

# AV RECEIVER RX-V667/HTR-6063/ RX-A700 SERVICE MANUAL

RX-V667/HTR-6063/  
RX-A700

## 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

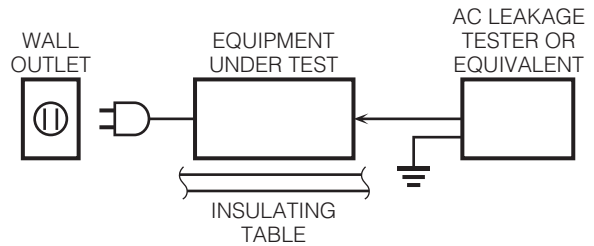
### 1. Critical Components Information

Components having special characteristics are marked  $\Delta$  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 ohms shunted by 0.15  $\mu$ F.



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



#### For U model “CAUTION”

“F3701: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 8A, 125V FUSE.”

#### For C model CAUTION

F3701: REPLACE WITH SAME TYPE 8A, 125V FUSE.

#### ATTENTION

F3701: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE 8A, 125V.

## WARNING: CHEMICAL CONTENT NOTICE!

This product contains chemicals known to the State of California to cause cancer, 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.

## About lead free solder

All of the P.C.B.s installed in this unit and solder joints are soldered using the lead free solder.

Among some types of lead free solder currently available, it is recommended to use one of the following types for the repair work.

- Sn + Ag + Cu (tin + silver + copper)
- Sn + Cu (tin + copper)
- Sn + Zn + Bi (tin + zinc + bismuth)

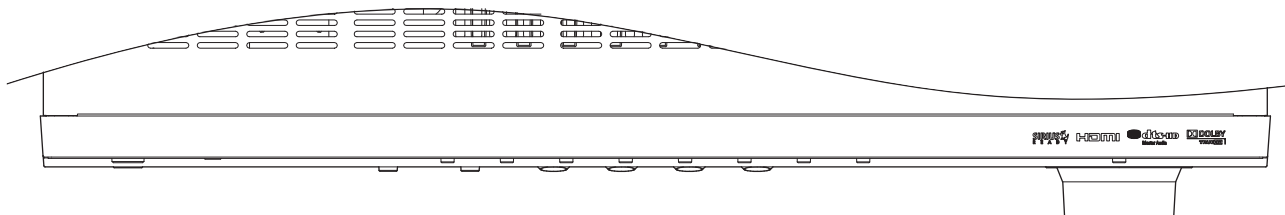
#### Caution:

As the melting point temperature of the lead free solder is about 30°C to 40°C (50°F to 70°F) higher than that of the lead solder, be sure to use a soldering iron suitable to each solder.

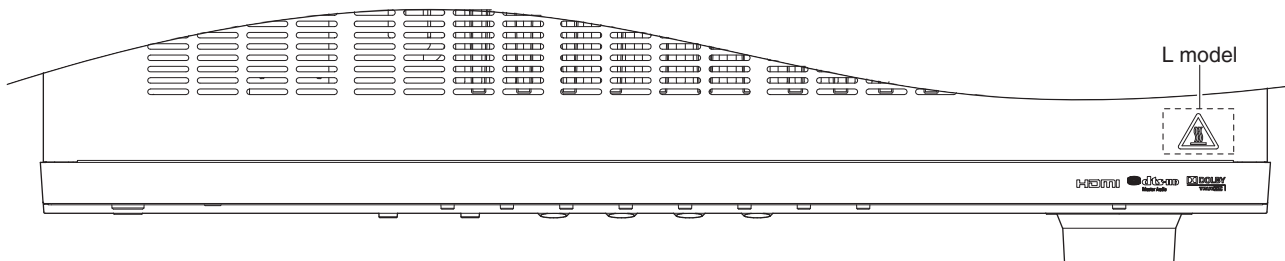
## FRONT PANELS

### Top view

#### U model

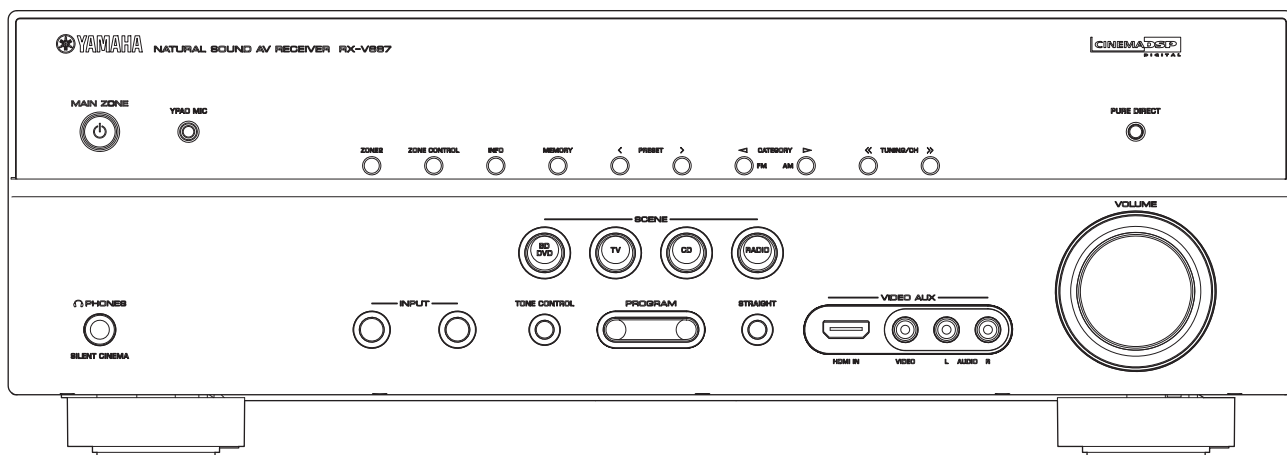


#### C, R, T, K, A, B, G, F, L models

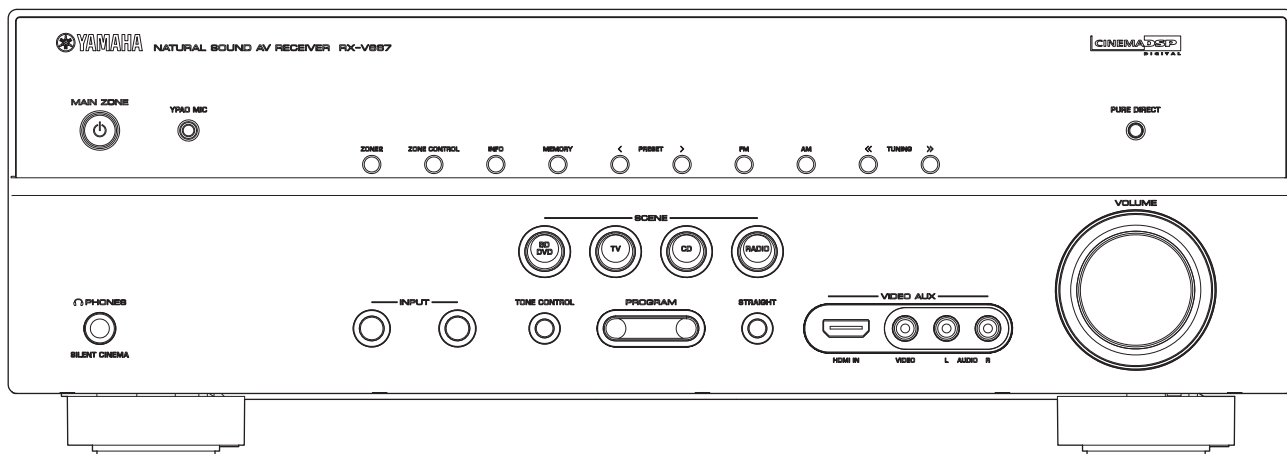


### Front view

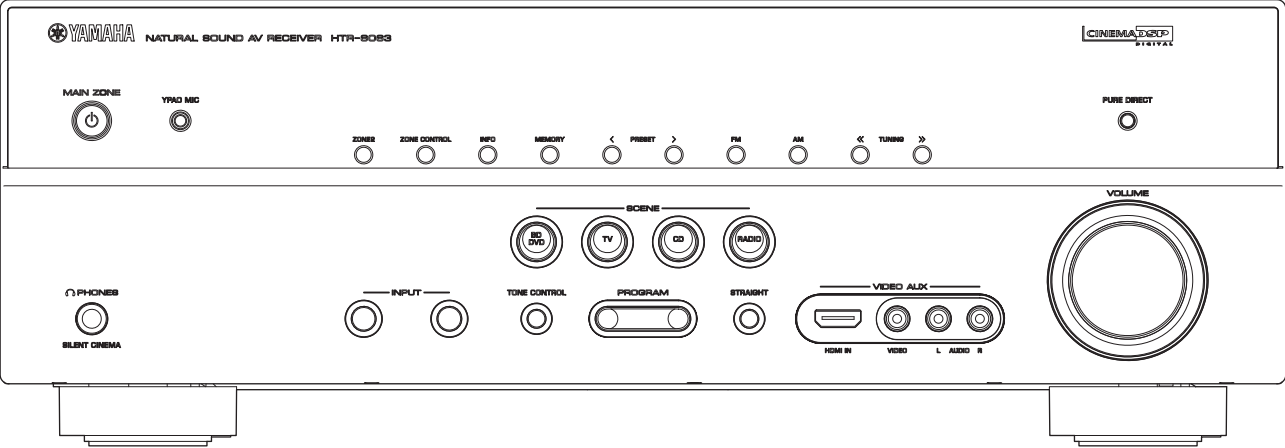
#### RX-V667 (U model)



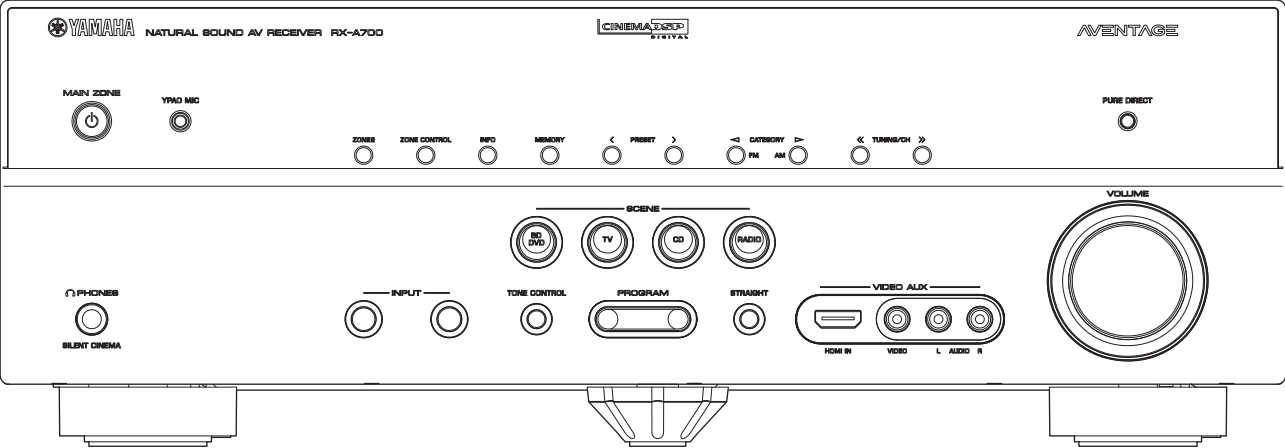
#### RX-V667 (C, R, T, K, A, B, G, F, L models)



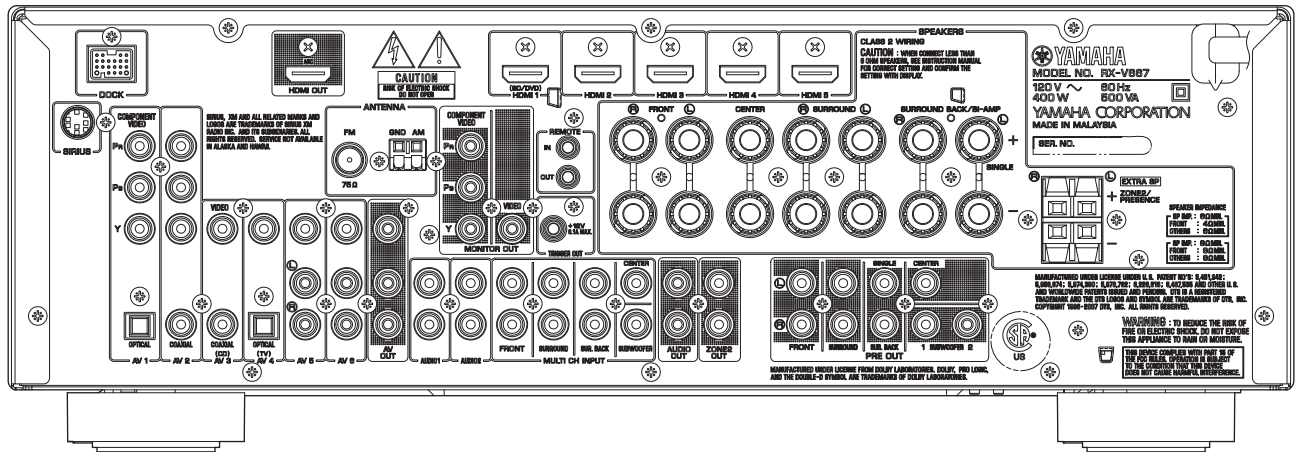
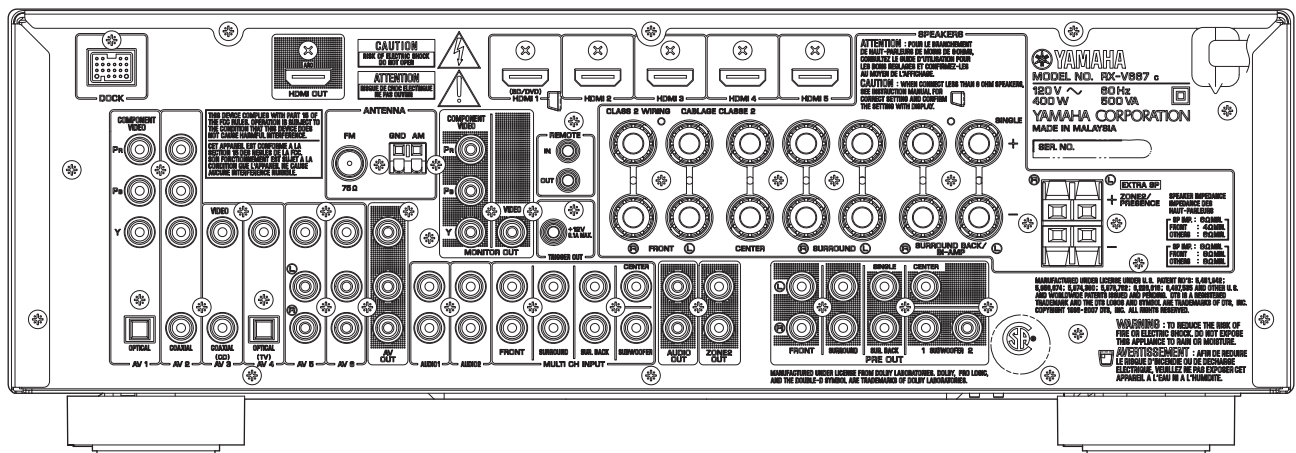
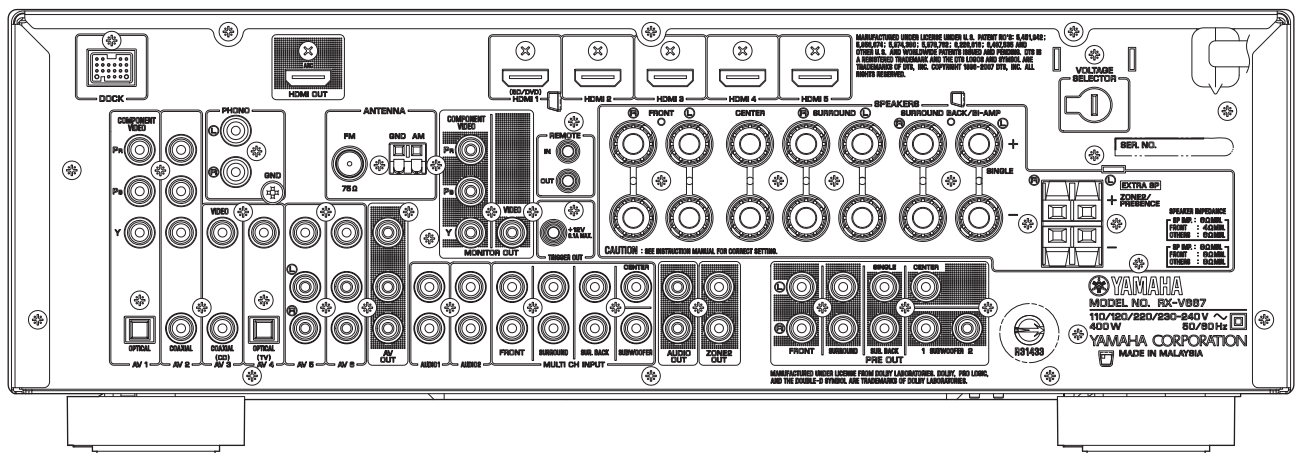
HTR-6063 (C, A models)



RX-A700 (U model)





**RX-V667 (U model)****RX-V667 (C model)****RX-V667 (R model)**

[illegible][illegible]

**MAIN**

**YAMAHA**  
**MODEL NO. RX-V887**  
 240 V ~ 50Hz  
 400 W  
**YAMAHA CORPORATION**  
 MADE IN MALAYSIA

**REAR PANEL CONNECTIONS:**

- INPUTS:** DCC, COMPONENT VIDEO, PHONO, VIDEO, ANTENNA, COMPOSITE VIDEO, REMOTES, MONITOR OUT, FRONT, SURROUND, SUB, MULTI CH INPUT.
- OUTPUTS:** FRONT, SURROUND, SUB, REAR, MONITOR OUT.

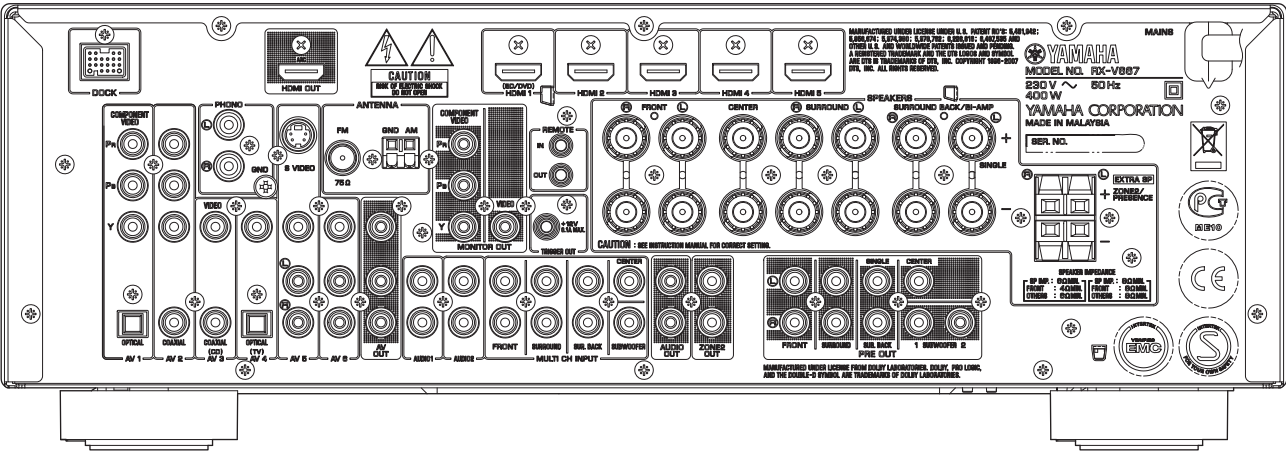
**CAUTION:** SEE INSTRUCTION MANUAL FOR CORRECT SETTINGS.

**NOTES:**

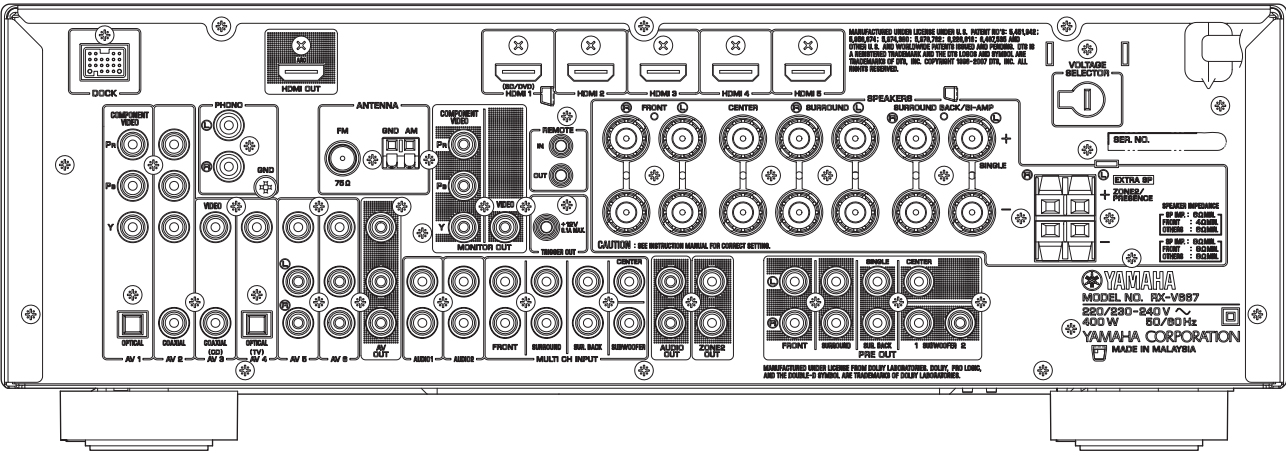
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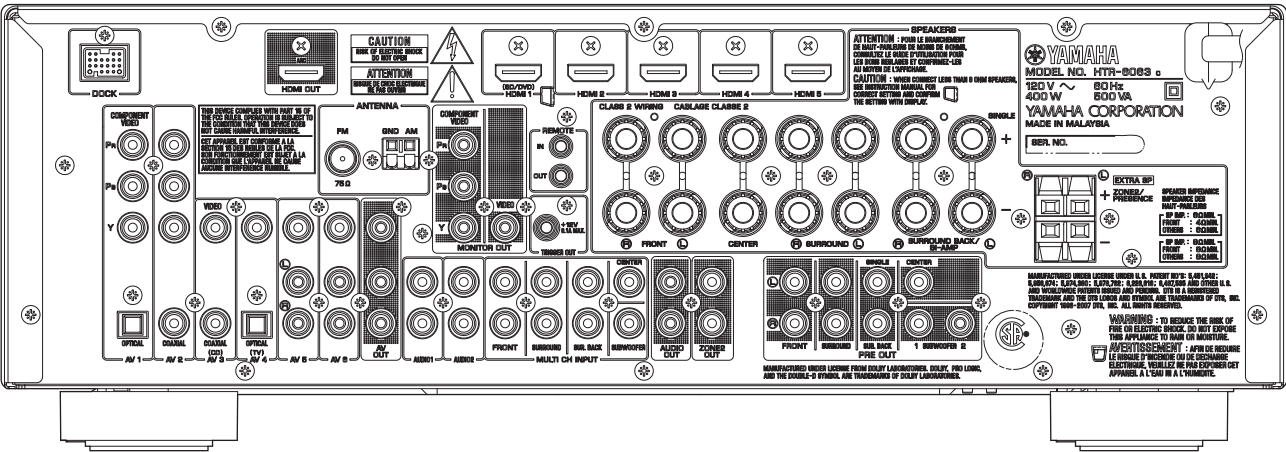
RX-V667 (B, G, F models)



RX-V667 (L model)

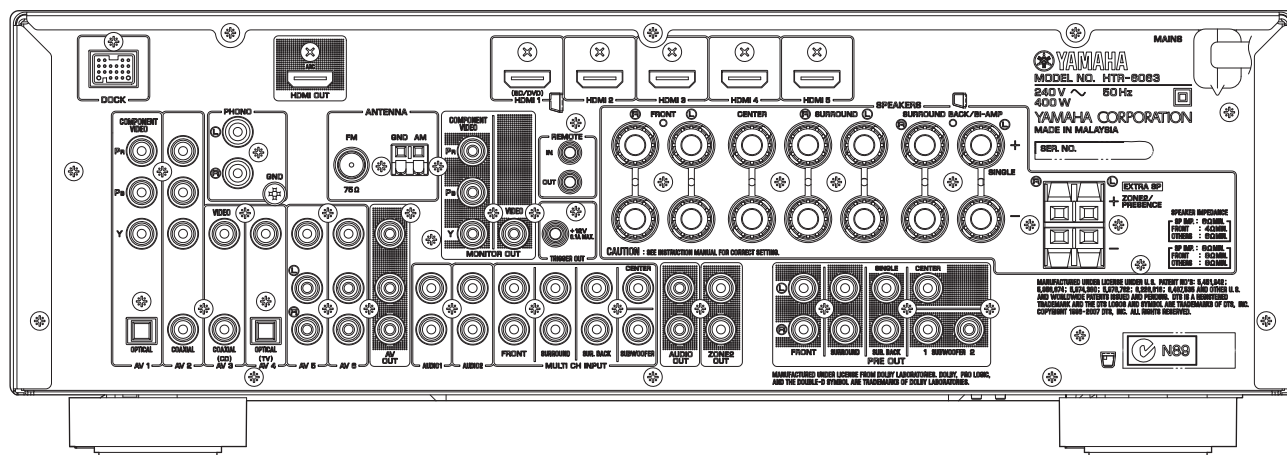


HTR-6063 (C model)

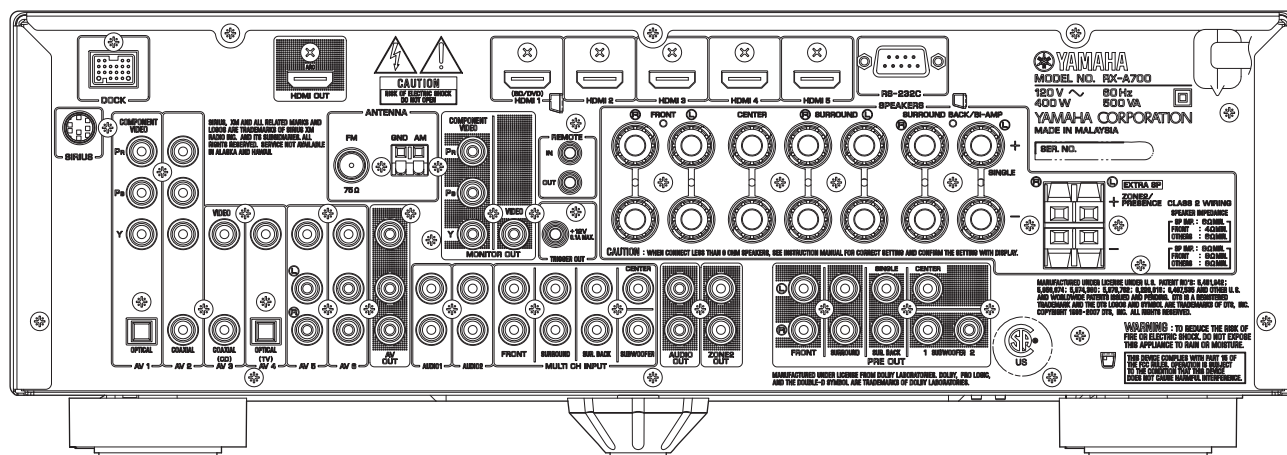


RX-V667/HTR-6063/  
RX-A700

# HTR-6063 (A model)

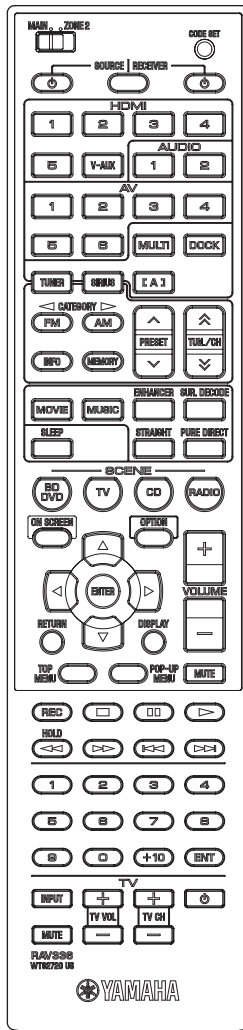


# RX-A700 (U model)

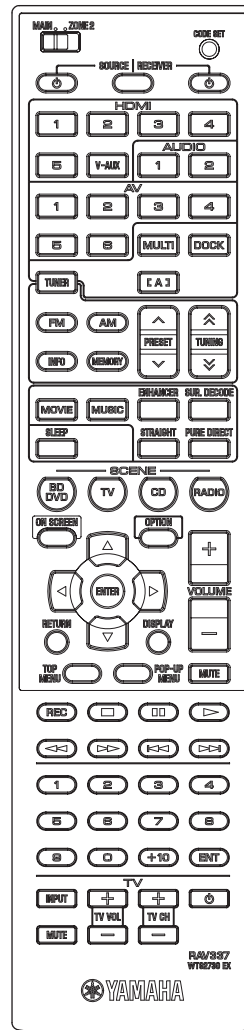


## ■ REMOTE CONTROL PANELS

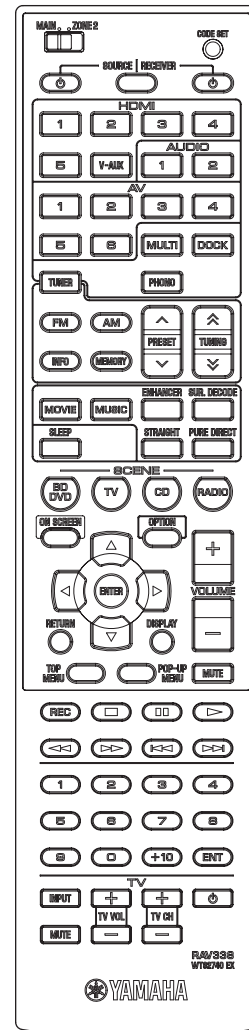
**RAV336**  
(U model)



**RAV337**  
(C model)



**RAV338**  
(R, T, K, A, B, G, F, L models)



## SPECIFICATIONS

### ■ Audio Section

#### Minimum RMS Output Power (Power Amp. Section)

[RX-V667/RX-A700]

(20 Hz to 20 kHz, 0.08 % THD, 8 ohms)

FRONT L/R	90 W + 90 W
CENTER	90 W
SURROUND L/R	90 W + 90 W
SURROUND BACK L/R	90 W + 90 W

[HTR-6063]

(1 kHz, 0.7 % THD, 8 ohms)

FRONT L/R	105 W + 105 W
CENTER	105 W
SURROUND L/R	105 W + 105 W
SURROUND BACK L/R	105 W + 105 W

#### Maximum Power (JEITA) (1 kHz, 10 % THD, 8 ohms)

[R, T, K, L models]

FRONT L/R	130 W + 130 W
CENTER	130 W
SURROUND L/R	130 W + 130 W
SURROUND BACK L/R	130 W + 130 W

#### Max. Power Per Channel (1 kHz, 0.7 % THD, 4 ohms)

[B, G, F, L models]

FRONT L/R	140 W + 140 W
CENTER	140 W
SURROUND L/R	140 W + 140 W
SURROUND BACK L/R	140 W + 140 W

#### IEC Power (1 kHz, 0.08 % THD, 8 ohms) [B, G, F, L models]

FRONT L/R	100 W + 100 W
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#### Dynamic Power Per Channel (IHF) (FRONT L/R drive)

(8 / 6 / 4 / 2 ohms)	125 / 160 / 190 / 230 W
----------------------	-------------------------

#### Dynamic Headroom [U, C models]

(8 ohms)	1.43 dB
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#### Damping Factor

(20 Hz to 20 kHz, 8 ohms, SPEAKER-A)

FRONT L/R	100 or more
-----------	-------------

#### Input Sensitivity/Input Impedance

(1 kHz, 100 W/8 ohms)

PHONO (MM)	3.5 mV / 47 k-ohms
AV5, etc.	200 mV / 47 k-ohms
MULTI CH INPUT	
FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER	
	200 mV / 47 k-ohms

#### Maximum Input Signal (1 kHz)

PHONO (MM) (0.1 % THD)	60 mV or more
AV5, etc. (Effect ON) (0.5 % THD)	2.3 V or more

#### Output Level/Output Impedance

REC OUT	200 mV / 1.2 k-ohms
PRE OUT	1 V / 1.2 k-ohms
SUBWOOFER (2 ch stereo and FRONT SP: small)	
	1 V / 1.2 k-ohms
ZONE2 OUT	200 mV / 1.2 k-ohms

#### Headphone Jack Rated Output/Impedance

AV5, etc. (1 kHz, 50 mV, 8 ohms)	100 mV / 560 ohms
----------------------------------	-------------------

#### Frequency Response (10 Hz to 100 kHz)

AV5, etc. to FRONT L/R	0 / -3.0 dB
------------------------	-------------

#### RIAA Equalization Deviation

[R, T, K, A, B, G, F, L models]

PHONO (MM)	0 ±0.5 dB
------------	-----------

#### Total Harmonic Distortion

PHONO (MM) to REC OUT (20 Hz to 20 kHz, 1 V)	
	0.02 % or less
AV5 etc. (PURE DIRECT) to FRONT SP OUT (20 Hz to 20 kHz, 50 W, 8 ohms)	
	0.06 % or less

#### Signal to Noise Ratio (IHF-A Network)

PHONO (MM) (Input shorted) to REC OUT

5 mV	81 dB or more
AV5, etc. (PURE DIRECT) (Input shorted) to SP OUT	
250 mV	100 dB or more

#### Residual Noise (IHF-A Network)

FRONT L/R SP OUT	150 µV or less
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#### Channel Separation (1 kHz / 10 kHz)

PHONO (Input shorted)

	60 dB or more / 55 dB or more
AV5, etc. (Input 5.1 k-ohms shorted)	
	60 dB or more / 45 dB or more

#### Volume Control

	MUTE / -80 dB to +16.5 dB / 0.5 dB step
--	---

#### Tone Control Characteristics

FRONT L/R

BASS

Boost/Cut	±6 dB / 0.5 dB step / 50 Hz
Turnover frequency	350 Hz

TREBLE

Boost/Cut	±6 dB / 0.5 dB step / 20 kHz
Turnover frequency	3.5 kHz

#### Filter Characteristics

FRONT, CENTER, SURROUND, SURROUND BACK small (H.P.F.)

	fc=40/60/80/90/100/110/120/160/200 Hz, 12 dB/oct.
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SUBWOOFER (L.P.F.)

	fc=40/60/80/90/100/110/120/160/200 Hz, 24 dB/oct.
--	---

### ■ Video Section

#### Video Signal Type [Monitor out] (Wall paper)

U, C, R, K models	NTSC
T, A, B, G, F, L models	PAL

#### Video Signal Type (Video conversion)

	NTSC/PAL
--	----------

#### Composite Video Signal Level

	1 Vp-p / 75 ohms
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#### S-Video Signal Level [B, G, F models]

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

#### Component Video Signal Level

Y	1 Vp-p / 75 ohms
PB/PR	0.7 Vp-p / 75 ohms

#### Video Maximum Input Level (VIDEO CONV. OFF)

	1.5 Vp-p or more
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#### Signal to Noise Ratio

	50 dB or more
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#### Monitor Out Frequency Response (VIDEO CONV. OFF)

Component video signal level	5 Hz to 60 MHz, -3 dB
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### ■ FM Section

#### Tuning Range

U, C models	87.5 to 107.9 MHz
R, L models	87.5 to 108.0 / 87.50 to 108.00 MHz
T, K, A, B, G, F models	87.50 to 108.00 MHz

#### 50 dB Quieting Sensitivity (IHF) (1 kHz, 100 % MOD.)

Mono	3 µV (20.8 dBf)
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#### Signal to Noise Ratio (IHF)

Mono	74 dB
Stereo	70 dB

#### Harmonic Distortion (1 kHz)

Mono	0.3 %
Stereo	0.3 %

#### Antenna Input

	75 ohms unbalanced
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## ■ AM Section

### Tuning Range

U, C models	530 to 1,710 kHz
R, L models	530 to 1,710 / 531 to 1,611 kHz
T, K, A, B, G, F models	531 to 1,611 kHz

### Antenna

	Loop antenna
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## ■ General

### Power Supply

U, C models	AC 120 V, 60 Hz
R model	AC 110/120/220/230–240 V, 50/60 Hz
T model	AC 220 V, 50 Hz
K model	AC 220 V, 60 Hz
A model	AC 240 V, 50 Hz
B, G, F models	AC 230 V, 50 Hz
L model	AC 220/230–240 V, 50/60 Hz

### Power Consumption

U, C models	400 W / 500 VA
R, T, K, A, B, G, F, L models	400 W

### Standby Power Consumption (reference data)

HDMI control: OFF / Standby through: OFF	0.2 W or less
HDMI control: ON / Standby through: ON	2.7 W or less

### Maximum Power Consumption [R, L models]

	590 W
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### Dimensions (W x H x D)

	435 x 151 x 364 mm (17-1/8" x 6" x 14-3/8")
--	---

### Weight

	11.0 kg (24.3 lbs.)
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### Finish

[RX-V667]	
T model	Gold color
U, C, R, T, K, A, B, G, F, L models	Black color
R, K, G, F, L models	Titanium color
[HTR-6063]	
C, A models	Black color
[RX-A700]	
U model	Black color

### Accessories

Remote control	x 1
Batteries (R03, AAA, UM-4)	x 2
Indoor FM antenna (1.4 m)	x 1
AM loop antenna (1.0 m)	x 1
YPAO microphone (6.0 m)	x 1
VIDEO AUX input cover	x 1

\* Specifications are subject to change without notice.

U.....U.S.A. model  
C.....Canadian model  
R.....General model  
T.....Chinese model  
K.....Korean model

A.....Australian model  
B.....British model  
G.....European model  
F.....Russian model  
L.....Singapore model



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### iPod™, iPhone™

"iPod" is a trademark of Apple Inc., registered in the U.S. and other countries. "iPhone" is a trademark of Apple Inc.

### Bluetooth™

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### SILENT™ CINEMA

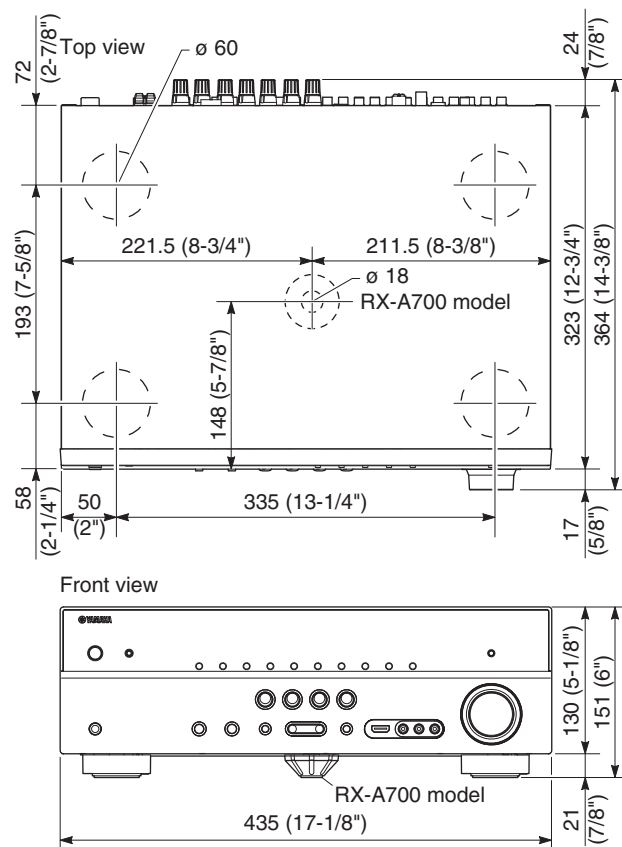
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## • DIMENSIONS

Unit: mm (inch)





# **• SELECT MENU**

Sound field parameters

		Parameter																							
Category	Program	Decode Type (*1)	DSP Level: -6 to +3 dB, [0]	Initial Delay: 1 to 99 ms	Room Size: 0.1 to 2.0	Liveness: 0 to 10	Surround Initial Delay: 1 to 49 ms	Surround Room Size: 0.1 to 2.0	Surround Liveness: 0 to 10	Center Level: 0 to 100 %, [100 %]	Surround L Level: 0 to 100 %, [100 %]	Surround R Level: 0 to 100 %, [100 %]	Surround Back Initial Delay: 1 to 49 ms	Surround Back Room Size: 0.1 to 2.0	Surround Back Liveness: 0 to 10	Surround Back L Level: 0 to 100 %, [7.1CH: 35 %, 6.1CH: 50 %]	Surround Back R Level: 0 to 100 %, [7.1CH: 35 %, 6.1CH: 50 %]	Front Presence L Level: 0 to 100 % [100 %]	Front Presence R Level: 0 to 100 % [100 %]	Reverb Time: 1.0 to 5.0 s	Reverb Delay: 0 to 250 ms	Reverb Level: 0 to 100 %	Direct: Auto / Off, [Auto]	Reset	
MOVIE	Standard	●	●				●	●	●				●	●	●										●
	Spectacle	●	●	●	●		●	●					●	●											●
	Sci-Fi	●	●	●	●		●	●					●	●											●
	Adventure	●	●	●	●		●	●					●	●											●
	Drama	●	●	●	●		●	●					●	●											●
	Mono Movie		●	●	●	●															●	●	●		●
	Sports		●	●	●		●	●					●	●											●
	Action Game		●	●	●		●	●					●	●											●
	Roleplaying Game		●	●	●		●	●					●	●											●
	Music Video		●	●	●		●	●					●	●											●
MUSIC	Hall in Munich		●	●	●	●																			●
	Hall in Vienna		●	●	●	●																			●
	Chamber		●	●		●															●	●	●		●
	Cellar Club		●	●	●	●																●			●
	The Roxy Theatre		●	●	●	●															●	●	●		●
	The Bottom Line		●	●	●	●																			●
	2ch Stereo																							●	●
	7ch Stereo									●	●	●					●	●	●	●					●
ENHANCER	Enhancer On																								
	Enhancer Off																								
SUR. DECODE	Surround Decoder	●																							●
STRAIGHT																									

\*1 Surround Decoder

Decode Type	Pro Logic
	PL IIx Movie / PL II Movie
	PL IIx Music / PL II Music
	PL IIx Game / PL II Game
	Neo:6 Cinema
	Neo:6 Music

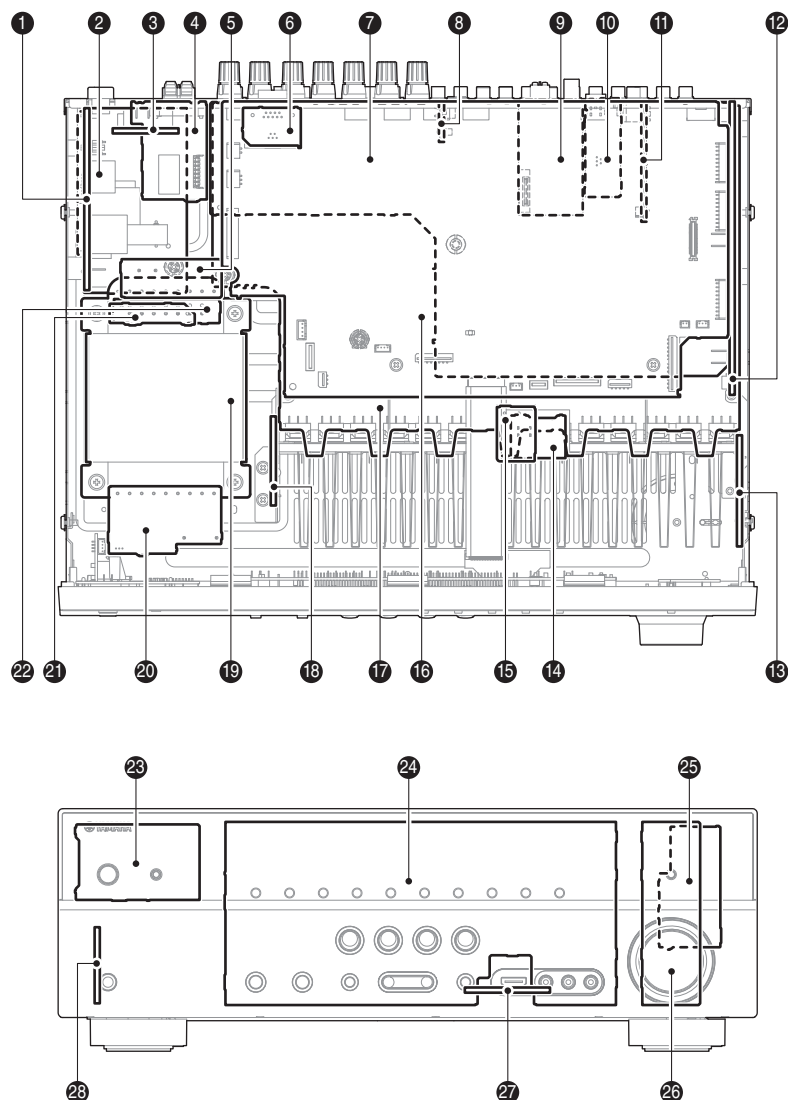


• SET MENU TABLE

MAIN MENU	SUB-MENU		PARAMETER		VALUE [INITIAL VALUE]	
Speaker Setup	Auto	Measure			Optimizes the speaker configuration automatically using YPAO.	
	Manual	Power Amp Assign			[7ch Normal] / 7ch +1ZONE / 5ch BI-AMP	
		Configuration	Front Speaker			Large / [Small] * When “Subwoofer” is set to “None,” “Front speaker” is disabled.
			Center Speaker			Large / [Small] / None
			Surround Speaker L/R			Large / [Small] / None
			Surround Back Speaker L/R			Large x1 / Large x2 / Small x1 / [Small x2] / None
			Front Presence			[Use] / None
			Subwoofer			[Use] / None
			Phase			[Normal] / Reverse
			Extra Bass			[Off] / On
			Bass Cross Over			40 / 60 / [80] / 90 / 100 / 110 / 120 / 160 / 200 Hz
			Distance			Meter / [Feet]
				Front L		
		Front R				
		Center				
		Surround L				
		Surround R				
		Surround Back L				
		Surround Back R				
		Front Presence L				
		Front Presence R				
		Subwoofer				
		Level		Front L		
			Front R			
			Center			
			Surround L			
			Surround R			
			Surround Back L			
	Surround Back R					
	Front Presence L					
	Front Presence R					
	Subwoofer					
	Parametric EQ	PEQ Select			Manual / Flat / Front / Natural / [Through]	
	PEQ Data Copy			Flat > Manual / Front > Manual / Natural > Manual		
		Front L		Band / Gain	► Band: #1 to #7	
		Front R			▲ Gain: -20.0 to +6.0 dB, [0.0 dB], 0.5 dB step	
		Center		Freq. / Gain	► Frequency: 31.3 Hz to 16.0 kHz, [62.5 Hz]	
Surround L		▲ Gain: -20.0 to +6.0 dB, [0.0 dB], 0.5 dB step				
Surround R		Q / Gain	► Q: 0.500 to 10.080, [1.000]			
Surround Back L			▲ Gain: -20.0 to +6.0 dB, [0.0 dB], 0.5 dB step			
Surround Back R		Reset	Yes / No * Select “ENTER”			
Front Presence L						
Front Presence R						
Subwoofer						
Test Tone			[Off] / On			
Sound Setup	Lipsync	Mode			Manual / [Auto]	
		Delay			0 to 250 ms, [0 ms], 1 ms step	
	Dynamic Range			[MAX] / STD / MIN/AUTO		
	Max. Volume			-30.0 to +16.5 dB (Maximum volume), [+16.5 dB], 5.0 dB step		
	Initial Volume			[Off] / Mute, -80 to +16.5 dB, 0.5 dB step		
	Adaptive DSP Level			[On] / Off		
	Video Setup	Analog to Analog Conversion			Off / [On]	
Processing			[Off] / On			
Resolution			[Auto] / 480p / 720p / 1080i / 1080p / Through * Select “ENTER”			
Aspect			[Through] / 16:9 Normal			

MAIN MENU	SUB-MENU		PARAMETER		VALUE [INITIAL VALUE]
HDMI Setup	HDMI Control			[Off] / On	
	ARC (Audio Return Channel)			Off / [On]	
	TV Audio Input	TV		AV1 / AV2 / AV3 / [AV4] / AV5 / AV6 / AUDIO1 / AUDIO2	
	Audio Output	Amp		[On] / Off	
		OUT		On / [Off]	
	Standby Through			[Off] / On * When HDMI Control is set to “On”, “Standby Through” is disabled.	
Multi Zone Setup	Zone2 Set	Max. Volume		-30.0 to +16.5 dB (Maximum volume), [+16.5 dB], 5.0 dB step	
		Initial Volume		[Off] / Mute, -80 to +16.5 dB, 0.5 dB step	
	Party Mode Set	Target: Zone2		Disable / [Enable]	
Function Setup	Auto Power Down	Timer		4hours / 8hours / 12hours / [Off]	
	Display Set	Front Panel Display	Dimmer	-4 to 0	
			Scroll		
			Wall Paper		Picture / Gray
	Trigger Output	Trigger Mode		[Power] / Source / Manual	
		Target Zone		Main / Zone2 / [All] * When “Trigger Mode” is set to “Power”, “Target Zone” is disabled.	
		Target Source	HDMI1	Low / [High] * When “Trigger Mode” is set to “Source”, “Target Source” is disabled.	
			HDMI2		
			HDMI3		
			HDMI4		
			HDMI5		
			AV1		
			AV2		
			AV3		
			AV4		
			AV5		
			AV6		
			VIDEO AUX		
			TUNER		
			Sirius Satellite Radio		
			AUDIO1		
			AUDIO2		
			DOCK		
	MULTI CH				
	Manual		Low / [High] * When “Trigger Mode” is set to “Manual”, “Manual” is disabled.		
	Memory Guard			[Off] / On	
	Language Setup				English (English), 日本語 (Japanese), Français (Franch), Deutsch (German), Español (Spanish), Русский (Russian)

## ■ INTERNAL VIEW



- 1 VIDEO (2) P.C.B.
- 2 VIDEO (3) P.C.B.
- 3 MAIN (3) P.C.B. (R, L models)
- 4 OPERATION (8) P.C.B.
- 5 MAIN (2) P.C.B.
- 6 DIGITAL (3) P.C.B. (RX-A700)
- 7 VIDEO (1) P.C.B.
- 8 VIDEO (4) P.C.B.
- 9 AM/FM TUNER
- 10 VIDEO (9) P.C.B. (B, G, F models)
- 11 OPERATION (9) P.C.B. (R, T, K, A, B, G, F, L models)
- 12 OPERATION (2) P.C.B.
- 13 OPERATION (6) P.C.B.
- 14 OPERATION (7) P.C.B. (C model)
- 15 MAIN (5) P.C.B. (U, R, T, K, A, B, G, F, L models)
- 16 DIGITAL (1) P.C.B.
- 17 MAIN (1) P.C.B.
- 18 MAIN (6) P.C.B.
- 19 POWER TRANSFORMER
- 20 VIDEO (6) P.C.B.
- 21 VIDEO (7) P.C.B. (U, C, T, K, B, G, F models)
- 22 MAIN (4) P.C.B. (R, L models)
- 23 OPERATION (4) P.C.B.
- 24 OPERATION (1) P.C.B.
- 25 OPERATION (10) P.C.B.
- 26 OPERATION (5) P.C.B.
- 27 DIGITAL (2) P.C.B.
- 28 OPERATION (3) P.C.B.

## ■ SERVICE PRECAUTIONS

### Safety measures

- Some internal parts in this product contain high voltages and are dangerous. Be sure to take safety measures during servicing, such as wearing insulating gloves.
- Note that positions indicated below are dangerous even after the power is turned off because an electric charge remains and a high voltage continues to exist there. Before starting any repair work, perform discharge by connecting a discharge resistor (5k-ohms/10W) between terminals at following positions. The time required for discharging is about 30 seconds. C3703 on VIDEO (2) P.C.B. Refer to "PRINTED CIRCUIT BOARDS: VIDEO (2) P.C.B.".

## ■ DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

Disconnect the power cable from the AC outlet.

### 1. Removal of Top Cover

- Remove 4 screws (①) and 5 screws (②). (Fig. 1)
- Lift the rear of the top cover to remove it.

### 2. Removal of Front Panel Unit

- Remove 7 screws (③), and remove W4401. (Fig. 1)
- Remove CB8, CB458, CB472 and CB914. (Fig. 1)
- Unlock and remove CB333. (Fig. 1)
- Release 2 hooks, and remove the front panel unit. (Fig. 1)

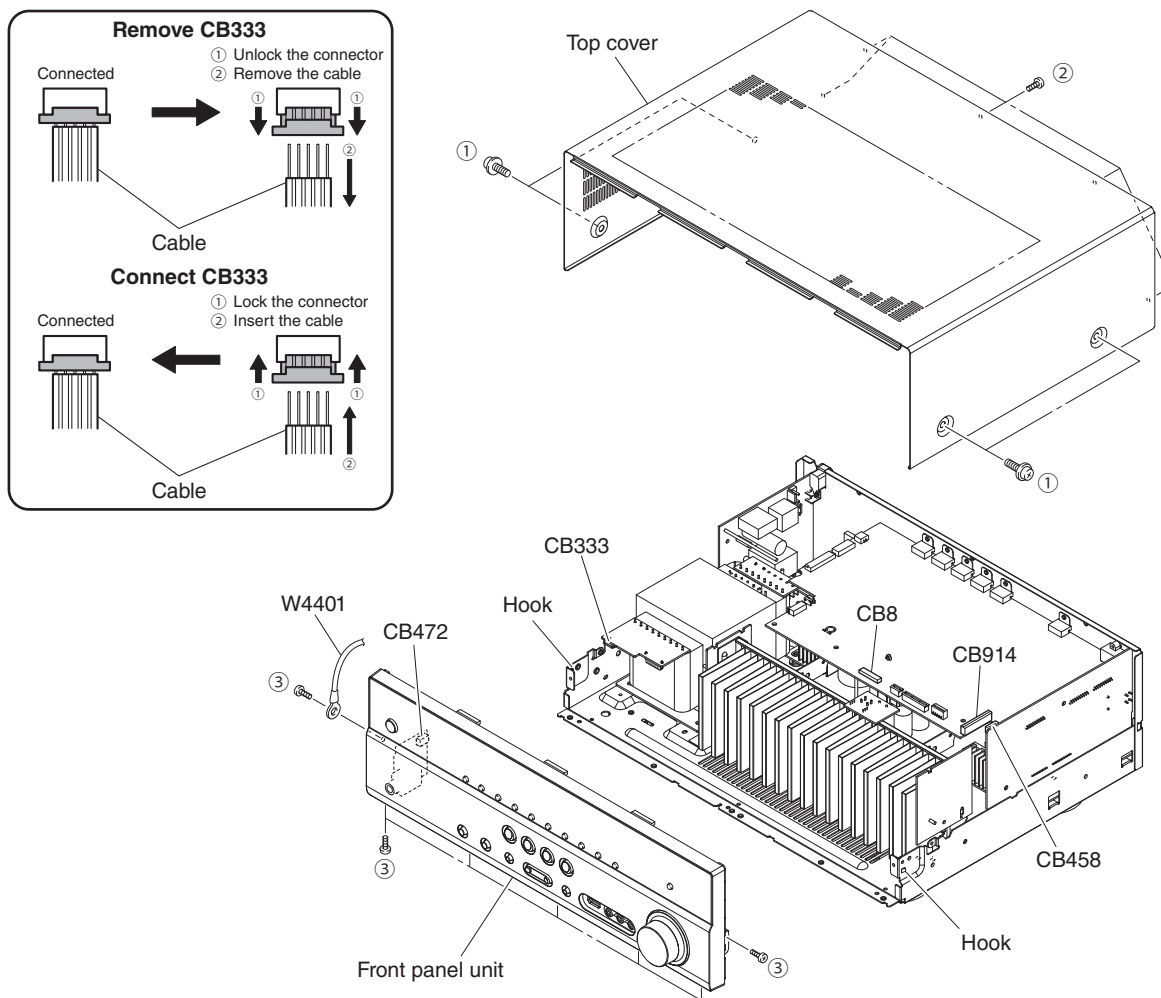


Fig. 1

### 3. Removal of DIGITAL (3) P.C.B. (RX-A700 model only)

- Remove 2 jack screws (④). (Fig. 3)
- Remove CB901 and remove the DIGITAL (3) P.C.B. (Fig. 2)

### 4. Removal of DIGITAL (1) P.C.B.

- Remove screw (⑤) and 6 screws (⑥). (Fig. 3)
- Remove 3 screws. (⑦). (Fig. 2)
- Remove CB34, CB73, CB904, CB913 and CB31 (B, G, F models). (Fig. 2)
- Unlock and remove CB906-907 and CB911. (Fig. 2)
- Remove the DIGITAL P.C.B. which is connected directly to the OPERATION (2) P.C.B. with board-to-board connectors. (Fig. 2)

### 5. Removal of AMP Unit

- Remove screw (⑧), 2 screws (⑨) and 4 screws (⑩). (Fig. 2)
- Remove 3 screws (⑪). (Fig. 3)
- Remove the amp unit. (Fig. 2)

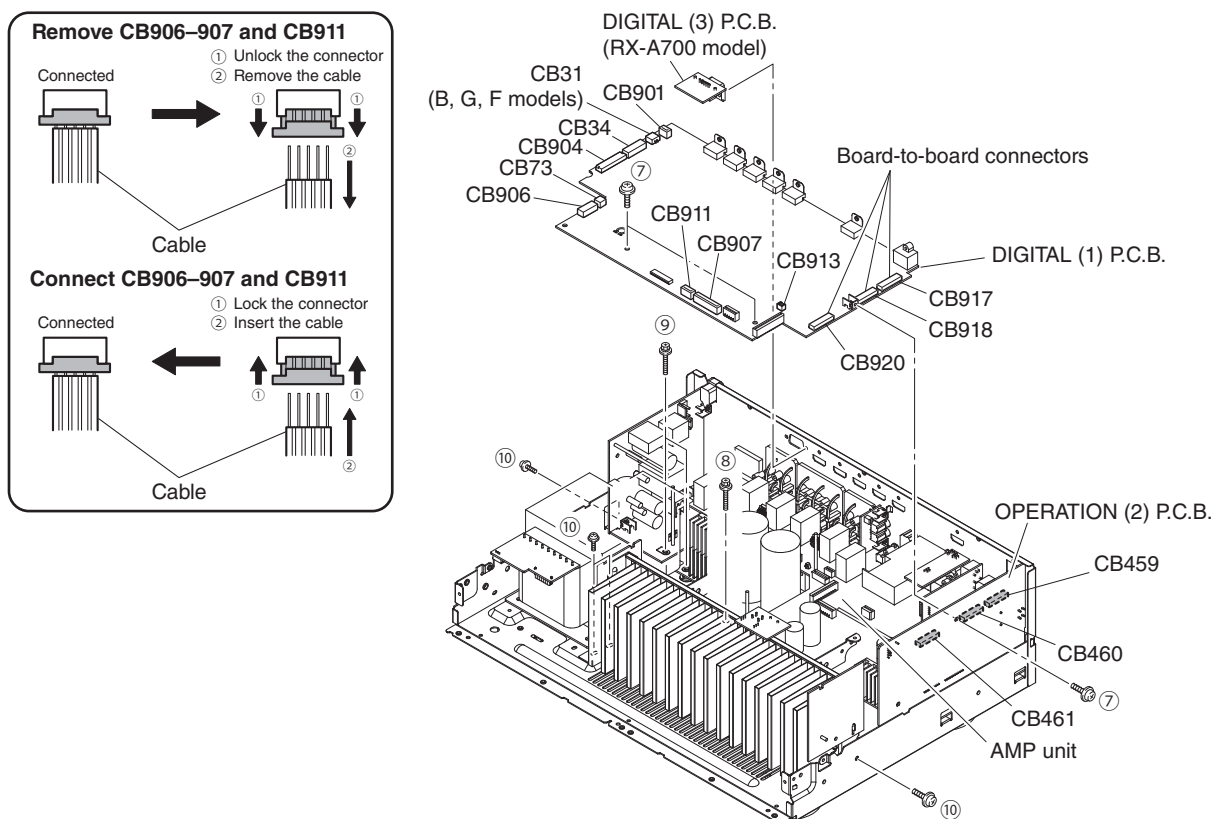


Fig. 2

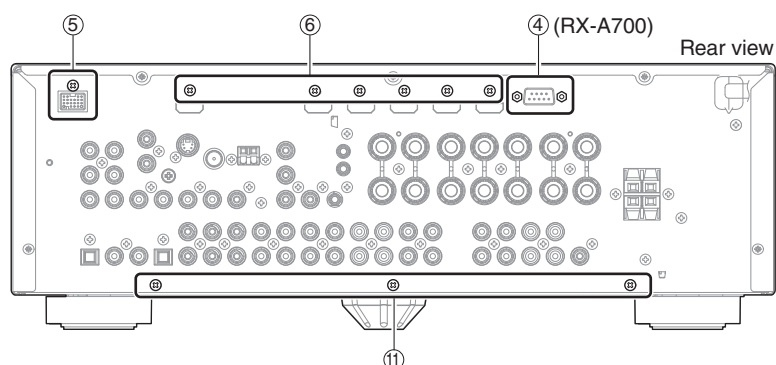
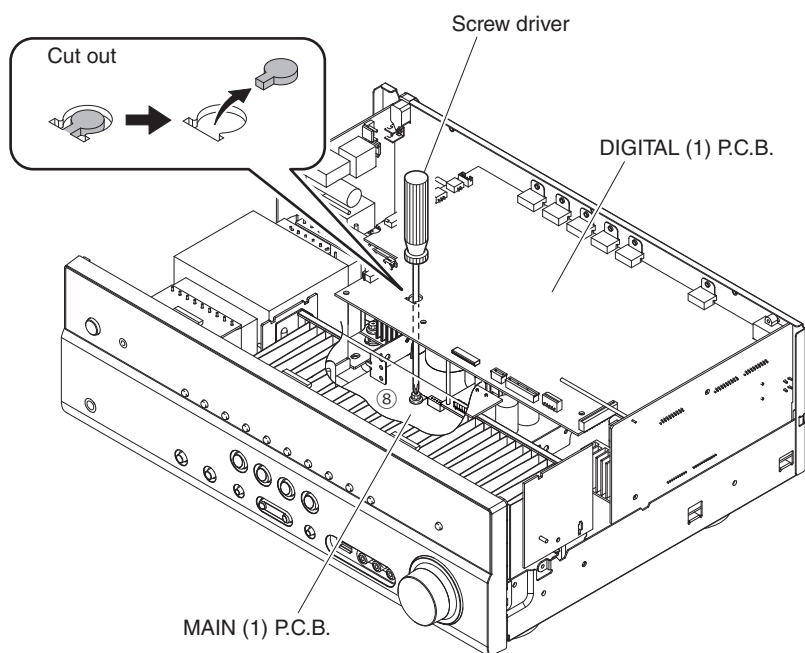
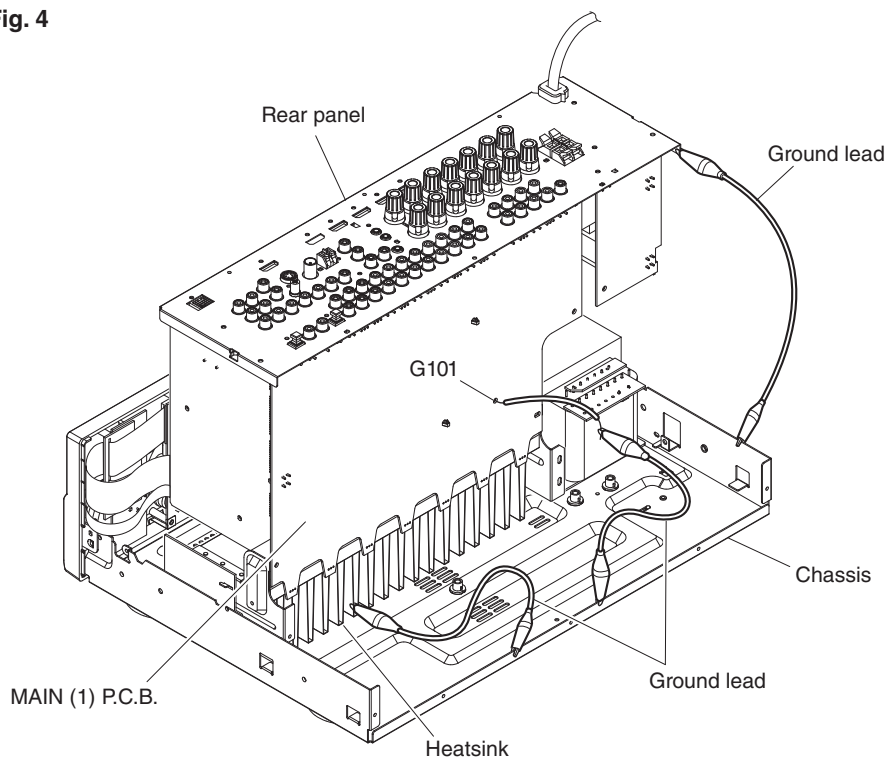


Fig. 3

**When checking the P.C.B.s:**

- Follow the procedure below to place the P.C.B.s (with rear panel) upright. (Fig. 5)
  - a. Remove the top cover. (Fig. 1)
  - b. Cut out a part of the DIGITAL (1) P.C.B. as shown in the figure below in order that screw (⑧) can be removed. (Fig. 4)
  - c. Remove screw (⑧), 2 screws (⑨) and 5 screws (⑩). (Fig. 2)
  - d. Remove 3 screws (⑩). (Fig. 3)
- Connect the ground points of the heatsink, rear panel and MAIN (1) P.C.B. (G101) to the chassis with a ground lead or the like. (Fig. 5)
- When connecting the flexible flat cable, be careful with polarity.
- Reconnect all cables (connectors) that have been disconnected.

**Fig. 4****Fig. 5**

## ■ UPDATING FIRMWARE

When the following parts are replaced, the firmware must be updated to the latest version.

DIGITAL P.C.B.

IC951 (TI (DSP) flash ROM) of DIGITAL P.C.B.

### ● Confirmation of firmware version and checksum

Before and after updating the firmware, check the firmware version and checksum by using the self-diagnostic function menu.

Start up the self-diagnostic function and select "S4. ROM VER/SUM" menu.

Using the sub-menu, have the firmware version and checksum displayed, and note them down.


(See "SELF-DIAGNOSTIC FUNCTION")

- \* When the firmware version is different from written one after updating, perform the updating procedure again from the beginning.

### ● Initializing the back-up IC (EEPROM: IC903 of the DIGITAL P.C.B.)

After updating the firmware, the back-up IC MUST be initialized by the following procedure to have proper memorization of the set up information (soundfield parameters, system memory and tuner presetting, etc.).

Start up the self-diagnostic function and select "S3. FACTORY PRESET" menu. (See "SELF-DIAGNOSTIC FUNCTION")

Select "PRESET RSRV", press the "MAIN ZONE  (power) key of this unit to turn off the power once and turn on the power again. Then the back-up IC is initialized.

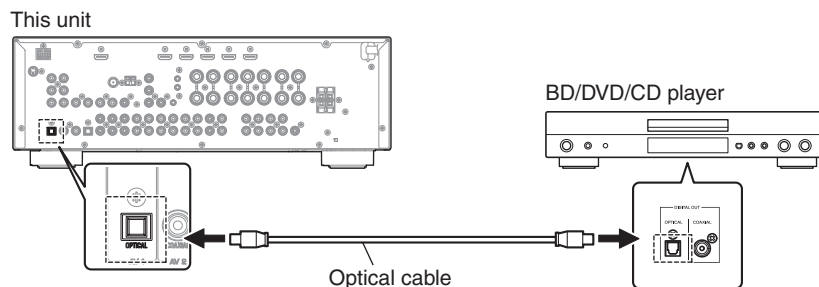
### ● Required Tools

- BD, DVD or CD player (with DIGITAL OUTPUT (OPTICAL or COAXIAL) jack)
- Optical cable (when OPTICAL jack is used)
- Digital audio pin cable (when COAXIAL jack is used)
- Firmware CD
  - \* Download the latest firmware from the specified download source and create the firmware CD.

## ● Connection

Connect this unit and BD/DVD/CD player as shown below. (Fig. 1)

### Example of OPTICAL jack



### Example of COAXIAL jack

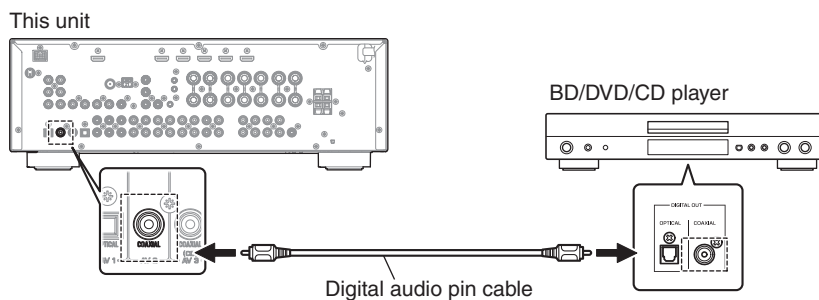
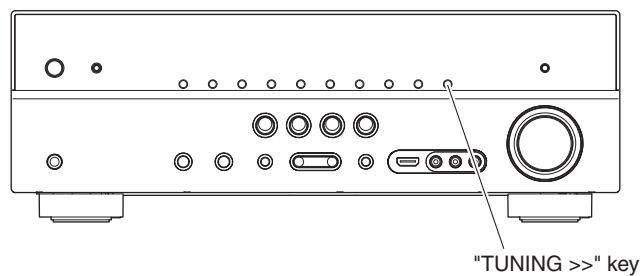


Fig. 1

## ● Operation Procedures

1. While pressing the "TUNING >>" key of this unit, connect the power cable of this unit to the AC outlet. (Fig. 2)  
The FIRMWARE UPDATE mode is activated and "CDDA Upgrader" is displayed. (Fig. 2)



### Display

CDDA Upgrader

Fig. 2



2. Play the firmware CD on the BD/DVD/CD player. Writing of the firmware starts automatically. (Fig. 3)
3. When writing of the firmware is completed, "Update Success", "Please..." and "Power off!!" are displayed repeatedly. (Fig. 3)

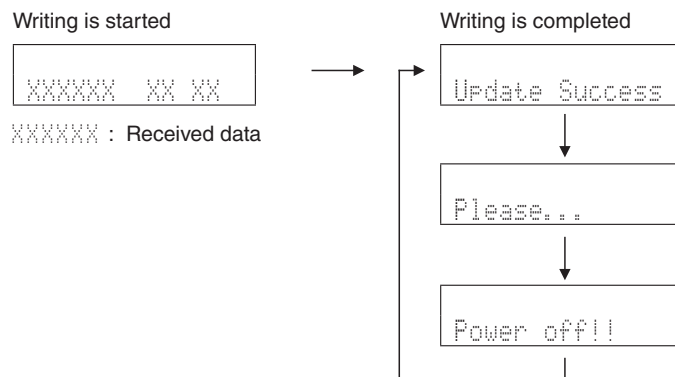


Fig. 3

- \* If the display remains unchanged for more than 10 seconds after starting the firmware CD play procedure, perform the firmware CD play procedure again from the beginning.  
If "FILE CORRUPTED" is displayed after "Address:XXXXXX", make sure that the written data is not corrupted and perform Steps 1 to 3 of "Operation Procedures" again.  
If "Upgrade Failed" is displayed, perform "operation procedures" again from the beginning.

4. Press the "MAIN ZONE ⏻" (power) key of this unit to turn off the power.
5. Eject the firmware CD from the BD/DVD/CD player.
6. Start up the self-diagnostic function and check that the firmware version and checksum are the same as written ones. (See "Confirmation of firmware version and checksum")

## ■ SELF-DIAGNOSTIC FUNCTION

This unit has self-diagnostic functions that are intended for inspection, measurement and location of faulty point.

There are 25 main menu items, each of which has sub-menu items.

Listed in the table below are main menu items and sub-menu items.

Note that not all menu items listed will apply to the models covered in this service manual.

No.	Main menu	No.	Sub-menu
A: Audio system			
A1	DSP AUDIO	1	DSP MARGIN
		2	DSP NON MARGIN
		3	INVALID ITEM (Not for service)
		4	INVALID ITEM (Not for service)
A2	DIRECT AUDIO	1	ANALOG DIRECT
A3	HDMI AUDIO	1	HDMI AUTO
		2	INVALID ITEM (Not for service)
		3	ARC1
		4	INVALID ITEM (Not for service)
A4	SPEAKERS SET	1	BI-AMP
		2	ZONE/TONE=MAX
		3	ZONE/TONE=MIN
		4	INVALID ITEM (Not for service)
		5	INVALID ITEM (Not for service)
		6	D-PARTY MODE
		7	FULL MUTE
		8	INVALID ITEM (Not for service)
		9	INVALID ITEM (Not for service)
A5	MULTI CHANNEL INPUT	1	8 CHANNEL INPUT 8 ohms
		2	8 CHANNEL INPUT 6 ohms
A6	MIC CHECK	1	MIC ROUTE CHECK
A7	MANUAL TEST	1	TEST ALL
		2	TEST FRONT L
		3	TEST CENTER
		4	TEST FRONT R
		5	TEST SURROUND R
		6	TEST SURROUND BACK R
		7	TEST SURROUND BACK L
		8	TEST SURROUND L
		9	TEST FRONT PRESENCE L
		10	TEST FRONT PRESENCE R
		11	INVALID ITEM (Not for service)
		12	INVALID ITEM (Not for service)
		13	TEST LFE 1
		14	INVALID ITEM (Not for service)
D: Display system			
D1	FL CHECK	1	FL CHECK
		2	ALL SEGMENT OFF
		3	ALL SEGMENT ON
		4	CHECK PATTERN

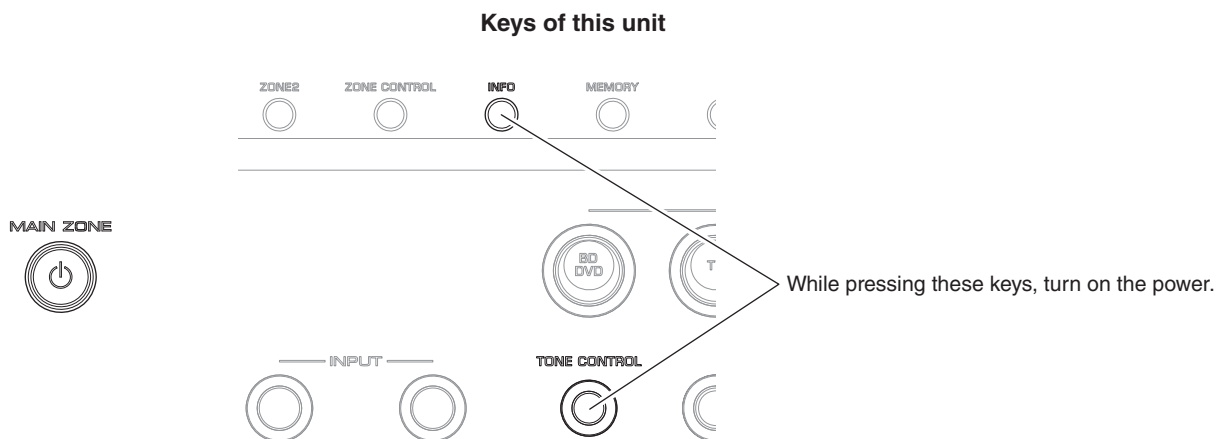
No.	Main menu	No.	Sub-menu
Z: Zone system			
Z1	ZONE TEST	1	AV1
		2	AV2
		3	AV3
		4	AV4
		5	AV5
		6	AV6
		7	AUDIO1
		8	AUDIO2
		9	V-AUX
		10	PHONO
R: Radio and satellite broadcasting system			
R1	SIRIUS (U model)	1	SIRIUS
		2	SR
		3	SSP
		4	MAC
		5	ADP
		6	PRDID
		7	SEQID
U: Universal system			
U1	DOCK	1	DOCK
U2	INVALID ITEM (Not for service)		
U3	INVALID ITEM (Not for service)		
N: Network system			
N1	INVALID ITEM (Not for service)		
C: Communication system			
C1	DIGITAL P.C.B. CHECK	1	ALL
		2	BUS FLASH ROM
		3	BUS FPGA
		4	I2C
		5	FPGA RAM
		6	BUS DIR
		7	BUS DSP1
		8	EEPROM
		9	RS-232C LOOPBACK TEST (RX-A700 model)
		10	INVALID ITEM (Not for service)
C2	HDMI INFO	1	HMN
		2	HID
V: Video system			
V1	ANALOG VIDEO CHECK	1	ANALOG BYPASS
		2	DIGITAL BYPASS
		3	ZONE BYPASS
		4	MUTE CHECK
		5	TEST PATTERN
		6	VIDEO IN

No.	Main menu	No.	Sub-menu
V2	DIGITAL VIDEO CHECK	1	LOOPBACK TEST1
		2	LOOPBACK TEST2
		3	LOOPBACK TEST3
		4	HDMI REPEAT
		5	DIGITAL CVBS
		6	DIGITAL Y/C
		7	DIGITAL COMPONENT
		8	DIGITAL COMPONENT SC
		9	GUI-VIDEO OUT
P: Power and protection system			
P1	SYSTEM MONITOR	1	DC
		2	PS1/PS2
		3	TM
		4	OUTPUT LEVEL
		5	LIMITER CONTROL
		6	L3 (Not for service)
		7	KEY1/KEY2
P2	PROTECTION HISTORY	1	HISTORY 1
		2	HISTORY 2
		3	HISTORY 3
		4	HISTORY 4
S: System and version system			
S1	FIRMWARE UPDATE	1	F/W UPDATE (Not for service)
S2	SET INFORMATION	1	MODEL
		2	DESTINATION
		3	INVALID ITEM (Not for service)
S3	FACTORY PRESET	1	PRESET INH/RSRV
S4	ROM VERSION/CHECKSUM	1	SYSTEM VERSION
		2	MICROPROCESSOR VERSION
		3	MICROPROCESSOR CHECKSUM
		4	FLASH ROM VERSION
		5	FLASH ROM CHECKSUM
		6	VNP2 VERSION (Not for service)
		7	VNP2 CHECKSUM (Not for service)
		8	DSP1 VERSION
		9	DSP1 CHECKSUM
		10	INVALID ITEM (Not for service)
		11	INVALID ITEM (Not for service)
		12	GUI VERSION
		13	FPGA GUI VERSION
		14	FPGA IP VERSION
		15	SIRIUS VERSION
		16	INVALID ITEM (Not for service)
		17	HD RADIO VERSION (Not for service)
S5	INVALID ITEM (Not for service)		

## ● Starting Self-Diagnostic Function

While pressing the “TONE CONTROL” and “INFO” keys of this unit as shown in the figure below, press the “MAIN ZONE  $\phi$ ” (power) key of this unit to turn on the power.

The self-diagnostic function mode is activated.



## ● Starting Self-Diagnostic Function in the protection cancel mode

If the protection function works and causes hindrance to trouble shoot, cancel the protection function as described below, and it will be possible to enter the self-diagnostic function mode.

(The protection functions other than the excess current detect function will be disabled.)

While pressing the “TONE CONTROL” and “INFO” keys as shown in the figure above, press the “MAIN ZONE  $\phi$ ” (power) key to turn on the power and keep pressing those 2 keys for 3 seconds or longer.

The self-diagnostic function mode is activated with the protection functions disabled.

In this mode, the “SLEEP” segment of the FL display of this unit flashes to indicate that the mode is self-diagnostic function mode with the protection functions disabled.

### CAUTION!

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

## ● Canceling Self-Diagnostic Function

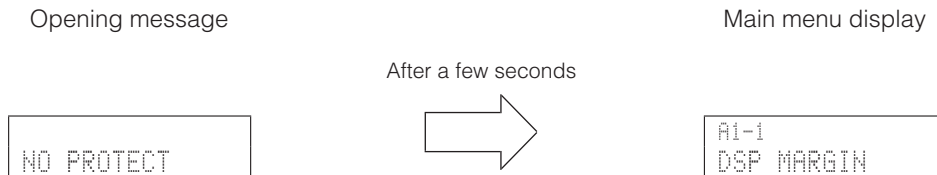
- Before canceling self-diagnostic function, execute setting for FACTORY PRESET of main menu No. S3. (Memory initialization inhibited or Memory initialized).
  - \* In order to keep the user memory preserved, be sure to select PRESET INHIBIT (Memory initialization inhibited).
- Press the “MAIN ZONE  $\phi$ ” (power) key of this unit to turn off the power.

## ● Display provided when Self-Diagnostic Function started

The display is as described below depending on the situation the last time the power to this unit is turned off.

### 1. When the power is turned off by usual operation:

The FL display of this unit displays "NO PROTECT" then the main menu (sub-menu "A1-1. DSP MARGIN" of main menu No. A1 DSP AUDIO) a few seconds later.



### 2. When the protection function worked to turn off the power:

The FL display of this unit displays the data of protection function which worked at that time then the main menu (sub-menu "A1-1. DSP MARGIN" of main menu No. A1 DSP AUDIO) a few seconds later.

Note: At that time if you reactivate the self-diagnostic function after turning off the power once by pressing the "MAIN ZONE ⏻" (power) key, "NO PROTECT" will be displayed because that situation is equal to "1. When the power is turned off by usual operation:" described above.

However the protection function history is stored in a back-up IC with a backup. For details, refer to main menu P2 PROTECTION HISTORY."

#### 2-1. When there is a history of protection function due to excess current.



**Cause:** An excessive current flowed through the power amplifier.

**Supplementary information:** As current of the power amplifier 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.

#### Notes)

- Applying the power to this unit without correcting the abnormality can be dangerous and cause additional circuit damage. To avoid this, if "I PROTECT" protection function works 1 time, the power will not turn on even when the "MAIN ZONE ⏻" (power) key is pressed. In order to turn on the power again, start up the self-diagnostic function.
- The output transistors in each amplifier channel should be checked for damage before applying power to this unit.
- Amplifier current should be monitored by measuring DC voltage across the emitter resistors for each channel.

**2-2. When the protection function worked due to abnormal DC output.**



DC FRT:xxxH

AD conversion value when the protection function is working

**Cause:** DC output of the power amplifier is abnormal.

**Supplementary information:** The protection function worked due to a DC voltage appearing at the speaker terminal. A cause could be a defect in the amplifier.

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

**2-3. When the protection function worked due to abnormal voltage in the power supply section.**


PSx FRT:xxxL

AD conversion value when the protection function is working

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

**Supplementary information:** The protection function worked due to a defect or overload in the power supply.

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

**Notes)**

- Applying the power to this unit without correcting the abnormality can be dangerous and cause additional circuit damage. To avoid this, if “PS” and “DC” protection function works 3 times consecutively, the power will not turn on even when the “MAIN ZONE ①” (power) key is pressed. In order to turn on the power again, start up the self-diagnostic function.
- The output transistors in each amplifier channel should be checked for damage before applying power to this unit.
- Amplifier current should be monitored by measuring DC voltage across the emitter resistors for each channel.

#### 2-4. When the protection function worked due to excessive heatsink temperature.



TMP PRT:xxL

AD conversion value when the protection function is working

**Cause:** The temperature of the heatsink is excessive.

**Supplementary information:** The protection function worked due to the temperature limit being exceeded. Causes could be poor ventilation or a defect related to the thermal sensor.

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

#### ● 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.

For details, refer to main menu P2 PROTECTION HISTORY.



## ● Operation procedure of Main menu and Sub-menu

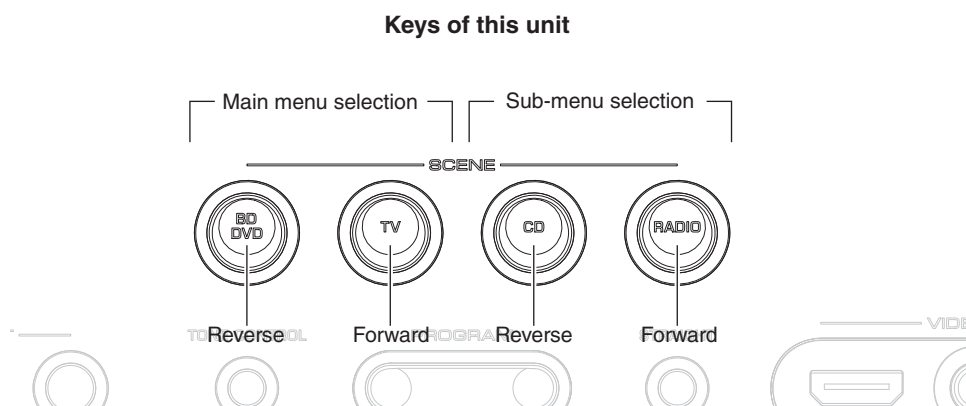
There are 25 main menu items, each of having sub-menu items.

### Main menu selection

Select the menu using “SCENE TV” (forward) and “SCENE BD/DVD” (reverse) keys.

### Sub-menu selection

Select the sub-menu using “SCENE RADIO” (forward) and “SCENE CD” (reverse) keys.



## ● Functions in Self-Diagnostic Function mode

In addition to the self-diagnostic function menu items, functions as listed below are available.

- Power ON/OFF
- Master volume
- Muting
- Input selection

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

## ● Initial settings used to start Self-Diagnostic Function

The following initial settings are used when starting self-diagnostic function.

When self-diagnostic function is canceled, these settings are restored to those before starting self-diagnostic function.

- Master volume: -20 dB / Zone volume: +2.5dB
- Input: HDMI1 / Zone: AUDIO1
- Main menu: A1-1. DSP MARGIN
- Speaker setting: LARGE, Bass out to SWFR (All channels)
- HDMI Control: Off
- Zone: On

## ● Details of Self-Diagnostic Function menu

### A1. DSP AUDIO

This menu is used to check audio signal route via DSP.

#### A1-1. DSP MARGIN

The audio signal is output including the head margin via DSP.

Head margin

Front L/R, Center, Surround L/R, Surround Back L/R Presence L/R: +12 dB

Subwoofer: +18 dB

\* When input source is stereo, signal is assigned as below.

Front L: Front L, Center, Surround L, Surround Back L, Presence L

Front R: Front R, Surround R, Surround Back R, Presence R

Front L +10 dB: Subwoofer

```
A1-1
DSP MARGIN
```

#### A1-2. DSP NON MARGIN

The audio signal is output without including the head margin via DSP.

Front L/R / Center / Surround L/R / Surround Back L/R: 0 dB

Subwoofer: -10 dB

```
A1-2
DSP NON MARGIN
```

#### A1-3. INVALID ITEM

Not for service.

```
A1-3
INVALID ITEM
```

#### A1-4. INVALID ITEM

Not for service.

```
A1-4
INVALID ITEM
```

A2. DIRECT AUDIO

This menu is used to check audio signal route of PURE DIRECT.

A2-1. ANALOG DIRECT

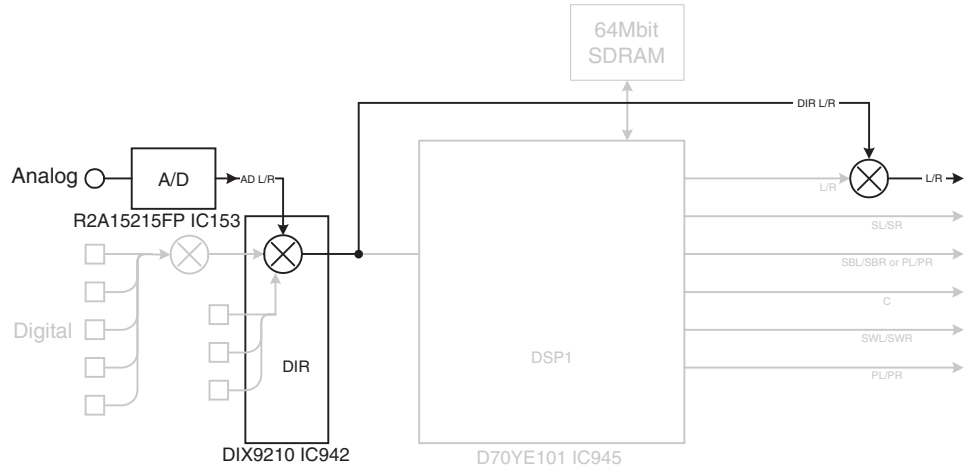
The analog input audio signal is output to FRONT L/R in PURE DIRECT mode.



INPUT: AV5 ANALOG  
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

Input level	Volume	SPEAKERS OUTPUT					SUBWOOFER OUTPUT
		FRONT	CENTER	SURROUND	SURROUND BACK	PRESENCE/ ZONE2	
Both ch, -20 dBm	+6.5 dB	+13.0 dBm	- ∞	- ∞	- ∞	- ∞	- ∞

DSP BYPASS  
(ANALOG)

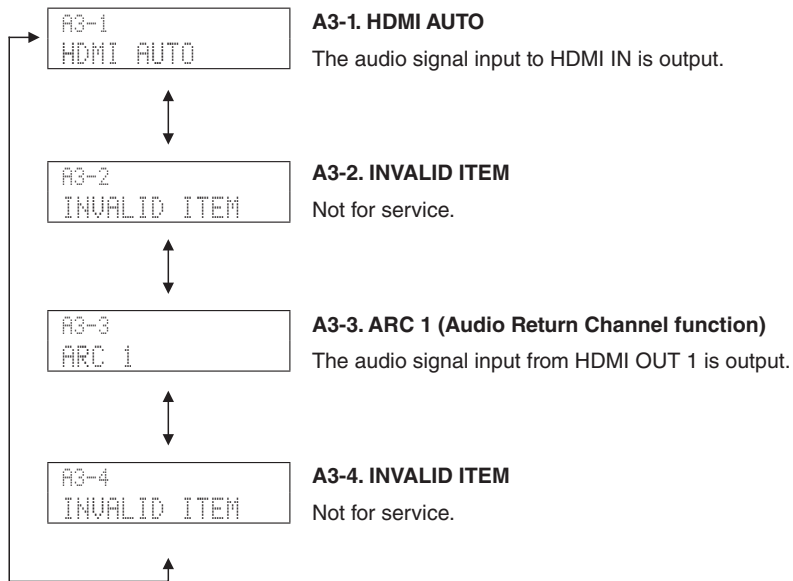


(Shaded items not used in this mode)

## A3. HDMI AUDIO

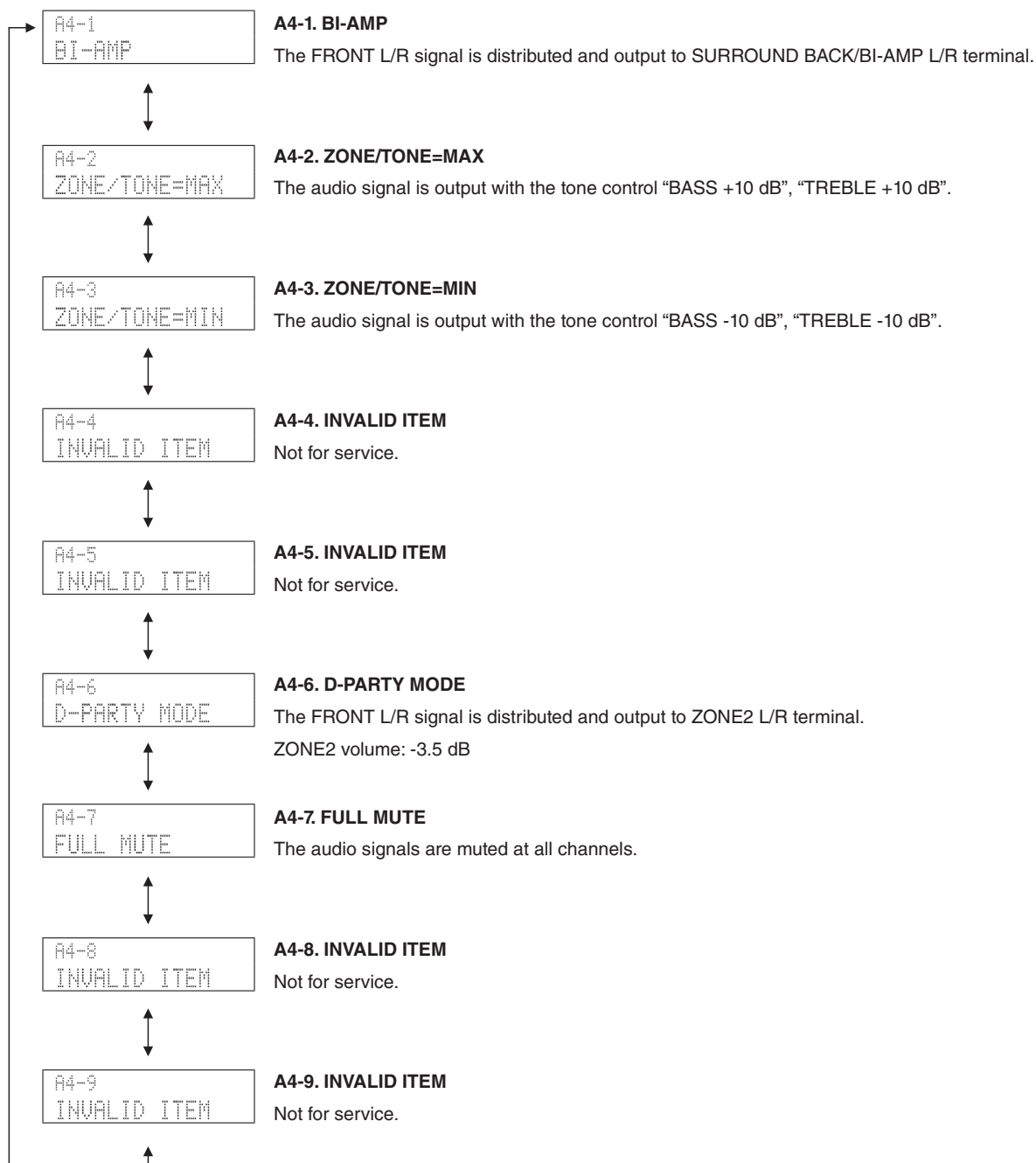
This menu is used to check the route of audio signal input to HDMI IN/OUT.

- \* Before check using sub-menu A3-3, be sure to connect a TV monitor equipped with Audio Return Channel function to this unit.



## A4. SPEAKERS SET

This menu is used to check the speaker output.



INPUT: AV5 ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

Sub-memu	Input level	Volume	SPEAKERS OUTPUT					SUB-WOOFER OUTPUT
			FRONT	CENTER	SURROUND	SURROUND BACK	PRESENCE/ ZONE2	
BI-AMP	Both ch, -20 dBm	+6.5 dB	+13.0 dBm	+13.0 dBm	+13.0 dBm	+13.0 dBm	- ∞	-6.5 dBm
ZONE/TONE=MAX	Both ch, -20 dBm	+6.5 dB	+13.0 dBm	+13.0 dBm	+13.0 dBm	- ∞	+13.0 dBm	-6.5 dBm
ZONE/TONE=MIN	Both ch, -20 dBm	+6.5 dB	+13.0 dBm	+13.0 dBm	+13.0 dBm	- ∞	+13.0 dBm	-6.5 dBm
INVALID ITEM (Not for service)	Both ch, -20 dBm	+6.5 dB	-	-	-	-	-	-
INVALID ITEM (Not for service)	Both ch, -20 dBm	+6.5 dB	-	-	-	-	-	-
D-PARTY MODE	Both ch, -20 dBm	+6.5 dB	+13.0 dBm	+13.0 dBm	+13.0 dBm	- ∞	+13.0 dBm	-6.5 dBm
FULL MUTE	Both ch, -20 dBm	+6.5 dB	- ∞	- ∞	- ∞	- ∞	- ∞	- ∞
INVALID ITEM (Not for service)	Both ch, -20 dBm	+6.5 dB	-	-	-	-	-	-
INVALID ITEM (Not for service)	Both ch, -20 dBm	+6.5 dB	-	-	-	-	-	-

## A5. MULTI CHANNEL INPUT

This menu is used to check the route of audio signal input to MULTI CHANNEL INPUT.

### A5-1. 8 CHANNEL INPUT 8 ohms

The audio signal input to MULTI CHANNEL INPUT is output with the speaker impedance "8 ohms" setting.

```
A5-1
8ch Input 8ohm
```

### A5-2. 8 CHANNEL INPUT 6 ohms

The audio signal input to MULTI CHANNEL INPUT is output with the speaker impedance "6 ohms" setting.

```
A5-2
8ch Input 6ohm
```

## A6. MIC CHECK

### A6-1. MIC ROUTE CHECK

The signals input through the YPAO microphone are output to only FRONT L channel via A/D-D/A.

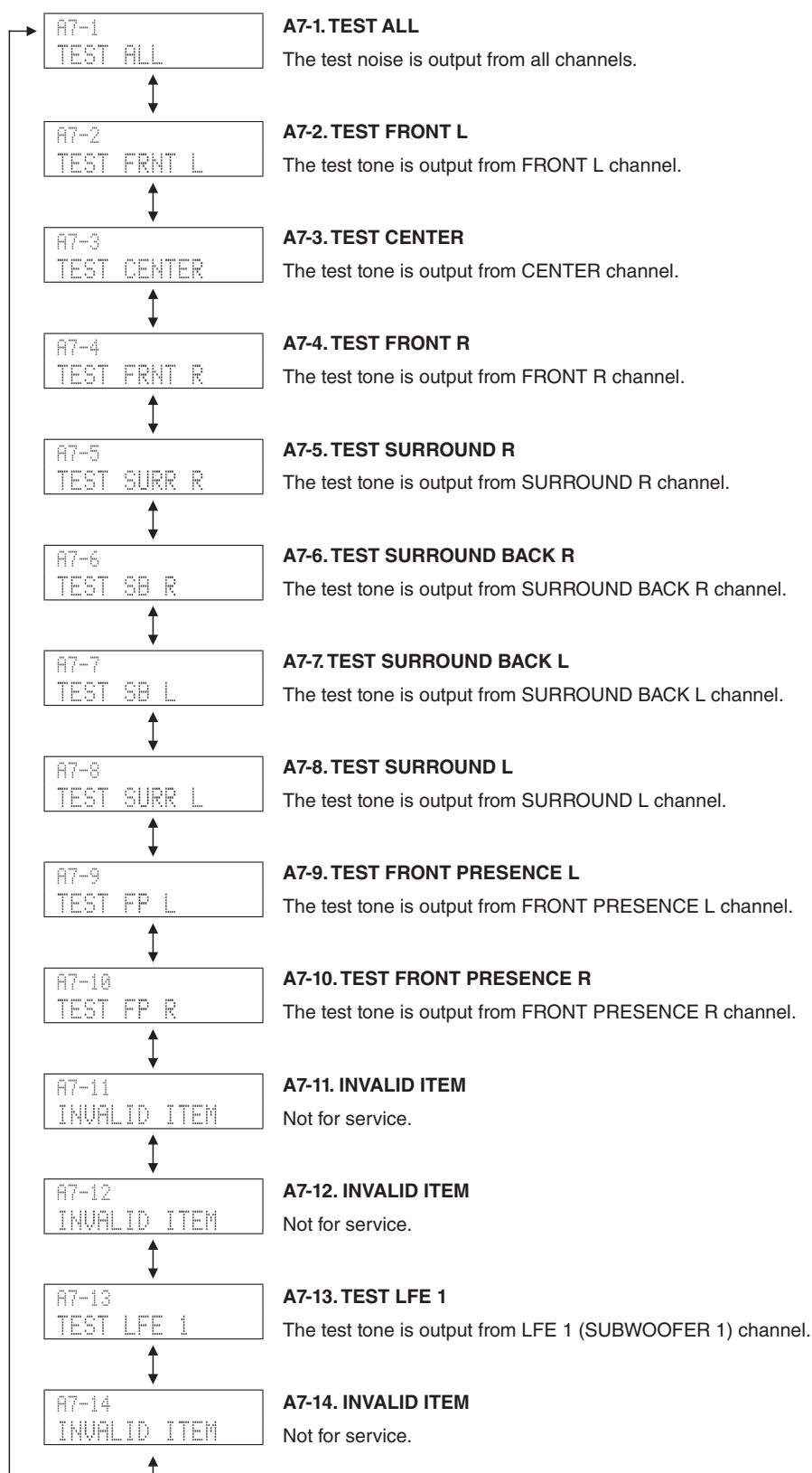
```
A6-1
MIC ROUTE
```

## A7. MANUAL TEST

The built-in noise generator of DSP outputs the test noise or test tone through the channels specified by using the sub-menu.

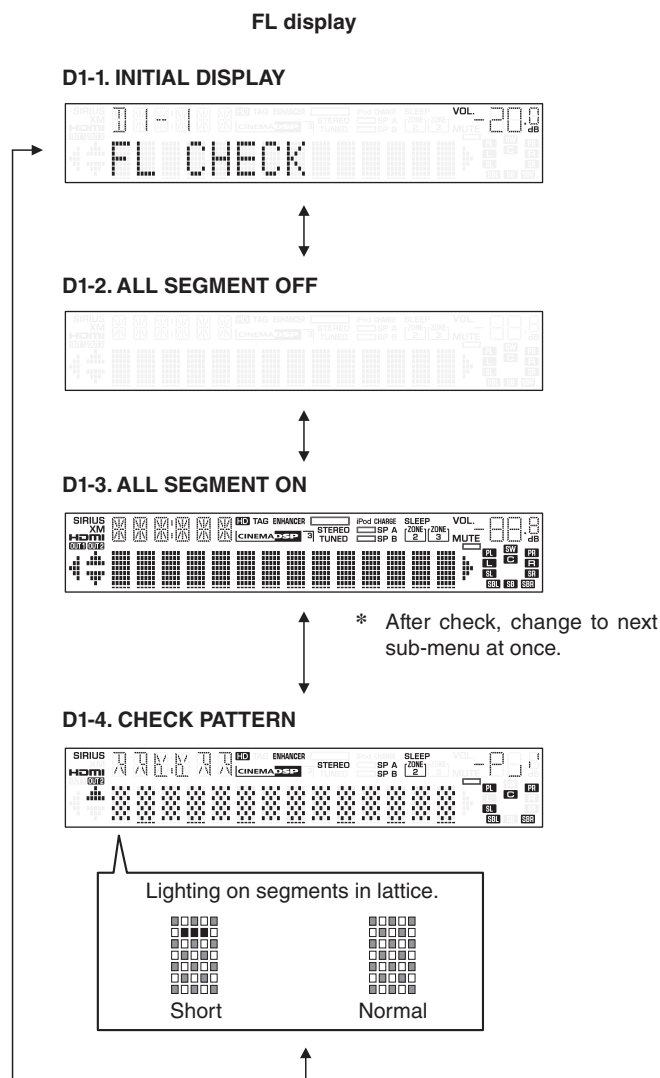
The noise frequency for LFE is 30 to 80 Hz. Other than that, the noise frequency is 500 to 2 kHz.

The tone frequency for LFE is 50 Hz sine wave. Other than that, the tone frequency is 1kHz sine wave.



## D1. FL CHECK

This menu is used to check the FL display.



Segment conditions of the FL driver and the FL tube are checked by turning ON and OFF all segments.

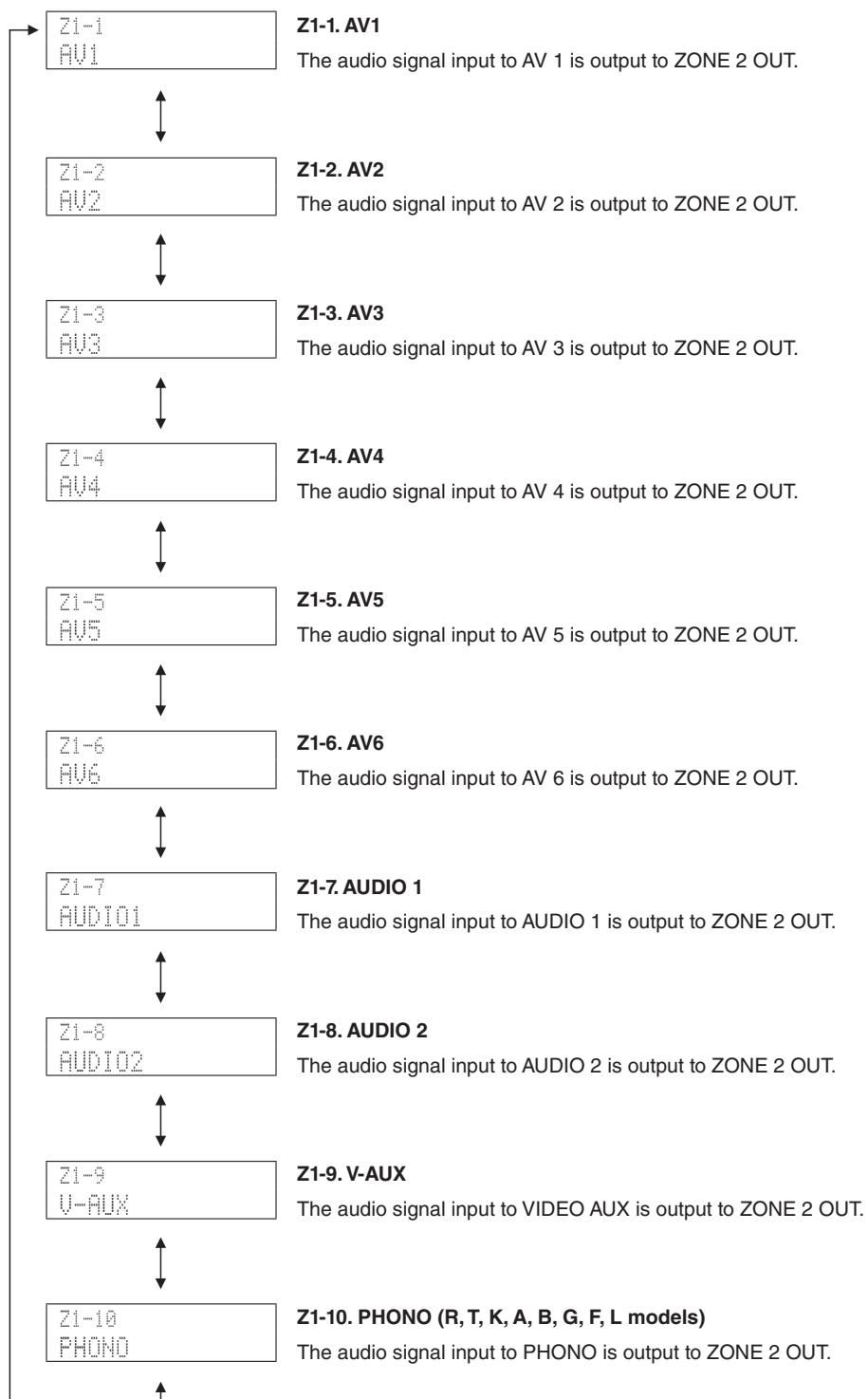
Next, the operation of the FL driver is checked by using the dimmer control.

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.)



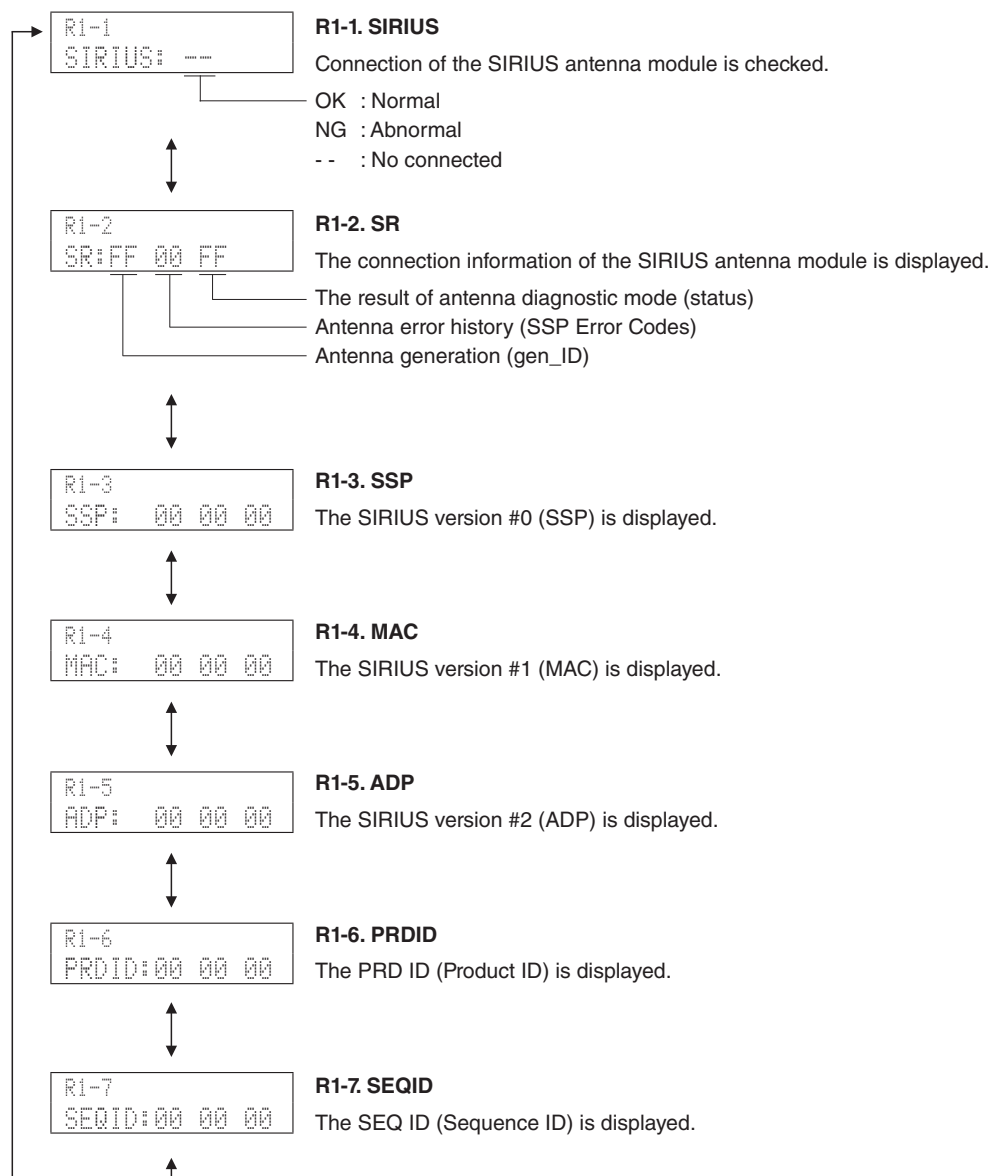
## Z1. ZONE TEST

This menu is used to check audio signal route to ZONE 2 OUT.



**R1. SIRIUS (U model)**

The SIRIUS information are displayed.



U1. DOCK

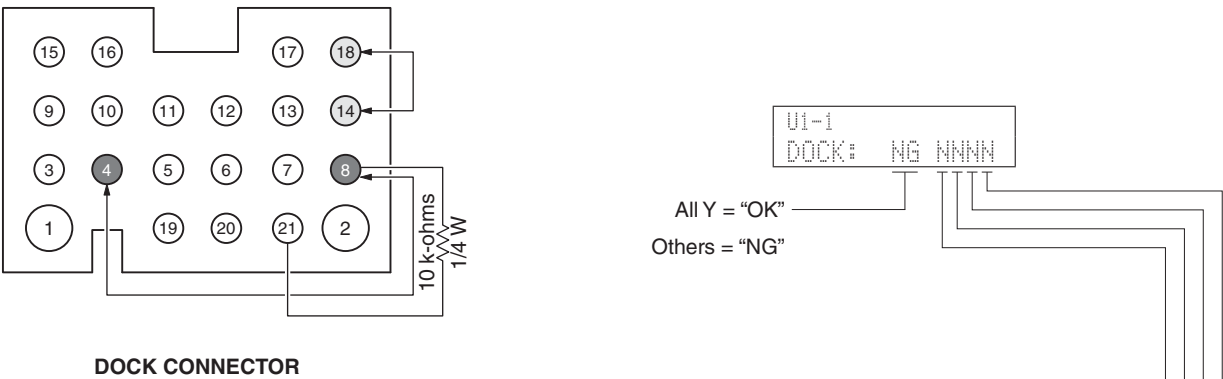
This menu is used to check the DOCK connector without the iPod itself.

With the power to this unit turned off, short between pins No. 14 (TX) and No. 18 (RX), between pins No. 4 (iPDET) and No. 8 (DGND). Also, connect a 10 k-ohms, 1/4 W resistor between pins NO. 21 (DKID) and No. 8 (DGND). (Make sure that the power is turned off when shorting pins.)

Start up the self-diagnostic function and select this menu.

The check result is displayed according to the following display specifications.

**Note)** Be sure to return the shorted pins to their original condition after executing this test.



Check item	Result		Display
UART loop back test	OK		Y
	NG		N
DOCK_AP (iPod accessory power) detection	-	High = YES	Y
		Low = No	N
DOCK_PON (iPod installation to DOCK) detection	IC904 pin No. 9	Low = installed	Y
		High = not installed	N
DOCK_N_DET (DOCK ID) detection	IC908 pin No. 34	10 k-ohms, 1/4 W pull down	Y
		Other	N

U2. INVALID ITEM

Not for service.



U3. INVALID ITEM

Not for service.



**N1. INVALID ITEM**

Not for service.

**C1. DIGITAL P.C.B. CHECK**

This menu is used to check the communication and bus line connection between devices on the DIGITAL P.C.B..

**C1-1. ALL**

The synthetic judgment result of sub-menu C1-2. to C1-9 is displayed.

OK : No error detected  
NG : An error is detected

```

C1-1
ALL:OK
  
```

**C1-2. BUS FLASH ROM**

Reading/writing FLASH ROM (IC951) are checked.

OK : No error detected  
NG : An error is detected

```

C1-2
BUS_FLASH:OK
  
```

**C1-3. BUS FPGA**

Communication and bus line connection between microprocessor (IC908) and FPGA (IC64) are checked.

OK : No error detected  
NG : An error is detected

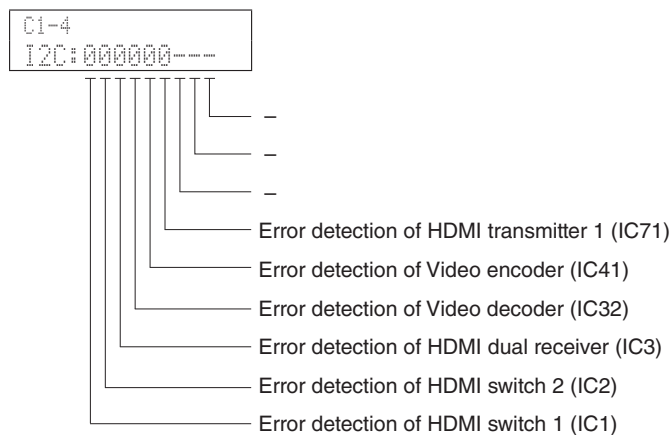
```

C1-3
BUS_FPGA:OK
  
```

**C1-4. I2C**

The I2C (Inter integrated route) bus line connection is checked.

- 0 : No error detected
- 1 : An error is detected

**C1-5. FPGA RAM**

Reading/writing SDRAM (IC62) are checked.

- OK : No error detected
- NG : An error is detected

**C1-6. BUS DIR**

Communication and bus line connection between microprocessor (IC908) and DIR (IC42) are checked.

- OK : No error detected
- NG : An error is detected

**C1-7. BUS DSP1**

Communication and bus line connection between microprocessor (IC908) and DSP1 (IC945) are checked.

- OK : No error detected
- NG : An error is detected



**C1-8. EEPROM**

The Read check of EEPROM (IC903) are executed.

OK : No error detected  
NG : An error is detected

```
C1-8
EEPROM:OK
```

**C1-9. RS-232C LOOPBACK TEST (RX-A700 model)**

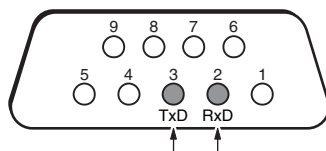
Transmission of the RS-232C terminal is checked. "OK" appears when the data is transmitted properly and "NG" when it is not.

With the power to this unit turned off, short between pins No. 2 (RxD) and No. 3 (TxD) of the RS232C terminal.  
(Be sure to turn off the power when shorting the pins.)

Start up the self-diagnostic function and select this menu.

```
C1-9
232C DATA:OK
```

RS-232C terminal

**C1-10. INVALID ITEM**

Not for service.

```
C1-10
INVALID ITEM
```

**C2. HDMI INFORMATION**

This menu is used to display information about HDMI.

**C2-1. HDMI model name**

The model name of this unit written in HDMI module is displayed.

RX-V667  
HTR-6063  
RX-A700

```
C2-1
HMN:RX-V667
```

**C2-2. HDMI product ID**

The product ID of this unit written in HDMI module is displayed.

RX-V667 : 314B  
HTR-6063 : 314C  
RX-A700 : 3155

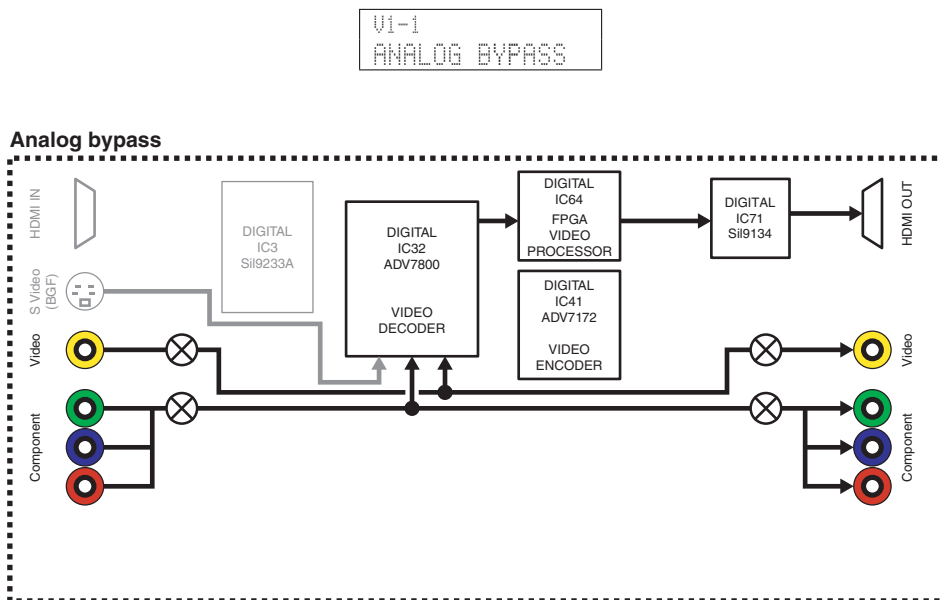
```
C2-2
HID:314B
```

## V1. ANALOG VIDEO CHECK

This menu is used to check the analog video signal route.

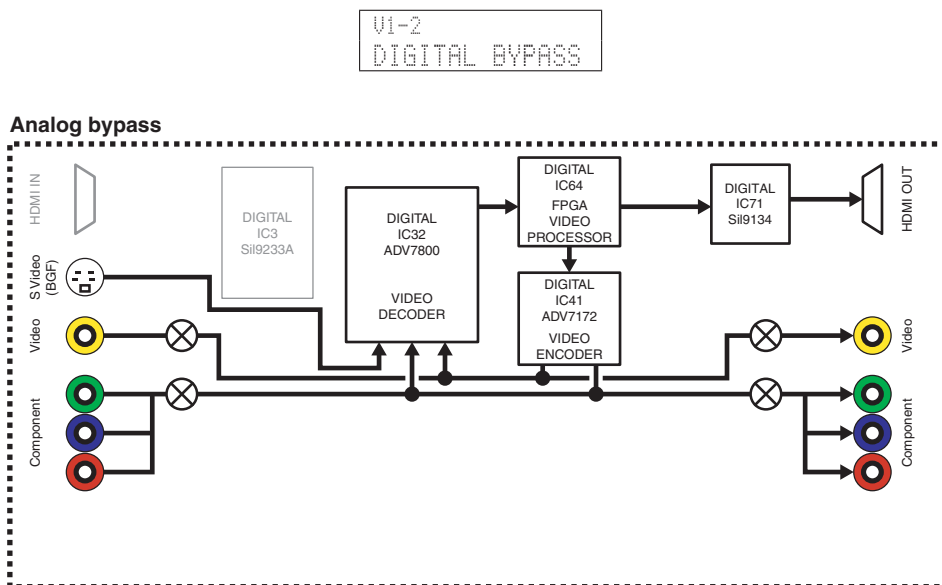
### V1-1. ANALOG BYPASS

The video signal is converted and output as shown below.



### V1-2. DIGITAL BYPASS

The video signal is converted and output as shown below.



**V1-3. ZONE BYPASS**

Not for service.

```
V1-3
ZONE BYPASS
```

**V1-4. MUTE CHECK**

The video signal is muted.

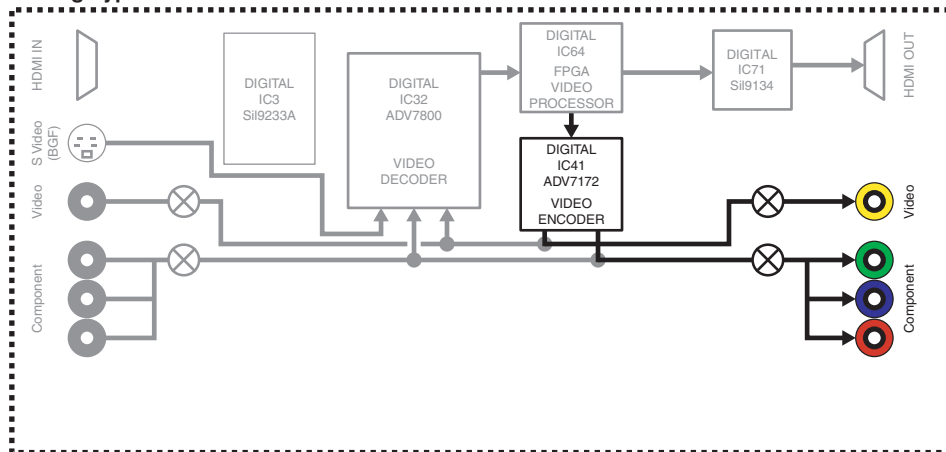
MUTE signals "VID\_N\_MMT" (8 pin), "CPNT\_N\_VMT" (12 pin) and "VID\_N\_RMT" (17 pin) are output from the IC of the VIDEO P.C.B..

```
V1-4
MUTE CHECK
```

**V1-5. TEST PATTERN**

The test pattern is output from video encoder (IC41 of the DIGITAL P.C.B.).

```
V1-5
TEST PATTERN
```

**Analog bypass**

Test pattern

**V1-6. VIDEO INFORMATION**

The information of input analog video signals is displayed.

```
V1-6
VID IN:-----
```



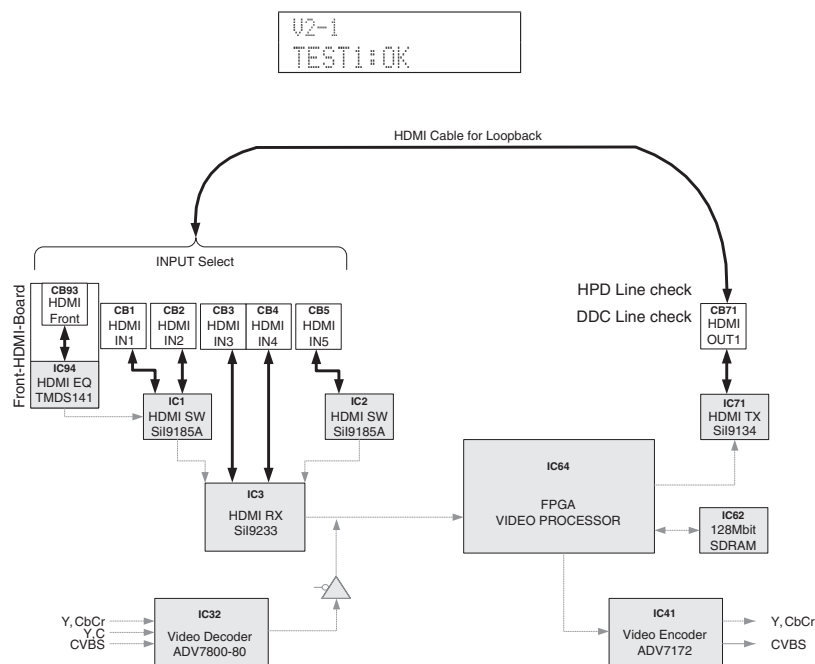
## V2. DIGITAL VIDEO CHECK

This menu is used to check the digital video signal route.

Before checks using sub-menu V2-1 and V2-2, connect between HDMI OUT and HDMI IN terminals of this unit with an HDMI cable in advance.

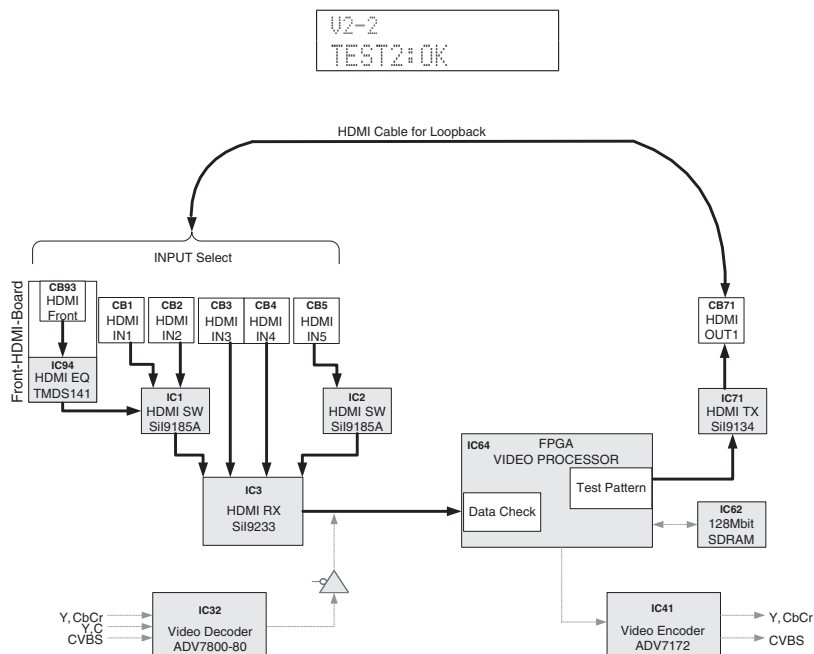
### V2-1. LOOPBACK TEST 1

The video signal route as shown below is checked automatically and result (OK or NG) is displayed.



### V2-2. LOOPBACK TEST 2

The video signal route as shown below is checked automatically and result (OK or NG) is displayed.



**V2-3. LOOPBACK TEST 3**

Not for service.

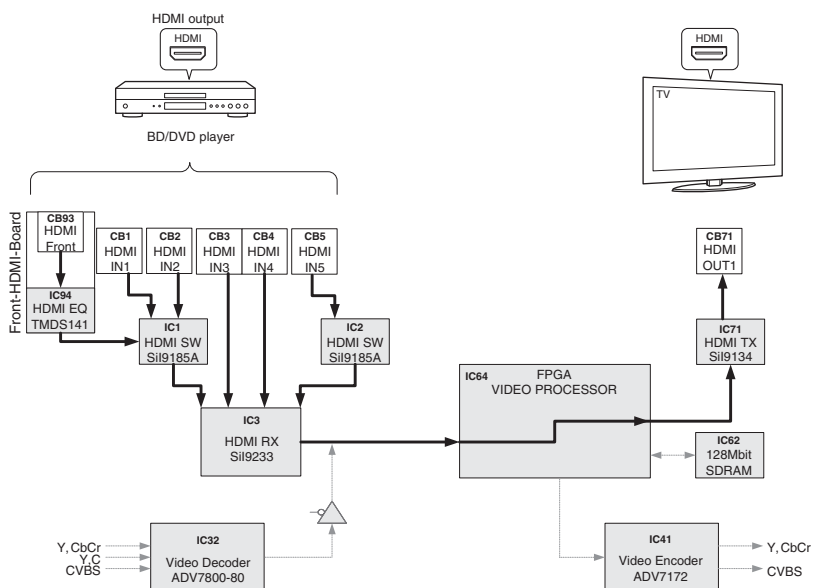
V2-3  
TEST3: ---

**V2-4. HDMI REPEAT**

\* Before check using sub-menu V2-4, disconnect the HDMI cable connected between HDMI OUT and HDMI IN terminals of this unit.

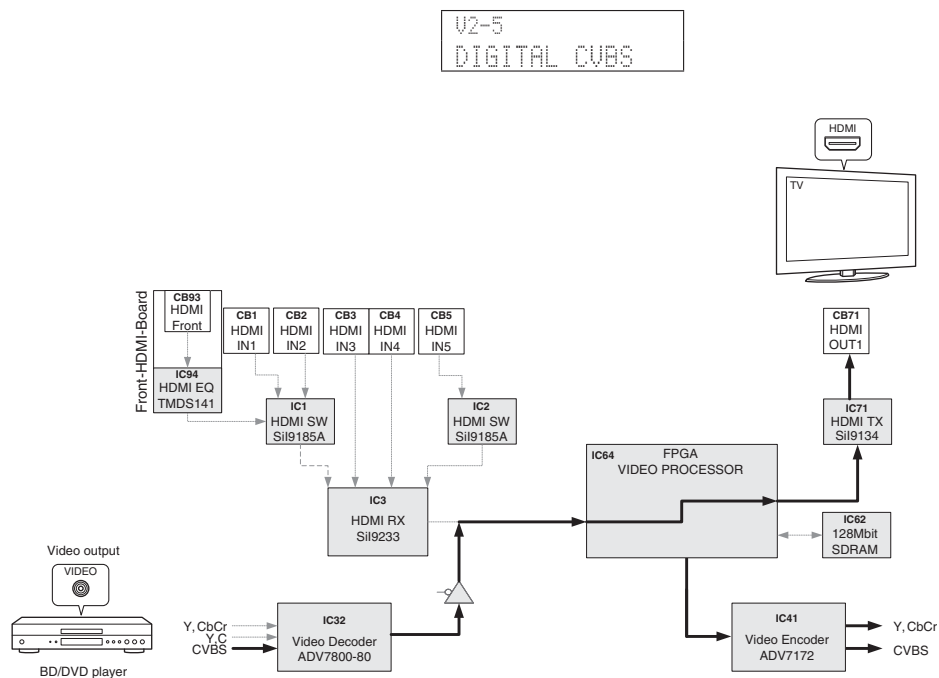
The video/audio signals input to HDMI IN terminal are output to HDMI OUT terminal.

V2-4  
HDMI REPEAT

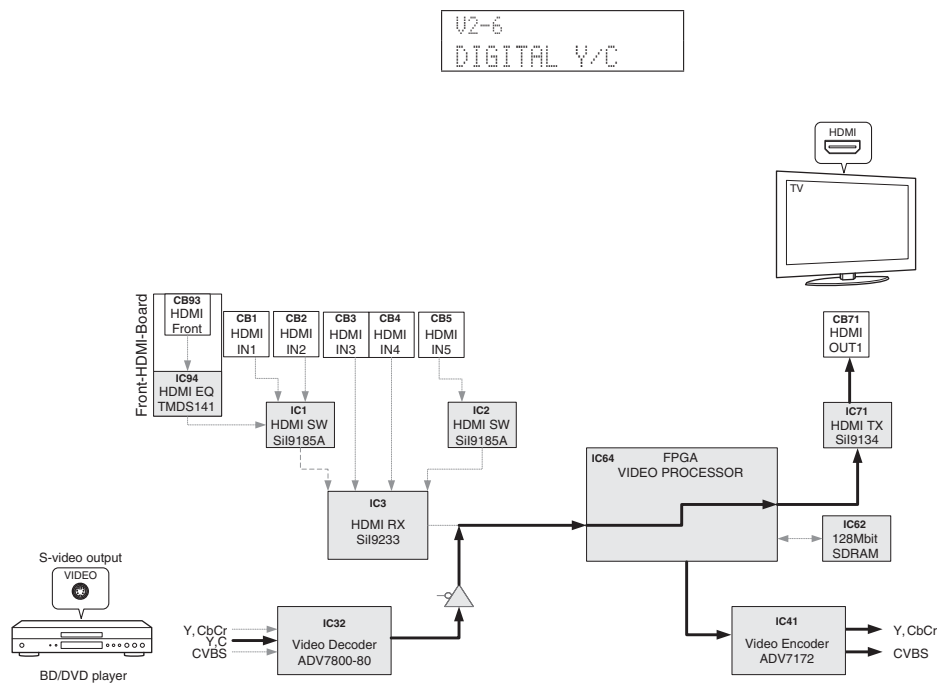


**V2-5. DIGITAL CVBS**

The video (CVBS) signal is converted and output as shown below.

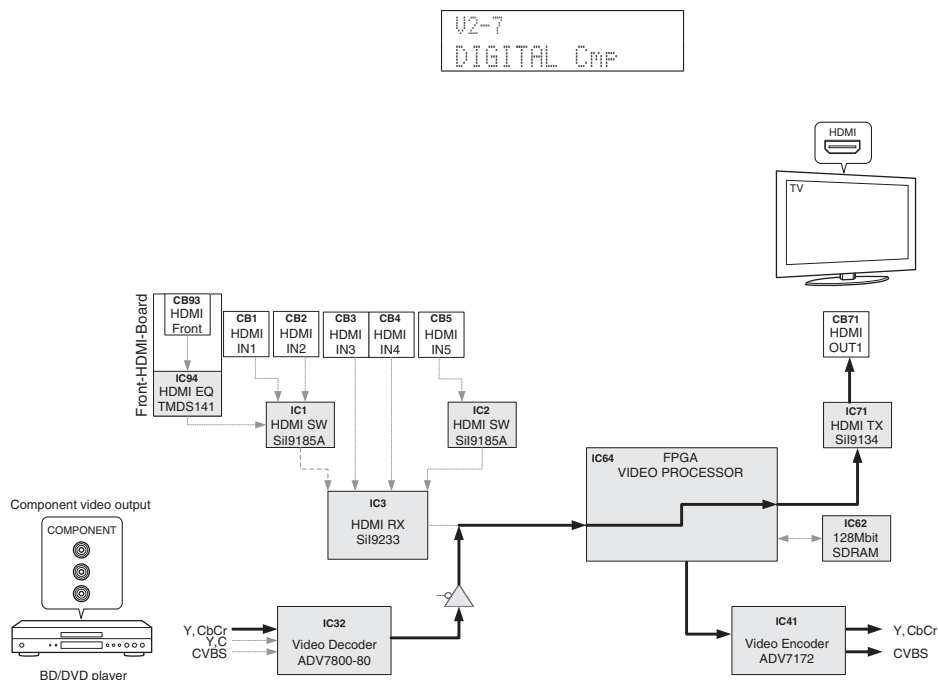
**V2-6. DIGITAL Y/C (B, G, F models)**

The s-video (Y, C) signal is converted and output as shown below.



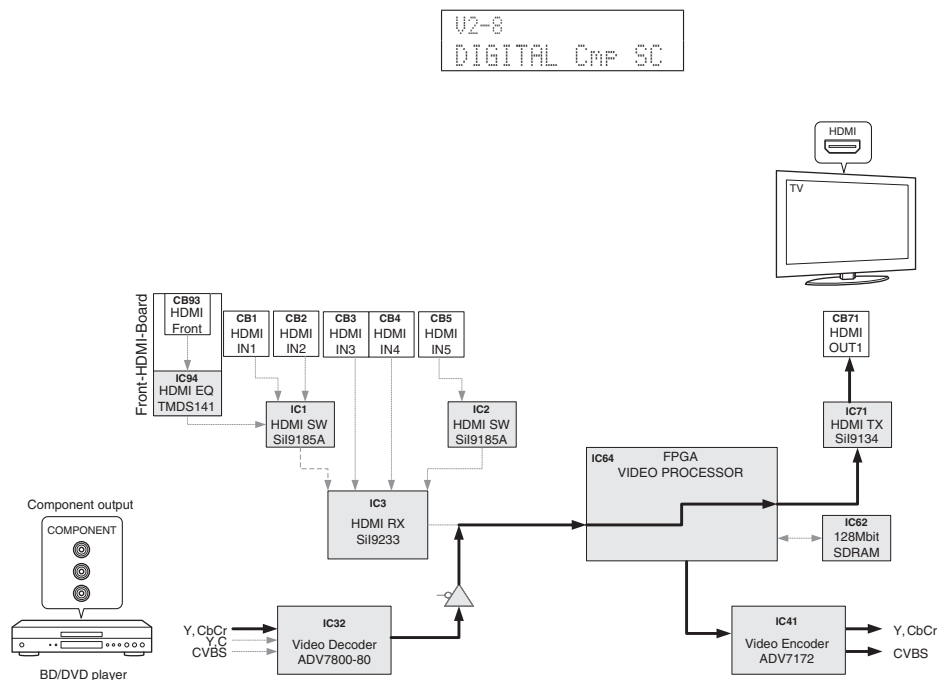
**V2-7. DIGITAL COMPONENT**

The component video (Y, Cb, Cr) signal is converted and output as shown below.

**V2-8. DIGITAL COMPONENT SC**

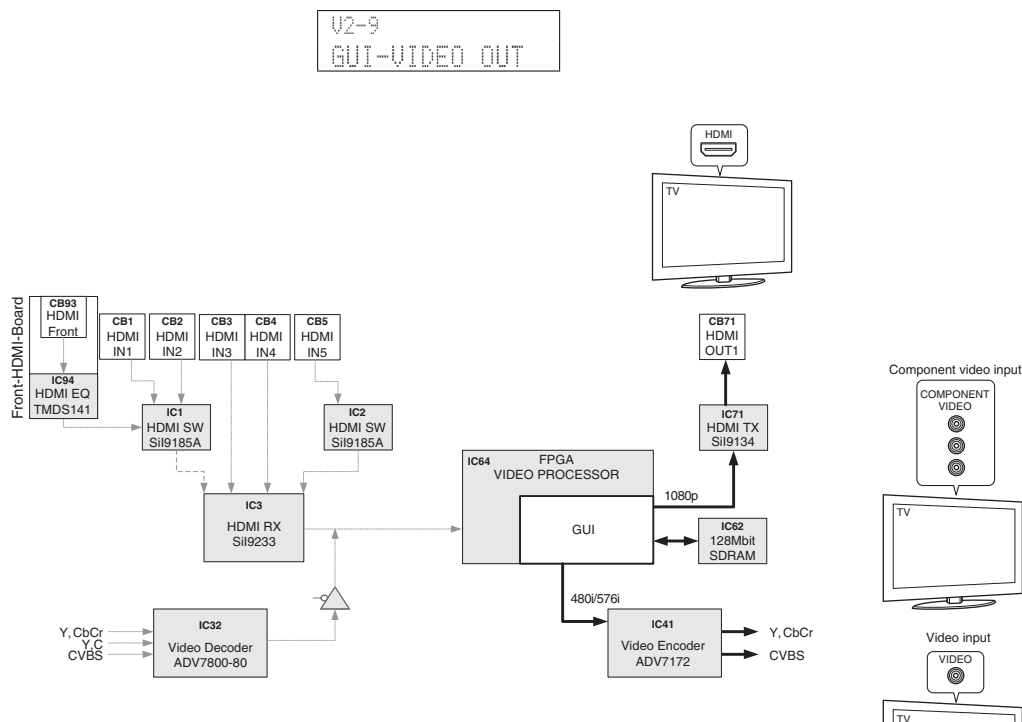
The component video (Y, Cb, Cr) signal is converted and output as shown below.

HDMI video output up-scaling: 480i/p, 576i/p => 1080p



## V2-9. GUI-VIDEO OUT

The GUI from FPGA (IC64 of the DIGITAL P.C.B.) is output.



## P1. SYSTEM MONITOR

This menu is used to display the A/D conversion value of the microprocessor which detects panel keys of this unit and protection functions by using the sub-menu.

When "P1-7. KEY1/KEY2" sub-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 pressing the "SCENE RADIO" (forward) or "SCENE CD" (reverse) key of the remote control.

\* Numeric values in the figure are given as reference only.

### P1-1. DC

**DC:** Power amplifier DC (DC voltage) output is detected.

The voltage at 1 pin (DC\_PRT) of IC902 is displayed.

Normal value: 32 to 74 (Reference voltage: 3.3 V=255)

\* If DC becomes out of the normal value range, the protection function works to turn off the power.

P1-1  
DC: 50

**P1-2. PS1/PS2**

Power supply voltage protection detection

The voltage at 2 pin (PS1\_PRT)/1 pin (PS2\_PRT) of IC902 are displayed.

Voltage detects:

**PS1:** ACBH, ACBL, AC\_12, AC-5,  $\pm 12$ ,  $\pm 7$ , +3.3D, +1.8D

**PS2:** +5I and -5V

Normal value

**PS1:** 38 to 141

**PS2:** 34 to 138 (Normal), 120 to 224 (PURE DIRECT mode)  
(Reference voltage: 3.3 V=255)

\* If PS1 or PS2 becomes out of the normal value range, the protection function works to turn off the power.

```
P1-2
PS: 90 / 88
```

**P1-3. TM**

**TM:** Temperature of the heatsink is detected.

The voltage at 2 pin (TMH1) of IC902 is displayed.

Normal value: 42 to 255 (U, R, T, K, A, B, G, F, L models)  
116 to 255 (C model)

(Reference voltage: 3.3 V=255)

\* If TM becomes out of the normal value range, the protection function works to turn off the power.

```
P1-3
TM: 111
```

**P1-4. OUTPUT LEVEL**

Output level of speaker output is detected.

The voltage at 4 pin (AMP\_OLV) of IC901 is displayed.

(Reference voltage: 3.3 V=255)

```
P1-4
OUTLVL: 255
```

**P1-5. LIMITER CONTROL**

Power limiter control is detected.

The voltage at 4 pin (AMP\_OLV) of IC901 is displayed.

(Reference voltage: 3.3 V=255)

```
P1-5
LMTCNT: 255
```

**P1-6. L3 (J model)**

Not for service.

P1-6 L3: 0
---------------

**P1-7. KEY1/KEY2**

Panel key of this unit is detected.

When the A/D conversion value of the panel key becomes out of the specified range, normal operation will not be available.

In that case, check the constant of voltage dividing resistor, solder condition, etc. Refer to table.

- \* When "P1-7. KEY1/KEY2" sub-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 pressing the "SCENE RADIO" (forward) or "SCENE CD" (reverse) key of the remote control.

(Reference voltage: 3.3 V=255)

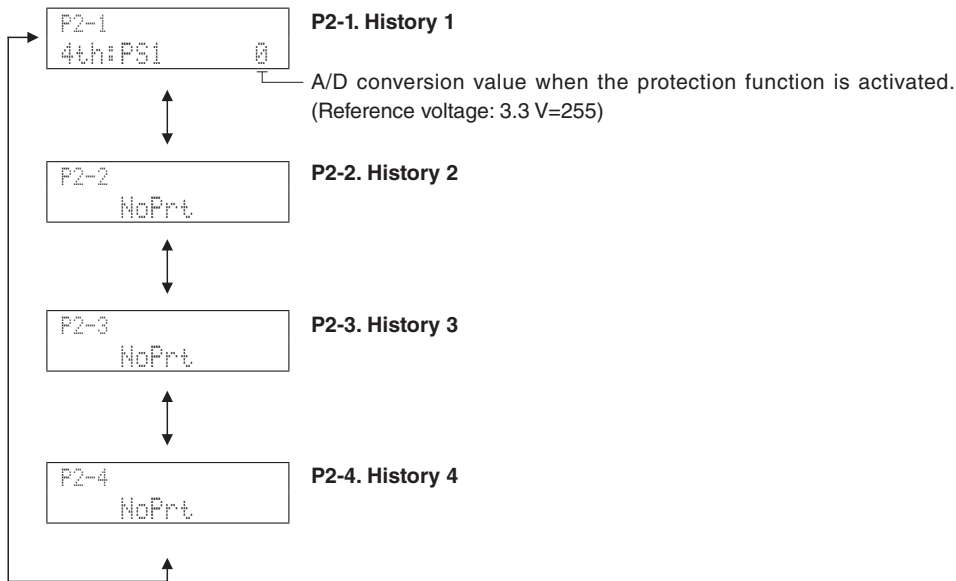
P1-7 KY: 255 / 255
-----------------------

Display	KEY1
0 – 11	RADIO (SCENE4)
12 – 32	CD (SCENE3)
33 – 54	TV (SCENE2)
55 – 75	BD/DVD (SCENE1)
76 – 96	ZONE2 CONTROL
97 – 119	ZONE2 ON/OFF
120 – 142	INPUT >
143 – 163	INPUT <
182 – 197	MAIN ZONE $\phi$ (power)
198 – 209	ZONE CONTROL
255	Key off

Display	KEY2
0 – 11	–
12 – 32	TUNING >>
33 – 54	TUNING <<
55 – 77	AM
78 – 99	FM
100 – 121	PRESET >
122 – 144	PRESET <
145 – 166	MEMORY
167 – 186	INFO
187 – 205	STRAIGHT
206 – 226	PROGRAM >
227 – 246	PROGRAM <
255	Key off

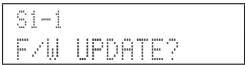
P2. PROTECTION HISTORY

This menu is used to display the history of protection function.  
All history of protection function will be erased by pressing the “STRAIGHT” key.  
\* Numeric values in the figure are given as reference only.



S1. F/W UPDATE

Not for service.

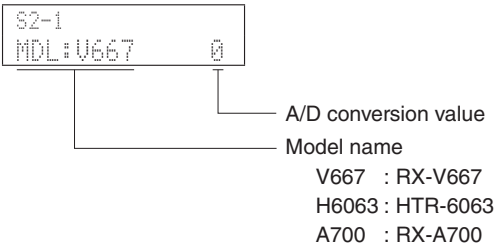


S2. SET INFORMATION

The model name and destination values are displayed.

S2-1. MODEL

The model name of this unit is displayed.

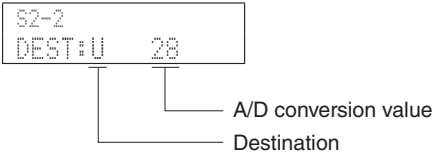


Model name	RX-V667	RX-A700	HTR-6063
A/D conversion value (3.3 V=255)	0-10	11-33	34-54



S2-2. DESTINATION

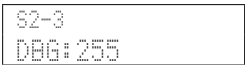
The destination of this unit is displayed.



Destination	U	C	R	T	K	A	B, G, F	L
A/D conversion value (3.3 V=255)	13-40	41-67	68-92	93-115	116-140	141-182	183-221	222-244

S2-3. DEBAG

Not for service.



S3. FACTORY PRESET

This menu is used to reserve/inhibit initialization of the back-up IC (EEPROM: IC903 of the DIGITAL P.C.B.).



S3-1. PRESET INHIBIT (Initialization inhibited)

Initialization of the back-up IC is not executed. Select this sub-menu to protect the values set by the user.



S3-2. PRESET RESERVED (Initialization reserved)

Initialization of the back-up IC is reserved. (Actual initialization is executed the next time the power is turned on.) To reset to the original factory settings or to reset the backup IC, select this sub-menu and press the “MAIN ZONE ⏻”(power) key to turn off the power. Any protection history also will be initialized at the same time.

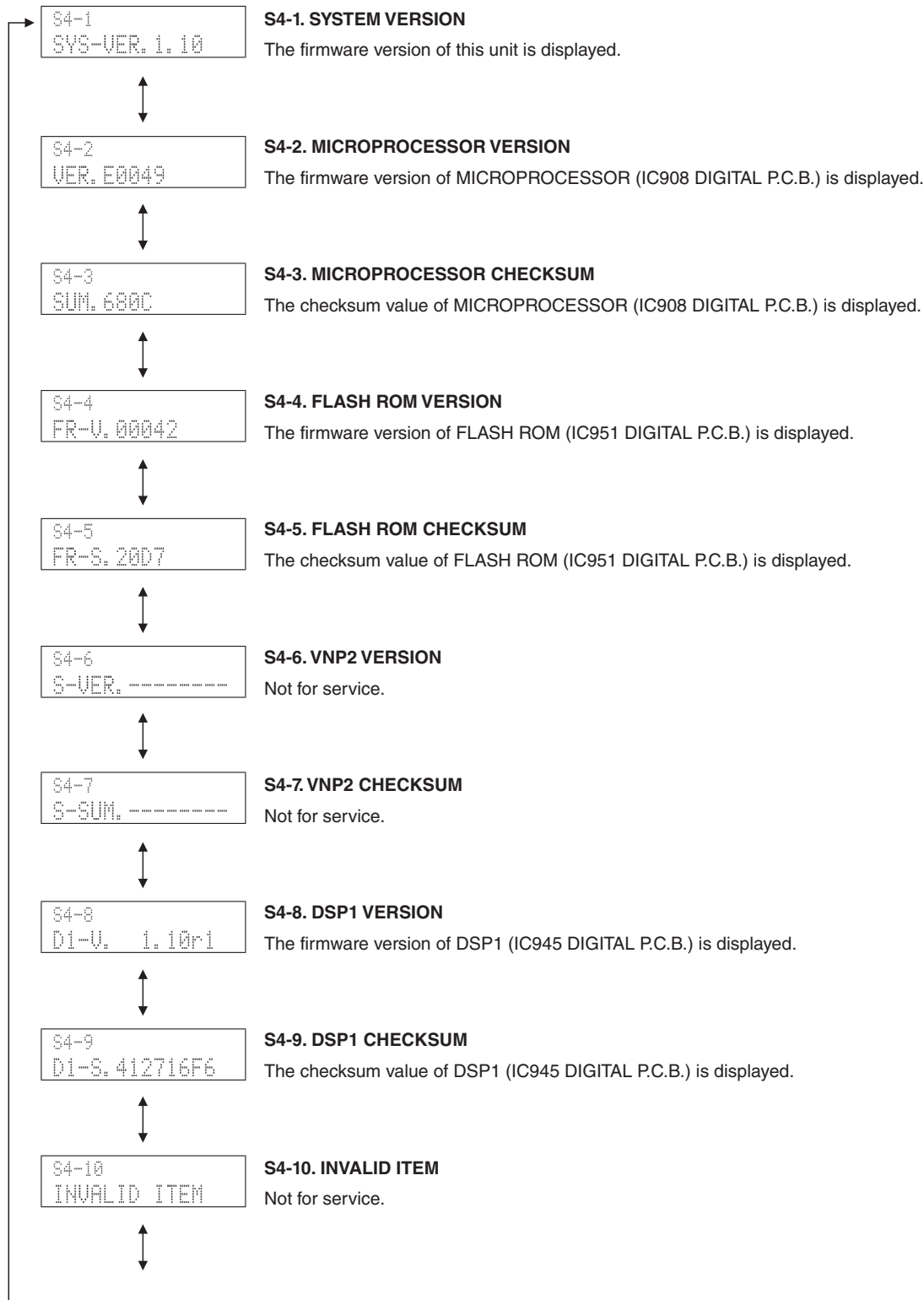
**CAUTION:** Before setting to the PRESET RESERVED, write down the existing preset memory content of the tuner. (This is because setting to the PRESET RESERVED will cause the user memory content to be erased.)

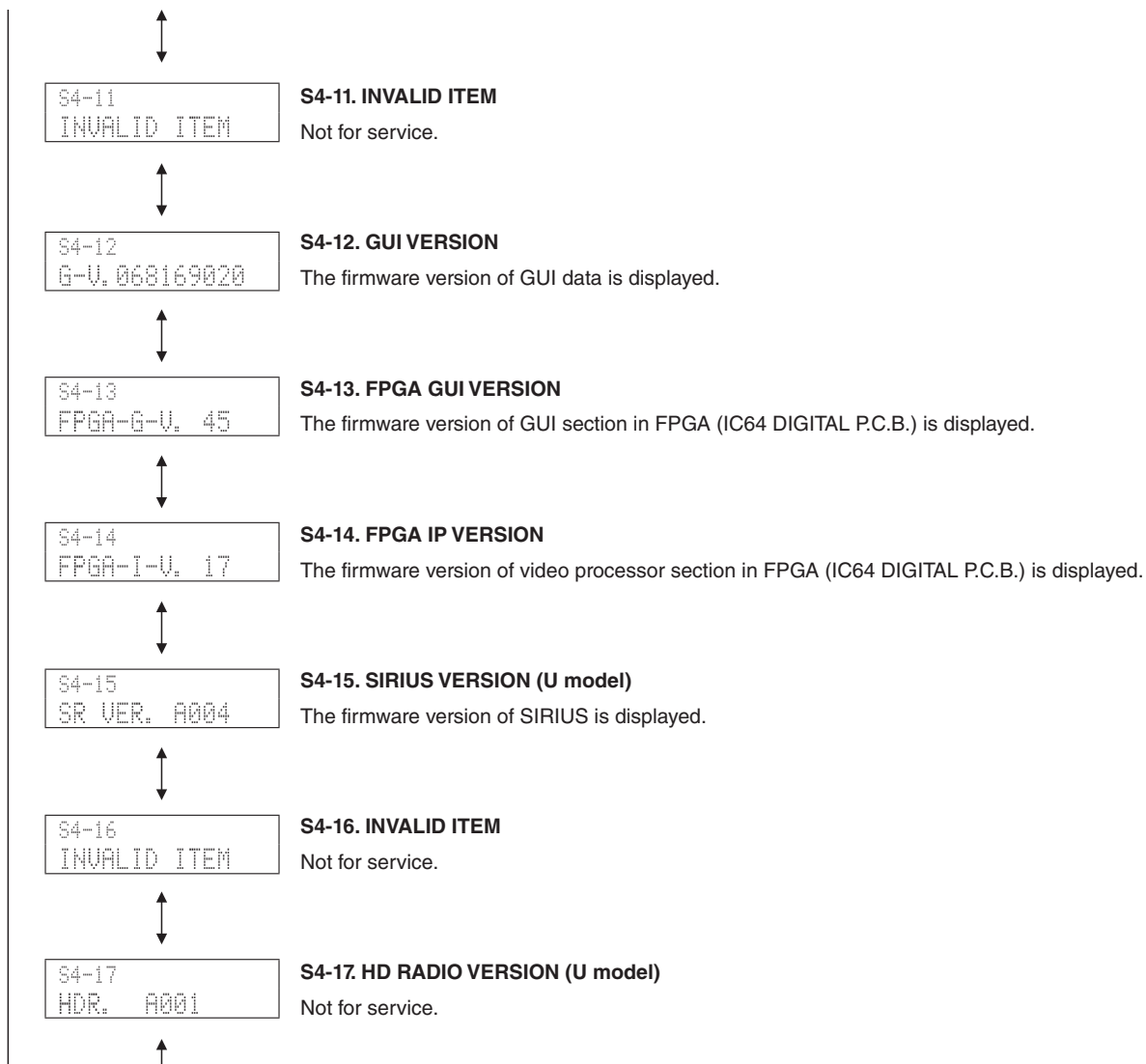
S4. ROM VERSION/CHECKSUM

The firmware version and checksum values are displayed.

The checksum is obtained by adding the data at every 8-bit and expressing the result as a 4-figure hexadecimal notation.

\* Numeric values in the figure are given as reference only.



**S5. INVALID ITEM**

Not for service.

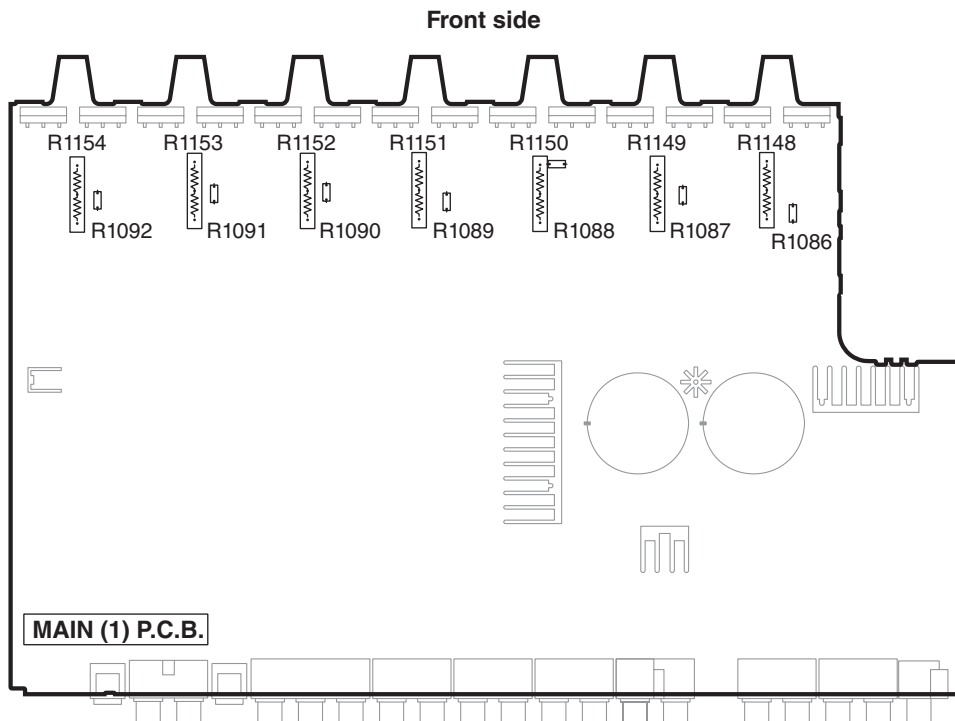
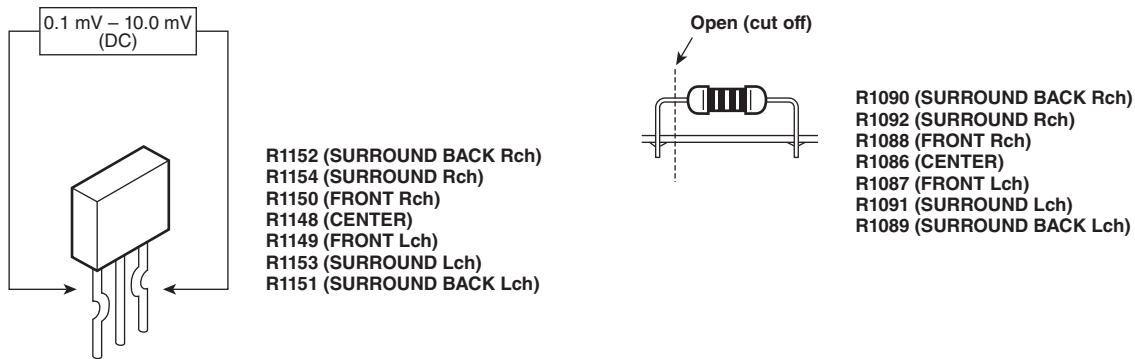
## ■ CONFIRMATION OF IDLING CURRENT OF AMP UNIT

- Right after power is turned on, confirm that the voltage across the terminals of R1152 (SURROUND BACK Rch), R1154 (SURROUND Rch), R1150 (FRONT Rch), R1148 (CENTER), R1149 (FRONT Lch), R1153 (SURROUND Lch), R1151 (SURROUND BACK Lch) are between 0.1 mV and 10.0 mV.
- If it exceeds 10.0 mV, open (cut off) R1090 (SURROUND BACK Rch), R1092 (SURROUND Rch), R1088 (FRONT Rch), R1086 (CENTER), R1087 (FRONT Lch), R1091 (SURROUND Lch), R1089 (SURROUND BACK Lch) and reconfirm the voltage.

### Attention

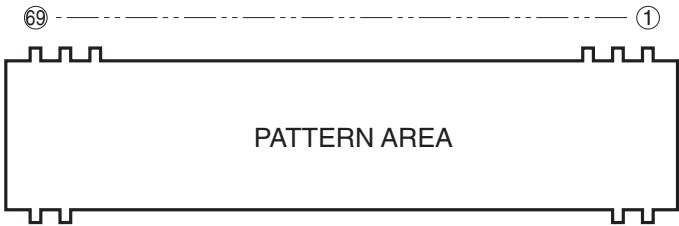
If the measured voltage exceeds 10.0 mV after an amplifier repair, first check for a defective component before cutting the bias resistor.

- Confirm that the voltage is 0.2 mV to 15.0 mV after 60 minutes.



■ DISPLAY DATA

● V4001 : HNA-18MM02T (OPERATION P.C.B.)



● PIN CONNECTION

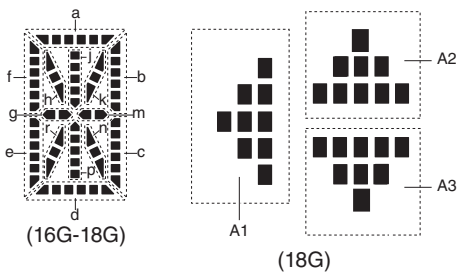
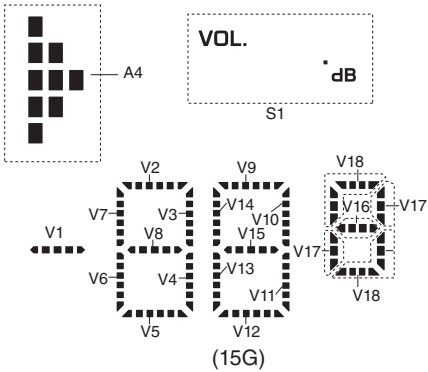
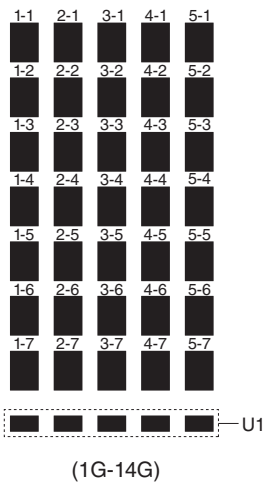
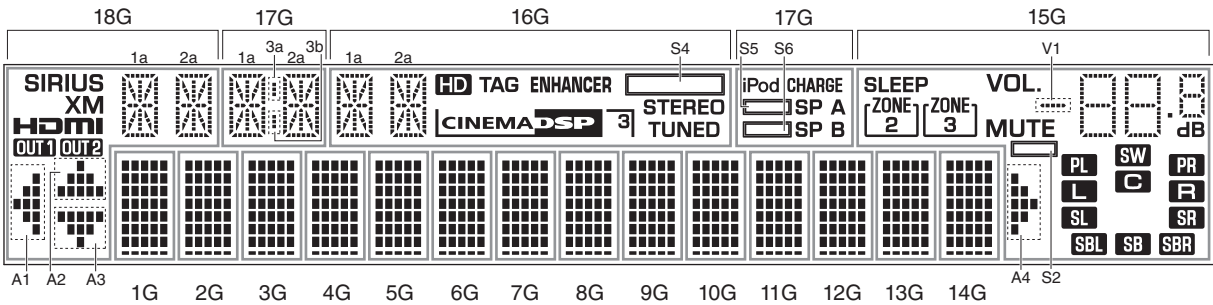
Pin No.	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35
Connection	F2	F2	NP	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31

Pin No.	34	33	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	P32	P33	P34	P35	P36	NX	NX	NX	NX	NX	NX	NX	18G	17G	16G	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1

Note : 1) Fn ..... Filament pin    2) nG ..... Grid pin    3) Pn ..... Anode pin    4) NP ..... No pin    5) NX ..... No extended pin

● GRID ASSIGNMENT



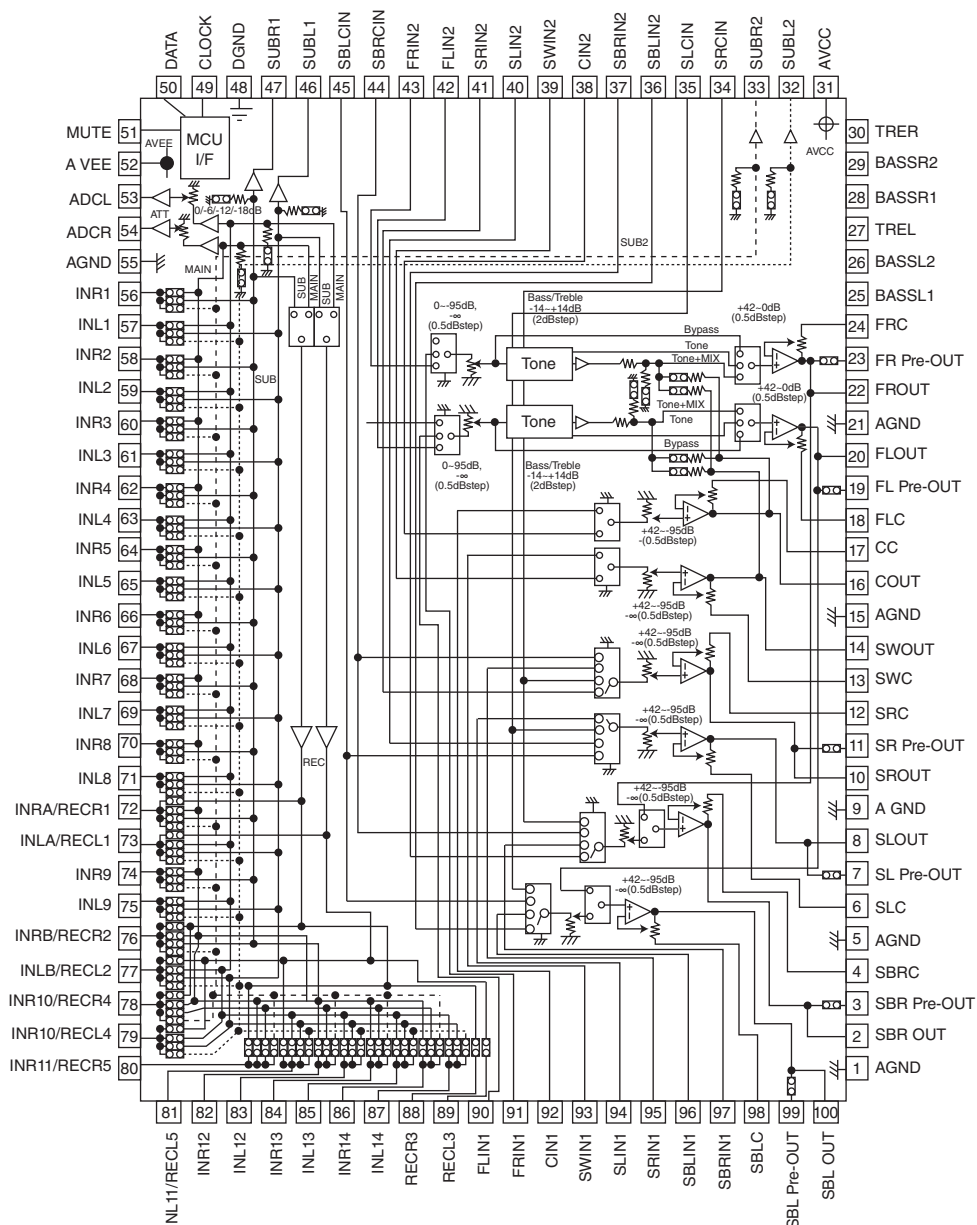
## ● ANODE CONNECTION

	18G	17G	16G	15G	14G-1G
P1	1a	1a	1a	S1	1-1
P2	1h	1h	1h	V1	2-1
P3	1j	1j	1j	1d	3-1
P4	1k	1k	1k	2d	4-1
P5	1b	1b	1b	S2	5-1
P6	1f	1f	1f	1e	1-2
P7	1m	1m	1m	2e	2-2
P8	1g	1g	1g	S3	3-2
P9	1c	1c	1c	1c	4-2
P10	1e	1e	1e	2c	5-2
P11	1r	1r	1r	S4	1-3
P12	1p	1p	1p	1g	2-3
P13	1n	1n	1n	2g	3-3
P14	1d	1d	1d	1f	4-3
P15	2a	2a	2a	2f	5-3
P16	2h	2h	2h	1b	1-4
P17	2j	2j	2j	2b	2-4
P18	2k	2k	2k	1a	3-4
P19	2b	2b	2b	2a	4-4
P20	2f	2f	2f	<b>PL</b>	5-4
P21	2m	2m	2m	<b>SW</b>	1-5
P22	2g	2g	2g	<b>PR</b>	2-5
P23	2c	2c	2c	<b>L</b>	3-5
P24	2e	2e	2e	<b>C</b>	4-5
P25	2r	2r	2r	<b>R</b>	5-5
P26	2p	2p	2p	<b>SL</b>	1-6
P27	2n	2n	2n	<b>SR</b>	2-6
P28	2d	2d	2d	<b>SBL</b>	3-6
P29	<b>SIRIUS</b>	3a	<b>HD</b>	<b>SB</b>	4-6
P30	<b>XM</b>	3b	<b>TAG</b>	<b>SBR</b>	5-6
P31	<b>HDMI</b>	iPod CHARGE	<b>CINEMA DSP</b>	S6	1-7
P32	<b>OUT1</b>	<b>SP B</b>	<b>3</b>	S13	2-7
P33	<b>OUT2</b>	S6	<b>STEREO</b>	<b>MUTE</b>	3-7
P34	A1	<b>SP A</b>	<b>TUNED</b>	<b>ZONE 2</b>	4-7
P35	A2	S5	<b>ENHANCER</b>	<b>ZONE 3</b>	5-7
P36	A3	—	S4	<b>SLEEP</b>	U1

## ■ IC DATA

### IC153: R2A15220FP (MAIN P.C.B.)

8-channel electronic volume with 11 input selector and tone control

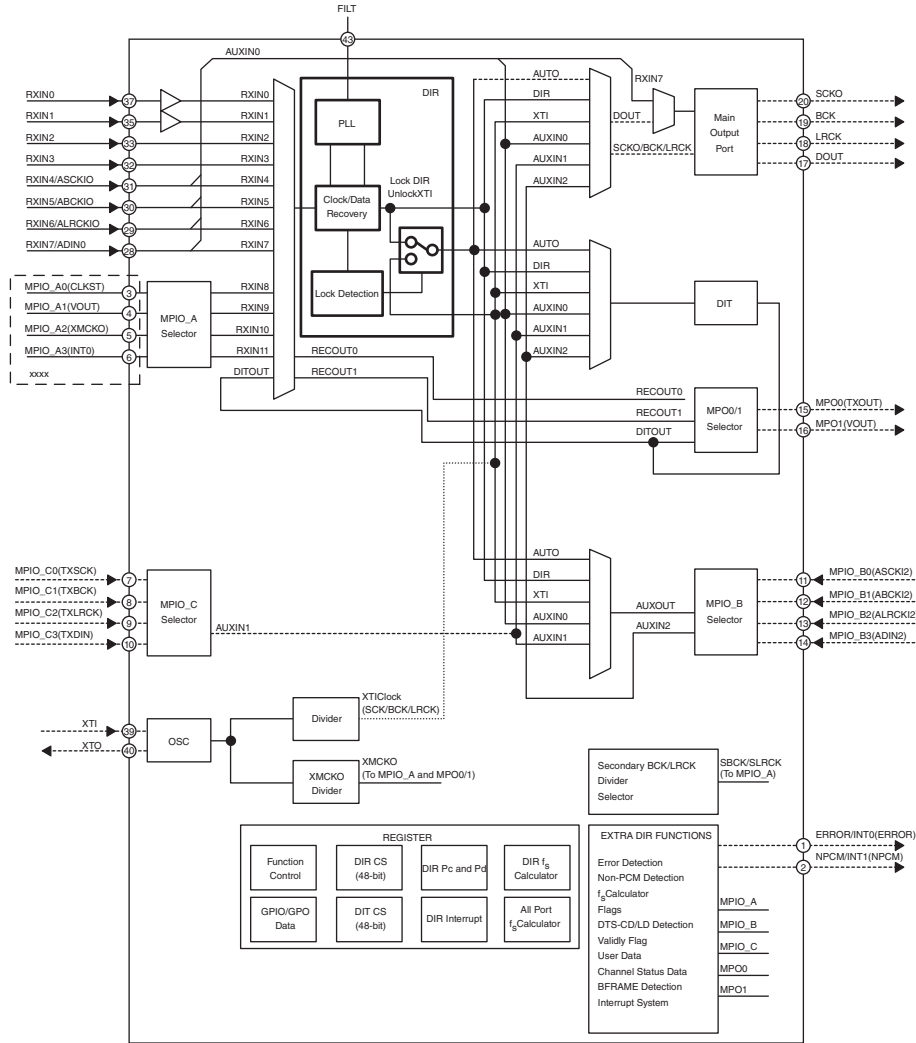


Pin No.	Port name	Function Name	Detail of Function
1	AGND	AE	Analog ground of internal circuit
2	SBROUT	VOSBL	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
3	SBR Pre-OUT	VOPSBL	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
4	SBRC	AE	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
5	AGND	AE	Analog ground of internal circuit
6	SLC	VOPSR	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
7	SL Pre-OUT	VOSR	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
8	SLOUT	AE	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
9	AGND	AE	Analog ground of internal circuit
10	SROUT	VOSL	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
11	SR Pre-OUT	VOPSL	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
12	SRC	AE	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
13	SWC	AE	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
14	SWOUT	VOSW	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
15	AGND	AE	Analog ground of internal circuit
16	COUT	VOC	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
17	CC	AE	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
18	FLC	AE	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
19	FL Pre-OUT	VOPFR	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
20	FLOUT	VOFR	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
21	AGND	POE	Analog ground of internal circuit
22	FROUT	VOFL	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
23	FR Pre-OUT	VOPFL	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
24	FRC	AE	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
25	BASSL1	AE	Frequency characteristic setting pin of L/R channel tone control (Bass)
26	BASSL2	AE	Frequency characteristic setting pin of L/R channel tone control (Bass)
27	TREL	AE	Frequency characteristic setting pin of L/R channel tone control (Treble)
28	BASSR1	AE	Frequency characteristic setting pin of L/R channel tone control (Bass)
29	BASSR2	AE	Frequency characteristic setting pin of L/R channel tone control (Bass)
30	TREER	AE	Frequency characteristic setting pin of L/R channel tone control (Treble)
31	AVCC	VCC	Positive power supply to internal circuit
32	SUBL1	N.C.	Output pin for L/R channel SUB1/SUB2 output
33	SUBL2	N.C.	Output pin for L/R channel SUB1/SUB2 output
34	SRCIN	N.C.	3rd multi input pin for SBL/SBR/SL/SR channel volume that is able to swap SBR/SBL with SR/SL
35	SLCIN	N.C.	3rd multi input pin for SBL/SBR/SL/SR channel volume that is able to swap SBR/SBL with SR/SL
36	SBLIN2	8SBR	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
37	SBRIN2	8SBL	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
38	CIN2	8C	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
39	SWIN2	8SW	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
40	SLIN2	8SR	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
41	SRIN2	8SL	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
42	FLIN2	8FR	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
43	FRIN2	8FL	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
44	SBRCIN	Z2L	3rd multi input pin for SBL/SBR/SL/SR channel volume that is able to swap SBR/SBL with SR/SL
45	SBLCIN	Z2R	3rd multi input pin for SBL/SBR/SL/SR channel volume that is able to swap SBR/SBL with SR/SL
46	SUBL1	Z2R	Output pin for L/R channel SUB1/SUB2 output
47	SUBR1	Z2L	Output pin for L/R channel SUB1/SUB2 output
48	DGND	MG	Digital ground of internal circuit
49	DATA	VOL_SCK	Input pin of control data
50	CLOCK	VOL_MOSI	Input pin of control clock
51	MUTE	AE	Outside mute control pin
52	AVEE	–	Negative power supply to internal circuit
53	ADCL	ADR	Output pin for L/R channel ADC
54	ADCR	ADL	Output pin for L/R channel ADC
55	AGND	AE	Analog ground of internal circuit
56	INR1	AU2L	Input pin of L/R channel (Input selector)
57	INL1	AU2R	Input pin of L/R channel (Input selector)



Pin No.	Port name	Function Name	Detail of Function
58	INR2	AU1L	Input pin of L/R channel (Input selector)
59	INL2	AU1R	Input pin of L/R channel (Input selector)
60	INR3	AV-6L	Input pin of L/R channel (Input selector)
61	INL3	AV-6R	Input pin of L/R channel (Input selector)
62	INR4	AV-5L	Input pin of L/R channel (Input selector)
63	INL4	AV-5R	Input pin of L/R channel (Input selector)
64	INR5	PHL	Input pin of L/R channel (Input selector)
65	INL5	PHR	Input pin of L/R channel (Input selector)
66	INR6	SRL	Input pin of L/R channel (Input selector)
67	INL6	SRR	Input pin of L/R channel (Input selector)
68	INR7	IPL	Input pin of L/R channel (Input selector)
69	INL7	IPR	Input pin of L/R channel (Input selector)
70	INR8	XML	Input pin of L/R channel (Input selector)
71	INL8	XMR	Input pin of L/R channel (Input selector)
72	INRA/RECR1	AV-OUT_L	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
73	INLA/RECL1	AV-OUT_R	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
74	INR9	USBL	Input pin of L/R channel (Input selector)
75	INL9	USBR	Input pin of L/R channel (Input selector)
76	INRB/RECR2	AOL	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
77	INLB/RECL2	AOR	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
78	INR10/RECR4	TUL	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
79	INL10/RECL4	TUR	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
80	INR11/RECR5	MIC	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
81	INL11/RECL5	AE	Output pin for L/R channel (input selector)/Output pin for L/R channel REC output
82	INR12	AUXL	Input pin of L/R channel (Input selector)
83	INL12	AUXR	Input pin of L/R channel (Input selector)
84	INR13	AE	Input pin of L/R channel (Input selector)
85	INL13	AE	Input pin of L/R channel (Input selector)
86	INR14	AE	Input pin of L/R channel (Input selector)
87	INL14	AE	Input pin of L/R channel (Input selector)
88	RECR3	N.C.	Output pin for L/R channel REC output
89	RECL3	N.C.	Output pin for L/R channel REC output
90	FLIN1	DAFR	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
91	FRIN1	DAFL	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
92	CIN1	DAC	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
93	SWIN1	DASW	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
94	SLIN1	DASR	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
95	SEIN1	DASL	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
96	SBLIN1	DASBR	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
97	SBRIN1	DASBL	Multi input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
98	SBLC	AE	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
99	SBL Pre-OUT	VOPSBR	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
100	SBL OUT	VOSBR	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel

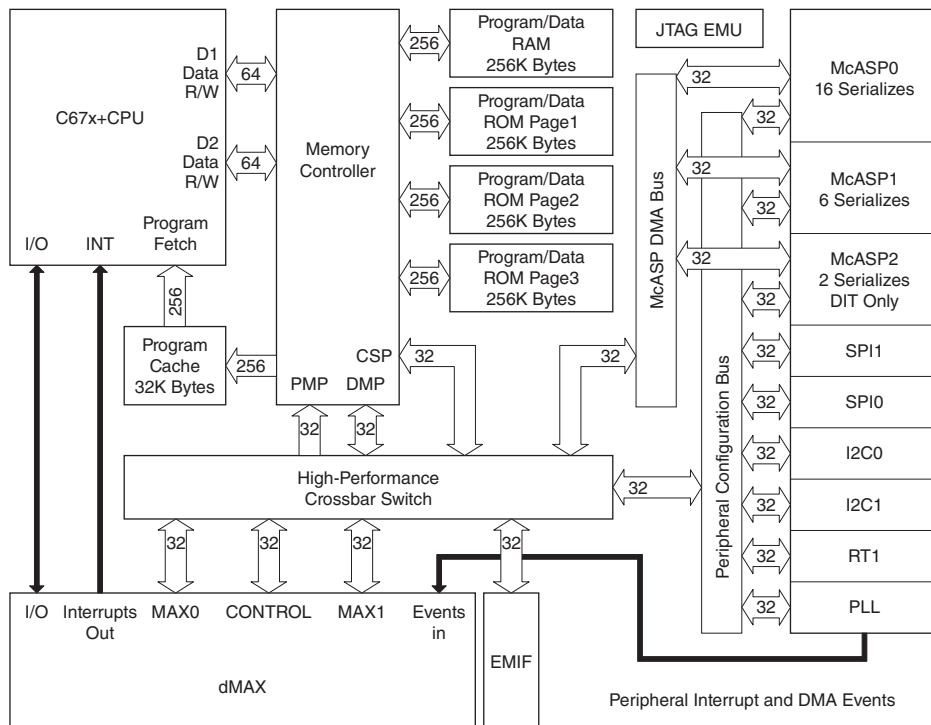
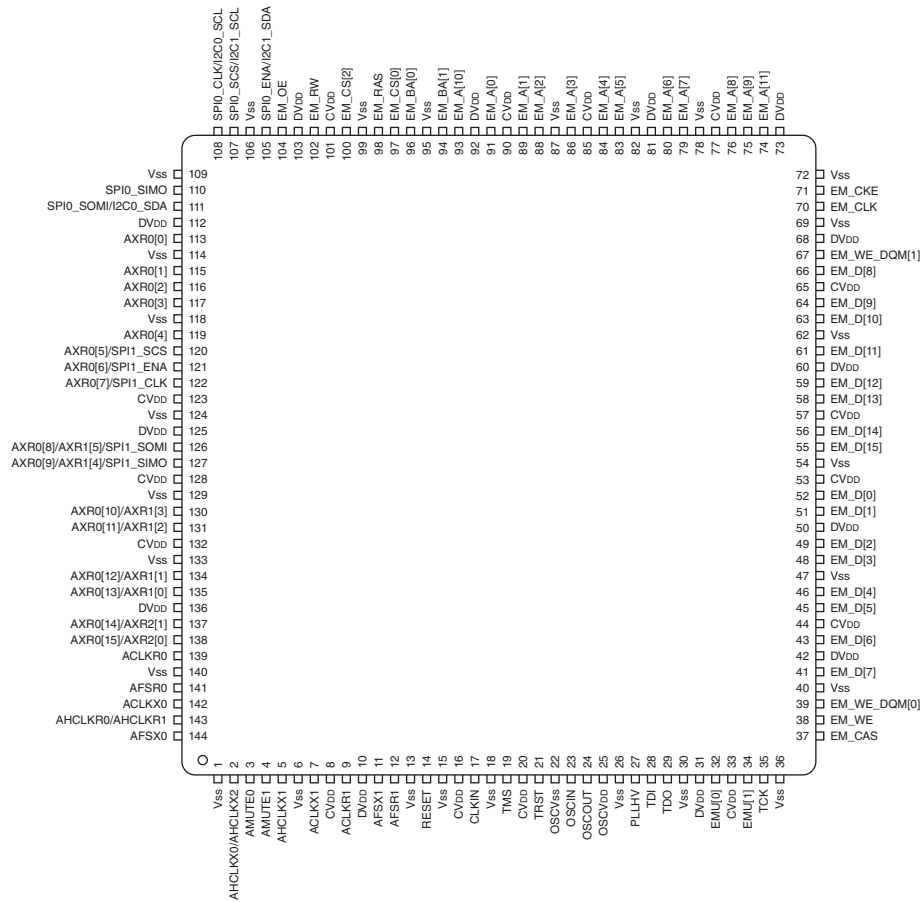
**IC942:** DIX9210PTR (DIGITAL P.C.B.)  
216 kHz digital audio interface transceiver



Pin No.	Port Name	I/O	Detail of Function
1	ERROR/INT0	O	DIR Error detection output/Interrupt0 output
2	NPCM/INT1	O	DIR Non-PCM detection output/Interrupt1 output
3	MPIO_A0	I/O	Multipurpose I/O, Group A (1)
4	MPIO_A1	I/O	Multipurpose I/O, Group A (1)
5	MPIO_A2	I/O	Multipurpose I/O, Group A (1)
6	MPIO_A3	I/O	Multipurpose I/O, Group A (1)
7	MPIO_C0	I/O	Multipurpose I/O, Group C (1)
8	MPIO_C1	I/O	Multipurpose I/O, Group C (1)
9	MPIO_C2	I/O	Multipurpose I/O, Group C (1)
10	MPIO_C3	I/O	Multipurpose I/O, Group C (1)
11	MPIO_B0	I/O	Multipurpose I/O, Group B (1)
12	MPIO_B1	I/O	Multipurpose I/O, Group B (1)
13	MPIO_B2	I/O	Multipurpose I/O, Group B (1)
14	MPIO_B3	I/O	Multipurpose I/O, Group B (1)
15	MPO0	O	Multipurpose output 0
16	MPO1		
17	DOUT		
18	LRCK		
19	BCK		
20	SCKO		
21	DGND		
22	DVDD		
23	MDO/ADRO		
24	MDI/SDA		
25	MC/SCL		
26	MS/ADR1		
27	MODE		
28	RXIN7/ADIN0		
29	RXIN6/ALRCKI0		
30	RXIN5/ABCKI0		
31	RXIN4/ASCKI0		
32	RXIN3		
33	RXIN2		
34	RST		
35	RXIN1		
36	VDDRX		
37	RXIN0		
38	GNDRX		
39	XTI		
40	XTO		
41	AGND		
42	VCC		
43	FILT		
44	VCOM		
45	AGNDAD		
46	VCCAD		
47	NC		
48	NC		

**IC945:** D70YE101BRFP266 (DIGITAL P.C.B.)

Decoder/Post processor

\* **No replacement part available.**

No.	Function Name (P.C.B.)	TYPE <sup>(1)</sup>	PULL <sup>(2)</sup>	GPIO <sup>(3)</sup>	Detail of Function
1	VSS				
2	AHCLKX0/AHCLKX2	IO	–	Y	McASP0 and McASP2 transmit master clock
3	AMUTE0	IO	–	Y	McASP0 mute output
4	AMUTE1	IO	–	Y	McASP1 mute output
5	AHCLKX1	IO	–	Y	McASP1 transmit master clock
6	VSS				
7	ACLKX1	IO	–	Y	McASP1 transmit bit clock
8	CVDD				
9	ACLKR1	IO	–	Y	McASP1 receive bit clock
10	DVDD				
11	AFSX1	IO	–	Y	McASP1 transmit frame Sync (L/R clock)
12	AFSR1	IO	–	Y	McASP1 receive frame Sync (L/R clock)
13	VSS				
14	RESET	IO	–	N	Device reset pin
15	VSS				
16	CVDD				
17	CLKIN	IO	–	N	Alternate clock input (3.3-V LVCMOS input)
18	VSS				
19	TMS	IO	IPU	N	Test mode select
20	CVDD				
21	TRST	IO	IPU	N	Test reset
22	OSCVSS	PWR	–	N	Oscillator Vss tap point (for filter only)
23	OSCIN	IO	–	N	1.2-V oscillator input
24	NC	O	–	N	
25	OSCVDD	PWR	–	N	Oscillator 1.2-V Vpp tap point (for filter only)
26	VSS				
27	PLLHV	PWR	–	N	PLL 3.3-V supply input (requires external filter)
28	TDI	IO	IPU	N	Test data in
29	TDO	OZ	IPU	N	Test data out
30	VSS				
31	DVDD				
32	EMU[0]	IO	IPU	N	Emulation pin 0
33	CVDD				
34	EMU[1]	IO	IPU	N	Emulation pin 1
35	TCK	IO	IPU	N	Test clock
36	Ground(Vss)				
37	EM_CAS	O	–	N	SDRAM column address strobe
38	EM_WE	O	–	N	SDRAM write enable
39	EM_WE_DQM[0]	O	–	N	Write enable or byte enable for EM_D [7:0]
40	VSS				
41	EM_D[7]	IO	–	N	EMIF data bus [lower 16-bits]
42	DVDD				
43	EM_D[6]	IO	–	N	EMIF data bus [lower 16-bits]
44	CVDD				
45	EM_D[5]	IO	–	N	EMIF data bus [lower 16-bits]
46	EM_D[4]	IO	–	N	EMIF data bus [lower 16-bits]
47	VSS				
48	EM_D[3]	IO	–	N	EMIF data bus [lower 16-bits]
49	EM_D[2]	IO	–	N	EMIF data bus [lower 16-bits]
50	DVDD				

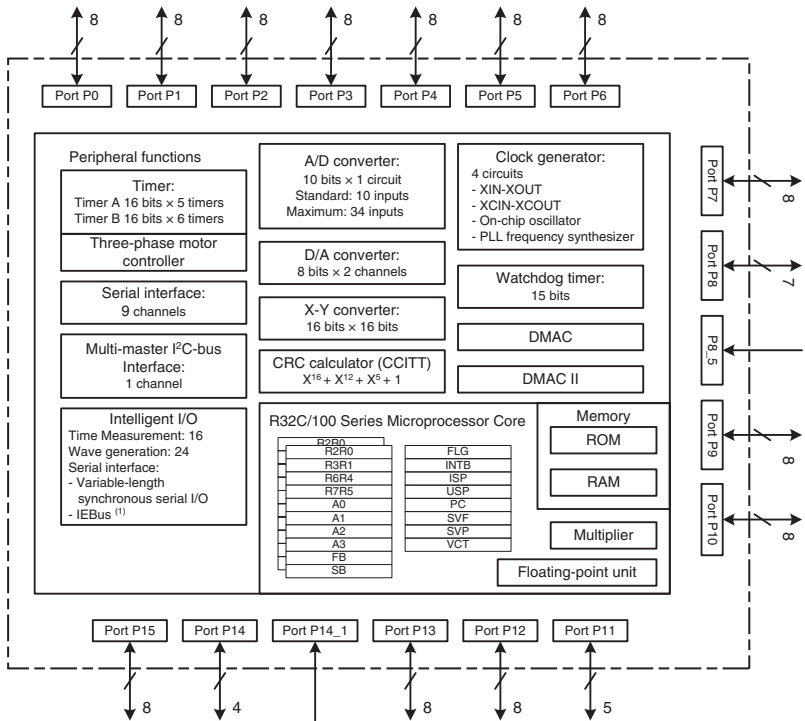
No.	Function Name (P.C.B.)	TYPE <sup>(1)</sup>	PULL <sup>(2)</sup>	GPIO <sup>(3)</sup>	Detail of Function
51	EM_D[1]	IO	—	N	EMIF data bus [lower 16-bits]
52	EM_D[0]	IO	—	N	EMIF data bus [lower 16-bits]
53	CVDD				
54	VSS				
55	EM_D[15]	IO	—	N	EMIF data bus [lower 16-bits]
56	EM_D[14]	IO	—	N	EMIF data bus [lower 16-Bits]
57	CVDD				
58	EM_D[13]	IO	—	N	EMIF data bus [lower 16-Bits]
59	EM_D[12]	IO	—	N	EMIF data bus [lower 16-Bits]
60	DVDD				
61	EM_D[11]	IO	—	N	EMIF data bus [lower 16-Bits]
62	VSS				
63	EM_D[10]	IO	—	N	EMIF data bus [lower 16-Bits]
64	EM_D[9]	IO	—	N	EMIF data bus [lower 16-Bits]
65	CVDD				
66	EM_D[8]	IO	—	N	EMIF data bus [lower 16-bits]
67	EM_WE_DQM[1]	O	—	N	Write enable or byte enable for EM_D [15:8]
68	DVDD				
69	VSS				
70	EM_CLK	O	—	N	SDRAM clock
71	EM_CKE	O	—	N	SDRAM clock enable
72	VSS				
73	DVDD				
74	EM_A[11]	O	—	N	EMIF address bus
75	EM_A[9]	O	—	N	EMIF address bus
76	EM_A[8]	O	—	N	EMIF address bus
77	CVDD				
78	VSS				
79	EM_A[7]	O	—	N	EMIF address bus
80	EM_A[6]	O	—	N	EMIF address bus
81	DVDD				
82	VSS				
83	EM_A[5]	O	—	N	EMIF address bus
84	EM_A[4]	O	—	N	EMIF address bus
85	CVDD				
86	EM_A[3]	O	—	N	EMIF address bus
87	VSS				
88	EM_A[2]	O	—	N	EMIF address bus
89	EM_A[1]	O	—	N	EMIF address bus
90	CVDD				
91	EM_A[0]	O	—	N	EMIF address bus
92	DVDD				
93	EM_A[10]	O	—	N	EMIF address bus
94	EM_BA[1]	O	—	N	SDRAM bank address and asynchronous memory Low-Order address
95	VSS				
96	EM_BA[0]	O	—	N	SDRAM bank address and asynchronous memory Low-Order address
97	EM_CS[0]	O	—	N	SDRAM chip select
98	EM_RAS	O	—	N	SDRAM row address strobe
99	VSS				
100	EM_CS[2]	O	—	N	Asynchronous memory chip select

No.	Function Name (P.C.B.)	TYPE <sup>(1)</sup>	PULL <sup>(2)</sup>	GPIO <sup>(3)</sup>	Detail of Function
101	CVDD				
102	NC	O	—	N	Asynchronous memory read/not write
103	DVDD				
104	EM_OE	O	—	N	SDRAM output enable
105	SPI0_ENA/I2C1_SDA	IO	—	Y	SPI0 enable (ready) or I2c1 serial data
106	VSS				
107	SPI0_ENA/I2C1_SCL	IO	—	Y	SPI0 enable (ready) or I2c1 serial clock
108	SPI0_CLK/I2C0_SCL	IO	—	Y	SPI0 serial clock or I2c0 serial clock
109	VSS				
110	SPI0_SIMO	IO	—	Y	SPI0 data pin slave in master out
111	SPI0_SOMI/I2C0_SDA	IO	—	Y	SPI0 data pin slave out master in or I2C0 serial data
112	DVDD				
113	AXR0[0]	IO	—	Y	McASP0 serial data 0
114	VSS				
115	AXR0[1]	IO	—	Y	McASP0 serial data 1
116	AXR0[2]	IO	—	Y	McASP0 serial data 2
117	AXR0[3]	IO	—	Y	McASP0 serial data 3
118	VSS				
119	AXR0[4]	IO	—	Y	McASP0 serial data 4
120	SPI1_SCS	IO	—	Y	McASP0 serial data 5 or SPI1 slave chip select
121	SPI1_ENA	IO	—	Y	McASP0 serial data 6 or SPI1 enable (ready)
122	SPI1_CLK	IO	—	Y	McASP0 serial data 7 or SPI1 serial clock
123	CVDD				
124	VSS				
125	DVDD				
126	/SPI1_SOMI	IO	—	Y	McASP0 serial data 8 or McASP1 serial data 5 or SPI1 data pin slave out master in
127	/SPI1_SIMO	IO	—	Y	McASP0 serial data 9 or McASP1 serial data 4 or SPI1 data pin slave in master out
128	CVDD				
129	VSS				
130	AXR0[10]	IO	—	Y	McASP0 serial data 10 or McASP1 serial data 3
131	AXR0[11]	IO	—	Y	McASP0 serial data 11 or McASP1 serial data 2
132	CVDD				
133	VSS				
134	AXR0[12]	IO	—	Y	McASP0 serial data 12 or McASP1 serial data 1
135	AXR0[13]	IO	—	Y	McASP0 serial data 13 or McASP1 serial data 0
136	DVDD				
137	AXR0[14]	IO	—	Y	McASP0 serial data 14 or McASP2 serial data 1
138	AXR0[15]	IO	—	Y	McASP0 serial data 15 or McASP2 serial data 0
139	ACLKR0	IO	—	Y	McASP0 receive bit clock
140	VSS				
141	AFSR0	IO	—	Y	McASP0 receive frame Sync (L/R clock)
142	ACLKX0	IO	—	Y	McASP0 transmit bit clock
143	AHCLKR0/AHCLKR1	IO	—	Y	McASP0 and McASP1 receive master clock
144	AFSX0	IO	—	Y	McASP0 transmit frame Sync (L/R clock)

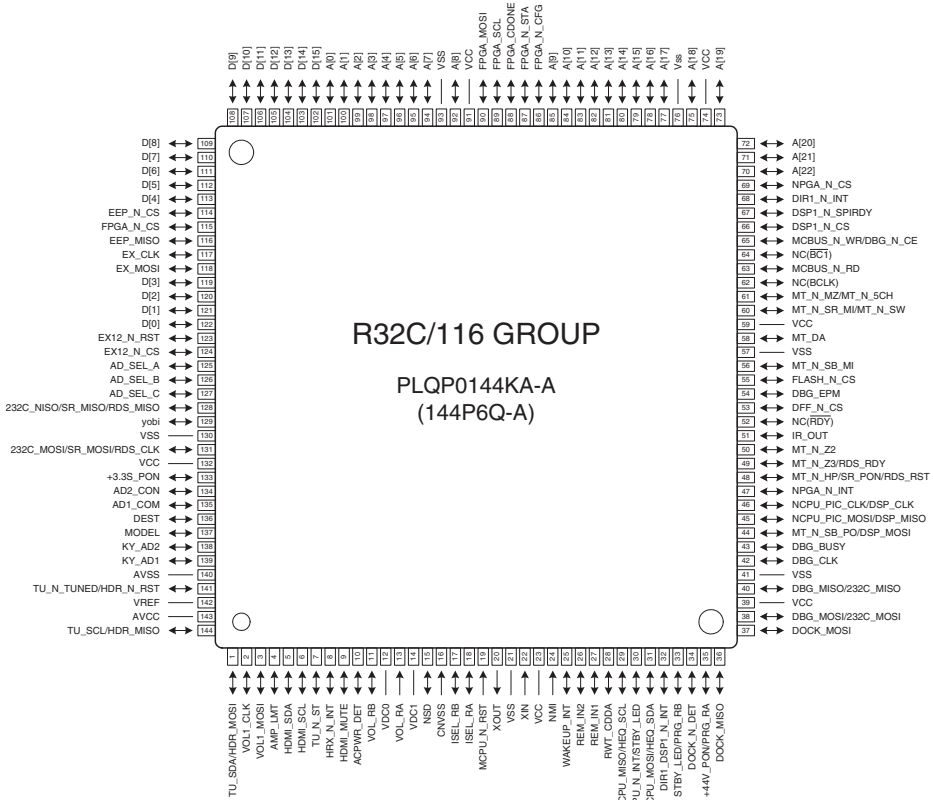
IC908: R5F64169DFD (DIGITAL P.C.B.)

Microprocessor

\* No replacement part available.



Note: 1. IEBus is a trademark of NEC Electronics Corporation.



Notes:  
1. Pin names in brackets [ ] represent a functional signal as a whole and should not be considered as two separate pins.  
2. The position of pin number 1 varies by product. Refer to the index mark in attached "Package Dimensions".



Pin No.	Port Name	Use Port	Function Name	Terminal Processing	Related Power Supply				Detail of Function	
					OFF		ON			
					I/O	Logic	I/O	Logic		
1	SRXD4/SDA4/ TXD4/ANEX1/ P9_6	SDA4	TU_SDA	3.3kPU	PRY	O	Low	I/O	Data	Tuner I2C data
2	CLK4/ANEX0/ P9_5	P9_5	VOL1_CLK		PRY	O	Low	O	Clock	Volume/ZoneTone/Selector-1 communication clock
3	SS4/RTS4/ CTS4/TB4IN/ DA1/P9_4	P9_4	VOL_MOSI		PRY	O	Low	O	Data	Volume/ZoneTone/Selector-1 and 2 communication data
4	SS3/RTS3/ CTS3/TB3IN/ DA0/P9_3	DA0	AMP_LMT		PRY	I	---	O	D/A	Limiter control
5	IEOUT/ISTXD2/ OUTC2_0/ SRXD3/SDA3/ TXD3/TB2IN/ P9_2	SDA3	HDMI_SDA	V encoder suction prevention	HDMI_PON	O	Low	I/O	Data	HDMI and AVIDEO 400k I2C data
6	IEIN/ISRXD2/ STXD3/SCL3/ RXD3/TB1IN/ P9_1	SCL3	HDMI_SCL	V encoder suction prevention	HDMI_PON	O	Low	O	Clock	HDMI and AVIDEO 400k I2C clock
7	CLK3/TB0IN/ P9_0	P9_0	TU_N_ST	47kPU	PRY	O	Low	I	L act	Tuner Stereo detection
8	INT8/P14_6	INT8	HRX_N_ INT		HDMI_PON	O	Low	I	L act	HDMI RX interrupt
9	INT7/P14_5	INT7	HDMI_ MUTE		HDMI_PON	O	Low	I	H act	HDMI mute
10	INT6/P14_4	INT6	ACPWR_ DET		AC	O	Low	I	L act	AC power detect
11	P14_3	P14_3	VOL_RB		DSP_PON	I	---	I		Volume B
12	VDC0	VDC0	VDC0							---
13	P14_1	P14_1	VOL_RA		DSP_PON	I	---	I		Volume A (Port only for input)
14	VDC1	VDC1	VDC1							---
15	NSD	NSD	NSD	4.7kPU						Debugger
16	CNVSS	CNVSS	DBG_ CNVSS	68kPD						---
17	XCIN/P8_7	P8_7	ISEL_RB		DSP_PON	I	---	I		Input selector B
18	XCOUT/P8_6	P8_6	ISEL_RA		DSP_PON	I	---	I		Input selector A
19	RESET	RESET	MCPU_N_ RST	10kPU						---
20	XOUT	XOUT	XOUT							---
21	VSS	VSS	VSS							---
22	XIN	XIN	XIN							---
23	VCC	VCC	VCC							---
24	NMI/P8_5	NMI	NMI	1kPU						---
25	INT2/P8_4	INT2	WAKEUP_ INT	Odd/even number detection circuit	AC	O	Low	I	Both edges	Power switches, MISO interrupt of 232C and DOCK (Sleep state restored)
26	INT1/P8_3	P8_3	-		AC	O	Low	O	Low	Unassigned
27	INT0/P8_2	INT0	REM_IN1	100kPU	AC	O	Low	I	L act	Remote control pulse input 1 (5V tolerant)
28	UD0B/UD1B/ IIO1_5/RTS5/ CTS5/SS5/U/ TA4IN/P8_1	P8_1	RWT_ CDDA		DSP_PON	O	Low	O	H act	CDDA Rewrite path selection
29	UD0A/UD1A/ RXD5/SCL5/ STXD5/U/ TA4OUT/P8_0	SCL5	HEQ_SCL	3.3kPU	HDMI_PON	O	Low	O	Clock	HDMI switcher 100k I2C clock
30	UD0B/UD1B/ IIO1_4/CLK5/ TA3IN/P7_7	P7_7	STBY_LED		AC	O	Low	O	H act	Standby LED control
31	UD0A/UD1A/ IIO1_3/RTS8/ CTS8/TXD5/ SDA5/SRXD5/ TA3OUT/P7_6	SDA5	HEQ_SDA	3.3kPU	HDMI_PON	O	Low	I/O	Data	HDMI switcher 100k I2C data

Pin No.	Port Name	Use Port	Function Name	Terminal Processing		Related Power Supply				Detail of Function
						OFF		ON		
						I/O	Logic	I/O	Logic	
32	IIO1_2/RXD8/W/TA2IN/P7_5	TA2IN	DIR1_DSP1_N_INT	10kPU	DSP_PON	O	Low	I	L act	DIR1/DSP1 interrupt
33	IIO1_1/CLK8/W/TA2OUT/P7_4	P7_4	PRG_RB		DSP_PON	I	---	I		---
34	IIO1_0/TXD8/SS2/RTS2/CTS2/V/TA1IN/P7_3	TA1IN	DOCK_N_DET		AC	O	Low	I	L act	iPod Detect
35	CLK2/V/TA1OUT/P7_2	P7_2	PRG_RA		DSP_PON	I	---	I		---
36	MSCL/IEIN/ISRXD2/OUTC2_2/IIO1_7/STXD2/SCL2/RXD2/TA0IN/TB5IN/P7_1	RXD2	DOCK_MISO	Suction prevention when AC is turned off	DOCK_PON	O	Low	I	Data	DOCK reception data
37	TA0OUT/TXD2/SDA2/SRXD2/IIO1_6/OUTC2_0/ISTXD2/IEOUT/MSDA/P7_0	TXD2	DOCK_MOSI		DOCK_PON	O	Low	O	Data	DOCK transmission data
38	TXD1/SDA1/SRXD1/P6_7	TXD1	DBG_MOSI	100kPU	AC	O	Low	O	Data	Debug/E8a
39	VCC	VCC	VCC							---
40	RXD1/SCL1/STXD1/P6_6	RXD1	DBG_MISO	100kPU	AC	O	Low	I	Data	Debug/E8a
41	VSS	VSS	VSS							---
42	CLK1/P6_5	CLK1	DBG_CLK	100kPU	AC	O	Low	I	Clock	E8a
43	CTS1/RTS1/SS1/OUTC2_1/ISCLK2/P6_4	P6_4	DBG_BUSY		AC	O	Low	O		E8a
44	TXD0/SDA0/SRXD0/P6_3	TXD0	DSP_MOSI		DSP_PON	O	Low	O	Data	DSP transmission data
45	TB2IN/RXD0/SCL0/STXD0/P6_2	RXD0	DSP_MISO		DSP_PON	I	---	I	Data	DSP reception data
46	TB1IN/CLK0/P6_1	CLK0	DSP_CLK		DSP_PON	O	Low	O	Clk	DSP communication clock
47	TB0IN/CTS0/RTS0/SS0/P6_0	P6_0	—		AC	O	Low	O	Low	Unassigned
48	D31/OUTC2_7/P13_7	P13_7	SR_PON		DSP_PON	O	Low	O	H act	SIRIUS power supply control (U model)
		P13_7	RDS_RST		PRY	O	Low	O	H act	RDS reset (B, G, F models)
49	D30/OUTC2_1/ISCLK2/P13_6	P13_6	RDS_READY	10kPU	PRY	O	Low	I	H act	RDS ready (B, G, F models)
50	D29/OUTC2_2/ISRXD2/IEIN/P13_5	P13_5	MT_N_Z2	100kPD	+3.3S_PON	O	Low	O	L act	Mute Zone2 (LINE out)
51	D28/OUTC2_0/ISTXD2/IEOUT/P13_4	ISTXD2	IR_OUT		AC	O	Low	O	Data	Remote control code output
52	RDY/CS3/CTS7/RTS7/P5_7	RDY	NC(RDY)		HDMI_PON	O	Low	B	Bus	External bus
53	ALE/CS2/RXD7/P5_6	CS2	DFF_N_CS		HDMI_PON	O	Low	B	Bus	External bus
54	HOLD/CLK7/P5_5	P5_5	DBG_EPM	22kPU and 3.3kPD	AC	I	---	I		E8a
55	HLDA/CS1/TXD7/P5_4	CS1	FLASH_N_CS		HDMI_PON	O	Low	B	Bus	External bus
56	D27/OUTC2_3/P13_3	P13_3	MT_N_SB	100kPD	+3.3S_PON	O	Low	O	L act	Mute SB/BA/Z2/FP (Preout/Main amplifier input)
57	VSS	VSS	VSS							---
58	D26/OUTC2_6/P13_2	P13_2	MT_DA		DSP_PON	O	Low	O	H act	Mute Digital Audio

Pin No.	Port Name	Use Port	Function Name	Terminal Processing	Related Power Supply				Detail of Function	
					OFF		ON			
					I/O	Logic	I/O	Logic		
59	VCC	VCC	VCC						---	
60	D25/OUTC2_5/ P13_1	P13_1	MT_N_SW	100kPD	+3.3S_PON	O	Low	O	L act	Mute Subwoofer (Preout)
61	D24/OUTC2_4/ P13_0	P13_0	MT_N_5CH	100kPD	+3.3S_PON	O	Low	O	L act	Mute 5ch (L,C,R,SRL,SRR Preout/Main amp Input)
62	CLKOUT/BCLK/ R5_3	BCLK	NC(BCLK)		HDMI_PON	O	Low	B	Bus	Used by external bus
63	RD/P5_2	RD	MCBUS_N_RD		HDMI_PON	O	Low	B	Bus	External bus
64	WR1/BC1/P5_1	BC1	NC(BC1)		HDMI_PON	O	Low	B	Bus	Used by external bus
65	WR0/WR/P5_0	WR	MCBUS_N_WR		HDMI_PON	I	---	B	Bus	External bus
66	D23/P12_7	P12_7	DSP1_N_CS		DSP_PON	O	Low	O	L act	DSP1 chip select
67	D22/P12_6	P12_6	DSP1_N_SPIRDY		DSP_PON	O	Low	I	L act	DSP1 SPI ready
68	D21/P12_5	P12_5	DIR1_N_INT		DSP_PON	O	Low	I	L DIR	For discrimination of DIR1/DSP1 interrupt
69	CS0/A23/TXD6/ SDA6/SRXD6/ P4_7	P11_3	—		AC	O	Low	O	Low	Unassigned
70	CS1/A22/RXD6/ SCL6/STXD6/ P4_6	A22	A[22]		HDMI_PON	O	Low	B	Bus	External bus
71	CS2/A21/CLK6/ P4_5	A21	A[21]		HDMI_PON	O	Low	B	Bus	External bus
72	CS3/A20/CTS6/ RTS6/SS6/P4_4	A20	A[20]		HDMI_PON	O	Low	B	Bus	External bus
73	A19/TXD3/ SDA3/SRXD3/ OUTC2_0/ ISTXD2/IEOUT/ P4_3	A19	A[19]		HDMI_PON	O	Low	B	Bus	External bus
74	VCC	VCC	VCC							---
75	A18/RXD3/ SCL3/STXD3/ ISRXD2/IEIN/ P4_2	A18	A[18]		HDMI_PON	O	Low	B	Bus	External bus
76	VSS	VSS	VSS							---
77	A17/CLK3/P4_1	A17	A[17]		HDMI_PON	O	Low	B	Bus	External bus
78	A16/CTS3/RTS3/ SS3/P4_0	A16	A[16]		HDMI_PON	O	Low	B	Bus	External bus
79	A15/[A15/D15]/ TA4IN/U/P3_7	A15	A[15]		HDMI_PON	O	Low	B	Bus	External bus
80	A14/[A14/D14]/ TA4OUT/U/P3_6	A14	A[14]		HDMI_PON	O	Low	B	Bus	External bus
81	A13/[A13/D13]/ TA2IN/W/P3_5	A13	A[13]		HDMI_PON	O	Low	B	Bus	External bus
82	A12/[A12/D12]/ TA2OUT/W/P3_4	A12	A[12]		HDMI_PON	O	Low	B	Bus	External bus
83	A11/[A11/D11]/ TA1IN/V/P3_3	A11	A[11]		HDMI_PON	O	Low	B	Bus	External bus
84	A10/[A10/D10]/ TA1OUT/V/P3_2	A10	A[10]		HDMI_PON	O	Low	B	Bus	External bus
85	A9/[A9/D9]/ TA3OUT/UD0B/ UD1B/P3_1	A9	A[9]		HDMI_PON	O	Low	B	Bus	External bus
86	D20/P12_4	P12_4	FPGA_N_CFG	10kPU	HDMI_PON	O	Low	O	L act	FPGA nCONF
87	D19/CTS6/ RTS6/SS6/ P12_3	P12_3	FPGA_N_STA	10kPU	HDMI_PON	I	---	I	L act	FPGA nSTATUS
88	D18/RXD6/ SCL6/STXD6/ P12_2	P12_2	FPGA_CDONE	10kPU	HDMI_PON	I	---	I	H act	FPGA CONF DONE

Pin No.	Port Name	Use Port	Function Name	Terminal Processing	Related Power Supply				Detail of Function	
					OFF		ON			
					I/O	Logic	I/O	Logic		
89	D17/CLK6/ P12_1	CLK6	FPGA_SCL		HDMI_PON	O	Low	O	Clk	FPGA clock (at Boot)
90	D16/TXD6/ SDA6/SRXD6/ P12_0	TXD6	FPGA_MOSI		HDMI_PON	O	Low	O	Data	FPGA transmission data (at Boot)
91	VCC	VCC	VCC							---
92	A8/[A8/D8]/ TA0OUT/UD0A/ UD1A/P3_0	A8	A[8]		HDMI_PON	O	Low	B	Bus	External bus
93	VSS	VSS	VSS							---
94	A7/[A7/D7]/ AN2_7/P2_7	A7	A[7]		HDMI_PON	O	Low	B	Bus	External bus
95	A6/[A6/D6]/ AN2_6/P2_6	A6	A[6]		HDMI_PON	O	Low	B	Bus	External bus
96	A5/[A5/D5]/ AN2_5/P2_5	A5	A[5]		HDMI_PON	O	Low	B	Bus	External bus
97	A4/[A4/D4]/ AN2_4/P2_4	A4	A[4]		HDMI_PON	O	Low	B	Bus	External bus
98	A3/[A3/D3]/ AN2_3/P2_3	A3	A[3]		HDMI_PON	O	Low	B	Bus	External bus
99	A2/[A2/D2]/ AN2_2/P2_2	A2	A[2]		HDMI_PON	O	Low	B	Bus	External bus
100	A1/[A1/D1]/BC2/ [BC2/D1]/AN2_1/ P2_1	A1	A[1]		HDMI_PON	O	Low	B	Bus	External bus
101	A0/[A0/D0]/BC0/ [BC0/D0]/AN2_0/ P2_0	A0	A[0]		HDMI_PON	O	Low	B	Bus	External bus
102	D15/INT5/ IIO0_7/IIO1_7/ P1_7	D15	D[15]	100kPD	HDMI_PON	I	---	B	Bus	External bus
103	D14/INT4/ IIO0_6/IIO1_6/ P1_6	D14	D[14]	100kPD	HDMI_PON	I	---	B	Bus	External bus
104	D13/INT3/ IIO0_5/IIO1_5/ P1_5	D13	D[13]	100kPD	HDMI_PON	I	---	B	Bus	External bus
105	D12/IIO0_4/ IIO1_4/P1_4	D12	D[12]	100kPD	HDMI_PON	I	---	B	Bus	External bus
106	D11/IIO0_3/ IIO1_3/P1_3	D11	D[11]	100kPD	HDMI_PON	I	---	B	Bus	External bus
107	D10/IIO0_2/ IIO1_2/P1_2	D10	D[10]	100kPD	HDMI_PON	I	---	B	Bus	External bus
108	D9/IIO0_1/ IIO1_1/P1_1	D9	D[9]	100kPD	HDMI_PON	I	---	B	Bus	External bus
109	IIO0_0/IIO1_0/ D8/P1_0	D8	D[8]	100kPD	HDMI_PON	I	---	B	Bus	External bus
110	AN0_7/D7/P0_7	D7	D[7]	100kPD	HDMI_PON	I	---	B	Bus	External bus
111	AN0_6/D6/P0_6	D6	D[6]	100kPD	HDMI_PON	I	---	B	Bus	External bus
112	AN0_5/D5/P0_5	D5	D[5]	100kPD	HDMI_PON	I	---	B	Bus	External bus
113	AN0_4/D4/P0_4	D4	D[4]	100kPD	HDMI_PON	I	---	B	Bus	External bus
114	WR3/BC3/P11_4	P11_4	EEP_N_CS	10kPU	AC	O	Low	O	L act	EEPROM chip select
115	IIO1_3/RTS8/ CTS8/WR2/CS3/ P11_3	CS3	FPGA_N_CS		HDMI_PON	O	Low	B	Bus	External bus
116	IIO1_2/RXD8/ CS2/P11_2	RXD8	EEP_MISO		AC	O	Low	I	Data	FL/Expansion IO/EEPROM reception data
117	IIO1_1/CLK8/ CS1/P11_1	CLK8	EX_CLK	FL/expansion, suction prevention	AC	O	Low	O	Clk	FL/Expansion IO/EEPROM communication clock
118	IIO1_0/TXD8/ CS0/P11_0	TXD8	EX_MOSI	FL/expansion, suction prevention	AC	O	Low	O	Data	FL/Expansion IO/EEPROM transmission data
119	AN0_3/D3/P0_3	D3	D[3]	100kPD	HDMI_PON	I	---	B	Bus	External bus
120	AN0_2/D2/P0_2	D2	D[2]	100kPD	HDMI_PON	I	---	B	Bus	External bus
121	AN0_1/D1/P0_1	D1	D[1]	100kPD	HDMI_PON	I	---	B	Bus	External bus

Pin No.	Port Name	Use Port	Function Name	Terminal Processing	Related Power Supply				Detail of Function	
					OFF		ON			
					I/O	Logic	I/O	Logic		
122	AN0_0/D0/P0_0	D0	D[0]	100kPD	HDMI_PON	I	---	B	Bus	External bus
123	IIO0_7/RTS6/ CTS6/SS6/ AN15_7/P15_7	P15_7	EX12_N_RST		HDMI_PON	O	Low	O	L act	Expansion IO 1/2 reset
124	IIO0_6/CLK6/ AN15_6/P15_6	P15_6	EX12_N_CS		HDMI_PON	O	Low	O	L act	Expansion IO 1/2 chip select
125	IIO0_5/RXD6/ SCL6/STXD6/ AN15_5/P15_5	P15_5	AD_SEL_A		+3.3S_PON	O	Low	O		AD select A
126	IIO0_4/TXD6/ SDA6/SRXD6/ AN15_4/P15_4	P15_4	AD_SEL_B		+3.3S_PON	O	Low	O		AD select B
127	IIO0_3/RTS7/ CTS7/AN15_3/ P15_3	P15_3	AD_SEL_C		+3.3S_PON	O	Low	O		AD select C
128	IIO0_2/RXD7/ AN15_2/P15_2	RXD7	SR_MISO	3.3V level shift	DSP_PON	O	Low	I	Data	SIRIUS reception data (U model)
		P15_2	RDS_MISO		PRY	O	Low	I	Data	RDS data (B, G, F models)
129	IIO0_1/CLK7/ AN15_1/P15_1	P15_1	VIDI2C_ON	10KPD	HDMI_PON	O	Low	O	H act	I2C line switch to Video device
130	VSS	VSS	VSS							---
131	IIO0_0/TXD7/ AN15_0/P15_0	TXD7	SR_MOSI	5V level shift	DSP_PON	O	Low	O	Data	SIRIUS transmission data (U model)
		P15_0	RDS_CLK		PRY	O	Low	O	Clock	RDS clock (B, G, F models)
132	VCC	VCC	VCC							---
133	KI3/AN_7/P10_7	P10_7	+3.3S_PON		AC	O	Low	O	H act	+3.3S power on
134	KI2/AN_6/P10_6	AN_6	AD2_COM		+3.3S_PON	O	Low	I	A/D	AD selector 2 COM input
135	KI1/AN_5/P10_5	AN_5	AD1_COM		+3.3S_PON	O	Low	I	A/D	AD selector 1 COM input
136	KI0/AN_4/P10_4	AN_4	DEST		AC	O	Low	I	A/D	Destination discrimination
137	AN_3/P10_3	AN_3	MODEL		AC	O	Low	I	A/D	Model discriminate
138	AN_2/P10_2	AN_2	KY_AD2		AC	O	Low	I	A/D	Key 2
139	AN_1/P10_1	AN_1	KY_AD1		AC	O	Low	I	A/D	Key 1
140	AVSS	AVSS	AVSS							---
141	AN_0/P10_0	P10_0	TU_N_TND	47kPU	+3.3S_PON	O	Low	I	L act	Tuner tuned
142	VREF	VREF	VREF							---
143	AVCC	AVCC	AVCC							---
144	STXD4/SCL4/ RXD4/ADTRG/ P9_7	SCL4	TU_SCL	3.3kPU	PRY	O	Low	O	Data	Tuner I2C clock

Key detection for A/D port

Key input (A/D) pull-up resistance 10 k-ohms

Ohm	0	+ 1.0 k	+ 1.0 k	+ 1.5 k	+ 1.5 k	+ 2.2 k	+ 3.3 k	+ 4.7 k	22.0 k	33.0 k
V	0 – 0.15	0.15 – 0.42	0.43 – 0.70	0.71 – 0.97	0.98 – 1.24	1.25 – 1.53	1.54 – 1.84	1.85 – 2.22	2.23 – 2.62	2.63 – 3.04
A/D conversion value (3.3V=255)	0 – 11	12 – 32	33 – 54	55 – 75	76 – 96	97 – 119	120 – 142	143 – 163	182 – 197	198 – 209
KEY1 (139 pin)	RADIO (SCENE4)	CD (SCENE3)	TV (SCENE2)	BD/DVD (SCENE1)	ZONE2 CONTROL	ZONE2 ON/OFF	INPUT >	INPUT <	MAIN ZONE (power)	TONE CONTROL

Ohm	0	+ 1.0 k	+ 1.0 k	+ 1.5 k	+ 1.8 k	+ 2.2 k	+ 3.3 k	+ 4.7 k	+ 6.8 k	+ 10.0 k	+ 22.0 k	+ 68.0 k
V	0 – 0.15	0.16 – 0.42	0.43 – 0.70	0.71 – 0.99	1.00 – 1.27	1.28 – 1.56	1.57 – 1.86	1.87 – 2.14	2.15 – 2.39	2.40 – 2.65	2.66 – 2.91	2.92 – 3.17
A/D conversion value (3.3V=255)	0 – 11	12 – 32	33 – 54	55 – 77	78 – 99	100 – 121	122 – 144	145 – 166	167 – 186	187 – 205	206 – 226	227 – 246
KEY2 (138 pin)	–	TUNING >>	TUNING <<	AM	FM	PRESET >	PRESET <	MEMORY	INFO	STRAIGHT	PROGRAM >	PROGRAM <

Destination detection for AD port

Pull-up resistance 10 k-ohms

R3809 (VIDEO P.C.B.)	1.2 k	2.7 k	4.7 k	6.8 k	10.0 k	15.0 k	47.0 k	100.0 k
V	0.17 – 0.51	0.52 – 0.87	0.88 – 1.92	1.93 – 1.49	1.50 – 1.81	1.82 – 2.35	2.36 – 2.86	2.87 – 3.15
A/D conversion value (3.3V=255)	13 – 40	41 – 67	68 – 92	93 – 115	116 – 140	141 – 182	183 – 221	222 – 244
Destination	U	C	R	T	K	A	B, G, F	L

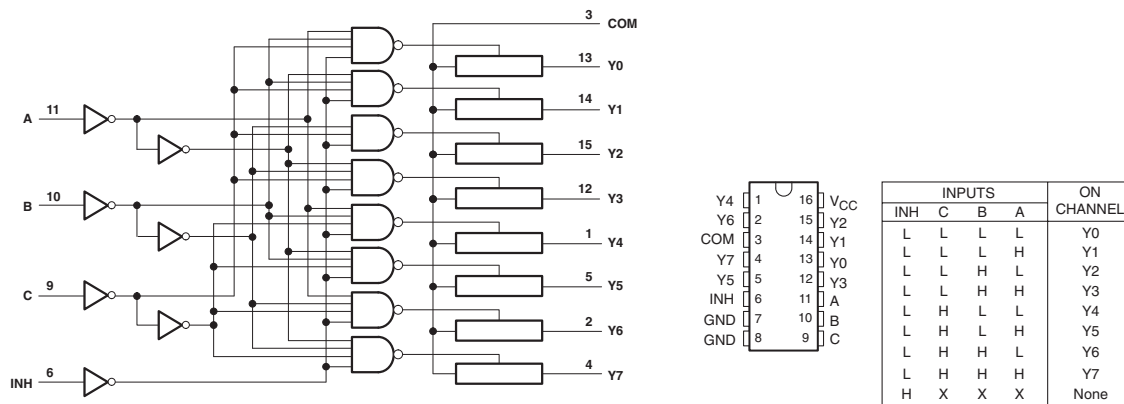
Model detection for A/D port

Model input (A/D) pull-up resistance 10 k-ohms

R4200 (OPERATION P.C.B.)	0	1.0 k	2.2 k
V	0 – 0.13	0.14 – 0.43	0.44 – 0.70
A/D conversion value (3.3V=255)	0 – 10	11 – 33	34 – 54
Model name	RX-V667	RX-A700	HTR-6063

## • Microprocessor extended port

**IC901, 902:** SN74LV4051APWR (DIGITAL P.C.B.)  
8-channel analog multiplexers/demultiplexers



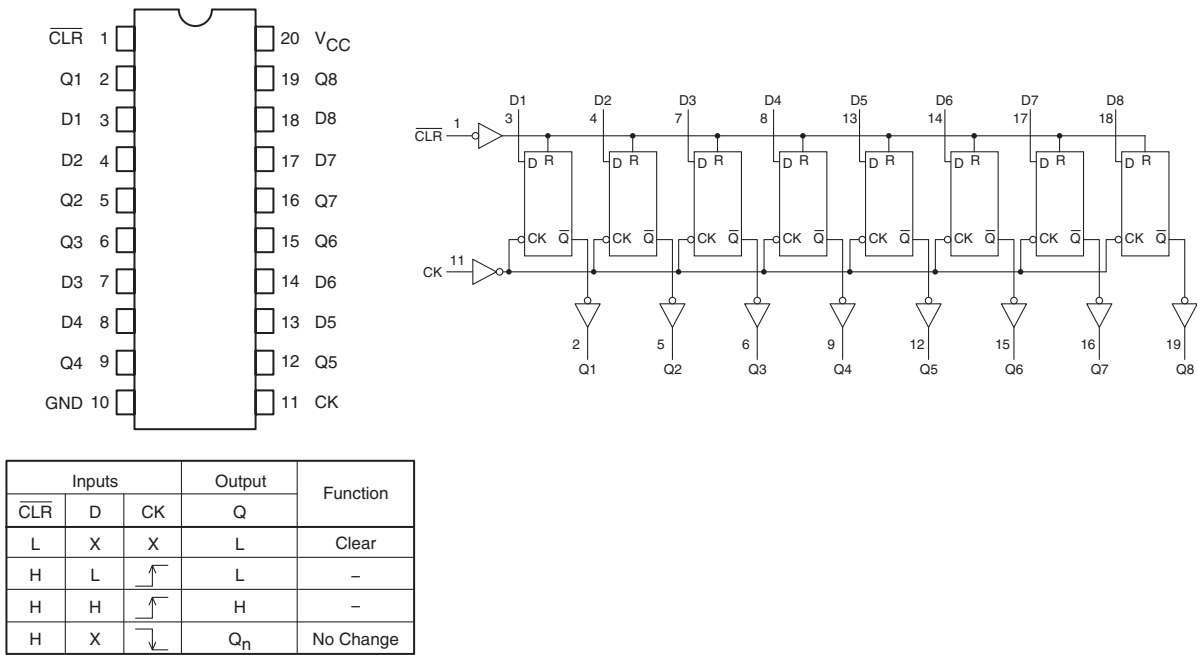
Pin No.	Port Name	Function Name	Terminal Processing	I/O	Related Power Supply				Detail of Function	
					OFF		ON			
					I/O	Logic	I/O	Logic		
AD selector 1 (AD1_COM signal is input into AN_5 of R32C)										
1	Y4	PS2_PRT		I	+3.3S_PON	I	---	I	A/D	Power supply protection 2
2	Y6	PS1_PRT		I	+3.3S_PON	I	---	I	A/D	Power supply protection 1
4	Y7	AMP_OLV		I	PRY	I	---	I	A/D	Amplifier output level detection
5	Y5	I_PRT		I	PRY	I	---	I	H act	Current protection
12	Y3	L3_DET		I	VID_PON	I	---	I	A/D	D terminal L3 detection
13	Y0	SV_DET		I	VID_PON	I	---	I	H act	S-video detect
14	Y1	HP_N_DET		I	DSP_PON	I	---	I	L act	Headphone detection
15	Y2	—		I	+3.3S_PON	I	---	I	---	Spare
AD selector 2 (AD2_COM signal is input into AN_6 of R32C)										
1	Y4	DC_PRT		I	PRY	I	---	I	A/D	DC protection
2	Y6	THM1		I	+3.3S_PON	I	---	I	A/D	Temperature detection 1
4	Y7	THM2		I	+3.3S_PON	I	---	I	A/D	Temperature detection 2
5	Y5	MIC_N_DET		I	DSP_PON	I	---	I	L act	Microphone detection
12	Y3	DOCK_AP	AC OFF時 吸込防止	I	+3.3S_PON	I	---	I	L act	iPod accessory power
13	Y0	DOCK_ID		I	+3.3S_PON	I	---	I	A/D	DOCK ID detection
14	Y1	KY_AD3		I	+3.3S_PON	I	---	I	A/D	Key 3
15	Y2	MODE	10kPU	I	+3.3S_PON	I	---	I	A/D	For special mode discriminate

DOCK detection for AD port  
Pull-up resistance 10 k-ohms

DOCK type	Bluetooth (YBA-10)	Wireless iPod (YID-W10)	iPod		No connected
			(YDS-11/12(B*))	(YDS-12(A*))	
A/D conversion value (3.3V=255)	5-25	85-100	120-140	150-170	255

\* Mode switch setting of the YDS-12

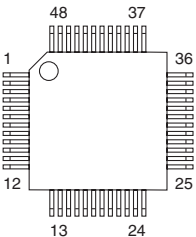
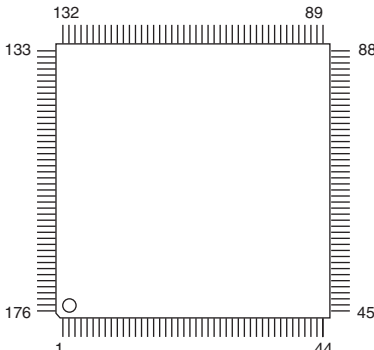
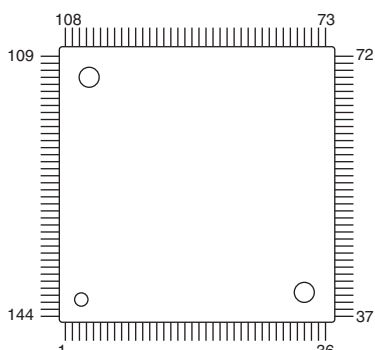
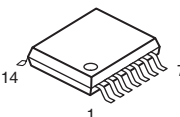
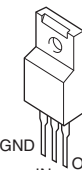
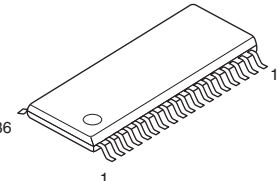
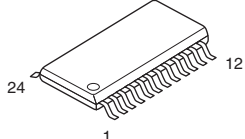
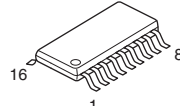
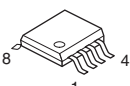
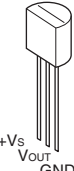
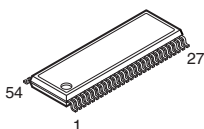
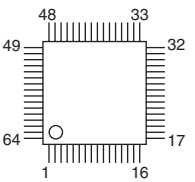
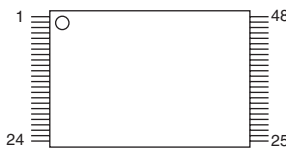
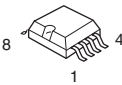
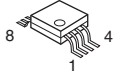
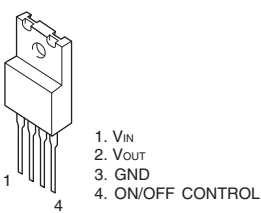
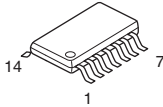
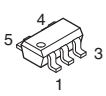
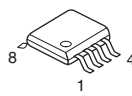
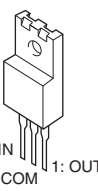
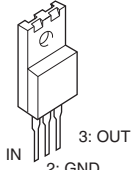
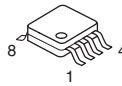
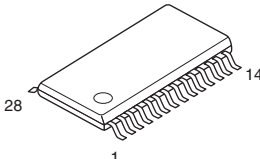
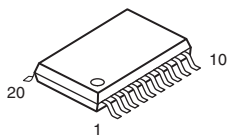
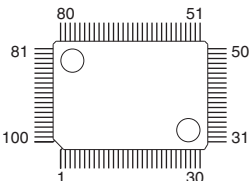
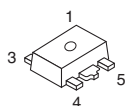
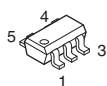
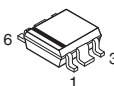

IC904, 905: TC74VHC273FT (DIGITAL P.C.B.)  
Octal D-type flip-flop with clear



Pin No.	Port Name	Use Port	Function Name	Terminal Processing		Related power supply				Detail of Function
						OFF		ON		
						I/O	Logic	I/O	Logic	
D-FF(1)										
2	D0	Q1	SPRY_5CH		PRY	O	Low	O	H act	SP relay 5CH (L, C, R, SRL, SRR)
5	D1	Q2	SPRY_SB&BA		PRY	O	Low	O	H act	SP relay Surround Back and Bi-Amp
6	D2	Q3	SPRY_Z2&FP		PRY	O	Low	O	H act	SP relay Zone2 and Front Presence
9	D3	Q4	HPRY		PRY	O	Low	O	H act	HP relay
12	D4	Q5	SP_IMP		PRY	O	Low	O	H 6Ω	SP impedance change (± B voltage change)
15	D5	Q6	PRY		PRY	O	Low	O	H act	Power relay
16	D6	Q7	DIR1_N_RST		DSP_PON	O	Low	O	L act	DIR1 reset
19	D7	Q8	DSP1_N_RST		DSP_PON	O	Low	O	L act	DSP1 reset
D-FF(2)										
2	D8	Q1	DIR1_N_CS		DSP_PON	O	Low	O	L act	DIR1 chip select
5	D9	Q2	DAC1_N_CS		DSP_PON	O	Low	O	L act	DAC chip select
6	D10	Q3	ADC_N_RST		DSP_PON	O	Low	O	L act	ADC reset (power down)
9	D11	Q4	DOCK_PON		DOCK_PON	O	Low	O	H act	DOCK power supply
12	D12	Q5	FL_N_RST		DSP_PON	O	Low	O	L act	FLD reset
15	D13	Q6	FL_N_CS		DSP_PON	O	Low	O	L act	FLD chip select
16	D14	Q7	UAW_PON		UAW_PON	O	Low	O	H act	UAW power supply
19	D15	Q8	PD_LED		PRY	O	Low	O	H act	Pure Direct LED

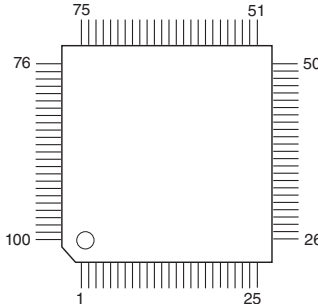
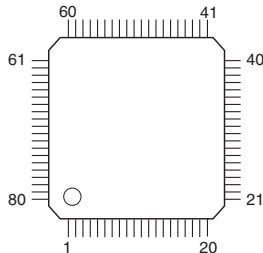
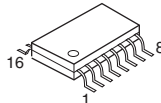
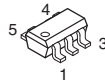
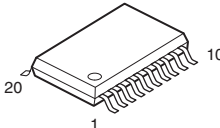
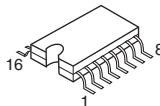
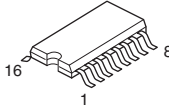
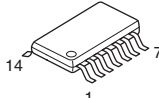
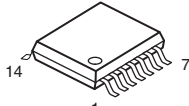
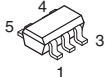
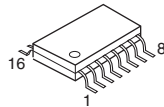
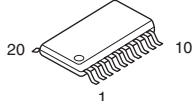
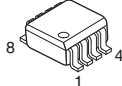
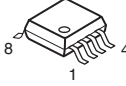
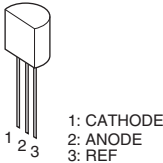
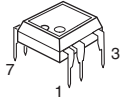
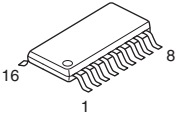
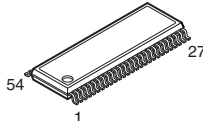
## PIN CONNECTION DIAGRAMS

### ICs

<b>ADV7172KST</b> <b>DIX9210PTR</b> 		<b>ADV7800BSTZ-80</b> 		<b>D70YE101BRFP266</b> <b>R5F64169DFD</b> <b>SiI9233ACTU</b> 	
<b>FHP3350IM14X</b> 	<b>KIA7912PI</b> 	<b>LA73050-TLM-E</b> 	<b>LC709004A-TLM-E</b> 	<b>LC72725KM-UY-TLM-E</b> 	
<b>LE25LB2562M-TLM-E</b> 	<b>LM19CIZ/LF</b> 	<b>M12L128168A-5TG2T</b> 	<b>M66003-0131FP-R</b> 	<b>MX29LV160DBTI-70G</b> <b>MX29LV640EBTI-70G</b> 	
<b>NE5532DR</b> 	<b>NJM2068MD-TE2</b> 	<b>NJM2388F05</b> 	<b>NJM2581M</b> 	<b>NJM2867F3-05 (TE1)</b> 	<b>NJM4565M (TE1)</b> 
<b>NJM7812FA</b> 	<b>NJM78M05FA</b> 	<b>PCA9517DP</b> 	<b>PCM1681PWPR</b> 	<b>PCM1803DBR</b> 	
<b>R2A15220FP</b> 	<b>R1172H121D-T1-F</b> <b>R1172H501D-T1-F</b> 	<b>R1172N501D-TR-F</b> 	<b>R1172S331B-E2-F</b> 	<b>RP130Q121D-TR-F</b> <b>RP130Q181D-TR-F</b> <b>RP130Q331D-TR-F</b> <b>RP130Q501D-TR-F</b> 	

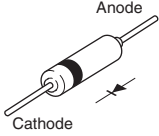
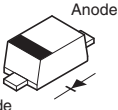
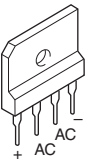
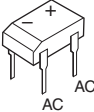
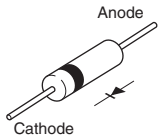
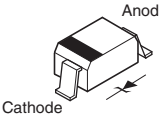
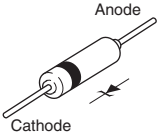
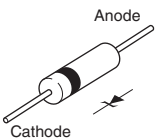
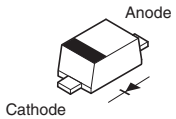
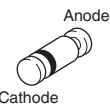
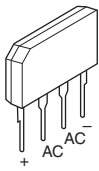
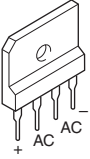
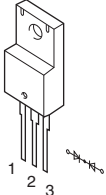
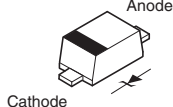


• ICs

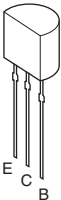
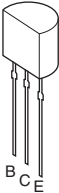


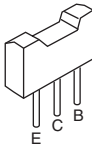





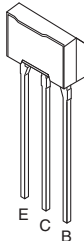



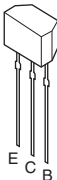
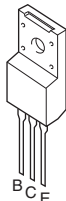


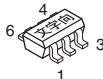
<div>Sil9134CTU</div> 		<div>Sil9185ACTU</div> 		<div>SN74LV4051APWR</div> 		<div>SN74LVC1G17DCKR</div> 			
<div>SN74LVC245APWR</div> 		<div>TC74HC4051AFEL</div> 		<div>TC74HC4053AF</div> 		<div>TC74VHC08FT TC74VHCT08AFT TC74VHCU04FT</div> 		<div>TC74VHC86FT (EL) TC74VHC126FT</div> 	
<div>TC7SH08FU TC7SH32FU TC7SH125FU</div> 		<div>TC74VHC157FT</div> 		<div>TC74VHC273FT (EL,K)</div> 		<div>TC7WHU04FU</div> 		<div>TK15420MTL-G</div> 	
<div>TL431ACLPR</div> 		<div>TOP254PN</div> 		<div>TRS3221ECPWR</div> 		<div>V54C365164VEI6</div> 			

RX-V667/HTR-6063/  
RX-A700

## • Diodes

1N4003S 1SS133 1SS176 	1SS355 	D6SBN20 	DB105 	HT18G 
HZU4.3B3 TRF-E 	MTZJ2.4B MTZJ10B MTZJ3.3B MTZJ13B MTZJ5.1B MTZJ22C MTZJ5.1C MTZJ39D MTZJ6.8C 	P6KE200ARL 	RB501V-40 	
RLZ7.5B 7.5V 	RS203M-B-C-J80 	RS603M-B-C-J80 	SG10SC4M 	UDZS5.1B 5.1V UDZS12B 12V 

## • Transistors

2N5401C-AT/P 2SA1015-Y 	2N5551C-AT 	2SA1576A 	2SA1695 O,P,Y 2SC4468 O,P,Y 	2SA1708 	2SA1770S/T-AN 	2SA949 2SC1815 Y 2SC2229 
2SC1740S 	2SC3906K 	2SC4081 T106 	2SC4614S/T-AN 	2SC5938A 	2SD2705S TP 	DTA114EKA DTA143EKA DTA144EKA DTC114EKA DTC144EKA  1: GND 2: IN 3: OUT
KRA102M-AT/P KRC102M-AT 	KTA1046-Y-U/P KTA1837-U/P 	KTA1504S KTA1517S KTC3875S 	MCH6336-TL-E  1. Drain 2. Drain 3. Gate 4. Source 5. Drain 6. Drain	$\mu$ PA672T-T1-A  1. Source 1 (S1) 2. Gate 1 (G1) 3. Drain 2 (D2) 4. Source 2 (S2) 5. Gate 2 (G2) 6. Drain 1 (D1)		

■ BLOCK DIAGRAMS

ANALOG AUDIO Section Block Diagram

**MAIN** • See page 116, 117 → SCHEMATIC DIAGRAM

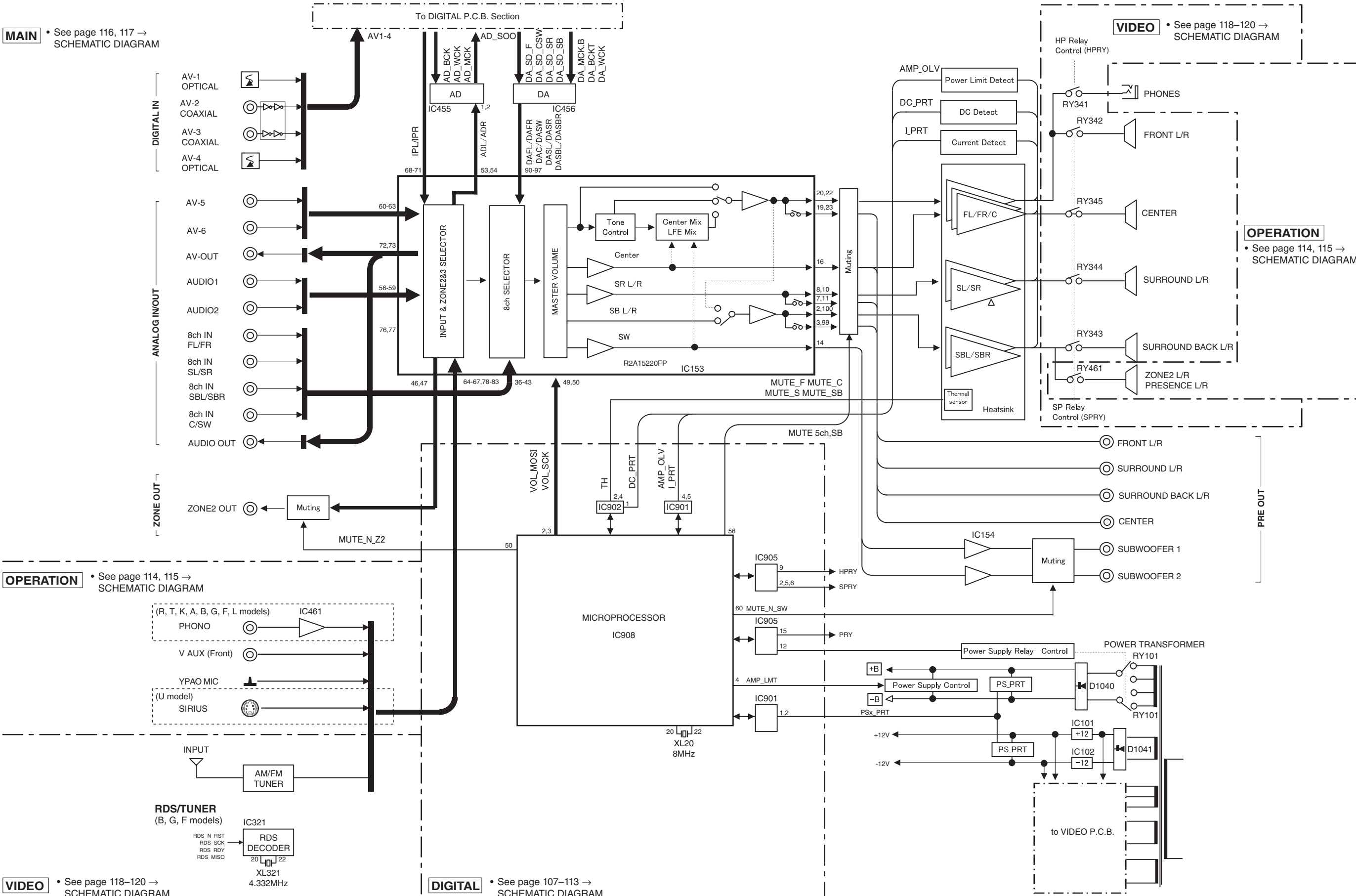
**VIDEO** • See page 118–120 → SCHEMATIC DIAGRAM

**OPERATION** • See page 114, 115 → SCHEMATIC DIAGRAM

**OPERATION** • See page 114, 115 → SCHEMATIC DIAGRAM

**DIGITAL** • See page 107–113 → SCHEMATIC DIAGRAM

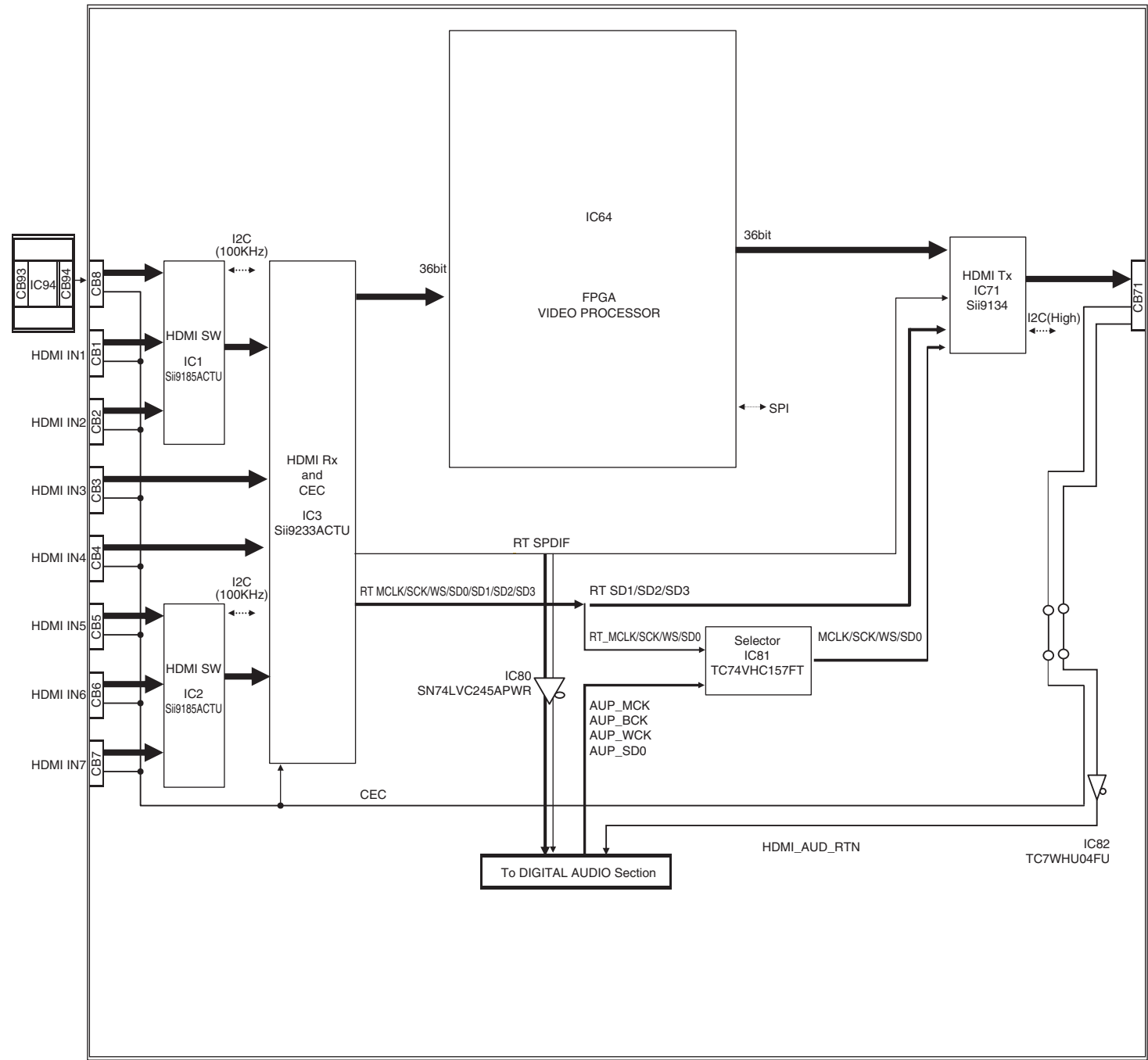
**VIDEO** • See page 118–120 → SCHEMATIC DIAGRAM



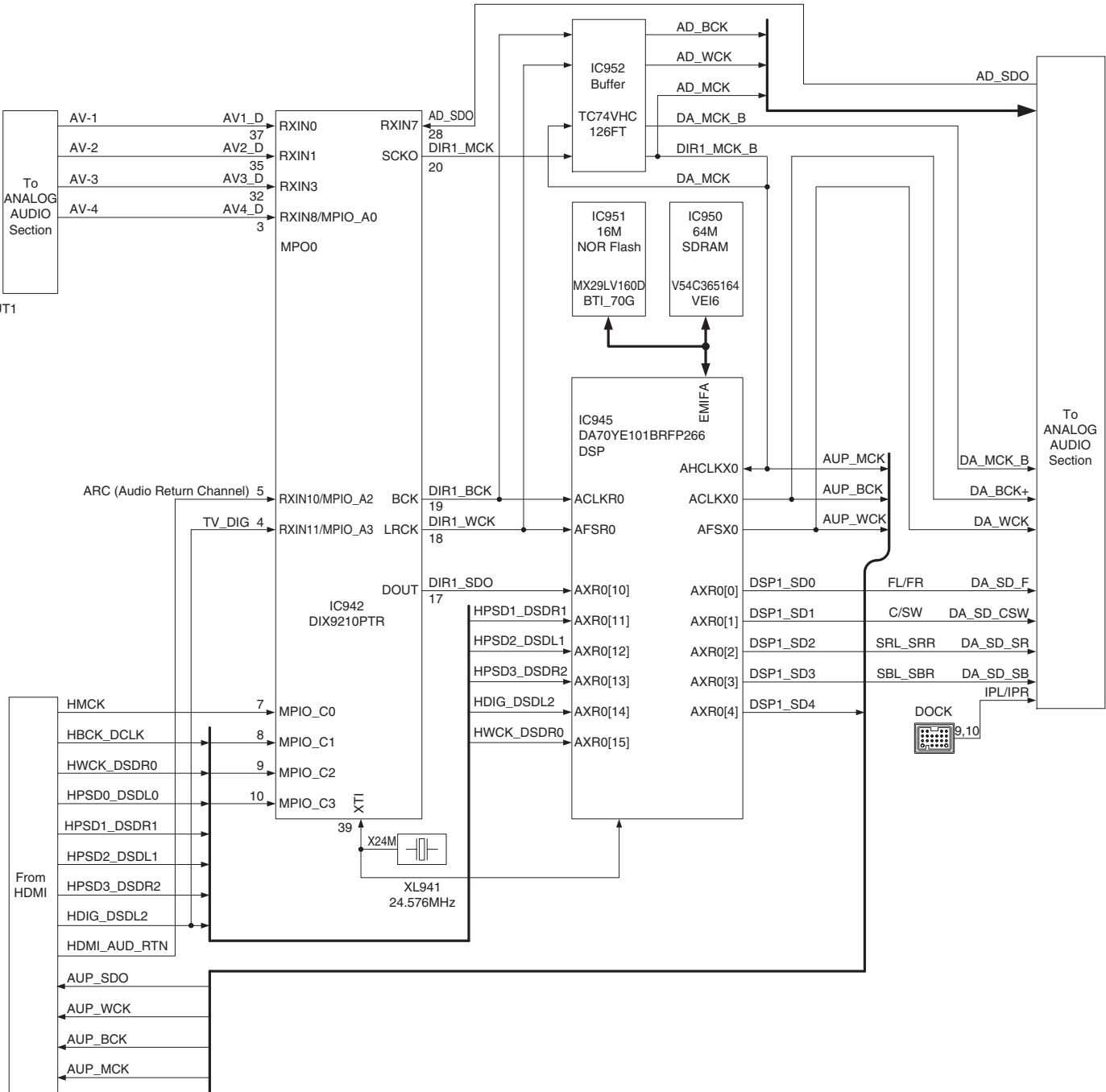
DIGITAL P.C.B. Section Block Diagram

**DIGITAL** • See page 107–113 →  
SCHEMATIC DIAGRAM

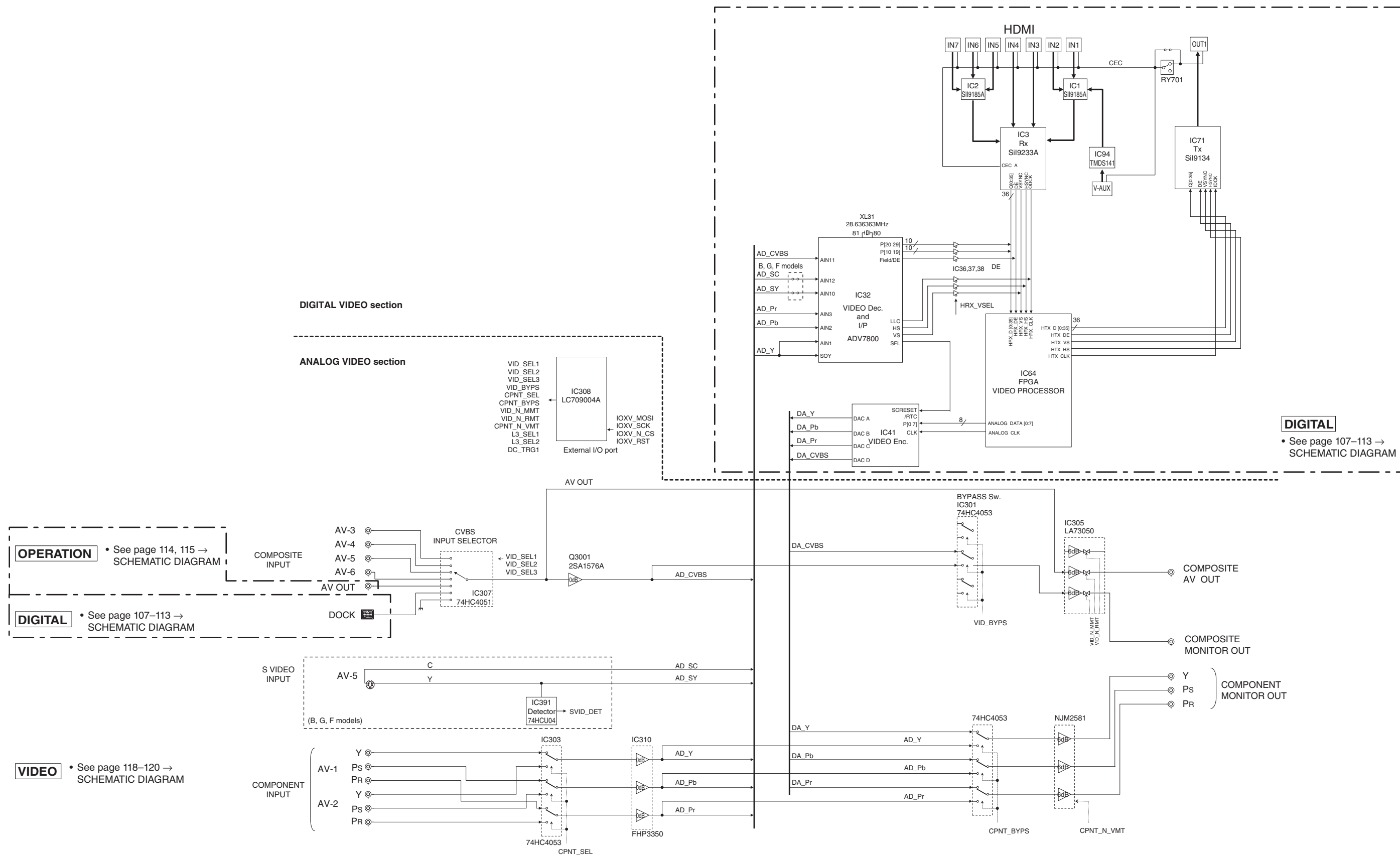
HDMI Section



DIGITAL AUDIO Section

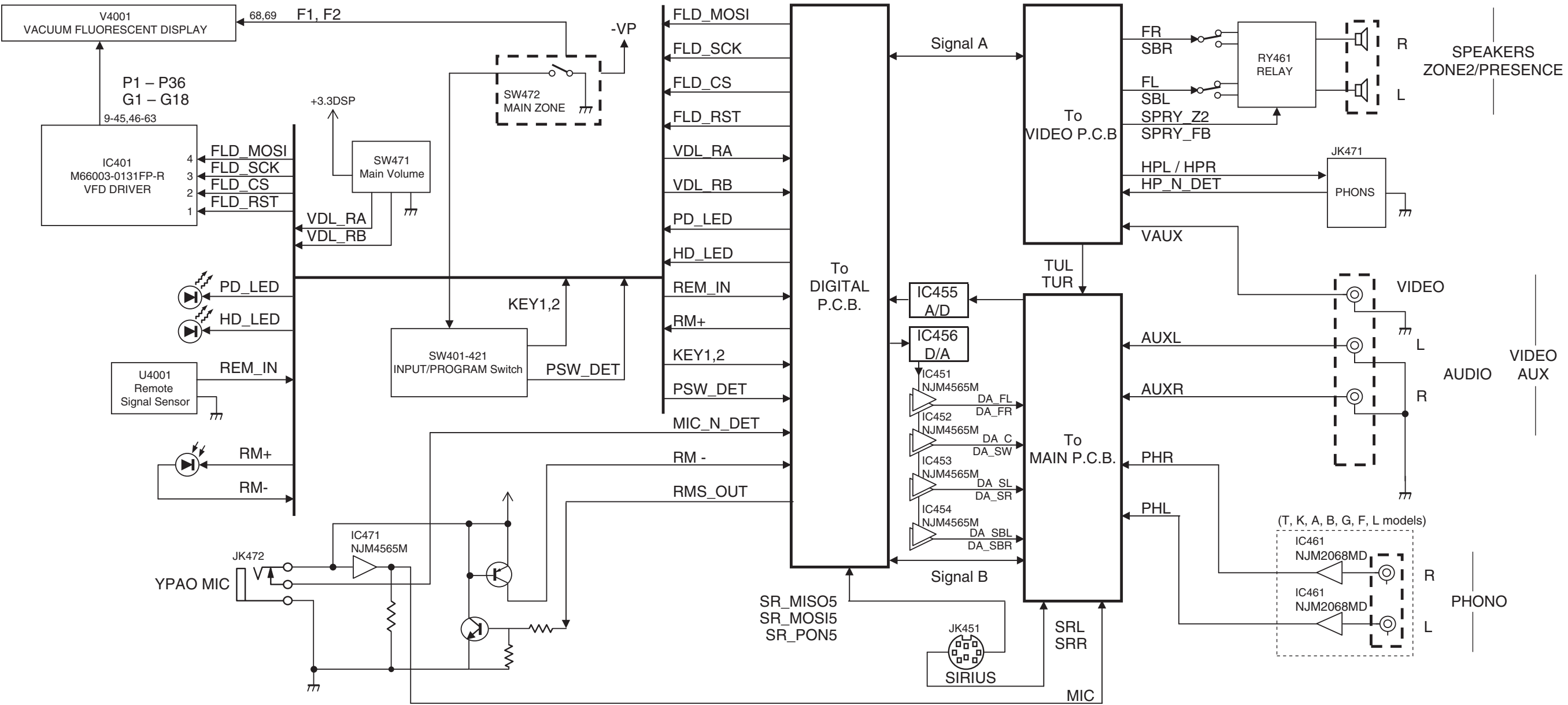


### VIDEO Section Block Diagram



OPERATION P.C.B. Section Block Diagram

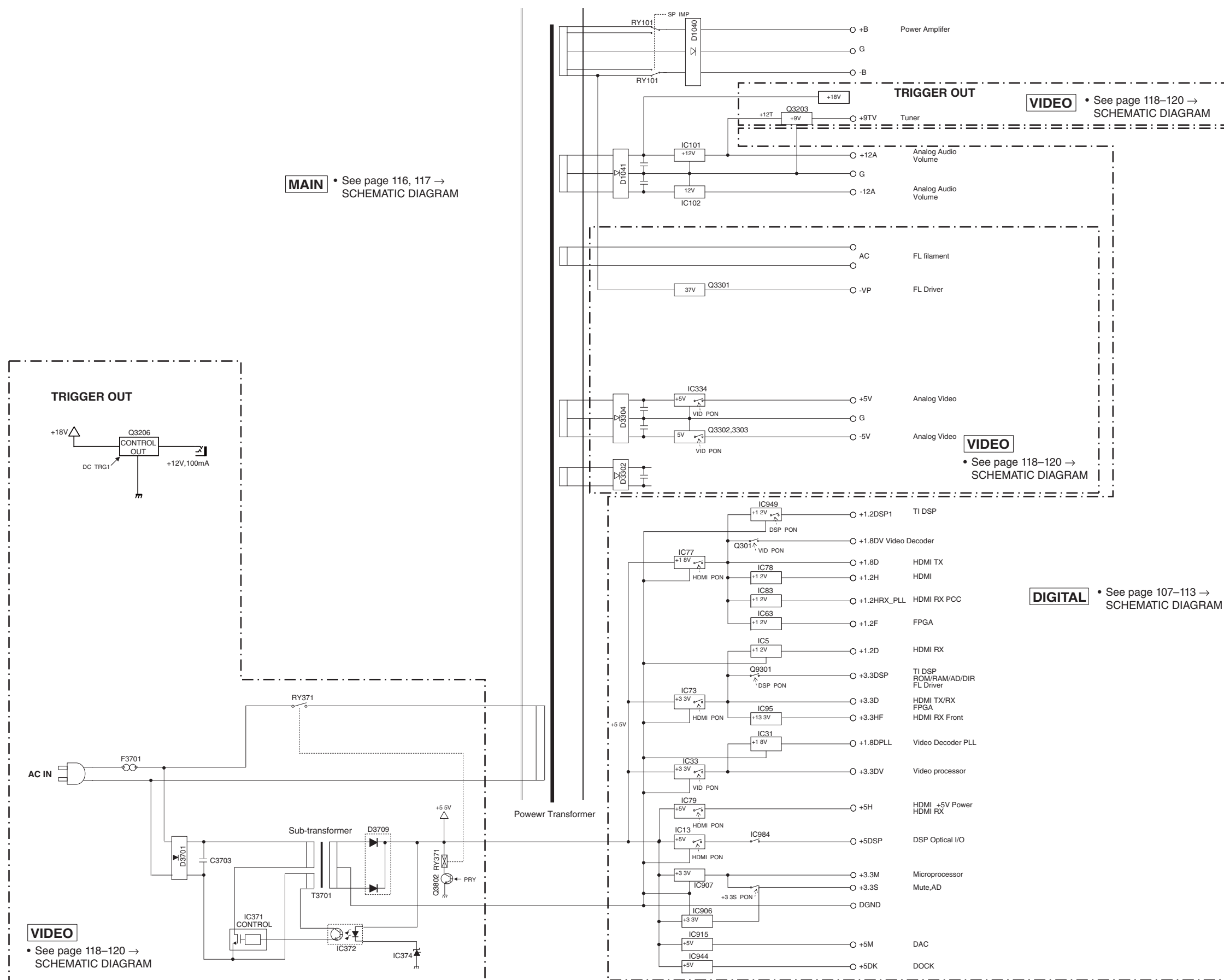
**OPERATION** • See page 114, 115 →  
SCHEMATIC DIAGRAM



Signal A  
L3\_DET  
CPNT\_DET  
IOXV\_N\_RST  
IOXV\_N\_CS  
IOXV\_SCK  
IOXV\_MOSI  
OSD\_N\_CS  
VID\_PON  
PS2\_PRT  
IPD\_PON  
XM\_PON  
IPV

Signal B  
AV1\_D – AV4\_D  
IPL /IPR  
MUTE\_F  
MUTE\_5CH

### Power Supply Section Block Diagram

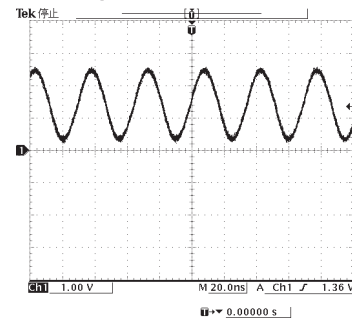




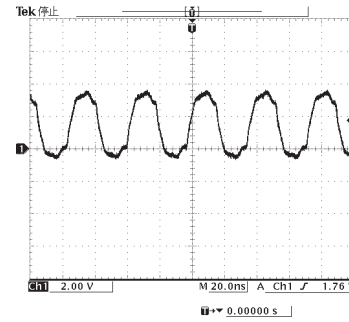
PRINTED CIRCUIT BOARDS

DIGITAL (1) P.C.B. (Side A)

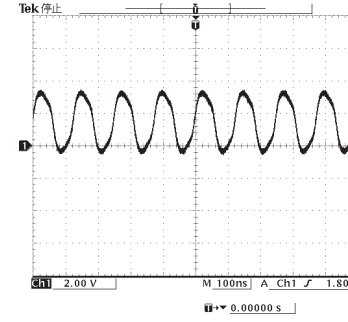
POINT (A) XL31 (Pin 81 of IC32)



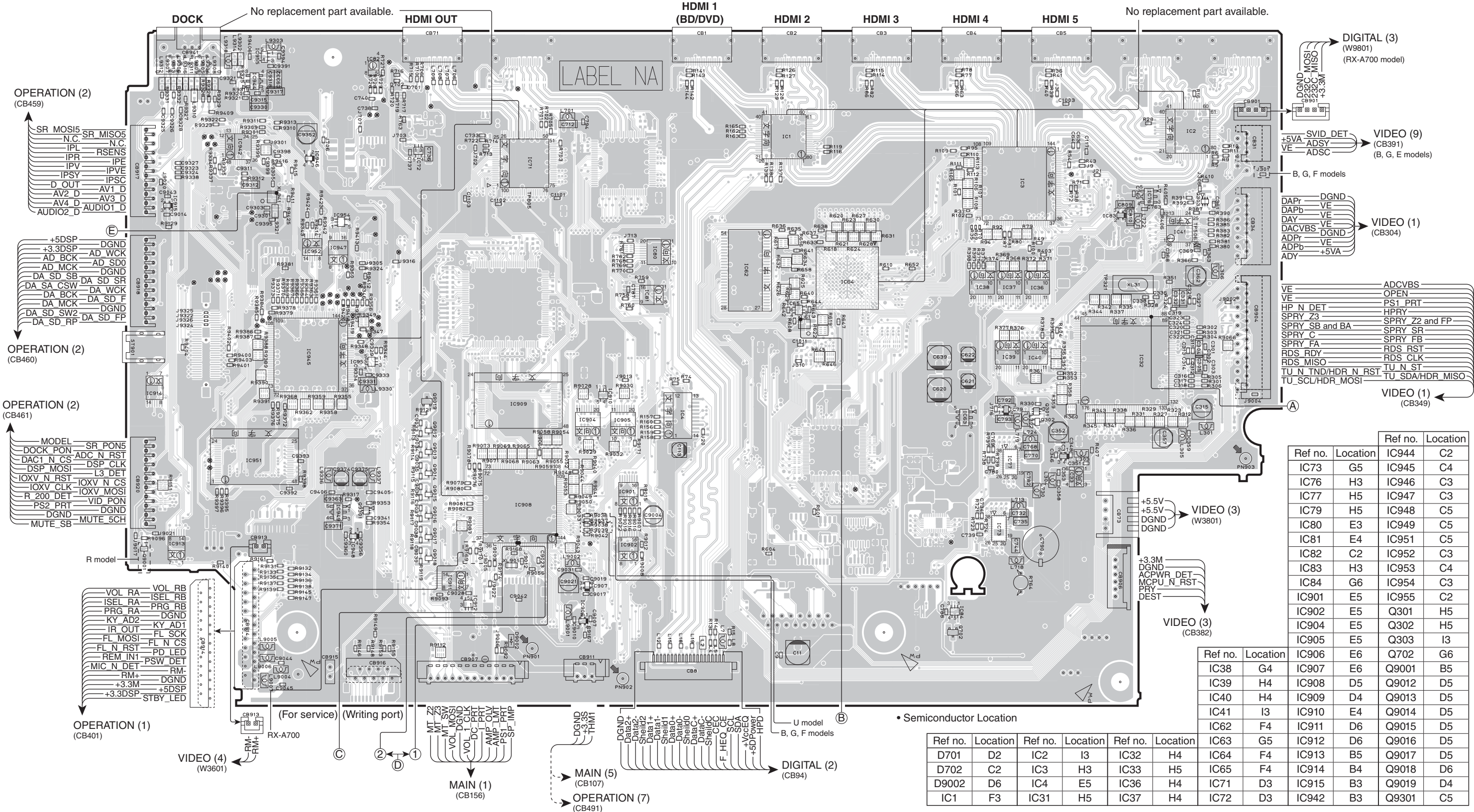
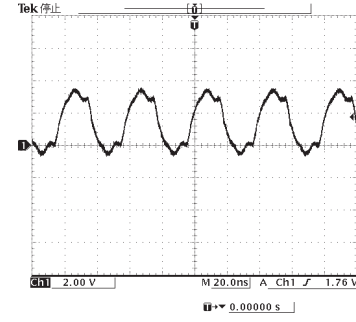
POINT (B) XL61 (Pin 3)



POINT (C) XL901 (Pin 20 of IC908)

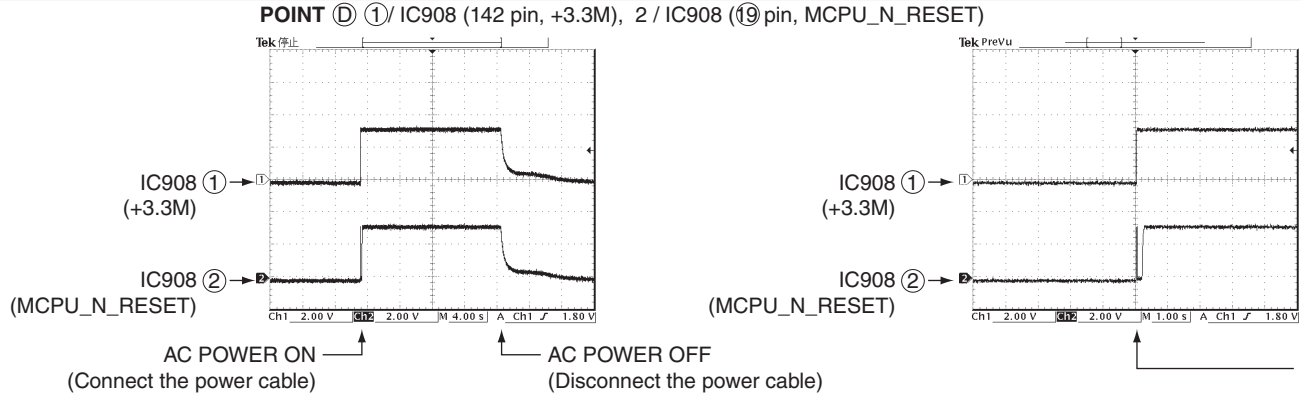


POINT (E) XL941 (Pin 3)

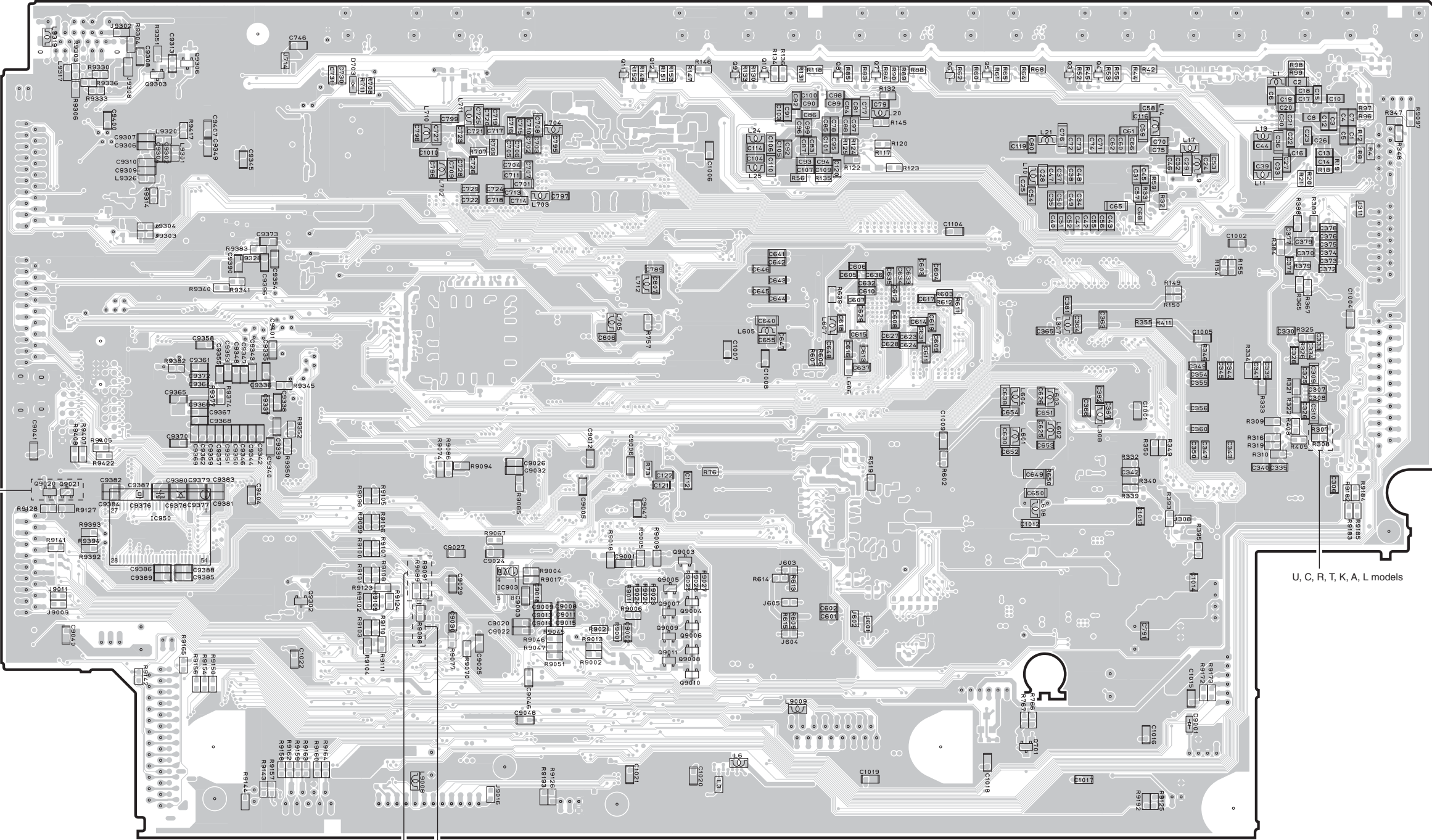




DIGITAL (1) P.C.B. (Side B)



RX-V667/HTR-6063/RX-A700



• Semiconductor Location

Ref no.	Location
D703	C2
D9001	H6
IC903	D5
IC950	B5
Q3	G2
Q4	G2
Q5	G2
Q6	F2
Q7	F2
Q8	F2
Q9	E2
Q10	E2
Q11	E2
Q12	E2
Q701	G6
Q9003	E5
Q9004	E5
Q9005	E5
Q9006	E5
Q9007	E5
Q9008	E5
Q9009	E5
Q9010	E6
Q9011	E6
Q9020	A5
Q9021	B5
Q9302	C5
Q9303	B2
Q9306	B2



1

2

3

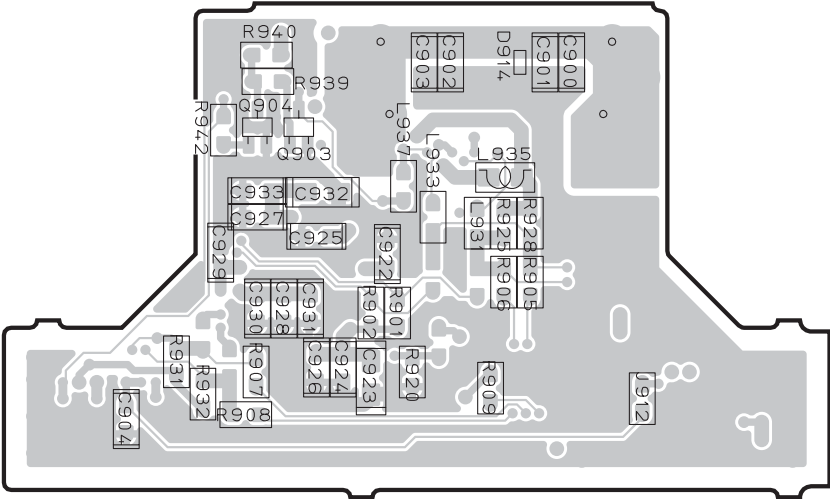
4

5

6

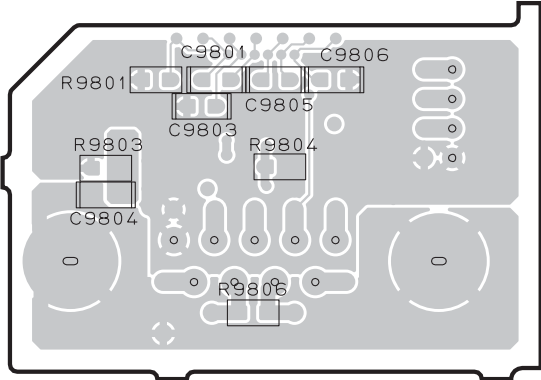
7

DIGITAL (2) P.C.B. (Side B)



DIGITAL (3) P.C.B. (Side B)

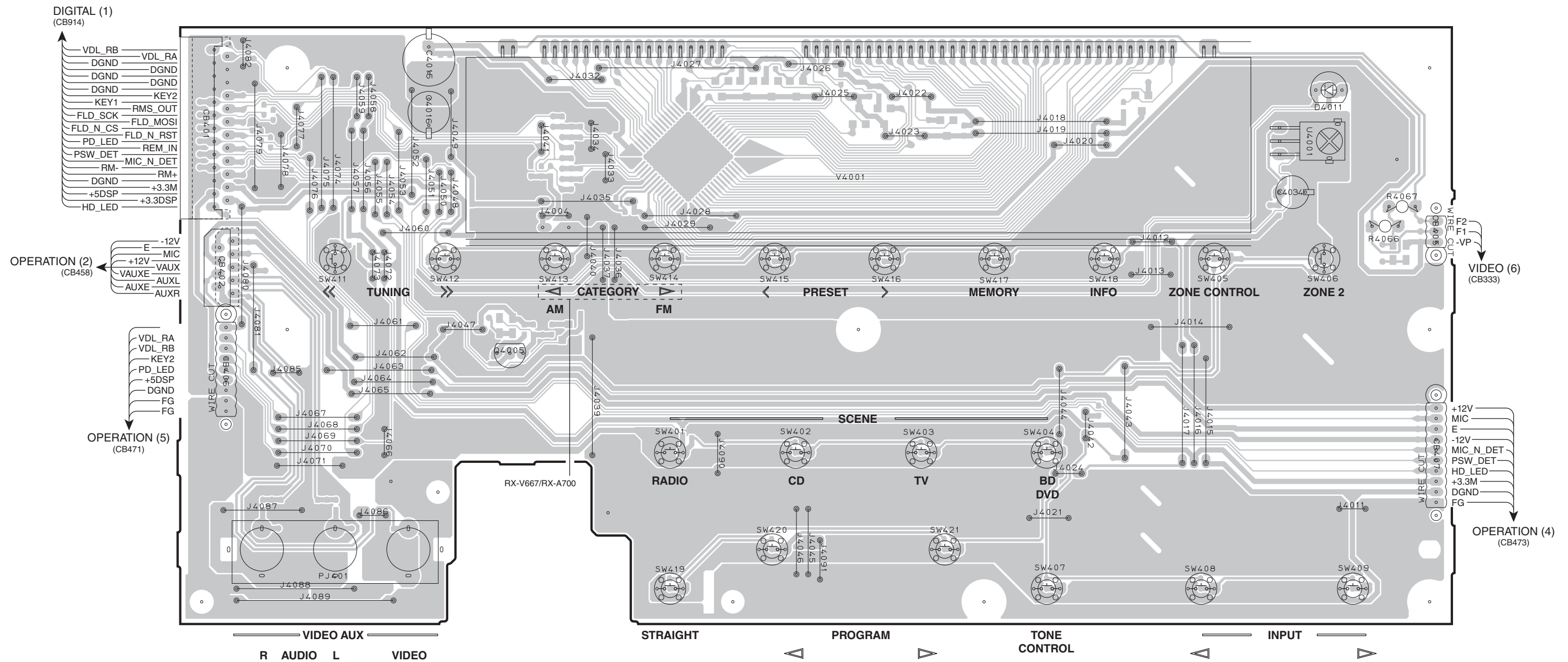
RX-A700 model



• Semiconductor Location

Ref no.	Location
D914	D3
Q903	C3
Q904	C3

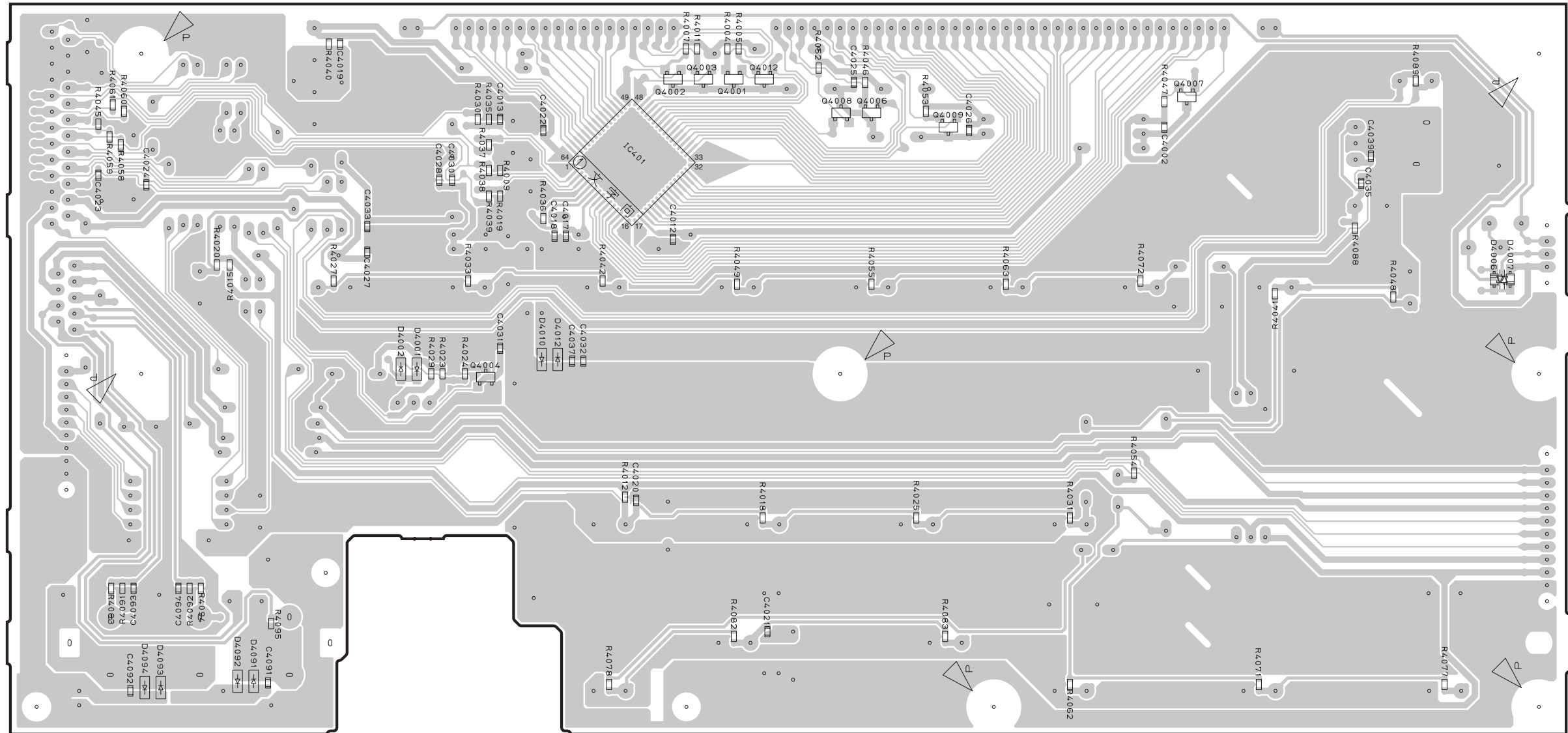
**OPERATION (1) P.C.B.** (Side A)



- Semiconductor Location

Ref no.	Location
D4011	I3
Q4005	D4

**OPERATION (1) P.C.B.**

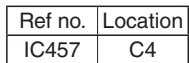


- Semiconductor Location

Ref no.	Location	Ref no.	Location	Ref no.	Location
D4001	D4	D4092	C6	Q4004	D4
D4002	D4	D4093	B6	Q4006	F3
D4006	I4	D4094	B6	Q4007	H3
D4007	I4	IC401	E3	Q4008	F3
D4010	D4	Q4001	E3	Q4009	F3
D4012	D4	Q4002	E3	Q4012	E3
D4091	C6	Q4003	E3		

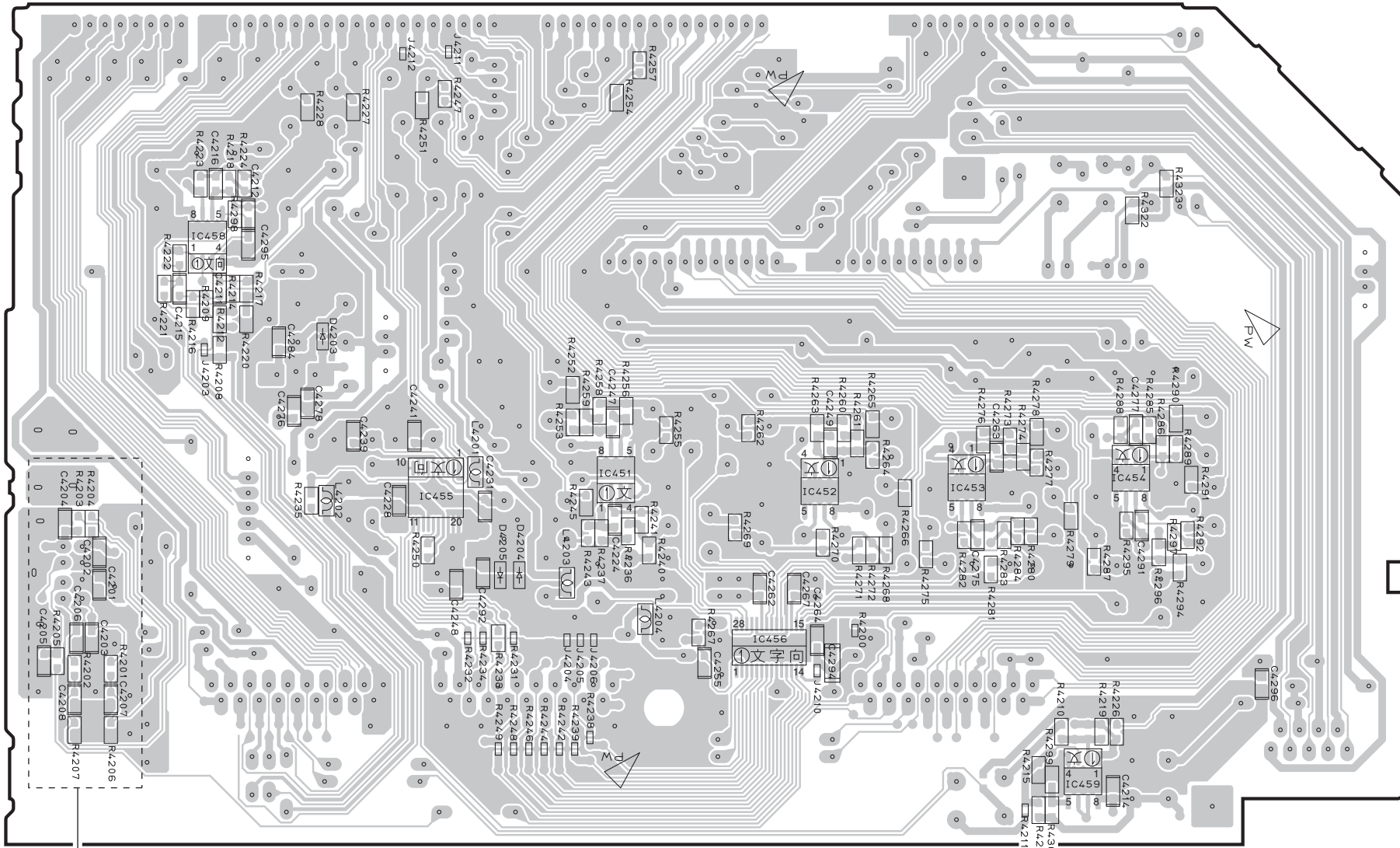


**SIRIUS**



## OPERATION (2) P.C.B.

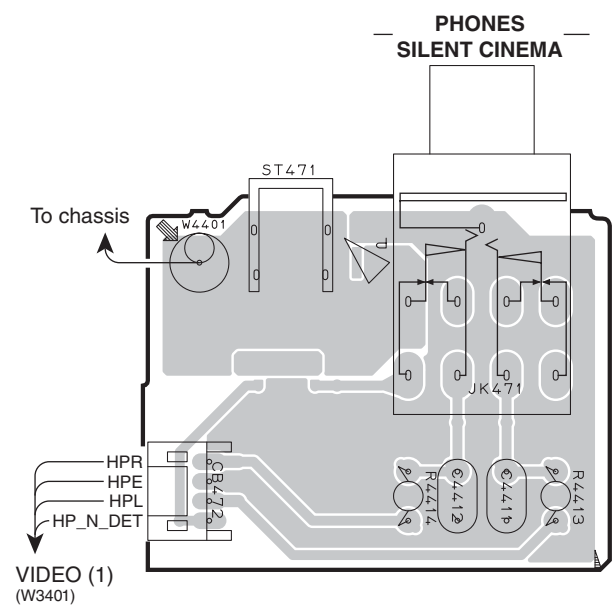
(Side B)



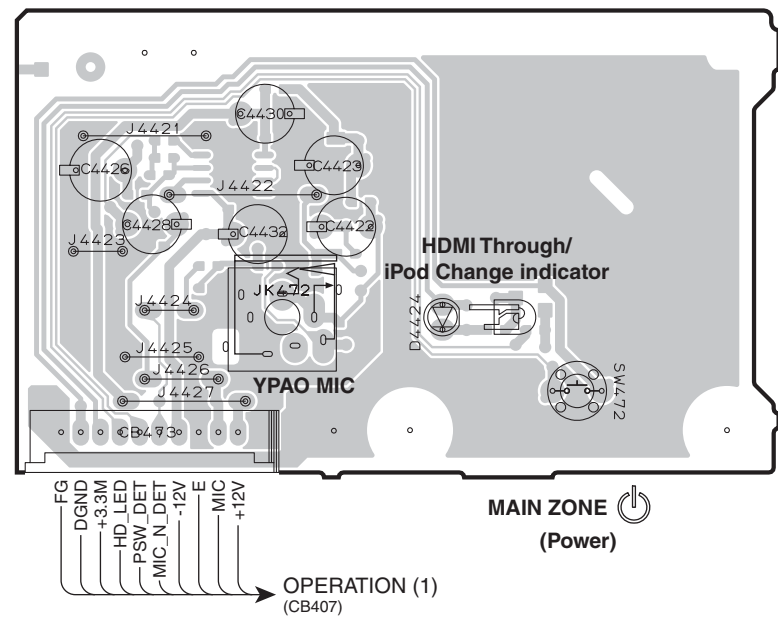
- Semiconductor Location

Ref no.	Location
D4203	D4
D4204	D5
D4205	D5
IC451	E4
IC452	F4
IC453	F4
IC454	G4
IC455	D4
IC456	E5
IC458	C3
IC459	G6

OPERATION (3) P.C.B. (Side A)



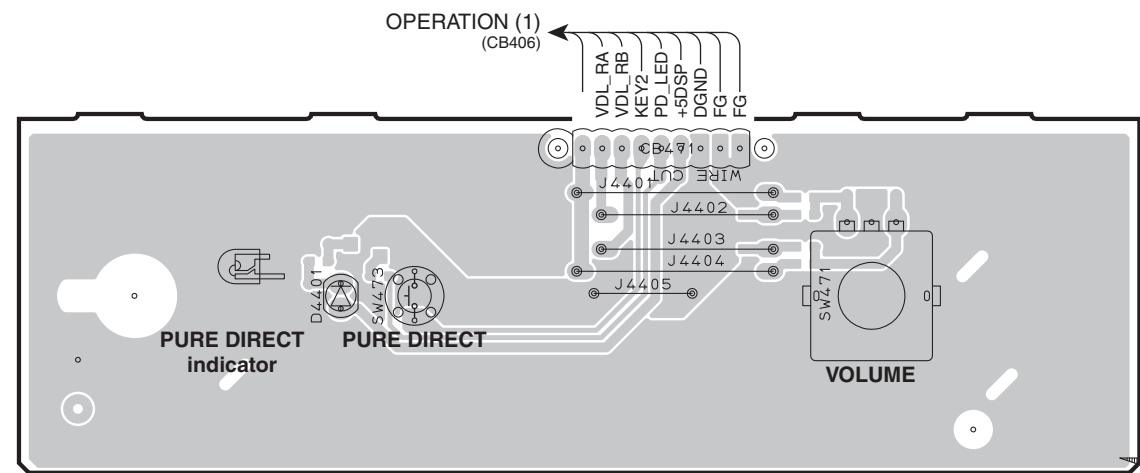
OPERATION (4) P.C.B. (Side A)



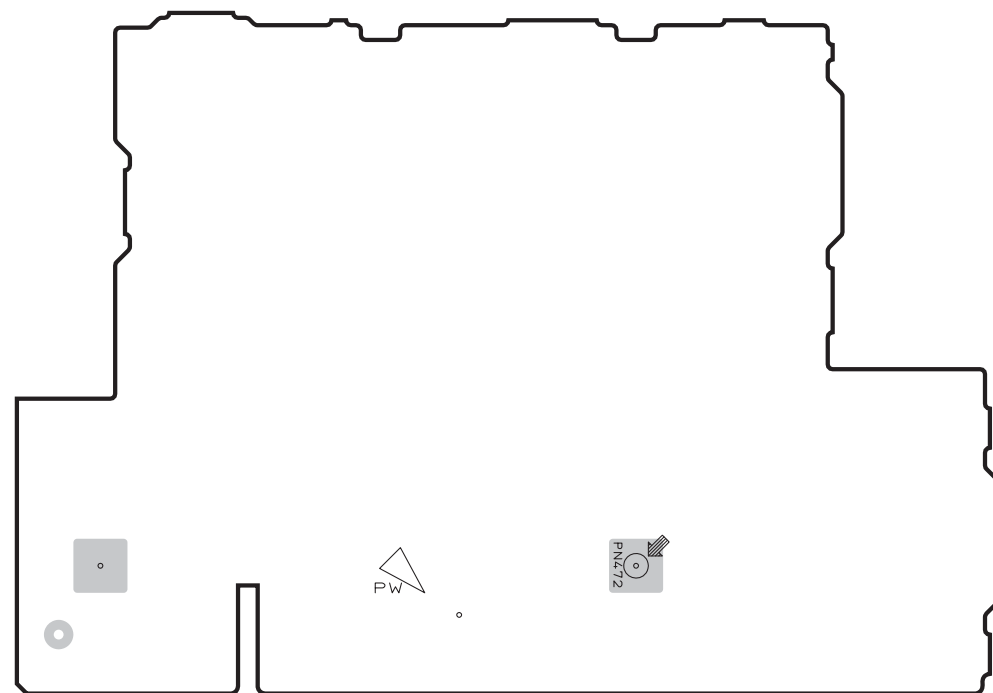
• Semiconductor Location

Ref no.	Location
D4401	C6
D4424	H3

OPERATION (5) P.C.B. (Side A)

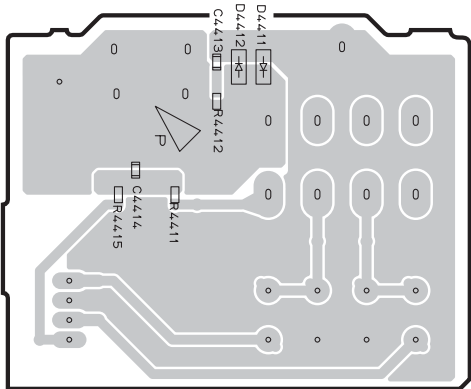


OPERATION (6) P.C.B. (Side A)

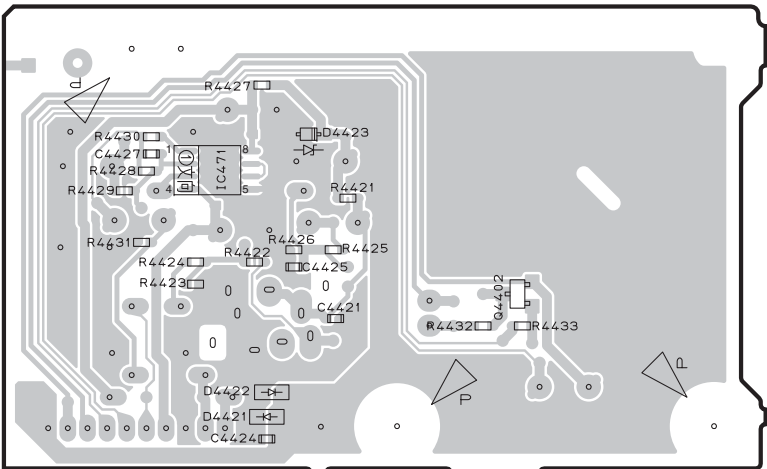




OPERATION (3) P.C.B. (Side B)



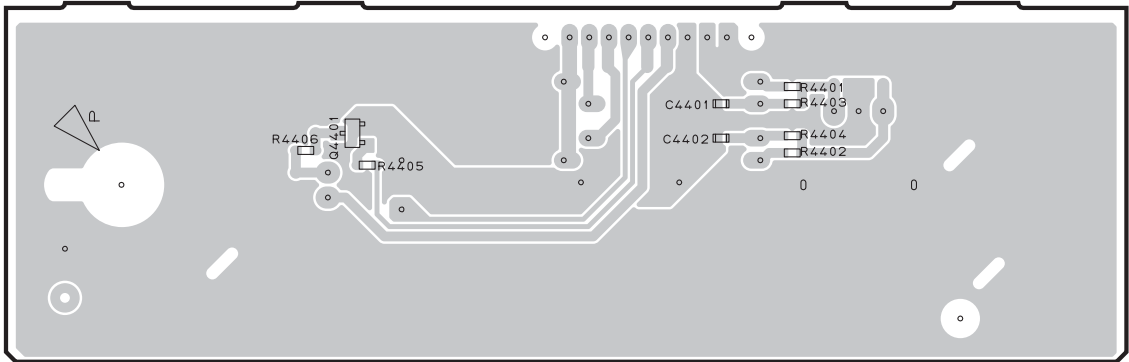
OPERATION (4) P.C.B. (Side B)



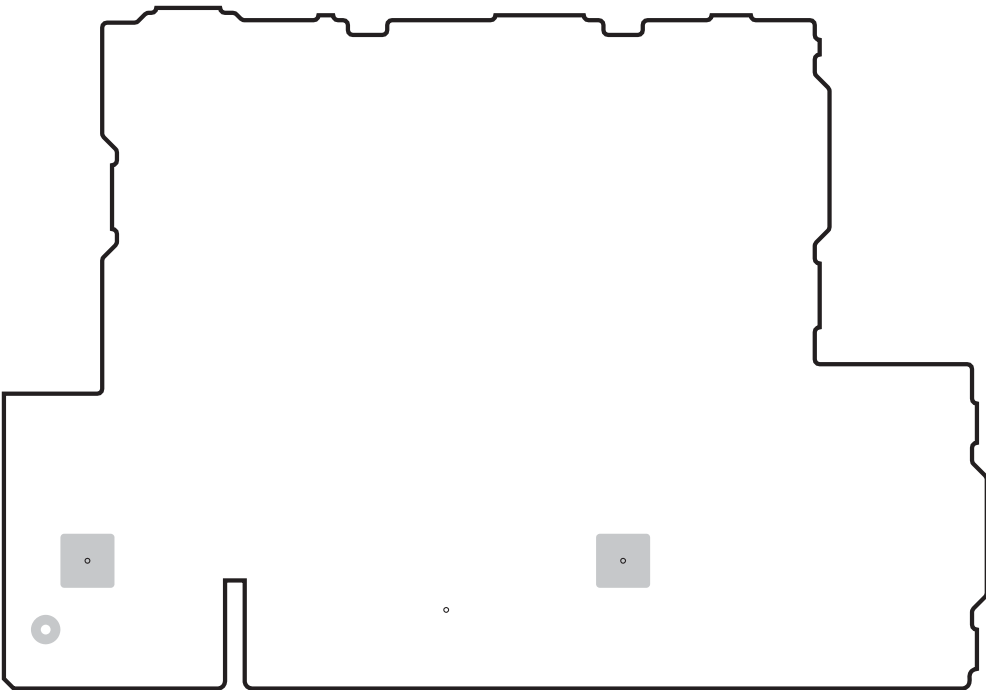
• Semiconductor Location

Ref no.	Location
D4411	C2
D4412	C2
D4421	H3
D4422	H3
D4423	H2
IC471	G2
Q4401	C6
Q4402	H3

OPERATION (5) P.C.B. (Side B)

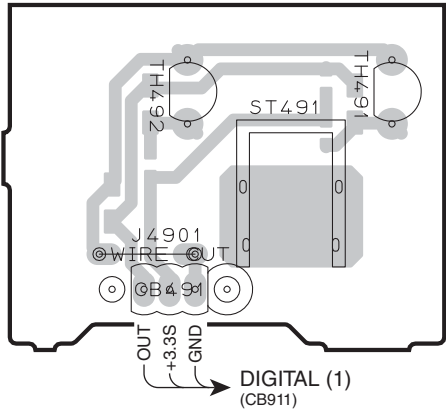


OPERATION (6) P.C.B. (Side B)

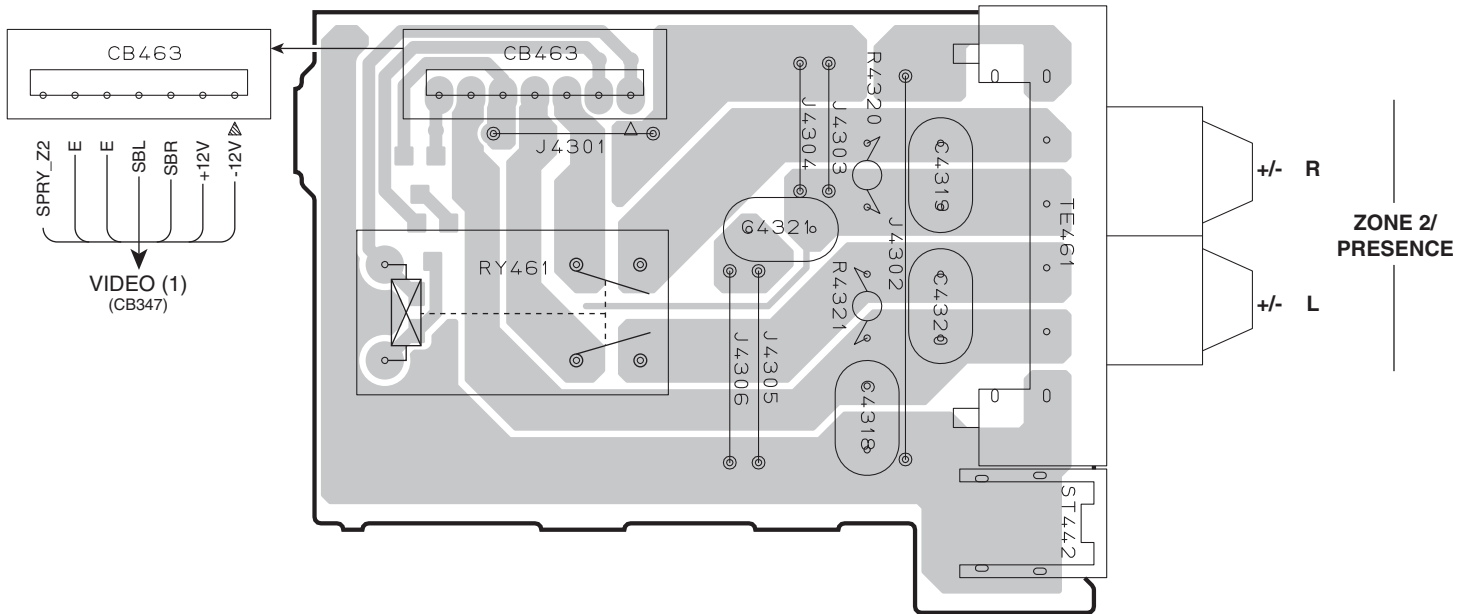


OPERATION (7) P.C.B. (Side A)

C model

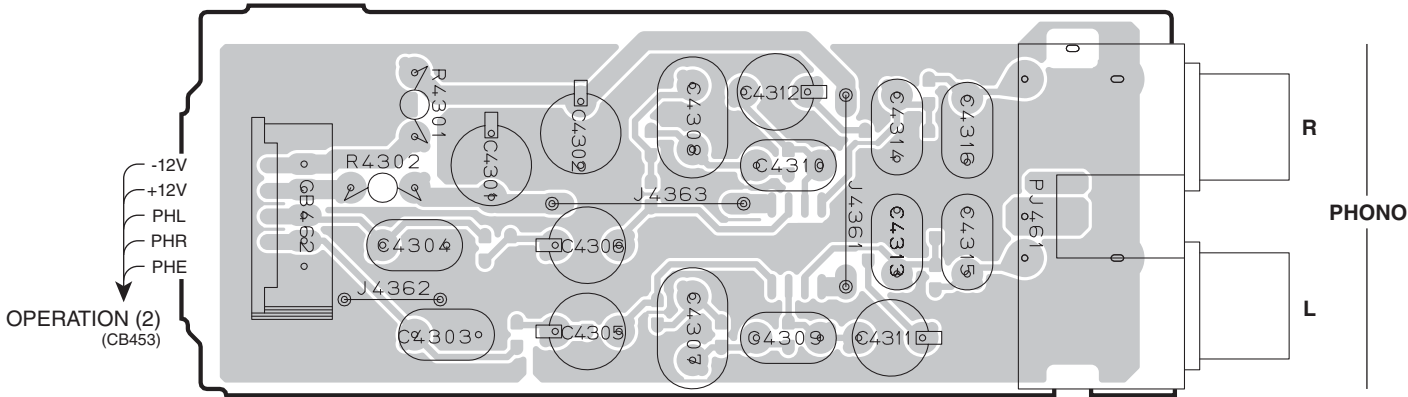


OPERATION (8) P.C.B. (Side A)

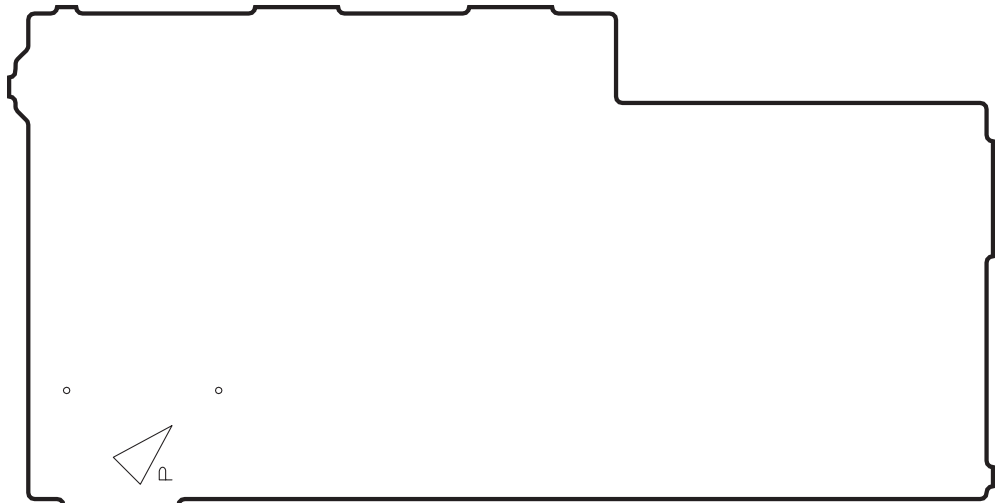


OPERATION (9) P.C.B. (Side A)

R, T, K, A, B, G, F, L models



OPERATION (10) P.C.B. (Side A)

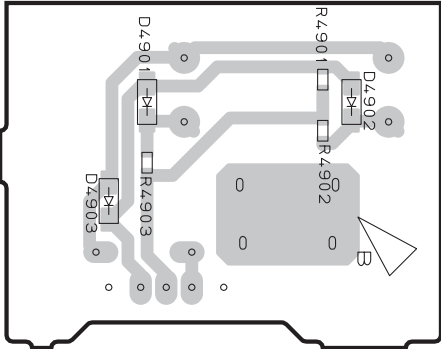


1

OPERATION (7) P.C.B. (Side B)

C model

2



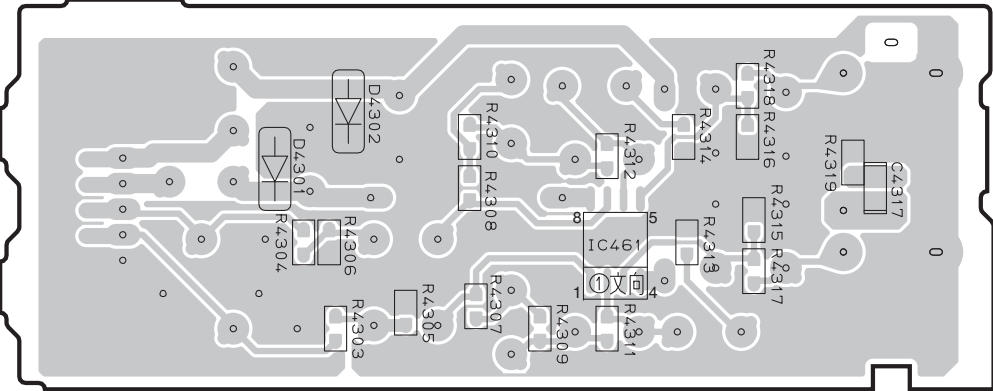
3

4

OPERATION (9) P.C.B. (Side B)

R, T, K, A, B, G, F, L models

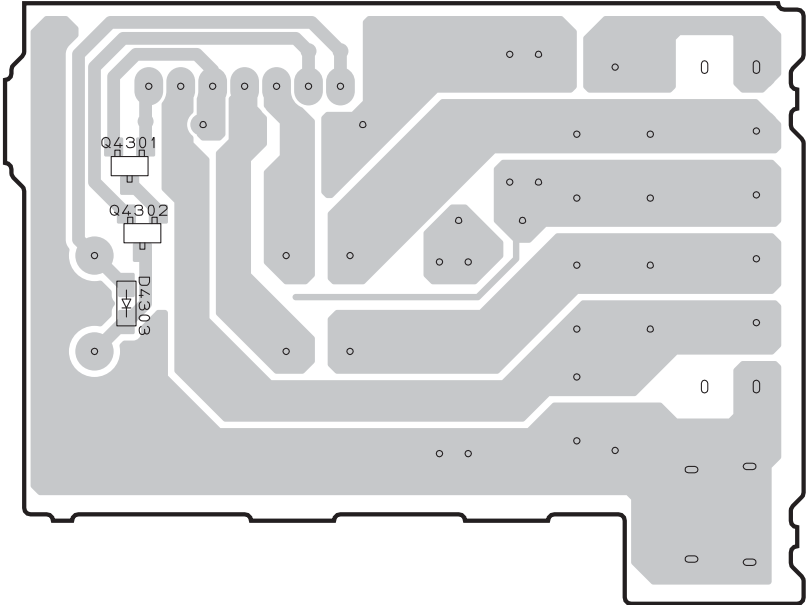
5



6

7

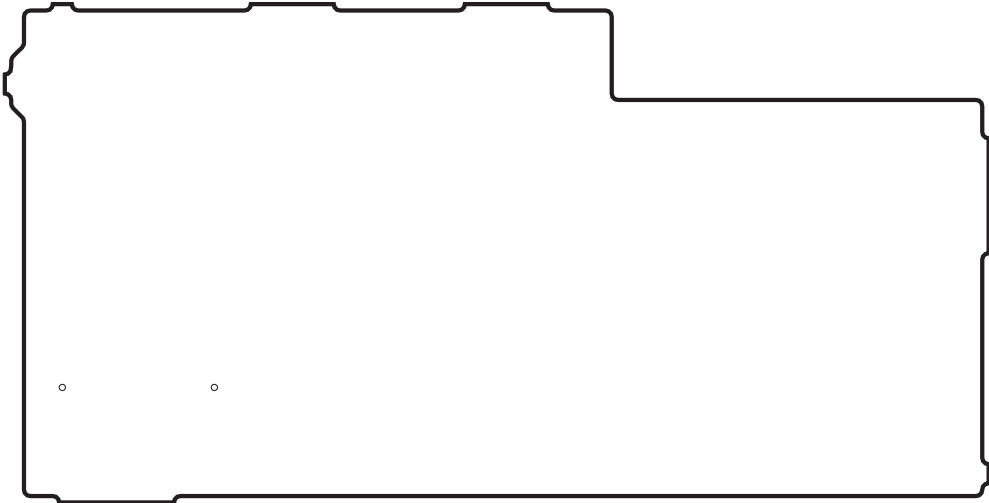
OPERATION (8) P.C.B. (Side B)



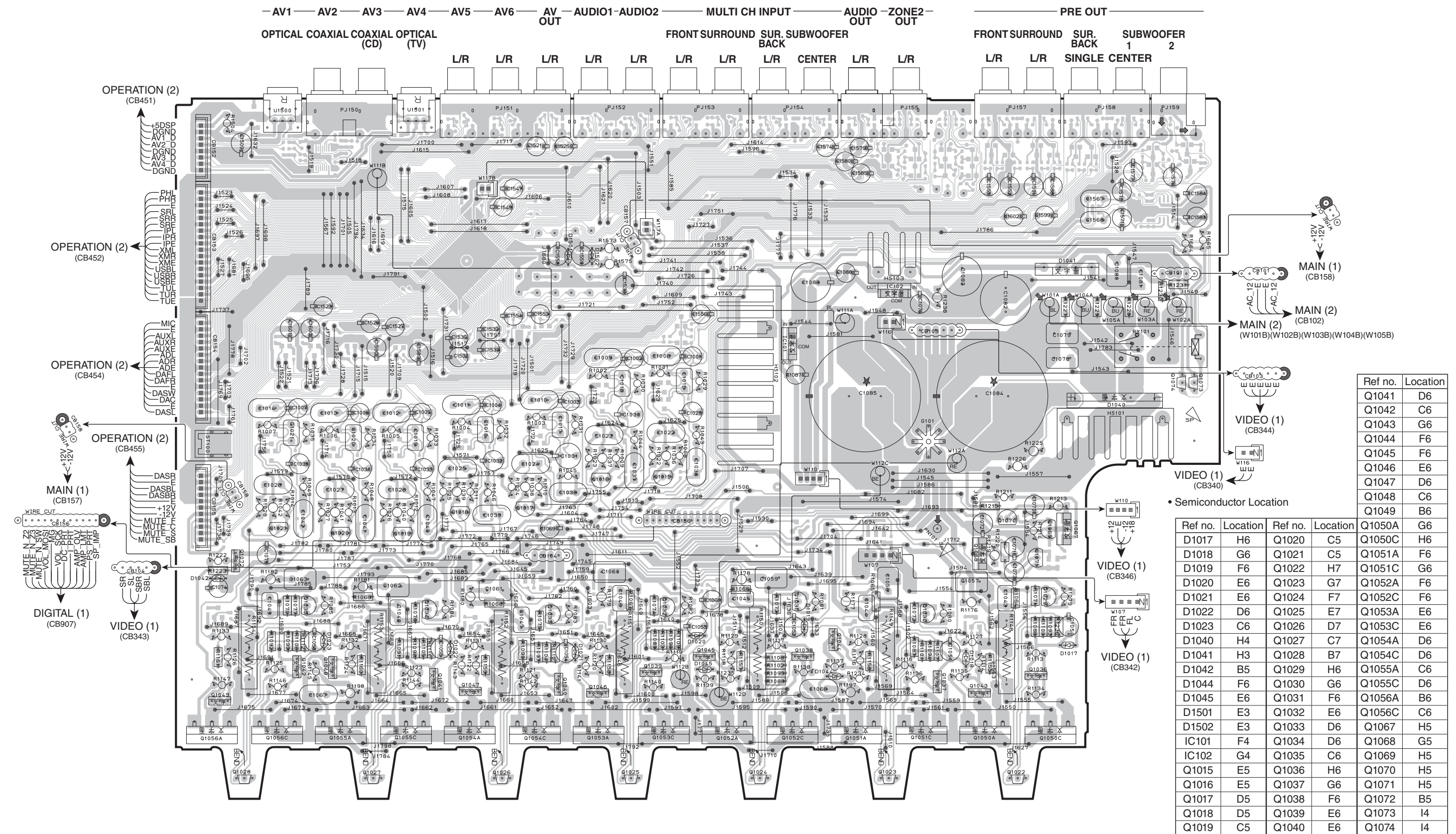
• Semiconductor Location

Ref no.	Location
D4301	C6
D4302	C6
D4303	G3
D4901	B2
D4902	C2
D4903	B3
IC461	D6
Q4301	G2
Q4302	G3

OPERATION (10) P.C.B. (Side A)

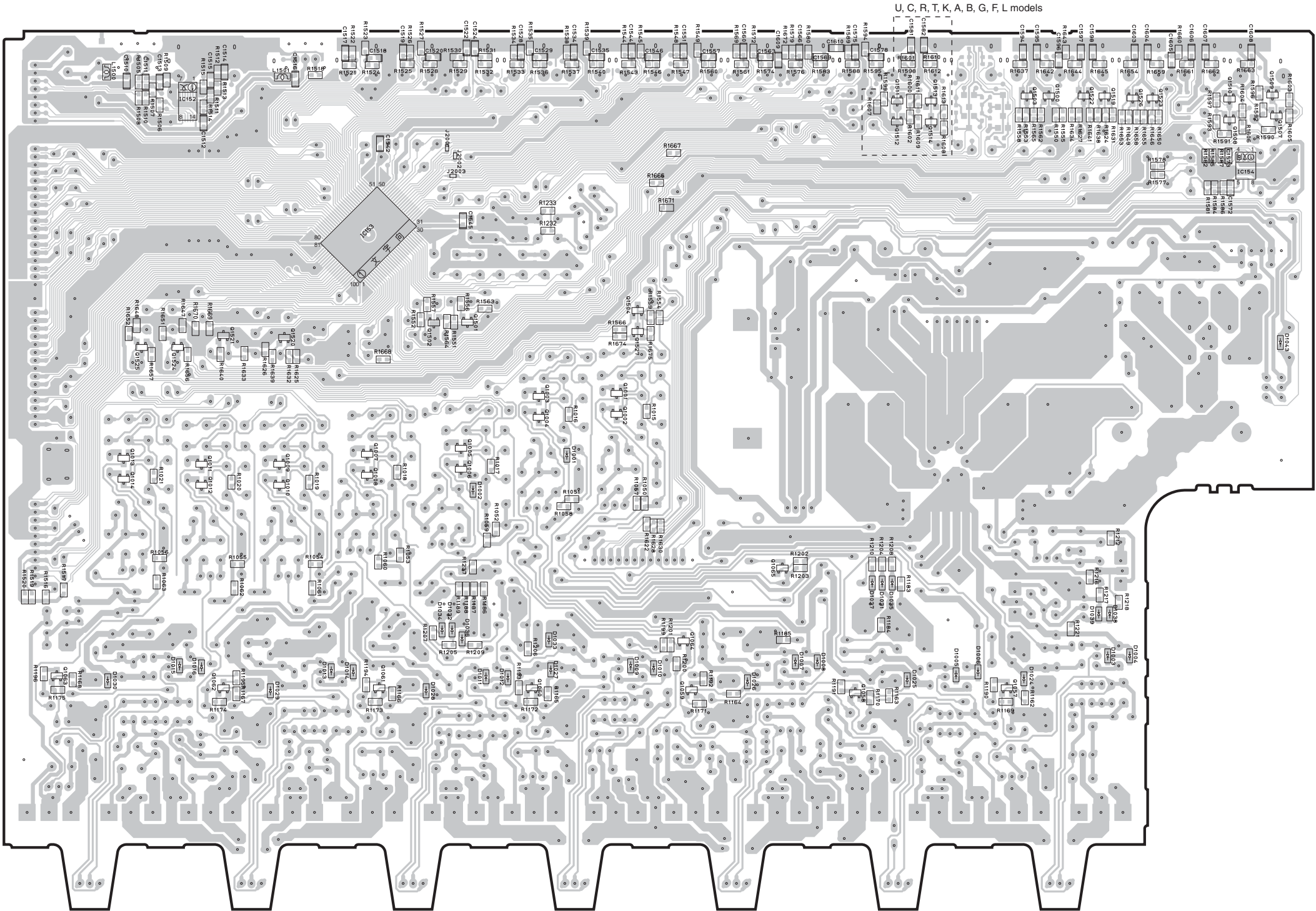


**MAIN (1) P.C.B.** (Side A)





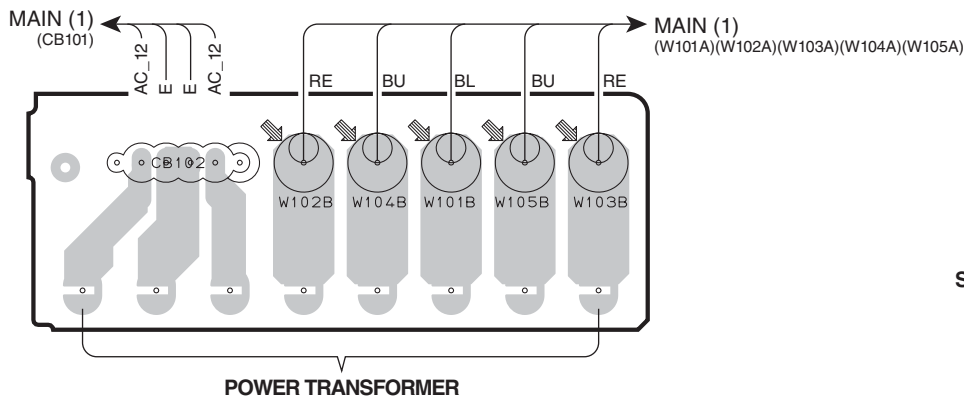
MAIN (1) P.C.B. (Side B)



• Semiconductor Location

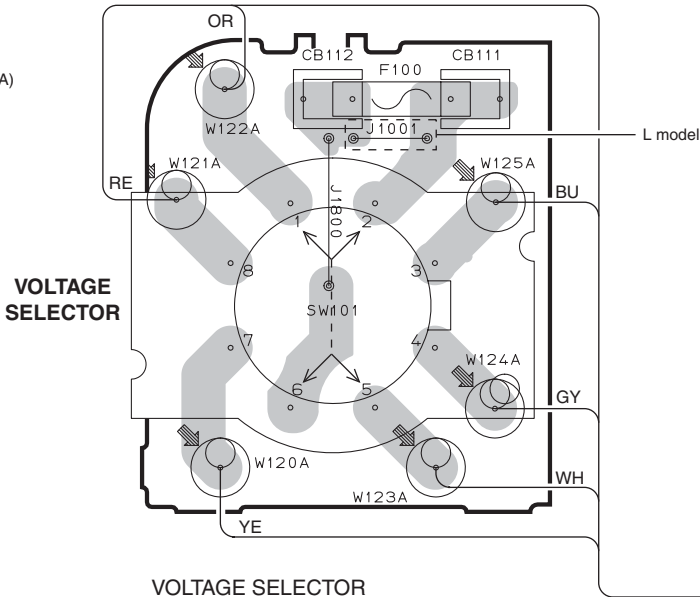
Ref no.	Location	Ref no.	Location
D1001	E4	Q1006	D5
D1002	D5	Q1007	D4
D1003	H6	Q1008	D5
D1004	H6	Q1009	C5
D1005	G6	Q1010	C5
D1006	G6	Q1011	C5
D1007	F6	Q1012	C5
D1008	F6	Q1013	B5
D1009	E6	Q1014	B5
D1010	E6	Q1015	G6
D1011	D6	Q1016	F6
D1012	E6	Q1017	E6
D1013	D6	Q1018	E6
D1014	D6	Q1019	D6
D1015	C6	Q1020	C6
D1016	C6	Q1021	B6
D1024	G6	Q1022	E5
D1025	G6	Q1023	F5
D1026	F6	Q1024	G3
D1027	E6	Q1025	D4
D1028	D6	Q1026	D4
D1029	C6	Q1027	G3
D1030	B6	Q1028	E4
D1031	G5	Q1029	I3
D1032	D5	Q1030	H3
D1033	E5	Q1031	I3
D1034	D5	Q1032	H3
D1035	G5	Q1033	G3
D1036	D5	Q1034	G3
D1037	F5	Q1035	G3
D1038	H5	Q1036	G3
D1039	H5	Q1037	H3
D1043	I4	Q1038	C4
IC152	C3	Q1039	C4
IC153	D3	Q1040	H3
IC154	H3	Q1041	H3
Q1001	E4	Q1042	C4
Q1002	E4	Q1043	C4
Q1003	E4	Q1044	H3
Q1004	E4	Q1045	E4
Q1005	D4		

MAIN (2) P.C.B. (Side A)



MAIN (3) P.C.B. (Side A)

R, L models

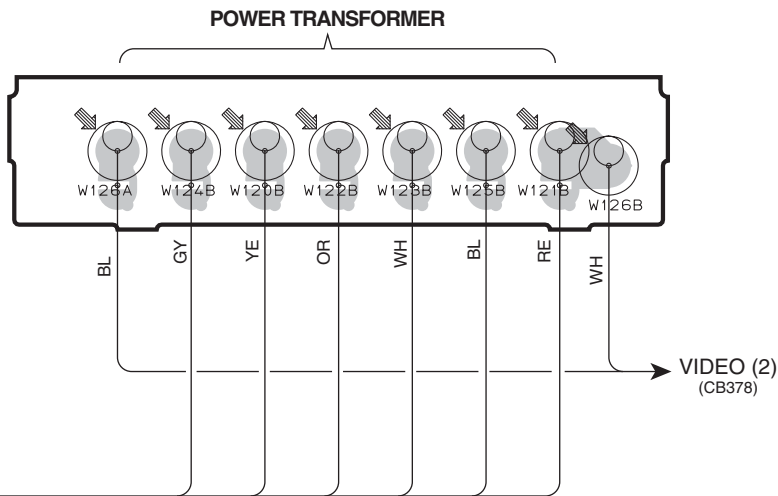


VOLTAGE SELECTOR

230-240V	1-2/5-6	R, L models
220V	2-3/6-7	R, L models
110V	3-4/7-8	R model
120V	4-5/8-1	R model

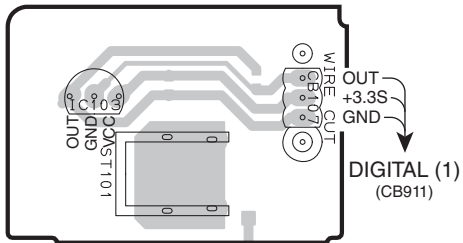
MAIN (4) P.C.B. (Side A)

R, L models



MAIN (5) P.C.B. (Side A)

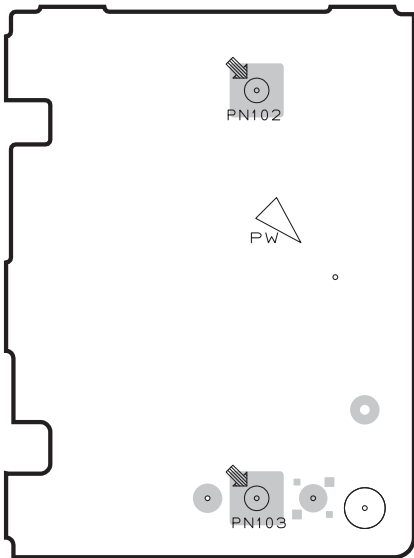
U, R, T, K, A, B, G, F, L models



• Semiconductor Location

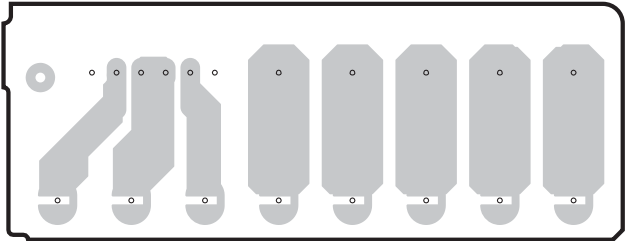
Ref no.	Location
IC103	B5

MAIN (6) P.C.B. (Side A)



1

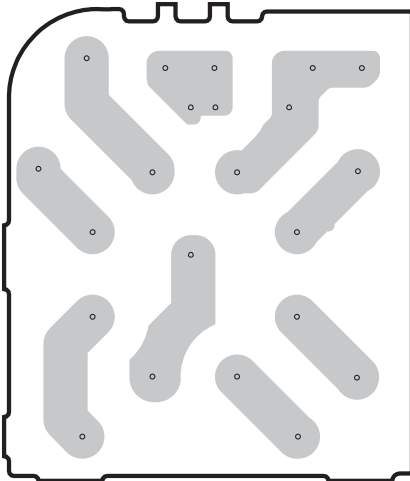
**MAIN (2) P.C.B.** (Side B)



2

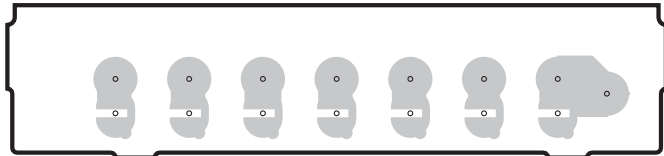
**MAIN (3) P.C.B.** (Side B)

R, L models



**MAIN (4) P.C.B.** (Side B)

R, L models

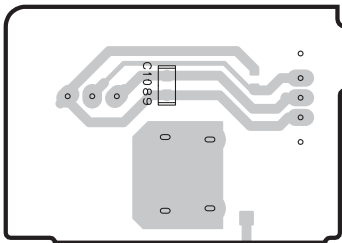


3

4

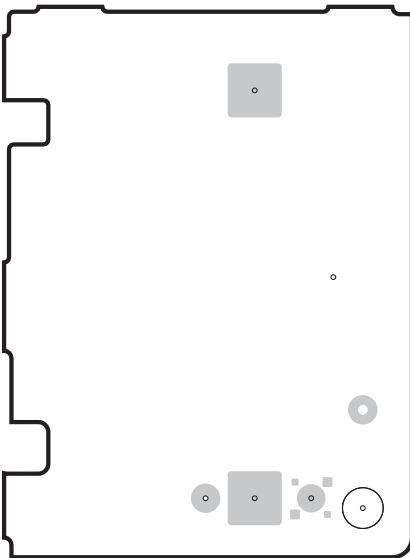
**MAIN (5) P.C.B.** (Side B)

U, R, T, K, A, B, G, F, L models



5

**MAIN (6) P.C.B.** (Side B)



6

7

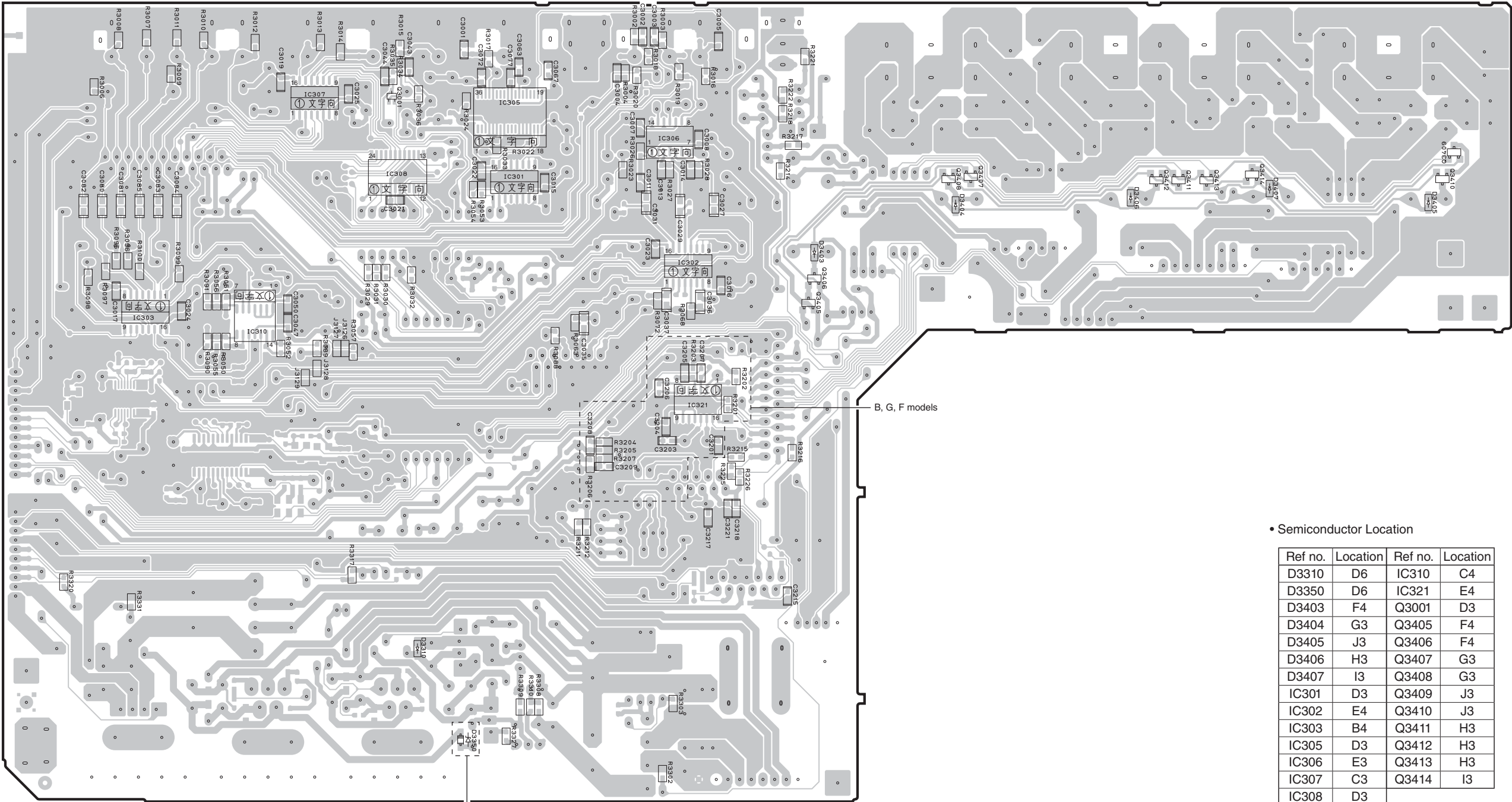
(Side A)



Ref. no.	Location
D3201	D5
D3202	E5
D3302	C6
D3304	E6
D3320	B6
IC334	D6
Q3201	E5
Q3203	E5
Q3204	F3
Q3205	F3
Q3206	F3
Q3207	F3
Q3302	E6
Q3303	D6
Q3304	E6
Q3305	E6



VIDEO (1) P.C.B. (Side B)



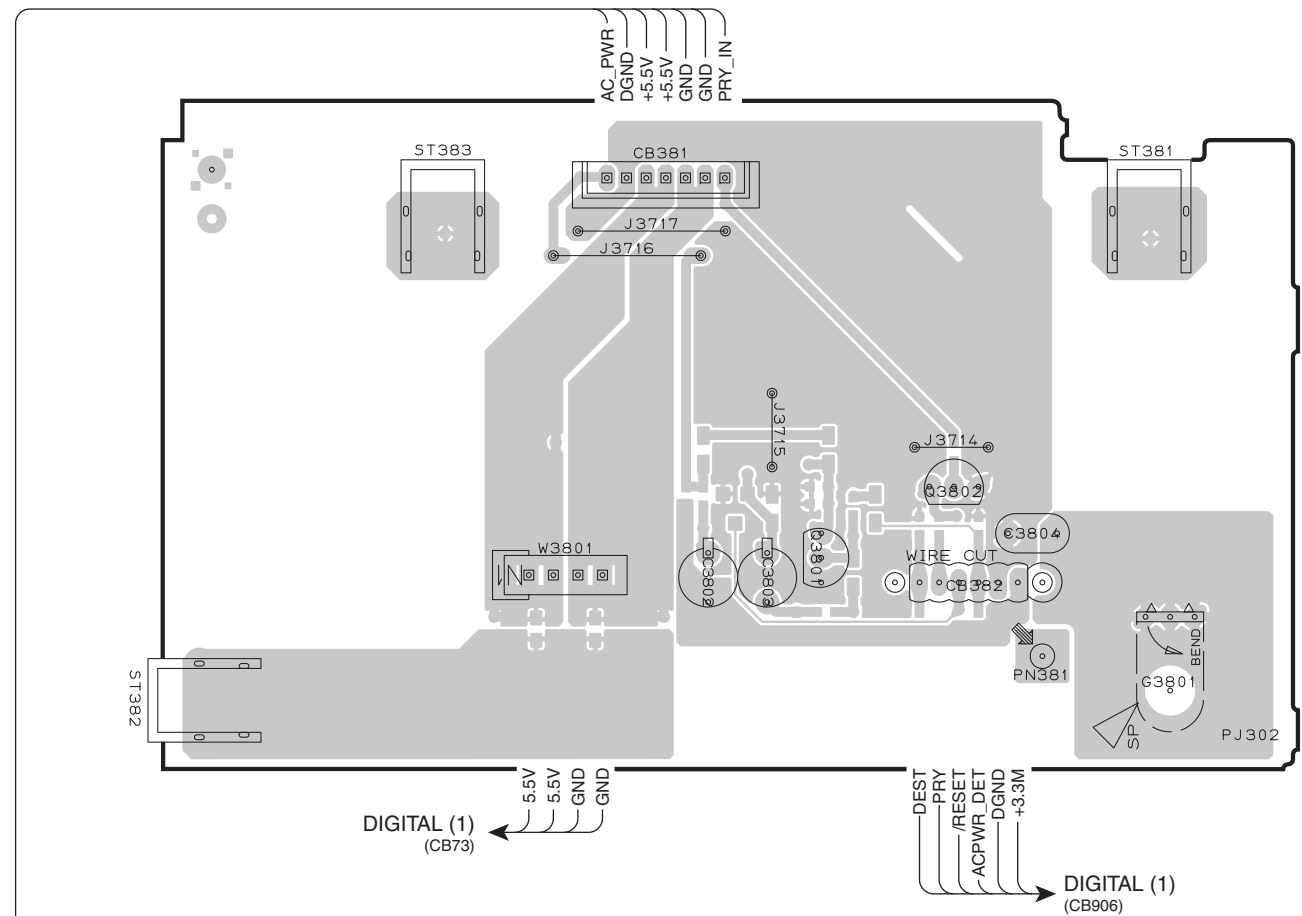
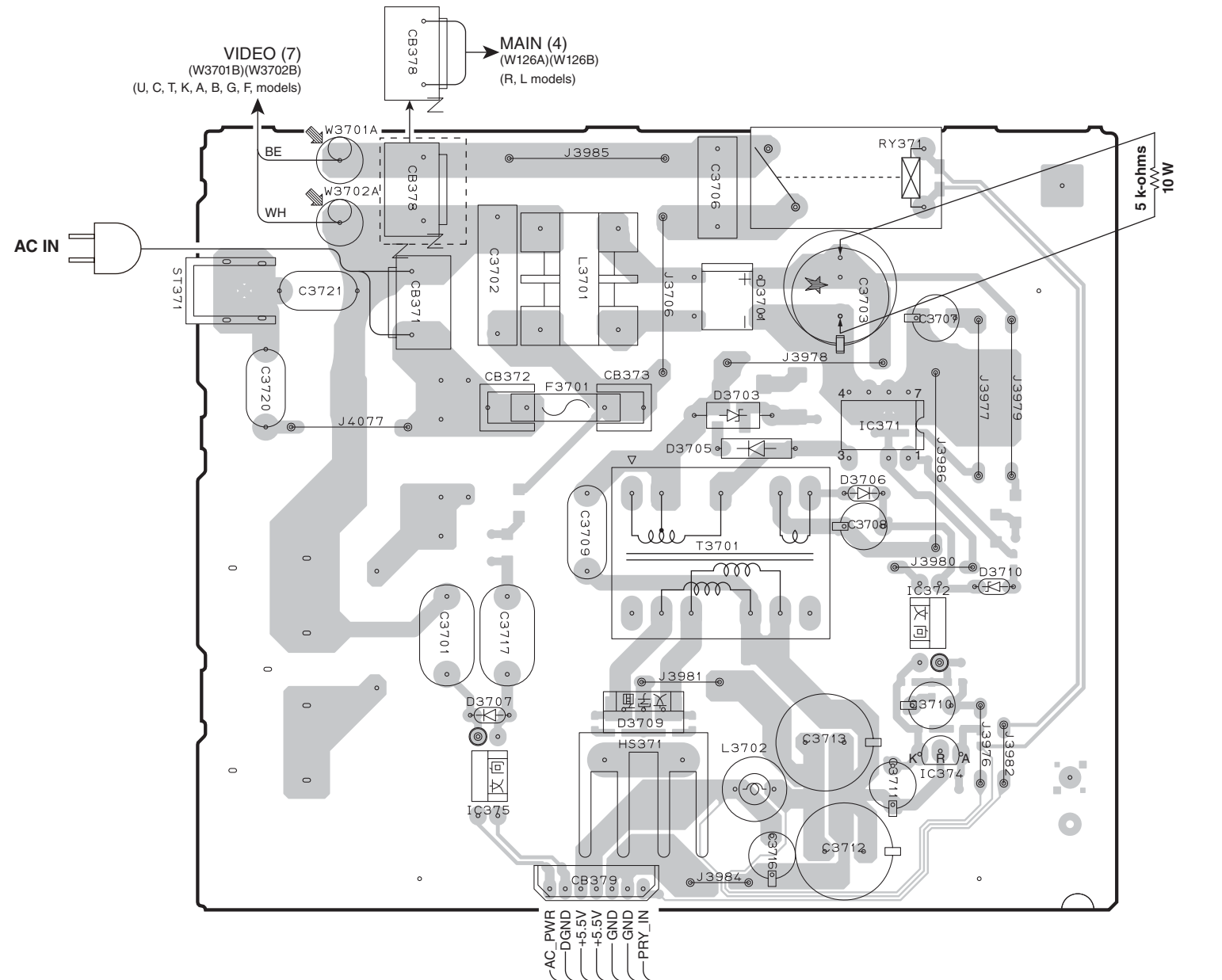
• Semiconductor Location

Ref no.	Location	Ref no.	Location
D3310	D6	IC310	C4
D3350	D6	IC321	E4
D3403	F4	Q3001	D3
D3404	G3	Q3405	F4
D3405	J3	Q3406	F4
D3406	H3	Q3407	G3
D3407	I3	Q3408	G3
IC301	D3	Q3409	J3
IC302	E4	Q3410	J3
IC303	B4	Q3411	H3
IC305	D3	Q3412	H3
IC306	E3	Q3413	H3
IC307	C3	Q3414	I3
IC308	D3		

R model

B, G, F models

**VIDEO (3) P.C.B.** (Side A)



## Notes)

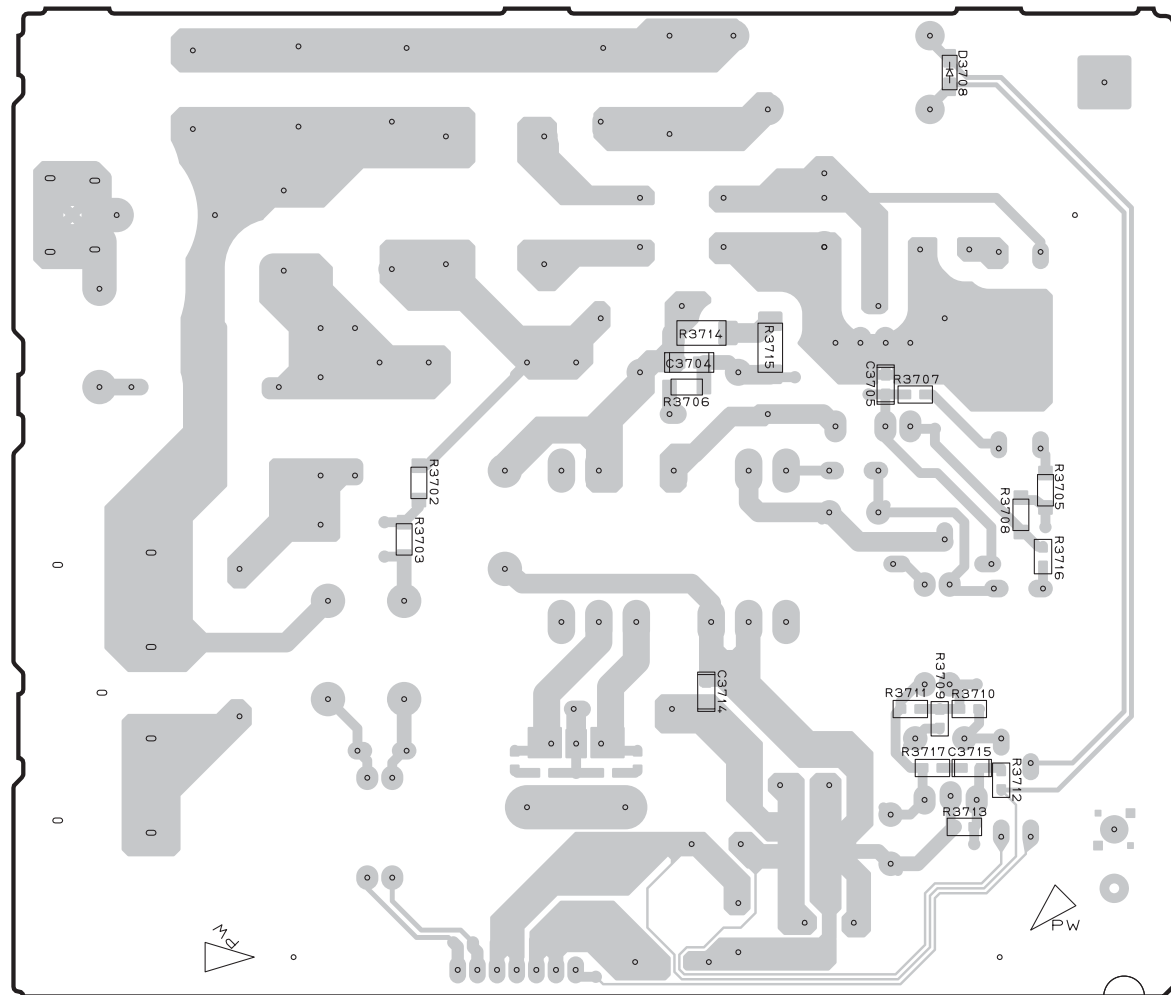
### Safety measures

- Some internal parts in this product contain high voltages and are dangerous. Be sure to take safety measures during servicing, such as wearing insulating gloves.
- Note that positions indicated below are dangerous even after the power is turned off because an electric charge remains and a high voltage continues to exist there. Before starting any repair work, perform discharge by connecting a discharge resistor (5k-ohms/10W) between terminals at following positions. The time required for discharging is about 30 seconds.

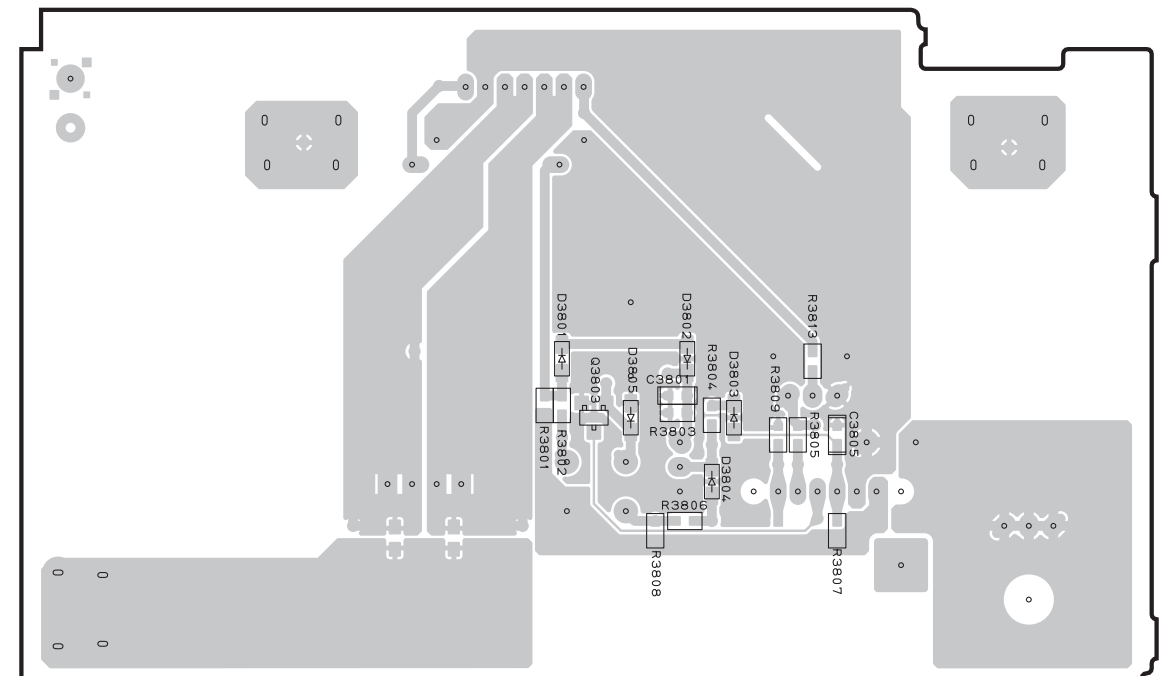
- Semiconductor Location

Ref no.	Location	Ref no.	Location
D3701	D3	IC371	E4
D3703	D4	IC372	E5
D3705	D4	IC374	E5
D3706	D4	IC375	C5
D3707	C5	Q3801	I5
D3709	D5	Q3802	I4
D3710	E4		

**VIDEO (2) P.C.B.** (Side B)



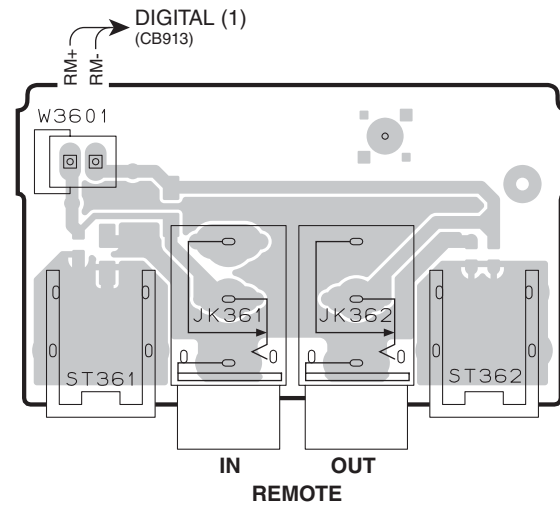
**VIDEO (3) P.C.B.** (Side B)



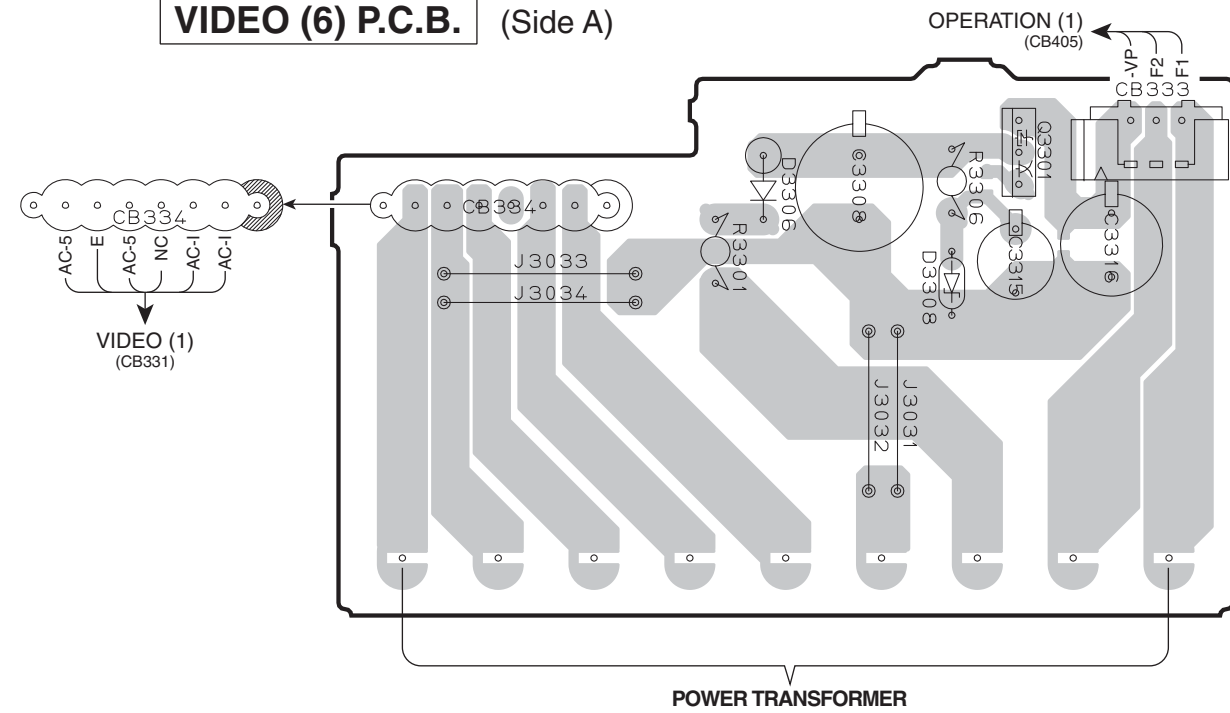
- Semiconductor Location

Ref no.	Location
D3708	E3
D3801	H4
D3802	I4
D3803	I4
D3804	I5
D3805	H4
Q3803	H4

**VIDEO (4) P.C.B.** (Side A)

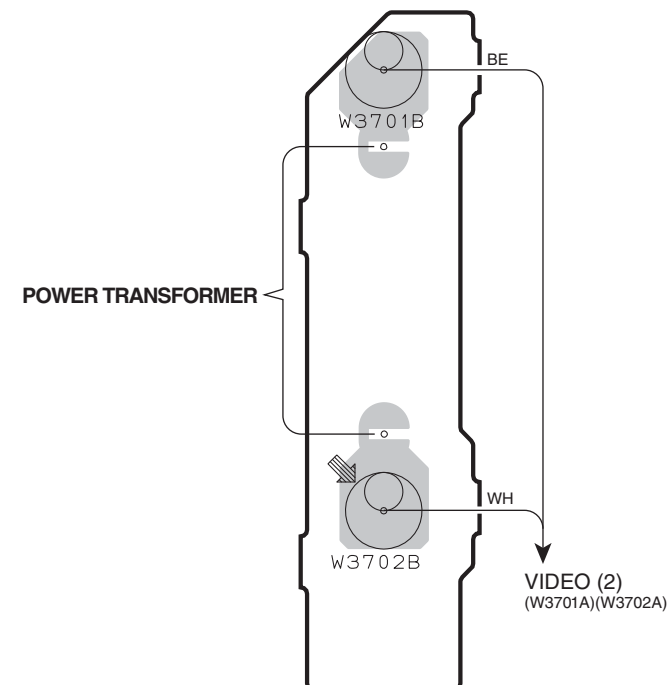


**VIDEO (6) P.C.B.** (Side A)



**VIDEO (7) P.C.B.** (Side A)

U, C, T, K, A, B, G, F models

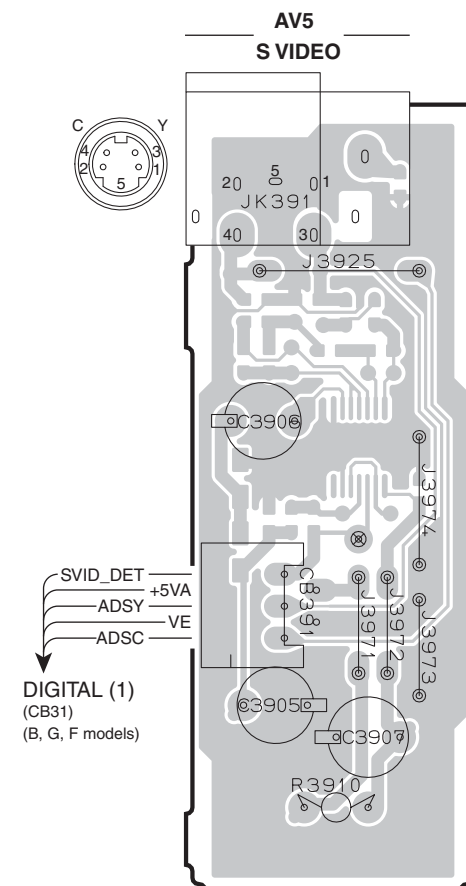


**VIDEO (9) P.C.B.** (Side A)

B, G, F models

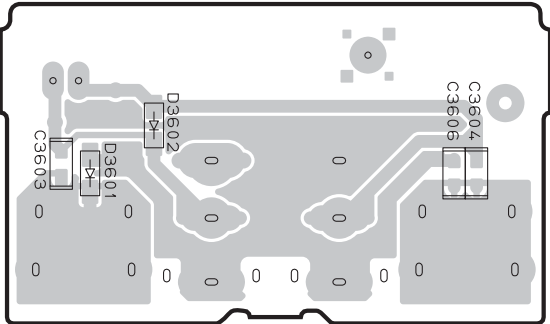
- Semiconductor Location

Ref no.	Location
D3306	H2
D3308	I2
Q3301	I2



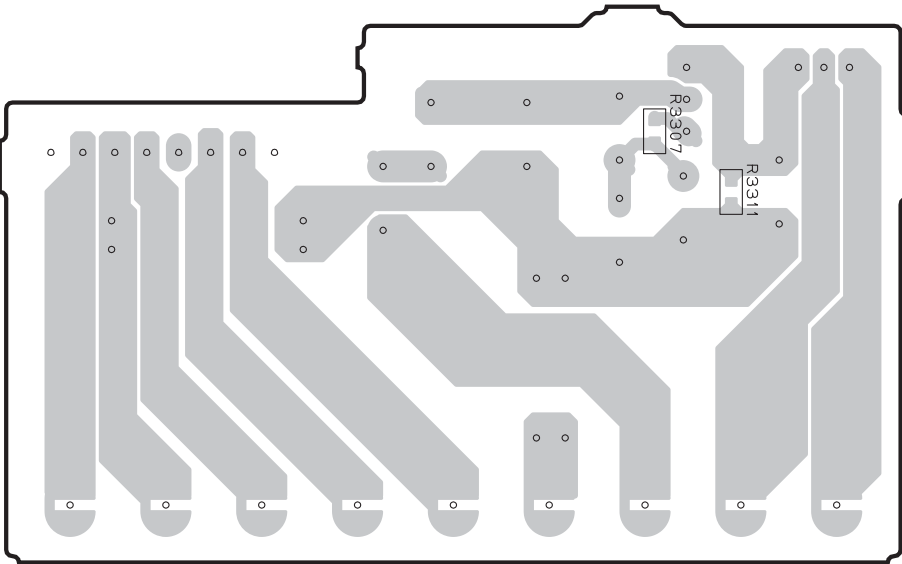
1

VIDEO (4) P.C.B. (Side B)



2

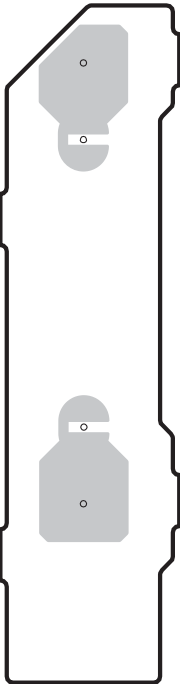
VIDEO (6) P.C.B. (Side B)



3

VIDEO (7) P.C.B. (Side B)

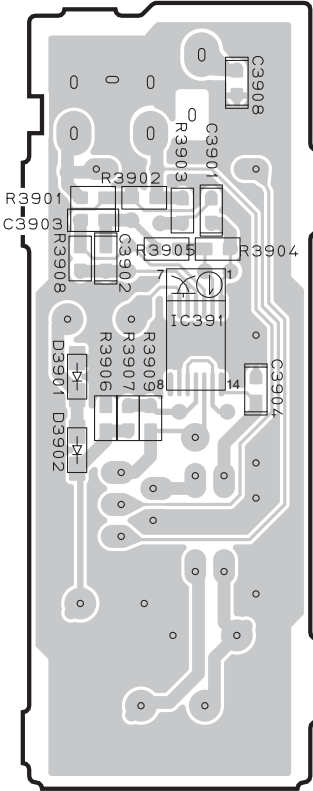
U, C, T, K, A, B, G, F models



4

VIDEO (9) P.C.B. (Side B)

B, G, F models



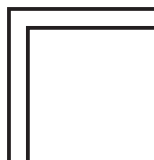
5

6

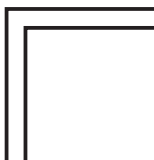
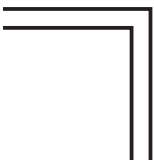
7

• Semiconductor Location

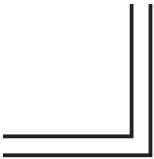
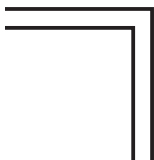
Ref no.	Location
D3601	C2
D3602	C2
D3901	G6
D3902	G6
IC391	G6



MEMO



MEMO





SCHEMATIC DIAGRAMS  
DIGITAL 1/7

RX-V667/HTR-6063/RX-A700

Page 111 C10  
to DIGITAL (2)\_CB94

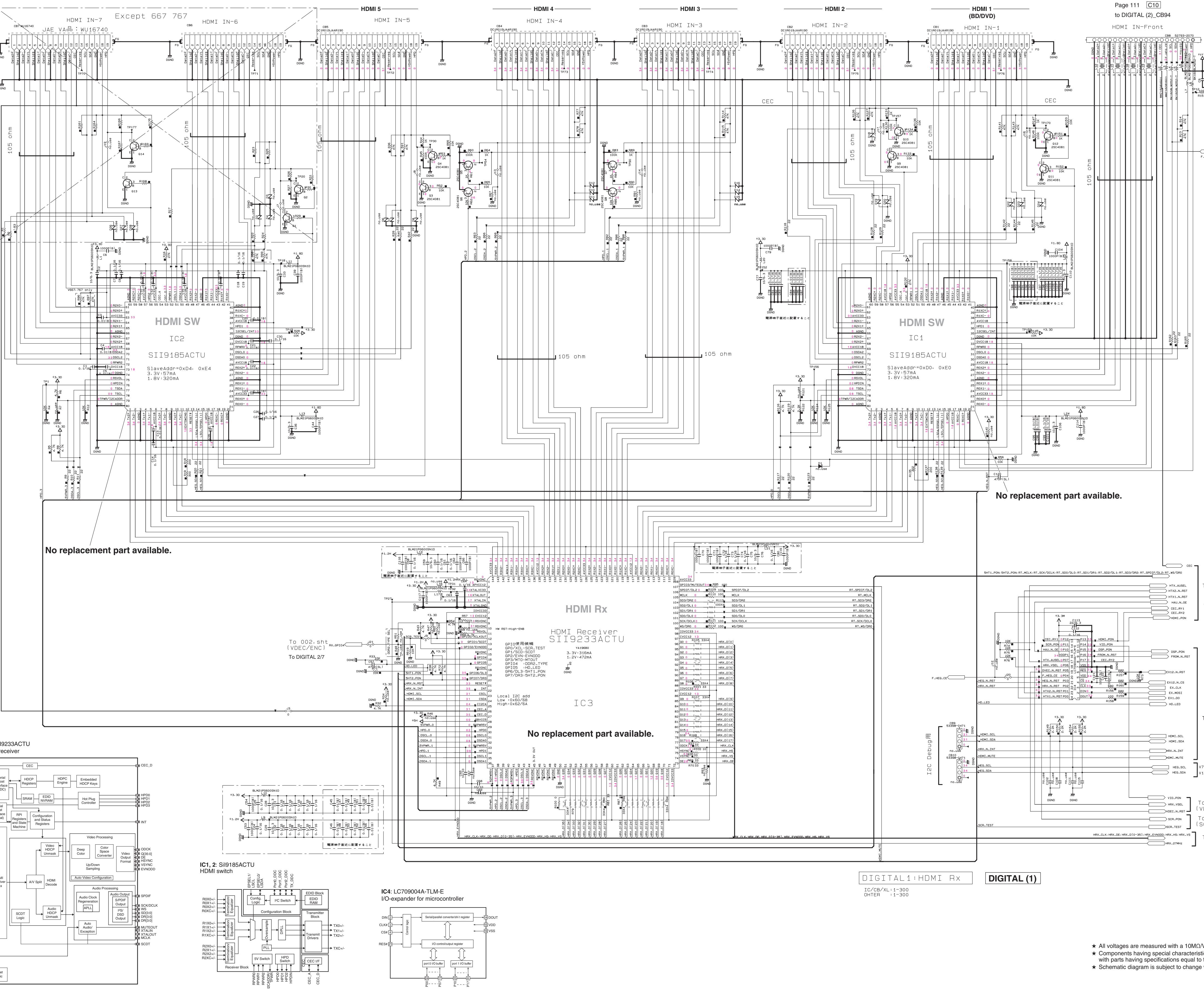
HDMI IN-Front

REMARKS	PARTS NAME
NO. MARK	CARBON FILM RESISTOR (PWR)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
○	METAL PASTE RESISTOR
◇	FINE PRINT CARBON FILM RESISTOR
◇	CHEMY HOLOID RESISTOR
◇	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO. MARK	ELECTROLYTIC CAPACITOR
○	TANTALUM CAPACITOR
NO. MARK	CERAMIC CAPACITOR
○	CERAMIC TUNING CAPACITOR
○	POLYESTER FILM CAPACITOR
○	POLYETHYLENE FILM CAPACITOR
○	MICA CAPACITOR
○	POLYPROPYLENE FILM CAPACITOR
○	SEMICONDUCTIVE CERAMIC CAPACITOR

NOTICE (model)

(J) JAPAN  
(U) U.S.A.  
(C) CANADA  
(I) GENERAL  
(T) CHINA  
(K) KOREA  
(A) AUSTRALIA  
(B) BRITISH  
(G) EUROPE  
(L) SINGAPORE  
(V) SOUTH EUROPE  
(F) TAIWAN  
(R) RUSSIAN  
(P) LATIN AMERICA



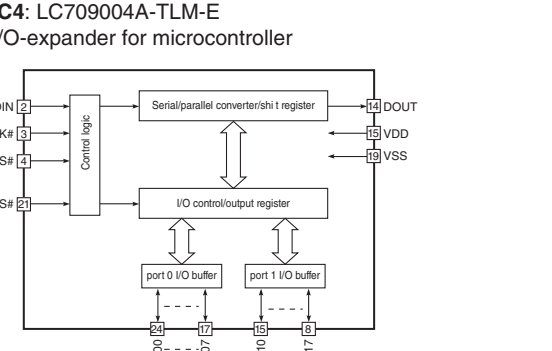
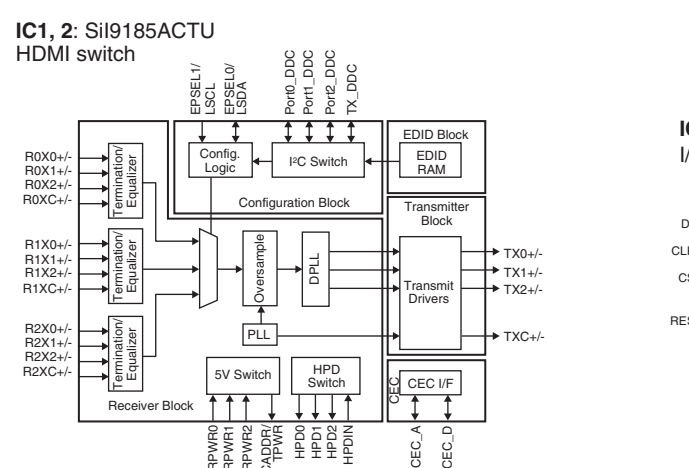
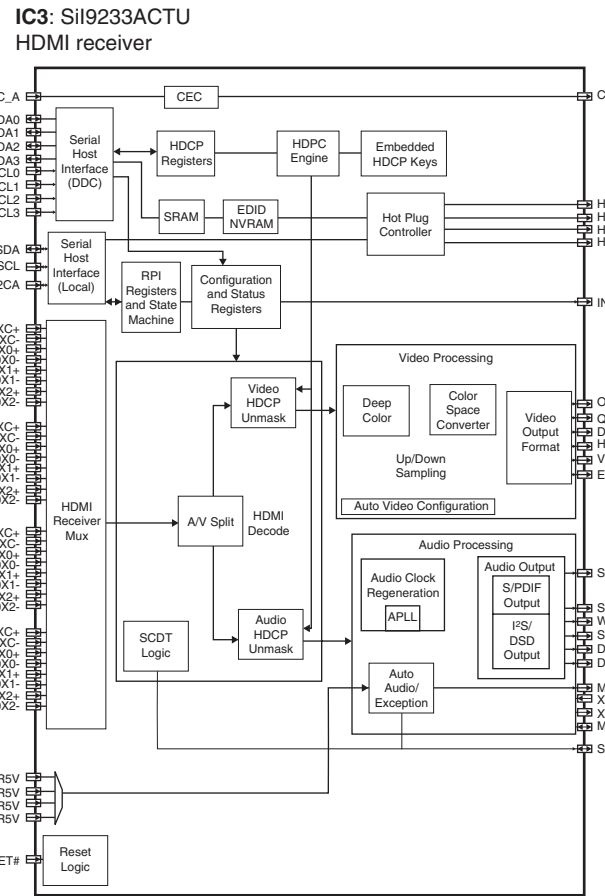
No replacement part available.

No replacement part available.

HDMI Rx  
HDMI Receiver  
SII9233ACTU

IC3

No replacement part available.

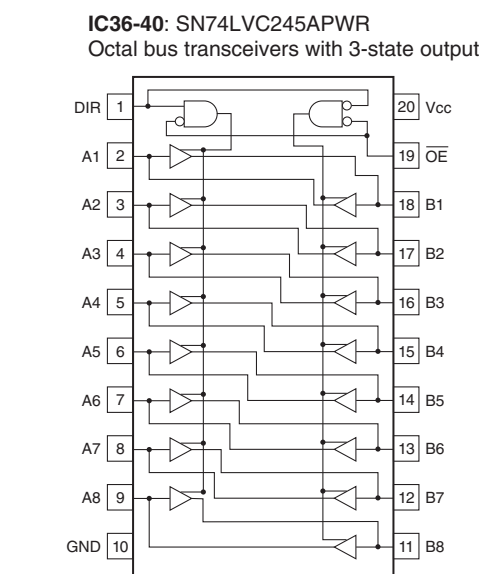


DIGITAL1:HDMI Rx

DIGITAL (1)

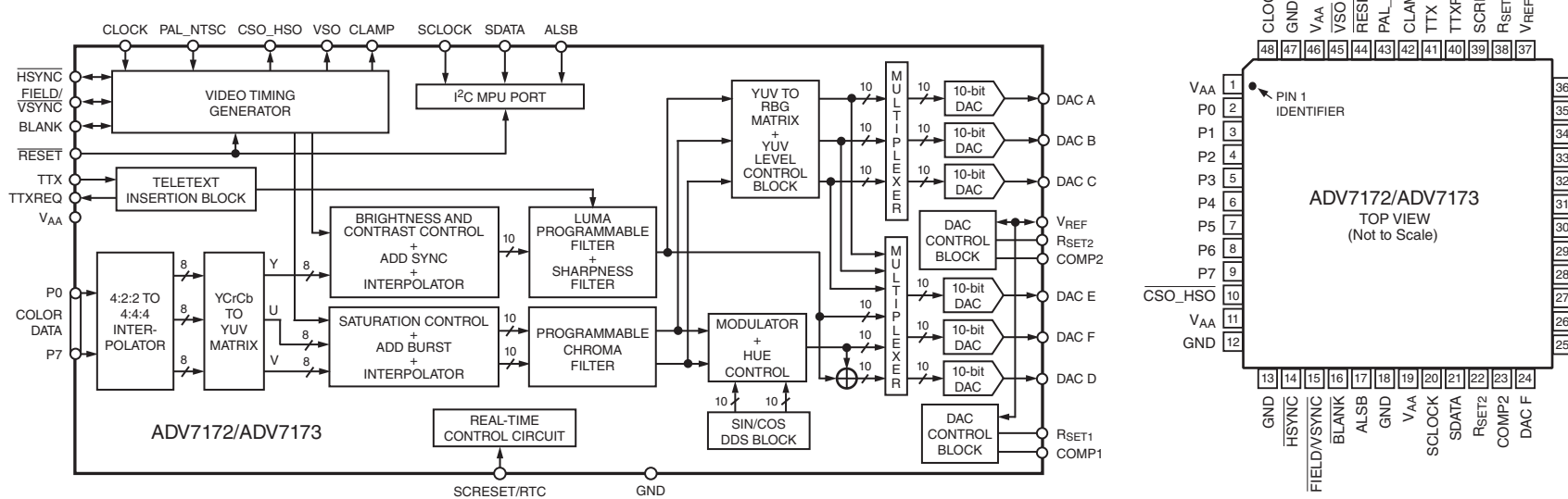
\* All voltages are measured with a 10MΩ/V DC electronic voltmeter.  
\* Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.





The block diagram illustrates the VBI data processor (VDP) architecture. It is divided into several main functional areas:

- Inputs:**
  - 12-bit Analog Inputs:** ANIN, ANIN2, CVBS, S-VIDEO, YPBPR (RGB), and GRAPHICS RGB.
  - 24-bit Digital Inputs:** P30 to P23, VS, IN2, CLK, IN, and DE\_IN.
  - Serial Interface:** HS\_IN, VS\_IN, SOG, and SOY.
  - Control and Data:** SCLK, SCLK2, SDA, SDA2, and ALSB.
- Processing Stages:**
  - Input MUX:** Routes the 12-bit analog inputs to four parallel processing channels, each consisting of a CLAMP, ANTIALIAS FILTER, and ADC block.
  - DAC:** Converts the 12-bit digital inputs (P30 to P23) to analog.
  - Core CLK Section:** The central processing area containing:
    - DTV/SDR-SDRAM INTERFACE:** Manages data flow between memory and processing blocks.
    - 525i/525p SUPPORT:** Handles different video standards.
    - Macrovision Detection:** Detects macrovision signals.
    - Standard AutoDetection:** Detects standard video signals.
    - 2D COMB:** Processes 2D comb signals, feeding into AV CODE INSERTION, VERTICAL PEAKING, and FAST BLANK OVERLAY CONTROL.
    - 3D COMB:** Processes 3D comb signals, feeding into HORIZONTAL PEAKING.
    - CTI:** Color Temperature Indicator.
    - Colors Conversion:** Converts color data, receiving input from CTI.
    - TBC:** Time Base Converter.
    - LTI:** Line Time Interpolator.
    - ITOP:** Internal Timing Output Processor.
  - Component Processor (CP):** Receives data from the Core CLK section and feeds into the VBI DATA PROCESSOR (VDP).
- Outputs:**
  - CVBS OUT:** Composite Video Signal Output.
  - OUTPUT FRO AND FORMATTER:** The final output stage, receiving data from the VBI DATA PROCESSOR (VDP) and the Core CLK section.



NOTICE (model1)

(J)..... JAPAN  
(U)..... U. S. A  
(C)..... CANADA  
(R)..... GENERAL  
(T)..... CHINA  
(K)..... KOREA  
(A)..... AUSTRALIA  
(B)..... BRITISH  
(G)..... EUROPE  
(L)..... SINGAPORE  
(E)..... SOUTH EUROPE  
(V)..... TAIWAN  
(F)..... RUSSIAN  
(P)..... LATIN AMERICA

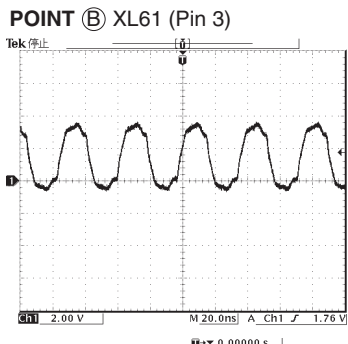
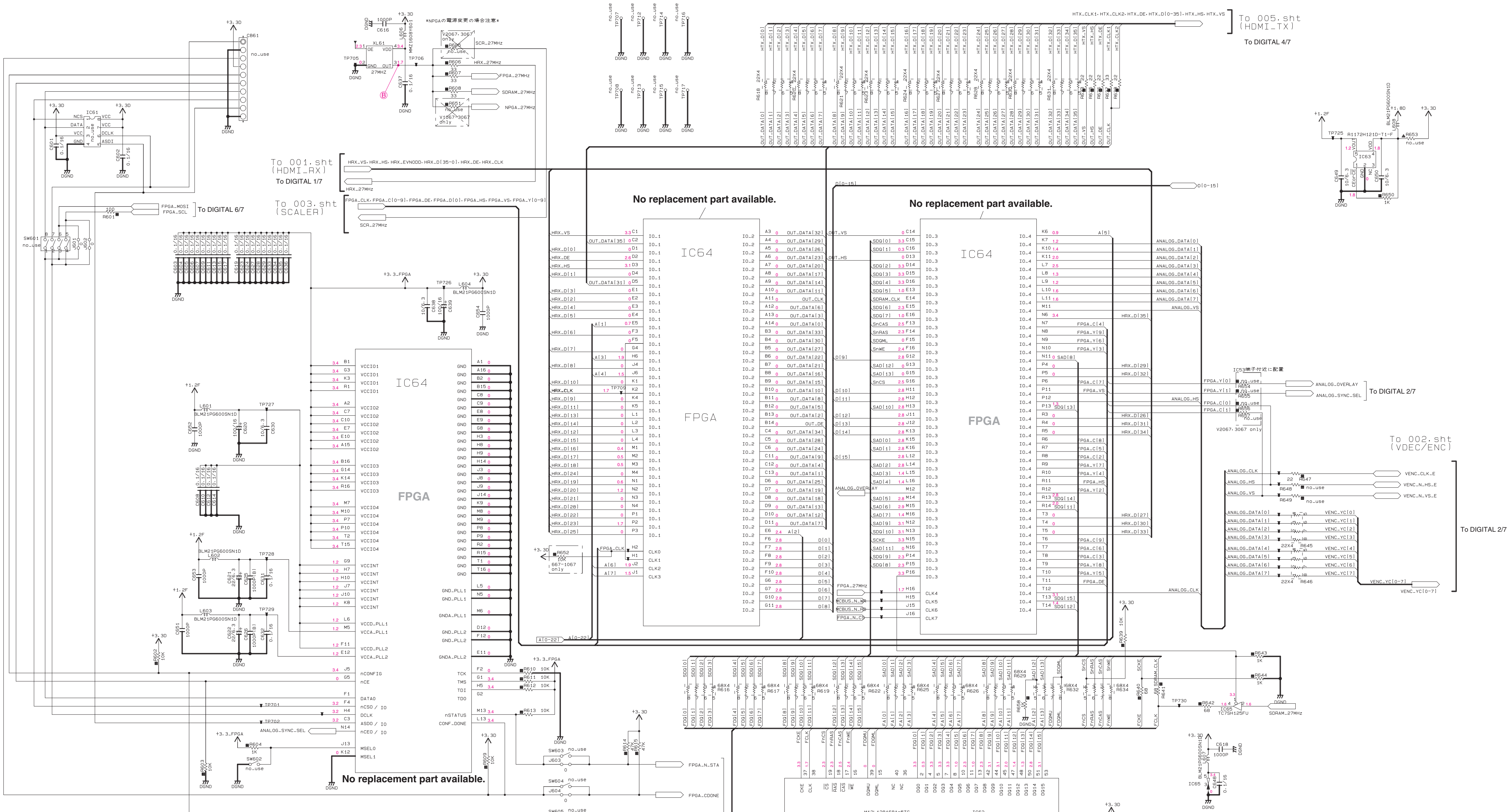
DIGITAL2:VDEC/VENC

IC/CB/XL: 31-  
OHTER : 301-

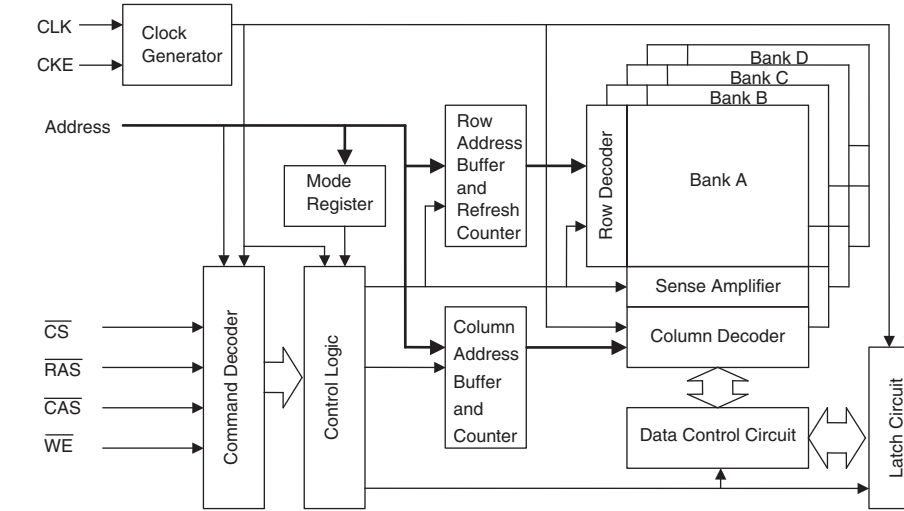
108



DIGITAL 3/7

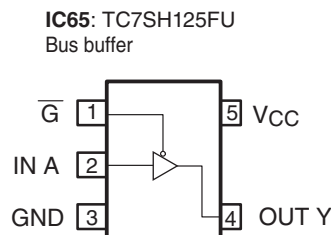
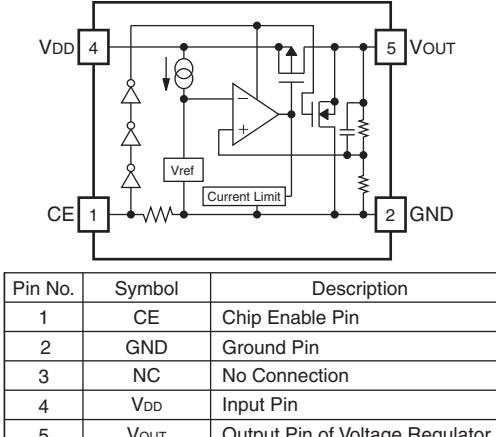


IC62: M12L128168A-5TG2T  
2 M x 16-bit x 4 banks synchronous DRAM



Vcc	1	54	Vss
D00	2	51	D015
Vcc0	3	52	Vss0
D01	4	51	D014
D02	5	50	D013
Vss0	6	49	Vss0
D03	7	48	D012
D04	8	47	D011
Vss0	9	46	Vss0
D05	10	45	D010
D06	11	44	D09
Vss0	12	43	Vss0
D07	13	42	D08
Vss0	14	41	Vss0
LD0M	15	40	NC
WE	16	39	UD0M
CS	17	38	CLK
RAS	18	37	CKE
CS	19	36	NC
BA0	20	35	A11
BA1	21	34	A10
AD0P	22	33	A9
A1	23	32	A8
A1	24	31	A7
A1	25	30	A6
A1	26	29	A5
Vcc	27	28	Vss

IC63: R1172H121D-T1-F  
CMOS-based positive-voltage regulator IC



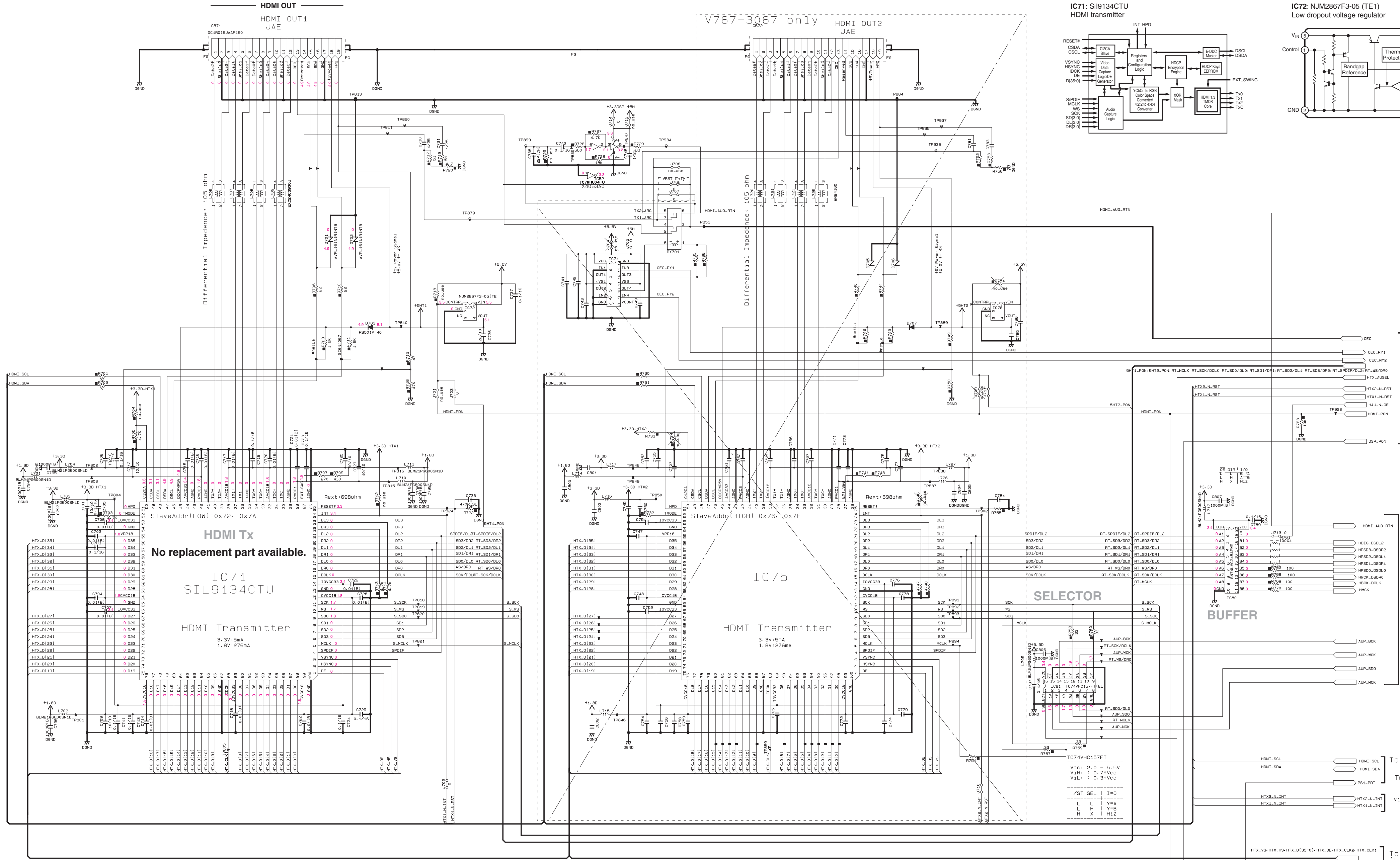
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NO MARK	CARBON FILM RESISTOR (P=5)
NO MARK	CARBON FILM RESISTOR (P=10)
NO MARK	METAL OXIDE FILM RESISTOR
NO MARK	METAL FILM RESISTOR
NO MARK	METAL PLATE RESISTOR
NO MARK	FIRE PROOF CARBON FILM RESISTOR
NO MARK	CEMENT MOLDED RESISTOR
NO MARK	SEMI VARIABLE RESISTOR
NO MARK	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
NO MARK	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
NO MARK	CERAMIC TUBULAR CAPACITOR
NO MARK	POLYESTER FILM CAPACITOR
NO MARK	POLYSTYRENE FILM CAPACITOR
NO MARK	MICA CAPACITOR
NO MARK	POLYPROPYLENE FILM CAPACITOR
NO MARK	SEMICONDUCTIVE CERAMIC CAPACITOR

• All voltages are measured with a 10MΩ/V DC electronic voltmeter.  
• 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.



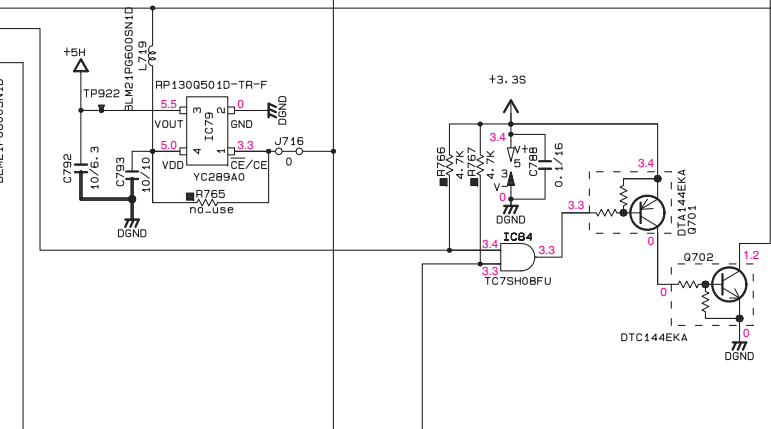
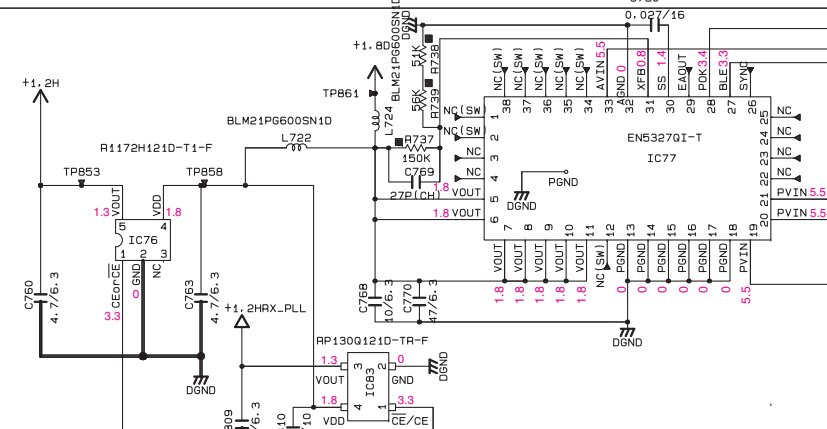
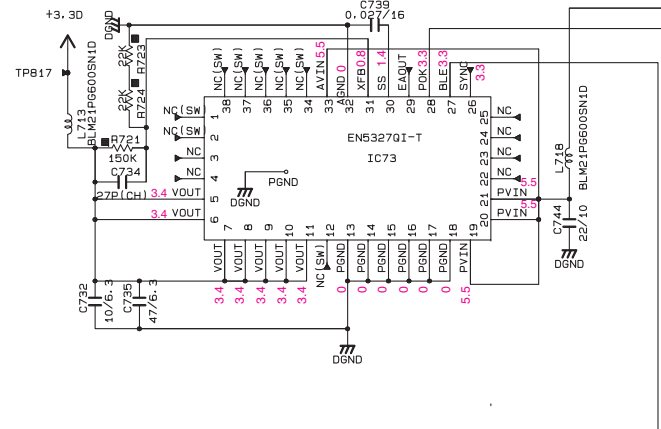
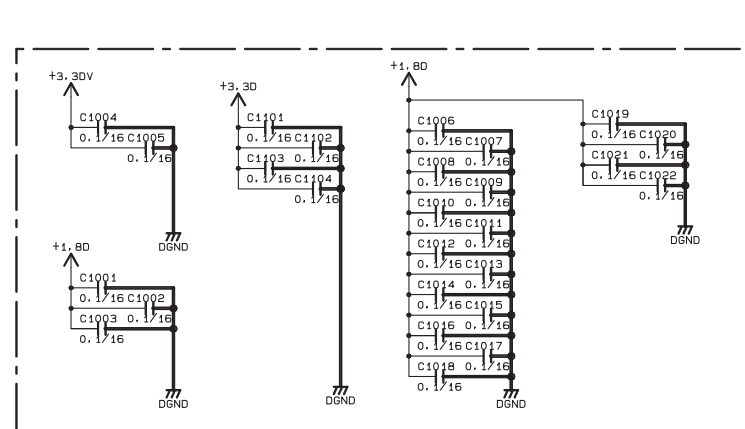
DIGITAL 4/7



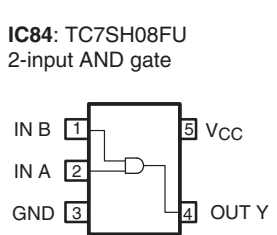
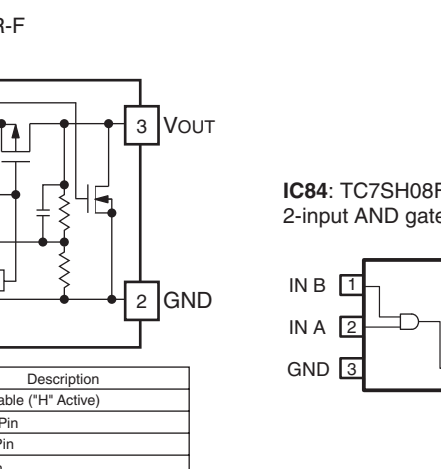
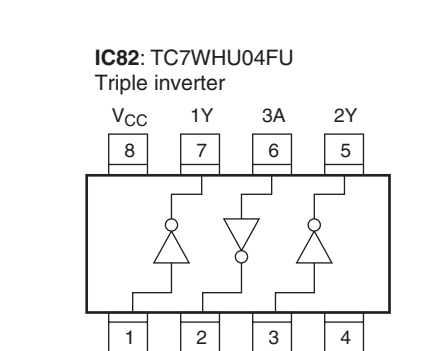
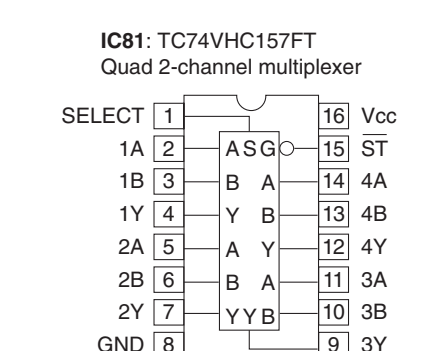
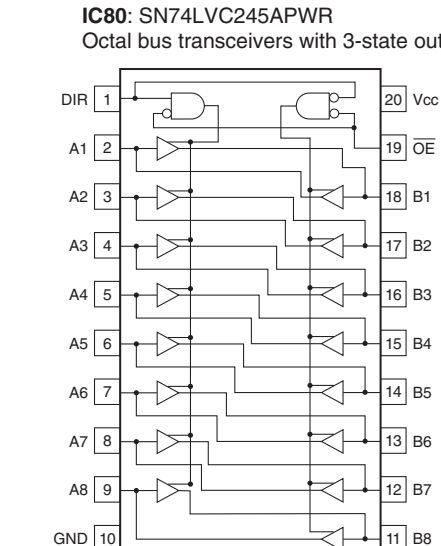
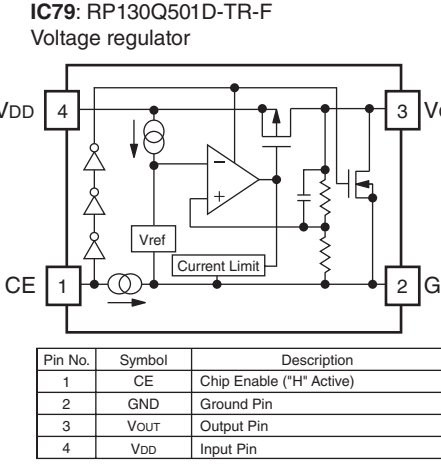
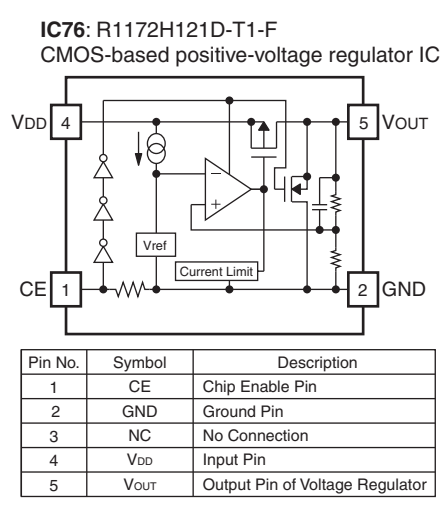
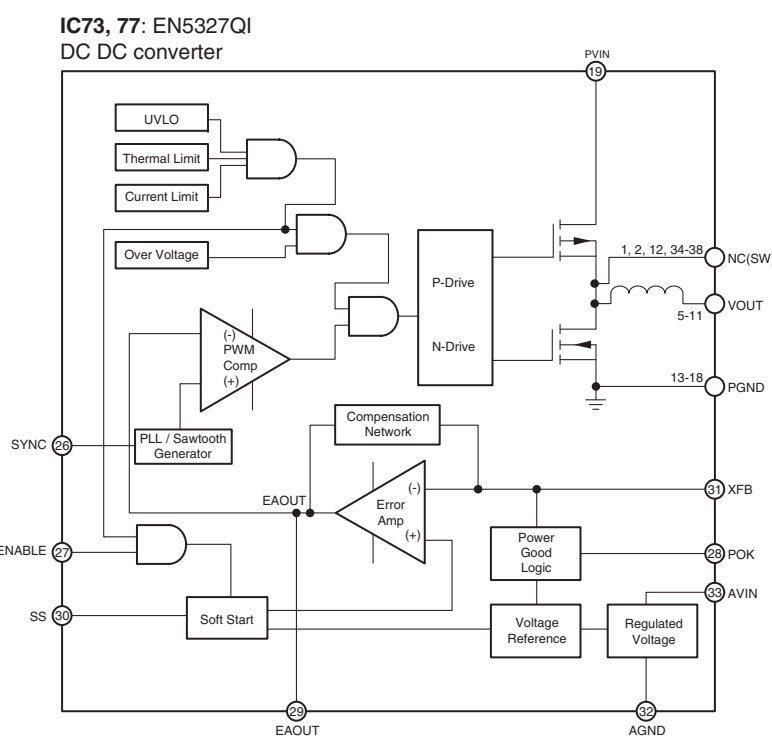
REMARKS	PARTS NAME	CAPACITOR	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
□	CARBON FILM RESISTOR (P=10)	⊗	TANTALUM CAPACITOR
△	METAL OXIDE FILM RESISTOR	NO MARK	CERAMIC CAPACITOR
□	METAL FILM RESISTOR	⊙	CERAMIC TUBULAR CAPACITOR
□	METAL PLATE RESISTOR	○	POLYESTER FILM CAPACITOR
□	FIRE PROOF CARBON FILM RESISTOR	○	POLYSTYRENE FILM CAPACITOR
□	CEMENT MOLDED RESISTOR	⊖	MICA CAPACITOR
□	SEMI VARIABLE RESISTOR	⊖	POLYPROPYLENE FILM CAPACITOR
■	CHIP RESISTOR	⊖	SEMICONDUCTIVE CERAMIC CAPACITOR

NOTICE (model)  
(J)..... JAPAN  
(U)..... U.S.A  
(C)..... CANADA  
(R)..... GENERAL  
(T)..... CHINA  
(K)..... KOREA  
(A)..... AUSTRALIA  
(B)..... BRITISH  
(G)..... EUROPE  
(L)..... SINGAPORE  
(E)..... SOUTH EUROPE  
(V)..... TAIWAN  
(F)..... RUSSIAN  
(P)..... LATIN AMERICA

IC73, IC77: EN532701 YC268A0  
1067-3067: EN533701 YC234A0

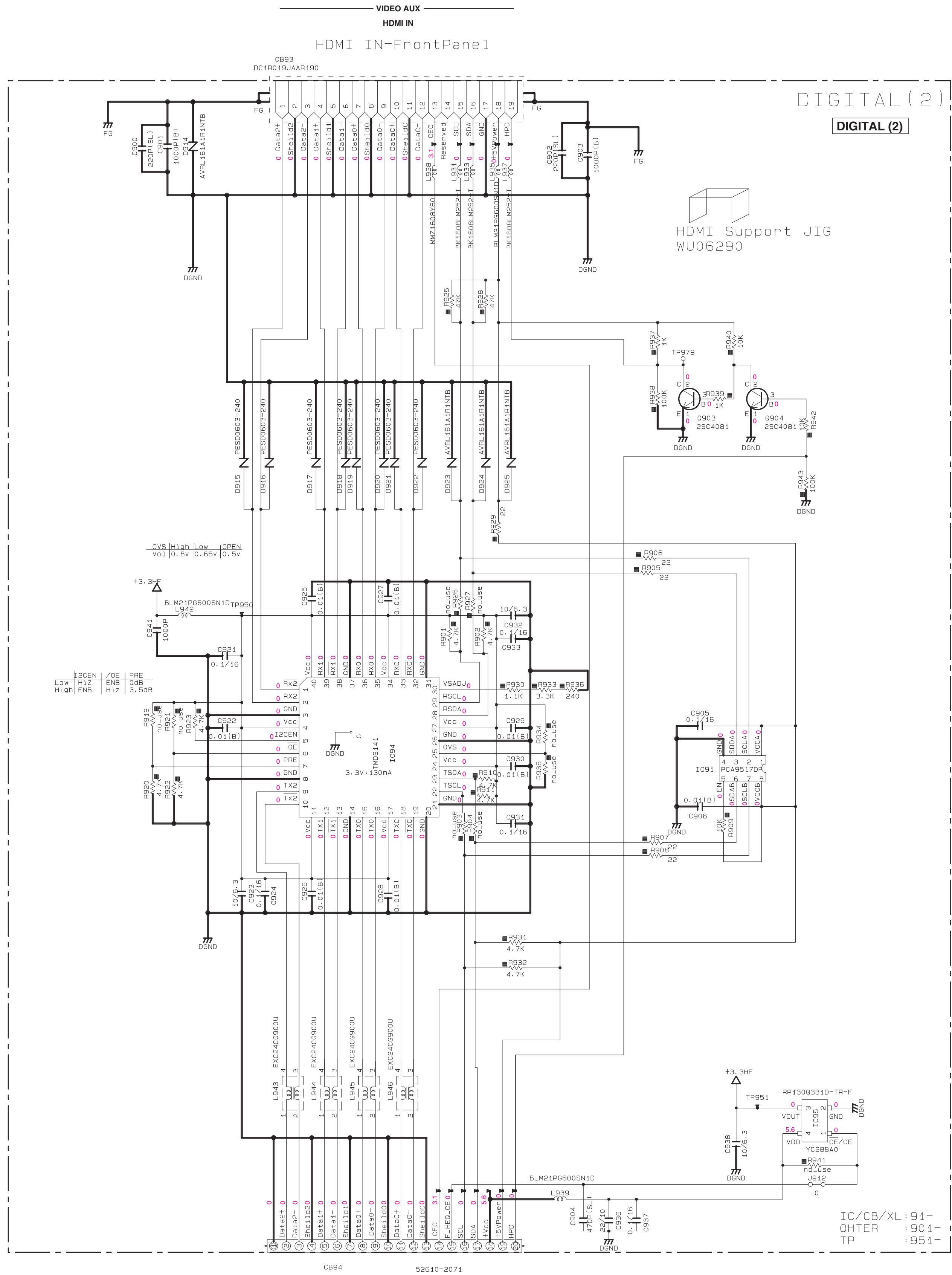


DIGITAL5: HDMI Tx  
DIGITAL (1)



★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.  
★ 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.

DIGITAL 5/7



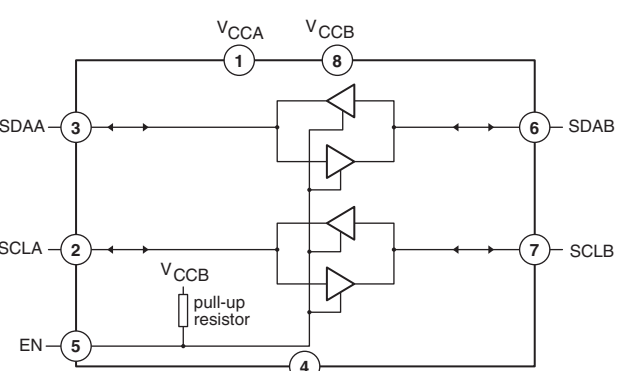
sXX	LOC	U	CTKAL	R	BGF
s1	CB31	X	X	X	V004410 52044
s2	J301	X	X	X	RD35000 0
s3	R308 R307	RD35000 0	RD35000 0	RD35000 0	X
s11	Q9001	X	X	V093630 25A1576A	X
s12	Q9020	VVE5520 DT1448KA	X	X	X
s13	Q9021	VVE5570 DT1448KA	X	X	X
s14	R9037 R9036	RD35510 100	X	X	X
s15	R9039 R9038	X	X	X	RD35510 100
s22	R908B	RD35510 100	X	X	X
s23	R9091 R9089	X	X	X	RD35510 100

REMARKS	PARTS NAME	REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
Δ	METAL OXIDE FILM RESISTOR (P=10)	⊗	TANTALUM CAPACITOR
Δ	METAL FILM RESISTOR	NO MARK	CERAMIC CAPACITOR
Δ	METAL PLATE RESISTOR	⊗	CERAMIC TUBULAR CAPACITOR
Δ	FIRE PROOF CARBON FILM RESISTOR	⊗	POLYSTYRENE FILM CAPACITOR
Δ	CEMENT MOLDED RESISTOR	⊗	POLYSTYRENE FILM CAPACITOR
⊗	SEMI VARIABLE RESISTOR	⊗	MICA CAPACITOR
■	CHIP RESISTOR	⊗	POLYPROPYLENE FILM CAPACITOR
		⊗	SEMICONDUCTIVE CERAMIC CAPACITOR

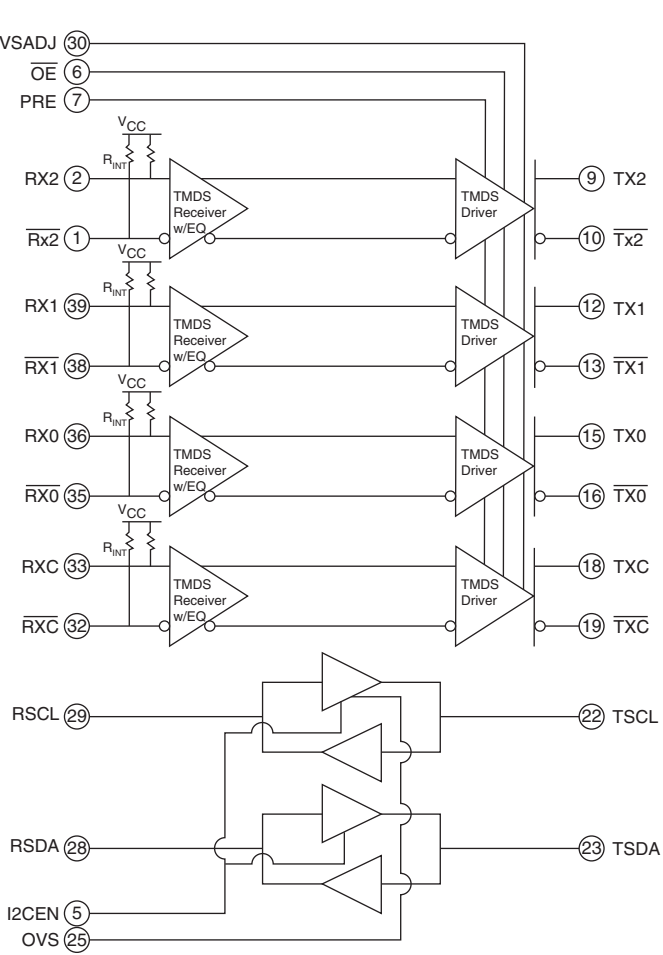
NOTICE (model)

(J)..... JAPAN  
(U)..... U.S.A  
(C)..... CANADA  
(R)..... GENERAL  
(T)..... CHINA  
(K)..... KOREA  
(A)..... AUSTRALIA  
(B)..... BRITISH  
(G)..... EUROPE  
(L)..... SINGAPORE  
(V)..... TAIWAN  
(F)..... RUSSIAN  
(P)..... LATIN AMERICA

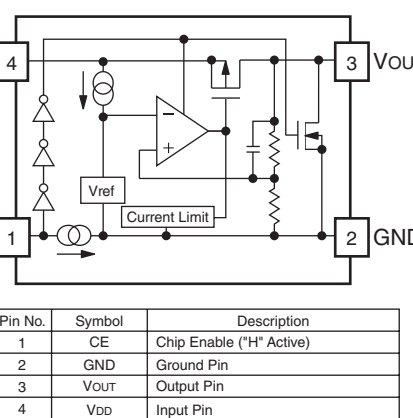
IC91: PCA9517DP  
Level translating I<sup>2</sup>C-bus repeater



IC94: TMSD141RHAR  
HDMI switch



IC95: RP130Q331D-TR-F  
Voltage regulator



★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.  
★ 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.



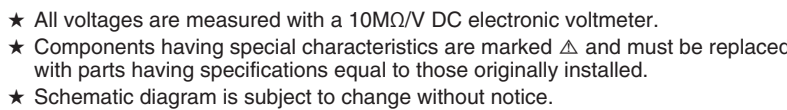








## OPERATION 1/2

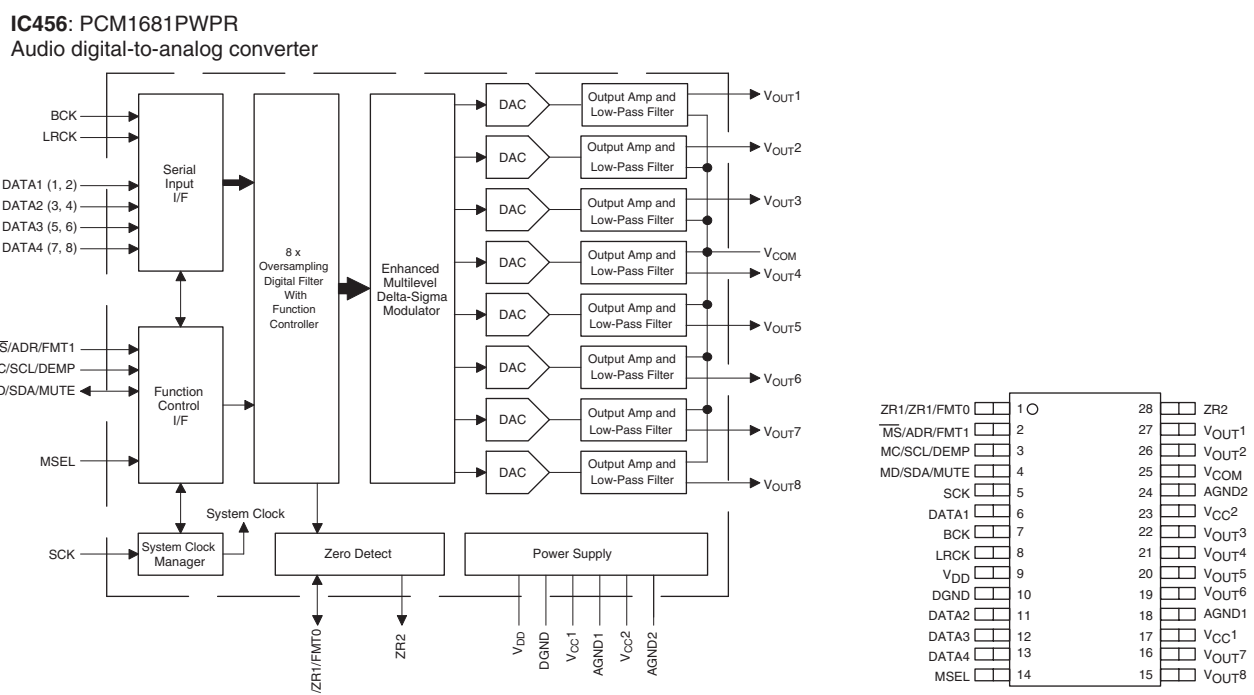
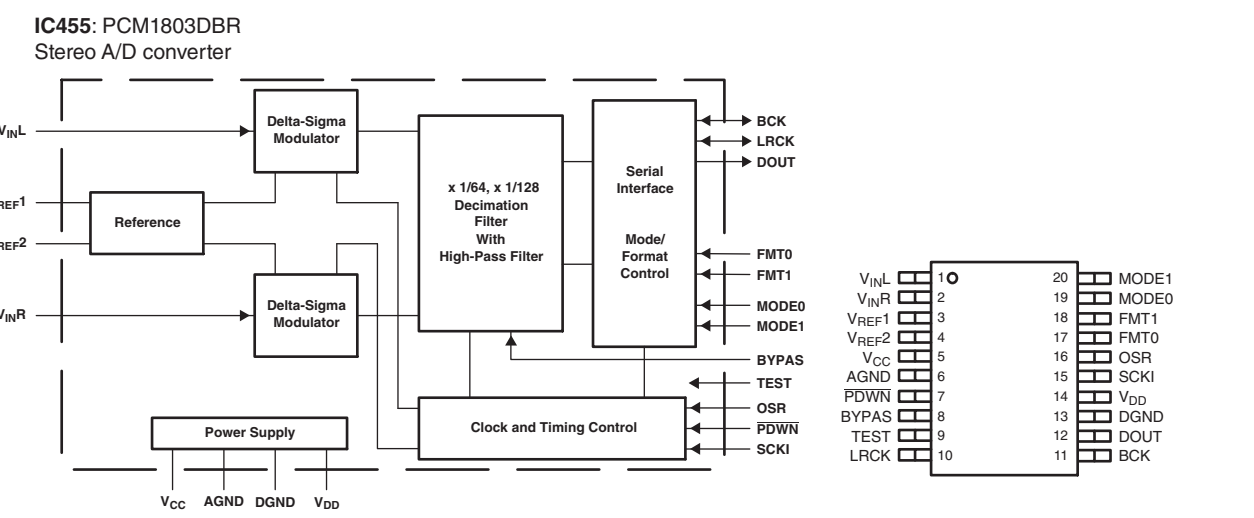
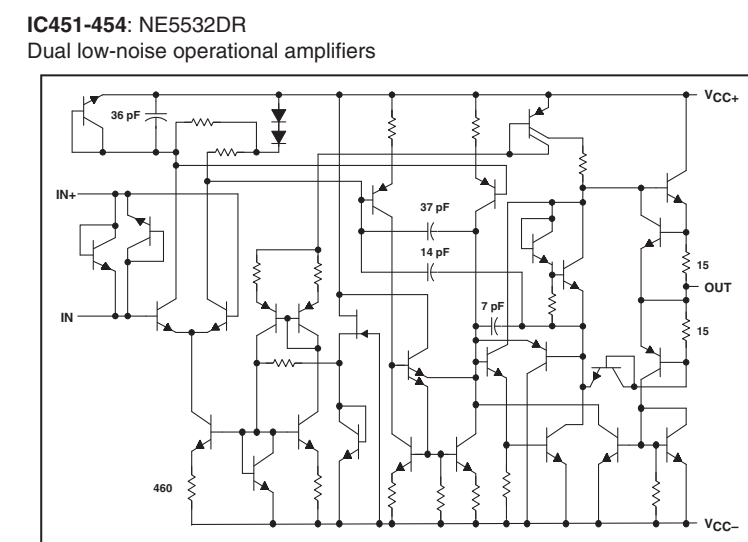
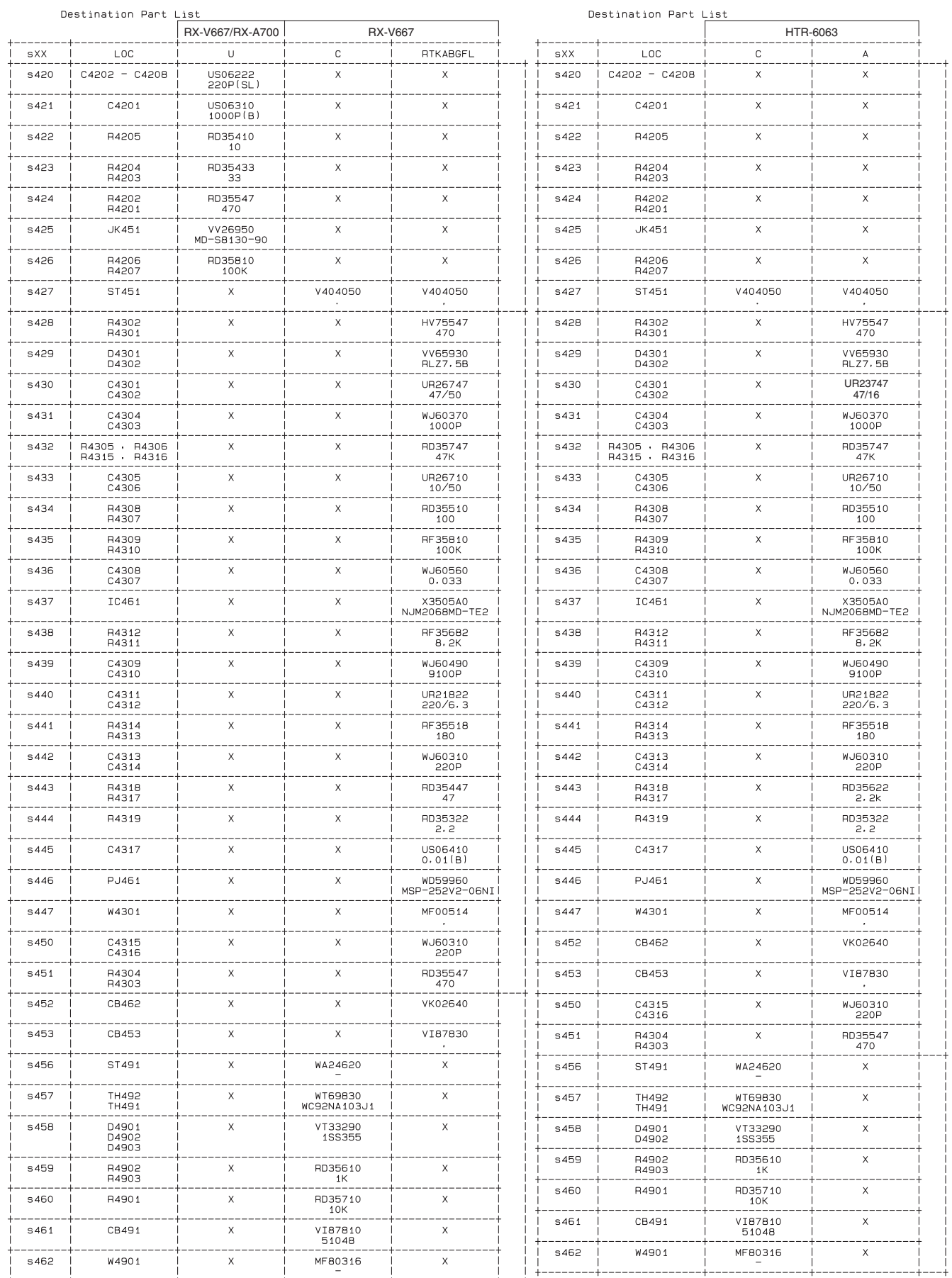


Key input (A/D) pull-up resistance 10 k-ohms													
	Ohm	0	+ 10 k	+ 10 k	+ 15 k	+ 15 k	+ 22 k	+ 33 k	+ 47 k	22.0 k	33.0 k		
A/D conversion value (3.3V=255)	V	0 ~ 0.15	0.15 ~ 0.42	0.43 ~ 0.70	0.71 ~ 0.97	0.98 ~ 1.24	1.25 ~ 1.53	1.54 ~ 1.84	1.85 ~ 2.22	2.23 ~ 2.62	2.63 ~ 3.04		
		0 ~ 11	12 ~ 32	33 ~ 54	55 ~ 75	76 ~ 96	97 ~ 119	120 ~ 142	143 ~ 163	164 ~ 197	198 ~ 209		
KEY1 (139 pin)	RADIO (SCENE4)	CD (SCENE3)	TV (SCENE2)	BD/DVD (SCENE1)	ZONE2 CONTROL	ZONE2 ON/OFF	INPUT >	INPUT >	MAIN ZONE2 (power)	ZONE CONTROL			
	Ohm	0	+ 10 k	+ 10 k	+ 15 k	+ 18 k	+ 22 k	+ 33 k	+ 47 k	+ 68 k	+ 100 k	+ 220 k	+ 680.0 k
A/D conversion value (3.3V=255)	V	0 ~ 0.15	0.16 ~ 0.42	0.43 ~ 0.70	0.71 ~ 0.99	1.00 ~ 1.27	1.28 ~ 1.56	1.57 ~ 1.86	1.87 ~ 2.14	2.15 ~ 2.39	2.40 ~ 2.65	2.66 ~ 2.91	2.92 ~ 3.17
		0 ~ 11	12 ~ 32	33 ~ 54	55 ~ 77	78 ~ 99	100 ~ 121	122 ~ 144	145 ~ 166	167 ~ 186	187 ~ 205	206 ~ 226	227 ~ 246
KEY2 (138 pin)	-	TUNING >	TUNING >	AM	FM	PRESET >	PRESET >	MEMORY	INFO	STRAIGHT >	PROGRAM >	PROGRAM <	

RESISTOR		CAPACITOR	
REMARKS	PARTS NAME	REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
⊕	CARBON FILM RESISTOR (P=10)	⊕	TANTALUM CAPACITOR
⊕	METAL OXIDE FILM RESISTOR	NO MARK	CERAMIC CAPACITOR
⊕	METAL FILM RESISTOR	●	CERAMIC TUBULAR CAPACITOR
⊕	THIN PLATE RESISTOR	●	POLYESTER FILM CAPACITOR
⊕	FIRE PROOF CARBON FILM RESISTOR	⊕	POLYSTYRENE FILM CAPACITOR
⊕	CEMENT MOLDED RESISTOR	⊕	MICA CAPACITOR
⊕	BURN VARIABLE RESISTOR	⊕	POLYPROPYLENE FILM CAPACITOR
⊕	CHPT RESISTOR	⊕	SEMICONDUCTIVE CERAMIC CAPACITOR

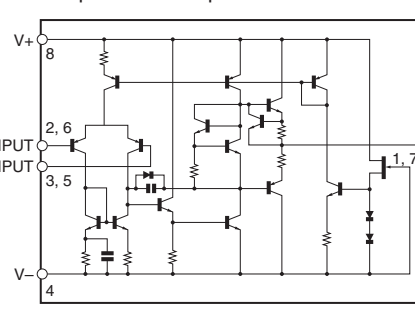
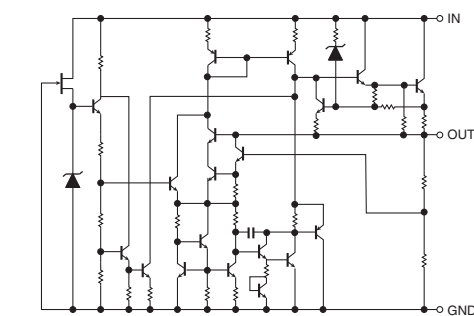
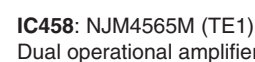
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NOTICE (model1)
(J)..... JAPAN
(U)..... U. S. A
(C)..... CANADA
(R)..... GENERAL
(T)..... CHINA
(K)..... KOREA
(A)..... AUSTRALIA
(B)..... BRITISH
(G)..... EUROPE
(L)..... SINGAPORE
(E)..... SOUTH EUROPE
(V)..... TAIWAN
(F)..... RUSSIAN
(P)..... LATIN AMERICA
```



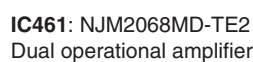


```
NOTICE [mode]
(J)..... JAPAN
(U)..... U. S. A
(C)..... CANADA
(R)..... GENERAL
(T)..... CHINA
(K)..... KOREA
(A)..... AUSTRALIA
(B)..... BRITISH
(G)..... EUROPE
(L)..... SINGAPORE
(E)..... SOUTH EUROP
(V)..... TAIWAN
(F)..... RUSSIAN
(P)..... LATIN AMERI
```

**IC457:** NJM78M05FA  
3-terminal positive voltage regulator

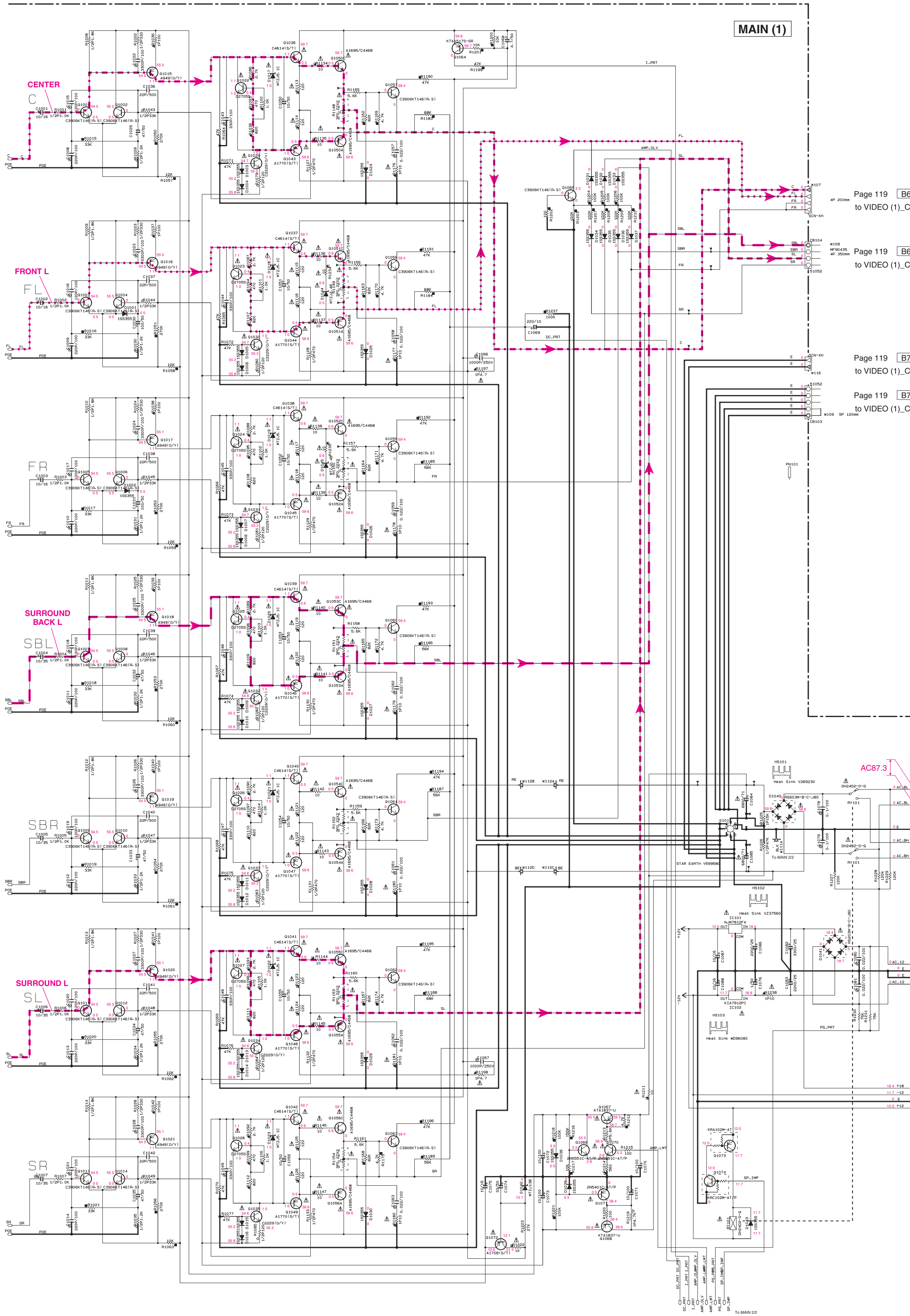


**IC459: TK15420MTL-G**  
High-speed 2 ch general-purpose amplifier





MAIN 1/2



REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=1)
△	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
△	METAL FILM RESISTOR
△	METAL PLATE RESISTOR
△	FIRE PROOF CARBON FILM RESISTOR
△	OHMIC MOLDING 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
△	MICA CAPACITOR
△	POLYPROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR

NOTICE (model)  
(J)..... JAPAN  
(U)..... U.S.A  
(C)..... CANADA  
(R)..... GENERAL  
(T)..... CHINA  
(K)..... KOREA  
(A)..... AUSTRALIA  
(B)..... BRITISH  
(G)..... EUROPE  
(L)..... SINGAPORE  
(E)..... SOUTH EUROPE  
(V)..... TAIWAN  
(F)..... RUSSIAN  
(P)..... LATIN AMERICA

XXX	LOC	LC	R	TKAMP	L
X1	SM101	X	WM49710	X	WM7370
X2	CB111	X	WM77710	X	WM49204
X3	F100	X	WM77710	X	X
X4	J1001	X	X	X	WM70000
X5	W1000	X	WM40205	X	WM40205
X6	W1010	X	WM40205	X	WM40205
X7	W1020	X	WM40205	X	WM40205
X8	W1030	X	WM40205	X	WM40205
X9	W1040	X	WM40205	X	WM40205
X10	W1050	X	WM40205	X	WM40205
X11	W1060	X	WM40205	X	WM40205

Page 119 [B6]  
to VIDEO (1)\_CB342

Page 119 [B6]  
to VIDEO (1)\_CB343

Page 119 [B7]  
to VIDEO (1)\_CB340

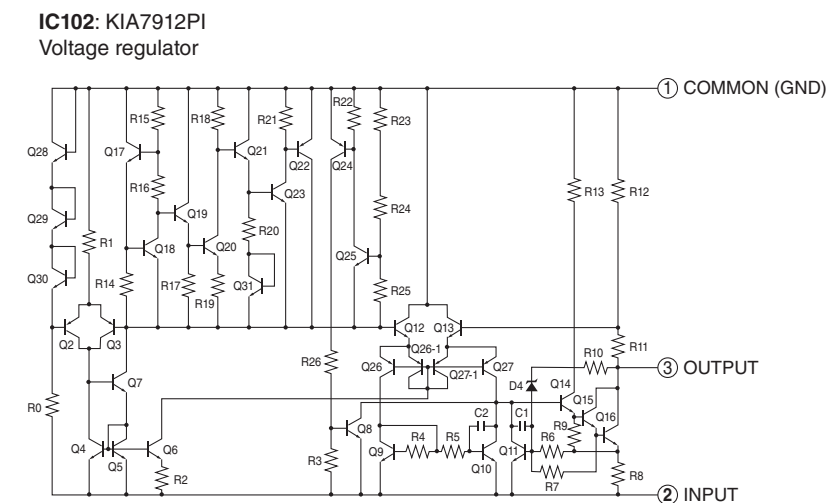
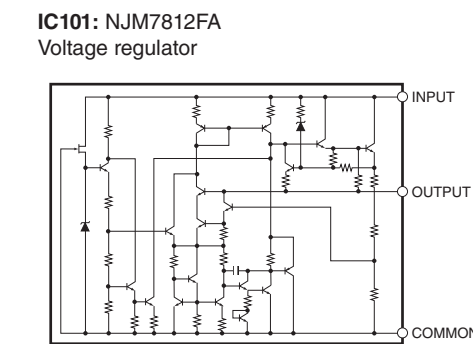
Page 119 [B7]  
to VIDEO (1)\_CB344

Page 120 [D7]  
to VIDEO (2)\_CB378

MAIN (4)  
R, L models

MAIN (3)  
R, L models

VOLTAGE SELECTOR			
230-240V	1-2/5-6	R, L models	
220V	2-3/6-7	R, L models	
110V	3-4/7-8	R model	
120V	4-5/8-1	R model	



MAIN (2)

MAIN (2)

MAIN (2)

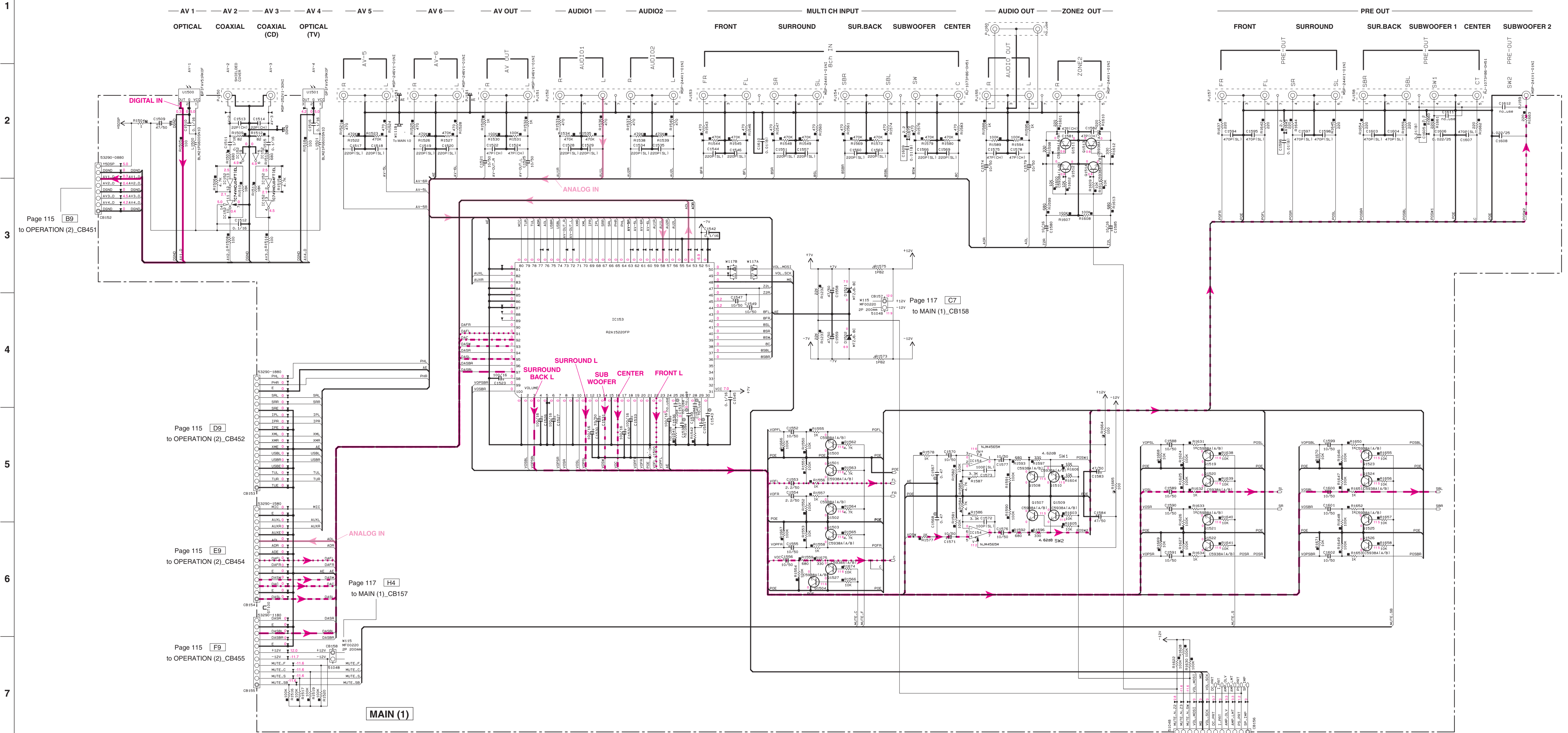
Page 119 [B8]  
to VIDEO (1)\_CB346

MAIN (1)  
C: R.L. 1500-1999  
P: R.L. 1500-1999  
S: R.L. 1500-1999  
C: R.L. 1500-1999  
P: R.L. 1500-1999  
S: R.L. 1500-1999  
C: R.L. 1500-1999  
P: R.L. 1500-1999  
S: R.L. 1500-1999

★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.  
★ 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.



MAIN 2/2



IC153: R2A15220FP  
8-channel electronic volume with 11 input selector and tone control

IC154: NJM4565M (TE1)  
Dual operational amplifier

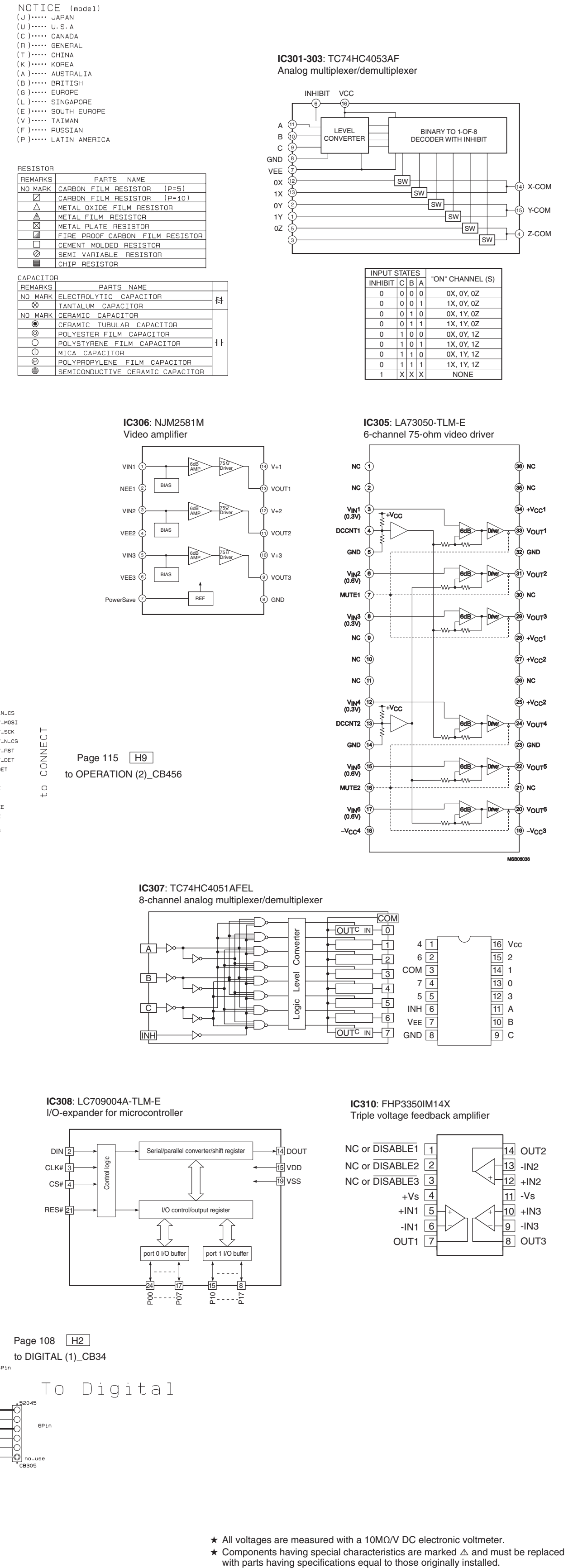
IC152: TC74VHC04FT  
Hex inverters

Page 112 [9]  
to DIGITAL (1)\_CB907

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
(J)..... JAPAN	CARBON FILM RESISTOR (P=10)
(U)..... U.S.A	METAL OXIDE FILM RESISTOR
(C)..... CANADA	METAL FILM RESISTOR
(R)..... GENERAL	METAL PLATE RESISTOR
(T)..... CHINA	FIRE PROOF CARBON FILM RESISTOR
(K)..... KOREA	CEMENT MOLDED RESISTOR
(A)..... AUSTRALIA	SEMI VARIABLE RESISTOR
(B)..... BRITISH	CHIP RESISTOR
(L)..... SINGAPORE	
(E)..... SOUTH EUROPE	
(V)..... TAIWAN	
(F)..... RUSSIAN	
(P)..... LATIN AMERICA	

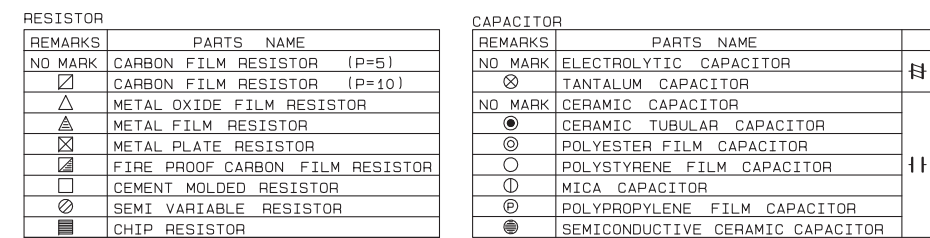
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
(J)..... JAPAN	TANTALUM CAPACITOR
(U)..... U.S.A	CERAMIC CAPACITOR
(C)..... CANADA	POLYESTER FILM CAPACITOR
(R)..... GENERAL	POLYSTYRENE FILM CAPACITOR
(T)..... CHINA	MICA CAPACITOR
(K)..... KOREA	POLYPROPYLENE FILM CAPACITOR
(A)..... AUSTRALIA	SEMICONDUCTIVE CERAMIC CAPACITOR
(B)..... BRITISH	
(L)..... SINGAPORE	
(E)..... SOUTH EUROPE	
(V)..... TAIWAN	
(F)..... RUSSIAN	
(P)..... LATIN AMERICA	

\* All voltages are measured with a 10MΩ/V DC electronic voltmeter.  
\* 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.

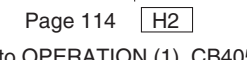
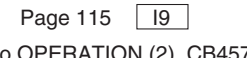




**IC321:** LC72725KM-UY-TLM-E  
RDS signal demodulation IC

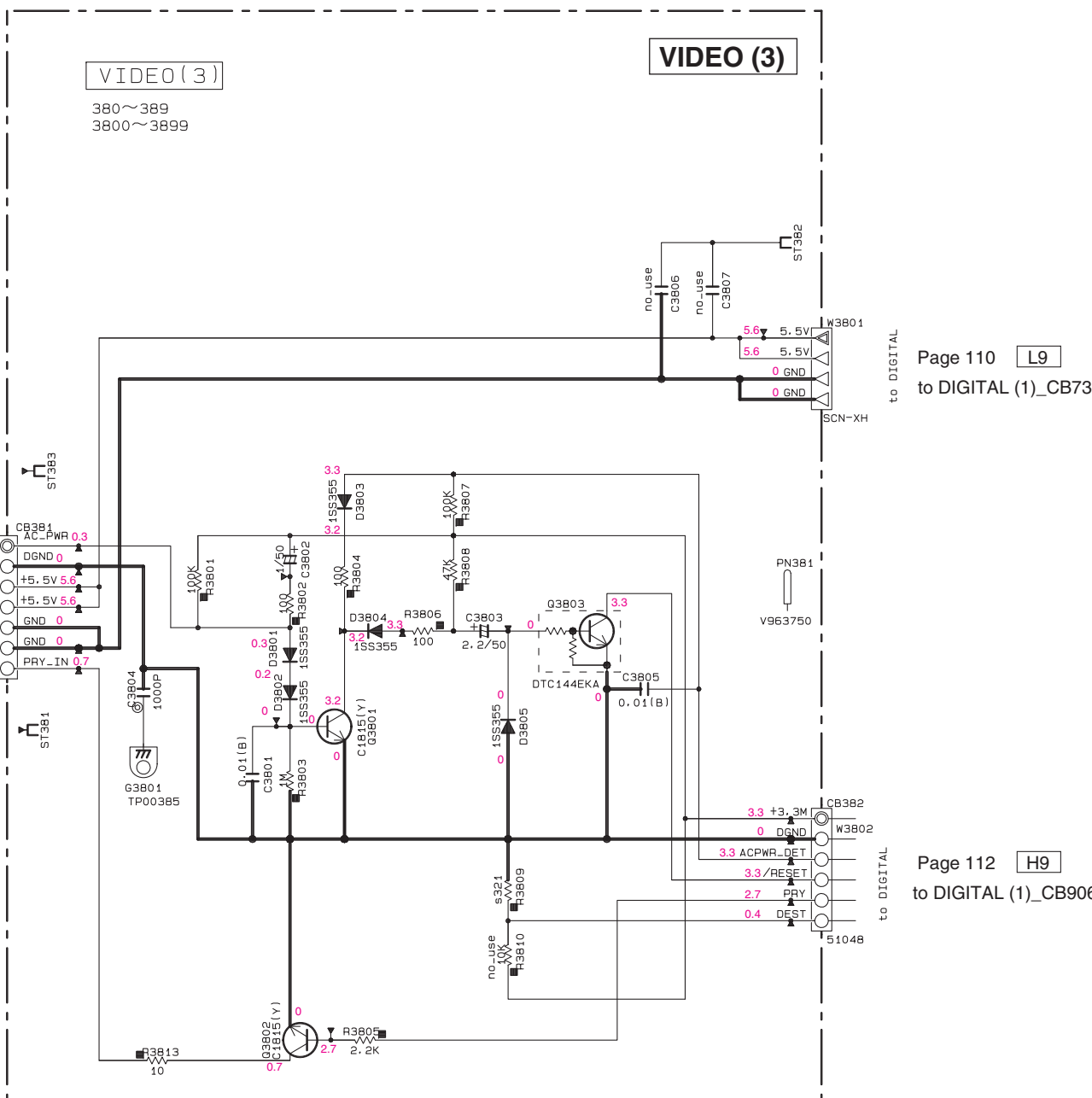
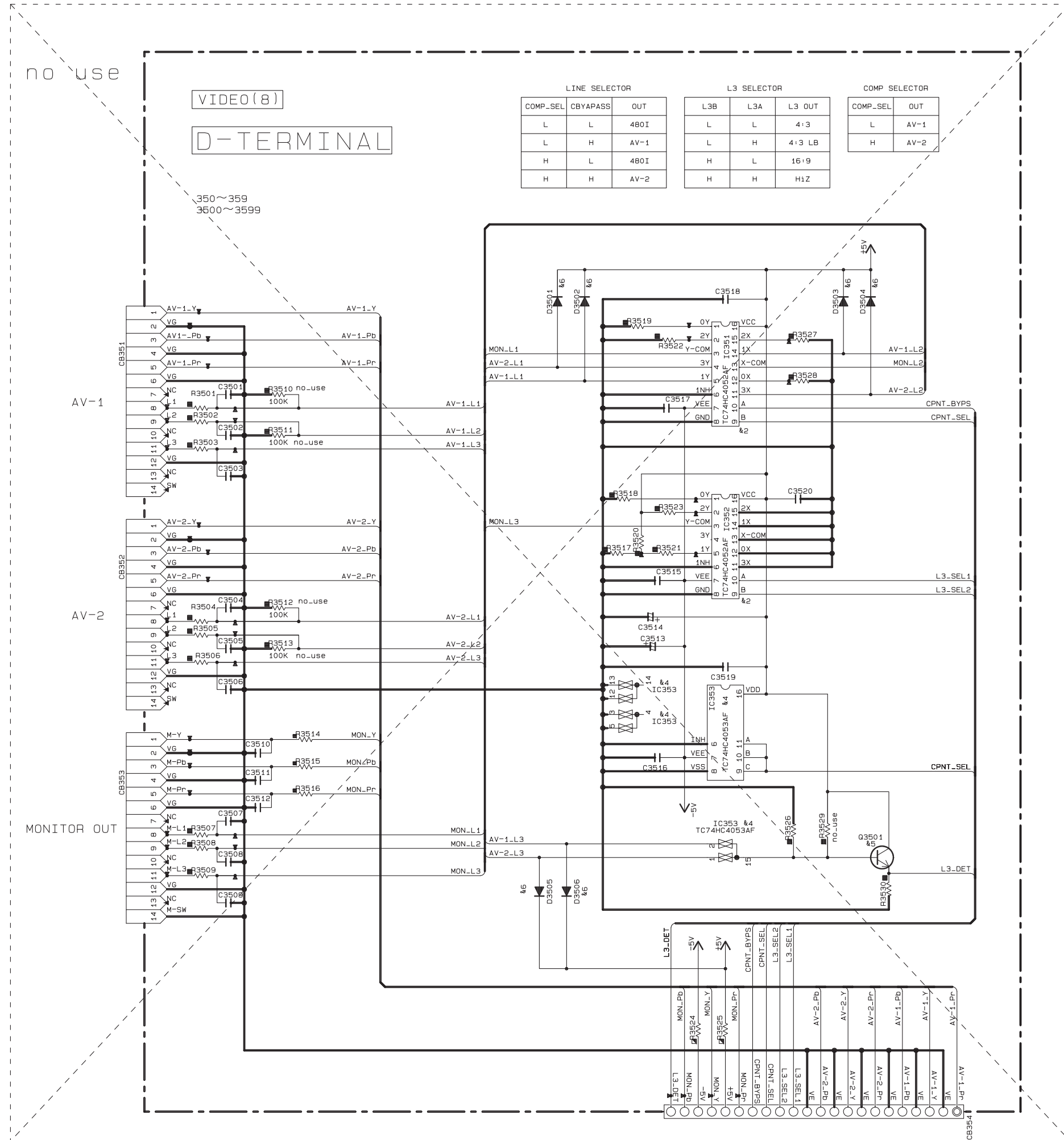
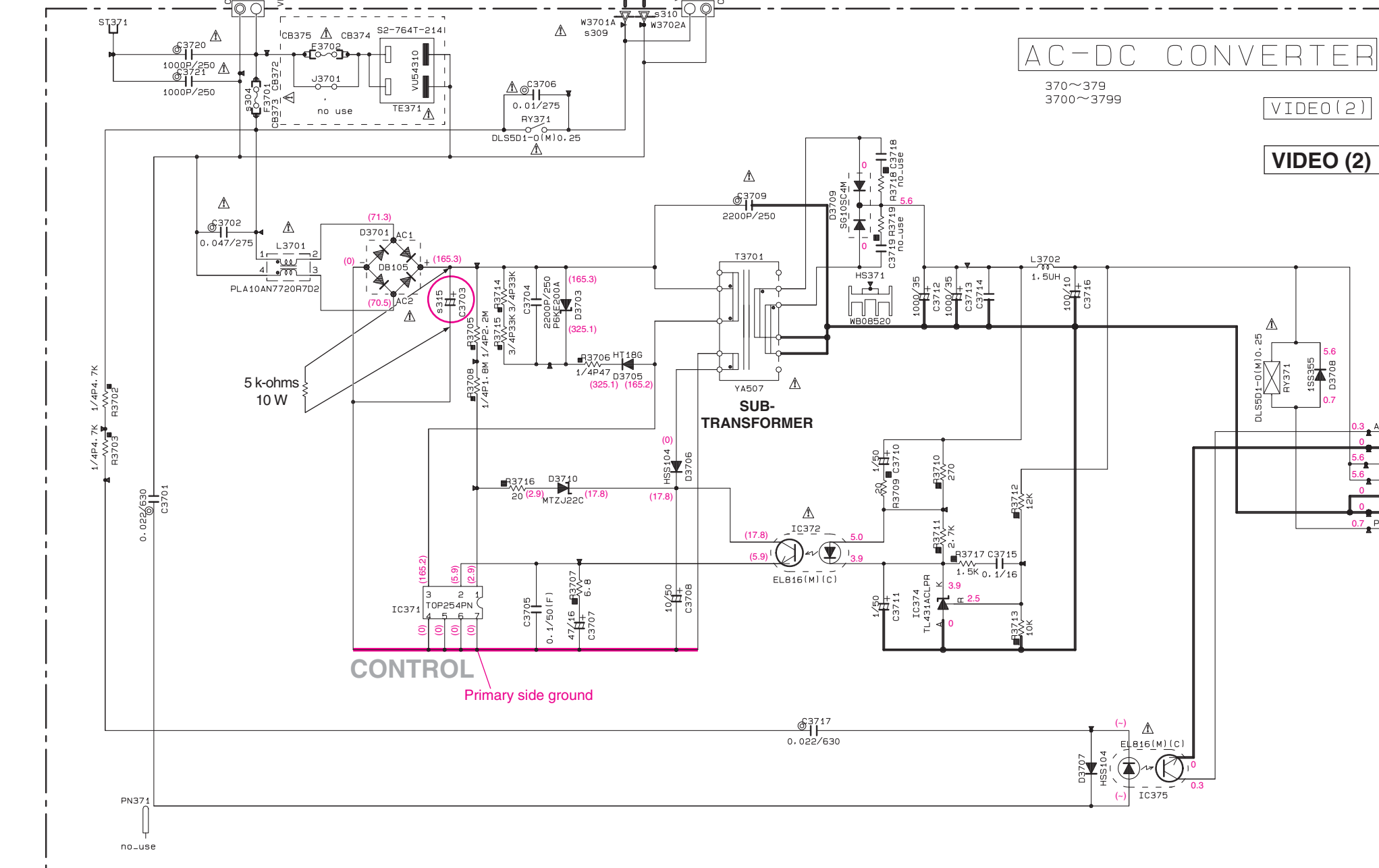
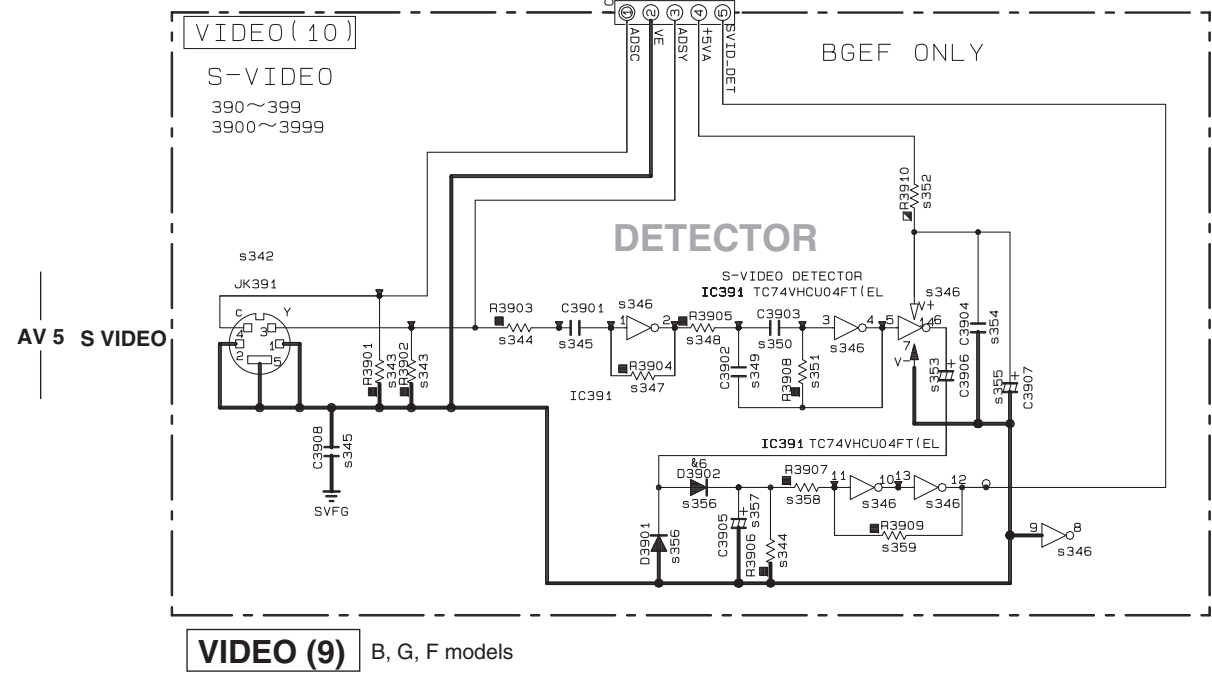
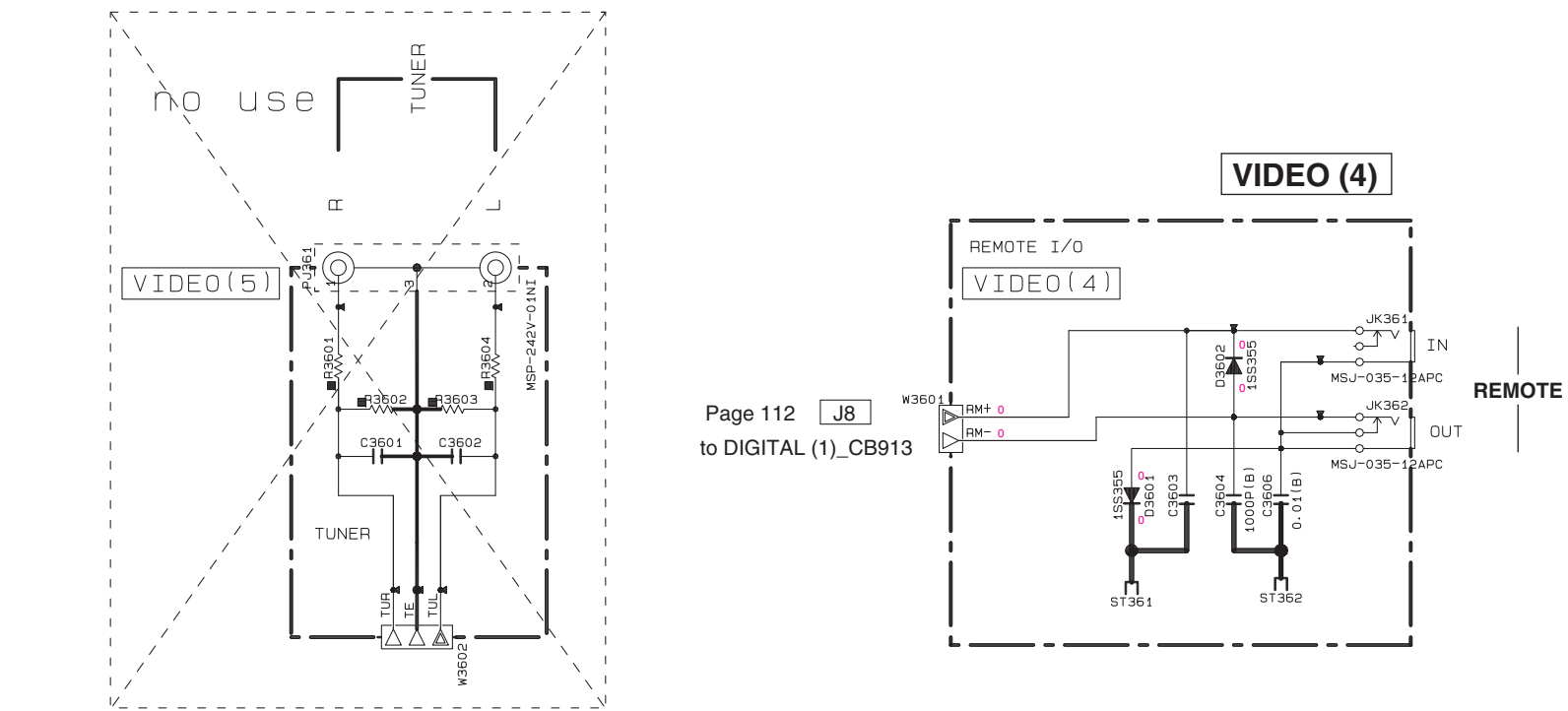


**VIDEO (1)**



119

VIDEO 3/3



Destination Part List	sxx	LOC	U	C	R	T	K	A	BGF	L
s304	F3701	W021110	W021110	W021110	W021110	W021110	W021110	W021110	W021110	W021110
s309	K3701B	W030620	W030620	W030620	W030620	W030620	W030620	W030620	W030620	W030620
s310	K3702B	W030620	W030620	W030620	W030620	W030620	W030620	W030620	W030620	W030620
s311	CB378	X	X	X	X	X	X	X	X	X
s315	C3703	W080200	W080200	W080200	W080200	W080200	W080200	W080200	W080200	W080200
s321	R3809	W080200	W080200	W080200	W080200	W080200	W080200	W080200	W080200	W080200
s341	CB391	X	X	X	X	X	X	X	X	X
s342	K3901	X	X	X	X	X	X	X	X	X
s343	R3901	X	X	X	X	X	X	X	X	X
s344	R3903	X	X	X	X	X	X	X	X	X
s345	C3903	X	X	X	X	X	X	X	X	X
s346	IC391	X	X	X	X	X	X	X	X	X
s347	R3904	X	X	X	X	X	X	X	X	X
s348	R3905	X	X	X	X	X	X	X	X	X
s349	C3902	X	X	X	X	X	X	X	X	X
s350	C3903	X	X	X	X	X	X	X	X	X
s351	R3908	X	X	X	X	X	X	X	X	X
s352	R3910	X	X	X	X	X	X	X	X	X
s353	C3906	X	X	X	X	X	X	X	X	X
s354	C3904	X	X	X	X	X	X	X	X	X
s355	C3907	X	X	X	X	X	X	X	X	X
s356	D3902	X	X	X	X	X	X	X	X	X
s357	C3905	X	X	X	X	X	X	X	X	X
s358	R3907	X	X	X	X	X	X	X	X	X
s359	R3909	X	X	X	X	X	X	X	X	X

RESISTOR	PARTS NAME	REMARKS
NO MARK	CARBON FILM RESISTOR (P=5)	
NO MARK	CARBON FILM RESISTOR (P=10)	
NO MARK	METAL OXIDE FILM RESISTOR	
NO MARK	METAL FILM RESISTOR	
NO MARK	METAL PLATE RESISTOR	
NO MARK	FINE PROOF CARBON FILM RESISTOR	
NO MARK	CEMENT MOLDED RESISTOR	
NO MARK	SEMI VARIABLE RESISTOR	
NO MARK	CHIP RESISTOR	

CAPACITOR	PARTS NAME	REMARKS
NO MARK	ELECTROLYTIC CAPACITOR	
NO MARK	TANTALUM CAPACITOR	
NO MARK	CERAMIC CAPACITOR	
NO MARK	CERAMIC TUBULAR CAPACITOR	
NO MARK	POLYESTER FILM CAPACITOR	
NO MARK	POLYSTYRENE FILM CAPACITOR	
NO MARK	MICA CAPACITOR	
NO MARK	POLYPROPYLENE FILM CAPACITOR	
NO MARK	SEMICONDUCTIVE CERAMIC CAPACITOR	

NOTICE (model)

(J)..... JAPAN

(U)..... U.S.A

(C)..... CANADA

(R)..... GENERAL

(K)..... KOREA

(A)..... AUSTRALIA

(B)..... BRITISH

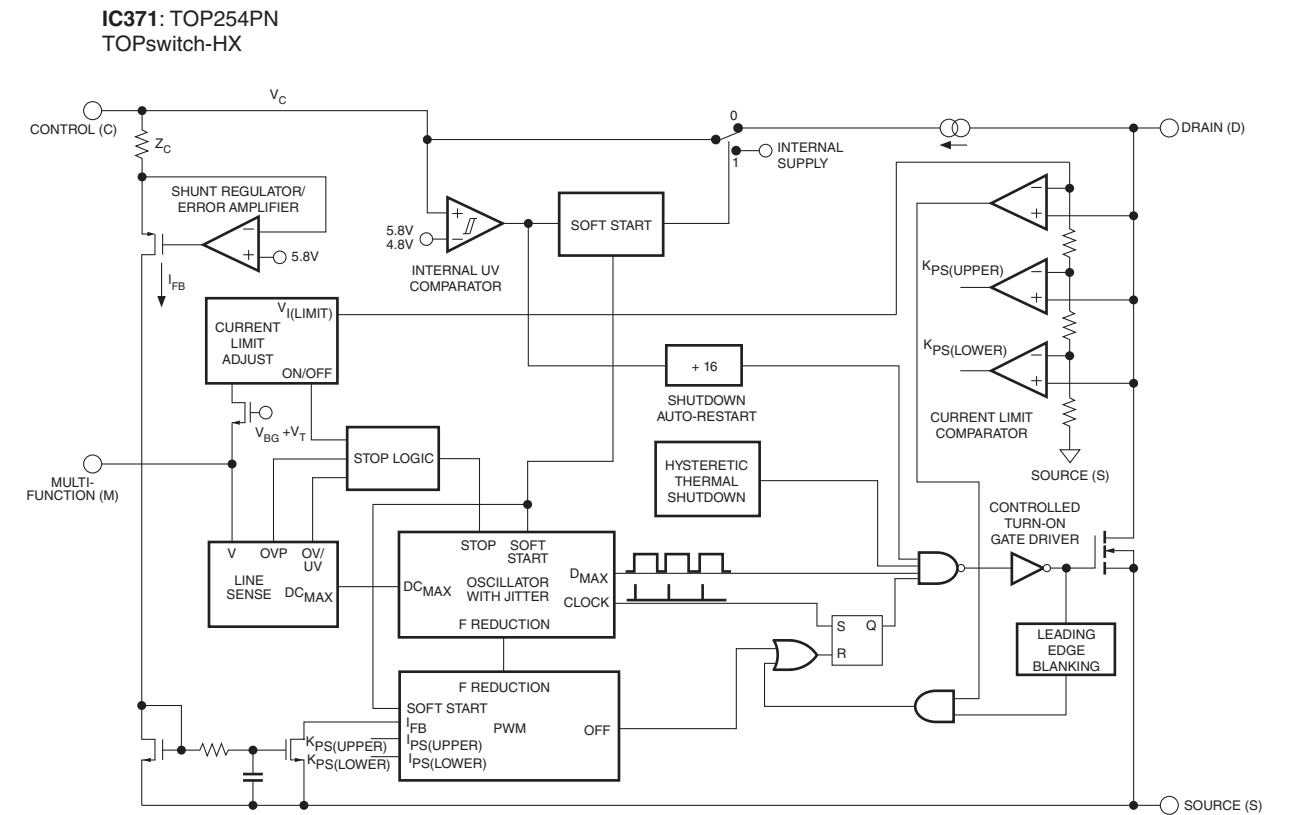
(O)..... EUROPE

(L)..... SINGAPORE

(E)..... SOUTH EUROPE

(V)..... TAIWAN

(P)..... LATIN AMERICA



Notes

Safety measures

- Some internal parts in this product contain high voltages and are dangerous. Be sure to take safety measures during servicing, such as wearing insulating gloves.
- Note that positions indicated below are dangerous even after the power is turned off because an electric charge remains and a high voltage continues to exist there.
- Before starting any repair work, perform discharge by connecting a discharge resistor (5k-ohms/10W) between terminals at following positions. The time required for discharging is about 30 seconds.
- C3703 on VIDEO (2) P.C.B.

- All voltages are measured with a 10MΩ/V DC electronic voltmeter.
- 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.



## ■ REPLACEMENT PARTS LIST

### • ELECTRICAL COMPONENT PARTS

#### WARNING

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

#### ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

C.A.EL.CHP	: CHIP ALUMI.ELECTROLYTIC CAP	JUMPER.TST	: JUMPER,TEST POINT
C.CE	: CERAMIC CAP	L.DTCT	: LIGHT DETECTING MODULE
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.CHP	: CHIP LED
C.CE.CHP	: CHIP CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	LED.INFRD	: LED,INFRARED
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.EL	: ELECTROLYTIC CAP	PHOT.TR	: PHOTO TRANSISTOR
C.EL.BP	: BIPOLAR ELECTROLYTIC CAP	PIN.TEST	: PIN,TEST POINT
C.EL.CHP	: CHIP 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 POLYESTER FILM CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.CEMENT	: CEMENT RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.FUS	: FUSIBLE RESISTOR
C.NIOB.OXD	: NIOBIUM OXIDE 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.PP	: POLYPROPYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP.CHP	: CHIP POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	SCR.BND.HD	: BIND HEAD B-TIGHT SCREW
C.TNTL.CHP	: CHIP TANTALUM CAP	SCR.TERM	: SCREW TERMINAL
C.TRIM	: TRIMMER CAP	SCR.TR	: SCREW,TRANSISTOR
CN	: CONNECTOR	SURG.PRTCT	: SURGE PROTECTOR
CN.BS.PIN	: CONNECTOR,BASE PIN	SUPRT.PCB	: P.C.B. SUPPORT
CN.CANNON	: CONNECTOR,CANNON	SW.LEVER	: LEVER SWITCH
CN.DIN	: CONNECTOR,DIN	SW.MICRO	: MICRO SWITCH
CN.FLAT	: CONNECTOR,FLAT CABLE	SW.LEAF	: LEAF SWITCH
CN.FFC	: CONNECTOR,FLEXIBLE FLAT CABLE	SW.PUSH	: PUSH SWITCH
CN.HDMI	: HDMI CONNECTOR	SW.RT	: ROTARY SWITCH
CN.PHOTO.R	: PHOTO FIBER SENSOR,RECEIVED	SW.RT.ENC	: ROTARY ENCODER
CN.PHOTO.T	: PHOTO FIBER SENSOR,TRANSMITTED	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.ARRAY	: DIODE ARRAY	SW.SLIDE	: SLIDE SWITCH
DIODE.BRG	: DIODE BRIDGE	SW.TACT	: TACT SWITCH
DIODE.CHP	: CHIP DIODE	TERM.SP	: SPEAKER TERMINAL
DIODE.VAR	: VARACTOR DIODE	TERM.WRAP	: WRAPPING TERMINAL
DIODE.ZENR	: ZENER DIODE	THRMST.CHP	: CHIP THERMISTOR
DIODE.Z.CHP	: CHIP ZENER DIODE	TR	: TRANSISTOR
DIODE.SCHOTTKY	: SCHOTTKY BARRIER DIODE	TR.CHP	: CHIP TRANSISTOR
DIODE.PHOT	: PHOTO DIODE	TR.DGT	: DIGITAL TRANSISTOR
FER.BEAD	: FERRITE BEADS	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FER.CORE	: FERRITE CORE	TR.PAIR	: PAIR TRANSISTOR
FET.CHP	: CHIP FET	TRANS	: TRANSFORMER
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS.PULS	: PULSE TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PWR	: POWER TRANSFORMER
FLTR.COMB	: COMB FILTER MODULE	VOLT.SELCT	: VOLTAGE SELECTOR
FLTR.LC.RF	: LC FILTER,EMI	VR	: ROTARY POTENTIOMETER
FUSE.CHP	: CHIP FUSE	VR.MTR	: POTENTIOMETER WITH MOTOR
GND.MTL	: GROUND PLATE	VR.SLIDE	: SLIDE POTENTIOMETER
GND.TERM	: GROUND TERMINAL	VR.SW	: POTENTIOMETER WITH SWITCH
JUMPER.CN	: JUMPER CONNECTOR	VR.TRIM	: TRIMMER POTENTIOMETER

## P.C.B. DIGITAL

Ref No.	Part No.	Description	Markets
* WU432000	P. C. B.	DIGITAL	U (V667)
* WU933100	P. C. B.	DIGITAL	U (A700)
* WU432100	P. C. B.	DIGITAL	CTKAL
* WU432200	P. C. B.	DIGITAL	R
* WU432300	P. C. B.	DIGITAL	BGF
* CB1-5	WU167400	CN. HDMI	HDMI 19P SE
* CB8	WD295600	CN. BS. PIN	20P SE
CB31	VQ044100	CN. BS. PIN	5P
CB34	VF982200	CN. BS. PIN	14P
* CB71	WU167400	CN. HDMI	HDMI 19P SE
CB73	LB919040	CN. BS. PIN	4P
CB901	VB390000	CN. BS. PIN	4P
* CB93	WU167400	CN. HDMI	HDMI 19P SE
CB94	VY939800	CN. BS. PIN	20P TE
CB904	VQ045200	CN. BS. PIN	22P
CB906	VK026500	CN. BS. PIN	6P
CB907	VK025600	CN. BS. PIN	12P
CB911	VK024700	CN. BS. PIN	3P
CB913	VB389800	CN. BS. PIN	2P
CB914	VP082900	CN. BS. PIN	25P
CB915	VG518300	PIN. BASE	2P RF TE
CB916	VQ047200	CN. BS. PIN	9P
CB917-918	V9356900	CN. JE	19P SE
CB920	V9356900	CN. JE	19P SE
* CB981	WT567000	SOCKET. RS-232C	RS-232C 8LAM009P-306A
C1	US135100	C. CE. CHP	0.1uF 16V
C2	WG888300	C. CE. M. CHP	10uF 6.3V
C3-5	US064100	C. CE. CHP	0.01uF 50V B
C6	US063100	C. CE. CHP	1000pF 50V B
C7-9	US135100	C. CE. CHP	0.1uF 16V
C10	US064100	C. CE. CHP	0.01uF 50V B
C11	UF438100	C. EL. CHP	100uF 16V
C12-13	US064100	C. CE. CHP	0.01uF 50V B
C14	US135100	C. CE. CHP	0.1uF 16V
C15-17	US064100	C. CE. CHP	0.01uF 50V B
C18-19	US135100	C. CE. CHP	0.1uF 16V
C20-23	US064100	C. CE. CHP	0.01uF 50V B
C24-27	US135100	C. CE. CHP	0.1uF 16V
C28-29	WG888300	C. CE. M. CHP	10uF 6.3V
C30-32	US135100	C. CE. CHP	0.1uF 16V
C33	WG888300	C. CE. M. CHP	10uF 6.3V
C34-35	US135100	C. CE. CHP	0.1uF 16V
C36	WG888300	C. CE. M. CHP	10uF 6.3V
C37-38	US135100	C. CE. CHP	0.1uF 16V
C39	US063100	C. CE. CHP	1000pF 50V B
C40-43	US135100	C. CE. CHP	0.1uF 16V
C44	US063100	C. CE. CHP	1000pF 50V B
C45-52	US064100	C. CE. CHP	0.01uF 50V B
C53-54	US063100	C. CE. CHP	1000pF 50V B
C55-56	US064100	C. CE. CHP	0.01uF 50V B
C57	US062470	C. CE. CHP	470pF 50V B
C58	US135100	C. CE. CHP	0.1uF 16V
C59	WG888300	C. CE. M. CHP	10uF 6.3V
C60-61	US135100	C. CE. CHP	0.1uF 16V
C62	US063100	C. CE. CHP	1000pF 50V B
C63-64	US135100	C. CE. CHP	0.1uF 16V
C65	WD758300	C. CE. CHP	10uF 10V

\* New Parts

Ref No.	Part No.	Description	Markets
C66	US063100	C. CE. CHP	1000pF 50V B
C68	WD758300	C. CE. CHP	10uF 10V
C70-72	US063100	C. CE. CHP	1000pF 50V B
C73-75	US135100	C. CE. CHP	0.1uF 16V
C76-77	WG888300	C. CE. M. CHP	10uF 6.3V
C78	US135100	C. CE. CHP	0.1uF 16V
C79	US063100	C. CE. CHP	1000pF 50V B
C80-83	US135100	C. CE. CHP	0.1uF 16V
C84-96	US064100	C. CE. CHP	0.01uF 50V B
C97-101	US135100	C. CE. CHP	0.1uF 16V
C103	US135100	C. CE. CHP	0.1uF 16V
C104	US063100	C. CE. CHP	1000pF 50V B
C105	US135100	C. CE. CHP	0.1uF 16V
C106	WG888300	C. CE. M. CHP	10uF 6.3V
C107	US135100	C. CE. CHP	0.1uF 16V
C109	US135100	C. CE. CHP	0.1uF 16V
C110	WG888300	C. CE. M. CHP	10uF 6.3V
C112	US135100	C. CE. CHP	0.1uF 16V
C113	UF417220	C. EL. CHP	22uF 6.3V
C114	US063100	C. CE. CHP	1000pF 50V B
C116-117	US063100	C. CE. CHP	1000pF 50V B
C119	US063100	C. CE. CHP	1000pF 50V B
C120	US062470	C. CE. CHP	470pF 50V B
C121-122	US062100	C. CE. CHP	100pF 50V B
C301-303	US135100	C. CE. CHP	0.1uF 16V
C304-305	WD758300	C. CE. CHP	10uF 10V
C306	US063100	C. CE. CHP	1000pF 50V B
C307-308	US135100	C. CE. CHP	0.1uF 16V
C309-310	WD758300	C. CE. CHP	10uF 10V
C311-312	US135100	C. CE. CHP	0.1uF 16V
C313-314	US064100	C. CE. CHP	0.01uF 50V B
C315	UF037220	C. EL. CHP	22uF 16V
C316-318	US135100	C. CE. CHP	0.1uF 16V
C319	US034390	C. CE. CHP	0.039uF 16V B
C320-322	US135100	C. CE. CHP	0.1uF 16V
C323-324	US063100	C. CE. CHP	1000pF 50V B
C325-326	US135100	C. CE. CHP	0.1uF 16V
C327	US064100	C. CE. CHP	0.01uF 50V B
C328	US135100	C. CE. CHP	0.1uF 16V
C329	US064100	C. CE. CHP	0.01uF 50V B
C330	US135100	C. CE. CHP	0.1uF 16V
C331	VZ243400	C. CE. CHP	0.33uF 16V
C332	VZ281900	C. CE. CHP	0.47uF 16V K
C333	US034820	C. CE. CHP	0.082uF 16V K
C334	US064100	C. CE. CHP	0.01uF 50V B
C335	US135100	C. CE. CHP	0.1uF 16V
C336	US061100	C. CE. CHP	10pF 50V B
C338	US060800	C. CE. CHP	8pF 50V B
C339-341	US135100	C. CE. CHP	0.1uF 16V
C342	US064100	C. CE. CHP	0.01uF 50V B
C343-345	US135100	C. CE. CHP	0.1uF 16V
C346	US046100	C. CE. CHP	1uF 25V
C347	US135100	C. CE. CHP	0.1uF 16V
C348	US046100	C. CE. CHP	1uF 25V
C349-350	US135100	C. CE. CHP	0.1uF 16V
C351	WG251600	C. CE. CHP	4.7uF 6.3V
* C352	WP092800	C. EL. CHP	22uF 16V

\* New Parts

## P.C.B. DIGITAL

Ref No.	Part No.	Description	Markets	Ref No.	Part No.	Description	Markets
C353	WG251600	C. CE. CHP	4. 7uF 6. 3V	C735	WD758200	C. CE. CHP	47uF 6. 3V
C354-356	US135100	C. CE. CHP	0. 1uF 16V	C736	WQ614300	C. CE. CHP	22uF 10VE
* C357	WP092800	C. EL. CHP	22uF 16V	C737	US135100	C. CE. CHP	0. 1uF 16V
C358-359	US063100	C. CE. CHP	1000pF 50V B	C738	US061220	C. CE. CHP	22pF 50V B
C360	US135100	C. CE. CHP	0. 1uF 16V	* C739	US034270	C. CE. CHP	0. 027uF 16V
C361	US063100	C. CE. CHP	1000pF 50V B	C740	US135100	C. CE. CHP	0. 1uF 16V
C362	UF037220	C. EL. CHP	22uF 16V	C744	WQ614300	C. CE. CHP	22uF 10VE
C363-367	US135100	C. CE. CHP	0. 1uF 16V	C746	US046100	C. CE. CHP	1uF 25V
C368	US062100	C. CE. CHP	100pF 50V B	C760	WG251600	C. CE. CHP	4. 7uF 6. 3V
C369	US135100	C. CE. CHP	0. 1uF 16V	C763	WG251600	C. CE. CHP	4. 7uF 6. 3V
C370-371	US064100	C. CE. CHP	0. 01uF 50V B	C768	WP882000	C. CE. CHP	10uF 6. 3V
C372	US135100	C. CE. CHP	0. 1uF 16V	C769	US061270	C. CE. CHP	27pF 50V B
C373-377	US064100	C. CE. CHP	0. 01uF 50V B	C770	WD758200	C. CE. CHP	47uF 6. 3V
C378	US135100	C. CE. CHP	0. 1uF 16V	* C780	US034270	C. CE. CHP	0. 027uF 16V
C379	US064100	C. CE. CHP	0. 01uF 50V B	C782	WQ614300	C. CE. CHP	22uF 10VE
C381-382	US063100	C. CE. CHP	1000pF 50V B	C787-789	US135100	C. CE. CHP	0. 1uF 16V
C601-615	US135100	C. CE. CHP	0. 1uF 16V	C790	WH772100	C. EL	1000uF 10V
C616	US163100	C. CE. CHP	1000pF 50V	C791	US135100	C. CE. CHP	0. 1uF 16V
C617	US135100	C. CE. CHP	0. 1uF 16V	C792	WG888300	C. CE. M. CHP	10uF 6. 3V
C618	US163100	C. CE. CHP	1000pF 50V	C793	WD758300	C. CE. CHP	10uF 10V
C619	US135100	C. CE. CHP	0. 1uF 16V	C794-799	US063100	C. CE. CHP	1000pF 50V B
C620	UF438100	C. EL. CHP	100uF 16V	C806-807	US063100	C. CE. CHP	1000pF 50V B
C621-622	UF417220	C. EL. CHP	22uF 6. 3V	C809	WG888300	C. CE. M. CHP	10uF 6. 3V
C623-624	US135100	C. CE. CHP	0. 1uF 16V	C810	WD758300	C. CE. CHP	10uF 10V
C625-626	US063100	C. CE. CHP	1000pF 50V B	C900	US062220	C. CE. CHP	220pF 50V B
C627-629	US135100	C. CE. CHP	0. 1uF 16V	C901	US063100	C. CE. CHP	1000pF 50V B
C630	WG888300	C. CE. M. CHP	10uF 6. 3V	C902	US062220	C. CE. CHP	220pF 50V B
C631-637	US135100	C. CE. CHP	0. 1uF 16V	C903	US063100	C. CE. CHP	1000pF 50V B
C638	WG888300	C. CE. M. CHP	10uF 6. 3V	C904	US062470	C. CE. CHP	470pF 50V B
C639	UF438100	C. EL. CHP	100uF 16V	C905	US135100	C. CE. CHP	0. 1uF 16V
C640	WG888300	C. CE. M. CHP	10uF 6. 3V	C906	US064100	C. CE. CHP	0. 01uF 50V B
C641-648	US135100	C. CE. CHP	0. 1uF 16V	C921	US135100	C. CE. CHP	0. 1uF 16V
C649-650	WG888300	C. CE. M. CHP	10uF 6. 3V	C922	US064100	C. CE. CHP	0. 01uF 50V B
C651-655	US163100	C. CE. CHP	1000pF 50V	C923	WG888300	C. CE. M. CHP	10uF 6. 3V
C701	WD758300	C. CE. CHP	10uF 10V	C924	US135100	C. CE. CHP	0. 1uF 16V
C702	US064100	C. CE. CHP	0. 01uF 50V B	C925-930	US064100	C. CE. CHP	0. 01uF 50V B
C703	US135100	C. CE. CHP	0. 1uF 16V	C931	US135100	C. CE. CHP	0. 1uF 16V
C704	US064100	C. CE. CHP	0. 01uF 50V B	C932	WG888300	C. CE. M. CHP	10uF 6. 3V
C705	US135100	C. CE. CHP	0. 1uF 16V	C933	US135100	C. CE. CHP	0. 1uF 16V
C706-707	US064100	C. CE. CHP	0. 01uF 50V B	C936	WQ614300	C. CE. CHP	22uF 10VE
C708-709	WD758300	C. CE. CHP	10uF 10V	C937	US135100	C. CE. CHP	0. 1uF 16V
C710-711	US135100	C. CE. CHP	0. 1uF 16V	C938	WG888300	C. CE. M. CHP	10uF 6. 3V
C712	WD758300	C. CE. CHP	10uF 10V	C941	US163100	C. CE. CHP	1000pF 50V
C713	US135100	C. CE. CHP	0. 1uF 16V	C1001-1022	US135100	C. CE. CHP	0. 1uF 16V
C714-718	US064100	C. CE. CHP	0. 01uF 50V B	C1101-1104	US135100	C. CE. CHP	0. 1uF 16V
C719	US135100	C. CE. CHP	0. 1uF 16V	C9001-9003	US135100	C. CE. CHP	0. 1uF 16V
C720-722	US064100	C. CE. CHP	0. 01uF 50V B	C9004	UF027330	C. EL. CHP	33uF 10V
C723-724	US135100	C. CE. CHP	0. 1uF 16V	C9005-9006	US135100	C. CE. CHP	0. 1uF 16V
C725	WD758300	C. CE. CHP	10uF 10V	C9007	US046100	C. CE. CHP	1uF 25V
C726	US064100	C. CE. CHP	0. 01uF 50V B	C9008-9009	US063100	C. CE. CHP	1000pF 50V B
C727	WD758300	C. CE. CHP	10uF 10V	C9010	WG251600	C. CE. CHP	4. 7uF 6. 3V
C728	US064100	C. CE. CHP	0. 01uF 50V B	C9011	US063100	C. CE. CHP	1000pF 50V B
C729	US135100	C. CE. CHP	0. 1uF 16V	C9012	US135100	C. CE. CHP	0. 1uF 16V
C730-731	US046100	C. CE. CHP	1uF 25V	C9013	US063100	C. CE. CHP	1000pF 50V B
C732	WP882000	C. CE. CHP	10uF 6. 3V	C9014	US046100	C. CE. CHP	1uF 25V
C733	US062470	C. CE. CHP	470pF 50V B	C9015-9016	US063100	C. CE. CHP	1000pF 50V B
C734	US061270	C. CE. CHP	27pF 50V B	C9017	US046100	C. CE. CHP	1uF 25V

\* New Parts

\* New Parts

## P.C.B. DIGITAL

Ref No.	Part No.	Description	Markets
C9018	US135100	C. CE. CHP 0. 1uF 16V	
C9019	WG251600	C. CE. CHP 4. 7uF 6. 3V	
C9020	US135100	C. CE. CHP 0. 1uF 16V	
C9021	UF417470	C. EL. CHP 47uF 6. 3V	
C9022	US135100	C. CE. CHP 0. 1uF 16V	
C9023	WG251600	C. CE. CHP 4. 7uF 6. 3V	
C9024-9030	US135100	C. CE. CHP 0. 1uF 16V	
C9031	US063100	C. CE. CHP 1000pF 50V B	
C9032	US135100	C. CE. CHP 0. 1uF 16V	
C9033-9039	US046100	C. CE. CHP 1uF 25V	
C9040-9041	US135100	C. CE. CHP 0. 1uF 16V	
C9042	US063100	C. CE. CHP 1000pF 50V B	
C9043	US046100	C. CE. CHP 1uF 25V	
C9044-9045	US063100	C. CE. CHP 1000pF 50V B	
C9046	US062100	C. CE. CHP 100pF 50V B	
C9047	US063100	C. CE. CHP 1000pF 50V B	
C9048	US062100	C. CE. CHP 100pF 50V B	
C9301-9302	US126100	C. CE. CHP 1uF 10V	
C9303-9304	US064100	C. CE. CHP 0. 01uF 50V B	
C9306	US126100	C. CE. CHP 1uF 10V	
C9307	US064100	C. CE. CHP 0. 01uF 50V B	
C9308	US135100	C. CE. CHP 0. 1uF 16V	
C9309	US126100	C. CE. CHP 1uF 10V	
C9310	US064100	C. CE. CHP 0. 01uF 50V B	
C9311	US063470	C. CE. CHP 4700pF 50V B	
C9312	UB214680	C. CE. CHP 0. 068uF 25V	
C9313	US035100	C. CE. CHP 0. 1uF 16V B	
C9315	WD758300	C. CE. CHP 10uF 10V	
C9317-9318	WD758300	C. CE. CHP 10uF 10V	
C9321	US062220	C. CE. CHP 220pF 50V B	
C9323-9324	US062220	C. CE. CHP 220pF 50V B	
C9325-9326	US062560	C. CE. CHP 560pF 50V B	
C9327-9328	US062220	C. CE. CHP 220pF 50V B	
C9329	US062100	C. CE. CHP 100pF 50V B	
C9330	WD758300	C. CE. CHP 10uF 10V	
C9331	WG888300	C. CE. M. CHP 10uF 6. 3V	
C9332	WD758300	C. CE. CHP 10uF 10V	
C9333	US126100	C. CE. CHP 1uF 10V	
C9334-9340	US135100	C. CE. CHP 0. 1uF 16V	
C9341	US064100	C. CE. CHP 0. 01uF 50V B	
C9342-9344	US135100	C. CE. CHP 0. 1uF 16V	
C9345	US046100	C. CE. CHP 1uF 25V	
C9346-9348	US135100	C. CE. CHP 0. 1uF 16V	
C9349	US046100	C. CE. CHP 1uF 25V	
C9350-9351	US135100	C. CE. CHP 0. 1uF 16V	
C9352	UF417470	C. EL. CHP 47uF 6. 3V	
C9353-9355	US135100	C. CE. CHP 0. 1uF 16V	
C9356	US046100	C. CE. CHP 1uF 25V	
C9357	US135100	C. CE. CHP 0. 1uF 16V	
C9358	US062680	C. CE. CHP 680pF 50V B	
C9359	US135100	C. CE. CHP 0. 1uF 16V	
C9360	US046100	C. CE. CHP 1uF 25V	
C9361-9362	US135100	C. CE. CHP 0. 1uF 16V	
C9363	WG888300	C. CE. M. CHP 10uF 6. 3V	
C9364-9370	US135100	C. CE. CHP 0. 1uF 16V	
C9371	WG888300	C. CE. M. CHP 10uF 6. 3V	
C9372-9373	US135100	C. CE. CHP 0. 1uF 16V	

\* New Parts

Ref No.	Part No.	Description	Markets
C9374-9375	UF417220	C. EL. CHP 22uF 6. 3V	
C9376-9378	US135100	C. CE. CHP 0. 1uF 16V	
C9379-9381	US063100	C. CE. CHP 1000pF 50V B	
C9382-9383	US135100	C. CE. CHP 0. 1uF 16V	
C9384-9387	US063100	C. CE. CHP 1000pF 50V B	
C9388-9390	US135100	C. CE. CHP 0. 1uF 16V	
C9391	US046100	C. CE. CHP 1uF 25V	
C9392-9393	US135100	C. CE. CHP 0. 1uF 16V	
C9394	US046100	C. CE. CHP 1uF 25V	
C9395-9396	US063100	C. CE. CHP 1000pF 50V B	
C9398-9401	US062100	C. CE. CHP 100pF 50V B	
C9404	US135100	C. CE. CHP 0. 1uF 16V	
C9405-9407	US063100	C. CE. CHP 1000pF 50V B	
C9801-9806	US135100	C. CE. CHP 0. 1uF 16V	(A700)
C9807	WD758300	C. CE. CHP 10uF 10V	(A700)
D701-702	WE674800	DIODE AVRL161A1R1NTB	
D703	VV220700	DIODE. SCHOTTKY RB501V-40	
D914	WE674800	DIODE AVRL161A1R1NTB	
D915-922	WP385600	PESD PESD0603-240	
D923-925	WE674800	DIODE AVRL161A1R1NTB	
D9001	VT332900	DIODE 1SS355	
D9002	VV220700	DIODE. SCHOTTKY RB501V-40	
IC4	X7779A00	IC LC709004A-TLM-E	
* IC31	YC287A00	IC RP130Q181D-TR-F	
IC32	X9393A00	IC ADV7800BSTZ-80	
IC33	X8897A00	IC R1172S331B-E2-F	
IC36-40	XZ287A00	IC SN74LVC245APWR	
IC41	X6671A00	IC ADV7172KSTZ	
* IC62	X9745B00	IC. MEMORY M12L128168A-5TG2T	
IC63	X9292A00	IC R1172H121D-T1-F	
IC65	X8378A00	IC TC7SH125FU (TE85L, F)	
IC72	X7741A00	IC NJM2867F3-05 (TE1)	
IC76	X9292A00	IC R1172H121D-T1-F	
* IC79	YC289A00	IC RP130Q501D-TR	
IC80	XZ287A00	IC SN74LVC245APWR	
IC81	X0199B00	IC TC74VHC157FT (EL, K)	
IC82	X4063A00	IC TC7WHU04FU	
* IC83	YC286A00	IC RP130Q121D-TR-F	
IC84	XR680A00	IC TC7SH08FU (TE85L, JF)	
IC91	X8368A00	IC PCA9517DP	
* IC94	YC218A00	IC TMDS141 HDMI SW.	
* IC95	YC288A00	IC RP130Q331D-TR-F	
IC901-902	X5875A00	IC SN74LV4051APWR	
IC903	YA739A00	IC. MEMORY LE25LB2562M-TLM-E	
IC904-905	X7942B00	IC TC74VHC273FT (EL, K)	
* IC906-907	YC288A00	IC RP130Q331D-TR-F	
* IC909	YC577D00	IC. MEMORY MX29LV640EBT1-70G	(written)
IC910	XW633A00	IC TC7SH32FU	
IC911	XZ493A00	IC TC74VHC86FT (EL) EX	
IC912	X4453A00	IC SN74LVC1G17DCKR	
IC913	X3586B00	IC TC74VHCT08AFT EL, K	
IC914	XV891B00	IC TC74VHC08FT (EL, K)	
* IC915	YC289A00	IC RP130Q501D-TR	
* IC942	YC214A00	IC D1X9210PT (R)	
IC944	YA255A00	IC R1172H501D-T1-F	
* IC946	YC288A00	IC RP130Q331D-TR-F	
IC947	X0199B00	IC TC74VHC157FT (EL, K)	

\* New Parts



## P.C.B. DIGITAL and P.C.B. OPERATION

Ref No.	Part No.	Description	Markets
* IC948	YC289A00	IC	RP130Q501D-TR
IC949	X9292A00	IC	R1172H121D-T1-F
IC950	YA473A00	IC. MEMORY	V54C365164VE16
* IC951	YC576D00	IC. MEMORY	MX29LV160DBT1-70G (written)
IC952	X2891B00	IC	TC74VHC126FT (EL, K)
IC953-954	XR680A00	IC	TC7SH08FU (TE85L, JF)
* IC955	YC291A00	IC	R1172N501D-TR-F
* IC981	YC321A00	IC	TRS3221ECPWR (A700)
PN901-903	WS488500	STYLE. PIN	L=90 #18
Q3-12	VQ986700	TR	2SC4081 T106
Q301	WQ381000	FET	MCH6336-TL-E
Q302	VR936300	TR	2SA1576A T106
Q303	WE834500	FET	UPA672T-T1-A
Q701	VV655300	TR. DGT	DTA144EKA
Q702	VV655700	TR. DGT	DTC144EKA
Q903-904	VQ986700	TR	2SC4081 T106
Q9001	VR936300	TR	2SA1576A T106
Q9003	WC529500	TR	KTA1504S Y GR RTK
Q9004	WC529400	TR	KTC3875S Y GR RTK
Q9005	WC529500	TR	KTA1504S Y GR RTK
Q9006	WC529400	TR	KTC3875S Y GR RTK
Q9007	WC529500	TR	KTA1504S Y GR RTK
Q9008	WC529400	TR	KTC3875S Y GR RTK
Q9009	WC529500	TR	KTA1504S Y GR RTK
Q9010	WC529400	TR	KTC3875S Y GR RTK
Q9011	WC529500	TR	KTA1504S Y GR RTK
Q9012-9018	VR936300	TR	2SA1576A T106
Q9019	WC529400	TR	KTC3875S Y GR RTK
Q9020	VV655200	TR. DGT	DTA143EKA
Q9021	VV655700	TR. DGT	DTC144EKA
Q9301	WQ381000	FET	MCH6336-TL-E
Q9302	VV655300	TR. DGT	DTA144EKA
Q9303	VV655400	TR. DGT	DTC114EKA
Q9306	VV655300	TR. DGT	DTA144EKA
R764	WB784700	R. MTL. FLM	6. 8Ω 1W
ST901	V4040500	SCR. TERM	M3
XL31	VZ772700	RSNR. CRY	28. 63636MHz
XL61	WK841200	RESONATOR	27MHz DS0321SRAB
XL901	WA782500	RSNR. CE	8MHz
XL941	WH714200	RESONATOR	24. 576MHz DS0321SR
* WU427500	P. C. B.	OPERATION	U (V667)
* WU933400	P. C. B.	OPERATION	U (A700)
* WU427600	P. C. B.	OPERATION	C (V667)
* WU428000	P. C. B.	OPERATION	C (6063)
* WU427700	P. C. B.	OPERATION	RTKABGL (V667)
* WU428100	P. C. B.	OPERATION	A (6063)
CB401	VQ045400	CN. BS. PIN	25P
CB402	VQ047200	CN. BS. PIN	9P
CB451	VQ961100	CN. BS. PIN	8P
CB452	VQ962100	CN. BS. PIN	18P
CB454	VQ961800	CN. BS. PIN	15P
CB455	VQ961400	CN. BS. PIN	11P
CB456	VQ963300	CN. BS. PIN	12P
CB457	VQ963100	CN. BS. PIN	10P

\* New Parts

Ref No.	Part No.	Description	Markets
CB458	VQ044400	CN. BS. PIN	9P
CB459-461	V9357000	CN	19P TE
CB463	VQ585700	CN. JUMPER	7P
CB472	VB858300	CN. BS. PIN	4P
CB473	VK026900	CN	10P
C4002	US065100	C. CE. CHP	0. 1uF 50V B
C4012-4013	US135100	C. CE. CHP	0. 1uF 16V
C4015	UR268220	C. EL	220uF 50V
C4016	UM388330	C. EL	330uF 6. 3V
C4017	US135100	C. CE. CHP	0. 1uF 16V
C4018	US061680	C. CE. CHP	68pF 50V B
C4019	US065100	C. CE. CHP	0. 1uF 50V B
C4020-4021	US163100	C. CE. CHP	1000pF 50V
C4022	US064100	C. CE. CHP	0. 01uF 50V B
C4023-4024	US063100	C. CE. CHP	1000pF 50V B
C4025-4026	US065100	C. CE. CHP	0. 1uF 50V B
C4027	US135100	C. CE. CHP	0. 1uF 16V
C4028	US062100	C. CE. CHP	100pF 50V B
C4030	US062100	C. CE. CHP	100pF 50V B
C4031	US062470	C. CE. CHP	470pF 50V B
C4032-4033	US135100	C. CE. CHP	0. 1uF 16V
C4034	UM417100	C. EL	10uF 50V
C4035	US135100	C. CE. CHP	0. 1uF 16V
C4037	US064100	C. CE. CHP	0. 01uF 50V B
C4039	US062220	C. CE. CHP	220pF 50V B
C4091-4092	US135100	C. CE. CHP	0. 1uF 16V
C4093-4094	US062220	C. CE. CHP	220pF 50V B
C4201	US063100	C. CE. CHP	1000pF 50V B
C4202-4208	US062220	C. CE. CHP	220pF 50V B
C4209-4210	UR267100	C. EL	10uF 50V
C4211-4212	US062100	C. CE. CHP	100pF 50V B
C4214	US135100	C. CE. CHP	0. 1uF 16V
C4215-4216	US062100	C. CE. CHP	100pF 50V B
C4217	UR067100	C. EL	10uF 50V
C4218-4219	UR267100	C. EL	10uF 50V
C4222-4223	UR067470	C. EL	47uF 50V
C4224	US062100	C. CE. CHP	100pF 50V B
C4225	UR067100	C. EL	10uF 50V
C4226	WK041800	C. EL	10uF 16V
C4227	UR067100	C. EL	10uF 50V
C4228	US135100	C. CE. CHP	0. 1uF 16V
C4229	WK041800	C. EL	10uF 16V
C4230	WJ603500	C. MYLAR	680pF 50V
C4231	US135100	C. CE. CHP	0. 1uF 16V
C4232	UR067100	C. EL	10uF 50V
C4234	WK041800	C. EL	10uF 16V
C4235	WJ603600	C. MYLAR	820pF 50V J
C4236	UR067100	C. EL	10uF 50V
C4238	WK041800	C. EL	10uF 16V
C4239	US135100	C. CE. CHP	0. 1uF 16V
C4240	WJ603500	C. MYLAR	680pF 50V
C4241	US135100	C. CE. CHP	0. 1uF 16V
C4242	WK041800	C. EL	10uF 16V
C4243	WJ603600	C. MYLAR	820pF 50V J
C4244-4246	UR067100	C. EL	10uF 50V
C4247	US062100	C. CE. CHP	100pF 50V B
C4248	US064100	C. CE. CHP	0. 01uF 50V B

\* New Parts

## P.C.B. OPERATION

Ref No.	Part No.	Description	Markets
C4249	US062100	C. CE. CHP 100pF 50V B	
C4250	UR067100	C. EL 10uF 50V	
C4251	WK041800	C. EL 10uF 16V	
* C4252	WV894900	C. EL 10uF 71V	
C4253	WJ603500	C. MYLAR 680pF 50V	
C4255	US062100	C. CE. CHP 100pF 50V B	
C4257	WJ605800	C. MYLAR 0.047uF 50V J	
C4258	UR267100	C. EL 10uF 50V	
C4259-4260	UR067100	C. EL 10uF 50V	
C4261	WJ604700	C. MYLAR 6800pF 50V	
C4262	US126100	C. CE. CHP 1uF 10V	
C4263	US062100	C. CE. CHP 100pF 50V B	
C4264	US126100	C. CE. CHP 1uF 10V	
C4265	UR067100	C. EL 10uF 50V	
C4266	UR237100	C. EL 10uF 16V	
C4267	US126100	C. CE. CHP 1uF 10V	
C4268	WJ603500	C. MYLAR 680pF 50V	
C4272	WJ603500	C. MYLAR 680pF 50V	
C4273	UR237100	C. EL 10uF 16V	
C4274	UR067100	C. EL 10uF 50V	
C4275	US062100	C. CE. CHP 100pF 50V B	
C4276	US063100	C. CE. CHP 1000pF 50V B	
C4277	US062100	C. CE. CHP 100pF 50V B	
C4278	US135100	C. CE. CHP 0.1uF 16V	
C4279	UR067100	C. EL 10uF 50V	
C4280	UR237100	C. EL 10uF 16V	
C4281	WJ603500	C. MYLAR 680pF 50V	
C4282	UR067470	C. EL 47uF 50V	
C4284	US135100	C. CE. CHP 0.1uF 16V	
C4285	UR067470	C. EL 47uF 50V	
C4287	WJ603500	C. MYLAR 680pF 50V	
C4288	WK041800	C. EL 10uF 16V	
C4289	UR237100	C. EL 10uF 16V	
C4290	UR067100	C. EL 10uF 50V	
C4291	US062100	C. CE. CHP 100pF 50V B	
C4292	US064100	C. CE. CHP 0.01uF 50V B	
C4293	UR267100	C. EL 10uF 50V	
C4294	WD758300	C. CE. CHP 10uF 10V	
C4295	US062100	C. CE. CHP 100pF 50V B	
C4296	US135100	C. CE. CHP 0.1uF 16V	
C4301-4302	UR237470	C. EL 47uF 16V	RTKABGFL
C4303-4304	WJ603700	C. MYLAR 1000pF 50V	RTKABGFL
C4305-4306	UR267100	C. EL 10uF 50V	RTKABGFL
C4307-4310	WJ605600	C. MYLAR 0.033uF 50V	RTKABGFL
C4311-4312	UR218220	C. EL 220uF 6.3V	RTKABGFL
C4313-4316	WJ603100	C. MYLAR 220pF 50V	RTKABGFL
C4317	US064100	C. CE. CHP 0.01uF 50V B	RTKABGFL
C4318-4321	WJ605000	C. MYLAR 0.01uF 50V J	
C4401-4402	US063100	C. CE. CHP 1000pF 50V B	
C4411-4412	WJ604300	C. MYLAR 3300pF 50V	
C4413	US064100	C. CE. CHP 0.01uF 50V B	
C4414	US063100	C. CE. CHP 1000pF 50V B	
C4421	US063100	C. CE. CHP 1000pF 50V B	
C4422	UM397100	C. EL 10uF 16V	
* C4423	WV360900	C. EL 22uF 16V	
C4424	US064100	C. CE. CHP 0.01uF 50V B	
C4425	US062100	C. CE. CHP 100pF 50V B	

\* New Parts

Ref No.	Part No.	Description	Markets
C4426	UM397470	C. EL 47uF 16V	
C4427	US061330	C. CE. CHP 33pF 50V B	
C4428	UM397100	C. EL 10uF 16V	
* C4430	WV360900	C. EL 22uF 16V	
* C4432	WV360900	C. EL 22uF 16V	
D4001-4002	VT332900	DIODE 1SS355	
D4006-4007	WS693300	DIODE. ZENR HZU4. 3B3 TRF-E	
D4010	VT332900	DIODE 1SS355	
D4011	V2598200	LED SIR-505ST	
D4012	VT332900	DIODE 1SS355	
D4091-4094	VT332900	DIODE 1SS355	
D4203-4205	VT332900	DIODE 1SS355	
D4301-4302	VV659300	DIODE. ZENR RLZ7. 5B 7.5V	RTKABGFL
D4303	VT332900	DIODE 1SS355	
D4401	WG760400	LED SELK6E10C BLUE	
D4411-4412	VT332900	DIODE 1SS355	
D4421-4422	VT332900	DIODE 1SS355	
D4423	VU171900	DIODE. ZENR UDS5. 1B 5.1V	
D4424	WR095700	LED 8224-10SDRD/S530A3	
D4901-4903	VT332900	DIODE 1SS355	C
IC401	X6386A00	IC M66003-0131FP	
IC451-454	X5482A00	IC NE5532DR OP AMP	
IC455	X7357A00	IC PCM1803DBR	
* IC456	X9870A00	IC PCM1681PWPR	
IC457	XJ604A00	IC NJM78M05FA	
IC458	X7378A00	IC NJM4565M (TE1)	
IC459	XW939A00	IC TK15420M VIDEO AMP	
IC471	X7378A00	IC NJM4565M (TE1)	
JK451	VV269500	CN 8P DIN	U
JK471	V9408200	JACK. PHONE MSJ-064-05B GR	
JK472	WJ117300	JACK. PHONE PHONES	
PJ401	WJ117500	JACK. PIN 3P	
Q4001-4003	WC529400	TR KTC3875S Y GR RTK	
Q4004	VV655400	TR. DGT DTC114EKA	
Q4005	WC397700	TR 2N5401C-AT	
Q4006-4009	WC529400	TR KTC3875S Y GR RTK	
Q4012	WC529400	TR KTC3875S Y GR RTK	
Q4301	VV655400	TR. DGT DTC114EKA	
Q4302	VV655000	TR. DGT DTA114EKA	
Q4401-4402	WC529400	TR KTC3875S Y GR RTK	
R4066-4067	HV755120	R. CAR. FP 120Ω 1/4W	
R4200	RD350000	R. CHP 0Ω 1/16W J	(V667)
R4200	RD356220	R. CHP 2.2KΩ 1/16W J	(6063)
R4200	RD356100	R. CHP 1KΩ 1/16W J	(A700)
R4225	HV753220	R. CAR. FP 2.2Ω 1/4W	
R4229-4230	HV753220	R. CAR. FP 2.2Ω 1/4W	
R4293	WQ072300	R. MTL. OXD 2.2Ω 1W	
R4301-4302	HV755470	R. CAR. FP 470Ω 1/4W	RTKABGFL
R4320-4321	HV757100	R. CAR. FP 10KΩ 1/4W	
R4331-4332	HV753220	R. CAR. FP 2.2Ω 1/4W	
R4413-4414	V8071400	R. MTL. FLM 560Ω 1W	
RY461	WJ122400	RELAY 981-2A-24DS-SP7	
ST442	V4040500	SCR. TERM M3	
ST451	V4040500	SCR. TERM M3	CRTKABGFL
ST471	WA246200	SCR. TERM 3.5	
ST491	WA246200	SCR. TERM 3.5	C
SW401-409	WD483100	SW. TACT SKRGAAD010	

\* New Parts

## P.C.B. OPERATION and P.C.B. MAIN

Ref No.	Part No.	Description	Markets
SW411-421	WD483100	SW. TACT	SKRGAAD010
SW471	V9597100	SW. RT. ENC	EC12E2460802
SW472-473	WD483100	SW. TACT	SKRGAAD010
TE461	WB213900	TERM. SP	MSP-113V2-03 PUSH
* TH491-492	WT698300	THERMISTOR	WC92NA103J1
U4001	WQ600700	L. DTCT	SM3385VMH6
* V4001	WU238100	FL. DSPLY	HNA-18MM02T
	V6007100	SPACER. FL	4. 6/10/32
	WR432000	P. C. B.	MAIN
	WR432200	P. C. B.	MAIN
	WR432400	P. C. B.	MAIN
	WR432100	P. C. B.	MAIN
	WR432300	P. C. B.	MAIN
CB111-112	WN077700	CLIP. FUSE	CLIP PFC5000-0202F
CB152	VQ962900	CN. BS. PIN	8P
CB153	VQ963900	CN. BS. PIN	18P
CB154	VQ963600	CN. BS. PIN	15P
CB155	VQ963200	CN. BS. PIN	11P
C1001-1003	WK041800	C. EL	10uF 16V
C1004-1007	UR257100	C. EL	10uF 35V
C1008	WN164200	C. PP	220pF 100V
C1008	WE100900	C. PP	220pF 630V K
C1009	WN164200	C. PP	220pF 100V
C1009	WE100900	C. PP	220pF 630V K
C1010	WN164200	C. PP	220pF 100V
C1010	WE100900	C. PP	220pF 630V K
C1011-1014	WN164200	C. PP	220pF 100V
C1015	WQ107500	C. PP	120pF 100V
C1015	WE100600	C. PP	120pF 630V K
C1016	WQ107500	C. PP	120pF 100V
C1016	WE100600	C. PP	120pF 630V K
C1017	WQ107500	C. PP	120pF 100V
C1017	WE100600	C. PP	120pF 630V K
C1018-1021	WQ107500	C. PP	120pF 100V
C1022	WN164900	C. PP	3300pF 100V
C1022	WE102300	C. PP	3300pF 100V J
C1023	WN164900	C. PP	3300pF 100V
C1023	WE102300	C. PP	3300pF 100V J
C1024	WN164900	C. PP	3300pF 100V
C1024	WE102300	C. PP	3300pF 100V J
C1025-1028	WN164900	C. PP	3300pF 100V
C1029	UR067470	C. EL	47uF 50V
C1030-1031	UR068100	C. EL	100uF 50V
C1032-1035	UR067470	C. EL	47uF 50V
C1036	WQ627600	C. CE	22pF 500V
C1036	WE100200	C. PP	22pF 630V K
C1037	WQ627600	C. CE	22pF 500V
C1037	WE100200	C. PP	22pF 630V K
C1038	WQ627600	C. CE	22pF 500V
C1038	WE100200	C. PP	22pF 630V K
C1039	WQ627600	C. CE	22pF 500V
C1040-1042	WQ627600	C. CE	22pF 500V
C1043-1049	WN164300	C. PP	330pF 100V
C1050	UR067100	C. EL	10uF 50V

\* New Parts

Ref No.	Part No.	Description	Markets
C1050	UR397100	C. EL	10uF 100V
C1051	UR067100	C. EL	10uF 50V
C1051	UR397100	C. EL	10uF 100V
C1052	UR067100	C. EL	10uF 50V
C1052	UR397100	C. EL	10uF 100V
C1053-1056	UR067100	C. EL	10uF 50V
C1057-1063	WN165500	C. PP	0. 022uF 100V
C1066-1067	WN156000	C. PP	1000pF 250V
C1068	UR866470	C. EL	4. 7uF 50V
C1069	UR838100	C. EL	100uF 16V
C1069	UR828220	C. EL	220uF 10V
C1070-1073	UR297100	C. EL	10uF 100V
C1074	UR267330	C. EL	33uF 50V
C1075	WK041800	C. EL	10uF 16V
C1076	UR266100	C. EL	1uF 50V
C1078	WJ611400	C. MYLAR	0. 1uF 100V J
C1078	WP421000	C. PP	0. 047uF 100V
C1079	WJ611400	C. MYLAR	0. 1uF 100V J
C1079	WP421000	C. PP	0. 047uF 100V
C1080-1081	WN165500	C. PP	0. 022uF 100V
C1082	UR049330	C. EL	3300uF 25V
C1083	UR049220	C. EL	2200uF 25V
C1084-1085	WN331300	C. EL	6800uF 71V
C1086	UR049220	C. EL	2200uF 25V
* C1087-1088	WV914600	C. EL	10uF 71V
C1089	US135100	C. CE. CHP	0. 1uF 16V
C1509	UR067470	C. EL	47uF 50V
C1510-1512	US135100	C. CE. CHP	0. 1uF 16V
C1513-1514	US061220	C. CE. CHP	22pF 50V B
C1515-1516	US135100	C. CE. CHP	0. 1uF 16V
C1517-1520	US062220	C. CE. CHP	220pF 50V B
C1521	UR267100	C. EL	10uF 50V
C1522	US061470	C. CE. CHP	47pF 50V B
C1523	UR238100	C. EL	100uF 16V
C1524	US061470	C. CE. CHP	47pF 50V B
C1525	UR267100	C. EL	10uF 50V
C1526-1527	UR238100	C. EL	100uF 16V
C1528-1529	US062220	C. CE. CHP	220pF 50V B
C1530	UR238100	C. EL	100uF 16V
C1531	UR267330	C. EL	33uF 50V
C1532-1533	UR238100	C. EL	100uF 16V
C1534-1535	US062220	C. CE. CHP	220pF 50V B
C1536	UR238100	C. EL	100uF 16V
C1537	WJ605600	C. MYLAR	0. 033uF 50V
C1538	VR169000	C. MYLAR	0. 33uF 50V
C1539	WJ604800	C. MYLAR	8200pF 50V
C1540	WJ605600	C. MYLAR	0. 033uF 50V
C1541	VR169000	C. MYLAR	0. 33uF 50V
C1542	US135100	C. CE. CHP	0. 1uF 16V
C1543	WJ604800	C. MYLAR	8200pF 50V
C1544	US062220	C. CE. CHP	220pF 50V B
C1545	US135100	C. CE. CHP	0. 1uF 16V
C1546	US062220	C. CE. CHP	220pF 50V B
C1547	UR267100	C. EL	10uF 50V
C1549	UR267100	C. EL	10uF 50V
C1551	US062220	C. CE. CHP	220pF 50V B
C1552	UR267100	C. EL	10uF 50V

\* New Parts

## P.C.B. MAIN

Ref No.	Part No.	Description	Markets
C1553-1554	UR266220	C. EL 2. 2uF 50V	
C1555-1556	UR267100	C. EL 10uF 50V	
C1557	US062220	C. CE. CHP 220pF 50V B	
C1558-1559	UR267470	C. EL 47uF 50V	
C1560	US062220	C. CE. CHP 220pF 50V B	
C1563	US062220	C. CE. CHP 220pF 50V B	
C1566	US062220	C. CE. CHP 220pF 50V B	
C1567-1568	VR169200	C. MYLAR 0. 47uF 50V	
C1569	US062220	C. CE. CHP 220pF 50V B	
C1570-1571	UR267100	C. EL 10uF 50V	
C1572-1573	US062100	C. CE. CHP 100pF 50V B	
C1574	UR267100	C. EL 10uF 50V	
C1575	US061470	C. CE. CHP 47pF 50V B	
C1576-1577	UR267100	C. EL 10uF 50V	
C1578	US061470	C. CE. CHP 47pF 50V B	
C1579	UR267100	C. EL 10uF 50V	
C1580	UR267100	C. EL 10uF 50V	URTKABGFL
C1580	UR837100	C. EL 10uF 16V	C
C1581-1582	US061470	C. CE. CHP 47pF 50V B	
C1583-1584	UR267470	C. EL 47uF 50V	
C1585	UR267100	C. EL 10uF 50V	URTKABGFL
C1585	UR837100	C. EL 10uF 16V	C
C1588-1591	UR267100	C. EL 10uF 50V	
C1594-1595	US062470	C. CE. CHP 470pF 50V B	
C1596	US064100	C. CE. CHP 0. 01uF 50V B	
C1597-1598	US062470	C. CE. CHP 470pF 50V B	
C1599-1602	UR267100	C. EL 10uF 50V	
C1603-1604	US062470	C. CE. CHP 470pF 50V B	
C1605	US064100	C. CE. CHP 0. 01uF 50V B	
C1606	US044220	C. CE. CHP 0. 022uF 25V B	
C1607	US062470	C. CE. CHP 470pF 50V B	
C1608	US044220	C. CE. CHP 0. 022uF 25V B	
C1609-1612	US064100	C. CE. CHP 0. 01uF 50V B	
D1001-1016	VT332900	D10DE 1SS355	
△ D1017-1023	VG437500	D10DE. ZENR MTZJ5. 1C 5. 1V	
D1024-1039	VT332900	D10DE 1SS355	
△ D1040	WB212700	D10DE. BRG RS603M 6A 200V	(V667, 6063)
△ D1040	WK611100	D10DE. BRG D6SBN20 6A 200V	(A700)
△ D1041	WH487300	D10DE. BRG RS203M 2. 0A 200V	
D1042	VG440500	D10DE. ZENR MTZJ13B 13V	
D1043	VT332900	D10DE 1SS355	
△ D1044-1045	VG435500	D10DE. ZENR MTZJ2. 4B 2. 4V	
D1501-1502	VG438400	D10DE. ZENR MTZJ6. 8C 6. 8V	
F100	KB000780	FUSE T5A 250V	R
G101	V5995800	PLATE. GND	
△ IC101	XJ608A00	IC NJM7812FA	
△ IC102	X4154A00	IC KIA7912PI	
IC103	YA381A00	IC LM19C1Z/LF THERMAL	URTKABGFL
IC152	XZ509A00	IC TC74VHC04FT INVER	
IC153	YA361A00	IC R2A15220FP	
IC154	X7378A00	IC NJM4565M (TE1)	
PJ150	V9420700	JACK. PIN 2P MSP-252V1-30N1	
PJ151	V7046800	JACK. PIN 6P MSP-246V1-01N1	
PJ152-153	V7046700	JACK. PIN 4P MSP-244V1-01N1	
PJ154	WG674900	JACK. PIN 4P	
PJ155	V7046700	JACK. PIN 4P MSP-244V1-01N1	
PJ157	V7046700	JACK. PIN 4P MSP-244V1-01N1	

\* New Parts

Ref No.	Part No.	Description	Markets
PJ158	WG674900	JACK. PIN 4P	
PJ159	V7189700	JACK. PIN 1P	
Q1001-1014	WF549900	TR 2SC3906K T146 R, S	
Q1015-1021	V3966800	TR 2SA949 O, Y	
△ Q1022-1028	WT676000	TR 2SD2705S	
△ Q1029-1035	VR325600	TR 2SC2229 O, Y	
△ Q1036-1042	V4096100	TR 2SC4614 S, T	
△ Q1043-1049	V4096000	TR 2SA1770 S, T	
△ Q1050-1056	VR355900	TR. PAIR A1695/C4468 OPY	(IX630850, IX630860)
Q1057-1063	WF549900	TR 2SC3906K T146 R, S	
Q1064	WH372100	TR KTA1517S GR TP	
Q1065	WF549900	TR 2SC3906K T146 R, S	
△ Q1067-1068	WC292600	TR KTA1837-U	
△ Q1069-1070	WC398400	TR 2N5551C-AT	
△ Q1071	WC397700	TR 2N5401C-AT	
△ Q1072	VP872600	TR 2SA1708 S, T	
Q1073	WC398500	TR. DGT KRA102M-AT	
Q1074	WC529200	TR. DGT KRC102M-AT	
Q1500-1504	WC756200	TR 2SC5938A A, B	
Q1507-1514	WC756200	TR 2SC5938A A, B	
Q1519-1527	WC756200	TR 2SC5938A A, B	
R1001-1007	HF356100	R. CAR 1KΩ 1/2W	
R1008-1014	HF356180	R. CAR 1. 8KΩ 1/2W	
R1022-1028	HF355330	R. CAR 330Ω 1/2W	
R1029-1035	HL006120	R. MTL. OXD 1. 2KΩ 1/2W	
R1036-1042	V8070900	R. MTL. FLM 100Ω 1W	
R1043-1049	HL007330	R. MTL. OXD 33KΩ 1/2W	
R1079-1085	HL005120	R. MTL. OXD 120Ω 1/2W	
R1086-1092	WG727400	R. MTL. FLM 2. 7KΩ 1/4W	
R1093-1099	WG725600	R. MTL. FLM 470Ω 1/4W	
R1100-1106	WG726400	R. MTL. FLM 1KΩ 1/4W	
R1107-1112	WG726200	R. MTL. FLM 820Ω 1/4W	
△ R1113-1126	HV755120	R. CAR. FP 120Ω 1/4W	
R1127-1133	HF355470	R. CAR 470Ω 1/2W	
△ R1134-1147	HV754100	R. CAR. FP 10Ω 1/4W	
△ R1148-1154	WP839400	R. CEMENT 0. 22+0. 22 3W	
△ R1176-1182	V8070300	R. MTL. FLM 10Ω 1W	
△ R1197-1198	V8070200	R. MTL. FLM 4. 7Ω 1W	
△ R1211	HV754100	R. CAR. FP 10Ω 1/4W	
R1213	V8072100	R. MTL. OXD 5. 6KΩ 1W	
R1214	HV755560	R. CAR. FP 560Ω 1/4W	
R1219	V8072000	R. MTL. OXD 4. 7KΩ 1W	
△ R1222	HV756100	R. CAR. FP 1KΩ 1/4W	
R1225	VP941900	R. MTL. OXD 15KΩ 1W	
R1226	HF357470	R. CAR 47KΩ 1/2W	
△ R1234-1235	HV754100	R. CAR. FP 10Ω 1/4W	
R1236	WG726200	R. MTL. FLM 820Ω 1/4W	
△ R1238	V8070300	R. MTL. FLM 10Ω 1W	
R1504	HV753100	R. CAR. FP 1Ω 1/4W	
R1573	WA621400	R. MTL. OXD 82Ω 1W	(V667, 6063)
R1573	WQ835800	R. MTL. OXD 100Ω 1W	(A700)
R1575	WA621400	R. MTL. OXD 82Ω 1W	(V667, 6063)
R1575	WQ835800	R. MTL. OXD 100Ω 1W	(A700)
R1664-1665	HV755100	R. CAR. FP 100Ω 1/4W	
△ RY101	WE648700	RELAY DC DH24D2-O-Q	
ST100	V4040500	SCR. TERM M3	
ST101	WA246200	SCR. TERM 3. 5	URTKABGFL

\* New Parts

## P.C.B. MAIN and P.C.B. VIDEO

Ref No.	Part No.	Description		Markets
SW101	WB493700	VOLT. SELCT	110-240V R8140246	R
SW101	WD073700	VOLT. SELCT	220-240V R8140254	L
U1500-1501	WH169900	CN. PHOTO. R	1P GP1FAV51RK0F	
	WE774200	SCR. BND. HD	3x10 MFZN2W3	
*	WU429400	P. C. B.	VIDEO	U
*	WU429500	P. C. B.	VIDEO	C
*	WU429600	P. C. B.	VIDEO	R
*	WU429700	P. C. B.	VIDEO	T
*	WU429800	P. C. B.	VIDEO	K
*	WU429900	P. C. B.	VIDEO	A
*	WU430000	P. C. B.	VIDEO	BGF
*	WU430100	P. C. B.	VIDEO	L
CB303	VQ961500	CN. BS. PIN	12P	
CB304	VN394900	CN. BS. PIN	14P	
CB321	VM859500	CN. BS. PIN	11P	
CB332	VQ961300	CN. BS. PIN	10P	
CB333	VK024700	CN. BS. PIN	3P	
CB340	LB918020	CN. BS. PIN	2P	
CB342	LB918040	CN. BS. PIN	4P	
CB343	VZ130900	CN. JUMPER	4P	
CB344	VQ585500	CN. JUMPER	5P	
CB346	VB390000	CN. BS. PIN	4P	
CB349	VQ047700	CN. BS. PIN	22P	
CB371	VG879900	CN. BS. PIN	2P	
CB372-373	WN103000	CLIP. FUSE	TP00351-31	
CB378	VG879900	CN. BS. PIN	2P	RL
CB379	VQ961000	CN. BS. PIN	7P	
CB381	VQ962800	CN. BS. PIN	7P	
CB391	VQ044100	CN. BS. PIN	5P	BGF
C3001	US062100	C. CE. CHP	100pF 50V B	
C3002-3004	US060800	C. CE. CHP	8pF 50V B	
C3005	US062100	C. CE. CHP	100pF 50V B	
C3006	UR237470	C. EL	47uF 16V	
C3007-3008	US135100	C. CE. CHP	0. 1uF 16V	
C3009	UR237470	C. EL	47uF 16V	
C3011	US060300	C. CE. CHP	3pF 50V B	
C3012	UR837470	C. EL	47uF 16V	
C3013-3014	US060300	C. CE. CHP	3pF 50V B	
C3015-3017	US135100	C. CE. CHP	0. 1uF 16V	
C3018	UR267100	C. EL	10uF 50V	
C3019	US135100	C. CE. CHP	0. 1uF 16V	
C3020	UR267100	C. EL	10uF 50V	
C3021-3025	US135100	C. CE. CHP	0. 1uF 16V	
C3026	UR267100	C. EL	10uF 50V	
C3027	WD758300	C. CE. CHP	10uF 10V	
C3029	WD758300	C. CE. CHP	10uF 10V	
C3031	WD758300	C. CE. CHP	10uF 10V	
C3033	UR837470	C. EL	47uF 16V	
C3035-3037	WD758300	C. CE. CHP	10uF 10V	
C3043-3044	US135100	C. CE. CHP	0. 1uF 16V	
C3045	UR837470	C. EL	47uF 16V	
C3047	US135100	C. CE. CHP	0. 1uF 16V	
C3048	UR238220	C. EL	220uF 16V	
C3049	UR837470	C. EL	47uF 16V	

\* New Parts

Ref No.	Part No.	Description		Markets
C3050	US135100	C. CE. CHP	0. 1uF 16V	
C3051	UR238220	C. EL	220uF 16V	
C3063	US135100	C. CE. CHP	0. 1uF 16V	
C3065	UR237470	C. EL	47uF 16V	
C3067	US135100	C. CE. CHP	0. 1uF 16V	
C3072	US135100	C. CE. CHP	0. 1uF 16V	
C3073	UR238220	C. EL	220uF 16V	
C3077	US135100	C. CE. CHP	0. 1uF 16V	
C3080-3085	WD758300	C. CE. CHP	10uF 10V	
C3201	US061270	C. CE. CHP	27pF 50V B	
C3202	UR237100	C. EL	10uF 16V	BGF
C3203	US061270	C. CE. CHP	27pF 50V B	BGF
C3204-3205	US135100	C. CE. CHP	0. 1uF 16V	BGF
C3206	US062560	C. CE. CHP	560pF 50V B	BGF
C3207-3208	US062330	C. CE. CHP	330pF 50V B	BGF
C3209	US135100	C. CE. CHP	0. 1uF 16V	BGF
C3211	UR237470	C. EL	47uF 16V	BGF
C3212-3214	UR237470	C. EL	47uF 16V	
C3215	US062100	C. CE. CHP	100pF 50V B	
C3217-3218	US062100	C. CE. CHP	100pF 50V B	
C3221	US062100	C. CE. CHP	100pF 50V B	
C3303-3305	WJ611400	C. MYLAR	0. 1uF 100V J	
C3308	UR278100	C. EL	100uF 63V	
C3309	WG601900	C. EL	10000uF 16V	
C3310	WG601700	C. EL	4700uF 16V	
C3311	UR238100	C. EL	100uF 16V	
C3314	UR266100	C. EL	1uF 50V	
C3315	UR267100	C. EL	10uF 50V	
C3316	UR268100	C. EL	100uF 50V	
C3319	UR266100	C. EL	1uF 50V	
C3320-3321	UR267330	C. EL	33uF 50V	
C3403-3409	WJ605000	C. MYLAR	0. 01uF 50V J	
C3410-3416	WJ605200	C. MYLAR	0. 015uF 50V	
C3603-3604	US063100	C. CE. CHP	1000pF 50V B	
C3606	US064100	C. CE. CHP	0. 01uF 50V B	
C3701	WQ852400	C. POL. MTL	0. 022uF 630V	
C3702	WK005000	C. CE. SAFETY	0. 047uF 275V	
C3703	WRO82000	C. EL	100uF 220V	UC
C3703	WRO82100	C. EL	100uF 400V	R
C3703	WQ852500	C. EL	68uF 400V	TKABGFL
C3704	WR182800	C. CE. CHP	2200pF 250V	
C3705	US065100	C. CE. CHP	0. 1uF 50V B	
C3706	V6185300	C. CE. SAFETY	0. 01uF 275V	
C3707	UR837470	C. EL	47uF 16V	
C3708	UR867100	C. EL	10uF 50V	
C3709	WQ902200	C. CE. SAFETY	2200pF 250V	
C3710-3711	UR866100	C. EL	1uF 50V	
C3712-3713	WH777900	C. EL	1000uF 35V	
C3714	US046100	C. CE. CHP	1uF 25V	
C3715	US135100	C. CE. CHP	0. 1uF 16V	
C3716	WH771300	C. EL	100uF 10V	
C3717	WQ852400	C. POL. MTL	0. 022uF 630V	
C3720-3721	WQ902300	C. CE. SAFETY	1000pF 250V	
C3801	US064100	C. CE. CHP	0. 01uF 50V B	
C3802	V7887800	C. EL	1uF 50V	
C3803	WJ335500	C. EL	2. 2uF 50V	
C3804	WJ603700	C. MYLAR	1000pF 50V	

\* New Parts



## P.C.B. VIDEO

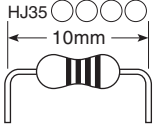
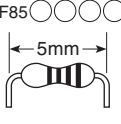
Ref No.	Part No.	Description	Markets
C3805	US064100	C. CE. CHP 0.01uF 50V B	
C3901	US064100	C. CE. CHP 0.01uF 50V B	BGF
C3902	US062120	C. CE. CHP 120pF 50V B	BGF
C3903	US062220	C. CE. CHP 220pF 50V B	BGF
C3904	US135100	C. CE. CHP 0.1uF 16V	BGF
C3905	UR837470	C. EL 47uF 16V	BGF
C3906	UR837100	C. EL 10uF 16V	BGF
C3907	UR818470	C. EL 470uF 6.3V	BGF
C3908	US064100	C. CE. CHP 0.01uF 50V B	BGF
D3201	VG436100	D1ODE. ZENR MTZJ3. 3B 3.3V	BGF
D3202	VG439500	D1ODE. ZENR MTZJ10B 10V	
△ D3302	WH487300	D1ODE. BRG RS203M 2.0A 200V	
△ D3304	WH487300	D1ODE. BRG RS203M 2.0A 200V	
D3306	WU201600	D1ODE 1N4003S TP	
D3308	VG444700	D1ODE. ZENR MTZ J 39D 39.0V TP	
D3310	VT332900	D1ODE 1SS355	
D3320	VG437400	D1ODE. ZENR MTZJ5. 1B 5.1V	
D3350	VU172800	D1ODE. ZENR UDZS12B 12V	R
D3403-3407	VT332900	D1ODE 1SS355	
D3601-3602	VT332900	D1ODE 1SS355	
△ D3701	WH471700	D1ODE. BRG DB105 1A 600V	
D3703	WN672400	D1ODE. ZENR P6KE200A 200V	
D3705	WQ647500	D1ODE HT18G	
D3706-3707	VD631600	D1ODE 1SS133, 176	
D3708	VT332900	D1ODE 1SS355	
D3709	WR007000	D1ODE. SCHOTTKY 10A 40V SG10SC4M	
D3710	VG442200	D1ODE. ZENR MTZJ22C 22V	
D3801-3805	VT332900	D1ODE 1SS355	
D3901-3902	VT332900	D1ODE 1SS355	BGF
△ F3701	WQ211100	FUSE 8A 125V	UC
△ F3701	WB760600	FUSE T6. 3A 250V	R
△ F3701	WM933100	FUSE T5A 250V	TKABGFL
IC301-303	XY879A00	IC TC74HC4053AF (EL)	
IC305	X6742A00	IC LA73050-TLM-E	
IC306	X2904A00	IC NJM2581M VIDEO AMP	
IC307	XY549A00	IC TC74HC4051AFEL	
IC308	X7779A00	IC LC709004A-TLM-E	
IC310	X8875A00	IC FHP33501M14X	
IC321	X8235A00	IC LC72725KM	BGF
IC334	X6143A00	IC NJM2388F05 5.0V	
IC371	YA565A00	IC TOP254PN SW	
△ IC372	WQ867100	PHOT. CPL EL816 (M) (C)	
IC374	YA276A00	IC TL431AC 2.5-36V	
△ IC375	WQ867100	PHOT. CPL EL816 (M) (C)	
IC391	XZ509A00	IC TC74VHC04FT INVER	BGF
JK321	V9435700	JACK. MNI MSJ-035-12APC	
JK361-362	V9435700	JACK. MNI MSJ-035-12APC	
JK391	V6931000	CN. DIN 1P YKF51-5506	BGF
PJ301	WG505100	JACK. PIN 6P	
PJ302	V7189800	JACK. PIN 1P	
PJ303	WH381400	JACK. PIN 3P JACK G, B, R	
PJ304	V7189800	JACK. PIN 1P	
PJ305-306	V7190000	JACK. PIN 2P	
Q3001	VR936300	TR 2SA1576A T106	
Q3201	iC174020	TR 2SC1740S QRS	BGF
Q3203	iC181510	TR 2SC1815 Y	
Q3204	iA101510	TR 2SA1015 Y	

\* New Parts

Ref No.	Part No.	Description	Markets
Q3205	iC181510	TR 2SC1815 Y	
Q3206	WG538600	TR KTA1046-Y-U/P	
Q3207	iC181510	TR 2SC1815 Y	
Q3301	VP872600	TR 2SA1708 S, T	
Q3302	iA101510	TR 2SA1015 Y	
Q3303	WG538600	TR KTA1046-Y-U/P	
Q3304	iA101510	TR 2SA1015 Y	
Q3305	iC181510	TR 2SC1815 Y	
Q3405	VV655400	TR. DGT DTC114EKA	
Q3406	VV655000	TR. DGT DTA114EKA	
Q3407	VV655400	TR. DGT DTC114EKA	
Q3408	VV655000	TR. DGT DTA114EKA	
Q3409	VV655400	TR. DGT DTC114EKA	
Q3410	VV655000	TR. DGT DTA114EKA	
Q3411	VV655400	TR. DGT DTC114EKA	
Q3412	VV655000	TR. DGT DTA114EKA	
Q3413	VV655400	TR. DGT DTC114EKA	
Q3414	VV655000	TR. DGT DTA114EKA	
Q3801-3802	iC181510	TR 2SC1815 Y	
Q3803	VV655700	TR. DGT DTC144EKA	
R3021	HV753100	R. CAR. FP 1Ω 1/4W	
R3025	HV753100	R. CAR. FP 1Ω 1/4W	
R3046-3049	HV753100	R. CAR. FP 1Ω 1/4W	
R3060-3061	HV753100	R. CAR. FP 1Ω 1/4W	
R3208	HV755680	R. CAR. FP 680Ω 1/4W	BGF
R3210	HV754180	R. CAR. FP 18Ω 1/4W	
R3213	HV753560	R. CAR. FP 5.6Ω 1/4W	
△ R3301	HV753220	R. CAR. FP 2.2Ω 1/4W	
R3306	HV756100	R. CAR. FP 1KΩ 1/4W	
R3315-3316	HV756470	R. CAR. FP 4.7KΩ 1/4W	
R3403-3406	HV757100	R. CAR. FP 10KΩ 1/4W	
R3910	HV753220	R. CAR. FP 2.2Ω 1/4W	BGF
RY341-345	WJ122400	RELAY 981-2A-24DS-SP7	
△ RY371	WQ804100	RELAY DC DLS5D1-0 (M) 0.25	
ST331-332	V4040500	SCR. TERM M3	
ST361-362	V4040500	SCR. TERM M3	
ST371	V4040500	SCR. TERM M3	
ST381-383	V4040500	SCR. TERM M3	
△ T3701	YA507B00	TRANS. PWR	
TE341	WK560800	TERM. SP 4P MST-204V1-01 NC	UCRTA
TE341	WK560900	TERM. SP 4P MST-204V1-01 WC	KBGFL
TE342	WK561000	TERM. SP 6P MST-207V1-01 NC	UCRTA
TE342	WK561100	TERM. SP 6P MST-207V1-01 WC	KBGFL
TE343	WK560800	TERM. SP 4P MST-204V1-01 NC	UCRTA
TE343	WK560900	TERM. SP 4P MST-204V1-01 WC	KBGFL
XL321	V2731100	RSNR. CRYST 4.332M HC-49/U	BGF
	WE774200	SCR. BND. HD 3x10 MFZN2W3	

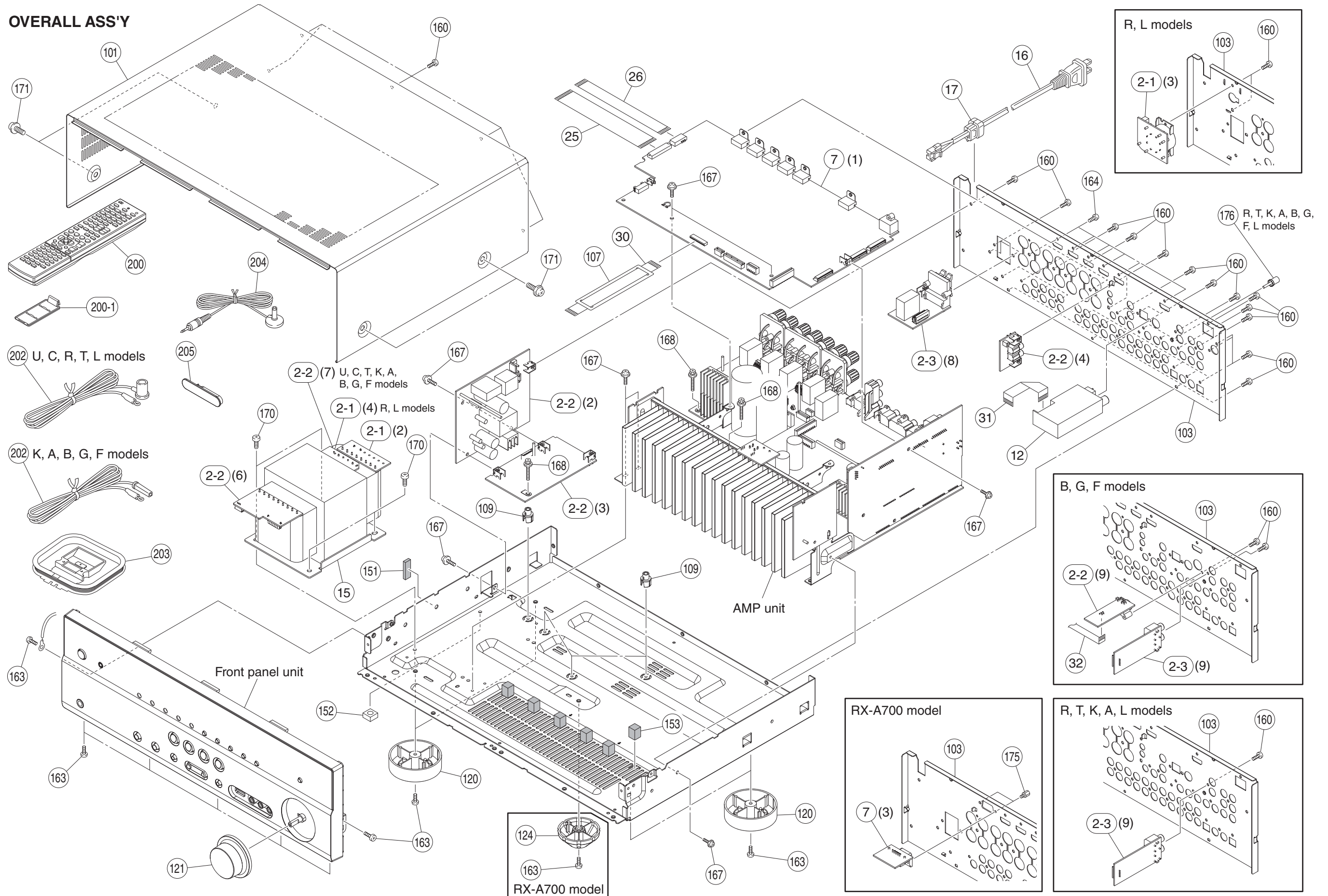
\* New Parts

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	11 kΩ	HF45 7110	HF45 7110
1.8 Ω	HJ35 3180	※	12 kΩ	HJ35 7120	HF85 7120
2.2 Ω	HJ35 3220	HF85 3220	13 kΩ	HF45 7130	HF45 7130
3.3 Ω	HJ35 3330	HF85 3330	15 kΩ	HF45 7150	HF45 7150
4.7 Ω	HJ35 3470	HF85 3470	18 kΩ	HF45 7180	HF45 7180
5.6 Ω	HJ35 3560	HF85 3560	22 kΩ	HF45 7220	HF45 7220
10 Ω	HF45 4100	HF45 4100	24 kΩ	HF45 7240	HF45 7240
15 Ω	HJ35 4150	HF85 4150	27 kΩ	HJ35 7270	HF85 7270
22 Ω	HF45 4220	HF45 4220	30 kΩ	HF45 7300	HF45 7300
27 Ω	HJ35 4270	HF85 4270	33 kΩ	HF45 7330	HF45 7330
33 Ω	HF45 4330	HF45 4330	36 kΩ	HF45 7360	HF45 7360
39 Ω	HJ35 4470	HF85 4390	39 kΩ	HF45 7390	HF45 7390
47 Ω	HF45 4470	HF45 4470	47 kΩ	HF45 7470	HF45 7470
56 Ω	HF45 4560	HF45 4560	51 kΩ	HF45 7510	HF45 7510
68 Ω	HF45 4680	HF45 4680	56 kΩ	HF45 7560	HF45 7560
75 Ω	HF45 4750	HF45 4750	62 kΩ	HF45 7620	HF45 7620
82 Ω	HF45 4820	HF45 4820	68 kΩ	HF45 7680	HF45 7680
91 Ω	HF45 4910	HF45 4910	82 kΩ	HF45 7820	HF45 7820
100 Ω	HF45 5100	HF45 5100	91 kΩ	HF45 7910	HF45 7910
110 Ω	HJ35 5110	HF85 5110	100 kΩ	HF45 8100	HF45 8100
120 Ω	HF45 5120	HF45 5120	110 kΩ	HF45 8110	HF45 8110
150 Ω	HF45 5150	HF45 5150	120 kΩ	HF45 8120	HF45 8120
160 Ω	HJ35 5160	※	130 kΩ	HF45 8130	※
180 Ω	HF45 5180	HF45 5180	150 kΩ	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 kΩ	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 kΩ	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 kΩ	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 kΩ	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 kΩ	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 kΩ	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 kΩ	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 kΩ	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 kΩ	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 kΩ	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 MΩ	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 MΩ	HJ35 9120	※
1.0 kΩ	HF45 6100	HF45 6100	1.5 MΩ	HJ35 9150	HF85 9150
1.2 kΩ	HF45 6120	HF45 6120	1.8 MΩ	HJ35 9180	HF85 9180
1.5 kΩ	HF45 6150	HF45 6150	2.2 MΩ	HJ35 9220	HF85 9220
1.8 kΩ	HF45 6180	HF45 6180	3.3 MΩ	HJ35 9330	HF85 9330
2.0 kΩ	HJ35 6200	HF85 6200	3.9 MΩ	HJ35 9390	※
2.2 kΩ	HF45 6220	HF45 6220	4.7 MΩ	HJ35 9470	HF85 9470
2.4 kΩ	HJ35 6240	HF85 6240			
2.7 kΩ	HF45 6270	HF45 6270			
3.0 kΩ	HF45 6300	HF45 6300		<div><div><div>1/4W Type</div><div>HJ35○○○○</div><div>← 10mm →</div></div><div><div>1/4W Type</div><div>HF45○○○○</div><div>← 5mm →</div></div></div>	
3.3 kΩ	HF45 6330	HF45 6330			
3.6 kΩ	HJ35 6360	HF85 6360			
3.9 kΩ	HF45 6390	HF45 6390			
4.7 kΩ	HF45 6470	HF45 6470			
5.1 kΩ	HF45 6510	HF45 6510			
5.6 kΩ	HF45 6560	HF45 6560			
6.8 kΩ	HF45 6680	HF45 6680			
8.2 kΩ	HF45 6820	HF45 6820			
9.1 kΩ	HF45 6910	HF45 6910			
10 kΩ	HF45 7100	HF45 7100			

※ : Not available

• OVERALL ASS'Y





	Ref No.	Part No.	Description	Remarks	Markets
	2-1	WR432000	P. C. B. ASS' Y	MAIN	V667, 6063
	2-1	WR432200	P. C. B. ASS' Y	MAIN	A700
	2-1	WR432400	P. C. B. ASS' Y	MAIN	
	2-1	WR432100	P. C. B. ASS' Y	MAIN	
	2-1	WR432300	P. C. B. ASS' Y	MAIN	
*	2-2	WU429400	P. C. B. ASS' Y	VIDEO	
*	2-2	WU429500	P. C. B. ASS' Y	VIDEO	
*	2-2	WU429600	P. C. B. ASS' Y	VIDEO	
*	2-2	WU429700	P. C. B. ASS' Y	VIDEO	
*	2-2	WU429800	P. C. B. ASS' Y	VIDEO	
*	2-2	WU429900	P. C. B. ASS' Y	VIDEO	
*	2-2	WU430000	P. C. B. ASS' Y	VIDEO	
*	2-2	WU430100	P. C. B. ASS' Y	VIDEO	
*	2-3	WU427500	P. C. B. ASS' Y	OPERATION	V667
*	2-3	WU933400	P. C. B. ASS' Y	OPERATION	A700
*	2-3	WU427600	P. C. B. ASS' Y	OPERATION	V667
*	2-3	WU428000	P. C. B. ASS' Y	OPERATION	6063
*	2-3	WU427700	P. C. B. ASS' Y	OPERATION	V667
*	2-3	WU428100	P. C. B. ASS' Y	OPERATION	6063
*	7	WU432000	P. C. B. ASS' Y	DIGITAL	V667
*	7	WU933100	P. C. B. ASS' Y	DIGITAL	A700
*	7	WU432100	P. C. B. ASS' Y	DIGITAL	
*	7	WU432200	P. C. B. ASS' Y	DIGITAL	
*	7	WU432300	P. C. B. ASS' Y	DIGITAL	
	12	WQ756600	AM/FM TUNER	FAEH06-A	
	12	WQ756700	AM/FM TUNER	FAEH06-E	
△	15	YA684A00	POWER TRANSFORMER		
△	15	YA685A00	POWER TRANSFORMER		
△	15	YA686A00	POWER TRANSFORMER		
△	15	YA687A00	POWER TRANSFORMER		
△	15	YA688A00	POWER TRANSFORMER		
△	16	WR336800	POWER CABLE	2m	
△	16	WC992700	POWER CABLE	2m	
△	16	WB120600	POWER CABLE	2m	
△	16	WC753000	POWER CABLE	2m	
△	16	WC743700	POWER CABLE	2m	
△	16	WB212200	POWER CABLE	2m	
△	16	WR336900	POWER CABLE	2m	
	17	V2438700	CORD STOPPER	10P1	
*	25	WU250200	FLEXIBLE FLAT CABLE	22P 250mm P=1.25	
*	26	WU250100	FLEXIBLE FLAT CABLE	14P 300mm P=1.25	
*	30	WV083200	FLEXIBLE FLAT CABLE	20P 190mm P=1.0	
	31	WR284900	FLEXIBLE FLAT CABLE	11P 100mm P=1.25	
*	32	WU249700	FLEXIBLE FLAT CABLE	5P 300mm P=1.25	
*	101	WT980000	TOP COVER		GD
*	101	WT979800	TOP COVER		BL
*	101	WT979900	TOP COVER		TI
*	103	WU012300	REAR PANEL		V667
*	103	WU633600	REAR PANEL		A700
*	103	WU012400	REAR PANEL		V667
*	103	WU013300	REAR PANEL		6063
*	103	WU012600	REAR PANEL		V667
*	103	WU012700	REAR PANEL		V667
*	103	WU012800	REAR PANEL		V667
*	103	WU012900	REAR PANEL		V667
*	103	WU013500	REAR PANEL		6063
*	103	WU013000	REAR PANEL		V667
*	103	WU013100	REAR PANEL		V667
	107	WR946700	BARRIER FFC		
	109	WQ664500	SUPPORT H8		

\* New Parts

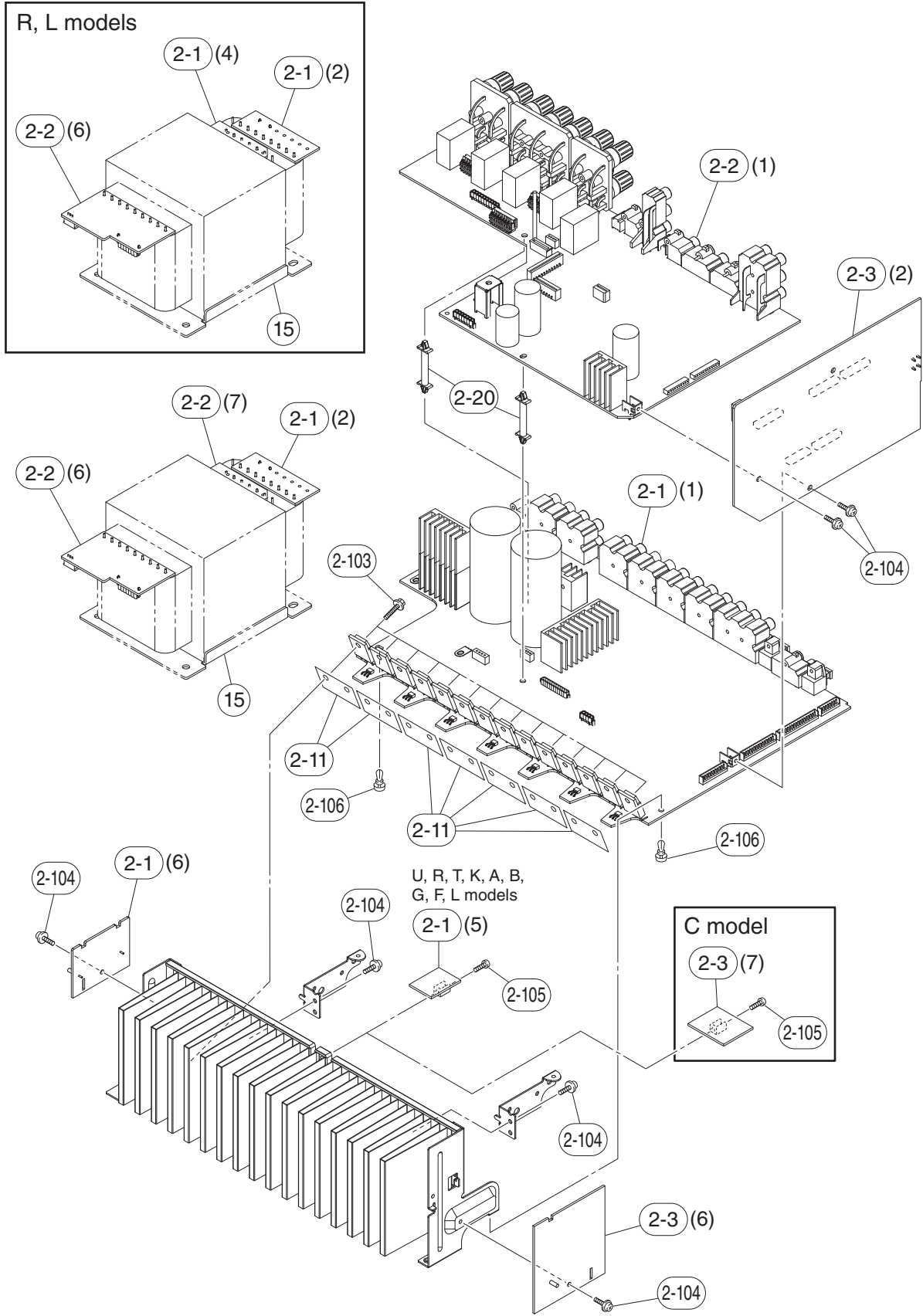
	Ref No.	Part No.	Description	Remarks	Markets
	120	V0042500	LEG	D60xH21 GD	GD
	120	VS025000	LEG	D60xH21 HS	V667BL, 6063BL, TI
	120	WQ379900	LEG	D60xH21	A700BL
*	121	WT824300	KNOB	D52	GD
*	121	WT824100	KNOB	D52	V667BL, 6063BL
*	121	WV033600	KNOB	D52	A700BL
*	121	WT824200	KNOB	D52	TI
*	124	WV139700	CENTER LEG	D48	A700
	151	WB870100	DAMPER	30x10x4	
	152	WC879000	DAMPER	SCREW MASK	
	153	WR377400	DAMPER	14x10x10	
	160	WE774100	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2B3	
	163	WE774300	BIND HEAD B-TIGHT SCREW	3x8 MFZN2W3	
	164	WE877900	BIND HEAD S-TIGHT SCREW	3x6 MFZN2W3	
	167	WF002600	PW HEAD B-TIGHT SCREW	3x8 MFZN2W3	
	168	WE774600	SCREW IC	3x18 MFZN2W3	
	170	WU048900	BIND HEAD S-TIGHT SCREW	4x10 MFZN2W3	
	171	VD069600	PW HEAD S-TIGHT SCREW	4x8-10 MFN133	GD, TI
	171	VH313200	PW HEAD S-TIGHT SCREW	4x8-10 MFN13BL	BL
	175	V6509600	JACK SCREW	SS6-A47511848	A700
	176	AA627310	GROUND TERMINAL		RTKABGFL
			ACCESSORIES		
*	200	WT927200	REMOTE CONTROL	RAV336	000-213220010
*	200	WT927300	REMOTE CONTROL	RAV337	000-213220020
*	200	WT927400	REMOTE CONTROL	RAV338	000-213220030
	200-1	AAX82380	BATTERY COVER		CG-2209
	202	V6267000	INDOOR FM ANTENNA	1.4m 1pc	UCRTL
	202	VQ147100	INDOOR FM ANTENNA	1.4m 1pc	KABGF
	203	VR248500	AM LOOP ANTENNA	1.0m 1pc	
	204	WN649600	YPAO MICROPHONE	6.0m 1pc	EM6022L-HN1700
*	205	WU187800	VIDEO AUX INPUT COVER	1pc	GD
*	205	WU187600	VIDEO AUX INPUT COVER	1pc	BL
*	205	WU187700	VIDEO AUX INPUT COVER	1pc	TI
			BATTERY	R03, AAA, UM-4 2pcs	

\* New Parts

Ref No.	Part No.	Description	Remarks	Markets	
* 1-1	WU427500	P. C. B. ASS' Y	OPERATION	V667	U
* 1-1	WU933400	P. C. B. ASS' Y	OPERATION	A700	U
* 1-1	WU427600	P. C. B. ASS' Y	OPERATION	V667	C
* 1-1	WU428000	P. C. B. ASS' Y	OPERATION	6063	C
* 1-1	WU427700	P. C. B. ASS' Y	OPERATION	V667	RTKABGFL
* 1-1	WU428100	P. C. B. ASS' Y	OPERATION	6063	A
* 1-2	WU432000	P. C. B. ASS' Y	DIGITAL	V667	U
* 1-2	WU933100	P. C. B. ASS' Y	DIGITAL	A700	U
* 1-2	WU432100	P. C. B. ASS' Y	DIGITAL		CTKAL
* 1-2	WU432200	P. C. B. ASS' Y	DIGITAL		R
* 1-2	WU432300	P. C. B. ASS' Y	DIGITAL		BGF
* 1-4	WU826900	FRONT PANEL SUB ASS' Y	with WINDOW	V667GD	
* 1-4	WU826600	FRONT PANEL SUB ASS' Y	with WINDOW	V667BL	U
* 1-4	WU827000	FRONT PANEL SUB ASS' Y	with WINDOW	6063BL	U
* 1-4	WV501000	FRONT PANEL SUB ASS' Y	with WINDOW	A700BL	U
* 1-4	WU826700	FRONT PANEL SUB ASS' Y	with WINDOW	V667BL	CRTKABGFL
* 1-4	WU827100	FRONT PANEL SUB ASS' Y	with WINDOW	6063BL	CA
* 1-4	WU826800	FRONT PANEL SUB ASS' Y	with WINDOW	6063TI	
* 1-5	WT822500	BUTTON CASE		GD	
* 1-5	WT822300	BUTTON CASE		BL	
* 1-5	WT822400	BUTTON CASE		TI	
* 1-6	WT823900	BUTTON	TUNER		
* 1-7	WT871300	BUTTON	PURE DIRECT		
* 1-8	WT843800	BUTTON POWER			
* 1-10	WT846200	EARTH PLATE			
1-15	WR482100	FLEXIBLE FLAT CABLE	25P 250mm P=1.25		
1-16	WR482000	FLEXIBLE FLAT CABLE	9P 300mm P=1.25		
1-25	WE774800	BIND HEAD P-TIGHT SCREW	3x8 MFZN2W3		

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AMP UNIT



Ref No.	Part No.	Description	Remarks	Markets
2-1	WR432000	P. C. B. ASS'Y	MAIN	UTKABGF
2-1	WR432200	P. C. B. ASS'Y	MAIN	U
2-1	WR432400	P. C. B. ASS'Y	MAIN	C
2-1	WR432100	P. C. B. ASS'Y	MAIN	R
2-1	WR432300	P. C. B. ASS'Y	MAIN	L
* 2-2	WU429400	P. C. B. ASS'Y	VIDEO	U
* 2-2	WU429500	P. C. B. ASS'Y	VIDEO	C
* 2-2	WU429600	P. C. B. ASS'Y	VIDEO	R
* 2-2	WU429700	P. C. B. ASS'Y	VIDEO	T
* 2-2	WU429800	P. C. B. ASS'Y	VIDEO	K
* 2-2	WU429900	P. C. B. ASS'Y	VIDEO	A
* 2-2	WU430000	P. C. B. ASS'Y	VIDEO	BGF
* 2-2	WU430100	P. C. B. ASS'Y	VIDEO	L
* 2-3	WU427500	P. C. B. ASS'Y	OPERATION	U
* 2-3	WU933400	P. C. B. ASS'Y	OPERATION	U
* 2-3	WU427600	P. C. B. ASS'Y	OPERATION	C
* 2-3	WU428000	P. C. B. ASS'Y	OPERATION	C
* 2-3	WU427700	P. C. B. ASS'Y	OPERATION	RTKABGFL
* 2-3	WU428100	P. C. B. ASS'Y	OPERATION	A
2-11	WQ753200	MICA SHEET	TB-1021	
2-20	WS000800	SPACER SUPPORT	LCA4-29M PIN	
2-103	WM220800	HEXAGONAL HEAD B-TIGHT SCREW	3x15 SP MFZN2W3	
2-104	WF002600	PW HEAD B-TIGHT SCREW	3x8 MFZN2W3	
2-105	WE774300	BIND HEAD B-TIGHT SCREW	3x8 MFZN2W3	
2-106	VQ368600	PUSH RIVET	P3555-B	
△ 15	YA684A00	POWER TRANSFORMER		UC
△ 15	YA685A00	POWER TRANSFORMER		RL
△ 15	YA686A00	POWER TRANSFORMER		TK
△ 15	YA687A00	POWER TRANSFORMER		A
△ 15	YA688A00	POWER TRANSFORMER		BGF

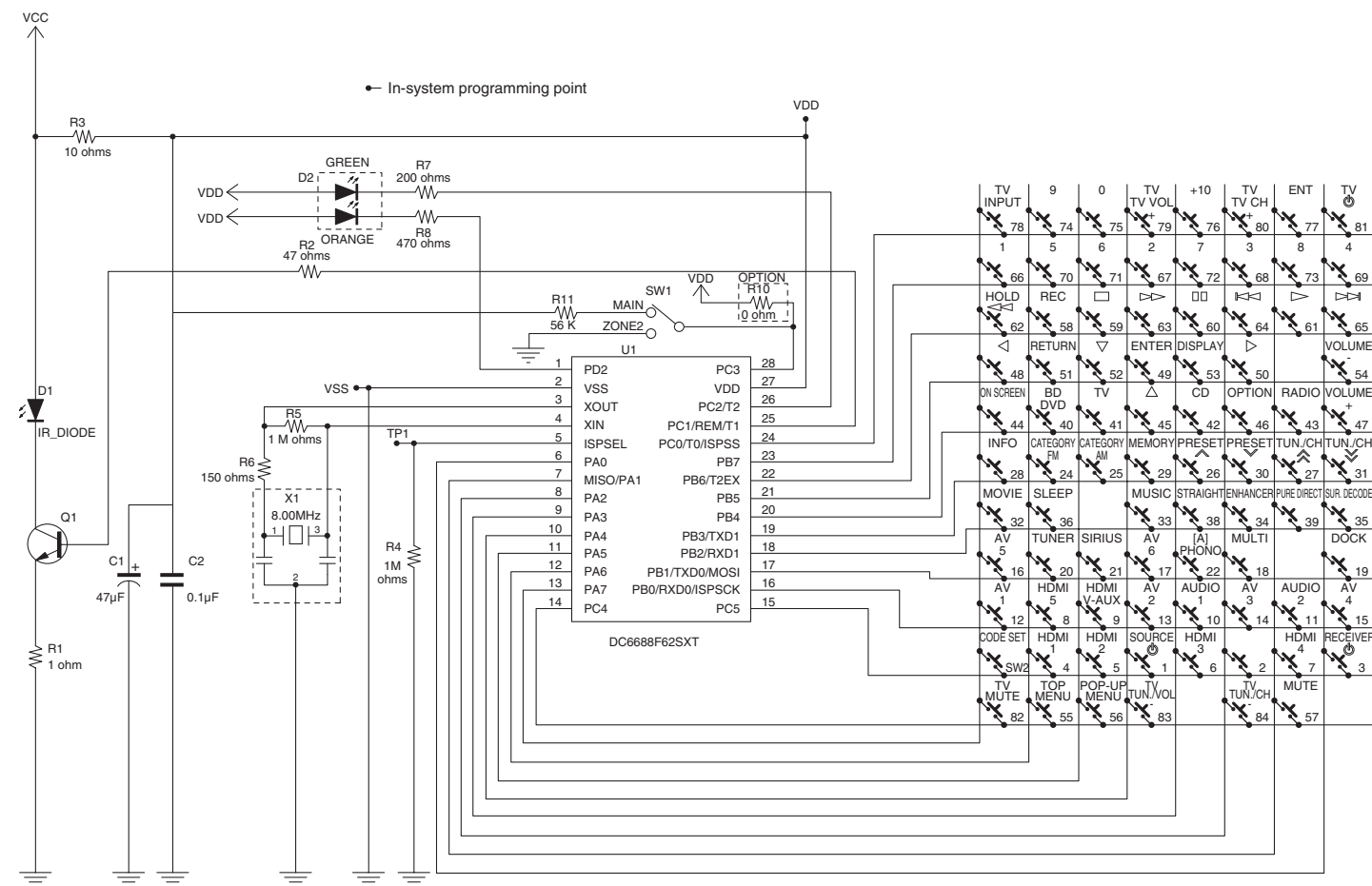
\* New Parts

## ■ REMOTE CONTROL

- RAV336: U model / RAV337: C model / RAV338: R, T, K, A, B, G, F, L models

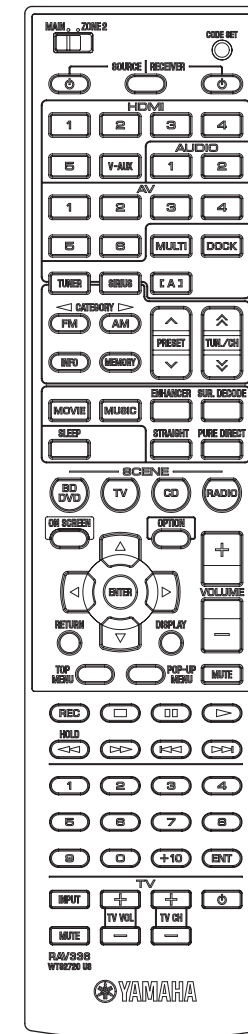
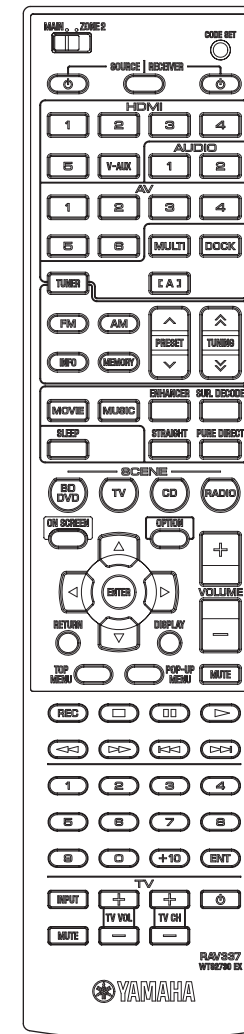
### SCHEMATIC DIAGRAM

RAV336/RAV337/RAV338

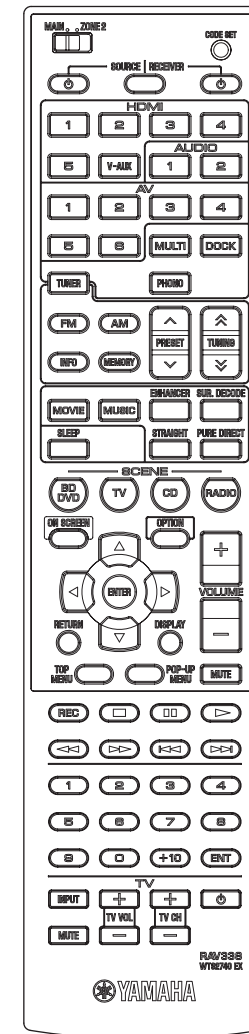


## PANELS

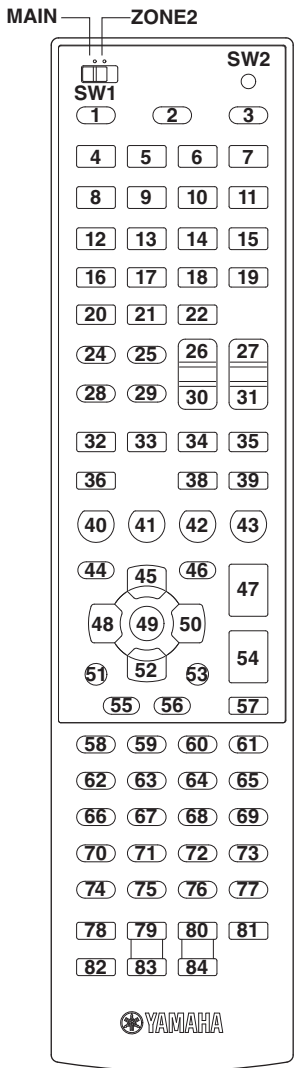
**RAV336**  
(U model)

RAV337  
(C model)

**RAV338**  
(R, T, K, A, B, G, F, L models)



KEY NO. LAYOUT



KEY CODE

	Key No.	FUNCTION	ID-1		ID-2	
			MAIN	ZONE2	MAIN	ZONE2
	SW1	MAIN/ZONE2	[MAIN]	[ZONE2]	[MAIN]	[ZONE2]
	LED1	–	–	–	–	–
	SW2	CODE SET	–	–	–	–
	K2	SOURCE/RECEIVER	* select RCU mode "SOURCE" or "RECEIVER"			
RECEIVER (mode fixed)	K3	⏻ (RECEIVER)	7E-2A	7A-453A	7E-2AD4	7A-453B
	K4	HDMI-1	7A-4738	7A-4837	7A-4739	7A-4836
	K5	HDMI-2	7A-4A35	7A-4B34	7A-4A34	7A-4B35
	K6	HDMI-3	7A-4D32	7A-4E31	7A-4D33	7A-4E30
	K7	HDMI-4	7A-502F	7A-512E	7A-502E	7A-512F
	K8	HDMI-5	7A-700F	7A-710E	7A-700E	7A-710F
	K9	V-AUX	7A-730C	7A-740B	7A-730D	7A-740A
	K10	AUDIO-1	7A-651A	7A-6619	7A-651B	7A-6618
	K11	AUDIO-2	7A-6817	7A-6916	7A-6816	7A-6917
	K12	AV-1	7A-532C	7A-542B	7A-532D	7A-542A
	K13	AV-2	7A-5629	7A-5728	7A-5628	7A-5729
	K14	AV-3	7A-5926	7A-5A25	7A-5927	7A-5A24
	K15	AV-4	7A-5C23	7A-5D22	7A-5C22	7A-5D23
	K16	AV-5	7A-5F20	7A-601F	7A-5F21	7A-601E
	K17	AV-6	7A-621D	7A-631C	7A-621C	7A-631D
	K18	MULTI	7A-87	–	7A-8779	–
	K19	DOCK	7F01-4A	7F01-4B	7F01-4AB4	7F01-4BB5
	K20	TUNER	7A-16	7A-D2	7A-16E8	7A-D22C
	K21	SIRIUS (RAV336)	7A-39	7A-3A	7A-39C7	7A-3AC4
	K22	[A] (RAV336, 337)	7A-14	7A-D0	7A-14EA	7A-D02E
		PHONO (RAV338)				
	K36	SLEEP	7A-30	7A-31	7A-30CE	7A-31CF
	K24	FM/CATEGORY (-) (RAV336)	7F01-5827	7F01-5926	7F01-5826	7F01-5927
		FM (RAV337, 338)				
	K25	AM/CATEGORY (+) (RAV336)	7F01-552A	7F01-5629	7F01-552B	7F01-5628
		AM (RAV337, 338)				
	K26	PRESET ^	7F01-5B24	7F01-5C23	7F01-5B25	7F01-5C22
	K27	TUNING/CH ⤴ (RAV336)	7F01-611E	7F01-621D	7F01-611F	7F01-621C
		TUNING ⤴ (RAV337, 338)				
	K28	INFO	7A-2758	7A-2857	7A-2759	7A-2856
	K29	MEMORY	7F01-6718	7F01-6817	7F01-6719	7F01-6816
	K30	PRESET v	7F01-5E21	7F01-5F20	7F01-5E20	7F01-5F21
	K31	TUNING/CH ⤵ (RAV336)	7F01-641B	7F01-651A	7F01-641A	7F01-651B
		TUNING ⤵ (RAV337, 338)				
	K32	MOVIE	7A-88	–	7A-8876	–
	K33	MUSIC	7A-89	–	7A-8977	–
	K34	ENHANCER	7A-94	–	7A-946A	–
	K35	SUR. DECODE	7A-8D	–	7A-8D73	–
	K38	STRAIGHT	7A-56	–	7A-56A8	–
	K39	PURE DIRECT	7A-DD	–	7A-DD23	–
	K40	BD/DVD (SCENE)	7A-007F	7A-017E	7A-007E	7A-017F
	K41	TV (SCENE)	7A-037C	7A-047B	7A-037D	7A-047A
	K42	CD (SCENE)	7A-0679	7A-0778	7A-0678	7A-0779
	K43	RADIO (SCENE)	7A-0976	7A-0A75	7A-0977	7A-0A74
	K44	ON SCREEN	7A-84	–	7A-847A	–
	K46	OPTION	7A-6B14	–	7A-6B15	–
	K47	VOLUME (+)	7A-1A	7A-DA	7A-1AE4	7A-DA24
	K54	VOLUME (-)	7A-1B	7A-DB	7A-1BE5	7A-DB25
	K57	MUTE	7A-1C	7A-DC	7A-1CE2	7A-DC22

	Key No.	FUNCTION	ID-1		ID-2	
			MAIN	ZONE2	MAIN	ZONE2
SOURCE/RCVR	K45	▲ (UP)	7A-9D	7A-2B54	7A-9D63	7A-2B55
	K48	◀ (LEFT)	7A-9F	7A-2D52	7A-9F61	7A-2D53
	K49	ENTER	7A-DE	7A-2F50	7A-DE20	7A-2F51
	K50	▶ (RIGHT)	7A-9E	7A-2E51	7A-9E60	7A-2E50
	K51	RETURN	7A-AA	7A-3C43	7A-AA54	7A-3C42
	K52	▼ (DOWN)	7A-9C	7A-2C53	7A-9C62	7A-2C52
	K53	DISPLAY	7F01-60	7F01-80	7F01-609E	7F01-807E
	K58	REC	7F01-66	7F01-86	7F01-6698	7F01-8678
	K59	■ (STOP)	7F01-69	7F01-89	7F01-6997	7F01-8977
	K60	▣ (PAUSE)	7F01-67	7F01-87	7F01-6799	7F01-8779
	K61	▶ (PLAY)	7F01-68	7F01-88	7F01-6896	7F01-8876
	K62	◀◀ REW / HOLD (RAV336)	7F01-6A	7F01-8A	7F01-6A94	7F01-8A74
		◀◀ REW (RAV337, 338)				
	K63	▶▶ (FF)	7F01-6B	7F01-8B	7F01-6B95	7F01-8B75
	K64	◀◀ (SKIP -)	7F01-6C	7F01-8C	7F01-6C92	7F01-8C72
	K65	▶▶ (SKIP +)	7F01-6D	7F01-8D	7F01-6D93	7F01-8D73
	K66	1	7F01-51	7F01-71	7F01-51AF	7F01-718F
	K67	2	7F01-52	7F01-72	7F01-52AC	7F01-728C
	K68	3	7F01-53	7F01-73	7F01-53AD	7F01-738D
	K69	4	7F01-54	7F01-74	7F01-54AA	7F01-748A
	K70	5	7F01-55	7F01-75	7F01-55AB	7F01-758B
	K71	6	7F01-56	7F01-76	7F01-56A8	7F01-7688
	K72	7	7F01-57	7F01-77	7F01-57A9	7F01-7789
	K73	8	7F01-58	7F01-78	7F01-58A6	7F01-7886
	K74	9	7F01-59	7F01-79	7F01-59A7	7F01-7987
	K75	0	7F01-5A	7F01-7A	7F01-5AA4	7F01-7A84
	K76	+10	7F01-5B	7F01-7B	7F01-5BA5	7F01-7B85
	K77	ENT	7F01-5C	7F01-7C	7F01-5CA2	7F01-7C82
SOURCE (mode fixed)	K1	⏻ (SOURCE)	SOURCE			
	K55	TOP MENU	SOURCE * switch RCU to "SOURCE" mode			
	K56	POP-UP MENU	SOURCE * switch RCU to "SOURCE" mode			
	K78	TV INPUT	SOURCE (TV)			
	K79	TV VOL (+)				
	K80	TV CH (+)				
	K81	TV ⏻				
	K82	TV MUTE				
	K83	TV VOL (-)				
	K84	TV CH (-)				

\* K81: able to preset the code (only from TV library) in K78/K79/K80/K81/K82/K83/K84.



FUNCTION CODE

	BD			DVD					DVR		LD		CD			CD-R		MD			
	Brand	Yamaha-1	Yamaha-2	Brand	Yamaha-1	Yamaha-2	Yamaha-3	T	Brand	Yamaha	Brand	Yamaha	Brand	Yamaha-1	Yamaha-2	Brand	Yamaha	Brand	Yamaha-1	Yamaha-2	Yamaha-3
Key No.	Preset Number	2064	****	Preset Number	2082	2081	2083	2218	Preset Number	2089	Preset Number	2080	Preset Number	5095	5082	Preset Number	5083	Preset Number	5080	5081	5086
	Function	Code	Code	Function	Code	Code	Code	Code	Function	Code	Function	Code	Function	Code	Code	Function	Code	Function	Code	Code	Code
K45	UP	7C-B4	7C-B4A4	UP	7C-B4	2002 B0 00 85 35	004.088	45B5 80	MENU UP	048.088	—	—	—	—	—	—	—	—	—	—	—
K48	LEFT	7C-B5	7C-B54B	LEFT	7C-B5	2002 B0 00 87 37	004.090	45B5 51	MENU LEFT	048.090	—	—	—	—	—	—	—	—	—	—	—
K49	ENTER	7C-B8	7C-B846	ENTER	7C-B8	2002 B0 00 82 32	004.092	45B5 21	MENU ENTER	048.092	—	—	—	—	—	—	—	—	—	—	—
K50	RIGHT	7C-B6	7C-B648	RIGHT	7C-B6	2002 B0 00 88 38	004.091	45B5 4D	MENU RIGHT	048.091	—	—	—	—	—	—	—	—	—	—	—
K51	RETURN	7C-B7	7C-B749	RETURN	7C-B7	2002 B0 00 81 31	004.131	45B5 22	RETURN	048.131	—	—	—	—	—	—	—	—	—	—	—
K52	DOWN	7C-B3	7C-B34D	DOWN	7C-B3	2002 B0 00 86 36	004.089	45B5 81	MENU DOWN	048.089	—	—	—	—	—	—	—	—	—	—	—
K53	DISPLAY	7C-A6	7C-A658	DISPLAY	7C-A6	2002 B0 00 92 22	004.015	45B5 26	DISPLAY	048.015	DISPLAY	7C-13	DISPLAY	79-0A	79-0A	DISPLAY	7F-9E	DISPLAY	79-A5	79-A5	180F
K1	⦿ (SOURCE)	7C-80	7C-807E	⦿ (SOURCE)	7C-80	2002 B0 00 3D 8D	004.012	45B5 12	⦿ (SOURCE)	048.012	⦿ (SOURCE)	—	⦿ (SOURCE)	79-60	79-60	⦿ (SOURCE)	7F-80	⦿ (SOURCE)	—	79-B5	150F
K55	TOP MENU	7C-B1	7C-B14F	TOP MENU	7C-B1	2002 B0 00 9B 2B	004.113	45B5 DE	TITLE	048.200	—	—	—	—	—	—	—	—	—	—	—
K56	POP-UP MENU	7C-CF	7C-CF31	MENU	7C-B2	2002 B0 00 80 30	004.084	45B5 84	MENU	048.084	—	—	—	—	—	—	—	—	—	—	—
K58	DISC SKIP	7C-8B	7C-8B75	DISC SKIP	7C-8B	—	004.127	??	REC	048.055	—	—	DISC SKIP	7A-4F	79-4F	REC	—	REC	79-AF	79-B1	2D0F
K59	STOP	7C-85	7C-857B	STOP	7C-85	2002 B0 00 00 B0	004.049	45B5 14	STOP	048.049	STOP	7C-5B	STOP	7A-09	79-56	STOP	7F-84	STOP	79-AA	79-AA	280F
K60	PAUSE	7C-83	7C-837D	PAUSE	7C-83	2002 B0 00 06 B6	004.048	45B5 00	PAUSE	048.048	PAUSE	7C-5A	PAUSE	7A-09	79-55	PAUSE	7F-83	PAUSE	79-A9	79-A9	290F
K61	PLAY	7C-82	7C-827C	PLAY	7C-82	2002 B0 00 0A BA	004.044	45B5 15	PLAY	048.044	PLAY	7C-05	PLAY	7A-08	79-02	PLAY	7F-82	PLAY	79-A8	79-A8	2A0F
K62	REW	7C-86	7C-8678	REW	7C-86	2002 B0 00 04 B4	004.041	45B5 19	REW	048.041	REW	7C-06	REW	7A-0D	79-05	REW	7F-88	REW	79-AC	79-AC	2B0F
K63	FF	7C-87	7C-8779	FF	7C-87	2002 B0 00 05 B5	004.040	45B5 13	FF	048.040	FF	7C-07	FF	7A-0C	79-06	FF	7F-89	FF	79-AD	79-AD	2C0F
K64	SKIP (-)	7C-B9	7C-B947	SKIP (-)	7C-B9	2002 B0 00 49 F9	004.033	45B5 23	SKIP (-)	048.033	CHAP/SKIP (-)	7C-02	SKIP (-)	7A-0B	79-04	SKIP (-)	7F-86	SKIP (-)	79-AB	79-AB	200F
K65	SKIP (+)	7C-BA	7C-BA44	SKIP (+)	7C-BA	2002 B0 00 4A FA	004.032	45B5 24	SKIP (+)	048.032	CHAP/SKIP (+)	7C-03	SKIP (+)	7A-0A	79-07	SKIP (+)	7F-87	SKIP (+)	79-AE	79-AE	210F
K66	1	7C-94	7C-946A	1	7C-94	2002 B0 00 10 A0	004.001	45B5 01	1	048.001	1	7C-17	1	79-11	79-11	1	7F-91	1	79-85	79-B7	000F
K67	2	7C-95	7C-956B	2	7C-95	2002 B0 00 11 A1	004.002	45B5 02	2	048.002	2	7C-18	2	79-12	79-12	2	7F-92	2	79-86	79-B8	010F
K68	3	7C-96	7C-9668	3	7C-96	2002 B0 00 12 A2	004.003	45B5 03	3	048.003	3	7C-19	3	79-13	79-13	3	7F-93	3	79-87	79-B9	020F
K69	4	7C-97	7C-9769	4	7C-97	2002 B0 00 13 A3	004.004	45B5 04	4	048.004	4	7C-1A	4	79-14	79-14	4	7F-94	4	79-88	79-BA	030F
K70	5	7C-98	7C-9866	5	7C-98	2002 B0 00 14 A4	004.005	45B5 05	5	048.005	5	7C-1B	5	79-15	79-15	5	7F-95	5	79-89	79-BB	040F
K71	6	7C-99	7C-9967	6	7C-99	2002 B0 00 15 A5	004.006	45B5 06	6	048.006	6	7C-1C	6	79-16	79-16	6	7F-96	6	79-8A	79-BC	050F
K72	7	7C-9A	7C-9A64	7	7C-9A	2002 B0 00 16 A6	004.007	45B5 07	7	048.007	7	7C-1D	7	79-17	79-17	7	7F-97	7	79-8B	79-BD	060F
K73	8	7C-9B	7C-9B65	8	7C-9B	2002 B0 00 17 A7	004.008	45B5 08	8	048.008	8	7C-1E	8	79-18	79-18	8	7F-98	8	79-8C	79-BE	070F
K74	9	7C-9C	7C-9C62	9	7C-9C	2002 B0 00 18 A8	004.009	45B5 09	9	048.009	9	7C-1F	9	79-19	79-19	9	7F-99	9	79-8D	79-BF	080F
K75	0	7C-93	7C-936D	0	7C-93	2002 B0 00 19 A9	004.000	45B5 0A	0	048.000	0	7C-16	0/10	79-10	79-10	0	7F-90	0	79-8E	79-C0	090F
K76	+10	7C-9D	7C-9D63	+10	7C-9D	2002 B0 00 89 39	004.120	45B5 25	+10	—	+10	7C-5D	+10	79-1A	79-1A	+10	7F-9A	+10	79-8F	79-8F	0A0F
K77	TITLE/INDEX	7C-9E	7C-9E60	TITLE/INDEX	7C-9E	—	—	45B5 20	TITLE/INDEX	—	CHAP/TIME	7C-15	INDEX	79-0B	79-0B	INDEX	7F-8A	INDEX	—	—	—
K78	TV- INPUT	(TV INPUT)		TV- INPUT		(TV INPUT)			TV- INPUT	(TV INPUT)	TV- INPUT	(TV INPUT)	TV- INPUT	(TV INPUT)		TV- INPUT	(TV INPUT)	TV- INPUT		(TV INPUT)	
K79	TV- VOL (+)	(TV VOL +)		TV- VOL (+)		(TV VOL +)			TV- VOL (+)	(TV VOL +)	TV- VOL (+)	(TV VOL +)	TV- VOL (+)	(TV VOL +)		TV- VOL (+)	(TV VOL +)	TV- VOL (+)		(TV VOL +)	
K80	TV- CH (+)	(TV CH +)		TV- CH (+)		(TV CH +)			TV- CH (+)	(TV CH +)	TV- CH (+)	(TV CH +)	TV- CH (+)	(TV CH +)		TV- CH (+)	(TV CH +)	TV- CH (+)		(TV CH +)	
K81	TV- ⦿	(TV- ⦿)		TV- ⦿		(TV- ⦿)			TV- ⦿	(TV- ⦿)	TV- ⦿	(TV- ⦿)	TV- ⦿	(TV- ⦿)		TV- ⦿	(TV- ⦿)	TV- ⦿		(TV- ⦿)	
K82	TV- MUTE	(TV MUTE)		TV- MUTE		(TV MUTE)			TV- MUTE	(TV MUTE)	TV- MUTE	(TV MUTE)	TV- MUTE	(TV MUTE)		TV- MUTE	(TV MUTE)	TV- MUTE		(TV MUTE)	
K83	TV- VOL (-)	(TV VOL -)		TV- VOL (-)		(TV VOL -)			TV- VOL (-)	(TV VOL -)	TV- VOL (-)	(TV VOL -)	TV- VOL (-)	(TV VOL -)		TV- VOL (-)	(TV VOL -)	TV- VOL (-)		(TV VOL -)	
K84	TV- CH (-)	(TV CH -)		TV- CH (-)		(TV CH -)			TV- CH (-)	(TV CH -)	TV- CH (-)	(TV CH -)	TV- CH (-)	(TV CH -)		TV- CH (-)	(TV CH -)	TV- CH (-)		(TV CH -)	


TUNER																TAPE			TV										
Brand		Yamaha-2	Yamaha-3	Yamaha-4	Yamaha-5	Yamaha-6	Yamaha-7	Yamaha-14	Yamaha-11	Yamaha-12	Brand	Yamaha-8	Yamaha-15	Yamaha-13	Yamaha-16	Brand	Yamaha-9	Yamaha-10	Brand	Yamaha-1	Yamaha-2	Brand	Yamaha-1	Yamaha-2	Yamaha-3	Yamaha-4	Yamaha-5		
key	Preset Number	5092	5085	5090	5091	5088	5089	5086	5093	5066	Preset Number	5094	5079	5071	5076	Preset Number	5067	5064	Preset Number	5087	5084	Preset Number	0082	0083	0080	0081	0086		
No.	Function	Code	Code	Code	Code	Code	Code	Code	Code	Code	Function	Code	Code	Code	Code	Function	Code	Code	Function	Code	Code	Function	Code	Code	Code	Code	Code		
K45	PRESET (+)	7A-10	7A-10	7D-F5	7A-6A	7D-31	7F01-0E	7F01-0EF0	7A-6A94	7A-10EE	UP	7F01-2E	7F01-2E	7F01-2ED0	7F01-2ED0	UP	7F01-E1	7F01-E11F	—	—	—	MENU UP	D1CC	D16C	5070	01 111 0 01 0EE 1	F082		
K48	A-E/CAT. (-)	—	7A-AC	7D-BB	7A-6E	7D-35	7F01-10	7F01-10EE	7A-6E90	7A-AC52	LEFT	7F01-30	7F01-30	7F01-30CE	7F01-30CE	LEFT	7F01-E2	7F01-E21C	—	—	—	MENU LEFT	D1CE	D16E	5073	01 115 0 01 0EA 1	F080		
K49	ENTER	—	7A-AD	7D-BC	7A-6F	7D-36	7F01-11	7F01-11EF	7A-6F91	7A-AD53	ENTER	7F01-31	7F01-31	7F01-31CF	7F01-31CF	ENTER	7F01-E3	7F01-E31D	—	—	—	MENU ENTER	D1D0	D170	5033	01 15F 0 01 0A0 1	F087		
K50	A-E/CAT. (+)	D1-0D	7A-12	7D-F7	7A-6C	7D-33	7F01-12	7F01-12EC	7A-6C92	7A-12EC	RIGHT	7F01-32	7F01-32	7F01-32CC	7F01-32CC	RIGHT	7F01-E4	7F01-E41A	—	—	—	MENU RIGHT	D1CF	D16F	5072	01 114 0 01 0EB 1	F081		
K51	MEMORY	—	7A-AF	7D-BE	7A-71	7D-38	7F01-13	7F01-13ED	7A-718F	7A-AF51	RETURN	7F01-33	7F01-33	7F01-33CD	7F01-33CD	MEMORY	7F01-DF	7F01-DF21	—	—	—	RETURN	D1D5	D175	500A	01 12F 0 01 0D0 1	—		
K52	PRESET (-)	7A-11	7A-11	7D-F6	7A-6B	7D-32	7F01-14	7F01-14EA	7A-6B95	7A-11EF	DOWN	7F01-34	7F01-34	7F01-34CA	7F01-34CA	DOWN	7F01-E5	7F01-E51B	—	—	—	MENU DOWN	D1CD	D16D	5071	01 112 0 01 0ED 1	F083		
K53	DISPLAY	—	7A-B0	7D-BF	7A-72	7D-39	7F01-15	7F01-15EB	7A-728C	7A-B04E	DISPLAY	7F01-35	7F01-35	7F01-35CB	7F01-35CB	DISPLAY	7F01-E0	7F01-E01E	—	—	—	DISPLAY	—	—	5010	01 11B 0 01 0E4 1	—		
K1	⦿ (SOURCE)	D1-1B	D1-1B	—	—	—	7F01-00	7F01-00FE	—	—	⦿ (SOURCE)	7F01-20	7F01-20	7F01-20DE	7F01-20DE	⦿ (SOURCE)	7F01-D0	7F01-D02E	—	—	—	⦿ (SOURCE)	—	—	—	—	—		
K55	BAND	—	7A-AE	7D-BD	7A-70	7D-37	7F01-0D	7F01-0DF3	7A-708E	7A-AE50	TITLE	7F01-2D	7F01-2D	7F01-2DD3	7F01-2DD3	TITLE	7F01-DD	7F01-DD23	—	—	—	TITLE	—	—	—	—	—		
K56	SRCH MODE	—	7A-AB	7D-BA	7A-6D	7D-34	7F01-0F	7F01-0FF1	7A-6D93	7A-AB55	MENU	7F01-2F	7F01-2F	7F01-2FD1	7F01-2FD1	SRCH MODE	7F01-DE	7F01-DE20	—	—	—	MENU	D1D3	D173	5053	01 120 0 01 0DF 1	F086		
K58	—	—	—	—	—	—	7F01-16	7F01-16E8	—	—	PC/MCX	7F01-36	7F01-36	7F01-36C8	7F01-36C8	REC	7F01-E6	7F01-E618	REC	7A-04	7F-04	REC	—	—	—	—	—		
K59	—	—	—	—	—	—	7F01-1D	7F01-1DE3	—	—	STOP	7F01-3D	7F01-3D	7F01-3DC3	7F01-3DC3	STOP	7F01-E9	7F01-E917	STOP	7A-03	7F-03	STOP	—	—	—	—	—		
K60	—	—	—	—	—	—	7F01-1A	7F01-1AE4	—	—	PAUSE	7F01-3A	7F01-3A	7F01-3AC4	7F01-3AC4	PAUSE	7F01-E7	7F01-E719	PAUSE	—	—	PAUSE	—	—	—	—	—		
K61	—	—	—	—	—	—	7F01-1E	7F01-1E00	—	—	PLAY	7F01-3E	7F01-3E	7F01-3EC0	7F01-3EC0	PLAY	7F01-E8	7F01-E816	PLAY	7A-00	7F-00	PLAY	—	—	—	—	—		
K62	FREQ	7A-A4	—	7D-23	—	—	7F01-17	7F01-17E9	—	—	NET RADIO	7F01-37	7F01-37	7F01-37C9	7F01-37C9	REW	7F01-EA	7F01-EA14	REW	7A-01	7F-01	REW	—	—	—	—	—		
K63	EON	7A-A5	7A-A5	7D-24	7A-3E	—	7F01-18	7F01-18E6	7A-3EC0	7A-A55B	USB	7F01-38	7F01-38	7F01-38C6	7F01-38C6	FF	7F01-EB	7F01-EB15	FF	7A-02	7F-02	FF	—	—	—	—	—		
K64	PTY MODE	7A-A6	7A-A6	7D-25	7A-3F	—	7F01-1B	7F01-1BE5	7A-3FC1	7A-A658	SKIP (-)	7F01-3B	7F01-3B	7F01-3BC5	7F01-3BC5	SKIP (-)	7F01-EC	7F01-EC12	DIR A	7A-07	7F-07	SKIP (-)	—	—	—	—	—		
K65	PTY START	7A-A7	7A-A7	7D-26	7A-EF	—	7F01-1C	7F01-1CE2	7A-EF11	7A-A759	SKIP (+)	7F01-3C	7F01-3C	7F01-3CC2	7F01-3CC2	SKIP (+)	7F01-ED	7F01-ED13	DIR B	7A-40	7F-08	SKIP (+)	—	—	—	—	—		
K66	P1	D1-0E	7A-E5	7D-F8	7A-61	7D-A1	7F01-01	7F01-01FF	7A-619F	7A-E51B	P1	7F01-21	7F01-542B	7F01-542A	7F01-542A	1	7F01-D1	7F01-D12F	—	—	—	1	D1E1	D181	500D	01 101 0 01 0FE 1	F0E4		
K67	P2	D1-0F	7A-E6	7D-F9	7A-62	7D-A2	7F01-02	7F01-02FC	7A-629C	7A-E618	P2	7F01-22	7F01-532C	7F01-52DC	7F01-532D	2	7F01-D2	7F01-D22C	—	—	—	2	D1E2	D182	500E	01 102 0 01 0FD 1	F0E5		
K68	P3	D1-10	7A-E7	7D-FA	7A-63	7D-A3	7F01-03	7F01-03FD	7A-639D	7A-E719	P3	7F01-23	7F01-522D	7F01-522C	7F01-522D	3	7F01-D3	7F01-D32D	—	—	—	3	D1E3	D183	500F	01 103 0 01 0FC 1	F0E6		
K69	P4	D1-11	7A-E8	7D-FB	7A-64	7D-A4	7F01-04	7F01-04FA	7A-649A	7A-E816	P4	7F01-24	7F01-4837	7F01-24DA	7F01-4836	4	7F01-D4	7F01-D42A	—	—	—	4	D1E4	D184	501C	01 104 0 01 0FB 1	—		
K70	P5	D1-12	7A-E9	7D-FC	7A-65	7D-A5	7F01-05	7F01-05FB	7A-659B	7A-E917	P5	7F01-25	—	7F01-25DB	—	5	7F01-D5	7F01-D52B	—	—	—	5	D1E5	D185	501D	01 105 0 01 0FA 1	—		
K71	P6	D1-13	7A-EA	7D-FD	7A-66	7D-A6	7F01-06	7F01-06F8	7A-6698	7A-EA14	P6	7F01-26	—	7F01-26D8	—	6	7F01-D6	7F01-D628	—	—	—	6	D1E6	D186	501E	01 106 0 01 0F9 1	—		
K72	P7	D1-14	7A-EB	7D-FE	7A-67	7D-A7	7F01-07	7F01-07F9	7A-6799	7A-EB15	P7	7F01-27	—	7F01-27D9	—	7	7F01-D7	7F01-D729	—	—	—	7	—	—	501F	01 107 0 01 0F8 1	—		
K73	P8	D1-15	7A-EC	7D-FF	7A-68	7D-A8	7F01-08	7F01-08F6	7A-6896	7A-EC12	P8	7F01-28	—	7F01-28D6	—	8	7F01-D8	7F01-D826	—	—	—	8	—	—	5004	01 108 0 01 0F7 1	—		
K74	P9	—	7A-B1	7D-60	7A-69	7D-A9	7F01-09	7F01-09F7	7A-6997	7A-B14F	P9	7F01-29	—	7F01-29D7	—	9	7F01-D9	7F01-D927	—	—	—	9	—	—	5005	01 109 0 01 0F6 1	—		
K75	P0	—	7A-B2	7D-61	7A-60	7D-A0	7F01-0A	7F01-0AF4	7A-609E	7A-B24C	P10	7F01-2A	—	7F01-2AD4	—	10	7F01-DA	7F01-DA24	—	—	—	0/10	—	—	500C	01 10A 0 01 0F5 1	—		
K76	—	—	—	—	—	—	7F01-0B	7F01-0BF5	—	—	—	7F01-2B	—	7F01-2BD5	—	11	7F01-DB	7F01-DB25	—	—	—	—/_..._11	—	—	5006	01 135 0 01 0CA 1	—		
K77	P ENTER	—	7A-B3	7D-62	7A-BF	7D-3F	7F01-0C	7F01-0CF2	7A-BF41	7A-B34D	P ENTER	7F01-2C	—	7F01-2CD2	—	12	7F01-DC	7F01-DC22	—	—	—	enter/12	—	—	5008	01 10C 0 01 0F3 1	—		
K78	TV- INPUT	(TV INPUT)										TV- INPUT	(TV INPUT)					TV- INPUT	(TV INPUT)					TV- INPUT	(TV INPUT)				
K79	TV- VOL (+)	(TV VOL +)										TV- VOL (+)	(TV VOL +)					TV- VOL (+)	(TV VOL +)					TV- VOL (+)	(TV VOL +)				
K80	TV- CH (+)	(TV CH +)										TV- CH (+)	(TV CH +)					TV- CH (+)	(TV CH +)					TV- CH (+)	(TV CH +)				
K81	TV- ⦿	(TV- ⦿)										TV- ⦿	(TV- ⦿)					TV- ⦿	(TV- ⦿)					TV- ⦿	(TV- ⦿)				
K82	TV- MUTE	(TV MUTE)										TV- MUTE	(TV MUTE)					TV- MUTE	(TV MUTE)					TV- MUTE	(TV MUTE)				
K83	TV- VOL (-)	(TV VOL -)										TV- VOL (-)	(TV VOL -)					TV- VOL (-)	(TV VOL -)					TV- VOL (-)	(TV VOL -)				
K84	TV- CH (-)	(TV CH -)										TV- CH (-)	(TV CH -)					TV- CH (-)	(TV CH -)					TV- CH (-)	(TV CH -)				

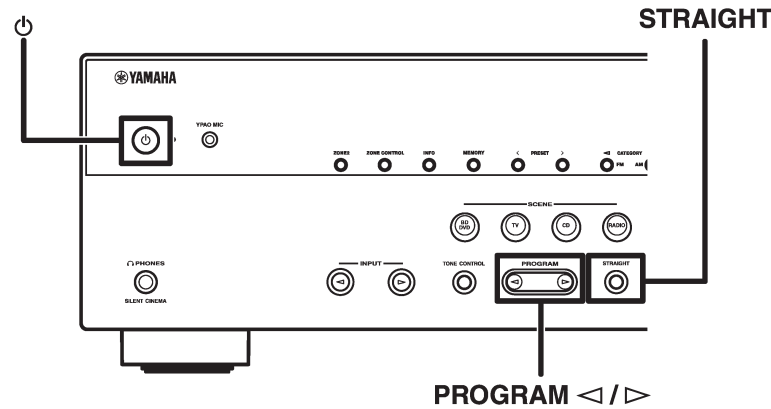
■ **ADVANCED SETUP**



- U model

The Advanced Setup menu can be used for unit initialization and other useful extended functions. The Advanced Setup menu can be operated as follows.

***Displaying/Setting the Advanced Setup menu***

- 1 Switch this unit to the standby mode.
- 2 Press  while pressing and holding **STRAIGHT** on the front panel.
- Release **STRAIGHT** when “ADVANCED SETUP” is displayed on the front panel display.
- After approximately a few seconds, the top menu items are displayed.



- 3 Use **PROGRAM**   to select the item to be set from the following items.
- In the Advanced Setup menu, you can set the following settings.

SP IMP.	Sets the impedance of speakers.
REMOTE ID	Changes the remote control ID of a receiver.
SR PIN	Resets the parental lock code for the SIRIUS Satellite Radio tuner.
TV FORMAT	Specifies the TV’s color encoding format.
MON.CHK	Removes the up-scaling limitation on HDMI video output.
INIT	Initializes various settings for this unit.


- 4 Press **STRAIGHT** repeatedly to select the value you want to change.
- 5 Switch this unit to the standby mode, and then switch it on again.
- The settings become effective and the unit is powered on. If initialization is selected, it will be performed when the unit is powered on again.

***Setting the impedance of speakers***

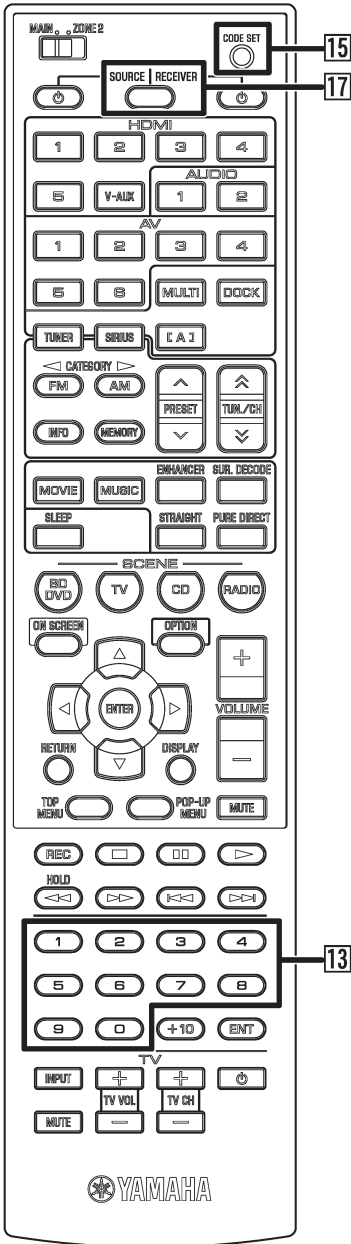


Changes the unit settings depending on the impedance of the speakers connected.  1

6ΩMIN	Select the impedance when 6Ω speakers are connected.
8ΩMIN (Default)	Select the impedance when speakers above 8Ω are connected.

 1 : For detailed procedures of speaker impedance settings, refer to “Changing speaker impedance”.





- 13 Numeric keys
- 15 CODE SET
- 17 SOURCE/RECEIVER

**Avoiding crossing remote control signals when using multiple Yamaha receivers**

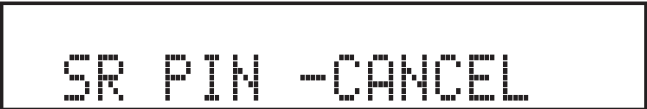


The remote control of the unit can only receive signals from a receiver which has an identical ID (remote control ID). When using multiple Yamaha AV receivers, you can set each remote control with a unique remote control ID for its corresponding receiver. On the contrary, if you are setting the same remote control ID for all receivers, you can use one remote control to operate 2 receivers.

ID1 (Default)	Receives the remote control signals set in ID1.
ID2	Receives the remote control signals set in ID2.

ID1 is set for both remote control and receiver by default. To avoid crossing remote control, change the remote control ID for both remote control and receiver.

**Resetting the SIRIUS Satellite Radio™ parental lock code**



Reset the SIRIUS Satellite Radio parental lock code to the factory default setting.

RESET	Resets the code to the factory default setting.
CANCEL (Default)	Cancels resetting of the parental lock code.

**To change the remote control ID**

Perform each of the following steps within 1 minute. Settings will be automatically stopped if more than 1 minute passes since the last operation. To reset, repeat from step 1.

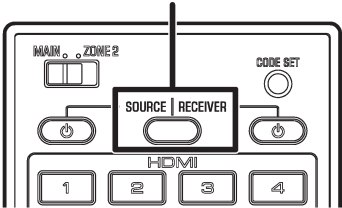
- Press 15CODE SET on the remote control using a pointed object such as the tip of a ballpoint pen.
- Press 17SOURCE/RECEIVER on the remote control.
- Enter the desired remote control ID code.

To switch to ID1:  
Enter “5019” using 13Numeric keys.

To switch to ID2:  
Enter “5020” using 13Numeric keys.

Once the remote control code is registered successfully 17SOURCE/RECEIVER will blink twice.

Registration successful: blinks twice  
Registration failed: blinks 6 times



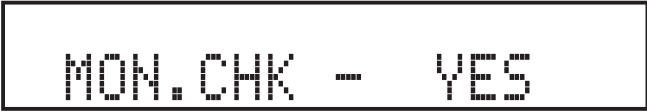
- If setup fails, repeat from step 1.
- Returns to ID1 after the remote control code is initialized.

Changing TV format



Change the color encoding format to PAL or NTSC (default), to match the format used by the TV connected via the HDMI OUT or VIDEO (MONITOR OUT) jack.

Removing HDMI video output up-scaling limits



Removes the up-scaling limitation on video resolution when this unit and a TV are connected via HDMI jacks.  
If a resolution supported by the monitor cannot be detected when configuring the up-scaling settings, this setting will remove the output limitation.

YES (Default)	Video output signals of a resolution not supported by the TV will not be transmitted.
SKIP	This unit ignores the TV’s support capability and transmits input video signals to the TV.

Initializing various settings for this unit



Initializes various settings stored in this unit and sets it back to default.  
Select the items to be initialized from the following.

DSP PARAM	Initializes all parameters for the sound programs.
VIDEO	Resets video conversion settings (resolution/aspect ratio) in the Setup menu.
ALL	Resets this unit to default factory settings.
CANCEL (Default)	Does not initialize.

- C, R, T, K, A, B, G, f, L models

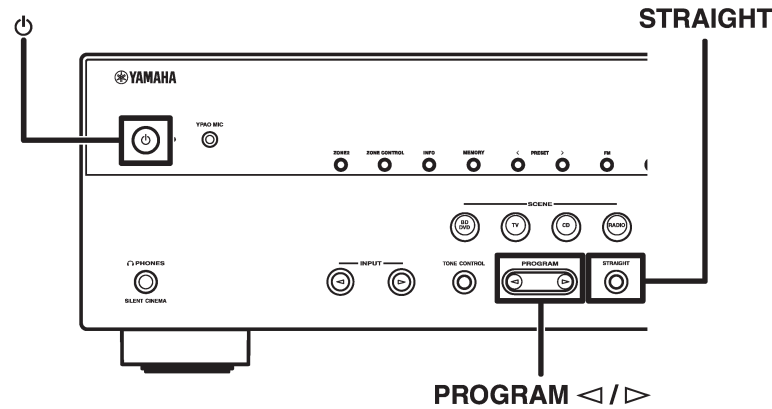
The Advanced Setup menu can be used for unit initialization and other useful extended functions. The Advanced Setup menu can be operated as follows.

## Displaying/Setting the Advanced Setup menu

1 Switch this unit to the standby mode.


2 Press  while pressing and holding STRAIGHT on the front panel.

Release STRAIGHT when “ADVANCED SETUP” is displayed on the front panel display.  
After approximately a few seconds, the top menu items are displayed.



3 Use PROGRAM </> to select the item to be set from the following items.

In the Advanced Setup menu, you can set the following settings.

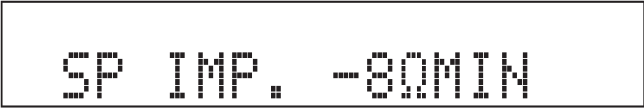
SP IMP.	Sets the impedance of speakers.
REMOTE ID	Changes the remote control ID of a receiver.
TV FORMAT	Specifies the TV’s color encoding format.
MON.CHK	Removes the up-scaling limitation on HDMI video output.
TU  1	Selects one of the following FM/AM frequency steps.
INIT	Initializes various settings for this unit.

4 Press STRAIGHT repeatedly to select the value you want to change.

5 Switch this unit to the standby mode, and then switch it on again.

The settings become effective and the unit is powered on. If initialization is selected, it will be performed when the unit is powered on again.


## Setting the impedance of speakers

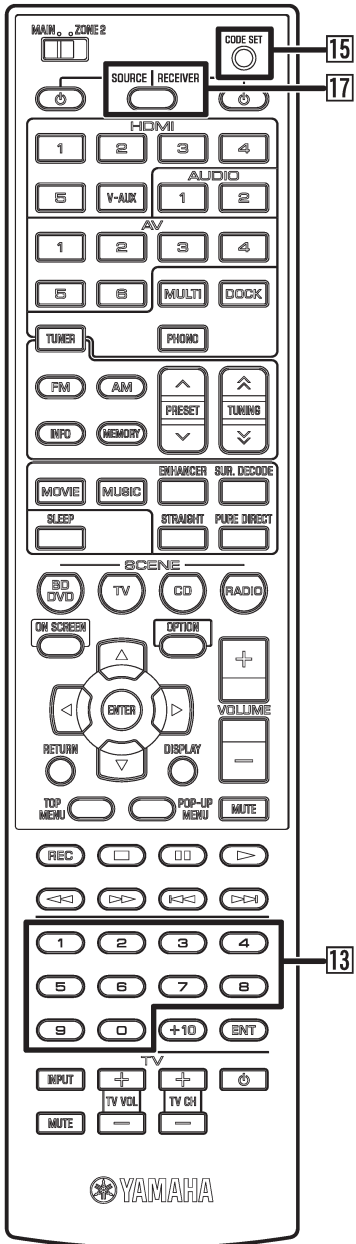


Changes the unit settings depending on the impedance of the speakers connected.  2

6ΩMIN	Select the impedance when 6Ω speakers are connected.
8ΩMIN (Default)	Select the impedance when speakers above 8Ω are connected.

 1 : Asia and General models only.

 2 : For detailed procedures of speaker impedance settings, refer to “Changing speaker impedance”.



- 13 Numeric keys
- 15 CODE SET
- 17 SOURCE/RECEIVER

### Avoiding crossing remote control signals when using multiple Yamaha receivers

REMOTE ID -ID1

The remote control of the unit can only receive signals from a receiver which has an identical ID (remote control ID). When using multiple Yamaha AV receivers, you can set each remote control with a unique remote control ID for its corresponding receiver. On the contrary, if you are setting the same remote control ID for all receivers, you can use one remote control to operate 2 receivers.

ID1 (Default)	Receives the remote control signals set in ID1.
ID2	Receives the remote control signals set in ID2.

ID1 is set for both remote control and receiver by default. To avoid crossing remote control, change the remote control ID for both remote control and receiver.

#### To change the remote control ID

Perform each of the following steps within 1 minute. Settings will be automatically stopped if more than 1 minute passes since the last operation. To reset, repeat from step 1.

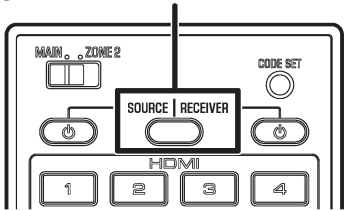
- Press 15CODE SET on the remote control using a pointed object such as the tip of a ballpoint pen.
- Press 17SOURCE/RECEIVER on the remote control.
- Enter the desired remote control ID code.

To switch to ID1:  
Enter “5019” using 13Numeric keys.

To switch to ID2:  
Enter “5020” using 13Numeric keys.

Once the remote control code is registered successfully 17SOURCE/RECEIVER will blink twice.

Registration successful: blinks twice  
Registration failed: blinks 6 times



- If setup fails, repeat from step 1.
- Returns to ID1 after the remote control code is initialized.

### Changing TV format

TV FORMAT-NTSC

Change the color encoding format of OSD to PAL or NTSC (default), to match the format used by the TV connected via the HDMI OUT or VIDEO (MONITOR OUT) jack.

### Removing HDMI video output up-scaling limits

MON. CHK - YES

Removes the up-scaling limitation on video resolution when this unit and a TV are connected via HDMI jacks. If a resolution supported by the monitor cannot be detected when configuring the up-scaling settings, this setting will remove the output limitation.

YES (Default)	Video output signals of a resolution not supported by the TV will not be transmitted.
SKIP	This unit ignores the TV’s support capability and transmits input video signals to the TV.

Changing FM/AM frequency steps  
(R, L models)



You can select one of the following FM/AM frequency steps: 1

AM10/FM100	You can adjust the AM frequency by steps of 10kHz and FM by steps of 100kHz.
AM9/FM50 (Default)	You can adjust the AM frequency by steps of 9kHz and FM by steps of 50kHz.

1 : For details on setting FM/AM frequency steps, refer to “FM/AM tuning”.

Initializing various settings for this unit



Initializes various settings stored in this unit and sets it back to default.

Select the items to be initialized from the following.

DSP PARAM	Initializes all parameters for the sound programs.
VIDEO	Resets video conversion settings (resolution/aspect ratio) in the Setup menu.
ALL	Resets this unit to default factory settings.
CANCEL (Default)	Does not initialize.

RX-V667/HTR-6063/  
RX-A700

