

JVC

SERVICE MANUAL

VIDEO CASSETTE RECORDER

HR-S2110T/S6700KR/S7800U/U(C)



Regarding service information other than these sections, refer to the **HR-S4800U** service manual (No. 82792). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model HR-S7800U)*

GENERAL

Power requirement	: AC 120 V \sim , 60 Hz
Power consumption	
Power on	: 20 W
Power off	: 2.5 W
Temperature	
Operating	: 5°C to 40°C (41°F to 104°F)
Storage	: -20°C to 60°C (-4°F to 140°F)
Operating position	: Horizontal only
Dimensions (W x H x D)	: 400 mm x 94 mm x 281 mm (15-3/4" x 3-3/4" x 11-1/8")
Weight	: 3.5 kg (7.7 lbs)
Format	: S-VHS/VHS NTSC standard
Maximum recording time	
SP	: 210 min. with ST-210 video cassette
EP	: 630 min. with ST-210 video cassette

VIDEO/AUDIO

Signal system	: NTSC-type color signal and EIA monochrome signal, 525 lines/60 fields
Recording/ Playback system	: DA-4 (Double Azimuth) head helical scan system
Signal-to-noise ratio	: 45 dB
Horizontal resolution	
VHS	: 230 lines
S-VHS	: 400 lines
Frequency range	
Normal audio	: 70 Hz to 10,000 Hz
Hi-Fi audio	: 20 Hz to 20,000 Hz
Input/Output	: RCA connectors (IN x 2, OUT x 1) S-video connectors (IN x 2, OUT x 1)

TUNER

Tuning system	: Frequency-synthesized tuner
Channel coverage	
VHF	: Channels 2-13
UHF	: Channels 14-69
CATV	: 113 Channels
RF output	: Channel 3 or 4 (switchable; preset to Channel 3 when shipped) 75 Ω , unbalanced

TIMER

Clock reference	: Quartz
Program capacity	: 1-year programmable timer/ 8 programs
Memory backup time	: Approx. 3 min.

ACCESSORIES

Provided accessories	: Infrared remote control unit, "AA" battery x 2, Audio/video cable, RF cable (F-type), S-video cable (4-pin), S-VHS ET labels, Controller
----------------------	--

*Specifications shown are for SP mode unless specified otherwise.
E. & O.E. Design and specifications subject to change without notice.*

TABLE OF CONTENTS

DIFFERENT TABLE	1 to 5
3. ELECTRICAL ADJUSTMENT (3-1 to 3-7)	
3.1 PRECAUTION	3-1
3.2 SERVO CIRCUIT	3-2
3.3 VIDEO CIRCUIT	3-2
3.4 AUDIO CIRCUIT	3-4
3.5 DEMODULATOR CIRCUIT	3-5
3.6 SYSCON CIRCUIT	3-7
4. CHARTS AND DIAGRAM (4-1 to 4-12)	
4.1 BOARD INTERCONNECTIONS	4-1
4.2 3D DIGITAL/2M SCHEMATIC DIAGRAM	4-3
4.3 DEMODULATOR SCHEMATIC DIAGRAM [HR-S6700KR]	4-5
4.4 MAIN,A/C HEAD, S JACK, R.PAUSE, C.BOX AND LOADING MOTOR CIRCUIT BOARDS	4-7
4.5 3D DIGITAL/2M CIRCUIT BOARD	4-10
4.6 DEMODULATOR CIRCUIT BOARD [HR-S6700KR]	4-11
4.7 REMOTE CONTROL SCHEMATIC DIAGRAM [HR-S2110T/S6700KR]	4-12
5. PARTS LIST (5-1 to 5-4)	
5.1 CABINET AND CHASSIS ASSEMBLY <M2>	5-1
5.2 ELECTRICAL PARTS LIST	5-3

The following table indicate main different points between models HR-S4800U, HR-S7800U, HR-S7800U(C), HR-S6700KR and HR-S2110T.

ITEM \ MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
JOG/SHUTTLE DIAL ON DECK	SH/PLAY	←	←	J/S	←
POWER VOLTAGE (RATING)	120V,60Hz	←	←	110~220V(60Hz)	←
POWER PLUG	UL,CSA	←	←	KOREAN	SASO
POWER SAVE	USED	←	←	NOT USED	←
FRONT PANEL COLOR	BLACK	←	←	CHMP	←
HEAD CLEANER	NOT USED	←	←	USED	←
RECORDING & PLAYBACK SPEED	REC: SP/EP, PLAY: SP/LP/EP	←	←	SP/EP	←
DIGITAL 3R	NOT USED	USED	←	←	←
TBC	NOT USED	USED	←	←	←
3D-MEMORY	NOT USED	USED	←	←	←
STEREO DECODER	MTS	←	←	A2(KOREAN)	MTS
RF OUT CH	[3CH],4CH	←	←	←	13CH
SUMMER TIME ADJ.	USED	←	←	NOT USED	←
CHILD LOCK	USED	←	←	NOT USED	←
VCR PLUS+	VCR+C3	←	←	G-CODE	←
AUTO CLOCK	USED	←	←	NOT USED	←
JUST CLOCK	USED	←	←	NOT USED	←
CABLE & DBS BOX CONTROL	USED	←	←	NOT USED	←

Notes : Mark ← is same as left.
Mark — is not used.

The following table indicate different parts number between models HR-S4800U, HR-S7800U, HR-S7800U(C), HR-S6700KR and HR-S2110T.

PACKING AND ACCESSORY ASSEMBLY <M1>

REF. NO.	MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
301	PACKING CASE	LP30658-013A	LP30658-022A	←	LP30658-026A	LP30658-029A
306	REMOTE CONTROLLER	LP20303-015A	←	←	LP20878-004B	←
306A	COVER(BATTERY)	LP40225-002A	←	←	LP40610-002A	←
△ 310	INST.BOOK(EN)	LPT0348-001A	LPT0349-001A	—	—	—
△ 310	INST.BOOK(FR)	—	—	LPT0349-003A	—	—
△ 310	INST.BOOK(KO)	—	—	—	LPT0430-001A	—
△ 310	INST.BOOK(EN.CH)	—	—	—	—	LPT0429-001A
313	A/V CABLE	PEAC0359-120	←	←	—	—
314	S CABLE	QAM0004-002	←	←	QAM0246-002	←
315	CONTROLLER	QAL0095-005	←	←	—	—
316	WARRANTY CARD	—	—	BT-52004-1	BT-56009-2M	—
317	Q.S.SHEET	LPT0348-002A	LPT0349-002A	←	—	—
319	REGIST.CARD	BT-51020-2	←	—	—	—
320	SER.NET CARD	—	—	BT-20071B	—	—
323	CONNECTION SHEET	—	—	PU36560	—	—

CABINET AND CHASSIS ASSEMBLY <M2>

REF. NO.	MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
△ 501	FRONT PANEL ASSY	LP10289-019B	LP10289-020C	←	LP10289-039B	LP10289-042B
501A	CASSETTE DOOR	LP20868-005A	←	←	LP20868-017A	←
501C	DISPLAY WINDOW	LP20869-023A	LP20869-024A	←	LP20869-052A	LP20869-060A
△ 502	TOP COVER	LP10013-021D	←	←	LP10013-031C	←
503	TAP SCREW	QYTDSF3010M	←	←	QYTDSF3010R	←
△ 511	BOTTOM CHASSIS	LP10108-012B	←	←	LP10108-016A	←
△ 517	POWER CORD	QMPD190-170-K	←	←	PQ21730N	QMP73J0-170
518	CLEANER ASSY	—	—	—	LP40369-001D	←
518A	CLEANER ROLLER	—	—	—	PQ46418-1-2	←
518B	CLEANER	—	—	—	PQ46419-1-2	←
518C	CLEANER ARM	—	—	—	LP30407-001D	←
527	WASHER,DRUM	QYWW267505Z	←	←	—	—
528	SPACER,DRUM	LP30017-21A	←	←	—	—
529	KNOB(JOG)	LP30653-001A	←	←	LP30651-004A	←
530	KNOB(SHUTTLE)	LP30652-001A	←	←	LP30652-002A	←
533	SPACER, SHIELD FRAME	*LP30002-088A	←	←	←	←

Notes : Mark ← is same as left.
 Mark — is not used.
 Mark * HR-S4800U was also changed.

MAIN BOARD ASSEMBLY <03>

REF. NO.	MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
PW1	MAIN BOARD ASSY	LPA10089-01B1	LPA10089-06B1	←	LPA10089-08B1	LPA10089-13A1
IC3001	IC	MN101D02HJP	MN101D02HAA	←	←	←
IC3004	IC	M24C04-BN6	M24C08-BN6	←	←	←
IC5101	IC	STR-G6532	←	←	STR-G6551	STR-G6532
Q6030	TRANSISTOR	—	—	—	2SB1218A/QR/-X	—
Q6551	TRANSISTOR	2SC1740S/QRS/-T	←	←	—	2SC1740S/QRS/-T
Q7201	TRANSISTOR	2SA720/RS/-T	←	←	—	—
D6551	Z DIODE	MTZJ10B-T2	←	←	—	MTZJ10B-T2
D7005	SI DIODE	—	1SS133-T2	←	←	←
D7010	LED	—	SLR-325MC-T	←	←	←
R31	MG RESISTOR	NRSA02J-152X	NRSA02J-122X	←	←	←
R46	MG RESISTOR	NRSA02J-471X	NRSA02J-271X	←	←	←
R75	MG RESISTOR	—	NRSA02J-225X	←	←	←
R111	MG RESISTOR	NRSA02J-222X	—	—	—	—
R3029	MG RESISTOR	—	NRSA02J-0R0X	←	←	←
R3032	MG RESISTOR	—	NRSA02J-0R0X	←	←	←
R3045	MG RESISTOR	—	NRSA02J-102X	←	←	←
R3093	MG RESISTOR	—	NRSA02J-0R0X	←	←	←
R5001	RESISTOR	QRZ9046-475Z	←	←	—	—
R5102	RESISTOR	QRE141J-300Y	←	←	QRE141J-100Y	QRE141J-300Y
R5104	OMF RESISTOR	QRG02GJ-683	←	←	QRG02GJ-473	QRG02GJ-683
R5306	MG RESISTOR	NRSA02J-563X	←	←	NRSA02J-823X	NRSA02J-563X
R6030	MG RESISTOR	—	—	—	NRSA02J-332X	—
R6032	MG RESISTOR	NRSA02J-123X	←	←	—	NRSA02J-123X
R6053	MG RESISTOR	NRSA02J-102X	←	←	←	—
R6508	MG RESISTOR	NRSA02J-0R0X	←	←	NRSA02J-682X	NRSA02J-0R0X
R6509	MG RESISTOR	—	—	—	NRSA02J-682X	—
R6510	MG RESISTOR	NRSA02J-0R0X	←	←	NRSA02J-682X	NRSA02J-0R0X
R6511	MG RESISTOR	—	—	—	NRSA02J-682X	—
R6551	MG RESISTOR	NRSA02J-271X	←	←	—	NRSA02J-271X
R6552	MG RESISTOR	NRSA02J-101X	←	←	—	NRSA02J-101X
R7041	MG RESISTOR	—	NRSA02J-331X	←	←	←
R7202	RESISTOR	QRE141J-471Y	←	←	—	—
R7203	MG RESISTOR	NRSA02J-222X	←	←	—	—
R7204	RESISTOR	QRE123J-100X	←	←	—	—
C18	E CAPACITOR	QEKJ1HM-105	←	—	—	—
C63	CAPACITOR	NCB21EK-104X	NCB21EK-473X	←	←	←
C128	MG RESISTOR	NRSA02J-0R0X	—	—	—	NRSA02J-0R0X
C561	E CAPACITOR	—	QERF1HM-105Z	←	←	←
C3018	TRIM CAPACITOR	—	—	—	QAT3725-300Z	←
C3019	CAPACITOR	NDC21HJ-180X	←	←	NDC21HJ-100X	←
C5004	CAPACITOR	QCZ9094-472	←	←	QCZ9071-222	←
C5006	E CAPACITOR	QETM2DM-157	←	←	QEZ0374-826	QETM2DM-157
C5102	E CAPACITOR	QEMT1VM-276	←	←	QEMU1VM-276Z	QEMT1VM-276
C5103	CAPACITOR	QCZ0302-470Z	←	←	QCZ0302-330Z	QCZ0302-470Z
C5304	MF CAPACITOR	QFVF1HJ-124Z	←	←	QFVF1HJ-224Z	QFVF1HJ-124Z
C5310	M CAPACITOR	QFLC1HJ-183Z	←	←	—	QFLC1HJ-183Z
C6519	CAPACITOR	—	—	—	NCB21EK-223X	—
C6520	CAPACITOR	—	—	—	NCB21EK-223X	—
C7206	E CAPACITOR	QEKJ0JM-227Z	←	←	—	—
L7201	P COIL	QQL29BJ-101Z	←	←	—	—
X3002	CRYSTAL	—	—	—	QAX0445-001	←
S6050	SLIDE SWITCH	QSW0460-001	←	←	←	—
△ PC5101	IC(PHOTO COUPLER)	PS2501-1	←	←	PS2561L1-1/WL/	←
TU6001	TUNER	QAU0163-001	←	←	QAU0125-001	QAU0177-001
△ TB1	TERMINAL BOARD	LP20887-002B	←	←	LP20887-006A	LP20887-007A
FW3002	PARA RIBON WIRE	QUM022-30A4A4	←	←	—	—
J7101	PIN JACK	QNN0288-001	←	←	QNN0288-002	←
△ SG5001	SURGE ABSORBER	QAF0046-242Z	←	←	—	—
△ VA5001	VARISTOR	QAF0023-431Z	←	←	—	—
△ VA5002	VARISTOR	QAF0023-431Z	←	←	—	—
△ VA5003	VARISTOR	—	—	—	QAF0026-621	—
△ F5001	FUSE	QMF51N2-1R25J1	←	←	QMF51E2-2R0	←

Notes : Mark ← is same as left.
Mark — is not used.

2D DIGITAL BOARD ASSEMBLY <05>

REF. NO.	ITEM	MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
PW1	2D DIGITAL BOARD ASSY	LPA10090-01B		—	—	—	—

3D DIGITAL/2M BOARD ASSEMBLY <05>

REF. NO.	ITEM	MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
PW1	3D DIGITAL/2M BOARD ASSY		—	LPA10105-02A	←	←	←

R.PAUSE BOARD ASSEMBLY <06>

REF. NO.	ITEM	MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
PW2	R.PAUSE BOARD ASSY	LPA10089-01B2	LPA10089-01C2		←	←	←

DEMOD BOARD ASSEMBLY <14>

REF. NO.	ITEM	MODEL	HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
PW1	DEMOD BOARD ASSY	PB11076A		←	←	PB11091A	PB11076A
IC1501	IC	UPC1852AGT		←	←	KA2268	UPC1852AGT
Q1501	TRANSISTOR	—	—	—	—	2SC1740S/QRS/-T	—
Q1502	DIGI TRANSISTOR	—	—	—	—	DTC144WSA	—
R1501	MG RESISTOR	QRE141J-102Y	←	←	←	NRSA02J-471X	QRE141J-102Y
R1502	MG RESISTOR	QRE141J-334Y	←	←	←	NRSA02J-102X	QRE141J-334Y
R1503	MG RESISTOR	QRE141J-124Y	←	←	←	NRSA02J-822X	QRE141J-124Y
R1504	MG RESISTOR	QRE141J-302Y	←	←	←	NRSA02J-103X	QRE141J-302Y
R1505	MG RESISTOR	QRE141J-512Y	←	←	←	NRSA02J-473X	QRE141J-512Y
R1506	MG RESISTOR	QRE141J-333Y	←	←	←	NRSA02J-101X	QRE141J-333Y
R1507	MG RESISTOR	QRE141J-333Y	←	←	←	NRSA02J-102X	QRE141J-333Y
R1508	MG RESISTOR	QRE141J-392Y	←	←	←	NRSA02J-273X	QRE141J-392Y
R1509	MG RESISTOR	QRE141J-122Y	←	←	←	NRSA02J-103X	QRE141J-122Y
R1510	MG RESISTOR	QRE141J-392Y	←	←	←	NRSA02J-563X	QRE141J-392Y
R1511	MG RESISTOR	QRE141J-122Y	←	←	←	NRSA02J-562X	QRE141J-122Y
R1512	MG RESISTOR	—	—	—	—	NRSA02J-332X	—
R1513	MG RESISTOR	—	—	—	—	NRSA02J-123X	—
R1514	MG RESISTOR	—	—	—	—	NRSA02J-123X	—
R1515	MG RESISTOR	—	—	—	—	NRSA02J-562X	—
R1516	MG RESISTOR	—	—	—	—	NRSA02J-273X	—
R1517	MG RESISTOR	QRE141J-123Y	←	←	←	NRSA02J-103X	QRE141J-123Y
R1518	MG RESISTOR	—	—	—	—	NRSA02J-102X	—
R1520	MG RESISTOR	—	—	—	—	NRSA02J-102X	—
R1521	MG RESISTOR	—	—	—	—	NRSA02J-471X	—
VR1501	V RESISTOR	—	—	—	—	QVPA606-103Z	—
VR1502	TRIM RESISTOR	—	—	—	—	QVP0039-683Z	—
C1501	CAPACITOR	QETC1CM-226Z	←	←	←	NCB21EK-473X	QETC1CM-226Z
C1502	E CAPACITOR	QETC1HM-104Z	←	←	←	QEK1CM-106Z	QETC1HM-104Z
C1503	CAPACITOR	QETC1HM-105Z	←	←	←	NCB21HK-471X	QETC1HM-105Z
C1504	E CAPACITOR	QETC1HM-475Z	←	←	←	—	QETC1HM-475Z
C1505	CAPACITOR	QETC1HM-225Z	←	←	←	NDC21HJ-470X	QETC1HM-225Z
C1506	CAPACITOR	QETC1HM-104Z	←	←	←	NDC21HJ-470X	QETC1HM-104Z
C1507	CAPACITOR	QFV11HJ-473Z	←	←	←	NCB21EK-104X	QFV11HJ-473Z
C1508	MF CAPACITOR	QETC1HM-474Z	←	←	←	QFV11HJ-124Z	QETC1HM-474Z
C1509	CAPACITOR	QETC1HM-104Z	←	←	←	NCB21EK-104X	QETC1HM-104Z
C1510	CAPACITOR	QETC1HM-105Z	←	←	←	NCB21EK-473X	QETC1HM-105Z
C1511	E CAPACITOR	QETC1HM-105Z	←	←	←	—	QETC1HM-105Z
C1512	CAPACITOR	QETC1HM-105Z	←	←	←	NCB21EK-683X	QETC1HM-105Z
C1513	E CAPACITOR	QETN1HM-335Z	←	←	←	QEK1EM-475Z	QETN1HM-335Z
C1514	E CAPACITOR	QETN1HM-106Z	←	←	←	QEK1EM-475Z	QETN1HM-106Z
C1515	M CAPACITOR	QETC1HM-105Z	←	←	←	QFLC1HJ-683Z	QETC1HM-105Z
C1516	CAPACITOR	QETC1HM-106Z	←	←	←	NCB21EK-473X	QETC1HM-106Z
C1517	E CAPACITOR	QETC1HM-106Z	←	←	←	QETC1CM-227Z	QETC1HM-106Z
C1518	E CAPACITOR	QETC1HM-105Z	←	←	←	QETC1CM-106Z	QETC1HM-105Z

Notes : Mark ← is same as left.
Mark — is not used.

REF. NO.	MODEL		HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
	ITEM						
C1519	E CAPACITOR		—	—	—	QETC1CM-106Z	—
C1520	E CAPACITOR		—	—	—	QETC1CM-106Z	—
C1521	E CAPACITOR		QETC1HM-106Z	←	←	—	QETC1HM-106Z
C1522	E CAPACITOR		—	—	—	QEKC1CM-106Z	—
C1523	CAPACITOR		—	—	—	NCB21HK-332X	—
C1524	E CAPACITOR		—	—	—	QETC1CM-227Z	—
C1526	CAPACITOR		—	—	—	NDC21HJ-470X	—
C1527	CAPACITOR		—	—	—	NDC21HJ-470X	—
C1528	E CAPACITOR		—	—	—	QEKC1CM-106Z	—
C1530	CAPACITOR		—	—	—	NCB21EK-473X	—
L1501	P COIL		—	—	—	QQL01BJ-680Z	—

SUTTLE BOARD ASSEMBLY <85>

REF. NO.	MODEL		HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
	ITEM						
PW1	SUTTLE BOARD ASSY		LPA20006-02A	←	←	LPA20006-01A	←
UN7001	JOG SHUTTLE SW		PESW0679	←	←	QSW0845-001	←

C.BOX BOARD ASSEMBLY <92>

REF. NO.	MODEL		HR-S4800U	HR-S7800U	HR-S7800U(C)	HR-S6700KR	HR-S2110T
	ITEM						
PW3	C.BOX BOARD ASSY		LPA10089-01B3	LPA10089-01C3	←	—	—

SECTION 3 ELECTRICAL ADJUSTMENT

3.1 PRECAUTION

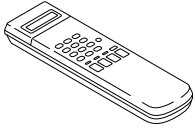
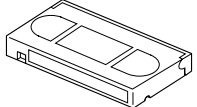
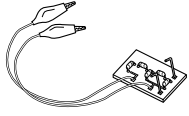
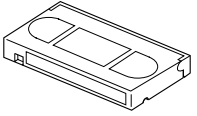
The following adjustment procedures are not only necessary after replacement of consumable mechanical parts or board assemblies, but are also provided as references to be referred to when servicing the electrical circuitry.

In case of trouble with the electrical circuitry, always begin a service by identifying the defective points by using the measuring instruments as described in the following electrical adjustment procedures. After this, proceed to the repair, replacement and/or adjustment. If the required measuring instruments are not available in the field, do not change the adjustment parts (variable resistor, etc.) carelessly.

3.1.1 Required test equipments

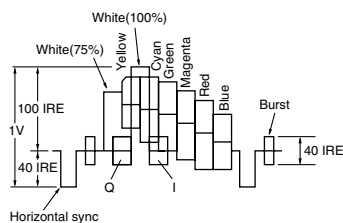
- Color (colour) television or monitor
- Oscilloscope: wide-band, dual-trace, triggered delayed sweep
- Frequency counter
- Audio level meter
- Signal generator: RF / IF sweep / marker
- Signal generator: stairstep, color (colour) bar [NTSC]
- Recording tape
- Digit-key remote controller(provided)

3.1.2 Required adjustment tools

Jig RCU PTU94023B	Alignment tape (SP, stairstep, NTSC) MHP
	
LPF PTU93006	Alignment tape (S-VHS SP/EP, color (colour) bar) MH-1H
	

3.1.3 Color (colour) bar signal,Color (colour) bar pattern

• Color bar signal [NTSC]



• Color bar pattern [NTSC]

(75%) White	Yellow	Cyan	Green	Magenta	Red	Blue
Q	White 100%	I	Black			

3.1.4 Switch settings and standard precautions

The SW settings of the VCR and the standard precautions for the electrical adjustments are as follows.

- When using the Jig RCU, set its custom code to match the custom code of the VCR.

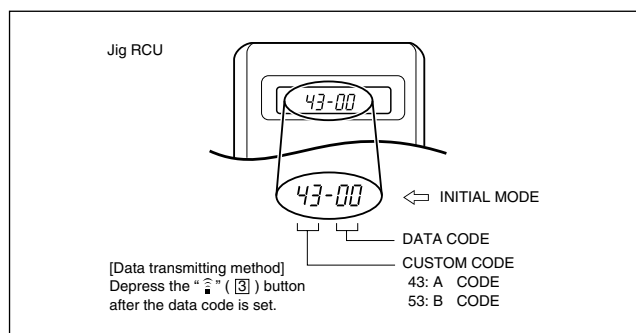


Fig. 3-1-4a Jig RCU

- Set the switches as shown below unless otherwise specified on the relevant adjustment chart. The switches that are not listed below can be set as desired. If the VCR is not equipped with the functions detailed below, setup is not required.

AUTO PICTURE/VIDEO CALIBRATION/ B.E.S.T./D.S.P.C.	OFF
PICTURE CONTROL/SMART PICTURE	NORMAL/NATURAL
VIDEO STABILIZER	OFF
TBC	ON
Digital 3R	ON

- Unless otherwise specified, all measuring points and adjustment parts are located on the Main board.
- In the Signal column of the adjustment chart, "Ext. S-input" means the Y/C separated video signal and "Ext. input" means the composite video signal input.

3.1.5 EVR Adjustment

Some of the electrical adjustments require the adjustment performed by the EVR system. The Main board assembly have EEPROMs for storing the EVR adjustment data and user setups.

Notes:

- In the EVR adjustment mode, the value is varied with the channel buttons (+, -). The adjusted data is stored when the setting mode changes (from PB to STOP, when the tape speed is changed, etc.). Take care to identify the current mode of each adjustment item when making an adjustment.
- When changing the address setting in the EVR adjustment mode, use the Jig RCU or the remote controller having numeric keypad with which a numeric code can be directly input.

The remote control code of the Jig RCU corresponds to each of the digit keys on the remote controller as follows.

Digit-key	0	1	2	3	4	5	6	7	8	9
Code	20	21	22	23	24	25	26	27	28	29

- As the counter indication and remaining tape indication are not displayed FDP during the EVR adjustment mode, check them on the TV monitor screen.
- When performing the EVR adjustment, confirm that the FDP indication is changed to the EVR mode, as shown below.

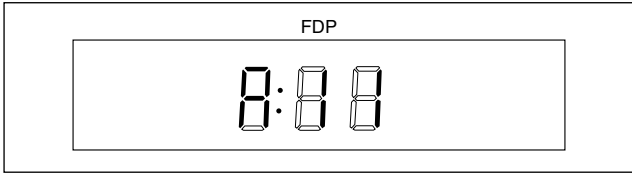


Fig. 3-1-5a EVR mode

3.2 SERVO CIRCUIT

3.2.1 Switching point

Signal	(A1) (A2)	<ul style="list-style-type: none"> • Stairstep signal • Alignment tape [MHP]
Mode	(B)	<ul style="list-style-type: none"> • PB • TBC: OFF
Equipment	(C)	<ul style="list-style-type: none"> • Oscilloscope
Measuring point	(D1) (D2)	<ul style="list-style-type: none"> • VIDEO OUT terminal (75Ω terminated) • TP106 (PB. FM)
External trigger	(E)	<ul style="list-style-type: none"> • TP111 (D.FF)
Adjustment part	(F)	<ul style="list-style-type: none"> • Jig RCU: Code "5A"
Specified value	(G)	<ul style="list-style-type: none"> • 7.5 ± 0.5H [MHP]
Adjustment tool	(H)	<ul style="list-style-type: none"> • Jig RCU [PTU94023B]

- Play back the signal (A1) of the alignment tape (A2).
- Apply the external trigger signal to D.FF (E) to observe the VIDEO OUT waveform and V.PB FM waveform at the measuring points (D1) and (D2).
- Press the channel buttons (+, -) simultaneously to enter the manual tracking mode. This also brings tracking to the center (centre).
- Adjust tracking by pressing the channel buttons (+, -) so that the V.PB FM waveform becomes maximum.
- Set the VCR to the Auto adjust mode by transmitting the code (F) from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed.
- If the VCR enters the eject mode, repeat steps (1) to (5) again.
- Play back the alignment tape (A2) again, confirm that the switching point is the specified value (G).

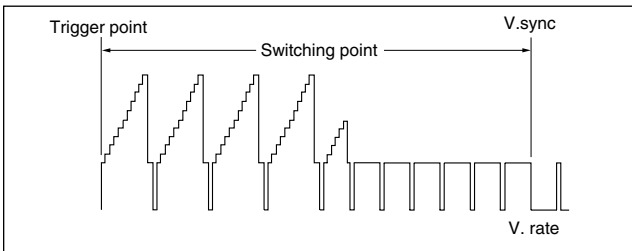


Fig. 3-2-1a Switching point

3.2.2 Slow tracking preset

Signal	(A1) (A2)	<ul style="list-style-type: none"> • Ext. input • Color (colour) bar signal [NTSC]
Mode	(B1) (B2)	<ul style="list-style-type: none"> • S-VHS SP • S-VHS EP
Measuring point	(D)	<ul style="list-style-type: none"> • TV-Monitor
Adjustment part	(F)	<ul style="list-style-type: none"> • Jig RCU: Code "71" or "72"
Specified value	(G)	<ul style="list-style-type: none"> • Minimum noise
Adjustment tool	(H)	<ul style="list-style-type: none"> • Jig RCU [PTU94023B]

- Record the signal (A2) in the mode (B1), and play back the recorded signal.
- Press the channel buttons (+, -) simultaneously to enter the manual tracking mode. This also brings tracking to the center (centre).
- Set the VCR to the FWD slow mode.
- Transmit the code (F) from the Jig RCU to adjust so that the noise bar becomes the specified value (G) on the TV monitor in the slow mode.
- Set the VCR to the Stop mode.
- Confirm that the noise bar is (G) on the TV monitor in the slow mode.
- Repeat steps (3) to (6) in the REV slow mode.
- Repeat steps (1) to (7) in the mode (B2).

Note:

- For FWD slow playback, transmit the code "08" from the Jig RCU to enter the slow playback mode, and transmit the code "D0" for REV slow mode.

3.3 VIDEO CIRCUIT

3.3.1 D/A level

Signal	(A1) (A2) (A3)	<ul style="list-style-type: none"> • Ext. S-input / Ext. input • Color (colour) bar signal [NTSC] • S-VHS tape
Mode	(B)	<ul style="list-style-type: none"> • S-VHS • EE
Equipment	(C)	<ul style="list-style-type: none"> • Oscilloscope
Measuring point	(D)	<ul style="list-style-type: none"> • VIDEO OUT terminal (75Ω terminated)
Adjustment part	(F)	<ul style="list-style-type: none"> • VR1401 (DA Y LEVEL ADJ) [3D board]
Specified value	(G)	<ul style="list-style-type: none"> • 1.00 ± 0.015 Vp-p (reference value) (Note)

- Insert the cassette tape (A3) to enter the mode (B).
- Observe the VIDEO OUT waveform at the measuring point (D).
- Check the Y level value when the External S-input (Y/C separated video signal).
- Switch the input signal to the External input (composite video signal), and adjust the adjustment part (F) so that the Y level becomes the same value observed in step (3).

Note:

- The specified value (G) is just a reference value to be obtained when the External S-Video (Y/C separated video) signal is input. In actual adjustment, set it to the value observed in step (3).

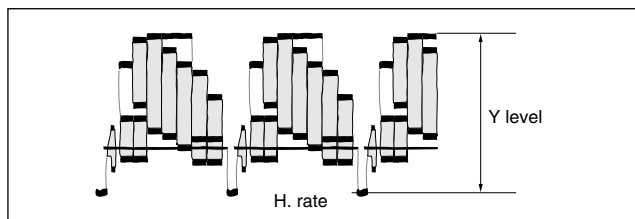


Fig. 3-3-1a D/A level

3.3.2 EE Y level

Signal	(A1) (A2)	<ul style="list-style-type: none"> • Ext. input • Color (colour) bar signal [NTSC]
Mode	(B)	<ul style="list-style-type: none"> • EE
Equipment	(C)	<ul style="list-style-type: none"> • Oscilloscope
Measuring point	(D)	<ul style="list-style-type: none"> • Y OUT terminal (75Ω terminated)
EVR mode	(F1)	<ul style="list-style-type: none"> • Jig RCU: Code "57"
EVR address	(F2)	<ul style="list-style-type: none"> • A:11 (Press remote controller "1" key twice)
Specified value	(G)	<ul style="list-style-type: none"> • 1.00 ± 0.03 Vp-p
Adjustment tool	(H)	<ul style="list-style-type: none"> • Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Observe the Y OUT waveform at the measuring point (D).
- (2) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (3) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (4) Adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the Y level of the Y OUT waveform becomes the specified value (G).
- (5) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

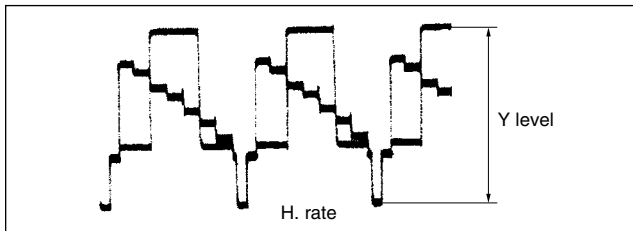


Fig. 3-3-2a EE Y level

3.3.3 PB Y level (S-VHS / VHS)

Signal	(A1) (A2)	<ul style="list-style-type: none"> • Ext. input • Color (colour) bar signal [NTSC]
Mode	(B1) (B2)	<ul style="list-style-type: none"> • S-VHS SP • VHS SP
Equipment	(C)	<ul style="list-style-type: none"> • Oscilloscope
Measuring point	(D)	<ul style="list-style-type: none"> • Y OUT terminal (75Ω terminated)
EVR mode	(F1)	<ul style="list-style-type: none"> • Jig RCU: Code "57"
EVR address	(F2)	<ul style="list-style-type: none"> • A:11 (Press remote controller "1" key twice)
Specified value	(G)	<ul style="list-style-type: none"> • 1.00 ± 0.03 Vp-p
Adjustment tool	(H)	<ul style="list-style-type: none"> • Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Observe the Y OUT waveform at the measuring point (D).
- (2) Record the signal (A2) in the mode (B1), and play back the recorded signal.
- (3) Press the channel buttons (+, -) simultaneously to enter the manual tracking mode. This also brings tracking to the center (centre).
- (4) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (5) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (6) Adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the Y level of the Y OUT waveform becomes the specified value (G).
- (7) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (8) Repeat steps (2) to (7) in the mode (B2).

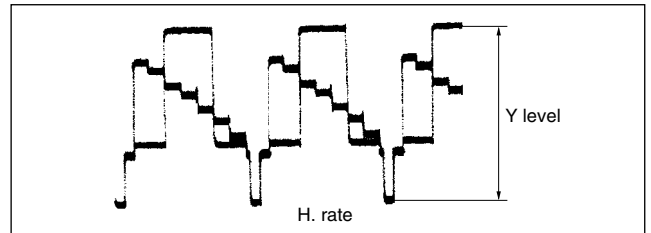


Fig. 3-3-3a PB Y level

3.3.4 REC color (colour) level

Signal	(A1) (A2) (A3)	<ul style="list-style-type: none"> • Alignment tape [MH-1H] • Ext. input • Color (colour) bar signal [NTSC]
Mode	(B1) (B2)	<ul style="list-style-type: none"> • S-VHS SP • S-VHS EP
Equipment	(C)	<ul style="list-style-type: none"> • Oscilloscope
Measuring point	(D1) (D2)	<ul style="list-style-type: none"> • TP106 (PB. FM) • PB color (colour) output of the LPF
External trigger	(E)	<ul style="list-style-type: none"> • TP111 (D.FF)
EVR mode	(F1)	<ul style="list-style-type: none"> • Jig RCU: Code "57"
EVR address	(F2)	<ul style="list-style-type: none"> • A:02 (Press remote controller "0" and "2" keys)
Specified value	(G)	<ul style="list-style-type: none"> • SP: "B" × 125 ± 5% • EP: "B" × 125 ± 5%
Adjustment tool	(H1) (H2) (H3)	<ul style="list-style-type: none"> • Jig RCU [PTU94023B] • Digit-key remote controller • LPF [PTU93006] (See Fig. 3-3-4a.)

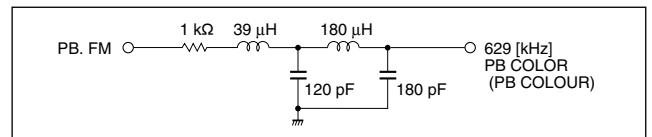


Fig. 3-3-4a LPF

- (1) Connect the adjustment tool (H3) to the measuring point (D1).
- (2) Apply the external trigger signal to D.FF (E) to observe the PB color (colour) waveform at the measuring point (D2).
- (3) Play back the signal (A3) in the mode (B1) of the alignment tape (A1).
- (4) Press the channel buttons (+, -) simultaneously to enter the manual tracking mode. This also brings tracking to the center (centre).
- (5) Adjust tracking by pressing the channel buttons (+, -) so that the PB color (colour) waveform becomes maximum. Make a note of the higher PB color (colour) level as "B" at this time.
- (6) Record the signal (A3) in the mode (B1), and play back the recorded signal.
- (7) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (8) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (9) Adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the higher level channel becomes the specified value (G) of the note "B" level as shown in Fig. 3-3-4b. (Adjust before recording, then confirm it by playing back.)
- (10) After adjustment, record the signal (A3) then playing it back again. At this time, confirm that there is no inverting phenomenon or noise appearing on the playback screen.
- (11) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (12) Repeat steps (3) to (11) in the mode (B2).

Note:

- After adjusting, always perform the confirmation and re-adjustment of the item 3.4.1.

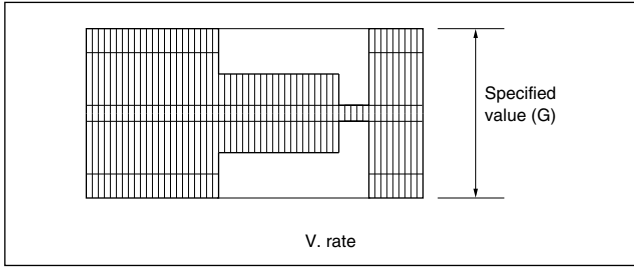


Fig. 3-3-4b REC color (colour) level

3.3.5 Video EQ (Frequency response)

Signal	(A1) (A2)	• Ext. S-input • Video sweep signal
Mode	(B1) (B2) (B3)	• S-VHS SP • S-VHS EP • Picture Control / Smart Picture REC : Normal / Natural PB : Edit / Distinct
Equipment	(C)	• Oscilloscope
Measuring point	(D1)	• Y OUT terminal (75Ω terminated)
Frequency marker	(D2)	• 3.58 [MHz]
External trigger	(E)	• TP111 (D.FF)
EVR mode	(F1)	• Jig RCU: Code "57"
EVR address	(F2)	• A:03 (Press remote controller "0" and "3" keys)
Specified value	(G)	• SP: 3.2 ± 0.2 div. (-2 ± 0.5 dB) • EP: 2.8 ± 0.2 div. (-3 ± 0.5 dB)
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Apply the external trigger signal to D.FF (E) to observe the Y OUT waveform at the measuring point (D1).
- (2) Record the signal (A2) in the mode (B1), and play back the recorded signal.
- (3) Press the channel buttons (+, -) simultaneously to enter the manual tracking mode. This also brings tracking to the center (centre).
- (4) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (5) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (6) Set the slope of the oscilloscope to the channel having higher (D2) marker level of the Y OUT waveform [signal (A2)]. Then set the 100 kHz marker level to the "4" scale on the oscilloscope. In this condition, adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the (D2) marker level reaches the specified value (G).
- (7) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (8) Repeat steps (2) to (7) in the mode (B2).

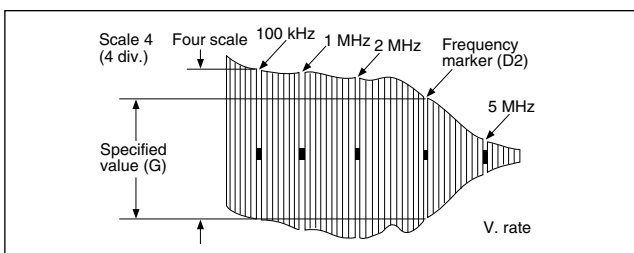


Fig. 3-3-5a Video EQ (Frequency Response)

3.3.6 AUTO PICTURE initial setting

Signal	(A1) (A2) (A3)	• Ext. input • Video: Optional • VHS tape
Mode	(B)	• EE → Auto adjust (SP/EP REC → PB)
Adjustment part	(F)	• Jig RCU : Code "58"
Specified value	(G)	• STOP mode
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Insert the cassette tape (A3).
- (2) Set the VCR to the Auto adjust mode by transmitting the code (F) from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed. When the VCR enters the eject mode, repeat steps (1) to (2) again.

3.4 AUDIO CIRCUIT

Notes:

- This adjustment should be done after the "REC color (colour) level adjustment" for the video circuit has been completed.
- GND (Ground) should be taken from the Tuner shield case.

3.4.1 Audio REC FM

Signal	(A1) (A2) (A3)	• Ext. input • Audio: No signal • Video: Color (colour) bar signal [NTSC]
Mode	(B)	• S-VHS EP
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP2253 (A. PB. FM)
External trigger	(E)	• TP111 (D.FF)
EVR mode	(F1)	• Jig RCU: Code "57"
EVR address	(F2)	• A: 30 (Press remote controller "3" and "0" keys.)
Specified value	(G1) (G2)	• 500 ± 100 mVp-p • More than 350 mVp-p
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Apply the external trigger signal to D.FF (E) to observe the Audio PB FM waveform at the measuring point (D).
- (2) Record the signal (A3) with no audio signal input in the mode (B), and play back the recorded signal.
- (3) Press the channel buttons (+, -) simultaneously to enter the manual tracking mode. This also brings tracking to the center (centre).
- (4) If the A.PB FM level is not within the specified value (G1), perform the adjustment in a following procedure.
- (5) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (6) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (7) Adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the A.PB FM level of the higher channel level becomes the specified value (G1). (Adjust before recording, then confirm it by playing back.)

- (8) If the specified value (G1) is not obtained, adjust with the channel buttons (+, -) so that the waveform level of the lower channel level becomes the specified value (G2). (Adjust before recording, then confirm it by playing back.)
- (9) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

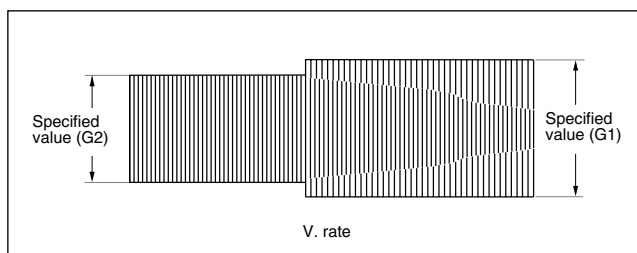


Fig. 3-4-1a Audio REC FM

3.5 DEMODULATOR CIRCUIT

Notes:

- Unless otherwise specified in this demod circuit adjustments, all measuring points and adjustment parts are located on the Demod board.
- Unless otherwise specified, set an audio multiplex TV signal generator as follows;

[HR-S2110T, S7800U/U(C)]

RF signal : 70 dBμ / 75Ω, color bar 87.5% modulation.

[HR-S6700KR]

RF signal : 70 dBμ / 75Ω, color bar 87.5% modulation.

(P/S1 = 13 dB, P/S2 = 20 dB)

3.5.1 Input level [HR-S2110T, S7800U/U(C)]

Signal	(A)	• RF signal (Audio: mono 300 Hz)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Audio level meter
Measuring point	(D)	• IC1501 pin 26
EVR mode	(F1)	• Jig RCU : Code "57"
EVR address	(F2)	• A : 20 (Press remote controller "2" and "0" keys.)
Specified value	(G)	• 500 ± 10 mVrms
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Set an audio signal mode of the RF signal generator to mono 300 Hz.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (5) Adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the level of the measuring point (D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.2 Stereo VCO [HR-S2100T, S7800U/U(C)]

Signal	(A)	• No signal
Mode	(B)	• Tuner • EE
Equipment	(C)	• Frequency counter
Measuring point	(D1)	• IC1501 pin 26
Short point	(D2)	• C1505(-) terminal
EVR mode	(F1)	• Jig RCU : Code "57"
EVR address	(F2)	• A : 21 (Press remote controller "2" and "1" keys.)
Specified value	(G)	• 15.73 ± 0.1 kHz
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Connect the short wire between the short point (D2) and the GND (Ground).
- (2) Connect the equipment (C) to the measuring point (D1).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (5) Adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the frequency of the measuring point (D1) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (7) Disconnect the short wire between the short point (D2) and the GND (Ground).

3.5.3 Stereo filter [HR-S2110T, S7800U/U(C)]

Signal	(A)	• RF signal (Audio: No signal)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• IC1501 pin 26
EVR mode	(F1)	• Jig RCU : Code "57"
EVR address	(F2)	• A : 22 (Press remote controller "2" key twice.)
Specified value	(G)	• Minimum level
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Set an audio signal mode of the RF signal generator to no signal.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (5) Adjust with the channel buttons (+, -) on the VCR (or on the remote controller) so that the level of the measuring point (D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.4 Separation - 1 [HR-S2110T, S7800U/U(C)]

Signal	(A)	• RF signal (Audio: L-ch 300 Hz 14% modulated)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Audio level meter
Measuring point	(D)	• IC1501 pin 26
EVR mode	(F1)	• Jig RCU : Code "57"
EVR address	(F2)	• A : 23 (Press remote controller "2" and "3" keys.)
Specified value	(G)	• Minimum level
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Set an audio signal mode of the RF signal generator to alternate L-ch 300 Hz 14% modulated.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (5) Adjust with the channel buttons (+,-) on the VCR (or on the remote controller) so that the level of the measuring point (D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.5 Separation - 2 [HR-S2110T, S7800U/U(C)]

Signal	(A)	• RF signal (Audio: L-ch 5 kHz 14% modulated)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Audio level meter
Measuring point	(D)	• IC1501 pin 26
EVR mode	(F1)	• Jig RCU : Code "57"
EVR address	(F2)	• A : 24 (Press remote controller "2" and "4" keys.)
Specified value	(G)	• Minimum level
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Set an audio signal mode of the RF signal generator to alternate L-ch 5 kHz 14% modulated.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (5) Adjust with the channel buttons (+,-) on the VCR (or on the remote controller) so that the level of the measuring point(D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.6 SAP VCO [HR-S2110T, S7800U/U(C)]

Signal	(A)	• No. signal
Mode	(B)	• Tuner • EE
Equipment	(C)	• Frequency counter
Measuring point	(D1)	• IC1501 pin 26
Short point	(D2)	• C1505 (-) terminal
EVR mode	(F1)	• Jig RCU : Code "57"
EVR address	(F2)	• A : 25 (Press remote controller "2" and "5" keys.)
Specified value	(G)	• 78.67 ± 0.5 kHz
Adjustment tool	(H)	• Jig RCU [PTU94023B] • Digit-key remote controller

- (1) Connect the short wire between the short point (D2) and the GND (Ground).
- (2) Connect the equipment (C) to the measuring point (D1).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
- (5) Adjust with the channel buttons (+,-) on the VCR (or on the remote controller) so that the frequency of the measuring point (D1) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (7) Disconnect the short wire between the short point (D2) and the GND (Ground).

3.5.7 Main DET [HR-S6700KR]

Signal	(A)	• RF signal (sound carrier: S1)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Audio level meter
Measuring point	(D)	• IC1501 pin 26
Adjustment part	(F)	• T1502 (MAIN DET)
Specified value	(G)	• Minimum distortion
Adjustment tool	(H)	• LPF (30 kHz), HPF (400 Hz)

- (1) Set the sound carrier of the RF signal generator to S1.
- (2) Connect the adjustment tool (H) to the measuring point (D). Then connect the equipment (C) to the adjustment tool (H).
- (3) Adjust the Adjustment part (F) so that the distortion level of the measuring point (D) becomes the specified value (G).

3.5.8 Sub DET [HR-S6700KR]

Signal	(A)	• RF signal (sound carrier: S2)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Audio level meter
Measuring point	(D)	• IC1501 pin 26
Adjustment part	(F)	• T1501 (SUB DET)
Specified value	(G)	• Minimum distortion
Adjustment tool	(H)	• LPF (30 kHz), HPF (400 Hz)

- Set the sound carrier of the RF signal generator to S2.
- Connect the adjustment tool (H) to the measuring point (D). Then connect the equipment (C) to the adjustment tool (H).
- Adjust the Adjustment part (F) so that the distortion level of the measuring point (D) becomes the specified value (G).

3.5.9 Pilot VCO [HR-S6700KR]

Signal	(A)	• No signal
Mode	(B)	• Tuner • EE
Equipment	(C)	• Frequency counter
Measuring point	(D1)	• IC1501 pin 11
Short point	(D2)	• C1510 (+) terminal
	(D3)	• C1510 (-) terminal
Adjustment part	(F)	• VR1502 (PILOT VCO)
Specified value	(G)	• 210 ± 5 Hz

- Connect the short wire between the short points (D2) and (D3).
- Connect the equipment (C) to the measuring point (D1).
- Adjust the Adjustment part (F) so that the frequency of the measuring point (D1) becomes the specified value (G).
- Disconnect the short wire between the short points (D2) and (D3).

3.5.10 Separation [HR-S6700KR]

Signal	(A)	• Sweep generator output (90 dB, 1 kHz)
Mode	(B)	• EE
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• IC1501 pin 19
Adjustment part	(F)	• VR1501 (SEPARATION)
Specified value	(G)	• Minimum level
Adjustment tool	(H)	• Sweeper probe (See Fig. 3-5-10a.)

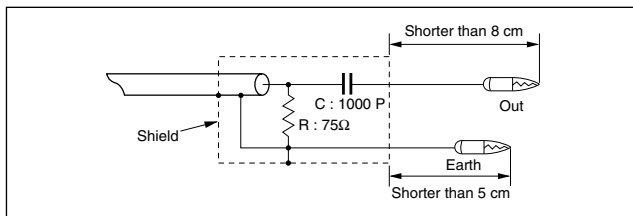


Fig. 3-5-10a Sweeper probe

- Use the adjustment tool (H), supply 1 kHz R-only modulated IF signal to IF terminal of U/V tuner (front end).
- Connect the equipment (C) to the measuring point (D).
- Adjust the Adjustment part (F) so that the output level of the measuring point (D) becomes the specified value (G).

3.6 SYSCON CIRCUIT

Note:

- When perform this adjustment, remove the Mechanism assembly.

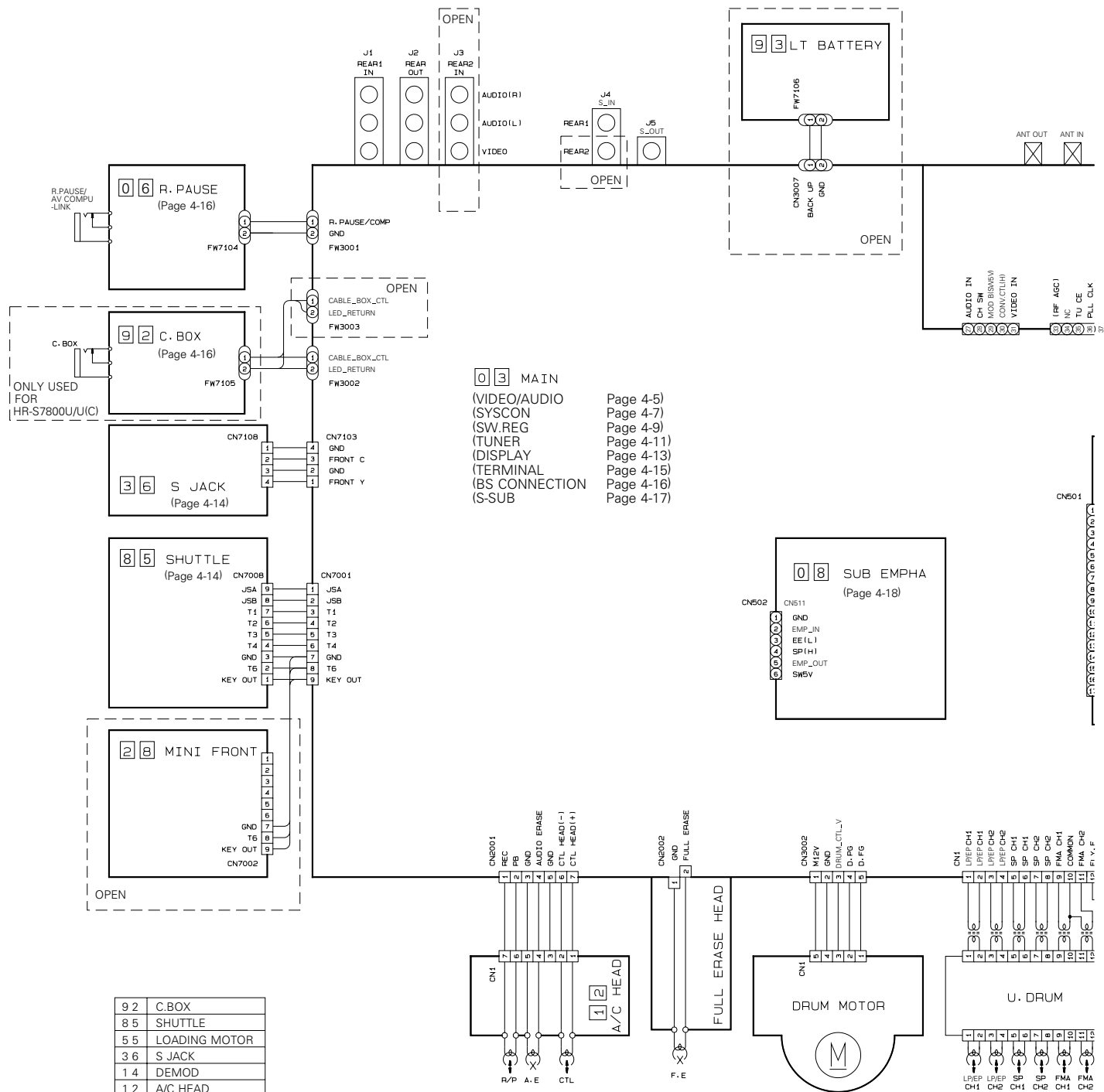
3.6.1 Timer clock

Signal	(A)	• No signal
Mode	(B)	• EE
Equipment	(C)	• Frequency counter
Measuring point	(D1)	• IC3001 pin61
Short point	(D2)	• IC3001 pin24
	(D3)	• C3026 + and -
Adjustment part	(F)	• C3025 (TIMER CLOCK)
Specified value	(G)	• 1024.008 ± 0.001 Hz (976.5549 ± 0.0010 μ sec)

- Connect the frequency counter to the measuring point (D1).
- Connect the short wire between the short point (D2) and Vcc (5V).
- Short the leads of capacitor (D3) once in order to reset the microprocessor of the SYSCON.
- Disconnect the short wire between the short point (D2) and Vcc then connect it again.
- Adjust the Adjustment part (F) so that the output frequency becomes the specified value (G).

SECTION 4 CHARTS AND DIAGRAM

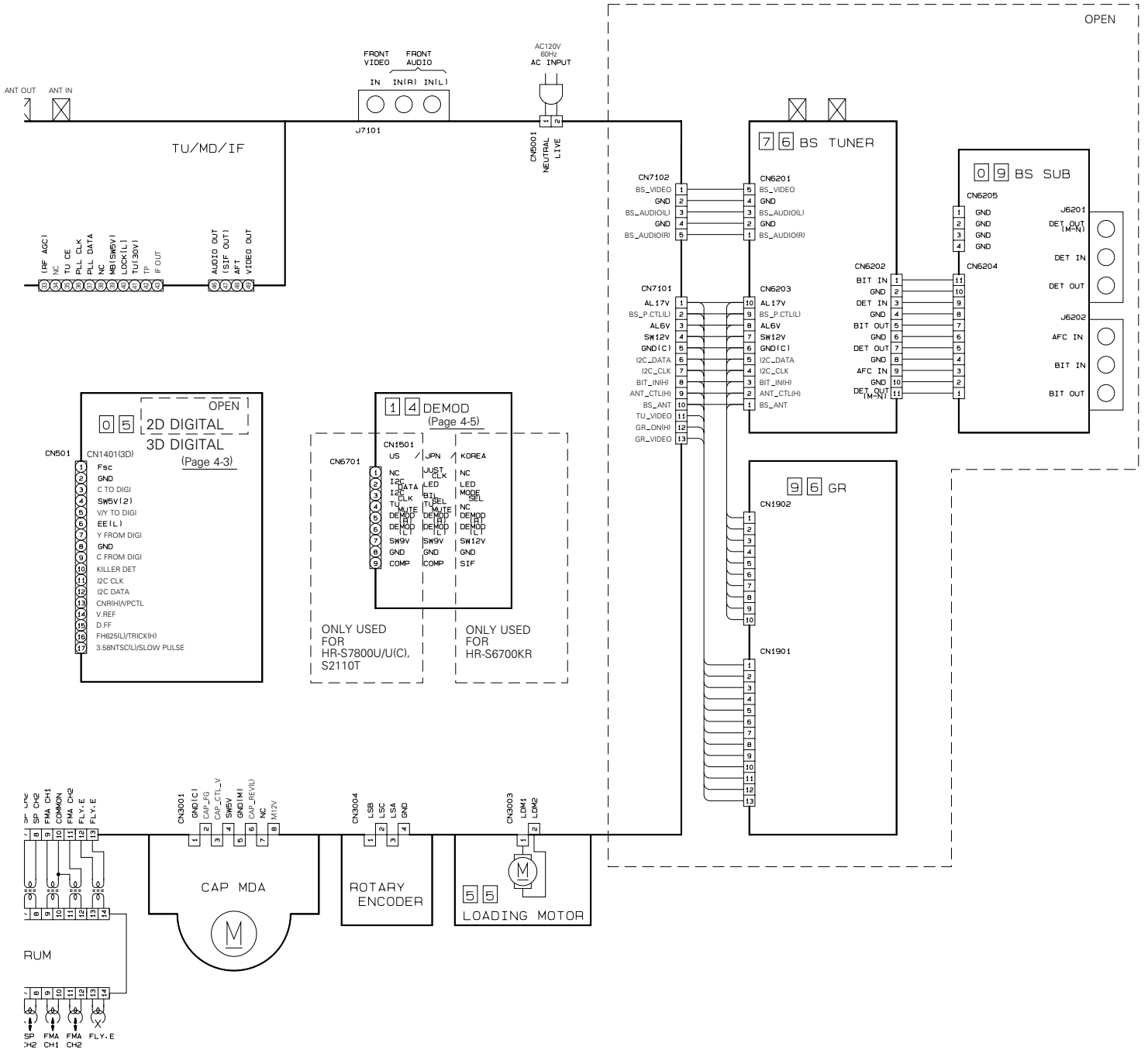
4.1 BOARD INTERCONNECTIONS



9 2	C.BOX
8 5	SHUTTLE
5 5	LOADING MOTOR
3 6	S JACK
1 4	DEMOD
1 2	A/C HEAD
0 8	SUB EMPHA
0 6	R.PAUSE
0 5	3D DIGITAL
0 3	MAIN

0 3 MAIN
 (VIDEO/AUDIO
 (SYSCON
 (SW.REG
 (TUNER
 (DISPLAY
 (TERMINAL
 (BS CONNECTION
 (S-SUB
 Page 4-5)
 Page 4-7)
 Page 4-9)
 Page 4-11)
 Page 4-13)
 Page 4-15)
 Page 4-16)
 Page 4-17)

NOTE : How to find the page showing the continuative schematic diagram
Example) TO SYSCON (Page 4- ✕): Refer to the HR-S4800U service manual (NO.82792)
 TO SYSCON (Page 4- ✕): Refer to this service manual



4.2 3D DIGITAL/2M SCHEMATIC DIAGRAM

5

4

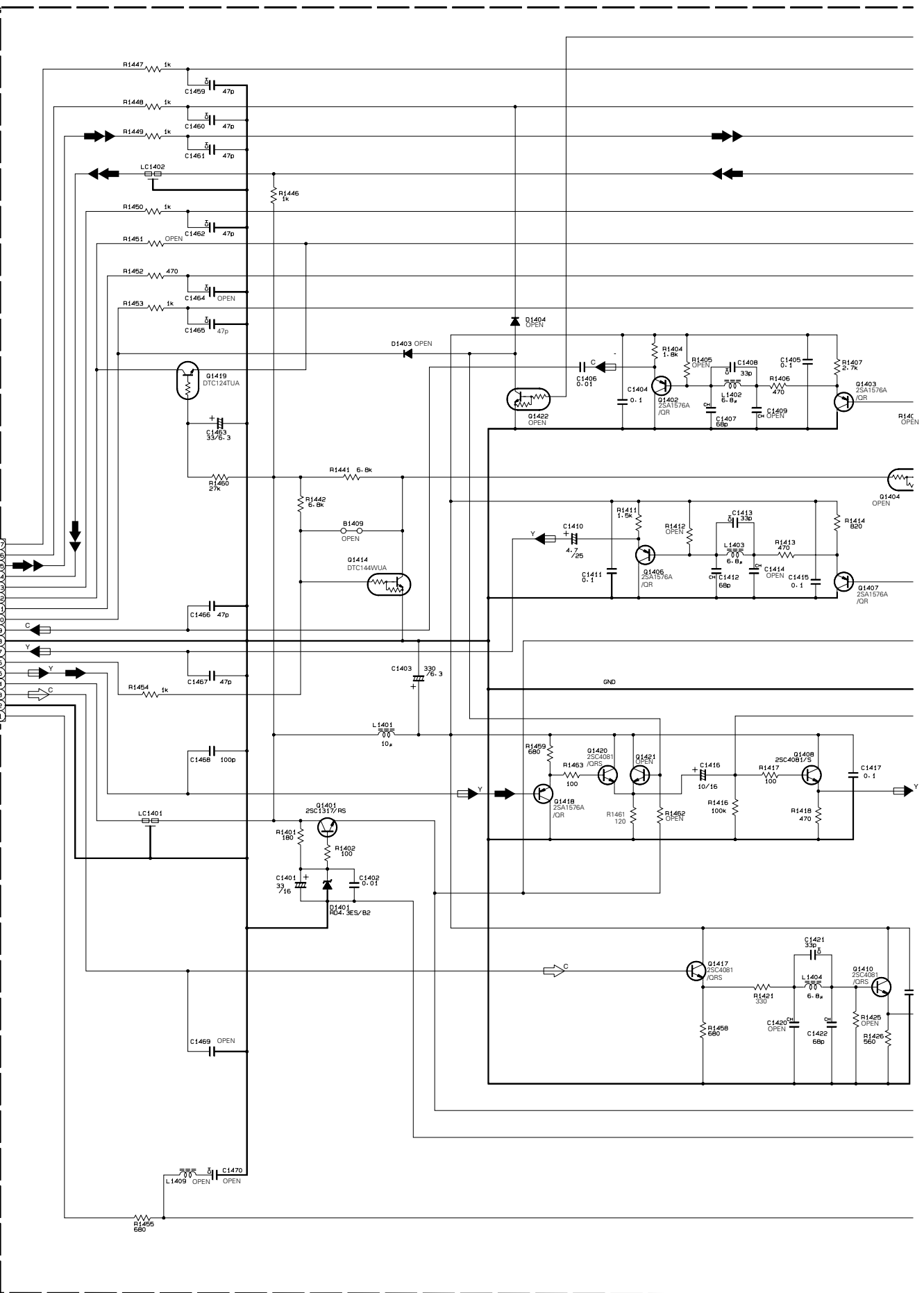
3

2

1

TO S-SUB
CN501

1	CN1401
2	SLOW_PULSE
3	TRICK_I[H]
4	D_FF
5	V_REF
6	V_P_CTL
7	I2C_DATA_AV
8	I2C_CLK_AV
9	KILLER_DET
10	C_FROM_D1G1
11	GND
12	Y_FROM_D1G1
13	EEL1
14	V/Y_TO_D1G1
15	SWB1[2]
16	C_TO_D1G1
17	GND
18	Fsc



4-3

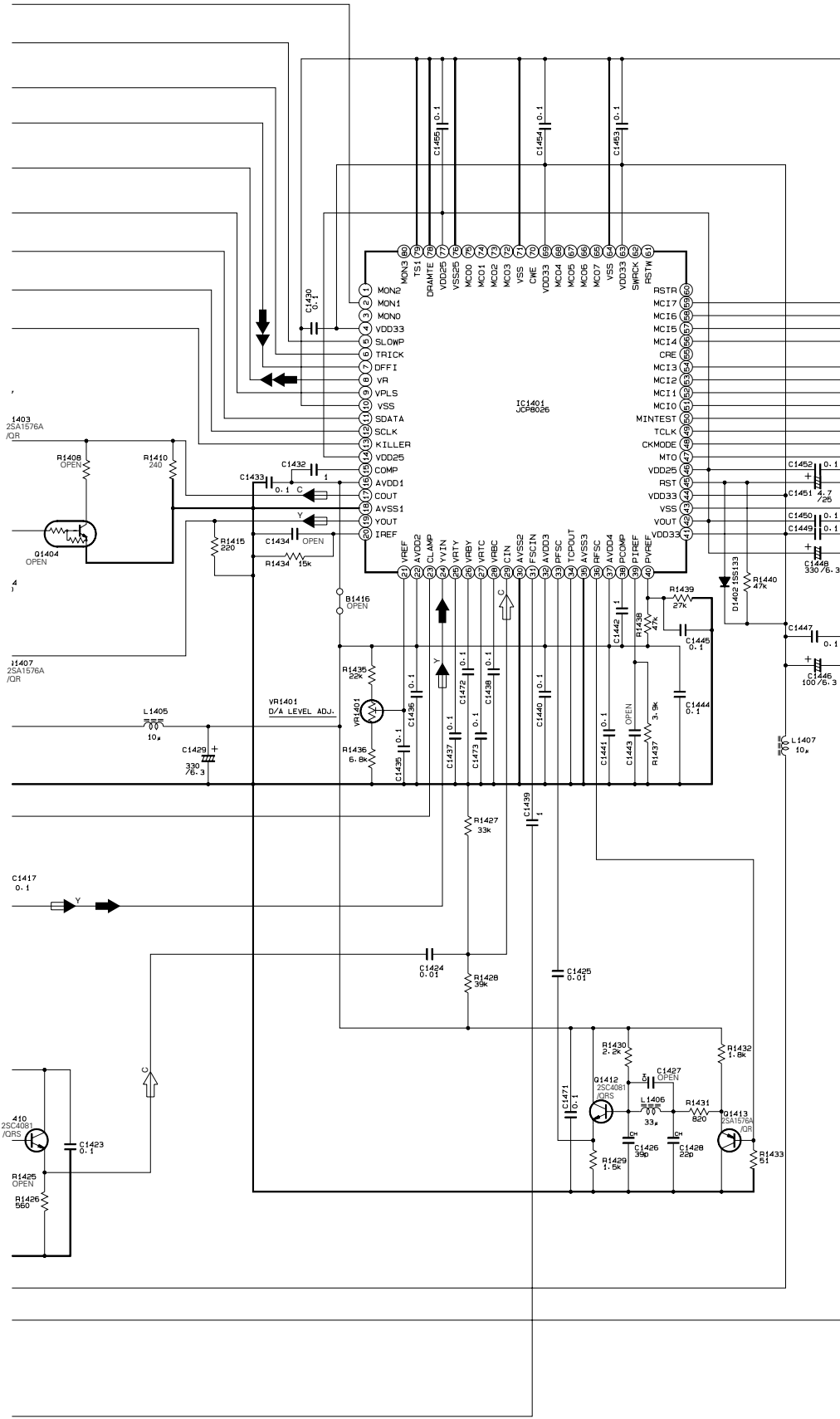
A

B

C

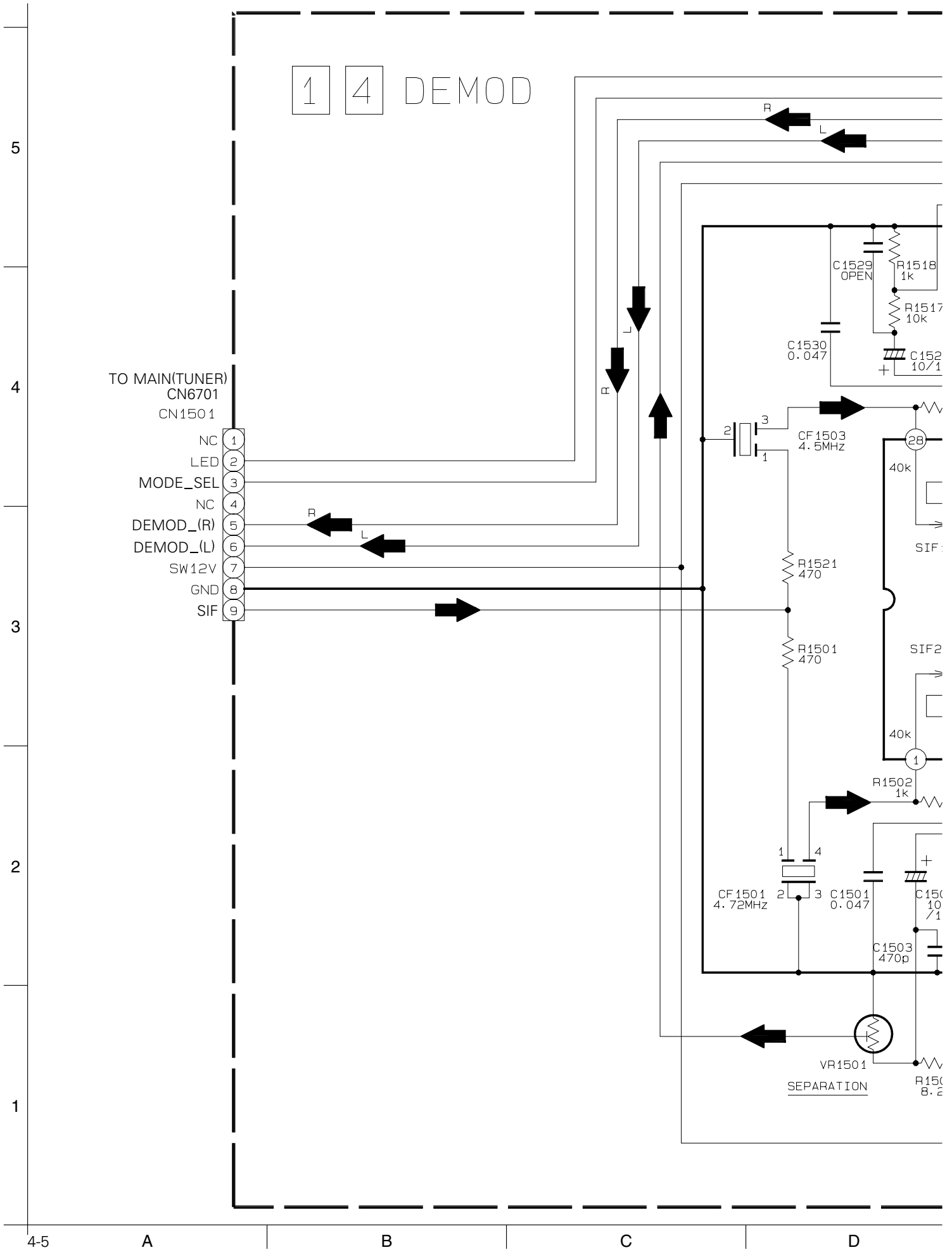
D

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

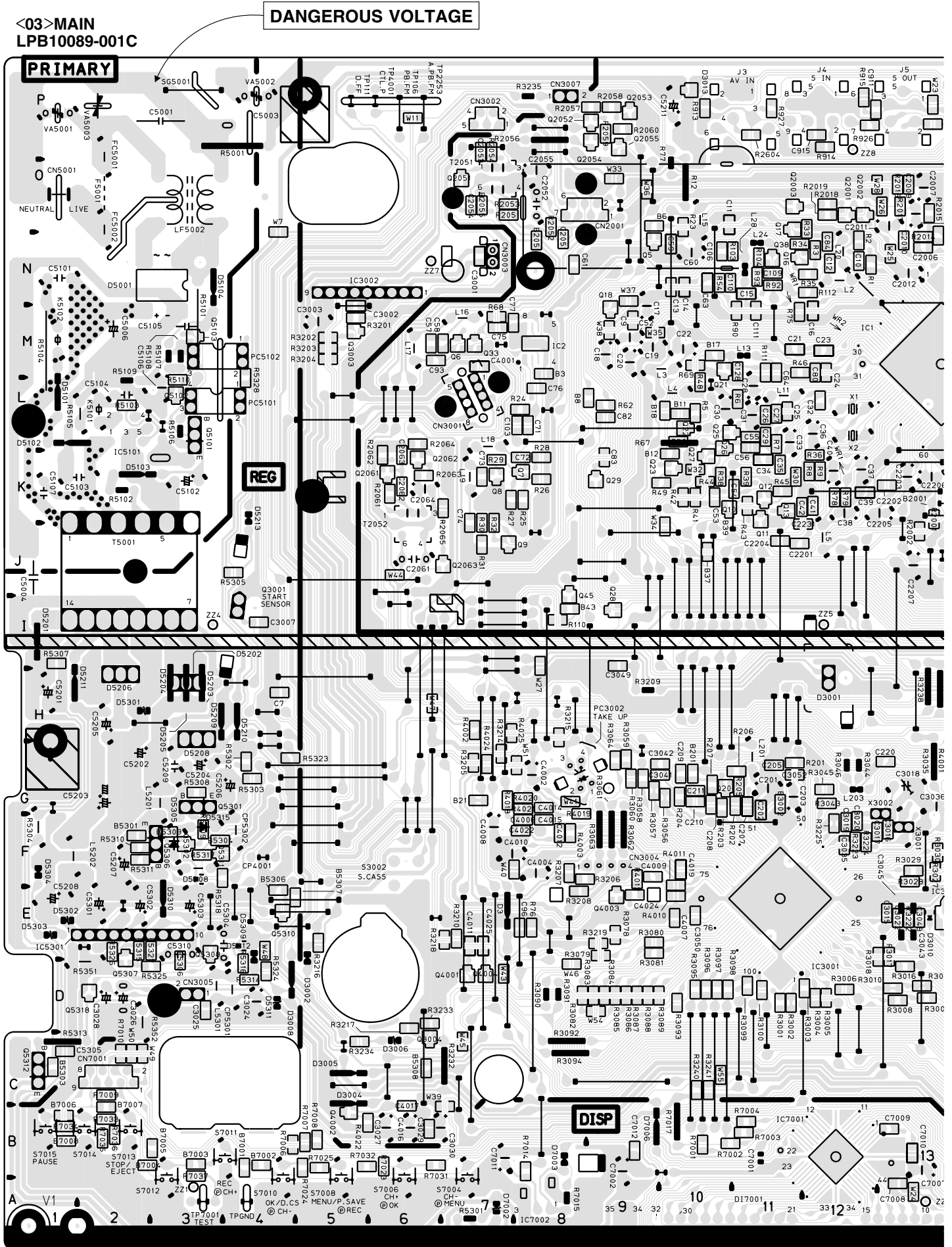


05 3D DIGITAL/2M

4.3 DEMODULATOR SCHEMATIC DIAGRAM [HR-S6700KR]



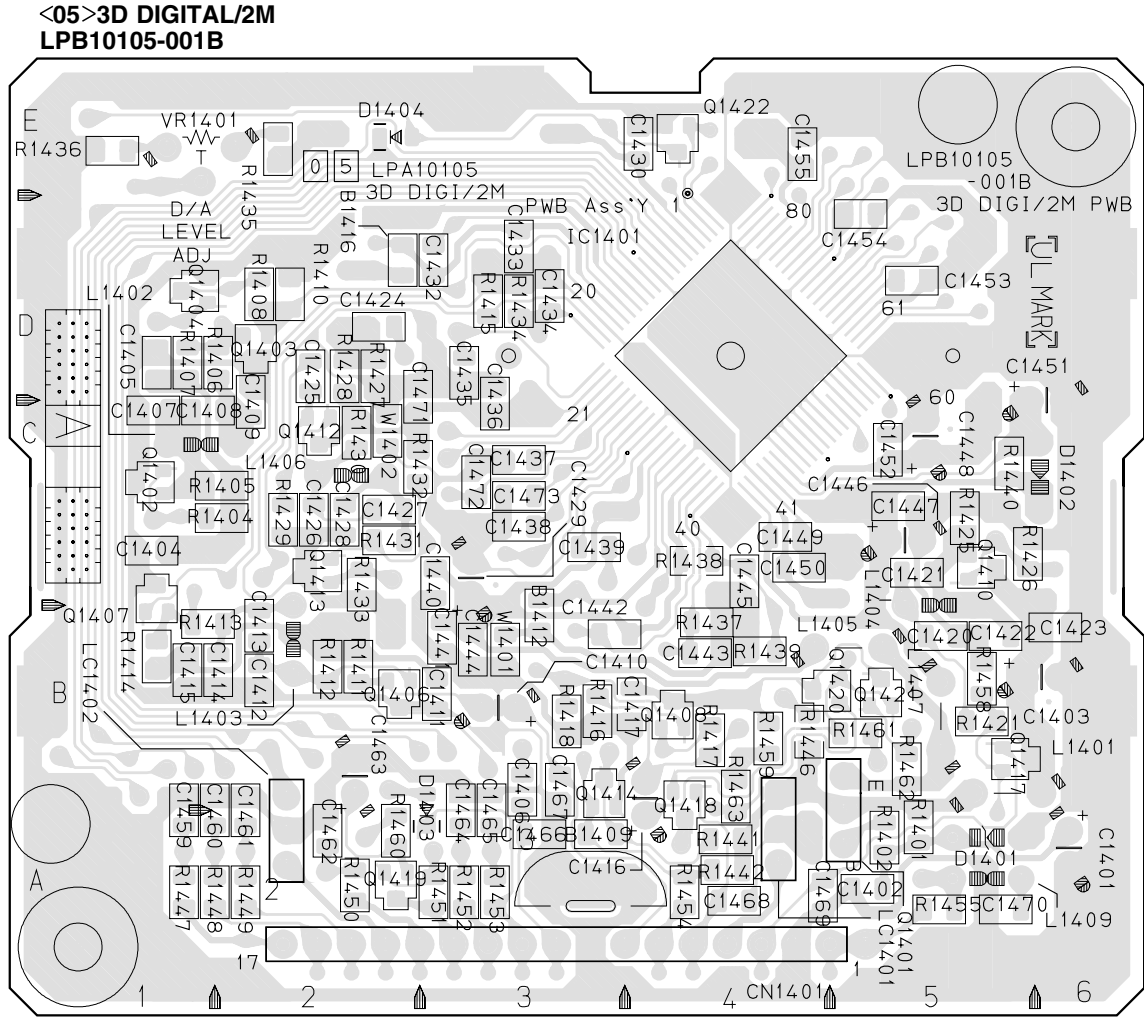
4.4 MAIN, A/C HEAD, S JACK, R.PAUSE, C.BOX AND LOADING MOTOR CIRCUIT BOARDS



COMPONENT PARTS LOCATION GUIDE <MAIN>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION																					
CAPACITOR																																						
C1	B	C	15N	C509	A	D	20E	C3028	A	D	2D	CN3004	A	D	9F	L502	A	D	19F	R26	B	C	8K	R2053	B	C	70	R3100	B	C	11D	R6650	B	C	22F			
C2	B	C	15N	C510	A	D	20F	C3029	A	D	6B	CN3005	A	D	3D	L503	A	D	19E	R27	B	C	7K	R2054	B	C	7P	R3201	B	C	5M	R6651	B	C	22F			
C3	B	C	14N	C511	A	B	C	C3030	A	D	7B	CN3007	A	D	8P	L901	A	D	20M	R28	B	C	8K	R2055	B	C	70	R3202	B	C	5M	R6652	B	C	22E			
C4	B	C	14N	C512	A	B	C	C3035	A	D	12F	CN5001	A	D	10	L2001	A	D	16M	R29	B	C	7K	R2056	A	D	8P	R3203	B	C	5M	R6653	B	C	22E			
C5	B	C	14N	C513	A	D	20F	C3036	A	D	13G	CN6701	A	D	21J	L2005	A	D	16M	R30	B	C	7K	R2057	B	C	9P	R3204	B	C	5M	R6654	B	C	21E			
C6	B	C	14N	C514	A	B	C	C3041	A	D	10G	CN7001	A	D	2	L2011	A	D	3G	R31	B	C	7J	R2058	B	C	9P	R3205	B	C	7G	R6655	B	C	21E			
C7	B	C	16N	C515	A	B	C	C3042	A	D	10G	CN7101	A	D	2B	L5202	A	D	1F	R32	B	C	7K	R2059	B	C	9P	R3206	B	C	8F	R6656	B	C	21D			
C8	B	C	14H	C516	A	B	C	C3043	A	D	13E	CN7102	A	D	20L	L5301	A	D	3D	R33	B	C	12O	R2060	B	C	9P	R3207	B	C	8F	R6657	B	C	21F			
C9	B	C	17N	C517	A	B	C	C3045	A	D	13E	CN7103	A	D	20G	L6001	A	D	21N	R34	B	C	11N	R2061	B	C	6K	R3208	B	C	8E	R6658	B	C	21D			
C10	B	C	9M	C518	A	B	C	C3048	A	D	13E				L6003	A	D	21O	R35	B	C	12N	R2062	B	C	6K	R3209	A	D	9H	R6659	B	C	21D				
C11	B	C	12N	C519	A	D	20G	C3049	B	C	9I	DIODE			D1	A	D	18P	L6032	A	D	22K	R36	B	C	12K	R2063	B	C	6K	R3210	B	C	7E	R6660	B	C	22F
C12	B	C	12N	C520	A	D	20I	C3050	B	C	10E	D2	A	D	17P	L6050	A	D	21N	R38	B	C	10K	R2064	B	C	6L	R3211	B	C	16C	R6661	B	C	21E			
C13	B	C	12N	C521	A	D	19G	C3052	B	C	11G	D3	A	D	7F	L7201	A	D	18L	R39	B	C	11K	R2065	B	C	7K	R3212	B	C	17F	R7001	B	C	10B			
C14	B	C	10N	C522	A	B	C	C3053	A	D	11G	D2201	A	D	7F					R41	B	C	10K	R2201	B	C	17M	R3213	B	C	16F	R7002	B	C	10B			
C15	B	C	11N	C523	A	B	C	C3053	A	D	16A	D2202	A	D	16L	Q1	B	C	15N	R42	B	C	10K	R2202	B	C	14K	R3214	B	C	7G	R7003	B	C	11B			
C16	B	C	12M	C524	A	D	19G	C4002	A	D	8G	D3001	A	D	12H	Q2	B	C	15N	R43	B	C	11K	R2203	B	C	14K	R3215	B	C	8H	R7004	B	C	11B			
C17	A	D	9M	C525	A	B	C	C4004	A	D	8G	D3002	A	D	5D	Q3	B	C	14O	R44	B	C	10K	R2204	B	C	15K	R3216	B	C	5E	R7005	B	C	15A			
C18	A	D	9M	C526	A	B	C	C4006	A	D	8F	D3004	A	D	5C	Q4	B	C	14O	R45	B	C	11K	R2205	B	C	15K	R3217	B	C	6E	R7006	B	C	4B			
C19	A	D	9M	C527	A	B	C	C4007	A	D	8F	D3005	A	D	5C	Q5	B	C	9M	R46	B	C	11M	R2206	B	C	14J	R3218	B	C	7E	R7007	B	C	5B			
C20	A	D	9M	C528	A	B	C	C4008	A	D	10E	D3006	A	D	6C	Q6	B	C	7M	R48	B	C	10L	R2207	B	C	14J	R3219	B	C	9E	R7008	B	C	5B			
C21	A	D	11M	C529	A	B	C	C4009	A	D	7F	D3007	A	D	16C	Q7	B	C	8K	R49	B	C	10K	R2212	B	C	16K	R3220	B	C	14E	R7009	B	C	2C			
C22	A	D	10M	C530	A	B	C	C4010	A	D	8F	D3008	A	D	4E	Q8	B	C	7K	R50	B	C	10L	R2213	B	C	16K	R3222	B	C	13E	R7010	B	C	2C			
C23	A	D	12M	C531	A	B	C	C4011	A	D	7E	D3010	A	D	13E	Q9	B	C	7K	R54	B	C	10N	R2214	B	C	16K	R3223	B	C	12F	R7013	B	C	15A			
C24	A	D	12M	C532	A	B	C	C4012	A	D	8F	D3013	A	D	10P	Q10	B	C	10K	R67	A	D	9L	R2216	B	C	16L	R3225	B	C	12F	R7015	A	D	8A			
C25	B	C	11L	C535	A	B	C	C4014	A	D	8G	D3015	A	D	17B	Q11	B	C	11K	R68	A	D	7M	R2217	B	C	16L	R3226	B	C	17B	R7017	A	D	10B			
C26	B	C	11L	C536	A	B	C	C4015	A	D	8F	D3016	A	D	17C	Q12	B	C	11K	R69	B	C	10M	R2218	B	C	16L	R3227	B	C	17B	R7020	B	C	15A			
C27	A	D	11L	C901	A	D	20O	C4016	A	D	6B	D4003	A	D	14H	Q13	B	C	11K	R71	B	C	16L	R2219	B	C	16L	R3232	A	D	7C	R7021	B	C	17B			
C28	A	D	11L	C902	A	B	C	C4017	A	D	6B	D5001	A	D	3N	Q16	B	C	11N	R75	B	C	11M	R2220	B	C	16L	R3233	B	C	6D	R7022	B	C	15A			
C29	A	D	10L	C903	A	B	C	C4019	A	D	10F	D5101	A	D	1Q	Q17	B	C	11O	R76	B	C	8E	R2221	B	C	15K	R3234	B	C	5C	R7023	B	C	6B			
C30	A	D	11L	C904	A	B	C	C4022	A	D	8F	D5102	A	D	2L	Q18	B	C	9M	R77	A	D	10P	R2222	B	C	16L	R3235	A	D	8P	R7024	B	C	5B			
C31	A	D	11L	C911	A	B	C	C4024	A	D	9E	D5103	A	D	2K	Q21	B	C	10M	R78	B	C	12K	R2223	B	C	16L	R3236	B	C	15C	R7025	B	C	5B			
C32	A	D	12L	C912	A	B	C	C4025	A	D	7E	D5201	A	D	1Q	Q23	B	C	10L	R79	B	C	12K	R2224	B	C	16L	R3237	A	D	13I	R7030	B	C	15B			
C33	A	D	11L	C913	A	D	18N	C5001	A	D	2P	D5202	A	D	3H	Q25	B	C	11L	R90	B	C	11M	R2225	B	C	16L	R3238	A	D	13I	R7031	B	C	6B			
C34	A	D	11K	C914	A	B	C	C5003	A	D	4P	D5203	A	D	3I	Q26	B	C	10L	R92	B	C	11N	R2230	B	C	15K	R3240	B	C	10C	R7032	B	C	5B			
C35	A	D	11K	C915	A	B	C	C5004	A	D	1J	D5204	A	D	3I	Q27	B	C	10K	R93	B	C	11N	R2231	B	C	17L	R3241	A	D	10C	R7033	B	C	2B			
C36	A	D	12K	C2001	A	D	14K	C5006	A	D	2M	D5205	A	D	3I	Q28	B	C	9I	R103	B	C	11N	R2232	B	C	17M	R4001	A	D	13G	R7034	B	C	1B			
C37	A	D	12K	C2002	A	D	14L	C5101	A	D	1N	D5206	A	D	2H	Q29	B	C	9K	R104	B	C	11N	R2251	B	C	17M	R4002	B	C	7H	R7035	B	C	2B			
C38	A	D	12K	C2003	A	D	15M	C5102	A	D	3K	D5208	A	D	3H	Q33	B	C	7M	R110	B	C	8I	R2601	B	C	20A	R4003	B	C	8F	R7036	B	C	2B			
C39	A	D	12K	C2004	A	D	15M	C5103	A	D	2K	D5209	A	D	3H	Q38	B	C	11N	R111	B	C	11M	R2602	B	C	19B	R4004	B	C	14E	R7037	B	C	3B			
C40	A	D	12K	C2005	A	D	14O	C5104	A	D	2L	D5210	A	D	4H	Q45	B	C	8J	R112	B	C	12N	R2603	B	C	20P	R4006	B	C	14B	R7040	B	C	16A			
C41	A	D	12K	C2006	A	D	13N	C5105	A	D	3M	D5211	A	D	4H	Q45	B	C	8J	R201	B	C	11G	R2604	B	C	11P	R4010	B	C	10E	R7041	B	C	15A			
C42	A	D	12K	C2007	A	D	13O	C5106	A	D	3L	D5212	A	D	4J	Q401	B	C	10G	R202	B	C	11G	R3001	B	C	11D	R4011	B	C	10F	R7042	A	D	18L			
C52	A	D	9M	C2008	A	D	13O	C5107	A	D	1K	D5213	A	D	4J	Q401	B	C	15O	R203	B	C	10G	R3002	B	C	11D	R4012	B	C	9F	R7203	B	C	18L			
C53	A	D	9M	C2009	A	D	13O	C5201	A	D	1H	D5301	A	D	2H	Q402	B	C	16O	R204	B	C	10G	R3003	B	C	12D	R4013	B	C	14C	R7204	A	D	19L			
C54	B	C																																				

4.5 3D DIGITAL/2M CIRCUIT BOARD

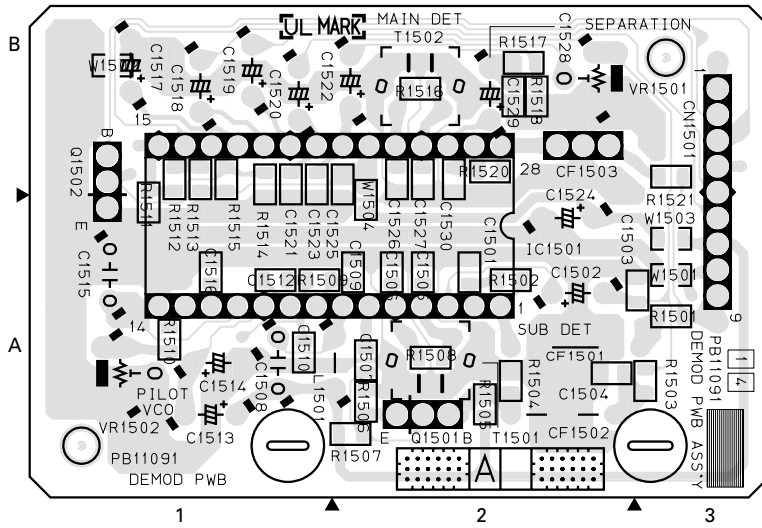


COMPONENT PARTS LOCATION GUIDE <3D DIGITAL/2M >

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION				
CAPACITOR															
C1401	A D 6A	C1429	A D 3C	C1461	B C 2B	L1404	A D 5C	R1405	B C 2C	R1439	B C 4B				
C1402	B C 5A	C1430	B C 4E	C1462	B C 2A	L1405	A D 4B	R1406	B C 2D	R1440	B C 5C				
C1403	A D 5B	C1432	B C 3D	C1463	A D 2B	L1406	A D 2C	R1407	B C 1D	R1441	B C 4A				
C1404	B C 1C	C1433	B C 3D	C1464	B C 3B	L1407	A D 5B	R1408	B C 2D	R1442	B C 4A				
C1405	B C 1D	C1434	B C 3D	C1465	B C 3B	L1409	A D 5A	R1410	B C 2D	R1446	B C 4B				
C1406	B C 3B	C1435	B C 3D	C1466	B C 3A	TRANSISTOR									
C1407	B C 1C	C1436	B C 3C	C1467	B C 3B	Q1401	A D 5B	R1411	B C 2B	R1447	B C 1A				
C1408	B C 1C	C1437	B C 3C	C1468	B C 4A	Q1402	B C 1C	R1412	B C 2B	R1448	B C 2A				
C1409	B C 2C	C1438	B C 3C	C1469	B C 4A	Q1403	B C 2D	R1413	B C 1B	R1449	B C 2A				
C1410	A D 3B	C1439	B C 3C	C1470	B C 5A	Q1404	B C 1D	R1414	B C 1B	R1450	B C 2A				
C1411	B C 3B	C1440	B C 3C	C1471	B C 2D	Q1406	B C 2B	R1415	B C 3D	R1451	B C 3A				
C1412	B C 2B	C1442	B C 3B	C1472	B C 3C	Q1407	B C 1C	R1416	B C 3B	R1452	B C 3A				
C1413	B C 2B	C1443	B C 4B	C1473	B C 3C	Q1408	B C 4B	R1417	B C 4B	R1453	B C 3A				
C1414	B C 2B	C1444	B C 3B	CONNECTOR						R1418	B C 3B	R1454	B C 4A		
C1415	B C 1B	C1445	B C 4C	CN1401	A D 5A	Q1410	B C 5C	R1421	B C 5B	R1455	B C 5A				
C1416	A D 4A	C1446	A D 5C	DIODE						R1425	B C 5C	R1458	B C 5B		
C1417	B C 4B	C1447	B C 5C	D1401	A D 5A	Q1413	B C 2C	R1426	B C 5C	R1459	B C 4B				
C1420	B C 5B	C1448	A D 5C	D1402	A D 6C	Q1414	B C 3B	R1427	B C 2D	R1460	B C 2A				
C1421	B C 5C	C1449	B C 4C	D1403	B C 3B	Q1417	B C 5B	R1428	B C 2D	R1461	B C 5B				
C1422	B C 5B	C1450	B C 4C	D1404	B C 2E	Q1418	B C 4B	R1429	B C 2C	R1462	B C 5B				
C1423	B C 6B	C1451	A D 5D	IC						R1430	B C 2C	R1463	B C 4B		
C1424	B C 2D	C1452	B C 5C	IC1401	B C 4D	Q1419	B C 2A	R1431	B C 2C	VR1401	A D 1E				
C1425	B C 2D	C1453	B C 5D	COIL						R1432	B C 2C	OTHER			
C1426	B C 2C	C1454	B C 5D	L1401	A D 5B	RESISTOR						R1433	B C 2C	LC1401	A D 4A
C1427	B C 2C	C1455	B C 4E	L1402	A D 2C	R1401	B C 5A	R1434	B C 3D	LC1402	A D 2A				
C1428	B C 2C	C1459	B C 1B	L1403	A D 2B	R1402	B C 5A	R1435	B C 2E						
		C1460	B C 2B			R1404	B C 2C	R1436	B C 1E						
								R1437	B C 4B						
								R1438	B C 4C						

4.6 DEMODULATOR CIRCUIT BOARD [HR-S6700KR]

<14>DEMOM PB11091



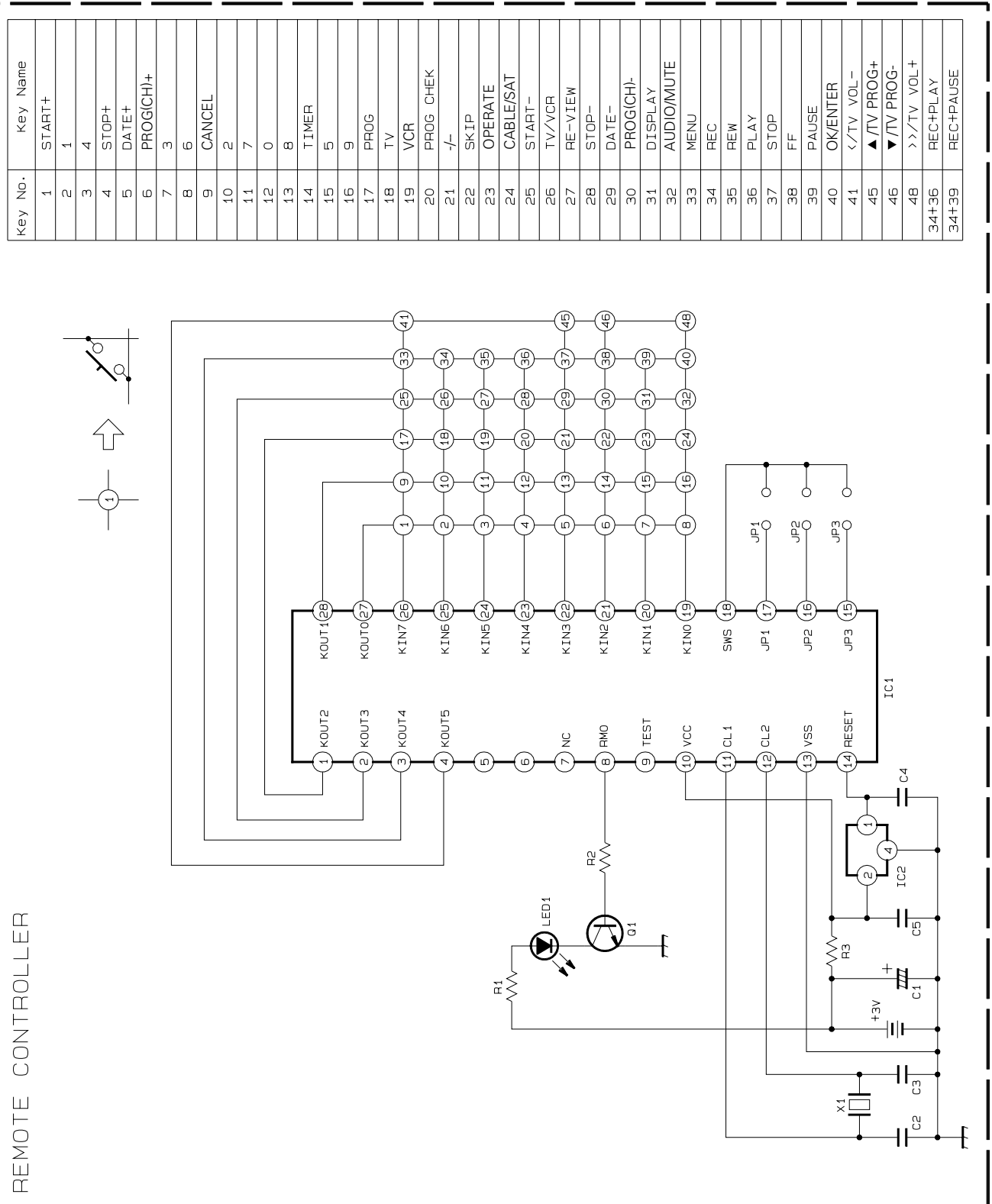
COMPONENT PARTS LOCATION GUIDE <DEMOMULATOR>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR									
C1501	B C 2A	C1515	A D 1A	C1530	B C 2B	R1502	B C 2A	R1517	B C 2B
C1502	A D 2A	C1516	B C 1A	CONNECTOR		R1503	B C 2A	R1518	B C 2B
C1503	B C 2A	C1517	A D 1B	CN1501	A D 3B	R1504	B C 2A	R1520	B C 2B
C1504	B C 2A	C1518	A D 1B	IC		R1505	B C 2A	R1521	B C 3B
C1505	B C 2A	C1519	A D 1B	IC1501	A D 2A	R1506	B C 2A	VR1501	A D 2B
C1506	B C 2A	C1520	A D 1B	COIL		R1507	B C 2A	VR1502	A D 1A
C1507	B C 2A	C1521	B C 1B	L1501	A D 1A	R1508	B C 2A	OTHER	
C1508	A D 1A	C1522	A D 2B	TRANSISTOR		R1509	B C 1A	CF1501	A D 2A
C1509	B C 2A	C1523	B C 1B	Q1501	A D 2A	R1510	B C 1A	CF1502	A D 2A
C1510	B C 1A	C1524	A D 2B	Q1502	A D 1B	R1511	B C 1B	CF1503	A D 2B
C1512	B C 1A	C1525	B C 2B	RESISTOR		R1512	B C 1B	T1501	A D 2A
C1513	A D 1A	C1526	B C 2B	R1501	B C 3A	R1513	B C 1B	T1502	A D 2B
C1514	A D 1A	C1527	B C 2B			R1514	B C 1B		
		C1528	A D 2B			R1515	B C 1B		
		C1529	B C 2B			R1516	B C 2B		

4.7 REMOTE CONTROL SCHEMATIC DIAGRAM [HR-S2110T/S6700KR]

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.



REMOTE CONTROLLER

5

4

3

2

1

A

B

C

D

#	△	REF No.	PART No.	PART NAME, DESCRIPTION

CABINET AND CHASSIS ASSEMBLY <M2>				
△		501	LP10289-020C	FRONT PANEL ASSY,S7800U/U(C)
△			LP10289-039B	FRONT PANEL ASSY,S6700KR
△			LP10289-042B	FRONT PANEL ASSY,S2110T
		501A	LP20868-005A	CASSETTE DOOR,S7800U/U(C)
			LP20868-017A	CASSETTE DOOR,S6700KR/S2110T
		501B	PQ46448	TORSION SPRING
		501C	LP20869-024A	DISPLAY WINDOW,S7800U/U(C)
			LP20869-052A	DISPLAY WINDOW,S6700KR
			LP20869-060A	DISPLAY WINDOW,S2110T
△		502	LP10013-021D	TOP COVER,S7800U/U(C)
△			LP10013-031C	TOP COVER,S6700KR/S2110T
		503	QYTDSF3010M	SCREW,X2 TOP COVER(SIDE),S7800U/U(C)
			QYTDSF3010R	SCREW,TOP COVER(SIDE),S6700KR/S2110T
		504	QYTDSF3010M	SCREW,TOP COVER(REAR)
		505	LP20617-008A	DRUM SUB ASSY
		505A	LP20030-015A	UPPER DRUM ASSY
		505B	PDM4439	CAP
		505C	PDM4444-19-2	WASHER
		505D	LP40572-001A	COLLAR ASSY
		505E	LP40323-001A	CONTACT
		505F	LP30004-014A	COMPRESSION SPRING
		505G	LP40174-001B	FPC PLATE
		505H	LP20615-007A	LOWER DRUM ASSY
		506	PDZ0179-1-4	ROTOR ASSY
		507	QYSPSP3006Z	SCREW,X2
△		508	QAR0119-001	STATOR ASSY
		509	QYSPSPH2606Z	SCREW,X2
		510	QYTDST2610Z	SCREW,X3 DRUM
△		511	LP10108-012B	BOTTOM CHASSIS,S7800U/U(C)
△			LP10108-016A	BOTTOM CHASSIS,S6700KR/S2110T
		512	QYTDSF3010Z	SCREW,MAIN
		513	LP30312-001B	BRACKET(CHASSIS)
		514	QYTDSF3010Z	SCREW,X2
		515	QYTDSF4012Z	SCREW,MECHA
		516	QYTDSF3010Z	SCREW,X2 MECHA
△		517	QMPD190-170-K	POWER CORD,S7800U/U(C)
△			PQ21730N	POWER CORD,S6700KR
△			QMP73J0-170	POWER CORD,S2110T
		518	LP40369-001D	CLEANER ASSY,S6700KR/S2110T
		518A	PQ46418-1-2	CLEANER ROLLER,S6700KR/S2110T
		518B	PQ46419-1-2	CLEANER, S6700KR/S2110T
		518C	LP30407-001D	CLEANER ARM,S6700KR/S2110T
		519	LP40407-001A	KNOB ASSY
		520	LP40370-001E	ROLLER ARM ASSY
		520A	PDM4311A-1	ROLLER ASSY
		521	PQ44230	INERTIA PLATE
		522	LP40226-001A	PC SUPPORT,X2
		523	PQ40413	SPECIAL SCREW,MECHA
		524	LP40253-001B	STOPPER
		525	LP30356-002C	DRUM SHIELD
		526	QYTDST2606Z	SCREW,X2
		527	QYWWS267505Z	WASHER,DRUM,S2110T/S7800U/U(C)
		528	LP30017-021A	SPACER,DRUM,S2110T/S7800U/U(C)
		529	LP30653-001A	KNOB(JOG),S7800U/U(C)
			LP30651-004A	KNOB(JOG), S6700KR/S2110T
		530	LP30652-001A	KNOB(SHUTTLE),S7800U/U(C)
			LP30652-002A	KNOB(SHUTTLE),S6700KR/S2110T

#	△	REF No.	PART No.	PART NAME, DESCRIPTION
		531	QYTDSF2608Z	SCREW,X2 SHUTTLE
		532	QYTDSF2608Z	SCREW,X2 S JACK
		533	LP30002-088B	SPACER,SHIELD FRAME
		WR1	QUQ212-0518CG	FFC WIRE,DRUM CN3002
		WR2	WJT0005-002A	E-CARD WIRE,A/C HEAD CN2001
		WR3	QUQ112-0914CG	FFC WIRE,FRONT CN7001
		WR4	WJT0026-001A	E-CARD WIRE S JACK C7103

5.2 ELECTRICAL PARTS LIST

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
*****				R1436	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W
3D DIGITAL/2M BOARD ASSEMBLY <05>				R1437	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W
PW1		LPA10105-02A	3D DIGITAL/2M BOARD ASSY	R1438	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
IC1401		JCP8026	IC	R1439	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W
Q1401		2SC1317/RS/-T	TRANSISTOR	R1440	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
Q1402		2SA1576A/QR/-X	TRANSISTOR	R1441	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W
		or 2PA1576/R/-X	TRANSISTOR	R1442	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W
Q1403		2SA1576A/QR/-X	TRANSISTOR	R1446	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
		or 2PA1576/R/-X	TRANSISTOR	R1447	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
Q1406		2SA1576A/QR/-X	TRANSISTOR	R1448	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
		or 2PA1576/R/-X	TRANSISTOR	R1449	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
Q1407		2SA1576A/QR/-X	TRANSISTOR	R1450	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
		or 2PA1576/R/-X	TRANSISTOR	R1452	NRSA02J-471X	MG RESISTOR	470Ω,1/10W
Q1408		2SC4081/S/-X	TRANSISTOR	R1453	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
Q1410		2SC4081/QRS/-X	TRANSISTOR	R1454	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
		or 2PC4081/R/-X	TRANSISTOR	R1455	NRSA02J-681X	MG RESISTOR	680Ω,1/10W
Q1412		2SC4081/QRS/-X	TRANSISTOR	R1458	NRSA02J-681X	MG RESISTOR	680Ω,1/10W
		or 2PC4081/R/-X	TRANSISTOR	R1459	NRSA02J-681X	MG RESISTOR	680Ω,1/10W
Q1413		2SA1576A/QR/-X	TRANSISTOR	R1460	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W
		or 2PA1576/R/-X	TRANSISTOR	R1461	NRSA02J-121X	MG RESISTOR	120Ω,1/10W
Q1414		DTC144WU	TRANSISTOR	R1463	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
		or RN1309	TRANSISTOR	VR1401	QVZ3521-103Z	V RESISTOR,D/A LEVEL ADJ	
		or UN521E	TRANSISTOR	C1401	QEKJ1CM-336	E CAPACITOR	33μF,16V
Q1417		2SC4081/QRS/-X	TRANSISTOR	C1402	NCB21HK-103X	CAPACITOR	0.01μF,50V
		or 2PC4081/R/-X	TRANSISTOR	C1403	QEKJ0JM-337	E CAPACITOR	330μF,6.3V
Q1418		2SA1576A/QR/-X	TRANSISTOR	C1404	NCF21EZ-104X	CAPACITOR	0.1μF,25V
		or 2PA1576/R/-X	TRANSISTOR	C1405	NCF21EZ-104X	CAPACITOR	0.1μF,25V
Q1419		DTC124TUA	TRANSISTOR	C1406	NCB21HK-103X	CAPACITOR	0.01μF,50V
Q1420		2SC4081/QRS/-X	TRANSISTOR	C1407	NDC21HJ-680X	CAPACITOR	68pF,50V
		or 2PC4081/R/-X	TRANSISTOR	C1408	NDC21HJ-330X	CAPACITOR	33pF,50V
D1401		RD4.3ES/B2/-T2	ZENER DIODE	C1410	QEKJ1EM-475	E CAPACITOR	4.7μF,25V
		or MTZJ4.3B	ZENER DIODE	C1411	NCF21EZ-104X	CAPACITOR	0.1μF,25V
D1402		1SS133	DIODE	C1412	NDC21HJ-680X	CAPACITOR	68pF,50V
		or 1N4148M	DIODE	C1413	NDC21HJ-330X	CAPACITOR	33pF,50V
R1401		NRSA02J-181X	MG RESISTOR	C1415	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1402		NRSA02J-101X	MG RESISTOR	C1416	QEKJ1CM-106	E CAPACITOR	10μF,16V
R1404		NRSA02J-182X	MG RESISTOR	C1417	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1406		NRSA02J-471X	MG RESISTOR	C1421	NDC21HJ-330X	CAPACITOR	33pF,50V
R1407		NRSA02J-272X	MG RESISTOR	C1422	NDC21HJ-680X	CAPACITOR	68pF,50V
R1408		NRSA02J-122X	MG RESISTOR	C1423	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1410		NRSA02J-241X	MG RESISTOR	C1424	NCB21HK-103X	CAPACITOR	0.01μF,50V
R1411		NRSA02J-152X	MG RESISTOR	C1425	NCB21HK-103X	CAPACITOR	0.01μF,50V
R1413		NRSA02J-471X	MG RESISTOR	C1426	NDC21HJ-390X	CAPACITOR	39pF,50V
R1414		NRSA02J-821X	MG RESISTOR	C1428	NDC21HJ-220X	CAPACITOR	22pF,50V
R1415		NRSA02J-221X	MG RESISTOR	C1429	QEKJ0JM-337	E CAPACITOR	330μF,6.3V
R1416		NRSA02J-104X	MG RESISTOR	C1430	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1417		NRSA02J-101X	MG RESISTOR	C1432	NCF21CZ-105X	CAPACITOR	1μF,16V
R1418		NRSA02J-471X	MG RESISTOR	C1433	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1421		NRSA02J-331X	MG RESISTOR	C1435	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1426		NRSA02J-561X	MG RESISTOR	C1436	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1427		NRSA02J-333X	MG RESISTOR	C1437	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1428		NRSA02J-393X	MG RESISTOR	C1438	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1429		NRSA02J-152X	MG RESISTOR	C1439	NCF21CZ-105X	CAPACITOR	1μF,16V
R1430		NRSA02J-222X	MG RESISTOR	C1440	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1431		NRSA02J-821X	MG RESISTOR	C1441	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1432		NRSA02J-182X	MG RESISTOR	C1442	NCF21CZ-105X	CAPACITOR	1μF,16V
R1433		NRSA02J-510X	MG RESISTOR	C1444	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1434		NRSA02J-153X	MG RESISTOR	C1445	NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1435		NRSA02J-223X	MG RESISTOR	C1446	QEKJ0JM-107	E CAPACITOR	100μF,6.3V
				C1447	NCF21EZ-104X	CAPACITOR	0.1μF,25V
				C1448	QEKJ0JM-337	E CAPACITOR	330μF,6.3V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION		#	△ REF No.	PART No.	PART NAME, DESCRIPTION
		C1449	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1450	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1451	QEKJ1EM-475	E CAPACITOR				4.7μF,25V
		C1452	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1453	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1454	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1455	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1459	NDC21HJ-470X	CAPACITOR				47pF,50V
		C1460	NDC21HJ-470X	CAPACITOR				47pF,50V
		C1461	NDC21HJ-470X	CAPACITOR				47pF,50V
		C1462	NDC21HJ-470X	CAPACITOR				47pF,50V
		C1463	QEKJ0JM-336	E CAPACITOR				33μF,6.3V
		C1465	NDC21HJ-470X	CAPACITOR				47pF,50V
		C1466	NDC21HJ-470X	CAPACITOR				47pF,50V
		C1467	NDC21HJ-470X	CAPACITOR				47pF,50V
		C1468	NDC21HJ-101X	CAPACITOR				100pF,50V
		C1471	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1472	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		C1473	NCF21EZ-104X	CAPACITOR				0.1μF,25V
		L1401	QQL29BJ-100Z	COIL				10μH
		L1402	QQL071J-6R8Y	COIL				6.8μH
		L1403	QQL071J-6R8Y	COIL				6.8μH
		L1404	QQL071J-6R8Y	COIL				6.8μH
		L1405	QQL29BJ-100Z	COIL				10μH
		L1406	QQL071J-330Y	COIL				33μH
		L1407	QQL29BJ-100Z	COIL				10μH
		LC1401	QQR0657-013Z	NOISE FILTER				
		LC1402	QQR0657-010Z	NOISE FILTER				
		SD1	LP30706-001B	SHIELD FRAME(S-VHS)				
		SD2	LP30684-001B	SHIELD CASE(S-VHS)				
		CN1401	QGG2502K1-17	HEADER PIN,(1-17)MAIN				

JVC SERVICE & ENGINEERING COMPANY OF AMERICA DIVISION OF JVC AMERICAS CORP.

Head office	: 1700 Valley Road Wayne, New Jersey 07470-9976	(973)315-5000
East Coast	: 10 New Maple Avenue Pine Brook, New Jersey 07058-9641	(973)396-1000
Midwest	: 705 Enterprise Street Aurora, Illinois 60504-8149	(630)851-7855
West Coast	: 5665 Corporate Avenue Cypress, California 90630-0024	(714)229-8011
Atlanta	: 1500 Lakes Parkway Lawrenceville, Georgia 30043-5857	(770)339-2582
Hawaii	: 2969 Mapunapuna Place Honolulu, Hawaii 96819-2040	(808)833-5828

JVC CANADA INC.

Head office	: 21 Finchdene Square Scarborough, Ontario M1X 1A7	(416)293-1311
Montreal	: 16800 Rte Trans-Canadienne, Kirkland, Quebec H9H 5G7	(514)871-1311
Vancouver	: 13040 Worster Court Richmond, B.C. V6V 2B3	(604)270-1311

JVC

S40895-03