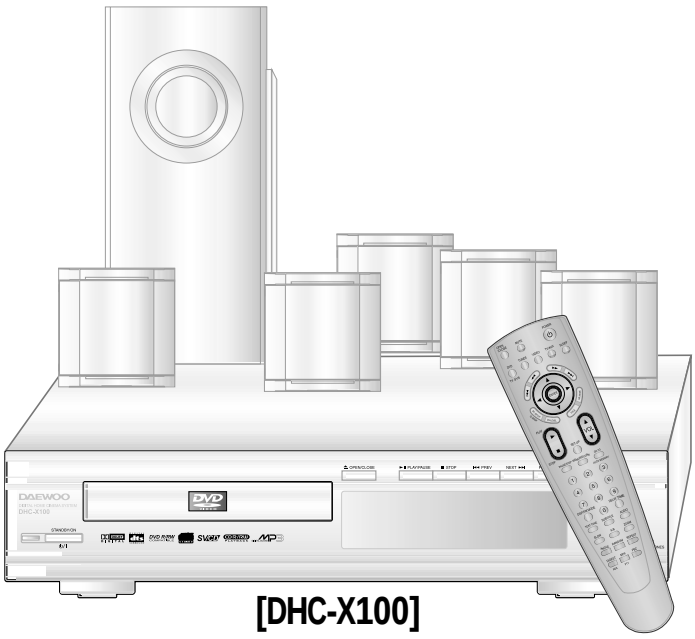
DAEWOO

Service Manual

Digital Home Cinema System

Model: DHC-X100



[DHC-X100]

[DHC-X150]

DAEWOO ELECTRONICS CO., LTD.

http : //svc.dwe.co.kr Aug. 2003

DIGITAL HOME CINEMA SYSTEM

[* DVD-DR4033 for Quelle] **DHC-X100**

Contents

1. Safety Precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION RISK OF ELECTRIC SHOCKS DO NOT OPEN
	
CAUTION : TO REDUCE THE RISK IF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULTED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

LASER SAFETY

THIS UNIT EMPLOYS A LASER. ONLY QUALIFIED SERVICE PERSONNEL SHOULD REMOVE THE COVER OR ATTEMPT TO SERVICE THIS DEVICE DUE TO POSSIBLE EYE INJURY.

CAUTION : USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION : POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Important Safety Instructions

- All the safety and operating instructions should be read before the appliance is operated.
- The safety and operating instructions should be retained for future reference.
- All warnings on the appliance and in the operating instructions should be adhered to.
- All operating and use instructions should be followed.

1. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.

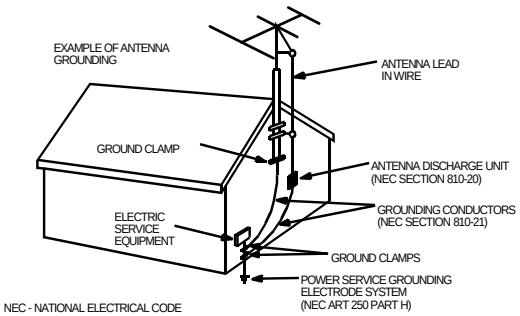
PORTABLE CART

Figure 2

2. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by th manufacturer.
3. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
4. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
5. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
6. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
7. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
8. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
9. Power - Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
10. Protective Attachment Plug - If the appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
11. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
12. Power Lines - An outdoor antenna should be located away from power lines.

1. Safety Precautions

13.Outdoor Antenna Grounding - If an outside antenna is connected to the receiver be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-dis charge unit, size of grounding conductors,location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See Figure 1.



14.Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

15.Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

16.Damage Requiring Service - The appliance should be serviced by qualified service personnel when:

a) The power-supply cord or the plug has been damaged; or

b) Objects have fallen, or liquid has been spilled into the appliance; or

c) The appliance has been exposed to rain; or

d) The appliance does not appear to operate normally or exhibits a marked change in performance; or

e) The appliance has been dropped, or the enclosure damaged.

17.Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

2. Specifications

General specifications

Power supply Voltage (Option)	AC 110V or 120V or 127V / 60Hz 220V or 230V or 240V / 50Hz	**Power consumption**	Standby	2Watt
			Operating	90Watt
		Dimensions (W x D x H) / Weight	360 x 380 x 70mm/ 6.0 kg	

Front Amp. Section

POWER OUTPUT at 10% THD		at 1KHz, 6 ohms	17W
THD(TOTAL HARMONIC DISTORTION)		at 1KHz, 1W	0.2%
INPUT SEN. / Impedance @ 1KHz, 47K ohms		VIDEO, TV/AUX	500mV±30mV/47K
FREQUENCY RESPONSE	Large	at 1KHz, 1W	30Hz~30KHz
	Small	at 1KHz, 1W	150Hz~30KHz
S/N RATIO, IHF-A WEIGHTED		VIDEO, TV/AUX	70dB
SUBWOOFER TURNOVER FREQUENCY			≤120Hz
CHANNEL SEPARATION		1KHz	55dB

Center Amp Section

POWER OUTPUT at 10% THD	At 1KHz, 6 ohms	17W
THD(TOTAL HARMONIC DISTORTION)	At 1KHz, 1W	0.2%
S/N RATIO, IHF-A FILTER	1W	70dB
FREQUENCY RESPONSE(Dolby Digital) : Small	1W	135Hz~18KHz

Rear Amp Section

POWER OUTPUT 10% THD	At 1KHz, 6 ohms	17W
THD(TOTAL HARMONIC DISTORTION)	At 1KHz, 1W	0.2%
S/N RATIO, IHF-A FILTER	1W	70dB
FREQUENCY RESPONSE(Dolby Digital) : Small	1W	150Hz~30KHz

Subwoofer Section

POWER OUTPUT at 10% THD	At 100Hz, 8 ohms	30W
FREQUENCY RESPONSE	1W	20Hz~150Hz
S/N RATIO, IHF-A Weight		70dB

Video Section

Input Sen. / Impedance	Composite Video(Video)	1Vp-p/75 ohm	±0.5 dB
Output Level / Impedance Color Bar 100%	Composite 75 ohm	1Vp-p/75 ohm	±0.5 dB
	S-Video(Y/C) 75 ohm(DVD only)	1Vp-p/ 0.286Vp-p	±0.5 dB
	Component Out(Y / Pb / Pr):Option	1Vp-p/0.7Vp-p/0.7Vp-p	±0.5 dB
	G, R, B(Scart) Out : Option	0.7Vp-p/0.7Vp-p/0.7Vp-p	±0.5 dB
Frequency Response	Ref 500KHz		5Hz~5.7MHz
Crosstalk	@1MHz	45dB	40dB
S/N Ratio	DVD	60dB	

FM Tuner Section (FM ANT Impedance : 75 ohms)

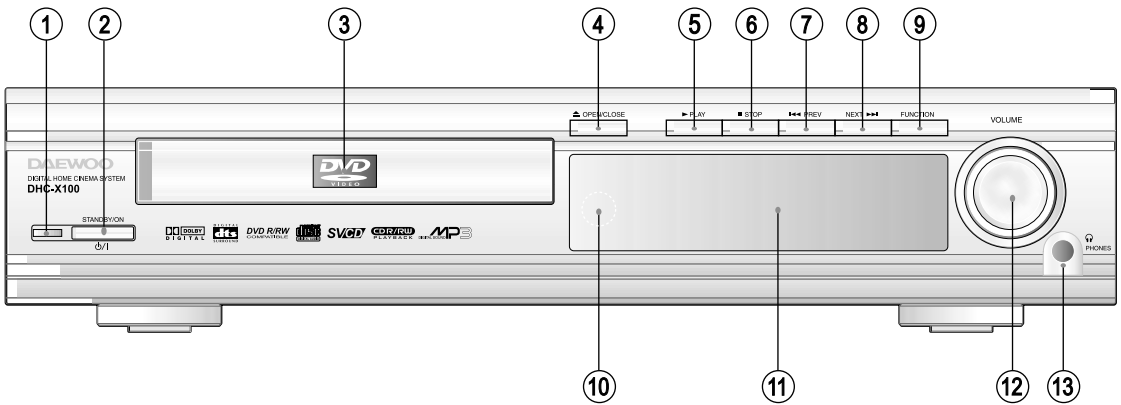
Tuning Range	USA Version	87.5~108.0MHz
	Europe Version	87.5~108.0MHz
Scanning Frequency Interval	USA Version	100KHz
	Europe Version	50KHz
Usable Sensitivity, 75 ohms	S/N=30dB,USA Version	2uV(17.2dBf)
	S/N=26dB,Europe Version	3uV(20.8dBf)
S/N Ratio @1mV IHF-A FILTER	Mono USA Version	70dB
	Mono Europe Version	70dB
	Stereo USA Version	65dB
	Stereo Europe Version	65dB

AM Tuner Section (AM Loop antenna)

Tuning Range	USA Version	530~1710KHz
	Europe Version	522~1620KHz
Scanning Frequency Interval	USA Version	10KHz
	Europe Version	9KHz
Usable Sensitivity, 75 ohms	S/N=20dB,USA Version	54 dBu
	S/N=20dB,Europe Version	54 dBu
S/N Ratio @1mV IHF-A FILTER	USA Version	40 dB
	Europe Version	40 dB

3. Location of Users Controls

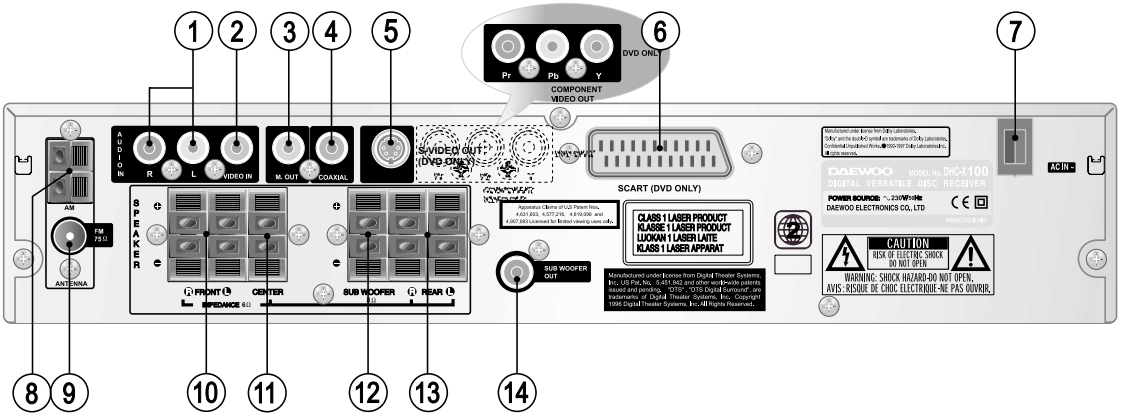
● Front Panel



1. STANDBY indicator
2. STANDBY / ON button
3. DVD/VIDEO CD/MP3 CD/audio CD disc tray
4. OPEN/CLOSE (▲) button
5. PLAY (►) button
6. STOP (■) button
7. PREV (⏮) button
8. NEXT (⏭) button
9. FUNCTION button
10. Remote Control Sensor
11. Display
12. MASTER VOLUME control
13. PHONES jack

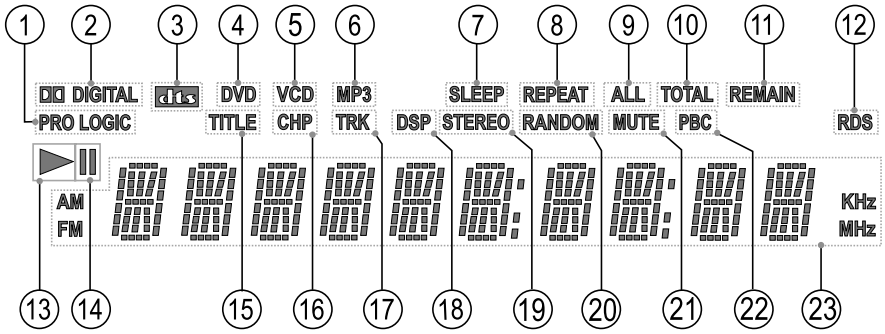
3. Location of Users Controls

● Rear Panel



1. AUDIO IN jacks
2. VIDEO IN jack
3. MONITOR OUT jack
4. DIGITAL OUTPUT jack
5. S VIDEO OUT jack
6. SCART jack or COMPONENT VIDEO OUTPUT Y/Pb/Pr jacks(Optional)
7. Power cord
8. AM ANTENNA connector
9. FM ANTENNA connector
10. FRONT SPEAKER connectors
11. CENTER SPEAKER connectors
12. WOOFER SPEAKER connector
13. REAR SPEAKER connectors
14. SUBWOOFER output jack

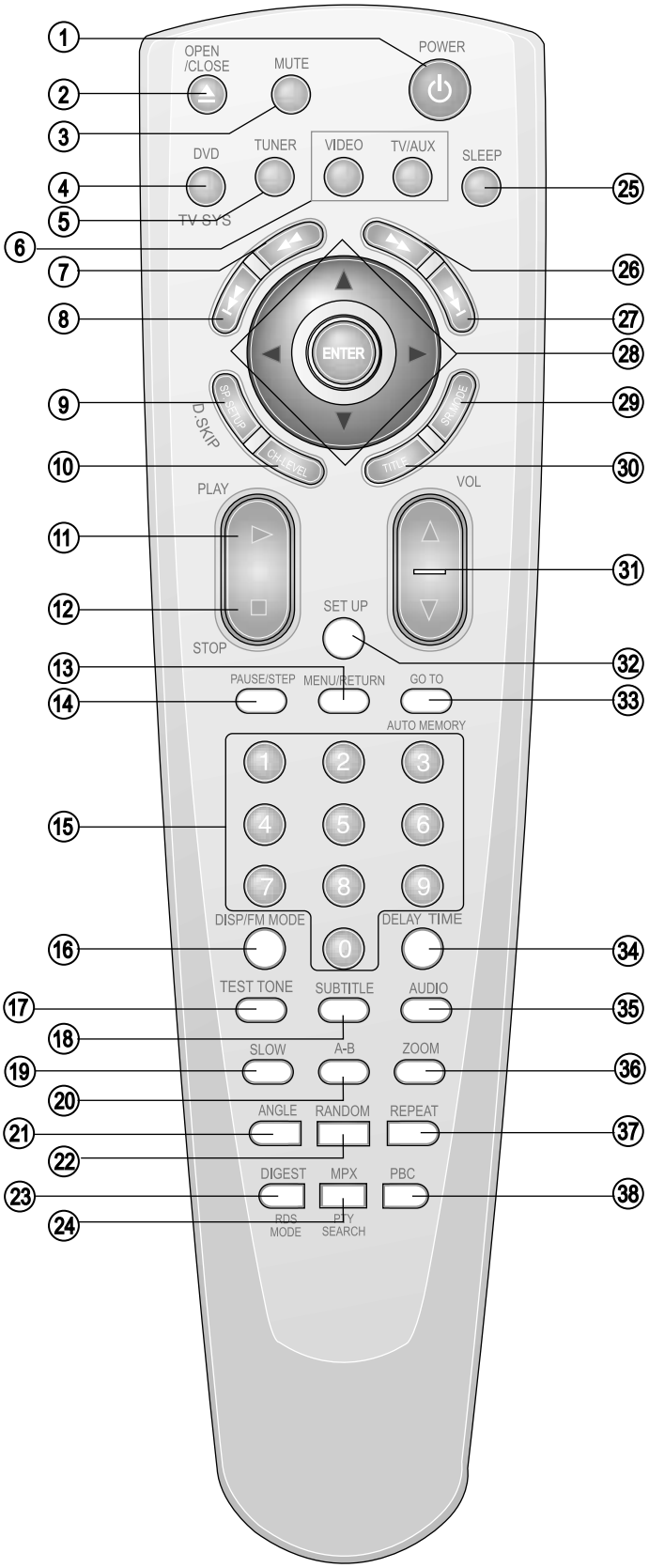
● Display



1. Pro Logic indicator
2. DOLBY DIGITAL indicator
3. DTS indicator
4. DVD indicator
5. VCD indicator
6. MP3 indicator
7. SLEEP indicator
8. REPEAT indicator
9. ALL indicator
10. TOTAL indicator
11. REMAIN indicator
12. RDS indicator
13. PLAY indicator
14. PAUSE indicator
15. TITLE indicator
16. CHAPTER indicator
17. TRACK indicator
18. DSP indicator
19. STEREO indicator
20. RANDOM indicator
21. MUTE indicator
22. PBC(Playback Control) indicator
23. PLAYING INFORMATION display

3. Location of Users Controls

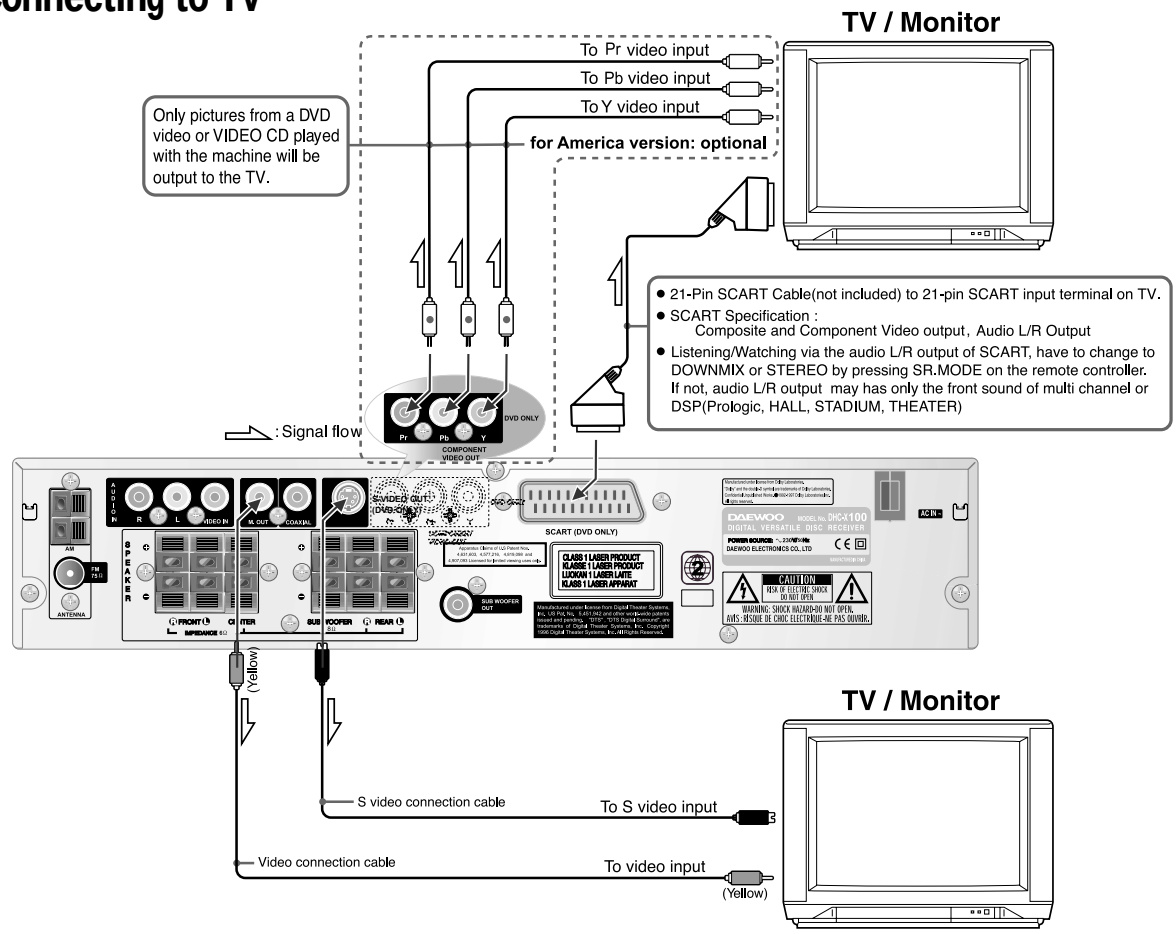
● Remote Controller



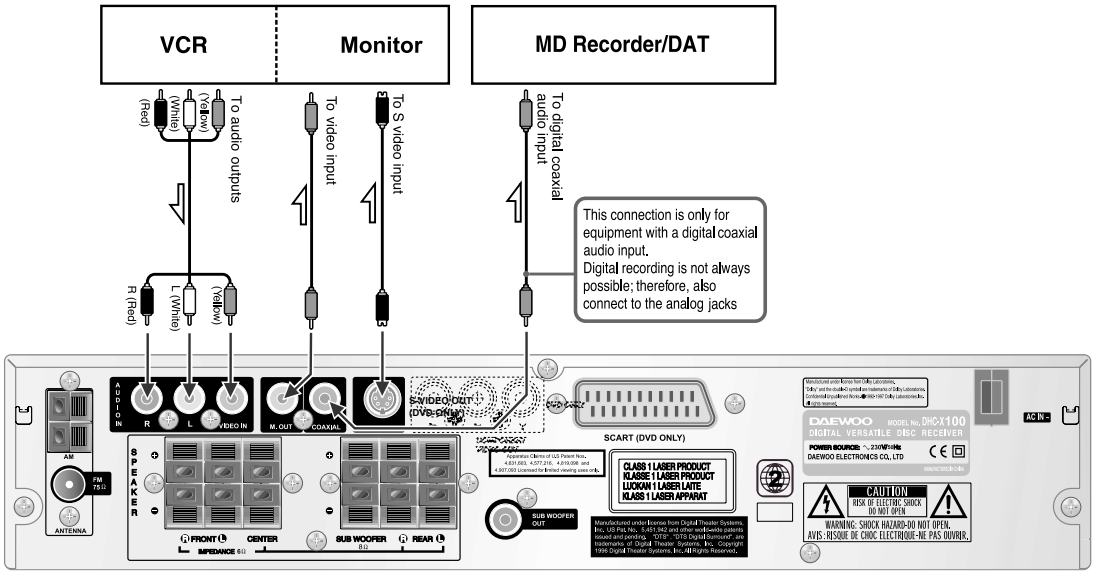
1. STANDBY/ON button
2. OPEN/CLOSE button
3. MUTE button
4. INPUT SELECTOR: DVD button / TV SYSTEM button
5. INPUT SELECTOR: TUNER(FM/AM) button
6. INPUT SELECTOR: VIDEO, TV/AUX button
7. FAST REVERSE(FR) (◄◄) button
8. SKIP PREV (⏮) button
9. SPEAKER SETUP button
10. CH LEVEL button
11. PLAY (►) button
12. STOP(■) button
13. MENU/RETURN button
14. PAUSE/STEP button
15. Number buttons
16. DISPLAY/FM MODE button
17. TEST TONE button
18. SUBTITLE button
19. SLOW button
20. A-B REPEAT button
21. ANGLE button
22. RANDOM button
23. DIGEST/RDS MODE button
24. MPX/PTY SEARCH button
25. SLEEP button
26. FAST FORWARD(FF) (►►) button
27. SKIP NEXT (⏭) button
28. MOVE ▲/▼/◄/► /ENTER buttons
29. SURROUND MODE button
30. TITLE button
31. VOLUME ▲/▼ buttons
32. SET-UP button
33. GO TO/AUTO MEMORY button
34. DELAY TIME button
35. AUDIO button
36. ZOOM button
37. REPEAT button
38. PBC button

4. Connecting to Equipment

● Connecting to TV



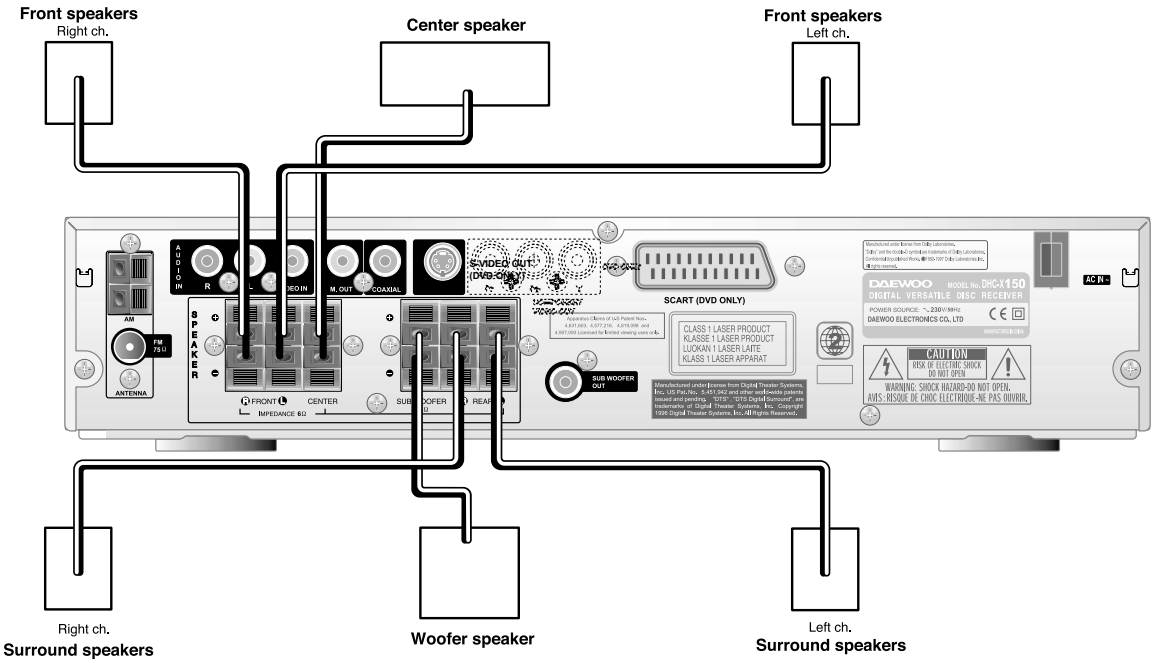
● Connecting to AUDIO & VIDEO



4. Connecting to Equipment

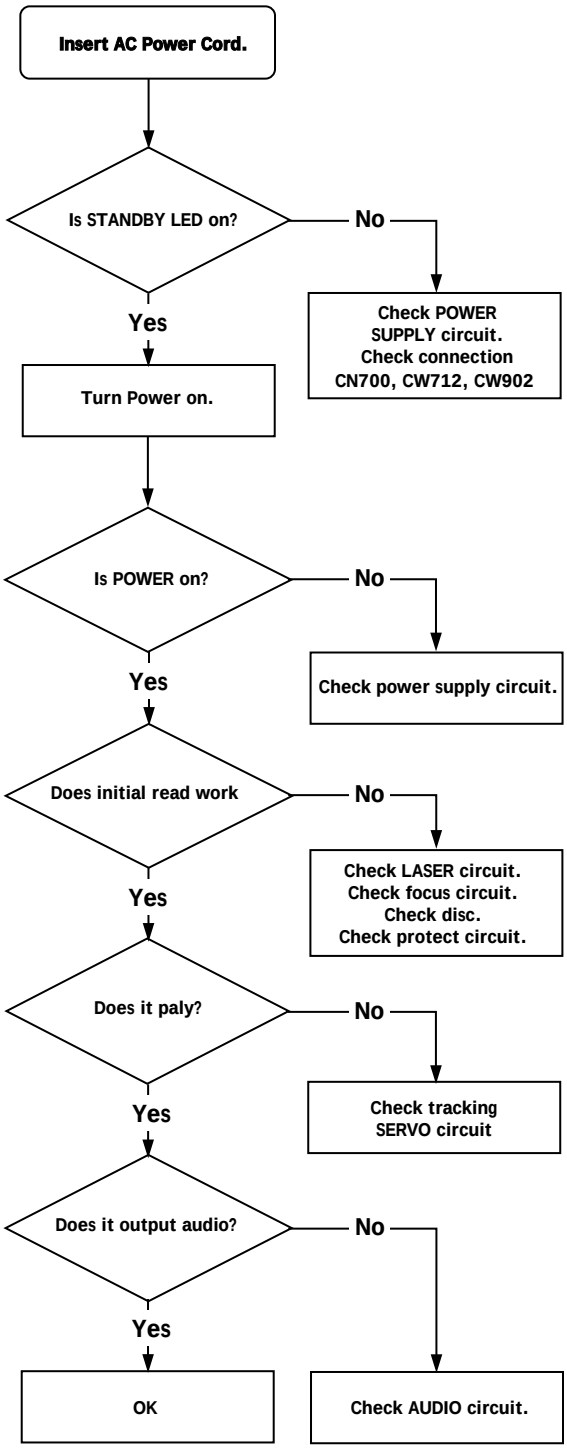
● Connecting to Speaker

- To prevent damage to circuits, never short-circuit the positive (+) and negative (-) speaker wires.
- Do not connect the speaker cable to the L and R connectors at the same time and do not connect more than one speaker to the same speaker connectors.



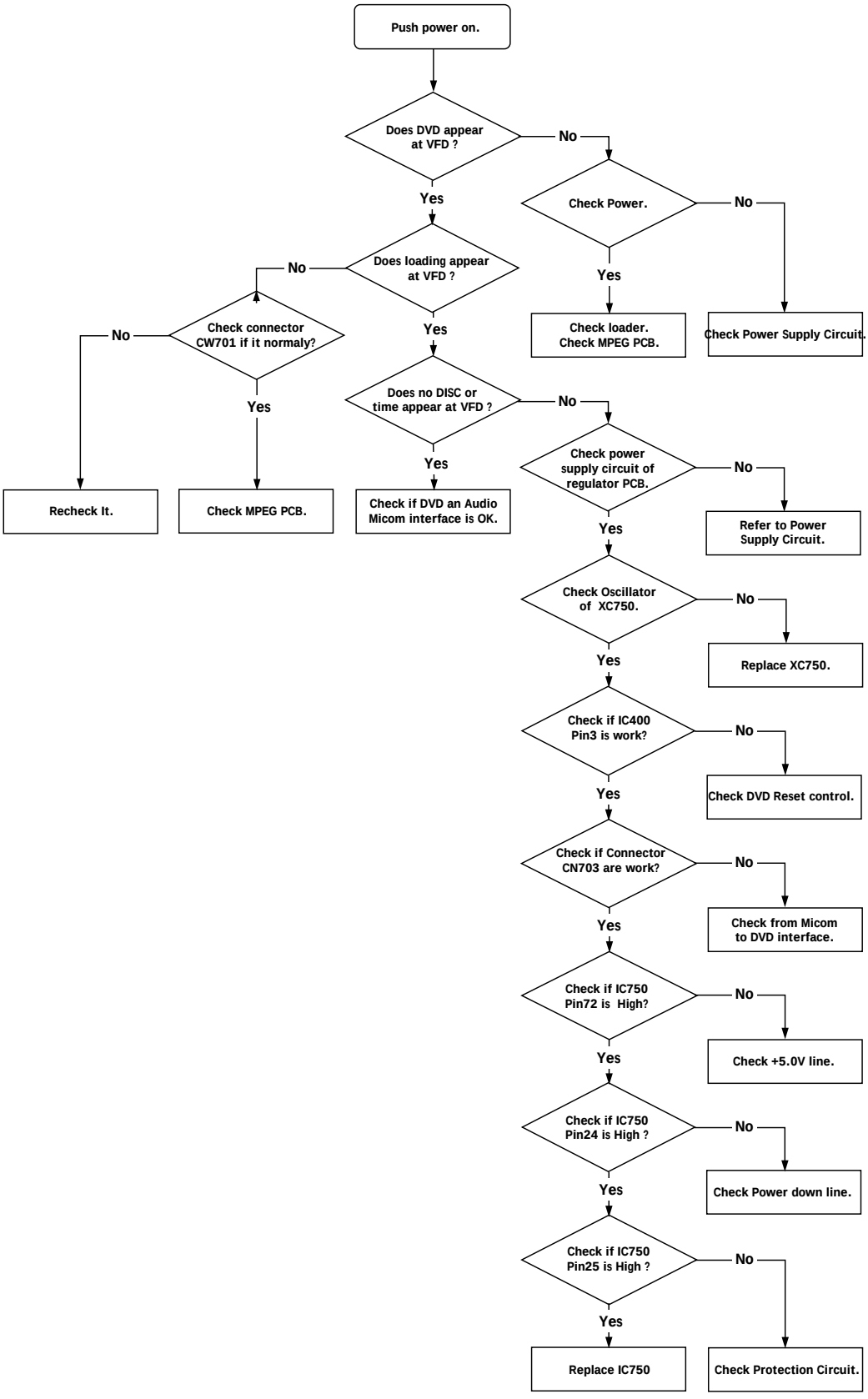
5. Trouble Shooting Guide

● Basic Operating



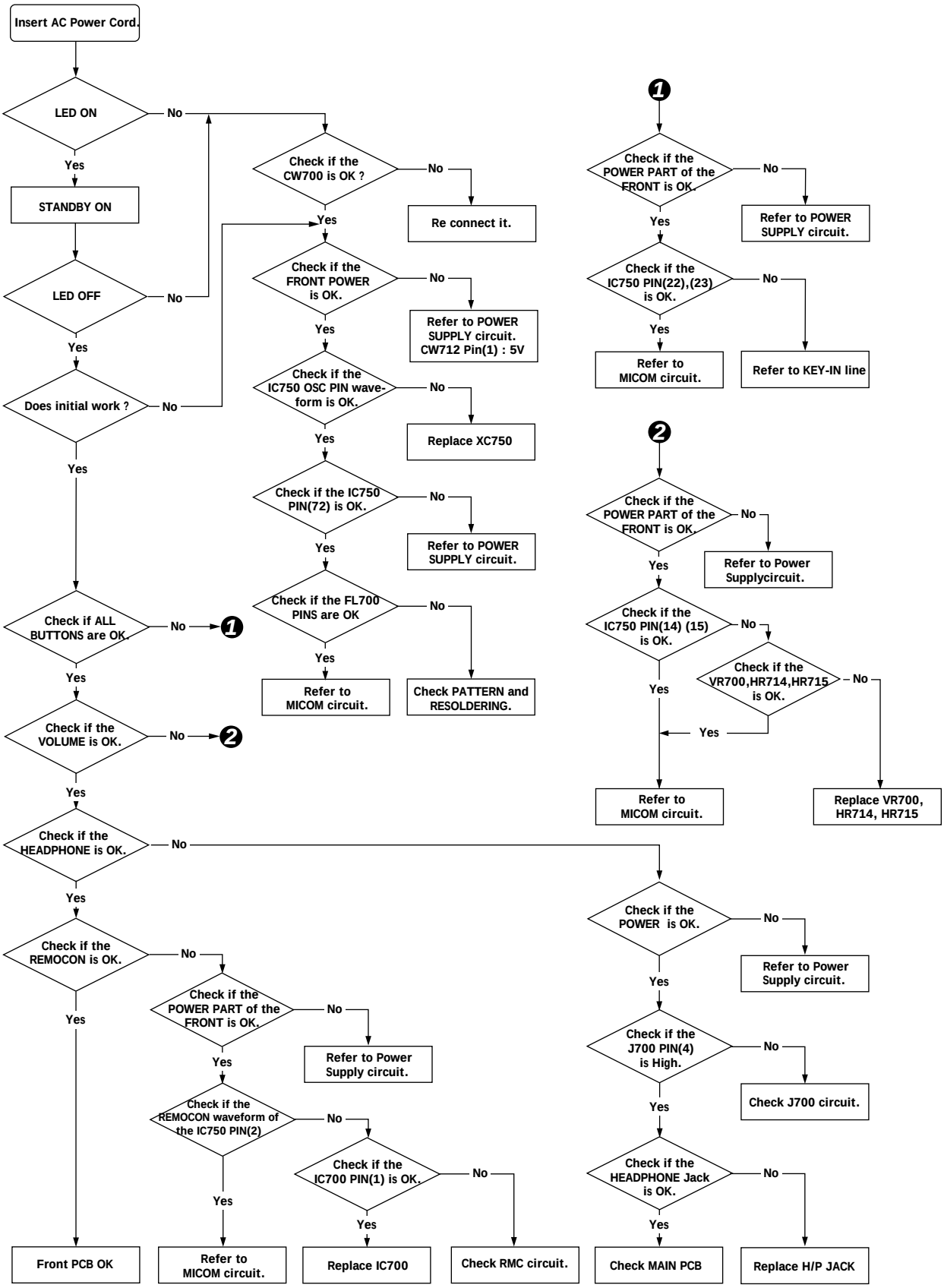
5. Trouble Shooting Guide

● Mi-Com Circuit



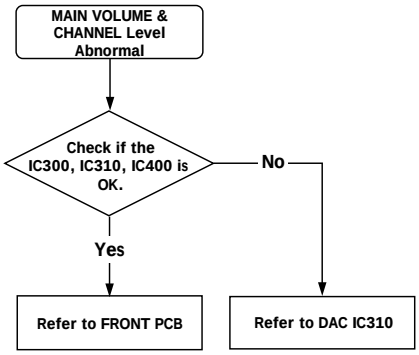
5. Trouble Shooting Guide

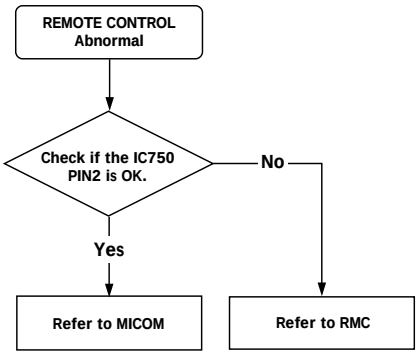
● Front Circuit

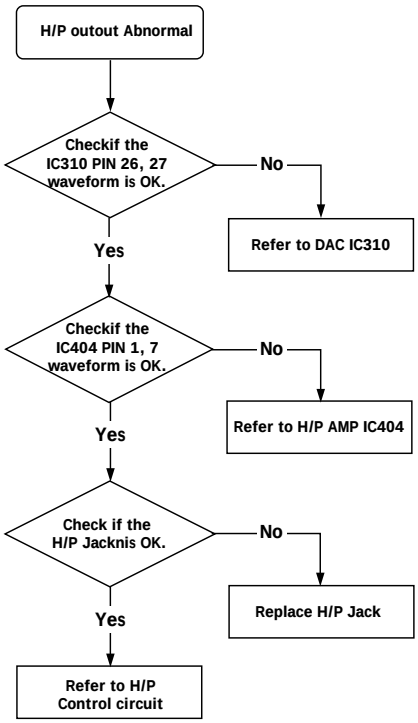


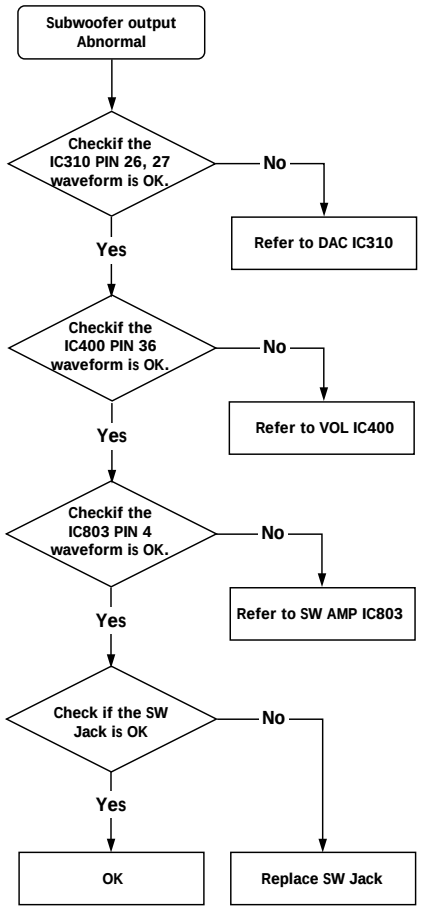
5. Trouble Shooting Guide

● Audio Block



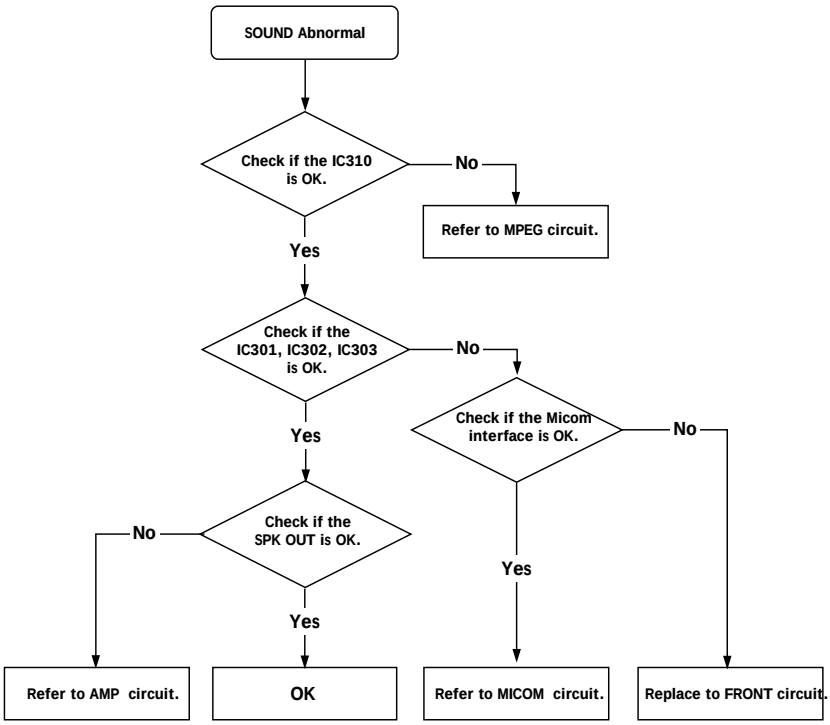


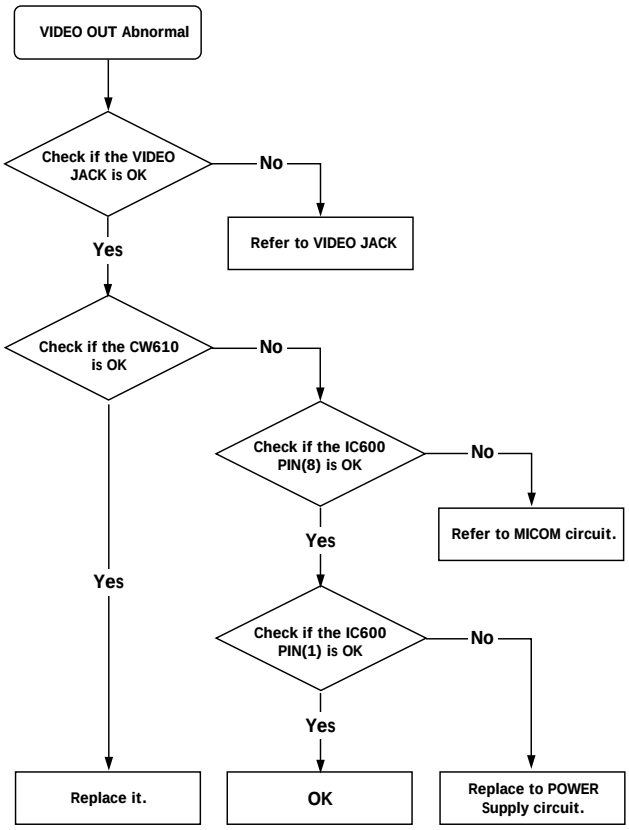


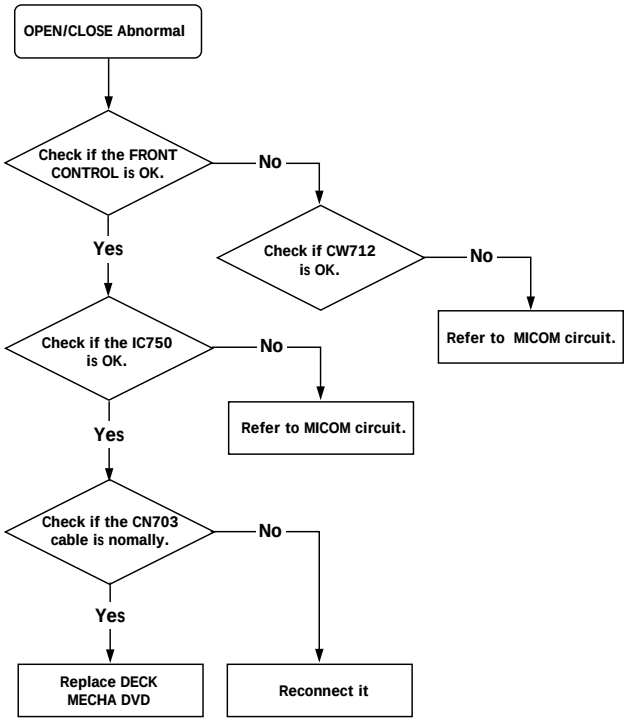


5. Trouble Shooting Guide

● DVD Block







6. DVD Program Download Method

INSERT THE UPDATE DISC INTO THE DISC TRAY, THEN THE DVD RECEIVER READS THE DISC AND UPDATE THE FIRMWAFE ITSELF AS FOLLOWINGS.

@ INSERT THE UPDATE DISC.

NO	STATUS	VFD	MONITOR	SET CONDITION
1	STARTING UPDATE	DISC LOADING	LOADING	DOOR CLOSE
2	DETECT THE UPDATE DISC	TRK ▶000 0:00:00	ES6028.ROM	DOOR CLOSE
3	READ THE DISC	TRK ▶000 0:00:00	WRITING/ERASE	DOOR CLOSE
4	COMPLETED THE READ	TRK ▶000 0:00:00	DONE	DOOR CLOSE
5	COMPLETED THE UPDATE	TRK ▶000 0:00:00		DOOR OPEN 1)
6	END	TRK ▶000 0:00:00		DOOR CLOSE : 2) 4 SEC

NOTE :

1) AFTER DOOR OPEN, EJECT THE UPDATE DISC.

2) AFTER COMPLETED, POWER OUT AND IN AGAIN.

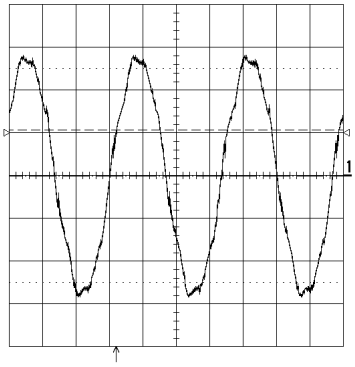
CAUTION :

WHILE DOOR OPEN, IF CD DOOR IS CLOSED BY TOUCH, OR POWER BUTTON IS PRESSED THEN FLASH MEMORY WILL BE ERASED.

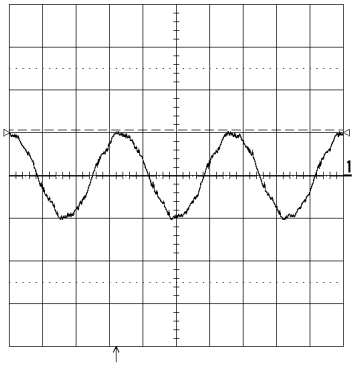
7. Waveforms of Major Check Method

※ TEST POINT : DVD TEST DISC " MDVD-W111 TRACK2 COLOR BAR"

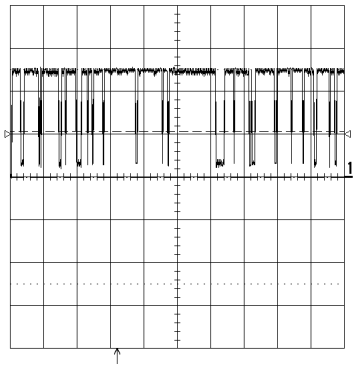
● **Audio Out Signal Waveform**



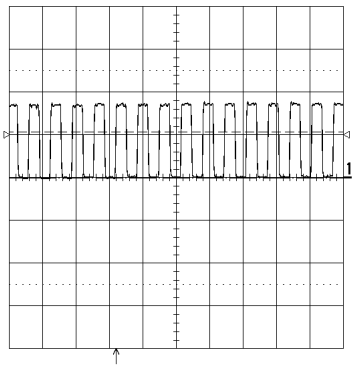
● **DAC Output Signal Waveform**



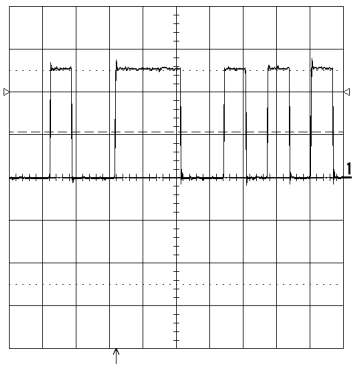
● **Optical Output Audio Data Signal waveform**



● **L/R Clock Data Waveform During Normal Play**



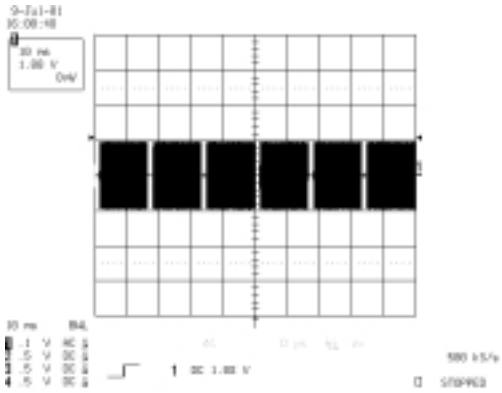
● **Serial Data Output Waveform During Normal Play**

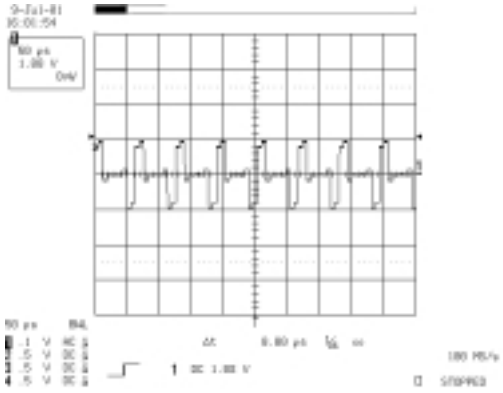


7. Waveforms of Major Check Method

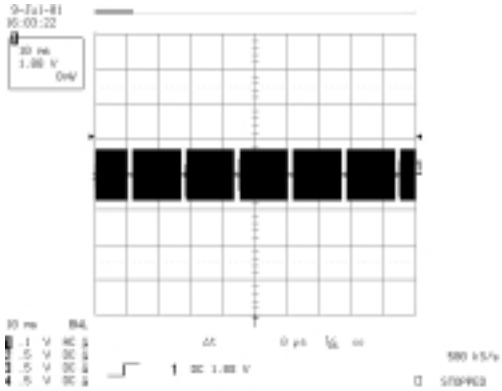
※ TEST POINT : DVD TEST DISC " MDVD-W111 TRACK2 COLOR BAR"

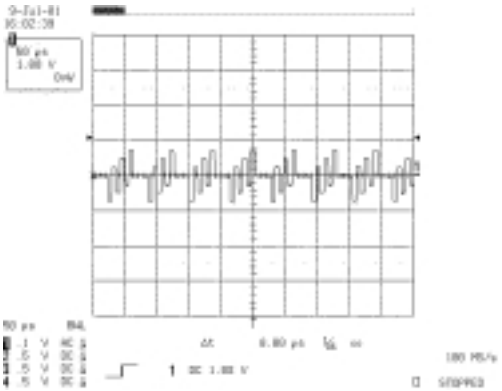
● **Pr Output Data Waveform in Component Output**



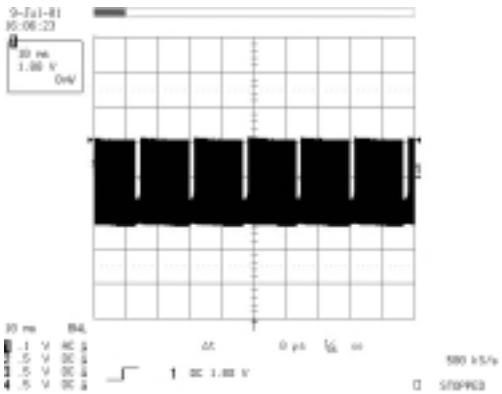


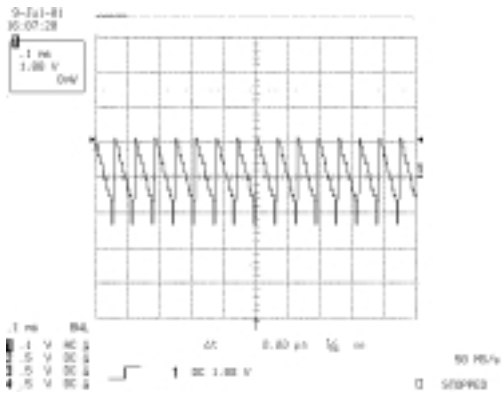
● **Pb Output Data Waveform in Component Output**





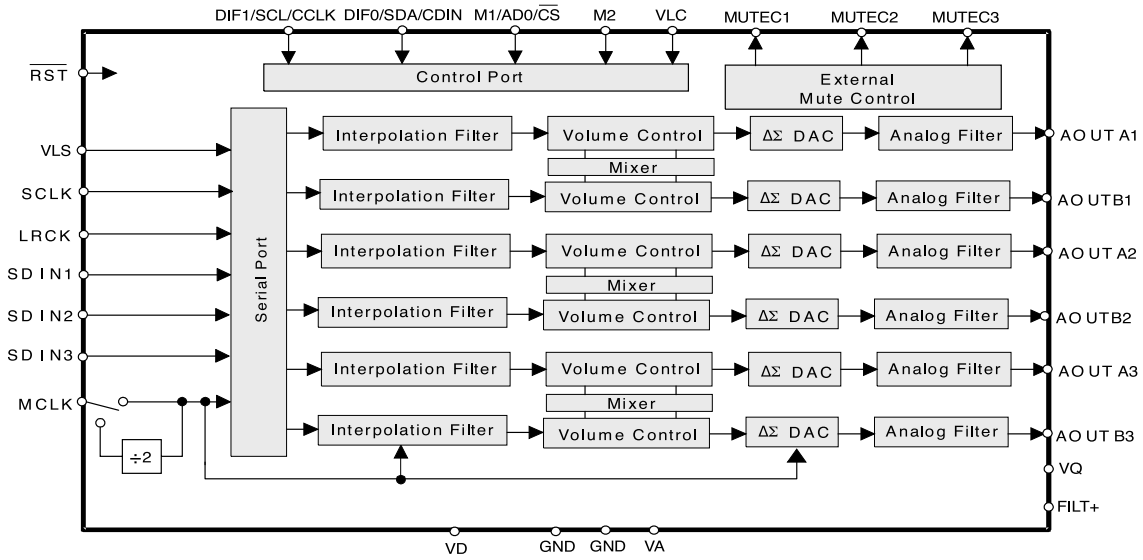
● **Y Output Data Waveform in Component Output**

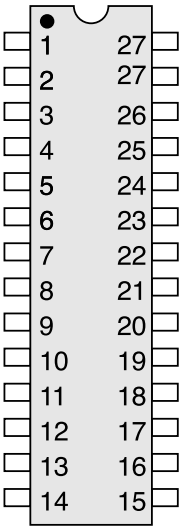




8. Internal Block Diagram of ICs

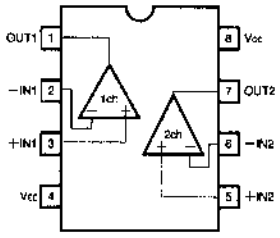
● CS4360

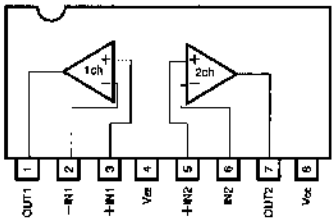




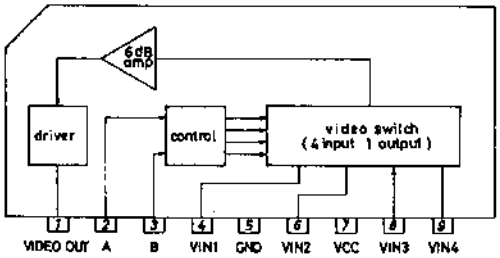
Serial Audio Power	**VLS**	1	27	**MUTEC1**	Mute Control 1
Serial Data Input 1	**SDIN1**	2	27	**AOUTA1**	Analog Output A1
Serial Data Input 2	**SDIN2**	3	26	**AOUTB1**	Analog Output B1
Serial Data Input 3	**SDIN3**	4	25	**MUTEC2**	Mute Control 2
Serial Clock	**SCLK**	5	24	**AOUTA2**	Analog Output A2
Left/Right Clock	**LRCK**	6	23	**AOUTB2**	Analog Output B2
Master Clock	**MCLK**	7	22	**VA**	Analog Power
Digital Power	**VD**	8	21	**GND**	Ground
Ground	**GND**	9	20	**AOUTA3**	Analog Output A3
Reset	**$\overline{\text{RST}}$**	10	19	**AOUTB3**	Analog Output B3
DIF1 / SCL/ CCLK	**DIF1/SCL/CCLK**	11	18	**MUTEC3**	Mute Control 3
DIF0 / SDA / CDIN	**DIF0/SDA/CDIN**	12	17	**VQ**	Quiescent Voltage
Mode1 / AD0 / $\overline{\text{CS}}$	**M1/AD0/$\overline{\text{CS}}$**	13	16	**FILT+**	Positive Voltage Reference
Control Port Power	**VLC**	14	15	**M2**	Mode 2

● BA4560F



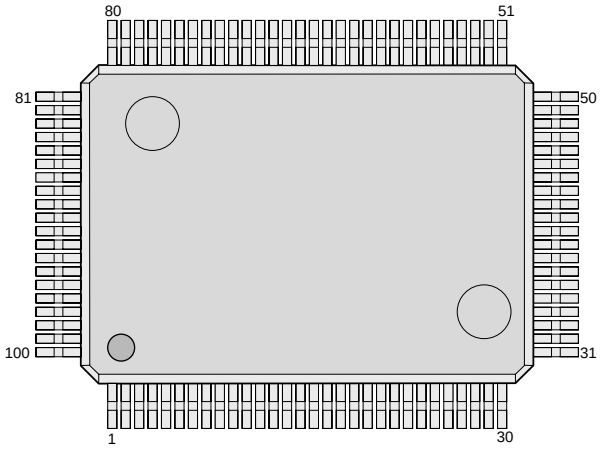


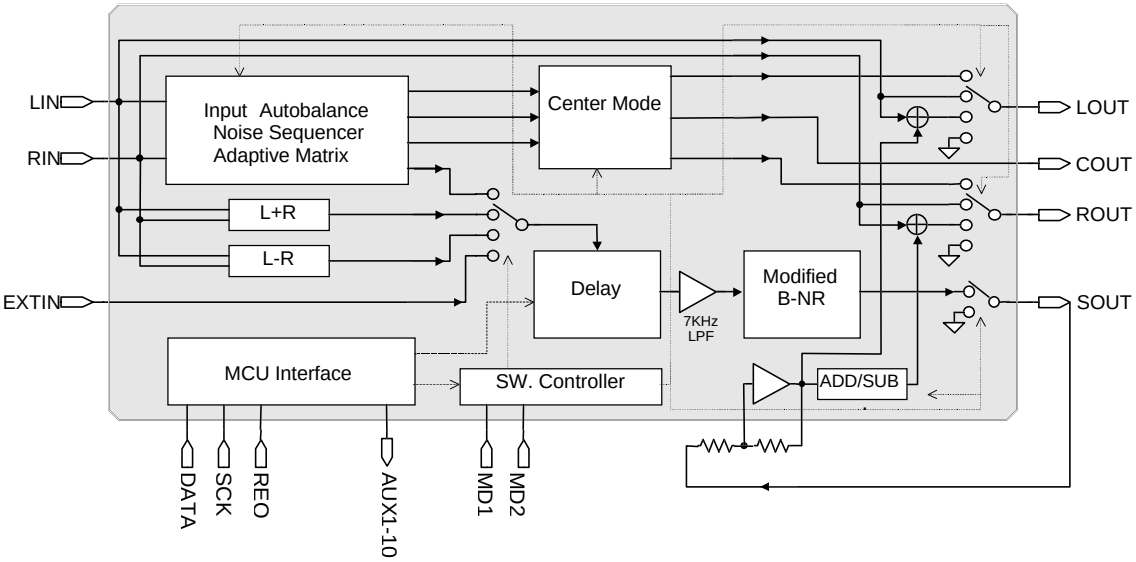
● LA7952



8. Internal Block Diagram of ICs

● NJW1104

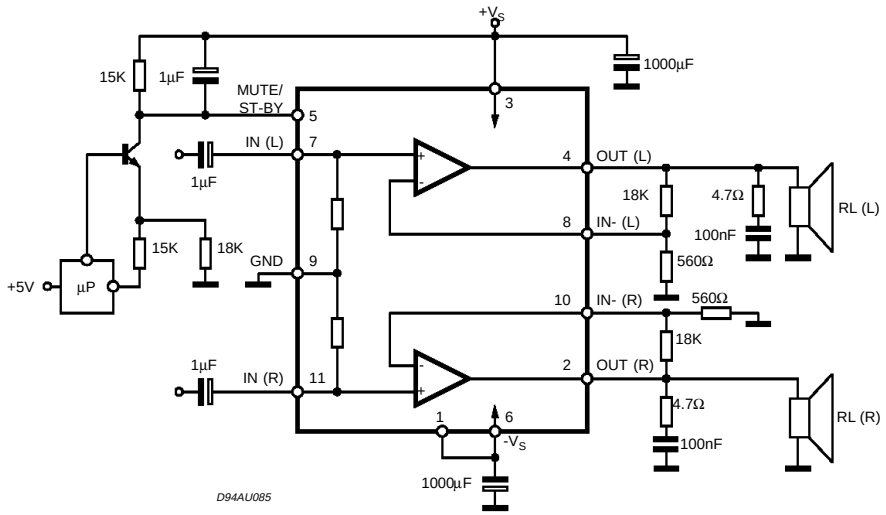




Pin No.	Pin Name	Pin No.	Pin Name	Pin No.	Pin Name	Pin No.	Pin Name
1	RLC3	26	NC	51	NC	76	DBIN
2	RLC8	27	NC	52	NC	77	DBC1
3	RLC6	28	NC	53	NC	78	DBC2
4	LLI	29	NC	54	NC	79	DBC3
5	LBPF	30	NC	55	NC	80	LOUT
6	RLI	31	VSS	56	NC	81	ROUT
7	RBPF	32	AUX1	57	NC	82	COUT
8	LT	33	AUX2	58	NC	83	SOUT
9	RT	34	AUX3	59	NC	84	CMC
10	LIN	35	AUX4	60	NC	85	SMRO
11	RIN	36	AUX5	61	NC	86	SMRI
12	HOLDC	37	AUX6	62	VDD	87	EXTIN
13	NGC3	38	AUX7	63	VCC	88	VREF
14	NGC2	39	AUX8	64	SDOUT	89	IREF
15	NGC1	40	AUX9	65	LPF1IN	90	PSC3
16	GND	41	AUX10	66	LPF1OUT	91	PSC6
17	MD1	42	RST	67	OPA1IN	92	PSC2
18	MD2	43	TESTCNT	68	OPA1OUT	93	PSC5
19	VSS	44	DATA	69	CC1	94	PSC1
20	NC	45	SCK	70	CC2	95	PSC4
21	NC	46	REQ	71	OPA2IN	96	RLC5
22	NC	47	CLK2	72	OPA2OUT	97	RLC2
23	NC	48	CLK1	73	LPF2IN	98	RLC1
24	NC	49	VDD	74	LPF2OUT	99	RLC4
25	NC	50	NC	75	LPFIN	100	RLC7

8. Internal Block Diagram of ICs

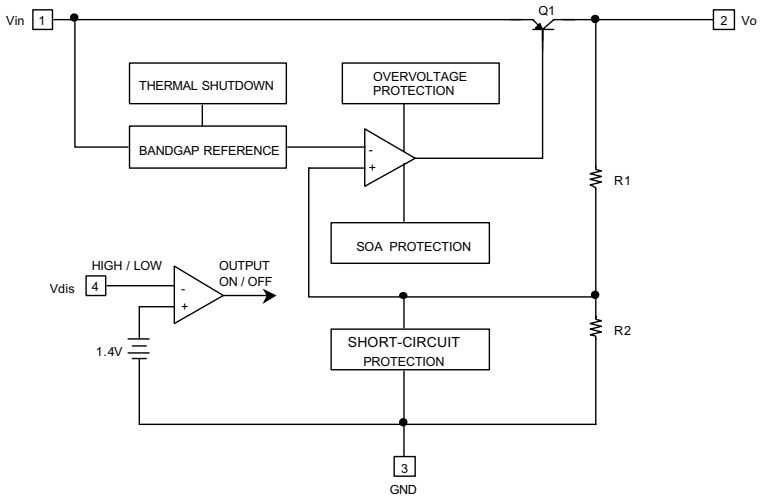
● TDA7265/7269A



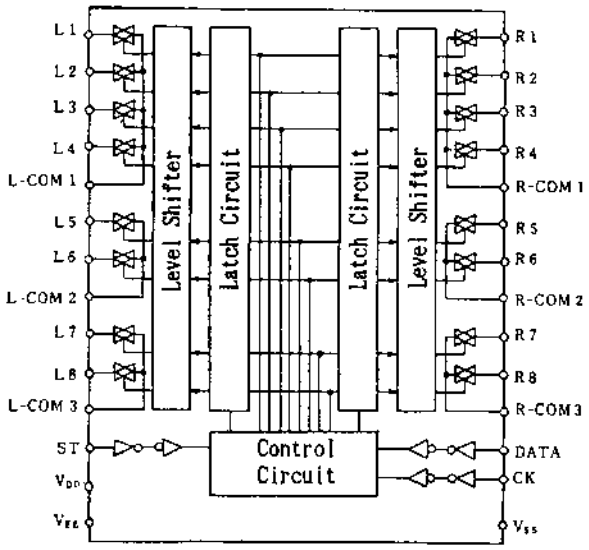
● KA278R05/278R33

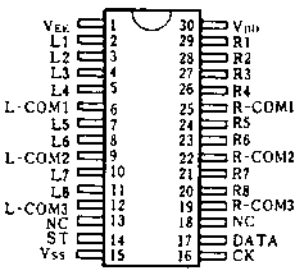
1

1.Vin 2. Vo 3. GND 4. Vd



● NJU7313A

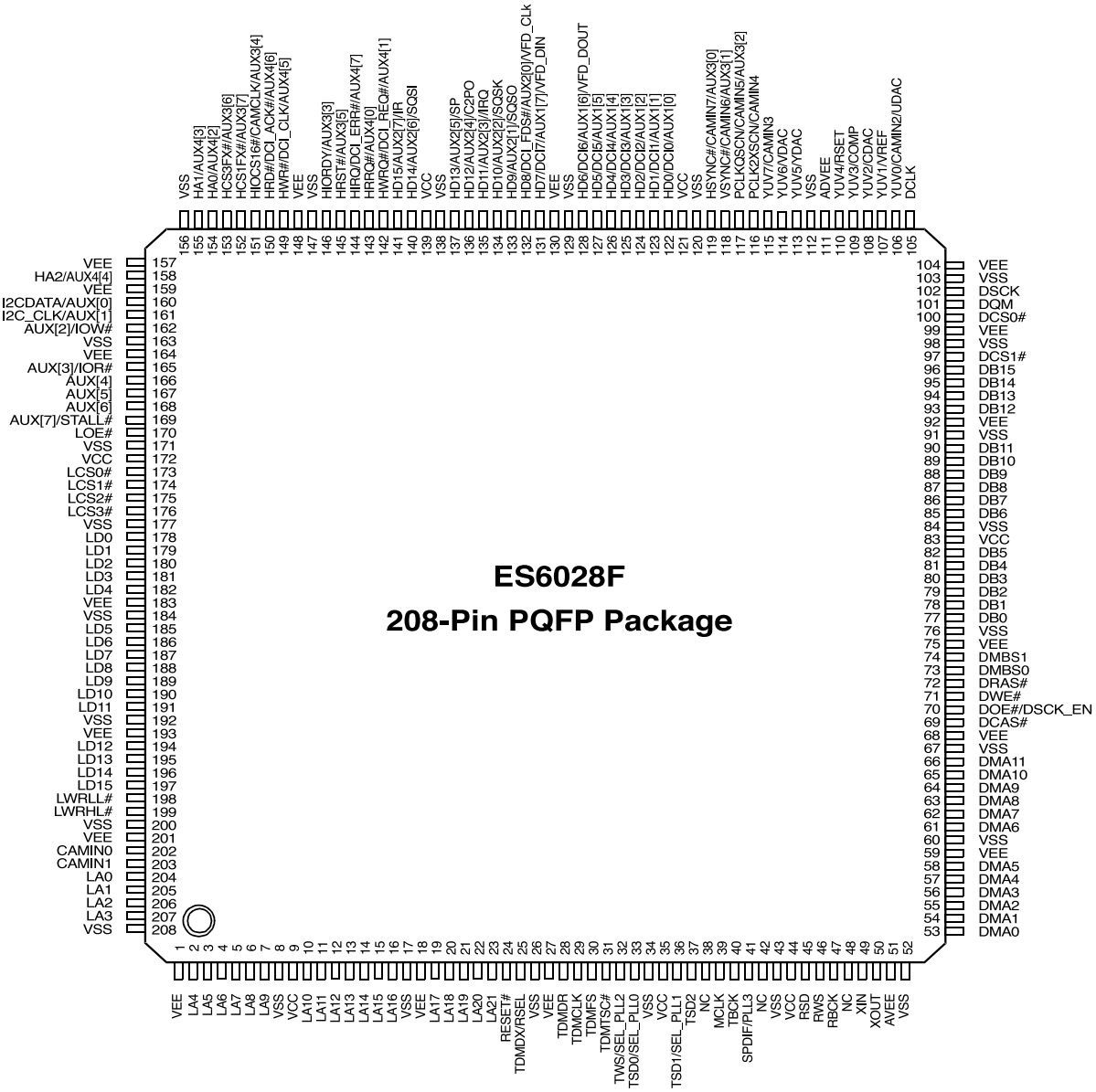




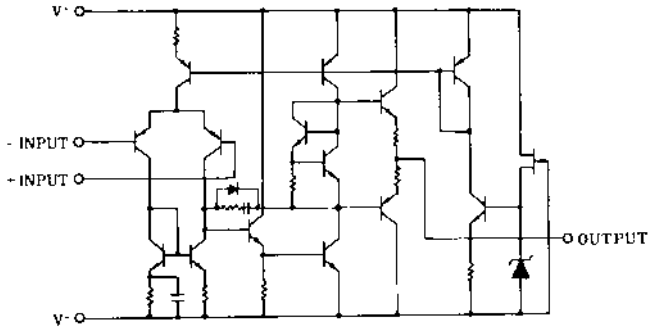
NJU7313AM

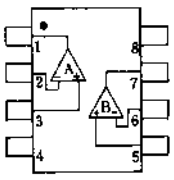
8. Internal Block Diagram of ICs

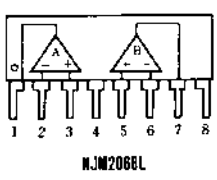
● ES6028



● NJM4558

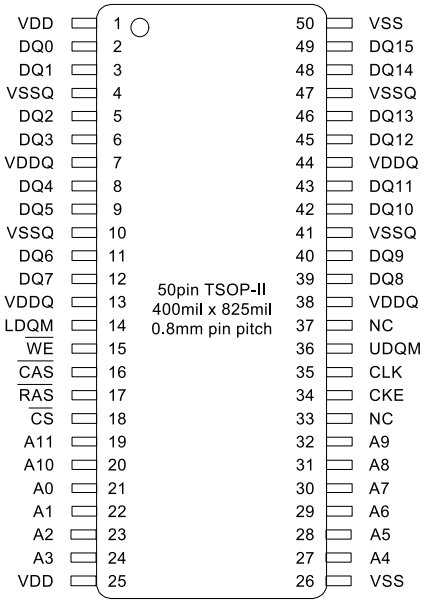


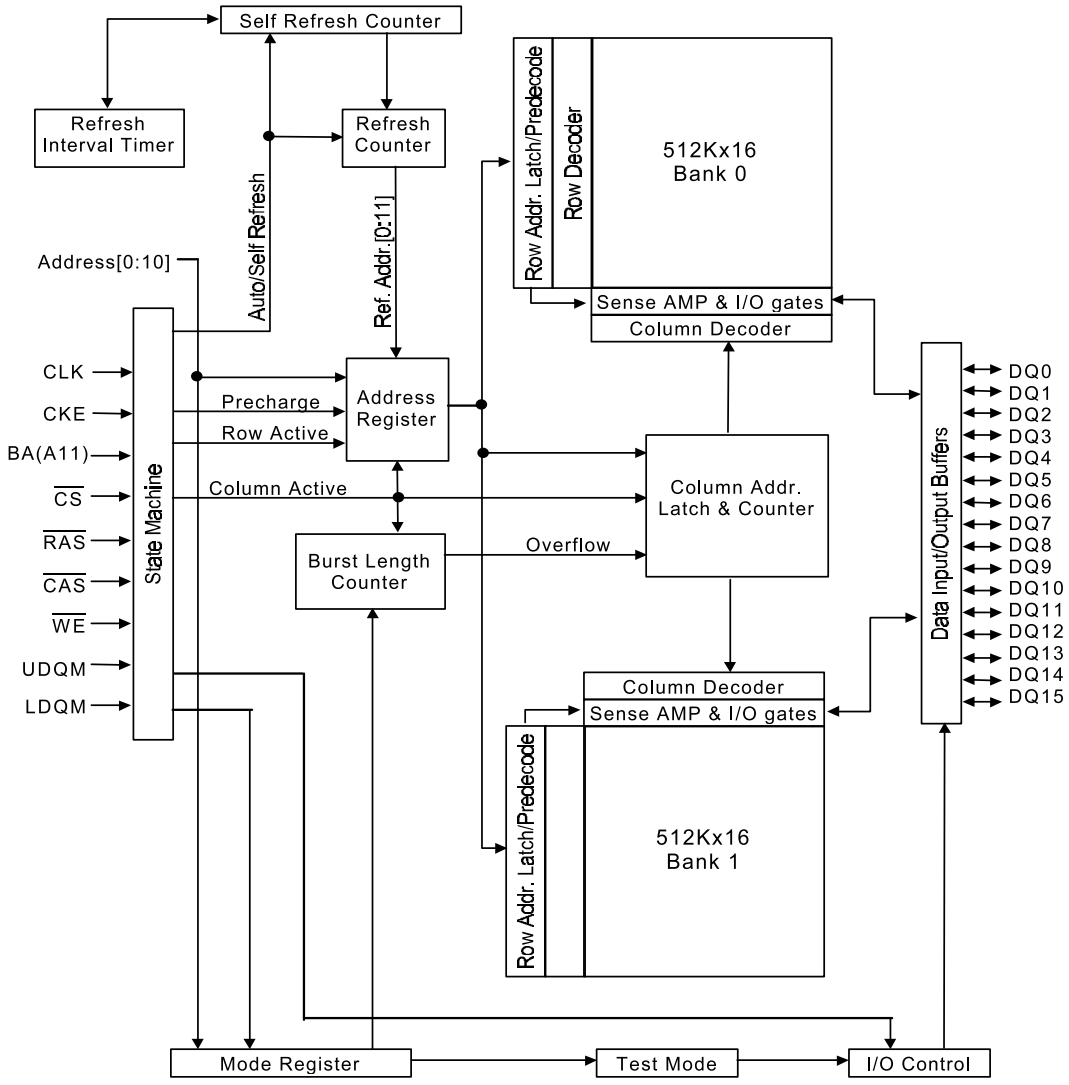




8. Internal Block Diagram of ICs

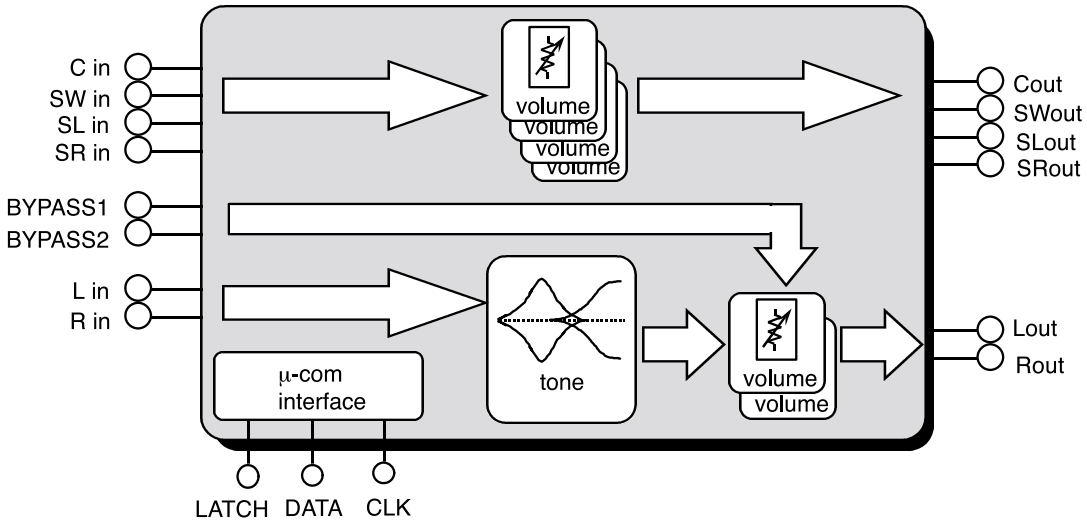
● HY57161610DTC-8

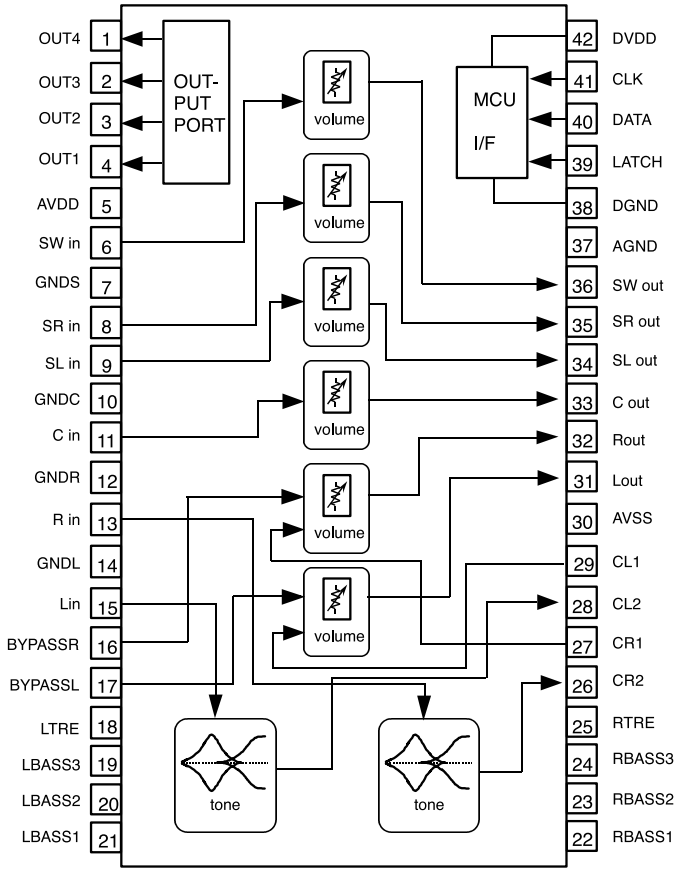




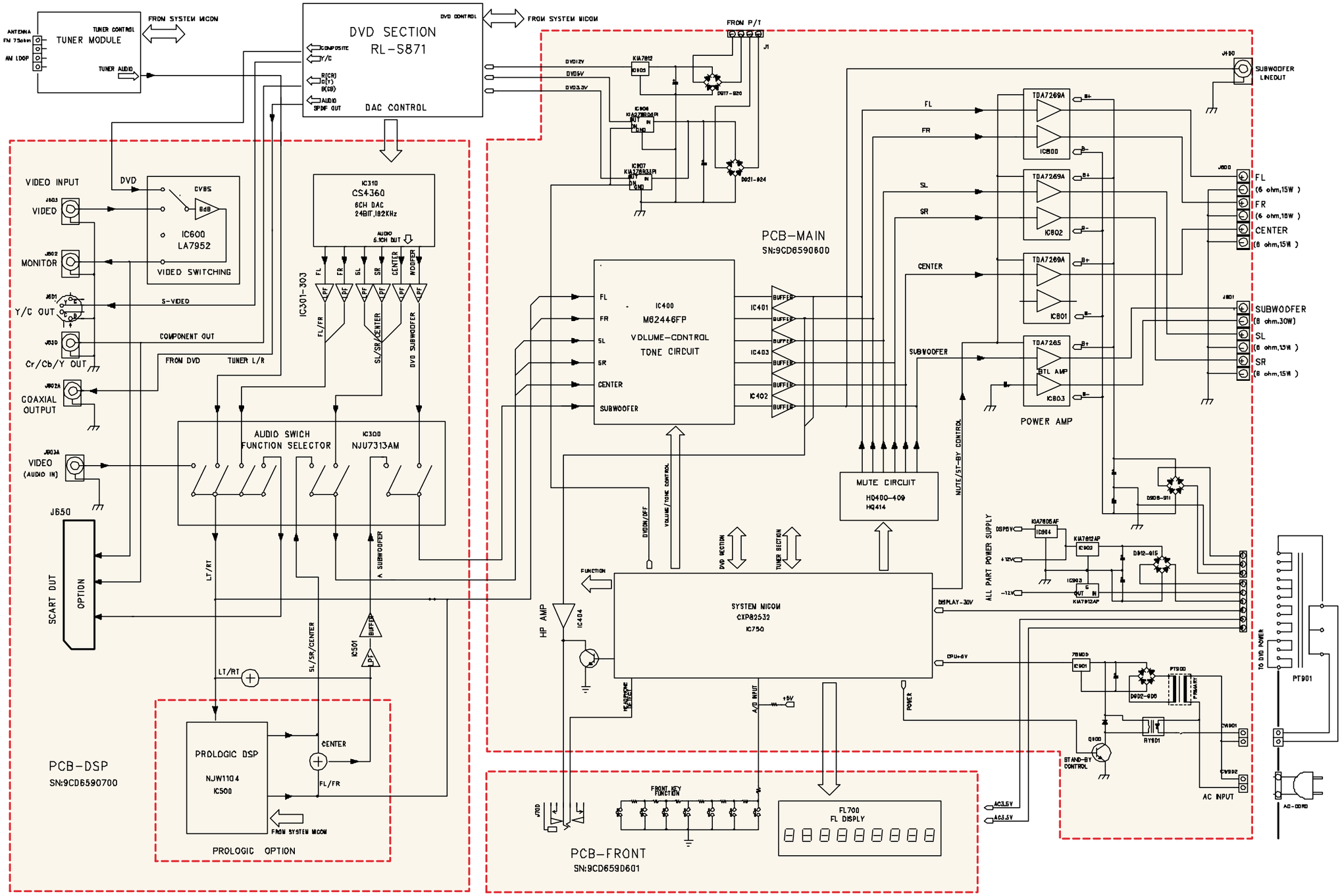
8. Internal Block Diagram of ICs

● M62446AFP

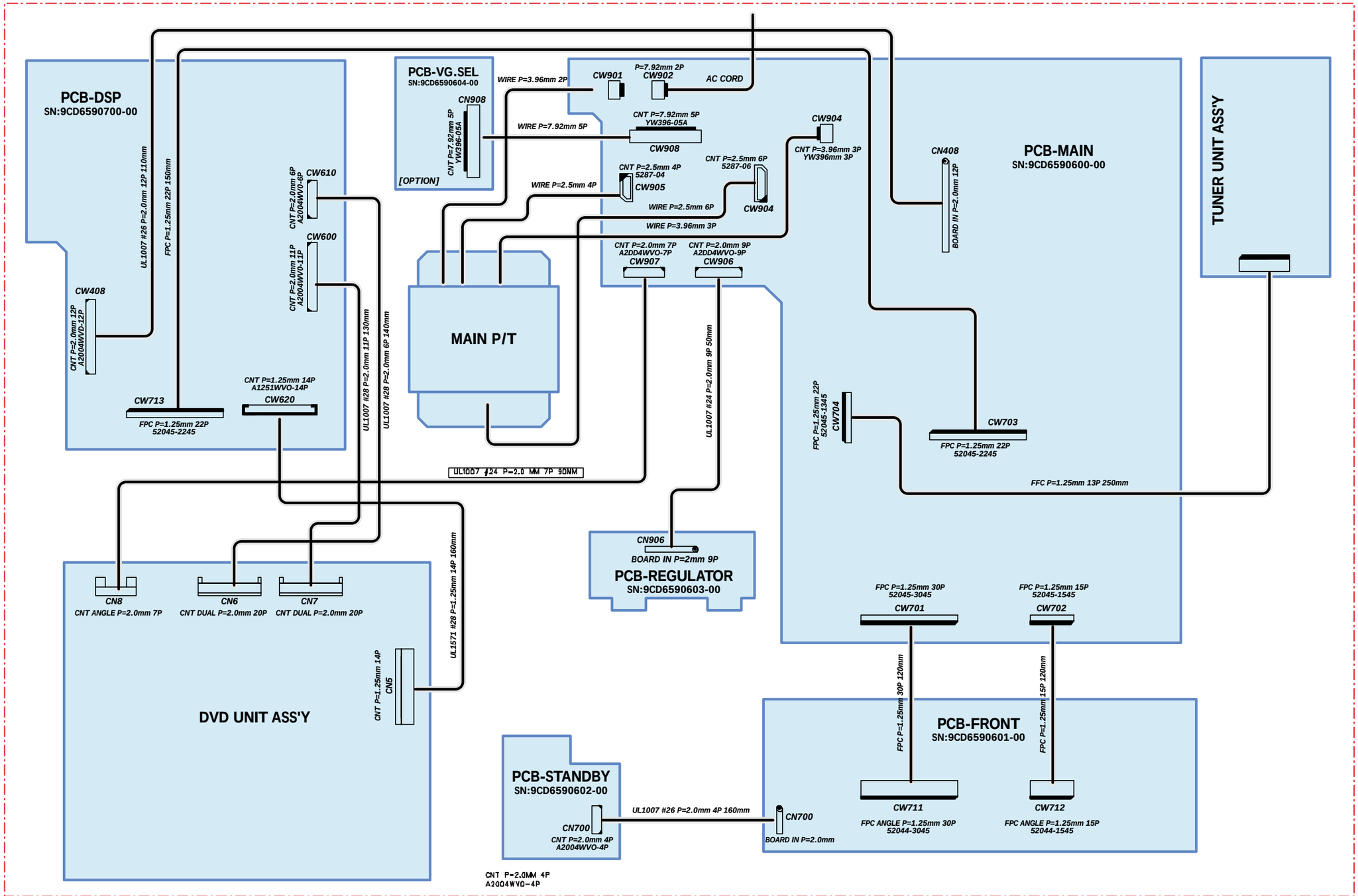




9. Block Diagram

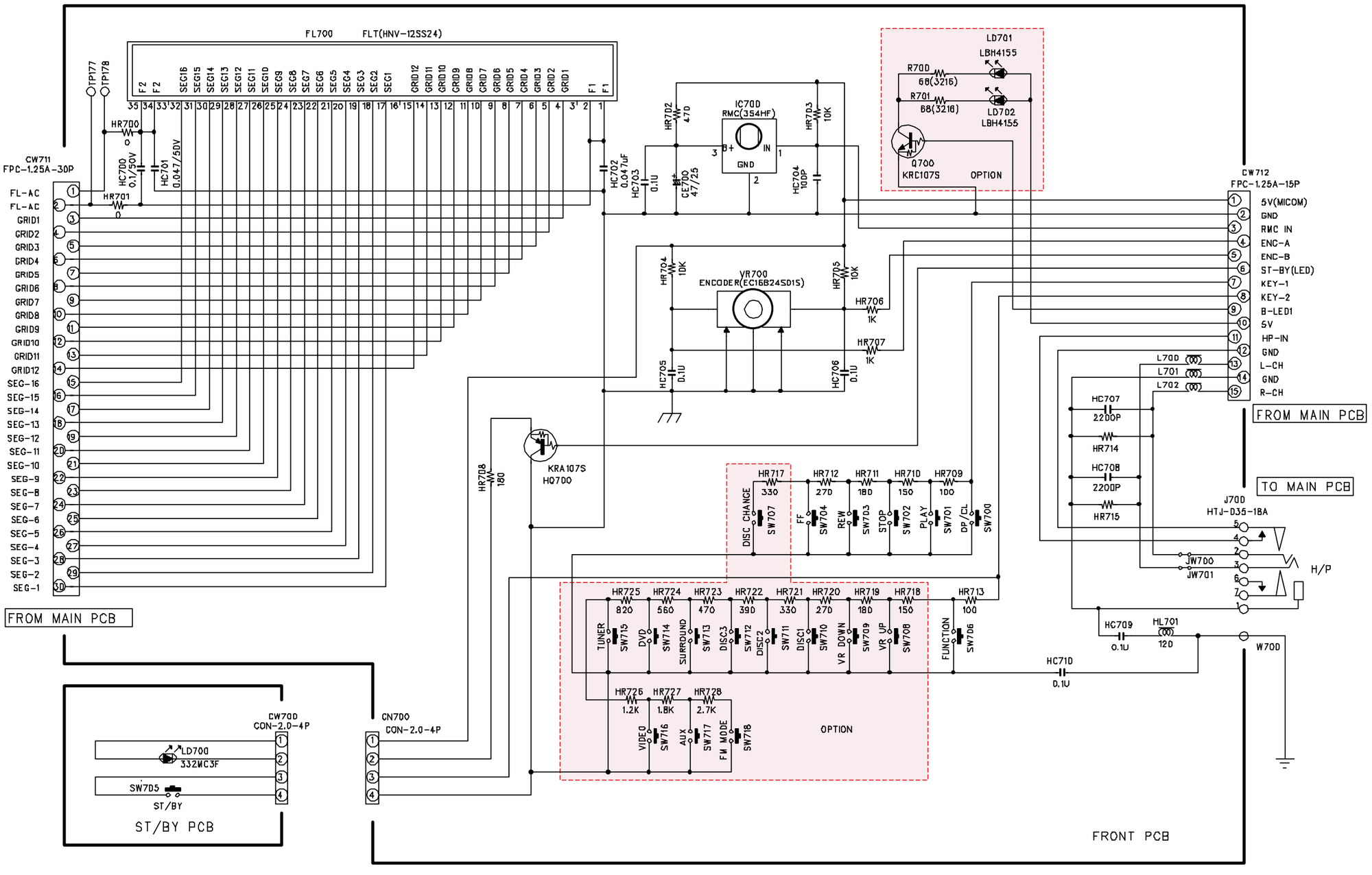


10. Wiring Diagram



11. Schematic Diagram

● Front

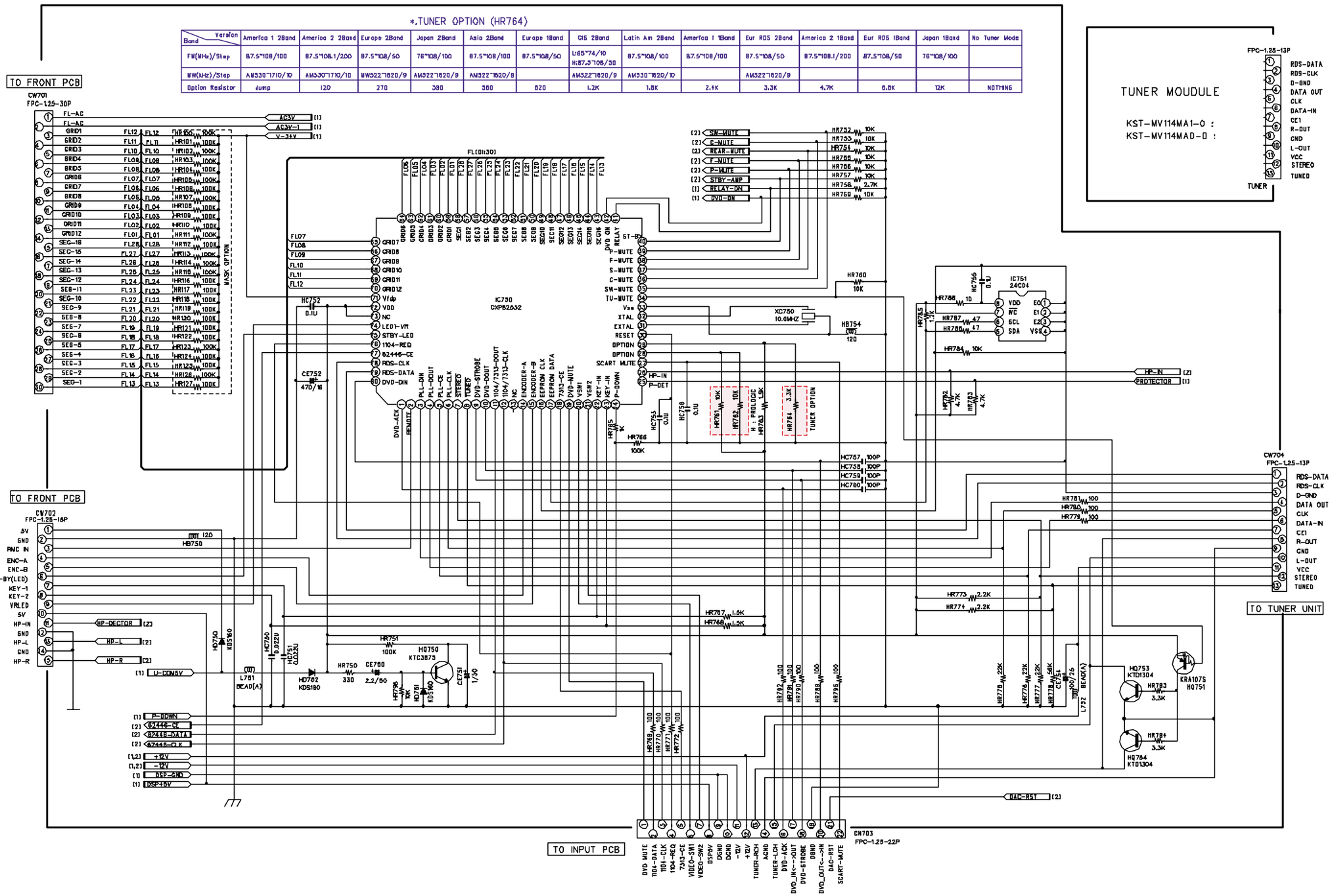


11. Schematic Diagram

● Mi-COM

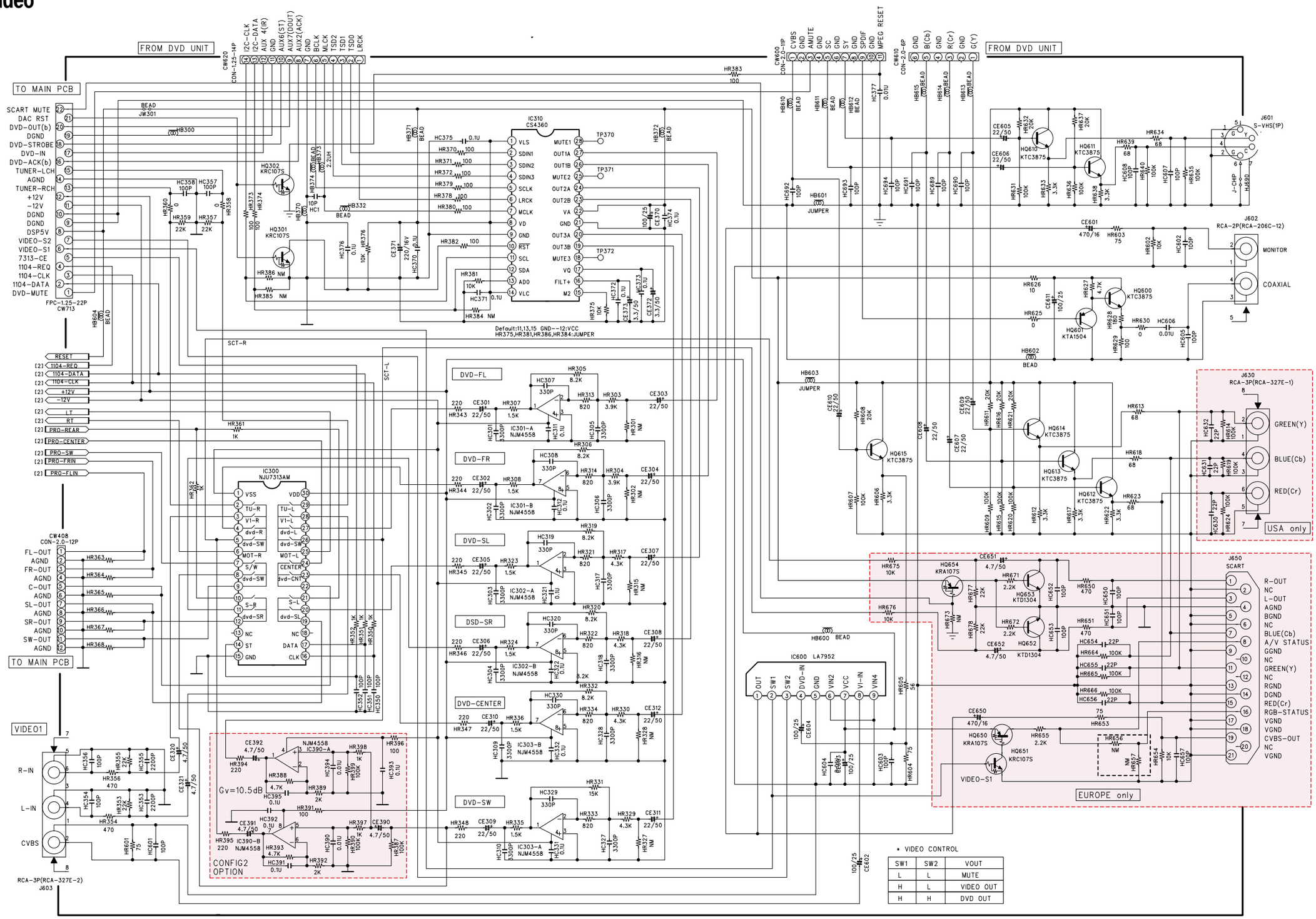
*.TUNER OPTION (HR764)

Band / Version	America 1 2Band	America 2 2Band	Europe 2Band	Japan 2Band	Asia 2Band	Europe 1Band	CIS 2Band	Latin Am 2Band	America 1 1Band	Eur RDS 2Band	America 2 1Band	Eur RDS 1Band	Japan 1Band	No Tuner Mode
FM(MHz)/Step	87.5~108/100	87.5~108.1/200	87.5~108/50	76~108/100	87.5~108/100	87.5~108/50	L:65~74/10 H:87.5~108/50	87.5~108/100	87.5~108/100	87.5~108/50	87.5~108.1/200	87.5~108/50	76~108/100	
MW(kHz)/Step	AM530~1710/10	AM530~1710/10	MW522~1620/9	AM522~1620/9	AM522~1620/9		AM522~1620/9	AM530~1620/10		AM522~1620/9				
Option Resistor	Jump	120	270	390	560	820	1.2K	1.8K	2.4K	3.3K	4.7K	6.8K	12K	NOTHING



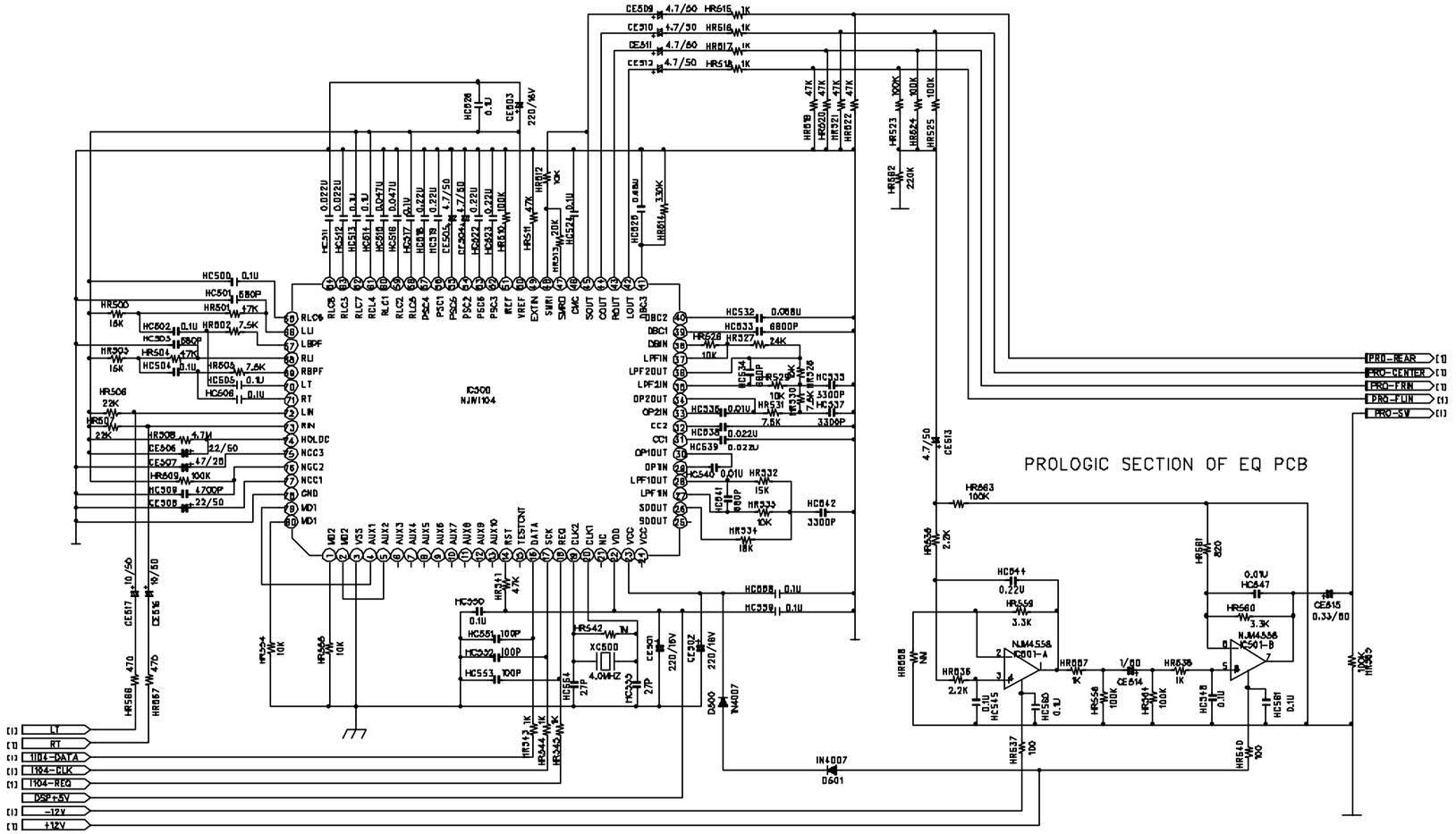
11. Schematic Diagram

● Input / Video



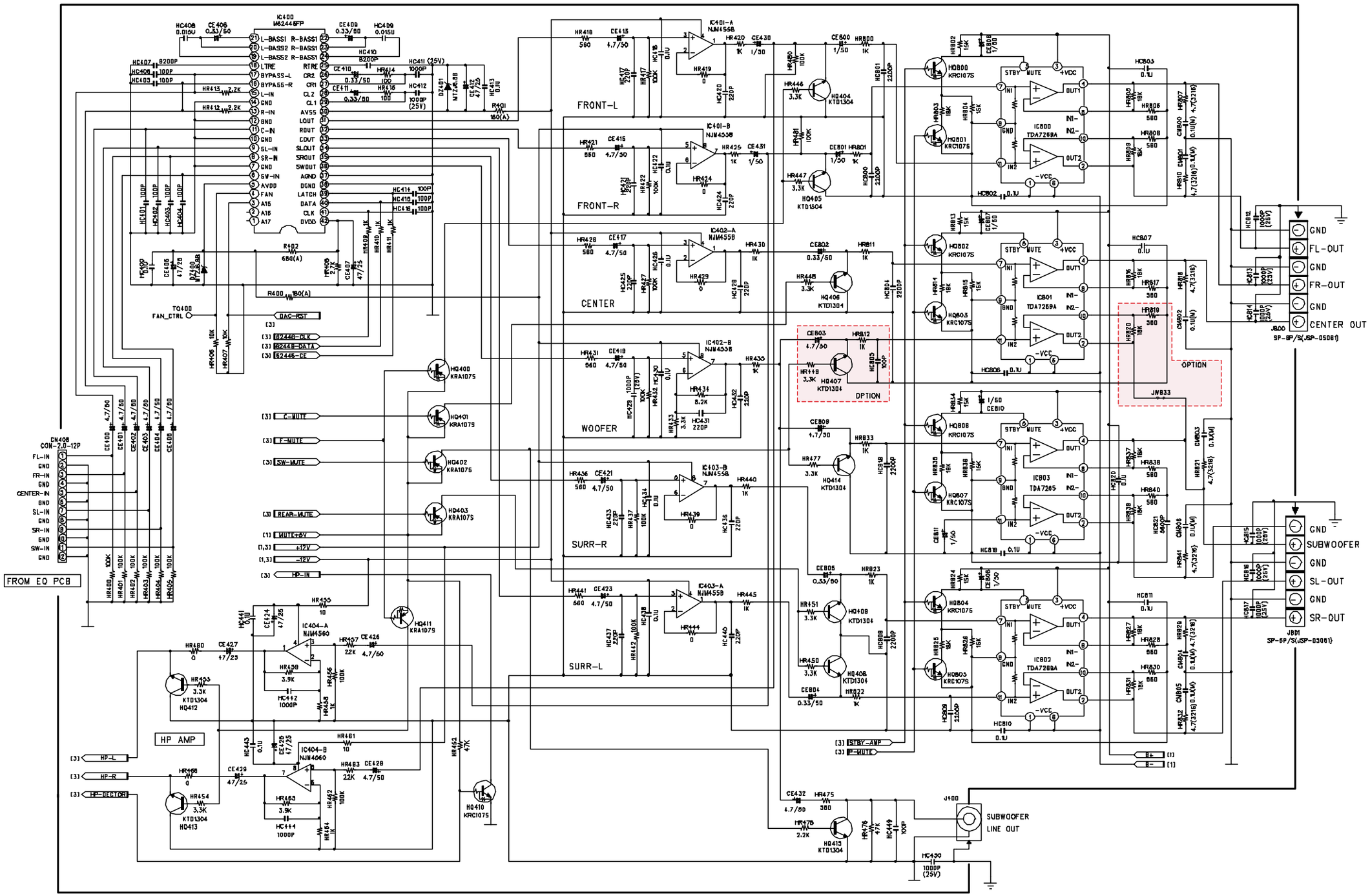
11. Schematic Diagram

● PROLOGIC



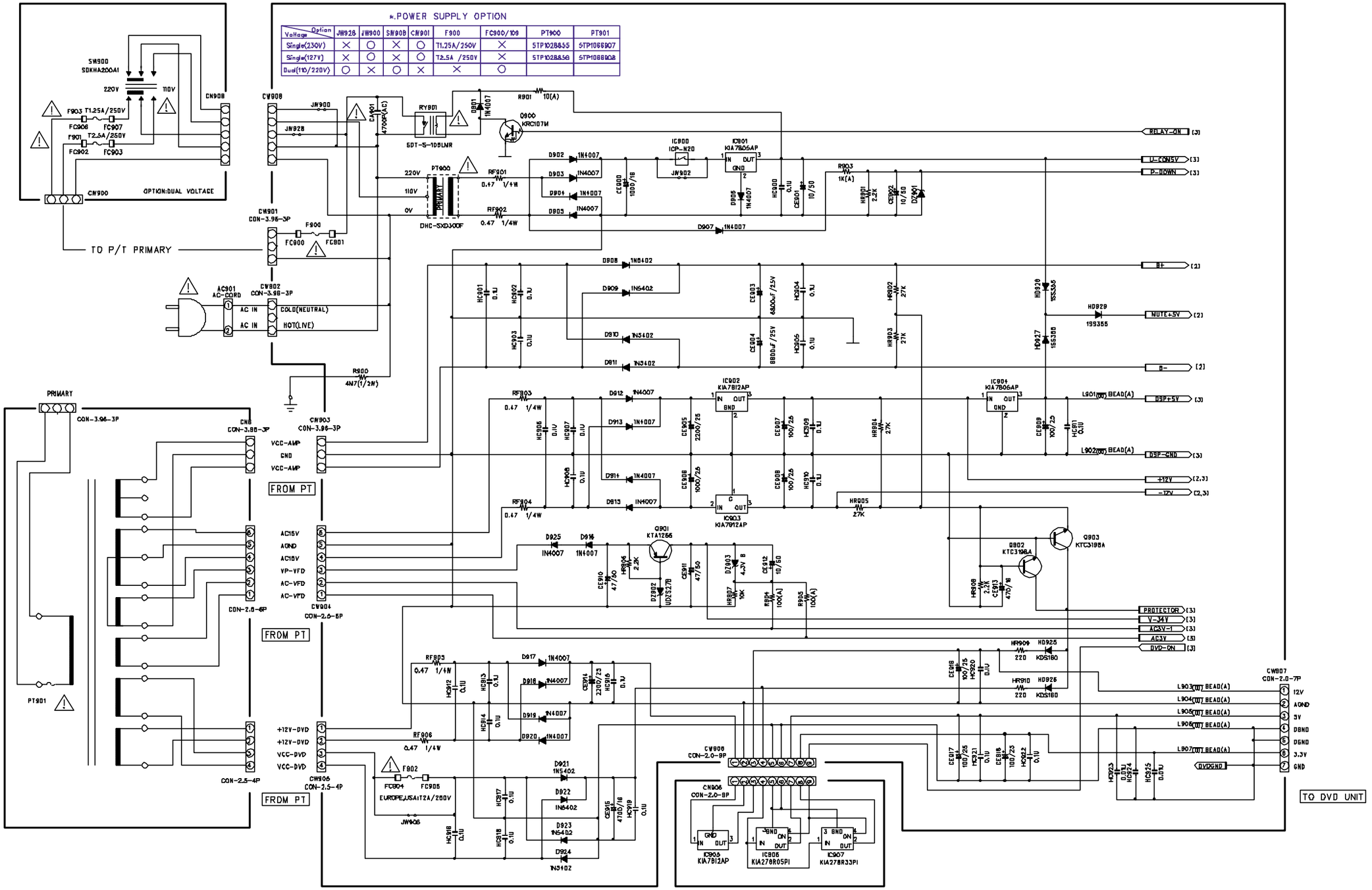
11. Schematic Diagram

● AMP

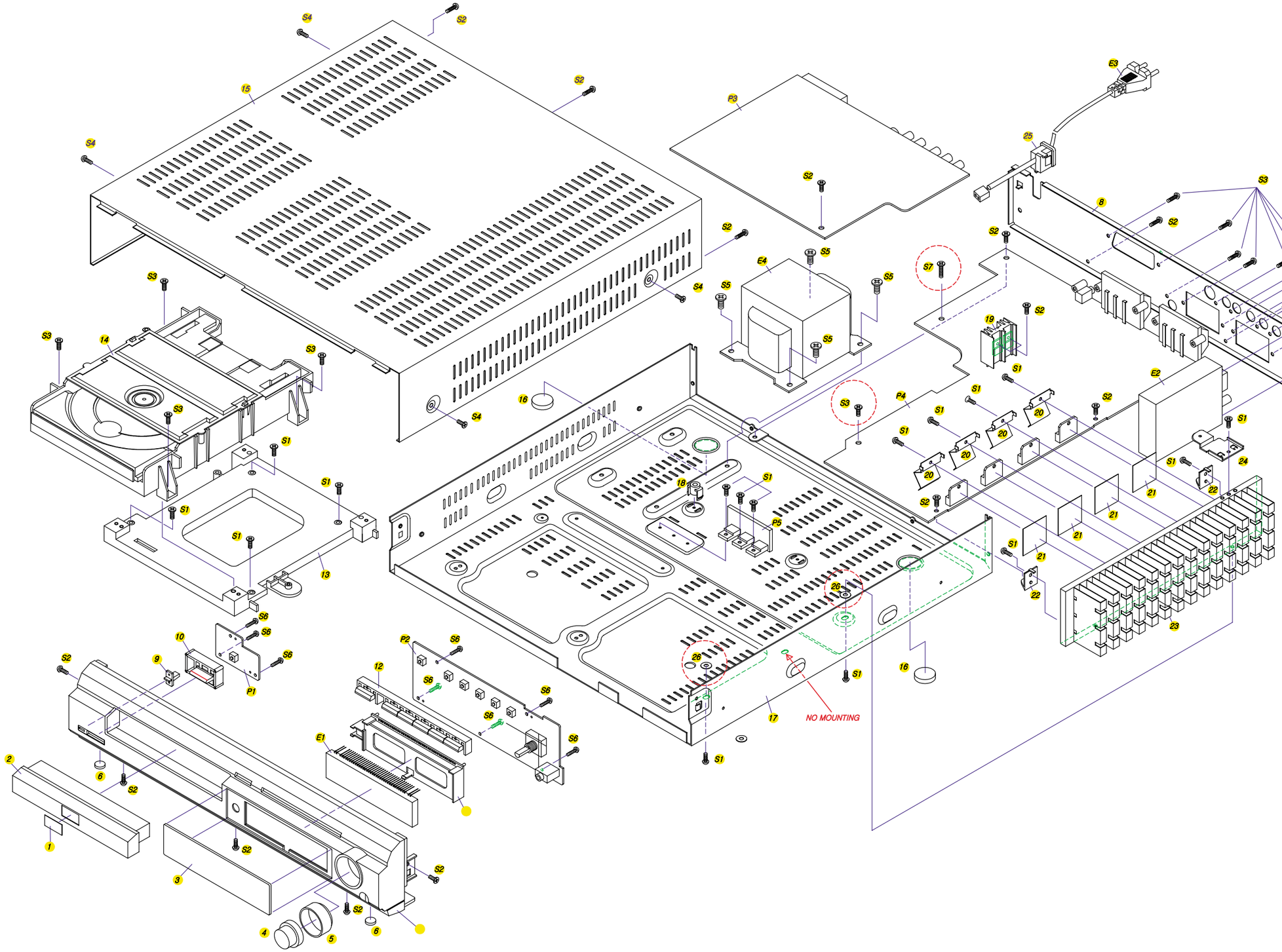


11. Schematic Diagram

● Power



12. Exploded View and Mechanical Parts List



12. Exploded View and Mechanical Parts List

●

NO	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	REMARKS
1	BADGE DVD	9CD1502200	AL DIA-CUT	1	
2	DOOR DVD	9CD1813900	HIPS,SPRAY	1	
3	WINDOW FLT	9CD1620300	HALF-MIRROR 2.0T	1	
4	KNOB VR	9CD1349700	HIPS,SPRAY	1	
5	DECO KNOB VR	9CD1004800	ACRYL,MILKY	1	
6	CUSHION FOOT	9CD4207700	URETHAN RUBBER D10*4.0T	2	
7	PANEL FRONT	9CD0311900	HIPS,SPRAY,SILK	1	
8	COVER BACK	9CD0415300	SECC 0.7t	1	
9	LENS POWER	9CD1620200	ACRYL,MILKY	1	
10	KNOB POWER	9CD1349600	ABS.CR COATING	1	
11	GUIDE FLT	9CD2507600	HIPS	1	
12	KNOB FUNCTION	9CD1349500	ABS.CR COATING	1	
13	HOLDER MECHA	9CD2305200	HIPS	1	
14	LOADER DVD	9CD6011400	RAYMEDIA (RL-S871)	1	
15	COVER TOP	9CD0415200	SECC,SPRAY(t=0.7)	1	
16	CUSHION FOOT	9CD4209000	URETHAN RUBBER D20*4.0T	2	
17	CHASSIS BOTTOM	9CD0609700	SECC t=1.0	1	
18	SUPPORT PCB 08	9CD2507400	HIPS H=8	1	
19	HEATSINK IC	9CD4408100	AL-EXT 31*17*30(H)	1	
20	BRACKET HEAT TR	9CD2413900	SUS 0.4t	4	
21	RUBBER,SILICON	9CD4209200	DOWCORNING FM351U	4	
22	BRACKET H SINK"B"	9CD2414800	1.0t	2	
23	HEATSINK MAIN	9CD4408000	AL-EXT	1	
24	BRACKET SUPPORT	9CD2416000	SECC1.0t	1	
25	STOPPER CORD	9CD5700500	NYLON66	1	
S1	SCREW TAPTITE	7173300611	TT2 BIN 3*6 MFZN	16	
S2	SCREW TAPTITE	7173300812	TT2 BIN 3*8 BK	16	
S3	SCREW TAPTITE	7173301212	TT2 BIN 3*12 BK	18	
S4	SCREW TAPTITE	7173300813	TT2 BIN 3*8 CR	4	
S5	SCREW TAPTITE	7173400611	TT2 BIN 4*6 MFZN	4	
S6	SCREW TAPTITE	7173261011	TT2BIN 2.6*10 MFZN	8	
P1	PCB STANDBY			1	
P2	PCB FRONT			1	
P3	PCB VIDEO			1	
P4	PCB MAIN			1	
P5	PCB REGULATOR			1	
E1	FLT			1	
E2	TUNER MODULE			1	
E3	CORD AC			1	
E4	POWER TRANS			1	

13. Electrical Parts List

PCB MAIN AS [9CDC066900]

Location	Part Code	Part Name	Description	Remark
B1000	9CD6590600	PCB MAIN	94VO 330x247 1.6T	
CA901	CH1BFE472M	C CERA AC	4.0KV 4700PF M SD AC250V	
CE400~CE405	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE406~CE407	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11)	
CE408~CE411	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11)	
CE412	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11)	
CE413	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE415	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE417	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE419	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE421	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE423	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE424~CE425	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11)	
CE426	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE427	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11)	
CE428	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE429	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11)	
CE432	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE750	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11)	
CE751	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11)	
CE752	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
CE754	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11)	
CE800~CE801	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11)	
CE802	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11)	
CE804~CE805	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11)	
CE806~CE808	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11)	
CE809	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE810~CE811	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11)	
CE900	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20)	
CE901~CE902	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11)	
CE903~CE904	CEXF1E682V	C ELECTRO	25V RSS 6800MF 18X35.5	
CE905	CEXF1E222V	C ELECTRO	25V RSS 2200MF (13X20)	
CE906	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20)	
CE907~CE909	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11)	
CE910~CE911	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3*11)	
CE912	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11)	
CE913	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
CE914	CEXF1E222V	C ELECTRO	25V RSS 2200MF (10X20)	
CE915	CEXF1C472V	C ELECTRO	16V RSS 4700MF 16X31.5	
CE916~CE918	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11)	
CM800~CM806	CMXM2A104J	C MYLAR	100V 0.1MF J	
CN408	9728820700	CONN AS	2.0P 12P 110MM AWG1007 #26	
CN703	9728820500	CONN FFC	FFC 22P P=1.25 160MM K	
CN704	9728820300	C0NN FFC	FFC 13P P=1.25X240MM K	
CN907	9728819800	CONN AS	2.0P 7P 90MM AWG1007 #24	
CW701	9CD6265900	CONN WAFER	52045-3045 TOP ENTRY	
CW702	9CD6264100	CONN WAFER	52045-1545 TOP ENTRY	
CW703	9CD6265200	CONN WAFER	52045-2245 TOP ENTRY	
CW704	9CD6264500	CONN WAFER	52045-1345 TOP ENTRY	
CW901	9728808200	CONN WAFER	VH-3A (W/O CENTER,RED)	
CW902	9728808100	CONN WAFER	GP390-03P-TS-M(W/O CENTER)	
CW903	9728808500	CONN WAFER	VH-3A WAFER	
CW904	9728808000	CONN WAFER	5267-06A	
CW905	9CD6273400	CONN WAFER	5267-04A	
CW906	9728819900	CONN AS	2.0P 9P 50MM AWG1007 #24	
D901~D907	D1N4007---	DIODE	1N4007	
D908~D911	D1N5402---	DIODE	1N5402	
D912~D920	D1N4007---	DIODE	1N4007	
D921~D924	D1N5402---	DIODE	1N5402	
D926	D1N4007---	DIODE	1N4007	
DZ400~DZ401	DZTZ6R8B--	Diode-Zenner	MTZ 6.8V B	
DZ902	DZTZ27B---	Diode-Zenner	MTZ 27V B	
DZ903	DZTZ4R3B--	Diode-Zenner	MTZ 4.3V B	
F900	5FSGB1222L	Fuse	SEMKO TL 1.25A 250V MF51	
F902	5FSGB2022L	Fuse	SEMKO TL 2.0A 250V MF51	
FC900~FC901	9734600800	CLIP FUSE	PI5.2-REEL	
FC904~FC905	9734600800	CLIP FUSE	PI5.4-REEL	
HB750	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HB754	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HC400	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC401~HC406	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC407	HCBK822KBA	C CHIP CERA	50V X7R 8200PF K 1608	
HC408~HC409	HCBK153KBA	C CHIP CERA	50V X7R 0.015MF K 1608	
HC410	HCBK822KBA	C CHIP CERA	50V X7R 8200PF K 1608	
HC411~HC412	HCQK102JBA	C CHIP CERA	50V CH 1000PF J 1608	
HC413	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC414~HC416	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC417	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC418	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC420~HC421	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC422	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC423	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC425	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC426	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC428	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	

Location	Part Code	Part Name	Description	Remark
HC429	HCQK102JBA	C CHIP CERA	50V CH 1000PF J 1608	
HC430	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC431~HC432	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC433	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC434	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC436~HC437	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC438	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC440	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608	
HC441	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC442	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
HC443	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC444	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
HC449	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC450	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
HC750~HC751	HCBK223KBA	C CHIP CERA	50V X7R 0.022MF K 1608	
HC752~HC753	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC755~HC756	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC757~HC760	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC800~HC801	HCQK222KBA	C CHIP CERA	50V X7R 2200PF K 1608	
HC802~HC803	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC804	HCQK222KBA	C CHIP CERA	50V X7R 2200PF K 1608	
HC806~HC807	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC808~HC809	HCQK222KBA	C CHIP CERA	50V X7R 2200PF K 1608	
HC810~HC811	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC812~HC817	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608	
HC818	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC819~HC820	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC821	HCBK562KBA	C CHIP CERA	50V X7R 5600PF K 1608	
HC900~HC922	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC923~HC924	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
HD750~HD752	DZDS160---	DIODE SW CHIP	KDS160	
HD925~HD929	DZDS160---	DIODE SW CHIP	KDS160	
HJ400~HJ404	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HJ750~HJ757	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HJ800	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HQ400~HQ403	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
HQ404~HQ406	TZTD1304--	TR CHIP	KTD1304	
HQ408~HQ409	TZTD1304--	TR CHIP	KTD1304	
HQ410	TZRC107S--	TR CHIP	KRC107S	
HQ411	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
HQ412~HQ415	TZTD1304--	TR CHIP	KTD1304	
HQ750	TZTC3875S-	TR CHIP	KTC3875S	
HQ751	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
HQ753~HQ754	TZTD1304--	TR CHIP	KTD1304	
HQ800~HQ807	TZRC107S--	TR CHIP	KRC107S	
HR400~HR405	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR406~HR407	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR408	HRFT272JBA	R CHIP	1/10 2.7K OHM J 1608	
HR409~HR411	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR412~HR413	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR414~HR415	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR416	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR417	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR418~HR419	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR420	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR421	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR422	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR423~HR424	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR425	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR426	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR427	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR428~HR429	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR430	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR431	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR432	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR433	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR434	HRFT822JBA	R CHIP	1/10 8.2K OHM J 1608	
HR435	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR436	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR437	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR438~HR439	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR440	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR441	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR442	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR443	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR444	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR445	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR446~HR448	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR450~HR451	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR452	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
HR453	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR455	HRFT100JBA	R CHIP	1/10 10 OHM J 1608	
HR456	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR457	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR458	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR459	HRFT392JBA	R CHIP	1/10 3.9K OHM J 1608	

13. Electrical Parts List

Location	Part Code	Part Name	Description	Remark
HR460	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR461	HRFT100JBA	R CHIP	1/10 10 OHM J 1608	
HR462	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR463	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR464	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR465	HRFT392JBA	R CHIP	1/10 3.9K OHM J 1608	
HR466~HR467	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR475	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR476	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
HR477	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR478	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR480	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR481	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR750	HRFT331JBA	R CHIP	1/10 330 OHM J 1608	
HR751	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR752~HR757	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR758	HRFT272JBA	R CHIP	1/10 2.7K OHM J 1608	
HR759~HR761	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR763	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
HR764	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR765	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR766	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR767~HR768	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
HR769~HR772	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR773~HR774	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR775~HR777	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR778	HRFT563JBA	R CHIP	1/10 56K OHM J 1608	
HR779~HR781	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR782~HR783	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
HR784	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR785	HRFT122JBA	R CHIP	1/10 1.2K OHM J 1608	
HR786~HR787	HRFT470JBA	R CHIP	1/10 47 OHM J 1608	
HR788	HRFT100JBA	R CHIP	1/10 10 OHM J 1608	
HR789~HR792	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR793	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR794	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR795	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR796	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR800~HR801	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR802	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR803	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR804	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR805	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR806	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR807	HRF4479JEA	R CHIP	1/4W 4.7 OHM J 3216	
HR808	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR809	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR810	HRF4479JEA	R CHIP	1/4W 4.7 OHM J 3216	
HR811	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR813	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR814	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR815	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR816	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR817	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR818	HRF4479JEA	R CHIP	1/4W 4.7 OHM J 3216	
HR821	HRF4479JEA	R CHIP	1/4W 4.7 OHM J 3216	
HR822~HR823	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR824	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR825	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR826	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR827	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR828	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR829	HRF4479JEA	R CHIP	1/4W 4.7 OHM J 3216	
HR830	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR831	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR832	HRF4479JEA	R CHIP	1/4W 4.7 OHM J 3216	
HR833	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR834	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR835	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR836	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR837	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR838	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR839	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR840	HRFT561JBA	R CHIP	1/10 560 OHM J 1608	
HR841	HRF4479JEA	R CHIP	1/4W 4.7 OHM J 3216	
HR901	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR902~HR905	HRFT273JBA	R CHIP	1/10 27K OHM J 1608	
HR906	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR907	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR908	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR909~HR910	HRFT221JBA	R CHIP	1/10 220 OHM J 1608	
IC400	1M62446FP-	IC	M62446FP	
IC401~IC403	1NJM4558M-	IC CHIP	NJM4558M	
IC404	1BA4560F--	IC AMP(CHIP TYPE)	BA4560F	
IC750	1CXP82532-	IC MICOM	CXP82532-321Q	
IC751	1M24C04MN-	IC	M24C04MN S0P	

Location	Part Code	Part Name	Description	Remark
IC800~IC802	1TDA7269A-	IC	TDA7269A	
IC803	1TDA7265--	IC	TDA7265	
IC900	1ICPN15---	IC PROTECTOR	ICP-N15	
IC901	1KIA7805AP-	IC REGULATOR	KIA7805AP (MOLD)	
IC902	1KIA7812AP	IC REGULATOR	KIA7812AP (MOLD)	
IC903	1KIA7912AP	IC REGULATOR	KIA7912AP (MOLD)	
IC904	1KIA7805AP-	IC REGULATOR	KIA7805AP (MOLD)	
J400	9736325600	JACK RCA 1P	RCA-107A(YW)	
J800~J801	9736324400	JACK SPK TERMINAL	P40620702P	
JW01F~JW02F	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW03F~JW04F	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW05F~JW08F	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW09F	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW20	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW400	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW401	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW402~JW404	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW405	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW406~JW410	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW411~JW412	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW413	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW414~JW415	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW416	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW417	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW418	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW419~JW420	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW421	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW422	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW423	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW425	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW426	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW427~JW429	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW430	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW431	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW432~JW433	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW434	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW435	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW750	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW751~JW753	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW754	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW755~JW759	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW760~JW763	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW764	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW765~JW767	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW768	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW769~JW770	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW771	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW772~JW773	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW774~JW775	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW776	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW777~JW778	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW779	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW780~JW782	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW783	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW784~JW786	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW787~JW788	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW789~JW790	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW791~JW792	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW793~JW795	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW797~JW798	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW799	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW800	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW802	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW803~JW804	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW805	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW806	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW807~JW809	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW810~JW811	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW812	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW813~JW816	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW817	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW818~JW819	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW820	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW821~JW822	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW824~JW825	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW828~JW829	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW830	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW831	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW832	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW834	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW835~JW836	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW837	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW838	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW839	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW840~JW841	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW900~JW901	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	

13. Electrical Parts List

Location	Part Code	Part Name	Description	Remark
JW903~JW905	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW907	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW908	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW909	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW910	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW911	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW912~JW914	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW915	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW916	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW917	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW918	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW919~JW920	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW925	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW926	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
L751~L752	5LX100J001	COIL BEAD	3.6PI X 6MM 100 OHM,100MHz	
L901~L902	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
L903~L907	5LX100J001	COIL BEAD	3.6PI X 6MM 100 OHM,100MHz	
L908	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
PT900	5TP8028855	TRANS STANDBY	EI=28x15 230V50Hz	
Q900	TZRC107M--	TR	KRC107M (KEC)	
Q901	TZTA1266Y-	TR	KTA1266Y- (AUTO)(1015Y)	
Q902~Q903	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)	
R400~R401	RD-AZ181J-	R CARBON FILM	1/16 180 OHM J	
R402	RD-AZ681J-	R CARBON FILM	1/16 680 OHM J	
R900	RD-2Z475J-	R CARBON FILM	1/2 4.7M OHM J	
R901	RD-AZ100J-	R CARBON FILM	1/16 10 OHM J	
R903	RD-AZ102J-	R CARBON FILM	1/16 1K OHM J	
R904~R905	RD-AZ101J-	R CARBON FILM	1/16 100 OHM J	
RF901~RF906	RS-4Z478J-	R METAL OXIDE FILM	1/4 0.47 OHM J	
RY901	5SC2001A01	SW RELAY	SDT-S-105LMR	
XC750	5PCST10MTW	RESONATOR CERA	CST10.00MTW	

PCB FRONT ASS'Y [9CDC067000]

Location	Part Code	Part Name	Description	Remark
00010	9CD2507600	GUIDE FLT	HIPS	
B1100	9CD6590601	PCB FRONT	94VO 330x247 1.6T	
CE700	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11)	
CN700	9728819700	CONN AS	2.0P 4P 160MM AWG1007 #26	
CN701	9728820600	CONN FFC	FFC 30P P=1.25X120MM K	
CN702	9728820400	CONN FFC	FFC 15P P=1.25X120MM K	
CW711	9CD6273200	CONN WAFER	52044-3045 SIDE ENTRY	
CW712	9CD6273300	CONN WAFER	52044-1545 SIDE ENTRY	
FL700	DHNV12SS24	VFD	HNV-12SS24	
HC700	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC701~HC702	HCBK473KBA	C CHIP CERA	50V X7R 0.047MF K 1608	
HC703	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC704	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC705~HC706	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC709	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HL700~HL701	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HQ700	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
HR700~HR701	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR702	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
HR703~HR705	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR706~HR707	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR708	HRFT181JBA	R CHIP	1/10 180 OHM J 1608	
HR709	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR710	HRFT151JBA	R CHIP	1/10 150 OHM J 1608	
HR711	HRFT181JBA	R CHIP	1/10 180 OHM J 1608	
HR712	HRFT271JBA	R CHIP	1/10 270 OHM J 1608	
HR713	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR714~HR715	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
R700~R701	HRF4680JEA	R CHIP	1/4W 68 OHM J 3216	
Q700	TZRC107S--	TR CHIP	KRC107S	
LD701~LD702	DLBH4155--	LED	LBH4155(BL)4 PI OVAL	
IC700	1354HF----	IC RMC	354HF	
J700	9736325300	JACK H/P	HTJ-035-18A (H/P)	
JW700~JW706	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
SW700~SW704	5S50101001	SW TACT	KPT-1105A 1C-1P	
SW706	5S50101001	SW TACT	KPT-1105A 1C-1P	
VR700	5SH122403-	SW ENCORDER	EC12E24204A9	

PCB STANDBY ASS'Y [9CDC067100]

Location	Part Code	Part Name	Description	Remark
B1200	9CD6590602	PCB ST/BY	94VO 330x247 1.6T	
CW700	9728819700	CONN AS	2.0P 4P 160MM AWG1007 #26	
LD700	DSLR332MC3F	LED	SLR332MC3F(GREEN)PI3	
SW705	5S50101001	SW TACT	KPT-1105A 1C-1P	

PCB REGULATOR ASS'Y [9CDC067200]

Location	Part Code	Part Name	Description	Remark
B1300	9CD6590603	PCB REGULATOR	94VO 330x247 1.6T	
CN906	9728819900	CONN AS	2.0P 9P 50MM AWG1007 #24	
IC905	1KIA7812AP	IC REGULATOR	KIA7812AP (MOLD)	
IC906	1KA278R05-	IC REGULATOR	KA278R05PI	
IC907	1KA278R33-	IC REGULATOR	KA278R33PI	

Location	Part Code	Part Name	Description	Remark
JW921~JW924	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	

PCB DSP ASS'Y [9CDC067300]

Location	Part Code	Part Name	Description	Remark
B2000	9CD6590700	PCB DSP	94VO 197x163 1.6T	
CE301~CE312	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11)	
CE320~CE321	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE370	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP	
CE371	CEXF1C221V	C ELECTRO	16V RSS 220MF	
CE372~CE373	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11)	
CE501~CE503	CEXF1C221V	C ELECTRO	16V RSS 220MF	
CE504~CE505	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE506	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11)	
CE507	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11)	
CE508	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11)	
CE509~CE510	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE511~CE513	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CE514	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11)	
CE515	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11)	
CE516~CE517	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
CE601	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
CE602~CE604	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP	
CE605~CE610	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11)	
CE611	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP	
CE650	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
CE651~CE652	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
CN600	9728820200	CONN AS	2.0P 20-11P 130MM AWG1007 #28	
CN610	9728820100	CONN AS	2.0P 20-6P 140MM AWG1007 #28	
CN620	9728820000	CONN AS	1.25P 14P 160MM AWG1571 #28	
CW408	9728820700	CONN AS	2.0P 12P 110MM AWG1007 #26	
CW600	9728820200	CONN AS	2.0P 20-11P 130MM AWG1007 #28	
CW610	9728820100	CONN AS	2.0P 20-6P 140MM AWG1007 #28	
CW620	9728820000	CONN AS	1.25P 14P 160MM AWG1571 #28	
CW713	9CD6265200	CONN WAFER	52045-2245 TOP ENTRY	
D500~D501	D1N4007---	DIODE	1N4007	
HB332	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HB371~HB372	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HB373	HLC189J03A	COIL CHIP	1.8UH	
HB374	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HB600	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HB601	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HB602	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HB603	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HB604	HLC104J01A	COIL CHIP	BEAD 120 OHM 100MHZ 2012	
HB625	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HB630	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HC301~HC306	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
HC307~HC308	HCQK331JBA	C CHIP CERA	50V CH 330PF J 1608	
HC309~HC310	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
HC311~HC312	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC317~HC318	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
HC319~HC320	HCQK331JBA	C CHIP CERA	50V CH 330PF J 1608	
HC321~HC322	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC327~HC328	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
HC329~HC330	HCQK331JBA	C CHIP CERA	50V CH 330PF J 1608	
HC331~HC332	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC345	HCQK100JBA	C CHIP CERA	50V CH 10PF J 1608	
HC350~HC354	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC353	HCBK222KBA	C CHIP CERA	50V X7R 2200PF K 1608	
HC355	HCBK222KBA	C CHIP CERA	50V X7R 2200PF K 1608	
HC356~HC358	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC370~HC376	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC377	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
HC500	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC501	HCQK681JBA	C CHIP CERA	50V CH 680PF J 1608	
HC502	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC503	HCQK681JBA	C CHIP CERA	50V CH 680PF J 1608	
HC504~HC506	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC509	HCBK472KBA	C CHIP CERA	50V X7R 4700PF K 1608	
HC511~HC512	HCBK223KBA	C CHIP CERA	50V X7R 0.022MF K 1608	
HC513~HC514	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC515~HC516	HCBK473KBA	C CHIP CERA	50V X7R 0.047MF K 1608	
HC517	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC518~HC519	HCBK224KBA	C CHIP CERA	50V X7R 0.22MF K 1608	
HC522~HC523	HCBK224KBA	C CHIP CERA	50V X7R 0.22MF K 1608	
HC524	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC525	HCBK684KBA	C CHIP CERA	50V X7R 0.68MF K 1608	
HC526	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC532	HCBK683KBA	C CHIP CERA	50V X7R 0.068MF K 1608	
HC533	HCBK682KBA	C CHIP CERA	50V X7R 6800PF K 1608	
HC534	HCQK681JBA	C CHIP CERA	50V CH 680PF J 1608	
HC535	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
HC536	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
HC537	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
HC538~HC539	HCBK223KBA	C CHIP CERA	50V X7R 0.022MF K 1608	
HC540	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	

13. Electrical Parts List

Location	Part Code	Part Name	Description	Remark
HC541	HCQK681JBA	C CHIP CERA	50V CH 680PF J 1608	
HC542	HCBK332KBA	C CHIP CERA	50V X7R 3300PF K 1608	
HC544	HCBK224KBA	C CHIP CERA	50V X7R 0.22MF K 1608	
HC545	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC547	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
HC548	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC550	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC551~HC553	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC554~HC555	HCQK270JBA	C CHIP CERA	50V CH 27PF J 1608	
HC558~HC561	HCBK104KBA	C CHIP CERA	50V X7R 0.1MF K 1608	
HC601~HC603	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC604	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
HC605	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC606	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608	
HC607~HC608	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC650~HC653	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC654~HC656	HCQK220JBA	C CHIP CERA	50V CH 22PF J 1608	
HC657	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HC689~HC694	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
HJ310~HJ311	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HJ501~HJ503	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HJ684	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HJ690	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HJ692	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HQ301~HQ302	TZRC107S--	TR CHIP	KRC107S	
HQ600	TZTC3875S-	TR CHIP	KTC3875S	
HQ601	TZTA1504S-	TR CHIP	KTA1504S	
HQ610~HQ615	TZTC3875S-	TR CHIP	KTC3875S	
HQ650~HQ651	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
HQ652~HQ653	TZTD1304--	TR CHIP	KTD1304	
HQ654	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
HR303~HR304	HRFT392JBA	R CHIP	1/10 3.9K OHM J 1608	
HR305~HR306	HRFT822JBA	R CHIP	1/10 8.2K OHM J 1608	
HR307~HR308	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
HR313~HR314	HRFT821JBA	R CHIP	1/10 820 OHM J 1608	
HR317~HR318	HRFT432JBA	R CHIP	1/10 4.3K OHM J 1608	
HR319~HR320	HRFT822JBA	R CHIP	1/10 8.2K OHM J 1608	
HR321~HR322	HRFT821JBA	R CHIP	1/10 820 OHM J 1608	
HR323~HR324	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
HR329~HR330	HRFT432JBA	R CHIP	1/10 4.3K OHM J 1608	
HR331	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR332	HRFT822JBA	R CHIP	1/10 8.2K OHM J 1608	
HR333~HR334	HRFT821JBA	R CHIP	1/10 820 OHM J 1608	
HR335~HR336	HRFT152JBA	R CHIP	1/10 1.5K OHM J 1608	
HR343~HR348	HRFT221JBA	R CHIP	1/10 220 OHM J 1608	
HR350	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR351~HR352	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR353	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR354	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
HR355	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR356~HR567	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
HR357	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR358	HRFT221JBA	R CHIP	1/10 220 OHM J 1608	
HR359	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR360	HRFT221JBA	R CHIP	1/10 220 OHM J 1608	
HR361~HR362	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR370~HR374	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR375	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR376	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR378~HR380	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR381	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR382~HR383	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR389	HRFT202JBA	R CHIP	1/10 2K OHM J 1608	
HR392	HRFT202JBA	R CHIP	1/10 2K OHM J 1608	
HR500	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR501	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
HR502	HRFT752JBA	R CHIP	1/10 7.5K OHM J 1608	
HR503	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR504	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
HR505	HRFT752JBA	R CHIP	1/10 7.5K OHM J 1608	
HR506~HR507	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
HR508	HRFT475JBA	R CHIP	1/10 4.7M OHM J 1608	
HR509~HR510	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR511	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
HR512	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR513	HRFT203JBA	R CHIP	1/10 20K OHM J 1608	
HR514	HRFT334JBA	R CHIP	1/10 330K OHM J 1608	
HR515~HR518	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR519~HR522	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
HR523~HR525	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR526	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR527	HRFT243JBA	R CHIP	1/10 24K OHM J 1608	
HR528	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	
HR529	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR530~HR531	HRFT752JBA	R CHIP	1/10 7.5K OHM J 1608	
HR532	HRFT153JBA	R CHIP	1/10 15K OHM J 1608	

Location	Part Code	Part Name	Description	Remark
HR533~HR555	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR534	HRFT183JBA	R CHIP	1/10 18K OHM J 1608	
HR535~HR536	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR537	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR538	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR540	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR541	HRFT473JBA	R CHIP	1/10 47K OHM J 1608	
HR542	HRFT105JBA	R CHIP	1/10 1M OHM J 1608	
HR543~HR545	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR556	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR557	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
HR559~HR560	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR561	HRFT821JBA	R CHIP	1/10 820 OHM J 1608	
HR562	HRFT224JBA	R CHIP	1/10 220K OHM J 1608	
HR563~HR565	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR601	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
HR602	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR603~HR604	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
HR605	HRFT560JBA	R CHIP	1/10 56 OHM J 1608	
HR606	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR607	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR608	HRFT203JBA	R CHIP	1/10 20K OHM J 1608	
HR609	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR611	HRFT203JBA	R CHIP	1/10 20K OHM J 1608	
HR612	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR613	HRFT680JBA	R CHIP	1/10 68 OHM J 1608	
HR615	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR616	HRFT203JBA	R CHIP	1/10 20K OHM J 1608	
HR617	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR618	HRFT680JBA	R CHIP	1/10 68 OHM J 1608	
HR620	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR621	HRFT203JBA	R CHIP	1/10 20K OHM J 1608	
HR622	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR623	HRFT680JBA	R CHIP	1/10 68 OHM J 1608	
HR625	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR626	HRFT100JBA	R CHIP	1/10 10 OHM J 1608	
HR627	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608	
HR628	HRFT181JBA	R CHIP	1/10 180 OHM J 1608	
HR629	HRFT101JBA	R CHIP	1/10 100 OHM J 1608	
HR630	HRFT000-BA	R CHIP	1/10 0 OHM 1608	
HR631	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR632	HRFT203JBA	R CHIP	1/10 20K OHM J 1608	
HR633	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR634	HRFT680JBA	R CHIP	1/10 68 OHM J 1608	
HR635~HR636	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR637	HRFT203JBA	R CHIP	1/10 20K OHM J 1608	
HR638	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608	
HR639	HRFT680JBA	R CHIP	1/10 68 OHM J 1608	
HR640	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR650~HR651	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
HR653	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
HR654	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR655	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR664~HR666	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
HR671~HR672	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
HR675~HR676	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
HR677~HR678	HRFT223JBA	R CHIP	1/10 22K OHM J 1608	
IC300	1NJU7313A-	IC SWITCH	NJU7313A (SWITCH ARRAY)	
IC301~IC303	1NJM4558M-	IC CHIP	NJM4558M	
IC310	1CS4360---	IC DAC	CS4360-KS	
IC500	1NJW1104FC	IC	NJW1104FC2-80	
IC501	1NJM4558M-	IC CHIP	NJM4558M	
IC600	1LA7952---	IC	LA7952	
J601	9736324000	JACK S VIDEO	C50160272N	
J602	9736325700	JACK RCA 2P	RCA-206B-12	
J603	9736325800	JACK RCA 3P	RCA-327E1-03(YW-WH-RD)	
J650	9736324800	JACK SCART	21P	
JW301	5LX100J001	COIL BEAD	3.6PI X 6MM 100 OHM,100MHz	
JW302	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW303	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW304	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW305	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 SN 17.5 AUTO	
JW306	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW307	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW308	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW309	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW310~JW315	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW316	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW317~JW318	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW319	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW320	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW321	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW322	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW323	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW324~JW325	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW326~JW328	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	

13. Electrical Parts List

Location	Part Code	Part Name	Description	Remark
JW329	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW330	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW331	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW333~JW334	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW335~JW336	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW337	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW338~JW342	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW343	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW344	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW345~JW347	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW348~JW349	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW354	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW355~JW356	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW358	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW601	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW602	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
JW603~JW605	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW606	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW607	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW608	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
JW609	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW610	5LX100J001	COIL BEAD	3.6PI X 6MM 100 OHM,100MHz	
JW612	5LX100J001	COIL BEAD	3.6PI X 6MM 100 OHM,100MHz	
JW613~JW615	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	
JW616	W581GY1005	WIRE JUMPER	AWG22 1/0.65 SN 10 AUTO	
JW617~JW619	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW620~JW622	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
JW650	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
JW651	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
XC500	5XE04M000J	X-TAL	HC-49/U 4.000MHz 30PPM	

● Component/Scart Option

PCB	LOC	COMPONENT			SCART			REMARK
		S/N	NAME	DESCRIPTION	S/N	NAME	DESCRIPTION	
DSP	HC630	HCQK220JBA	C CHIP CERA	50V CH 22PF J 1608	X	X	X	
	HC631	HCQK220JBA	C CHIP CERA	50V CH 22PF J 1608	X	X	X	
	HC632	HCQK220JBA	C CHIP CERA	50V CH 22PF J 1608	X	X	X	
	HR614	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	X	X	X	
	HR619	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	X	X	X	
	HR624	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	X	X	X	
	J630	9736325900	JACK RCA 3P	RCA-327E1-01G	X	X	X	
	JW607	W581GY12J5	WIRE JUMPER	AWG22 1/0.65 SN 12.5 AUTO	X	X	X	
	JW608	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	X	X	X	
	JW609	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	X	X	X	
	CE650	X	X	X	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
	CE651	X	X	X	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
	CE652	X	X	X	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11)	
	HC650	X	X	X	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
	HC651	X	X	X	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
	HC652	X	X	X	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
	HC653	X	X	X	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
	HC654	X	X	X	HCQK220JBA	C CHIP CERA	50V CH 22PF J 1608	
	HC655	X	X	X	HCQK220JBA	C CHIP CERA	50V CH 22PF J 1608	
	HC656	X	X	X	HCQK220JBA	C CHIP CERA	50V CH 22PF J 1608	
	HC657	X	X	X	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608	
	HQ650	X	X	X	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
	HQ651	X	X	X	TZRC107S--	TR CHIP	KRC107S	
	HQ652	X	X	X	TZTD1304--	TR CHIP	KTD1304	
	HQ653	X	X	X	TZTD1304--	TR CHIP	KTD1304	
	HQ654	X	X	X	TZRA107S--	TR CHIP	KRA107S (10X10)PNP	
	HR650	X	X	X	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
	HR651	X	X	X	HRFT471JBA	R CHIP	1/10 470 OHM J 1608	
	HR653	X	X	X	HRFT750JBA	R CHIP	1/10 75 OHM J 1608	
	HR654	X	X	X	HRFT103JBA	R CHIP	1/10 10K OHM J 1608	
	HR655	X	X	X	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
	HR664	X	X	X	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
	HR665	X	X	X	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
	HR666	X	X	X	HRFT104JBA	R CHIP	1/10 100K OHM J 1608	
	HR671	X	X	X	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
	HR672	X	X	X	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608	
	HR675	X	X	X	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
	HR676	X	X	X	HRFT102JBA	R CHIP	1/10 1K OHM J 1608	
	J650	X	X	X	9736324800	JACK SCART	21P	
	JW313	X	X	X	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
	JW325	X	X	X	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
	JW358	X	X	X	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
	JW602	X	X	X	W581GY1505	WIRE JUMPER	AWG22 1/0.65 GY 15 AUTO	
	JW610	X	X	X	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
	JW611	X	X	X	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
	JW612	X	X	X	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	
	JW619	X	X	X	W581GY6095	WIRE JUMPER	AWG22 1/0.65 SN 6 AUTO	
	JW620	X	X	X	W581GY17J5	WIRE JUMPER	AWG22 1/0.65 GY 17.5 AUTO	

13. Electrical Parts List

● Arear Option

PCB	LOC	EUROPE(RDS)			AMERICA			REMARK
		S/N	NAME	DESCRIPTION	S/N	NAME	DESCRIPTION	
BACK	AC901	9736908600	CORD AC	KE-25 H03VVH2-F	9736908700	CORD AC	KE-01P NSPT-2	
MAIN	R900	X	X	X	RD-2Y475J-	R CARBON FILM	1/2W 4.7M OHM	
MAIN	F901	5FSGB1222L	FUSE	SEMKO 250V 1.25A TL	5F1GB2522L	FUSE	UL/CSA 250V 2.5A TL	
MAIN	PT900	5TP8028855	P/T SUB	28X12 8.5V 150mA	5TP1028856	P/T SUB	28X12 8.5V 150mA	
BOT	PT901	5TP8066907	P/T MAIN	66X45 230V/50Hz	5TP1066908	P/T MAIN	66X45 127V/60Hz	
MAIN	HR764	HRFT332JBA	R CHIP	1/10 3.3K OHM J	HRFT000-BA	R CHIP	1/10 0 OHM 1608	TUNER
BACK	TU001	9737651201	TUNER MODULE	KST-MV114MA1-0D	9737651301	TUNER MODULE	KST-MV011MA0-0D	TUNER

● RDS Option

PCB	LOCATION	S/N	NAME	DESCRIPTION	W RDS	W/O RDS	REMARK
MAIN	HR764	HRFT332JBA	R CHIP	1/10 3.3K OHM	O	X	MAIN PCB
MAIN	HR764	HRFT271JBA	R CHIP	1/10 270 OHM	X	O	MAIN PCB
BACK	TU001	9737651201	TUNER MODULE	KST-MV114MA1-0D	O	X	
BACK	TU001	9737651301	TUNER MODULE	KST-MV011MA0-0D	X	O	

● Tuner Option

TUNER OPTION LIST

Version / Band	America 1 2Band	America 2 2Band	Eur 2Band	Japan 2Band	Asia 2Band	Eur 1Band	CIS 2Band
FM(MHz)/Step	FM 87.5~108 /100	FM 87.5~108.1/200	FM 87.5~108/50	FM 76~108/100	FM 87.5~108 /100	FM 87.5~108 /50	FM:L:65~74/10
FM(MHz)/Step	---	---	---	---	---	---	FM:H:87.5~108/50
MW(KHz)/Step	AM 530~1710/10	AM 530~1710/10	MW 522~1620/9	AM 522~1620/9	AM 522~1620/9	---	AM 522~1620/9
HR764	Jump	120	270	390	560	820	1.2k
DC VOLTAGE(V)	0	0.35	0.7	1.0	1.3	1.7	2.1

Version / Band	Latin Am 2Band	America 1 1Band	Eur RDS 2Band	America 2 1Band	Eur RDS 1Band	Japan 1Band	No Tuner Mode
FM(MHz)/Step	FM 87.5~108 /100	FM 87.5~108 /100	FM 87.5~108/50	FM87.5~108.1/200	FM 87.5~108/50	FM 76~108/100	---
FM(MHz)/Step	---	---	---	---	---	---	---
MW(KHz)/Step	AM 530~1620/10	---	AM 522~1620/9	---	---	---	---
HR764	1.8k	2.4K	3.3k	4.7k	6.8k	12K	nothing
DC VOLTAGE(V)	2.6	2.9	3.3	3.6	3.9	4.2	4.7UP