

AV RECEIVER/AV AMPLIFIER RX-V3200/DSP-AX3200

SERVICE MANUAL

IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel.

It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

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This Service Manual uses recycled paper.



■ TO SERVICE PERSONNEL

1. Critical Components Information
Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
 2. Leakage Current Measurement (For 120V Models Only)
When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.
- Meter impedance should be equivalent to 1500 ohm shunted by 0.15μF.



“CAUTION”

“F311: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 10A, 250V FUSE.”

“F312: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 5A, 125V FUSE.”

CAUTION

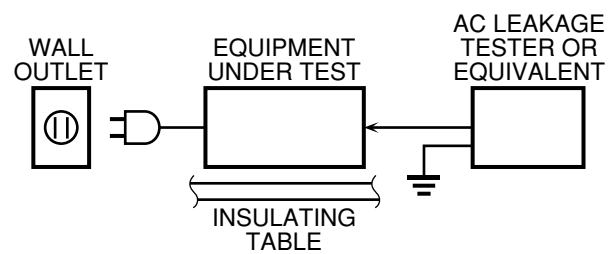
F311: REPLACE WITH SAME TYPE 10A, 250V FUSE.

F312: REPLACE WITH SAME TYPE 5A, 125V FUSE.

ATTENTION

F311: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE 10A, 250V.

F312: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE 5A, 125V.



- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

WARNING: CHEMICAL CONTENT NOTICE!

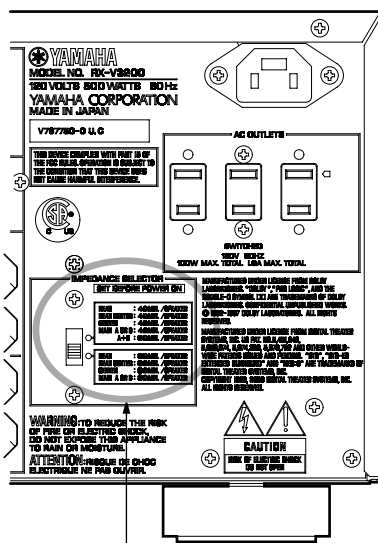
The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ IMPEDANCE SELECTOR

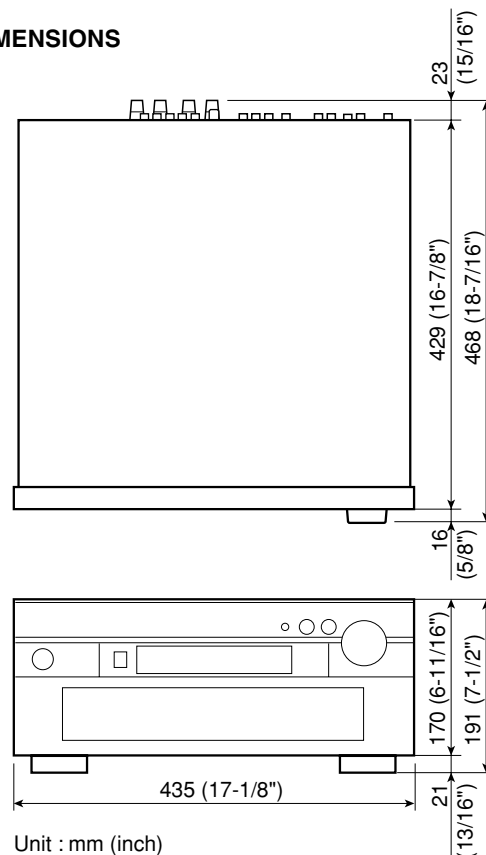


IMPEDANCE SELECTOR

WARNING:

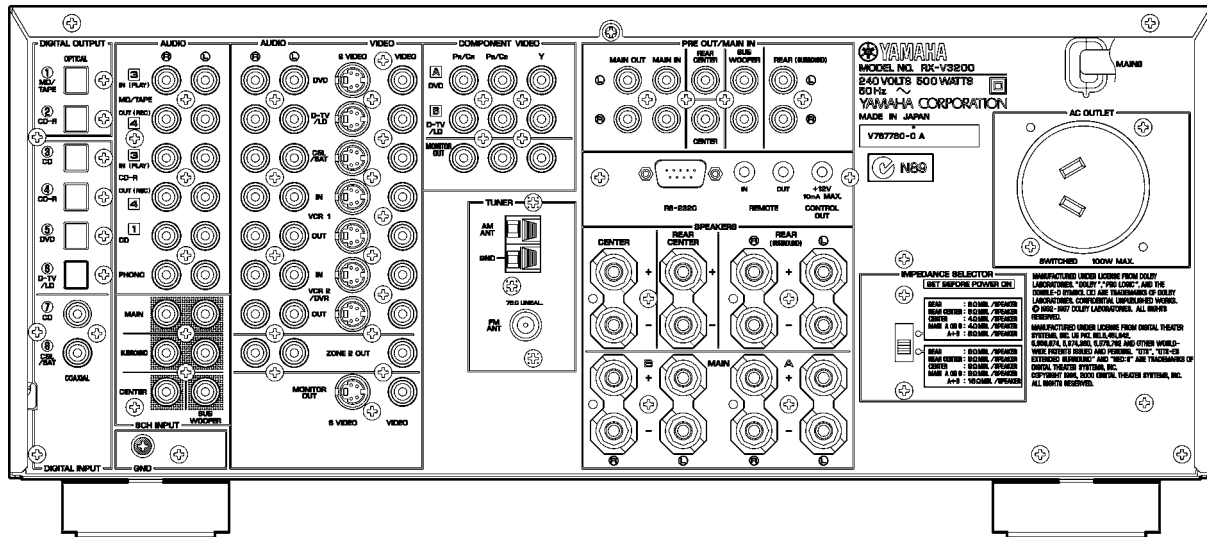
Do not change the IMPEDANCE SELECTOR switch setting while the power to this unit is on, otherwise this unit may be damaged.

• DIMENSIONS

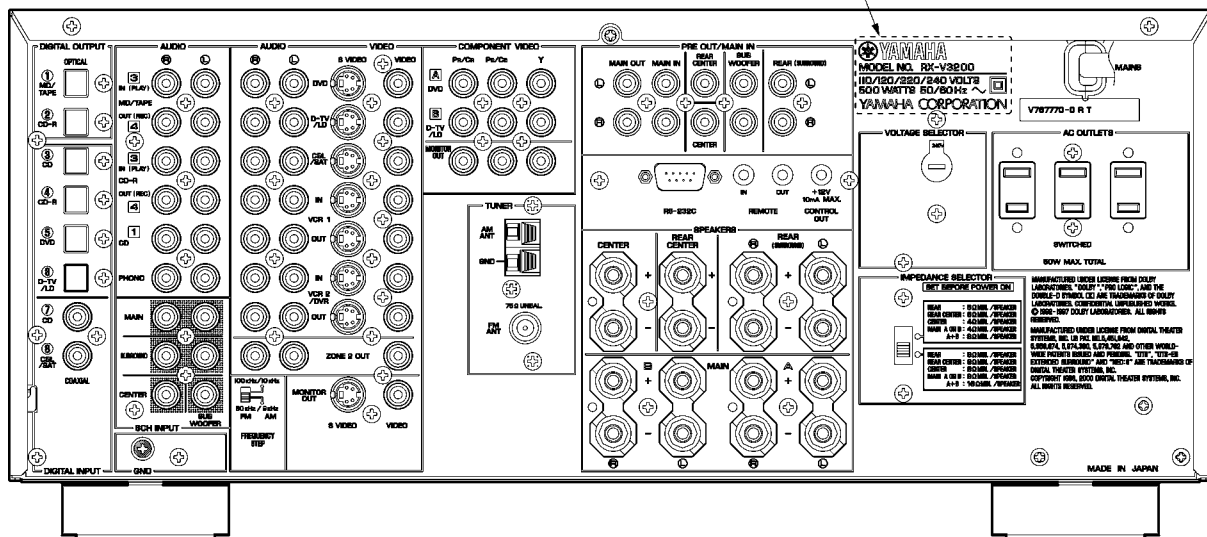


Unit : mm (inch)

RX-V3200 (A model)

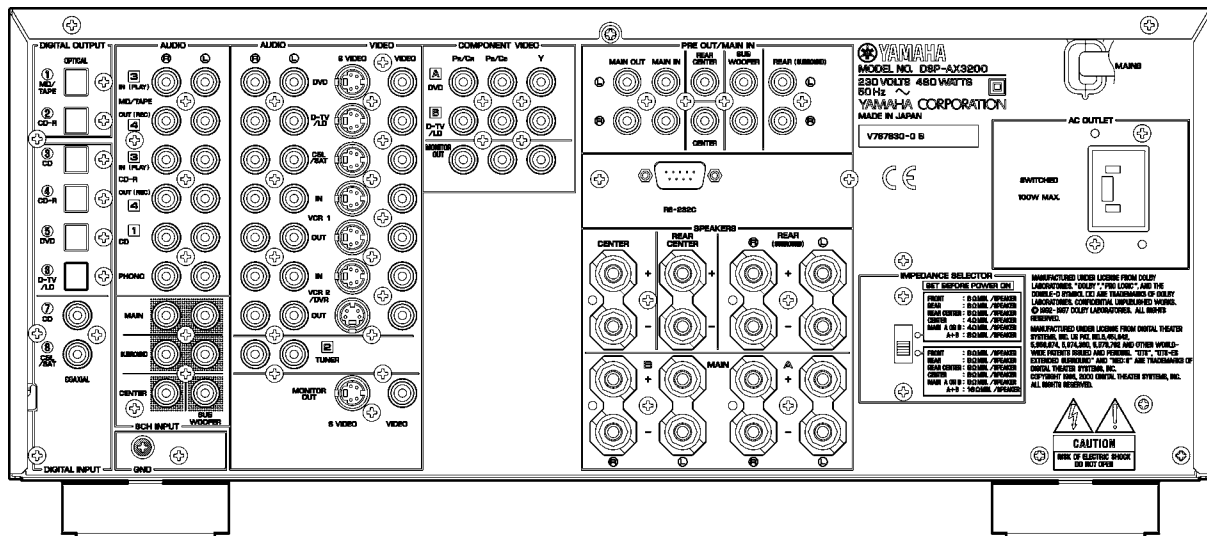


RX-V3200 (R, T models)

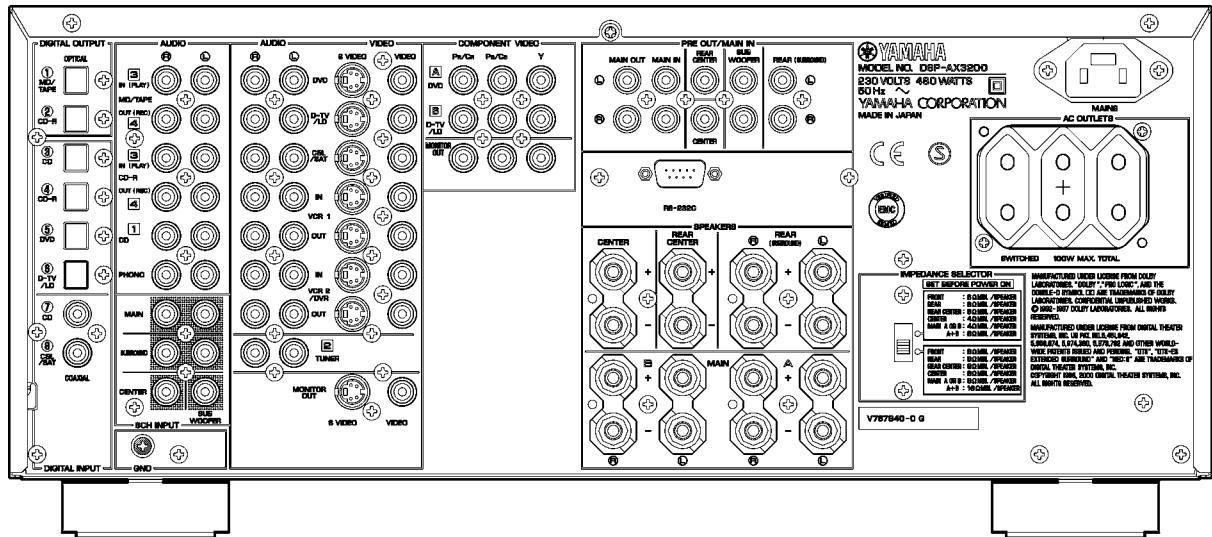


R model

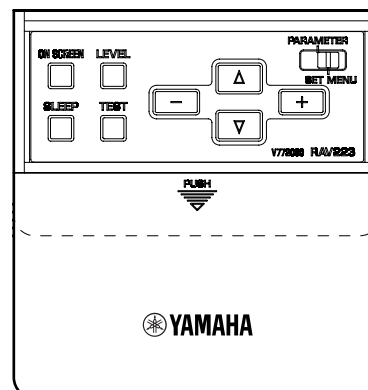
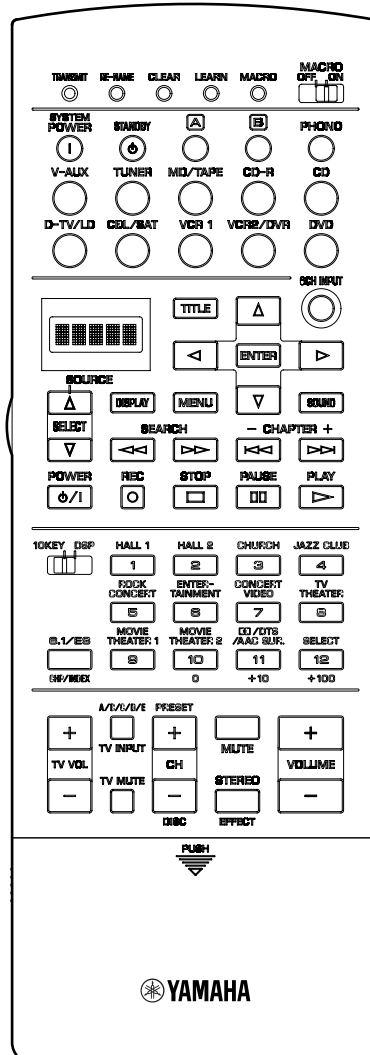
DSP-AX3200 (B model)



DSP-AX3200 (G model)



■ REMOTE CONTROL TRANSMITTER



SPECIFICATIONS

Audio Section

Minimum RMS Output Power (Power Amp. Section)

(20 Hz to 20 kHz, 0.02% THD, 8 ohms)	
MAIN L/R	120W + 120W
CENTER	120W
REAR L/R/C	120W + 120W + 120W

Maximum Power (EIAJ) [R, T models]

(1 kHz, 10% THD, 8 ohms)	
MAIN L/R	165W + 165W
CENTER	165W
REAR L/R/C	165W + 165W + 165W

Dynamic Power Per Channel (IHF)

MAIN L/R (8/6/4/2 ohms)	145/180/240/330W
-------------------------------	------------------

DIN Standard Output Power Per Channel [B, G models]

(1 kHz, 0.7% THD, 4 ohms)	
MAIN L/R	180W + 180W
CENTER	180W
REAR L/R/C	180W + 180W + 180W

Dynamic Headroom [U, C, R, T models]

(8 ohms)	0.82 dB
----------------	---------

IEC Power [B, G models]

MAIN L/R (1 kHz, 0.02% THD, 8 ohms)	120W + 120W
---	-------------

Power Band Width

MAIN L/R (0.08% THD, 60W/8 ohms)	10 Hz to 50 kHz
--	-----------------

Damping Factor

MAIN L/R (20 Hz to 20 kHz, SPEAKER-A, 8 ohms) ...	200 or more
---	-------------

Input Sensitivity / Input Impedance

PHONO (MM)	2.5 mV / 47 k-ohms
CD, etc.	150 mV / 47 k-ohms
EXT. DECODER	
MAIN L/R	150 mV / 47 k-ohms
CENTER, SURROUND L/R, SUBWOOFER ...	150 mV / 40 k-ohms
MAIN IN	1V / 47 k-ohms

Maximum Input Signal Level

PHONO (MM) (1 kHz, 0.1% THD)	100 mV
CD, etc. (1 kHz, 0.5% THD, EFFECT ON)	2.2 V

Output Level / Output Impedance

REC OUT	150 mV / 0.9 k-ohms
PRE OUT (MAIN L/R, CENTER, REAR L/R/C)	1.0 V / 1.2 k-ohms
PRE OUT (SUB WOOFER, EFFECT OFF, MAIN Small)	4.0 V/1.2 k-ohms
ZONE2 OUT [U, C, A, R, T models]	150 mV / 1.2 k-ohms

Headphone Jack Rated Output / Impedance

1 kHz, 40 mV, 8 ohms	150 mV / 100 ohms
----------------------------	-------------------

Frequency Response

CD, etc. to MAIN L/R (10 Hz to 100 kHz)	0/-3 dB
MAIN IN to MAIN L/R (5 Hz to 100 kHz)	0/-3 dB

RIAA Equalization Deviation

PHONO (MM) (20 Hz to 20 kHz)	0±0.5 dB
------------------------------------	----------

Total Harmonic Distortion

(20 Hz to 20 kHz)	
PHONO (MM) to REC OUT (1V)	0.02% or less
CD, etc. (EFFECT OFF) to PRE OUT MAIN L/R (1V)	0.02% or less
CD, etc. (EFFECT OFF) to SP OUT MAIN L/R (60W /8 ohms) ...	0.02% or less
MAIN IN to SP OUT MAIN L/R (60W /8 ohms)	0.008% or less

Signal to Noise Ratio (IHF-A network)

(Input shorted)	
PHONO (MM) to SP OUT (5 mV)	
[U, C, R, T models]	86 dB or more
[A, B, G models]	81 dB or more
CD, etc. (EFFECT OFF) to SP OUT	
150 mV	96 dB or more
250 mV	100 dB or more

Residual Noise (IHF-A network)

MAIN L/R SP OUT	150 µV or less
-----------------------	----------------

Channel Separation

(EFFECT OFF)	
PHONO (Input shorted, 1 kHz/10 kHz)	60 dB or more/55 dB or more
CD, etc. (Input 5.1 k-ohms shorted, 1 kHz/10 kHz) ...	60 dB or more/45 dB or more

Tone Control Characteristics

Bass: Boost/Cut	±10 dB (50 Hz)
Turnover Frequency	350 Hz
Treble: Boost/Cut	±10 dB (20 kHz)
Turnover Frequency	3.5 kHz

Filter Characteristics

MAIN L/R, CENTER, Rear L/R/C Small (H.P.F.) ..	90 Hz, 12 dB/oct.
SUBWOOFER (L.P.F.)	90 Hz, 18 dB/oct.

Bass Extension

MAIN L/R, 60 Hz	+6 dB
-----------------------	-------

Video Section

Video Signal Type

[U, C models]	NTSC
[R, T models]	NTSC or PAL
[A, B, G models]	PAL

Video Signal Level

.....	1 Vp-p / 75 ohms
-------	------------------

S-Video Signal Level

Y	1 Vp-p / 75 ohms
C	0.286 Vp-p / 75 ohms

Component Signal Level

Y	1 Vp-p / 75 ohms
Cb/Cr	0.7 Vp-p / 75 ohms

Maximum Input Level

.....	1.5 Vp-p
-------	----------

Signal to Noise Ratio

.....	50 dB or more
-------	---------------

Monitor Out Frequency Response

Component Video Signal, S-Video Signal ...	5 Hz to 10 MHz, -3 dB
Component Video Signal	DC to 60 MHz, -3 dB

FM Section

Tuning Range

[U, C models]	87.5 to 107.9 MHz
[A model]	87.50 to 108.00 MHz
[R, T models]	87.5 to 108.0 / 87.50 to 108.00 MHz

50 dB Quieting Sensitivity (IHF) [U, C, A, R, T models]

(100% Mod)	
Mono	2.0 µV (17.3 dBf)
Stereo	25 µV (39.2 dBf)

Usable Sensitivity (IHF) [U, C, A, R, T models]

Mono	1.0 µV (11.2 dBf)
------------	-------------------

Selectivity [U, C, A, R, T models]

at 400 kHz	70 dB
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Signal to Noise Ratio (IHF) [U, C, A, R, T models]

Mono / Stereo	76 dB / 70 dB
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Harmonic Distortion [U, C, A, R, T models]

(1 kHz)	
Mono/Stereo	0.2 / 0.3 %

Stereo Separation [U, C, A, R, T models]

1 kHz	45 dB
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Frequency Response [U, C, A, R, T models]

20 Hz to 15 kHz	+0.5 / -2 dB
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Antenna Input [U, C, A, R, T models]

.....	75 ohms unbalanced
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AM Section

Tuning Range

[U, C models]	530 to 1,710 kHz
[A model]	531 to 1,611 kHz
[R, T models]	530 to 1,710 / 531 to 1,611 kHz

Usable Sensitivity [U, C, A, R, T models]

.....	300 µV/m
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Antenna [U, C, A, R, T models]

.....	Loop Antenna
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General

Power Supply

[U, C models]	AC 120 V, 60 Hz
[A model]	AC 240 V, 50 Hz
[B, G models]	AC 230 V, 50 Hz
[R model]	AC 110/120/220/240 V, 50/60 Hz
[T model]	AC 220 V, 50 Hz

Power Consumption

[U, C models]	500 W / 640 VA
[A, B, G, R, T models]	500 W

Standby Power Consumption (reference data)

[U, C, A, B, G models]	1.2 W
[R, T models] AC 220V, 50Hz	1.5 W

Maximum Power Consumption [R model]

6 ch Drive, 10% THD	1000 W
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AC Outlets

3 switched outlets	
[U, C models]	100W max., total
[B, G models]	100W max., total
[R, T models]	50W max., total
1 switched outlet	
[A model]	100W max.

Dimensions (W x H x D)

.....	435 x 191 x 468 mm (17-1/8" x 7-1/2" x 18-7/16")
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Weight

.....	21.0 kg (46 lbs. 5 oz.)
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Finish

RX-V3200	Gold color (U, C, R, T) models
	Black color (U, C, R, A) models
DSP-AX3200	Black color (B, G) models
	Titanium color (G) model

Accessories

Remote control transmitter, Alkaline batteries, Indoor FM antenna	
[U, C, A, R, T models], AM loop antenna [U, C, A, R, T models],	
Power cord [U, C, G models]	

* Specifications are subject to change without notice due to product improvements.

U U.S.A. model
 A Australian model
 G European model
 T Chinese model

C Canadian model
 B British model
 R General model



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• Set Menu Table

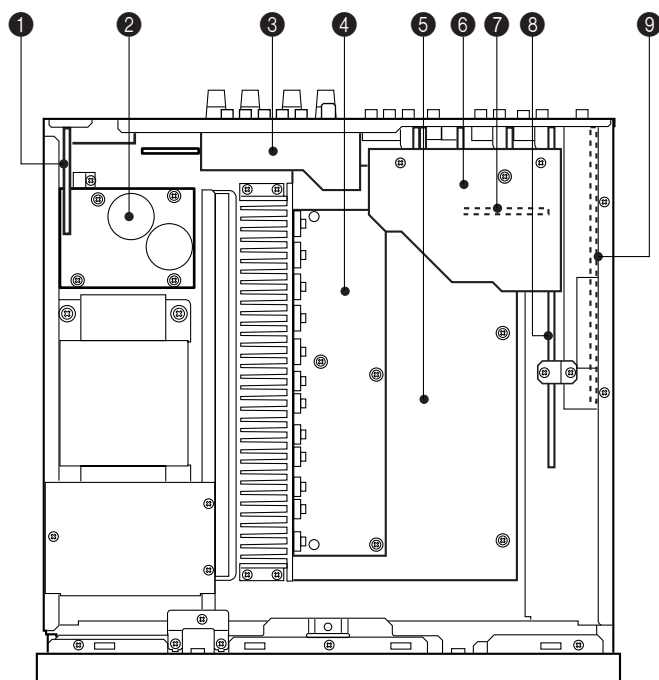
No.	SET MENU	PRESET VALUE	SETTING RANGES
1.	SPEAKER SET		
1A	CENTER SPEAKER	LARGE	LARGE, SMALL, NONE
1B	MAIN SPEAKER	LARGE	LARGE, SMALL
1C	REAR L/R SPEAKER	LARGE	LARGE, SMALL, NONE
1D	REAR CENTER SPEAKER	LARGE	LARGE, SMALL, NONE
1E	LFE/BASS OUT	BOTH	SUBWOOFER, MAIN, BOTH
1F	MAIN LEVEL	NORMAL	NORMAL, -10dB
2.	LOW FREQ. TEST	TEST TONE : OFF OUTPUT : MAIN L/R FREQ. : 88Hz	OFF, ON MAIN L/R, L, C, R, RS, RC, LS, SWFR 35Hz/ ... /88Hz/ ... /WIDE
3.	L/R BALANCE	CENTER	L, ..., CENTER, ..., R (40 steps)
4.	HP TONE CONTROL	HP BASS : 0dB HP TREBLE : 0dB	-6dB — +3dB (1dB step) -6dB — +3dB (1dB step)
5.	CENTER GRAPHIC EQ.	100Hz : 0dB 300Hz : 0dB 1kHz : 0dB 3kHz : 0dB 10kHz : 0dB	-6dB — +6dB (1dB step) -6dB — +6dB (1dB step) -6dB — +6dB (1dB step) -6dB — +6dB (1dB step) -6dB — +6dB (1dB step)
6.	INPUT RENAME	DVD (Currently selected input)	
7.	I/O ASSIGNING		
7A	COMPONENT VIDEO INPUT 1	[A] : DVD	DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, V-AUX
	COMPONENT VIDEO INPUT 2	[B] : D-TV/LD	DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, V-AUX
7B	OPTICAL OUT 1	(1) : MD/TAPE	DVD, MD/TAPE, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, V-AUX, PHONO, CD, CD-R
	OPTICAL OUT 2	(2) : CD-R	DVD, MD/TAPE, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, V-AUX, PHONO, CD, CD-R
7C	OPTICAL IN 1	(3) : CD	CD, CD-R, MD/TAPE, DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, PHONO
	OPTICAL IN 2	(4) : CD-R	CD, CD-R, MD/TAPE, DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, PHONO
	OPTICAL IN 3	(5) : DVD	CD, CD-R, MD/TAPE, DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, PHONO
	OPTICAL IN 4	(6) : D-TV/LD	CD, CD-R, MD/TAPE, DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, PHONO
7D	COAXIAL IN 1	(7) : CD	CD, CD-R, MD/TAPE, DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, V-AUX, PHONO
	COAXIAL IN 2	(8) : CBL/SAT	CD, CD-R, MD/TAPE, DVD, D-TV/LD, CABLE, SAT, VCR1, VCR2/DVR, V-AUX, PHONO
8.	INPUT MODE	AUTO	AUTO/LAST
9.	PARAMETER INITIALIZE	PARAMETER INITIALIZE	The number key of the remote controller is pushed and initialized.
10.	LFE LEVEL	SPEAKER : 0dB HEADPHONE : 0dB	-2dB — 0dB (1dB step) -2dB — 0dB (1dB step)
11.	DYNAMIC RANGE	SP DYNAMIC RANGE : MAX HP DYNAMIC RANGE : MAX	MAX, STD, MIN MAX, STD, MIN
12.	SPEAKER DELAY TIME	CENTER : 0ms REAR CENTER : 3ms	0ms — 5ms (1ms step) 0ms — 30ms (1ms step)
13.	DISPLAY SET	BLUE BACK : AUTO OSD SHIFT : 0 DIMMER : 0	AUTO/OFF -5 — +5 (1 step) -4 — 0 (1 step)
14.	MEMORY GUARD	OFF	ON/OFF
15.	DUAL MONO	MAIN	MAIN, SUB, ALL

• The variable range of the parameter (Min/Max/Step)

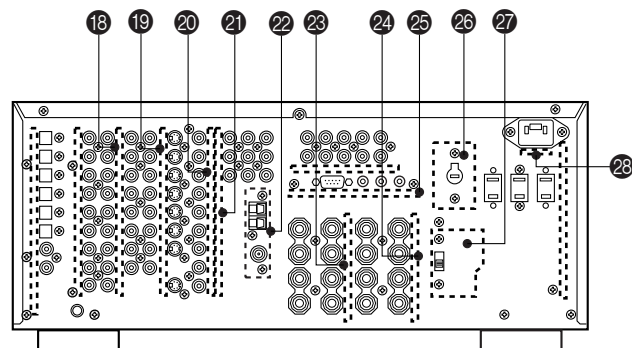
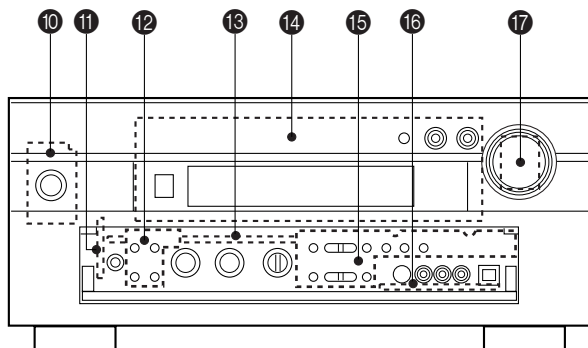
Parameter name	Pro Logic	Pro Logic II Movie	Pro Logic II Music	Neo:6	2ch	DD/dts/AAC	6.1/ES	Unit
(P.) INIT. DLY	-	-	-	-	1/99/1	1/99/1	1/99/1	ms
(P.) ROOM SIZE	-	-	-	-	0.1/2.0/0.1	0.1/2.0/0.1	0.1/2.0/0.1	-
(P.) LIVENESS	-	-	-	-	0/10/1	0/10/1	0/10/1	-
S. DELAY	-	-	-	-	-	0/15/1	0/15/1	ms
S. INIT. DLY	10/25/1	10/25/1	0/15/1	0/30/1	0/49/1	0/49/1	0/49/1	ms
S. ROOM. SIZE	-	-	-	-	0.1/2.0/0.1	0.1/2.0/0.1	0.1/2.0/0.1	-
S. LIVENESS	-	-	-	-	0/10/1	0/10/1	0/10/1	-
RC. INT.DLY	-	-	-	-	-	-	1/49/1	ms
RC. ROOM, SIZE	-	-	-	-	-	-	0.1/2.0/0.1	-
RC. LIVENESS	-	-	-	-	-	-	0/10/1	-
REV. TIME	-	-	-	-	1.0/5.0/0.1	1.0/5.0/0.1	1.0/5.0/0.1	s
REV. DELAY	-	-	-	-	0/250/1	0/250/1	0/250/1	ms
REV. LEVEL	-	-	-	-	0/100/1	0/100/1	0/100/1	%
Panorama	-	OFF	OFF/ON	-	-	-	-	-
Dimension	-	0 (STD)	-3/+3/1	-	-	-	-	-
C Width	-	0	0/7/1	-	-	-	-	-

6ch Stereo Parameter		Unit
CT. LEVEL	0/100/1	%
RL. LEVEL	0/100/1	%
RC. LEVEL	0/100/1	%
RR. LEVEL	0/100/1	%

■ INTERNAL VIEW



- ❶ POWER (2) P.C.B.
- ❷ MAIN (2) P.C.B.
- ❸ POWER (3) P.C.B.
- ❹ POWER (1) P.C.B.
- ❺ MAIN (1) P.C.B.
- ❻ VIDEO (5) P.C.B.
- ❼ VIDEO (7) P.C.B.
- ❽ FUNCTION P.C.B.
- ❾ DSP P.C.B.
- ❿ OPERATION (3) P.C.B.
- ⓫ OPERATION (8) P.C.B.
- ⓬ OPERATION (5) P.C.B.
- ⓭ OPERATION (2) P.C.B.
- ⓮ OPERATION (1) P.C.B.
- ⓯ OPERATION (6) P.C.B.
- ⓰ OPERATION (4) P.C.B.
- ⓱ OPERATION (7) P.C.B.
- ⓲ VIDEO (6) P.C.B.
- ⓳ VIDEO (1) P.C.B.
- ⓴ VIDEO (2) P.C.B.
- ⓵ VIDEO (4) P.C.B.
- ⓶ TUNER (RX-V3200 only)
- ⓷ MAIN (5) P.C.B.
- ⓸ MAIN (4) P.C.B.
- ⓹ POWER (4) P.C.B.
- ⓺ POWER (6) P.C.B. (R, T models only)
- ⓻ MAIN (3) P.C.B.
- ⓼ POWER (5) P.C.B.



■ DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

Disconnect the power cord from the AC outlet.

1. Removal of Top Cover

- a. Remove 2 screws (①), 4 screws (②) and 2 screws (③).
(Fig. 1)
- b. Slide the Top Cover rearward to remove it. (Fig. 1)

2. Removal of Bottom Cover

Remove 14 screws (④) and then remove the Bottom Cover. (Fig. 1)

3. Removal of Front Panel

- a. Remove 4 push rivets (⑤) and then remove the Side Plates. (Fig. 1)
- b. Remove 3 screws (⑥) and 1 screw (⑦), and then remove the Front Panel. (Fig. 1)

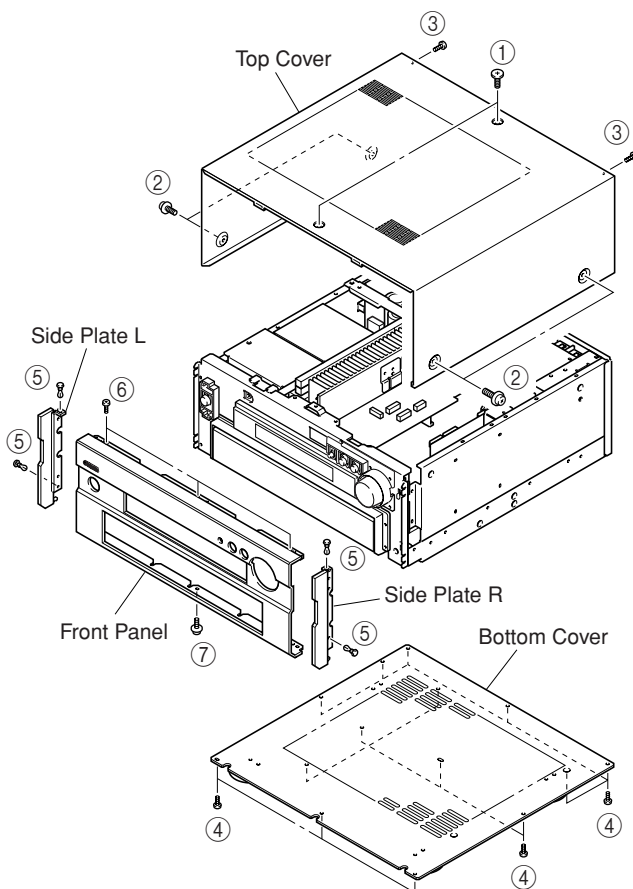


Fig. 1

4. Removal of Sub Chassis

Remove 4 screws (⑧) and 6 screws (⑨), and then remove the Sub Chassis. (Fig. 2)

5. Removal of DSP P.C.B.

- a. Remove 2 knobs (⑩) and 1 knob (⑪). (Fig. 2)
- b. Remove 4 screws (⑫) and then remove the Button Case Upper. (Fig. 2)

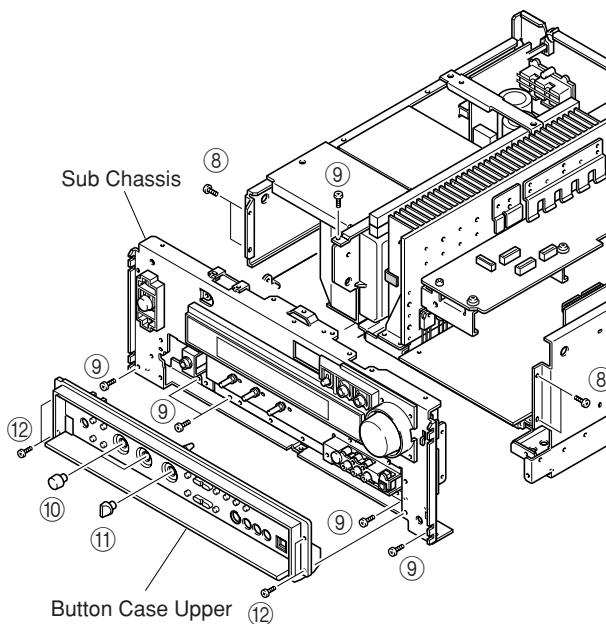


Fig. 2

6. Removal of DSP P.C.B.

- Remove 10 screws (13) and then remove the Bracket. (Fig. 3)
- Remove 2 screws (14) and then remove the Support. (Fig. 3)
- Remove 1 screw (15). (Fig. 3)
- Remove 9 screw (16). (Fig. 4)
- Remove the DSP P.C.B.. (Fig. 3)

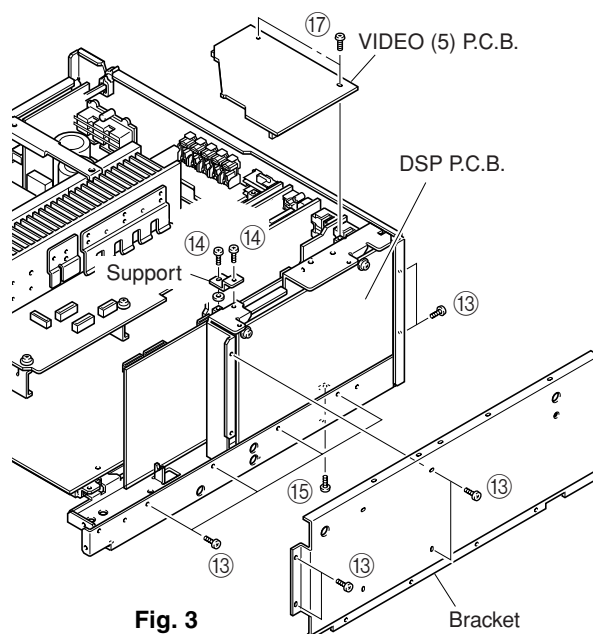


Fig. 3

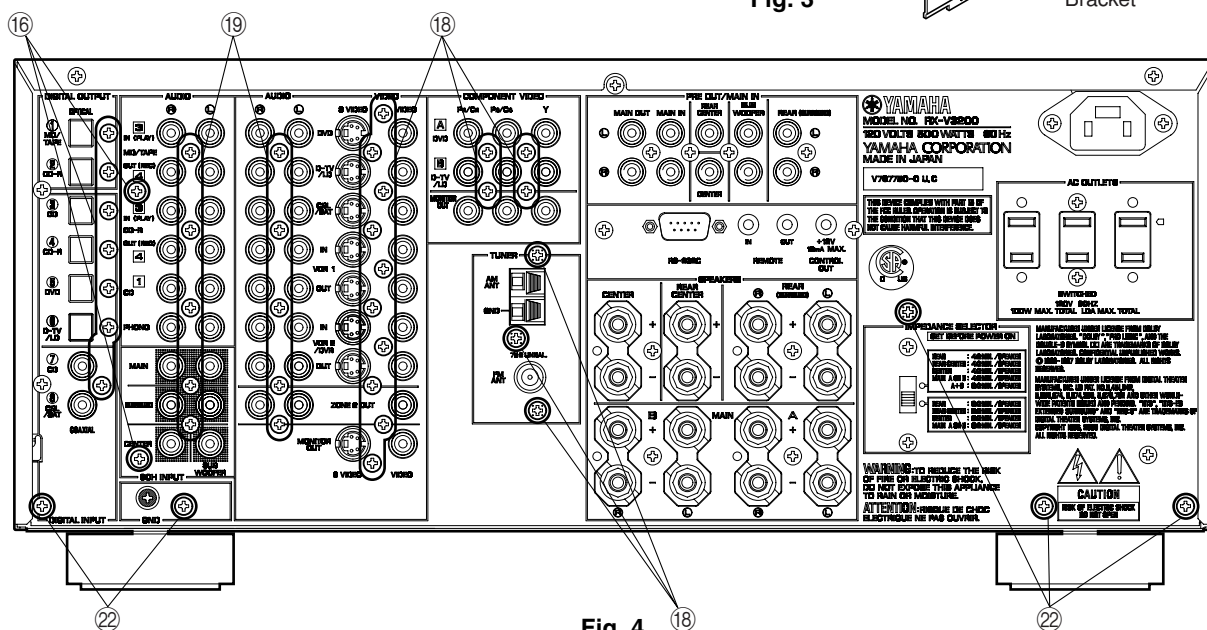


Fig. 4

8. Removal of VIDEO (1), VIDEO (2), VIDEO (4) and VIDEO (8) P.C.B.s and Tuner*1

- Remove 17 screws (18). (Fig. 4)
(DSP-AX3200: 14 screws)
- Remove VIDEO (1), VIDEO (2), VIDEO (4) and VIDEO (8) P.C.B.s and the Tuner*1. (Fig. 5)

*1: RX-V3200 only

When checking the P.C.B.:

- Put the rubber sheet and a cloth over the equipment. Then place the P.C.B. upside down on the cloth and check it. (Fig. 5)
- Connect VIDEO (5) and FUNCTION P.C.B.s by using the extension cable (AAX30610) for the P.C.B. check. (Fig. 5)
- Reconnect all cables (connectors) that have been disconnected.
- The P.C.B. removed from the rear panel does not work because its grounding is loose. Be sure to connect the ground of each P.C.B. to the chassis or GND with a jumper wire or the like.

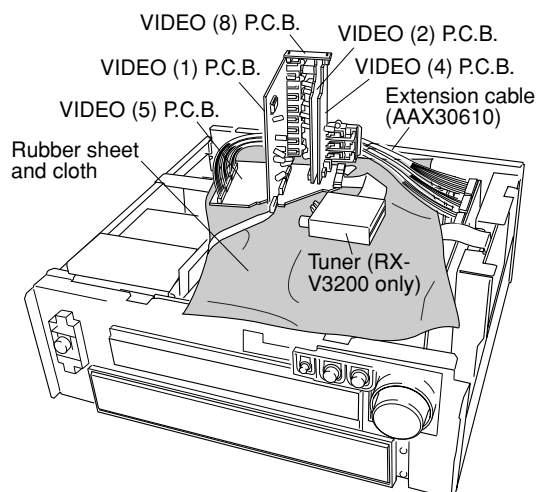


Fig. 5

9. Removal of VIDEO (6), VIDEO (7), and FUNCTION P.C.B.s

- Remove CB359, CB360, CB503, CB505, CB509 and CB936. (Fig. 6)
- Remove 10 screws (19). (Fig. 4)
- Remove VIDEO (6), VIDEO (7), and FUNCTION P.C.B.s. (Fig. 7)

When checking the P.C.B.:

- Put the rubber sheet and a cloth over the equipment. Then place the P.C.B. upside down on the cloth and check it. (Fig. 7)
- Connect VIDEO (5) and FUNCTION P.C.B.s by using the extension cable (AAX30610) for the P.C.B. check. (Fig. 7)
- Reconnect all cables (connectors) that have been disconnected.
- The P.C.B. removed from the rear panel does not work because its grounding is loose. Be sure to connect the ground of each P.C.B. to the chassis or GND with a jumper wire or the like.

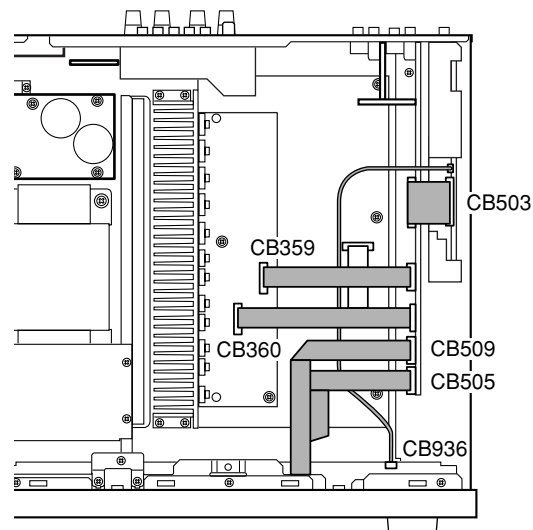


Fig. 6

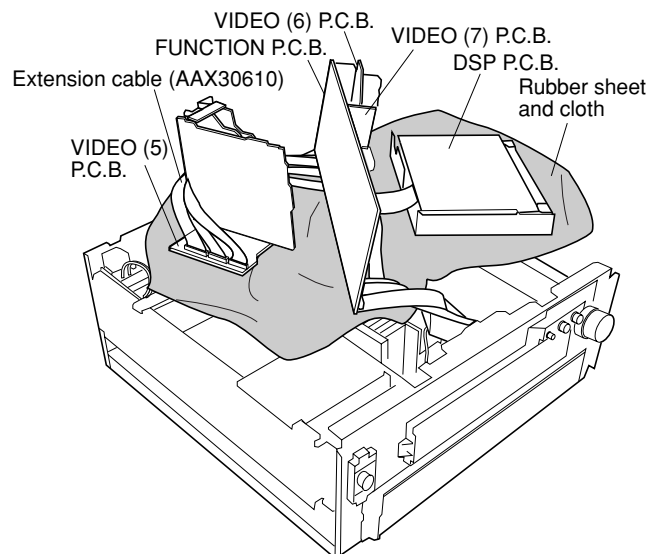


Fig. 7

10. Removal of MAIN (2) P.C.B.

- Remove 2 screws (20) and 1 screw (21)*2. (Fig. 8)
- Remove 5 screws (22) and then remove the Rear Panel. (Fig. 4)
- Remove 2 screws (23) and then remove the Support R. (Fig. 8)
- Remove 4 screws (24) and then remove the MAIN (2) P.C.B.. (Fig. 8)

*2: R, T models only

11. Removal of POWER (1) P.C.B.

- Remove 5 screws (25) and then remove the Support. (Fig. 8)
- Remove 3 screws (26) and then remove the POWER (1) P.C.B.. (Fig. 8)

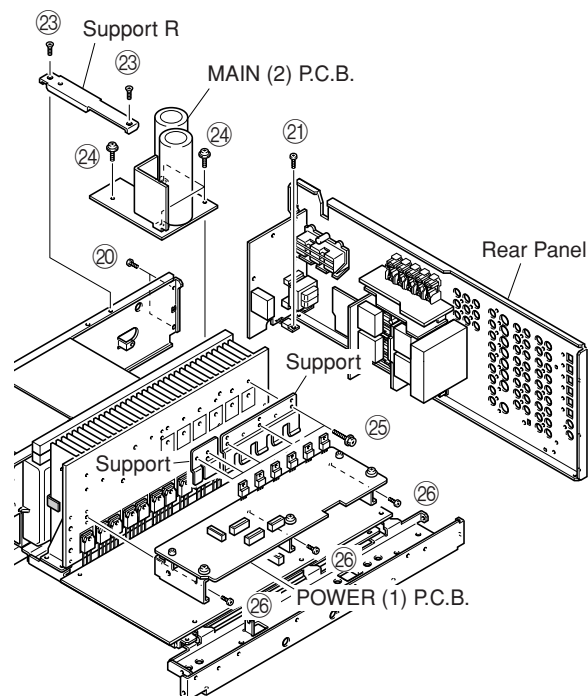


Fig. 8

■ SELF DIAGNOSIS FUNCTION (DIAG)

There are 18 DIAG menu items, each of which has sub-menu items. Listed in the table below are menu items and sub-menu items.

No	DIAG menu	sub-menu
1	YSS938 1. ANALOG BYPASS	1. ANALOG BYPASS
		2. YSS 0dB
		3. YSS FULL BIT
2	YSS-CS 2. YSS-CS 0dB	1. YSS-CS 0dB
		2. YSS-CS FULL BIT
3	CS-YSS 3. CS-YSS 0dB	1. CS-YSS 0dB
		2. CS-YSS FULL BIT
4	CS49329 4. CS 0dB	1. CS49329 0dB
		2. CS49329 FULL BIT
5	HP ROUTE 5. HP 0dB	1. HP 0dB
		2. HP FULL BIT
6	RAM THROUGH 6. RAM 0dB	1. RAM 0dB
		2. MAIN ATT
7	DOLBY PRO LOGIC 7. PRO LOGIC I	1. PRO LOGIC I
		2. PRO LOGIC II
		3. NEO: 6
8	SPEAKER SET 8. MAIN: SML 0dB	1. MAIN: SMALL 0dB
		2. MAIN: LARGE -10dB
		3. CENTER: NONE
		4. LFE/BASS: MAIN
		5. FRONT MIX: 5ch
		6. REAR C: MUTE
		7. REAR L/R: MUTE
9	EFFECT OFF/ DISPLAY CHECK 9. VFD CHECK	1. VFD CHECK (Initial display)
		2. VFD DISP OFF (All segments OFF)
		3. VFD DISP ALL (All segments ON 100%)
		4. VFD DIMMER (All segments ON 50%)
		5. CHECKED PATTERN (ON in lattice)
10	MANUAL TEST 10. TEST ALL	1. TEST ALL
		2. TEST MAIN L
		3. TEST CENTER
		4. TEST MAIN R
		5. TEST REAR R
		6. TEST REAR CENTER
		7. TEST REAR L
		8. TEST LFE
11	RS-232C 11. TxRxData: XX	1. TX DATA
		2. HARD FLOW
12	FACTORY PRESET 12. PRESET INHI	1. PRESET INHIBIT (memory initialization inhibited)
		2. PRESET RESERVED (memory initialized)
13	AD DATA CHECK /FAN TEST DC:007 PS:025	1. DC/PS (protection)
		2. THM/FAN OUT
		3. REC-OUT
		4. IMP SW/POWER LIMIT
		5. K0/K1 (panel key)
		6. FAN DRIVE TEST: HIGH
		7. FAN DRIVE TEST: MID
		8. FAN DRIVE TEST: LOW

No	DIAG menu	sub-menu
14	IF STATUS IS1:440308C000	1. IS 1
		2. IS 2
		3. IS 3
		4. CS 1
		5. CS 2
		6. CS 3
		7. CS 4
		8. CS 5
		9. BY1
		10. BY2
		11. BY3
		12. BY4
		13. BC1
		14. BC2
		15. BC3
		16. BC4
		17. BC5
		18. YS1
		19. YS2
		20. YS3
		21. CS
		22. MTT
15	DSP RAM CHECK YSS Bus: NoEr	1. YSS938 BUS CHECK
16	CS DL CODE RDV: X	2. PLD/SRAM BUS CHECK
		1. ROM DATA VERSION
		2. TOC AREA 0
		3. TOC AREA 1
		4. TOC AREA 2
		5. TOC AREA 3
		6. TOC AREA 4
		7. TOC AREA 5
		8. SUM CHECK AREA 0
		9. SUM CHECK AREA 1
		10. SUM CHECK AREA 2
		11. SUM CHECK AREA 3
		12. SUM CHECK AREA 4
		13. SUM CHECK AREA 5
17	SOFT SW 17. SW : PCB	1. SW MODE
		2. MODEL SETTING
		3. TUNER DESTINATION
		4. TUNER EXIST
		5. RDS EXIST
		6. ZONE 2 EXIST
		7. VIDEO FORMAT
18	ROM VERSION/CHECK SUM/ PORT VER. XXXXXXXX	1. VERSION
		2. SUM ALL/PROGRAM
		3. SUM 232C/MAKER
		4. PORT
		5. AAC PORT

• Starting DIAG

Press the “STANDBY/ON key while pressing those two keys indicated in the figure on the right.

• Starting DIAG in the protection cancel mode

If the protection function works and causes hindrance to trouble diagnosis, cancel the protection function as described below, and it will be possible to enter the DIAG mode. (The protection functions other than the excess current detect function will be disabled.)

Press the “STANDBY/ON key while pressing those two keys indicated in the figure on the right. At this time, keep pressing those two keys for 3 seconds or longer.

In this mode, the “SLEEP” segment of the FL display of the main unit flashes to indicate that the mode is DIAG mode with the protection functions disabled.

CAUTION!

Using this product with the protection function disabled may cause damage to itself. Use special care for this point when using this mode.

• Canceling DIAG

[1] Before canceling DIAG, execute setting for PRESET of DIAG menu No.12 (Memory initialization inhibited or Memory initialized).

* In order to keep the user memory stored, be sure to select PRESET INHI (Memory initialization inhibited).

[2] Turn off the power by pressing the “STANDBY/ON” key of the main unit or the “STANDBY” key of the remote controller.

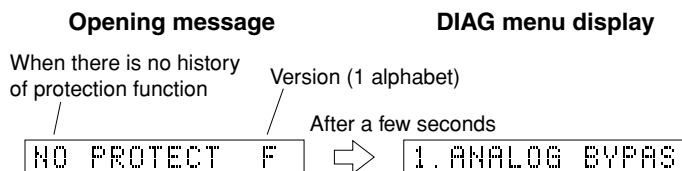
• Display provided when DIAG started

When the monitor is connected, DIAGNOSTIC MENU appears on its screen as shown in the figure. (It remains on display until DIAG is cancelled.)

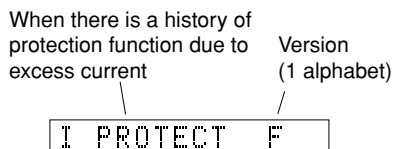
DIAGNOSTIC MENU	
1.DSP THR	10.MAN ITEST
2.YSS-CS	11.RS232C
3.CS-YSS	12.PRESET
4.CS49329	13.AD/FAN
5.HP ROUTE	14.STATUS
6.RAM THR	15.DSP RAM
7.PRO LOGIC	16.CS DL COD
8.SP SET	17.SOFT SW
9.VFD CHECK	18.VER/SUM/P

The FL display of the main unit displays the protection function history data and the version (1 alphabet) and the DIAG menu (sub-menu (ANALOG BYPASS) of DIAG menu No.1 YSS938) a few seconds later.

When there is no history of protection function:



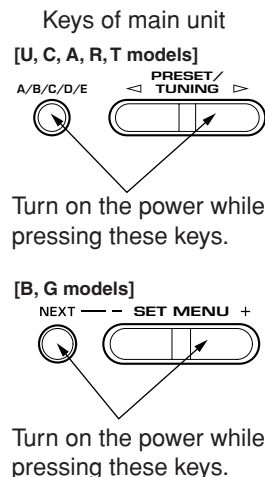
When there is a history of protection function:



Cause: An excessive current flowed through the power amplifier.

Supplementary information: As current of the power transistor is detected, the abnormal channel can be identified by checking the current detect transistor.

Turning on the power without correcting the abnormality will cause the protection function to work immediately and the power supply will instantly be shut off.



When there is a history of protection function due to abnormal voltage in the power supply section

PS PRT:000 F

Voltage display in %

Version
(1 alphabet)

Cause: The voltage in the power supply section is abnormal.

Supplementary information: The abnormal voltage is displayed in % based on 5V as 100%.

Turning on the power without correcting the abnormality will cause the protection function to work 1 second later and the power supply will be shut off.

When there is a history of protection function due to abnormal DC output

DC PRT:000 F

Voltage display in %

Version
(1 alphabet)

Cause: DC output of the power amplifier is abnormal.

Supplementary information: The abnormal voltage is displayed in % based on 5V as 100%.

Turning on the power without correcting the abnormality will cause the protection function to work 3 seconds later and the power supply will be shut off.

When there is a history of protection function due to excessive heat sink temperature

TMP PRT:000 F

Voltage display in %

Version
(1 alphabet)

Cause: The temperature of the heat sink is excessive.

Supplementary information: The abnormal voltage is displayed in % based on 5V as 500%.

Turning on the power without correcting the abnormality will cause the protection function to work 1 second later and the power supply will be shut off.

- * Additional causes of protection can be due to loose connections, associated components, CPU, etc.
- * For the protection voltage value, refer to DIAG menu No.10 described later.

• History of protection function

When the protection function has worked, its history is stored in memory with a backup. Even if no abnormality is noted while servicing the unit, an abnormality which has occurred previously can be defined as long as the backup data has been stored.

The history of the protection function is cleared when DIAG is cancelled by selecting PRESET RESERVED (Memory initialized) of DIAG menu No.10 or when the backup data is erased.

• Display during menu operation

During the DIAG operation, the menu list described in the section of the startup screen appears on the superimposed screen and the function at work is indicated on the FL indicator. The contents displayed during the function operation are described in the later section on details of functions.

• Operation procedure of DIAG menu and SUB-MENU

There are 18 MENU items, each of which has some SUB-MENU items.

DIAG menu selection

Main unit [U, C, A, R, T models]: Select the menu using ▷ (Forward) and ◁ (Reverse) keys of PRESET/TUNING located in the sealing panel.

Main unit [B,G models]: Select the menu using + (Forward) and - (Reverse) keys of SET MENU located in the sealing panel.

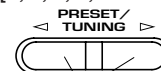
Remote control unit: Select the menu using Δ (Forward) and ∇ (Reverse) keys.

SUB-MENU selection

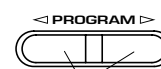
Main unit: Select the sub-menu using ▷ (Forward) and ◁ (Reverse) keys of PROGRAM located in the sealing panel.

Remote control unit: Select the sub-menu using + (Forward) and - (Reverse) keys.

[U, C, A, R, T models]

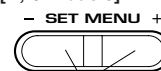


DIAG menu selection



SUB-MENU selection

[B, G models]



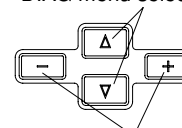
DIAG menu selection



SUB-MENU selection

[REMOTE CONTROL]

Use these keys for
DIAG menu selection.



Use these keys for
SUB-MENU selection.

• Functions in DIAG mode

In addition to the DIAG menu items, functions as listed below are available.

- Input selection, 6CH input
- Center/Rear/Rear Center/Sub-woofer level adjustment
- Muting
- Speaker relay A/B
- Power on/off
- Master volume

* Functions related to the tuner and the set menu are not available.

* It is possible to confirm Menu No.14 IF STATUS while keeping the signal process (operation status) of each DIAG menu by using the input mode key of the main unit.

• Initial settings used to start DIAG

The following initial settings are used when starting DIAG.

When DIAG is canceled, these settings are restored to those before starting DIAG.

- Master volume: -40dB
- Input: DVD (6CH INPUT OFF)
- Effect level: 0dB
- Audio mute: OFF
- Speaker relay A/B: ON
- Speaker setting: LARGE / BASS OUT = BOTH
- DIAG menu: YSS938 (1. ANALOG BYPASS)

• Details of DIAG menu

With full-bit output specified in some modes, it is possible to execute 0dBFS output without head margin in each channel.

1. YSS938

This function is for YSS938 only. Main DSP of YSS938 is selected for MAIN L/R output.
Using the sub-menu, it is possible to select the analog bypass, 0dB output level or full-bit output.

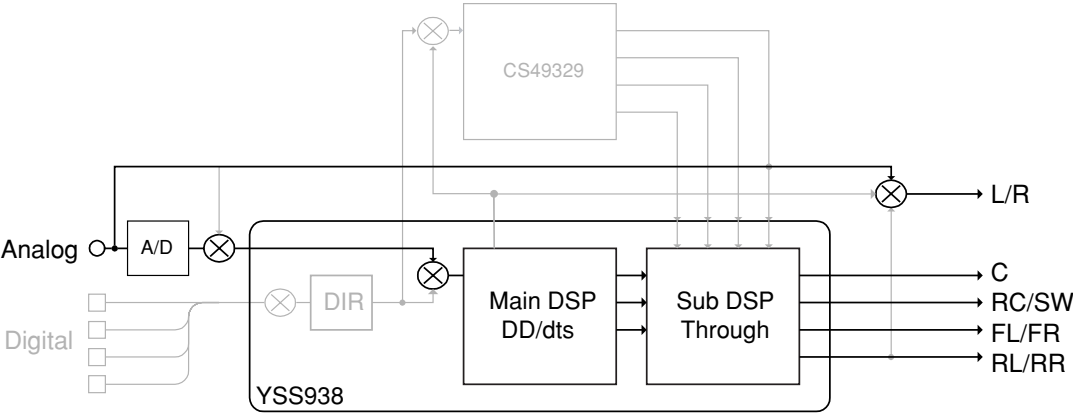
ANALOG BYPASS

1. ANALOG BYPASS

- The signal is output through the signal path as shown below.
- The signal for L/R is output as it is without passing through the DSP section.

Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-14.0 dBV	-14.0 dBV	-2.5 dBV	-14.0 dBV



YSS 0dB

1.YSS 0dB

- The signal is output including the head margin.

Head margin:

Main L/R: 0dBFS, Center: -6dBFS, Rear Center: -3dBFS, FL/FR: -6dBFS,
RL/RR: -12dBFS, SWFR: Add L/R signal at -20dBFS.

Reference data (PRE OUT)

INPUT: DVD ANALOG

SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-14.0 dBV	-14.0 dBV	-2.5 dBV	-14.0 dBV

YSS FULL BIT

1.YSS FULL BIT

- The signal is output in digital full bit without including the head margin.

Reference data (PRE OUT)

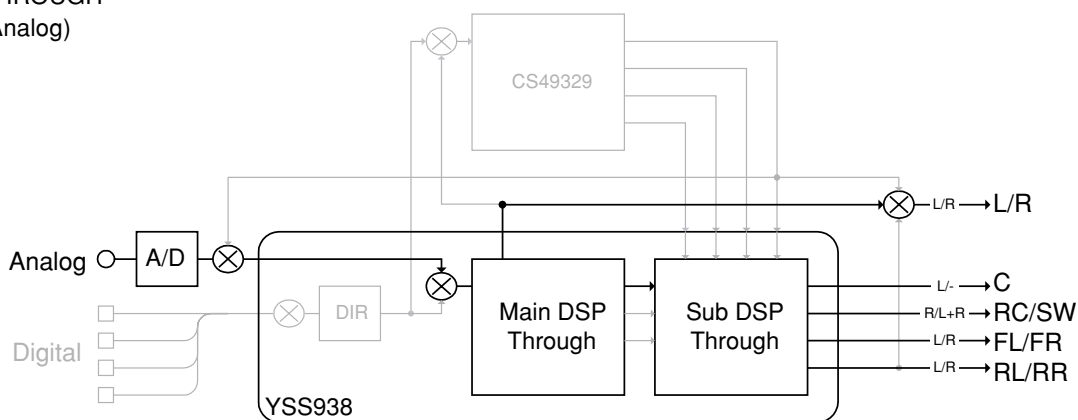
INPUT: DVD ANALOG

SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-8.0 dBV	-11.5 dBV	-2.5 dBV	-2.0 dBV

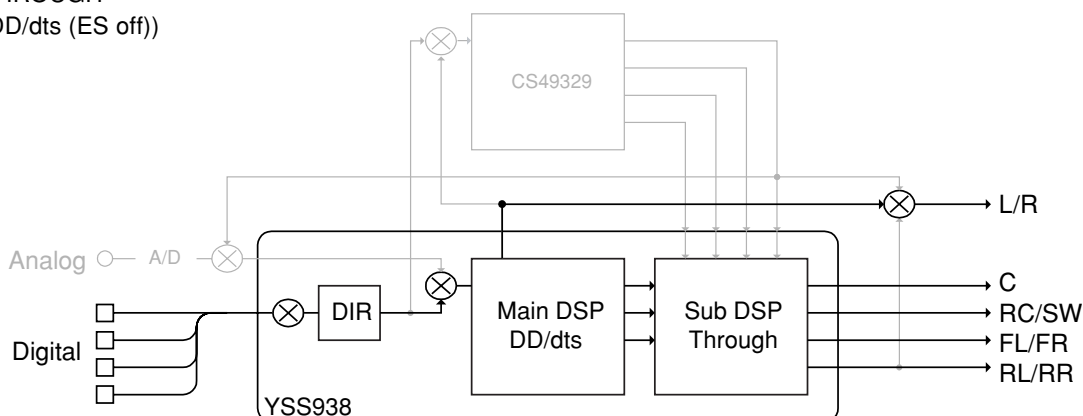
DSP THROUGH ~

YSS (Analog)



DSP THROUGH ~

YSS (DD/dts (ES off))



2. YSS-CS

8 channels are made usable by CS49329. The signal enters YSS938 through the Sub DSP passage and then undergoes through-output.
CS49329 is selected for the Main L/R output. Using the sub-menu, it is possible to select full bit output at 0dB output level.

YSS-CS 0dB

2.YSS-CS 0dB

- The signal is output including the head margin.
Head margin:
Main L/R: -18dBFS, Center: -6dBFS, Rear Center: -3dBFS, FL/FR: -6dBFS,
RL/RR: -18dBFS, SWFR: Add L/R signal at -20dBFS.

Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-14.0 dBV	-14.0 dBV	-2.5 dBV	-14.0 dBV

YSS-CS FULL BIT

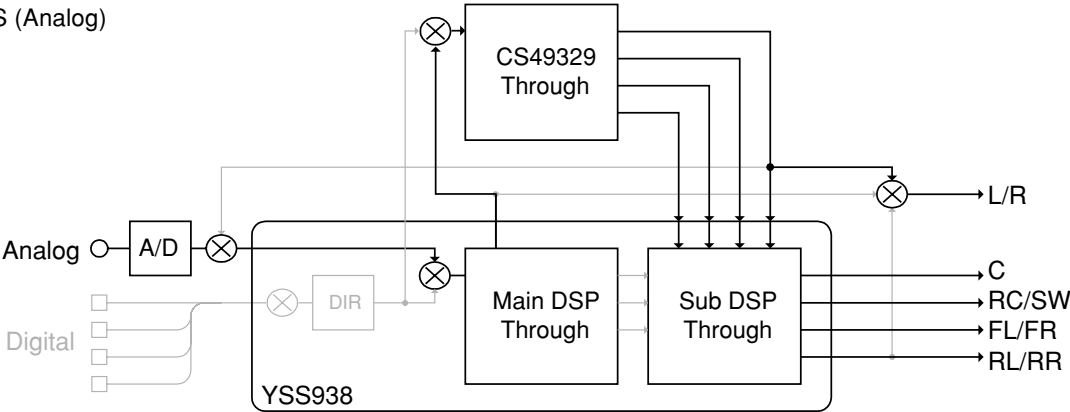
2.YSS-CS F BIT

- The signal is output in digital full bit without including the head margin.

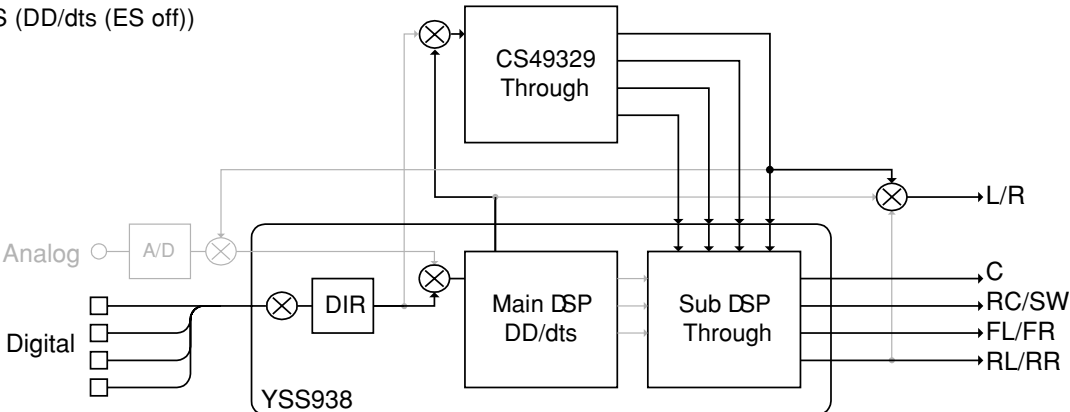
Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-8.0 dBV	-11.5 dBV	-2.5 dBV	-2.0 dBV

DSP THROUGH ~
YSS-CS (Analog)



DSP THROUGH ~
YSS-CS (DD/dts (ES off))



3. CS-YSS

8 channels are made usable by CS49329. The signal enters YSS938 through the Sub DSP passage and then undergoes through-output.

YSS938 Main DSP is selected for the Main L/R output. Using the sub-menu, it is possible to select full bit output at 0dB output level.

CS-YSS 0dB

3. CS-YSS 0dB

- The signal is output including the head margin.
Head margin:
Main L/R: -18dBFS, Center: -6dBFS, Rear Center: -3dBFS, FL/FR: -6dBFS, RL/RR: -18dBFS, SWFR: Add L/R signal at -20dBFS.

Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-14.0 dBV	-14.0 dBV	-2.5 dBV	-14.0 dBV

CS-YSS FULL BIT

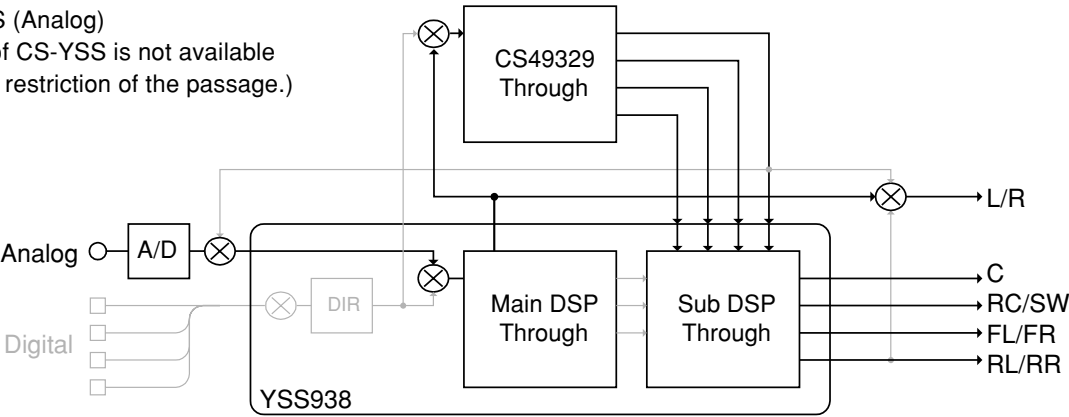
3. CS-YSS F BIT

- The signal is output in digital full bit without including the head margin.

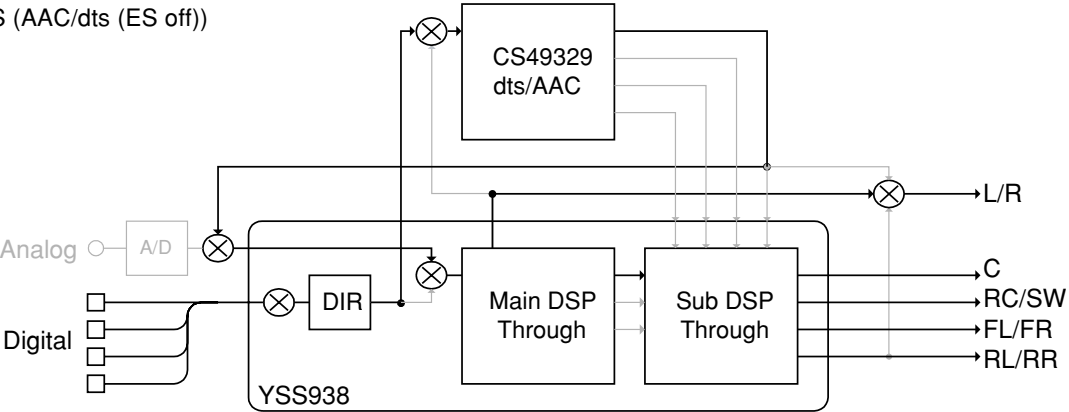
Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-8.0 dBV	-11.5 dBV	-2.5 dBV	-2.0 dBV

DSP THROUGH ~
CS-YSS (Analog)
(Use of CS-YSS is not available
due to restriction of the passage.)



DSP THROUGH ~
CS-YSS (AAC/dts (ES off))



4. CS49329

8 channels are made usable by CS49329. The signal enters YSS938 through the Sub DSP passage and then undergoes through-output.

CS49329 is selected for the Main L/R output. Using the sub-menu, it is possible to select full bit output at 0dB output level.

* As a 3dB margin of CS is always effective for RC when decoding dts ES, even when the output in full bit is specified, the RC output remains up to 0dBFS when 0dBFS is inputted to LS/RS.

CS49329 0dB

4.CS 0dB

- The signal is output including the head margin.
Head margin:
Main L/R: -18dBFS, Center: -6dBFS, Rear Center: -3dBFS, FL/FR: -6dBFS, RL/RR: -18dBFS, SWFR: Add L/R signal at -20dBFS.

Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-14.0 dBV	-14.0 dBV	-2.5 dBV	-14.0 dBV

CS49329 FULL BIT

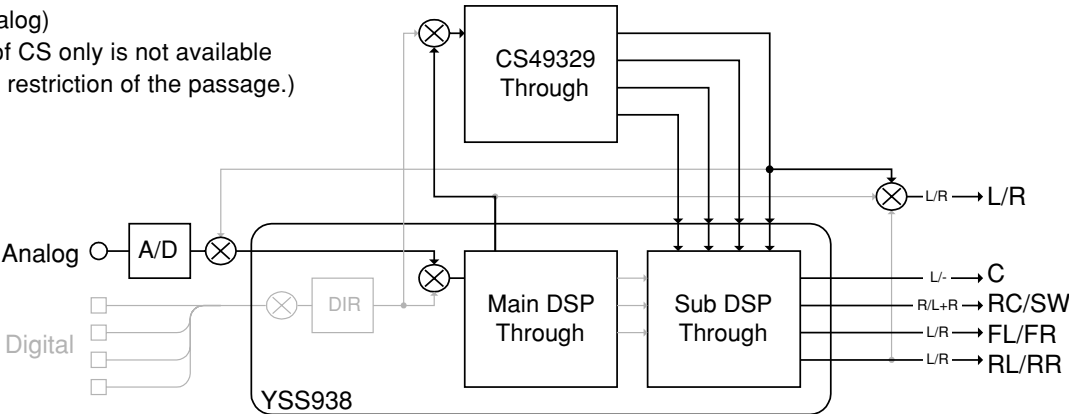
4.CS FULL BIT

- The signal is output in digital full bit without including the head margin.

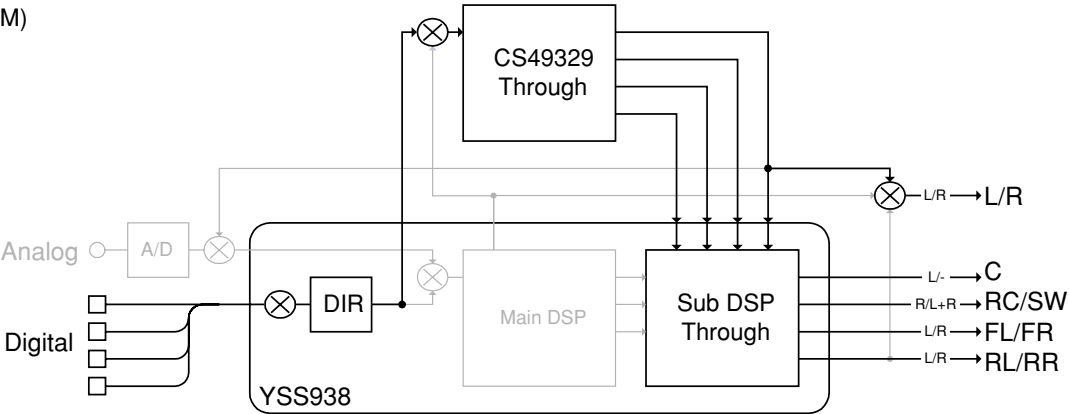
Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-8.0 dBV	-11.5 dBV	-2.5 dBV	-2.0 dBV

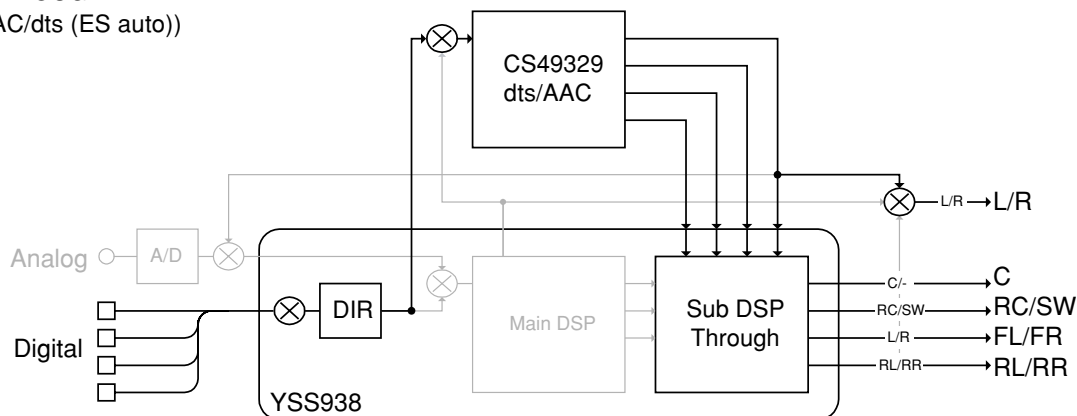
DSP THROUGH ~
CS (Analog)
(Use of CS only is not available
due to restriction of the passage.)



DSP THROUGH ~
CS (PCM)



DSP THROUGH ~
CS (AAC/dts (ES auto))



5. HP ROUTE

This function is for YSS938 only. Sub DSP SDOB3 of YSS938 is selected for MAIN L/R output. Using the sub-menu, it is possible to select the full-bit output at 0dB output level.

HP 0dB

5. HP 0dB

- The signal is output including the head margin.

Head margin:

Main L/R: -18dBFS, Center: -6dBFS, Rear Center: -3dBFS, FL/FR: -6dBFS,
RL/RR: -18dBFS, SWFR: Add L/R signal at -20dBFS.

Reference data (PRE OUT)

INPUT: DVD ANALOG

SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	- ∞	- ∞	- ∞	- ∞

HP FULL BIT

5. HP FULL BIT

- The signal is output in digital full bit without including the head margin.

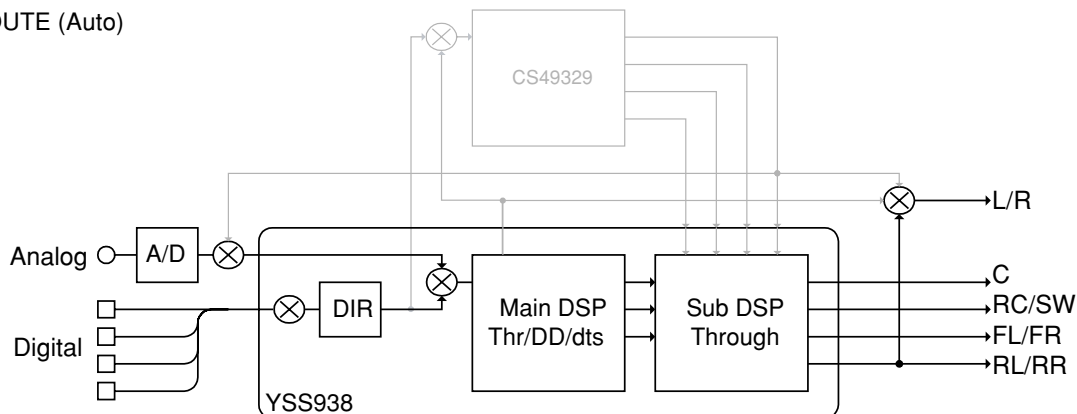
Reference data (PRE OUT)

INPUT: DVD ANALOG

SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -20 dB	-6.0 dBV	- ∞	- ∞	- ∞	- ∞

DSP THROUGH ~
HP ROUTE (Auto)



6. RAM THROUGH

This function is for YSS938 only. Main L/R signal is output through Main DSP of YSS938.
CT/RC, RL/RR and FL/FR signals are output through Sub DSP - DRAM.
Using the sub-menu, it is possible to select the full-bit output at 0dB output level.

RAM 0dB

6. RAM 0dB

Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-14.0 dBV	-14.0 dBV	-14.0 dBV	-2.5 dBV	-14.0 dBV

MAIN ATT

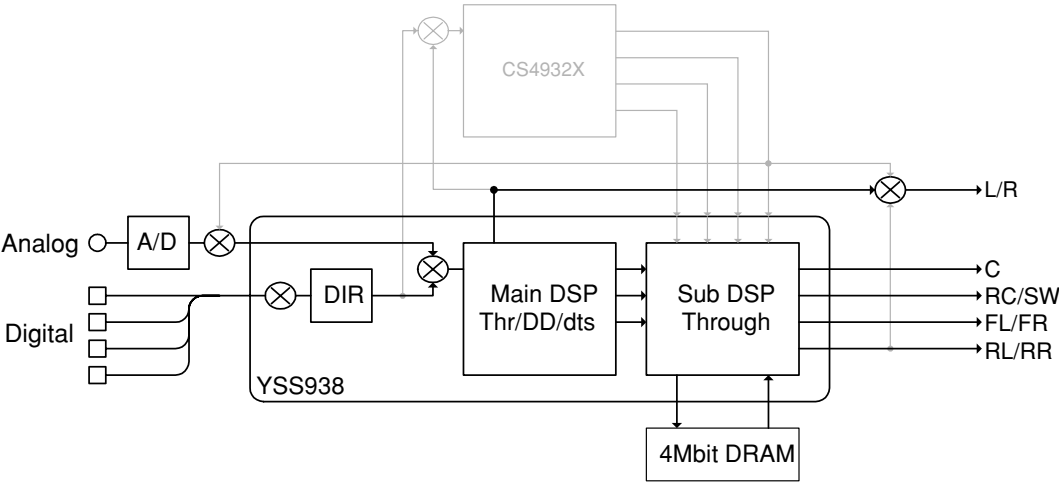
6. MAIN ATT

- MAIN -9dB

Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Both ch, -20 dBV, volume -10 dB	-23.0 dBV	-14.0 dBV	-14.0 dBV	-2.5 dBV	-14.0 dBV

RAM THROUGH ~
(Auto)



7. DOLBY PRO LOGIC [YSS938]

PRO LOGIC I

7. PRO LOGIC I

Reference data (PRE OUT)

INPUT: DVD ANALOG

SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Each ch, -20 dBV, volume -10 dB	-14.0 dBV	- ∞	- ∞	- ∞	- ∞
Both ch, -20 dBV, volume -10 dB	- ∞	-11.0 dBV	- ∞	- ∞	- ∞
Both ch, -20 dBV (reverse phase), volume -10 dB	- ∞	- ∞	- ∞	- ∞	-14.0 dBV

PRO LOGIC II

7. PRO LOGIC II

Reference data (PRE OUT)

INPUT: DVD ANALOG

SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Each ch, -20 dBV, volume -10 dB	-14.0 dBV	- ∞	- ∞	- ∞	- ∞
Both ch, -20 dBV, volume -10 dB	- ∞	-11.0 dBV	- ∞	- ∞	- ∞
Both ch, -20 dBV (reverse phase), volume -10 dB	- ∞	- ∞	- ∞	- ∞	-14.0 dBV

The L/C/R/RL/RR signals undergo the Pro-Logic processing and C/RL/RR signals are output through Sub DSP-DRAM. Main DSP is selected for MAIN L/R output.

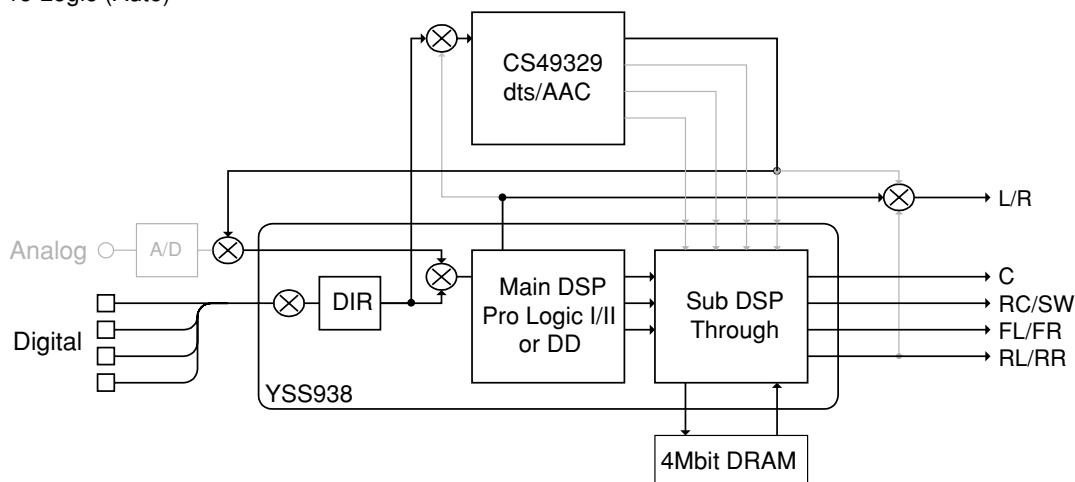
Using the sub-menu, it is possible to select PRO LOGIC I, II (Movie). The Auto Input Balance function is always off.

When dts/AAC input is used, the signal is decoded by CS49329 and the L/R signal undergoes the Pro-Logic processing.

When the Dolby Digital Multi input is used, the function is the same as in the Dolby Digital Normal mode.

The LFE signal is not output when decoding in the PRO LOGIC I, II mode.

Dolby Pro Logic (Auto)



Neo:6

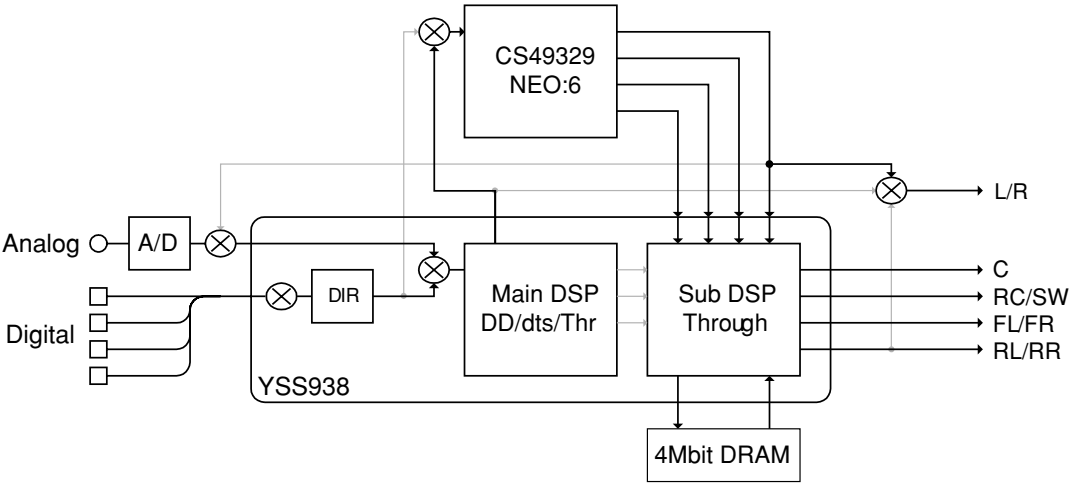
7. Neo:6

Reference data (PRE OUT)
INPUT: DVD ANALOG
SWFR: 50Hz, Others: 1kHz

Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
Each ch, -20 dBV, volume -10 dB	-14.0 dBV	- ∞	- ∞	- ∞	- ∞
Both ch, -20 dBV, volume -10 dB	- ∞	-11.0 dBV	- ∞	- ∞	- ∞
Both ch, -20 dBV (reverse phase), volume -10 dB	- ∞	- ∞	- ∞	- ∞	-14.0 dBV

L/C/R/RL/RC/RR signals are NEO:6 processed by CS49329 and C/RL/RC/RR signals are output through Sub DSP-DRAM. CS49329 is selected for the MAIN L/R output. The NEO:6 mode is fixed to Cinema 6ch.
When DD/dts input is used, the signal is decoded by YSS-938 and then L/R signal is NEO:6 processed by CS49329.
When AAC input is used, the signal is muted. When NEO:6 decoding is used, the LFE signal is not output.

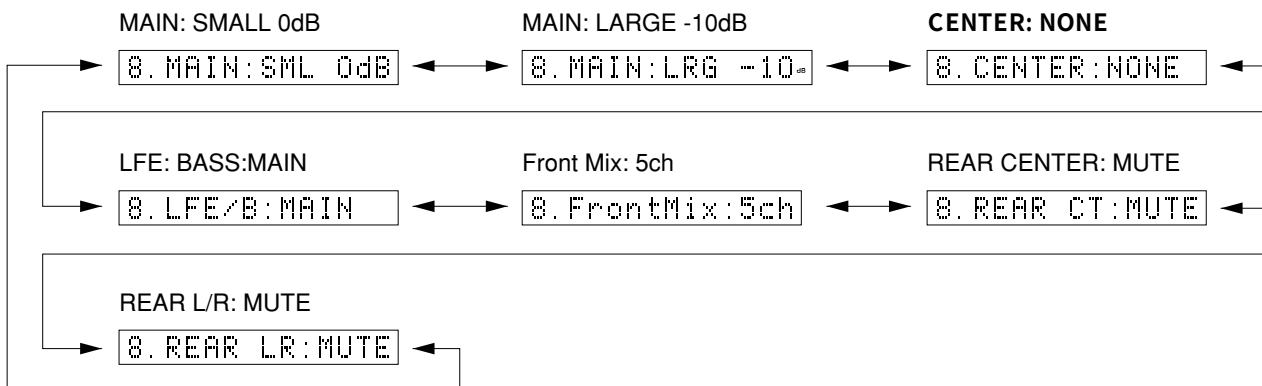
NEO:6 (Auto)



8. SPEAKERS SET

The input signal is automatically identified in the order of dts → DOLBY DIGITAL → AAC → PCM → Analog.

There are seven sub-menu items as follows. The signals output from the DSP block are the same as 1. YSS938: YSS 0dB.



The analog switch settings for each sub-menu are as shown in the table below.

Sub-menu		CENTER SP	REAR SP	MAIN SP	MAIN LEVEL	LFE/BASS
1	MAIN: SMALL 0dB	LARGE	LARGE	SMALL	0dB	SWFR
2	MAIN: LARGE -10dB	LARGE	LARGE	LARGE	-10dB	BOTH
3	CENTER: NONE	NONE	LARGE	LARGE	0dB	BOTH
4	LFE/BASS: MAIN	SMALL	SMALL	LARGE	0dB	MAIN
5	FRONT MIX: 5CH	LARGE	LARGE	LARGE	0dB	BOTH
6	REAR CENTER: MUTE	LARGE	LARGE	LARGE	0dB	BOTH
7	REAR L/R: MUTE	LARGE	LARGE	LARGE	0dB	BOTH

LARGE: This mode is used with a speaker with high bass reproduction performance (a large unit). Full bandwidth signals are output.

SMALL: This mode is used with a speaker with low bass reproduction performance (a small unit). The signals of 90Hz or less are mixed into the channel specified by LFE/BASS.

NONE: This mode is used with no center speaker. The center content is reduced by 3dB and distributed to MAIN L/R.

Reference data (PRE OUT)

INPUT: DVD ANALOG (Both ch)

VOLUME: -10 dB

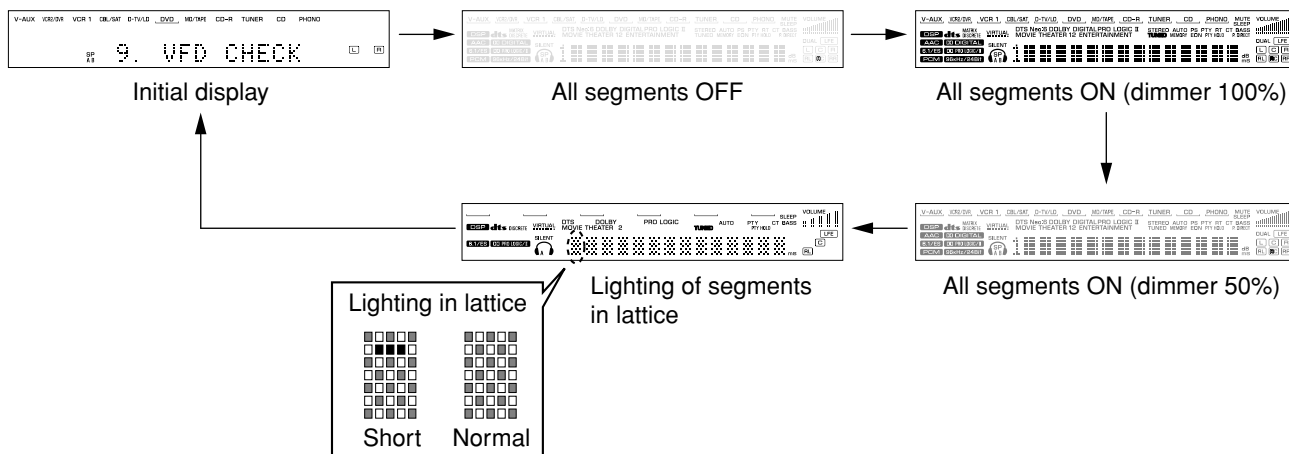
Sub-menu		Condition	MAIN L/R	CENTER	REAR C	SWFR	RL/RR
1	MAIN: SMALL 0dB	1kHz/90Hz, -20 dBV	-14.0/-17.0 dBV	-14.0 dBV	-14.0 dBV	-5.2 dBV	-14.0 dBV
2	MAIN: LARGE -10dB	1kHz, -20 dBV	-24.0 dBV	-14.0 dBV	-14.0 dBV	-5.2 dBV	-14.0 dBV
3	CENTER: NONE	1kHz, -20 dBV	-17.5 dBV	- ∞	-14.0 dBV	-5.2 dBV	-14.0 dBV
4	LFE/BASS: MAIN	50Hz, -20 dBV	-12.5 dBV	-17.0 dBV (90Hz)	-14.0 dBV	- ∞	-17.0 dBV (90Hz)
5	FRONT MIX: 5CH	1kHz, -20 dBV	-20.0 dBV	-14.0 dBV	-14.0 dBV	-5.2 dBV	-14.0 dBV
6	REAR CENTER: MUTE	1kHz, -20 dBV	-14.0 dBV	-14.0 dBV	- ∞	-5.2 dBV	-14.0 dBV
7	REAR L/R: MUTE	1kHz, -20 dBV	-14.0 dBV	-14.0 dBV	-14.0 dBV	-5.2 dBV	- ∞

9. DISPLAY CHECK

This program is used to check the FL display section. The display condition varies as shown below according to the sub-menu operation. The signals are processed using EFFECT OFF (The L/R signal is output using ANALOG MAIN BYPASS.)

The video signal internal/external synchronization switching is controlled by the microprocessor. When the initial message is displayed and all the FL segments light up, it is switched to the internal synchronization but other than that it is forced to the external synchronization setting.

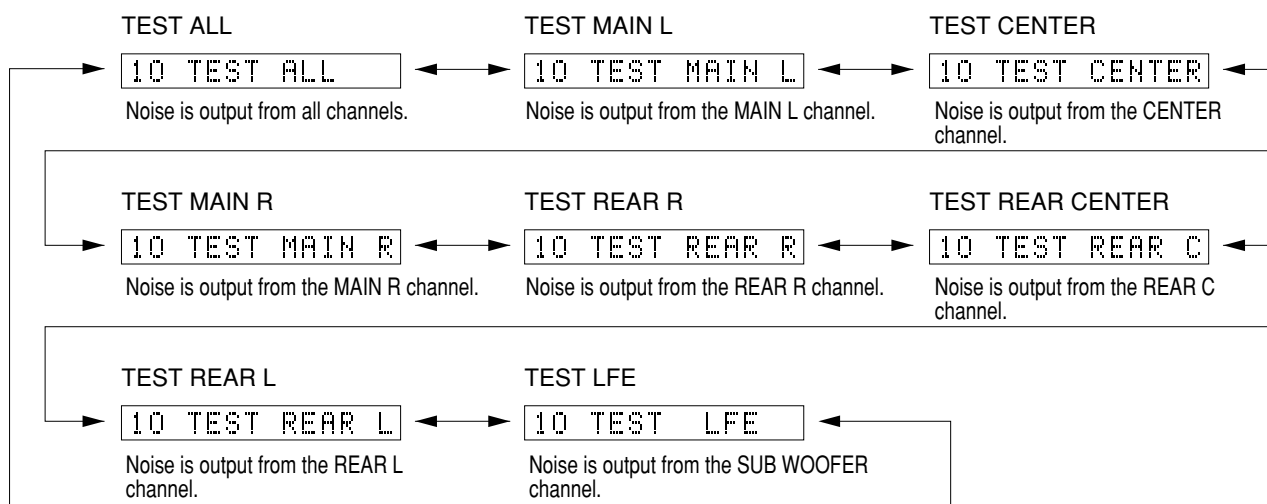
Also, except for the initial display, 128 pictographs for checking the OSD driver are used for the video signal output display.



Segment conditions of the FL driver and the FL tube are checked by turning ON and OFF all segments. Next, the operation of the FL driver is checked by using the dimmer control. Then a short between segments next to each other is checked by turning ON and OFF all segments alternately (in lattice). (In the above example, the segments in the second row from the top are shorted.)

10. MANUAL TEST

The noise generator with a built-in DSP outputs the test noise through the channels specified by the sub-menu. The noise frequency for LFE is 35 to 250 Hz. Other than that, the center frequency is 800Hz.



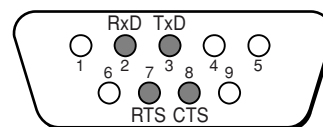
11. RS-232C

This menu is used to check transmission of the data and the flow port of the hardware.

With the power turned off, short between pins No.2 (RxD) and No.3 (TxD) and between pins No.7 (RTS) and No.8 (CTS) of the RS-232C terminal. (Be sure to turn off the power when shorting pins.)

Start DIAG and select the menu.

There are two sub-menu items.



11 TxRxData:XX

TxD/RxD DATA

The sub-menu is used to check transmission of the test data. "OK" appears when the data is transmitted properly and "NG" when it is not.

In this mode, NULL command transmission is continued after the test command is transmitted.

11 HardFlow:XX

HARD FLOW

This sub-menu is used to check operation of the flow port of the hardware. "OK" appears when the check result is satisfactory and "NG" when it is not.

12. FACTORY PRESET

This menu is used to reserve and inhibit initialization of the back-up RAM. The signals are processed using EFFECT OFF. (The L/R signal is output using ANALOG MAIN BYPASS.)

12 PRESET INHI



12 PRESET RSRV

PRESET INHIBIT (Initialization inhibited)

RAM initialization is not executed. Select this sub-menu to protect the values set by the user.

PRESET RESERVED (Initialization reserved)

Initialization of the back-up RAM is reserved. (Actually, initialization is executed the next time that the power is turned on.) Select this sub-menu to reset to the original factory settings or to reset the RAM.

CAUTION: Before setting to the PRESET RESERVED, write down the existing preset memory content of the Tuner in a table as shown below. (This is because setting to the PRESET RESERVED will cause the user memory content to be erased.)

Preset group	P1	P2	P3	P4	P5	P6	P7	P8
A								
B								
C								
D								
E								

• PRESET STATIONS

STATION		FM FACTORY PRESET DATA (MHz)	
PAGE	NO.	U, C	R, T, A
A/C/E	1	87.5	87.5
	2	90.1	90.1
	3	95.1	95.1
	4	98.1	98.1
	5	107.9	108.0
	6	88.1	88.1
	7	106.1	106.1
	8	107.9	108.0

STATION		AM FACTORY PRESET DATA (kHz)	
PAGE	NO.	U, C, R, T	A
B/D	1	630	630
	2	1080	1080
	3	1440	1440
	4	530	531
	5	1710	1611
	6	900	900
	7	1350	1350
	8	1400	1404

13. AD DATA CHECK/FAN TEST

This menu is used to display the A/D conversion value of the main CPU which detects panel keys of the main unit and protection functions in % using the sub-menu. (Reference voltage 5V as 100%) During signal processing, the condition before execution is maintained.

When K0/K1 menu is selected, keys become non-operable due to detection of the values of all keys. However, it is possible to advance to the next sub-menu by turning the VOLUME of the main unit. When using this function, note that turning the VOLUME more than 1 click would cause the volume value to change.

* The figures in the diagram are given as reference only.

DC/PS (protection detection)

DC:007 PS:025

DC: DC detect protection value (Normal value: 1 to 13)

PS: Power supply voltage protection value (Normal value: 21 to 31)

* If DC or PS is out of the normal value range, the protection function works to turn off the power.

THM/FAN OUT (temperature detection/fan drive level)

THM:086 Fan.../...

THM: 500% display of the voltage based on the temperature detected value. Reference voltage : 5V

(Normal value: U, C models 51 to 169

Others models 41 to 151)

Fan: Current fan drive level on the left and the past fan drive level history on the right.

Display	H	M	L
Fan drive level	HIGH	MID	LOW

REC-OUT (Select position)

REC-OUT:186

[Table 1]

Display	REC OUT Select
0+2	CD-R
15+2	CBL/SAT
30+2	PHONO
44+2	V-AUX
60+2	MD/TAPE
76+2	D-TV/LD
92+2	PHONO
122+2	TUNER
137+2	VCR1
153+2	CD
170+2	VCR2/DVR
186+2	SOURCE
202+2	DVD

IMP SW/POWER LIMIT (Impedance/power limiter detection)

IMP:8 PL:009

IMP: 8 or 4 ohm impedance switch setting

PL: Power limiter detection value

The voltage of No.135 pin of IC520 is expressed with 5V/256 used as reference.

K0/K1 (Panel key of main unit)

K0:100 K1:100

A/D of the key fails to function properly when the standard value is deviated by $\pm 4\%$. In this case, check the constant of partial pressure resistor, solder condition, etc. Refer to table 2.

[Table 2]

Display	K0	K1
00+2	PRESET/TUNING ▷	—
10+2	◁ PRESET/TUNING	INPUT ▷
20+2	PRESET/TUNING	◁ INPUT
30+2	FM/AM	INPUT MODE
40+2	MEMORY	SPEAKERS A
50+2	TUNING MODE	SPEAKERS B
60+2	RDS MODE	EFFECT
70+2	RDS EON	PROGRAM ▷
80+2	PTY MODE	◁ PROGRAM
90+2	PTY START	A/B/C/D/E
100	KEY OFF	KEY OFF

FAN DRIVE TEST

HIGH
FAN DRIVE TEST

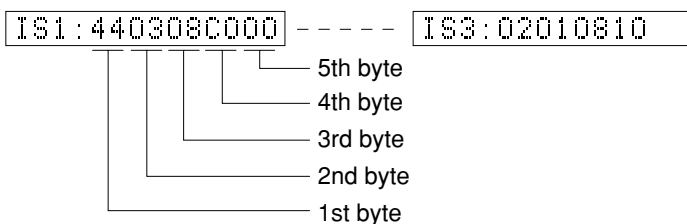
MID
FAN DRIVE TEST

LOW
14. IF STATUS (Input function status)

Using the sub-menu, the status data is displayed one after another in the hexadecimal notation.
During signal processing, the status before execution of this menu is maintained.

* Numeric values in the figure example are for reference.

IS1-3 (Internal status) • Indicates the status information of the microprocessor.



<1st byte> Digital input/output setting value

Upper 4 bits: REC OUT selected/lower 4 bits: INPUT selected

Numeric value	Selection	Numeric value	Selection
0	NONE	4	OPT D (DVD)
1	OPT A (V-AUX)	6	OPT F (D-TV/LD)
2	OPT B (CD)	8	COAX A (CD)
3	OPT C (CD-R)	9	COAX B (CBL/SAT)

<2nd byte> Fs information of reproduction signal

Display	00	01	02	03	04	05	06	0A	0B	0C	0D
Fs (kHz)	Analog	32	44.1	48	64	88.2	96	Unknown NRM	Unknown DBL	Unknown QUAD	Not defined

<3rd byte> Audio code mode information of reproduction signal

Display	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D
Audio Code	MULTI MONO	1+1	1/0	2/0	3/0	2/1	3/1	2/2	3/2	2/3	3/3	OVER 6.1	MULTI PCE	Unknown

<4th byte> Format information of reproduction signal

*1: Analog processing used for digital reproduction is not possible
because of a commercial bit or 4-ch audio reason.

Display	Signal format
00	Analog (Unlock)
01	Incorrect digital (*1)
10	PCM Audio
20	Digital Data
21	IEC1937 Data
22	None PCM
23	Unknown
50	dtts
51	Red dtts
54	dtts-ES MATRIX
58	dtts-ES DISCRETE
5C	dtts-ES (Both flag)
60	AAC
C0	Dolby Digital
C1	D.D. Karaoke
C4	D.D.6.1 (D.D.EX)

<5th byte> Signal processing status information

*2: With digital signals other than 32kHz, 44.1kHz and 48kHz, through processing method is used for reproducible signals.

bit7	MUTE request	bit3	—
bit6	Red dts flashing	bit2	Through & bypass (*2)
bit5	6.1ch. field being processed	bit1	—
bit4	FULL MUTE (ON: 1)	bit0	dts analog mute

CS1-5: Indicates channel status information of the input signal (IEC60958).

CS1:0299000200 - - - - - CS5:00000000

BY1-4: Indicates information of the bit stream included in the DOLBY DIGITAL signal.

BY1:1E40E1301B - - - - - BY4:01FFFFFF

BC1-4: Indicates information of the bit stream included in the dts signal.

BC1:000070FFFF - - - - - BC5:C4

YS1-3: Indicates device status information of YSS938 (IC514). * The numeric value in the figure is an example for reference.

YS1:FED2004F97

YS2:0101418000

YS3:1A41803D

Byte No.	Function
1	YSS MUTE Reg
2	YSS MODE Reg
3	YSS IPORT BIT 7-0
4	YSS IPORT BIT 14-8
5	YSS OPORT

Byte No.	Function
1	IEC 1937 Preamble Pc
2	Data Stream Reg
3	Status Reg
4	YSS ZERO Reg
5	MIREG

Byte No.	Function
1	DIR Status
2	DIR fs
3	DIR fs count
4	YSS ZEROBF

CS: CS49329 Unsolicited Messages (AUTODETECT_RESPONSE)

CS :000001

MTT: Mute Trigger

MTT:0020000007

Byte No.	Function
1	Mute condition
2	Factor of the last mute
3	Error count of YSS938-FSCNT
4	Mute count by YSS938-FSCNT
5	Error factor of down load of CS49329

15. DSP RAM CHECK

This menu is used to self-diagnose whether or not the bus connection for the YSS938 and the external RAM is made properly.

During signal processing, the status before execution of this menu is maintained.

The address bus and the data bus are checked and the connection condition is displayed.

When no error is detected, "NoEr" appears on display.

YSS938 Bus Check

YSS Bus:NoEr

Display	Description
WAIT	Bus is being checked.
NoEr	No error detected.
DATA	Data bus shorted or open.
RSCS	/RAS or /CAS shorted, or open.
ADDR	Address bus shorted or open.

PLD/SRAM BUS CHECK

CS Bus: NoEr

Display	Description
WAIT	Bus is being checked.
NoEr	No error detected.
DATA	Data bus shorted or open. (XX: 00-07)
ADDR	Address bus shorted or open. (XX: 00-0E)

16. CS DL CODE

This menu is used to display the data version, TOC information and sum calculated value of the flash ROM for CS49329.

ROM DATA VERSION: Displays the data version of the Flash ROM for CS49329.

RDV: X

TOC AREA 0-5: Displays the TOC information.

TA0: 0502629A ----- TA5: FFFFFFFF

SUM CHECK AREA 0-5: Displays the sum calculated value.

SA0: 984E984E ----- SA5: FFFFFFFF

17. SOFT SW

This menu is used to switch the function settings on P.C.B. through the software so as to activate the product.

The protection function follows the P.C.B. settings. When connected to AC or in the maker preset state, the unit is initialized to the P.C. B. setting. Display of each function after initialization varies depending on settings on P.C.B. The operation mode can be changed by selecting the sub-menu and then using the EFFECT key. With SOF selected for the SW mode, the settings become effective.

SW MODE: PCB or SOFT can be selected.

17. SW : PCB

MODEL SETTING: V1200, V2200, V3200 or AX3200 can be selected.

17. MODEL: V3200

TUNER DESTINATION: J, UC, ATKG or R can be selected.

17. DEST : UC

TUNER EXIST: NOT or EXIST can be selected.

17. TUNER: EXIST

RDS EXIST: NOT or EXIST can be selected.

17. RDS : NOT

ZONE 2 EXIST: NOT or EXIST can be selected.

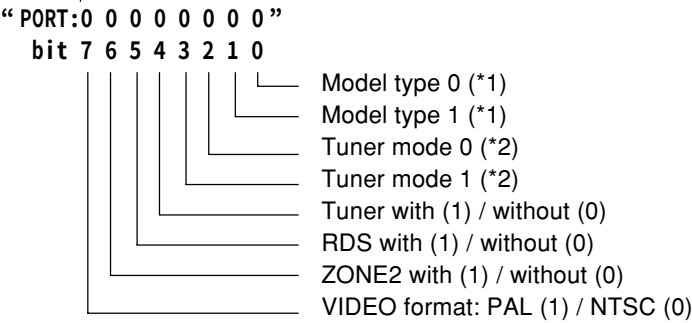
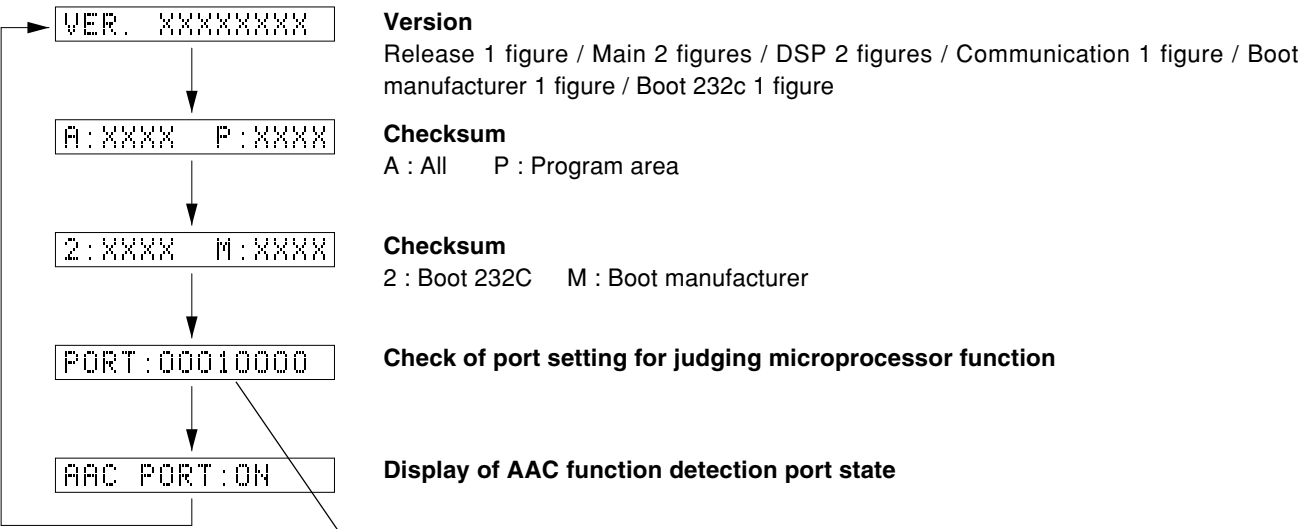
17. ZONE2: NOT

VIDEO FORMAT: NTSC or PAL can be selected.

17. VIDEO: NTSC

18. MICROPROCESSOR INFORMATION

The version, checksum and the port specified by the microprocessor are displayed. The signal is processed using EFFECT OFF. The checksum is obtained by adding the data at every 16 bits for each program area and expressing the result as a 4-figure hexadecimal data.



*1 (Model type)

Type o	Type 1	Model type
0	0	V1200
1	0	V2200
0	1	V3200
1	1	AX3200

*2 (Tuner mode)

Tuner mode 0	Tuner mode 1	Tuner frequency
0	0	AM: 531-1611kHz/9kHz FM: 76.0-90.0MHz/100kHz
0	1	AM: 531-1611kHz/9kHz FM: 87.5-108.0MHz/50kHz
1	0	AM: 530-1710kHz/10kHz FM: 87.5-107.9MHz/200kHz
1	1	R destination, Port6: LOW AM: 530-1710kHz/10kHz FM: 87.5-108.0MHz/100kHz HIGH AM: 531-1611kHz/9kHz FM: 87.5-108.0MHz/50kHz

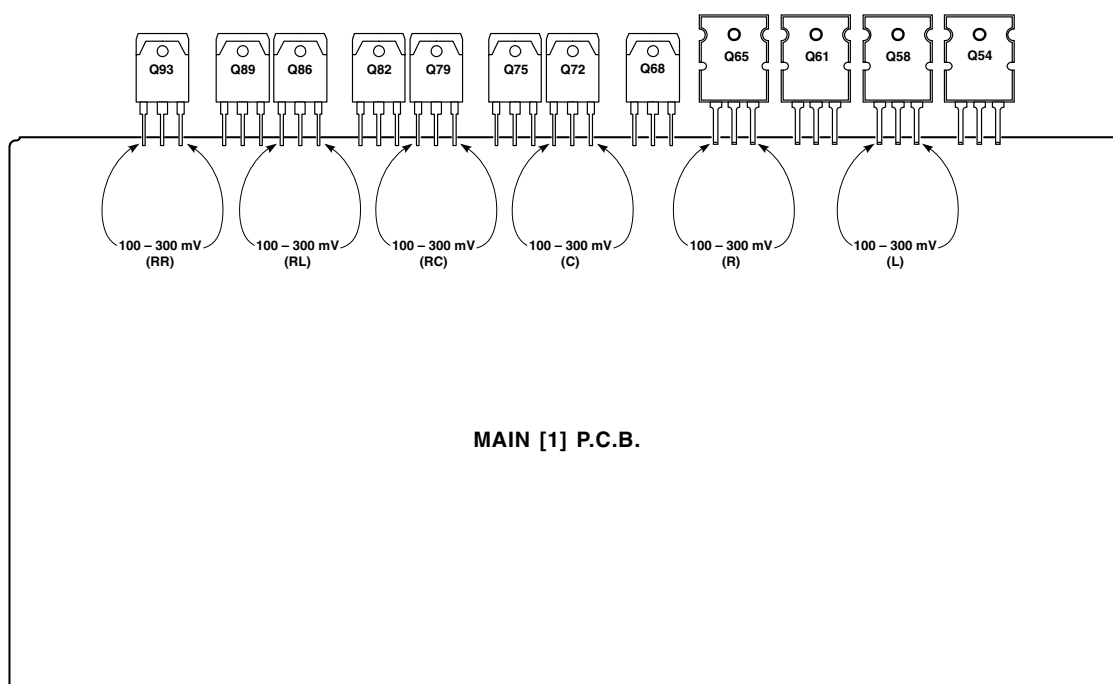
■ AMP CHECK

● Confirmation of Idling Current

- 1) No signal applied.
- 2) Non-loaded condition.
- 3) Aging is 10 minutes

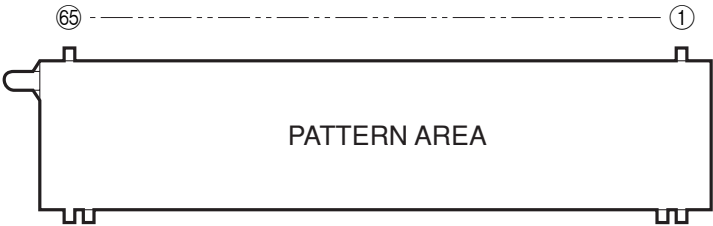
Item	Test Point	Rating (DC)
MAIN L	Q58 Base – Emitter (MAIN [1] P.C.B.)	100mV~300mV
MAIN R	Q65 Base – Emitter (MAIN [1] P.C.B.)	
CENTER	Q72 Base – Emitter (MAIN [1] P.C.B.)	
REAR CT	Q79 Base – Emitter (MAIN [1] P.C.B.)	
REAR L	Q86 Base – Emitter (MAIN [1] P.C.B.)	
REAR R	Q93 Base – Emitter (MAIN [1] P.C.B.)	

● Test Point



■ DISPLAY DATA

● V901 : 16-BT-91GK (V7683200)



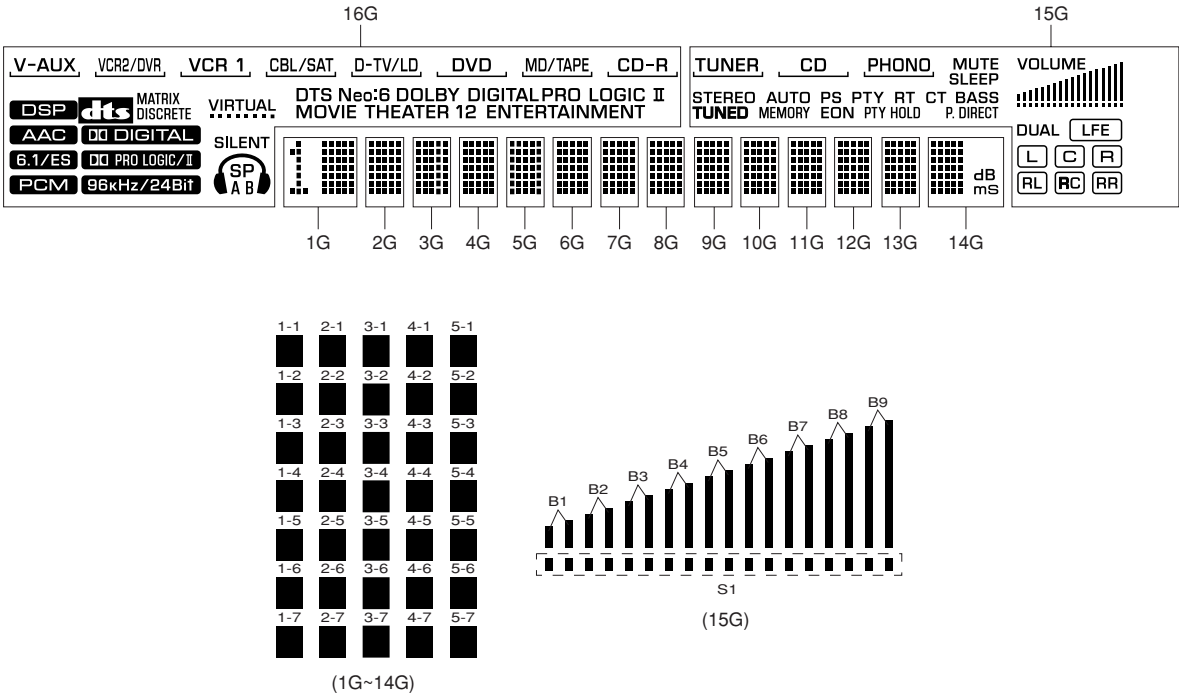
● PIN CONNECTION

Pin No.	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33
Connection	F2	F2	NP	NP	P37	P36	P35	P34	P33	P32	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9

Pin No.	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Connection	P8	P7	P6	P5	P4	P3	P2	P1	NC	NC	NC	NC	16G	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1

Note : 1) F1, F2 Filament 2) NP No pin 3) NC No connection (NC pin should be electrically open on the PC board.)
4) DL Datum Line 5) 1G ~ 16G Grid 6) Field of vision is a minimum of 29° from the lower side.

● GRID ASSIGNMENT



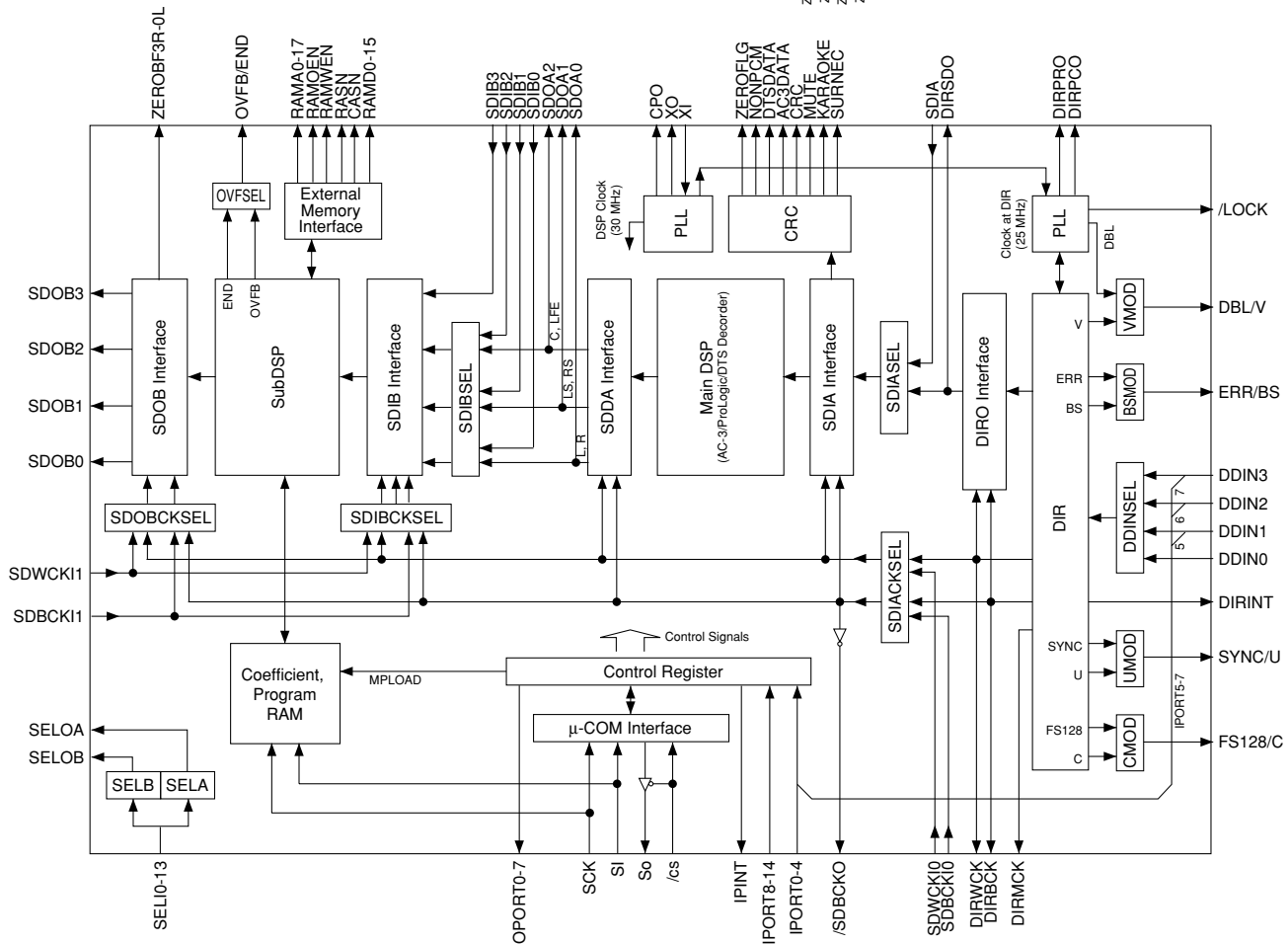
● ANODE CONNECTION

	16G	15G	14G	13G~2G	1G
P1	S2	S2	1-1	1-1	1-1
P2	<u>V-AUX</u>	<u>TUNER</u>	2-1	2-1	2-1
P3	<u>VCR2/DVR</u>	<u>CD</u>	3-1	3-1	3-1
P4	<u>VCR 1</u>	<u>PHONO</u>	4-1	4-1	4-1
P5	<u>CBL/SAT</u>	STEREO	5-1	5-1	5-1
P6	<u>D-TV/LD</u>	TUNED	1-2	1-2	1-2
P7	<u>DVD</u>	MEMORY	2-2	2-2	2-2
P8	<u>MD/TAPE</u>	AUTO	3-2	3-2	3-2
P9	<u>CD-R</u>	PS	4-2	4-2	4-2
P10	DTS	PTY	5-2	5-2	5-2
P11	Neo:6	RT	1-3	1-3	1-3
P12	DOLBY	CT	2-3	2-3	2-3
P13	DIGITAL	EON	3-3	3-3	3-3
P14	PRO LOGIC	PTY HOLD	4-3	4-3	4-3
P15	II	MUTE	5-3	5-3	5-3
P16	MOVIE THEATER	BASS	1-4	1-4	1-4
P17	1	P. DIRECT	2-4	2-4	2-4
P18	2	VOLUME	3-4	3-4	3-4
P19	ENTERTAINMENT	S1	4-4	4-4	4-4
P20	DSP	B1	5-4	5-4	5-4
P21	AAC	B2	1-5	1-5	1-5
P22	6.1/ES	B3	2-5	2-5	2-5
P23	PCM	B4	3-5	3-5	3-5
P24	dt	B5	4-5	4-5	4-5
P25	MATRIX	B6	5-5	5-5	5-5
P26	DISCRETE	B7	1-6	1-6	1-6
P27	DD DIGITAL	B8	2-6	2-6	2-6
P28	DD PRO LOGIC/II	B9	3-6	3-6	3-6
P29	96kHz/24Bit	DUAL	4-6	4-6	4-6
P30	VIRTUAL	LFE	5-6	5-6	5-6
P31	SILENT	L	1-7	1-7	1-7
P32		C	2-7	2-7	2-7
P33	SP	R	3-7	3-7	3-7
P34	A	RL	4-7	4-7	4-7
P35	B	RC	5-7	5-7	5-7
P36	—	RR	dB	—	T1
P37	—	SLEEP	mS	—	—

IC DATA

IC514 : YSS938-F
DSP

YSS938-F



IC514 : YSS938-F

Pin Description

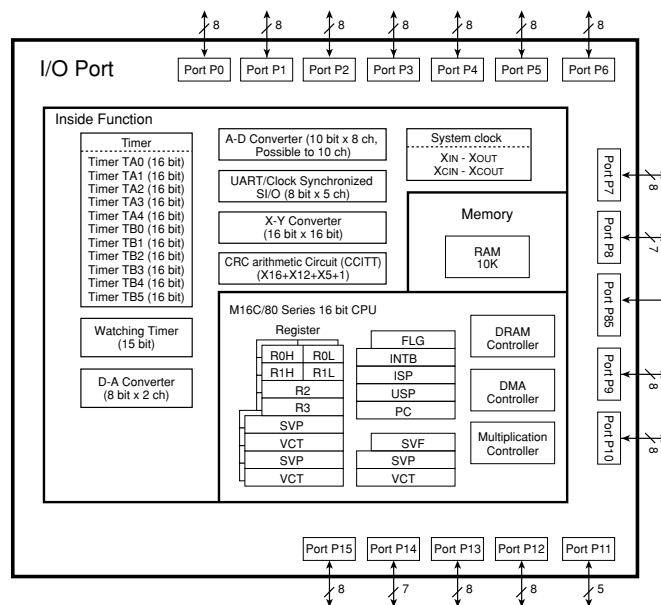
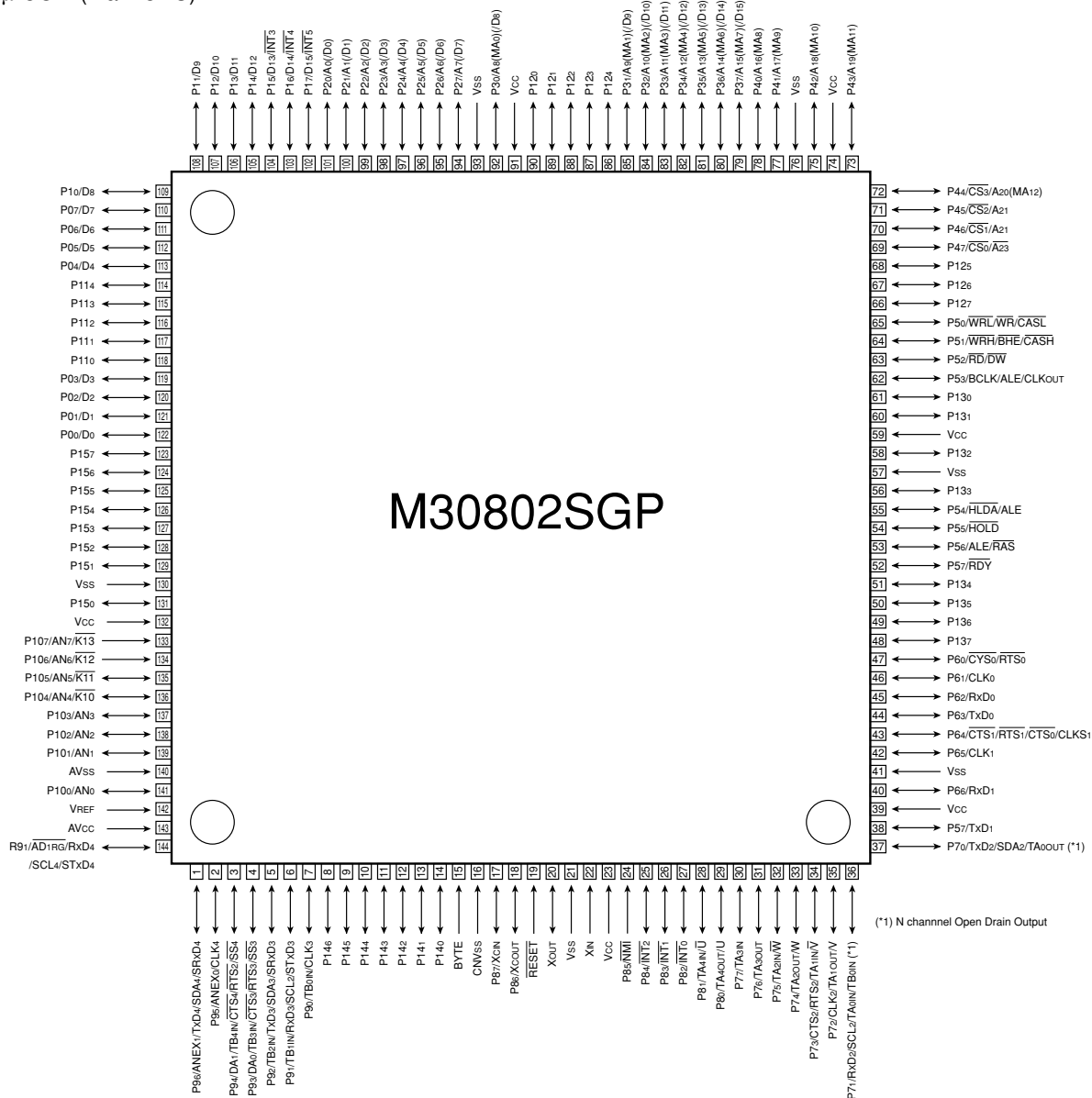
No.	Name	I/O	Function
1	XO	O	Crystal oscillator connecting terminal
2	XI	I	Crystal oscillator connecting terminal (24.576MHz)
3	SEL1	I+	Built-in selector input 1 (AXD)
4	SEL0	I+	Built-in selector input 0 (GND)
5	SELOA	O+	Built-in selector output A (ISEL)
6	SELOB	O+	Built-in selector output B (RSEL)
7	TESTMS	I+	Test terminal (unconnected)
8	TESTXEN	I+	Test terminal (unconnected)
9	IPORT0	I+	General purpose input terminal (CXDTA)
10	IPORT1	I+	General purpose input terminal (CXDTB)
11	IPORT2	I+	General purpose input terminal
12	IPORT3	I+	General purpose input terminal
13	IPORT4	I+	General purpose input terminal
14	DDIN0	Is	DIR: Digital audio interface data input terminal 0 (ISEL)
15	DDIN1	Is	DIR: Digital audio interface data input terminal 1/General purpose input terminal (Pull down)
16	DDIN2	Is	DIR: Digital audio interface data input terminal 2/General purpose input terminal (Pull down)
17	DDIN3	Is	DIR: Digital audio interface data input terminal 3/General purpose input terminal (Pull down)
18	VSS		Ground terminal
19	CPO	A	PLL filter connecting terminal
20	AVDD		+3.3V power terminal (for DIR)
21	DIRPCO	A	DIR: PLL filter connecting terminal
22	DIRPRO	A	DIR: PLL filter connecting terminal
23	AVSS		Ground terminal (for DIR)
24	TESTBRK	I+	Test terminal (unconnected)
25	TESTR1	I+	PLL initialization signal input terminal for DSP (/ICD)
26	TESTR2	I+	Test terminal (unconnected)
27	VDD1		+3.3V power terminal (for terminal section)
28	SDWCKI0	I+	Word clock input terminal for SDIA, SDOA, SDIB, SDOB interface (Unconnected)
29	SDBCKI0	I+	Bit clock input terminal for SDIA, SDOA, SDIB, SDOB interface (Unconnected)
30	/SDBCK0	O	DIRBCK or SDBCKI0 invert clock output terminal (Unconnected)
31	IPORT8	I+	IPINT general purpose input terminal
32	IPORT9	I+	IPINT general purpose input terminal
33	IPORT10	I+	IPINT general purpose input terminal (NONPCM)
34	IPORT11	I+	IPINT general purpose input terminal (NONPCM)
35	SDIA	I	AC-3/DTS bit stream (or PCM) data input terminal to Main DSP (SDIA)
36	SDOA2	O	PCM output terminal from Main DSP (C/LFE output) (Unconnected)
37	SDOA1	O	PCM output terminal from Main DSP (LS/RS output) (Unconnected)
38	SDOA0	O	PCM output terminal from Main DSP (L/R output)
39	SDIB3	I+	PCM input terminal 3 to Sub DSP
40	SDIB2	I+	PCM input terminal 2 to Sub DSP
41	SDIB1	I+	PCM input terminal 1 to Sub DSP
42	SDIB0	I+	PCM input terminal 0 to Sub DSP
43	VSS		Ground terminal
44	VDD2		+2.5V power terminal (for internal circuit)
45	IPORT12	I+	IPINT general purpose input terminal (MUTE)
46	IPORT13	I+	IPINT general purpose input terminal (DIRINT)
47	IPORT14	I+	IPINT general purpose input terminal (Unconnected)
48	DIRSDO	O	AC-3/DTS bit stream (or PCM) data output terminal from DIR
49	DIRWCK	O	DIR: Serial data word clock (fs) output terminal (WCK)
50	DIRBCK	O	DIR: Serial data bit clock (64fs) output terminal (BCK)
51	DIRMCK	O	DIR: Serial data master clock (256fs or 128fs) output terminal (MCK)
52	ERR/BS	O	DIR: Data error detect output/block start output terminal (Unconnected)
53	SYNC/U	O	DIR: Serial data synchronous timing output/user data output terminal (Unconnected)
54	FS128/C	O	DIR: Serial data master clock 128fs output/channel status output terminal (Unconnected)
55	DBL/V	O	DIR: Double rate clock output/validity flag output terminal (DBL)

No.	Name	I/O	Function
56	SDWCKI1	I+	Word clock input terminal for SDIB, SDOB interface (Unconnected)
57	SDBCKI1	I+	Bit clock input terminal for SDIB, SDOB interface (Unconnected)
58	VSS		Ground terminal
59	SDOB3	O	PCM output terminal from Sub DSP
60	SDOB2	O	PCM output terminal from Sub DSP
61	SDOB1	O	PCM output terminal from Sub DSP
62	SDOB0	O	PCM output terminal from Sub DSP
63	VDD1		+3.3V power terminal (for terminal section)
64	ZEROBF3R	O+	SDOB3 Rch zero flag output terminal (ZF3R)
65	ZEROBF3L	O+	SDOB3 Lch zero flag output terminal (ZF3L)
66	ZEROBF2R	O+	SDOB2 Rch zero flag output terminal (ZF2R)
67	ZEROBF2L	O+	SDOB2 Lch zero flag output terminal (ZF2L)
68	OPORT0	O	General purpose output terminal (/RINH1)
69	OPORT1	O	General purpose output terminal (/RINH2)
70	OPORT2	O	General purpose output terminal (/ICCDC)
71	OPORT3	O	General purpose output terminal (DFS)
72	OPORT4	O	General purpose output terminal (ZSEL0)
73	OPORT5	O	General purpose output terminal (ZSEL1)
74	OPORT6	O	General purpose output terminal (/ICCS)
75	OPORT7	O	General purpose output terminal
76	VSS		Ground terminal
77	VDD2		+2.5V power terminal (for internal circuit)
78	RAMD0	I+/O	Sub DSP: External memory data terminal 0
79	RAMD1	I+/O	Sub DSP: External memory data terminal 1
80	RAMD2	I+/O	Sub DSP: External memory data terminal 2
81	RAMD3	I+/O	Sub DSP: External memory data terminal 3
82	ZEROBF1R	O+	SDOB1 Rch zero flag output terminal (ZF1R)
83	ZEROBF1L	O+	SDOB1 Lch zero flag output terminal (ZF1L)
84	ZEROBF0R	O+	SDOB0 Rch zero flag output terminal (ZF0R)
85	ZEROBF0L	O+	SDOB0 Lch zero flag output terminal (ZF0L)
86	RAMD4	I+/O	Sub DSP: External memory data terminal 4
87	RAMD5	I+/O	Sub DSP: External memory data terminal 5
88	RAMD6	I+/O	Sub DSP: External memory data terminal 6
89	RAMD7	I+/O	Sub DSP: External memory data terminal 7
90	VSS		Ground terminal
91	VDD1		+3.3V power terminal (for terminal section)
92	RAMD8	I+/O	Sub DSP: External memory data terminal 8
93	RAMD9	I+/O	Sub DSP: External memory data terminal 9
94	RAMD10	I+/O	Sub DSP: External memory data terminal 10
95	RAMD11	I+/O	Sub DSP: External memory data terminal 11
96	RAMD12	I+/O	Sub DSP: External memory data terminal 12
97	RAMD13	I+/O	Sub DSP: External memory data terminal 13
98	RAMD14	I+/O	Sub DSP: External memory data terminal 14
99	RAMD15	I+/O	Sub DSP: External memory data terminal 15
100	CASN	O	Sub DSP: Column address strobe output terminal for external DRAM
101	RAMWEN	O	Sub DSP: Write enable terminal for external memory
102	RAMOEN	O	Sub DSP: Output enable terminal for external memory
103	RASN	O	Sub DSP: Low address strobe output terminal for external DRAM
104	VSS		Ground terminal
105	VDD1		+3.3V power terminal (for terminal section)
106	RAMA8	O	Sub DSP: External memory address terminal 8
107	RAMA7	O	Sub DSP: External memory address terminal 7
108	RAMA0	O	Sub DSP: External memory address terminal 0
109	RAMA6	O	Sub DSP: External memory address terminal 6
110	RAMA1	O	Sub DSP: External memory address terminal 1

No.	Name	I/O	Function
111	RAMA5	O	Sub DSP: External memory address terminal 5
112	RAMA2	O	Sub DSP: External memory address terminal 2
113	SELI13	I+	Built-in selector input 13 (Unconnected)
114	SELI12	I+	Built-in selector input 12
115	SELI11	I+	Built-in selector input 11 (Unconnected)
116	SELI10	I+	Built-in selector input 10 (Unconnected)
117	SELI9	I+	Built-in selector input 9 (CXB)
118	RAMA4	O	Sub DSP: External memory address terminal 4
119	RAMA3	O	Sub DSP: External memory address terminal 3
120	RAMA9	O	Sub DSP: External memory address terminal 9 (Unconnected)
121	RAMA10	O	Sub DSP: External memory address terminal 10 (Unconnected)
122	RAMA11	O	Sub DSP: External memory address terminal 11 (Unconnected)
123	VSS		Ground terminal
124	VDD2		+2.5V power terminal (for internal circuit)
125	SELI8	I+	Built-in selector input 8 (CXA)
126	SELI7	I+	Built-in selector input 7 (GND)
127	SELI6	I+	Built-in selector input 6 (OPTF)
128	SELI5	I+	Built-in selector input 5 (Unconnected)
129	RAMA12	O	Sub DSP: External memory address terminal 12 (Unconnected)
130	RAMA13	O	Sub DSP: External memory address terminal 13 (Unconnected)
131	RAMA14	O	Sub DSP: External memory address terminal 14 (Unconnected)
132	RAMA15	O	Sub DSP: External memory address terminal 15 (Unconnected)
133	RAMA16	O	Sub DSP: External memory address terminal 16 (Unconnected)
134	RAMA17	O	Sub DSP: External memory address terminal 17 (Unconnected)
135	OVFB/END	O	Sub DSP: Overflow/program end detect terminal (Unconnected)
136	ZEROFLG	O	Main DSP: Zero flag output terminal (Unconnected)
137	VSS		Ground terminal
138	NONPCM	O	Main DSP: Non-PCM data detect terminal
139	DTSDATA	O	Main DSP: DTS data detect terminal (Unconnected)
140	AC3DATA	O	Main DSP: AC3 data detect terminal (Unconnected)
141	MUTE	O	Main DSP: Auto mute detect terminal
142	KARAOKE	O	Main DSP: AC3 KARAOKE data detect terminal (Unconnected)
143	VDD1	+3.3V	power terminal (for terminal section)
144	SURENC	O	Main DSP: AC-3 2/0 mode Dolby surround encode input detect terminal (Unconnected)
145	CRC	O	Main DSP: AC3 CRC error detect terminal (Unconnected)
146	/LOCK	O	DIR: PLL lock detect terminal (Unconnected)
147	DIRINT	O	DIR: Interrupt output terminal
148	/CS	Is	Microprocessor interface chip select input terminal (CSY)
149	SO	Ot	Microprocessor interface data output terminal
150	SI	Is	Microprocessor interface data input terminal (SDM)
151	SCK	Is	Microprocessor interface clock input terminal (SCKY)
152	/IC	Is	Initial clear input terminal (/ICD)
153	IPINT	O+	Interrupt output terminal by IPORT 8-14
154	SELI4	I+	Built-in selector input 4 (OPTD)
155	VSS		Ground terminal
156	SELI3	I+	Built-in selector input 3 (OPTC)
157	SELI2	I+	Built-in selector input 2 (OPTB)
158	TESTXI	I	Test terminal (should be always connected to VSS)
159	TESTXO	O	Test terminal (Unconnected)
160	VDD2	+2.5V	power terminal (for internal circuit)

Is: Schmidt trigger input terminal
I+: Input terminal with pull-up resistor
O: Digital output terminal
Ot: 3-state digital output terminal
A: Analog terminal

IC520 : M30802SGP
16bit μ -COM (Main CPU)



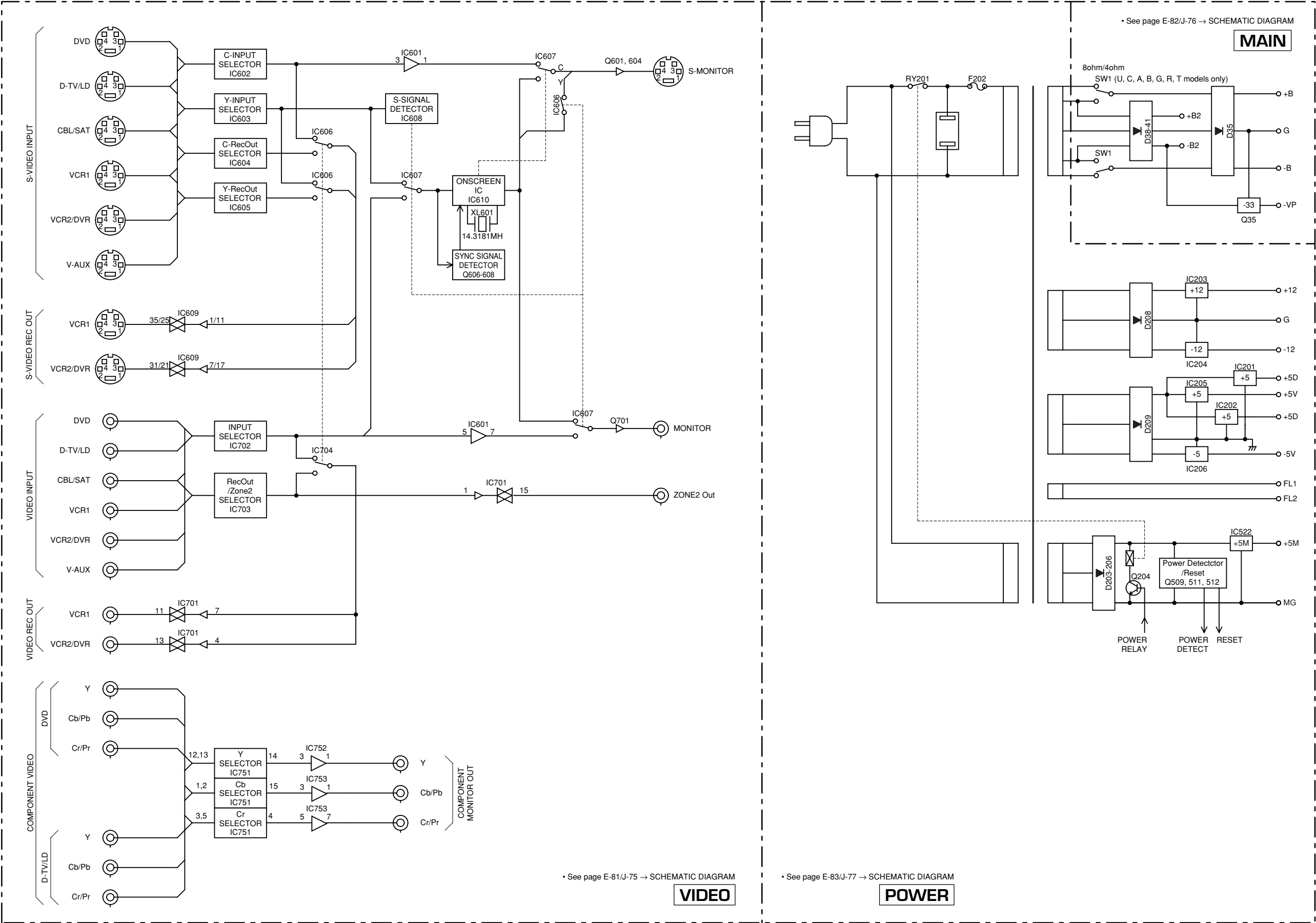
IC520 : M30802SGP

Pin Description

No.	Port No.	Function name	I/O	Detail of function	Power ON	Power OFF	Backup
1	P96	TXDR	SO	232C TX DATA / YDC TX DATA	O	OL	OL
2	P95	RTS	SCK	232C RTS / YDC CLOCK	I/O	OL	OL
3	P94	CTS	I	232C CTS	I	I	OL
4	P93	FAN	DA/O	FAN CONTROL	I	I	OL
5	P92	SDTN	SO	NON AUDIO TX DATA	SO	OL	OL
6	P91	RXRDS	SI	RDS RX DATA / FREQ SW (R VER)	SI	I	OL
7	P90	SCKN	SCK	NON AUDIO SERIAL CLOCK	SCK	OL	OL
8	P146		O		O	OL	OL
9	P145	CEBU	O/I (PU)	BU2092 CE / ZONE2 FUNCTION	I/O	I/OL	OL
10	P144	/FLR	O	FL IC RESET	O	OL	OL
11	P143	CEM0	I/O	FL1 CE / MODEL DETECT 0	I/O	I/OL	OL
12	P142	CEM1	I	MODEL DETECT 1	I	I	OL
13	P141	RDSE	O/I (PU)	RDS CE / RDS FUNCTION	I/O	I/OL	OL
14	P140	CES	O/I (PU)	OSD CE / NTSC / PAL FORMAT	I/O	I/OL	OL
15	BYTE	BYTE	VSS	16 BIT DATA BUS: Vss	Vss	Vss	Vss
16	CNVss	CNVss	VCC		Vcc	Vcc	Vcc
17	P87	BT232C	I (PU)	232C BOOT SIG. / 6CH INPUT KEY	I	I	OL
18	P86	BTYDC	I	YDC BOOT SIGNAL	I	I	OL
19	RESET	RESET	I	RESET	-	-	-
20	XOUT	XOUT	OPEN	CLOCK OUT	-	-	-
21	VSS	VSS	VSS	GROUND	-	-	-
22	XIN	XIN	12MHz	CLOCK IN	-	-	-
23	VCC	VCC	VCC	+5V	-	-	-
24	P85	NMI		Un-use	-	-	-
25	P84	REM1	INT (LoEdge)	REMOTE CONTROL PULSE	I	I	OL
26	P83	PSW	INT (LoEdge)	POWER SW	I	I	OL
27	P82	PDET	INT (LoEdge)	POWER DETECT	I	I	I
28	P81	VSX	Lo Edge	VERTICAL SYNC PULSE	I	I	OL
29	P80	/ICD	O	IC DSP IC	O	OL	OL
30	P77	RXDR	Double Edge	232C RX DATA	I	I	OL
31	P76	DMT	O	DIGITAL FULL MUTE	O	OL	OL
32	P75	INT938	Lo Edge	YSS938 IPINT	I	I	OL
33	P74	DMTR	O	DIGITAL FULL MUTE REAR L/R	O	OL	OL
34	P73	CEP	I/O	PLL IC CE / TUNER STEP 1	I/O	I/OL	OL
35	P72	SCKP	I/O	PLL IC CLOCK / TUNER STEP 0	I/O	I/OL	OL
36	P71	RDTP	ASI	PLL IC RX DATA	I	I	OL
37	P70	SDTP	I/ASO	PLL IC TX DATA (PU) / TUNER	I/O	OL	OL
38	P67	SDM	SO	DSP IC TX DATA	SO	OL	OL
39	VCC	VCC	VCC	+5V			
40	P66	SDD	SI	DSP IC RX DATA	SI	I	OL
41	VSS	VSS	VSS	GND			
42	P65	SCK	SCK	DSP IC CLOCK	SCK	OL	OL
43	P64	/CSY	I/O	YSS938 CE	I/O	OL	OL
44	P63	CTEV	O	EVOL TX DATA	SO	OL	OL
45	P62	CEEV	O	EVOL CE	O	OL	OL
46	P61	CKEV	SCK	EVOL CLOCK	SCK	OL	OL
47	P60	/CSCS	I/O	CS493X CS	I/O	OL	OL
48	P137	/CSPLD	O	DIGITAL EXT. CONTROL IC CE	O	OL	OL
49	P136	VRB	I	VOLUME ROTARY B	I	I	OL
50	P135	VRA	I	VOLUME ROTARY A	I	I	OL
51	P134	PRI	I	I PROTECTION	I	I	I
52	P57						HI
53	P56		OPEN				HI
54	P55		Vcc				HI
55	P54			OPEN			HI
56	P133	/BEC	O	BASS EXTENTION CONTROL	O	OL	OL
57	VSS	VSS	VSS	GND			
58	P132	/Z2MT	O	ZONE 2 MUTE	O	OL	OL
59	VCC	VCC	VCC	+5V			
60	P131	/HPMT	O	HEADPHONE MUTE	O	OL	OL
61	P130	/MATT	O	MAIN -3dB	O	OL	OL
62	P53		OPEN				HI
63	P52			OE			HI
64	P51						HI
65	P50			WE			HI
66	P127	/FMTS	O	FULL MUTE SWL / SWR / SW MONO	O	OL	OL
67	P126	/FMTC	O	FULL MUTE CENTER	O	OL	OL
68	P125	/FMTM	O	FULL MUTE MAIN L / R, RL / RC / RR	O	OL	OL
69	P47			EXT. ROM ADDRESS BUS			KEEP
70	P46		OPEN	EXT. ROM ADDRESS BUS			KEEP
71	P45		OPEN	EXT. ROM ADDRESS BUS			KEEP
72	P44		OPEN	EXT. ROM ADDRESS BUS			KEEP
73	P43		OPEN	EXT. ROM ADDRESS BUS			KEEP
74	VCC	VCC	VCC	+5V			
75	P42		OPEN	EXT. ROM ADDRESS BUS			KEEP

No.	Port No.	Function name	I/O	Detail of function	Power ON	Power OFF	Backup
76	VSS	VSS	VSS	GND			
77	P41	A17		EXT. ROM ADDRESS BUS			KEEP
78	P40	A16		EXT. ROM ADDRESS BUS			KEEP
79	P37	A15		EXT. ROM ADDRESS BUS			KEEP
80	P36	A14		EXT. ROM ADDRESS BUS			KEEP
81	P35	A13		EXT. ROM ADDRESS BUS			KEEP
82	P34	A12		EXT. ROM ADDRESS BUS			KEEP
83	P33	A11		EXT. ROM ADDRESS BUS			KEEP
84	P32	A10		EXT. ROM ADDRESS BUS			KEEP
85	P31	A9		EXT. ROM ADDRESS BUS			KEEP
86	P124	SCKA	SCK	AUDIO IC CLOCK	O	OL	OL
87	P123	SDTA	SO	AUDIO IC TX DATA	O	OL	OL
88	P122	CEL	O	SANYO IC CE	O	OL	OL
89	P121	RIMA	O	POWER LIMITER A	O	OL	OL
90	P120	RIMB	O	POWER LIMITER B	O	OL	OL
91	VCC	VCC	VCC	+5V			
92	P30	A8		EXT. ROM ADDRESS BUS			KEEP
93	VSS	VSS	VSS	GND			
94	P27	A7		EXT. ROM ADDRESS BUS			KEEP
95	P26	A6		EXT. ROM ADDRESS BUS			KEEP
96	P25	A5		EXT. ROM ADDRESS BUS			KEEP
97	P24	A4		EXT. ROM ADDRESS BUS			KEEP
98	P23	A3		EXT. ROM ADDRESS BUS			KEEP
99	P22	A2		EXT. ROM ADDRESS BUS			KEEP
100	P21	A1		EXT. ROM ADDRESS BUS			KEEP
101	P20	A0		EXT. ROM ADDRESS BUS			KEEP
102	P17	D15		EXT. ROM DATA BUS			KEEP
103	P16	D14		EXT. ROM DATA BUS			KEEP
104	P15	D13		EXT. ROM DATA BUS			KEEP
105	P14	D12		EXT. ROM DATA BUS			KEEP
106	P13	D11		EXT. ROM DATA BUS			KEEP
107	P12	D10		EXT. ROM DATA BUS			KEEP
108	P11	D9		EXT. ROM DATA BUS			KEEP
109	P10	D8		EXT. ROM DATA BUS			KEEP
110	P07	D7		EXT. ROM DATA BUS			KEEP
111	P06	D6		EXT. ROM DATA BUS			KEEP
112	P05	D5		EXT. ROM DATA BUS			KEEP
113	P04	D4		EXT. ROM DATA BUS			KEEP
114	P114	/MLV	O	MAIN LEVEL	O	OL	OL
115	P113	PRY	O	POWER RELAY	O	OL	OL
116	P112	SPE	O	SP RELAY EFFECT	O	OL	OL
117	P111	SPB	O	SP RELAY B	O	OL	OL
118	P110	SPA	O	SP RELAY A	O	OL	OL
119	P03	D3		EXT. ROM DATA BUS			KEEP
120	P02	D2		EXT. ROM DATA BUS			KEEP
121	P01	D1		EXT. ROM DATA BUS			KEEP
122	P00	D0		EXT. ROM DATA BUS			KEEP
123	P157	DCTRG	O	DC TRIGGER CONTROL	O	OL	OL
124	P156	CSINT	I(IPU)/O	CS-DSP INT / ABOOT	I/O	OL	OL
125	P155	BSW	I(IPU)	BASS EXT SW	I	I	OL
126	P154	PSW	I(IPU)	PR. DIRECT SW	I	I	OL
127	P153	/HP	I(IPU)	HEADPHONE DETECT	I	I	OL
128	P152	TMT	O	TUNER MUTE	O	OL	OL
129	P151	/TUNED	I(IPU)	TUNING METER	I	I	OL
130	VSS	VSS	VSS	GND			
131	P150	/ST	I(IPU)	TUNER STEREO	I	I	OL
132	VCC	VCC	VCC	+5V			
133	P107	RMV	AD	Un-use (DETECT PL TYPE)	I	I	I
134	P106	REC	AD	REC OUT SELECTOR	I	I	I
135	P105	PREMT	AD	POWER LIMITER DETECT	I	I	I
136	P104	ADKEY1	AD	KEY SW LINE 1	I	I	I
137	P103	ADKEY0	AD	KEY SW LINE 0	I	I	I
138	P102	THM	AD	TEMPERATURE DETECTION	I	I	I
139	P101	PRD	AD	DC PROTECTION	I	I	I
140	AVSS	AVSS	VSS	AD GND	VSS	VSS	VSS
141	P100	PRV	AD	PS PROTECTION	I	I	I
142	VREF	VREF	VCC	AD REFERENCE	VCC	VCC	VCC
143	AVCC	AVCC	VCC	AD V	VCC	VCC	VCC
144	P97	RXDR	SI	232C / YDC RX DATA	I	I	OL

1 ■ BLOCK DIAGRAM (2/2)



1 ■ PRINTED CIRCUIT BOARD (Foil side)

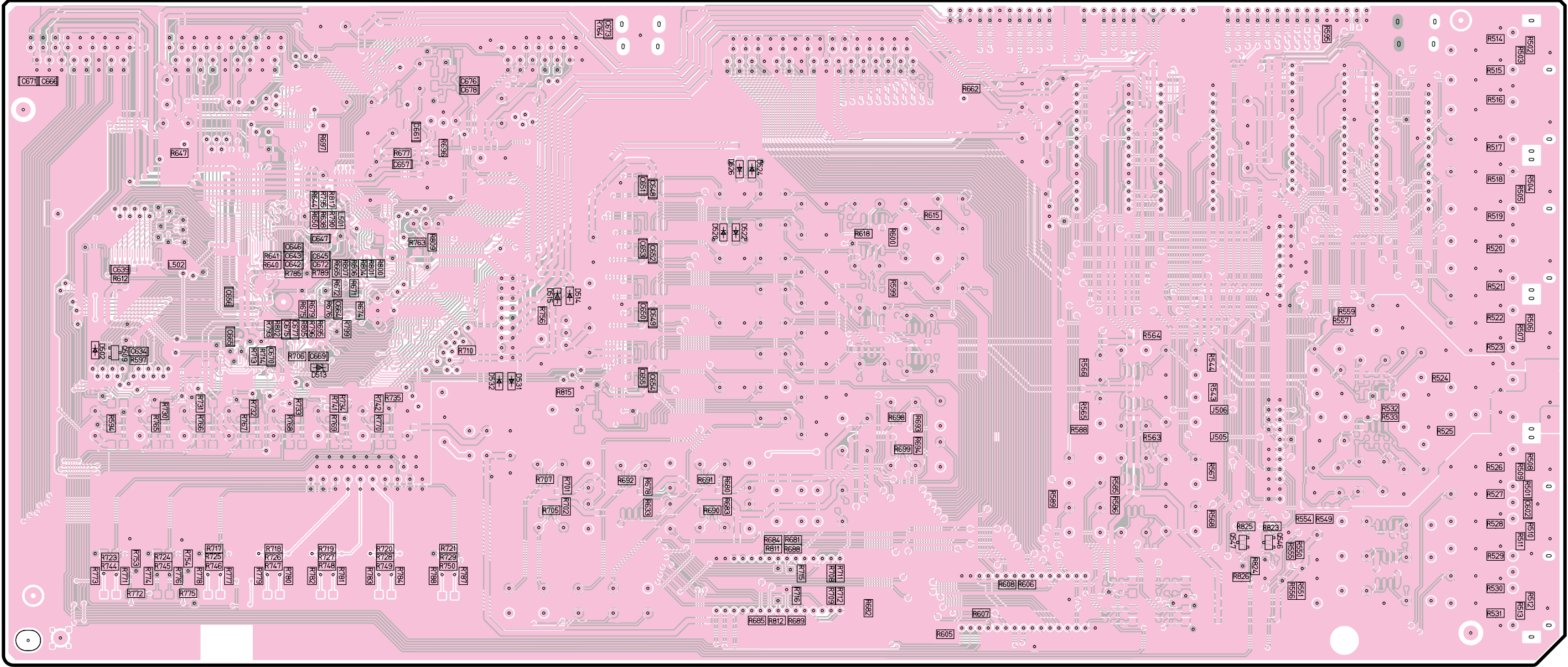
2 FUNCTION P. C. B. (Surface Mount Device)

Circuit No.	J	U, C	R, T	A	BG
C517, 518, 533, 563, 564	X	O	O	O	X
C603, 604	X	X	X	O	O
C666, 671, 676, 678	X	O	X	O	O
D517, 518	X	O	O	O	X
J505, 506	O	X	X	X	O
Q501, 502, 507, 508, 535, 536, 546, 547	X	O	O	O	X
R573, 574, 577, 578, 594, 601, 623, 665, 671, 710, 763, 809, 823-826	X	O	O	O	X
R587, 662	X	X	O	X	X
R672, 806, 818	O	X	X	X	O

X: NOT USED
O: USED / APPLICABLE

• Semiconductor Location

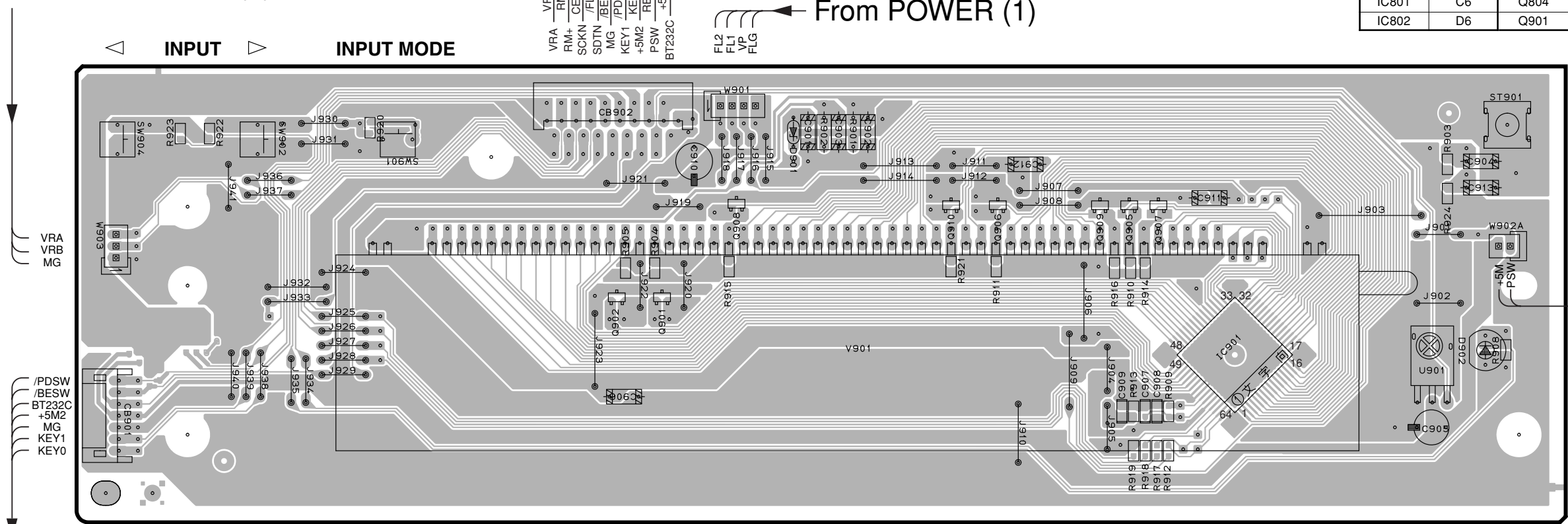
Ref. No.	Location
D502	A4
D513	B4
D514	D4
D515	D4
D520	D4
D522	E4
D524	E3
D526	E3
D531	C4
D532	C4
Q509	A4
Q546	G5
Q547	G5



PRINTED CIRCUIT BOARD (Foil side)

OPERATION (1) P. C. B. (Lead Type Device)

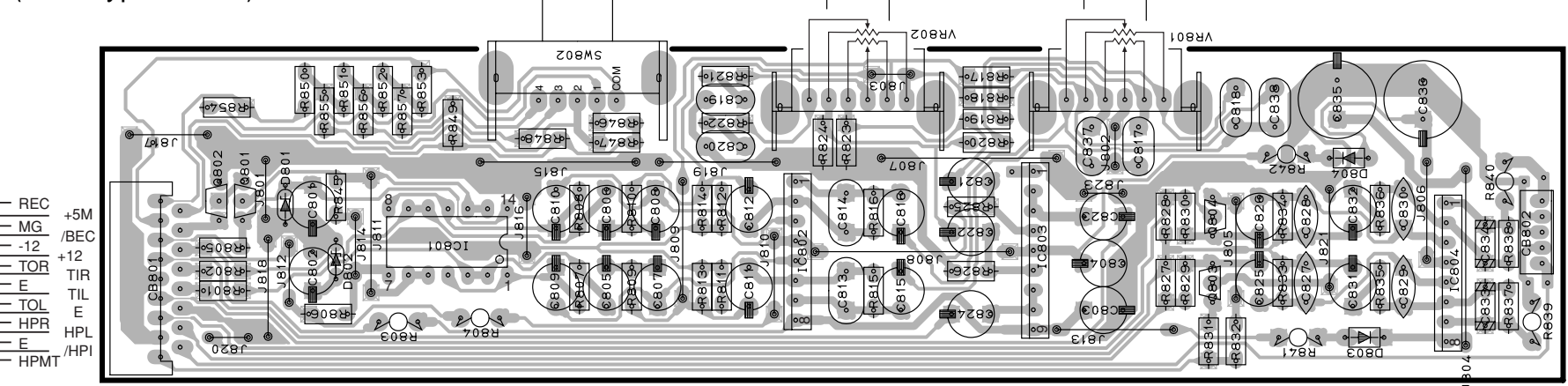
From OPERATON (7)



To OPERATON (6)

OPERATION (2) P. C. B. (Lead Type Device)

(Lead Type Device)



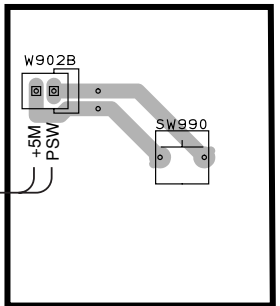
From FUNCTION

Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D801	B6	IC803	E6	Q902	D3
D802	B6	IC804	F6	Q905	G3
D803	F7	IC901	G4	Q906	F3
D804	F6	Q801	B6	Q907	G3
D901	E2	Q802	B6	Q908	E3
D902	H4	Q803	F6	Q909	G3
IC801	C6	Q804	F6	Q910	F3
IC802	D6	Q901	D3		

OPERATION (3) P. C. B. (Lead Type Device)

(Lead Type Device)



STANDBY/ON

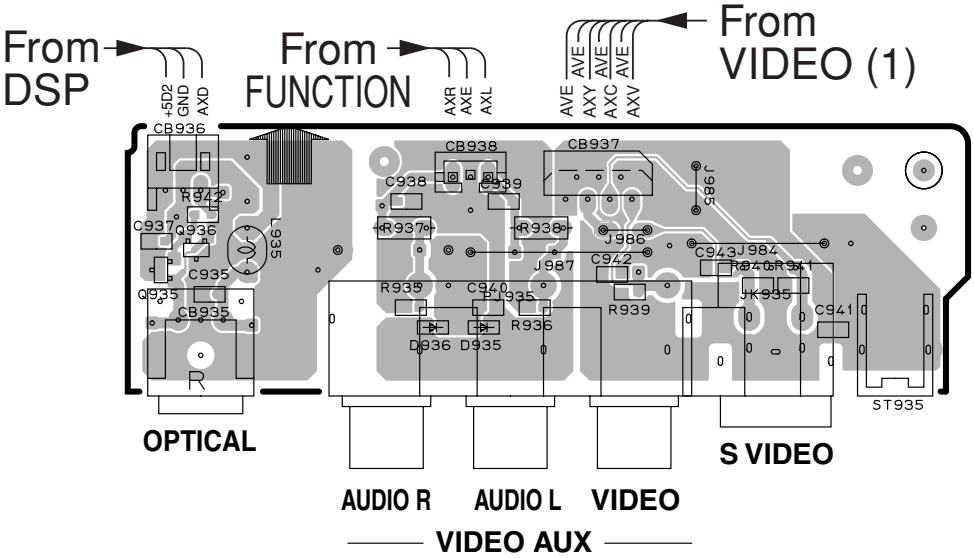
To OPERATON (8)

Circuit No.	J, B, G	U, C, A, R, T
D902	X	O
R908	X	O

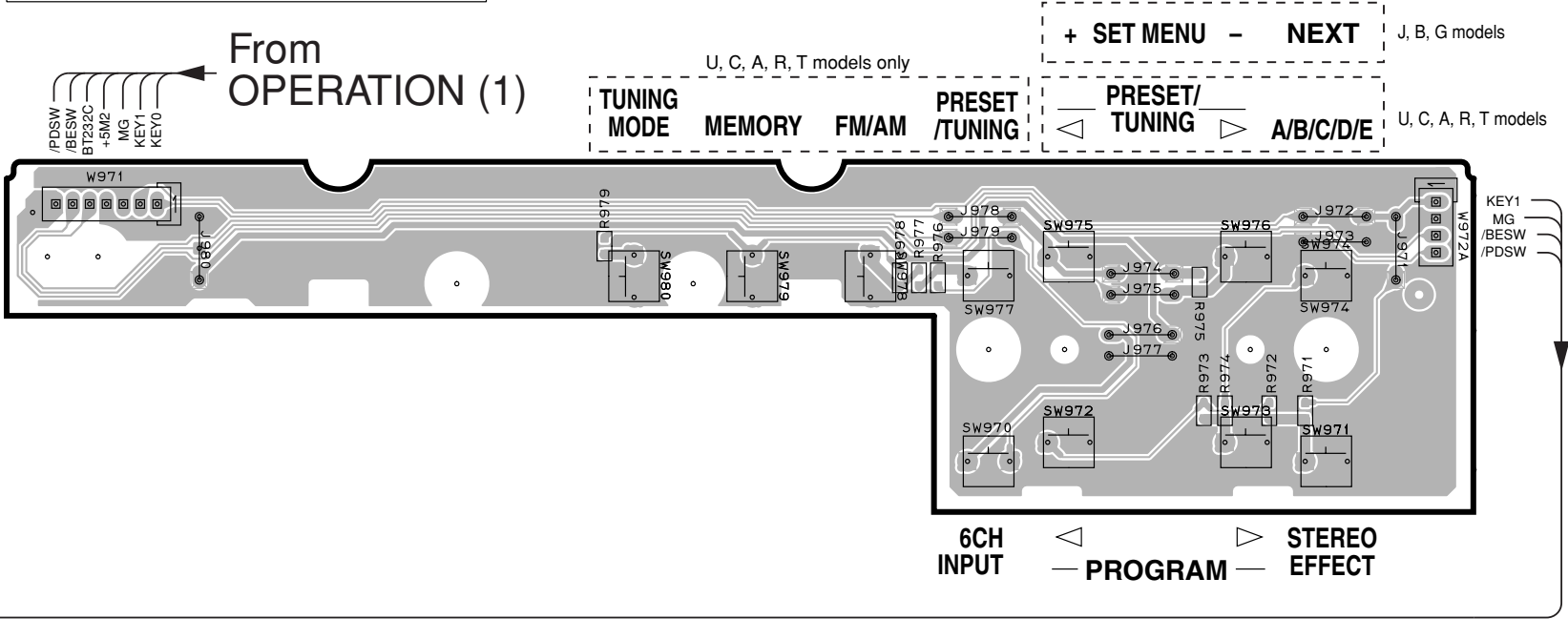
X: NOT USED
O: USED / APPLICABLE

PRINTED CIRCUIT BOARD (Foil side)

OPERATION (4) P. C. B. (Lead Type Device)



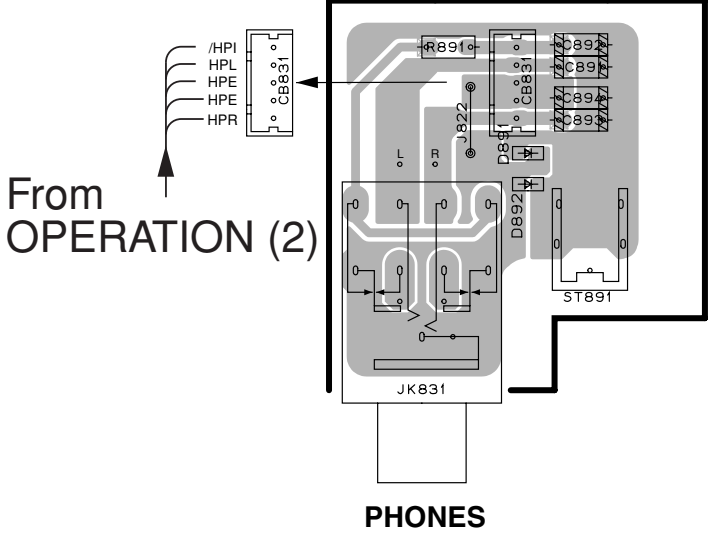
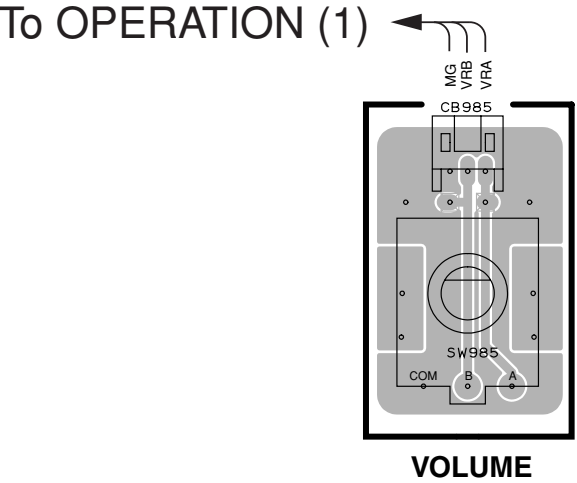
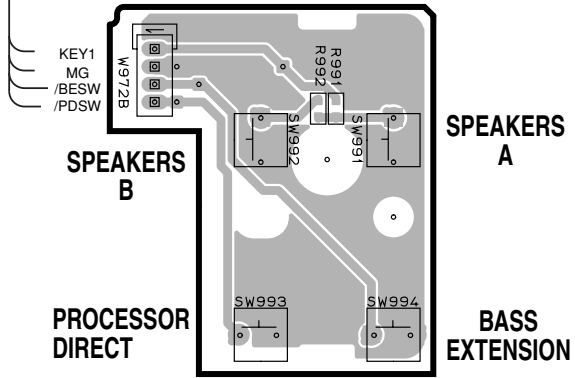
OPERATION (6) P. C. B. (Lead Type Device)



OPERATION (5) P. C. B. (Lead Type Device)

OPERATION (7) P. C. B. (Lead Type Device)

OPERATION (8) P. C. B. (Lead Type Device)



Semiconductor Location

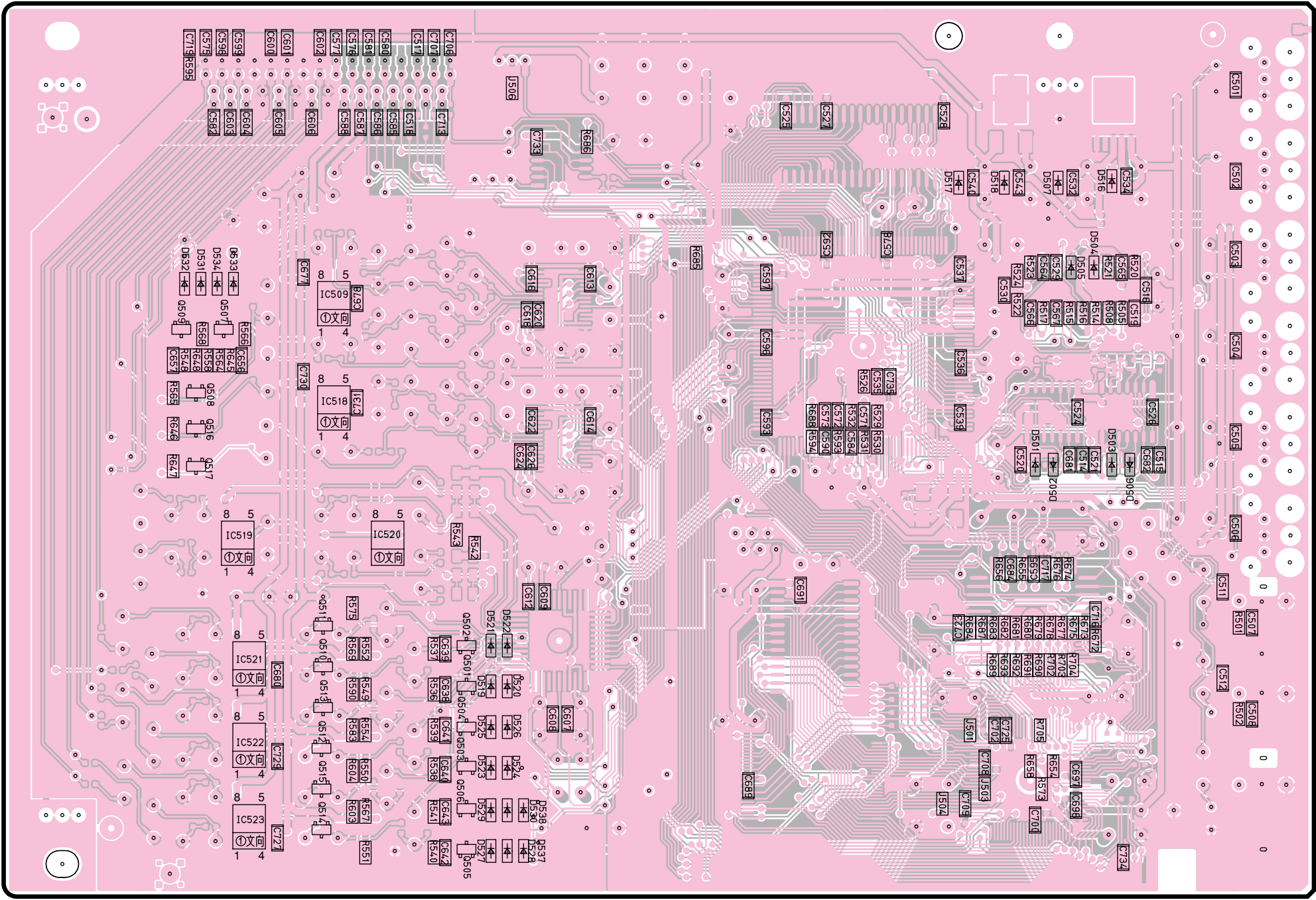
Circuit No.	J, B, G	U, C, A, R, T
R976~979	X	O
SW977~980	X	O

X: NOT USED
O: USED / APPLICABLE

Ref. No.	Location
D891	H5
D892	H5
D935	B3
D936	B3
Q935	A3
Q936	A3

PRINTED CIRCUIT BOARD (Foil side)

DSP P. C. B. (Surface Mount Device)



• Semiconductor Location

Ref. No.	Location
D501	G5
D502	G5
D503	G5
D504	G4
D505	G4
D506	G5
D507	G4
D516	G4
D517	F4
D518	F4
D519	D6
D520	D6
D521	D6
D522	D6
D523	D6
D524	D6
D525	D6
D527	D7
D528	D7
D529	D7
D530	D7
D531	B4
D532	B4
D533	C4
D534	B4
D537	D7
D538	D7
IC509	C4
IC518	C5
IC519	C5
IC520	C5
IC521	C6
IC522	C6
IC523	C7
Q501	D6
Q502	D6
Q503	D6
Q504	D6
Q505	D7
Q506	D7
Q507	B4
Q508	B5
Q509	B4
Q510	C6
Q511	C6
Q512	C6
Q513	C6
Q514	C7
Q515	C7
Q516	B5
Q517	B5

Circuit No.	J	U, C, R, T, A, B, G
R688	X	O
X: NOT USED O: USED / APPLICABLE		

PRINTED CIRCUIT BOARD (Foil side)

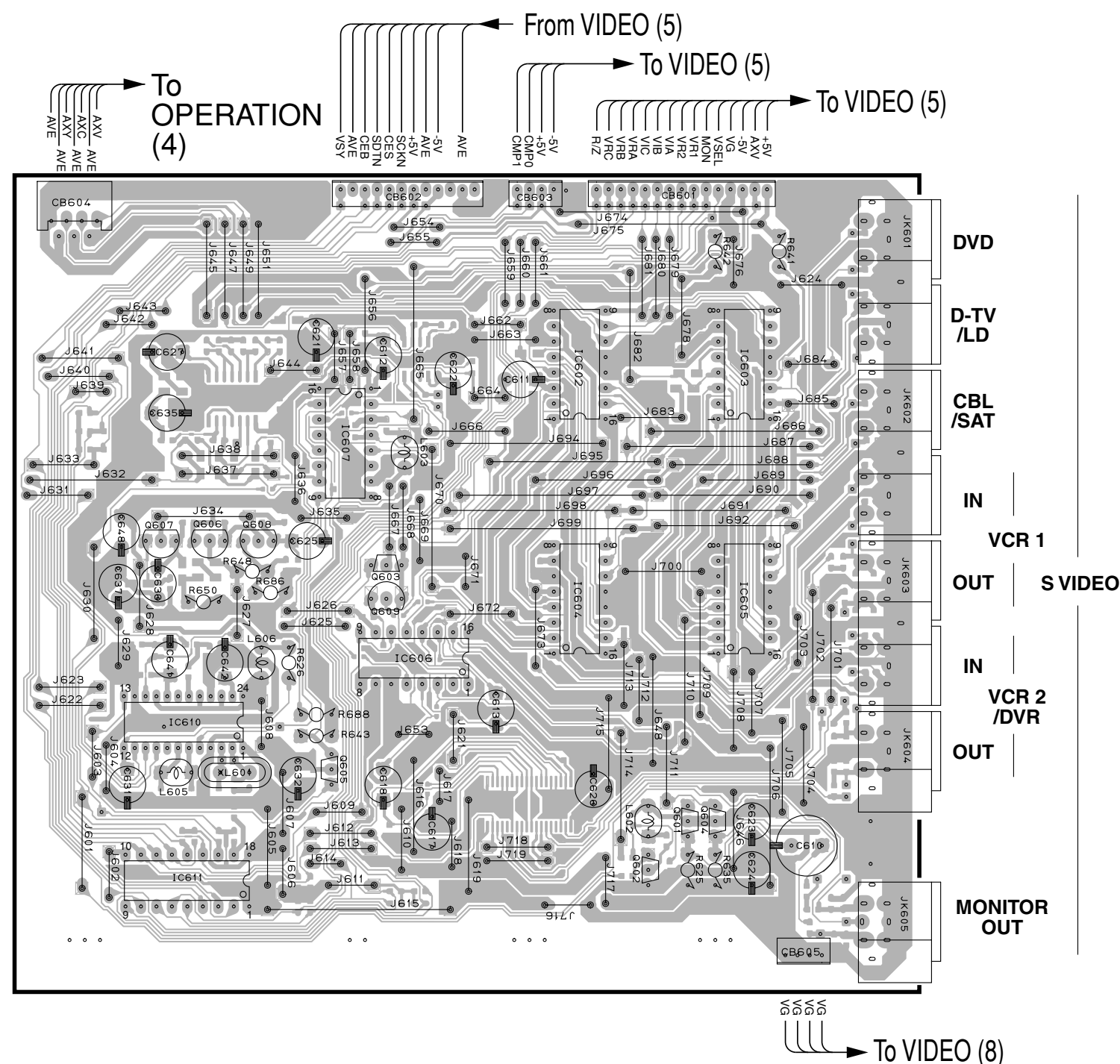
Circuit No.	J	U, C	R, T	A	B, G
C653	O	X	X	X	O
IC606	X	O	O	O	X
J741, 742	O	X	X	X	O
Q609	O	X	X	X	O
R674	X	O	O	O	O
R675, 684	O	X	X	X	O
R681	X	X	X	O	O
R682	O	O	O	X	X
R683	X	O	O	O	X

X: NOT USED
O: USED / APPLICABLE

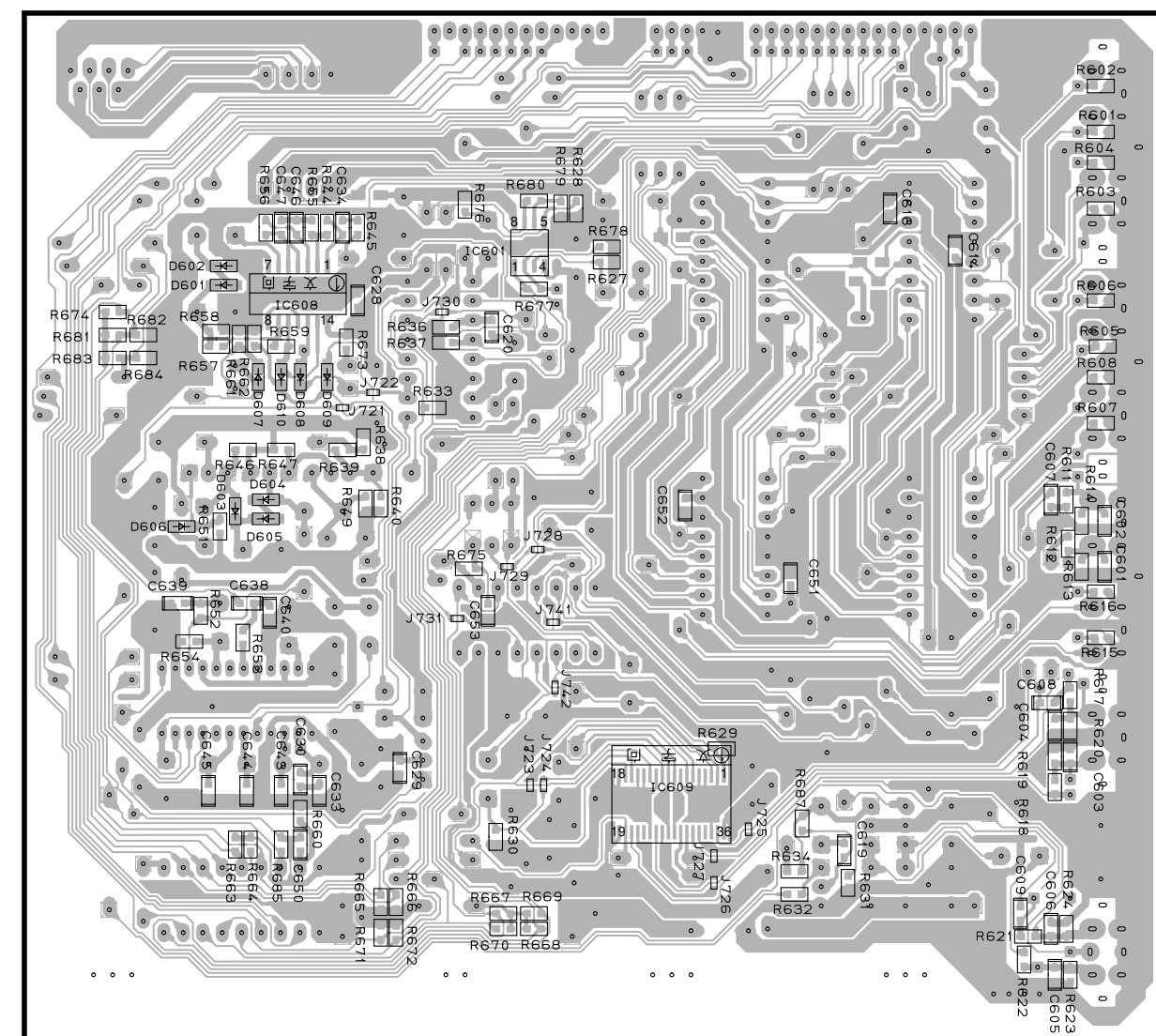
Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	G4	IC606	C5
D602	G4	IC607	B4
D603	G5	IC608	G4
D604	G5	IC609	H6
D605	G5	IC610	B6
D606	F5	IC611	B6
D607	G4	Q601	D6
D608	G4	Q602	D6
D609	G4	Q603	B5
D610	G4	Q604	D6
IC601	H4	Q605	B6
IC602	C4	Q606	B5
IC603	D4	Q607	A5
IC604	C5	Q608	B5
IC605	D5	Q609	B5

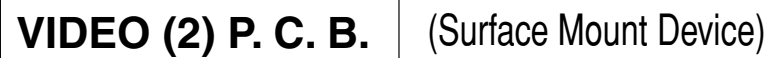
VIDEO (1) P. C. B. (Lead Type Device)



VIDEO (1) P. C. B. (Surface Mount Device)

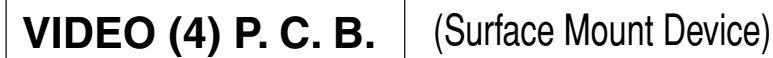


VIDEO (2) P. C. B.	(Lead Type Device)
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Ref. No.	Location
D751	H6
D752	H6
IC701	B6
IC702	D6
IC703	C6
IC704	C6
IC751	G6
IC752	G6
IC753	C6
IC754	H6
IC755	I6
IC756	I6
Q701	A3

VIDEO (4) P. C. B.	(Lead Type Device)
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X: NOT USED
O: USED / APPLICABLE

■ PRINTED CIRCUIT BOARD (Foil side)

VIDEO (5) P. C. B. (Lead Type Device)

U, C, A, R, T models only

To TUNER

→ To
POWER
(4)

To VIDEO (4)

To VIDEO (2)

To
VIDEO (1)

From
VIDEO (1)

From
VIDEO (1)

From  FUNCTION

From FUNCTION

From  FUNCTION

VIDEO (5) P. C. B. (Surface Mount Device)

- **Semiconductor Location**

Ref. No.	Location
D581	J5
Q582	E6

Circuit No.	J	U, C	R, T	A	B
CB582	X	O	O	O	X
R583	X	O	O	X	X
R584	O	X	X	O	O
R585	X	X	O	O	O
R586	O	O	X	X	X
R589	X	O	O	O	O

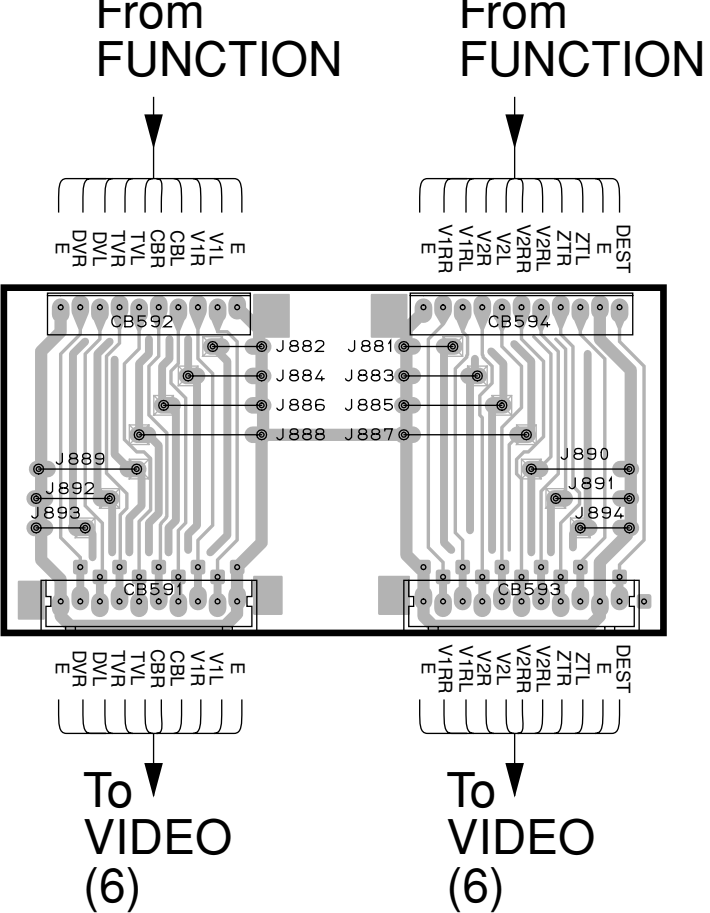
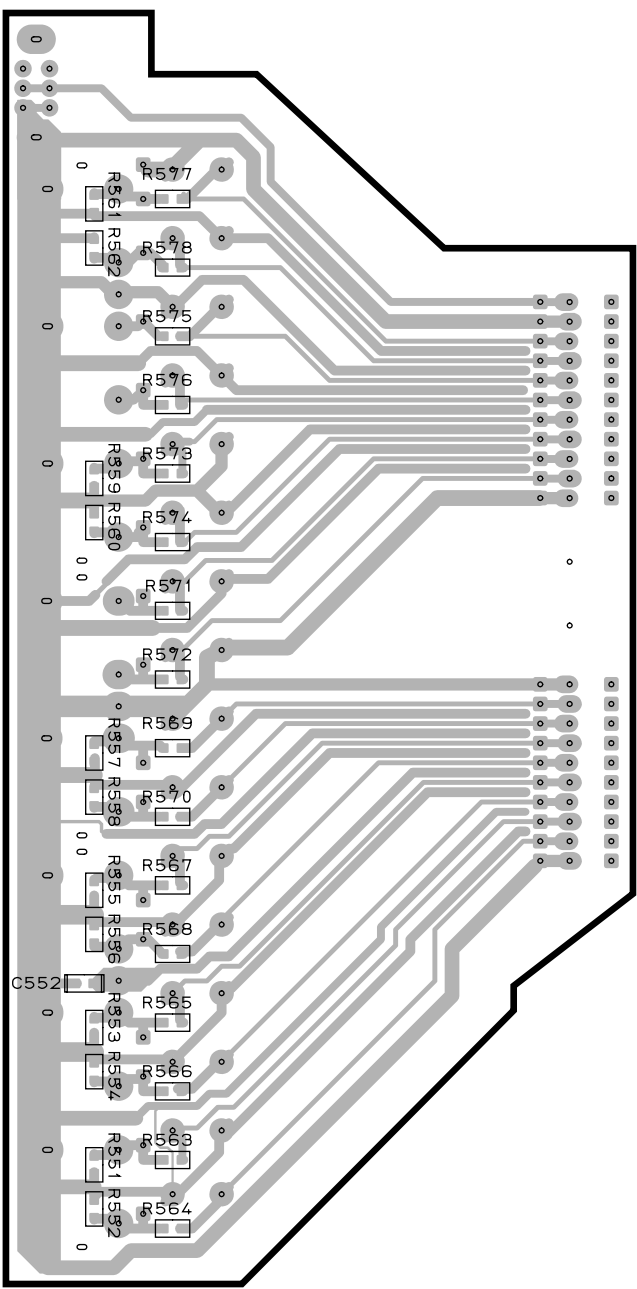
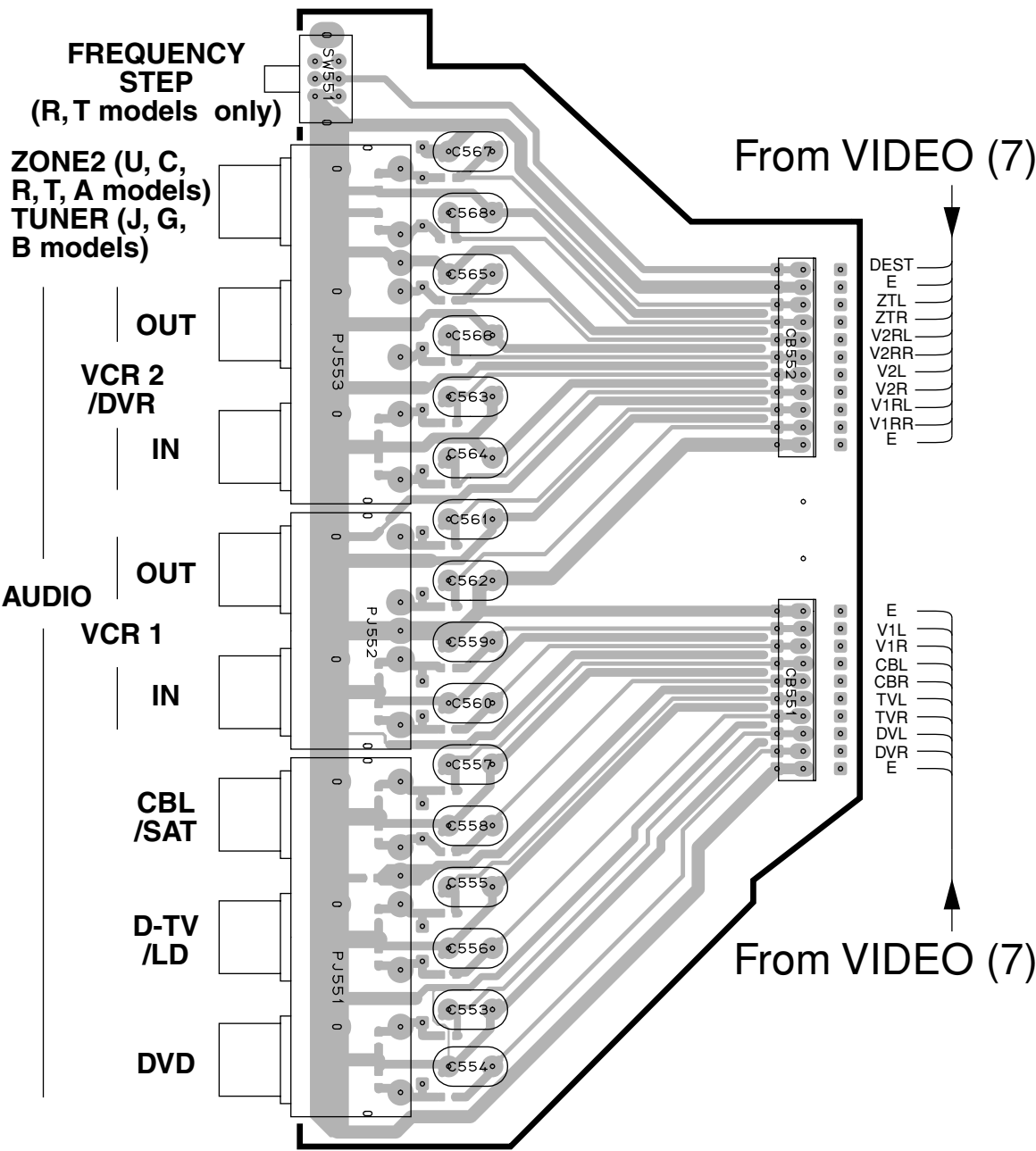
X: NOT USED
O: USED / APPLICABLE

PRINTED CIRCUIT BOARD (Foil side)

VIDEO (6) P. C. B. (Lead Type Device)

VIDEO (6) P. C. B. (Surface Mount Device)

VIDEO (7) P. C. B. (Lead Type Device)



VIDEO (8) P. C. B. (Lead Type Device)



Circuit No.	J	U, C	R, T	A	B, G
SW551	X	X	O	X	X
X: NOT USED O: USED / APPLICABLE					

PRINTED CIRCUIT BOARD (Foil side)

Semiconductor Location

POWER (1) P. C. B.

(Lead Type Device)

To MAIN (1)

From FUNCTION

To FUNCTION

From Power Transformer

To VIDEO (2)

POWER (2) P. C. B.

(Lead Type Device)

Ref. No.	Location
D311	H5
D312	H5
D313	H5
D314	H6
D315	I5
D351	A3
D352	G4
D353	E3
D354	E3
D355	F3
IC351	E4
IC352	F4
IC353	F4
IC354	G4
IC355	D4
IC356	E4
IC357	C4
Q311	I5
Q312	I5
Q313	I6
Q314	H5
Q315	H5
Q351	A4
Q352	A3
Q353	B3

Circuit No.	J	U	C	R	T	A	B	G
C312-314, 316, 317	X	X	O	X	X	X	X	X
C315	O	O	X	O	O	O	O	O
C438, 439	X	O	O	O	X	X	X	X
CB311	X	X	O	O	O	X	X	X
CB314	O	O	O	X	X	X	X	X
CB315	X	X	X	O	O	O	O	O
CB317, 318	X	O	O	X	X	X	X	X
CB319	X	X	O	X	X	X	X	X
D312-313, 315, 353	X	X	O	X	X	X	X	X
F312	X	O	O	X	X	X	O	O
J312	O	X	O	O	O	O	X	X
J313, 314, 316	X	O	X	X	X	X	O	O
J315, 323-325	X	X	O	X	X	X	X	X
JK431-433	X	O	O	O	X	X	X	X
Q312-314	X	X	O	X	X	X	X	X
R312-314, 366	X	X	O	X	X	X	X	X
R315	X	O	X	X	X	X	X	X
SW314, 318, 321	X	X	O	X	X	X	X	X
TE312	O	O	X	X	X	X	O	O
W312, 313	O	O	X	X	X	X	O	O
W315A-315F	X	X	O	X	X	X	X	X

X: NOT USED
O: USED / APPLICABLE

- **Semiconductor Location**

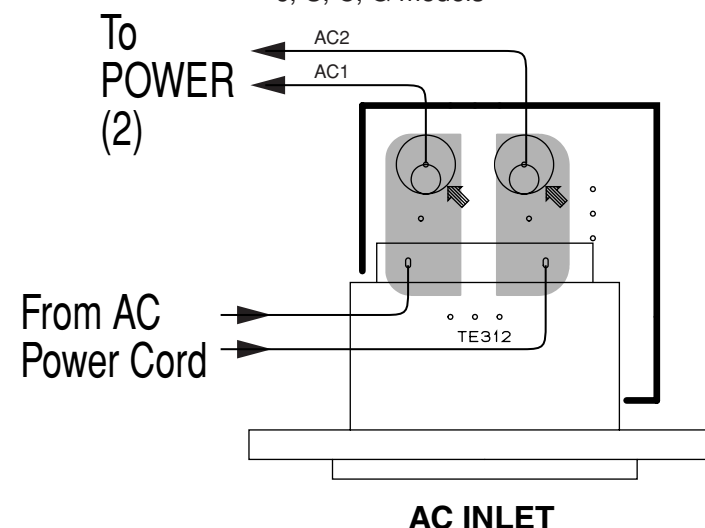
Circuit No.	J	U.	C.	R.	T.	A.	B.	C.
C438, 439	X	O	O	O	X	X	X	X
D353	X	X	O	O	X	X	X	X
D431	X	O	O	O	O	X	X	X
J311	O	O	X	O	O	O	X	X
JK431-433	X	O	O	O	O	X	X	X
R366	X	X	O	O	X	X	X	X
SW311, 314, 318, 321	X	X	O	X	X	X	X	X
TE312	O	O	O	X	X	X	X	X
W312, 313	O	O	O	X	X	X	X	X
W315A-315F	X	X	O	O	X	X	X	X

X: NOT USED
O: USED / APPLICABLE

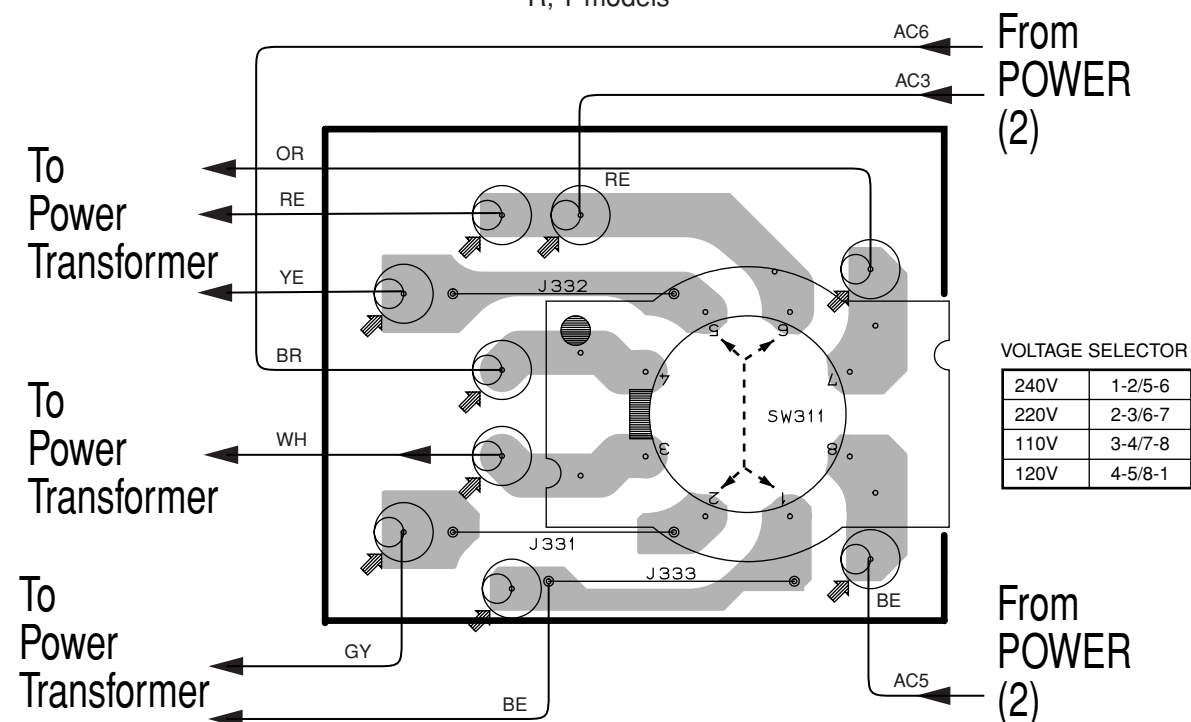
PRE OUT/MAIN IN



J, U, C, G models

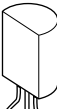
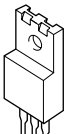
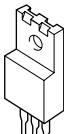
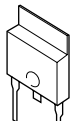
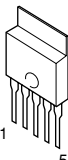
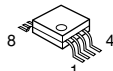
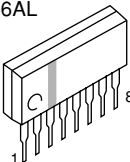
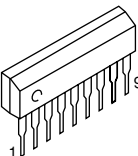
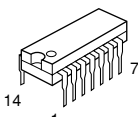
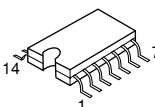
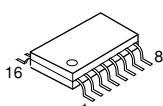
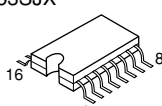
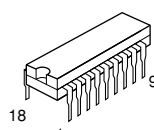
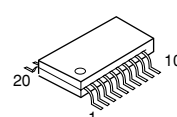
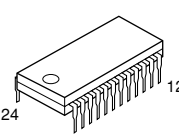
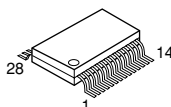
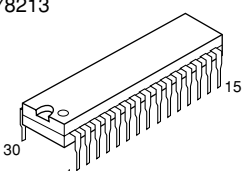
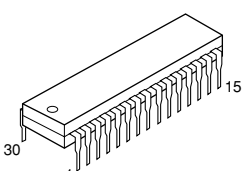
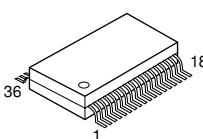
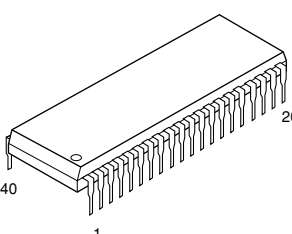
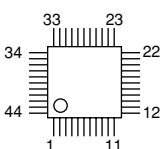
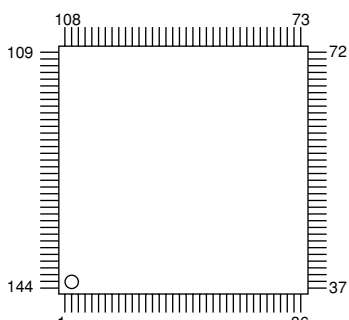
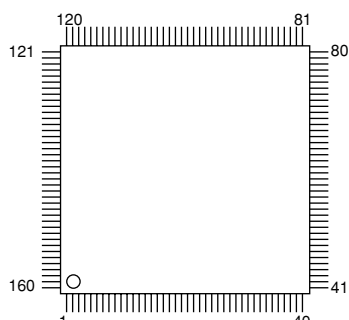


R, T models

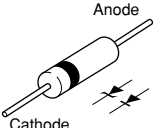
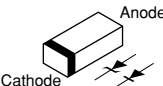
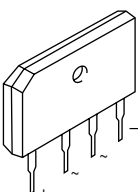
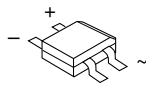


PIN CONNECTION DIAGRAM

• ICs

LM61CIZ  3: +Vs 2: Vout 1: GND	NJM7805FA NJM7812FA NJM78M05FA  3: IN 2: COM 1: OUT	NJM79M05FA NJM79M12FA  3: COM 2: IN 1: OUT	μPC29M33T-E1  3: IN 2: COM 1: OUT	PQ025EZ5MZP  1 5 1 5 1
NJM2068MD NJM2904M OPA2652U TK15420M μPC4570G2  8 1 4 1 4 1 8 1	NJM2068LD NJM4556AL  1 8 1 8 1 8 1 8	μPC4570HA  1 9 1 9 1 9 1 9 1	BU4066BC  14 1 7 14 1 7 14	TC74HCT00AF TC74HCT08AF TC74HCU04AF  14 1 7 14 1 7 14
LA7108M ADM202JRN-REEL7  16 1 8 16 1 8 16 1	MM74HC4051N MM74HC4051SJX MM74HC4053N MM74HC4053SJX  16 1 8 16 1 8 16 1	BU2092  18 1 9 18 1 9 18 1 9	YAC520-EE2  20 1 10 20 1 10 20 1 10 20	
LC74781-9798  24 1 12 24 1 12 24 1 12 24 1 12	AK4393-VF-E2 CY62256LL  28 1 14 28 1 14 28 1 14 28 1 14 28 1	LC78211 LC78213  30 1 15 30 1 15 30 1 15 30 1 15 30 1 15	LC78212  30 1 15 30 1 15 30 1 15 30 1 15 30 1 15	
LA7109  36 1 18 36 1 18 36 1 18 36 1 18 36 1 18 36 1 18	MSM514260C-60JS  40 1 20 40 1 20 40 1 20 40 1 20 40 1 20 40 1 20 40 1 20	AK4527BVQ  33 23 34 22 44 12 1 11 33 23 34 22 44 12 1 11	MX29F400BTC-70  25 24 48 1 25 24 48 1 25 24 48 1 25 24 48 1	
M30802SGP  108 73 109 72 144 37 1 36 108 73 109 72 144 37 1 36	YSS938F  120 81 121 80 160 41 1 40 120 81 121 80 160 41 1 40			

• Diodes

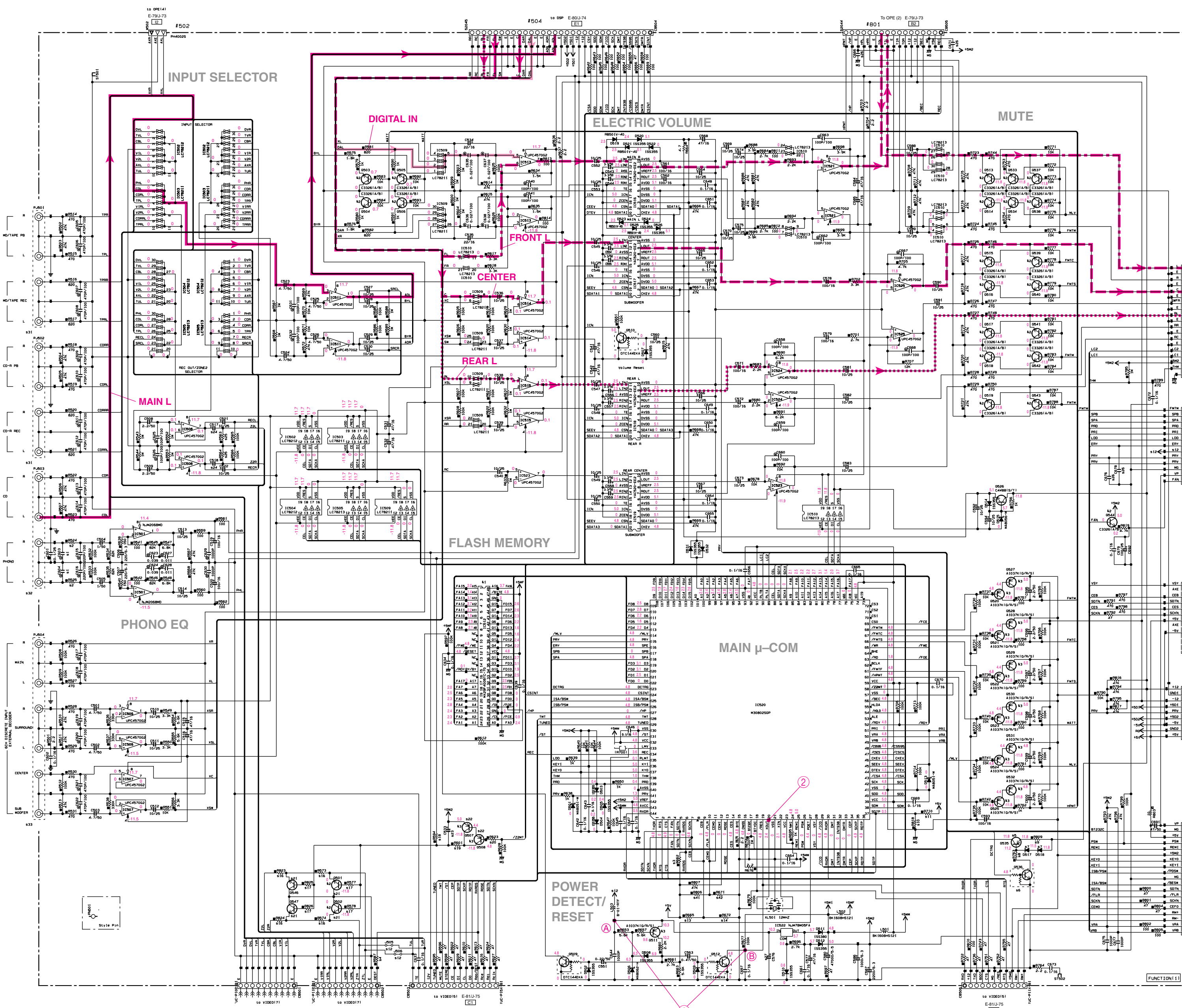
1SR139 1SS133 HZS7B2TD MA185	MTZJ4.7C MTZJ9.1A MTZJ11.0B MTZJ12.0A MTZJ12.0B MTZJ15.0B MTZJ18.0C MTZJ22.0B MTZJ24.0B MTZJ24.0C MTZJ33.0D		1SS355 1SS380 MA8051-M MA8056-M MA8062-H RB501V-40 UDZS5.6BTE-17	
D3SBA20 D15XB20	S1NB20			

• Transistors

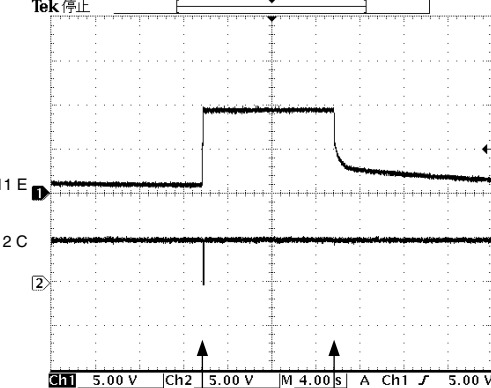
2SA893A 2SA970 2SA1015 2SA1145 2SC535 2SC1815 2SC1890A 2SC2240 2SC2705 2SC2878 DTA123JS DTC143XS	2SC1740S 2SD1915F DTA144ES DTC114ES DTC144ES	2SA1837 2SB1375 2SB1565 2SC4793 2SD2396	2SC5358
2SC5200	2SA1037K 2SC2412K 2SC3326 DTA144EKA DTC144EKA	2SA1708 2SC4488	2SK246

SCHEMATIC DIAGRAM (FUNCTION)

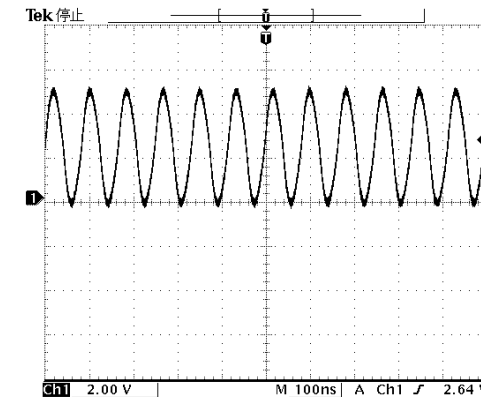
RX-V3200/DSP-AX3200



Point ① emitter of Q511 and collector of Q512

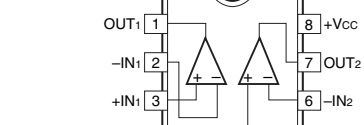


Point ② Pin 20 of IC520

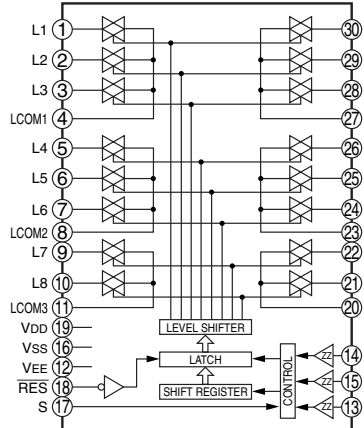


IC	Pin	Symbol	Value	Unit	Comment
IC501	1	OUT1	1	Vcc	
IC501	2	IN1	2	IN2	
IC501	3	IN1	3	IN2	
IC501	4	Vcc	4	IN2	
IC501	5	IN2	5	IN2	
IC501	6	OUT2	6	OUT2	
IC501	7	OUT2	7	OUT2	
IC501	8	Vcc	8	Vcc	
IC501	9	OUT2	9	OUT2	
IC501	10	OUT2	10	OUT2	
IC501	11	OUT2	11	OUT2	
IC501	12	OUT2	12	OUT2	
IC501	13	OUT2	13	OUT2	
IC501	14	OUT2	14	OUT2	
IC501	15	OUT2	15	OUT2	
IC501	16	OUT2	16	OUT2	
IC501	17	OUT2	17	OUT2	
IC501	18	OUT2	18	OUT2	
IC501	19	OUT2	19	OUT2	
IC501	20	OUT2	20	OUT2	

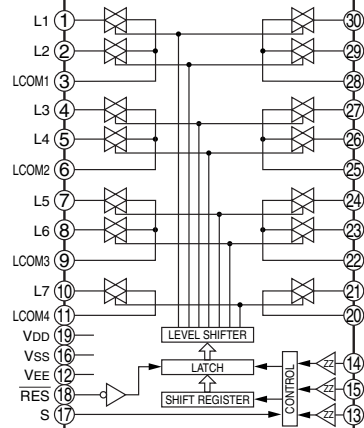
IC501: NJM2068MD
IC506-508, 511, 513-515: μPC4570G2
IC521, IC523-IC525: μPC4570G2
Dual OP-Amp



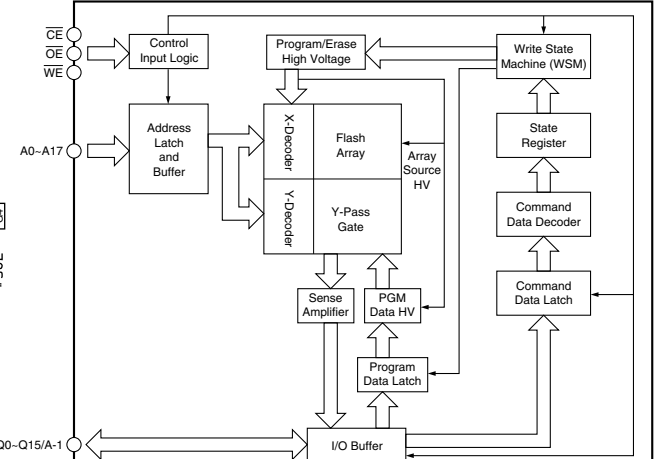
IC502, 504: LC78212
Analog Function Switch



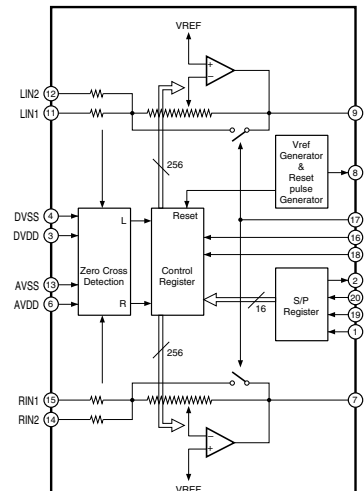
IC505, 510: LC78213
Analog Function Switch



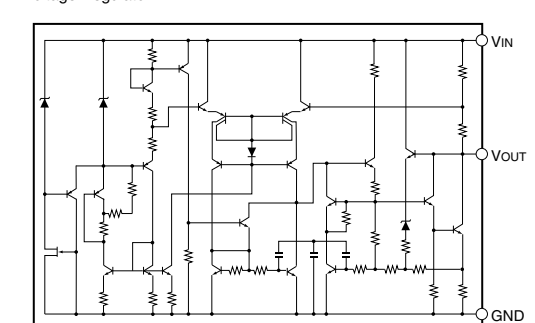
IC512: MX29F400BTC-70
4Mbit CMOS Flash Memory



IC516-519: YAC520-EE2
Stereo Digital Volume Controller



IC522: NJM78M05FA
Voltage Regulator



NOTICE (model)

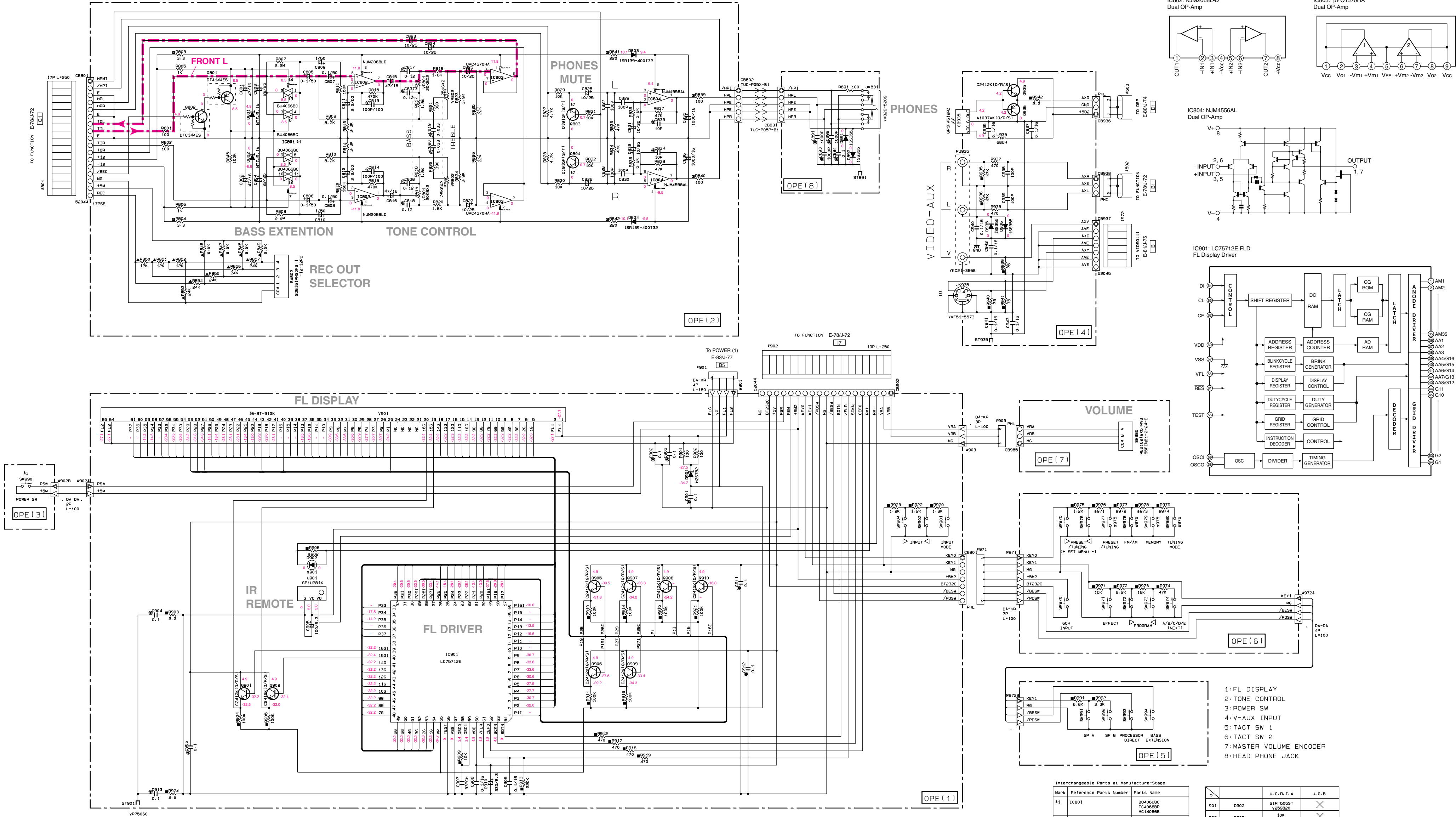
Interchangeable Parts at Manufacture Stage
IC512: MX29F400BTC-70
IC516-519: YAC520-EE2
IC522: NJM78M05FA

REMARKS	PARIS NAME
NO MARK ELECTROLYTIC CAPACITOR	①
NO MARK TANTALUM CAPACITOR	②
NO MARK CERAMIC CAPACITOR	③
NO MARK CARBON FILM RESISTOR (P=10)	④
NO MARK METAL FILM RESISTOR	⑤
NO MARK POLYESTER FILM CAPACITOR	⑥
NO MARK POLYPROPYLENE FILM CAPACITOR	⑦
NO MARK METAL PLATE RESISTOR	⑧
NO MARK CERAMIC CHIP RESISTOR	⑨
NO MARK POLYPROPYLENE SULFIDE FILM CAPACITOR	⑩

REMARKS	PARIS NAME
NO MARK CARBON FILM RESISTOR (P=10)	①
NO MARK METAL FILM RESISTOR	②
NO MARK POLYESTER FILM CAPACITOR	③
NO MARK POLYPROPYLENE FILM CAPACITOR	④
NO MARK METAL PLATE RESISTOR	⑤
NO MARK CERAMIC CHIP RESISTOR	⑥
NO MARK POLYPROPYLENE SULFIDE FILM CAPACITOR	⑦

- All voltages are measured with a 10M Ω DC electric volt meter.
- Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- Schematic diagram is subject to change without notice.
- 電圧は、内部抵抗10M Ω の電圧計で測定したものです。
- Δ 印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
- 本回路図は標準回路図です。改良のため予告なく変更することがございます。

RX-V3200/DSP-AX3200
SCHEMATIC DIAGRAM (OPERATION)

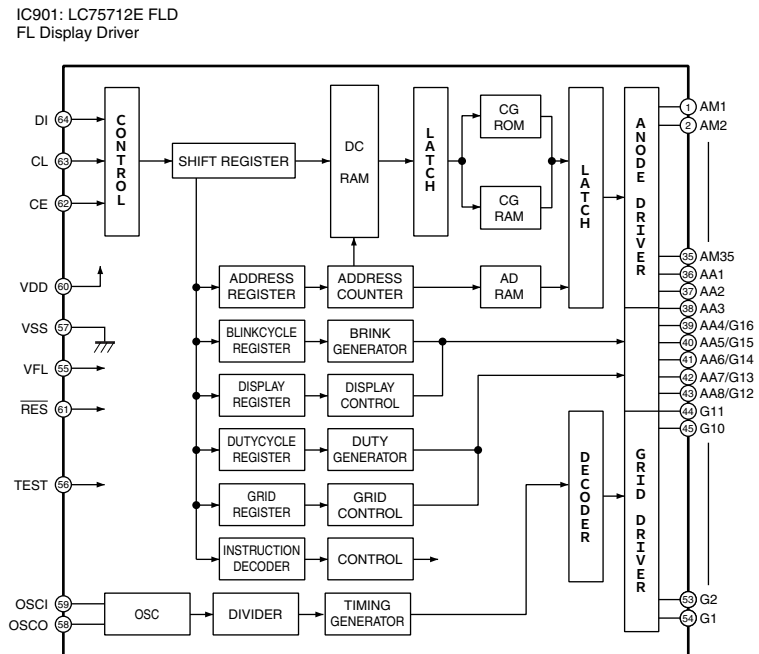
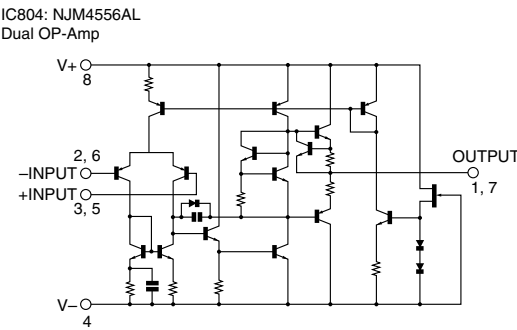
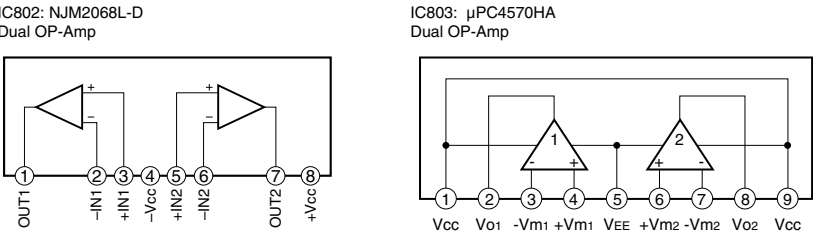


REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
■	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊞	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊖	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
①	MICA CAPACITOR
②	POLYPROPYLENE FILM CAPACITOR
③	SEMICONDUCTIVE CERAMIC CAPACITOR
④	POLYPHENYLENE SULFIDE FILM CAPACITOR

NOTICE (model)
(J)..... JAPANESE
(U)..... U. S. A
(C)..... CANADIAN
(R)..... GENERAL
(A)..... AUSTRALIAN
(B)..... BRITISH
(G)..... EUROPEAN
(T)..... CHINA
(L)..... SINGAPORE

- ★ All voltages are measured with a 10M /V DC electric volt meter.
- ★ Components having special characteristics are marked !, and must be replaced with parts having specifications equal to those originally installed.
- ★ Schematic diagram is subject to change without notice.
- 電圧は、内部抵抗10MΩの電圧計で測定したものです。
- !印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
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Mark	Reference Parts Number	Parts Name
41	IC801	BU4066BC TC4066BP MC14066B
42	DB03-B04	2501919F15/11 25C28781A/B/1

s		U-C-R-T-A	J-G-B
901	D902	51R-60961 V259820	×
902	R908	10K RD35710	×
971	R976	1.2K RD35612	×
972	R977	1.8K RD35618	×
973	R978	2.7K RD35627	×
974	R979	3.3K RD35633	×
975	SW977-980		×

X: NOT USED
O: USED / APPLICABLE

SCHEMATIC DIAGRAM (DSP)

RX-V3200/DSP-AX3200

1

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=10)
⊠	METAL OXIDE FILM RESISTOR
⊡	METAL FILM RESISTOR
⊢	METAL PLATE RESISTOR
⊣	FIRE PROOF CARBON FILM RESISTOR
⊤	CEMENT MOLDED RESISTOR
⊥	SEMI VARIABLE RESISTOR
⊦	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊠	TANTALUM CAPACITOR
⊡	CERAMIC TUBULAR CAPACITOR
⊢	POLYSTYRENE FILM CAPACITOR
⊣	POLYPROPYLENE FILM CAPACITOR
⊤	POLYPROPYLENE FILM CAPACITOR
⊥	SEMICONDUCTIVE CERAMIC CAPACITOR
⊦	POLYPHENYLENE SULFIDE FILM CAPACITOR

1. NOT USED
0. USED/APPLICABLE

Mark	Reference Parts Number	Parts Name
A1	9008-010-017	9008-010-017
A2	IC0513	IC0513
A3	IC0515	IC0515
A4	IC0517	IC0517
A5	IC0518	IC0518

Mark	Reference Parts Number	Parts Name
A1	9008-010-017	9008-010-017
A2	IC0513	IC0513
A3	IC0515	IC0515
A4	IC0517	IC0517
A5	IC0518	IC0518

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A1	9008-010-017	9008-010-017
A2	IC0513	IC0513
A3	IC0515	IC0515
A4	IC0517	IC0517
A5	IC0518	IC0518

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A1	9008-010-017	9008-010-017
A2	IC0513	IC0513
A3	IC0515	IC0515
A4	IC0517	IC0517
A5	IC0518	IC0518

Mark	Reference Parts Number	Parts Name
A1	9008-010-017	9008-010-017
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A3	IC0515	IC0515
A4	IC0517	IC0517
A5	IC0518	IC0518

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A4	IC0517	IC0517
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A4	IC0517	IC0517
A5	IC0518	IC0518

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A5	IC0518	IC0518

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A5	IC0518	IC0518

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A3	IC0515	IC0515
A4	IC0517	IC0517
A5	IC0518	IC0518

2

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6

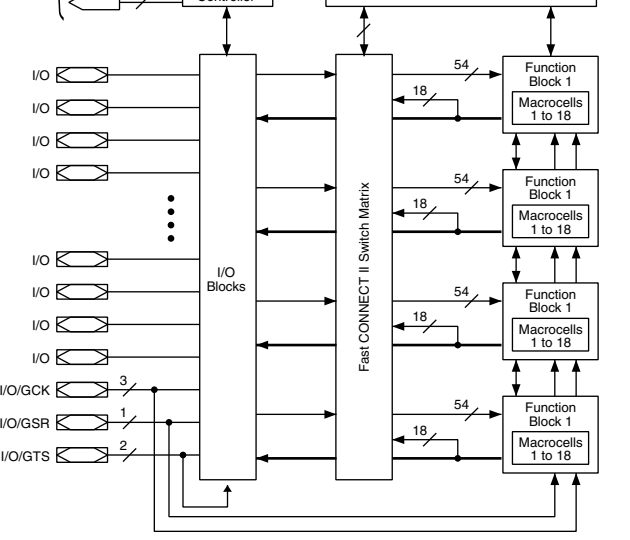
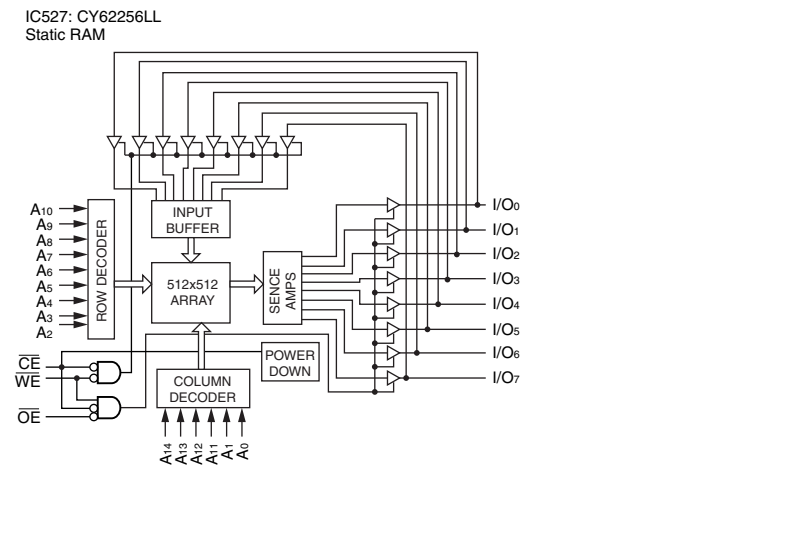
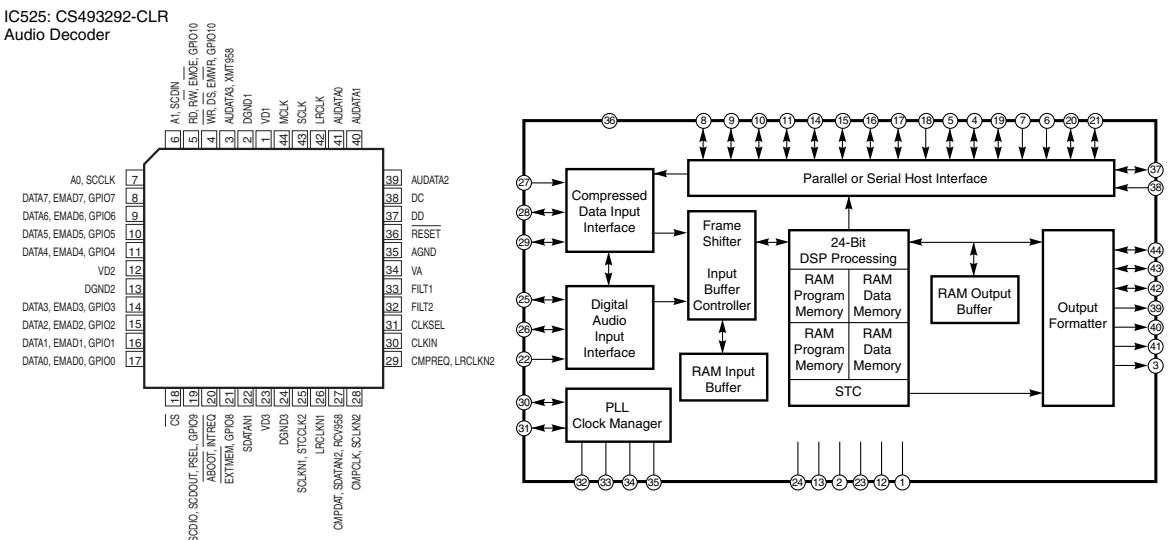
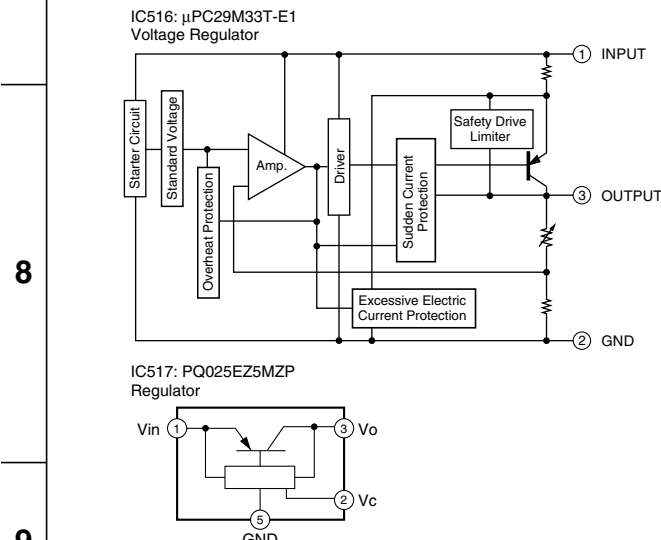
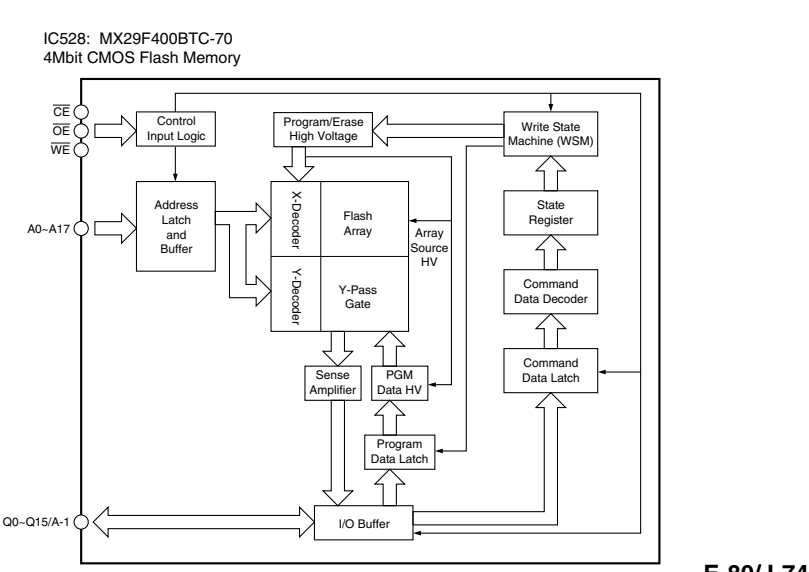
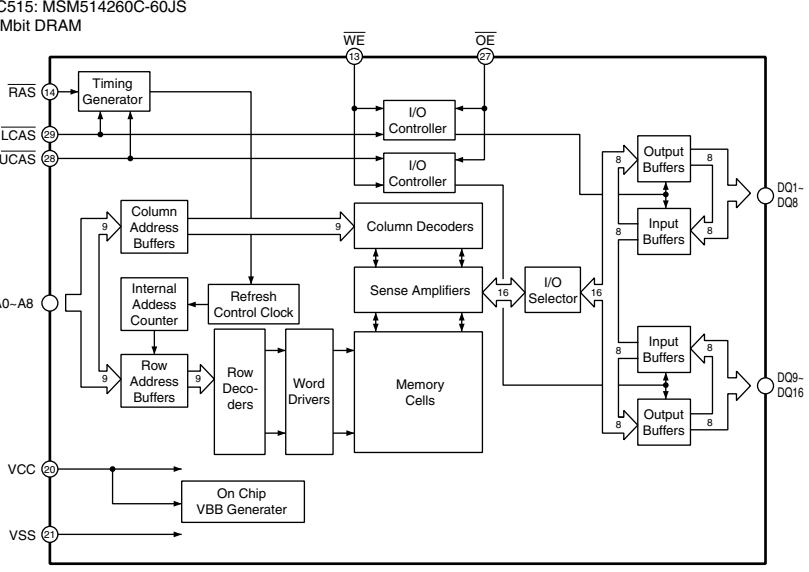
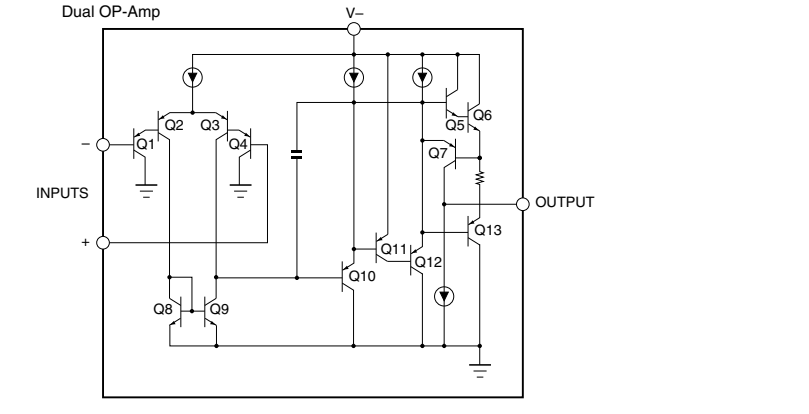
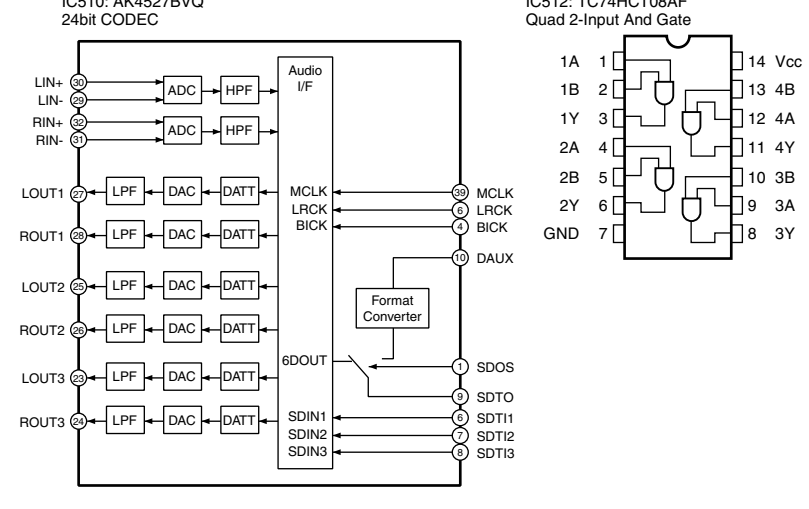
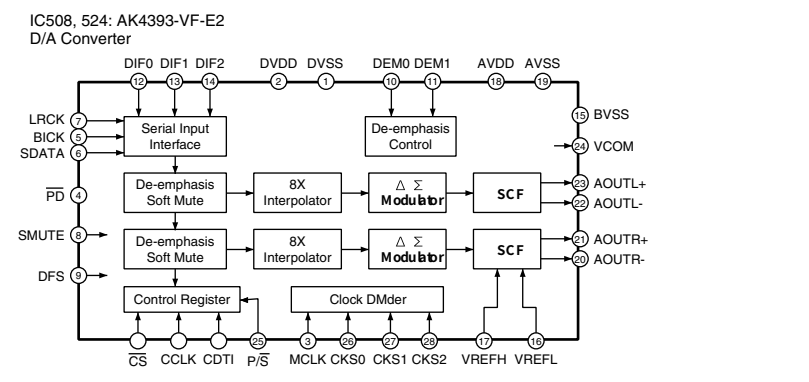
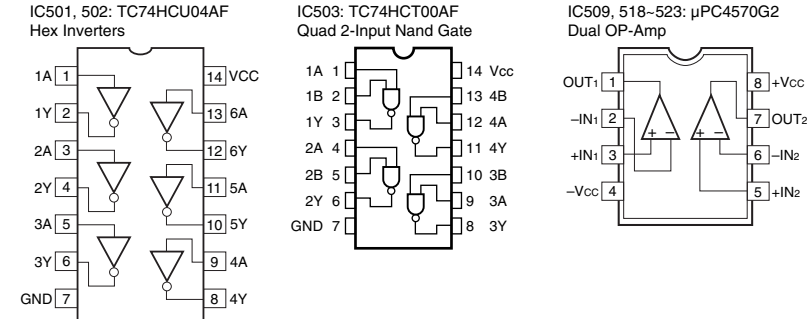
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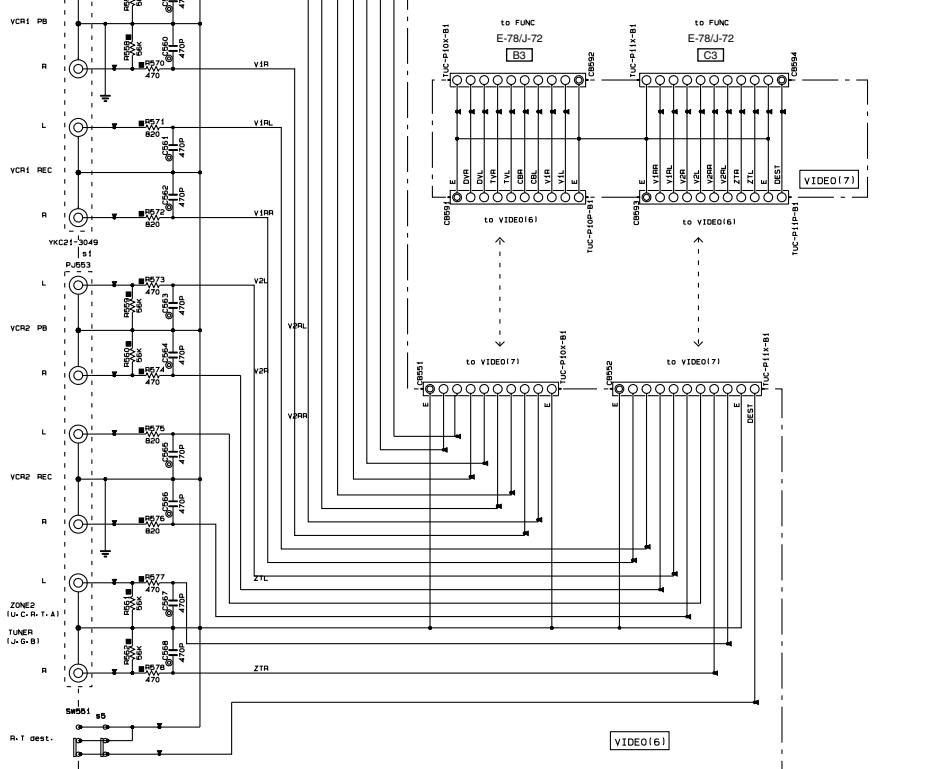
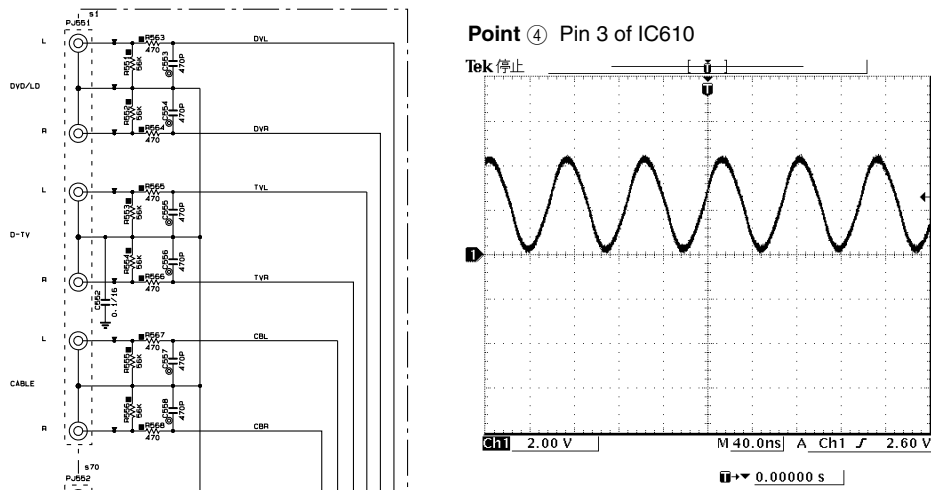
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NOTICE (model)

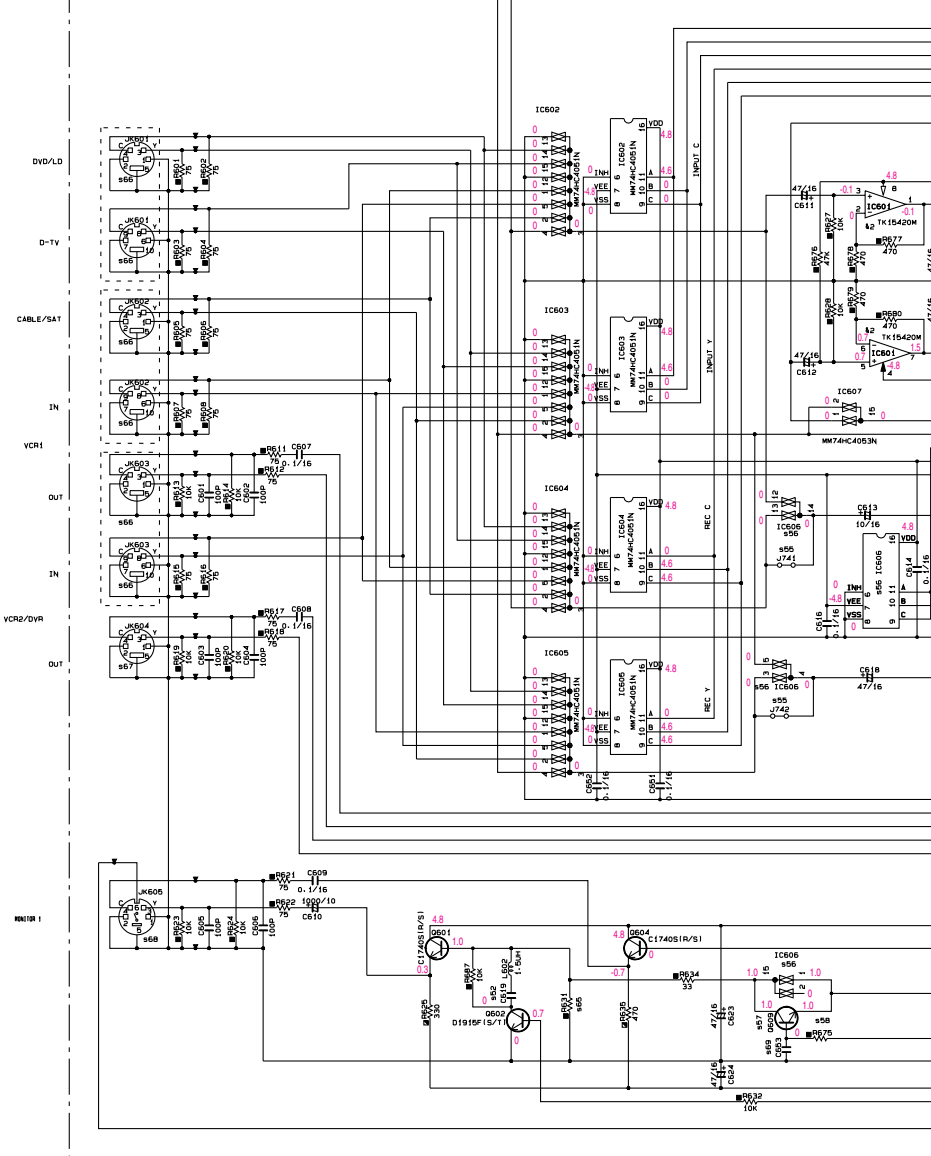
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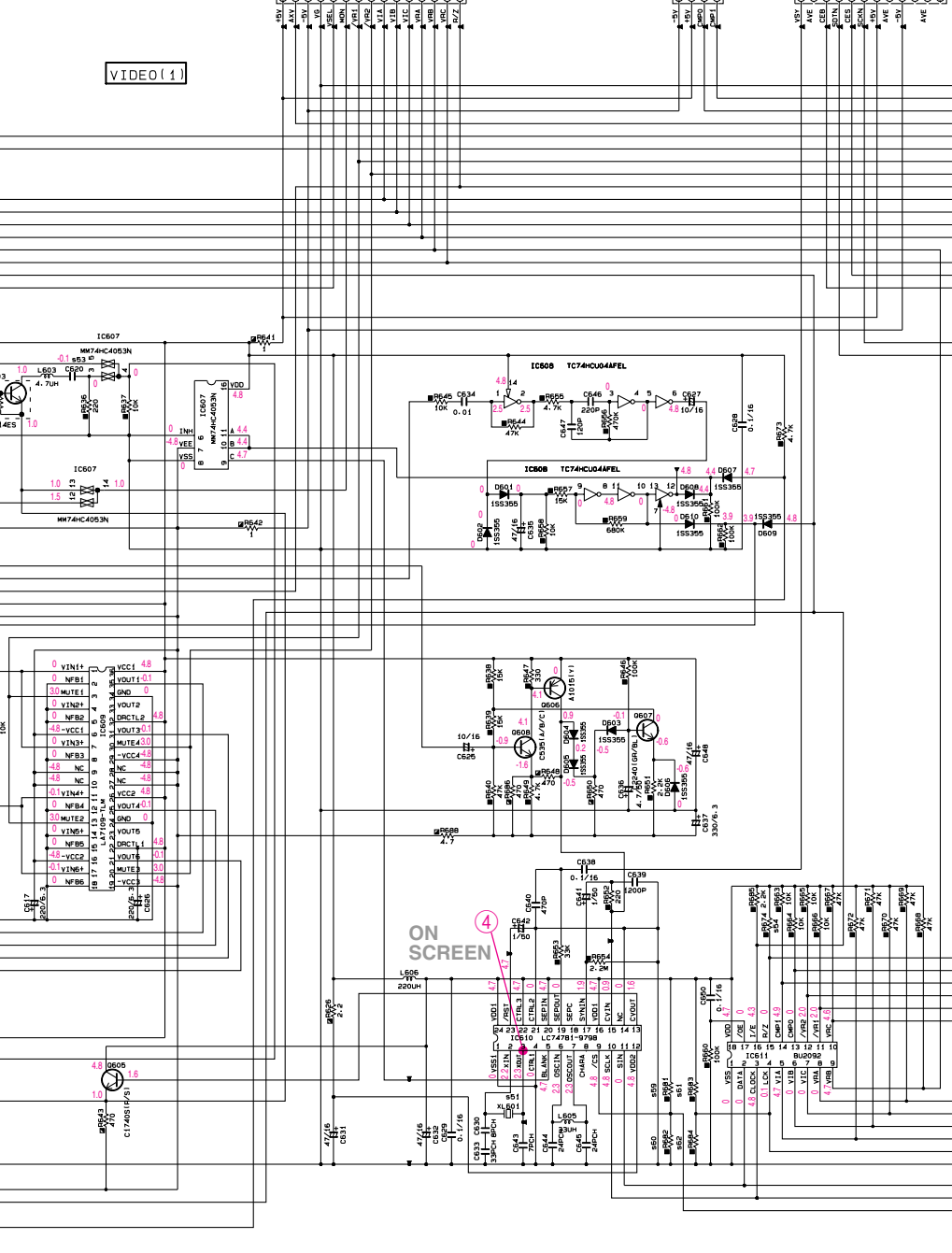
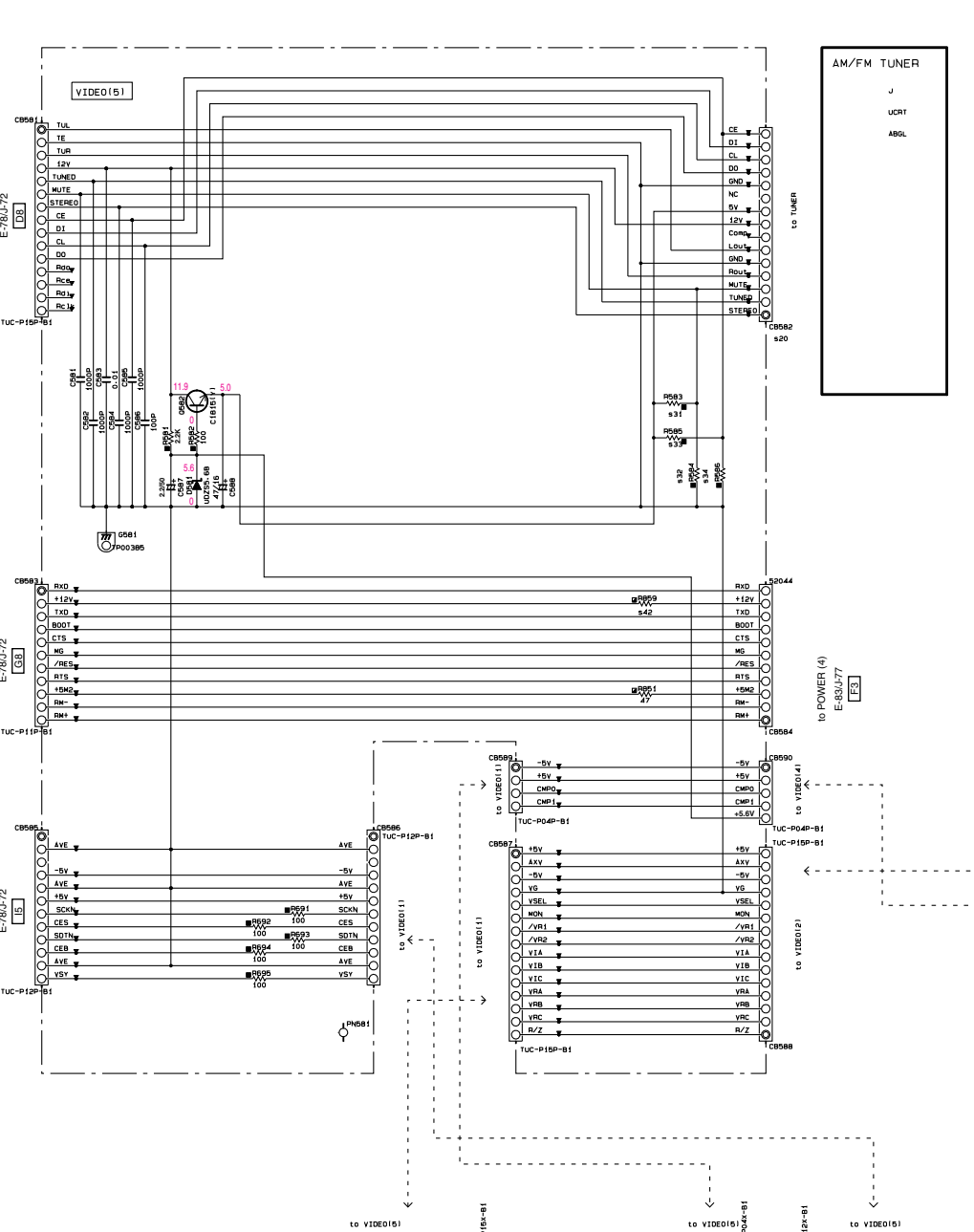
RX-V3200/DSP-AX3200
■ SCHEMATIC DIAGRAM (VIDEO)



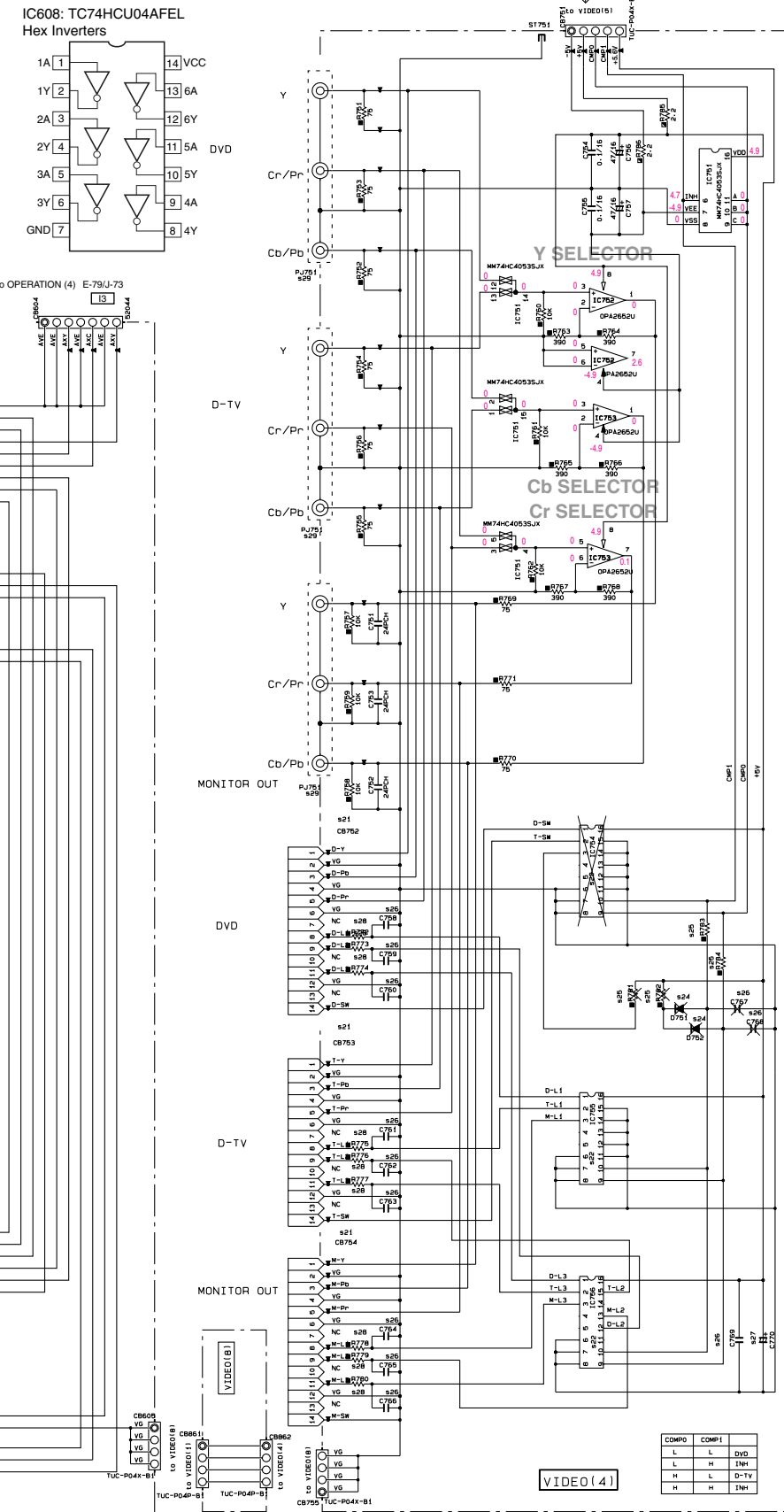
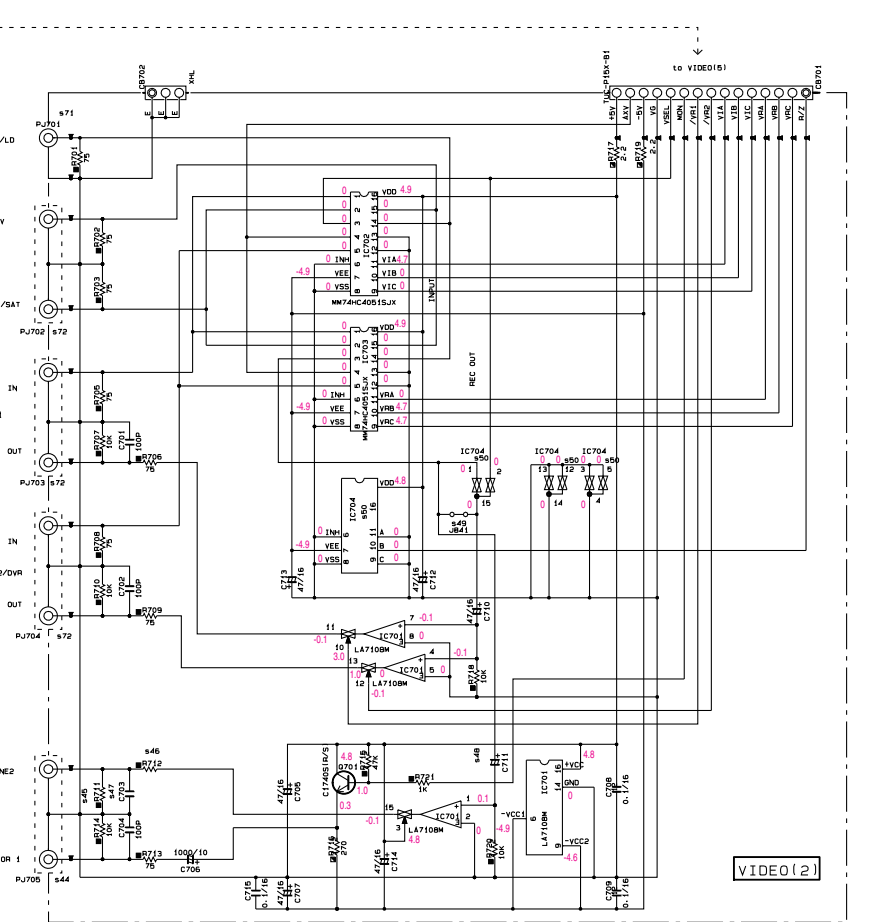
IC601	IC602	IC603	IC604	IC605	IC606	IC607	IC608	IC609	IC610
TK15420M	MM74HC4051N	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S
Video Amp	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer



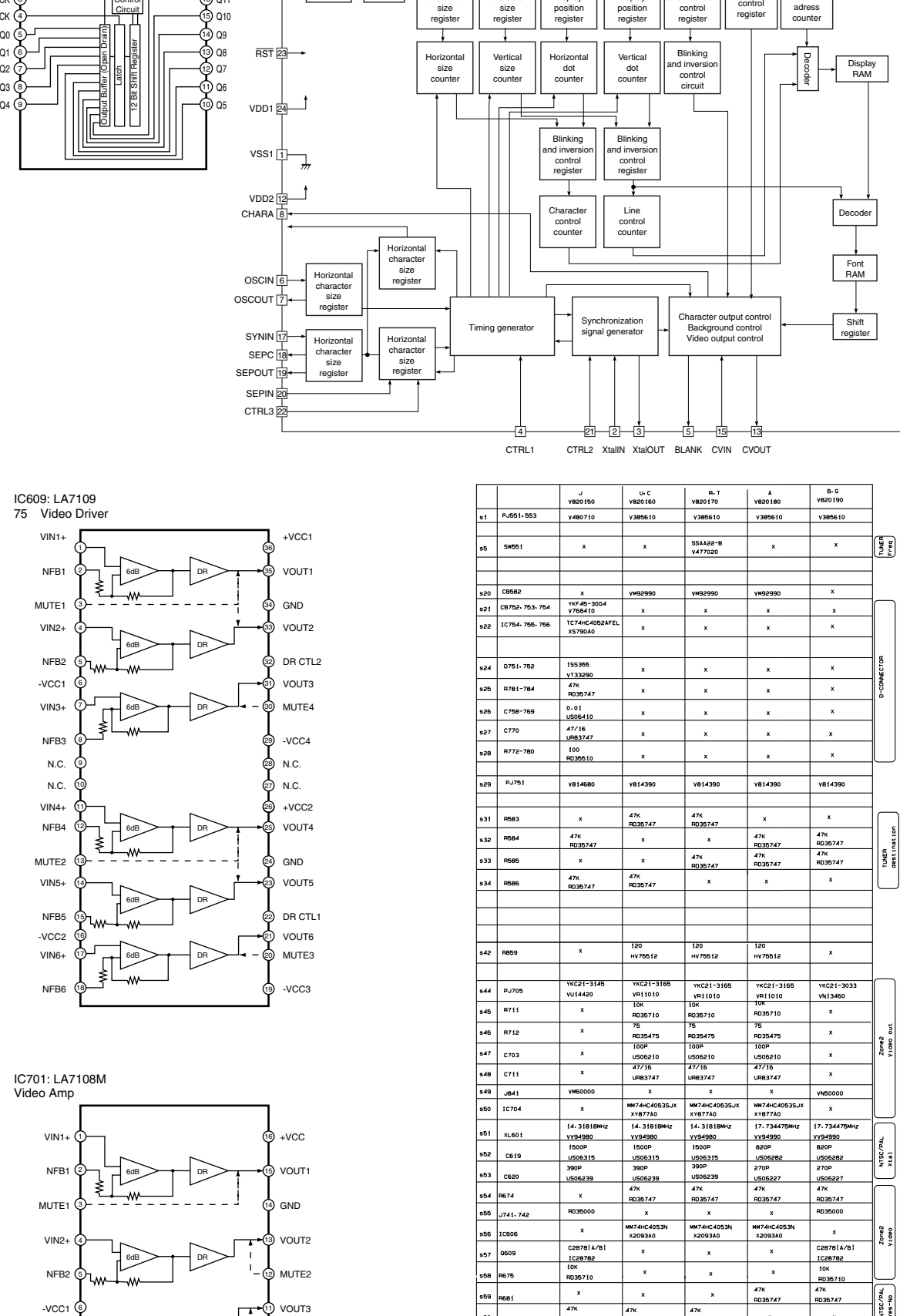
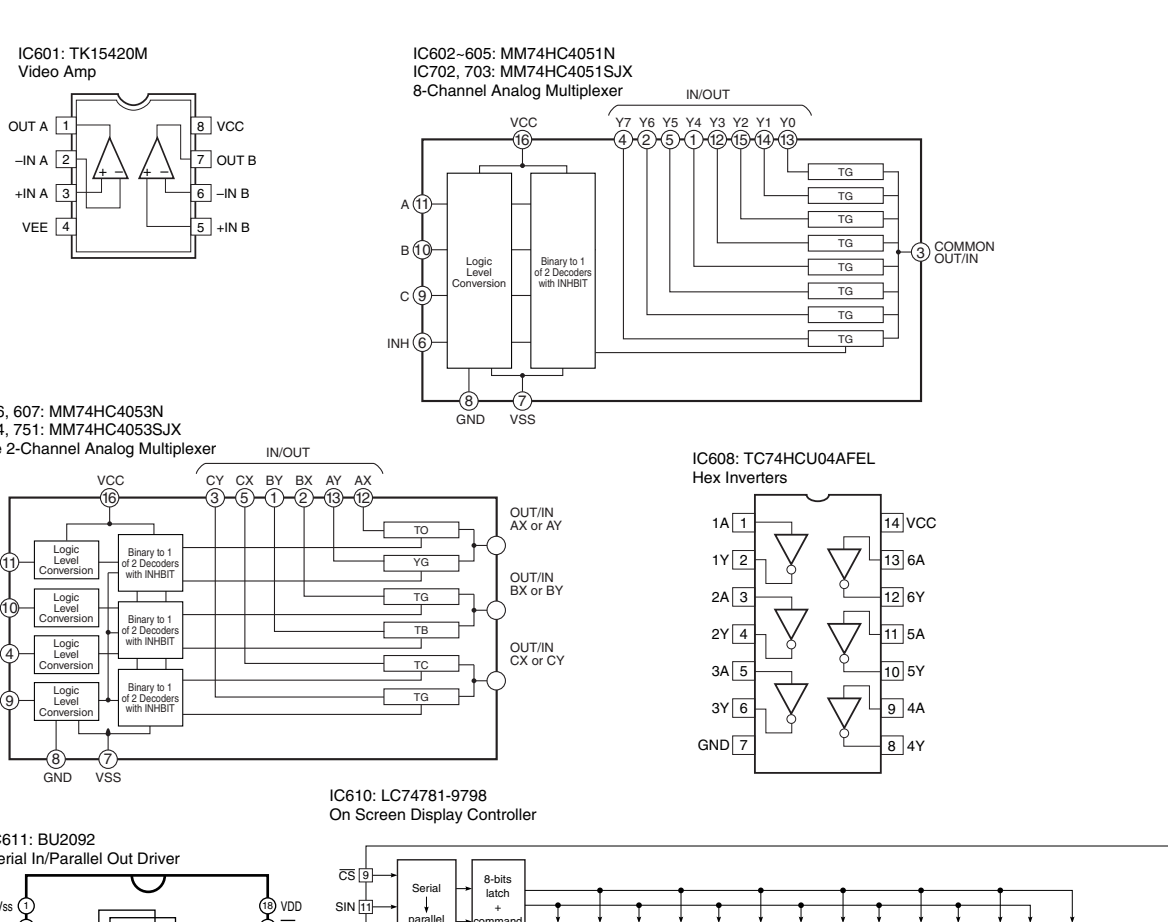
RESISTOR	PARTS NAME	CAPACITOR	PARTS NAME
RES-1	NO MARK CARBON FILM RESISTOR (1/4W)	CAP-1	NO MARK ELECTROLYTIC CAPACITOR
RES-2	METAL FILM RESISTOR	CAP-2	TANTALUM CAPACITOR
RES-3	METAL FILM RESISTOR	CAP-3	NO MARK CERAMIC CAPACITOR
RES-4	METAL FILM RESISTOR	CAP-4	CERAMIC TUBULAR CAPACITOR
RES-5	METAL FILM RESISTOR	CAP-5	POLYESTER FILM CAPACITOR
RES-6	METAL FILM RESISTOR	CAP-6	POLYPROPYLENE FILM CAPACITOR
RES-7	METAL FILM RESISTOR	CAP-7	SEMICONDUCTIVE CERAMIC CAPACITOR
RES-8	METAL FILM RESISTOR	CAP-8	SEMICONDUCTIVE CERAMIC CAPACITOR
RES-9	METAL FILM RESISTOR	CAP-9	SEMICONDUCTIVE CERAMIC CAPACITOR
RES-10	METAL FILM RESISTOR	CAP-10	SEMICONDUCTIVE CERAMIC CAPACITOR



IC601	IC602	IC603	IC604	IC605	IC606	IC607	IC608	IC609	IC610
TK15420M	MM74HC4051N	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S
Video Amp	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer



IC601	IC602	IC603	IC604	IC605	IC606	IC607	IC608	IC609	IC610
TK15420M	MM74HC4051N	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S
Video Amp	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer



IC601	IC602	IC603	IC604	IC605	IC606	IC607	IC608	IC609	IC610
TK15420M	MM74HC4051N	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S	MM74HC4051S
Video Amp	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer	8-Channel Analog Multiplexer

★ All voltages are measured with a 10M Ω DC electric volt meter.
★ Components having special characteristics are marked with a triangle (Δ), and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

● 電圧は、内部抵抗10M Ω の電圧計で測定したものです。
● Δ 印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
● 本回路図は標準回路図です。改良のため予告なく変更することがございます。

NOTE
VIDEO (1) S-VIDEO in/out
(2) VIDEO in/out
(4) COMPONENT VIDEO in/out
(5) AUDIO in/out
(5, 7, 8) Connection

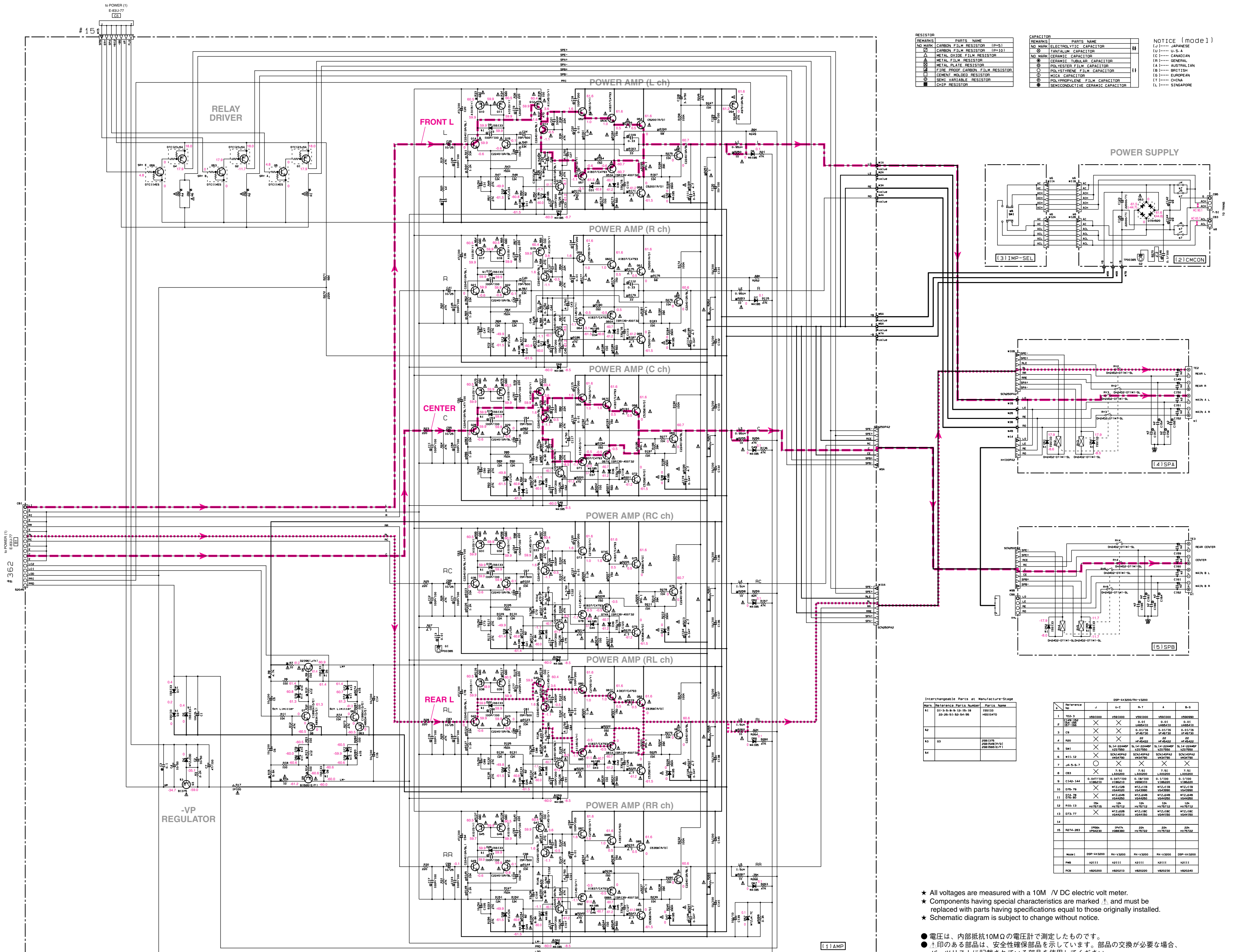
Production of the parts marked with "x" has been discontinued starting with November production of 2001.

×マークの付いた部品は、2001年11月生産分より廃止されています。

x: NOT USED
O: USED / APPLICABLE

■ SCHEMATIC DIAGRAM (MAIN)

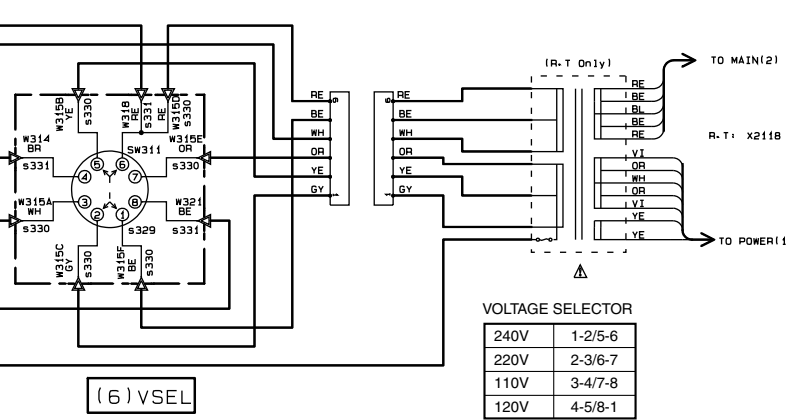
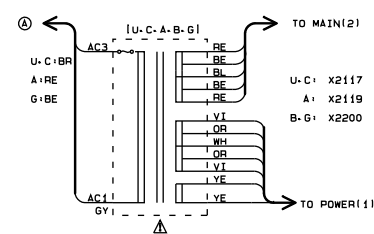
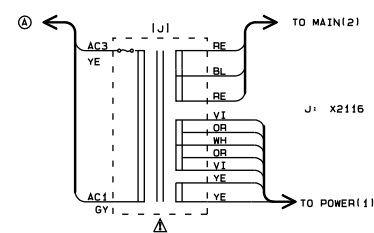
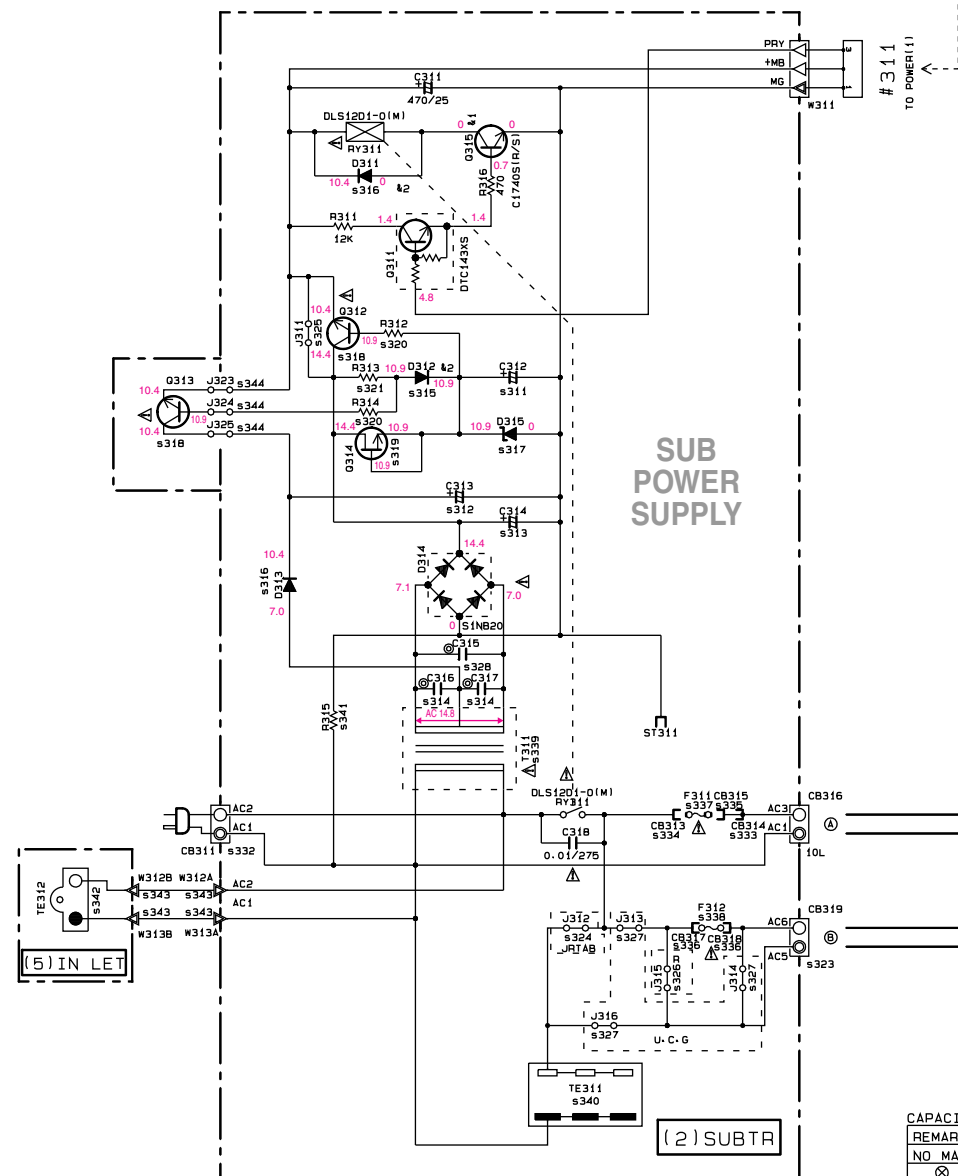
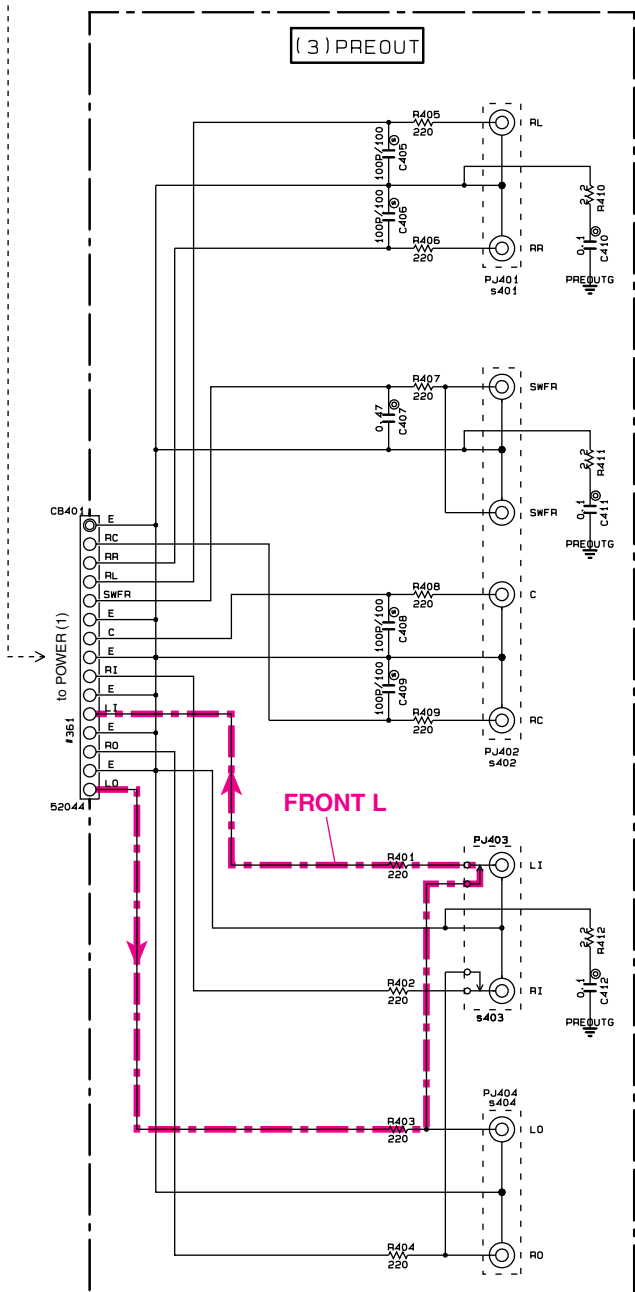
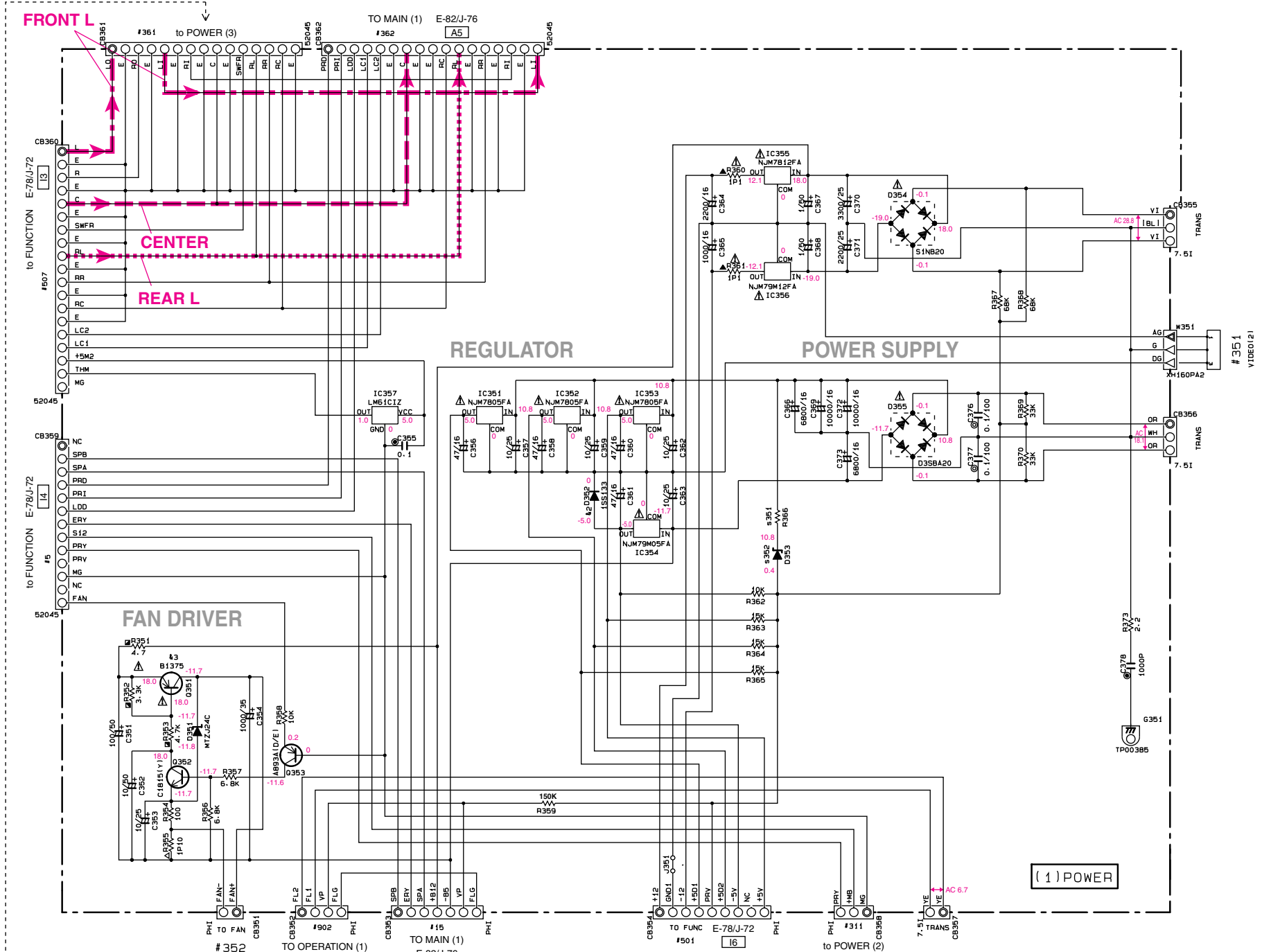
RX-V3200/DSP-AX3200



- ★ All voltages are measured with a 10M Ω DC electric volt meter.
- ★ Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- ★ Schematic diagram is subject to change without notice.

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- Δ 印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
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RX-V3200/DSP-AX3200
■ SCHEMATIC DIAGRAM (POWER)



REMARKS	PARTS NAME	
NO MARK	ELECTROLYTIC CAPACITOR	□
NO MARK	TANTALUM CAPACITOR	□
NO MARK	CERAMIC CAPACITOR	□
①	CERAMIC TUBULAR CAPACITOR	□
②	POLYESTER FILM CAPACITOR	□
③	POLYSTYRENE FILM CAPACITOR	□
④	MICA CAPACITOR	□
⑤	POLYPROPYLENE FILM CAPACITOR	□
⑥	SEMICONDUCTIVE CERAMIC CAPACITOR	□
⑦	POLYPHENYLENE SULFIDE FILM CAPACITOR	□

REMARKS	PARTS NAME	
NO MARK	CARBON FILM RESISTOR (P=5)	□
NO MARK	CARBON FILM RESISTOR (P=10)	□
①	METAL OXIDE FILM RESISTOR	□
②	METAL FILM RESISTOR	□
③	METAL PLATE RESISTOR	□
④	FIRE PROOF CARBON FILM RESISTOR	□
⑤	CEMENT MOLDED RESISTOR	□
⑥	SEMI VARIABLE RESISTOR	□
⑦	CHIP RESISTOR	□

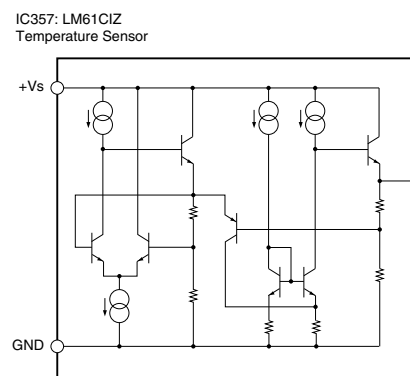
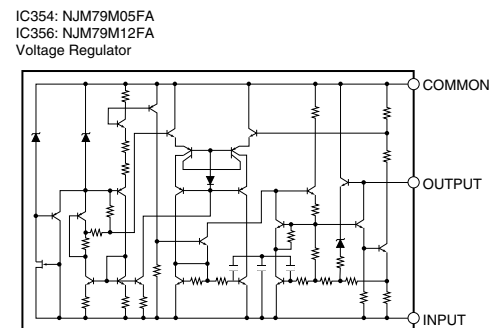
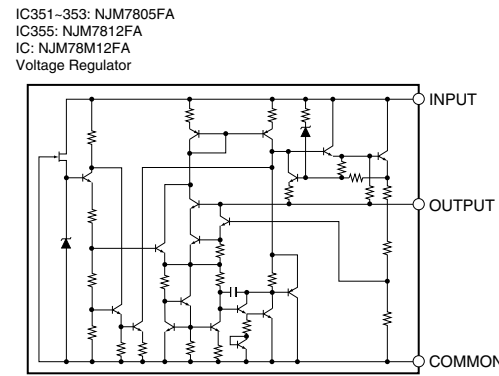
NOTICE (model)
(J)..... JAPANESE
(U)..... U.S.A
(C)..... CANADIAN
(R)..... GENERAL
(A)..... AUSTRALIAN
(B)..... BRITISH
(G)..... EUROPEAN
(T)..... CHINA
(L)..... SINGAPORE

Reference No.	DSP-AX3200	RX-V3200	RX-V3200	RX-V3200	DSP-AX3200	DSP-AX3200
311	C312	×	×	×	×	×
312	C313	×	×	×	×	×
313	C314	×	×	×	×	×
314	C316-317	×	×	×	×	×
315	D312	×	×	×	×	×
316	D313	×	×	×	×	×
317	D315	×	×	×	×	×
318	D312-313	×	×	×	×	×
319	D314	×	×	×	×	×
320	R312-314	×	×	×	×	×
321	R313	×	×	×	×	×
322						
323	C319	×	×	×	×	×
324	J312	×	×	×	×	×
325	J311	×	×	×	×	×
326	J315	×	×	×	×	×
327	J313-314-316	×	×	×	×	×
328	C315	×	×	×	×	×
329	SW311	×	×	×	×	×
330	W315A-F	×	×	×	×	×
331	W314-318-321	×	×	×	×	×
332	CB311	×	×	×	×	×
333	CB314	×	×	×	×	×
334	CB313	×	×	×	×	×
335	CB315	×	×	×	×	×
336	CB317-318	×	×	×	×	×
337	F311	×	×	×	×	×
338	F312	×	×	×	×	×
339	T311	×	×	×	×	×
340	TE311	×	×	×	×	×
341	R315	×	×	×	×	×
342	TE312	×	×	×	×	×
343	W312-313	×	×	×	×	×
344	J323-325	×	×	×	×	×
351	R366	×	×	×	×	×
352	D353	×	×	×	×	×
401	PJ401	×	×	×	×	×
402	PJ402	×	×	×	×	×
403	PJ403	×	×	×	×	×
404	PJ404	×	×	×	×	×
431	D431	×	×	×	×	×
432	JK431-433	×	×	×	×	×
433	C438-439	×	×	×	×	×
Model	DSP-AX3200	RX-V3200	RX-V3200	RX-V3200	DSP-AX3200	DSP-AX3200
PWB	X2104	X2105	X2106	X2107	X2107	X2107
PCB	VB20300	VB20310	VB20320	VB20330	VB20340	VB20350

X: NOT USED
O: USED / APPLICABLE

- ★ All voltages are measured with a 10M Ω DC electric volt meter.
- ★ Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- ★ Schematic diagram is subject to change without notice.

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PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

Components having special characteristics are marked $\triangle$ and must be replaced with parts having specifications equal to those originally installed.

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the parts No. of the carbon resistors, refer to last page.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

C.A.EL.CHP	: CHIP ALUMI.ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED,INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR,RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN,TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.MICA	: MICA CAP	R.CAR.	: CARBON RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.CHP	: CHIP RESISTOR
C.MP	: METALLIZED PAPER CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.FLM	: METAL FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.POL	: POLYESTER FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	R.WW	: WIRE WOUND RESISTOR
C.TRIM	: TRIMMER CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
CN	: CONNECTOR	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN.BS.PIN	: CONNECTOR,BASE PIN	SCR.CUP	: CUP TITE SCREW
CN.CANNON	: CONNECTOR,CANNON	SCR.TERM	: SCREW TERMINAL
CN.DIN	: CONNECTOR,DIN	SCR.TR	: SCREW,TRANSISTOR
CN.FLAT	: CONNECTOR,FLAT CABLE	SUPRT.PCB	: SUPPORT,P.C.B.
CN.POST	: CONNECTOR,BASE POST	SURG.PRTCT	: SURGE PROTECTOR
COIL.MX.AM	: COIL,AM MIX	SW.TACT	: TACT SWITCH
COIL.AT.FM	: COIL,FM ANTENNA	SW.LEAF	: LEAF SWITCH
COIL.DT.FM	: COIL,FM DETECT	SW.LEVER	: LEVER SWITCH
COIL.MX.FM	: COIL,FM MIX	SW.MICRO	: MICRO SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.PUSH	: PUSH SWITCH
DIOD.ARRAY	: DIODE ARRAY	SW.RT.ENC	: ROTARY ENCODER
DIODE.BRG	: DIODE BRIDGE	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.CHP	: CHIP DIODE	SW.RT	: ROTARY SWITCH
DIODE.SHOT	: SCHOTTKY BARRIER DIODE	SW.SLIDE	: SLIDE SWITCH
DIODE.VAR	: VARACTOR DIODE	TERM.SP	: SPEAKER TERMINAL
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DIODE.ZENR	: ZENER DIODE	THRMST.CHP	: CHIP THERMISTOR
DSCR.CE	: CERAMIC DISCRIMINATOR	TR.CHP	: CHIP TRANSISTOR
FER.BEAD	: FERRITE BEADS	TR.DGT	: DIGITAL TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TRANS	: TRANSFORMER
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS.PULS	: PULSE TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PWR	: POWER TRANSFORMER ASS'Y
FLTR.COMB	: COMB FILTER MODULE	TUNER.AM	: TUNER PACK,AM
FLTR.LC.RF	: LC FILTER,EMI	TUNER.FM	: TUNER PACK,FM
GND.MTL	: GROUND PLATE	TUNER.PK	: FRONT-END TUNER PACK
GND.TERM	: GROUND TERMINAL	VR	: ROTARY POTENTIOMETER
HOLDER.FUS	: FUSE HOLDER	VR.MTR	: POTENTIOMETER WITH MOTOR
IC.PRTCT	: IC PROTECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.CN	: JUMPER CONNECTOR	VR.SLIDE	: SLIDE POTENTIOMETER
JUMPER.TST	: JUMPER,TEST POINT	VR.TRIM	: TRIMMER POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE		

Note) Those parts marked with “#” are not included in the P.C.B. ass'y.

P.C.B. FUNCTION

Schm Ref.	PART NO.	Description	Markets
	V8201100	P.C.B.	UC
	V8201200	P.C.B.	RT
	V8201300	P.C.B.	A
	V8201400	P.C.B.	BG
CB501	V7826000	CN	UCRTA
CB502	V7826100	CN	
CB503	V7828200	SOCKET	
CB504	VQ048000	CN.BS.PIN	
CB505	VF982300	CN.BS.PIN	
CB506	V7827800	SOCKET	
CB507	VQ047400	CN.BS.PIN	
CB508	V7827900	SOCKET	
CB509	VQ044900	CN.BS.PIN	
CB510	VQ044600	CN.BS.PIN	
C501	UU166470	C.EL	UCRTA
C502	UU166470	C.EL	
C503	UU166470	C.EL	
C504	UU166100	C.EL	
C505	UU166100	C.EL	
C506	UU118220	C.EL	
C507	UU118220	C.EL	
C508	UU166220	C.EL	
C509	UU166220	C.EL	
C510	UU147100	C.EL	
C511	UU147100	C.EL	UCRTA
C512	UU147100	C.EL	
C513	UU147100	C.EL	
C514	UU147100	C.EL	
C515	UU137470	C.EL	
C516	UU137470	C.EL	
C517	UU147100	C.EL	
C518	UU147100	C.EL	
C519	UU138100	C.EL	
C520	UU138100	C.EL	
C521	UU147100	C.EL	UCRTA
C522	UU147100	C.EL	
C523	UU166470	C.EL	
C524	UU166470	C.EL	
C525	UU166470	C.EL	
C526	UU166470	C.EL	
C527	UU147100	C.EL	
C528	UU147100	C.EL	
C529	UU147100	C.EL	
C530	UU147100	C.EL	
C531	UU137470	C.EL	UCRTA
C532	UU137470	C.EL	
C533	UU166100	C.EL	
C534	UU137220	C.EL	
C535	UU137220	C.EL	
C536	UU147100	C.EL	
C537	UU147100	C.EL	
C538	UU147100	C.EL	
C539	UU147100	C.EL	
C540	UU147100	C.EL	
C541	UU137470	C.EL	UCRTA
C542	UU137470	C.EL	
C543	UU166330	C.EL	
C544	UU166330	C.EL	
C545	UU147100	C.EL	
C546	UU147100	C.EL	
C547	UU147100	C.EL	
C548	UU147100	C.EL	
C549	UU147100	C.EL	

* New Parts

Schm Ref.	PART NO.	Description	Markets
C550	UU147100	C.EL	UCABG RT
C551	UR865220	C.EL	
C552	UU147100	C.EL	
C553	UU147100	C.EL	
C554	UU166330	C.EL	
C555	UU166330	C.EL	
C556	UU166330	C.EL	
C557	UU166330	C.EL	
C558	UU166330	C.EL	
C559	UU166330	C.EL	
C560	UU147100	C.EL	UCABG RT
C561	UU138100	C.EL	
C562	UU138100	C.EL	
C563	UR865470	C.EL	
C564	UU147100	C.EL	
C565	UU147100	C.EL	
C566	UU147100	C.EL	
C567	UU147100	C.EL	
C568	UU137470	C.EL	
C569	UU147100	C.EL	
C570	UU147100	C.EL	UCABG RT
C571	UU138100	C.EL	
C572	UU138100	C.EL	
C573	UU147100	C.EL	
C574	UU147100	C.EL	
C575	UU147100	C.EL	
C576	UR848100	C.EL	
C576	UR848220	C.EL	
C577	UU137470	C.EL	
C578	UU138100	C.EL	
C579	UU138100	C.EL	UCABG RT
C580	VU545000	C.EL	
C581	UU147100	C.EL	
C582	UU147100	C.EL	
C583	UU147100	C.EL	
C584	UU137470	C.EL	
C585	UU137470	C.EL	
C586	UR819100	C.EL	
C587	UR819220	C.EL	
C588	UU147100	C.EL	
C589	UU147100	C.EL	UCABG RT
C590	UU147100	C.EL	
C591	UU147100	C.EL	
C592	UU147100	C.EL	
C593	UU138100	C.EL	
C594	UU147100	C.EL	
C595	UU166220	C.EL	
C596	UU166220	C.EL	
C597	UU166220	C.EL	
C598	UU166220	C.EL	
C599	UU166220	C.EL	UCABG RT
C600	UU166220	C.EL	
C601	VC694800	C.CE.SMI	
C602	US135100	C.CE.CHP	
C603	UP652220	C.POL	
C604	UP652220	C.POL	
C605	UP652470	C.POL	
C606	UP652470	C.POL	
C607	UP652470	C.POL	
C608	UP652470	C.POL	
C609	UP652470	C.POL	
C610	UP652470	C.POL	ABG ABG
C611	UP652470	C.POL	

* New Parts

P.C.B. FUNCTION

Schm Ref.	PART NO.	Description	Markets
C612	UP652470	C. POL 470pF 100V	
C613	UP652470	C. POL 470pF 100V	
C614	UP652470	C. POL 470pF 100V	
C615	UP652220	C. POL 220pF 100V	
C616	UP652220	C. POL 220pF 100V	
C617	UP652470	C. POL 470pF 100V	
C618	UP652470	C. POL 470pF 100V	
C619	UP652470	C. POL 470pF 100V	
C620	UP652470	C. POL 470pF 100V	
C621	UP652470	C. POL 470pF 100V	
C622	UP652470	C. POL 470pF 100V	
C623	UA654390	C. MYLAR 0.039uF 50V	
C624	UA654390	C. MYLAR 0.039uF 50V	
C625	UP652100	C. POL 100pF 100V	
C626	UP652100	C. POL 100pF 100V	
C627	UA654110	C. MYLAR 0.011uF 50V	
C628	UA654110	C. MYLAR 0.011uF 50V	
C629	UA653100	C. MYLAR 1000pF 50V	
C630	UA653100	C. MYLAR 1000pF 50V	
C631	UP652100	C. POL 100pF 100V	
C632	UP652100	C. POL 100pF 100V	
C633	US135100	C. CE. CHP 0.1uF 16V	
C634	US135100	C. CE. CHP 0.1uF 16V	
C635	UP654270	C. POL 0.027uF 100V	
C636	UP654270	C. POL 0.027uF 100V	
C637	UP654270	C. POL 0.027uF 100V	
C638	UP654270	C. POL 0.027uF 100V	
C639	US135100	C. CE. CHP 0.1uF 16V	
C640	UP652100	C. POL 100pF 100V	
C641	UP652100	C. POL 100pF 100V	
C642	US135100	C. CE. CHP 0.1uF 16V	
C643	US135100	C. CE. CHP 0.1uF 16V	
C644	US063100	C. CE. M. CHP 1000pF 50V	
C645	US135100	C. CE. CHP 0.1uF 16V	
C646	US135100	C. CE. CHP 0.1uF 16V	
C647	US135100	C. CE. CHP 0.1uF 16V	
C648	US135100	C. CE. CHP 0.1uF 16V	
C649	US135100	C. CE. CHP 0.1uF 16V	
C650	US135100	C. CE. CHP 0.1uF 16V	
C651	US135100	C. CE. CHP 0.1uF 16V	
C652	US135100	C. CE. CHP 0.1uF 16V	
C653	US135100	C. CE. CHP 0.1uF 16V	
C654	US135100	C. CE. CHP 0.1uF 16V	
C655	US135100	C. CE. CHP 0.1uF 16V	
C656	US135100	C. CE. CHP 0.1uF 16V	
C657	US135100	C. CE. CHP 0.1uF 16V	
C658	UP652100	C. POL 100pF 100V	
C659	UP652100	C. POL 100pF 100V	
C660	UP652100	C. POL 100pF 100V	
C661	US135100	C. CE. CHP 0.1uF 16V	
C662	UP652100	C. POL 100pF 100V	
C663	UP652100	C. POL 100pF 100V	
C664	US135100	C. CE. CHP 0.1uF 16V	
C665	US135100	C. CE. CHP 0.1uF 16V	
C666	US135100	C. CE. CHP 0.1uF 16V	UCABG
C667	UP652100	C. POL 100pF 100V	
C668	UP652100	C. POL 100pF 100V	
C669	US135100	C. CE. CHP 0.1uF 16V	
C670	US135100	C. CE. CHP 0.1uF 16V	
C671	US135100	C. CE. CHP 0.1uF 16V	UCABG
C672	US135100	C. CE. CHP 0.1uF 16V	
C673	US135100	C. CE. CHP 0.1uF 16V	
C675	US063100	C. CE. M. CHP 1000pF 50V	

* New Parts

Schm Ref.	PART NO.	Description	Markets
C676	US135100	C. CE. CHP 0.1uF 16V	UCABG
C677	US063100	C. CE. M. CHP 1000pF 50V	
C678	US135100	C. CE. CHP 0.1uF 16V	UCABG
C679	US135100	C. CE. CHP 0.1uF 16V	
C691	UR867470	C. EL 47uF 50V	
C692	UR848100	C. EL 100uF 25V	
D501	VU992600	DIODE.ZENR MA8051-M 5.1V	
D502	VT332900	DIODE 1SS355	
D503	VT332900	DIODE 1SS355	
D504	VT332900	DIODE 1SS355	
D505	VT332900	DIODE 1SS355	
D506	VU993500	DIODE.ZENR MA8062-H 6.4V	
D507	VT332900	DIODE 1SS355	
D508	VT332900	DIODE 1SS355	
D509	VT332900	DIODE 1SS355	
D510	VT332900	DIODE 1SS355	
D511	VV833200	DIODE 1SS380	
D512	VT332900	DIODE 1SS355	
D513	VU992600	DIODE.ZENR MA8051-M 5.1V	
D514	VT332900	DIODE 1SS355	
D515	VU993000	DIODE.ZENR MA8056-M 5.6V	
D517	VT332900	DIODE 1SS355	
D518	VT332900	DIODE 1SS355	
D519	VV220700	DIODE.SHOT RB501V-40	
D520	VT332900	DIODE 1SS355	
D521	VV220700	DIODE.SHOT RB501V-40	
D522	VT332900	DIODE 1SS355	
D523	VV220700	DIODE.SHOT RB501V-40	
D524	VT332900	DIODE 1SS355	
D525	VV220700	DIODE.SHOT RB501V-40	
D526	VT332900	DIODE 1SS355	
D531	VT332900	DIODE 1SS355	
D532	VT332900	DIODE 1SS355	
IC501	XJ553A00	IC NJM2068MD	
IC502	XP895A00	IC LC78212	
IC503	XP894A00	IC LC78211	
IC504	XP895A00	IC LC78212	
IC505	XP896A00	IC LC78213	
IC506	XF291A00	IC uPC4570G2	
IC507	XF291A00	IC uPC4570G2	
IC508	XF291A00	IC uPC4570G2	
IC509	XP894A00	IC LC78211	
IC510	XP896A00	IC LC78213	
IC511	XF291A00	IC uPC4570G2	
IC512	X0671A00	IC MX29F400BTC-70	
IC513	XF291A00	IC uPC4570G2	
IC514	XF291A00	IC uPC4570G2	
IC515	XF291A00	IC uPC4570G2	
IC516	XZ545A00	IC YAC520-EE2	
IC517	XZ545A00	IC YAC520-EE2	
IC518	XZ545A00	IC YAC520-EE2	
IC519	XZ545A00	IC YAC520-EE2	
IC520	XY892A00	IC.CPU M30802SGP CPU	
IC521	XF291A00	IC uPC4570G2	
IC522	XJ604A00	IC NJM78M05FA	
IC523	XF291A00	IC uPC4570G2	
IC524	XF291A00	IC uPC4570G2	
IC525	XF291A00	IC uPC4570G2	
L501	VY656400	COIL.CHP 120uH	
L502	VY656400	COIL.CHP 120uH	
L503	VE795500	FER.BEAD B-01-RTF	
PJ501	V3855600	JACK.PIN 4P	
PJ502	V3855600	JACK.PIN 4P	

* New Parts

P.C.B. FUNCTION & P.C.B. OPERATION

Schm Ref.	PART NO.	Description	Markets
PJ503	V4198900	JACK. PIN	4P
PJ504	V4199200	JACK. PIN	6P
PN501	V3750200	PIN	L=70
Q501	VD303700	TR	2SC3326 A,B
Q502	VD303700	TR	2SC3326 A,B
Q503	VD303700	TR	2SC3326 A,B
Q504	VD303700	TR	2SC3326 A,B
Q505	VD303700	TR	2SC3326 A,B
Q506	VD303700	TR	2SC3326 A,B
Q507	ia103700	TR. CHP	2SA1037 Q,R,S
Q508	ia103700	TR. CHP	2SA1037 Q,R,S
Q509	VV655700	TR. DGT	DTC144EKA
Q510	VV655700	TR. DGT	DTC144EKA
Q511	ia103700	TR. CHP	2SA1037 Q,R,S
Q512	VV655700	TR. DGT	DTC144EKA
Q513	VD303700	TR	2SC3326 A,B
Q514	VD303700	TR	2SC3326 A,B
Q515	VD303700	TR	2SC3326 A,B
Q516	VD303700	TR	2SC3326 A,B
Q517	VD303700	TR	2SC3326 A,B
Q518	VD303700	TR	2SC3326 A,B
Q519	VD303700	TR	2SC3326 A,B
Q520	ia103700	TR. CHP	2SA1037 Q,R,S
Q521	ia103700	TR. CHP	2SA1037 Q,R,S
Q522	ia103700	TR. CHP	2SA1037 Q,R,S
Q523	ia103700	TR. CHP	2SA1037 Q,R,S
Q524	ia103700	TR. CHP	2SA1037 Q,R,S
Q525	ia103700	TR. CHP	2SA1037 Q,R,S
Q526	VP872700	TR	2SC4488 S,T
Q527	ia103700	TR. CHP	2SA1037 Q,R,S
Q528	ia103700	TR. CHP	2SA1037 Q,R,S
Q529	ia103700	TR. CHP	2SA1037 Q,R,S
Q530	ia103700	TR. CHP	2SA1037 Q,R,S
Q531	ia103700	TR. CHP	2SA1037 Q,R,S
Q532	ia103700	TR. CHP	2SA1037 Q,R,S
Q533	VD303700	TR	2SC3326 A,B
Q534	VD303700	TR	2SC3326 A,B
Q535	VP872600	TR	2SA1708 S,T
Q536	VV655700	TR. DGT	DTC144EKA
Q537	VD303700	TR	2SC3326 A,B
Q538	VD303700	TR	2SC3326 A,B
Q539	VD303700	TR	2SC3326 A,B
Q540	VD303700	TR	2SC3326 A,B
Q541	VD303700	TR	2SC3326 A,B
Q542	VD303700	TR	2SC3326 A,B
Q543	VD303700	TR	2SC3326 A,B
Q544	VD303700	TR	2SC3326 A,B
Q546	VD303700	TR	2SC3326 A,B
Q547	VD303700	TR	2SC3326 A,B
R561	HV755100	R. CAR. FP	100Ω 1/4W
R562	HV755100	R. CAR. FP	100Ω 1/4W
R636	HV753220	R. CAR. FP	2.2Ω 1/4W
R637	HV753220	R. CAR. FP	2.2Ω 1/4W
R664	HV753470	R. CAR. FP	4.7Ω 1/4W
R703	HV753220	R. CAR. FP	2.2Ω 1/4W
R704	HV753220	R. CAR. FP	2.2Ω 1/4W
R803	HV754100	R. CAR. FP	10Ω 1/4W
ST501	BB071360	SCR. TERM	8.3x13
ST502	BB071360	SCR. TERM	8.3x13
XL501	V4738900	RSNR. CE	12MHz

* New Parts

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Schm Ref.	PART NO.	Description	Markets
	V8202600	P.C.B.	BG
	V8202700	P.C.B.	UCRTA
CB801	VF982300	CN. BS. PIN	17P
CB802	V7827200	SOCKET	5P TE TUC SERIES
CB831	V7825500	CN	5P TE TUC SERIES
CB901	VB858600	CN. BS. PIN	7P
CB902	VQ044900	CN. BS. PIN	19P
CB935	V7680700	CN. PHOT. SN	1P GP1FA512RZ
CB936	VB858200	CN. BS. PIN	3P
CB937	VQ047100	CN. BS. PIN	7P
CB938	VB389900	CN. BS. PIN	3P
CB985	VB858200	CN. BS. PIN	3P
C801	UU137470	C. EL	47uF 16V
C802	UU137470	C. EL	47uF 16V
C803	UU147220	C. EL	22uF 25V
C804	UU147220	C. EL	22uF 25V
C805	UU165100	C. EL	0.1uF 50V
C806	UU165100	C. EL	0.1uF 50V
C807	UU165100	C. EL	0.1uF 50V
C808	UU165100	C. EL	0.1uF 50V
C809	UU166100	C. EL	1uF 50V
C810	UU166100	C. EL	1uF 50V
C811	UU166220	C. EL	2.2uF 50V
C812	UU166220	C. EL	2.2uF 50V
C813	UP652100	C. POL	100pF 100V
C814	UP652100	C. POL	100pF 100V
C815	UU137470	C. EL	47uF 16V
C816	UU137470	C. EL	47uF 16V
C817	VR168400	C. MYLAR. ML	ECQ-V1H124JL3
C818	VR168400	C. MYLAR. ML	ECQ-V1H124JL3
C819	UA654330	C. MYLAR	0.033uF 50V
C820	UA654330	C. MYLAR	0.033uF 50V
C821	UU147100	C. EL	10uF 25V
C822	UU147100	C. EL	10uF 25V
C823	UU147100	C. EL	10uF 25V
C824	UU147100	C. EL	10uF 25V
C825	UU147100	C. EL	10uF 25V
C826	UU147100	C. EL	10uF 25V
C827	FG652100	C. CE	100pF 50V
C828	FG652100	C. CE	100pF 50V
C829	FG652100	C. CE	100pF 50V
C830	FG652100	C. CE	100pF 50V
C831	UU147100	C. EL	10uF 25V
C832	UU147100	C. EL	10uF 25V
C833	VF466600	C. CE. TUBLR	10pF 50V
C834	VF466600	C. CE. TUBLR	10pF 50V
C835	UU139100	C. EL	1000uF 16V
C836	UU139100	C. EL	1000uF 16V
C837	VR168400	C. MYLAR. ML	ECQ-V1H124JL3
C838	VR168400	C. MYLAR. ML	ECQ-V1H124JL3
C891	VF467000	C. CE. TUBLR	1000pF 50V
C892	VF467000	C. CE. TUBLR	1000pF 50V
C893	VF467000	C. CE. TUBLR	1000pF 50V
C894	VJ599100	C. CE. TUBLR	0.1uF 50V
C901	VJ599100	C. CE. TUBLR	0.1uF 50V
C902	VJ599100	C. CE. TUBLR	0.1uF 50V
C903	VJ599100	C. CE. TUBLR	0.1uF 50V
C904	VJ599100	C. CE. TUBLR	0.1uF 50V
C905	UU118100	C. EL	100uF 6.3V
C906	VJ599100	C. CE. TUBLR	0.1uF 50V
C907	US061330	C. CE. M. CHP	33pF 50V
C908	US135100	C. CE. CHP	0.1uF 16V
C909	US135100	C. CE. CHP	0.1uF 16V

* New Parts

P.C.B. OPERATION & P.C.B. DSP

Schm Ref.	PART NO.	Description	Markets
C910	UU118330	C.EL 330uF 6.3V	UCRTA
C911	VJ599100	C.CE.TUBLR 0.1uF 50V	
C912	VJ599100	C.CE.TUBLR 0.1uF 50V	
C913	VJ599100	C.CE.TUBLR 0.1uF 50V	
C935	US135100	C.CE.CHP 0.1uF 16V	
C937	US135100	C.CE.CHP 0.1uF 16V	
C938	US062100	C.CE.M.CHP 100pF 50V	
C939	US062100	C.CE.M.CHP 100pF 50V	
C940	US135100	C.CE.CHP 0.1uF 16V	
C941	US135100	C.CE.CHP 0.1uF 16V	
C942	US135100	C.CE.CHP 0.1uF 16V	
C943	US135100	C.CE.CHP 0.1uF 16V	
D801	VG439100	DIODE.ZENR MTZJ9.1A 9.1V	
D802	VG439100	DIODE.ZENR MTZJ9.1A 9.1V	
D803	VU264100	DIODE 1SR139-400	
D804	VU264100	DIODE 1SR139-400	
D891	VT332900	DIODE 1SS355	
D892	VT332900	DIODE 1SS355	
D901	VM974700	DIODE.ZENR HZS7B2TD 7.0V	
D902	V2598200	LED SIR-505ST	
D935	VT332900	DIODE 1SS355	
D936	VT332900	DIODE 1SS355	
IC801	XU834A00	IC BU4066BC	
IC802	XM356A00	IC NJM2068LD	
IC803	XB247A00	IC uPC4570HA	
IC804	XP844A00	IC NJM4556AL	
IC901	XV160A00	IC LC75712E FLD	
JK831	V4164400	JACK.PHONE YKB21-5209	
JK935	V2589500	CN 1P	
L935	V2726500	COIL 68uH	
PJ935	VS868400	JACK.PIN 3P	
Q801	VG721700	TR.DGT DTA144ES	
Q802	VG722000	TR.DGT DTC144ES	
Q803	VK432900	TR 2SD1915F S,T	
Q804	VK432900	TR 2SD1915F S,T	
Q901	VV556400	TR 2SC2412K Q,R,S	
Q902	VV556400	TR 2SC2412K Q,R,S	
Q905	VV556400	TR 2SC2412K Q,R,S	
Q906	VV556400	TR 2SC2412K Q,R,S	
Q907	VV556400	TR 2SC2412K Q,R,S	
Q908	VV556400	TR 2SC2412K Q,R,S	
Q909	VV556400	TR 2SC2412K Q,R,S	
Q910	VV556400	TR 2SC2412K Q,R,S	
Q935	VV556400	TR 2SC2412K Q,R,S	
Q936	VV556500	TR 2SA1037K Q,R,S	
R803	HV753330	R.CAR.FP 3.3Ω 1/4W	
R804	HV753330	R.CAR.FP 3.3Ω 1/4W	
R839	HV755100	R.CAR.FP 100Ω 1/4W	
R840	HV755100	R.CAR.FP 100Ω 1/4W	
R841	HV755220	R.CAR.FP 220Ω 1/4W	
R842	HV755220	R.CAR.FP 220Ω 1/4W	
R846	VP439800	R.MTL.FLM 2.2KΩ 1/4W F	
R847	VP439800	R.MTL.FLM 2.2KΩ 1/4W F	
R848	VP439800	R.MTL.FLM 2.2KΩ 1/4W F	
R849	VP439800	R.MTL.FLM 2.2KΩ 1/4W F	
R850	VP441600	R.MTL.FLM 12KΩ 1/4W	
R851	VP441600	R.MTL.FLM 12KΩ 1/4W	
R852	VP441600	R.MTL.FLM 12KΩ 1/4W	
R853	VP442300	R.MTL.FLM 24KΩ 1/4W F	
R854	VP442300	R.MTL.FLM 24KΩ 1/4W F	
R855	VP442300	R.MTL.FLM 24KΩ 1/4W F	
R856	VP442300	R.MTL.FLM 24KΩ 1/4W F	
R857	VP442300	R.MTL.FLM 24KΩ 1/4W F	

* New Parts

Schm Ref.	PART NO.	Description	Markets
ST891	BB071360	SCR.TERM 8.3x13	UCRTA UCRTA UCRTA UCRTA
ST901	VP750600	SCR.TERM MEP1700	
ST935	BB071360	SCR.TERM 8.3x13	
SW802	V6154000	SW.RT.ENC SDB161PH20FS-1-4	
SW901	V4757100	SW.TACT EVQ11A	
SW902	V4757100	SW.TACT EVQ11A	
SW904	V4757100	SW.TACT EVQ11A	
SW970	V4757100	SW.TACT EVQ11A	
SW971	V4757100	SW.TACT EVQ11A	
SW972	V4757100	SW.TACT EVQ11A	
SW973	V4757100	SW.TACT EVQ11A	
SW974	V4757100	SW.TACT EVQ11A	
SW975	V4757100	SW.TACT EVQ11A	
SW976	V4757100	SW.TACT EVQ11A	
SW977	V4757100	SW.TACT EVQ11A	
SW978	V4757100	SW.TACT EVQ11A	
SW979	V4757100	SW.TACT EVQ11A	
SW980	V4757100	SW.TACT EVQ11A	
SW985	V6886700	SW.RT.ENC REB162(9X5)RVB55	
SW990	V4757100	SW.TACT EVQ11A	
SW991	V4757100	SW.TACT EVQ11A	
SW992	V4757100	SW.TACT EVQ11A	
SW993	V4757100	SW.TACT EVQ11A	
SW994	V4757100	SW.TACT EVQ11A	
U901	VZ411100	L.DTCT GPIU281X	
V901	V7683200	FL.DSPLY 16-BT-91GK	
VR801	VP741800	VR B20KΩ	
VR802	VP741900	VR G25KΩ	
	V6007000	SHEET	
	V8140500	SPACER 5.6/10/32	
	V8200600	P.C.B.	
		DSP	
CB503	VQ046000	CN.BS.PIN 31P	
CB504	VQ047000	CN.BS.PIN 6P	
C501	US135100	C.CE.CHP 0.1uF 16V	
C502	US135100	C.CE.CHP 0.1uF 16V	
C503	US135100	C.CE.CHP 0.1uF 16V	
C504	US135100	C.CE.CHP 0.1uF 16V	
C505	US135100	C.CE.CHP 0.1uF 16V	
C506	US135100	C.CE.CHP 0.1uF 16V	
C507	US061220	C.CE.M.CHP 22pF 50V	
C508	US061220	C.CE.M.CHP 22pF 50V	
C509	UR847220	C.EL 22uF 25V	
C510	UR847220	C.EL 22uF 25V	
C511	US135100	C.CE.CHP 0.1uF 16V	
C512	US135100	C.CE.CHP 0.1uF 16V	
C513	UR819100	C.EL 1000uF 6.3V	
C514	US061100	C.CE.M.CHP 10pF 50V	
C515	US061100	C.CE.M.CHP 10pF 50V	
C516	US135100	C.CE.CHP 0.1uF 16V	
C517	US061470	C.CE.M.CHP 47pF 50V	
C518	US061470	C.CE.M.CHP 47pF 50V	
C519	US135100	C.CE.CHP 0.1uF 16V	
C520	US063100	C.CE.M.CHP 1000pF 50V	
C521	US063100	C.CE.M.CHP 1000pF 50V	
C522	UR819100	C.EL 1000uF 6.3V	
C523	UR819100	C.EL 1000uF 6.3V	
C524	US135100	C.CE.CHP 0.1uF 16V	
C525	US135100	C.CE.CHP 0.1uF 16V	
C526	US135100	C.CE.CHP 0.1uF 16V	
C527	US135100	C.CE.CHP 0.1uF 16V	

* New Parts

P.C.B. DSP

Schm Ref.	PART NO.	Description	Markets
C528	US135100	C.CE.CHP 0.1uF 16V	
C529	US135100	C.CE.CHP 0.1uF 16V	
C530	US135100	C.CE.CHP 0.1uF 16V	
C531	UR819100	C.EL 1000uF 6.3V	
C532	US135100	C.CE.CHP 0.1uF 16V	
C533	UR819100	C.EL 1000uF 6.3V	
C534	US135100	C.CE.CHP 0.1uF 16V	
C535	US135100	C.CE.CHP 0.1uF 16V	
C536	US135100	C.CE.CHP 0.1uF 16V	
C537	US135100	C.CE.CHP 0.1uF 16V	
C538	UR818100	C.EL 100uF 6.3V	
C539	US135100	C.CE.CHP 0.1uF 16V	
C540	US135100	C.CE.CHP 0.1uF 16V	
C543	US135100	C.CE.CHP 0.1uF 16V	
C544	UU147100	C.EL 10uF 25V	
C545	UU147100	C.EL 10uF 25V	
C546	UU147100	C.EL 10uF 25V	
C547	V3888000	C.MYLAR 150pF 50V	
C548	V3888000	C.MYLAR 150pF 50V	
C549	Vi715300	C.MYLAR 680pF 50V	
C550	Vi715100	C.MYLAR 470pF 50V	
C551	UR818470	C.EL 470uF 6.3V	
C552	UA652100	C.MYLAR 100pF 50V	
C553	UA652100	C.MYLAR 100pF 50V	
C554	UA652100	C.MYLAR 100pF 50V	
C555	UA652100	C.MYLAR 100pF 50V	
C556	UA653150	C.MYLAR 1500pF 50V	
C557	UR818100	C.EL 100uF 6.3V	
C558	UU137220	C.EL 22uF 16V	
C559	UU137220	C.EL 22uF 16V	
C560	UU128100	C.EL 100uF 10V	
C561	UU166220	C.EL 2.2uF 50V	
C562	UU118100	C.EL 100uF 6.3V	
C563	UU118100	C.EL 100uF 6.3V	
C564	US061100	C.CE.M.CHP 10pF 50V	
C565	US063100	C.CE.M.CHP 1000pF 50V	
C566	US061330	C.CE.M.CHP 33pF 50V	
C567	US044220	C.CE.M.CHP 0.022uF 25V	
C568	UR818100	C.EL 100uF 6.3V	
C569	UR818100	C.EL 100uF 6.3V	
C571	US062470	C.CE.M.CHP 470pF 50V	
C572	US063470	C.CE.CHP 4700pF 50V	
C573	US063470	C.CE.CHP 4700pF 50V	
C574	UR818470	C.EL 470uF 6.3V	
C575	US061470	C.CE.M.CHP 47pF 50V	
C576	US135100	C.CE.CHP 0.1uF 16V	
C577	US135100	C.CE.CHP 0.1uF 16V	
C578	US135100	C.CE.CHP 0.1uF 16V	
C580	US061470	C.CE.M.CHP 47pF 50V	
C581	US061470	C.CE.M.CHP 47pF 50V	
C582	US061470	C.CE.M.CHP 47pF 50V	
C584	US135100	C.CE.CHP 0.1uF 16V	
C585	US061470	C.CE.M.CHP 47pF 50V	
C586	US061470	C.CE.M.CHP 47pF 50V	
C587	US135100	C.CE.CHP 0.1uF 16V	
C588	US135100	C.CE.CHP 0.1uF 16V	
C590	US135100	C.CE.CHP 0.1uF 16V	
C591	UR818100	C.EL 100uF 6.3V	
C592	US135100	C.CE.CHP 0.1uF 16V	
C593	US135100	C.CE.CHP 0.1uF 16V	
C594	UR819100	C.EL 1000uF 6.3V	
C595	US064100	C.CE.M.CHP 0.01uF 50V	
C596	US135100	C.CE.CHP 0.1uF 16V	

* New Parts

Schm Ref.	PART NO.	Description	Markets
C597	US135100	C.CE.CHP 0.1uF 16V	
C598	US061470	C.CE.M.CHP 47pF 50V	
C599	US061470	C.CE.M.CHP 47pF 50V	
C600	US061470	C.CE.M.CHP 47pF 50V	
C601	US061470	C.CE.M.CHP 47pF 50V	
C602	US061470	C.CE.M.CHP 47pF 50V	
C603	US061470	C.CE.M.CHP 47pF 50V	
C604	US061470	C.CE.M.CHP 47pF 50V	
C605	US061470	C.CE.M.CHP 47pF 50V	
C606	US061470	C.CE.M.CHP 47pF 50V	
C607	US135100	C.CE.CHP 0.1uF 16V	
C608	US135100	C.CE.CHP 0.1uF 16V	
C609	US135100	C.CE.CHP 0.1uF 16V	
C610	UU137470	C.EL 47uF 16V	
C611	UU137470	C.EL 47uF 16V	
C612	US135100	C.CE.CHP 0.1uF 16V	
C613	US135100	C.CE.CHP 0.1uF 16V	
C614	US135100	C.CE.CHP 0.1uF 16V	
C615	UU137470	C.EL 47uF 16V	
C616	US135100	C.CE.CHP 0.1uF 16V	
C617	UU137470	C.EL 47uF 16V	
C618	US135100	C.CE.CHP 0.1uF 16V	
C619	UU137470	C.EL 47uF 16V	
C620	US135100	C.CE.CHP 0.1uF 16V	
C621	UU137470	C.EL 47uF 16V	
C622	US135100	C.CE.CHP 0.1uF 16V	
C623	UU137470	C.EL 47uF 16V	
C624	US135100	C.CE.CHP 0.1uF 16V	
C625	UU137470	C.EL 47uF 16V	
C626	US135100	C.CE.CHP 0.1uF 16V	
C627	UU147100	C.EL 10uF 25V	
C628	UU147100	C.EL 10uF 25V	
C629	UU147100	C.EL 10uF 25V	
C630	UU147100	C.EL 10uF 25V	
C631	UU147100	C.EL 10uF 25V	
C632	UU147100	C.EL 10uF 25V	
C633	UU147100	C.EL 10uF 25V	
C634	UU147100	C.EL 10uF 25V	
C635	UU147100	C.EL 10uF 25V	
C636	UU147100	C.EL 10uF 25V	
C637	UA653150	C.MYLAR 1500pF 50V	
C638	US135100	C.CE.CHP 0.1uF 16V	
C639	US135100	C.CE.CHP 0.1uF 16V	
C640	US135100	C.CE.CHP 0.1uF 16V	
C641	US135100	C.CE.CHP 0.1uF 16V	
C642	US135100	C.CE.CHP 0.1uF 16V	
C643	US135100	C.CE.CHP 0.1uF 16V	
C644	Vi715300	C.MYLAR 680pF 50V	
C645	Vi715300	C.MYLAR 680pF 50V	
C646	V3888000	C.MYLAR 150pF 50V	
C647	V3888000	C.MYLAR 150pF 50V	
C648	UU147100	C.EL 10uF 25V	
C649	UU147100	C.EL 10uF 25V	
C650	UU147100	C.EL 10uF 25V	
C651	UU147100	C.EL 10uF 25V	
C652	UU147100	C.EL 10uF 25V	
C653	UU147100	C.EL 10uF 25V	
C654	V3888000	C.MYLAR 150pF 50V	
C655	V3888000	C.MYLAR 150pF 50V	
C656	US135100	C.CE.CHP 0.1uF 16V	
C657	US135100	C.CE.CHP 0.1uF 16V	
C658	UU147100	C.EL 10uF 25V	
C659	UU147100	C.EL 10uF 25V	

* New Parts

P.C.B. DSP

Schm Ref.	PART NO.	Description	Markets
C660	Vi715100	C.MYLAR 470pF 50V	
C661	Vi715100	C.MYLAR 470pF 50V	
C662	Vi715100	C.MYLAR 470pF 50V	
C663	Vi715100	C.MYLAR 470pF 50V	
C664	Vi715100	C.MYLAR 470pF 50V	
C665	UU147100	C.EL 10uF 25V	
C666	UU147100	C.EL 10uF 25V	
C667	UU147100	C.EL 10uF 25V	
C668	UU147100	C.EL 10uF 25V	
C669	UU147100	C.EL 10uF 25V	
C670	UU147100	C.EL 10uF 25V	
C671	UU147100	C.EL 10uF 25V	
C672	US135100	C.CE.CHP 0.1uF 16V	
C673	UU137470	C.EL 47uF 16V	
C674	UU137470	C.EL 47uF 16V	
C675	UU137470	C.EL 47uF 16V	
C676	UU137470	C.EL 47uF 16V	
C677	US135100	C.CE.CHP 0.1uF 16V	
C678	US135100	C.CE.CHP 0.1uF 16V	
C679	US135100	C.CE.CHP 0.1uF 16V	
C680	US135100	C.CE.CHP 0.1uF 16V	
C681	US062220	C.CE.CHP 220pF 50V	
C682	US062220	C.CE.CHP 220pF 50V	
C683	UR866220	C.EL 2.2uF 50V	
C684	US062470	C.CE.M.CHP 470pF 50V	
C686	UR817470	C.EL 47uF 6.3V	
C687	US061300	C.CE.M.CHP 30pF 50V	
C688	UR818100	C.EL 100uF 6.3V	
C689	US135100	C.CE.CHP 0.1uF 16V	
C691	US135100	C.CE.CHP 0.1uF 16V	
C692	UR818100	C.EL 100uF 6.3V	
C695	UR818100	C.EL 100uF 6.3V	
C696	UR818100	C.EL 100uF 6.3V	
C697	US135100	C.CE.CHP 0.1uF 16V	
C698	US135100	C.CE.CHP 0.1uF 16V	
C699	UR818100	C.EL 100uF 6.3V	
C700	US135100	C.CE.CHP 0.1uF 16V	
C701	US064100	C.CE.M.CHP 0.01uF 50V	
C702	US135100	C.CE.CHP 0.1uF 16V	
C703	UR818100	C.EL 100uF 6.3V	
C706	US061470	C.CE.M.CHP 47pF 50V	
C707	US061470	C.CE.M.CHP 47pF 50V	
C708	US135100	C.CE.CHP 0.1uF 16V	
C709	US135100	C.CE.CHP 0.1uF 16V	
C710	UR818100	C.EL 100uF 6.3V	
C711	UR818100	C.EL 100uF 6.3V	
C712	UR818100	C.EL 100uF 6.3V	
C713	US061470	C.CE.M.CHP 47pF 50V	
C716	US135100	C.CE.CHP 0.1uF 16V	
C717	US135100	C.CE.CHP 0.1uF 16V	
C718	US135100	C.CE.CHP 0.1uF 16V	
C719	US135100	C.CE.CHP 0.1uF 16V	
C720	UR818100	C.EL 100uF 6.3V	
C722	UR818100	C.EL 100uF 6.3V	
C723	US135100	C.CE.CHP 0.1uF 16V	
C724	UR818100	C.EL 100uF 6.3V	
C725	US135100	C.CE.CHP 0.1uF 16V	
C726	US135100	C.CE.CHP 0.1uF 16V	
C727	US135100	C.CE.CHP 0.1uF 16V	
C728	US135100	C.CE.CHP 0.1uF 16V	
C729	US135100	C.CE.CHP 0.1uF 16V	
C730	US135100	C.CE.CHP 0.1uF 16V	
C731	US135100	C.CE.CHP 0.1uF 16V	

* New Parts

Schm Ref.	PART NO.	Description	Markets
C732	UR819100	C.EL 1000uF 6.3V	
C733	US135100	C.CE.CHP 0.1uF 16V	
C734	US062100	C.CE.M.CHP 100pF 50V	
C735	US061470	C.CE.M.CHP 47pF 50V	
D501	VT332900	DIODE 1SS355	
D502	VT332900	DIODE 1SS355	
D503	VT332900	DIODE 1SS355	
D504	VV220700	DIODE.SHOT RB501V-40	
D505	VV220700	DIODE.SHOT RB501V-40	
D506	VT332900	DIODE 1SS355	
D507	VT332900	DIODE 1SS355	
D508	VV220700	DIODE.SHOT RB501V-40	
D509	VV220700	DIODE.SHOT RB501V-40	
D510	VV220700	DIODE.SHOT RB501V-40	
D511	VV220700	DIODE.SHOT RB501V-40	
D512	VV220700	DIODE.SHOT RB501V-40	
D513	VV220700	DIODE.SHOT RB501V-40	
D514	VV220700	DIODE.SHOT RB501V-40	
D515	VV220700	DIODE.SHOT RB501V-40	
D516	VT332900	DIODE 1SS355	
D517	VT332900	DIODE 1SS355	
D518	VT332900	DIODE 1SS355	
D519	VT332900	DIODE 1SS355	
D520	VT332900	DIODE 1SS355	
D521	VT332900	DIODE 1SS355	
D522	VT332900	DIODE 1SS355	
D523	VT332900	DIODE 1SS355	
D524	VT332900	DIODE 1SS355	
D525	VT332900	DIODE 1SS355	
D526	VT332900	DIODE 1SS355	
D527	VT332900	DIODE 1SS355	
D528	VT332900	DIODE 1SS355	
D529	VT332900	DIODE 1SS355	
D530	VT332900	DIODE 1SS355	
D531	VT332900	DIODE 1SS355	
D532	VT332900	DIODE 1SS355	
D533	VT332900	DIODE 1SS355	
D534	VT332900	DIODE 1SS355	
D537	VT332900	DIODE 1SS355	
D538	VT332900	DIODE 1SS355	
IC501	XD660A00	IC TC74HCU04AF-TP1	
IC502	XD660A00	IC TC74HCU04AF-TP1	
IC503	XY120A00	IC TC74HCT00AF(EL) NA	
IC508	XW029A00	IC AK4393-VF-E2	
IC509	XF291A00	IC uPC4570G2	
IC510	X0237A00	IC AK4527BVQ	
IC512	XZ012A00	IC TC74HCT08AF(EL)	
IC513	XR038A00	IC NJM2904M OP AMP	
IC514	X0238A00	IC YSS938-F	
IC515	XV077A00	IC MSM514260C-60JS	
IC516	XU965A00	IC uPC29M33T-E1 3.3V	
IC517	XZ003A00	IC PQ025EZ5M2P 2.5V	
IC518	XF291A00	IC uPC4570G2	
IC519	XF291A00	IC uPC4570G2	
IC520	XF291A00	IC uPC4570G2	
IC521	XF291A00	IC uPC4570G2	
IC522	XF291A00	IC uPC4570G2	
IC523	XF291A00	IC uPC4570G2	
IC524	XW029A00	IC AK4393-VF-E2	
IC525	X0594A00	IC CS493292-CLR	
IC526	X0318C00	IC XC9572XL-10TQ100C	
IC527	XW433A00	IC CY62256LL-70SNCT	
IC528	X0669A00	IC MX29F400BTC-70	

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* New Parts

P.C.B. DSP & P.C.B. VIDEO

Schm Ref.	PART NO.	Description	Markets
L501	V2726500	COIL	68uH
L502	V2726500	COIL	68uH
L503	V2726500	COIL	68uH
L504	V2726500	COIL	68uH
PJ501	V5715300	JACK.PIN	2P OR/OR
Q501	VV655300	TR.DGT	DTA144EKA
Q502	VV655300	TR.DGT	DTA144EKA
Q503	VV655300	TR.DGT	DTA144EKA
Q504	VV655300	TR.DGT	DTA144EKA
Q505	VV655300	TR.DGT	DTA144EKA
Q506	VV655300	TR.DGT	DTA144EKA
Q507	VV655300	TR.DGT	DTA144EKA
Q508	VD303700	TR	2SC3326 A,B
Q509	VV655300	TR.DGT	DTA144EKA
Q510	VD303700	TR	2SC3326 A,B
Q511	VD303700	TR	2SC3326 A,B
Q512	VD303700	TR	2SC3326 A,B
Q513	VD303700	TR	2SC3326 A,B
Q514	VD303700	TR	2SC3326 A,B
Q515	VD303700	TR	2SC3326 A,B
Q516	VD303700	TR	2SC3326 A,B
Q517	VD303700	TR	2SC3326 A,B
R533	VU224000	R.MTL.FLM	0.22Ω 1W J
R534	HV753220	R.CAR.FP	2.2Ω 1/4W
R535	VU224000	R.MTL.FLM	0.22Ω 1W J
R553	HV753220	R.CAR.FP	2.2Ω 1/4W
R555	VU224000	R.MTL.FLM	0.22Ω 1W J
R591	HV753100	R.CAR.FP	1Ω 1/4W
R592	HV753100	R.CAR.FP	1Ω 1/4W
R619	HV753220	R.CAR.FP	2.2Ω 1/4W
R626	HV753220	R.CAR.FP	2.2Ω 1/4W
R661	HV753220	R.CAR.FP	2.2Ω 1/4W
R662	HV753220	R.CAR.FP	2.2Ω 1/4W
R666	HV753220	R.CAR.FP	2.2Ω 1/4W
R671	HV753220	R.CAR.FP	2.2Ω 1/4W
TP1	VL448600	JUMPER.TST	
TP2	VL448600	JUMPER.TST	
TP3	VL448600	JUMPER.TST	
U501	V7680700	CN.PHOT.SN	1P GP1FA512RZ
U502	V7680700	CN.PHOT.SN	1P GP1FA512RZ
U503	V7680700	CN.PHOT.SN	1P GP1FA512RZ
U504	V7680700	CN.PHOT.SN	1P GP1FA512RZ
U505	V7680800	CN.PHOT.SN	1P GP1FA512TZ
U506	V7680800	CN.PHOT.SN	1P GP1FA512TZ
XL503	V6931900	RESONATOR	24.576MHz DS0751SV
	V8201600	P.C.B.	VIDEO UC
	V8201700	P.C.B.	VIDEO RT
	V8201800	P.C.B.	VIDEO A
	V8201900	P.C.B.	VIDEO BG
CB551	V7827700	SOCKET	10P TE TUC SERIES
CB552	V7827800	SOCKET	11P TE TUC SERIES
CB581	V7826500	CN	15P TE TUC SERIES
CB582	VM929900	CN.BS.PIN	15P
CB583	V7826100	CN	11P TE TUC SERIES
CB584	VQ044500	CN.BS.PIN	11P
CB585	V7826200	CN	12P TE TUC SERIES
CB586	V7826200	CN	12P TE TUC SERIES
CB587	V7826500	CN	15P TE TUC SERIES
CB588	V7826500	CN	15P TE TUC SERIES
CB589	V7825400	CN	4P TE TUC SERIES

* New Parts

Schm Ref.	PART NO.	Description	Markets
CB590	V7825500	CN	5P TE TUC SERIES
CB591	V7826000	CN	10P TE TUC SERIES
CB592	V7827700	SOCKET	10P TE TUC SERIES
CB593	V7826100	CN	11P TE TUC SERIES
CB594	V7827800	SOCKET	11P TE TUC SERIES
CB601	V7828200	SOCKET	15P TE TUC SERIES
CB602	V7827900	SOCKET	12P TE TUC SERIES
CB603	V7827100	SOCKET	4P TE TUC SERIES
CB604	VQ044300	CN.BS.PIN	7P
CB605	V7827100	SOCKET	4P TE TUC SERIES
CB701	V7828200	SOCKET	15P TE TUC SERIES
CB702	LB919030	CN.BS.PIN	3P
CB751	V7827200	SOCKET	5P TE TUC SERIES
CB755	V7827100	SOCKET	4P TE TUC SERIES
CB861	V7825400	CN	4P TE TUC SERIES
CB862	V7825400	CN	4P TE TUC SERIES
C552	US135100	C.CE.CHP	0.1uF 16V
C553	UA652470	C.MYLAR	470pF 50V
C554	UA652470	C.MYLAR	470pF 50V
C555	UA652470	C.MYLAR	470pF 50V
C556	UA652470	C.MYLAR	470pF 50V
C557	UA652470	C.MYLAR	470pF 50V
C558	UA652470	C.MYLAR	470pF 50V
C559	UA652470	C.MYLAR	470pF 50V
C560	UA652470	C.MYLAR	470pF 50V
C561	UA652470	C.MYLAR	470pF 50V
C562	UA652470	C.MYLAR	470pF 50V
C563	UA652470	C.MYLAR	470pF 50V
C564	UA652470	C.MYLAR	470pF 50V
C565	UA652470	C.MYLAR	470pF 50V
C566	UA652470	C.MYLAR	470pF 50V
C567	UA652470	C.MYLAR	470pF 50V
C568	UA652470	C.MYLAR	470pF 50V
C581	US063100	C.CE.M.CHP	1000pF 50V
C582	US063100	C.CE.M.CHP	1000pF 50V
C583	US064100	C.CE.M.CHP	0.01uF 50V
C584	US063100	C.CE.M.CHP	1000pF 50V
C585	US063100	C.CE.M.CHP	1000pF 50V
C586	US062100	C.CE.M.CHP	100pF 50V
C587	UR866220	C.EL	2.2uF 50V
C588	UR837470	C.EL	47uF 16V
C601	US062100	C.CE.M.CHP	100pF 50V
C602	US062100	C.CE.M.CHP	100pF 50V
C603	US062100	C.CE.M.CHP	100pF 50V
C604	US062100	C.CE.M.CHP	100pF 50V
C605	US062100	C.CE.M.CHP	100pF 50V
C606	US062100	C.CE.M.CHP	100pF 50V
C607	US135100	C.CE.CHP	0.1uF 16V
C608	US135100	C.CE.CHP	0.1uF 16V
C609	US135100	C.CE.CHP	0.1uF 16V
C610	UR829100	C.EL	1000uF 10V
C611	UR837470	C.EL	47uF 16V
C612	UM397470	C.EL	47uF 16V
C613	UR837100	C.EL	10uF 16V
C614	US135100	C.CE.CHP	0.1uF 16V
C616	US135100	C.CE.CHP	0.1uF 16V
C617	UR818220	C.EL	220uF 6.3V
C618	UR837470	C.EL	47uF 16V
C619	US062820	C.CE.CHP	820pF 50V
C619	US063150	C.CE.M.CHP	1500pF 50V
C620	US062270	C.CE.M.CHP	270pF 50V
C620	US062390	C.CE.CHP	390P 50V
C621	UM397470	C.EL	47uF 16V

* New Parts

P.C.B. VIDEO

Schm Ref.	PART NO.	Description	Markets
C622	UR837470	C.EL 47uF 16V	UCRTA
C623	UR837470	C.EL 47uF 16V	
C624	UR837470	C.EL 47uF 16V	
C625	UM397100	C.EL 10uF 16V	
C626	UR818220	C.EL 220uF 6.3V	
C627	UR837100	C.EL 10uF 16V	
C628	US135100	C.CE.CHP 0.1uF 16V	
C629	US135100	C.CE.CHP 0.1uF 16V	
C630	US060800	C.CE.CHP 8pF 50V	
C631	UR837470	C.EL 47uF 16V	
C632	UR837470	C.EL 47uF 16V	
C633	US061330	C.CE.M.CHP 33pF 50V	
C634	US064100	C.CE.M.CHP 0.01uF 50V	
C635	UR837470	C.EL 47uF 16V	
C636	UR866470	C.EL 4.7uF 50V	
C637	UR818330	C.EL 330uF 6.3V	
C638	US135100	C.CE.CHP 0.1uF 16V	
C639	US063120	C.CE.M.CHP 1200pF 50V	
C640	US062470	C.CE.M.CHP 470pF 50V	
C641	UR866100	C.EL 1uF 50V	
C642	UR866100	C.EL 1uF 50V	
C643	US060700	C.CE.CHP 7pF 50V	
C644	US061240	C.CE.CHP 24pF 50V	
C645	US061240	C.CE.CHP 24pF 50V	
C646	US062220	C.CE.CHP 220pF 50V	
C647	US062120	C.CE.CHP 120pF 50V	
C648	UR837470	C.EL 47uF 16V	
C650	US135100	C.CE.CHP 0.1uF 16V	
C651	US135100	C.CE.CHP 0.1uF 16V	
C652	US135100	C.CE.CHP 0.1uF 16V	
C653	US062470	C.CE.M.CHP 470pF 50V	
C701	US062100	C.CE.M.CHP 100pF 50V	
C702	US062100	C.CE.M.CHP 100pF 50V	
C703	US062100	C.CE.M.CHP 100pF 50V	
C704	US062100	C.CE.M.CHP 100pF 50V	
C705	UR837470	C.EL 47uF 16V	
C706	UR829100	C.EL 1000uF 10V	
C707	UR837470	C.EL 47uF 16V	
C708	US135100	C.CE.CHP 0.1uF 16V	
C709	US135100	C.CE.CHP 0.1uF 16V	
C710	UR837470	C.EL 47uF 16V	
C711	UR837470	C.EL 47uF 16V	
C712	UR837470	C.EL 47uF 16V	
C713	UR837470	C.EL 47uF 16V	
C714	UR837470	C.EL 47uF 16V	
C715	US135100	C.CE.CHP 0.1uF 16V	
C751	US061240	C.CE.CHP 24pF 50V	
C752	US061240	C.CE.CHP 24pF 50V	
C753	US061240	C.CE.CHP 24pF 50V	
C754	US135100	C.CE.CHP 0.1uF 16V	
C755	US135100	C.CE.CHP 0.1uF 16V	
C756	UR837470	C.EL 47uF 16V	
C757	UR837470	C.EL 47uF 16V	
D581	VU172000	DIODE.ZENR UDZS5.6BTE-17 5.6V	UCRTA
D601	VT332900	DIODE 1SS355	
D602	VT332900	DIODE 1SS355	
D603	VT332900	DIODE 1SS355	
D604	VT332900	DIODE 1SS355	
D605	VT332900	DIODE 1SS355	
D606	VT332900	DIODE 1SS355	
D607	VT332900	DIODE 1SS355	
D608	VT332900	DIODE 1SS355	
D609	VT332900	DIODE 1SS355	

* New Parts

Schm Ref.	PART NO.	Description	Markets
D610	VT332900	DIODE 1SS355	UCRTA
D751	VT332900	DIODE 1SS355	
D752	VT332900	DIODE 1SS355	
G581	VR463400	TERM.GND D3.5	
IC601	XW939A00	IC TK15420M VIDEO AMP	
IC602	XZ830A00	IC MM74HC4051N MULTI	
IC603	XZ830A00	IC MM74HC4051N MULTI	
IC604	XZ830A00	IC MM74HC4051N MULTI	
IC605	XZ830A00	IC MM74HC4051N MULTI	
IC606	X2093A00	IC MM74HC4053N MULTI	
IC607	X2093A00	IC MM74HC4053N MULTI	UCRTA
IC608	XD598A00	IC TC74HC04AFEL INV	
IC609	XY443A00	IC LA7109 6CH	
IC610	XZ060A00	IC LC74781-9798	
IC611	XW416A00	IC BU2092 SER/PAR	
IC701	XW911A00	IC LA7108M VIDEO AMP	
IC702	XY550A00	IC MM74HC4051SJX	
IC703	XY550A00	IC MM74HC4051SJX	
IC704	XY877A00	IC MM74HC4053SJX	
IC751	XY877A00	IC MM74HC4053SJX	
IC752	X0428A00	IC OPA2652U OP AMP	UCRT BG UCRTA
IC753	X0428A00	IC OPA2652U OP AMP	
JK601	VP113600	CN.DIN 2P	
JK602	VP113600	CN.DIN 2P	
JK603	VP113600	CN.DIN 2P	
JK604	VU245200	CN.DIN 1P	
JK605	VQ960400	CN.DIN 1P	
L602	V3233700	COIL 1.5uH	
L603	V6236000	COIL 4.7uH	
L605	V2726100	COIL 33uH	
L606	VK267500	COIL 220uH	UCRT BG UCRTA
PJ551	V3856100	JACK.PIN 6P	
PJ552	VJ696300	JACK.PIN 4P	
PJ553	V3856100	JACK.PIN 6P	
PJ701	VN134600	JACK.PIN 1P	
PJ702	VR110100	JACK.PIN 2P	
PJ703	VR110100	JACK.PIN 2P	
PJ704	VR110100	JACK.PIN 2P	
PJ705	VN134600	JACK.PIN 1P	
PJ705	VR110100	JACK.PIN 2P	
PJ751	V8143900	JACK.PIN SHIELD YKC21-4348	BG
PN581	V3750200	PIN L=70	
Q582	iC181510	TR 2SC1815 Y	
Q601	iC174020	TR 2SC1740S R,S	
Q602	VK432900	TR 2SD1915F S,T	
Q603	VD678700	TR DTC114ES	
Q604	iC174020	TR 2SC1740S R,S	
Q605	iC174020	TR 2SC1740S R,S	
Q606	iA101510	TR 2SA1015 Y	
Q607	iC224030	TR 2SC2240 GR,BL	
Q608	iC053540	TR 2SC535 A,B,C	BG
Q609	iC287820	TR 2SC2878 A,B	
Q701	iC174020	TR 2SC1740S R,S	
Q751	iC174020	TR 2SC1740S R,S	
R625	HV755330	R.CAR.FP 330Ω 1/4W	
R626	HV753220	R.CAR.FP 2.2Ω 1/4W	
R635	HV755470	R.CAR.FP 470Ω 1/4W	
R641	HV753100	R.CAR.FP 1Ω 1/4W	
R642	HV753100	R.CAR.FP 1Ω 1/4W	
R643	HV755470	R.CAR.FP 470Ω 1/4W	
R648	HV755470	R.CAR.FP 470Ω 1/4W	
R650	HV755470	R.CAR.FP 470Ω 1/4W	

* New Parts

P.C.B. VIDEO & P.C.B. MAIN

Schm Ref.	PART NO.	Description	Markets
R686	HV755470	R.CAR.FP 470Ω 1/4W	UCRTA
R688	HV753470	R.CAR.FP 4.7Ω 1/4W	
R716	HV755270	R.CAR.FP 270Ω 1/4W	
R717	HV753220	R.CAR.FP 2.2Ω 1/4W	
R719	HV753220	R.CAR.FP 2.2Ω 1/4W	
R785	HV753220	R.CAR.FP 2.2Ω 1/4W	
R786	HV753220	R.CAR.FP 2.2Ω 1/4W	
R851	HV754470	R.CAR.FP 47Ω 1/4W	
R859	HV755120	R.CAR.FP 120Ω 1/4W	
ST751	BB071360	SCR.TERM 8.3x13	
SW551	V4770200	SW.SLIDE SSAA22-B	RT
XL601	VV949800	RSNR.CRYS 14.31818MHz	UCRT
XL601	VV949900	RSNR.CRYS 17.734475MHz	ABG
	V8202100	P.C.B. MAIN	UC
	V8202200	P.C.B. MAIN	RT
	V8202300	P.C.B. MAIN	A
	V8202400	P.C.B. MAIN	BG
CB1	VM973500	CN.BS.PIN 17P	RTABG
CB3	LA002000	TERM.WRAP 2P	
CB5	LA002320	TERM.WRAP 3P	
CB6	LB919040	CN.BS.PIN 4P	
C1	UU118100	C.EL 100uF 6.3V	
C2	UU167100	C.EL 10uF 50V	
C3	VJ599100	C.CE.TUBLR 0.1uF 50V	
C4	UU167100	C.EL 10uF 50V	
C5	UU197100	C.EL 10uF 100V	
C6	UU197100	C.EL 10uF 100V	
C7	UU197470	C.EL 47uF 100V	
C9	VF467300	C.CE.TUBLR 0.01uF 16V	RTABG
C11	UT652100	C.PP 100pF 100V	
C12	UT652100	C.PP 100pF 100V	
C13	UA654100	C.MYLAR 0.01uF 50V	
C14	UU197100	C.EL 10uF 100V	
C15	UT652100	C.PP 100pF 100V	
C16	UU197100	C.EL 10uF 100V	
C17	UT652100	C.PP 100pF 100V	
C18	VK533900	C.PP 100pF 200V	
C19	UT823120	C.PP 1200pF 100V	
C20	UU197470	C.EL 47uF 100V	
C21	UA653330	C.MYLAR 3300pF 50V	RTABG
C22	UA654100	C.MYLAR 0.01uF 50V	
C23	UT652100	C.PP 100pF 100V	
C24	FU451150	C.MICA 15pF 500V	
C25	UU147100	C.EL 10uF 25V	
C26	UU138100	C.EL 100uF 16V	
C27	UU166470	C.EL 4.7uF 50V	
C28	UU165100	C.EL 0.1uF 50V	
C29	UT652100	C.PP 100pF 100V	
C30	UU157330	C.EL 33uF 35V	
C31	UU167100	C.EL 10uF 50V	RTABG
C32	VK533900	C.PP 100pF 200V	
C33	UU148100	C.EL 100uF 25V	
C34	VK533900	C.PP 100pF 200V	
C35	UT823120	C.PP 1200P 100V	
C36	UU197470	C.EL 47uF 100V	
C37	UA653330	C.MYLAR 3300pF 50V	
C38	UA654100	C.MYLAR 0.01uF 50V	
C39	UT652100	C.PP 100pF 100V	
C40	FU451150	C.MICA 15pF 500V	
C41	UU147100	C.EL 10uF 25V	

* New Parts

Schm Ref.	PART NO.	Description	Markets
C42	UU138100	C.EL 100uF 16V	RTABG
C43	UU166470	C.EL 4.7uF 50V	
C44	UU165100	C.EL 0.1uF 50V	
C45	UT652100	C.PP 100pF 100V	
C46	UU157330	C.EL 33uF 35V	
C47	UU167100	C.EL 10uF 50V	
C48	VK533900	C.PP 100pF 200V	
C49	UU148100	C.EL 100uF 25V	
C50	UU197470	C.EL 47uF 100V	
C51	UT823120	C.PP 1200pF 100V	
C52	UA653330	C.MYLAR 3300pF 50V	RTABG
C53	UT652100	C.PP 100pF 100V	
C54	VR516400	C.CE 15pF 500V	
C55	UU147100	C.EL 10uF 25V	
C56	UU138100	C.EL 100uF 16V	
C57	UU165100	C.EL 0.1uF 50V	
C58	UT652100	C.PP 100pF 100V	
C59	UU157330	C.EL 33uF 35V	
C60	UU167100	C.EL 10uF 50V	
C61	VK533900	C.PP 100pF 200V	
C62	UU148100	C.EL 100uF 25V	RTABG
C63	UU197470	C.EL 47uF 100V	
C64	UT823120	C.PP 1200pF 100V	
C65	UA653330	C.MYLAR 3300pF 50V	
C66	UT652100	C.PP 100pF 100V	
C67	VR516400	C.CE 15pF 500V	
C68	UU147100	C.EL 10uF 25V	
C69	UU138100	C.EL 100uF 16V	
C70	UU165100	C.EL 0.1uF 50V	
C71	UT652100	C.PP 100pF 100V	
C72	UU157330	C.EL 33uF 35V	RTABG
C73	UU167100	C.EL 10uF 50V	
C74	VK533900	C.PP 100pF 200V	
C75	UU148100	C.EL 100uF 25V	
C76	VK533900	C.PP 100pF 200V	
C77	UT823120	C.PP 1200pF 100V	
C78	UU197470	C.EL 47uF 100V	
C79	UA653330	C.MYLAR 3300pF 50V	
C80	UT652100	C.PP 100pF 100V	
C81	VR516400	C.CE 15pF 500V	
C82	UA654100	C.MYLAR 0.01uF 50V	RTABG
C83	UU147100	C.EL 10uF 25V	
C84	UU166470	C.EL 4.7uF 50V	
C85	UU138100	C.EL 100uF 16V	
C86	UU165100	C.EL 0.1uF 50V	
C87	UT652100	C.PP 100pF 100V	
C88	UU157330	C.EL 33uF 35V	
C89	UU167100	C.EL 10uF 50V	
C90	VK533900	C.PP 100pF 200V	
C91	UU148100	C.EL 100uF 25V	
C92	VK533900	C.PP 100pF 200V	RTABG
C93	UT823120	C.PP 1200pF 100V	
C94	UU197470	C.EL 47uF 100V	
C95	UA653330	C.MYLAR 3300pF 50V	
C96	UA654100	C.MYLAR 0.01uF 50V	
C97	UT652100	C.PP 100pF 100V	
C98	VR516400	C.CE 15pF 500V	
C99	UU147100	C.EL 10uF 25V	
C100	UU138100	C.EL 100uF 16V	
C101	UU166470	C.EL 4.7uF 50V	
C102	UU165100	C.EL 0.1uF 50V	RTABG
C103	UT652100	C.PP 100pF 100V	
C104	UU157330	C.EL 33uF 35V	

* New Parts

P.C.B. MAIN

Schm Ref.	PART NO.	Description	Markets
C105	UU167100	C.EL 10uF 50V	
C106	VK533900	C.PP 100pF 200V	
C107	UU148100	C.EL 100uF 25V	
C108	UU166330	C.EL 3.3uF 50V	
C109	VR169000	C.MYLAR.ML ECQ-V1H334JL3	
C110	UU138330	C.EL 330uF 16V	
C111	UA654470	C.MYLAR 0.047uF 50V	
C112	VR169000	C.MYLAR.ML ECQ-V1H334JL3	
C113	UU138330	C.EL 330uF 16V	
C114	UA654470	C.MYLAR 0.047uF 50V	
C115	VK533900	C.PP 100pF 200V	
C116	UA654100	C.MYLAR 0.01uF 50V	
C117	UU166470	C.EL 4.7uF 50V	
C118	UU138330	C.EL 330uF 16V	
C119	UA654470	C.MYLAR 0.047uF 50V	
C120	VK533900	C.PP 100pF 200V	
C121	UA654100	C.MYLAR 0.01uF 50V	
C122	UU166470	C.EL 4.7uF 50V	
C123	UU138330	C.EL 330uF 16V	
C124	UA654470	C.MYLAR 0.047uF 50V	
C125	UU138330	C.EL 330uF 16V	
C126	UA654470	C.MYLAR 0.047uF 50V	
C127	UU138330	C.EL 330uF 16V	
C128	UA654470	C.MYLAR 0.047uF 50V	
C129	UU197100	C.EL 10uF 100V	
C130	UU197100	C.EL 10uF 100V	
C131	UU197100	C.EL 10uF 100V	
C132	UU197100	C.EL 10uF 100V	
C133	UU197100	C.EL 10uF 100V	
C134	UU197100	C.EL 10uF 100V	
C135	UU197100	C.EL 10uF 100V	
C136	UU197100	C.EL 10uF 100V	
C137	UU197100	C.EL 10uF 100V	
C138	UU197100	C.EL 10uF 100V	
C139	UU128100	C.EL 100uF 10V	
C140	UU197100	C.EL 10uF 100V	
C141	UU197100	C.EL 10uF 100V	
C142	V6583100	C.POL 0.18uF 100V	RT
C142	Vi862100	C.POL.MTL 0.047uF 100V	UC
C142	Vi862200	C.POLY 0.1uF 100V	ABG
C143	V6512400	C.EL 22000uF 71V	
C144	V6583100	C.POL 0.18uF 100V	RT
C144	Vi862100	C.POL.MTL 0.047uF 100V	UC
C144	Vi862200	C.POLY 0.1uF 100V	ABG
C144	Vi862200	C.POLY 0.1uF 100V	
C145	V6512400	C.EL 22000uF 71V	
C146	Vi862200	C.POLY 0.1uF 100V	
C149	UA654100	C.MYLAR 0.01uF 50V	RTABG
C150	UA654100	C.MYLAR 0.01uF 50V	RTABG
C151	UA654100	C.MYLAR 0.01uF 50V	RTABG
C152	UA654100	C.MYLAR 0.01uF 50V	RTABG
C154	UA654100	C.MYLAR 0.01uF 50V	RTABG
C155	UA654100	C.MYLAR 0.01uF 50V	RTABG
C157	UA654100	C.MYLAR 0.01uF 50V	RTABG
C158	UA654100	C.MYLAR 0.01uF 50V	RTABG
C159	UA654100	C.MYLAR 0.01uF 50V	RTABG
C160	UA654100	C.MYLAR 0.01uF 50V	RTABG
C161	UA654100	C.MYLAR 0.01uF 50V	RTABG
C162	UA654100	C.MYLAR 0.01uF 50V	RTABG
C163	UA654100	C.MYLAR 0.01uF 50V	RTABG
C164	UA654100	C.MYLAR 0.01uF 50V	RTABG
C165	UA654100	C.MYLAR 0.01uF 50V	RTABG
C166	UA654100	C.MYLAR 0.01uF 50V	RTABG

* New Parts

Schm Ref.	PART NO.	Description	Markets
C166	UA654100	C.MYLAR 0.01uF 50V	
D1	iF004600	DIODE 1SS133	
D2	iF004600	DIODE 1SS133	
D3	iF004600	DIODE 1SS133	
D4	VG443900	DIODE.ZENR MTZJ33D 33V	
D5	iF004600	DIODE 1SS133	
D6	VC398400	DIODE MA185	
D7	VC398400	DIODE MA185	
D8	iF004600	DIODE 1SS133	
D9	iF004600	DIODE 1SS133	
D10	VG440100	DIODE.ZENR MTZJ12A 12V	
D11	VC398400	DIODE MA185	
D12	iF004600	DIODE 1SS133	
D13	VG440100	DIODE.ZENR MTZJ12A 12V	
D14	VC398400	DIODE MA185	
D15	iF004600	DIODE 1SS133	
D16	VG440100	DIODE.ZENR MTZJ12A 12V	
D17	VC398400	DIODE MA185	
D18	iF004600	DIODE 1SS133	
D19	VG440100	DIODE.ZENR MTZJ12A 12V	
D20	VC398400	DIODE MA185	
D21	VC398400	DIODE MA185	
D22	iF004600	DIODE 1SS133	
D23	VC398400	DIODE MA185	
D24	VG440100	DIODE.ZENR MTZJ12A 12V	
D25	VC398400	DIODE MA185	
D26	iF004600	DIODE 1SS133	
D27	VC398400	DIODE MA185	
D28	VG440100	DIODE.ZENR MTZJ12A 12V	
D29	VC398400	DIODE MA185	
D30	VU264100	DIODE 1SR139-400	
D31	VC398400	DIODE MA185	
D32	VC398400	DIODE MA185	
D33	VU264100	DIODE 1SR139-400	
D34	VC398400	DIODE MA185	
D35	VC398400	DIODE MA185	
D36	VU264100	DIODE 1SR139-400	
D37	VC398400	DIODE MA185	
D38	VC398400	DIODE MA185	
D39	VU264100	DIODE 1SR139-400	
D40	VC398400	DIODE MA185	
D41	VC398400	DIODE MA185	
D42	VU264100	DIODE 1SR139-400	
D43	VC398400	DIODE MA185	
D44	VC398400	DIODE MA185	
D45	VU264100	DIODE 1SR139-400	
D46	VC398400	DIODE MA185	
D47	VC398400	DIODE MA185	
D48	VC398400	DIODE MA185	
D49	VC398400	DIODE MA185	
D50	VC398400	DIODE MA185	
D51	iF004600	DIODE 1SS133	
D52	iF004600	DIODE 1SS133	
D53	VZ755200	DIODE.BRG D15XB20 15A 200V	
D54	iF004600	DIODE 1SS133	
D55	iF004600	DIODE 1SS133	
D56	VC398400	DIODE MA185	
D57	VG437200	DIODE.ZENR MTZJ4.7C 4.7V	
D58	VC398400	DIODE MA185	
D59	VC398400	DIODE MA185	
D60	VC398400	DIODE MA185	
D67	VC398400	DIODE MA185	
D68	VC398400	DIODE MA185	

* New Parts

P.C.B. MAIN

Schm Ref.	PART NO.	Description	Markets
D69	VC398400	DIODE	MA185
D70	VC398400	DIODE	MA185
D71	VC398400	DIODE	MA185
D72	VC398400	DIODE	MA185
D73	VG441500	DIODE.ZENR	MTZJ18C 18V
D73	VG442100	DIODE.ZENR	MTZJ22B 22V
D74	VG442500	DIODE.ZENR	MTZJ24B 24V
D75	VG439900	DIODE.ZENR	MTZJ11B 11V
D75	VG440200	DIODE.ZENR	MTZJ12B 12V
D76	VG442500	DIODE.ZENR	MTZJ24B 24V
D77	VG441500	DIODE.ZENR	MTZJ18C 18V
D77	VG442100	DIODE.ZENR	MTZJ22B 22V
D78	VG442500	DIODE.ZENR	MTZJ24B 24V
D79	VG439900	DIODE.ZENR	MTZJ11B 11V
D79	VG440200	DIODE.ZENR	MTZJ12B 12V
D80	VG442500	DIODE.ZENR	MTZJ24B 24V
G1	VR463400	TERM.GND	D3.5
G2	VR463400	TERM.GND	D3.5
L1	VC664100	COIL	0.95uH
L2	VC664100	COIL	0.95uH
L3	VC664100	COIL	0.95uH
L4	GD900470	COIL	1.5uH
L5	GD900470	COIL	1.5uH
L6	GD900470	COIL	1.5uH
PN1	V3750100	PIN	L=50
Q1	VL542700	TR.DGT	DTA123JS
Q2	VL542700	TR.DGT	DTA123JS
Q3	V6678600	TR	2SB1375
Q4	VL542700	TR.DGT	DTA123JS
Q5	VD678700	TR.DGT	DTC114ES
Q6	VR510800	TR	2SD2396 J,K
Q7	VP883100	TR	2SC1890A D,E
Q8	VP883000	TR	2SA893A D,E
Q9	VS883300	TR	2SB1565 E,F
Q10	iA101510	TR	2SA1015 Y
Q11	iA101510	TR	2SA1015 Y
Q12	VE198700	TR	2SA1145 O,Y
Q13	iC224030	TR	2SC2240 GR,BL
Q14	iC224030	TR	2SC2240 GR,BL
Q15	iC224030	TR	2SC2240 GR,BL
Q16	iC224030	TR	2SC2240 GR,BL
Q17	iA101510	TR	2SA1015 Y
Q18	iA101510	TR	2SA1015 Y
Q19	VE198700	TR	2SA1145 O,Y
Q20	iC224030	TR	2SC2240 GR,BL
Q21	iC224030	TR	2SC2240 GR,BL
Q22	iC224030	TR	2SC2240 GR,BL
Q23	iC224030	TR	2SC2240 GR,BL
Q24	iA101510	TR	2SA1015 Y
Q25	iA101510	TR	2SA1015 Y
Q26	VE198700	TR	2SA1145 O,Y
Q27	iC224030	TR	2SC2240 GR,BL
Q28	iC224030	TR	2SC2240 GR,BL
Q29	iC224030	TR	2SC2240 GR,BL
Q30	iC224030	TR	2SC2240 GR,BL
Q31	iA101510	TR	2SA1015 Y
Q32	iA101510	TR	2SA1015 Y
Q33	VE198700	TR	2SA1145 O,Y
Q34	iC224030	TR	2SC2240 GR,BL
Q35	iC224030	TR	2SC2240 GR,BL
Q36	iC224030	TR	2SC2240 GR,BL
Q37	iC224030	TR	2SC2240 GR,BL
Q38	iA101510	TR	2SA1015 Y

* New Parts

Schm Ref.	PART NO.	Description	Markets
Q39	iA101510	TR	2SA1015 Y
Q40	VE198700	TR	2SA1145 O,Y
Q41	iC224030	TR	2SC2240 GR,BL
Q42	iC224030	TR	2SC2240 GR,BL
Q43	iC224030	TR	2SC2240 GR,BL
Q44	iC224030	TR	2SC2240 GR,BL
Q45	iA101510	TR	2SA1015 Y
Q46	iA101510	TR	2SA1015 Y
Q47	VE198700	TR	2SA1145 O,Y
Q48	iC224030	TR	2SC2240 GR,BL
Q49	iC224030	TR	2SC2240 GR,BL
Q50	iC224030	TR	2SC2240 GR,BL
Q51	iC224030	TR	2SC2240 GR,BL
Q52	VE198800	TR	2SC2705 O,Y
Q53	VD678700	TR.DGT	DTC114ES
Q53A	iX632610	TR	2SA1837 O,Y
Q53C	iX632620	TR	2SC4793 O,Y
Q54	VY705000	TR	2SC5200 R,O
Q55	iC224030	TR	2SC2240 GR,BL
Q56	VD678700	TR.DGT	DTC114ES
Q57	VE198700	TR	2SA1145 O,Y
Q58	VY705000	TR	2SC5200 R,O
Q59	VE198800	TR	2SC2705 O,Y
Q60	VP883100	TR	2SC1890A D,E
Q60A	iX632610	TR	2SA1837 O,Y
Q60C	iX632620	TR	2SC4793 O,Y
Q61	VY705000	TR	2SC5200 R,O
Q62	iC224030	TR	2SC2240 GR,BL
Q63	VP883000	TR	2SA893A D,E
Q64	VE198700	TR	2SA1145 O,Y
Q65	VY705000	TR	2SC5200 R,O
Q66	VE198800	TR	2SC2705 O,Y
Q67A	iX632610	TR	2SA1837 O,Y
Q67C	iX632620	TR	2SC4793 O,Y
Q68	V6063900	TR	2SC5358 O,R
Q69	iC224030	TR	2SC2240 GR,BL
Q71	VE198700	TR	2SA1145 O,Y
Q72	V6063900	TR	2SC5358 O,R
Q73	VE198800	TR	2SC2705 O,Y
Q74A	iX632610	TR	2SA1837 O,Y
Q74C	iX632620	TR	2SC4793 O,Y
Q75	V6063900	TR	2SC5358 O,R
Q76	iC224030	TR	2SC2240 GR,BL
Q78	VE198700	TR	2SA1145 O,Y
Q79	V6063900	TR	2SC5358 O,R
Q80	VE198800	TR	2SC2705 O,Y
Q81A	iX632610	TR	2SA1837 O,Y
Q81C	iX632620	TR	2SC4793 O,Y
Q82	V6063900	TR	2SC5358 O,R
Q83	iC224030	TR	2SC2240 GR,BL
Q85	VE198700	TR	2SA1145 O,Y
Q86	V6063900	TR	2SC5358 O,R
Q87	VE198800	TR	2SC2705 O,Y
Q88A	iX632610	TR	2SA1837 O,Y
Q88C	iX632620	TR	2SC4793 O,Y
Q89	V6063900	TR	2SC5358 O,R
Q90	iC224030	TR	2SC2240 GR,BL
Q92	VE198700	TR	2SA1145 O,Y
Q93	V6063900	TR	2SC5358 O,R
Q94	iA097030	TR	2SA970 GR,BL
R1	HV755150	R.CAR.FP	150Ω 1/4W
R2	HV755150	R.CAR.FP	150Ω 1/4W
R4	HV755150	R.CAR.FP	150Ω 1/4W

* New Parts

(Note) Those parts marked with “#” are not included in the P.C.B. ass'y.

P.C.B. MAIN & P.C.B. POWER

	Schm Ref.	PART NO.	Description	Markets
▲	R5	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R7	HV754100	R.CAR.FP 10Ω 1/4W	
	R8	HV756470	R.CAR.FP 4.7KΩ 1/4W	
	R9	HV755100	R.CAR.FP 100Ω 1/4W	
*	R10	HV757120	R.CAR.FP 12KΩ 1/4W	
*	R13	HV757120	R.CAR.FP 12KΩ 1/4W	
	R14	HV755100	R.CAR.FP 100Ω 1/4W	
	R15	HV756560	R.CAR.FP 5.6KΩ 1/4W	
▲	R16	HV754100	R.CAR.FP 10Ω 1/4W	
▲	R17	VP940400	R.MTL.OXD 100Ω 1W	
▲	R33	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R34	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R35	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R37	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R42	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R45	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R50	HV754820	R.CAR.FP 82Ω 1/4W	
▲	R52	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R54	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R55	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R56	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R58	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R63	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R66	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R71	HV754820	R.CAR.FP 82Ω 1/4W	
▲	R73	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R75	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R76	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R77	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R79	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R84	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R87	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R92	HV754820	R.CAR.FP 82Ω 1/4W	
▲	R94	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R95	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R96	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R97	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R99	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R104	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R107	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R112	HV754820	R.CAR.FP 82Ω 1/4W	
▲	R114	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R116	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R117	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R118	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R120	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R125	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R128	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R133	HV754820	R.CAR.FP 82Ω 1/4W	
▲	R134	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R137	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R138	HV755680	R.CAR.FP 680Ω 1/4W	
▲	R139	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R141	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R146	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R150	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R154	HV754820	R.CAR.FP 82Ω 1/4W	
▲	R155	HV756680	R.CAR.FP 6.8KΩ 1/4W	
▲	R159	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R161	HV756120	R.CAR.FP 1.2KΩ 1/4W	
▲	R162	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R164	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R165	VR412900	R.MTL.OXD 0.1Ω 3W	

* New Parts

	Schm Ref.	PART NO.	Description	Markets
▲	R169	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R170	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R171	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R172	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R173	HV755560	R.CAR.FP 560Ω 1/4W	
▲	R175	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R177	HV756120	R.CAR.FP 1.2KΩ 1/4W	
▲	R178	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R180	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R181	VR412900	R.MTL.OXD 0.1Ω 3W	
▲	R185	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R186	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R187	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R188	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R189	HV755560	R.CAR.FP 560Ω 1/4W	
▲	R191	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R192	HV756120	R.CAR.FP 1.2KΩ 1/4W	
▲	R193	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R194	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R195	VR412900	R.MTL.OXD 0.1Ω 3W	
▲	R199	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R200	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R201	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R202	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R203	HV755560	R.CAR.FP 560Ω 1/4W	
▲	R205	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R206	HV756120	R.CAR.FP 1.2KΩ 1/4W	
▲	R207	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R208	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R209	VR412900	R.MTL.OXD 0.1Ω 3W	
▲	R213	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R214	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R215	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R216	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R217	HV755560	R.CAR.FP 560Ω 1/4W	
▲	R219	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R220	HV756120	R.CAR.FP 1.2KΩ 1/4W	
▲	R221	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R222	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R223	VR412900	R.MTL.OXD 0.1Ω 3W	
▲	R227	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R228	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R229	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R230	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R231	HV755560	R.CAR.FP 560Ω 1/4W	
▲	R233	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R234	HV756120	R.CAR.FP 1.2KΩ 1/4W	
▲	R235	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R236	HV755150	R.CAR.FP 150Ω 1/4W	
▲	R237	VR412900	R.MTL.OXD 0.1Ω 3W	
▲	R241	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R242	HV755470	R.CAR.FP 470Ω 1/4W	
▲	R243	HV753470	R.CAR.FP 4.7Ω 1/4W	
▲	R244	HV755100	R.CAR.FP 100Ω 1/4W	
▲	R245	HV755560	R.CAR.FP 560Ω 1/4W	
▲	R250	HV754100	R.CAR.FP 10Ω 1/4W	
▲	R251	HV753100	R.CAR.FP 1Ω 1/4W	
▲	R253	HV754100	R.CAR.FP 10Ω 1/4W	
▲	R254	HV753100	R.CAR.FP 1Ω 1/4W	
▲	R255	HV754100	R.CAR.FP 10Ω 1/4W	
▲	R257	HV753100	R.CAR.FP 1Ω 1/4W	
▲	R258	HV754100	R.CAR.FP 10Ω 1/4W	
▲	R261	HV753100	R.CAR.FP 1Ω 1/4W	

* New Parts

P.C.B. MAIN & P.C.B. POWER

Schm Ref.	PART NO.	Description	Markets
R262	HV754100	R.CAR.FP 10Ω 1/4W	
R265	HV753100	R.CAR.FP 1Ω 1/4W	
R266	HV756330	R.CAR.FP 3.3KΩ 1/4W	
R267	HV754100	R.CAR.FP 10Ω 1/4W	
R269	HV753100	R.CAR.FP 1Ω 1/4W	
R274	HV757220	R.CAR.FP 22KΩ 1/4W	RTABG
R274	VQ883800	R.MTL.OXD 47KΩ 1W	UC
R283	HV757220	R.CAR.FP 22KΩ 1/4W	RTABG
R283	VQ883800	R.MTL.OXD 47KΩ 1W	UC
RY2	V6322600	RELAY DC DH24D2-OT(M)-SL	
RY3	V6322600	RELAY DC DH24D2-OT(M)-SL	
RY4	V6322600	RELAY DC DH24D2-OT(M)-SL	
RY5	V6322600	RELAY DC DH24D2-OT(M)-SL	
SW1	VZ075500	SW.SLIDE SL14-22AM5F	
TE2	V5909900	TERM.SP 8P LTS0810	BG
TE2	V5910000	TERM.SP 8P LTS0810	UCRTA
TE3	V5909900	TERM.SP 8P LTS0810	BG
TE3	V5910000	TERM.SP 8P LTS0810	UCRTA
	VK697600	SCR.BND.HD 3x10 SP MFZN2Y	
	V8203100	P.C.B. POWER	UC
	V8203200	P.C.B. POWER	RT
	V8203300	P.C.B. POWER	A
	V8203400	P.C.B. POWER	B
	V8203500	P.C.B. POWER	G
CB311	VG879900	CN.BS.PIN 2P	RTAB
CB313	VP206500	HOLDER.FUS EYF-52BCT	ABG
CB313	VS996100	HOLDER.FUS EYF64BC	UCRT
CB314	VS996100	HOLDER.FUS EYF64BC	UCRT
CB315	VP206500	HOLDER.FUS EYF-52BCT	ABG
CB316	LA002410	TERM.WRAP 2P	
CB317	VP206500	HOLDER.FUS EYF-52BCT	UCRTG
CB318	VP206500	HOLDER.FUS EYF-52BCT	UCRTG
CB319	LA002410	TERM.WRAP 2P	RT
CB351	VD004500	CN.BS.PIN 2P	
CB352	VD004700	CN.BS.PIN 4P	
CB353	VD005000	CN.BS.PIN 7P	
CB354	VD005200	CN.BS.PIN 9P	
CB355	LA002320	TERM.WRAP 3P	
CB356	LA002320	TERM.WRAP 3P	
CB357	LA002000	TERM.WRAP 2P	
CB358	VD004600	CN.BS.PIN 3P	
CB359	VM923600	CN.BS.PIN 13P	
CB360	VQ047400	CN.BS.PIN 19P	
CB361	VM859600	CN.BS.PIN 15P	
CB362	VM973500	CN.BS.PIN 17P	
CB401	VM929900	CN.BS.PIN 15P	
CB431	VM859500	CN.BS.PIN 11P	
CB432	V3768800	SOCKET 17LE-23090-28	
C311	UU148470	C.EL 470uF 25V	
C312	UU147100	C.EL 10uF 25V	RT
C313	UU167100	C.EL 10uF 50V	RT
C314	UU197100	C.EL 10uF 100V	RT
C315	Vi716700	C.MYLAR 0.01uF 50V	UCABG
C316	Vi716700	C.MYLAR 0.01uF 50V	RT
C317	Vi716700	C.MYLAR 0.01uF 50V	RT
C318	V6185300	C.CE.SAFTY 0.01uF 275V	
C351	UU168100	C.EL 100uF 50V	
C352	UU167100	C.EL 10uF 50V	
C353	UU147100	C.EL 10uF 25V	

* New Parts

Schm Ref.	PART NO.	Description	Markets
C354	UR759100	C.EL 1000uF 35V	
C355	VJ599100	C.CE.TUBLR 0.1uF 50V	
C356	V7887400	C.EL 47uF 16V	
C357	V7887600	C.EL 10uF 25V	
C358	V7887400	C.EL 47uF 16V	
C359	V7887600	C.EL 10uF 25V	
C360	V7887400	C.EL 47uF 16V	
C361	V7887400	C.EL 47uF 16V	
C362	V7887600	C.EL 10uF 25V	
C363	V7887600	C.EL 10uF 25V	
C364	V8563300	C.EL 2200uF 16V	
C365	V7887500	C.EL 1000uF 16V	
C366	UU139680	C.EL 6800uF 16V	
C367	V7887800	C.EL 1uF 50V	
C368	V7887800	C.EL 1uF 50V	
C369	UU13A100	C.EL 10000uF 16V	
C370	V7887700	C.EL 3300uF 25V	
C371	VL232300	C.EL 2200uF 25V	
C372	UU13A100	C.EL 10000uF 16V	
C373	UU139680	C.EL 6800uF 16V	
C376	Vi862200	C.POLY 0.1uF 100V	
C377	Vi862200	C.POLY 0.1uF 100V	
C378	VF467000	C.CE.TUBLR 1000pF 50V	
C405	UT652100	C.PP 100pF 100V	
C406	UT652100	C.PP 100pF 100V	
C407	VR169200	C.MYLAR.ML ECQ-V1H474JL3	
C408	UT652100	C.PP 100pF 100V	
C409	UT652100	C.PP 100pF 100V	
C410	UA655100	C.MYLAR 0.1uF 50V	
C411	UA655100	C.MYLAR 0.1uF 50V	
C412	UA655100	C.MYLAR 0.1uF 50V	
C431	UU137470	C.EL 47uF 16V	
C432	VJ599100	C.CE.TUBLR 0.1uF 50V	
C433	VJ599100	C.CE.TUBLR 0.1uF 50V	
C434	VJ599100	C.CE.TUBLR 0.1uF 50V	
C435	VJ599100	C.CE.TUBLR 0.1uF 50V	
C436	VJ599100	C.CE.TUBLR 0.1uF 50V	
C437	VJ599100	C.CE.TUBLR 0.1uF 50V	
C438	VF467300	C.CE.TUBLR 0.01uF 16V	UCRTA
C439	VF467300	C.CE.TUBLR 0.01uF 16V	UCRTA
D311	iF004600	DIODE 1SS133	
D312	iF004600	DIODE 1SS133	RT
D313	VU264100	DIODE 1SR139-400	RT
D314	VR253700	DIODE.BRG S1NB20 1A 200V	
D315	VG439900	DIODE.ZENR MTZJ11B 11V	RT
D351	VG442600	DIODE.ZENR MTZJ24C 24V	
D352	iF004600	DIODE 1SS133	
D353	VG440800	DIODE.ZENR MTZJ15B 15V	RT
D354	VR253700	DIODE.BRG S1NB20 1A 200V	
D355	VN011300	DIODE.BRG D3SBA20 4A 200V	
D431	iF004600	DIODE 1SS133	UCRTA
F311	KB000780	FUSE T5.0A 250V	ABG
F311	KB001390	FUSE 10A 250V	UCRT
F312	KB000780	FUSE T5.0A 250V	RT
F312	VS823000	FUSE T5.0A 125V	UC
F312	VT942900	FUSE TH2.5A 250V	G
G351	VR463400	TERM.GND D3.5	
IC351	XJ607A00	IC NJM7805FA 5V	
IC352	XJ607A00	IC NJM7805FA 5V	
IC353	XJ607A00	IC NJM7805FA 5V	
IC354	XE436A00	IC NJM79M05FA	
IC355	XJ608A00	IC NJM7812FA	
IC356	XD343A00	IC NJM79M12FA	

* New Parts

1

P.C.B. POWER & Chip Resistors

2

3

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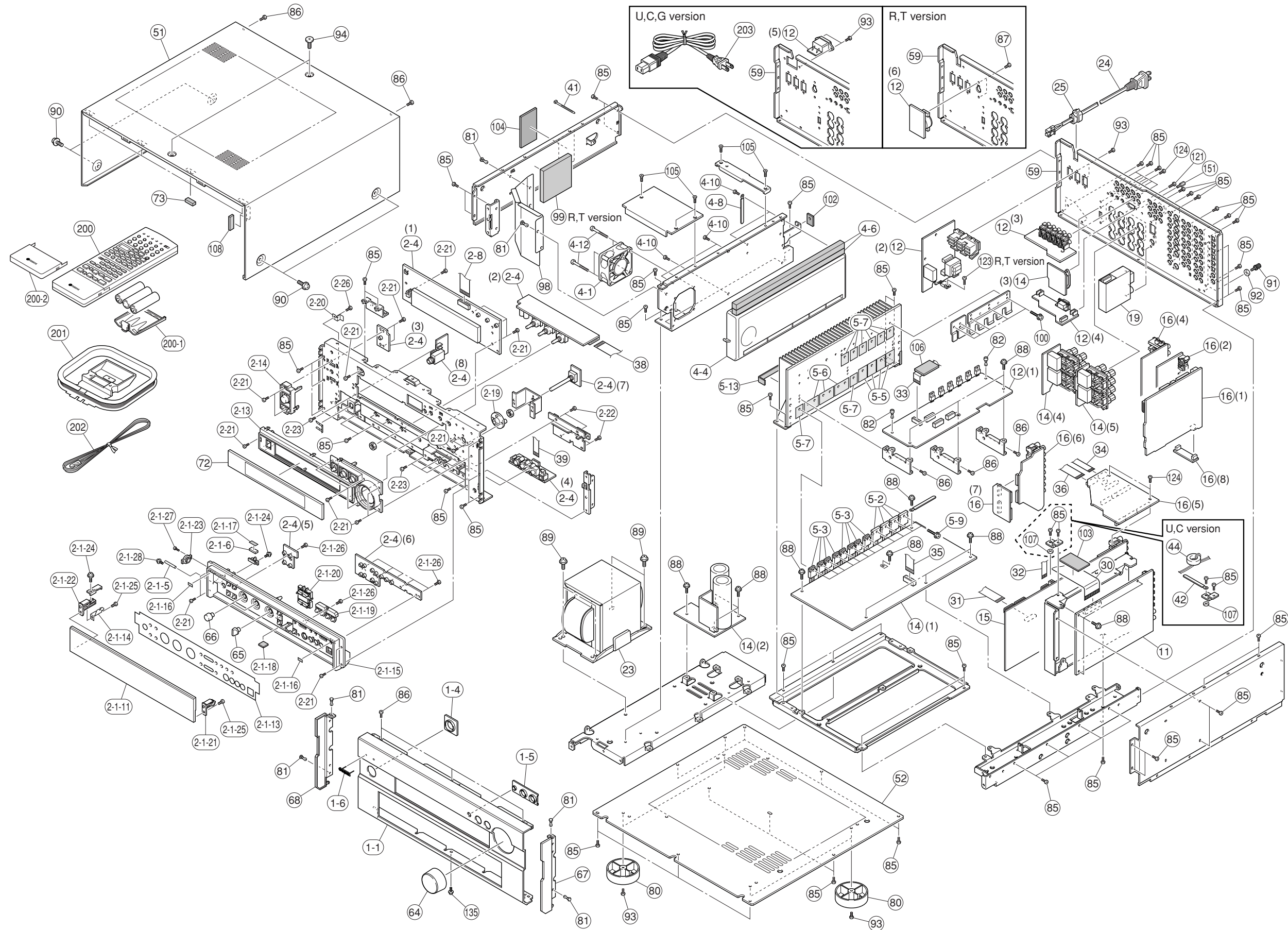
Schm Ref.	PART NO.	Description		Markets
IC357	X0515A00	IC	LM61CIZ THERMAL	UCRTA UCRTA UCRTA
IC431	XW863A00	IC	ADM202JRN-REEL7	
JK431	VJ726800	JACK.MNI		
JK432	VJ726800	JACK.MNI		
JK433	VJ726800	JACK.MNI		
PJ401	VQ551200	JACK.PIN	2P	
PJ402	VJ249500	JACK.PIN	4P	
PJ403	V8179700	JACK.PIN	2P WH/RE LPR6521	
PJ404	VJ695600	JACK.PIN	2P	
PN351	V3750200	PIN	L=70	
PN352	V3750200	PIN	L=70	RT RT RT
PN353	V3750200	PIN	L=70	
PN355	V3750200	PIN	L=70	
Q311	VD488500	TR.DGT	DTC143XS	
Q312	VR510800	TR	2SD2396 J,K	
Q313	VR510800	TR	2SD2396 J,K	
Q314	iE102620	FET	2SK246 Y	
Q315	iC174020	TR	2SC1740S R,S	
Q351	V6678600	TR	2SB1375	
Q352	iC181510	TR	2SC1815 Y	UC
Q353	VP883000	TR	2SA893A D,E	
R315	V6730000	R.CAR.	2.2MΩ 1/2W	
R351	HV753470	R.CAR.FP	4.7Ω 1/4W	
R352	HV756330	R.CAR.FP	3.3KΩ 1/4W	
R353	HV756470	R.CAR.FP	4.7KΩ 1/4W	
R355	VP939800	R.MTL.OXD	10Ω 1W	
R360	VP939500	R.MTL.FLM	1Ω 1W	
R361	VP939500	R.MTL.FLM	1Ω 1W	
RY311	V6434900	RELAY	DC DLS12D1-0(M)	RT UC RT A BG UC RT A B G UCG
ST311	BB071360	SCR.TERM	8.3x13	
ST431	BB071360	SCR.TERM	8.3x13	
ST432	BB071360	SCR.TERM	8.3x13	
SW311	V7182300	VOLT.SELCT	R8140213	
T311	XZ228A00	TRANS.PWR		
T311	XZ229A00	TRANS.PWR		
T311	XZ230A00	TRANS.PWR		
T311	XZ231A00	TRANS.PWR		
TE311	VV118800	OUTLET.AC	3P	
TE311	V5867900	AC OUTLET	3P AC-183-GB-11V	A B G UCG
TE311	VT915000	OUTLET.AC	2P	
TE311	VU543300	OUTLET.AC	1P	
TE311	VV119000	OUTLET.AC	3P	
TE312	V6561200	AC INLET	2P M1908-G	

* New Parts

Schm Ref.	PART NO.	Description			Markets
RD350000		R.CAR.CHP	0Ω	1/10W	
RD353220		R.CAR.CHP	2.2Ω	1/10W	
RD354330		R.CAR.CHP	33Ω	1/10W	
RD354470		R.CAR.CHP	47Ω	1/10W	
RD354750		R.CAR.CHP	75Ω	1/10W	
RD354820		R.CAR.CHP	82Ω	1/10W	
RD355100		R.CAR.CHP	100Ω	1/10W	
RD355150		R.CAR.CHP	150Ω	1/10W	
RD355220		R.CAR.CHP	220Ω	1/10W	
RD355330		R.CAR.CHP	330Ω	1/10W	
RD355390		R.CAR.CHP	390Ω	1/10W	
RD355470		R.CAR.CHP	470Ω	1/10W	
RD355680		R.CAR.CHP	680Ω	1/10W	
RD355820		R.CAR.CHP	820Ω	1/10W	
RD355910		R.CAR.CHP	910Ω	1/16W	
RD356100		R.CAR.CHP	1KΩ	1/10W	
RD356120		R.CAR.CHP	1.2KΩ	1/10W	
RD356150		R.CAR.CHP	1.5KΩ	1/10W	
RD356180		R.CAR.CHP	1.8KΩ	1/10W	
RD356220		R.CAR.CHP	2.2KΩ	1/10W	
RD356240		R.CAR.CHP	2.4KΩ	1/10W	
RD356270		R.CAR.CHP	2.7KΩ	1/10W	
RD356330		R.CAR.CHP	3.3KΩ	1/10W	
RD356390		R.CAR.CHP	3.9KΩ	1/10W	
RD356470		R.CAR.CHP	4.7KΩ	1/10W	
RD356510		R.CAR.CHP	5.1KΩ	1/10W	
RD356560		R.CAR.CHP	5.6KΩ	1/10W	
RD356620		R.CAR.CHP	6.2KΩ	1/10W	
RD356680		R.CAR.CHP	6.8KΩ	1/10W	
RD356820		R.CAR.CHP	8.2KΩ	1/10W	
RD356910		R.CAR.CHP	9.1KΩ	1/10W	
RD357100		R.CAR.CHP	10KΩ	1/10W	
RD357120		R.CAR.CHP	12KΩ	1/10W	
RD357150		R.CAR.CHP	15KΩ	1/10W	
RD357180		R.CAR.CHP	18KΩ	1/10W	
RD357330		R.CAR.CHP	33KΩ	1/10W	
RD357470		R.CAR.CHP	47KΩ	1/10W	
RD357560		R.CAR.CHP	56KΩ	1/10W	
RD357820		R.CAR.CHP	82KΩ	1/10W	
RD358100		R.CAR.CHP	100KΩ	1/10W	
RD358220		R.CAR.CHP	220KΩ	1/10W	
RD358330		R.CAR.CHP	330KΩ	1/10W	
RD358470		R.CAR.CHP	470KΩ	1/10W	
RD358680		R.CAR.CHP	680KΩ	1/10W	
RD359100		R.CAR.CHP	1MΩ	1/10W	
RD359220		R.CAR.CHP	2.2MΩ	1/10W	

* New Parts

EXPLODED VIEW



MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
*	1-1	V7678900 FRONT PANEL	RXV3200GD	
*	1-1	V7678800 FRONT PANEL	RXV3200BL	
*	1-1	V7679100 FRONT PANEL	DSPAX3200BL	
*	1-1	V7679300 FRONT PANEL	DSPAX3200TI	
	1-4	V6003900 ESCUTCHEON/POWER	GD	
	1-4	V6003800 ESCUTCHEON/POWER	BL	
	1-4	V6004000 ESCUTCHEON/POWER	TI	
	1-5	V6004200 ESCUTCHEON/INPUT	GD	
	1-5	V6004100 ESCUTCHEON/INPUT	BL	
	1-5	V6004300 ESCUTCHEON/INPUT	TI	
	1-6	V6004900 EMBLEM	GD	
	1-6	V6004800 EMBLEM	BL, TI	
	2-1-5	VZ621800 SHAFT	AA	
	2-1-6	VZ621900 MAGNET		
*	2-1-11	V7991100 PANEL, LID	GD	
*	2-1-11	V7991000 PANEL, LID	BL	
*	2-1-11	V7991200 PANEL, LID	TI	
*	2-1-13	V7991400 PLATE, SP	RXV3200GD	
*	2-1-13	V7991300 PLATE, SP	RXV3200BL	
*	2-1-13	V7991500 PLATE, SP	DSPAX3200BL	
*	2-1-13	V7991700 PLATE, SP	DSPAX3200TI	
*	2-1-14	V8622500 EARTH PLATE		
	2-1-15	V6068500 SUB PANEL CASE	GD	
	2-1-15	V6068400 SUB PANEL CASE	BL	
	2-1-15	V6095500 SUB PANEL	TI	
	2-1-16	V2048500 CUSHION, LID	GD	
	2-1-16	VT062900 CUSHION, LID	BL	
	2-1-16	VU182300 CUSHION, LID	TI	
	2-1-17	V6996800 SPACER		
	2-1-18	VH625500 DAMPER		
	2-1-19	V6069600 BUTTON/TU	GD	
	2-1-19	V6069400 BUTTON/TU	BL	
*	2-1-20	V8027600 BUTTON/S	GD	
*	2-1-20	V8027500 BUTTON/S	BL	
*	2-1-20	V8027700 BUTTON/S	TI	
	2-1-21	V0050300 STOPPER	HINGE	GD
	2-1-21	VJ888100 STOPPER	HINGE	BL
	2-1-21	VZ830400 STOPPER	HINGE	TI
	2-1-22	V0047400 HINGE/MG		GD
	2-1-22	VZ629400 HINGE/MG		BL
	2-1-22	VZ629500 HINGE/MG		TI
	2-1-23	VZ830300 DAMPER/GEAR	15G	
	2-1-24	VQ541700 PW HEAD B-TITE SCREW	3x8-8 MFC2	
	2-1-25	EG330360 BIND HEAD SCREW	3x6 MFZN2BL	
	2-1-26	EP600190 BIND HEAD B-TITE SCREW	3x8 MFZN2BL	
	2-1-27	VG893800 BIND HEAD P-TITE SCREW	2x6 MFZN2BL	
	2-1-28	VE529700 PW HEAD B-TITE SCREW	3x6-8 MFC2BL	
*	2-4	V8202600 P.C.B. ASS'Y	OPERATION	BG
*	2-4	V8202700 P.C.B. ASS'Y	OPERATION	UCRTA
*	2-8	MF119250 FLEXIBLE FLAT CABLE	19P 250mm P=1.25	
*	2-13	V7992200 BUTTON CASE UPPER	GD	
*	2-13	V7992100 BUTTON CASE UPPER	BL	
*	2-13	V7992300 BUTTON CASE UPPER	TI	

* New Parts

	Ref. No.	PART NO.	Description	Remarks	Markets
*	2-14	V7992500	BUTTON/POWER	GD	
*	2-14	V7992400	BUTTON/POWER	BL	
*	2-14	V7992600	BUTTON/POWER	TI	
	2-19	V6071000	SUPPORT		
*	2-20	V8622800	EARTH PLATE		
	2-21	EP600190	BIND HEAD B-TITE SCREW	3x8 MFZN2BL	
	2-22	EP600130	BIND HEAD B-TITE SCREW	3x6 MFZN2Y	
	2-23	VN413300	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2BL	
	2-26	V6012500	BIND HEAD B-TITE SCREW	3x8 MFN133	
	4-1	V3316600	DC BRUSHLESS FAN	2410ML-05W-B40-T14	
	4-4	VV713600	BRACKET	F	
	4-6	VZ012900	CUSHION, FAN		
	4-8	CB502030	BINDING TIE	S-75B	
	4-10	EP630220	BIND HEAD P-TITE SCREW	3x8 MFZN2BL	
	4-12	VV220300	BIND HEAD B-TITE SCREW	3x30 MFZN2BL	
	5-2	VY705000	TRANSISTOR	2SC5200 R,0	
	5-3	V6063900	TRANSISTOR	2SC5358 0,R	
	5-5	VK196000	SHEET	22x29	
	5-6	V6492000	RADIATION SHEET	BFG-20ADH-6 24x36	
	5-7	VK195900	SHEET	19x24	
	5-9	VK173200	SCREW, TRANSISTOR	3x15 SP MFC2	
	5-13	VU195800	DAMPER, FIN		
*	11	V8200600	P.C.B. ASS'Y	DSP	
*	▲ 12	V8203100	P.C.B. ASS'Y	POWER	UC
*	▲ 12	V8203200	P.C.B. ASS'Y	POWER	RT
*	▲ 12	V8203300	P.C.B. ASS'Y	POWER	A
*	▲ 12	V8203400	P.C.B. ASS'Y	POWER	B
*	▲ 12	V8203500	P.C.B. ASS'Y	POWER	G
*	▲ 14	V8202100	P.C.B. ASS'Y	MAIN	UC
*	▲ 14	V8202200	P.C.B. ASS'Y	MAIN	RT
*	▲ 14	V8202300	P.C.B. ASS'Y	MAIN	A
*	▲ 14	V8202400	P.C.B. ASS'Y	MAIN	BG
*	15	V8201100	P.C.B. ASS'Y	FUNCTION	UC
*	15	V8201200	P.C.B. ASS'Y	FUNCTION	RT
*	15	V8201300	P.C.B. ASS'Y	FUNCTION	A
*	15	V8201400	P.C.B. ASS'Y	FUNCTION	BG
*	16	V8201600	P.C.B. ASS'Y	VIDEO	UC
*	16	V8201700	P.C.B. ASS'Y	VIDEO	RT
*	16	V8201800	P.C.B. ASS'Y	VIDEO	A
*	16	V8201900	P.C.B. ASS'Y	VIDEO	BG
	19	V7424300	AM/FM TUNER	FAE350-A10F	UCRT
	19	V7424400	AM/FM TUNER	FAE404-E10F	A
*	▲ 23	X2117A00	POWER TRANSFORMER		UC
*	▲ 23	X2118A00	POWER TRANSFORMER		RT
*	▲ 23	X2119A00	POWER TRANSFORMER		A
*	▲ 23	X2120A00	POWER TRANSFORMER		BG
	▲ 24	VP418300	POWER CORD ASS'Y		A
	▲ 24	VV437300	POWER CORD ASS'Y		B
	▲ 24	VZ542500	POWER CORD ASS'Y		RT
	25	V2438700	CORD STOPPER	10P1	ABRT
	30	MF131100	FLEXIBLE FLAT CABLE	31P 100mm	
*	31	MF119180	FLEXIBLE FLAT CABLE	19P 180mm P=1.25	

* New Parts

* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
94	VK522000	SPECIAL SCREW S-TITE	4x8-10 MFC2BL	RT
94	VK522100	SPECIAL SCREW S-TITE	4x8-10 MFC2BL	
98	VY980100	PLATE, FAN COVER		
99	VQ199500	DAMPER	TRANSF	
100	VK173200	SCREW, TRANSISTOR	3x15 SP MFC2	
102	V6983800	SPACER/T05		
103	VQ758300	CUSHION, L		
104	V6276700	CUSHION, FCB		
105	VB072700	FLAT HEAD S-TITE SCREW	3x8 MFZN2BL	
106	V8456700	CUSHION/M		
107	V8459400	SPACER		RT
108	V8524900	DAMPER		
121	VY731200	BONDING HEAD TAPPING SCREW	3x10 MFNI33	
123	VK697600	BIND HEAD B-TITE SCREW	3x10 SP MFZN2Y	
124	EP600530	BIND HEAD S-TITE SCREW	3x8 MFZN2BL	
135	EL300690	PW HEAD P-TITE SCREW	3x8-8 MFC2BL	
151	V3768900	SCREW, LOCK	17L-003C41	
		ACCESSORIES		
200	V7720000	REMOTE CONTROL TRANSMITTER	RAV223	RRC4001-0002LM
200-1	AAX12830	LID	103RRC-170-01R	103RRC-170-01R
200-2	AAX13420	SLIDE COVER	103RRC-171-01R	103RRC-171-01R
201	VQ307400	AM LOOP ANTENNA	81-653-645-110	UCRTA
202	V6267000	ANTENNA, FM	1.4m 1pc	UCRT
202	VG850700	ANTENNA, FM	1.4m 1pc	A
* 	203	POWER CORD ASS'Y	INLET 2.0m	UC
* 	203	POWER CORD ASS'Y	INLET 2.0m	G
		BATTERY(ALKALINE DRY)	1.5V LR6(3S)AG	

* New Parts

Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ35 3100	HF85 3100	10 k Ω	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	*	11 k Ω	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 k Ω	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 k Ω	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 k Ω	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 k Ω	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 k Ω	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 k Ω	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 k Ω	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 k Ω	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 k Ω	HF45 7330	HF45 7330
39 Ω	HJ35 4470	HF85 4390	36 k Ω	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 k Ω	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 k Ω	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 k Ω	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 k Ω	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 k Ω	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 k Ω	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 k Ω	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 k Ω	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 k Ω	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 k Ω	HF45 8110	HF45 8110
160 Ω	HJ35 5160	*	120 k Ω	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 k Ω	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 k Ω	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 k Ω	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 k Ω	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 k Ω	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 k Ω	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 k Ω	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 k Ω	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 k Ω	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 k Ω	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 k Ω	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 M Ω	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 M Ω	HJ35 9120	*
1.0 k Ω	HF45 6100	HF45 6100	1.5 M Ω	HJ35 9150	HF85 9150
1.2 k Ω	HF45 6120	HF45 6120	1.8 M Ω	HJ35 9180	HF85 9180
1.5 k Ω	HF45 6150	HF45 6150	2.2 M Ω	HJ35 9220	HF85 9220
1.8 k Ω	HF45 6180	HF45 6180	3.3 M Ω	HJ35 9330	HF85 9330
2.0 k Ω	HJ35 6200	HF85 6200	3.9 M Ω	HJ35 9390	*
2.2 k Ω	HF45 6220	HF45 6220	4.7 M Ω	HJ35 9470	HF85 9470
2.4 k Ω	HJ35 6240	HF85 6240			
2.7 k Ω	HF45 6270	HF45 6270			
3.0 k Ω	HF45 6300	HF45 6300			
3.3 k Ω	HF45 6330	HF45 6330			
3.6 k Ω	HJ35 6360	HF85 6360			
3.9 k Ω	HF45 6390	HF45 6390			
4.7 k Ω	HF45 6470	HF45 6470			
5.1 k Ω	HF45 6510	HF45 6510			
5.6 k Ω	HF45 6560	HF45 6560			
6.8 k Ω	HF45 6680	HF45 6680			
8.2 k Ω	HF45 6820	HF45 6820			
9.1 k Ω	HF45 6910	HF45 6910			

1/4W Type

HJ35 10mm

1/4W Type
HF45 ○○○○

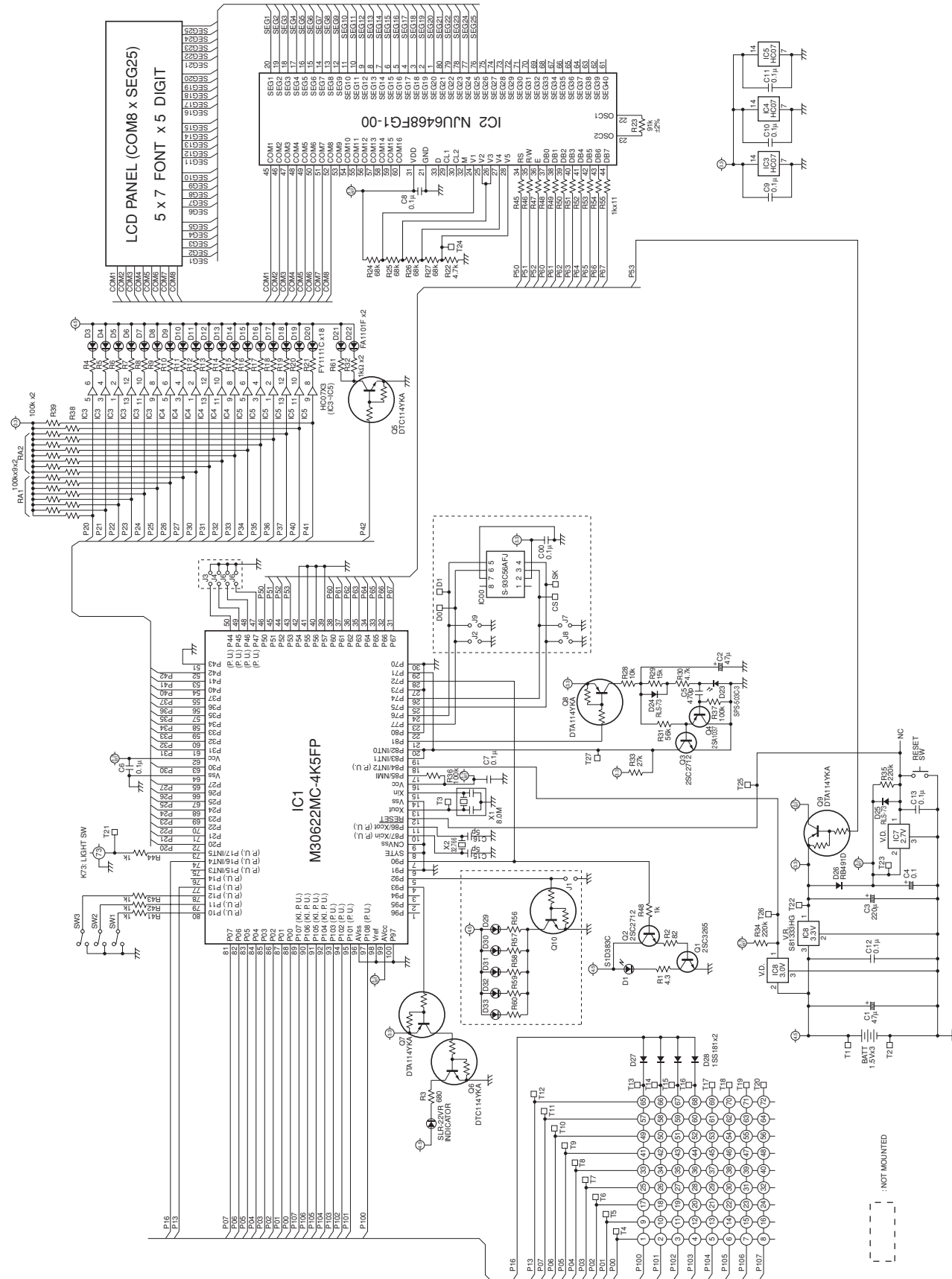
1/6W Type
HF85 ○○○○

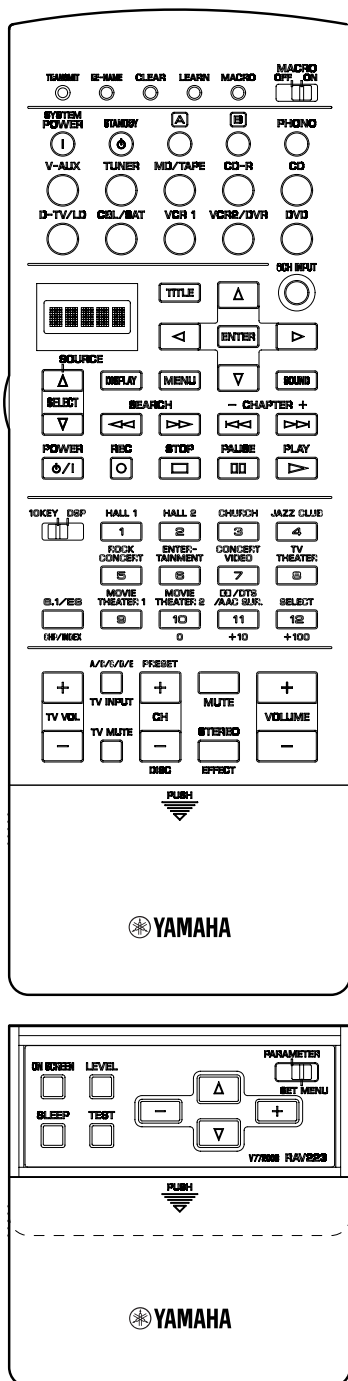
5mm

* : Not available

REMOTE CONTROL TRANSMITTER

SCHEMATIC DIAGRAM





Initial Code

Key No.	Key Name	YPC	DSP *1	Zone2 *2
1	—	—	—	—
2	RE-NAME	—	—	—
3	CLEAR	—	—	—
4	LEARN	—	—	—
5	MACRO	—	—	—
6	POWER on	*7A-1D	7D-90	*7A-1D
7	STANDBY	7A-1E	7D-91	7A-1E
8	A	—	—	—
9	B	—	—	—
10	PHONO	7A-14	7D-88	7A-D0
11	V-AUX	7A-55	7D-8A	7A-D8
12	TUNER	7A-16	7D-89	7A-D2
13	MD/TAPE	7A-18	7D-8B	7A-D3
14	CD-R	7A-19	7D-99	7A-D4
15	CD	7A-15	7D-87	7A-D1
16	D-TV/LD	7A-54	7D-84	7A-D9
17	CBL/SAT	7A-13	7D-82	7A-CC
18	VCR1	7A-0F	7D-81	7A-D6
19	VCR2/DVR	7A-13	7D-82	7A-D7
20	DVD	7A-C1	7D-97	7A-CD
21	EXT. DEC.	7A-87	7D-8C	7A-87

*1; These code are transmitted when "DSP" is set-up as AMP library.

*2; These code are transmitted when "ZONE2" is chosen with Select key.

CAUTION) This is displayed as a possible selection when the AMP library is set in ZONE 2.

*; Transmitting Code of K6, "7A-1D"
Full word transmitted twice.

Any device not listed on this table has no initial code.

*1; AMPライブラリーをDSPに設定することで送信されます。
*2; SelectキーによりZONE2を選択することで送信されます。

注意) AMPライブラリーをZONE2に設定した場合に選択肢として表示されます。

*; K6送信コード"7A-1D"について
ワードが2回送信されます。

本表に記載なきデバイスの初期コードはありません。

21	EXT. DEC.	7A-87	7D-8C	7A-87	DVD (K20)	CD-R (K14)	CD (K15)	MD/TAPE (K13)	TUNER (K12)	A (K8)
22	Up	→	→	→	7C-B4	—	—	—	—	—
23	TITLE	→	→	→	7C-B1	—	—	—	—	—
24	Left	→	→	→	7C-B5	—	—	—	—	—
25	ENTER	→	→	→	7C-B8	—	—	—	—	—
26	Right	→	→	→	7C-B6	—	—	—	—	—
27	SOUND	→	→	→	7C-AD	—	—	—	—	7C-12
28	Down	→	→	→	7C-B3	—	—	—	—	—
29	MENU	→	→	→	7C-B2	—	—	—	—	—
30	DISPLAY	→	→	→	7C-A6	7F-9E	79-0A	79-A5	—	7C-13
31	REW	→	→	→	7C-86	7F-88	7A-0D	79-AC	—	7C-06
32	FF	→	→	→	7C-87	7F-89	7A-0C	79-AD	—	7C-07
33	CHP/SKIP -	→	→	→	7C-89	7F-86	7A-0B	79-AB	—	7C-02
34	CHP/SKIP +	→	→	→	7C-BA	7F-87	7A-0A	79-AE	—	7C-03
35	PLAY	→	→	→	7C-82	7F-82	7A-08	79-A8	—	7C-05
36	PAUSE	→	→	→	7C-83	7F-83	7A-09	79-A9	—	7C-5A
37	STOP	→	→	→	7C-85	7F-84	7A-09	79-AA	—	7C-5B
38	REC	→	→	→	7C-B7	—	—	79-AF	—	—
39	POWER	→	→	→	—	—	—	—	—	—
40	SELECT down	—	—	—	—	—	—	—	—	—
41	SELECT up	—	—	—	—	—	—	—	—	—
42	SW2	DSP			10 key					
43	PRG1	7A-88	7D-D0	7A-88	7C-94	7F-91	79-11	79-85	7A-E5	7C-17
44	PRG2	7A-89	7D-D1	7A-89	7C-95	7F-92	79-12	79-86	7A-E6	7C-18
45	PRG3	7A-8A	7D-D2	7A-8A	7C-96	7F-93	79-13	79-87	7A-E7	7C-19
46	PRG4	7A-8B	7D-D3	7A-8B	7C-97	7F-94	79-14	79-88	7A-E8	7C-1A
47	PRG5	7A-8C	7D-D4	7A-8C	7C-98	7F-95	79-15	79-89	7A-E9	7C-1B
48	PRG6	7A-8D	7D-D5	7A-8D	7C-99	7F-96	79-16	79-8A	7A-EA	7C-1C
49	PRG7	7A-8E	7D-D6	7A-8E	7C-9A	7F-97	79-17	79-8B	7A-EB	7C-1D
50	PRG8	7A-8F	7D-D7	7A-8F	7C-9B	7F-98	79-18	79-8C	7A-EC	7C-1E
51	PRG9	7A-90	7D-D8	7A-90	7C-9C	7F-99	79-19	79-8D	7A-E1	7C-1F
52	PRG10	7A-91	7D-D9	7A-91	7C-93	7F-90	79-10	79-8E	7A-E2	7C-16
53	PRG11	7A-92	7D-DA	7A-92	7C-9D	7F-9A	79-1A	79-8F	7A-E3	7C-5D
54	PRG12	7A-93	7D-DB	7A-96	7C-9F	7F-8C	79-0D	—	7A-E4	7C-5E
55	Extra	7A-97	7D-DF	7A-97	7C-9E	7F-8A	79-0B	—	7A-E0	7C-15
56	TV VOL up	→	→	→	—	—	—	—	—	—
57	TV VOL down	→	→	→	—	—	—	—	—	—
58	TV INPUT	→	→	→	—	—	—	—	7A-12	—
59	TV MUTE	→	→	→	—	—	—	—	—	—
60	CH up	→	→	→	7C-8B	—	7A-4F	—	7A-10	—
61	CH down	→	→	→	7C-8A	—	7A-50	—	7A-11	—
62	MUTE	7A-1C	7D-94	7A-DC						
63	EFFECT	7A-56	7D-C1	7A-56						
64	VOLUME up	7A-1A	7D-8D	7A-DA						
65	VOLUME down	7A-1B	7D-8E	7A-DB						
66	SW3	Parameter	Set Menu	Parameter	Set Menu	Parameter	Set Menu			
67	ON SCREEN	7A-C2	7D-C2	7A-C2	7A-C2					
68	SLEEP	7A-57	7D-93	7A-57	7A-57					
69	LEVEL	7A-86	7D-95	7A-86	7A-86					
70	TEST	7A-85	7D-CA	7A-85	7A-85					
71	LEFT	7A-C7	7A-9F	7D-C7	7D-9F	7A-C7	7A-9F			
72	UP	7A-C5	7A-9D	7D-C5	7D-9D	7A-C5	7A-9D			
73	DOWN	7A-C4	7A-9C	7D-C4	7D-9C	7A-C4	7A-9C			
74	RIGHT	7A-C6	7A-9E	7D-C6	7D-9E	7A-C6	7A-9E			

Initial Macro setup

Key No.	Key Name	1	2	3	4~10
6	POWER on	K6	K39 TV	—	—
7	STANDBY	K7	—	—	—
8	A	K6	K8	—	—
9	B	K6	K9	—	—
10	PHONO	K6	K10	—	—
11	V-AUX	K6	K11	—	—
12	TUNER	K6	K12	—	—
13	MD/TAPE	K6	K13	K35 MD	—
14	CD-R	K6	K14	K35 CD-R	—
15	CD	K6	K15	K35 CD	—
16	D-TV/LD	K6	K16	—	—
17	CBL/SAT	K6	K17	—	—
18	VCR1	K6	K18	K35 VCR1	—
19	VCR2/DVR	K6	K19	K35 VCR2	—
20	DVD	K6	K20	K35 DVD	—

RX-V3200/DSP-AX3200

