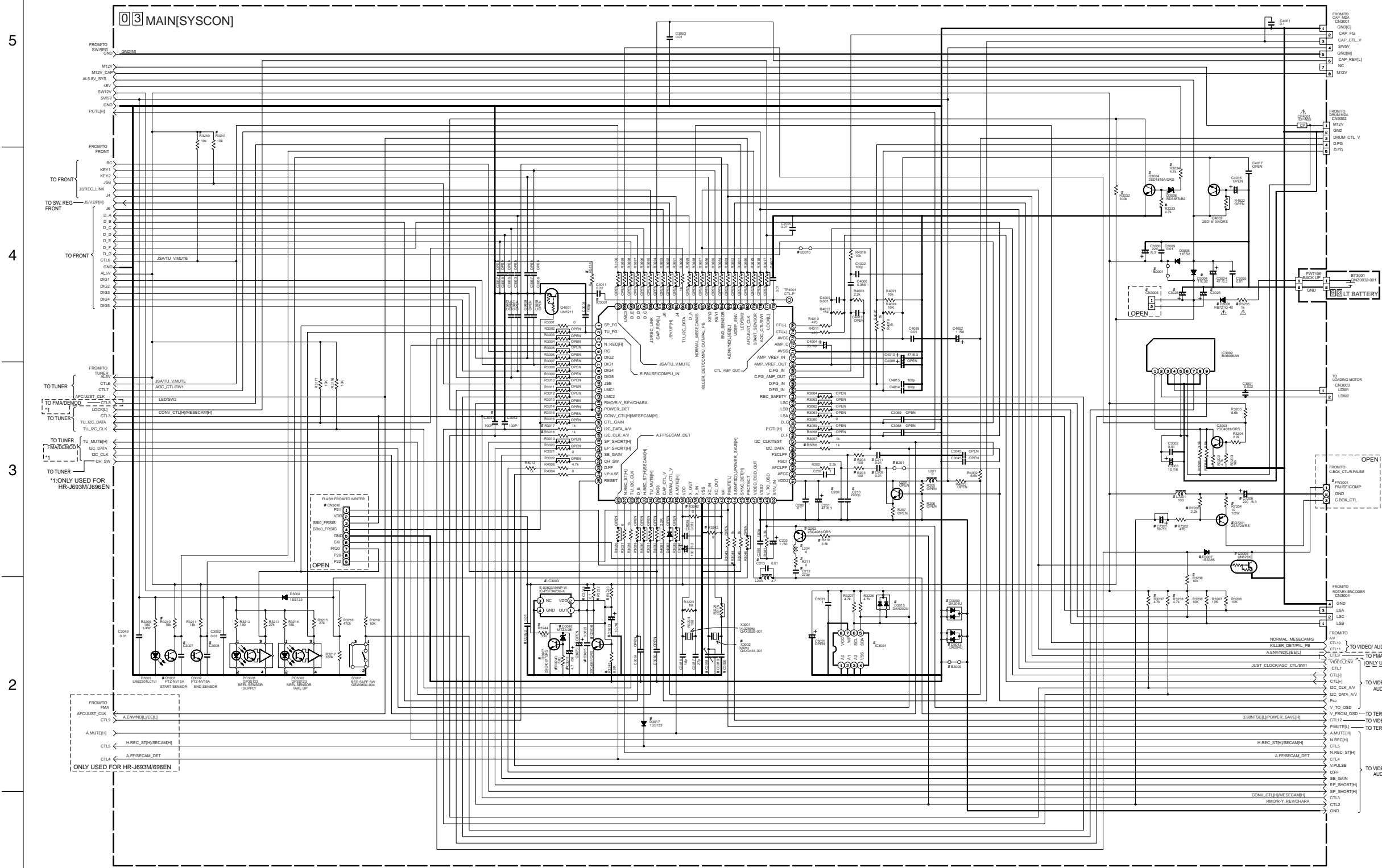
RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680	2.7k	33k	47k
HR-J496E,HR-J481MS,HR-J481MS/S	O	O	680	2.7k	33k	47k
HR-J285EE	O	O	100	4.7k	15k	15k

#DIFFERENCE TABLE 20

RF-OUT	AV1 -A/F1(HFI)	LINE OUT(MONO)	TU-IN	FB GAIN	REC LEVEL	BASE LEVEL
HR-J693M	X	X	100	X	X	180
HR-J696N	X	X	100	X	X	120
PALARC	X	X	100	X	X	150
HR-J496M	O	O	680			

4.3 MAIN (SYSCON) AND LT BATTERY 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.



JVC MODELS REFERENCE TABLE 1

	HR-J693M	HR-J696M	HR-J696N	HR-J496M	HR-J496N	HR-J281MS	HR-J287MS	HR-J481MS	HR-J481MS/S	HR-J485EE	HR-J285EE
SYSCON IC	IC3001	A	A	A	A	A	A	A	A	A	A
EEPROM	IC3004	2K	2K	4K	4K	4K	4K	4K	4K	4K	4K
LITHIUM BACK UP	D3008	0	0	0	0	0	0	0	0	0	0
R.PAUSE	CN3007	X	X	X	X	X	X	X	X	X	X
C.BOX_CTL	C3005	X	X	X	X	X	X	X	X	X	X
	R3236	D3007	X	X	X	X	X	X	X	X	X
	R7202	R7203	R7204	X	X	X	X	X	X	X	X
	C7201	C7206	Q7201	X	X	X	X	X	X	X	X
ADV. JOG/SHUTTLE	R3240	R3241	X	X	X	X	X	X	X	X	X
3.5MNTSC/CLV POWER SAVE[H]	C3026	X	X	X	X	X	X	X	X	X	X
BACK UP	C3028	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	CN3005	X	X	X	X	X	X	X	X	X	X
	B3001	X	X	X	X	X	X	X	X	X	X
	D3004	0	0	0	0	0	0	0	0	0	0
	R3042	0	0	0	0	0	0	0	0	0	0
	R3242	0	0	0	0	0	0	0	0	0	0
	X3002	0	0	0	0	0	0	0	0	0	0
	C3018	30p	30p	30p	30p	30p	30p	30p	30p	30p	30p
	C3015	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p
	C3029	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p
	R3232	R3233	R3234	0	0	0	0	0	0	0	0
	D3008	Q3004	0	0	0	0	0	0	0	0	0
RESET CIRCUIT	R3114	X	X	X	X	X	X	X	X	X	X
	R3220	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k
	R3222	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k
	R3243	R3244	R3245	X	X	X	X	X	X	X	X
	D3016	Q3006	Q3007	X	X	X	X	X	X	X	X
	C3011	X	X	X	X	X	X	X	X	X	X
RESET IC	IC3003	0	0	0	0	0	0	0	0	0	0
	C3013	C3022	0	0	0	0	0	0	0	0	0
START SENSOR	Q3001	R3210	X	X	X	X	X	X	X	X	X
Counter Pin of LINE NOISE	C3041	0	0	0	0	0	0	0	0	0	0
OSD	R203	R204	0	0	0	0	0	0	0	0	0
	C208	C210	100p	100p	100p	100p	100p	100p	100p	100p	100p
	C209	C211	0	0	0	0	0	0	0	0	0
	B201	0	0	0	0	0	0	0	0	0	0
	Q202	L204	X	X	X	X	X	X	X	X	X
	R210	R211	C212	C215	X	X	X	X	X	X	X
Counter Pin of ESD	C3008	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C3015	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022
	C3048	D3013	D3015	X	X	X	X	X	X	X	X
	D3009	D3013	D3015	X	X	X	X	X	X	X	X
	B3009	X	X	X	X	X	X	X	X	X	X
	R3237	R3238	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k	4.7k
	R3017	R3018	1k	1k	1k	1k	1k	1k	1k	1k	1k

DIFFERENCE TABLE 5

	D3017	
HR-J693M HR-J696N		SHORT
HR-J496M HR-J496N HR-J285EE HR-J485EE		SHORT
HR-J481MS HR-J481MS/S		X

DIFFERENCE TABLE 6

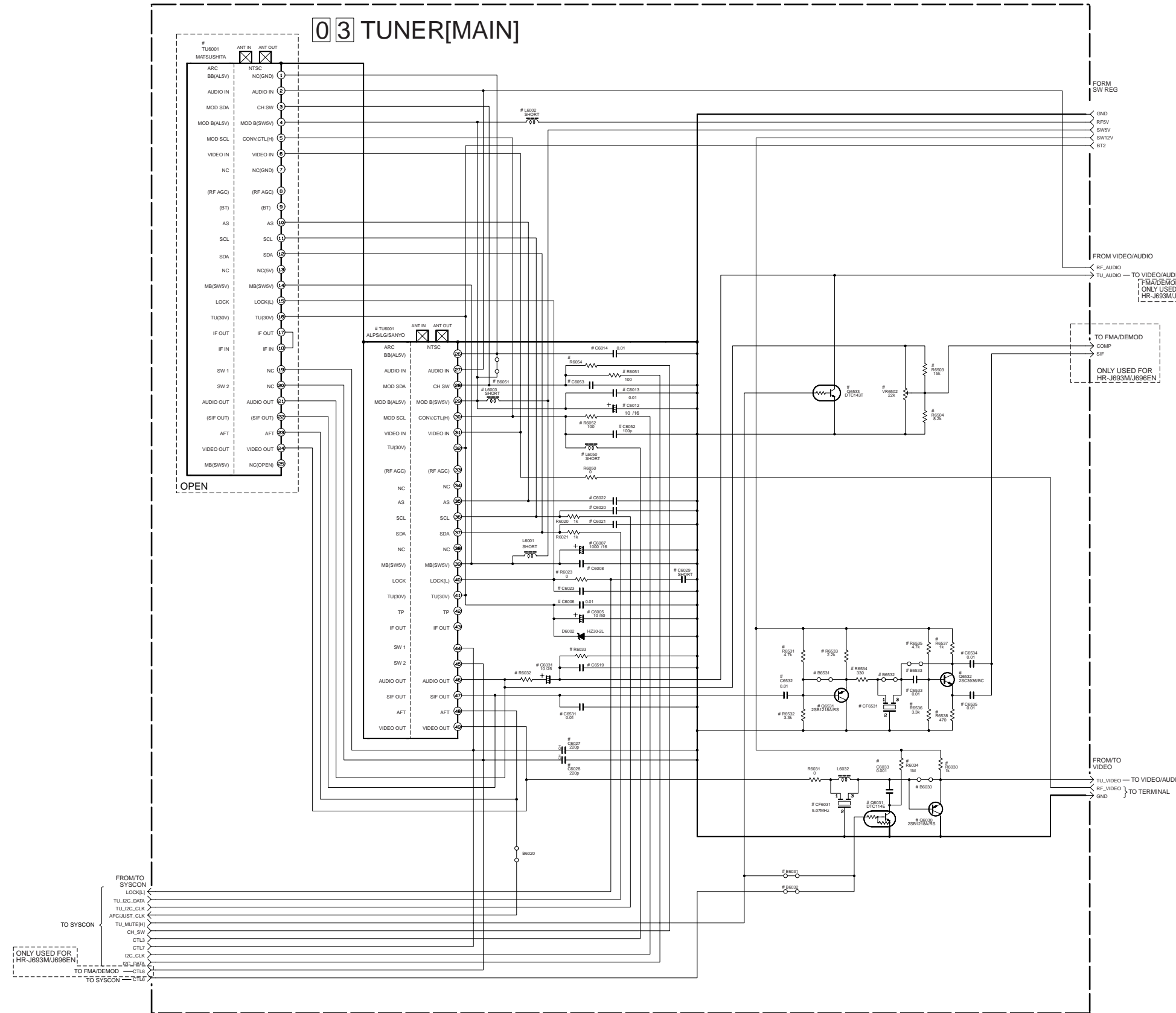
	HR-J285EE	HR-J485EE
IC3001	HR-J496M/HR-J693M	HR-J481MS/HR-J481MS/S
B3010	X	X
R3056	0	X

DIFFERENCE TABLE 3

IC3004	32k	AT24C32N-10SC-X
		BR24C32F-X
		24LC32BRN-X
		AT24C32N-10SC-X
		24LC32BRN-X
		BR24C32F-X
		X24C08S-X
		S-24C08B-2-X
		AT24C32N-10SC-X
		24LC32BRN-X
		BR24C32F-W-X
		X24C04S-X
		S-24C04S-X
		AT24C32N-10SC-X
		24LC32BRN-X
		BR24C32F-W-X

4.5 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 (US,PAL-M/N)

	LG	HR-J693M HR-J696EN	HR-J696M HR-J696EN
TU6001	LG	GAU0235	GAU0235
VIDEO BUFFER	C6000,R6030, R6039	○	○
VIDEO MUTE	Q6001,R6034, C6003,R6031	×	×
LOCK	R6023,C6023, C6029	×	×
MONO	R6032	×	15k
	R6033	×	10k
	C6019	×	0.012
HF1	C6031	×	○
	VR6002	×	×
MOD B(SWSV)	R6033,R6034	○	×
	LA6003	○	○
CONV CTL	LA6003	○	○
CONV SW	R6034	○	○
	C6006,C6021,C6003, C6012,C6014, C6000,C6022, C6052		
	Q6001,C6002, Q6031-C6033, CF6031-CF6033, R6031-R6033, R6031-R6036, C6031-C6035	×	×
PAL	R6032,R6051, L6002, R6051,R6052, C6027,C6028	×	×

○:used
×:Not used

DIFFERENCE TABLE (EU/EURO,ASIA - PAL/MS)

TUNER UNIT	TU6001	EU/EK		FRANCE MS		ASIA SYSTEM		HR-J696E,HR-J696E HR-J691M,HR-J691MS	
		ALPS	ALPS	LG	MATSUSHITA	ALPS	MATSUSHITA	ALPS	MATSUSHITA
TUNER UNIT	TU6001	GAU0208	GAU0209	GAU0210	GAU0211	GAU0208	GAU0209	GAU0212	
VIDEO BUFFER	C6000,R6030, R6039	○	○	○	○	○	○	○	○
VIDEO MUTE	Q6001,R6034, C6003	○	○	○	○	×	×	×	×
AUDIO MUTE	R6031	×	×	×	×	×	×	×	×
TU ILC	R6020	×	×	×	×	×	×	×	×
LOCK	R6023,C6023, C6029	×	×	×	×	×	×	×	○
MONO	R6032	3.3k	3.3k	3.9k	3.9k	3.3k	3.3k	8.2k	
	R6033	1.8k	1.8k	1.8k	1.8k	1.8k	1.8k		×
	C6031	○	○	○	○	○	○	○	○
US MPX	VR6002	×	×	×	×	×	×	×	×
ALV	L6002,R6051, C6012	○	○	○	○	○	○	○	○
	C6013	×	×	×	×	×	×	×	×
	C6014	○	○	○	○	○	○	○	○
MOD SDA/SCL	R6051,R6052, R6054,LA6003, C6052,C6053	×	×	×	×	×	×	×	×
SWSV	LA6003	×	×	×	×	×	×	×	×
	C6006	×	×	×	×	×	×	×	×
	C6005	×	×	×	×	×	×	×	×
TU30V	C6006	×	×	×	×	×	×	×	×
SIF OUT	C6031-C6035, R6031-R6036, R6031-R6033, CF6031	×	×	×	×	×	×	×	×
CENELEC S2	C6027	×	×	○	×	×	×	×	×
	C6028	×	×	×	×	×	×	×	×

CTL3	CONV_CTL(H)MSECAMB(H)
CTL6	JLUBA/TU_V_MUTE(H)
CTL7	AGC_CTL/SW1
CTL8	LED/SW2

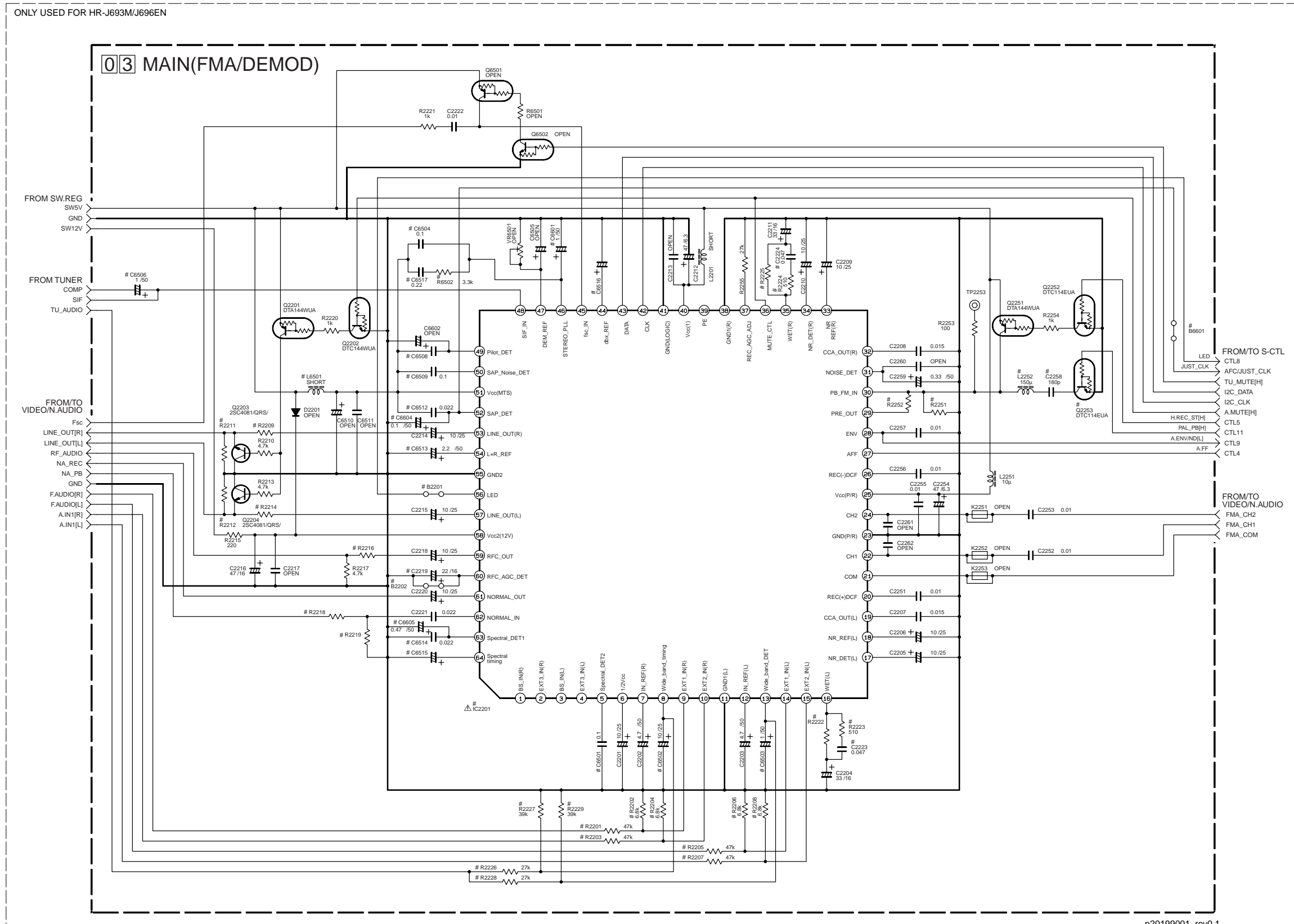
NOTES-UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLIER
NON POLAR

p10337001_rev1.2

5
4
3
2
1

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

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.



p20199001_rev0.1

#DIFFERENCE TABLE (FMA)

INPUT	FRONT	REAR
SYMBOL	R2201 R2202 R2205 R2206	R2203 R2204 R2207 R2208
YES	○	○
NO	×	×

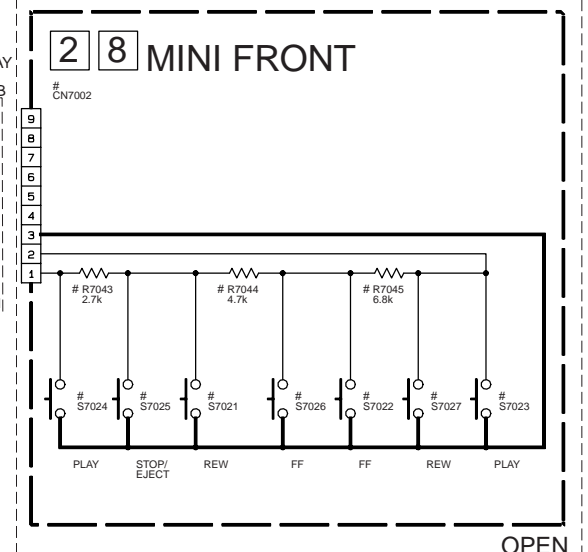
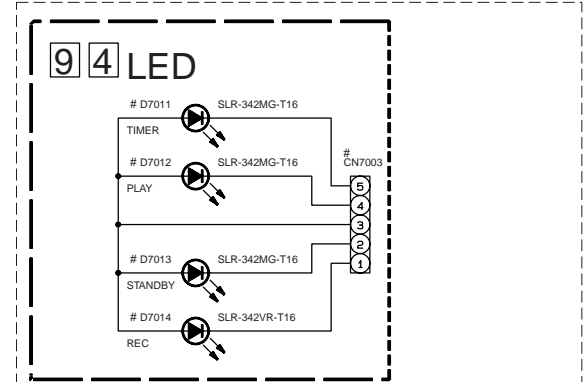
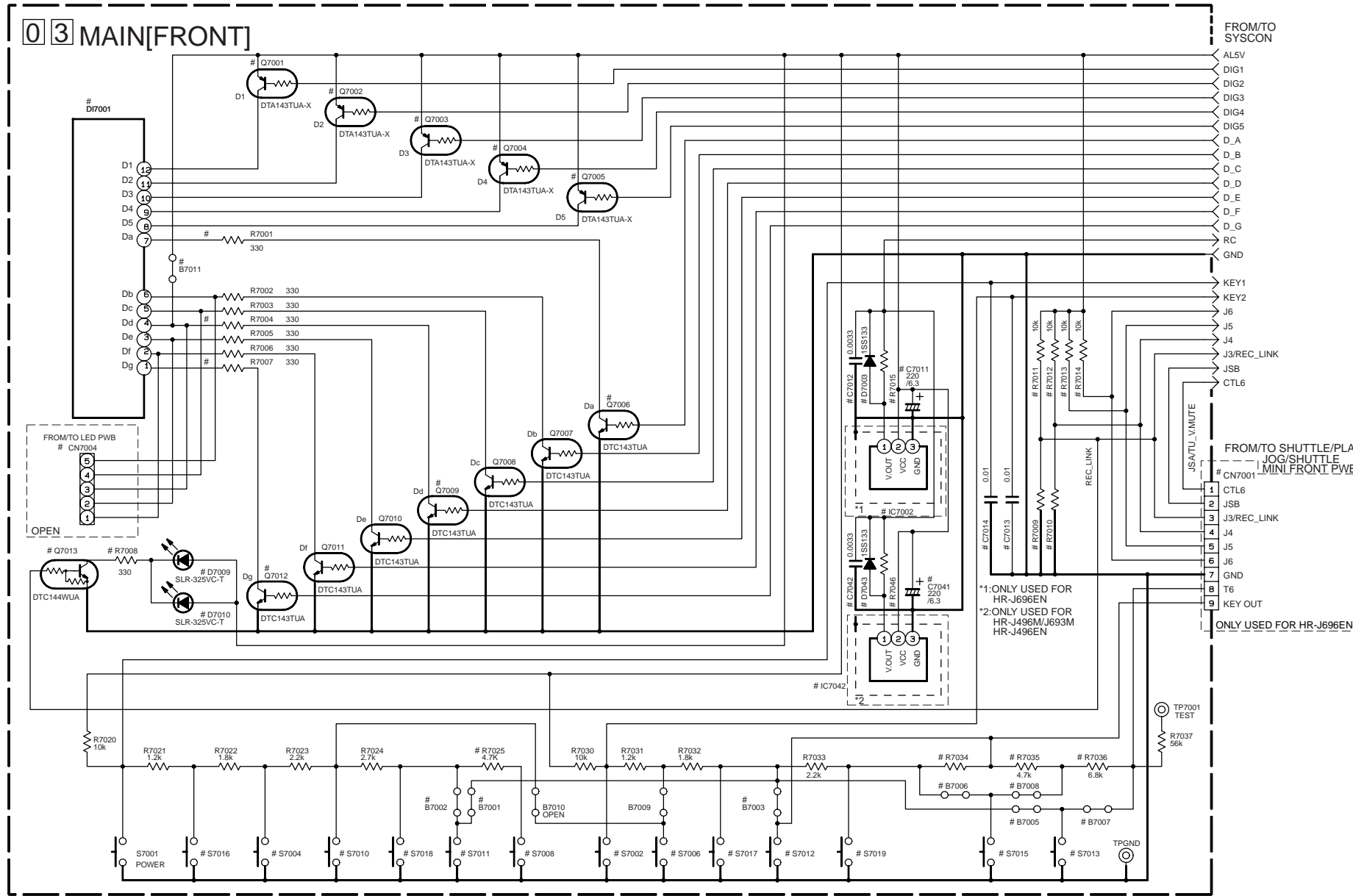
#DIFFERENCE TABLE (FMA/DEMODO)

SYMBOL	R6502 C6502 C6509 C6514 C6517	B6601 C6601 C6604 C6605	C6508	C6515	C6516	C6501	C6506 L6501	IC2201	R2226- R2229 R2223 R2224 R2223 R2224 B2202	R2221 C2219	R2216	R2218	R2219	R2209 R2214	R2211 R2212	R2251	R2252	Q2253 L2252 C2258
HR-J693M/HR-J696EN	○	×	0.022	3.3/50	4.7/50	○	○	AN3663FBP	×	SHORT	1k	3.9k	1k	100	3.3k	2.2k	1.5k	×
JPN	×	○	1	1/50	10/25	○	○	AN3672FBP	×	SHORT	1k	3.9k	1k	100	3.3k	2.2k	1.5k	×
ARC	×	×	×	×	10/25	SHORT	×	AN3651FBP	○	4.7k	1.2k	3.3k	1.2k	680	2.7k	4.7k	220	○

○:used
×:Not used

4.7 MAIN (FRONT) 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.



p20203001a_rev1.1

○:used
×:Not used

##DIFFERENCE TABLE 1

BRAND	TOOL	WORKING NUMBER	S7001	S7002	S7004	S7006	S7008	S7010	S7011	S7012	S7013	S7014	S7015	S7016	S7017	S7018	S7019	S7021 S7022 S7023	S7024- S7027	SW on UNIT	J/S	DISP	R7025	R7034	R7035 R7036	R7043 R7045	B7001	B7002	B7003	B7004	B7005 B7006	B7007	B7008	
JVC	400EA	HR-J696EN	POWER	REC LINK	CH -	CH +	PLAY	E.PROG	REC	PAUSE	STOP/ EJECT	DISPLAY							Adv	Adv	7seg	○	2.7kΩ	○	○	○	○	○	○	○	○	○	○	
	400E	D13 U/M/M	POWER	C.RESET	CH -	CH +	REVIEW	SP/EP	REC	PAUSE	STOP/ EJECT	DISPLAY						○		Adv	7seg	○	0Ω	○	○	○	○	○	○	○	○	○	○	
	360H	HR-J496M,HR-J693M,HR-J496EN HR-J285EE,HR-J485EE, HR-J481MS,HR-J481MS/S			REW/ CH -	FF/ CH +		PLAY						POWER	STOP/ EJECT	REC	PAUSE/ CH				7seg	×	2.7kΩ	○	○	○	○	○	○	○	○	○	○	○
PHILIPS	01A	D1 /78/50, C1 /50/78 A1(VR120/55),D1(VR602/55)	POWER	FF/ CH +	CH	STOP/ EJECT								STAND-BY	STOP/ EJECT	REC	PAUSE/ CH				7seg	×	2.7kΩ	○	○	○	○	○	○	○	○	○	○	○
	01B	A1 /55,C1 /50/55/61,D1 /55	POWER	PAUSE	MENU	OK	REC	CH -	CH +					VCR/TV							7seg	○	0Ω	○	○	○	○	○	○	○	○	○	○	○
	00A		POWER	PAUSE	MENU	OK	REC	CH -	CH +					VCR/TV								○	0Ω	○	○	○	○	○	○	○	○	○	○	○
SEARS	360H				REW/ CH -	FF/ CH +		PLAY					POWER	STOP/ EJECT	REC	PAUSE/ CH					7seg	×	2.7kΩ	○	○	○	○	○	○	○	○	○	○	○
AUDINAC	360H				REW/ CH -	FF/ CH +		PLAY					POWER	STOP/ EJECT	REC	PAUSE/ CH					7seg	×	2.7kΩ	○	○	○	○	○	○	○	○	○	○	○

##DIFFERENCE TABLE 2

BRAND	TOOL	IC7002	C7011	D7003 C7012	R7015	C7041	D7043 C7042	IC7042	R7046
JVC	HR-J696EN	GP1U291Q PNA4652M00YC PIC-28143LJ	○	×	0Ω	×	×	×	×
	HR-J496M,HR-J693M,HR-J496EN HR-J285EE,HR-J485EE, HR-J481MS,HR-J481MS/S	×	×	×	×	○	×	GP1U291Q PNA4652M00YC PIC-28143LJ	0Ω
PHILIPS	01A	×	×	×	×	○	×	GP1U290Q PNA4652M00YC PIC-28142LJ	100k
	01B,00A	GP1U290Q PNA4652M00YC PIC-28142LJ	○	○	100k	×	×	×	×

##DIFFERENCE TABLE 3

DISPLAY TYPE	D17001	Q7001-Q7006 Q7009,Q7012 R7001,R7004 R7007	CN7003 D7011-D7014 CN7004	B7011
12H,7 SEG AMBER	LTG-Y2K12M-01J	○	×	×
12/24H,7 SEG GREEN	LTG-Y2K16M-J	○	×	×
4-DIG	×	×	○	○

##DIFFERENCE TABLE 4

JOG/SHUTTLE	R7009-R7014
WITH J/S	○
HR-J696EN	×
HR-J496M,HR-J693M,HR-J496EN HR-J285EE,HR-J485EE, HR-J481MS,HR-J481MS/S	×

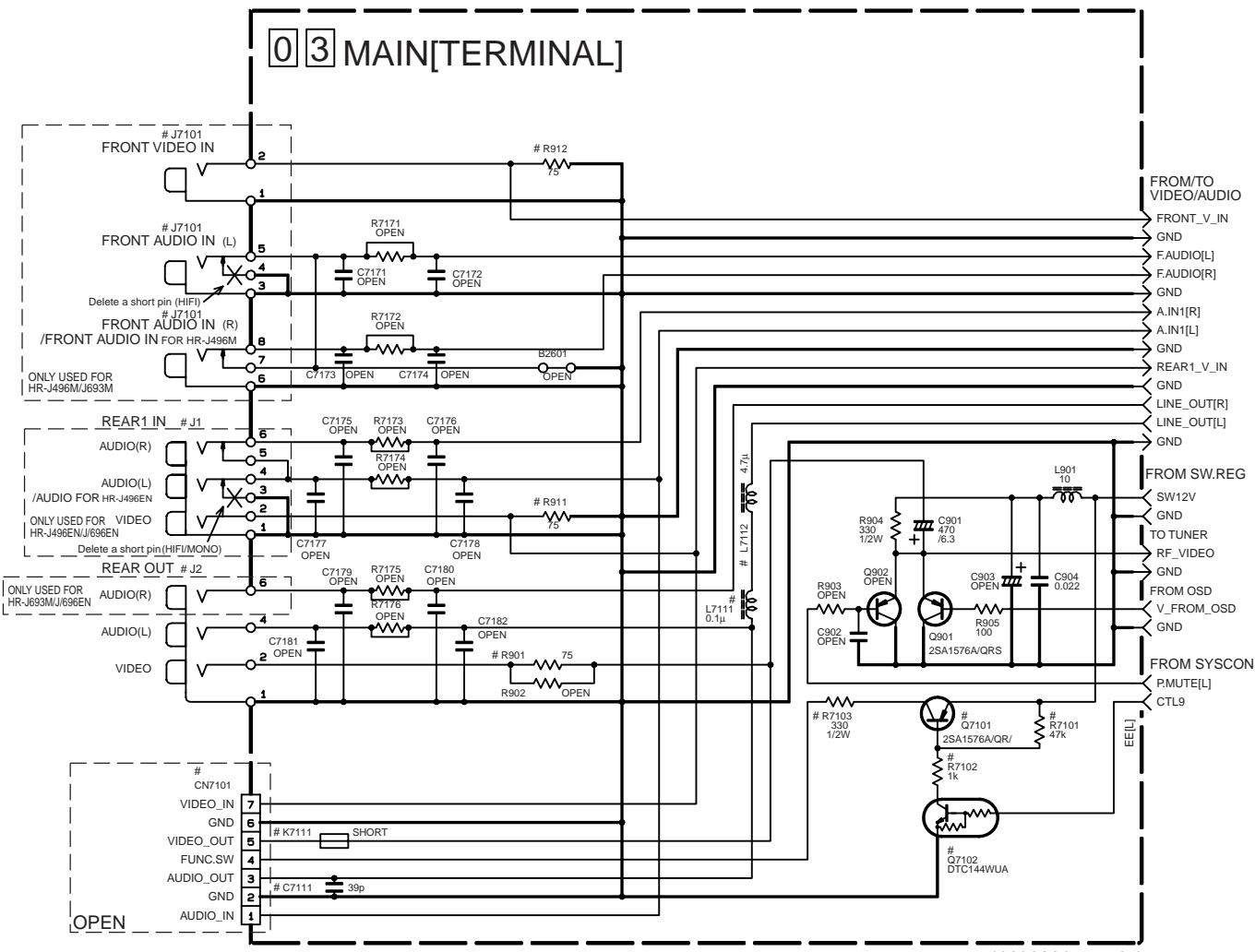
##DIFFERENCE TABLE 5

REC LINK	Q7013 R7008	D7009	D7010
HR-J696EN	○	RED	×
HR-J496M,HR-J693M,HR-J496EN HR-J285EE,HR-J485EE, HR-J481MS,HR-J481MS/S	×	×	×

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

4.8 MAIN (TERMINAL) SCHEMATIC DIAGRAM



NOTES: UNLESS OTHERWISE SPECIFIED.

ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

○:used
X:Not used

#DIFFERENCE TABLE 1

OUTPUT	J2
HR-J693M/HR-J696EN	3P
HR-J496M,HR-J496EN HR-J285EE,HR-J485EE HR-J481MS,HR-J481MS	2P

#DIFFERENCE TABLE 3

	K7111	C7111	L7111	L7112
HR-J278EU	○			○
OTHER	OPEN			SHORT

#DIFFERENCE TABLE 2

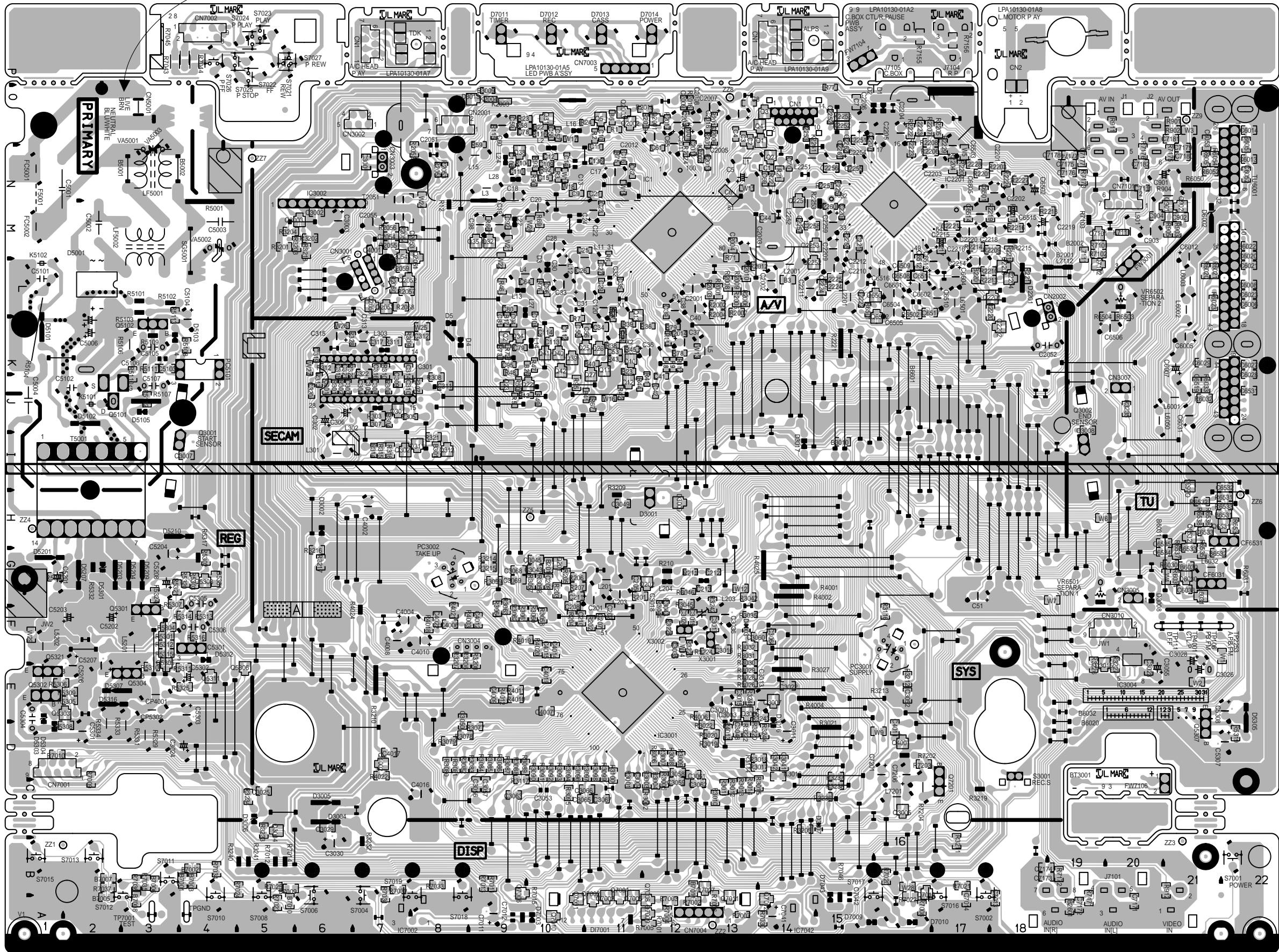
	INPUT	J1	J7101	R911	R912	R901	CN7101,Q7101,Q7102,R7101-R7103
HiFi	HR-J693M	X	3P	X	○	○	X
	HR-J696M	3P	X	○	X	○	X
MONO	FRONT/REAR	3P	3P	○	○	○	X
	HR-J496M	X	2P	X	○	○	X
	HR-J496EN	2P	X	○	X	○	X
	HR-J485EE,HR-J481MS HR-J481MS/S	2P	2P	○	○	○	X
	PERI CONNECTOR	X	X	X	X	X	○

COMPONENT PARTS LOCATION GUIDE <MAIN >

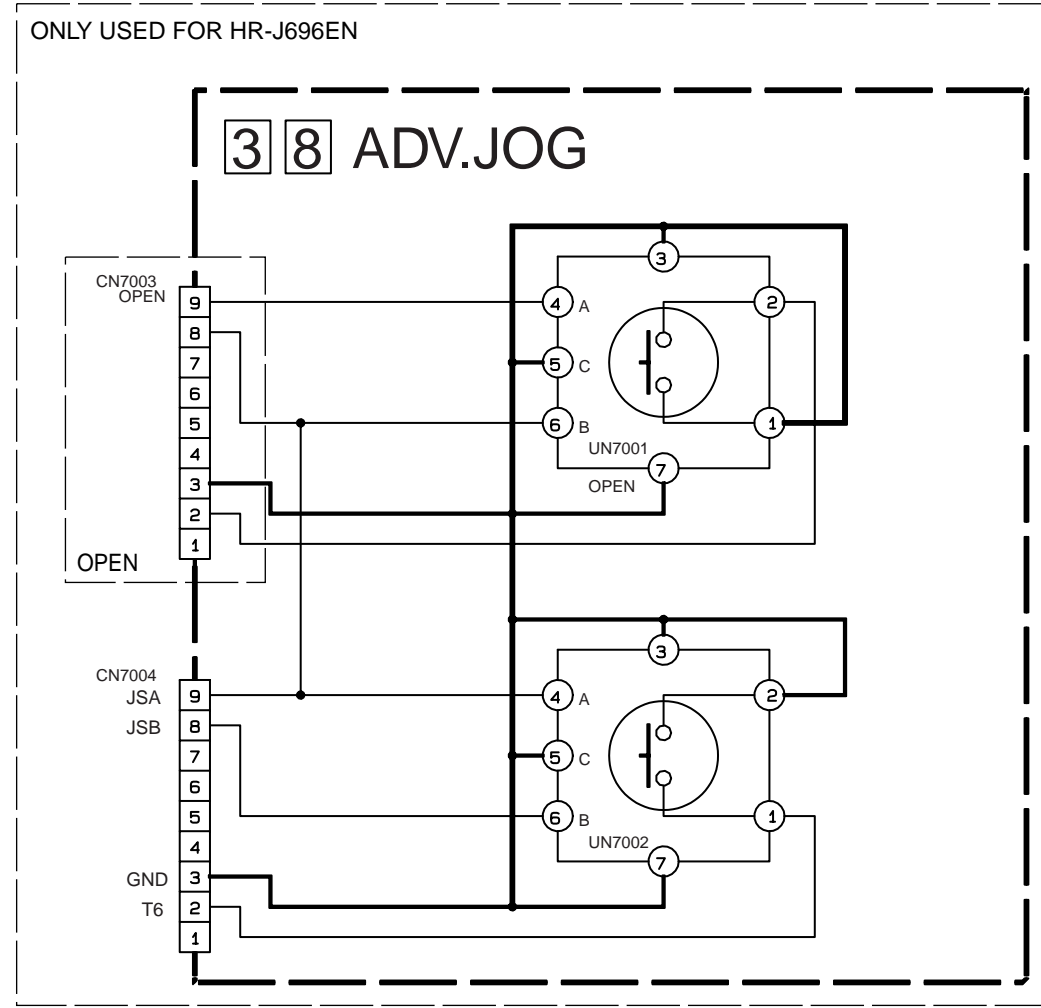
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR				IC				RESISTOR					
C1	B	C2	B	IC1	B	R1	B	R2	B	R3	B	R4	B
C3	B	C4	B	IC2	B	R5	B	R6	B	R7	B	R8	B
C5	B	C6	B	IC3	B	R9	B	R10	B	R11	B	R12	B
C7	B	C8	B	IC4	B	R13	B	R14	B	R15	B	R16	B
C9	B	C10	B	IC5	B	R17	B	R18	B	R19	B	R20	B
C11	B	C12	B	IC6	B	R21	B	R22	B	R23	B	R24	B
C13	B	C14	B	IC7	B	R25	B	R26	B	R27	B	R28	B
C15	B	C16	B	IC8	B	R29	B	R30	B	R31	B	R32	B
C17	B	C18	B	IC9	B	R33	B	R34	B	R35	B	R36	B
C19	B	C20	B	IC10	B	R37	B	R38	B	R39	B	R40	B
C21	B	C22	B	IC11	B	R41	B	R42	B	R43	B	R44	B
C23	B	C24	B	IC12	B	R45	B	R46	B	R47	B	R48	B
C25	B	C26	B	IC13	B	R49	B	R50	B	R51	B	R52	B
C27	B	C28	B	IC14	B	R53	B	R54	B	R55	B	R56	B
C29	B	C30	B	IC15	B	R57	B	R58	B	R59	B	R60	B
C31	B	C32	B	IC16	B	R61	B	R62	B	R63	B	R64	B
C33	B	C34	B	IC17	B	R65	B	R66	B	R67	B	R68	B
C35	B	C36	B	IC18	B	R69	B	R70	B	R71	B	R72	B
C37	B	C38	B	IC19	B	R73	B	R74	B	R75	B	R76	B
C39	B	C40	B	IC20	B	R77	B	R78	B	R79	B	R80	B
C41	B	C42	B	IC21	B	R81	B	R82	B	R83	B	R84	B
C43	B	C44	B	IC22	B	R85	B	R86	B	R87	B	R88	B
C45	B	C46	B	IC23	B	R89	B	R90	B	R91	B	R92	B
C47	B	C48	B	IC24	B	R93	B	R94	B	R95	B	R96	B
C49	B	C50	B	IC25	B	R97	B	R98	B	R99	B	R100	B
C51	B	C52	B	IC26	B	R101	B	R102	B	R103	B	R104	B
C53	B	C54	B	IC27	B	R105	B	R106	B	R107	B	R108	B
C55	B	C56	B	IC28	B	R109	B	R110	B	R111	B	R112	B
C57	B	C58	B	IC29	B	R113	B	R114	B	R115	B	R116	B
C59	B	C60	B	IC30	B	R117	B	R118	B	R119	B	R120	B
C61	B	C62	B	IC31	B	R121	B	R122	B	R123	B	R124	B
C63	B	C64	B	IC32	B	R125	B	R126	B	R127	B	R128	B
C65	B	C66	B	IC33	B	R129	B	R130	B	R131	B	R132	B
C67	B	C68	B	IC34	B	R133	B	R134	B	R135	B	R136	B
C69	B	C70	B	IC35	B	R137	B	R138	B	R139	B	R140	B
C71	B	C72	B	IC36	B	R141	B	R142	B	R143	B	R144	B
C73	B	C74	B	IC37	B	R145	B	R146	B	R147	B	R148	B
C75	B	C76	B	IC38	B	R149	B	R150	B	R151	B	R152	B
C77	B	C78	B	IC39	B	R153	B	R154	B	R155	B	R156	B
C79	B	C80	B	IC40	B	R157	B	R158	B	R159	B	R160	B
C81	B	C82	B	IC41	B	R161	B	R162	B	R163	B	R164	B
C83	B	C84	B	IC42	B	R165	B	R166	B	R167	B	R168	B
C85	B	C86	B	IC43	B	R169	B	R170	B	R171	B	R172	B
C87	B	C88	B	IC44	B	R173	B	R174	B	R175	B	R176	B
C89	B	C90	B	IC45	B	R177	B	R178	B	R179	B	R180	B
C91	B	C92	B	IC46	B	R181	B	R182	B	R183	B	R184	B
C93	B	C94	B	IC47	B	R185	B	R186	B	R187	B	R188	B
C95	B	C96	B	IC48	B	R189	B	R190	B	R191	B	R192	B
C97	B	C98	B	IC49	B	R193	B	R194	B	R195	B	R196	B
C99	B	C100	B	IC50	B	R197	B	R198	B	R199	B	R200	B
C101	B	C102	B	IC51	B	R201	B	R202	B	R203	B	R204	B
C103	B	C104	B	IC52	B	R205	B	R206	B	R207	B	R208	B
C105	B	C106	B	IC53	B	R209	B	R210	B	R211	B	R212	B
C107	B	C108	B	IC54	B	R213	B	R214	B	R215	B	R216	B
C109	B	C110	B	IC55	B	R217	B	R218	B	R219	B	R220	B
C111	B	C112	B	IC56	B	R221	B	R222	B	R223	B	R224	B
C113	B	C114	B	IC57	B	R225	B	R226	B	R227	B	R228	B
C115	B	C116	B	IC58	B	R229	B	R230	B	R231	B	R232	B
C117	B	C118	B	IC59	B	R233	B	R234	B	R235	B	R236	B
C119	B	C120	B	IC60	B	R237	B	R238	B	R239	B	R240	B
C121	B	C122	B	IC61	B	R241	B	R242	B	R243	B	R244	B
C123	B	C124	B	IC62	B	R245	B	R246	B	R247	B	R248	B
C125	B	C126	B	IC63	B	R249	B	R250	B	R251	B	R252	B
C127	B	C128	B	IC64	B	R253	B	R254	B	R255	B	R256	B
C129	B	C130	B	IC65	B	R257	B	R258	B	R259	B	R260	B
C131	B	C132	B	IC66	B	R261	B	R262	B	R263	B	R264	B
C133	B	C134	B	IC67	B	R265	B	R266	B	R267	B	R268	B
C135	B	C136	B	IC68	B	R269	B	R270	B	R271	B	R272	B
C137	B	C138	B	IC69	B	R273	B	R274	B	R275	B	R276	B
C139	B	C140	B	IC70	B	R277	B	R278	B	R279	B	R280	B
C141	B	C142	B	IC71	B	R281	B	R282	B	R283	B	R284	B
C143	B	C144	B	IC72	B	R285	B	R286	B	R287	B	R288	B
C145	B	C146	B	IC73	B	R289	B	R290	B	R291	B	R292	B
C147	B	C148	B	IC74	B	R293	B	R294	B	R295	B	R296	B
C149	B	C150	B	IC75	B	R297	B	R298	B	R299	B	R300	B
C151	B	C152	B	IC76	B	R301	B	R302	B	R303	B	R304	B
C153	B	C154	B	IC77	B	R305	B	R306	B	R307	B	R308	B
C155	B	C156	B	IC78	B	R309	B	R310	B	R311	B	R312	B
C157	B	C158	B	IC79	B	R313	B	R314	B	R315	B	R316	B
C159	B	C160	B	IC80	B	R317	B	R318	B	R319	B	R320	B
C161	B	C162	B	IC81	B	R321	B	R322	B	R323	B	R324	B
C163	B	C164	B	IC82	B	R325	B	R326	B	R327	B	R328	B
C165	B	C166	B	IC83	B	R329	B	R330	B	R331	B	R332	B
C167	B	C168	B	IC84	B	R333	B	R334	B	R335	B	R336	B
C169	B	C170	B	IC85	B	R337	B	R338	B	R339	B	R340	B
C171	B	C172	B	IC86	B	R341	B	R342	B	R343	B	R344	B
C173	B	C174	B	IC87	B	R345	B	R346	B	R347	B	R348	B
C175	B	C176	B	IC88	B	R349	B	R350	B	R351	B	R352	B
C177	B	C178	B	IC89	B	R353	B	R354	B	R355	B	R356	B
C179	B	C180	B	IC90	B	R357	B	R358	B	R359	B	R360	B
C181	B	C182	B	IC91	B	R361	B	R362	B	R363	B	R364	B
C183	B	C184	B	IC92	B	R365	B	R366	B	R367	B	R368	B
C185	B	C186	B	IC93	B	R369	B	R370	B	R371	B	R372	B
C187	B	C188	B	IC94	B	R373	B	R374	B	R375	B	R376	B
C189	B	C190	B	IC95	B	R377	B	R378	B	R379	B	R380	B
C191	B	C192	B	IC96	B	R381	B	R382	B	R383	B	R384	B
C193	B	C194	B	IC97	B	R385	B	R386	B	R387	B	R388	B
C195	B	C196	B	IC98	B	R389	B	R390	B	R391	B	R392	B
C197	B	C198	B	IC99	B	R393	B	R394	B	R395	B	R396	B
C199	B	C200	B	IC100	B	R397	B	R398	B	R399	B	R400	B
C201	B	C202	B	IC101	B	R401	B	R402	B	R403	B	R404	B
C203	B	C204	B	IC102	B	R405	B	R406	B	R407	B	R408	B
C205	B	C206	B	IC103	B	R409	B	R410	B	R411	B	R412	B
C207	B	C208	B	IC104	B	R413	B	R414	B	R415	B	R416	B
C209	B	C210	B	IC105	B	R417	B	R418	B	R419	B	R420	B
C211	B	C212	B	IC106	B	R421	B	R422	B	R423	B	R424	B
C213	B	C214	B	IC107	B	R425	B	R426	B	R427	B	R428	B
C215	B	C216	B	IC108	B	R429	B	R430	B	R431	B	R432	B
C217	B	C218	B	IC109	B	R433	B	R434	B	R435	B	R436	B

<03> MAIN
LPB10130-001D

-dangerous voltage

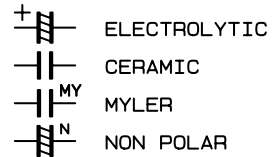


4.10 ADV.JOG SCHEMATIC DIAGRAM [HR-J696EN]



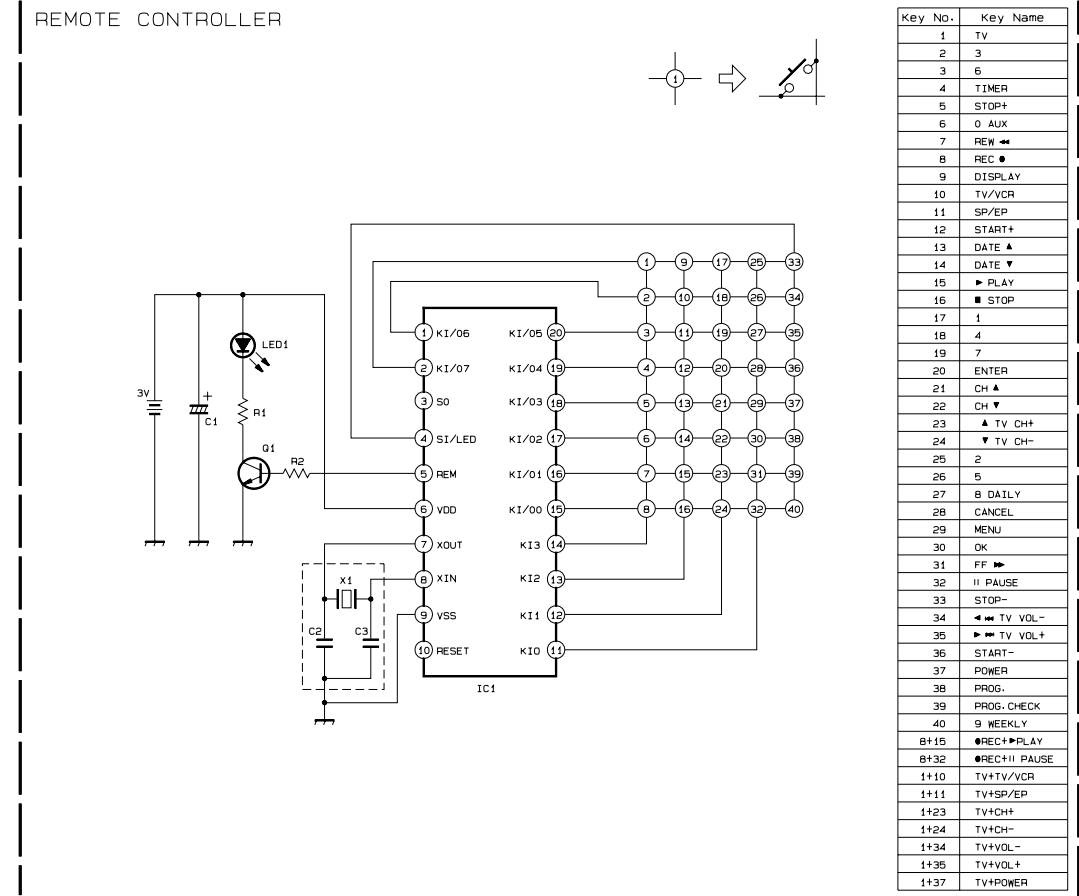
P40037001a_rev0

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



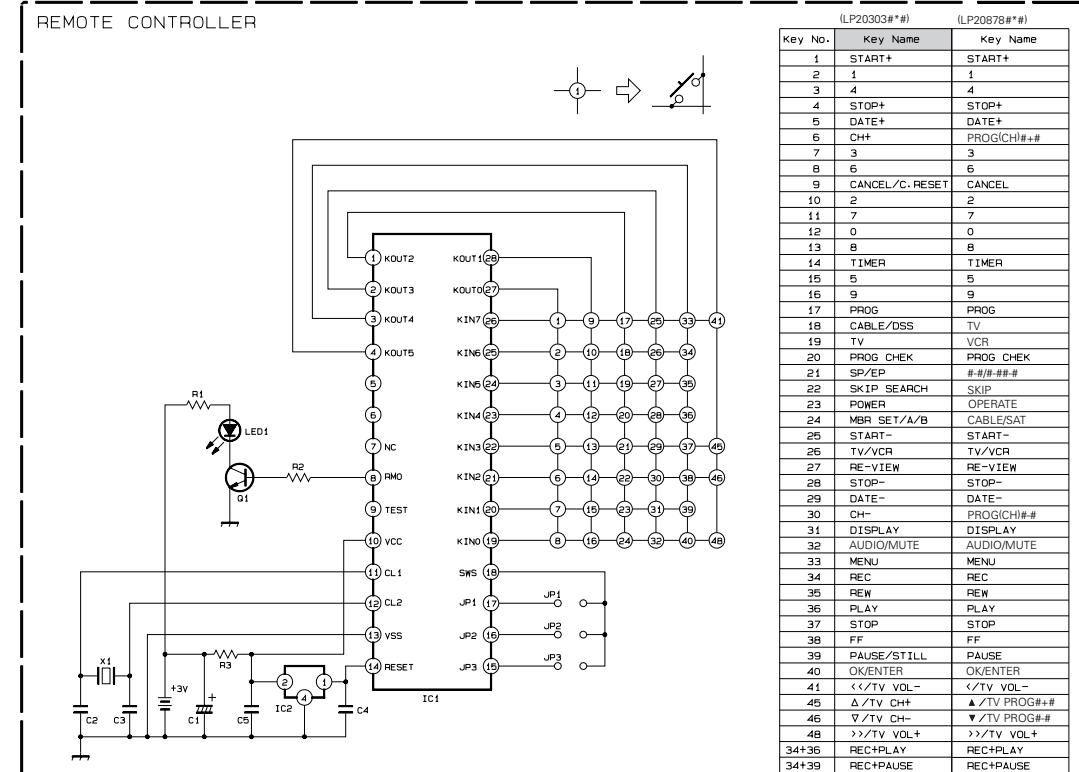
4.11 REMOTE CONTROLLER SCHEMATIC DIAGRAM

-HR-J496M/J693M-



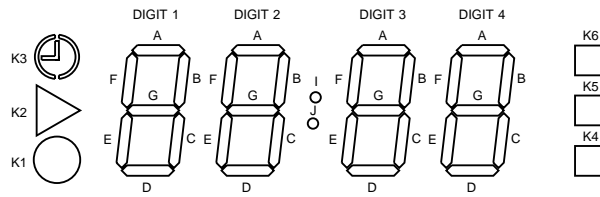
NOTES:
 1. All parts shown in this schematic are critical for safety.
 2. This schematic is only for reference.
 Avoid replacing individual parts.
 Replace the entire unit only.

-HR-J496EN/J696EN-



4.12 FDP GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT

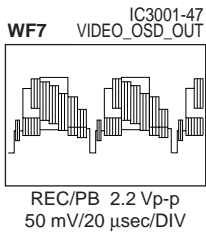
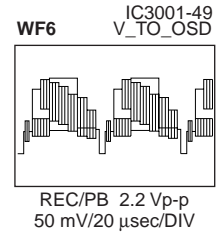
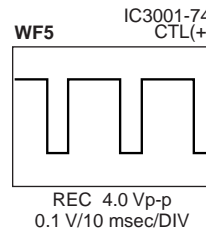
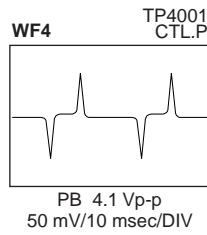
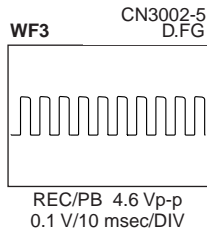
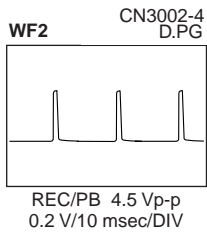
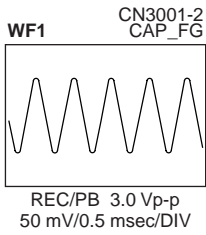


ANODE CONNECTION

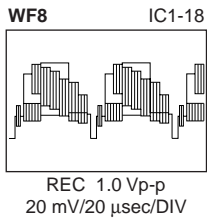
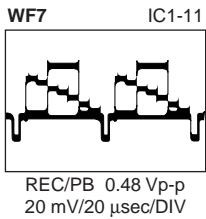
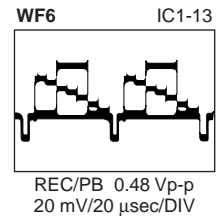
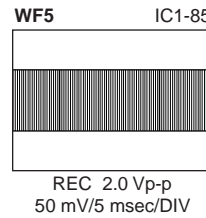
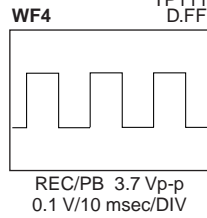
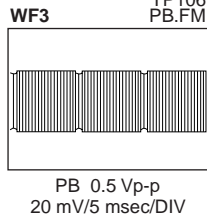
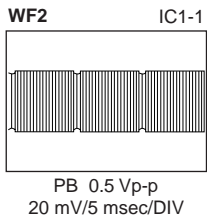
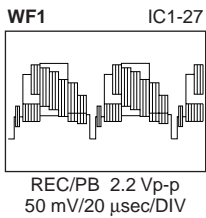
No.	CONNECTION
1	CATHODE 1G, 2G, 3G, 4G, I, J
2	CATHODE 1F, 2F, 3F, 4F, K6
3	CATHODE 1E, 2E, 3E, 4E, K1
4	CATHODE 1D, 2D, 3D, 4D, K4
5	CATHODE 1C, 2C, 3C, 4C, K5
6	CATHODE 1B, 2B, 3B, 4B, K2
7	CATHODE 1A, 2A, 3A, 4A, K3
8	COMMON ANODE K3, K2, K5, K4, K1, K6, I, J
9	COMMON ANODE DIGIT4
10	COMMON ANODE DIGIT3
11	COMMON ANODE DIGIT2
12	COMMON ANODE DIGIT1

4.13 WAVE FORMS

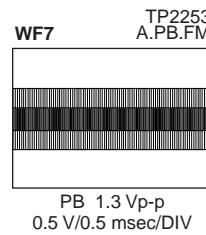
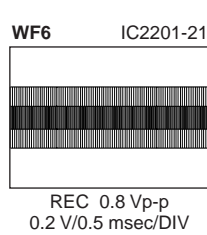
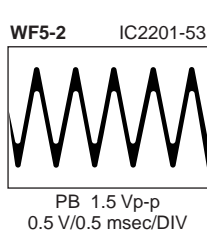
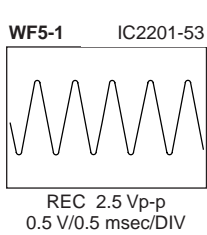
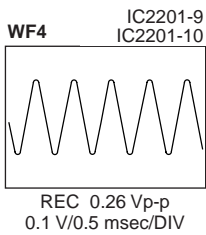
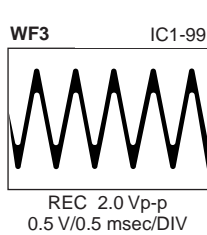
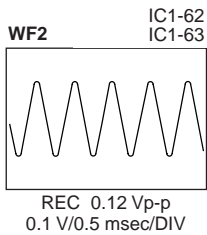
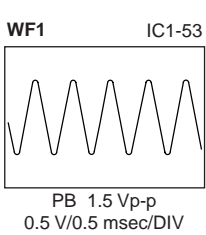
< SYSCON >



< VIDEO >



< AUDIO >



*WF4 - WF7 is only used for HR-J693M/J696EN

4.14 VOLTAGE CHARTS

<MAIN>			<LT.BATTERY>		
MODE PIN NO.	REC	PLAY	MODE PIN NO.	REC	PLAY
IC1			IC2201		
1	1.5	2.3	1	2.4	2.4
2	2.8	2.8	2	0	0
3	2.6	2.6	3	2.4	2.4
4	1.9	1.5	4	0	0
5	1.9	1.5	5	2.3	2.3
6	2.4	2.1	6	2.5	2.5
7	1.4	0.8	7	2.0	2.0
8	0	0	8	0.4	0.4
9	2.6	3.1	9	0	0
10	2.3	2.3	10	0	0
11	3.1	3.1	11	0	0
12	2.8	2.8	12	2.0	2.0
13	3.1	3.1	13	2.2	2.2
14	2.3	2.3	14	0	0
15	0	0	15	0	0
16	2.8	2.8	16	2.5	2.5
17	1.4	1.4	17	0.7	0.7
18	2.8	2.8	18	2.4	2.4
19	2.8	2.8	19	2.5	0
20	2.8	2.8	20	2.0	0
21	2.0	2.0	21	1.9	0
22	2.8	2.8	22	2.0	0.7
23	2.8	2.8	23	0	0
24	5.0	5.0	24	2.0	0.7
25	0.4	0.4	25	5.0	5.0
26	0	0	26	2.0	0
27	2.3	2.3	27	0	0
28	2.3	2.3	28	4.3	2.2
29	1.9	1.9	29	4.4	1.9
30	2.1	2.1	30	4.9	1.0
31	0	0	31	1.1	1.9
32	2.5	2.5	32	2.5	2.5
33	5.0	5.0	33	2.5	2.5
34	2.7	2.3	34	0.7	0.7
35	5.0	5.0	35	2.6	2.6
36	2.5	0	36	0	0
37	2.3	2.3	37	1.6	1.6
38	-	-	38	0	0
39	1.2	1.2	39	0	0
40	-	-	40	5.0	5.0
41	2.5	2.5	41	0	0
42	-	-	42	5.0	5.0
43	0	0	43	4.9	4.9
44	2.2	2.2	44	2.3	2.3
45	4.6	4.6	45	0	0
46	4.9	4.6	46	3.6	3.6
47	2.9	2.9	47	1.5	1.5
48	2.6	2.6	48	2.2	2.2
49	5.0	5.0	49	3.5	3.5
50	2.5	2.5	50	3.5	0
51	2.8	2.8	51	0	5.0
52	0	0	52	3.5	0
53	2.6	2.6	53	4.4	0
54	0	0	54	2.4	0
55	0	0	55	0	0
56	0	0	56	0	0
57	0	0	57	4.4	0
58	0	0	58	9.3	9.3
59	0	0	59	4.4	4.4
60	0	0	60	0	0
61	0	0	61	2.5	2.5
62	0	0	62	2.4	0
63	0	0	63	2.4	2.4
64	0	0	64	0.5	0.8
65	2.0	2.0	IC3001		
66	0	0	1	-	-
67	0	0	2	-	-
68	0	0	3	0	0
69	0	0	4	5.0	0
70	0	0	5	5.1	5.0
71	0	0	6	4.0	4.0
72	0	0	7	4.0	4.0
73	3.1	3.1	8	4.1	4.1
74	0	0	9	4.0	4.0
75	0	0	10	0	0
76	0	0	11	0	0
77	0	0	12	0	0
78	0	0	13	0	0
79	5.0	5.0	14	0	0
80	5.0	5.0	15	5.0	5.0
81	0	0	16	4.9	4.9
82	0	0	17	4.9	4.9
83	0	0	18	4.5	4.5
84	2.2	2.2	19	0	0
85	2.4	2.4	20	0	0
86	2.2	2.2	21	2.8	2.8
87	5.0	5.0	22	4.3	4.3
88	0	0	23	2.5	2.5
89	0	0	24	0	0
90	0	0	25	-	-
91	0	4.0	26	0	2.5
92	2.6	2.6	27	5.0	0
93	0.8	0.5	28	5.1	5.0
94	0	0	29	1.0	1.0
95	2.5	2.5	30	4.9	0
96	2.5	2.5	31	5.0	5.0
97	2.5	2.5	32	4.1	4.1
98	0	0	33	2.5	2.5
99	2.5	2.5	34	1.5	1.5
100	0	0	35	0	0
			IC3002		
			1	7.5	7.5
			2	0.5	0.5
			3	0	0
			4	0.5	0.5
			5	11.9	11.9
			6	11.9	11.9
			7	0	0
			8	0	0
			9	0	0
			IC3004		
			1	0	0
			2	0	0
			3	0	0
			4	0	0
			5	4.8	4.8
			6	4.9	4.9
			7	0	0
			8	5.1	5.1
			IC5301		
			1	2.5	2.5
			2	0	0
			3	4.5	4.5
			IC7002[HR-J696EN]		
			1	0	5.1
			2	0	5.0
			3	0	0
			IC7042[HR-J696EN]		
			1	0	5.1
			2	0	5.0
			3	0	0
			CN1		
			1	0	0
			2	0	0
			3	0	0
			4	0	0

4.15 CPU PIN FUNCTION

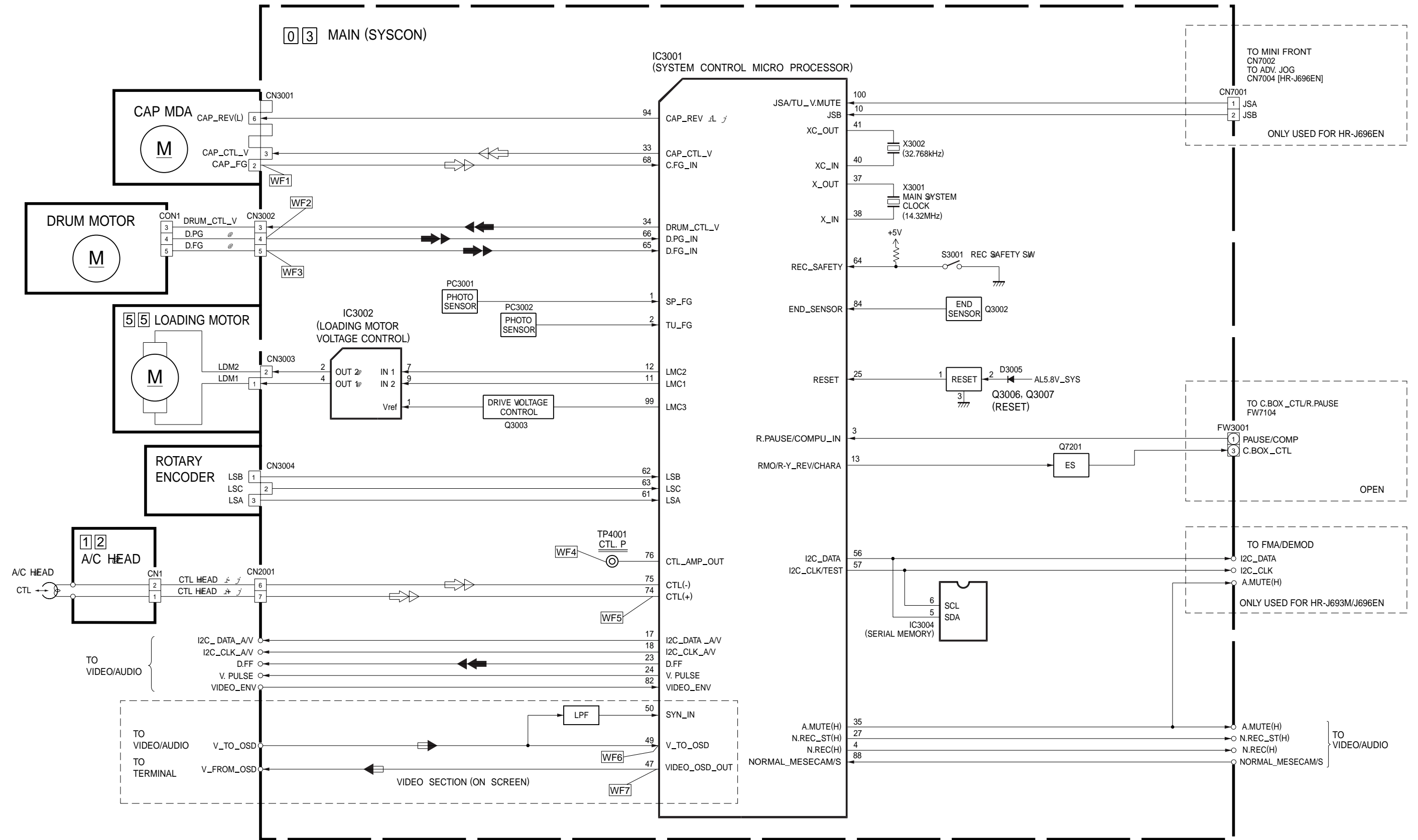
<SYSCON IC3001>

PIN NO.	LABEL	IN/OUT	FUNCTION
1	SP_FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN
2	TU_FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
3	R.PAUSE/COMPU_IN	IN	REMOTE PAUSE CONTROL[NC]/A/V COMPULINK INPUT[NC]
4	N.REC(H)	OUT	NORMAL AUDIO REC MODE CONTROL (REC:H)
5	RC	IN	REMOTE CONTROL DATA INPUT
6	DIG2	OUT	LED DRIVE
7	DIG1	OUT	LED DRIVE
8	DIG4	OUT	LED DRIVE
9	DIG5	OUT	LED DRIVE
10	JSB	IN	INPUT FOR THE JOG SHUTTLE[HR-J696EN]
11	LMC1	OUT	LOADING MOTOR DRIVE(1)
12	LMC2	OUT	LOADING MOTOR DRIVE(2)
13	RMO/R-Y_REV/CHARA	OUT	REMOTE CONTROL OUTPUT FOR CABLE BOX[NC]/NC/NC
14	POWER_DET	OUT	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
15	CONV_CTL(H)/MESECAM(H)	OUT	R/F CONVERTER ON/OFF (ON:H, OFF:L)/NC
16	CTL_GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING
17	I2C_DATA_AV	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE VIDEO/AUDIO IC
18	I2C_CLK_AV	OUT	SERIAL DATA TRANSFER CLOCK FOR THE VIDEO/AUDIO IC
19	SP_SHORT(H)	OUT	MODE SELECT-SP
20	EP_SHORT(H)	OUT	MODE SELECT-EP
21	SB_GAIN	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
22	CH_SW	IN	RF CHANNEL SWITCHING
23	D.FF	OUT	ROTATION DETECTION SIGNAL FOR DRUM MOTOR/TIMING CONTROL SIGNAL FOR REC
24	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL
25	RESET	-	RESET TERMINAL
26	A.FF/SECAM_DET	OUT	AUDIO FF OUTPUT/NC
27	N.REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START
28	TU_I2C_CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR THE TUNER UNIT
29	D_B	OUT	LED DRIVE
30	H.REC_ST(H)/SECAM(H)	OUT	HI-FI AUDIO SOUND RECORDING START
31	TU_MUTE(H)	-	NC
32	DIG3	OUT	LED DRIVE
33	CAP_CTL_V	OUT	CAPSTAN MOTOR CONTROL
34	DRUM_CTL_V	OUT	DRUM MOTOR CONTROL
35	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE ON:H)
36	VDD	-	SYSTEM POWER
37	X_OUT	-	MAIN SYSTEM CLOCK (14.32MHz)
38	X_IN	-	MAIN SYSTEM CLOCK (14.32MHz)
39	VSS	-	GND
40	XC_IN	-	TIMER CLOCK (32.768kHz)
41	XC_OUT	-	TIMER CLOCK (32.768kHz)
42	Sxi	-	NC
43	PMUTE(L)	-	NC
44	3.58NTSC(L)/POWER_SAVE(H)	-	NC/NC
45	SYNC_DET	-	NC
46	PROTECT	IN	DETECTION SIGNAL FOR SWITCHING POWER SUPPLY
47	VIDEO_OSD_OUT	OUT	COMPOSITE VIDEO SIGNAL OUTPUT
48	VSS2	-	GND
49	V_TO_OSD	IN	COMPOSITE VIDEO SIGNAL INPUT
50	SYN_IN	IN	COMPOSITE SYNCHRONIZING SIGNAL FOR SERVO, VERTICAL SYNCHRONIZING SIGNAL FOR OSD

PIN NO.	LABEL	IN/OUT	FUNCTION
51	VDD2	-	SYSTEM POWER
52	AFCC	IN	FILTER INPUT FOR HORIZONTAL SYNCHRONIZING OF OSD CHARACTER
53	AFCLPF	OUT	FILTER OUTPUT FOR HORIZONTAL SYNCHRONIZING OF OSD CHARACTER
54	FSCI	IN	FSC INPUT FOR OSD
55	FSCLPF	OUT	FSC OUTPUT FOR OSD
56	I2C_DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
57	I2C_CLK/TEST	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC/MECHANISM TEST SIGNAL
58	D_F	OUT	LED DRIVE
59	P.CTL(H)	OUT	CONTROL SIGNAL FOR SWITCHING POWER SUPPLY
60	D_G	OUT	LED DRIVE
61	LSA	IN	MECHANISM MODE DETECT(A)
62	LSB	IN	MECHANISM MODE DETECT(B)
63	LSC	IN	MECHANISM MODE DETECT(C)
64	REC_SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
65	D.FG_IN	IN	DRUM FG PULSE INPUT
66	D.PG_IN	IN	DRUM PICKUP PULSE INPUT (SWITCHING PULSE)
67	C.FG_AMP_OUT	OUT	SET-UP OUTPUT FOR CAPSTAN FG AMPLIFICATION FACTOR
68	C.FG_IN	IN	CAPSTAN FG PULSE INPUT
69	AMP_VREF_OUT	OUT	AMP CIRCUIT REFERENCE VOLTAGE OUTPUT
70	AMP_VREF_IN	IN	AMP CIRCUIT REFERENCE VOLTAGE INPUT
71	AVSS	-	GND FOR ANALOG CIRCUIT
72	AMP_C	IN	CAPACITOR CONNECT TERMINAL FOR CTL AMP CIRCUIT
73	AVCC	-	SYSTEM POWER FOR ANALOG CIRCUIT
74	CTL(+)	IN/OUT	CTL(+) SIGNAL
75	CTL(-)	IN/OUT	CTL(-) SIGNAL
76	CTL_AMP_OUT	OUT	CTL PULSE OUTPUT
77	LOCK(L)	-	NC
78	AGC_CTL/SW1	OUT	DETECTION SIGNAL FOR AGC/NC
79	START_SENSOR	-	NC
80	AFC/JUST_CLK	IN	TUNING CHECK/NC
81	LED/SW2	IN	SAP DETECT/NC
82	VIDEO_ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
83	A.ENV/ND(L)/EE(L)	IN	AUDIO PB FM ENV. INPUT/NON HI-FI MODEL/L/NC
84	END_SENSOR	IN	END SENSOR
85	KEY1	IN	OPERATION CONTROL SIGNAL[HR-J696EN]
86	KEY2	IN	OPERATION CONTROL SIGNAL[HR-J696EN]
87	KILLER_DET/COMPU_OUT/PAL_PB	-	NC/NC/NC
88	NORMAL_MESECAM/S	IN	NC/SQPB DETECT
89	D_A	OUT	LED DRIVE
90	TU_I2C_DATA	IN/OUT	I/O DATA FOR THE TUNER UNIT
91	J4	-	NC
92	J5/V.UP(H)	OUT	HIGH SPEED FF/REW AND TURBO SERCH MODE:H[NC]
93	J6	-	NC
94	CAP_REV(L)	OUT	CAPSTAN MOTOR REVERSE CONTROL (FWD:H/REV:L)
95	J3/REC_LINK	IN	NC/REC LINK[HR-J696EN]
96	D_C	OUT	LED DRIVE
97	D_D	OUT	LED DRIVE
98	D_E	OUT	LED DRIVE
99	LMC3	OUT	LOADING MOTOR DRIVE(3)
100	JSA/TU_V.MUTE	IN	INPUT FOR THE JOG SHUTTLE[HR-J696EN]/NC

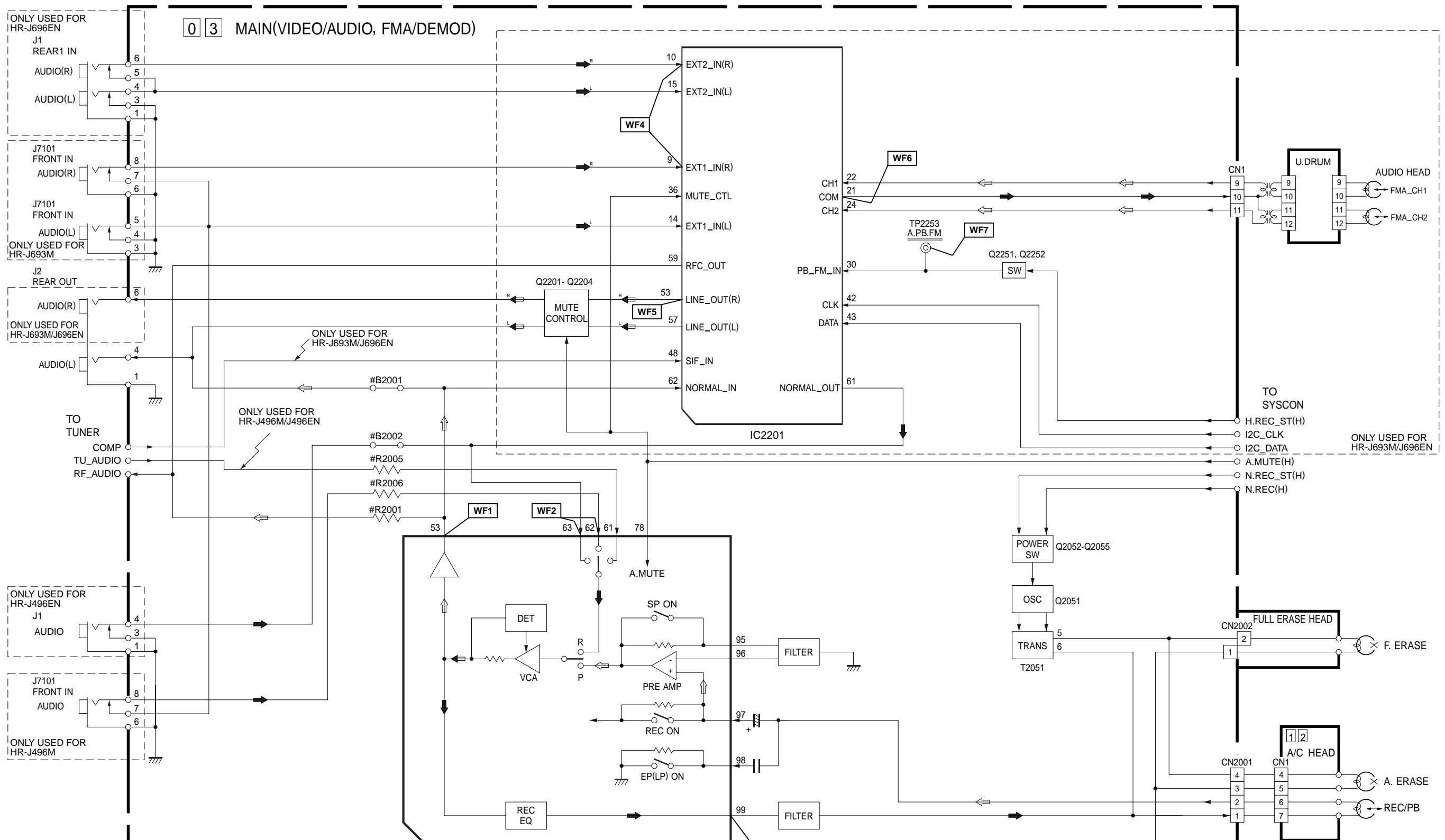
4.16 SYSTEM CONTROL BLOCK DIAGRAM

5
4
3
2
1



A B C D 4-27 4-28 E F G H

4.18 AUDIO BLOCK DIAGRAM



#DIFFERENCE TABLE

	B2001,R2001,R2005	B2002	R2006
HI-FI	HR-J693M/J696EN	NOT USED	NOT USED
MONO	HR-J496M	USED	NOT USED
	HR-J496EN	USED	USED

IC1 (VIDEO/N.AUDIO SIGNAL PROCESSOR)

5

4

3

2

1